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**U.S. ARMY ENGINEER DIVISION**  
**HUNTSVILLE, ALABAMA**



**DRAFT**

*Final*

**EXPANDED SITE INSPECTION**

**EIGHT MODERATELY LOW PRIORITY AOCs**

**SEADs 5, 9, 12(A AND B), (43, 56, 69), 44(A AND B),  
50, 58, AND 59**

**VOLUME 2 OF 2**

APRIL 1995

**Dec**

**EXPANDED SITE INSPECTION REPORT  
EIGHT MODERATELY LOW PRIORITY AREAS OF CONCERN  
SENECA ARMY DEPOT  
ROMULUS, NEW YORK**

**APPENDICES**

**Prepared For:**

**Seneca Army Depot  
Romulus, New York**

**Prepared By:**

**Parsons Engineering Science, Inc.  
Prudential Center  
Boston, Massachusetts**

**APPENDIX A**  
**GEOPHYSICAL DATA:**  
**EM-31**

Easting Northing Conduct. In-Phase

LINE 980 SEAD-9  
750944.6 1000306 20.294 1.354  
750934.6 1000306 21.088 3.149  
750924.6 1000306 18.006 0.682  
750914.6 1000305 13.824 0.149  
750904.6 1000305 10.864 -0.613  
750894.6 1000304 9.460 -1.936  
750884.6 1000304 10.620 -0.497  
750874.7 1000304 10.894 -0.594  
750864.7 1000303 11.078 -0.512  
750854.7 1000303 10.956 -0.587  
750844.7 1000303 11.048 -0.611  
750834.7 1000302 10.926 -0.615  
750824.7 1000302 10.560 -0.662  
750814.7 1000301 10.438 -0.585  
750804.7 1000301 10.468 -0.620  
750794.8 1000301 10.192 -0.646  
750784.8 1000300 10.314 -0.517  
750774.8 1000300 10.528 -0.688  
750764.8 1000299 10.498 -0.712  
750754.8 1000299 10.894 -0.951  
750744.8 1000299 10.956 -0.850  
750734.8 1000298 11.230 -0.815  
750724.8 1000298 11.260 -0.771  
750714.8 1000298 11.444 -0.765  
750704.8 1000297 11.414 -0.672  
750694.8 1000297 11.718 -0.662  
750684.8 1000296 12.024 -0.642  
750674.8 1000296 12.452 -0.684  
750664.8 1000296 12.664 -0.637  
750654.8 1000295 13.000 -0.717  
750644.8 1000295 12.482 -0.723  
750634.8 1000295 13.306 -0.627  
750624.8 1000294 12.726 -0.681  
750614.9 1000294 12.908 -0.763  
750604.9 1000293 13.214 -0.681  
750594.9 1000293 12.818 -0.697  
750584.9 1000293 12.238 -0.679  
750574.9 1000292 12.542 -0.734  
750564.9 1000292 12.146 -0.550  
750554.9 1000291 12.146 -0.741  
750544.9 1000291 11.780 -0.679  
750534.9 1000291 11.260 -0.820  
750524.9 1000290 11.322 -0.739  
750514.9 1000290 10.926 -0.943  
750504.9 1000290 10.956 -0.883

Easting Northing Conduct. In-Phase

750494.9 1000289 10.560 -0.727  
750484.9 1000289 10.926 -0.977  
LINE 1000  
750484.2 1000309 26.642 -0.563  
750494.2 1000309 30.518 -0.477  
750504.2 1000310 30.976 -0.477  
750514.2 1000310 28.808 -0.488  
750524.1 1000310 26.916 -0.530  
750534.1 1000311 22.858 -0.638  
750544.1 1000311 20.202 -0.572  
750554.1 1000311 19.256 -0.611  
750564.1 1000312 19.042 -0.620  
750574.1 1000312 15.502 -0.008  
750584.1 1000313 22.034 -0.659  
750594.1 1000313 24.658 -0.471  
750604.1 1000313 29.724 -0.688  
750614.1 1000314 38.422 -1.021  
750624.1 1000314 -1.496 -0.615  
750634.1 1000315 1.160 -0.660  
750644.1 1000315 15.624 -0.773  
750654.1 1000315 19.470 -0.688  
750664.1 1000316 20.202 -0.701  
750674.1 1000316 20.630 -0.677  
750684.1 1000316 13.732 -0.752  
750694 1000317 15.076 -0.534  
750704 1000317 14.222 -0.594  
750714 1000318 10.010 -0.938  
750724 1000318 9.948 -0.883  
750734 1000318 9.948 -0.943  
750744 1000319 10.772 -0.822  
750754 1000319 10.894 -0.872  
750764 1000319 10.772 -0.609  
750774 1000320 9.858 -0.673  
750783.9 1000320 10.040 -0.714  
750793.9 1000321 10.192 -0.576  
750803.9 1000321 6.622 -1.195  
750813.9 1000321 10.894 -0.712  
750823.9 1000322 10.650 -0.570  
750833.9 1000322 10.986 -0.784  
750843.9 1000323 10.894 -0.581  
750853.9 1000323 10.986 -0.681  
750863.9 1000323 10.864 -0.624  
750873.9 1000324 11.108 -0.495  
750883.9 1000324 10.314 -0.539  
750893.9 1000324 10.590 -0.429  
750903.9 1000325 11.322 -0.139

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
750813.8	1000852	11.138	-0.098	750455.4	1000538	10.560	-0.539
750823.8	1000852	11.932	0.095	750455.8	1000528	10.772	-0.501
750833.8	1000853	11.108	-0.056	750456.2	1000518	10.560	-0.627
750843.8	1000853	10.986	0.154	750456.6	1000508	10.284	-0.648
750853.8	1000853	12.452	0.351	750456.9	1000498	10.376	-0.422
750863.8	1000854	17.028	1.602	750457.4	1000488	10.864	-0.442
750873.7	1000854	22.950	6.685	750457.8	1000478	11.506	-0.390
750883.7	1000854	-25.544	-8.788	750458.1	1000468	11.780	-0.381
750893.7	1000855	15.930	0.487	750458.5	1000458	12.054	-0.570
750903.7	1000855	14.068	0.954	750458.9	1000448	12.664	-0.471
750913.7	1000856	13.032	0.779	750459.3	1000438	13.154	-0.346
750923.7	1000856	11.048	-0.023	750459.6	1000428	13.642	-0.469
				750460	1000418	14.404	-0.440
				750460.4	1000408	17.334	-0.291
				750460.8	1000398	18.738	-0.339
				750461.1	1000388	19.990	-0.398
				750461.6	1000378	20.752	-0.207
				750461.9	1000368	23.072	-0.181
				750462.3	1000358	12.298	-0.227
				750462.7	1000348	5.616	-0.618
				750463.1	1000338	22.216	-0.207
				750463.4	1000328	16.938	-0.455
				750463.8	1000318	25.422	-0.291
				750464.2	1000308	19.532	-0.383
				750464.6	1000298	13.062	-0.414
				750464.9	1000288	11.506	-0.423
				750465.3	1000278	11.078	-0.537
				750465.8	1000268	10.650	-0.593
				750466.1	1000258	10.438	-0.727
				LINE 1000			
				750485.7	1000269	9.858	-0.681
				750485.3	1000279	10.772	-0.552
				750484.9	1000289	11.414	-0.559
				750484.6	1000299	14.648	-0.627
				750484.2	1000309	-17.150	-1.353
				750483.8	1000319	2.106	-0.787
				750483.4	1000329	16.296	-0.451
				750483.1	1000339	12.848	-0.532
				750482.7	1000349	12.298	-0.462
				750482.3	1000359	12.970	-0.787
				750481.9	1000369	13.000	-0.493
				750481.5	1000379	13.488	-0.653
				750481.1	1000389	13.824	-0.841
				750480.8	1000399	14.374	-0.405
				750480.4	1000409	15.168	-0.547
				750480	1000419	17.822	-0.444

Easting	Northing	Conduct.	In-Phase
750501.1	1000390	12.512	-0.298
750501.5	1000380	12.696	-0.672
750501.9	1000370	12.634	-0.370
750502.3	1000360	12.604	-0.460
750502.6	1000350	12.634	-0.302
750503	1000340	12.176	-0.455
750503.4	1000330	13.886	-0.572
750503.8	1000320	-8.698	-0.982
750504.2	1000310	10.224	-0.530
750504.6	1000300	15.838	-0.469
750504.9	1000290	11.872	-0.490
750505.3	1000280	11.078	-0.536
LINE 1040			
750525.3	1000280	11.536	-0.657
750524.9	1000290	12.970	-0.570
750524.6	1000300	22.248	-0.363
750524.1	1000310	-18.982	-1.537
750523.8	1000320	39.002	0.151
750523.4	1000330	19.166	-0.339
750523	1000340	13.154	-0.278
750522.6	1000350	12.634	-0.324
750522.3	1000360	12.482	-0.556
750521.9	1000370	12.238	-0.355
750521.5	1000380	12.818	-0.387
750521.1	1000390	12.360	-0.361
750520.8	1000400	12.574	-0.335
750520.4	1000410	12.604	-0.385
750519.9	1000420	12.330	-0.185
750519.6	1000430	12.452	-0.372
750519.2	1000440	12.634	-0.308
750518.8	1000450	13.062	-0.174
750518.4	1000460	9.948	-0.446
750518.1	1000470	8.576	0.059
750517.7	1000480	8.820	0.649
750517.3	1000490	7.172	-2.764
750516.9	1000500	-5.310	-3.905
750516.6	1000510	10.376	1.889
750516.2	1000520	13.642	4.985
750515.8	1000530	10.192	-0.471
750515.4	1000540	13.000	2.455
750515	1000550	17.884	1.020
750514.6	1000560	16.052	2.661
750514.3	1000570	4.882	-5.691
750513.9	1000580	-10.161	-8.743
750513.5	1000590	8.026	0.009
750513.1	1000600	-30.670	-21.503

Easting	Northing	Conduct.	In-Phase
750512.8	1000610	18.524	0.851
750512.4	1000620	16.754	0.770
750512	1000630	15.624	0.118
750511.6	1000640	13.276	-0.094
750511.2	1000650	11.994	-0.139
750510.8	1000660	11.962	-0.209
750510.4	1000670	11.750	-0.050
750510.1	1000680	11.658	-0.164
750509.7	1000690	11.230	-0.078
750509.3	1000700	10.804	-0.135
750508.9	1000710	10.376	-0.041
750508.6	1000720	10.498	-0.150
750508.2	1000730	9.888	-0.087
750507.8	1000740	10.040	-0.150
750507.4	1000750	9.736	-0.183
750507	1000760	9.766	-0.161
750506.6	1000770	9.522	-0.113
750506.3	1000780	9.980	-0.289
750505.9	1000790	10.132	-0.219
750505.5	1000800	10.070	-0.240
750505.1	1000810	10.560	-0.278
750504.8	1000820	11.108	-0.174
750504.4	1000830	14.100	-0.133
750504	1000840	9.948	-0.322
750503.6	1000850	15.106	-0.155
750503.3	1000860	11.048	-0.207
LINE 1060			
750523.2	1000861	10.498	-0.400
750523.6	1000851	10.834	-0.212
750523.9	1000841	12.848	-0.102
750524.4	1000831	-2.044	-0.791
750524.8	1000821	15.534	-0.172
750525.1	1000811	10.102	-0.576
750525.5	1000801	10.192	-0.223
750525.9	1000791	9.948	-0.260
750526.3	1000781	9.826	-0.276
750526.6	1000771	9.918	-0.203
750527	1000761	9.796	-0.155
750527.4	1000751	10.070	-0.262
750527.8	1000741	10.192	-0.240
750528.1	1000731	10.314	-0.124
750528.6	1000721	9.980	-0.223
750528.9	1000711	10.560	-0.295
750529.3	1000701	10.864	-0.159
750529.7	1000691	11.016	-0.214
750530.1	1000681	11.810	-0.093

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
LINE 1080				750562.6	1000352	12.482	-1.192
750543.2	1000861	9.368	-1.168	750563	1000342	12.604	-0.934
750543.6	1000851	9.582	-1.068	750563.4	1000332	14.526	-1.032
750543.9	1000841	10.742	-0.874	750563.8	1000322	2.288	-1.484
750544.3	1000831	5.584	-1.432	750564.1	1000312	14.130	-1.888
750544.7	1000821	12.482	-1.044	750564.5	1000302	16.480	-0.940
750545.1	1000811	9.704	-0.938	750564.9	1000292	13.000	-0.879
750545.5	1000801	8.636	-0.910	750565.3	1000282	11.840	-0.903
750545.9	1000792	8.820	-1.147	750565.6	1000272	10.986	-1.074
750546.3	1000782	8.514	-1.160	750566	1000262	10.498	-1.339
750546.6	1000772	8.820	-0.894	LINE 1100			
750547	1000762	8.820	-1.034	750585.6	1000273	11.170	-1.166
750547.4	1000752	8.850	-1.125	750585.3	1000283	11.536	-0.988
750547.8	1000742	8.820	-1.153	750584.9	1000293	13.000	-1.026
750548.1	1000732	9.246	-0.912	750584.5	1000303	15.960	-1.015
750548.5	1000722	9.582	-0.818	750584.1	1000313	5.616	-1.188
750548.9	1000712	9.582	-0.909	750583.8	1000323	8.544	-1.348
750549.3	1000702	10.132	-1.186	750583.4	1000333	13.032	-0.967
750549.7	1000692	10.132	-1.214	750582.2	1000363	11.840	-1.081
750550.1	1000682	7.264	-1.943	750581.8	1000373	11.384	-1.120
750550.4	1000672	9.064	-0.620	750581.4	1000383	11.292	-1.210
750550.8	1000662	6.562	-1.967	750581.1	1000393	11.810	-1.164
750551.2	1000652	9.644	-0.570	750580.7	1000403	12.604	-0.879
750551.6	1000642	6.836	0.538	750580.3	1000413	12.512	-0.925
750551.9	1000632	14.678	0.211	750579.6	1000433	9.704	-1.043
750552.3	1000622	13.458	0.821	750579.2	1000443	9.858	-1.225
750552.7	1000612	15.412	0.397	750578.8	1000453	9.796	-1.653
750553.1	1000602	16.022	2.150	750578.4	1000463	10.986	-1.085
750553.4	1000592	11.200	2.901	750578	1000472	10.894	-1.168
750553.9	1000582	11.108	-1.136	750577.6	1000482	14.222	-0.653
750554.3	1000572	10.010	-0.436	750577.3	1000492	13.214	-0.874
750554.6	1000562	13.702	-0.980	750576.9	1000502	12.574	-1.013
750555	1000552	16.388	1.363	750576.5	1000512	10.742	-0.570
750555.4	1000542	17.396	2.571	750576.1	1000522	11.200	-1.079
750555.8	1000532	23.254	7.201	750575.8	1000532	10.712	-0.311
750558.1	1000472	9.308	0.413	750575.4	1000542	16.296	-0.695
750558.4	1000462	11.138	-0.589	750575	1000552	15.748	-1.397
750558.8	1000452	6.896	-3.692	750574.6	1000562	17.486	1.939
750559.2	1000442	8.880	-1.653	750574.2	1000572	16.632	0.066
750559.6	1000432	9.948	-0.852	750573.8	1000582	14.770	-0.583
750560.3	1000412	12.818	-0.659	750573.4	1000592	11.688	-3.180
750560.7	1000402	12.726	-0.773	750573.1	1000602	13.550	0.976
750561.1	1000392	12.390	-1.054	750572.7	1000612	16.938	2.341
750561.4	1000382	11.872	-1.004	750572.3	1000622	12.054	-2.920
750561.8	1000372	12.054	-1.203	750571.9	1000632	15.808	3.647
750562.3	1000362	12.330	-1.317	750571.6	1000642	20.202	5.183

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
750610.4	1000674	12.970	-0.719	750635.7	1000535	15.472	-0.763
750610	1000684	16.114	-0.493	750636.1	1000525	14.434	-0.877
750609.6	1000694	15.900	-0.460	750636.4	1000515	13.276	-0.793
750609.3	1000704	15.808	-0.245	750636.8	1000505	14.038	-0.256
750608.9	1000714	15.808	-1.160	750637.2	1000495	15.106	-0.695
750608.5	1000724	16.052	5.996	750637.6	1000485	14.954	-0.861
750608.1	1000734	12.664	-0.666	750638	1000475	13.550	-0.868
750607.7	1000744	10.834	-0.311	750638.4	1000465	13.214	-0.789
750607.3	1000754	2.746	-2.579	750638.8	1000455	13.092	-0.785
750606.9	1000764	-0.610	-6.873	750639.1	1000445	11.230	-0.558
750606.6	1000774	1.160	-7.940	750639.5	1000435	12.696	-1.260
750606.2	1000784	9.490	-0.611	750639.9	1000425	10.650	-0.888
750605.8	1000794	8.728	-1.103	750640.3	1000415	10.284	-0.738
750605.4	1000804	9.094	-1.195	750640.6	1000405	10.620	-0.776
750605.1	1000814	9.246	-0.988	750641	1000395	9.948	-1.353
750604.7	1000824	11.170	-0.824	750641.4	1000385	9.278	-1.050
LINE 1160				LINE 1180			
750624.7	1000825	14.496	-0.650	750662.1	1000366	10.224	-0.833
750625.1	1000815	9.246	-0.712	750661.8	1000376	10.498	-1.048
750625.4	1000805	9.094	-0.912	750661.4	1000386	10.192	-0.727
750625.8	1000795	8.942	-0.907	750661	1000396	10.894	-1.241
750626.2	1000785	8.758	-0.912	750660.6	1000406	11.048	-0.991
750626.6	1000775	8.362	-0.945	750660.3	1000416	11.566	-1.022
750626.9	1000765	8.210	-1.467	750659.9	1000426	11.810	-0.993
750627.3	1000755	8.514	4.838	750659.5	1000436	12.208	-1.199
750627.7	1000745	-0.702	-5.227	750659.1	1000446	11.994	-0.736
750628.1	1000735	11.444	-0.515	750658.8	1000456	13.978	-0.074
750628.4	1000725	-4.974	-13.300	750658.3	1000466	9.948	-3.995
750628.8	1000715	13.336	-0.640	750657.9	1000476	13.122	-0.304
750629.3	1000705	14.740	-0.787	750657.6	1000486	11.658	-1.682
750629.6	1000695	13.336	-2.551	750657.2	1000496	10.254	-1.282
750630	1000685	4.486	-6.344	750656.8	1000506	12.330	-0.675
750630.4	1000675	14.252	-0.804	750656.4	1000516	12.268	-0.852
750630.8	1000665	13.214	-1.019	750656.1	1000526	12.512	-0.844
750631.1	1000655	16.906	-0.363	750655.7	1000535	12.848	-0.701
750631.5	1000645	6.744	-1.267	750655.3	1000545	12.574	-0.710
750631.9	1000635	15.350	-0.530	750654.9	1000555	12.726	-0.681
750632.3	1000625	15.870	-1.855	750654.6	1000565	12.482	-0.618
750632.6	1000615	13.000	0.845	750654.2	1000575	12.726	-0.763
750633	1000605	15.748	-1.169	750653.8	1000585	12.604	-0.774
750633.4	1000595	19.684	2.852	750653.4	1000595	12.664	-0.896
750633.8	1000585	10.314	-4.196	750653	1000605	12.574	-0.262
750634.2	1000575	15.502	-1.076	750652.6	1000615	14.404	0.119
750634.6	1000565	19.500	-0.440	750652.3	1000625	13.824	-0.734
750634.9	1000555	17.578	-0.719	750651.9	1000635	12.908	-0.653
750635.3	1000545	19.256	-0.672	750651.5	1000645	15.198	-0.212



Easting Northing Conduct. In-Phase

750701.4	1000387	11.444	-1.070
750701	1000397	12.298	-0.813
750700.6	1000407	12.574	-0.956
750700.2	1000417	13.122	-0.684
750699.8	1000427	12.696	-0.837
750699.4	1000437	13.366	-0.870
750699.1	1000447	12.940	-0.993
750698.7	1000457	12.146	-0.864
750698.3	1000467	12.452	-0.578
750697.9	1000477	11.474	-0.774
750697.6	1000487	13.000	-0.857
750697.2	1000497	13.764	-0.745
750696.8	1000507	13.488	-0.815
750696.4	1000517	12.574	-0.723
750696	1000527	11.596	-0.830
750695.6	1000537	11.596	-0.842
750695.3	1000547	12.024	-0.877
750694.9	1000557	11.658	-0.719
750694.5	1000567	7.966	-1.577
750694.1	1000577	8.790	-1.405
750693.8	1000587	12.146	-0.769
750693.4	1000597	10.772	-0.703
750693	1000607	10.590	-0.807
750692.6	1000617	10.772	-0.604
750692.3	1000627	11.138	-0.422
750691.9	1000637	12.084	-0.835
750691.4	1000647	12.908	-0.684
750691.1	1000657	13.184	-0.054
750690.7	1000667	10.132	-3.661
750690.3	1000677	7.812	-3.406
750689.9	1000687	10.834	-0.151
750689.6	1000697	4.882	0.818
750689.2	1000707	10.864	-0.666
750688.8	1000717	12.908	-1.188
750688.4	1000727	10.864	-1.248
750688.1	1000737	9.156	-0.855
750687.7	1000747	10.162	-0.956
750687.3	1000757	7.874	-1.232
750686.9	1000767	9.064	-1.030
750686.5	1000777	1.954	-6.834
750686.1	1000787	6.684	-1.706
750685.8	1000797	10.224	-0.570
750685.4	1000807	9.674	-1.050
750685	1000817	10.834	-0.890
750684.6	1000827	11.688	-0.506
750684.3	1000837	0.702	-0.892

Easting Northing Conduct. In-Phase

LINE 1240			
750704.2	1000838	-5.584	-1.094
750704.6	1000828	14.710	-1.421
750705	1000818	9.582	-1.704
750705.4	1000808	8.636	-1.460
750705.8	1000798	9.858	-1.015
750706.1	1000788	9.614	-0.905
750706.5	1000778	7.354	-1.113
750706.9	1000768	7.630	-1.083
750707.3	1000758	9.552	-1.383
750707.6	1000748	8.300	-1.250
750708	1000738	8.972	-1.035
750708.4	1000728	9.460	-0.747
750708.8	1000718	8.544	-0.706
750709.2	1000708	9.582	-0.337
750709.6	1000698	13.886	2.350
750709.9	1000688	15.380	2.394
750710.3	1000678	15.716	2.029
750710.7	1000668	12.878	0.467
750711.1	1000658	11.078	-2.134
750711.4	1000648	8.026	-1.203
750711.8	1000638	11.658	-1.008
750712.2	1000628	10.192	-0.346
750712.6	1000618	9.704	-0.438
750713	1000608	10.162	-0.705
750713.4	1000598	10.376	-0.793
750713.8	1000588	10.314	-0.659
750714.1	1000578	9.430	-0.392
750714.5	1000568	10.070	-0.515
750714.9	1000558	10.864	-0.795
750715.3	1000548	11.016	-0.651
750715.6	1000538	11.292	-0.807
750716	1000528	10.560	-0.672
750716.4	1000518	11.260	-0.572
750716.8	1000508	9.430	0.050
750717.2	1000498	9.644	0.136
750717.6	1000488	9.704	-0.203
750717.9	1000478	10.894	-0.278
750718.3	1000468	12.268	-0.536
750718.7	1000458	12.054	-0.451
750719.1	1000448	9.736	-0.109
750719.4	1000438	12.664	-0.909
750719.8	1000428	12.696	-0.736
750720.2	1000418	13.458	-0.765
750720.6	1000408	12.878	-0.844
750720.9	1000398	12.390	-0.811

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
750755.3	1000549	9.094	-0.260	750780.2	1000420	11.566	-0.712
750755.6	1000539	9.736	-0.773	750779.8	1000430	13.154	-0.548
750756	1000529	9.796	-0.793	750779.4	1000440	10.926	-0.203
750756.4	1000519	9.704	-0.822	750779	1000450	11.810	-0.633
750756.8	1000509	9.766	-0.727	750778.6	1000460	12.084	-0.631
750757.1	1000499	10.406	-0.734	750778.3	1000470	11.902	-0.684
750757.5	1000489	10.864	-0.784	750777.9	1000480	11.384	-0.736
750757.9	1000479	11.384	-0.721	750777.5	1000490	10.956	-0.782
750758.3	1000469	11.170	-0.751	750777.1	1000500	9.552	-1.199
750758.6	1000459	12.634	-0.664	750776.8	1000510	9.674	-1.056
750759.1	1000449	12.390	-0.629	750776.4	1000520	9.826	-0.796
750759.4	1000439	13.458	-0.682	750776	1000530	9.644	-0.747
750759.8	1000429	13.276	-0.648	750775.6	1000540	8.880	-0.681
750760.2	1000419	13.122	-0.585	750775.2	1000550	9.490	-0.822
750760.6	1000409	13.062	-0.521	750774.8	1000560	9.308	-0.765
750760.9	1000399	12.726	-0.666	750774.4	1000570	9.246	-0.861
750761.3	1000389	12.116	-0.673	750774.1	1000580	9.522	-0.679
750761.7	1000379	11.596	-0.561	750773.7	1000590	9.888	-0.684
750762.1	1000369	11.170	-0.556	750773.3	1000600	9.156	-0.559
750762.4	1000359	11.138	-0.497	750772.9	1000610	8.972	-0.440
750762.8	1000349	11.506	-0.807	750772.6	1000620	7.966	-0.082
750763.3	1000339	11.536	-0.807	750772.2	1000630	8.666	-1.114
750763.6	1000329	9.582	-0.515	750771.8	1000640	7.874	-0.438
750764	1000319	10.102	-0.655	750771.4	1000650	8.790	-0.782
750764.4	1000309	10.804	-0.761	750771	1000660	8.666	-0.752
750764.8	1000299	10.590	-0.811	750770.6	1000670	8.820	-0.682
750765.1	1000289	10.254	-0.807	750770.3	1000680	9.064	-0.695
750765.5	1000279	9.704	-0.916	750769.9	1000690	8.666	-0.618
750765.9	1000269	9.156	-1.239	750769.5	1000700	8.148	-0.833
LINE 1300				750769.1	1000710	5.950	-0.773
750786.3	1000260	8.606	-0.965	750768.8	1000720	7.598	-1.721
750785.9	1000270	8.606	-1.094	750768.4	1000730	6.714	-0.863
750785.5	1000280	9.308	-0.949	750768	1000740	8.850	-1.179
750785.1	1000290	9.948	-0.870	750767.6	1000750	8.484	-0.811
750784.8	1000300	10.682	-0.708	750767.3	1000760	7.630	-0.703
750784.4	1000310	9.918	-0.554	750766.8	1000770	8.056	-0.826
750783.9	1000320	9.490	-0.881	750766.4	1000780	8.178	-0.662
750783.6	1000330	10.010	-0.710	750766.1	1000790	8.210	-0.789
750783.2	1000340	10.682	-0.738	750765.7	1000800	9.064	-0.697
750782.8	1000350	11.566	-0.734	750765.3	1000810	9.460	-1.035
750782.4	1000360	11.108	-0.881	750764.9	1000820	9.460	-0.802
750782.1	1000370	11.658	-0.958	750764.6	1000830	10.040	-0.635
750781.7	1000380	11.078	-0.710	750764.2	1000840	17.822	-0.738
750781.3	1000390	11.718	-0.784	LINE 1320			
750780.9	1000400	11.688	-0.659	750784.2	1000841	-4.516	-1.684
750780.6	1000410	11.628	-0.710	750784.6	1000831	16.204	-0.456

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
750812.5	1000622	10.682	-1.419	750832.5	1000622	1.678	2.760
750812.1	1000632	-5.920	4.676	750832.9	1000612	3.388	2.681
750811.8	1000642	11.718	-1.961	750833.3	1000602	0.030	5.200
750811.4	1000652	8.026	-0.609	750833.6	1000592	-5.584	6.402
750811	1000661	8.300	-0.774	750834	1000582	7.934	1.025
750810.6	1000671	8.728	-0.855	750834.4	1000572	8.880	-0.047
750810.3	1000681	8.454	-0.745	750834.8	1000562	11.352	-1.089
750809.9	1000691	8.728	-0.502	750835.2	1000552	9.490	-0.554
750809.5	1000701	2.686	2.521	750835.6	1000542	9.064	-0.668
750809.1	1000711	8.758	0.108	750835.9	1000532	9.156	-0.574
750808.7	1000721	9.552	-0.761	750836.3	1000522	9.490	-0.580
750808.3	1000731	8.912	-0.611	750836.7	1000512	9.522	-0.615
750807.9	1000741	8.666	-0.521	750837.1	1000502	10.070	-0.508
750807.6	1000751	8.422	-0.593	750837.4	1000492	9.582	-0.657
750807.2	1000761	9.064	-0.659	750837.8	1000482	9.430	-0.629
750806.8	1000771	8.514	-0.684	750838.2	1000472	6.500	-1.087
750806.4	1000781	8.026	-0.699	750838.6	1000462	8.210	-0.896
750806.1	1000791	7.782	-0.699	750839	1000452	10.438	-0.615
750805.7	1000801	8.088	-0.672	750839.4	1000442	10.192	-0.453
750805.3	1000811	9.614	-0.326	750839.8	1000432	10.804	-0.519
750804.9	1000821	10.224	0.015	750840.1	1000422	11.384	-0.405
750804.5	1000831	10.284	-0.554	750840.5	1000412	10.772	-0.407
750804.1	1000841	3.082	-0.934	750840.9	1000402	9.338	-0.824
LINE 1360				750841.3	1000392	10.162	-0.717
750824.1	1000842	3.388	-0.161	750841.6	1000382	11.138	-0.725
750824.5	1000832	11.718	-0.368	750842	1000372	11.414	-0.554
750824.9	1000822	8.148	-0.666	750842.4	1000362	11.200	-0.673
750825.3	1000812	9.278	-0.756	750842.8	1000352	10.956	-0.602
750825.6	1000802	9.400	-0.344	750843.2	1000342	11.230	-0.648
750826.1	1000792	8.544	-0.276	750843.6	1000332	11.230	-0.646
750826.4	1000782	8.300	-0.394	750843.9	1000323	11.078	-0.675
750826.8	1000772	8.698	-0.271	750844.3	1000313	10.926	-0.616
750827.2	1000762	8.972	-0.238	750844.7	1000303	11.108	-0.736
750827.6	1000752	8.728	-0.289	750845.1	1000293	10.834	-0.644
750827.9	1000742	9.674	-0.556	750845.4	1000283	10.040	-0.798
750828.3	1000732	8.698	-0.512	750845.8	1000273	9.826	-0.837
750828.7	1000722	12.330	-1.339	750846.2	1000263	9.186	-0.717
750829.1	1000712	2.288	3.021	750846.6	1000253	9.246	-0.694
750829.4	1000702	-0.550	2.484	750846.9	1000243	9.826	-0.692
750829.8	1000692	6.928	0.353	750847.4	1000233	10.040	-0.712
750830.3	1000682	7.782	-0.506	750847.8	1000223	10.010	-0.888
750830.6	1000672	8.148	-0.023	LINE 1380			
750831	1000662	6.928	-1.197	750867.7	1000223	10.192	-0.650
750831.4	1000652	8.972	-0.556	750867.3	1000233	9.980	-0.635
750831.8	1000642	9.186	-0.921	750866.9	1000243	9.674	-0.747
750832.1	1000632	1.098	3.059	750866.6	1000253	9.490	-0.767

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
750876.3	1000524	11.566	-0.078	750902.4	1000365	12.818	-0.058
750876.7	1000514	11.566	-0.218	750902	1000375	14.038	-0.194
750877.1	1000504	11.658	-0.163	750901.6	1000385	16.938	0.101
750877.4	1000494	11.352	-0.232	750901.2	1000395	15.564	-0.050
750877.8	1000484	11.230	-0.310	750900.8	1000405	9.400	0.061
750878.2	1000474	11.016	-0.578	750900.4	1000415	19.562	0.390
750878.6	1000464	10.772	-0.367	750900.1	1000425	16.204	0.228
750878.9	1000454	10.772	-0.422	750899.7	1000435	15.320	0.347
750879.3	1000444	11.138	-0.308	750899.3	1000445	14.954	0.108
750879.7	1000434	12.024	-0.479	750898.9	1000455	15.624	0.717
750880.1	1000424	12.360	-0.308	750898.6	1000465	15.870	0.726
750880.4	1000414	15.046	-0.109	750898.2	1000475	16.082	0.595
750880.9	1000404	13.488	-0.293	750897.8	1000485	16.052	0.831
750881.3	1000394	8.178	-0.400	750897.4	1000495	16.082	0.805
750881.6	1000384	16.632	-0.010	750897	1000505	16.694	0.785
750882	1000374	11.810	-0.339	750896.6	1000515	16.906	1.102
750882.4	1000364	11.260	-0.394	750896.3	1000525	18.036	1.227
750882.8	1000354	11.138	-0.583	750895.9	1000535	18.280	1.268
750883.1	1000344	10.650	-0.365	750895.5	1000545	17.914	1.345
750883.5	1000334	10.682	-0.479	750895.1	1000555	18.006	1.534
750883.9	1000324	10.590	-0.552	750894.8	1000565	18.158	1.104
750884.3	1000314	10.834	-0.508	750894.4	1000575	19.104	1.545
750884.6	1000304	10.804	-0.550	750894	1000585	20.630	2.231
750885.1	1000294	10.528	-0.484	750893.6	1000595	22.400	2.765
750885.4	1000284	10.438	-0.530	750893.3	1000605	23.468	3.076
750885.8	1000274	10.254	-0.703	750892.8	1000615	23.162	3.096
750886.2	1000264	10.314	-0.559	750892.4	1000625	25.238	3.675
750886.6	1000254	10.528	-0.438	750892.1	1000635	28.594	4.388
750886.9	1000244	10.742	-0.739	750891.7	1000645	29.510	4.572
750887.3	1000234	9.674	-1.432	750891.3	1000655	33.326	5.487
750887.7	1000224	11.230	-0.635	750890.9	1000665	37.446	6.139
LINE 1420				750890.6	1000675	31.402	4.891
750907.7	1000225	12.330	-0.493	750890.2	1000685	34.912	5.808
750907.3	1000235	11.688	-0.297	750889.8	1000695	35.552	6.282
750906.9	1000245	11.994	-0.254	750889.4	1000705	39.062	7.085
750906.6	1000255	10.742	-0.440	750889.1	1000715	40.558	7.194
750906.2	1000265	11.688	-0.447	750888.6	1000725	40.528	7.188
750905.8	1000275	10.468	-0.550	750888.3	1000734	33.936	5.832
750905.4	1000285	10.590	-1.192	750887.9	1000744	28.992	4.550
750905	1000295	11.138	-0.412	750887.5	1000754	10.926	1.097
750904.6	1000305	8.606	-2.222	750887.1	1000764	10.468	0.698
750904.3	1000315	8.666	-2.582	750886.8	1000774	22.094	3.719
750903.9	1000325	11.384	-0.276	750886.4	1000784	17.792	2.427
750903.5	1000335	11.200	-0.234	750886	1000794	18.250	2.833
750903.1	1000345	11.292	-0.357	750885.6	1000804	11.596	0.886
750902.8	1000355	11.994	-0.207	750885.3	1000814	7.598	-0.161

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
750938.5	1000466	62.774	4.851	750406.3	1000776	9.246	-0.321
750938.1	1000476	53.100	4.594	750406.8	1000766	8.820	-0.301
750937.8	1000486	43.854	4.250	750407.1	1000756	8.941	-0.299
750937.4	1000496	32.288	3.407	750407.5	1000746	9.002	-0.290
750937	1000506	28.106	3.157	750407.9	1000736	8.790	-0.336
750936.6	1000516	25.360	3.013	750408.3	1000726	9.613	-0.343
750936.3	1000526	24.384	2.732	750408.6	1000716	9.246	-0.373
750935.9	1000536	24.536	2.730	750409	1000706	9.674	-0.330
750935.5	1000546	21.972	2.345	750409.4	1000696	9.796	-0.279
750935.1	1000556	20.446	1.975	750409.8	1000686	10.192	-0.246
750934.7	1000566	19.074	1.836	750410.1	1000676	10.926	-0.363
750934.3	1000576	17.608	1.619	750410.5	1000666	11.962	-0.244
750933.9	1000586	16.846	1.413	750410.9	1000656	14.924	-0.163
750933.6	1000596	16.296	1.341	750411.3	1000646	16.388	-0.130
750933.2	1000606	15.534	1.167	750411.7	1000636	-4.882	-0.641
750932.8	1000616	14.678	0.937	750412.1	1000626	16.938	-0.049
750932.4	1000626	14.222	0.959	750412.4	1000616	11.566	-0.185
750932.1	1000636	13.978	0.720	750412.8	1000606	10.956	-0.292
750931.7	1000646	13.092	0.577	750413.2	1000596	10.528	-0.229
750931.3	1000656	12.908	0.689	750413.6	1000586	10.040	-0.282
750930.9	1000666	13.244	0.489	750413.9	1000576	9.888	-0.330
750930.5	1000676	12.390	0.514	750414.3	1000566	9.918	-0.284
750930.1	1000686	12.146	0.564	750414.7	1000556	9.704	-0.349
750929.8	1000696	11.902	0.434	750415.1	1000546	9.796	-0.448
750929.4	1000706	11.352	0.279	750415.5	1000536	9.674	-0.376
750929	1000716	11.718	0.423	750415.9	1000526	9.308	-0.279
750928.6	1000726	11.170	0.445	750416.3	1000516	8.880	-0.350
750928.3	1000736	11.292	0.320	750416.6	1000506	8.728	-0.398
750927.9	1000746	10.956	0.301	750417	1000496	8.422	-0.569
750927.5	1000756	11.108	0.391	750417.4	1000486	8.636	-0.448
750927.1	1000766	10.650	0.377	750417.8	1000476	9.094	-0.371
750926.8	1000776	10.254	0.164	750418.1	1000466	9.034	-0.321
750926.3	1000786	10.132	0.281	750418.5	1000456	9.400	-0.325
750925.9	1000796	10.224	0.095	750418.9	1000446	9.460	-0.380
750925.6	1000806	10.102	0.007	750419.3	1000436	9.644	-0.433
750925.2	1000816	10.040	0.044	750419.7	1000426	10.284	-0.338
750924.8	1000826	10.162	0.033	750420.1	1000416	10.376	-0.365
750924.4	1000836	10.102	0.066	750420.4	1000406	10.070	-0.341
750924.1	1000846	10.314	0.068	LINE 900			
750923.7	1000856	10.528	0.132	750380.4	1000405	9.796	-0.406
750923.3	1000866	10.712	-0.005	750380.1	1000415	9.674	-0.444
750922.9	1000876	10.742	-0.041	750379.7	1000425	9.826	-0.378
LINE 940				750379.3	1000435	9.826	-0.406
750405.2	1000806	9.034	-0.310	750378.9	1000445	9.736	-0.352
750405.6	1000796	8.728	-0.411	750378.6	1000455	8.941	-0.396
750405.9	1000786	8.544	-0.406	750378.2	1000465	8.758	-0.439

Easting	Northing	Conduct.	In-Phase
750274.8	1000551	9.736	-0.518
750274.4	1000561	10.132	-0.564
750274.1	1000571	9.918	-0.672
750273.7	1000581	10.284	-0.773
750273.3	1000591	10.102	-0.531
750272.9	1000601	6.348	-0.464
750272.5	1000611	13.154	-0.494
750272.1	1000621	10.254	-0.538
750271.8	1000631	9.858	-0.472
750271.4	1000641	9.858	-0.501
750271	1000651	9.948	-0.496
750270.6	1000661	9.736	-0.514
750270.3	1000671	9.918	-0.551
750269.9	1000681	9.858	-0.496
750269.5	1000691	10.010	-0.365
750269.1	1000701	9.766	-0.510
750268.8	1000711	9.796	-0.485
750268.3	1000721	9.582	-0.582
750267.9	1000731	9.980	-0.516
750267.6	1000741	9.400	-0.565
750267.2	1000751	11.292	-0.422

Easting	Northing	Conduct.	In-Phase
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Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
745250.4	1015179	13.886	-.886998	744789.9	1015175	10.864	-.976999
line	980			744799.9	1015176	11.2	-1.033998
744350.6	1015152	15.748	-.677	744809.9	1015176	11.108	-.973
744360.6	1015153	13.854	-.873998	744819.9	1015177	10.834	-.973
744370.6	1015153	13.824	-.878998	744829.9	1015177	10.804	-.915999
744380.5	1015154	13.978	-.917999	744839.9	1015178	10.834	-.862999
744390.5	1015154	13.732	-.934998	744849.9	1015178	10.804	-.930999
744400.5	1015155	13.488	-.996999	744859.9	1015179	10.468	-.948999
744410.5	1015155	13.794	-.961999	744869.9	1015179	10.986	-.9089989
744420.5	1015156	13.52	-.882999	744879.9	1015180	11.016	-.987999
744430.4	1015156	13.488	-.992999	744889.8	1015180	11.414	-1.005998
744440.4	1015157	12.756	-.902999	744899.8	1015181	11.81	-.923999
744450.4	1015157	12.42	-.952998	744909.8	1015181	12.116	-1.059998
744460.4	1015158	12.024	-.961999	744919.8	1015182	12.298	-.8349989
744470.4	1015158	11.688	-.934998	744929.8	1015182	13.092	-.1769998
744480.4	1015159	11.596	-1.020999	744939.8	1015183	13.276	-.4769999
744490.4	1015159	11.596	-.978998	744949.8	1015183	13.52	.346
744500.4	1015160	11.2	-1.022999	744959.8	1015184	16.968	7.258
744510.4	1015160	11.048	-.9599989	744969.8	1015184	29.664	25.434
744520.3	1015161	11.26	-1.024998	744979.7	1015185	42.45	29.974
744530.3	1015161	11.596	-.924998	744989.7	1015186	15.106	10.989
744540.3	1015162	11.718	-1.007999	744999.7	1015186	15.106	.9
744550.3	1015162	11.78	-1.068999	745009.7	1015187	13.642	-.501
744560.3	1015163	12.208	-1.049998	745019.6	1015187	13.854	-.3799999
744570.3	1015164	12.848	-.7999988	745029.6	1015188	15.808	.707
744580.3	1015164	13.032	-.917999	745039.6	1015188	17.73	1.025
744590.3	1015165	13.854	-.877999	745049.6	1015189	26.368	12.38
744600.3	1015165	13.306	-.943999	745059.6	1015189	26.306	12.823
744610.2	1015166	13.336	-.915999	745069.6	1015190	17.15	2.616
744620.2	1015166	13.214	-.884999	745079.6	1015190	15.93	.0080001
744630.2	1015167	13.032	-.860998	745089.6	1015191	13.978	-.5759998
744640.2	1015167	13.032	-.910999	745099.6	1015191	15.716	-.2009998
744650.2	1015168	12.696	-.983998	745109.5	1015192	14.344	-.769
744660.1	1015168	12.818	-.946999	745119.5	1015192	13.398	-.7989989
744670.1	1015169	12.696	-1.000998	745129.5	1015193	13.032	-.860998
744680.1	1015169	12.33	-.974999	745139.5	1015193	13.122	-.895999
744690.1	1015170	12.33	-.900999	745149.5	1015194	12.298	-.7949988
744700.1	1015170	11.81	-.965998	745159.4	1015194	11.994	-.915999
744710.1	1015171	11.994	-1.014999	745169.4	1015195	12.054	-.7889989
744720.1	1015171	11.718	-.991	745179.4	1015195	12.208	-1.002999
744730.1	1015172	11.688	-1.014999	745189.4	1015196	11.78	-.853998
744740.1	1015172	11.474	-.968999	745199.4	1015197	11.75	-.980998
744750	1015173	11.414	-.924998	745209.4	1015197	12.176	-.889999
744760	1015173	11.2	-.886998	745219.4	1015198	12.482	-.8279988
744770	1015174	11.108	-.970998	745229.4	1015198	13.062	-.7769988
744780	1015175	11.2	-1.036998	745239.4	1015199	15.96	-.6759998

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
745248.3	1015219	14.1	-1.103	744787.9	1015215	12.268	-.999
line	1020			744797.9	1015216	12.238	-.992
744348.5	1015192	15.564	-.881	744807.9	1015216	11.718	-1.082
744358.4	1015192	15.258	-.927	744817.8	1015217	11.688	-1.023
744368.4	1015193	14.588	-.856	744827.8	1015217	11.78	-.997
744378.4	1015194	14.466	-.791	744837.8	1015218	11.78	-.655
744388.4	1015194	14.618	-.733	744847.8	1015218	11.596	-1.106
744398.4	1015195	14.434	-.951	744857.8	1015219	11.84	-.951
744408.4	1015195	14.222	-.821	744867.8	1015219	11.596	-.949
744418.4	1015196	13.916	-.933	744877.8	1015220	11.628	-1.098
744428.4	1015196	13.824	-.723	744887.8	1015220	11.596	-.992
744438.4	1015197	13.732	-.744	744897.8	1015221	12.482	-.727
744448.3	1015197	13.366	-.779	744907.7	1015221	11.902	-1.01
744458.3	1015198	13.092	-.723	744917.7	1015222	12.664	-.955
744468.3	1015198	13	-.814	744927.7	1015222	12.848	-.894
744478.3	1015199	12.696	-1.076	744937.7	1015223	12.94	-.872
744488.3	1015199	12.512	-1.03	744947.6	1015223	13	-.689
744498.3	1015200	12.298	-1.111	744957.6	1015224	13.154	-.929
744508.3	1015200	12.42	-1.071	744967.6	1015224	13.642	-.841
744518.3	1015201	12.268	-1.091	744977.6	1015225	13.642	-.727
744528.3	1015201	12.726	-1.023	744987.6	1015225	13.854	-.887
744538.2	1015202	12.786	-.74	744997.6	1015226	14.19	-.733
744548.2	1015202	12.94	-1.089	745007.6	1015227	15.106	-.062
744558.2	1015203	13.794	-.79	745017.6	1015227	18.036	3.072
744568.2	1015203	13.61	-.99	745027.6	1015228	17.334	11.054
744578.2	1015204	13.244	-1.069	745037.6	1015228	35.248	44.635
744588.1	1015205	13.946	-.602	745047.5	1015229	59.6	44.613
744598.1	1015205	13.824	-.937	745057.5	1015229	41.992	29.36
744608.1	1015206	13.336	-.99	745067.5	1015230	19.47	5.258
744618.1	1015206	13.184	-.94	745077.5	1015230	15.748	.249
744628.1	1015207	13.244	-.841	745087.4	1015231	14.344	-.738
744638.1	1015207	13.062	-.848	745097.4	1015231	14.19	-.771
744648.1	1015208	12.97	-.824	745107.4	1015232	13.854	-.837
744658.1	1015208	12.696	-1.119	745117.4	1015232	13.428	-.903
744668.1	1015209	12.482	-1.056	745127.4	1015233	13.732	-.749
744678	1015209	12.664	-.742	745137.4	1015233	14.282	-.859
744688	1015210	12.878	-.575	745147.4	1015234	14.13	-.806
744698	1015210	12.756	-1.052	745157.4	1015234	14.13	-.815
744708	1015211	13.032	-.975	745167.4	1015235	14.068	-.836
744718	1015211	12.756	-.951	745177.3	1015235	14.19	-.742
744727.9	1015212	12.786	-.902	745187.3	1015236	14.008	-.632
744737.9	1015212	12.42	-.992	745197.3	1015236	13.55	-.788
744747.9	1015213	11.962	-.97	745207.3	1015237	13.488	-.88
744757.9	1015213	12.542	-.916	745217.3	1015237	13.794	-.751
744767.9	1015214	12.42	-.988	745227.3	1015238	14.892	-.667
744777.9	1015214	12.298	-1.005	745237.3	1015239	15.32	-.784



Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
745246.2	1015259	14.19	-.742	744785.8	1015255	12.208	-.852
line	1060			744795.8	1015255	12.452	-.305
744346.4	1015232	15.258	-.959	744805.8	1015256	11.84	-1.218
744356.4	1015232	13.824	-1.003	744815.8	1015257	12.268	-.731
744366.4	1015233	14.1	-.896	744825.8	1015257	11.902	-1.085
744376.3	1015233	13.886	-.889	744835.7	1015258	11.932	-1.19
744386.3	1015234	13.642	-.705	744845.7	1015258	11.902	-1.119
744396.3	1015235	13.306	-1.176	744855.7	1015259	12.084	-1.045
744406.3	1015235	13.458	-.915	744865.7	1015259	11.81	-1.153
744416.3	1015236	13.336	-.69	744875.7	1015260	12.146	-.909
744426.3	1015236	13.032	-.644	744885.6	1015260	11.75	-1.131
744436.3	1015237	12.94	-.837	744895.6	1015261	11.596	-1.172
744446.3	1015237	13.184	-.924	744905.6	1015261	12.024	-1.058
744456.3	1015238	12.878	-.812	744915.6	1015262	11.688	-.821
744466.3	1015238	12.94	-1.028	744925.6	1015262	11.902	-.81
744476.2	1015239	12.878	-1.126	744935.6	1015263	11.688	-1.06
744486.2	1015239	12.756	-.683	744945.6	1015263	12.268	-.966
744496.2	1015240	12.726	-.918	744955.6	1015264	12.298	-1.096
744506.2	1015240	12.542	-.858	744965.6	1015264	12.512	-.959
744516.1	1015241	12.42	-1.052	744975.5	1015265	12.634	-1.056
744526.1	1015241	12.574	-1.161	744985.5	1015265	13.244	-1.071
744536.1	1015242	12.42	-1.109	744995.5	1015266	13.58	-.834
744546.1	1015242	12.542	-1.001	745005.5	1015266	14.282	-.858
744556.1	1015243	13.154	-1.164	745015.4	1015267	14.74	-.99
744566.1	1015243	12.756	-1.126	745025.4	1015268	14.892	-.745
744576.1	1015244	12.97	-1.188	745035.4	1015268	15.106	-.87
744586.1	1015244	12.848	-1.166	745045.4	1015269	15.594	-.907
744596.1	1015245	13.032	-1.085	745055.4	1015269	15.502	-.769
744606	1015246	12.786	-1.091	745065.4	1015270	14.496	-.845
744616	1015246	12.634	-1.157	745075.4	1015270	13.488	-.953
744626	1015247	12.696	-.874	745085.4	1015271	13.276	-.964
744636	1015247	12.726	-1.113	745095.4	1015271	12.94	-.981
744646	1015248	12.634	-1.146	745105.3	1015272	12.786	-1.034
744655.9	1015248	12.97	-.905	745115.3	1015272	12.452	-.988
744665.9	1015249	13.032	-.856	745125.3	1015273	12.97	-.76
744675.9	1015249	12.664	-1.1	745135.3	1015273	12.786	-.758
744685.9	1015250	12.452	-1.148	745145.3	1015274	13.032	-.926
744695.9	1015250	12.268	-1.111	745155.3	1015274	13.366	-.938
744705.9	1015251	12.574	-.984	745165.3	1015275	13.366	-1.041
744715.9	1015251	12.39	-1.117	745175.3	1015275	14.344	-.973
744725.9	1015252	12.298	-1.03	745185.3	1015276	13.702	-.602
744735.9	1015252	12.268	-1.085	745195.3	1015276	13.854	-.944
744745.8	1015253	12.36	-1.062	745205.2	1015277	14.252	-.905
744755.8	1015253	12.054	-1.091	745215.2	1015277	14.038	-.903
744765.8	1015254	12.024	-1.144	745225.2	1015278	15.136	-.711
744775.8	1015254	12.024	-1.163	745235.2	1015278	14.434	-.615

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
745244.1	1015299	15.472	-.709	744783.7	1015295	11.75	-1.084
line	1100			744793.7	1015295	11.962	-1.115
744344.3	1015272	16.326	-.295	744803.7	1015296	11.932	-1.062
744354.3	1015272	14.404	-1.025	744813.6	1015296	11.718	-1.008
744364.3	1015273	14.038	-1.124	744823.6	1015297	11.994	-1.08
744374.3	1015273	13.886	-1.008	744833.6	1015298	12.39	-.972
744384.3	1015274	14.068	-1.012	744843.6	1015298	12.176	-1.141
744394.3	1015274	13.702	-1.062	744853.6	1015299	12.054	-1.179
744404.2	1015275	13.336	-.913	744863.6	1015299	12.33	-.949
744414.2	1015276	13.458	-.861	744873.6	1015300	12.42	-1.023
744424.2	1015276	13.52	-.742	744883.6	1015300	11.962	-1.01
744434.2	1015277	12.818	-1.199	744893.6	1015301	12.42	-.968
744444.1	1015277	13.032	-1.185	744903.5	1015301	12.604	-1.104
744454.1	1015278	13.092	-.975	744913.5	1015302	12.36	-1.117
744464.1	1015278	12.604	-1.08	744923.5	1015302	12.39	-1.043
744474.1	1015279	13.092	-.982	744933.5	1015303	12.208	-1.141
744484.1	1015279	12.664	-1.089	744943.5	1015303	12.208	-1.045
744494.1	1015280	12.39	-1.181	744953.4	1015304	12.542	-1.054
744504.1	1015280	12.39	-1.218	744963.4	1015304	12.848	-1.104
744514.1	1015281	12.634	-.735	744973.4	1015305	12.878	-1.043
744524.1	1015281	12.664	-.758	744983.4	1015305	12.97	-1.034
744534	1015282	12.664	-.872	744993.4	1015306	13.366	-.878
744544	1015282	13	-.953	745003.4	1015306	13.642	-1.128
744554	1015283	13	-1.054	745013.4	1015307	14.496	-.918
744564	1015283	13.062	-1.049	745023.4	1015307	14.008	-1.065
744574	1015284	13.214	-.96	745033.4	1015308	14.892	-.804
744583.9	1015284	12.97	-1.172	745043.3	1015308	15.106	-.683
744593.9	1015285	12.726	-1.201	745053.3	1015309	14.434	-.977
744603.9	1015285	12.878	-1.095	745063.3	1015310	13.642	-1.012
744613.9	1015286	12.542	-1.249	745073.3	1015310	13.642	-.905
744623.9	1015287	12.818	-1.183	745083.3	1015311	12.94	-.891
744633.9	1015287	12.756	-1.014	745093.3	1015311	12.848	-1.012
744643.9	1015288	12.786	-1.152	745103.3	1015312	12.908	-1.008
744653.9	1015288	12.604	-1.115	745113.3	1015312	12.94	-.918
744663.9	1015289	12.542	-1.137	745123.3	1015313	13	-.848
744673.8	1015289	12.664	-1.186	745133.2	1015313	12.604	-1.058
744683.8	1015290	12.084	-1.163	745143.2	1015314	12.604	-1.047
744693.8	1015290	12.33	-1.152	745153.2	1015314	12.726	-.988
744703.8	1015291	12.542	-1.203	745163.2	1015315	12.604	-.922
744713.8	1015291	12.756	-1.085	745173.1	1015315	13.214	-.773
744723.8	1015292	12.33	-1.203	745183.1	1015316	13.458	-1.199
744733.8	1015292	12.176	-1.176	745193.1	1015316	14.678	-.806
744743.8	1015293	12.33	-1.188	745203.1	1015317	14.434	-.938
744753.8	1015293	12.512	-1.017	745213.1	1015317	16.174	-.78
744763.7	1015294	11.994	-1.157	745223.1	1015318	14.892	-.628
744773.7	1015294	11.872	-1.128	745233.1	1015318	16.816	-.676

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
745242	1015339	24.384	-.584	744781.6	1015335	12.756	-.959
line	1140			744791.6	1015335	12.604	-1.027
744342.2	1015312	16.236	-1.014	744801.6	1015336	12.908	-.946
744352.2	1015312	14.678	-.924	744811.6	1015336	13.032	-.766
744362.2	1015313	14.496	-.852	744821.6	1015337	12.908	-.74
744372.2	1015313	14.13	-.861	744831.5	1015337	12.848	-1.017
744382.1	1015314	13.978	-.828	744841.5	1015338	12.574	-.959
744392.1	1015314	14.13	-.867	744851.5	1015338	12.176	-1.126
744402.1	1015315	13.764	-.843	744861.5	1015339	12.268	-.984
744412.1	1015315	13.336	-.755	744871.5	1015340	12.726	-1.006
744422.1	1015316	13.154	-.994	744881.4	1015340	12.604	-1.058
744432.1	1015317	12.786	-.893	744891.4	1015341	12.482	-1.065
744442.1	1015317	13.214	-.966	744901.4	1015341	12.908	-.962
744452.1	1015318	12.97	-1.032	744911.4	1015342	12.726	-1.027
744462.1	1015318	13.092	-1.008	744921.4	1015342	12.39	-1.062
744472	1015319	13.336	-.872	744931.4	1015343	12.298	-1.1
744482	1015319	13.214	-.903	744941.4	1015343	12.878	-.643
744492	1015320	13.122	-.78	744951.4	1015344	13.062	-1.062
744502	1015320	13.184	-.977	744961.4	1015344	12.786	-1.045
744511.9	1015321	13.062	-.951	744971.3	1015345	12.94	-.979
744521.9	1015321	12.94	-.894	744981.3	1015345	12.94	-.997
744531.9	1015322	13.062	-.951	744991.3	1015346	12.908	-1.043
744541.9	1015322	13	-.957	745001.3	1015346	12.664	-1.078
744551.9	1015323	13.336	-.885	745011.3	1015347	12.756	-.96
744561.9	1015323	13.154	-.992	745021.3	1015347	12.786	-1.073
744571.9	1015324	13.488	-.689	745031.3	1015348	12.786	-1.036
744581.9	1015324	13.428	-.946	745041.3	1015348	12.908	-1.051
744591.9	1015325	13.55	-.905	745051.3	1015349	12.908	-1.025
744601.8	1015325	13.122	-1.021	745061.2	1015349	12.574	-1.122
744611.8	1015326	13.032	-1.032	745071.2	1015350	12.482	-.975
744621.8	1015326	13.306	-.948	745081.2	1015351	12.908	-.966
744631.8	1015327	13.336	-1.027	745091.2	1015351	12.452	-1.019
744641.8	1015328	13.154	-1.014	745101.1	1015352	12.238	-1.069
744651.8	1015328	12.696	-1.006	745111.1	1015352	12.33	-.979
744661.8	1015329	12.818	-1.003	745121.1	1015353	11.872	-1.052
744671.8	1015329	13.062	-1.006	745131.1	1015353	12.39	-1.001
744681.8	1015330	12.848	-1.063	745141.1	1015354	12.452	-1.006
744691.7	1015330	12.39	-1.073	745151.1	1015354	12.574	-1.012
744701.7	1015331	12.726	-.861	745161.1	1015355	12.512	-.999
744711.7	1015331	12.97	-.959	745171.1	1015355	13.214	-1.01
744721.7	1015332	12.878	-.979	745181.1	1015356	13.458	-.808
744731.7	1015332	12.756	-.933	745191.1	1015356	13.336	-1.085
744741.6	1015333	12.634	-1.036	745201	1015357	14.434	-.887
744751.6	1015333	12.238	-.955	745211	1015357	16.816	-.78
744761.6	1015334	12.756	-1.047	745221	1015358	12.542	-.775
744771.6	1015334	12.818	-1.052	745231	1015358	19.042	-.512

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
745239.9	1015379	23.438	-.4399999	744779.5	1015375	12.878	-1.235998
line	1180			744789.5	1015375	12.818	-1.200999
744340.1	1015352	15.35	-1.062999	744799.5	1015376	12.786	-.9179999
744350.1	1015352	14.648	-1.071998	744809.4	1015376	12.756	-1.227999
744360.1	1015353	13.642	-1.174998	744819.4	1015377	12.512	-.9049999
744370.1	1015353	13.214	-1.218999	744829.4	1015377	12.512	-.6919997
744380.1	1015354	12.696	-1.282999	744839.4	1015378	12.238	-1.187999
744390.1	1015354	12.908	-1.284999	744849.4	1015378	12.208	-1.134999
744400	1015355	12.94	-1.199	744859.4	1015379	12.33	-.9799988
744410	1015355	12.878	-1.171	744869.4	1015379	12.298	-.9229999
744420	1015356	13.062	-1.235998	744879.4	1015380	11.962	-1.174998
744430	1015356	12.878	-1.161999	744889.4	1015381	12.298	-1.078999
744439.9	1015357	12.756	-1.034999	744899.3	1015381	12.176	-1.203999
744449.9	1015358	12.604	-1.139999	744909.3	1015382	11.994	-1.227999
744459.9	1015358	12.908	-1.075999	744919.3	1015382	12.116	-1.192999
744469.9	1015359	12.512	-1.291	744929.3	1015383	12.176	-1.041
744479.9	1015359	12.33	-1.277999	744939.3	1015383	12.268	-1.062999
744489.9	1015360	12.756	-1.009999	744949.3	1015384	12.268	-.9779999
744499.9	1015360	12.878	-1.041	744959.3	1015384	12.146	-1.115999
744509.9	1015361	12.696	-.955999	744969.3	1015385	12.116	-1.125
744519.9	1015361	12.36	-1.281	744979.3	1015385	12.176	-.998
744529.9	1015362	12.696	-1.277999	744989.2	1015386	12.176	-1.108999
744539.8	1015362	12.574	-1.266999	744999.2	1015386	12.054	-1.213999
744549.8	1015363	12.604	-1.225998	745009.2	1015387	12.146	-.9089999
744559.8	1015363	12.94	-1.123	745019.2	1015387	11.872	-1.126999
744569.8	1015364	13.55	-1.115999	745029.2	1015388	11.902	-1.102999
744579.8	1015364	13.032	-1.159999	745039.1	1015388	11.962	-1.161999
744589.8	1015365	12.848	-1.284999	745049.1	1015389	11.506	-1.314998
744599.8	1015365	12.756	-1.080999	745059.1	1015389	11.658	-1.245
744609.8	1015366	13	-1.242998	745069.1	1015390	11.414	-1.113999
744619.8	1015366	12.664	-1.189998	745079.1	1015390	11.23	-1.422999
744629.7	1015367	12.208	-1.332998	745089.1	1015391	11.352	-.9539998
744639.7	1015367	12.482	-.9249988	745099.1	1015392	11.292	-1.111999
744649.7	1015368	12.39	-1.277999	745109.1	1015392	11.628	-.929
744659.7	1015368	12.786	-1.012998	745119.1	1015393	11.444	-1.128998
744669.6	1015369	12.238	-1.319998	745129	1015393	11.536	-.8279998
744679.6	1015370	12.664	-.7779998	745139	1015394	11.536	-1.135999
744689.6	1015370	13.154	-1.242998	745149	1015394	11.536	-1.077
744699.6	1015371	13.428	-1.106999	745159	1015395	11.718	-1.034999
744709.6	1015371	13.702	-.71	745168.9	1015395	12.084	-.8809999
744719.6	1015372	12.97	-1.157999	745178.9	1015396	11.962	-1.051998
744729.6	1015372	13.184	-1.139999	745188.9	1015396	12.634	-.4989998
744739.6	1015373	13.276	-1.171	745198.9	1015397	13.55	-.8279998
744749.6	1015373	13.52	-.7649999	745208.9	1015397	15.046	-.8519998
744759.5	1015374	13.154	-1.212	745218.9	1015398	11.688	-.4399999
744769.5	1015374	13.122	-.9579998	745228.9	1015398	23.864	-.699

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
745237.8	1015419	23.376	-.5899999	744777.4	1015415	16.632	4.101
line	1220			744787.4	1015415	15.046	4.059
744338	1015392	14.648	-.9759989	744797.4	1015416	14.038	3.868
744348	1015392	13.062	-1.075999	744807.4	1015416	13.214	-.5719999
744358	1015393	12.634	-1.108999	744817.4	1015417	12.574	-.4399999
744368	1015393	12.208	-1.11	744827.3	1015417	12.634	-1.058998
744377.9	1015394	12.33	-.965	744837.3	1015418	12.512	-.998
744387.9	1015394	12.238	-.9669989	744847.3	1015418	12.512	-1.236999
744397.9	1015395	12.452	-1.041	744857.3	1015419	12.512	-1.157999
744407.9	1015395	12.604	-.9299989	744867.3	1015419	12.542	-1.152999
744417.9	1015396	12.42	-1.174998	744877.3	1015420	12.176	-1.060999
744427.9	1015396	12.786	-.9779999	744887.3	1015420	12.36	-.87
744437.9	1015397	12.756	-.965	744897.3	1015421	12.36	-1.077
744447.9	1015397	13	-1.012998	744907.3	1015422	12.42	-.955999
744457.9	1015398	12.604	-1.207998	744917.2	1015422	12.146	-.9929989
744467.8	1015398	12.908	-1.060999	744927.2	1015423	12.146	-1.019999
744477.8	1015399	13.032	-.804	744937.2	1015423	11.658	-1.156
744487.8	1015400	13.184	-.9669989	744947.2	1015424	11.932	-.8329999
744497.8	1015400	13.214	-.970999	744957.2	1015424	11.566	-1.157999
744507.8	1015401	12.97	-.7609999	744967.1	1015425	11.506	-1.164
744517.8	1015401	12.908	-1.032999	744977.1	1015425	11.414	-1.135999
744527.8	1015402	12.878	-.8389999	744987.1	1015426	11.718	-1.025998
744537.8	1015402	12.94	-1.008998	744997.1	1015426	11.536	-1.049998
744547.8	1015403	13.336	-1.038998	745007.1	1015427	11.444	-1.058998
744557.7	1015403	13.428	-1.171	745017.1	1015427	11.628	-.9729989
744567.7	1015404	13	-.679	745027.1	1015428	11.352	-1.097998
744577.7	1015404	12.94	-1.095999	745037.1	1015428	11.506	-1.148999
744587.7	1015405	12.94	-.995	745047.1	1015429	11.628	-1.065999
744597.6	1015405	12.604	-.9409999	745057	1015429	11.78	-1.077
744607.6	1015406	12.696	-.988999	745067	1015430	11.872	-.87
744617.6	1015406	12.512	-.87	745077	1015430	11.75	-1.189
744627.6	1015407	12.756	-1.041	745087	1015431	11.872	-1.131999
744637.6	1015407	12.664	-1.091998	745097	1015431	11.414	-1.199
744647.6	1015408	13.092	-.477	745106.9	1015432	11.75	-.8789989
744657.6	1015408	13.732	.443	745116.9	1015433	12.024	-1.156
744667.6	1015409	14.77	2.126	745126.9	1015433	11.84	-.952
744677.6	1015409	14.71	1.106	745136.9	1015434	11.78	-1.095999
744687.5	1015410	14.282	-.0369999	745146.9	1015434	12.116	-.9409999
744697.5	1015411	14.71	-.218	745156.9	1015435	11.81	-.9579999
744707.5	1015411	14.954	1.016	745166.9	1015435	12.238	-1.016999
744717.5	1015412	10.314	-14.23198	745176.9	1015436	12.33	-.9739999
744727.5	1015412	13.306	-11.01799	745186.9	1015436	12.634	-1.016999
744737.4	1015413	11.322	-11.96798	745196.8	1015437	13.52	-.9339989
744747.4	1015413	16.022	-4.862998	745206.8	1015437	15.136	-.937999
744757.4	1015414	16.448	1.68	745216.8	1015438	12.878	-.6639989
744767.4	1015414	15.748	-.7829999	745226.8	1015438	18.952	-.666

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
745235.8	1015459	21.18	-.8989999	744775.3	1015455	12.786	-.1269999
line	1260			744785.3	1015455	12.024	.103
744335.9	1015432	13.122	-1.074	744795.3	1015456	12.298	-.5479999
744345.9	1015432	12.482	-1.044	744805.3	1015456	13.092	.8640001
744355.9	1015433	11.78	-1.036999	744815.3	1015457	12.542	.226
744365.9	1015433	11.994	-.9639999	744825.3	1015457	12.084	-.845999
744375.9	1015434	11.75	-1.005998	744835.3	1015458	12.176	-1.139999
744385.9	1015434	11.536	-1.019999	744845.2	1015458	12.116	-1.056999
744395.8	1015435	11.81	-.9819999	744855.2	1015459	11.962	-1.152999
744405.8	1015435	11.78	-1.008998	744865.2	1015459	13.032	-.919
744415.8	1015436	11.962	-1.052999	744875.2	1015460	12.054	-1.144999
744425.8	1015436	12.054	-.952	744885.2	1015460	11.718	-1.200999
744435.8	1015437	11.962	-.8199999	744895.1	1015461	12.268	-1.075999
744445.8	1015437	12.238	-1.077	744905.1	1015461	12.298	-.995
744455.8	1015438	12.848	-1.034999	744915.1	1015462	12.298	-1.108999
744465.8	1015438	10.926	-.9969999	744925.1	1015463	11.932	-.9909999
744475.8	1015439	13.672	-1.027999	744935.1	1015463	11.962	-.9469989
744485.7	1015439	13.184	-.995	744945.1	1015464	11.872	-1.031
744495.7	1015440	12.848	-1.113999	744955.1	1015464	11.322	-1.098999
744505.7	1015441	13	-1.064998	744965.1	1015465	11.444	-1.09
744515.7	1015441	13.154	-1.104998	744975.1	1015465	11.26	-1.117998
744525.7	1015442	12.878	-1.133998	744985	1015466	11.322	-1.091998
744535.6	1015442	13.428	-.983999	744995	1015466	11.658	-1.200999
744545.6	1015443	12.94	-1.12	745005	1015467	11.536	-1.060999
744555.6	1015443	13.244	-.9359999	745015	1015467	11.596	-1.036999
744565.6	1015444	14.1	-.7359989	745025	1015468	11.566	-1.034999
744575.6	1015444	12.818	-1.010999	745034.9	1015468	11.322	-1.152999
744585.6	1015445	12.482	-1.008	745044.9	1015469	11.138	-1.282999
744595.6	1015445	12.36	-1.133998	745054.9	1015469	11.84	-1.031
744605.6	1015446	12.42	-.9859989	745064.9	1015470	11.628	-.9819999
744615.6	1015446	12.542	-.827	745074.9	1015470	11.596	-1.159999
744625.5	1015447	12.818	-1.046	745084.9	1015471	11.536	-1.049998
744635.5	1015447	12.878	-1.065999	745094.9	1015471	12.176	-.830999
744645.5	1015448	13.55	-.9359999	745104.9	1015472	11.75	-1.172999
744655.5	1015448	14.008	-.7079999	745114.9	1015472	11.872	-1.113999
744665.4	1015449	15.076	.658	745124.8	1015473	11.84	-.9119999
744675.4	1015449	13.946	-1.980998	745134.8	1015474	11.994	-1.034999
744685.4	1015450	14.954	.491	745144.8	1015474	12.024	-1.106999
744695.4	1015450	15.228	.0850001	745154.8	1015475	11.628	-1.034999
744705.4	1015451	15.96	.43	745164.8	1015475	11.962	-1.019999
744715.4	1015452	16.358	1.83	745174.8	1015476	11.994	-.970999
744725.4	1015452	15.258	.763	745184.8	1015476	12.084	-1.126999
744735.4	1015453	13.55	-.449	745194.8	1015477	13.52	-.904999
744745.4	1015453	14.252	1.737	745204.8	1015477	14.77	-.8949999
744755.3	1015454	13.122	1.883	745214.7	1015478	17.456	-1.111999
744765.3	1015454	12.634	-.2429998	745224.7	1015478	14.466	-.5389999

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
745233.6	1015499	20.02	-.715	744773.3	1015495	11.718	-.9969999
line	1300			744783.2	1015495	11.688	-.9359999
744333.8	1015472	12.116	-.955999	744793.2	1015496	11.536	-1.018998
744343.8	1015472	11.962	-.8549989	744803.2	1015496	11.444	-1.095999
744353.8	1015473	11.994	-.988999	744813.2	1015497	11.718	-1.071998
744363.8	1015473	11.78	-1	744823.1	1015497	11.384	-.8989999
744373.8	1015474	12.146	-.9969999	744833.1	1015498	11.932	-.919
744383.8	1015474	12.176	-1.023999	744843.1	1015498	12.024	-1.082999
744393.8	1015475	12.116	-.970999	744853.1	1015499	12.116	-.995
744403.8	1015475	12.054	-1.077	744863.1	1015499	12.268	-.6069999
744413.7	1015476	12.146	-.9069989	744873.1	1015500	11.84	-1.012998
744423.7	1015476	11.688	-1.001999	744883.1	1015500	11.75	-1.104998
744433.7	1015477	11.84	-.9929989	744893.1	1015501	12.116	-1.071998
744443.7	1015477	12.176	-1.069999	744903.1	1015501	11.932	-1.032999
744453.7	1015478	12.39	-.952	744913	1015502	12.084	-.9929989
744463.6	1015478	12.664	-.85	744923	1015502	11.932	-.9539999
744473.6	1015479	12.634	-1.044	744933	1015503	11.872	-1.071998
744483.6	1015479	12.786	-1.042999	744943	1015504	11.902	-1.027999
744493.6	1015480	12.786	-.9689999	744953	1015504	11.78	-1.012998
744503.6	1015480	13.154	-.817999	744962.9	1015505	11.688	-1.065999
744513.6	1015481	13.214	-.9819999	744972.9	1015505	11.932	-1.065999
744523.6	1015482	12.94	-1.087998	744982.9	1015506	11.536	-1.041
744533.6	1015482	13.398	-.766999	744992.9	1015506	11.628	-1.084998
744543.6	1015483	13.244	-.9669989	745002.9	1015507	11.536	-1.095999
744553.5	1015483	13.306	-.955999	745012.9	1015507	11.414	-1.019999
744563.5	1015484	13.824	-.7829999	745022.9	1015508	11.352	-1.151
744573.5	1015484	13.458	-.9859989	745032.9	1015508	11.566	-.9469989
744583.5	1015485	13.306	-1.023999	745042.9	1015509	11.628	-1.074
744593.4	1015485	12.634	-1.082999	745052.8	1015509	11.872	-1.027999
744603.4	1015486	12.634	-.9539999	745062.8	1015510	11.26	-1.146999
744613.4	1015486	12.542	-.983999	745072.8	1015510	11.444	-.949
744623.4	1015487	12.878	-.9299989	745082.8	1015511	11.75	-1.069999
744633.4	1015487	13.032	-1.313	745092.8	1015511	11.84	-1.046
744643.4	1015488	13.154	-.891999	745102.8	1015512	11.384	-.9909999
744653.4	1015488	13.488	-.9319999	745112.8	1015512	11.628	-1.157999
744663.4	1015489	13.916	-.733999	745122.8	1015513	11.658	-1.084998
744673.4	1015489	14.344	-.4619999	745132.8	1015513	11.902	-.909999
744683.4	1015490	14.222	-.3369999	745142.7	1015514	11.628	-1.117998
744693.3	1015490	13.702	-.324	745152.7	1015514	12.024	-.988999
744703.3	1015491	14.404	.357	745162.7	1015515	12.42	-.9299989
744713.3	1015491	13.916	.2240001	745172.7	1015516	12.42	-.9299989
744723.3	1015492	12.878	-.344	745182.7	1015516	12.634	-1.032999
744733.3	1015493	13.276	-.075	745192.6	1015517	14.038	-.970999
744743.3	1015493	12.42	-.273	745202.6	1015517	15.32	-.9299989
744753.3	1015494	11.566	-1.064998	745212.6	1015518	16.296	-.875
744763.3	1015494	11.75	-.87	745222.6	1015518	15.198	-.605

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
745231.6	1015539	19.5	-.638	744771.1	1015535	10.772	-1.074
line	1340			744781.1	1015535	10.742	-1.047
744331.8	1015512	11.75	-.94	744791.1	1015536	11.048	-1.056
744341.7	1015512	11.474	-.929	744801.1	1015536	11.536	-1.06
744351.7	1015513	12.116	-.999	744811.1	1015537	11.2	-1.062
744361.7	1015513	12.482	-1.012	744821.1	1015537	10.864	-1.104
744371.7	1015514	13.154	-.979	744831.1	1015538	11.292	-1.122
744381.7	1015514	13.092	-1.067	744841.1	1015538	11.78	-1.096
744391.6	1015515	12.634	-1.133	744851	1015539	11.23	-1.199
744401.6	1015515	12.208	-1.104	744861	1015539	11.872	-1.03
744411.6	1015516	11.596	-1.198	744871	1015540	11.506	-1.063
744421.6	1015516	11.352	-1.023	744881	1015540	11.384	-1.109
744431.6	1015517	10.834	-1.163	744890.9	1015541	11.108	-1.074
744441.6	1015517	10.834	-1.126	744900.9	1015541	11.474	-1.049
744451.6	1015518	11.078	-1.153	744910.9	1015542	11.352	-1.049
744461.6	1015518	10.926	-1.234	744920.9	1015542	11.322	-1.017
744471.6	1015519	11.23	-1.076	744930.9	1015543	11.2	-1.122
744481.5	1015519	11.658	-1.047	744940.9	1015543	11.048	-1.122
744491.5	1015520	11.658	-1.141	744950.9	1015544	11.384	-1.087
744501.5	1015520	11.872	-1.095	744960.9	1015545	11.048	-1.052
744511.5	1015521	11.872	-1.12	744970.9	1015545	11.078	-1.06
744521.5	1015521	11.962	-1.12	744980.8	1015546	10.926	-1.17
744531.4	1015522	12.482	-1.164	744990.8	1015546	10.926	-1.131
744541.4	1015523	12.94	-.99	745000.8	1015547	11.048	-1.144
744551.4	1015523	12.818	-1.142	745010.8	1015547	10.834	-1.119
744561.4	1015524	13.55	-1.038	745020.8	1015548	10.986	-1.017
744571.4	1015524	13.366	-1.071	745030.8	1015548	10.986	-1.109
744581.4	1015525	12.878	-1.122	745040.8	1015549	10.986	-1.085
744591.4	1015525	12.512	-1.041	745050.8	1015549	10.56	-1.126
744601.4	1015526	12.238	-1.133	745060.8	1015550	10.528	-1.126
744611.4	1015526	12.116	-1.117	745070.7	1015550	11.108	-1.185
744621.3	1015527	12.298	-1.076	745080.7	1015551	11.17	-.981
744631.3	1015527	12.238	-1.218	745090.7	1015551	11.718	-.975
744641.3	1015528	13	-1.036	745100.7	1015552	11.414	-1.062
744651.3	1015528	12.97	-1.13	745110.7	1015552	11.566	-.994
744661.3	1015529	13.306	-.909	745120.6	1015553	11.628	-.907
744671.3	1015529	12.848	-1.054	745130.6	1015553	11.658	-.926
744681.3	1015530	12.33	-1.036	745140.6	1015554	11.718	-.922
744691.3	1015530	11.84	-1.164	745150.6	1015554	11.962	-.962
744701.3	1015531	11.17	-1.139	745160.6	1015555	11.932	-1.012
744711.2	1015531	10.894	-1.19	745170.6	1015555	12.176	-.911
744721.2	1015532	10.926	-.949	745180.6	1015556	12.268	-.889
744731.2	1015532	11.108	-1.109	745190.6	1015557	13.916	-.768
744741.2	1015533	11.17	-.994	745200.6	1015557	15.808	-.661
744751.1	1015534	10.804	-1.062	745210.5	1015558	16.724	-.575
744761.1	1015534	10.772	-1.019	745220.5	1015558	17.06	-.398



Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
745229.4	1015579	20.63	-.674	744769.1	1015575	10.438	-1.111
line	1380			744779	1015575	10.314	-1.117
744329.6	1015551	11.962	-1.003	744789	1015576	10.804	-1.161
744339.6	1015552	11.566	-1.058	744799	1015576	10.864	-1.087
744349.6	1015553	11.444	-1.084	744809	1015577	10.986	-1.111
744359.6	1015553	11.81	-1.144	744818.9	1015577	10.438	-1.111
744369.6	1015554	11.75	-1.181	744828.9	1015578	11.2	-.821
744379.6	1015554	11.962	-1.067	744838.9	1015578	11.474	-1.106
744389.6	1015555	12.024	-1.133	744848.9	1015579	11.352	-1.102
744399.6	1015555	12.084	-1.15	744858.9	1015579	11.658	-1.062
744409.5	1015556	11.718	-1.131	744868.9	1015580	11.506	-1.098
744419.5	1015556	11.474	-1.185	744878.9	1015580	11.138	-1.089
744429.5	1015557	11.384	-1.209	744888.9	1015581	11.384	-1.131
744439.5	1015557	11.26	-1.194	744898.9	1015581	11.322	-1.052
744449.5	1015558	11.108	-1.089	744908.8	1015582	11.17	-1.107
744459.4	1015558	11.108	-1.15	744918.8	1015582	11.536	-1.137
744469.4	1015559	10.772	-1.207	744928.8	1015583	11.108	-1.073
744479.4	1015559	11.048	-1.146	744938.8	1015583	11.17	-1.098
744489.4	1015560	11.2	-1.089	744948.8	1015584	11.138	-1.093
744499.4	1015560	12.024	-1.104	744958.8	1015584	11.138	-1.131
744509.4	1015561	11.78	-1.076	744968.8	1015585	11.016	-1.131
744519.4	1015561	11.718	-1.084	744978.8	1015585	10.956	-1.176
744529.4	1015562	12.238	-1.093	744988.8	1015586	10.864	-1.188
744539.4	1015562	12.298	-1.095	744998.8	1015587	10.956	-1.166
744549.3	1015563	12.664	-1.08	745008.7	1015587	10.956	-1.177
744559.3	1015564	12.726	-1.19	745018.7	1015588	10.864	-1.207
744569.3	1015564	13.092	-.997	745028.7	1015588	10.742	-1.179
744579.3	1015565	12.786	-1.177	745038.7	1015589	10.864	-1.135
744589.3	1015565	12.726	-1.119	745048.6	1015589	10.834	-1.142
744599.3	1015566	12.574	-1.071	745058.6	1015590	10.772	-1.155
744609.3	1015566	11.994	-1.096	745068.6	1015590	10.772	-1.168
744619.3	1015567	12.908	-1.06	745078.6	1015591	11.26	-1.234
744629.3	1015567	13.062	-.944	745088.6	1015591	11.322	-1.091
744639.2	1015568	13.398	-.946	745098.6	1015592	11.688	-1.052
744649.2	1015568	14.19	-.935	745108.6	1015592	11.688	-1.113
744659.2	1015569	13.732	-1.063	745118.6	1015593	11.994	-1.058
744669.2	1015569	13.032	-.982	745128.6	1015593	11.536	-1.139
744679.2	1015570	12.33	-.997	745138.5	1015594	11.658	-.972
744689.1	1015570	12.054	-1.073	745148.5	1015594	11.566	-1.052
744699.1	1015571	11.138	-1.152	745158.5	1015595	12.084	-.944
744709.1	1015571	11.016	-1.199	745168.5	1015595	12.39	-1.005
744719.1	1015572	10.468	-1.174	745178.5	1015596	12.512	-.977
744729.1	1015572	10.956	-1.188	745188.4	1015596	13.61	-.883
744739.1	1015573	10.682	-1.036	745198.4	1015597	15.992	-.67
744749.1	1015573	10.406	-1.047	745208.4	1015598	15.29	-.547
744759.1	1015574	10.468	-.977	745218.4	1015598	20.356	-.661

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
745227.4	1015619	18.218	-.505	744766.9	1015614	10.772	-1.155
line	1420			744776.9	1015615	10.65	-1.212
744327.6	1015591	12.604	-1.324	744786.9	1015615	10.772	-1.117
744337.5	1015592	12.238	-1.161	744796.9	1015616	10.986	-1.194
744347.5	1015592	12.298	-1.063	744806.9	1015617	11.23	-1.223
744357.5	1015593	11.962	-1.209	744816.9	1015617	11.2	-1.212
744367.5	1015594	11.474	-1.183	744826.9	1015618	11.596	-1.157
744377.5	1015594	11.384	-1.185	744836.9	1015618	11.902	-1.203
744387.4	1015595	11.384	-1.166	744846.8	1015619	11.78	-1.104
744397.4	1015595	11.384	-1.177	744856.8	1015619	11.902	-1.232
744407.4	1015596	11.17	-1.115	744866.8	1015620	11.84	-1.176
744417.4	1015596	11.566	-1.181	744876.8	1015620	11.414	-1.249
744427.4	1015597	11.596	-1.194	744886.8	1015621	11.506	-1.242
744437.4	1015597	11.384	-1.185	744896.8	1015621	11.78	-1.181
744447.4	1015598	11.566	-1.223	744906.8	1015622	11.962	-1.107
744457.4	1015598	11.596	-1.164	744916.8	1015622	11.78	-1.196
744467.4	1015599	11.566	-1.201	744926.8	1015623	12.146	-1.141
744477.3	1015599	11.75	-1.172	744936.7	1015623	11.932	-1.016
744487.3	1015600	11.75	-1.113	744946.7	1015624	12.146	-1.117
744497.3	1015600	11.596	-1.177	744956.7	1015624	11.718	-1.135
744507.3	1015601	11.902	-1.234	744966.7	1015625	11.688	-1.078
744517.3	1015601	11.84	-1.22	744976.6	1015625	11.474	-1.22
744527.3	1015602	12.054	-1.332	744986.6	1015626	11.566	-1.146
744537.3	1015602	12.604	-1.194	744996.6	1015626	11.596	-1.144
744547.3	1015603	12.878	-1.185	745006.6	1015627	11.26	-1.166
744557.3	1015603	12.908	-.472	745016.6	1015628	11.2	-1.111
744567.2	1015604	13.032	-1.166	745026.6	1015628	11.384	-1.166
744577.2	1015605	13.154	-1.141	745036.6	1015629	11.506	-1.144
744587.2	1015605	13.366	-1.06	745046.6	1015629	11.474	-1.229
744597.2	1015606	13.154	-1.232	745056.6	1015630	11.23	-1.133
744607.2	1015606	13.092	-1.104	745066.5	1015630	11.506	-1.17
744617.1	1015607	12.908	-1.179	745076.5	1015631	11.444	-1.198
744627.1	1015607	13.154	-1.146	745086.5	1015631	11.81	-1.019
744637.1	1015608	13.092	-1.13	745096.5	1015632	11.962	-1.142
744647.1	1015608	13.092	-1.012	745106.5	1015632	11.872	-1.1
744657.1	1015609	13.61	-1.056	745116.4	1015633	11.872	-1.067
744667.1	1015609	13.032	-1.146	745126.4	1015633	11.962	-1.106
744677.1	1015610	12.726	-1.152	745136.4	1015634	12.024	-1.039
744687.1	1015610	12.238	-1.157	745146.4	1015634	12.238	-1.051
744697.1	1015611	11.17	-1.251	745156.4	1015635	12.176	-1.001
744707	1015611	11.566	-.657	745166.4	1015635	12.452	-1.12
744717	1015612	11.628	-1.249	745176.4	1015636	13.062	-1.01
744727	1015612	11.384	-1.078	745186.4	1015636	13.398	-.96
744737	1015613	11.658	-1.093	745196.4	1015637	15.594	-.959
744746.9	1015613	11.444	-1.087	745206.3	1015637	15.076	-.782
744756.9	1015614	11.048	-1.065	745216.3	1015638	15.716	-.426

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
line	1460			744774.8	1015655	11.322	-1.091
744325.4	1015631	13.092	-1.282	744784.8	1015655	11.26	-1.115
744335.4	1015632	12.908	-1.124	744794.8	1015656	11.566	-1.087
744345.4	1015632	12.542	-1.159	744804.8	1015656	11.17	-1.223
744355.4	1015633	12.42	-1.179	744814.8	1015657	11.902	-1.161
744365.4	1015633	12.33	-1.139	744824.8	1015658	11.84	-.898
744375.4	1015634	12.084	-1.126	744834.8	1015658	12.146	-1.096
744385.4	1015635	12.116	-1.115	744844.8	1015659	12.238	-1.1
744395.4	1015635	12.084	-1.126	744854.8	1015659	12.298	-1.144
744405.3	1015636	12.238	-.966	744864.7	1015660	12.36	-1.115
744415.3	1015636	12.024	-1.196	744874.7	1015660	11.994	-1.249
744425.3	1015637	11.872	-1.096	744884.7	1015661	11.872	-1.264
744435.3	1015637	12.084	-1.107	744894.7	1015661	12.208	-1.074
744445.3	1015638	11.932	-1.1	744904.6	1015662	12.208	-1.177
744455.3	1015638	11.688	-1.117	744914.6	1015662	12.238	-1.221
744465.3	1015639	11.658	-1.119	744924.6	1015663	12.33	-1.168
744475.3	1015639	11.872	-1.135	744934.6	1015663	12.208	-1.216
744485.3	1015640	11.902	-1.142	744944.6	1015664	12.238	-1.15
744495.2	1015640	11.718	-1.177	744954.6	1015664	12.054	-1.069
744505.2	1015641	12.024	-1.245	744964.6	1015665	11.872	-1.168
744515.2	1015641	12.36	-1.194	744974.6	1015665	11.688	-1.102
744525.2	1015642	12.33	-1.163	744984.6	1015666	12.084	-1.159
744535.2	1015642	12.756	-1.155	744994.6	1015666	12.024	-1.181
744545.1	1015643	12.908	-1.142	745004.5	1015667	11.994	-1.091
744555.1	1015643	13.184	-1.104	745014.5	1015667	11.718	-1.104
744565.1	1015644	13.58	-1.188	745024.5	1015668	11.84	-1.231
744575.1	1015644	13.916	-1.172	745034.5	1015669	11.658	-1.17
744585.1	1015645	13.61	-1.137	745044.4	1015669	11.628	-1.199
744595.1	1015645	13.824	-1.085	745054.4	1015670	11.474	-1.176
744605.1	1015646	13.55	-1.155	745064.4	1015670	11.78	-1.28
744615.1	1015647	13.794	-1.153	745074.4	1015671	11.506	-1.286
744625.1	1015647	13.61	-1.034	745084.4	1015671	12.176	-.955
744635	1015648	13.794	-1.082	745094.4	1015672	12.298	-1.17
744645	1015648	12.146	-1.447	745104.4	1015672	11.994	-1.232
744655	1015649	13.214	-1.35	745114.4	1015673	12.39	-1.161
744665	1015649	13.764	-.957	745124.4	1015673	12.33	-1.168
744675	1015650	12.696	-1.107	745134.3	1015674	12.39	-1.069
744684.9	1015650	12.452	-1.146	745144.3	1015674	12.238	-1.027
744694.9	1015651	11.932	-1.183	745154.3	1015675	12.512	-.964
744704.9	1015651	11.902	-1.258	745164.3	1015675	12.664	-1.113
744714.9	1015652	11.962	-1.043	745174.3	1015676	12.696	-1.179
744724.9	1015652	11.872	-1.212	745184.3	1015676	14.16	-.966
744734.9	1015653	12.208	-1.181	745194.3	1015677	17.028	-1.012
744744.9	1015653	11.566	-1.174	745204.3	1015677	13.642	-.779
744754.9	1015654	11.536	-1.109	745214.3	1015678	21.302	-.856
744764.9	1015654	10.986	-1.216	745224.2	1015678	20.416	-.738

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
line	1500			744772.8	1015695	11.75	-.968
744323.4	1015671	13.61	-1.161	744782.8	1015695	11.596	-1.052
744333.3	1015672	12.878	-1.273	744792.7	1015696	11.628	-1.056
744343.3	1015672	13	-1.387	744802.7	1015696	11.566	-1.091
744353.3	1015673	12.696	-1.356	744812.7	1015697	11.506	-1.089
744363.3	1015673	12.42	-1.363	744822.7	1015697	11.78	-1.093
744373.3	1015674	12.634	-1.341	744832.7	1015698	11.81	-1.095
744383.3	1015674	12.574	-1.17	744842.6	1015699	11.75	-1.183
744393.3	1015675	12.482	-1.201	744852.6	1015699	12.298	-1.166
744403.3	1015675	12.238	-1.166	744862.6	1015700	12.39	-1.153
744413.3	1015676	12.116	-1.073	744872.6	1015700	12.268	-1.221
744423.3	1015677	11.872	-1.188	744882.6	1015701	12.574	-1.179
744433.2	1015677	11.84	-1.265	744892.6	1015701	12.39	-1.12
744443.2	1015678	11.688	-1.31	744902.6	1015702	12.268	-1.192
744453.2	1015678	11.902	-1.242	744912.6	1015702	12.268	-.977
744463.2	1015679	11.78	-1.313	744922.6	1015703	12.024	-1.117
744473.1	1015679	11.84	-1.113	744932.5	1015703	12.238	-1.185
744483.1	1015680	12.024	-1.214	744942.5	1015704	12.36	-1.212
744493.1	1015680	11.994	-1.131	744952.5	1015704	12.208	-1.176
744503.1	1015681	11.932	-1.152	744962.5	1015705	11.84	-1.168
744513.1	1015681	11.84	-1.185	744972.4	1015705	12.116	-1.221
744523.1	1015682	12.268	-1.258	744982.4	1015706	11.962	-1.311
744533.1	1015682	12.726	-1.216	744992.4	1015706	12.176	-1.253
744543.1	1015683	13	-1.243	745002.4	1015707	12.084	-1.15
744553.1	1015683	13.52	-1.232	745012.4	1015707	11.872	-1.198
744563	1015684	13.306	-1.291	745022.4	1015708	12.054	-1.256
744573	1015684	13.55	-1.194	745032.4	1015708	12.146	-1.26
744583	1015685	13.916	-1.176	745042.4	1015709	12.36	-1.212
744593	1015685	14.312	-1.212	745052.4	1015710	12.298	-1.242
744603	1015686	15.076	-1.131	745062.3	1015710	12.36	-1.262
744612.9	1015686	15.136	-1.014	745072.3	1015711	12.36	-1.243
744622.9	1015687	14.678	-1.304	745082.3	1015711	12.664	-.808
744632.9	1015688	15.564	-1.117	745092.3	1015712	12.696	-1.172
744642.9	1015688	10.04	-3.88	745102.3	1015712	12.94	-1.095
744652.9	1015689	13.122	-1.054	745112.3	1015713	12.574	-1.161
744662.9	1015689	14.434	-1.227	745122.3	1015713	12.664	-1.146
744672.9	1015690	13.55	-1.174	745132.3	1015714	12.94	-1.067
744682.9	1015690	13.276	-1.157	745142.3	1015714	12.94	-1.058
744692.9	1015691	12.482	-1.236	745152.3	1015715	13.032	-1.032
744702.8	1015691	12.39	-1.098	745162.2	1015715	13.306	-1.098
744712.8	1015692	12.42	-1.186	745172.2	1015716	13.916	-1.03
744722.8	1015692	11.81	-1.172	745182.2	1015716	14.1	-1.223
744732.8	1015693	11.718	-1.262	745192.2	1015717	16.784	-1.019
744742.8	1015693	12.084	-1.203	745202.1	1015717	15.106	-.834
744752.8	1015694	12.146	-1.08	745212.1	1015718	20.722	-.047
744762.8	1015694	11.718	-1.115	745222.1	1015718	22.248	-.885

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
line	1540			744720.7	1015732	13.488	-1.315
744271.3	1015709	14.588	-1.359	744730.7	1015733	13.154	-1.365
744281.3	1015709	15.228	-1.221	744740.7	1015733	12.97	-1.389
744291.3	1015710	14.984	-1.317	744750.7	1015734	13.062	-1.31
744301.3	1015710	14.924	-1.313	744760.7	1015734	12.634	-1.297
744311.3	1015711	14.924	-1.442	744770.6	1015735	12.574	-1.346
744321.3	1015711	14.282	-1.334	744780.6	1015735	12.756	-1.33
744331.3	1015712	13.794	-1.471	744790.6	1015736	12.878	-1.392
744341.3	1015712	13.642	-1.374	744800.6	1015736	12.726	-1.282
744351.3	1015713	13.458	-1.359	744810.6	1015737	12.634	-1.317
744361.2	1015713	13.214	-1.17	744820.6	1015737	12.604	-1.19
744371.2	1015714	13.154	-1.389	744830.6	1015738	12.054	-1.313
744381.2	1015714	12.786	-0.881	744840.6	1015738	12.146	-1.469
744391.2	1015715	12.786	-1.33	744850.6	1015739	12.908	-1.414
744401.1	1015715	12.94	-1.3	744860.5	1015740	12.908	-1.414
744411.1	1015716	12.574	-1.379	744870.5	1015740	12.298	-1.466
744421.1	1015716	12.604	-1.346	744880.5	1015741	12.664	-1.4
744431.1	1015717	13	-1.39	744890.5	1015741	12.604	-1.284
744441.1	1015718	12.542	-1.363	744900.4	1015742	12.696	-1.359
744451.1	1015718	12.604	-1.407	744910.4	1015742	12.818	-1.335
744461.1	1015719	12.482	-1.378	744920.4	1015743	12.818	-1.299
744471.1	1015719	12.726	-1.46	744930.4	1015743	12.94	-1.354
744481.1	1015720	12.634	-1.458	744940.4	1015744	12.94	-1.304
744491	1015720	12.604	-1.39	744950.4	1015744	13	-1.095
744501	1015721	12.664	-1.416	744960.4	1015745	13	-1.271
744511	1015721	12.664	-1.39	744970.4	1015745	12.452	-1.255
744521	1015722	13.062	-1.422	744980.4	1015746	12.664	-1.295
744531	1015722	13.214	-1.422	744990.4	1015746	12.878	-1.297
744540.9	1015723	13.52	-1.361	745000.3	1015747	12.664	-1.186
744550.9	1015723	13.978	-1.392	745010.3	1015747	12.664	-1.194
744560.9	1015724	14.556	-1.431	745020.3	1015748	12.818	-1.31
744570.9	1015724	14.282	-1.418	745030.3	1015748	13.032	-1.255
744580.9	1015725	14.954	-1.212	745040.3	1015749	13.184	-1.243
744590.9	1015725	15.228	-1.273	745050.3	1015749	13.122	-1.231
744600.9	1015726	15.046	-1.328	745060.3	1015750	13.52	-1.218
744610.9	1015726	14.954	-1.282	745070.3	1015751	13.244	-1.24
744620.9	1015727	15.258	-1.232	745080.3	1015751	13.092	-1.212
744630.8	1015727	15.198	-1.232	745090.2	1015752	13.336	-1.21
744640.8	1015728	3.022	-4.94	745100.2	1015752	13.214	-1.201
744650.8	1015729	15.258	-1.752	745110.2	1015753	13.184	-1.258
744660.8	1015729	14.466	-1.337	745120.2	1015753	12.97	-1.282
744670.8	1015730	14.222	-1.238	745130.1	1015754	12.786	-1.317
744680.8	1015730	13.854	-1.295	745140.1	1015754	12.634	-1.429
744690.8	1015731	13.062	-1.319	745150.1	1015755	13.58	-1.214
744700.8	1015731	13.214	-1.429	745160.1	1015755	13.886	-1.199
744710.8	1015732	13.55	-1.376	745170.1	1015756	14.1	-1.232

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
745129.1	1015774	14.13	-1.251	744618.8	1015767	14.374	-1.315
745139.1	1015774	14.252	-1.06	744628.8	1015767	14.802	-1.102
745149.1	1015775	14.374	-1.164	744638.8	1015768	15.106	-1.078
745159.1	1015775	14.984	-1.128	744648.7	1015768	14.77	-1.135
745169.1	1015776	14.954	-1.082	744658.7	1015769	15.136	-1.104
745179.1	1015776	15.198	-1.168	744668.7	1015770	14.344	-1.207
745189	1015777	17.242	-1.095	744678.7	1015770	14.892	-1.227
745199	1015777	20.142	-1.122	744688.7	1015771	14.556	-1.163
745209	1015778	17.762	-.022	744698.6	1015771	14.252	-1.247
745219	1015778	23.438	-.88	744708.6	1015772	13.946	-1.334
line	1580			744718.6	1015772	13.58	-1.339
744269.3	1015749	15.32	-1.078	744728.6	1015773	13.458	-1.218
744279.3	1015749	14.648	-1.242	744738.6	1015773	13.154	-1.26
744289.2	1015750	14.588	-1.236	744748.6	1015774	12.574	-1.201
744299.2	1015750	14.678	-1.142	744758.6	1015774	12.664	-1.214
744309.2	1015751	14.282	-1.234	744768.6	1015775	12.756	-1.26
744319.2	1015751	14.19	-1.199	744778.6	1015775	12.574	-1.262
744329.1	1015752	13.642	-1.278	744788.5	1015776	12.848	-.841
744339.1	1015752	13.58	-1.245	744798.5	1015776	12.786	-1.172
744349.1	1015753	13.154	-1.33	744808.5	1015777	11.81	-1.251
744359.1	1015753	13.062	-1.232	744818.5	1015777	11.78	-1.322
744369.1	1015754	12.878	-1.335	744828.5	1015778	12.238	-1.194
744379.1	1015754	12.818	-1.291	744838.4	1015778	12.878	-1.262
744389.1	1015755	13	-1.192	744848.4	1015779	13.244	-1.278
744399.1	1015755	12.94	-1.262	744858.4	1015779	13.61	-1.199
744409.1	1015756	12.664	-1.262	744868.4	1015780	12.726	-1.209
744419.1	1015756	12.512	-1.324	744878.4	1015781	13.154	-1.289
744429	1015757	12.696	-1.225	744888.4	1015781	13.122	-1.289
744439	1015757	13.032	-1.234	744898.4	1015782	13.61	-1.265
744449	1015758	12.848	-1.238	744908.4	1015782	13.794	-1.249
744459	1015759	12.94	-1.317	744918.4	1015783	13.672	-1.313
744468.9	1015759	12.97	-1.343	744928.3	1015783	13.58	-1.317
744478.9	1015760	13	-1.255	744938.3	1015784	13.642	-1.297
744488.9	1015760	13.032	-1.24	744948.3	1015784	13.61	-1.186
744498.9	1015761	12.878	-1.288	744958.3	1015785	13.642	-1.209
744508.9	1015761	12.97	-1.315	744968.3	1015785	13.398	-1.251
744518.9	1015762	12.908	-1.394	744978.3	1015786	13.244	-1.231
744528.9	1015762	13.336	-1.255	744988.3	1015786	13.398	-1.164
744538.9	1015763	13.642	-1.24	744998.3	1015787	13.398	-1.21
744548.9	1015763	14.068	-1.249	745008.3	1015787	13.398	-1.163
744558.8	1015764	14.282	-1.262	745018.2	1015788	13.58	-1.201
744568.8	1015764	13.886	-1.354	745028.2	1015788	13.428	-1.253
744578.8	1015765	14.1	-1.176	745038.2	1015789	13.946	-1.262
744588.8	1015765	14.526	-1.221	745048.2	1015789	13.642	-1.212
744598.8	1015766	14.618	-1.249	745058.1	1015790	13.52	-1.247
744608.8	1015766	14.434	-1.196	745068.1	1015790	13.886	-1.227

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
745027.1	1015808	13.336	-1.183	744516.8	1015802	12.848	-1.278
745037.1	1015809	13.764	-1.098	744526.8	1015802	13.398	-1.148
745047.1	1015809	13.55	-1.102	744536.8	1015803	13.672	-1.214
745057.1	1015810	13.428	-1.194	744546.8	1015803	13.458	-1.199
745067.1	1015810	13.764	-1.212	744556.8	1015804	13.764	-1.253
745077.1	1015811	14.1	-1.148	744566.8	1015804	14.068	-1.209
745087.1	1015811	14.038	-.992	744576.8	1015805	14.13	-1.212
745097.1	1015812	14.252	-1.082	744586.7	1015805	14.588	-1.137
745107.1	1015813	14.222	-1.032	744596.7	1015806	14.648	-1.153
745117	1015813	14.282	-.916	744606.7	1015806	14.374	-1.144
745127	1015814	14.1	-1.098	744616.7	1015807	14.526	-1.168
745137	1015814	14.556	-1.054	744626.6	1015807	14.648	-1.034
745147	1015815	14.496	-1.084	744636.6	1015808	14.74	-2.061
745157	1015815	14.344	-1.098	744646.6	1015808	10.772	-2.052
745166.9	1015816	14.984	-1.043	744656.6	1015809	10.406	-5.109
745176.9	1015816	15.38	-.959	744666.6	1015809	15.168	-.782
745186.9	1015817	16.388	-.97	744676.6	1015810	14.13	-1.017
745196.9	1015817	18.708	-.96	744686.6	1015811	13.672	-1.192
745206.9	1015818	17.242	-.567	744696.6	1015811	12.94	-1.196
745216.9	1015818	22.796	-.676	744706.6	1015812	12.664	-1.242
line	1620			744716.5	1015812	12.756	-1.214
744267.1	1015789	14.434	-1.192	744726.5	1015813	12.604	-1.26
744277.1	1015789	14.252	-1.183	744736.5	1015813	12.634	-1.21
744287.1	1015790	14.19	-1.095	744746.5	1015814	12.542	-1.186
744297.1	1015790	14.1	-1.126	744756.5	1015814	12.574	-1.186
744307.1	1015791	14.19	-1.148	744766.4	1015815	12.482	-1.245
744317.1	1015791	13.794	-1.186	744776.4	1015815	12.238	-1.271
744327.1	1015792	13.244	-1.161	744786.4	1015816	12.36	-1.247
744337.1	1015792	13.214	-1.157	744796.4	1015816	12.39	-1.172
744347.1	1015793	13.062	-1.058	744806.4	1015817	12.208	-1.247
744357	1015793	13.244	-1.087	744816.4	1015817	11.872	-.997
744367	1015794	13.062	-1.155	744826.4	1015818	12.268	-1.302
744377	1015794	12.94	-1.163	744836.4	1015818	12.208	-1.19
744387	1015795	13.122	-1.236	744846.4	1015819	12.786	-1.242
744396.9	1015795	12.878	-1.231	744856.3	1015819	13.122	-1.269
744406.9	1015796	12.664	-1.234	744866.3	1015820	12.574	-1.295
744416.9	1015796	13	-1.273	744876.3	1015820	13.306	-1.218
744426.9	1015797	13.122	-1.234	744886.3	1015821	13.184	-1.221
744436.9	1015797	13.366	-1.153	744896.3	1015822	13.55	-1.253
744446.9	1015798	13.154	-1.198	744906.3	1015822	13.488	-1.209
744456.9	1015798	13.794	-1.159	744916.3	1015823	13.58	-1.273
744466.9	1015799	13.366	-1.242	744926.3	1015823	13.702	-1.199
744476.9	1015800	13.184	-1.218	744936.3	1015824	13.58	-1.181
744486.8	1015800	13.184	-1.199	744946.2	1015824	13.458	-1.159
744496.8	1015801	13.184	-1.214	744956.2	1015825	13.61	-1.205
744506.8	1015801	12.94	-1.26	744966.2	1015825	13.458	-1.409

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
744925.2	1015843	13.244	-1.017	744414.9	1015836	12.93	-1.473999
744935.2	1015844	13.428	-.898	744424.8	1015837	12.99	-1.453999
744945.2	1015844	13.488	-.913	744434.8	1015837	13.022	-1.232
744955.1	1015845	13.58	-.903	744444.8	1015838	13.266	-1.217
744965.1	1015845	13.398	-1.017	744454.8	1015838	13.022	-1.253999
744975.1	1015846	13.55	-.979	744464.8	1015839	12.808	-1.286999
744985.1	1015846	13.794	-.907	744474.8	1015839	12.442	-1.358
744995.1	1015847	13.732	-1.036	744484.8	1015840	12.41	-1.335999
745005.1	1015847	13.61	-1.036	744494.8	1015841	12.442	-1.364
745015.1	1015848	13.276	-1.01	744504.8	1015841	12.624	-1.141999
745025.1	1015848	13.336	-1.049	744514.7	1015842	12.41	-1.253999
745035.1	1015849	13.276	-1.016	744524.7	1015842	12.41	-1.261
745045	1015849	13.61	-.852	744534.7	1015843	12.838	-1.325
745055	1015850	13.244	-1.03	744544.7	1015843	13.112	-1.388
745065	1015850	13.642	-.902	744554.6	1015844	13.54	-1.2
745075	1015851	13.55	-.994	744564.6	1015844	13.418	-1.377
745085	1015851	13.642	-.881	744574.6	1015845	13.326	-1.243999
745094.9	1015852	13.732	-.847	744584.6	1015845	14.212	-1.256999
745104.9	1015852	13.978	-.74	744594.6	1015846	13.692	-1.243
745114.9	1015853	14.13	-.782	744604.6	1015846	13.51	-1.23
745124.9	1015854	14.13	-.997	744614.6	1015847	13.54	-1.453999
745134.9	1015854	14.1	-.962	744624.6	1015847	13.51	-1.394999
745144.9	1015855	14.556	-.824	744634.6	1015848	14.18	-1.226
745154.9	1015855	14.252	-.795	744644.5	1015848	13.998	-1.223999
745164.9	1015856	14.556	-.47	744654.5	1015849	14.608	-1.228
745174.9	1015856	14.678	-.78	744664.5	1015849	14.364	-1.289999
745184.8	1015857	15.534	-.725	744674.5	1015850	14.09	-1.246
745194.8	1015857	18.188	-.723	744684.5	1015850	13.234	-1.233
745204.8	1015858	15.748	-.181	744694.4	1015851	12.442	-1.432
745214.8	1015858	23.406	-.615	744704.4	1015852	12.32	-1.456
line	1660			744714.4	1015852	12.258	-1.167
744265.1	1015828	12.32	-1.621	744724.4	1015853	12.198	-1.164999
744275.1	1015829	12.838	-1.417	744734.4	1015853	12.32	-1.312
744285	1015830	13.448	-1.203999	744744.4	1015854	12.136	-1.164
744295	1015830	13.388	-1.581	744754.4	1015854	11.74	-1.149
744305	1015831	12.96	-1.381999	744764.4	1015855	11.708	-1.423
744315	1015831	12.594	-1.406	744774.4	1015855	11.526	-1.173
744325	1015832	12.654	-1.516	744784.3	1015856	11.77	-1.355
744334.9	1015832	12.686	-1.357	744794.3	1015856	11.586	-1.375
744344.9	1015833	12.442	-1.393	744804.3	1015857	10.824	-1.538
744354.9	1015833	12.41	-1.391	744814.3	1015857	11.708	-1.325
744364.9	1015834	12.502	-1.368999	744824.3	1015858	11.862	-1.156
744374.9	1015834	12.502	-1.355	744834.3	1015858	11.922	-1.345
744384.9	1015835	12.808	-1.384	744844.3	1015859	12.532	-1.361999
744394.9	1015835	12.838	-1.401999	744854.3	1015859	12.32	-1.378999
744404.9	1015836	12.838	-1.305	744864.3	1015860	12.044	-1.552999



Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
744823.3	1015878	11.404	-1.616	744312.9	1015871	12.258	-.935
744833.3	1015878	11.984	-1.384	744322.9	1015872	12.532	-.514
744843.2	1015879	12.198	-1.371	744332.9	1015872	12.778	-.927
744853.2	1015879	12.564	-1.388	744342.9	1015873	12.228	-.968
744863.2	1015880	12.136	-1.486999	744352.8	1015873	12.502	-.769
744873.2	1015880	11.954	-1.463	744362.8	1015874	12.564	-.942
744883.1	1015881	11.862	-1.647	744372.8	1015874	12.442	-.944
744893.1	1015881	12.198	-1.522	744382.8	1015875	12.746	-.758
744903.1	1015882	12.288	-1.496	744392.8	1015875	13.112	-.922
744913.1	1015882	12.32	-1.548	744402.8	1015876	12.868	-.788
744923.1	1015883	12.228	-1.519999	744412.8	1015876	13.022	-.832
744933.1	1015884	12.198	-1.302999	744422.8	1015877	12.96	-.722
744943.1	1015884	12.166	-1.546	744432.8	1015877	12.502	-.948
744953.1	1015885	12.32	-1.425999	744442.7	1015878	12.502	-.621
744963.1	1015885	11.954	-1.296	744452.7	1015878	12.258	-.87
744973.1	1015886	12.076	-1.536999	744462.7	1015879	12.228	-.905
744983	1015886	11.832	-1.506999	744472.7	1015879	12.106	-.628
744993	1015887	11.984	-1.506999	744482.7	1015880	12.166	-.703
745003	1015887	12.166	-1.421	744492.6	1015880	12.198	-.782
745013	1015888	11.77	-1.572999	744502.6	1015881	12.32	-.712
745022.9	1015888	11.648	-1.513	744512.6	1015882	12.594	-.922
745032.9	1015889	11.708	-1.68	744522.6	1015882	12.808	-.81
745042.9	1015889	11.984	-1.322	744532.6	1015883	13.296	-.832
745052.9	1015890	11.648	-1.665	744542.6	1015883	13.144	-.788
745062.9	1015890	11.954	-1.502	744552.6	1015884	14.15	-.876
745072.9	1015891	12.442	-1.437	744562.6	1015884	14.638	-.733
745082.9	1015891	12.198	-1.41	744572.6	1015885	14.974	-.817
745092.9	1015892	12.778	-1.044	744582.5	1015885	14.882	-.593
745102.9	1015892	12.716	-1.388	744592.5	1015886	14.15	-.841
745112.8	1015893	13.022	-1.269999	744602.5	1015886	13.936	-.784
745122.8	1015893	13.174	-1.344	744612.5	1015887	13.57	-.679
745132.8	1015894	12.99	-1.322999	744622.4	1015887	13.906	-.828
745142.8	1015895	12.716	-1.381999	744632.4	1015888	13.234	-.878
745152.8	1015895	13.54	-1.281	744642.4	1015888	14.058	-.749
745162.8	1015896	13.418	-1.253999	744652.4	1015889	14.822	-.74
745172.8	1015896	13.998	-1.318	744662.4	1015889	14.548	-.801
745182.8	1015897	14.212	-1.131	744672.4	1015890	13.936	-.797
745192.8	1015897	15.402	-1.318	744682.4	1015890	13.906	-.793
745202.7	1015898	18.332	-1.197	744692.4	1015891	12.868	-.891
745212.7	1015898	13.846	-.534	744702.4	1015891	13.204	-.916
line	1700			744712.3	1015892	13.022	-.863
744262.9	1015868	12.594	-.793	744722.3	1015892	12.93	-1.325
744272.9	1015869	12.624	-.799	744732.3	1015893	12.502	-1.315999
744282.9	1015869	12.564	-.885	744742.3	1015894	12.076	-1.493
744292.9	1015870	12.594	-.87	744752.3	1015894	12.044	-1.300999
744302.9	1015871	12.654	-.657	744762.3	1015895	11.954	-1.138

Easting Northing Conduct. In-Phase

line	1720		
744261.9	1015888	12.778	-1.330999
744271.9	1015889	12.472	-1.308999
744281.9	1015889	12.41	-1.247998
744291.9	1015890	12.258	-1.326998
744301.9	1015890	12.198	-1.297999
744311.8	1015891	11.922	-1.393999
744321.8	1015892	12.532	-1.080999
744331.8	1015892	12.442	-1.225998
744341.8	1015893	12.564	-1.196999
744351.8	1015893	12.472	-1.257998
744361.8	1015894	12.654	-1.246999
744371.8	1015894	12.502	-1.284999
744381.8	1015895	12.41	-1.130999
744391.8	1015895	12.38	-1.200999
744401.8	1015896	12.624	-1.159999
744411.7	1015896	12.654	-1.380999
744421.7	1015897	12.93	-1.337999
744431.7	1015897	12.014	-1.396999
744441.7	1015898	12.106	-.771
744451.6	1015898	12.35	-1.196999
744461.6	1015899	11.922	-1.106999
744471.6	1015899	11.922	-1.181998
744481.6	1015900	12.106	-1.178998
744491.6	1015900	12.014	-1.286998
744501.6	1015901	11.832	-1.416998
744511.6	1015901	12.288	-1.277999
744521.6	1015902	12.594	-1.211998
744531.6	1015903	12.502	-1.223999
744541.5	1015903	13.204	-1.071999
744551.5	1015904	13.356	-1.125
744561.5	1015904	14.67	-1.255999
744571.5	1015905	14.974	-.997999
744581.5	1015905	14.364	-1.269999
744591.4	1015906	14.638	-1.084999
744601.4	1015906	13.968	-1.086998
744611.4	1015907	13.632	-1.229999
744621.4	1015907	13.112	-1.214998
744631.4	1015908	13.234	-1.176999
744641.4	1015908	13.784	-1.132998
744651.4	1015909	13.846	-1.336998
744661.4	1015909	13.876	-1.167999
744671.4	1015910	13.754	-1.128998
744681.3	1015910	13.54	-1.255999
744691.3	1015911	13.052	-1.196999
744701.3	1015911	12.99	-1.144999

Easting Northing Conduct. In-Phase

744711.3	1015912	13.356	-1.266999
744721.3	1015912	13.022	-.957999
744731.3	1015913	12.778	-1.146999
744741.3	1015914	12.502	-1.179998
744751.3	1015914	12.228	-1.207998
744761.3	1015915	11.984	-1.273998
744771.2	1015915	11.954	-1.095999
744781.2	1015916	11.862	-1.178998
744791.2	1015916	12.594	-1.104999
744801.2	1015917	11.434	-1.251999
744811.2	1015917	11.434	-1.389999
744821.1	1015918	11.832	-1.334999
744831.1	1015918	12.228	-1.292999
744841.1	1015919	12.624	-1.247998
744851.1	1015919	12.93	-1.207998
744861.1	1015920	12.502	-1.214998
744871.1	1015920	12.41	-1.235999
744881.1	1015921	12.198	-1.266999
744891.1	1015921	11.984	-1.273998
744901.1	1015922	12.198	-1.310999
744911	1015922	12.106	-1.214998
744921	1015923	11.984	-1.404999
744931	1015923	12.136	-1.263
744941	1015924	11.922	-1.260998
744950.9	1015925	11.984	-1.325999
744960.9	1015925	11.832	-1.282999
744970.9	1015926	11.404	-1.347999
744980.9	1015926	11.496	-1.325999
744990.9	1015927	11.74	-1.233999
745000.9	1015927	11.526	-1.209999
745010.9	1015928	11.068	-1.367999
745020.9	1015928	11.16	-1.223999
745030.9	1015929	11.282	-1.225998
745040.8	1015929	11.526	-1.246999
745050.8	1015930	11.464	-1.269999
745060.8	1015930	11.648	-1.225998
745070.8	1015931	11.708	-1.220999
745080.8	1015931	11.954	-1.181998
745090.8	1015932	12.442	-1.082998
745100.8	1015932	12.93	-1.161998
745110.8	1015933	13.112	-1.181998
745120.8	1015933	13.662	-1.088999
745130.8	1015934	13.478	-1.005999
745140.7	1015934	13.326	-1.088999
745150.7	1015935	13.234	-1.082998
745160.7	1015935	13.846	-1.016999

Eastings	Northing	Conduct.	In-Phase	Eastings	Northing	Conduct.	In-Phase
745119.7	1015953	13.266	-1.338	744609.3	1015947	13.122	-1.065
745129.7	1015954	13.144	-1.274	744619.3	1015947	13	-1.043
745139.7	1015954	13.296	-1.263	744629.3	1015948	12.878	-1.043
745149.6	1015955	13.632	-1.272	744639.3	1015948	12.908	-.937
745159.6	1015955	13.936	-1.265	744649.3	1015949	13.458	-.6
745169.6	1015956	14.486	-1.167	744659.3	1015949	12.786	-1.179
745179.6	1015957	15.432	-1.197999	744669.3	1015950	12.818	-.94
745189.6	1015957	16.562	-1.016999	744679.3	1015950	12.664	-.997
745199.6	1015958	14.242	-.43	744689.3	1015951	12.42	-.995
745209.6	1015958	21.384	-.789	744699.2	1015951	12.452	-.96
line	1760			744709.2	1015952	12.482	-1.003
744259.8	1015928	11.474	-1.168	744719.2	1015952	12.146	-1.041
744269.8	1015929	11.81	-1.098	744729.2	1015953	12.208	-1.122
744279.8	1015929	11.78	-1.047	744739.2	1015953	12.33	-.951
744289.8	1015930	11.872	-.973	744749.1	1015954	12.054	-.986
744299.8	1015930	11.658	-.979	744759.1	1015955	11.84	-1.051
744309.8	1015931	11.628	-1.074	744769.1	1015955	12.146	-.898
744319.8	1015931	11.81	-1.095	744779.1	1015956	12.42	-1.115
744329.8	1015932	11.596	-1.016	744789.1	1015956	12.452	-1.104
744339.7	1015933	11.962	-.931	744799.1	1015957	11.444	-1.157
744349.7	1015933	12.024	-.944	744809.1	1015957	11.84	-1.174
744359.7	1015934	11.994	-1.076	744819.1	1015958	12.36	-1.074
744369.7	1015934	11.872	-1.15	744829.1	1015958	12.664	-1.131
744379.6	1015935	12.024	-1.056	744839	1015959	12.512	-1.074
744389.6	1015935	11.902	-1.036	744849	1015959	12.482	-1.019
744399.6	1015936	11.872	-1.049	744859	1015960	11.994	-1.232
744409.6	1015936	11.962	-.927	744869	1015960	11.932	-1.15
744419.6	1015937	11.81	-1.093	744878.9	1015961	11.994	-1.082
744429.6	1015937	11.994	-1.071	744888.9	1015961	11.932	-1.032
744439.6	1015938	12.084	-1.091	744898.9	1015962	11.932	-1.017
744449.6	1015938	12.116	-1.091	744908.9	1015962	11.872	-1.071
744459.6	1015939	11.902	-1.019	744918.9	1015963	11.81	-1.216
744469.5	1015939	11.902	-1.005	744928.9	1015963	11.78	-1.106
744479.5	1015940	12.238	-1.052	744938.9	1015964	11.902	-1.027
744489.5	1015940	12.116	-.982	744948.9	1015964	11.596	-1.073
744499.5	1015941	12.054	-1.056	744958.9	1015965	11.444	-1.157
744509.5	1015941	12.42	-1.073	744968.9	1015965	11.108	-1.185
744519.4	1015942	12.604	-1.119	744978.8	1015966	11.2	-.986
744529.4	1015942	12.39	-1.032	744988.8	1015967	11.26	-1.01
744539.4	1015943	12.818	-1.023	744998.8	1015967	10.956	-1.126
744549.4	1015944	13.184	-.981	745008.8	1015968	10.772	-1.148
744559.4	1015944	13.306	-1.058	745018.8	1015968	10.986	-1.113
744569.4	1015945	13.428	-1.062	745028.8	1015969	11.108	-1.087
744579.4	1015945	13.58	-1.028	745038.8	1015969	11.2	-.938
744589.4	1015946	13.398	-.994	745048.8	1015970	10.986	-1.041
744599.4	1015946	13.154	-1.01	745058.8	1015970	11.078	-.995

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
745017.8	1015988	11.292	-1.157	744507.4	1015981	13.946	-1.251
745027.7	1015989	11.26	-1.087	744517.4	1015982	14.496	-1.148
745037.7	1015989	11.26	-1.104	744527.4	1015982	14.19	-1.201
745047.7	1015990	11.292	-1.073	744537.3	1015983	14.77	-1.249
745057.7	1015990	11.536	-1.148	744547.3	1015983	14.344	-1.255
745067.7	1015991	11.414	-1.01	744557.3	1015984	13.732	-1.236
745077.6	1015991	11.352	-1.014	744567.3	1015985	13.886	-1.24
745087.6	1015992	11.81	-1.085	744577.3	1015985	13.732	-1.192
745097.6	1015992	11.84	-1.063	744587.3	1015986	14.312	-1.176
745107.6	1015993	12.238	-1.045	744597.3	1015986	14.068	-1.109
745117.6	1015993	12.208	-1.056	744607.3	1015987	14.038	-1.188
745127.6	1015994	12.696	-.984	744617.3	1015987	13.458	-1.157
745137.6	1015994	12.542	-.96	744627.2	1015988	13.244	-1.091
745147.6	1015995	13.062	-.924	744637.2	1015988	13.366	-1.109
745157.6	1015995	13.398	-.909	744647.2	1015989	13.122	-1.144
745167.5	1015996	14.16	-.784	744657.2	1015989	12.634	-1.194
745177.5	1015996	16.632	-.894	744667.2	1015990	12.634	-1.218
745187.5	1015997	14.1	-.36	744677.1	1015990	12.482	-1.095
745197.5	1015998	18.952	-.295	744687.1	1015991	12.268	-1.231
745207.5	1015998	23.01	-.137	744697.1	1015991	12.42	-1.137
line	1800			744707.1	1015992	12.696	-1.163
744257.8	1015968	12.726	-1.311	744717.1	1015992	12.696	-1.186
744267.7	1015969	12.42	-1.335	744727.1	1015993	12.482	-1.111
744277.7	1015969	12.146	-1.231	744737.1	1015993	12.726	-1.028
744287.7	1015970	12.39	-1.216	744747.1	1015994	12.512	-1.22
744297.7	1015970	12.238	-1.251	744757.1	1015994	12.97	-1.128
744307.6	1015971	12.36	-1.225	744767	1015995	12.756	-1.144
744317.6	1015971	12.512	-1.271	744777	1015995	13.336	-1.137
744327.6	1015972	12.42	-1.117	744787	1015996	12.054	-1.209
744337.6	1015972	12.42	-1.236	744797	1015997	11.718	-1.293
744347.6	1015973	12.726	-1.194	744807	1015997	12.39	-1.293
744357.6	1015974	13	-1.188	744816.9	1015998	12.39	-1.089
744367.6	1015974	13.306	-1.227	744826.9	1015998	12.542	-1.234
744377.6	1015975	13.52	-1.255	744836.9	1015999	12.452	-1.229
744387.6	1015975	13.732	-1.139	744846.9	1015999	12.39	-1.277
744397.6	1015976	13.824	-1.039	744856.9	1016000	12.176	-1.273
744407.5	1015976	13.886	-1.231	744866.9	1016000	11.932	-1.218
744417.5	1015977	13.366	-1.163	744876.9	1016001	12.39	-1.253
744427.5	1015977	13.55	-1.139	744886.9	1016001	11.932	-1.141
744437.5	1015978	12.696	-1.192	744896.9	1016002	11.994	-1.304
744447.4	1015978	12.574	-1.264	744906.8	1016002	11.932	-1.223
744457.4	1015979	12.574	-1.128	744916.8	1016003	12.176	-1.232
744467.4	1015979	12.33	-1.302	744926.8	1016003	11.872	-1.238
744477.4	1015980	12.574	-1.304	744936.8	1016004	12.054	-1.26
744487.4	1015980	12.512	-1.207	744946.8	1016004	11.474	-1.341
744497.4	1015981	12.908	-1.265	744956.8	1016005	11.17	-1.319

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
744915.8	1016023	11.902	-1.22	744405.4	1016016	13.488	-1.225
744925.8	1016023	12.146	-1.161	744415.4	1016017	13.764	-1.216
744935.8	1016024	11.688	-1.348	744425.4	1016017	13.732	-1.317
744945.8	1016024	11.2	-1.322	744435.4	1016018	13.61	-1.275
744955.7	1016025	11.506	-1.255	744445.4	1016018	13.336	-1.223
744965.7	1016025	11.108	-1.332	744455.4	1016019	12.878	-1.31
744975.7	1016026	11.17	-1.256	744465.3	1016019	13.214	-1.341
744985.7	1016026	11.352	-1.212	744475.3	1016020	13.336	-1.273
744995.7	1016027	11.444	-1.214	744485.3	1016020	13.794	-1.153
745005.6	1016028	11.384	-1.297	744495.3	1016021	13.732	-1.264
745015.6	1016028	11.84	-1.198	744505.3	1016021	13.794	-1.207
745025.6	1016029	11.23	-1.293	744515.3	1016022	13.61	-1.256
745035.6	1016029	11.932	-1.198	744525.3	1016022	14.312	-1.209
745045.6	1016030	12.116	-1.107	744535.3	1016023	13.854	-1.21
745055.6	1016030	11.962	-1.245	744545.3	1016023	14.008	-1.131
745065.6	1016031	11.75	-1.188	744555.3	1016024	13.672	-1.265
745075.6	1016031	12.024	-1.229	744565.2	1016024	13.794	-1.229
745085.6	1016032	12.33	-1.065	744575.2	1016025	14.466	-1.429
745095.5	1016032	12.024	-1.223	744585.2	1016025	14.068	-1.526
745105.5	1016033	12.208	-1.249	744595.2	1016026	15.258	-1.13
745115.5	1016033	12.482	-1.174	744605.1	1016027	14.802	-0.994
745125.5	1016034	12.482	-1.146	744615.1	1016027	14.678	-1.17
745135.5	1016034	12.726	-1.12	744625.1	1016028	14.648	-1.221
745145.4	1016035	13.672	-1.107	744635.1	1016028	13.978	-1.22
745155.4	1016035	14.892	-1.115	744645.1	1016029	13.978	-1.021
745165.4	1016036	17.028	-1.262	744655.1	1016029	13.488	-1.247
745175.4	1016036	12.786	-0.387	744665.1	1016030	13.854	-1.216
745185.4	1016037	18.982	-0.698	744675.1	1016030	13.52	-1.21
745195.4	1016037	20.874	-0.529	744685.1	1016031	13.58	-1.223
745205.4	1016038	22.98	-0.191	744695	1016031	12.878	-1.258
line	1840			744705	1016032	13.154	-1.243
744255.6	1016008	13.824	-1.324	744715	1016032	13.214	-1.265
744265.6	1016009	14.16	-1.332	744725	1016033	12.512	-1.258
744275.6	1016009	14.618	-1.348	744735	1016033	13.062	-1.194
744285.6	1016010	14.13	-1.273	744744.9	1016034	12.818	-1.194
744295.6	1016010	14.068	-1.258	744754.9	1016034	12.818	-1.242
744305.6	1016011	13.672	-1.243	744764.9	1016035	12.634	-1.201
744315.6	1016011	14.19	-1.291	744774.9	1016035	13.184	-1.119
744325.6	1016012	14.312	-1.24	744784.9	1016036	12.116	-1.238
744335.5	1016012	14.1	-1.28	744794.9	1016036	12.116	-1.275
744345.5	1016013	14.008	-1.289	744804.9	1016037	12.208	-1.344
744355.5	1016013	14.038	-1.159	744814.9	1016038	12.298	-1.179
744365.5	1016014	13.58	-1.269	744824.9	1016038	12.452	-1.332
744375.4	1016015	13.764	-1.383	744834.8	1016039	12.42	-1.251
744385.4	1016015	13.794	-1.295	744844.8	1016039	12.36	-1.288
744395.4	1016016	13.55	-1.363	744854.8	1016040	12.664	-1.328

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
744833.8	1016059	12.512	-1.231	744353.4	1016053	14.282	-1.28
744843.8	1016059	12.634	-1.335	744363.4	1016054	14.13	-1.275
744853.8	1016060	12.39	-1.407	744373.4	1016054	13.824	-1.284
744863.8	1016060	12.604	-1.324	744383.4	1016055	14.13	-1.201
744873.8	1016061	13.122	-1.269	744393.4	1016055	14.252	-1.273
744883.8	1016061	12.634	-1.185	744403.3	1016056	14.252	-1.216
744893.7	1016062	12.726	-1.249	744413.3	1016057	13.854	-1.245
744903.7	1016062	12.664	-1.289	744423.3	1016057	14.374	-1.284
744913.7	1016063	13.306	-1.234	744433.3	1016058	14.648	-1.231
744923.7	1016063	12.208	-1.28	744443.3	1016058	14.222	-1.183
744933.6	1016064	12.238	-1.282	744453.3	1016059	13.916	-1.308
744943.6	1016064	11.75	-1.284	744463.3	1016059	14.252	-1.337
744953.6	1016065	11.78	-1.256	744473.3	1016060	14.038	-1.238
744963.6	1016065	11.566	-1.311	744483.3	1016060	14.13	-1.341
744973.6	1016066	11.414	-1.31	744493.2	1016061	14.678	-1.205
744983.6	1016066	11.718	-1.269	744503.2	1016061	13.946	-1.348
744993.6	1016067	11.688	-1.289	744513.2	1016062	14.404	-1.258
745003.6	1016067	11.902	-1.26	744523.2	1016062	13.916	-1.284
745013.6	1016068	12.116	-1.284	744533.1	1016063	13.978	-1.269
745023.5	1016068	12.146	-1.255	744543.1	1016063	13.672	-1.3
745033.5	1016069	12.42	-1.232	744553.1	1016064	13.854	-1.324
745043.5	1016070	12.726	-1.231	744563.1	1016064	13.916	-1.328
745053.5	1016070	12.512	-1.278	744573.1	1016065	14.038	-1.269
745063.5	1016071	12.512	-1.21	744583.1	1016065	14.434	-1.231
745073.4	1016071	12.786	-1.229	744593.1	1016066	15.136	-1.227
745083.4	1016072	13.214	-1.183	744603.1	1016066	15.35	-1.181
745093.4	1016072	13.458	-1.245	744613.1	1016067	15.472	-1.21
745103.4	1016073	14.312	-1.223	744623	1016068	15.35	-1.163
745113.4	1016073	15.228	-1.256	744633	1016068	14.862	-1.295
745123.4	1016074	16.54	-1.295	744643	1016069	15.014	-1.332
745133.4	1016074	12.146	-.799	744653	1016069	15.228	-1.275
745143.4	1016075	18.31	-1.106	744663	1016070	15.258	-1.221
745153.4	1016075	19.348	-.986	744672.9	1016070	14.984	-1.227
745163.3	1016076	21.058	-.665	744682.9	1016071	14.74	-1.131
745173.3	1016076	22.766	-.433	744692.9	1016071	14.252	-1.255
line	1880			744702.9	1016072	14.068	-1.354
744253.6	1016048	15.564	-1.185	744712.9	1016072	14.282	-1.286
744263.5	1016049	15.38	-1.174	744722.9	1016073	14.404	-1.155
744273.5	1016049	15.9	-1.179	744732.9	1016073	14.374	-1.288
744283.5	1016050	16.082	-1.104	744742.9	1016074	14.068	-1.198
744293.5	1016050	15.838	-1.157	744752.9	1016074	13.58	-1.289
744303.5	1016051	14.678	-1.297	744762.8	1016075	13.58	-1.249
744313.4	1016051	14.71	-1.161	744772.8	1016075	13.488	-1.249
744323.4	1016052	14.16	-1.24	744782.8	1016076	13.062	-1.359
744333.4	1016052	14.344	-1.253	744792.8	1016076	12.94	-1.28
744343.4	1016053	14.374	-1.161	744802.8	1016077	12.878	-1.324

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
LINE 1020	SEAD-12B			743370.4	1015928	14.832	-0.663
743740.9	1015927	12.574	-0.828	743380.4	1015928	14.466	-0.608
743730.9	1015927	12.512	-0.549	743390.4	1015929	14.526	-0.621
743721	1015926	12.360	-0.720	743400.4	1015929	14.802	-0.600
743711	1015926	12.452	-0.694	743410.4	1015930	14.802	-0.641
743701	1015925	12.176	-0.689	743420.3	1015930	14.954	-0.617
743691	1015925	11.750	-0.766	743430.3	1015931	14.740	-0.667
743681	1015924	11.810	-0.711	743440.3	1015931	14.496	-0.707
743671.1	1015923	11.780	-0.716	743450.3	1015932	14.252	-0.639
743661.1	1015923	11.566	-0.731	743460.3	1015932	14.130	-0.672
743651.1	1015922	11.872	-0.757	743470.3	1015933	14.038	-0.641
743641.1	1015922	11.902	-0.679	743480.3	1015933	13.886	-0.677
743631.1	1015921	12.054	-0.621	743490.3	1015934	13.886	-0.707
743621.1	1015921	12.664	-0.718	743500.3	1015935	14.038	-0.554
743611.1	1015920	13.610	-0.586	743510.2	1015935	14.312	-0.575
743601.1	1015920	13.978	-0.464	743520.2	1015936	14.190	-0.709
743591.1	1015919	15.046	-0.106	743530.2	1015936	14.282	-0.655
743581.2	1015919	14.954	2.344	743540.2	1015937	14.222	-0.690
743571.2	1015918	15.168	4.040	743550.2	1015937	14.038	-0.635
743561.2	1015918	15.046	0.626	743560.1	1015938	14.344	-0.569
743551.2	1015917	14.222	-0.308	743570.1	1015938	14.770	-0.014
743541.3	1015917	14.282	-0.518	743580.1	1015939	15.228	-0.058
743531.3	1015916	14.130	-0.626	743590.1	1015939	14.496	-0.365
743521.3	1015916	13.886	-0.707	743600.1	1015940	13.854	-0.615
743511.3	1015915	14.160	-0.553	743610.1	1015940	13.488	-0.718
743501.3	1015915	13.610	-0.659	743620.1	1015941	13.184	-0.622
743491.3	1015914	13.916	-0.573	743630.1	1015941	12.664	-0.689
743481.3	1015914	13.732	-0.677	743640.1	1015942	12.330	-0.657
743471.3	1015913	13.824	-0.597	743650	1015942	11.840	-0.784
743461.3	1015912	13.854	-0.604	743660	1015943	11.718	-0.729
743451.4	1015912	14.068	-0.578	743670	1015943	11.718	-0.768
743441.4	1015911	14.130	-0.593	743680	1015944	11.810	-0.775
743431.4	1015911	14.588	-0.622	743690	1015944	11.506	-0.907
743421.4	1015910	14.434	-0.529	743699.9	1015945	11.750	-1.056
743411.4	1015910	14.648	-0.542	743709.9	1015946	12.208	-0.707
743401.4	1015909	14.496	-0.501	743719.9	1015946	12.330	-0.788
743391.4	1015909	14.556	-0.598	743729.9	1015947	12.360	-0.771
743381.4	1015908	14.648	-0.644	743739.9	1015947	12.482	-0.891
743371.4	1015908	14.496	-0.576	LINE 1060			
743361.4	1015907	14.954	-0.509	743738.9	1015967	12.482	-0.946
743351.5	1015907	15.014	-0.463	743728.9	1015967	12.420	-0.735
743341.5	1015906	14.924	-0.519	743718.9	1015966	12.268	-0.545
LINE 1040				743708.9	1015965	12.176	-0.821
743340.4	1015926	14.282	-0.824	743698.9	1015965	12.360	-0.799
743350.4	1015927	14.466	-0.621	743688.9	1015964	12.176	-0.861
743360.4	1015927	14.802	-0.591	743678.9	1015964	12.116	-0.600

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
743586.9	1015999	11.932	-0.780	743526	1016016	14.068	-0.764
743577	1015999	11.902	-0.836	743536	1016017	13.642	-0.771
743567	1015998	11.994	-0.769	743546	1016017	13.520	-0.475
743557	1015998	12.268	-0.801	743555.9	1016018	12.908	-1.008
743547	1015997	12.604	-0.622	743565.9	1016018	11.840	-1.651
743537.1	1015997	12.878	-0.861	743575.9	1016019	12.878	-0.692
743527.1	1015996	13.610	-0.683	743585.9	1016019	12.420	-0.804
743517.1	1015995	13.398	-0.758	743595.9	1016020	12.512	-0.610
743507.1	1015995	13.794	-0.806	743605.9	1016020	12.604	-0.617
743497.1	1015994	14.068	-0.768	743615.9	1016021	12.482	-0.736
743487.1	1015994	14.130	-0.725	743625.9	1016021	12.634	-0.672
743477.1	1015993	14.344	-0.698	743635.9	1016022	12.664	-0.692
743467.1	1015993	14.466	-0.780	743645.8	1016022	13.550	-0.652
743457.1	1015992	14.374	-0.628	743655.8	1016023	13.244	-0.679
743447.2	1015992	14.344	-0.885	743665.8	1016023	12.940	-0.698
743437.2	1015991	14.374	-0.870	743675.8	1016024	12.482	-0.558
743427.2	1015991	14.404	-0.826	743685.8	1016024	13.428	-0.630
743417.2	1015990	14.466	-0.859	743695.8	1016025	13.580	-0.738
743407.2	1015990	14.374	-0.582	743705.8	1016025	13.854	-0.681
743397.3	1015989	14.466	-0.742	743715.8	1016026	13.824	-0.729
743387.3	1015989	14.312	-0.979	743725.8	1016026	13.580	-0.698
743377.3	1015988	14.344	-0.683	743735.7	1016027	13.550	-0.819
743367.3	1015988	14.496	-0.782	LINE 1140			
743357.3	1015987	13.978	-0.727	743734.7	1016047	15.960	-0.729
743347.3	1015987	14.526	-0.677	743724.7	1016046	16.082	-0.519
743337.3	1015986	14.434	-0.683	743714.7	1016046	15.778	-0.527
LINE 1120				743704.7	1016045	16.114	-0.510
743336.3	1016006	15.290	-0.784	743694.8	1016045	16.052	-0.565
743346.3	1016007	15.564	-0.518	743684.8	1016044	15.748	-0.475
743356.3	1016007	15.198	-0.584	743674.8	1016044	16.022	-0.236
743366.3	1016008	15.014	-0.683	743664.8	1016043	16.572	-0.576
743376.2	1016008	14.678	-0.714	743654.8	1016043	16.204	-0.463
743386.2	1016009	14.892	-0.747	743644.8	1016042	16.052	-0.448
743396.2	1016009	14.954	-0.578	743634.8	1016042	15.350	-0.453
743406.2	1016010	14.588	-0.834	743624.8	1016041	15.228	-0.554
743416.1	1016010	14.710	-0.698	743614.8	1016041	15.014	-0.389
743426.1	1016011	14.984	-0.657	743604.9	1016040	14.802	-0.457
743436.1	1016011	15.046	-0.757	743594.9	1016040	14.832	-0.450
743446.1	1016012	14.770	-0.720	743584.9	1016039	14.770	-0.521
743456.1	1016012	14.924	-0.685	743574.9	1016039	14.678	-0.488
743466.1	1016013	15.106	-0.648	743564.9	1016038	14.832	-0.510
743476.1	1016013	15.106	-0.758	743554.9	1016038	15.686	-0.497
743486.1	1016014	15.106	-0.650	743544.9	1016037	15.900	-0.402
743496.1	1016014	14.802	-0.740	743534.9	1016036	15.778	-0.488
743506	1016015	14.222	-0.725	743524.9	1016036	16.204	-0.437
743516	1016015	13.978	-0.676	743514.9	1016035	16.510	-0.488



Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
743677.9	1015794	19.196	0.672	743614.8	1015850	-19.714	-5.315
743677.3	1015804	18.036	0.077	743615.3	1015840	89.630	11.394
743676.8	1015814	14.556	-0.420	743615.8	1015830	120.362	12.795
743676.3	1015824	16.204	-0.470	743616.4	1015820	89.416	26.597
743675.8	1015834	15.502	-0.602	LINE 1200			
743675.3	1015844	15.380	-0.797	743595.3	1015839	126.892	16.696
743674.7	1015854	15.350	-0.784	743594.8	1015849	-2.656	-2.991
743674.2	1015864	14.374	-0.916	743594.3	1015859	-1.526	-2.114
743673.7	1015874	14.160	-0.935	743593.8	1015869	23.926	-0.641
743673.1	1015884	13.732	-0.926	743593.3	1015879	18.982	-0.668
743672.6	1015893	13.764	-0.900	743592.8	1015889	17.212	-0.786
743672.1	1015903	13.458	-0.986	743592.2	1015899	16.846	-0.762
LINE 1260				LINE 1180			
743652.1	1015902	13.336	-1.236	743572.3	1015898	16.632	-0.916
743652.6	1015892	13.702	-0.940	743572.8	1015888	16.296	-2.489
743653.2	1015882	14.434	-0.836	743573.3	1015878	16.448	-0.856
743653.7	1015872	15.686	-0.742	743573.8	1015868	18.646	-0.633
743654.2	1015862	17.974	-0.672	743574.3	1015858	17.974	-0.553
743654.8	1015853	16.388	-0.924	743574.9	1015848	17.028	-0.176
743655.3	1015843	11.932	-0.470	743575.4	1015838	24.262	2.506
743655.8	1015833	4.548	-0.677	743575.9	1015828	46.508	17.038
743656.3	1015823	4.364	-0.733	743576.4	1015818	260.162	43.874
743656.8	1015813	12.726	0.226	LINE 1160			
743657.4	1015803	18.494	0.529	743556.4	1015817	53.650	20.671
743657.9	1015793	20.416	0.641	743555.9	1015827	29.602	7.342
743658.4	1015783	23.530	2.052	743555.4	1015837	20.782	1.356
LINE 1240				743554.9	1015847	20.752	-0.075
743638.4	1015782	37.506	4.933	743554.4	1015857	19.074	-0.538
743637.9	1015792	37.902	3.741	743553.8	1015867	18.738	-0.598
743637.4	1015802	31.952	2.873	743553.3	1015877	17.548	-0.836
743636.9	1015812	33.966	2.963	743552.8	1015887	17.182	-0.775
743636.3	1015822	44.678	3.573	743552.3	1015897	15.656	-1.087
743635.8	1015831	63.446	5.053				
743635.3	1015841	103.576	8.489				
743634.8	1015851	-13.244	-3.662				
743634.3	1015861	32.318	0.426				
743633.7	1015871	21.576	-0.452				
743633.2	1015881	17.182	-0.810				
743632.7	1015891	15.564	-0.935				
743632.1	1015901	14.222	-1.181				
LINE 1220							
743612.2	1015900	15.442	-1.152				
743612.7	1015890	15.930	-0.955				
743613.3	1015880	16.876	-0.804				
743613.8	1015870	19.776	-0.521				
743614.3	1015860	29.206	0.518				

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
754306.9	987362.6	15.87	.867	754110	987309.5	44.342	17.815
754316.9	987363.2	15.838	1.016	754120	987310.2	33.05	14.352
754326.9	987363.8	15.716	1.231	754129.9	987310.8	20.996	4.303
754336.9	987364.5	15.564	1.33	754139.9	987311.5	18.464	1.67
754346.9	987365.1	14.404	1.095	754149.9	987312.1	17.364	1.455
754356.9	987365.8	13.824	.927	754159.9	987312.8	16.998	.7
754366.8	987366.4	13.488	1.438	754169.9	987313.4	16.326	1.335
754376.8	987367.1	13.428	1.052	754179.9	987314.1	15.686	1.33
754386.8	987367.8	13.214	.83	754189.8	987314.8	15.502	1.31
754396.8	987368.4	12.94	.531	754199.8	987315.4	15.442	1.087
754406.8	987369.1	12.696	.264	754209.8	987316.1	15.624	1.014
line	940			754219.8	987316.8	15.808	.468
754138.6	987331.4	53.65	30.163	754229.8	987317.4	16.204	.542
754148.6	987332.1	25.756	9.223	754239.8	987318.1	15.96	.606
754158.6	987332.8	17.67	2.554	754249.7	987318.7	16.144	1.001
754168.6	987333.4	18.372	5.499	754259.7	987319.3	16.052	1.376
754178.6	987334.1	17.15	5.223	754269.7	987320	16.48	1.356
754188.5	987334.7	16.846	2.724	754279.6	987320.6	16.418	1.284
754198.5	987335.4	16.236	1.747	754289.6	987321.3	16.236	.654
754208.5	987336	16.358	1.21	754299.6	987321.9	15.594	1.212
754218.4	987336.7	16.144	1.357	754309.6	987322.6	14.434	.731
754228.4	987337.3	16.052	1.411	754319.6	987323.3	13.916	1.056
754238.4	987338	15.9	1.308	754329.6	987323.9	14.374	.859
754248.4	987338.6	16.052	.848	754339.5	987324.6	14.19	1.431
754258.4	987339.3	16.326	1.021	754349.5	987325.3	13.794	.775
754268.4	987339.9	15.96	1.076	754359.5	987325.9	13.764	.865
754278.3	987340.6	16.144	1.4	754369.4	987326.6	13.52	.92
754288.3	987341.3	15.502	1.016	754379.4	987327.2	13	1.313
754298.3	987341.9	15.778	1.201	754389.4	987327.9	12.878	.775
754308.3	987342.6	16.204	.819	754399.4	987328.5	12.878	.549
754318.3	987343.3	16.296	1.049	754409.4	987329.2	12.634	.398
754328.3	987343.9	16.144	.854	line	900		
754338.2	987344.6	14.648	.689	754061.4	987286.3	-26.124	-1.78
754348.2	987345.2	14.008	1.299	754071.4	987286.9	18.616	-.203
754358.2	987345.9	14.16	1.392	754081.4	987287.6	50.416	3.729
754368.1	987346.5	13.824	.918	754091.4	987288.3	28.656	2.219
754378.1	987347.2	13.672	1.55	754101.3	987288.9	22.918	1.649
754388.1	987347.8	13.276	1.319	754111.3	987289.6	21.118	1.284
754398.1	987348.4	13.032	1.295	754121.3	987290.3	19.622	2.862
754408.1	987349.1	12.542	1.232	754131.3	987290.9	19.44	2.59
line	920			754141.3	987291.5	17.822	1.326
754060.1	987306.3	108.306	17.312	754151.3	987292.2	17.792	.878
754070.1	987306.9	182.22	33.926	754161.2	987292.8	17.12	.672
754080.1	987307.6	37.568	23.502	754171.2	987293.5	15.808	1.602
754090.1	987308.2	83.924	26.413	754181.2	987294.1	15.258	1.613
754100	987308.9	57.19	22.688	754191.1	987294.8	15.838	1.014

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
754383.4	987267.3	13.244	.779	754106.6	987209.1	15.93	.872
754393.3	987268	13.122	.582	754116.6	987209.8	15.716	.576
754403.3	987268.6	13.032	.685	754126.6	987210.4	15.992	1.096
754413.3	987269.3	13.306	.902	754136.5	987211.1	16.114	1.55
line	840			754146.5	987211.7	15.838	1.251
754065.4	987226.4	16.296	1.304	754156.5	987212.4	15.32	.753
754075.3	987227.1	16.906	1.359	754166.4	987213	14.74	1.352
754085.3	987227.8	16.906	.791	754176.4	987213.7	13.946	.788
754095.3	987228.4	16.754	1.613	754186.4	987214.3	14.832	.716
754105.3	987229.1	16.082	1.686	754196.4	987215	16.052	.955
754115.3	987229.7	16.296	1.526	754206.4	987215.6	15.014	1.299
754125.3	987230.4	16.51	1.383	754216.3	987216.3	14.312	1.104
754135.2	987231	16.448	.911	754226.3	987216.9	13.702	.196
754145.2	987231.7	16.448	.994	754236.3	987217.6	13.916	1.22
754155.2	987232.3	15.594	.973	754246.3	987218.3	14.13	1.243
754165.1	987232.9	14.984	.791	754256.3	987218.9	14.19	1.479
754175.1	987233.6	13.52	.259	754266.3	987219.6	14.222	1.462
754185.1	987234.3	13.794	.453	754276.2	987220.2	14.16	.893
754195.1	987234.9	14.74	.836	754286.2	987220.9	14.344	1.282
754205.1	987235.6	14.74	.847	754296.2	987221.5	14.344	1.55
754215.1	987236.3	14.526	.635	754306.1	987222.2	14.556	1.262
754225	987236.9	13.794	.722	754316.1	987222.8	14.71	1.065
754235	987237.6	13.61	.766	754326.1	987223.5	14.222	.406
754244.9	987238.2	13.672	1.113	754336.1	987224.1	14.19	1.394
754254.9	987238.9	13.58	.503	754346.1	987224.8	14.19	.667
754264.9	987239.5	13.458	.878	754356.1	987225.4	13.978	.558
754274.9	987240.2	14.008	.659	754366	987226.1	14.068	.571
754284.9	987240.8	14.1	.488	754376	987226.8	13.978	1.657
754294.9	987241.5	14.404	.992	754386	987227.4	13.672	.79
754304.8	987242.1	14.282	1.166	754395.9	987228.1	13.488	1.387
754314.8	987242.8	13.732	.519	754405.9	987228.8	13.214	.834
754324.8	987243.4	14.252	.979	754415.9	987229.4	13.244	.999
754334.8	987244.1	14.222	1.238	line	800		
754344.8	987244.8	13.824	1.036	754068	987186.5	14.16	.929
754354.8	987245.4	13.916	.475	754077.9	987187.2	15.87	1.242
754364.7	987246.1	13.642	1.376	754087.9	987187.8	15.93	1.56
754374.7	987246.7	13.458	1.087	754097.9	987188.5	15.656	1.256
754384.7	987247.4	13.092	1.098	754107.9	987189.1	15.076	1.256
754394.6	987248	13.032	.926	754117.9	987189.8	15.564	1.365
754404.6	987248.7	13.184	1.095	754127.9	987190.4	15.046	1.137
754414.6	987249.3	13	.898	754137.8	987191.1	14.404	1.139
line	820			754147.8	987191.8	14.252	.463
754066.7	987206.4	14.678	.293	754157.8	987192.4	16.204	.496
754076.6	987207.1	15.32	.986	754167.8	987193.1	15.778	.547
754086.6	987207.8	15.808	1.128	754177.8	987193.7	14.77	.567
754096.6	987208.4	16.114	1.411	754187.7	987194.4	13.886	.542

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
754379.9	987166.9	14.16	.905	754103.1	987108.6	15.106	.586
754389.9	987167.6	13.672	1.22	754113.1	987109.3	15.014	.249
754399.9	987168.2	13.55	1.196	754123.1	987109.9	14.74	.466
754409.9	987168.9	13.428	.349	754133.1	987110.6	16.022	7.535
754419.8	987169.5	13.244	.316	754143.1	987111.3	21.454	19.691
line	740			754153.1	987111.9	14.618	6.131
754071.9	987126.6	15.748	2.787	754163	987112.6	13.336	1.155
754081.9	987127.3	17.762	2.59	754173	987113.3	13.092	.714
754091.9	987127.9	17.548	2.122	754183	987113.9	13.122	1.107
754101.8	987128.6	14.222	1.181	754192.9	987114.6	13.154	.611
754111.8	987129.3	14.954	.461	754202.9	987115.2	13.336	.845
754121.8	987129.9	15.198	.927	754212.9	987115.9	14.16	.31
754131.8	987130.6	14.954	.61	754222.9	987116.5	13.764	.277
754141.8	987131.2	13.916	.916	754232.9	987117.1	14.16	.543
754151.8	987131.9	12.818	.334	754242.9	987117.8	14.526	.529
754161.7	987132.5	12.97	.27	754252.8	987118.4	14.13	.358
754171.7	987133.2	13.214	.183	754262.8	987119.1	14.74	.667
754181.7	987133.8	13.366	.415	754272.8	987119.8	14.344	1.144
754191.6	987134.5	13.428	.47	754282.8	987120.4	15.472	.297
754201.6	987135.1	14.252	.738	754292.8	987121.1	18.006	.779
754211.6	987135.8	13.854	.667	754302.7	987121.8	18.372	.106
754221.6	987136.4	14.16	.275	754312.7	987122.4	17.73	.299
754231.6	987137.1	14.71	.562	754322.7	987123.1	16.174	.181
754241.6	987137.8	14.374	.854	754332.6	987123.7	15.014	.156
754251.5	987138.4	14.892	.178	754342.6	987124.4	14.344	.154
754261.5	987139.1	15.076	.413	754352.6	987125	13.794	.016
754271.5	987139.8	14.71	.376	754362.6	987125.7	13.854	.26
754281.4	987140.4	14.924	.233	754372.6	987126.3	13.978	.143
754291.4	987141.1	15.198	.455	754382.6	987127	13.732	.181
754301.4	987141.7	14.954	1.019	754392.5	987127.6	13.366	.257
754311.4	987142.4	15.076	.503	754402.5	987128.3	13.184	.35
754321.4	987143	14.924	.306	754412.5	987128.9	13.336	.885
754331.4	987143.7	14.77	.231	754422.4	987129.6	13.306	.306
754341.3	987144.3	14.282	.244	line	700		
754351.3	987144.9	13.55	.249	754074.5	987086.8	13.488	.439
754361.3	987145.6	13.854	.67	754084.5	987087.4	13.458	.505
754371.3	987146.3	14.068	.463	754094.5	987088	13.61	.464
754381.3	987146.9	13.732	.826	754104.4	987088.7	13.488	.637
754391.2	987147.6	14.068	1.124	754114.4	987089.3	13.366	.444
754401.2	987148.3	13.702	.87	754124.4	987090	12.848	.398
754411.2	987148.9	13.398	.959	754134.4	987090.6	12.848	.11
754421.1	987149.6	13.276	1.089	754144.4	987091.3	13.398	.227
line	720			754154.4	987091.9	14.588	.775
754073.2	987106.7	18.676	3.66	754164.3	987092.6	13.794	.687
754083.2	987107.3	18.25	4.514	754174.3	987093.3	14.19	.47
754093.2	987108	15.198	1.929	754184.3	987093.9	13.702	.31

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
754376.5	987066.4	13.61	.312	754099.7	987008.2	15.656	.325
754386.5	987067.1	14.038	.345	754109.7	987008.9	14.924	.889
754396.4	987067.8	14.556	.909	754119.7	987009.5	14.1	1.056
754406.4	987068.4	14.19	.463	754129.6	987010.2	14.892	.78
754416.4	987069.1	14.344	1.039	754139.6	987010.8	14.19	.091
754426.4	987069.8	13.642	.667	754149.6	987011.5	13.794	1.091
line	640			754159.6	987012.1	13.336	.51
754078.4	987026.9	18.646	2.419	754169.6	987012.8	12.452	1.198
754088.4	987027.5	-9.76	-13.863	754179.6	987013.4	12.848	.268
754098.4	987028.2	-5.584	-15.355	754189.5	987014.1	12.878	.417
754108.4	987028.8	-7.782	-17.418	754199.5	987014.8	12.574	.343
754118.4	987029.4	16.48	1.293	754209.5	987015.4	12.818	.606
754128.3	987030.1	15.076	1.247	754219.4	987016.1	12.634	.49
754138.3	987030.8	14.496	.843	754229.4	987016.7	13.244	.735
754148.3	987031.4	14.13	.464	754239.4	987017.4	13.488	.99
754158.3	987032.1	14.1	.251	754249.4	987018	13.52	.499
754168.3	987032.8	14.222	.727	754259.4	987018.7	13.946	1.398
754178.3	987033.4	13.854	.477	754269.4	987019.3	15.748	4.525
754188.2	987034.1	14.404	1.17	754279.3	987020	15.35	2.219
754198.2	987034.7	13.886	.271	754289.3	987020.6	14.496	.218
754208.2	987035.4	14.344	.35	754299.3	987021.3	14.526	.536
754218.1	987036	14.404	.549	754309.3	987021.9	14.008	.189
754228.1	987036.7	14.312	.995	754319.3	987022.6	14.222	.27
754238.1	987037.3	14.556	1.436	754329.3	987023.3	14.222	1.093
754248.1	987038	14.71	1.591	754339.2	987023.9	13.458	1.062
754258.1	987038.6	14.16	1.176	754349.2	987024.6	14.496	.687
754268.1	987039.3	14.404	.643	754359.2	987025.3	14.404	.455
754278	987039.9	14.282	1.225	754369.1	987025.9	14.618	.509
754288	987040.6	13.824	.268	754379.1	987026.6	14.74	.135
754298	987041.3	14.618	.573	754389.1	987027.2	14.77	.08
754307.9	987041.9	13.854	.407	754399.1	987027.9	14.832	.503
754317.9	987042.6	13.58	.891	754409.1	987028.5	14.954	.17
754327.9	987043.2	13.824	.444	754419	987029.1	14.496	.159
754337.9	987043.9	13.61	1.243	754429	987029.8	14.19	.885
754347.9	987044.5	13.854	.94	line	600		
754357.9	987045.2	13.824	.117	754081.1	986986.9	14.924	1.056
754367.8	987045.8	14.252	.227	754091.1	986987.6	14.984	.654
754377.8	987046.5	13.854	.069	754101	986988.3	15.198	.457
754387.8	987047.1	14.16	.944	754111	986988.9	14.404	1.117
754397.8	987047.8	14.038	.31	754121	986989.6	15.992	.887
754407.8	987048.4	14.008	.442	754130.9	986990.2	15.564	1.306
754417.8	987049.1	13.824	.321	754140.9	986990.9	14.496	.246
754427.7	987049.8	13.946	.156	754150.9	986991.5	14.19	1.045
line	620			754160.9	986992.2	13.642	.87
754079.8	987006.9	14.466	.227	754170.9	986992.8	13.458	.632
754089.8	987007.6	15.014	.413	754180.9	986993.5	13.55	.33

Easting	Northing	Conduct.	In-Phase
754373.1	986966	13.886	.418
754383.1	986966.7	14.404	.238
754393	986967.3	14.526	.621
754403	986968	14.74	.371
754413	986968.6	14.16	.332
754422.9	986969.3	14.466	.308
754432.9	986969.9	14.312	.56
line	1240		
754090.5	986962.4	13.932	1.353
754090	986972.4	14.42	1.204
754089.6	986982.4	14.268	1.143
754089.1	986992.4	14.116	1.154
754088.6	987002.4	15.214	1.357
754088.1	987012.3	14.756	1.272
754087.6	987022.3	14.452	1.013
754087.1	987032.3	16.588	1.362
754086.7	987042.3	15.458	1.608
754086.2	987052.3	14.33	1.077
754085.7	987062.3	14.208	1.38
754085.3	987072.3	13.84	1.498
754084.8	987082.3	13.872	1.285
754084.3	987092.3	13.718	1.366
754083.8	987102.3	14.604	1.627
754083.3	987112.3	16.19	.7919999
754082.9	987122.2	-6.605999	-16.87599
754082.4	987132.2	20.128	4.24
754081.9	987142.2	15.062	1.182
754081.4	987152.2	14.908	1.208
754080.9	987162.2	15.154	1.296
754080.4	987172.2	15.154	1.268
754080	987182.1	15.092	1.526
754079.5	987192.1	15.488	1.298
754079	987202.1	15.428	1.605
754078.6	987212.1	15.672	1.362
754078.1	987222.1	16.038	1.549
754077.6	987232.1	16.556	1.3
754077.1	987242.1	17.748	1.45
754076.6	987252.1	17.87	1.752
754076.2	987262.1	20.036	1.724
754075.7	987272.1	23.148	1.926
754075.2	987282.1	31.602	2.822
754074.8	987292	55.376	4.711
754074.3	987302	-8.741999	3.786
754073.8	987312	-32.24	35.585
line	1220		
754070.5	986961.4	13.384	1.044

Easting	Northing	Conduct.	In-Phase
754070.1	986971.4	13.444	.7909999
754069.6	986981.4	13.78	.7149999
754069.1	986991.4	13.994	.8619999
754068.6	987001.4	13.628	.614
754068.1	987011.4	13.75	.9669999
754067.6	987021.4	16.588	.4539999
754067.2	987031.4	15.58	1.171
754066.7	987041.4	14.298	.8329999
754066.2	987051.3	14.298	.831
754065.8	987061.3	13.536	.7649999
754065.3	987071.3	14.176	.6119999
754064.8	987081.3	13.962	.6619999
754064.3	987091.3	13.016	1.226
754063.8	987101.3	15.672	1.61
754063.4	987111.3	16.984	2.693
754062.9	987121.3	15.58	1.487
754062.4	987131.3	15.276	.7019999
754061.9	987141.3	15.55	.831
754061.4	987151.3	15.154	.8479999
754060.9	987161.2	15.946	.7539999
754060.5	987171.2	15.306	.739
754060	987181.2	14.908	.844
754059.5	987191.2	15.244	1.068
754059.1	987201.2	15.52	.8089999
754058.6	987211.2	15.214	1.029
754058.1	987221.1	15.946	.984
754057.6	987231.1	17.808	.9449999
754057.1	987241.1	19.884	1.026
754056.7	987251.1	26.994	1.092
754056.2	987261.1	31.786	1.515
754055.7	987271.1	-.0439999	.0009999
754055.3	987281.1	21.226	.882
754054.8	987291.1	80.278	7.131
754054.3	987301.1	67.156	8.207
754053.8	987311.1	73.38	11.748
line	1200		
754050.6	986960.5	13.17	.3089999
754050.1	986970.5	13.23	.4469999
754049.6	986980.4	12.834	.6159999
754049.1	986990.4	13.414	.938
754048.6	987000.4	13.536	.9999999
754048.1	987010.4	13.17	.7499999
754047.7	987020.4	13.352	.7649999
754047.2	987030.4	15.794	1.004
754046.7	987040.4	14.33	1.164
754046.3	987050.4	13.81	1.086

Easting Northing Conduct. In-Phase

754005.8	987058.4	13.628	.7359999
754005.3	987068.4	14.054	.3389999
754004.9	987078.4	15.672	.6199999
754004.4	987088.4	15.672	1.298
754003.9	987098.4	15.062	.726
754003.4	987108.4	14.36	.6069999
754002.9	987118.4	14.848	.3859999
754002.4	987128.4	16.252	.4819999
754002	987138.4	22.66	.326
754001.5	987148.4	24.338	.0669999
754001	987158.4	19.06	.7079999
754000.6	987168.3	18.052	.2779999
754000.1	987178.3	16.13	.4599999
753999.6	987188.3	16.832	.739
753999.1	987198.3	19.974	.726
753998.6	987208.3	-5.386	-4.071
753998.2	987218.3	10.82	-1.514
753997.7	987228.3	21.196	1.344
753997.2	987238.3	18.48	1.145
753996.8	987248.3	19.396	1.366
753996.3	987258.3	18.876	1.224
753995.8	987268.3	20.554	1.086
753995.3	987278.2	29.526	1.72
753994.8	987288.2	19.182	.66
753994.3	987298.2	16.16	1.862
753993.9	987308.2	82.23	9.26
753993.4	987318.2	45.244	7.123
753992.9	987328.1	34.806	6.205
753992.4	987338.1	45.03	6.93
753991.9	987348.1	55.924	11.044
753991.5	987358.1	44.266	4.534
753991	987368.1	-25.496	-6.717
753990.5	987378.1	49.79	5.431
753990.1	987388.1	30.016	2.355
753989.6	987398.1	30.594	2.016
753989.1	987408.1	22.478	1.561
753988.6	987418.1	7.218	.9009999
753988.1	987428.1	30.962	1.568
753987.6	987438	25.468	1.38
753987.2	987448	19.608	.8879999
753986.7	987458	18.236	.6819999
753986.2	987468	17.808	.8239999
753985.8	987478	17.656	.4819999
753985.3	987488	16.678	.7409999
753984.8	987497.9	16.648	.897
753984.3	987507.9	16.71	.2909999

Easting Northing Conduct. In-Phase

line	1140		
753988.2	987007.6	15.458	1.241
753987.8	987017.6	16.19	.6769999
753987.3	987027.6	15.916	1.127
753986.8	987037.5	15.336	.78
753986.3	987047.5	15.184	.5149999
753985.8	987057.5	15.458	.7369999
753985.4	987067.5	17.686	.9119999
753984.9	987077.5	16.312	1.48
753984.4	987087.5	15.854	.5459999
753983.9	987097.4	15.58	.1709999
753983.4	987107.4	16.312	.3149999
753982.9	987117.4	16.678	1.044
753982.5	987127.4	17.168	1.035
753982	987137.4	17.564	1.167
753981.5	987147.4	17.564	.7609999
753981.1	987157.4	19.028	1.11
753980.6	987167.4	28.062	1.079
753980.1	987177.4	7.432	-1.427
753979.6	987187.4	-1.325999	-2.059
753979.1	987197.4	21.532	1.004
753978.7	987207.3	17.748	.7279999
753978.2	987217.3	16.74	.818
753977.7	987227.3	18.326	.7019999
753977.3	987237.3	18.388	.9389999
753976.8	987247.3	18.662	.9929999
753976.3	987257.3	20.738	1.169
753975.8	987267.3	27.208	1.989
753975.3	987277.3	31.572	2.263
753974.8	987287.3	-3800001	-1.371999
753974.4	987297.3	-14.17399	-22.45899
753973.9	987307.3	31.938	-10.572
753973.4	987317.2	65.202	10.767
753972.9	987327.2	-33.004	-7.652
753972.4	987337.2	50.646	5.051
753972	987347.2	32.364	2.668
753971.5	987357.2	28.642	1.595
753971	987367.1	29.344	1.548
753970.6	987377.1	6.76	.1529999
753970.1	987387.1	33.83	.8159999
753969.6	987397.1	28.702	.9449999
753969.1	987407.1	21.532	.5899999
753968.6	987417.1	18.938	.5549999
753968.1	987427.1	18.602	.3659999
753967.7	987437.1	18.236	.3089999
753967.2	987447.1	18.052	.4979999

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
753932.5	987335.3	-41.824	-22.394	753915.4	987274.4	18.968	.8839999
753932	987345.3	100.206	23.778	753914.9	987284.4	18.54	1.105
753931.6	987355.3	53.484	14.468	753914.4	987294.4	21.104	1.748
753931.1	987365.3	32.03	4.562	753913.9	987304.4	27.604	2.368
753930.6	987375.3	26.81	2.337	753913.5	987314.3	34.806	4.341
753930.1	987385.3	27.33	1.671	753913	987324.3	43.352	12.654
753929.6	987395.2	22.324	1.48	753912.5	987334.3	152.054	35.256
753929.1	987405.2	8.348	.3989999	line	1060		
753928.7	987415.2	34.624	1.436	753908.3	987003.8	15.61	1.075
753928.2	987425.2	26.476	1.265	753907.8	987013.8	18.144	1.583
753927.7	987435.2	21.898	1.123	753907.4	987023.8	15.642	.9869999
753927.3	987445.1	20.372	.6529999	753906.9	987033.7	15.61	1.577
753926.8	987455.1	19.182	.5439999	753906.4	987043.7	15.244	1.136
753926.3	987465.1	18.326	.5409999	753905.9	987053.7	16.678	1.583
753925.8	987475.1	18.572	.9029999	753905.4	987063.7	18.998	1.423
753925.3	987485.1	17.748	.9139999	753904.9	987073.7	17.93	1.575
753924.9	987495.1	17.838	.55	753904.5	987083.6	16.74	1.283
753924.4	987505.1	17.656	.6339999	753904	987093.6	16.466	1.353
line	1080			753903.5	987103.6	17.014	1.222
753928.3	987004.7	15.488	.4159999	753903.1	987113.6	17.168	1.386
753927.8	987014.7	15.702	1.083	753902.6	987123.6	18.326	1.189
753927.3	987024.7	16.556	.7889999	753902.1	987133.6	18.266	1.496
753926.9	987034.7	17.29	1.165	753901.6	987143.6	17.778	1.228
753926.4	987044.6	15.428	.721	753901.1	987153.6	19.426	1.25
753925.9	987054.6	15.184	1.211	753900.7	987163.6	21.226	1.463
753925.4	987064.6	15.214	.9629999	753900.2	987173.6	20.768	1.605
753924.9	987074.6	15.978	.928	753899.7	987183.6	18.998	1.419
753924.4	987084.6	17.838	1.272	753899.3	987193.5	17.93	1.066
753924	987094.6	17.136	.9599999	753898.8	987203.5	16.832	.3349999
753923.5	987104.6	16.374	.844	753898.3	987213.5	17.228	1.125
753923	987114.6	17.046	.3939999	753897.8	987223.5	16.71	1.2
753922.6	987124.6	16.984	.5329999	753897.3	987233.5	17.106	1.34
753922.1	987134.6	17.838	.7429999	753896.8	987243.4	16.496	1.187
753921.6	987144.6	19.12	1.342	753896.4	987253.4	17.594	.851
753921.1	987154.5	21.99	1.11	753895.9	987263.4	19.364	.803
753920.6	987164.5	26.23	1.735	753895.4	987273.4	20.128	1.658
753920.2	987174.5	.84	-.3560001	753894.9	987283.4	17.29	.5789999
753919.7	987184.5	11.948	-.571	753894.4	987293.4	17.472	.9869999
753919.2	987194.5	29.16	1.281	753894	987303.4	18.784	.8239999
753918.8	987204.5	22.202	1.103	753893.5	987313.4	19.64	1.086
753918.3	987214.4	19.028	1.403	753893	987323.4	20.494	1.647
753917.8	987224.4	17.076	.8479999	753892.6	987333.4	22.538	2.875
753917.3	987234.4	16.648	.7939999	753892.1	987343.4	26.14	3.989
753916.8	987244.4	16.802	.882	753891.6	987353.3	33.83	6.934
753916.3	987254.4	18.754	1.074	753891.1	987363.3	35.508	8.863
753915.9	987264.4	18.846	1.129	753890.6	987373.3	34.104	8.527



Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
753845.5	987060.8	14.818	1.009				
753845	987070.8	17.168	1.645				
753844.6	987080.8	17.9	1.34				
753844.1	987090.8	16.282	1.474				
753843.6	987100.8	17.014	.6689999				
753843.1	987110.8	16.77	.8679999				
753842.6	987120.8	17.198	.8419999				
753842.2	987130.8	17.624	.7169999				
753841.7	987140.7	17.808	.9029999				
753841.2	987150.7	17.87	.9119999				
753840.8	987160.7	17.564	.9449999				
753840.3	987170.7	17.778	1.222				
753839.8	987180.7	16.678	1.09				
753839.3	987190.7	16.74	1.482				
753838.8	987200.6	16.008	1.535				
753838.3	987210.6	16.374	1.557				
753837.9	987220.6	16.16	1.667				
753837.4	987230.6	15.916	1.461				
753836.9	987240.6	15.61	1.478				
753836.4	987250.6	15.458	1.472				
753835.9	987260.6	15.642	1.164				
753835.5	987270.6	15.764	1.546				
753835	987280.6	16.404	1.351				
753834.5	987290.6	16.588	1.616				
753834.1	987300.6	17.046	1.579				

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
739110.9	1000256	12.452	-0.509	739087.4	1000272	12.756	-0.486
739120.7	1000258	12.482	-0.531	739077.6	1000270	12.512	-0.529
739130.5	1000260	12.696	-0.525	739067.8	1000268	12.604	-0.464
739140.3	1000262	12.726	-0.510	739058	1000266	12.664	-0.428
739150.1	1000264	12.878	-0.573	739048.1	1000264	12.604	-0.481
739159.9	1000266	13.306	-0.558	739038.3	1000262	12.664	-0.413
739169.8	1000268	13.428	-0.518	739028.5	1000261	12.848	-0.406
739179.6	1000270	13.306	-0.549	739018.7	1000259	12.726	-0.466
739189.4	1000271	13.488	-0.529	739008.9	1000257	12.604	-0.457
739199.2	1000273	13.366	-0.501	738999.1	1000255	12.542	-0.525
739209	1000275	13.306	-0.549	738989.3	1000253	12.482	-0.472
739218.9	1000277	13.184	-0.551	738979.4	1000251	12.512	-0.497
739228.7	1000279	13.154	-0.542	738969.6	1000249	12.512	-0.393
739238.5	1000281	13.336	-0.598	738959.8	1000247	12.664	-0.382
739248.3	1000283	13.122	-0.595	LINE 1100			
739258.1	1000285	13.000	-0.554	738956	1000267	12.146	-0.841
739267.9	1000287	13.366	-0.549	738965.8	1000269	12.908	-0.430
739277.8	1000289	13.276	-0.547	738975.6	1000271	12.542	-0.483
739287.6	1000291	13.398	-0.516	738985.4	1000273	12.664	-0.440
739297.4	1000292	13.154	-0.589	738995.3	1000274	12.756	-0.356
739307.2	1000294	13.336	-0.532	739005.1	1000276	12.970	-0.325
739317	1000296	13.550	-0.578	739014.9	1000278	12.848	-0.361
LINE 1080				739024.7	1000280	12.756	-0.415
739313.2	1000316	13.214	-0.659	739034.5	1000282	12.970	-0.404
739303.4	1000314	13.642	-0.575	739044.3	1000284	13.032	-0.354
739293.6	1000312	13.306	-0.580	739054.1	1000286	13.092	-0.444
739283.8	1000310	13.824	-0.532	739063.9	1000288	13.062	-0.461
739273.9	1000308	13.764	-0.543	739073.8	1000290	13.032	-0.437
739264.1	1000306	13.702	-0.558	739083.6	1000292	12.848	-0.488
739254.3	1000304	13.520	-0.560	739093.4	1000294	13.032	-0.448
739244.5	1000303	13.458	-0.501	739103.3	1000295	12.756	-0.494
739234.6	1000301	13.366	-0.556	739113.1	1000297	13.032	-0.437
739224.8	1000299	13.580	-0.519	739122.9	1000299	12.940	-0.435
739215	1000297	13.276	-0.593	739132.7	1000301	13.032	-0.446
739205.2	1000295	13.244	-0.584	739142.5	1000303	13.276	-0.437
739195.4	1000293	13.366	-0.551	739152.3	1000305	13.092	-0.470
739185.6	1000291	13.276	-0.523	739162.1	1000307	13.336	-0.430
739175.8	1000289	13.336	-0.420	739171.9	1000309	13.306	-0.452
739165.9	1000287	13.306	-0.411	739181.8	1000311	13.062	-0.490
739156.1	1000285	13.122	-0.455	739191.6	1000313	13.642	-0.402
739146.3	1000283	13.092	-0.486	739201.4	1000315	13.672	-0.389
739136.5	1000282	12.970	-0.426	739211.2	1000316	13.946	-0.363
739126.7	1000280	13.032	-0.417	739221	1000318	13.946	-0.382
739116.9	1000278	12.940	-0.459	739230.8	1000320	13.732	-0.415
739107.1	1000276	12.542	-0.507	739240.6	1000322	13.672	-0.442
739097.3	1000274	12.848	-0.417	739250.4	1000324	13.702	-0.479

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
739209.6	1000377	13.886	-0.463	739107.6	1000378	13.336	-0.466
739199.8	1000375	13.642	-0.470	739117.4	1000380	13.580	-0.446
739189.9	1000373	13.702	-0.437	739127.2	1000382	13.488	-0.521
739180.1	1000372	13.824	-0.448	739137	1000384	13.428	-0.455
739170.3	1000370	13.854	-0.435	739146.8	1000385	13.702	-0.472
739160.5	1000368	13.610	-0.442	739156.7	1000387	14.222	-0.409
739150.7	1000366	13.580	-0.406	739166.5	1000389	14.068	-0.437
739140.9	1000364	13.244	-0.448	739176.3	1000391	14.068	-0.481
739131	1000362	13.276	-0.356	739186.1	1000393	13.672	-0.455
739121.2	1000360	13.154	-0.407	739195.9	1000395	13.854	-0.472
739111.4	1000358	13.306	-0.411	739205.8	1000397	13.764	-0.422
739101.6	1000356	13.214	-0.339	739215.6	1000399	13.978	-0.450
739091.8	1000354	13.092	-0.418	739225.4	1000401	13.642	-0.475
739081.9	1000352	12.786	-0.444	739235.2	1000403	14.008	-0.483
739072.1	1000351	13.154	-0.409	739245	1000405	13.978	-0.424
739062.3	1000349	13.062	-0.444	739254.8	1000406	13.854	-0.382
739052.5	1000347	13.184	-0.365	739264.6	1000408	13.794	-0.402
739042.7	1000345	13.276	-0.463	739274.4	1000410	13.886	-0.446
739032.9	1000343	13.550	-0.455	739284.3	1000412	14.344	-0.439
739023.1	1000341	13.610	-0.371	739294.1	1000414	14.100	-0.444
739013.3	1000339	13.732	-0.442	LINE 1200			
739003.4	1000337	13.550	-0.496	739290.3	1000434	14.312	-0.483
738993.6	1000335	13.366	-0.400	739280.4	1000432	14.770	-0.354
738983.8	1000333	13.276	-0.393	739270.6	1000430	14.190	-0.494
738974	1000331	13.122	-0.407	739260.8	1000428	14.618	-0.424
738964.2	1000330	12.940	-0.442	739251	1000426	14.130	-0.463
738954.4	1000328	12.756	-0.466	739241.2	1000424	14.008	-0.468
738944.5	1000326	12.542	-0.475	739231.4	1000422	13.946	-0.452
LINE 1180				739221.6	1000420	13.854	-0.453
738940.7	1000345	13.092	-0.475	739211.8	1000418	13.398	-0.474
738950.5	1000347	12.848	-0.363	739201.9	1000417	13.886	-0.428
738960.3	1000349	13.276	-0.380	739192.1	1000415	13.458	-0.411
738970.2	1000351	13.306	-0.393	739182.3	1000413	13.794	-0.404
738980	1000353	13.428	-0.417	739172.5	1000411	13.916	-0.424
738989.8	1000355	13.428	-0.374	739162.6	1000409	14.068	-0.431
738999.6	1000357	13.488	-0.422	739152.8	1000407	14.160	-0.376
739009.4	1000359	13.764	-0.415	739143	1000405	14.100	-0.430
739019.3	1000361	13.398	-0.415	739133.2	1000403	14.100	-0.431
739029.1	1000363	13.154	-0.385	739123.4	1000401	13.886	-0.426
739038.9	1000364	13.306	-0.433	739113.6	1000399	13.610	-0.448
739048.7	1000366	13.000	-0.417	739103.8	1000397	13.672	-0.391
739058.5	1000368	12.848	-0.488	739093.9	1000396	13.642	-0.396
739068.3	1000370	13.062	-0.424	739084.1	1000394	13.366	-0.424
739078.1	1000372	13.062	-0.461	739074.3	1000392	13.276	-0.430
739087.9	1000374	12.878	-0.486	739064.5	1000390	13.550	-0.430
739097.8	1000376	13.092	-0.516	739054.7	1000388	13.580	-0.411

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
739299	1000232	13.214	-0.187	739086.9	1000170	11.718	-0.253
739289.2	1000230	13.520	-0.078	739096.7	1000172	11.810	-0.446
739279.4	1000228	13.672	-0.165	739106.5	1000174	12.084	-0.257
739269.6	1000226	13.306	-0.303	739116.3	1000176	12.208	-0.214
739259.8	1000224	13.122	-0.194	739126.1	1000178	12.176	-0.303
739249.9	1000222	13.520	-0.213	739135.9	1000180	11.932	-0.406
739240.1	1000220	13.336	-0.222	739145.8	1000181	12.574	-0.323
739230.3	1000218	13.336	-0.137	739155.6	1000183	12.116	-0.378
739220.5	1000216	13.398	-0.203	739165.4	1000185	12.390	-0.365
739210.7	1000214	13.428	-0.306	739175.3	1000187	12.298	-0.358
739200.9	1000213	12.940	-0.380	739185.1	1000189	12.604	-0.301
739191.1	1000211	13.062	-0.290	739194.9	1000191	12.634	-0.415
739181.3	1000209	12.542	-0.373	739204.7	1000193	12.878	-0.448
739171.4	1000207	12.420	-0.376	739214.5	1000195	12.818	-0.457
739161.6	1000205	12.452	-0.308	739224.3	1000197	13.244	-0.371
739151.8	1000203	12.452	-0.244	739234.1	1000199	13.276	-0.299
739141.9	1000201	12.330	-0.282	739243.9	1000201	13.336	-0.428
739132.1	1000199	11.962	-0.420	739253.8	1000203	13.854	-0.271
739122.3	1000197	12.542	0.005	739263.6	1000204	13.946	-0.156
739112.5	1000195	11.872	-0.345	739273.4	1000206	13.886	-0.308
739102.7	1000193	12.268	-0.238	739283.2	1000208	13.702	-0.448
739092.9	1000192	12.084	-0.226	739293	1000210	13.732	-0.378
739083.1	1000190	11.994	-0.238	739302.8	1000212	13.610	-0.363
739073.3	1000188	11.840	-0.286	739312.6	1000214	14.100	-0.275
739063.4	1000186	11.962	-0.356	739322.5	1000216	13.824	-0.303
739053.6	1000184	11.962	-0.374	739332.3	1000218	13.520	-0.354
739043.8	1000182	12.146	-0.214	LINE 960			
739034	1000180	12.024	-0.264	739336.1	1000198	12.848	-0.481
739024.2	1000178	12.084	-0.270	739326.3	1000196	13.336	-0.336
739014.4	1000176	11.718	-0.236	739316.5	1000194	13.366	-0.391
739004.6	1000174	11.810	-0.165	739306.7	1000192	13.916	-0.259
738994.8	1000172	11.994	-0.293	739296.8	1000191	13.794	-0.363
738984.9	1000171	11.902	-0.428	739287	1000189	13.916	-0.310
738975.1	1000169	12.024	-0.361	739277.2	1000187	13.854	-0.301
LINE 980				739267.4	1000185	13.610	-0.352
738978.9	1000149	11.688	-0.446	739257.6	1000183	13.336	-0.486
738988.8	1000151	11.718	-0.339	739247.8	1000181	13.428	-0.395
738998.6	1000153	12.024	-0.301	739237.9	1000179	13.154	-0.459
739008.4	1000155	11.780	-0.209	739228.1	1000177	12.970	-0.417
739018.2	1000157	11.810	-0.369	739218.3	1000175	12.542	-0.519
739028	1000159	11.962	0.029	739208.5	1000173	12.786	-0.229
739037.8	1000160	12.330	-0.231	739198.7	1000171	12.238	-0.259
739047.6	1000162	11.994	-0.264	739188.9	1000170	12.268	-0.396
739057.4	1000164	12.176	-0.169	739179.1	1000168	11.902	-0.512
739067.3	1000166	12.208	-0.334	739169.3	1000166	12.512	-0.308
739077.1	1000168	11.688	-0.308	739159.4	1000164	11.536	-0.426

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
739000.2	1000092	12.146	-0.349	739302.3	1000110	13.794	-0.236
738990.4	1000090	12.238	-0.384	739292.5	1000108	13.458	-0.246
LINE 900				739282.7	1000106	13.946	-0.292
738994.2	1000070	13.428	-0.439	739272.9	1000104	13.794	-0.334
739004	1000072	13.794	-0.371	739263.1	1000102	13.794	-0.255
739013.8	1000074	13.184	-0.293	739253.3	1000101	13.488	-0.328
739023.6	1000076	13.032	-0.437	739243.4	1000099	13.458	-0.290
739033.4	1000078	12.940	-0.468	739233.6	1000097	12.818	-0.244
739043.3	1000080	12.390	-0.501	739223.8	1000095	12.238	-0.435
739053.1	1000082	12.420	-0.314	739213.9	1000093	12.024	-0.361
739062.9	1000084	11.750	-0.439	739204.1	1000091	11.962	-0.413
739072.8	1000086	11.536	-0.415	739194.3	1000089	11.994	-0.343
739082.6	1000088	11.718	-0.389	739184.5	1000087	11.994	-0.203
739092.4	1000090	11.536	-0.363	739174.7	1000085	11.840	-0.424
739102.2	1000092	11.658	-0.428	739164.9	1000083	11.932	-0.264
739112	1000093	11.750	-0.382	739155.1	1000081	11.902	-0.442
739121.8	1000095	11.658	-0.407	739145.3	1000080	12.696	-0.259
739131.6	1000097	11.750	-0.393	739135.4	1000078	11.932	-0.382
739141.4	1000099	12.084	-0.398	739125.6	1000076	11.810	-0.387
739151.3	1000101	11.536	-0.488	739115.8	1000074	12.390	-0.358
739161.1	1000103	11.688	-0.358	739106	1000072	12.146	-0.361
739170.9	1000105	11.932	-0.316	739096.2	1000070	11.718	-0.374
739180.7	1000107	11.810	-0.325	739086.4	1000068	11.718	-0.428
739190.5	1000109	11.718	-0.450	739076.6	1000066	11.596	-0.407
739200.3	1000111	11.962	-0.293	739066.8	1000064	11.994	-0.422
739210.1	1000113	12.054	-0.299	739056.9	1000062	12.116	-0.452
739219.9	1000114	12.420	-0.301	739047.1	1000060	12.268	-0.389
739229.8	1000116	12.390	-0.350	739037.3	1000058	12.482	-0.424
739239.6	1000118	12.634	-0.260	739027.4	1000057	12.940	-0.424
739249.4	1000120	13.062	-0.341	739017.6	1000055	13.610	-0.323
739259.3	1000122	13.398	-0.297	739007.8	1000053	13.702	-0.380
739269.1	1000124	13.642	-0.271	738998	1000051	13.946	-0.341
739278.9	1000126	13.702	-0.293	LINE 860			
739288.7	1000128	13.764	-0.213	739001.8	1000031	14.404	-0.347
739298.5	1000130	13.978	-0.323	739011.6	1000033	14.556	-0.384
739308.3	1000132	13.672	-0.321	739021.5	1000035	14.434	-0.354
739318.1	1000134	13.824	-0.325	739031.3	1000037	14.466	-0.332
739327.9	1000135	13.672	-0.308	739041.1	1000039	14.252	-0.373
739337.8	1000137	13.550	-0.271	739050.9	1000041	13.886	-0.356
739347.6	1000139	13.520	-0.374	739060.8	1000043	13.580	-0.406
LINE 880				739070.6	1000045	12.786	-0.411
739351.4	1000120	12.818	-0.299	739080.4	1000047	12.238	-0.406
739341.6	1000118	13.244	-0.189	739090.2	1000048	12.024	-0.367
739331.8	1000116	13.580	-0.244	739100	1000050	12.238	-0.352
739321.9	1000114	13.000	-0.319	739109.8	1000052	11.840	-0.398
739312.1	1000112	13.276	-0.336	739119.6	1000054	11.750	-0.393

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
739294.1	1000047	16.938	0.328	739313.3	999949.2	11.994	0.437
739303.9	1000049	17.640	0.701	739303.4	999947.3	12.542	1.681
739313.8	1000051	20.812	1.080	739293.6	999945.4	12.298	0.981
739323.6	1000053	25.666	2.120	739283.8	999943.4	12.786	1.198
739333.4	1000055	38.360	4.354	739274	999941.5	13.276	1.073
739343.2	1000057	22.522	1.396	739264.2	999939.6	13.794	1.602
739353.1	1000059	18.738	0.613	739254.4	999937.7	13.550	1.859
739362.9	1000061	23.590	1.284	739244.6	999935.8	14.312	1.503
LINE 700				739234.7	999933.9	14.404	1.085
739110.9	999889.4	10.864	0.755	739224.9	999932	14.740	2.033
739120.8	999891.3	11.016	1.093	739215.1	999930.1	15.076	2.373
739130.6	999893.3	11.260	0.632	739205.3	999928.2	14.832	1.267
739140.4	999895.1	11.260	0.725	739195.4	999926.3	14.954	1.243
739150.2	999897.1	11.260	0.824	739185.6	999924.3	15.624	1.583
739160	999899	11.628	0.839	739175.8	999922.4	15.472	1.543
739169.8	999900.9	12.268	0.663	739166	999920.5	15.320	1.598
739179.6	999902.8	12.452	0.907	739156.2	999918.6	15.472	1.767
739189.4	999904.7	11.902	0.433	739146.4	999916.7	15.624	1.310
739199.3	999906.6	11.994	0.444	739136.6	999914.8	15.350	1.988
739209.1	999908.5	11.200	0.293	739126.8	999912.9	14.984	1.786
739218.9	999910.4	12.054	0.413	739116.9	999910.9	14.434	1.714
739228.8	999912.4	12.420	0.883	739107.1	999909.1	14.618	1.668
739238.6	999914.3	13.092	0.661	739097.3	999907.1	14.710	1.422
739248.4	999916.2	12.970	0.903	739087.5	999905.3	14.954	2.443
739258.2	999918.1	12.024	0.356	739077.7	999903.3	14.984	2.239
739268	999920	12.756	0.440	739067.9	999901.4	15.320	2.168
739277.8	999921.9	13.092	0.402	739058	999899.5	14.802	2.241
739287.6	999923.8	12.452	0.527	LINE 740			
739297.4	999925.8	12.818	1.113	739054.2	999919.1	39.032	5.269
739307.3	999927.6	11.750	0.470	739064	999921.1	34.882	4.834
739317.1	999929.6	11.932	0.411	739073.8	999922.9	34.638	5.343
739326.9	999931.4	11.872	0.496	739083.7	999924.9	34.852	4.751
739336.7	999933.4	12.084	0.378	739093.5	999926.8	39.032	5.071
739346.5	999935.3	11.902	-0.016	739103.3	999928.7	36.712	5.176
739356.3	999937.2	11.810	0.238	739113.1	999930.6	34.606	4.771
739366.1	999939.1	12.298	0.992	739122.9	999932.5	37.078	4.849
739375.9	999941	12.390	1.003	739132.8	999934.4	38.514	5.188
739385.8	999942.9	12.116	0.448	739142.6	999936.3	40.252	5.348
LINE 720				739152.4	999938.3	42.908	5.900
739381.9	999962.6	12.542	0.380	739162.2	999940.1	45.380	6.135
739372.1	999960.6	12.390	0.305	739172	999942.1	42.388	5.526
739362.3	999958.8	12.084	0.288	739181.8	999944	43.702	5.887
739352.5	999956.8	12.054	0.536	739191.6	999945.9	42.328	6.330
739342.7	999954.9	11.962	0.446	739201.4	999947.8	42.298	6.601
739332.9	999953	12.146	0.525	739211.3	999949.7	38.604	5.572
739323.1	999951.1	12.298	0.461	739221.1	999951.6	36.926	5.510

Easting Northing Conduct. In-Phase

Easting Northing Conduct. In-Phase

739399.9	1000027	18.920	1.363
739409.8	1000029	17.212	1.089
739419.6	1000031	17.060	1.598
739429.4	1000033	16.938	2.530
739439.2	1000035	16.204	1.760
739449	1000037	16.510	1.661
739458.8	1000039	15.014	2.434
739468.6	1000041	15.198	0.723
LINE 800			
739405.9	1000049	33.020	3.735
739396.1	1000047	39.062	5.642
739386.3	1000045	38.300	4.939
739376.5	1000043	-6.652	-2.412
739366.7	1000041	24.140	2.855
739356.9	1000039	36.956	4.523
739347.1	1000037	35.950	4.411
739337.3	1000035	26.916	3.390
739327.4	1000033	22.034	2.447
739317.6	1000032	20.752	1.716
739307.8	1000030	17.486	1.269
739297.9	1000028	15.808	1.174
739288.1	1000026	15.900	1.363
739278.3	1000024	16.724	2.510
739268.5	1000022	16.052	2.568
739258.7	1000020	13.794	2.763
739248.9	1000018	12.330	0.999
739239.1	1000016	12.512	2.789
739229.3	1000014	11.536	2.524
739219.4	1000012	8.576	2.278
739209.6	1000011	12.970	1.510
739199.8	1000009	12.756	1.585
739190	1000007	12.482	1.113
739180.2	1000005	13.244	1.481
739170.4	1000003	12.176	1.721
739160.6	1000001	12.176	1.071
739150.8	999999.1	10.560	2.438
739140.9	999997.1	12.756	1.231
739131.1	999995.3	12.238	1.176
739121.3	999993.3	12.452	1.122
739111.4	999991.4	12.604	1.591
739101.6	999989.5	12.848	1.139
739091.8	999987.6	12.940	1.141

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
749968.8	998679.9	14.924	-1.179	749987.3	998720.7	19.410	-0.942
749978.8	998680.3	15.900	-1.153	749997.3	998721.1	26.276	-0.761
749988.8	998680.7	20.782	-1.022	750007.3	998721.4	3.846	-1.302
749998.8	998681.1	21.240	-1.043	750017.3	998721.8	24.994	-0.635
750008.8	998681.5	9.400	-1.131	750027.3	998722.2	20.112	-0.989
750018.8	998681.9	25.146	-0.846	750037.3	998722.6	17.028	-1.022
750028.8	998682.3	17.272	-1.072	750047.3	998723	14.770	-0.949
750038.8	998682.6	15.136	-1.247	750057.3	998723.4	14.374	-1.114
750048.8	998683	14.648	-1.228	750067.2	998723.8	14.588	-1.046
750058.8	998683.4	14.526	-1.219	750077.2	998724.1	14.038	-1.118
750068.8	998683.8	14.892	-1.015	750087.2	998724.5	13.794	-1.094
750078.8	998684.1	8.056	-8.530	750097.2	998724.9	13.886	-1.006
750088.8	998684.5	-16.876	-17.962	750107.2	998725.3	13.854	-0.989
750098.7	998684.9	14.924	-2.377	750117.2	998725.6	12.726	-1.265
750108.7	998685.3	14.892	-1.072	750127.2	998726	12.940	-1.237
750118.7	998685.7	14.924	-0.947	750137.2	998726.4	11.902	-0.839
750128.7	998686.1	14.252	-1.006	LINE 1140			
750138.7	998686.4	12.452	-1.346	750136.4	998746.4	5.798	-1.230
LINE 1100				750126.4	998746	15.258	-1.272
750137.9	998706.4	12.176	-2.529	750116.4	998745.6	13.854	-1.133
750127.9	998706.1	13.154	-1.059	750106.4	998745.3	12.970	-0.907
750117.9	998705.6	13.550	-1.201	750096.4	998744.9	13.398	-1.100
750107.9	998705.3	13.886	-1.179	750086.4	998744.5	13.732	-1.377
750097.9	998704.9	14.100	-1.076	750076.4	998744.1	13.824	-1.149
750087.9	998704.5	15.198	-1.070	750066.4	998743.8	14.100	-1.122
750077.9	998704.1	14.954	-0.969	750056.4	998743.3	14.556	-1.116
750068	998703.8	14.770	-1.151	750046.4	998742.9	14.588	-1.127
750058	998703.4	14.802	-1.243	750036.5	998742.6	16.998	-1.267
750048	998703	14.770	-1.129	750026.5	998742.2	18.310	-0.675
750038	998702.6	16.174	-1.265	750016.5	998741.8	24.872	-0.815
750028	998702.3	17.272	-1.122	750006.5	998741.4	0.672	-1.021
750018	998701.9	22.004	-0.872	749996.5	998741.1	24.048	-0.861
750008	998701.4	21.484	-1.050	749986.5	998740.7	19.196	-0.907
749998	998701.1	12.940	-1.015	749976.5	998740.3	15.900	-0.848
749988.1	998700.7	23.224	-1.199	749966.5	998739.9	14.374	-0.898
749978.1	998700.3	12.542	-1.173	749956.6	998739.6	14.374	-1.056
749968.1	998699.9	10.438	-20.442	749946.6	998739.1	13.732	-0.967
749958.1	998699.6	15.168	-0.701	749936.6	998738.8	13.580	-1.043
749948.1	998699.2	14.160	-1.118	LINE 1160			
749938.1	998698.8	14.466	-1.078	749935.8	998758.8	13.336	-1.263
LINE 1120				749945.8	998759.1	13.062	-1.098
749937.3	998718.8	13.488	-1.221	749955.8	998759.5	13.642	-1.182
749947.3	998719.2	14.832	-0.938	749965.8	998759.9	13.398	-0.517
749957.3	998719.6	13.702	-0.813	749975.8	998760.3	14.648	-0.587
749967.3	998719.9	16.540	-0.861	749985.8	998760.7	15.778	-0.984
749977.3	998720.3	15.808	-1.000	749995.8	998761.1	19.592	-0.824



Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
750042.7	998842.9	20.690	-0.780	750081.9	998864.4	20.904	0.586
750052.6	998843.3	19.714	-0.907	750071.9	998864	22.186	1.753
750062.6	998843.6	20.020	-0.916	750061.9	998863.6	19.806	-0.736
750072.6	998844	20.568	-0.859	750051.9	998863.3	18.798	-1.186
750082.6	998844.4	22.308	-0.754	750041.9	998862.9	18.830	-0.945
750092.6	998844.8	23.346	-0.670	750031.9	998862.5	20.356	-0.668
750102.6	998845.2	25.848	-0.346	750021.9	998862.1	19.684	2.220
750112.6	998845.6	30.060	-0.203	750011.9	998861.8	16.236	3.638
750122.6	998845.9	33.936	-0.282	750001.9	998861.4	19.256	-0.701
750132.6	998846.3	35.126	-0.232	749991.9	998860.9	17.670	-0.973
750142.6	998846.7	35.584	-0.056	749981.9	998860.6	17.028	-1.015
750152.6	998847.1	36.224	0.138	749971.9	998860.2	16.418	-0.923
750162.6	998847.4	38.422	0.244	749961.9	998859.8	15.258	-0.927
750172.6	998847.8	36.834	-0.146	749951.9	998859.4	13.672	-1.063
750182.6	998848.2	37.170	0.070	749942	998859.1	14.710	-1.092
750192.6	998848.6	39.886	0.097	749932	998858.7	14.374	-1.034
750202.6	998849	35.096	-0.032	749922	998858.3	14.374	-1.043
750212.6	998849.4	33.782	-0.039	749912	998857.9	14.252	-0.920
750222.5	998849.8	38.696	0.217	749902	998857.6	14.496	-0.868
750232.5	998850.1	37.812	0.097	LINE 1280			
750242.5	998850.5	40.222	0.182	749901.3	998877.5	18.310	-0.833
750252.5	998850.9	42.908	0.184	749911.3	998877.9	14.862	-0.925
750262.5	998851.3	42.388	0.176	749921.3	998878.3	14.130	-0.947
750272.5	998851.6	44.464	0.342	749931.2	998878.7	13.794	-1.107
750282.5	998852	47.912	0.344	749941.2	998879.1	13.886	-0.931
LINE 1260				749951.2	998879.4	14.252	-0.938
750281.8	998872	41.108	4.651	749961.2	998879.8	14.282	-1.008
750271.8	998871.6	38.636	1.191	749971.2	998880.2	14.832	-0.874
750261.8	998871.3	37.322	0.226	749981.2	998880.6	15.076	-0.916
750251.8	998870.9	32.836	-0.286	749991.2	998880.9	15.960	-0.989
750241.8	998870.5	34.942	-0.096	750001.2	998881.3	17.090	-0.868
750231.8	998870.1	34.454	-0.118	750011.2	998881.7	20.112	-0.738
750221.8	998869.8	30.854	-0.321	750021.1	998882.1	13.854	-0.967
750211.8	998869.3	29.754	-0.227	750031.1	998882.5	19.958	-0.782
750201.8	998868.9	31.800	-0.475	750041.1	998882.9	17.974	-0.800
750191.8	998868.6	31.006	-0.188	750051.1	998883.3	18.218	-0.727
750181.8	998868.2	37.018	-0.201	750061.1	998883.6	19.166	-0.936
750171.8	998867.8	34.606	-0.310	750071.1	998884	14.618	-0.512
750161.8	998867.4	32.746	-0.319	750081.1	998884.4	19.012	-0.945
750151.8	998867.1	38.726	-0.159	750091.1	998884.8	18.310	-0.581
750141.8	998866.7	29.602	-0.396	750101.1	998885.1	19.134	-0.684
750131.8	998866.3	26.978	-0.466	750111.1	998885.5	18.310	-0.648
750121.8	998865.9	27.070	-0.394	750121.1	998885.9	18.982	-2.849
750111.9	998865.6	24.720	-0.464	750131.1	998886.3	-4.456	-17.899
750101.9	998865.1	21.454	-0.367	750141.1	998886.7	13.794	-5.460
750091.9	998864.8	22.858	-1.067	750151.1	998887.1	30.426	-0.034

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
750259.4	998931.2	23.010	-0.598	749938.2	998959	13.854	-0.727
750269.4	998931.6	22.766	-0.670	749948.2	998959.4	13.702	-0.732
750279.4	998931.9	21.790	-0.482	749958.1	998959.8	14.130	-0.708
LINE 1340				749968.1	998960.1	13.794	-0.758
750228.7	998950.1	24.354	-0.495	749978.1	998960.5	14.190	-0.864
750218.8	998949.7	26.734	0.724	749988.1	998960.9	14.678	-0.743
750208.8	998949.3	10.376	-12.264	749998.1	998961.3	14.954	-0.820
750198.8	998948.9	13.764	-4.841	750008.1	998961.7	16.694	-0.670
750188.8	998948.5	20.752	-0.124	750018.1	998962.1	19.196	-0.449
750178.8	998948.1	19.166	-0.045	750028.1	998962.4	20.416	-0.615
750168.8	998947.8	19.134	-1.261	750038.1	998962.8	19.410	-3.968
750158.8	998947.4	7.996	-23.248	750048.1	998963.2	17.762	-1.642
750148.8	998947	18.158	1.292	750058.1	998963.6	17.730	-0.429
750138.8	998946.6	17.518	0.935	750068.1	998963.9	15.716	-2.147
750128.8	998946.3	17.792	-0.409	750078.1	998964.3	14.802	-1.673
750118.8	998945.9	17.304	1.196	750088.1	998964.7	15.380	-0.730
750108.8	998945.5	16.876	-0.853	750098.1	998965.1	16.754	-0.640
750098.8	998945.1	18.310	-0.795	750108.1	998965.4	15.472	-0.710
750088.8	998944.7	17.914	-0.532	750118.1	998965.8	17.700	-0.537
750078.8	998944.3	14.892	-0.980	750128	998966.3	16.754	-0.673
750068.8	998943.9	15.502	-0.877	750138	998966.6	17.518	-0.238
750058.8	998943.6	16.144	-0.670	750148	998967	16.510	-0.243
750048.9	998943.2	15.594	-0.607	750158	998967.4	17.486	-0.980
750038.9	998942.8	17.486	-0.870	750168	998967.8	19.318	6.837
750028.9	998942.4	18.830	-0.907	750178	998968.1	23.530	18.744
750018.9	998942.1	15.808	-0.857	750188	998968.5	23.498	2.503
750008.9	998941.7	18.464	-0.648	750198	998968.9	22.736	-0.144
749998.9	998941.3	15.594	-0.879	750208	998969.3	23.926	-0.209
749988.9	998940.9	15.136	-0.807	750217.9	998969.6	22.094	-0.168
749978.9	998940.5	14.038	-0.837	750227.9	998970	27.710	-0.036
749968.9	998940.1	13.916	-0.861	750237.9	998970.4	27.618	-0.028
749958.9	998939.8	14.068	-0.800	750247.9	998970.8	22.064	-0.344
749948.9	998939.4	13.978	-0.846	750257.9	998971.2	26.916	-0.126
749938.9	998939	13.764	-0.841	750267.9	998971.6	26.612	-0.385
749928.9	998938.6	13.000	-1.030	750277.9	998971.9	21.148	-0.703
749918.9	998938.3	13.978	-0.831	750287.9	998972.3	20.020	-0.778
749908.9	998937.9	14.190	-1.048	750297.9	998972.7	19.318	-0.293
749898.9	998937.5	14.282	-0.833	750307.9	998973.1	16.906	-0.727
749888.9	998937.1	14.710	-0.565	750317.9	998973.4	20.234	-0.517
LINE 1360				750327.9	998973.8	18.738	-0.591
749878.2	998956.7	20.416	-1.004	LINE 1380			
749888.2	998957.1	15.930	-0.401	750327.1	998993.8	19.378	-0.655
749898.2	998957.5	14.556	-0.583	750317.1	998993.4	19.744	-0.286
749908.2	998957.9	14.434	-0.607	750307.1	998993.1	21.362	-0.326
749918.2	998958.3	13.244	-0.802	750297.1	998992.7	21.058	-0.324
749928.2	998958.6	13.794	-0.886	750287.1	998992.3	20.722	-0.229

Easting	Northing	Conduct.	In-Phase	Easting	Northing	Conduct.	In-Phase
750215.7	999029.6	30.884	38.500	750045.1	999043.1	24.780	-0.161
750205.7	999029.3	66.162	41.150	750055.1	999043.5	25.848	0.011
750165.7	999027.7	61.218	41.164	750065	999043.9	24.048	-0.010
750155.8	999027.3	19.898	4.290	750075	999044.3	22.492	0.006
750145.8	999026.9	18.310	0.193	750085	999044.6	19.622	-0.714
750135.8	999026.6	21.636	-0.063	750095	999045	18.616	-1.421
750125.8	999026.2	22.278	-0.319	750105	999045.4	19.622	-0.126
750115.8	999025.8	19.500	-1.807	750115	999045.8	19.562	-0.991
750105.8	999025.4	15.960	-4.181	750125	999046.2	22.706	1.099
750095.8	999025.1	15.960	0.439	750135	999046.6	18.280	-0.903
750085.8	999024.7	19.928	-0.811	750145	999046.9	19.622	-0.140
750075.8	999024.3	19.104	-0.842	750154.9	999047.3	20.112	0.577
750065.8	999023.9	21.058	0.064	750164.9	999047.7	20.202	5.759
750055.8	999023.5	19.654	-0.313	750174.9	999048.1	33.782	41.049
750045.8	999023.1	22.492	-0.262	750184.9	999048.4	61.462	41.052
750035.8	999022.8	22.766	-0.300	750194.9	999048.8	67.962	41.047
750025.8	999022.4	20.446	-0.486	750204.9	999049.2	43.548	41.065
750015.8	999022	21.058	-0.271	750214.9	999049.6	23.376	14.597
750005.8	999021.6	18.676	-0.357	750224.9	999050	14.770	0.783
749995.8	999021.3	16.938	-0.482	750234.9	999050.4	18.890	-0.065
749985.9	999020.9	16.358	-0.433	750244.9	999050.8	17.456	-0.247
749975.9	999020.5	15.564	-0.563	750254.9	999051.1	18.310	-0.282
749965.9	999020.1	15.290	-0.530	750264.9	999051.5	16.480	-0.912
749955.9	999019.7	15.290	-0.491	750274.9	999051.9	17.120	-0.789
749945.9	999019.3	14.892	-0.541	750284.9	999052.3	19.104	-0.282
749935.9	999018.9	14.954	-0.510	750294.9	999052.6	15.106	-1.983
749925.9	999018.6	14.252	-0.780	750304.9	999053	19.348	-0.660
749915.9	999018.2	14.344	-0.548	750314.9	999053.4	19.500	-0.157
749905.9	999017.8	14.740	-0.530	750324.8	999053.8	20.722	-0.225
749895.9	999017.4	14.862	-0.427	LINE 1460			
749885.9	999017.1	14.984	-0.536	750324.1	999073.8	18.890	-0.679
749875.9	999016.7	16.448	0.610	750314.1	999073.4	18.524	-0.449
749865.9	999016.3	20.142	2.567	750304.1	999073	16.694	-0.383
LINE 1440				750294.1	999072.6	16.784	-0.537
749925.1	999038.6	14.160	-0.319	750284.1	999072.3	4.882	-7.040
749935.1	999038.9	14.404	-0.229	750274.1	999071.9	14.526	-2.322
749945.1	999039.3	15.136	-0.223	750264.1	999071.5	16.236	-0.585
749955.1	999039.7	16.602	-0.565	750254.1	999071.1	15.900	-0.604
749965.1	999040.1	17.548	-0.633	750244.1	999070.7	16.174	-0.730
749975.1	999040.4	17.608	-0.677	750234.1	999070.3	15.838	-0.563
749985.1	999040.8	17.670	-0.525	750224.1	999069.9	15.076	-0.734
749995.1	999041.2	18.158	-0.547	750214.2	999069.6	15.380	-0.479
750005.1	999041.6	18.860	-0.515	750204.2	999069.2	15.594	-0.420
750015.1	999042	21.302	-0.480	750194.2	999068.8	15.838	-0.433
750025.1	999042.4	22.888	-0.363	750184.2	999068.4	15.656	-0.324
750035.1	999042.8	21.180	-0.302	750174.2	999068.1	17.456	-0.688

**SENECA ARMY DEPOT ACTIVITY GEOPHYSICAL SURVEYS**  
**EM-31**  
**Equipment Functional Checks**

SEAD	Line	Station	Phase Check Tol.: $\pm$ .1mS/m	Sensitivity Range:22 to 26	App. Cond.	in-phase
SEAD-9 Start	1440	1250	0	23.1	14.3	1.4
SEAD-9 End	1400	1250	-	-	14.3	1.1
SEAD-12A Start	1880	1000	0.1	23.2	15.9	-1.2
SEAD-12A End	1880	1000	-	-	15.8	-1.2
SEAD-12B Start	1000	1000	0	23.2	14.9	-0.6
SEAD-12B End	1000	1000	-	-	14.8	-0.6
SEAD-43,69 Sta	600	660	-0.1	23.3	14.9	-0.6
SEAD-43,69 En	600	660	-	-	14.8	-0.6
SEAD-58 Start	1240	1000	0	23.3	13.6	-0.6
SEAD-58 End	1240	1000	-	-	14.1	-0.5
SEAD-59 Start	1050	1220	0	23.4	14.7	-0.9
SEAD-59 End	1050	1220	-	-	14.6	0.9

Notes:

- 1) Phase checks and Sensitivity checks were performed only at the start of each survey to verify that the EM-31 is functioning according to the manufacturer's specifications.
- 2) All phase checks and sensitivity checks were performed following the instructions in the manufacturer's opera

## APPENDIX B

### SUBSURFACE INVESTIGATION

- Boring/Monitoring Well Logs
- Test Pit Logs

## **Boring/Monitoring Well Logs**

# LOG OF BORING NO. MW5-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-5**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **03/16/94**  
 DATE COMPLETED: **03/16/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **6.0**  
 BORING LOCATION (N/E): **998728.7 750506.4**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **738.4**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION		USCS
.01	10	2.00	1.6	0	BGD	0.4		Brown SILT, little organic material, trace fine Sand, trace fine Shale fragments, loose, moist.	OL	
	16							AA, No organic material, some Shale, trace brick + concrete, loose, moist.	GM	
	14							Light brown SILT, trace Clay, trace very fine Sand, trace fine Gravel, trace fine Shale fragments, moderately dense, moist.	ML	
	10									
.02	13	2.00	1.5	0	BGD	2.0		Brown SILT, trace very fine Sand, trace fine Shale fragments, moderately dense, moist.	ML	
	18							Olive-Tan CLAY, little Silt, trace very fine Sand, very dense, moist.	CL	
	13									
	19							Olive-Tan SILT + CLAY + very fine SAND, trace fine Gravel, moist to wet.	ML-CL	
	No Recovery									-
	.03							10	2.00	1
23		No Recovery	-							
30										
37										
.04	103/5	0.50	0.5	0	BGD	6.0		Dark Grey, fractured SHALE.	-	
	6.2							Reddish brown SILT and very fine SAND, trace fine to medium Shale fragments, wet to saturated.	ML	
	6.5									
.05	37	2.00	1.9	0	BGD	8.0		Light brown fine SAND + SILT, trace(+) fine Shale fragments, trace coarse Shale fragments, medium dense, saturated.	ML	
	44							Light brown fine SAND, trace(+) Silt, trace fine Shale fragments, medium dense, saturated.	SM	
	48									
	75									
						9.9				

NOTES: No samples were taken for chemical analysis.



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LOG OF BORING MW5-1

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	100/4	0.40	0.4	0	NA	10.0 10.4	AA (9.0-9.9')	AA (9.0-9.9')	SM
						-11		No Recovery	
BORING TERMINATED AT 11.85' AUGER REFUSAL									

NOTES: No samples were taken for chemical analysis.



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LOG OF BORING MW5-1



# LOG OF BORING NO. MW5-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-5**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **03/04/94**  
 DATE COMPLETED: **03/04/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **4.6**  
 BORING LOCATION (N/E): **998755.5 750226.3**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **736.0**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION		USCS
.01	2	2.00	1.4	0	BGD	0.1		Organics, snow.	PT	
	3					Brown SILT and CLAY, trace fragments of fine Shale, trace Organics, soft, moist.		ML-CL		
	6									
	5									
.02	7 11 16 16	2.00	2.0	0	NA	1		Light brown yellow SAND, little Silt, soft, slightly moist.	SM	
						1.4		No Recovery	-	
						2.0		Light brown-tan SILT with grey mottling, some Clay, little fine Gravel, stiff, slightly moist.	ML	
						2				
.03	4 3 3 2	2.00	1.2	0	NA	3		Light brown, very fine SAND + SILT, little fine to coarse Gravel, medium stiff, wet.	ML	
						3.2				
						3.9		AA, saturated.	ML	
						4.0				
.04	7 41 48 88	2.00	1.5	0	BGD	4		Light brown SILT, some fine Sand, little fine to medium Shale fragments and subangular Gravel, soft, wet.	ML	
						4.6				
						5		AA, saturated.	ML	
						5.2		No Recovery	-	
.05	25 100/.2	0.70	0.7	0	BGD	6		Light brown SILT, some very fine Sand, soft, saturated.	ML	
						6.3		Fractured competent massive grey SHALE fragments and weathered grey SHALE fragments, 0.1 ft. lenses of AA, (6-6.3), loose, saturated.	-	
						7.0				
						7		Grey, finely laminated, highly weathered SHALE, medium dense, dry.	-	
.05	25 100/.2	0.70	0.7	0	BGD	7.5		No Recovery	-	
						8.0		Grey, finely bedded SHALE, highly weathered, medium dense, dry to moist.	-	
						8.7				
						9		No Recovery	-	
BORING TERMINATED AT 10.0' AUGER REFUSAL										

NOTES: No samples were taken for chemical analysis.



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LOG OF BORING MW5-2

# LOG OF BORING NO. MW5-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-5**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **03/17/94**  
 DATE COMPLETED: **03/17/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **5.5**  
 BORING LOCATION (N/E): **998884.9 750255.7**  
 REFERENCE COORDINATE SYSTEM: **NEW YORK STATE PL**  
 GROUND SURFACE ELEVATION (ft): **736.9**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION		USCS
.01	7	2.00	1.7	0	BGD	0.1		Light brown SILT, little grey Shale fragments.	ML	
	19							AA, little very fine Sand.	ML	
	30									
	37									
.02	15 16 22 22	2.00	1.6	0	BGD	1.4		Grey-brown SILT, trace Clay, trace Shale fragments, loose to dense, dry.	ML	
						1.7		No Recovery	-	
						2.0				
						2.4		Brown-grey very fine SAND, little Silt, (possibly fly ash material) and wood.	SM	
						2.7		Brown-grey SILT, trace(+) Clay, loose, dry.	ML	
						3.0		Tan-brown SILT + CLAY, little organic material, trace weathered Shale lenses, very dense, moist.	ML-CL	
.03	12 21 15 20	2.00	1.5	0	BGD	4.0		Olive-grey CLAY + SILT, trace fine Shale fragments, trace organic material, trace(-) very fine Sand, loose, wet.	CL-ML	
						4.7				
						5.1		Grey fractured SHALE fragments, some Clay + Silt (saturated lense at 5.1'), loose, wet.	GM-GC	
						5.5		Olive-grey CLAY, some Silt, trace weathered Shale lenses, trace organic material, medium dense, moist.	CL	
						6.0		No Recovery	-	
.04	15 14 19 14	2.00	0.4	0	BGD	6.4		AA, (5.1-5.5').	CL	
								No Recovery	-	
.05	19 100/.25	0.75	0.6	0	BGD	8.0		Light brown SILT, trace Clay and highly fractured Shale, medium dense, wet to saturated.	ML	
						8.6		No Recovery	-	
BORING TERMINATED AT 8.75' AUGER REFUSAL										

NOTES: No samples were taken for chemical analysis.



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LOG OF BORING MW5-3

# LOG OF BORING NO. MW9-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-9**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **03/21/94**  
 DATE COMPLETED: **03/21/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **3.6**  
 BORING LOCATION (N/E): **1000604.2 750938.1**  
 REFERENCE COORDINATE SYSTEM: **NEW YORK STATE PL**  
 GROUND SURFACE ELEVATION (ft): **747.3**  
 DATUM: **NAD 1983**  
 INSPECTOR: **KK, MB**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	2	2.00	1.5	0	BGD	0.5		Dark brown SILT, little organic, little very fine Shale fragments, soft, wet.	ML
	4					1.0		Dark brown to reddish brown SILT, some grey Clay, little very fine to medium Shale fragments, trace organic, medium stiff, moist to wet.	ML
	8					1.3		Dark brown to reddish brown SILT, little very fine Sand, little grey Clay, little fine to medium Shale fragments, medium stiff, moist to wet.	ML
	8					1.5		AA, some very fine Sand, saturated.	-
						2.0		No Recovery	-
.02	14	2.00	2.0	0	BGD	2.0		Light brown SILT, little very fine Sand, little fine to coarse Shale fragments and Gravel, trace Clay, medium stiff, saturated.	ML
	34					2.4		AA, wet to saturated.	ML
	32					2.9		Fractured grey SHALE, competent, massive, dry.	-
	36					3.2		AA, (2-2.4'), some very fine Sand, saturated to wet.	ML
						4.0		Red, fine Sand in the bottom of the spoon.	ML
.03	30	1.20	0.9	0	BGD	4.3		AA, (3.2-4.0'), saturated.	-
	32					4.5		Gray, massive weathered SHALE, little Silt and very fine Sand with fine Shale fragments interbedded, saturated.	ML
	100/.2					4.6		Shale fragments interbedded, saturated.	ML
						4.7		AA, (3.2-4.0'), saturated.	-
						4.9		AA, (4.3-4.5'). AA, (3.2-4.0'), saturated. No Recovery	-
BORING TERMINATED AT 5.2' AUGER REFUSAL									

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW9-1

# LOG OF BORING NO. MW9-2

**PROJECT:** EIGHT MODERATELY LOW PRIORITY AOCs  
**PROJECT LOCATION:** SENECA ARMY DEPOT, ROMULUS NY  
**ASSOCIATED UNIT/AREA:** SEAD-9  
**PROJECT NO:** 720519-01000  
**DATE STARTED:** 03/09/94  
**DATE COMPLETED:** 03/09/94  
**DRILLING CONTRACTOR:** EMPIRE SOILS INVESTIGATIONS  
**DRILLING METHOD:** HOLLOW STEM AUGER  
**SAMPLING METHOD:** 3" SPLIT SPOONS

**DEPTH TO WATER (ft):** 1.5  
**BORING LOCATION (N/E):** 1000653.0 750473.7  
**REFERENCE COORDINATE SYSTEM:** NEW YORK STATE PL  
**GROUND SURFACE ELEVATION (ft):** 731.5  
**DATUM:** NAD 1983  
**INSPECTOR:** FO, KK  
**CHECKED BY:** KK

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS		
.01	1	2.00	1.6	0	BGD	0.8		Dark brown SILT, trace Organics, trace(-) coarse Gravel, soft, wet.	ML		
	2							1	Light brown SILT, little Clay, trace Organics, trace fine to coarse Gravel, medium stiff, moist to saturated.	ML	
	3							1.6	No Recovery	-	
.02	44	1.80	1.8	0	BGD	2.0		AA, saturated.	ML		
	90							3		Fractured, weathered and competent dark grey SHALE, trace Silt, loose, saturated.	-
	75									4	No Recovery
	100/3					3.8					
BORING TERMINATED AT 5.3'											

NOTES: No samples were taken for chemical analysis. Bedrock encountered at 4.0', forced augers to 5.3' to install well.



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LOG OF BORING MW9-2

# LOG OF BORING NO. MW9-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-9**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **03/20/94**  
 DATE COMPLETED: **03/20/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **1.1**  
 BORING LOCATION (N/E): **1000346.4 750523.7**  
 REFERENCE COORDINATE SYSTEM: **NEW YORK STATE PL**  
 GROUND SURFACE ELEVATION (ft): **734.4**  
 DATUM: **NAD 1983**  
 INSPECTOR: **KK, KS**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	1	2.00	1.6	0	BGD	0.4		Dark brown SILT, trace Organics, very soft, saturated.	ML
	2					1.1		AA, dark brown to light brown, little Clay, soft, saturated.	ML
	4					1.6		AA, little very fine Sand, trace fine Sand, very soft, saturated.	ML
	4					2.0		No Recovery	-
.02	6	2.00	1.9	0	BGD	2		AA, grading to fine Sand, little Silt, trace Clay, trace very fine Sand, soft to medium dense, wet to saturated.	SM
	7					3			
	10					3.9			
.03	12	2.00	1.9	0	BGD	4		No Recovery	
	20					4.3		AA, trace Organics, saturated.	SM
	25					5		Light brown fine SAND, little very fine Sand, little fine to coarse Shale fragments and Gravel, loose, wet to saturated.	SP
	25					5.9			
.04	22	1.90	1.9	0	BGD	6		No Recovery	
	45					6.2		AA, saturated.	SP
	75					7		AA, grading to very fine SAND, trace fine to medium Shale fragments and Gravel, trace Silt, trace fine Sand, loose, wet to saturated.	ML
	100/4					7.9			
.05	44	1.30	1.3	0	BGD	8		Light brown very fine SAND, little Silt, trace fine to medium Shale fragments and Gravel, medium dense, wet.	ML
	65					8.6		Light brown very fine SAND, little fine to medium Shale fragments and Gravel, trace fine Sand, trace coarse Shale fragments and Gravel, medium dense, wet.	ML
	100/3					9			
						9.3		No Recovery	-
						10			

NOTES: No samples were taken for chemical analysis.



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LOG OF BORING MW9-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**

GROUND SURFACE ELEVATION: **734.4**

PROJECT NO: **720519-01000**

INSPECTOR: **KK, KS**

PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**

CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	100/2	0.20	0.2	0	BGD			Fractured, competent grey SHALE, saturated.	
								BORING TERMINATED AT 10.2' AUGER REFUSAL	

NOTES: No samples were taken for chemical analysis.



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LOG OF BORING MW9-3

# LOG OF BORING NO. SB9-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-9**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **05/24/94**  
 DATE COMPLETED: **05/24/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft):  
 BORING LOCATION (N/E): **1000694.8 750651.9**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **NA**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS	
.01	9	2.00	1.7	0	BGD	1		Light brown SILT, little Shale fragments, trace very fine Sand, organic material, medium stiff, dry.	ML	
	10							0.7	Off-white powdery material.	-
	12							0.9	AA, (0-0.7'), little Shale Cobbles.	ML
	12							1.7	No Recovery	-
.02	14	2.00	1.2	0	BGD	2		AA, (0.9-1.7'), trace Clay, moist.	ML	
	15							2.0	No Recovery	-
	9							2.6	Asphalt.	-
	8							2.9	AA, (0-0.7'), little brick fragments.	ML
								3.2	AA, (0-0.7'), light brown Silt, little Clay, trace(+) fine to medium Shale fragments, trace(+) burnt-slag material, loose, moist to wet.	ML
.03	5	2.00	1.6	0	BGD	4		No Recovery	-	
	5							4.0	Brown SILT, trace(+) fine to medium Shale fragments, trace very fine Sand, moist to wet.	ML
	4							5.4	AA, (4-5.4'), little organic material-(bony material 5.3-5.6').	ML
	4							5.6	No Recovery	-
.04	4	2.00	1.8	0	BGD	6		Dark brown-grey SILT + very fine to fine Sand, some fine Shale fragments, little organic material, little iron staining, saturated to moist.	ML	
	7							6.6	Olive grey-brown SILT, trace(+) very fine Sand, trace fine Shale, trace Clay, medium stiff, moist.	ML
	11							7.8	No Recovery	-
.05	4	2.00	2.0	0	BGD	8		Light SILT, little very fine Sand, trace fine Shale fragments, medium stiff, moist to wet.	ML	
	9							8.9	Highly weathered SHALE, little very fine Sand, dry.	-
	51							9.6	Fractured SHALE, Silt and Clay filled fractures, moist.	-
						10				

NOTES: The following samples were collected for chemical analysis: (SB9-1-00), (SB9-1-03), (SB9-1-05).



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LOG OF BORING SB9-1

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	100/3	0.30	0.3	0	BGD	10.3	Grey fractured SHALE, wet.		
						11	No Recovery		
						12	BORING TERMINATED AT 12' AUGER REFUSAL		

NOTES: The following samples were collected for chemical analysis: (SB9-1-00), (SB9-1-03), (SB9-1-05).



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LOG OF BORING SB9-1



# LOG OF BORING NO. SB9-2

**PROJECT:** EIGHT MODERATELY LOW PRIORITY AOCs  
**PROJECT LOCATION:** SENECA ARMY DEPOT, ROMULUS NY  
**ASSOCIATED UNIT/AREA:** SEAD-9  
**PROJECT NO:** 720519-01000  
**DATE STARTED:** 05/24/94  
**DATE COMPLETED:** 05/24/94  
**DRILLING CONTRACTOR:** EMPIRE SOILS INVESTIGATIONS  
**DRILLING METHOD:** HOLLOW STEM AUGER  
**SAMPLING METHOD:** 3" SPLIT SPOONS

**DEPTH TO WATER (ft):**  
**BORING LOCATION (N/E):** 1000566.2 750575.1  
**REFERENCE COORDINATE SYSTEM:** New York State Plane  
**GROUND SURFACE ELEVATION (ft):** NA  
**DATUM:** NAD 1983  
**INSPECTOR:** FO  
**CHECKED BY:** KK

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS								
.01	13	2.00	1.7	0	BGD	0.3		Grey-brown SILT + very fine SAND, some fine to medium Shale and Gravel, trace organic material, loose, dry.	ML								
	13								Dark brown-grey SILT, some very fine Sand, little fine to medium Shale fragments, trace iron staining, medium stiff, damp.	ML							
	11																
	12																
.02	8	2.00	1.6	0	BGD	2.0		No Recovery	-								
	10							Grey-brown SILT + very fine SAND, little fine to medium Shale fragments trace(+) slag material.	ML								
	10							Weathered, fractured SHALE.	-								
	24																
	.03							30	2.00	1.3	0	BGD	3.2		Olive grey-brown SILT + CLAY, trace very fine Sand, trace(+) Shale fragments, medium stiff, wet.	ML-CL	
								14								Asphalt, hard.	-
								8								Brown fine to medium SAND, trace Silt, trace coarse Sand, loose, dry.	SM
4		No Recovery	-														
.04		10	2.00	1.6	0	BGD	6.0									Grey-brown SILT + CLAY + very fine SAND, little fine to medium Shale fragments, trace(-) cement, trace iron staining, medium stiff, moist.	ML-CL
	5																
	4																
.05	5	2.00	1.8	0	BGD	8.0		Grey-brown SILT, trace very fine Sand, trace fine Shale, trace(-) organic material, trace iron-staining, medium stiff, wet.	ML								
	24								Grey weathered, fractured SHALE, trace Silt and very fine Sand, dry.	-							
	80																
	100/.3																

NOTES: The following samples were collected for chemical analysis: (SB9-2-00), (SB9-2-03), (SB9-2-05).



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LOG OF BORING SB9-2

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	40 100/.2	0.70	0.4	0	BGD	10.0	[Symbol]	Grey fractured SHALE.	-
						10.4		No Recovery	
.07	100/.4	0.40	0.3	0	BGD	11	[Symbol]		-
						12.0			
.08	90 100/.2	0.70	0.3	0	BGD	12	[Symbol]	Grey fractured SHALE.	-
						12.3		No Recovery	
.08	90 100/.2	0.70	0.3	0	BGD	13	[Symbol]		-
						14.0			
.08	90 100/.2	0.70	0.3	0	BGD	14	[Symbol]	Weathered, fractured SHALE, some iron staining, saturated within fracture planes.	-
						14.3		No Recovery	
						15		BORING TERMINATED AT 15' AUGER REFUSAL	

NOTES: The following samples were collected for chemical analysis: (SB9-2-00), (SB9-2-03), (SB9-2-05).



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LOG OF BORING SB9-2

# LOG OF BORING NO. SB9-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-9**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **05/24/94**  
 DATE COMPLETED: **05/24/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **8.5**  
 BORING LOCATION (N/E): **1000417.3 750732.5**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **NA**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS	
.01	12	2.00	2.0	0	BGD	0.5		Brown SILT + fine SAND, little(+) fine to medium Gravel, little(+) organic material, little weathered Shale fragments, loose, dry.	ML	
	10							0.7		Weathered, fractured SHALE.
	8							1		Dark brown-grey SILT, little very fine Sand, trace weathered Shale fragments, trace iron-staining, trace(-) organic material, loose, damp.
.02	7	2.00	1.7	0	BGD	2			ML	
	12							3		
	12							3.5		
.03	10	2.00	1.7	0	BGD	4		AA, trace(+) Clay.	ML	
	11							4.0		No Recovery
	11							5		Dark brown-grey SILT, little Clay, trace very fine Sand, trace(-) weathered Shale fragments, trace iron staining, organic material, loose, damp.
.04	8	2.00	1.5	0	BGD	6		AA, (4-5.2'), olive grey tinge.	ML	
	9							6.0		No Recovery
	14							6.6		AA, (5.2-5.7'), moist.
.05	18	2.00	0.6	0	BGD	8		Coarse GRAVEL.	GM	
	15							7.1		SILT + very fine SAND, trace weathered Shale fragments, loose, wet.
	44							7.5		Grey-brown SILT, little(+) very fine Sand, trace Clay, trace weathered Shale fragments, loose, moist.
	70					8.0		No Recovery	ML	
	75							8.6		Light brown SILT, little very fine Sand, little(-) very fine to medium Shale fragments, trace(-) fine Gravel, medium stiff, wet to saturated.
								9		No Recovery
						10				


NOTES: The following samples were collected for chemical analysis: (SB9-3-00), (SB9-3-03), (SB9-3-04).



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LOG OF BORING SB9-3

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	15 100/.3	0.80	0.5	0	BGD	10.5		Light brown very fine SAND, some Silt, little very fine Shale fragments, little weathered, fractured Shale, wet to saturated.	SM
								No Recovery	
						11		BORING TERMINATED AT 11' AUGER REFUSAL	

NOTES: The following samples were collected for chemical analysis: (SB9-3-00), (SB9-3-03), (SB9-3-04).



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LOG OF BORING SB9-3

# LOG OF BORING NO. MW12A-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-12A**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **06/10/94**  
 DATE COMPLETED: **06/11/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **2" SPLIT SPOONS**

DEPTH TO WATER (ft): **9.1**  
 BORING LOCATION (N/E): **1015496.7 745165.9**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **656.9**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	3	2.00	1.5	0	BGD	0.3		Grey-brown SILT, some fine Sand, trace fine Shale fragments, little organic material, loose, damp.	ML
	4					0.5		Grey-brown SILT, little(+) very fine Sand, trace(-) organic material, damp.	ML
	5					1.0		No Recovery	-
	5					1.5		No Recovery	-
						2.0		No Recovery	-
.02	6	2.00	1.8	0	BGD	2.0		Brown-grey SILT, some(-) very fine Sand, trace(+) Clay, trace fine Shale fragments, trace weathered Shale, stiff, moist.	ML
	11					3.0		No Recovery	-
	21					3.8		No Recovery	-
	22					4.0		No Recovery	-
						4.0		No Recovery	-
.03	11	2.00	1.7	0	BGD	4.0		Light brown SILT, some very fine Sand, trace(+) very fine to fine Shale fragments, trace(-) Clay, trace(-) medium Shale fragments, medium stiff, moist.	ML
	19					5.0		No Recovery	-
	20					5.7		No Recovery	-
	27					6.0		No Recovery	-
						6.0		No Recovery	-
.04	29	2.00	2.0	0	BGD	6.0		Light brown SILT, some very fine Sand, trace(+) very fine to fine Shale fragments, trace medium to coarse Shale fragments, stiff, moist to wet.	ML
	26					7.0		No Recovery	-
	32					8.0		No Recovery	-
	31					9.1		No Recovery	-
						9.1		No Recovery	-
.05	28	2.00	2.0	0	BGD	8.0		Light brown very fine SAND, little Silt, trace fine to medium Shale fragments, moist to wet.	SM
	48					9.1		Weathered SHALE, saturated.	
	48					9.2		AA, (8-9.1').	SM
	48					9.5		Grey-brown SILT, little very fine Sand, trace fine to coarse Shale fragments,	ML
	48					10.0			



NOTES: The following samples were collected for chemical analysis: (MW12A-1-00), (MW12A-1-03), (MW12A-1-05).



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LOG OF BORING MW12A-1

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	18	2.00	1.5	0	BGD	11		very stiff, moist.	ML
	18 12 9					Olive grey-brown SILT, little very fine Sand, lenses of highly weathered Shale, dry to saturated.			
.07	12 18 80 100/4	1.90	1.4	0	BGD	11.5		No Recovery	
						12.0		Dark grey very weathered SHALE, saturated.	
						13			
						13.4		No Recovery	
						14		BORING TERMINATED AT 14.0' SPOON REFUSAL	

NOTES: The following samples were collected for chemical analysis: (MW12A-1-00), (MW12A-1-03), (MW12A-1-05).



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LOG OF BORING MW12A-1

# LOG OF BORING NO. MW12A-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-12A**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **06/11/94**  
 DATE COMPLETED: **06/11/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **2" SPLIT SPOONS**

DEPTH TO WATER (ft): **4.6**  
 BORING LOCATION (N/E): **1015117.5 744926.6**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **656.3**  
 DATUM: **NAD 1983**  
 INSPECTOR: **KK**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS								
.01	2	2.00	1.6	0	BGD	0.4		Brown, very fine to fine SAND, trace Silt, trace Organics, loose, dry to moist.	SM								
	4							1		Tan, iron-stained SILT + very fine SAND, trace very fine to fine grey Shale fragments, trace Organics, loose to medium dense.	ML						
	4									1.2	Olive grey SILT + CLAY, iron-stained, little(-) very fine to fine grey Shale fragments, medium stiff, slightly moist.	ML-CL					
	5											1.5	ML-CL				
	.02									5	2.00	1.6	0	BGD	2.0		AA, some highly weathered, highly fractured Shale.
7		2.3	No Recovery	ML-CL													
7				2.4	AA, (1.2-1.5').	-											
10		3		Highly weathered, highly fractured black SHALE, moist.	-												
3.2				Highly weathered SHALE, trace(-) grey, iron-stained Clay, trace(-) medium Gravel, moist.	SM												
					3.6	Light brown, very fine SAND, little(-) fine grey Shale fragments, trace(-) medium Gravel, loose to medium dense, wet.	ML-CL										
.03				9			2.00	1.8	0	BGD							4.0
		5	4.4	No Recovery	-												
		5			4.6	AA (3.2-3.6')											
		6	5		Red, tan, and orange CLAY, stiff, moist.	SM											
	5.5	Light brown fine SAND, trace Silt, trace red Clay in small lenses, loose, saturated.			-												
5.8					Olive grey SILT + CLAY, some fine grey Shale fragments, saturated.	ML-CL											
	.04	9	2.00	1.8		0	23	6.0		Fractured, slightly weathered grey SHALE.	-						
10		6.3			No Recovery					-							
13										QUARTZ COBBLE	-						
12		Olive grey SILT + CLAY, iron-stained, some coarse grey Shale fragments, little fine to medium grey Shale fragments, medium stiff, saturated.			ML-CL												
.05	8	2.00	1.8	0	22	8.0		No Recovery	-								
	13							9	Olive grey SILT, little(+) fine to medium grey Shale fragments, soft, saturated.	ML							
	25									9.2	Highly fractured, weathered grey SHALE, saturated.	-					
54	10.0		-														

NOTES: No samples were taken for chemical analysis.



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LOG OF BORING MW12A-2

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	35 100/4	0.90	0.9	0	23	10.2	AA, (9.2-10'). AA, dry.		
BORING TERMINATED AT 10.9' SPOON REFUSAL									

NOTES: No samples were taken for chemical analysis.



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LOG OF BORING MW12A-2



# LOG OF BORING NO. MW12A-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-12A**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **06/12/94**  
 DATE COMPLETED: **06/12/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **2" SPLIT SPOONS**

DEPTH TO WATER (ft): **13.0**  
 BORING LOCATION (N/E): **1015521.5 744532.2**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **655.6**  
 DATUM: **NAD 1983**  
 INSPECTOR: **KK**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	3	2.00	1.2	0	BGD	0.5		Dark brown very fine SAND + SILT, little fine Sand, little Organics, loose, dry.	ML
	5							Grading from dark brown SILT + very fine SAND, trace Clay, trace Organics, trace(-) very fine Shale fragments to brown SILT + iron-stained grey CLAY, soft to medium stiff, moist.	ML-CL
	10							No Recovery	-
.02	10	2.00	1.8	0	BGD	2.0		AA, highly fractured, highly weathered Shale (2.2-2.25').	GM
	13							Red-orange SILT + CLAY, trace very fine Sand, trace fine grey Shale fragments and Gravel, medium stiff, moist.	ML-CL
	19								ML-CL
	32							Olive-grey SILT + CLAY, little of grey Shale fragments and Gravel, trace medium Gravel, trace .01 lenses of red and tan Clay, stiff, moist.	
								No Recovery	
.03	19	2.00	1.6	0	BGD	4.0		No Recovery	-
	21							AA (2.4-3.8)	ML-CL
	36							AA, no red and tan Clay, fractured coarse Shale fragments (4.9-5.0').	ML-CL
	47								
								No Recovery	
.04	8	2.00	1.5	0	BGD	6.0		AA, (2.4-3.8'), little upper coarse Shale fragments, medium stiff, moist.	ML-CL
	28							Light brown-red SILT, little fine grey Shale fragments, medium stiff, moist.	ML
	40								ML
	60							SILT, little Clay, little fine to medium grey Shale fragments and Gravel, trace .01 lenses of red and tan Clay, grading brown-olive grey to light brown, stiff, moist.	
								No Recovery	
.05	35	2.00	2.0	0	BGD	8.0		Light brown SILT, little very fine Sand, little fine grey Shale fragments, trace medium grey Shale fragments, medium stiff, wet.	ML
	33							Grey-light brown SILT, little fine grey Shale fragments and Gravel, trace medium grey Shale fragments and Gravel, iron-stained, stiff, moist.	ML
	45								
82									

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW12A-3

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	28	2.00	1.7	0	BGD	10.6		Brown SILT + very fine SAND, little fine grey Shale fragments, trace medium grey Shale fragments, trace dark grey, iron-stained Clay, medium stiff, moist to wet.	ML
	32					11		Dark grey SILT + iron-stained CLAY, little fine gray Shale fragments, trace medium grey Shale fragments, trace light brown very fine Sand, medium stiff, moist to wet.	ML-CL
	35					11.7		No Recovery	-
	28					12.0		No Recovery	-
.07	9	2.00	1.4	0	BGD	12		Dark grey SILT + CLAY, trace fine gray Shale fragments, soft to medium stiff, wet.	ML-CL
	26					12.5		Red CLAY, trace very fine grey Shale fragments, medium stiff, moist.	CL
	75					12.6		Brown-red SILT + CLAY, little very fine grey Shale fragments, soft to medium stiff, wet.	ML-CL
	60					12.8		Brown-red SILT + CLAY, little very fine grey Shale fragments, soft to medium stiff, wet.	ML-CL
						13.0		Olive grey SILT + CLAY, trace coarse sand-sized grey Shale fragments, trace fine grey Shale fragments, soft, wet.	ML-CL
	13.2					Olive grey SILT + CLAY, trace coarse sand-sized grey Shale fragments, trace fine grey Shale fragments, soft, wet.		GM	
.08	8	1.30	1.3	0	BGD	14		Highly fractured, weathered grey SHALE, trace grey Silt, saturated.	-
	95					14.0		Grey SILT + coarse sand-sized grey SHALE fragments, trace fine grey Shale fragments, loose, saturated.	-
	100/3					14.0		No Recovery	-
						15		Highly fractured, highly weathered grey SHALE, trace grey Silt, saturated.	-
BORING TERMINATED AT 15.3' AUGER REFUSAL									

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW12A-3

# LOG OF BORING NO. MW12B-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-12B**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **06/13/94**  
 DATE COMPLETED: **06/13/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **13.2**  
 BORING LOCATION (N/E): **1015934.0 743739.7**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **652.0**  
 DATUM: **NAD 1983**  
 INSPECTOR: **KK**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	4	2.00	2.0	0	BGD	0.3		Brown SILT + very fine SAND, trace fine angular Shale fragments, trace organics, loose, dry.	ML
	6					0.6		Olive grey SILT + very fine SAND, little(-) fine angular Shale fragments, trace medium angular Shale fragments, trace grey-tan, iron-stained Clay, medium stiff, dry to slightly moist.	ML
	9					1.4		Grey fine SAND + CLAY, loose, dry.	ML-CL
	12					1.6		AA, (0.3-1.4').	ML
.02	21	2.00	0.1	0	BGD	2.0		SHALE COBBLE fragment.	-
	24					2.1		No Recovery	-
.03	14	2.00	2.0	0	BGD	4.0		Light brown SILT + very fine SAND, some very fine Shale fragments, trace fine to medium Shale fragments, medium stiff to stiff, moist.	ML
	17					5.0			
.04	20	2.00	2.0	0	BGD	6.0			
	20					7.0			
.05	23	2.00	2.0	0	BGD	8.0		AA, some iron staining, trace coarse Shale fragments, moist to wet.	ML
	25					9.0			
	20					10.0			
	24								

NOTES: The following samples were collected for chemical analysis: (MW12B-1.00), (MW12B-1.03), (MW12B-1.03-R), (MW12B-1.03-MRD), (MW12B-1.20-DUP), (MW12B-1.07).



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LOG OF BORING MW12B-1

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	12	2.00	2.0	0	BGD	11		AA, (8-10').	ML
	17					12.0			
.07	20	2.00	2.0	0	BGD	12		Grading from light brown SILT + very fine SAND to dark grey very fine SAND, medium stiff, moist to wet.	ML
	24					13			
	27					13.2			
.08	18	2.00	1.6	0	BGD	14		Dark grey very fine + fine SAND, little Shale fragments, trace medium Shale fragments, soft, wet to saturated.	ML
	24					14.0			
	26					14.6			
	20					14.9			
						15			
.09	30	2.00	1.4	0	BGD	15		AA, (14-14.6').	GP
	20					15.6			
	20					16.0			
	25					16.0			
						16			
						17			
	17.1								
	17.4								
						18		BORING TERMINATED AT 18'	

NOTES: The following samples were collected for chemical analysis: (MW12B-1.00), (MW12B-1.03), (MW12B-1.03-R), (MW12B-1.03-MRD), (MW12B-1.20-DUP), (MW12B-1.07).



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LOG OF BORING MW12B-1

# LOG OF BORING NO. MW12B-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-12B**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **06/12/94**  
 DATE COMPLETED: **06/12/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **2" SPLIT SPOONS**

DEPTH TO WATER (ft): **8.4**  
 BORING LOCATION (N/E): **1015919.8 743522.9**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **648.1**  
 DATUM: **NAD 1983**  
 INSPECTOR: **KK**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	6	2.00	1.5	0	BGD	0.3		Brown, very fine SAND + SILT, trace organic, loose, dry.	ML
	5						Brown SILT + very fine SAND, little very fine Shale fragments, trace iron-stained grey Clay, trace fine Shale fragments and Gravel, medium stiff, moist to slightly moist.	ML	
	7 12							1	
.02	10 12 13 29	2.00	1.5	0	22	1.5		No Recovery	-
						2.0		AA, brown to olive grey, stiff.	ML
						3			3.5
						4	4.0	No Recovery	-
.03	9 11 13 20	2.00	1.4	0	20	4		AA, (2-3.5').	ML
						5		No Recovery	-
						5.4			6.0
.04	11 19 22 22	2.00	2.0	0	BGD	6		Light brown SILT + very fine SAND, little very fine grey Shale fragments and Gravel, trace fine to medium Shale fragments and Gravel, moist to wet.	ML
						7			
.05	10 11 14 19	2.00	2.0	1.8	BGD	8		AA, saturated.	ML
						8.4			9

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW12B-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT NO: **720519-01000**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**

GROUND SURFACE ELEVATION: **648.1**  
 INSPECTOR: **KK**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	3	2.00	1.6	0	BGD	8.6		AA, (8.6-10'), wet.	ML
	10					10.8		Grading from light brown to olive grey very fine SAND + SILT, little very fine Shale fragments, moist to wet.	ML
	10					11.2			SP
	15					11.6			SP
	.07					13		2.00	1.3
13		12.3	AA (11.2-11.6')	-					
26		12.9	Grey, very fine to fine SAND + fine to medium SHALE fragments, soft, saturated.	GP					
57		13.3	Highly fractured, highly weathered SHALE fragments, saturated.	-					
		14	No Recovery	-					
BORING TERMINATED AT 14'									

NOTES: No samples were collected for chemical analysis.



**PARSONS**

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LOG OF BORING MW12B-2

# LOG OF BORING NO. MW12B-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-12B**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **06/12/94**  
 DATE COMPLETED: **06/12/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **2" SPLIT SPOONS**

DEPTH TO WATER (ft): **6.3**  
 BORING LOCATION (N/E): **1015995.8 743517.1**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **655.6**  
 DATUM: **NAD 1983**  
 INSPECTOR: **KK**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS			
.01	3	2.00	1.2	0	BGD	0.4		Dark brown SILT + very fine SAND, little Organics, loose, dry to slightly moist.	ML			
	4							0.7	Light brown SILT, little very fine grey Shale fragments, medium stiff, moist.	ML		
	4							0.9	Light brown SILT, little coarse Sand, little very fine grey Shale fragments, soft, saturated.	ML		
	4							1.2	Olive grey SILT + iron-stained CLAY, little very fine grey Shale fragments, trace fine to medium grey Shale fragments, medium stiff, moist.	ML-CL		
.02	8	2.00	2.0	0.6	28	2.0		No Recovery	-			
	12							2.7	Olive grey to light brown SILT, some light grey and tan iron-stained Clay, little very fine grey Shale fragments, trace(-) medium Gravel, medium stiff, moist.	ML-CL		
	13							2.8	AA, little grey fine Sand.	ML-CL		
	10							2.8	AA, (2-2.7').	ML-CL		
.03	10	2.00	1.6	0	27	4.0		AA, (2-2.7'), trace(-) coarse grey Shale fragments, trace Clay.	ML-CL			
	11							5.6	No Recovery	-		
	11									6.0	AA, (2-2.7') light brown, no Clay.	ML
	14											6.3
.04	16	2.00	2.0	0	50	6.8		AA, wet to saturated.	ML			
	17							8.0	AA, wet.	ML		
	17									9.5	AA, little very fine Sand, soft, wet.	ML
	17											9.7
.05	10	2.00	1.7	1.8	20	10.0		AA, little very fine Sand, soft, wet.	ML			
	12							-				
	10							-				
	10							-				

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW12B-3

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	13	2.00	2.0	0	20	10.4		AA, wet.	ML
	25					10.6		Light brown fine SAND, some medium Sand, trace grey Shale fragments, saturated.	SP
	20					11.2		AA, (8-9.5') grading from light brown to olive grey.	
	28					12.0		Dark grey SILT, little fine grey Shale fragments, trace medium to coarse grey Shale fragments, very stiff, moist.	ML
.07	29	2.00	1.8	0	25	12.0		AA, moist to wet.	ML
	55					13.0		Highly fractured, highly weathered grey Shale, saturated.	-
	75					13.8			
	93					14.0		No Recovery	-
.08	30	0.80	0.4	0	BGD	14.0		AA (13.0-13.8')	-
	100/3					14.4		No Recovery	-
BORING TERMINATED AT 14.8' SPOON REFUSAL									

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW12B-3



# LOG OF BORING NO. MW43-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-43,56,69**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **03/22/94**  
 DATE COMPLETED: **03/22/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **9.6**  
 BORING LOCATION (N/E): **987079.1 754460.0**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **764.8**  
 DATUM: **NAD 1983**  
 INSPECTOR: **KK,MB**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	7	2.00	1.6	0	BGD	0.4		Dark brown SILT, trace Organics, very stiff, wet (frozen).	ML
	4					Grading downward from dark brown to light brown SILT, trace Organics, soft, moist to wet.		ML	
	4					Light brown SILT + mottled orange-yellow brown CLAY, trace(-) medium Gravel, trace Organics, medium stiff, moist to wet.		ML-CL	
	6					No Recovery		-	
.02	6	2.00	1.4	0	BGD	2.0		AA, (1-1.6'), trace fine to medium weathered Shale fragments, saturated.	ML-CL
	30					Fractured, massive grey SHALE, Quartz veins, little olive grey Silt, loose, saturated.		GM	
	22					Light brown SILT, some(+) fine to medium weathered Shale fragments, medium stiff, moist.		GM	
	15					No Recovery		-	
.03	12	2.00	1.9	0	BGD	4.0		Light brown SILT + fine to coarse weathered SHALE fragments, medium dense, saturated.	GM
	12								
	16								
	18								
.04	25	2.00	2.0	0	BGD	5.9		No Recovery	-
	35					Light brown very fine SAND, some fine to coarse Shale fragments, little Silt, trace medium Sand, medium dense, saturated.		GM	
	32								
	25								
.05	12	2.00	2.0	0	BGD	7.5		Fractured, massive competent, grey SHALE, wet.	-
	22					Olive grey SILT, some fine to coarse grey Shale fragments, medium stiff, moist to saturated.		GM	
	28					Light brown SILT, some fine to coarse grey Shale fragments, little grey Clay, trace Silt, medium stiff, moist (saturated on Shale fragments).		GM	
	28								
						9.6		Fractured, weathered, coarsely to finely bedded grey SHALE, saturated.	-
						10.0			

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW43-1

PROJECT: EIGHT MODERATELY LOW PRIORITY AOCs

GROUND SURFACE ELEVATION: 764.8

PROJECT NO: 720519-01000

INSPECTOR: KK,MB

PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY

CHECKED BY: KK

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS	
.06	16	1.70	1.7	0	BGD	10.4		Light brown to olive grey CLAY, fine to coarse grey Shale fragments, trace Silt, medium dense, saturated.	CL	
	24							AA, (10-10.4'), no Silt, moist to wet (little saturation on Shale fragment surfaces).	CL	
	65									
	100/.2									
.07	100/.3	0.30	0.3	0	BGD	12		Highly fractured, finely laminated, grey SHALE, saturated.	-	
								No Recovery	-	
								12.0		
								12.1	Dark grey CLAY, highly weathered Shale fragments, very stiff, moist.	CL
								12.3	Fractured, finely bedded, competent grey SHALE, dry.	
.08	100/.3	0.30	0.3	0	BGD	14		Highly fractured, competent and weathered grey SHALE, saturated.	-	
								No Recovery	-	
								14.0		
						14.3				
							BORING TERMINATED AT 15' AUGER REFUSAL			

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW43-1

# LOG OF BORING NO. MW43-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-43,56,69**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **03/19/94**  
 DATE COMPLETED: **03/19/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **6.0**  
 BORING LOCATION (N/E): **987117.2 754149.1**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **762.5**  
 DATUM: **NAD 1983**  
 INSPECTOR: **KK,MB**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS								
.01	4	2.00	1.5	0	BGD	0.7		Dark brown SILT, some very fine Sand, trace fine Gravel, trace Organics, very stiff, dry to moist (frozen).	ML								
	6							1	Dark to light brown SILT, little(+) mottled grey Clay, trace fine to medium Shale fragments and Gravel, soft, moist to wet.	ML-CL							
	7								Light brown to dark grey SILT + mottled grey CLAY, trace fine Shale fragments, stiff, dry to moist.	ML-CL							
	12								No Recovery	-							
.02	8	2.00	1.9	0	BGD	2.0		Light brown SILT, little mottled grey Clay, little fine to medium Shale fragments and Gravel, stiff, dry to moist.	ML								
	10							3	No Recovery	-							
	10								No Recovery	-							
.03	9	2.00	0.1	0	BGD	4.0		No Recovery	-								
	10							5	Coarse gravel-sized, grey SHALE fragments, some light brown Silt and Clay.	GM							
	14								No Recovery	-							
	16								No Recovery	-							
.04	28	2.00	2.0	0	BGD	6.0		Light brown SILT, little Clay, little fine to medium Shale fragments and Gravel, trace Organics, soft, wet to saturated.	ML								
	28							7	Grey SHALE, little light brown Silt and very fine Sand, trace yellow medium Sand, dry.	GM							
	43								Light brown SILT + very fine SAND, little fine to medium Shale fragments and Gravel, trace yellow medium Sand, loose, slightly moist.	ML							
	60							8	Light brown to tan very fine SAND, little Silt, little fine to medium Shale fragments and Gravel, loose, dry to slightly moist.	ML							
	.05								41	1.80	1.8	0	BGD	8.0		Light brown SILT, little very fine Sand, little fine to medium Shale fragments and Gravel, trace Clay, stiff, dry to slightly moist.	ML
									49							Fractured, massive grey SHALE, dry.	-
64	9	Weathered, finely laminated grey SHALE, trace light brown Silt, trace very fine Sand, loose, dry.	-														
100/3		9.8	Light brown SILT, little fractured grey Shale fragments and Gravel, stiff, dry.	ML													

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW43-2

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	25 100/.4	0.90	0.9	0	BGD	10.0	AA, (8-8.8').		ML
						10.6			
						10.9	Grey fractured SHALE, dry.		-
						11	No Recovery		-
.07	50 75 100/.3	1.30	1.3	0	BGD	12.0			
						12.3	Light brown SILT, some grey fine to medium Shale fragments, medium stiff, dry.		GM
						12.7	Grey, weathered SHALE + CLAY, medium dense, slightly moist.		-
						13.1	AA, (12-12.3').		GM
						13.2	Grey fractured SHALE, dry.		
.08	25 38 38 50	2.00	2.0	0	BGD	13.3	AA, (12-12.3'), very stiff.		GM
						14.0	No Recovery		-
						14	Fractured, massive grey SHALE, little Clay, trace light brown Silt, medium dense, moist (saturated at 14.3 and 14.8').		-
						15.0			
						15.8	AA, (14-15'), Clay, saturated zones throughout.		-
NA	100/.3	0.30	0	NA	NA	16.0	Grey CLAY, some fine weathered Shale fragments, very stiff, moist to wet.		GC
						16	No Recovery		-
NA	100/.3	0.30	0	NA	NA	18.0			
						18.3	Fractured, competent SHALE, loose, dry.		-
							BORING TERMINATED AT 18.4' AUGER REFUSAL		

NOTES: No samples were collected for chemical analysis.

# LOG OF BORING NO. MW43-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-43,56,69**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **03/15/94**  
 DATE COMPLETED: **03/15/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **6.0**  
 BORING LOCATION (N/E): **987371.6 753848.5**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **760.7**  
 DATUM: **NAD 1983**  
 INSPECTOR: **KK,MB**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	USCS
							DESCRIPTION	
.01	15	2.00	0.6	0	BGD	0.3	Dark brown SILT, little fine Sand, trace Organics, stiff, wet (frozen).	ML
	14					0.6	Dark brown SILT, little fine Sand, little medium Gravel, stiff, wet.	ML
	9 10						No Recovery	-
.02	8	2.00	0.6	0	BGD	2.0		
	11					2.2	SHALE COBBLE.	GM
	15					2.6	Light brown CLAY + SILT, little fine to medium Shale fragments and Gravel, stiff, slightly moist(-).	ML-CL
	16						No Recovery	-
.03	8	2.00	2.0	0	BGD	4.0		
	14					4.4	Light brown SILT + CLAY, some fine Shale fragments, medium stiff, wet(-).	GM-GC
	14						AA, (4-4.4'), some fine to medium Shale fragments and Gravel, medium stiff, wet(-).	GM-GC
	14					5.4	AA, (4.4-5.4'), some very fine Sand (red at 5.5'), soft, wet(+).	GM-GC
						6.0		
.04	15	2.00	2.0	0	BGD	6.0	Light brown fine SAND, some fine Shale fragments and Gravel, little Silt, trace coarse Sand, trace medium Sand, loose, saturated.	GP
	15					6.5	Light brown SILT + CLAY, little fine to coarse Shale fragments and Gravel, trace very fine Sand, medium stiff, wet(-).	ML-CL
	18					7.0	Light brown SILT + CLAY, trace very fine Sand, trace fine to coarse Shale and Gravel, stiff, moist.	ML-CL
	20							
.05	21	2.00	2.0	0	BGD	8.0		
	28					8.1	AA, (6-6.5').	GP
	41						Light brown SILT, little Clay, little fine to coarse Shale fragments and Gravel, stiff, moist(+).	ML
	54					9.3	Light brown to olive grey SILT, some very fine Sand, some fine to coarse weathered and competent Shale fragments and Gravel, trace Clay, trace fine Sand, stiff, wet(+).	GM
						10.0		

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW43-3

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	22	2.00	2.0	0	BGD	11.0		Olive grey SILT, some Clay, some fine to medium Shale fragments and Gravel, stiff, moist.	GM-GC
	50					11.3		Weathered grey SHALE, medium bedded.	-
	75					12.0		Grey CLAY, some weathered grey Shale fragments, some Silt, very stiff, slightly moist.	GC
.07	17	1.90	1.9	0	BGD	12		AA, (11.3-12'), light brown Silt, saturated zones at 12.4 and 13.6'.	GC
	35					13			
	52					13.9			
.08	100/4	0.30	0.3	0	BGD	14		No Recovery	-
						14.0		Fractured, weathered grey SHALE, loose, dry to saturated.	-
						14.3		No Recovery	-
.09	40	0.90	0.9	0	BGD	16		Olive grey SILT + fine to coarse weathered SHALE fragments, loose, saturated.	GM
	100/4					16.2		Fractured, weathered, finely laminated, brittle grey SHALE, trace olive grey Silt, loose, saturated.	-
						16.9		No Recovery	-
.10	62	0.80	0.7	0	BGD	18		Olive grey SILT + CLAY + fine to medium SHALE fragments, medium stiff, saturated.	GM-GC
	100/2					18.2		AA, (16.2-16.9').	GM-GC
						18.5		AA, (18-18.2').	GM-GC
						18.7		No Recovery	-
BORING TERMINATED AT 18.8' AUGER REFUSAL									

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW43-3

# LOG OF BORING NO. MW43-4

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-43,56,69**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **03/17/94**  
 DATE COMPLETED: **03/17/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **6.0**  
 BORING LOCATION (N/E): **987469.7 753487.1**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **757.0**  
 DATUM: **NAD 1983**  
 INSPECTOR: **KK,MB**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	2	2.00	1.6	0	BGD	0.6		Dark brown SILT, little Organics, trace medium Sand, soft, wet.	ML
	4					1.0		Olive grey SILT + mottled grey and red CLAY, trace coarse Sand, trace Organics, stiff, wet(-).	ML-CL
	5					1.6		Olive grey SILT + mottled grey and red CLAY, little fine to coarse Shale fragments, medium stiff, wet (saturated(-) on Shale fragments).	ML-CL
	5					2.0		No Recovery	-
.02	11	2.00	1.6	0	BGD	2.0		Olive grey SILT, some mottled grey and orange Clay, some fine to medium Shale fragments, soft, saturated.	GM-GC
	15					2.4		Olive grey SILT + mottled grey and orange CLAY, some fine to coarse Shale fragments, medium stiff, moist to wet (little saturation on Shale fragments).	GM-GC
	14					3.6		No Recovery	-
	30					4.0		No Recovery	-
.03	8	2.00	1.1	0	BGD	4.0		SHALE COBBLE.	GM
	22					4.2		Light reddish-brown SILT, some fine to medium Shale fragments, little Clay, stiff, moist.	GM
	18					4.8		AA, (4.2-4.8'), little saturation on Shale fragments.	GM
	22					5.1		No Recovery	-
.04	28	2.00	2.0	0	BGD	6.0		Light brown SILT, some fine to coarse Shale fragments, soft, saturated.	GM
	30					6.2		AA, (6-6.2'), medium stiff, wet (saturation on Shale fragments).	GM
	40					6.8		AA, (6.2-6.8'), medium stiff, saturated.	GM
	36					7.1		Olive grey SILT + grey weathered SHALE fragments, loose, saturated.	GM
						7.2		Fractured grey SHALE, trace olive grey Silt, loose, saturated.	-
						7.5		AA, (7.1-7.2').	GM
						7.7		Competent grey SHALE, some(+) weathered, massive grey Shale, trace Silt, dense, dry.	GM
.05	22	2.00	2.0	0	BGD	8.0		Light brown SILT, some fine to coarse Shale fragments, little medium to coarse Sand, trace fine Sand, medium stiff, saturated.	GM
	38					9.2		Light brown to olive grey SILT, some fine to coarse Shale fragments, little medium Sand, stiff, moist (saturated on Shale fragments).	GM
	38					10.0			
	45								

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW43-4

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION		USCS	
.06	16 32 100/3	1.30	1.3	0	BGD	10.8		Light brown SILT + CLAY + grey fine to coarse SHALE fragments, loose, saturated.	-	GM-GC	
								11	11.3	Fractured, weathered, finely laminated, brittle grey SHALE, medium dense, saturated.	-
										No Recovery	-
.07	100/4	0.40	0.4	0	BGD	12		12.0			
								12.4	Fractured, weathered, finely laminated SHALE, medium dense, dry.	-	
									No Recovery	-	
BORING TERMINATED AT 13.4' AUGER REFUSAL											

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW43-4



# LOG OF BORING NO. SB43-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-43,56,69**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **06/10/94**  
 DATE COMPLETED: **06/10/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **5.0**  
 BORING LOCATION (N/E): **987192.1 753900.9**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **NA**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	4	2.00	1.2	0	BGD	0.3		Grey-brown SILT + very fine SAND, little organic material, trace fine Shale fragments, loose, dry.	ML
	4					Grey-brown SILT, some(-) very fine Sand, trace organic material, trace(-) fine Shale fragments, medium stiff, moist.		ML	
	5								
						1		No Recovery	-
.02	10	2.00	1.7	0	BGD	2.0		Light brown SILT, little very fine Sand, trace(+) fine to medium Shale fragments, loose, moist to saturated.	ML
	14								
	17								
	16					3			
						3.5			
						3.7		Light brown SILT, trace very fine Sand, trace very fine to fine Shale fragments, stiff, dry.	ML
						4.0		No Recovery	-
.03	12	2.00	1.5	0	BGD	4		Light brown-grey very fine SAND + SILT, trace(+) very fine to fine Shale fragments, rounded, loose, wet to saturated.	ML
	28								
	26								
	38					5			
						5.5		No Recovery	-
.04	45	2.00	1.8	0	BGD	6		AA, (3.5-3.7'), trace(-) coarse Shale fragments.	ML
	55								
	70								
	100/3					7			
						7.4			
						7.8		Light brown very fine SAND + SILT, trace very fine Shale fragments, medium stiff, moist to wet.	ML
.05	35	2.00	2.0	0	BGD	8		No Recovery	-
	65					Grey-brown SILT, trace very fine Sand, trace(-) very fine to fine Shale fragments, stiff, dry.		ML	
	71								
	92					9			
						9.7			
						10.0		Grey SILT + CLAY, trace(-) very fine Sand, very stiff, dry.	ML-CL

NOTES: The following samples were collected for chemical analysis: (SB43-1-00), (SB43-1-00-MRD), (SB43-1-20-DUP), (SB43-1-03), (SB43-1-08).



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LOG OF BORING SB43-1

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	52 93 100/4	1.40	1.4	0	BGD	10.7		Light brown very fine SAND + SILT, trace fine Shale fragments, loose, moist.	ML
						11		Grey CLAY, little Silt, trace fine Shale fragments, very stiff, dry.	CL
						11.4		No Recovery	-
.07	34 77 82 108	2.00	2.0	0	BGD	12		Dark grey CLAY, trace Silt, trace very fine to fine Shale fragments, very stiff, dry.	CL
						13		No Recovery	-
						14.0		Grey-brown very fine SAND + SILT, trace fine to medium Gravel, medium stiff, moist.	ML
.08	46 60 63 100.2	1.70	1.7	0	BGD	14.5		Grey-brown SILT, trace very fine Sand, little fine to medium Shale fragments, very stiff, moist to saturated.	ML
						15		No Recovery	-
						15.7		No Recovery	-
.09	100/4	0.40	0.3	0	BGD	16.0		No Recovery	-
						16.3		Grey, highly weathered SHALE, saturated.	-
BORING TERMINATED AT 16.4'. SPOON REFUSAL									

NOTES: The following samples were collected for chemical analysis: (SB43-1-00), (SB43-1-00-MRD), (SB43-1-20-DUP), (SB43-1-03), (SB43-1-08).



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LOG OF BORING SB43-1

# LOG OF BORING NO. SB43-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-43,56,69**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **06/10/94**  
 DATE COMPLETED: **06/10/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **12.2**  
 BORING LOCATION (N/E): **987145.8 753930.1**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **NA**  
 DATUM: **NAD 1983**  
 INSPECTOR: **KK,LR**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS	
.01	2	2.00	1.3	0	BGD	1		Brown SILT + very fine SAND, trace Organics, trace fine Gravel, trace(-) fine mica chips, soft, dry to slightly moist.	ML	
	2							0.4		
	4							0.7	Brown SILT + CLAY, little(-) fine Gravel, soft, slightly moist.	ML-CL
	3							1.0	AA, (0.0-0.4').	ML
								1.3	AA, (0.4-0.7'), trace fine grey Shale fragments.	ML
							No Recovery			
.02	5	2.00	1.8	0	BGD	2		Brown fine SAND + SILT, trace fine grey Shale fragments and Gravel, medium stiff, moist.	ML	
	5							2.5	Brown SILT + grey, iron-stained CLAY, little fine grey Shale fragments, trace medium grey Shale fragments, medium stiff, slightly moist.	ML-CL
	10							3		
	12							3.8		
								4.0	No Recovery	
.03	17	2.00	2.0	0	BGD	4		Olive grey SILT + grey, iron-stained CLAY, little fine grey Shale fragments and Gravel, little fine Sand (4.8-5'), trace coarse grey, slightly weathered Shale fragments (5-5.5'), stiff to very stiff, slightly moist to dry.	ML-CL	
	22							5		
	32							6.0		
	48							7		
								7.8		
.04	32	2.00	1.8	0	BGD	6		SILT, little iron-stained Clay grading to Silt, little fine grey Shale fragments, trace medium grey Shale fragments, grading from brown to light brown at 6.6' and then to light grey at 7.3', very stiff, slightly moist throughout.	ML	
	44							7		
	55							7.8		
	100/.3							8.0	No Recovery	
								8.8		
.05	22	1.40	0.8	0	BGD	8		Light grey SILT, some fine grey Shale fragments, little medium grey Shale fragments, very stiff, slightly moist, trace(-) wetness on Shale fragments.	GM	
	30							8.8		
	100/.4							9	No Recovery	
						10				

NOTES: The following samples were collected for chemical analysis: (SB43-2.00), (SB43-2.03), (SB43-2.06).



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LOG OF BORING SB43-2

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	22 30 100/.4	1.40	1.4	0	BGD	10.5		Light grey SILT + medium grey Shale fragments, moist.	GM
						11.0		AA, (10-10.5'), some coarse, slightly weathered, fractured Shale, trace wetness on Shale.	GM
						11.4		AA, (10-10.5').	GM
						12.0		No Recovery	-
.07	20 28 20 100/.1	1.60	1.6	0	BGD	12.2		Light grey SILT + medium grey SHALE fragments, little fine grey Shale fragments, wet.	GM
						13.0		AA, (12-12.2'), saturated.	GM
						13.5		Light grey SILT + medium grey SHALE fragments, some fine Sand, little fine grey Shale fragments, saturated.	GM
						13.6		Weathered, fractured grey SHALE.	-
						14.0		No Recovery	-
.08	100/.2	0.20	0.10	0	BGD	14.1		Grey, slightly weathered SHALE chips, dry.	-
						14.1		No Recovery	-
NA	100/.1	0.10	0	NA	NA	16			
						17			
BORING TERMINATED AT 17.5' AUGER REFUSAL									

NOTES: The following samples were collected for chemical analysis: (SB43-2.00), (SB43-2.03), (SB43-2.06).



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LOG OF BORING SB43-2

# LOG OF BORING NO. SB43-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-43,56,69**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **06/09/94**  
 DATE COMPLETED: **06/09/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **5.5**  
 BORING LOCATION (N/E): **987236.9 754037.7**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **NA**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	7	2.00	1.7	0	BGD	0.3		Grey-brown fine SAND + SILT, some organic material, trace fine to medium Gravel, dry.	ML
	8							Brown-grey SILT, trace very fine Sand, trace(-) fine Shale, dry.	ML
	8								
.02	9	2.00	1.4	0	BGD	1.7		No Recovery	-
	6							Grey-brown SILT, some Clay, little very fine Sand, trace weathered Shale fragments, stiff, damp.	ML-CL
	13								
	16							Light brown-grey SILT, some very fine Sand, trace fine Shale fragments, medium stiff, damp.	ML
	17								
.03	12	2.00	1.8	0	BGD	4.0		AA, (2.6-3.4'), moist, trace wetness.	ML
	18								
	14								
	30								
	5.4							Grey-brown SILT + very fine SAND, saturated.	ML
.04	18	2.00	1.4	0	BGD	5.6		Light brown-grey SILT, some very fine Sand, trace fine to medium Shale, medium stiff, damp.	ML
	44								
	51							No Recovery	ML
	57							Light brown-grey SILT, some very fine Sand, trace fine to medium Shale fragments, medium stiff, damp.	ML
	7.4							No Recovery	-
.05	26	2.00	1.9	0	BGD	8.0		Light brown very fine to fine SAND, little Silt, little very fine to fine Shale fragments, trace medium Shale fragments, loose, saturated.	ML
	29								
	41								
	63					9.9			









NOTES: The following samples were collected for chemical analysis: (SB43-3-02), (SB43-3-03).



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 Romulus, New York

LOG OF BORING SB43-3

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	25 55 100/.4	1.40	1.3	0	BGD	10.0		No Recovery	ML
						10.7		AA, (8-9.9').	
						11 11.3		Light brown SILT, little(-) very fine Sand, trace very fine Shale fragments, medium stiff, damp.	ML
.07	70 100/.4	0.90	0.9	0	BGD	12.0		No Recovery	-
						12.6		Grey-brown very fine SAND, some Silt, trace fine Shale fragments, wet to saturated.	ML
						12.9		Grey weathered SHALE, some Silt.	GM
						13 14.0		No Recovery	-
.08	100/.3	0.30	0.3	0	BGD	14		Highly weathered SHALE.	-
BORING TERMINATED AT 14.3' SPOON REFUSAL									

NOTES: The following samples were collected for chemical analysis: (SB43-3-02), (SB43-3-03).

# LOG OF BORING NO. SB43-4

**PROJECT:** EIGHT MODERATELY LOW PRIORITY AOCs  
**PROJECT LOCATION:** SENECA ARMY DEPOT, ROMULUS NY  
**ASSOCIATED UNIT/AREA:** SEAD-43,56,69  
**PROJECT NO:** 720519-01000  
**DATE STARTED:** 02/17/94  
**DATE COMPLETED:** 02/17/94  
**DRILLING CONTRACTOR:** EMPIRE SOILS INVESTIGATIONS  
**DRILLING METHOD:** HOLLOW STEM AUGER  
**SAMPLING METHOD:** 3" SPLIT SPOONS

**DEPTH TO WATER (ft):** 12.6  
**BORING LOCATION (N/E):** 987297.5 754118.6  
**REFERENCE COORDINATE SYSTEM:** New York State Plane  
**GROUND SURFACE ELEVATION (ft):** NA  
**DATUM:** NAD 1983  
**INSPECTOR:** FO  
**CHECKED BY:** KK

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	75/3	0.30	0	NA	NA			No sample taken, augered to 1' due to frozen ground.	-
.02	28 14	1.00	1.0	0	BGD	1			
						1.0	Topsoil, brown Organics, Silt and trace Sand.	OL	
						1.3	Light brown, very fine SAND + SILT, trace fine Gravel, nail at 1.6'.	ML	
						1.7	Olive green CLAY, trace fine Gravel.	CL	
.03	6 13 19 22	2.00	1.3	0	BGD	2		Brown-grey SILT + CLAY, trace medium to large Gravel, moist.	ML-CL
						3			
						3.3		No Recovery	-
						4.0			
.04	16 13 17 22	2.00	1.1	0	BGD	4		Brown-grey CLAY, some Silt, trace coarse grains, trace organic material, low plasticity, moist.	CL-ML
						5			
						5.1		No Recovery	-
						6.0			
.05	35 67 100/5	1.50	1.5	0	BGD	6		AA (4.0-5.1')	CL-ML
						6.6			
						6.9		Brown-grey SILT + CLAY, little weathered Shale fragments, dry.	ML-CL
						7			
						7.2		Light brown very fine SAND, little Silt, little(-) fine Shale fragments, moist.	ML
						7.5		Dark grey fractured SHALE.	-
.06	95 100/4	0.90	0.9	0	BGD	8		Light brown SILT, little very fine Sand, little Shale fragments.	ML
						8.0			
						8.9			
						9		No Recovery	-
						10			




NOTES: The following samples were collected for chemical analysis: (SB43-4-01), (SB43-4-02), (SB43-4-20-DUP), (SB43-4-07), (SB43-4-02-MRD).



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LOG OF BORING SB43-4

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.07	100/5	0.50	0.5	0	BGD	10.5		Tan-brown SILT, trace(+) Shale fragments, dry.	ML
						11		No Recovery	
.08	42 75 100/4	1.40	1.4	0	BGD	12.0		Brown-grey SILT, little fine to medium Shale fragments, medium dense, moist.	ML
						12.6		AA, (12-12.6'), little + Shale, saturated.	ML
						13			
BORING TERMINATED AT 13.4' AUGER REFUSAL									

NOTES: The following samples were collected for chemical analysis: (SB43-4-01), (SB43-4-02), (SB43-4-20-DUP), (SB43-4-07), (SB43-4-02-MRD).



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LOG OF BORING SB43-4



# LOG OF BORING NO. SB56-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-43,56,69**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **05/23/94**  
 DATE COMPLETED: **05/23/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **13.0**  
 BORING LOCATION (N/E): **987602.6 753622.7**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **NA**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION		USCS
.01	4	2.00	1.6	0	BGD	0.6		Brown medium SAND, some(-) organic material, trace(+) fine Gravel, loose, wet.		SP
	7							Light brown coarse SAND + fine GRAVEL, trace(-) Silt, saturated.		SP
	6							Olive grey very fine SAND + SILT, trace fine Gravel, medium stiff, moist.		ML
NA	5	2.00	0	0	NA	2		No Recovery		-
	7									
	9									
.02	3	2.00	1.8	0	BGD	4.0		Olive grey CLAY, some Silt, trace Shale fragments, trace(-) very fine Sand, plasticity, loose, wet.		CL-ML
	10							Grey-brown SILT, trace(+) very fine Sand, trace Shale fragments, trace(-) Cobbles, trace iron staining, medium stiff, moist to wet.		ML
	15							No Recovery		-
.03	19	2.00	1.7	0	BGD	6.0		Light brown-grey SILT, little(-) very fine Shale fragments, trace fine to medium Shale fragments, trace very fine Sand and Clay, medium stiff, damp.		ML
	20							No Recovery		-
	25									
.04	10	2.00	1.8	0	BGD	8.0		Light brown SILT, little very fine Shale fragments, trace very fine Sand, trace(-) Clay, trace fine to medium Gravel, moist.		ML
	15									
	14							Light brown-grey very fine SAND + SILT, little(+) very fine Shale fragments, little(-) fine to medium Shale, medium stiff, moist to wet.		ML
						9.8				

NOTES: The following samples were collected for chemical analysis: (SB56-1-00), (SB56-1-03), (SB56-1-07).



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LOG OF BORING SB56-1

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.05	27 100/.4	0.90	0.9	0	BGD	10.0		No Recovery	ML
						10.9		Light brown very fine SAND + SILT, some Shale fragments, medium stiff, moist.	
.06	35 60 100/.2	1.20	1.2	0	BGD	11		No Recovery	-
						12.0		AA, (10-10.9').	
						13.0		Weathered, fractured SHALE, wet to saturated.	
						13.2			
.07	100/.1	0.10	0.1	0	BGD	14		Grey competent SHALE.	-
						14.1		No Recovery	
BORING TERMINATED AT 15.0' SPOON REFUSAL									

NOTES: The following samples were collected for chemical analysis: (SB56-1-00), (SB56-1-03), (SB56-1-07).



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LOG OF BORING SB56-1

# LOG OF BORING NO. SB56-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-43,56,69**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **05/23/94**  
 DATE COMPLETED: **05/23/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **8.5**  
 BORING LOCATION (N/E): **987542.8 753608.7**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **NA**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	3	2.00	1.7	0	BGD	1		Brown medium SAND, little(+) organic material, little(-) fine to medium Gravel, trace Silt, trace fine to coarse Sand, loose, moist.	SP
	12							Olive grey SILTSTONE fragment, Cobble.	-
	14							Light brown SILT + fine SAND, trace(+) fine to medium Gravel, loose, moist.	ML
	12							Grey-brown SILT, trace very fine SAND, trace Clay, trace fine Shale fragments, medium stiff, dry.	ML
								No Recovery	-
.02	10	2.00	1.8	0	BGD	2		Grey-brown-yellow SILT, trace(+) Clay, trace weathered Shale, trace(-) very fine Sand, dry.	ML
	12								
	12								
	13								
.03	6	2.00	1.5	0	BGD	4		Grey-brown SILT, little very fine Sand, little Clay, trace weathered Shale fragments, medium stiff, moist.	ML
	6							No Recovery	-
	9							Olive grey SILT + very fine SAND, trace weathered Shale, trace(-) organic material, medium stiff, moist.	ML
	9							Grey-brown SILT, some Clay, little very fine Sand, little fine to medium weathered Shale fragments, medium stiff, moist.	ML-CL
								No Recovery	-
.04	9	2.00	1.8	0	BGD	6		Grey brown SILT, very fine SAND + CLAY, little fine to medium Shale + weathered Shale fragments, medium stiff, moist to wet.	ML-CL
	10							Highly weathered SHALE, wet.	ML-CL
	10							AA, (6-6.5').	ML-CL
	17							AA, (6.6-7'), wet.	ML-CL
								No Recovery	-
								AA, (7-7.8').	ML-CL
.05	5	2.00	1.4	0	BGD	8		Light grey SILT + very fine SAND, some fractured Shale fragments, wet to saturated.	GM
	5							Light brown SILT + very fine SAND, little Shale fragments, wet to saturated.	ML
	9							Weathered, fractured SHALE, saturated.	-
	15							No Recovery	-
								No Recovery	-






NOTES: The following samples were collected for chemical analysis: (SB56-2-00), (SB56-2-03), (SB56-2-05).



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LOG OF BORING SB56-2

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	15 42 50 70	2.00	2.0	0	BGD	11		Light brown very fine SAND, little Silt, trace weathered Shale fragments, trace(+) fine to medium Shale, loose, moist to saturated.	ML
.07	35 41 65 70	2.00	2.0	0	BGD	12		Light brown SILT + very fine SAND, little(-) Shale fragments, loose, moist.	ML
.08	25 65 100/.1	1.10	1.0	0	BGD	13.6		Weathered SHALE, moist.	-
						14.0		Highly weathered SHALE, trace brown Clay, saturated.	-
						15.0		No Recovery	
BORING TERMINATED AT 15.1' SPOON REFUSAL									

NOTES: The following samples were collected for chemical analysis: (SB56-2-00), (SB56-2-03), (SB56-2-05).



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LOG OF BORING SB56-2

# LOG OF BORING NO. SB56-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-43,56,69**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **05/18/94**  
 DATE COMPLETED: **05/18/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **8.0**  
 BORING LOCATION (N/E): **987467.5 753630.8**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **NA**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	5	2.00	0.9	0	BGD	0.2		Brown medium SAND, some organic material, little fine Gravel, trace(+) Silt, very loose, wet.	SP
	13					0.9		Brown coarse GRAVEL + SHALE, trace medium Sand, trace(-) Silt, saturated.	GP
	11					1		No Recovery	-
	18								
.02	3	1.70	1.7	0	BGD	2.0		Very fine to medium GRAVEL, trace(+) medium Sand, trace Silt.	GP
	5					2.3		Olive grey SILT, little very fine Sand, trace fine Shale fragments, trace(-) organic material, very stiff, wet to moist.	ML
	5					3		No Recovery	-
	9								
.03	7	2.00	1.6	0	BGD	4.0		Olive grey-brown SILT + CLAY, trace(-) very fine Sand, trace weathered Shale fragments, trace fine Shale fragments, very stiff, moist.	ML-CL
	15					5.4		AA, (4-5.4'), some weathered SHALE, very stiff, wet.	GM-GC
	10					5		No Recovery	-
	10								
.04	10	2.00	1.5	0	BGD	6.0		Grey-brown CLAY + SILT, little(-) very fine Sand, little fine to medium Shale fragments, trace weathered Shale.	ML-CL
	14					7.5		No Recovery	-
	14					7		No Recovery	-
	16								
.05	11	2.00	1.6	0	BGD	8.0		Light brown very fine SAND, some(-) Silt, little fine to medium Shale fragments, trace weathered Shale, loose, wet to saturated.	ML
	17					9.6		No Recovery	-
	28					9		No Recovery	-
	22								
						10		No Recovery	-












NOTES: The following samples were collected for chemical analysis: (SB58-3-00), (SB58-3-04), (SB58-3-08).



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LOG OF BORING SB56-3

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	60 100/.1	0.60	0.3	0	BGD	10.3		Light brown very fine SAND, some(-) Silt, little medium to coarse Shale, loose, moist to wet. No Recovery	ML
						11			
.07	33 99 100/.2	1.20	1.2	0	BGD	12.0		AA, (10-10.3'), fine to medium Shale fragments.	GM
						12.5		Weathered, fractured SHALE, wet.	-
						12.8		AA, (10-10.3').	ML
						13		No Recovery	-
						13.2			
.08	59 104 84 101	2.00	1.8	0	BGD	14.0		Light brown very fine SAND + SILT, little fine to medium Shale fragments, stiff, wet.	ML
						14.2		Weathered SHALE, saturated.	ML
						14.4		AA, (14-14.2'), trace(-) coarse Shale fragments.	
						15		Light grey SILT, little(-) very fine Sand, trace weathered SHALE, stiff, moist.	ML
						15.2			
						15.8			
.09	97 100/.1	0.60	0.5	0	BGD	16.0		No Recovery	-
						16.5		Dark grey weathered, fractured SHALE, saturated.	-
						16.5		No Recovery	
							BORING TERMINATED AT 16.6' SPOON REFUSAL		

NOTES: The following samples were collected for chemical analysis: (SB58-3-00), (SB58-3-04), (SB58-3-08).



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LOG OF BORING SB56-3

# LOG OF BORING NO. SB59-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-59**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **05/26/94**  
 DATE COMPLETED: **05/26/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **7.0**  
 BORING LOCATION (N/E): **999015.2 750250.8**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **NA**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	12	2.00	2.0	0	BGD	0.3	○	Brown SILT, some fine to coarse Shale fragments, little very fine Sand, little organic material, loose, moist to wet.	GM
	12					○	Brown-grey SILT, some(+) fine to medium Shale fragments, some very fine Sand, medium stiff, moist.	GM	
.02	15	2.00	1.5	0	BGD	1	○		
	10					○			
	8					○			
	7					○			
.03	3	2.00	1.2	0	BGD	2.0	○	Grey-brown SILT, little medium Shale fragments, little organic material, trace very fine Sand, medium dense, moist.	ML
	4					○			
	4					○			
	5					○			
						○	No Recovery	-	
.04	4	2.00	1.7	0	BGD	4.0	○	AA, (2-3.5'), wet.	-
	4					○			
	5					○	Grey-brown SILT, little medium Shale, trace very fine Sand, medium dense, moist.	ML	
						○	No Recovery	-	
.05	5	1.30	1.3	0	BGD	6.0	○	Grey-brown SILT, some(-) very fine Sand, trace fine Shale fragments, loose, wet to saturated.	ML
	5					○			
	7					○	Light brown very fine SAND + SILT, little fine to medium Shale fragments, trace coarse Shale fragments, trace(-) Shale Cobble, loose, saturated.	ML	
	7					○			
						○	No Recovery	-	
.05	4	1.30	1.3	0	BGD	8.0	○	Light brown very fine SAND + SILT, trace fine Shale fragments, loose, saturated.	ML
	9					○			
	100/3					○	Light brown very fine SAND, some fine to medium Shale fragments, little Silt, trace coarse Shale fragments, loose, saturated.	ML	
						○	Dark grey, weathered SHALE, saturated.	-	
BORING TERMINATED AT 10' AUGER REFUSAL									

NOTES: The following samples were collected for chemical analysis: (SB59-2-00), (SB59-2-00-MRD), (SB59-2-20-DUP), (SB59-2-02), (SB59-2-04).



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LOG OF BORING SB59-2

# LOG OF BORING NO. SB69-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-43,56,69**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **05/17/94**  
 DATE COMPLETED: **05/17/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **11.0**  
 BORING LOCATION (N/E): **986998.9 754353.7**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **NA**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS	
.01	1	2.00	1.4	0	BGD	1		Brown SILT, little organic material, trace very fine Sand, trace fine to medium Gravel, loose, moist.	ML	
	2							0.6	Wood.	-
	2							0.8	AA, (0-0.6'), trace organic material.	ML
	3							1.4	No Recovery	-
.02	7	2.00	2.0	0	BGD	2		AA, (0.8-1.4).	ML	
	10							2.2	Tan-grey CLAY, little Silt, trace very fine Sand, little plasticity, trace organic material, stiff, moist.	CL
	12							2.6	LIMESTONE COBBLE.	-
	15							3.0	Grey-brown SILT + CLAY + very fine SAND, stiff, moist.	ML-CL
	NA							4.0	No Recovery	-
NA	60	2.00	NA	NA	NA	4		No Recovery	-	
	21							5		
	33							6		
	34							7		
.03	15	1.50	1.5	0	BGD	8		Light grey-brown SILT, some very fine Sand, trace fine Shale fragments, medium stiff, very dry.	ML	
	52							8.4	Light brown SILT + very fine SAND, trace fine to coarse Shale fragments, loose, moist.	ML
	102							8.6	Dark grey, very weathered SHALE, wet to saturated.	ML
								8.9	Light brown SILT + very fine SAND, little fine to medium Shale fragments, little weathered Shale fragments, medium stiff, moist.	-
								9.5	No Recovery	-
								10.0		

NOTES: The following samples were collected for chemical analysis: (SB69-1-00), (SB69-1-00-MRD), (SB69-1-20-DUP), (SB69-1-05), (SB69-1-06).



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LOG OF BORING SB69-1



Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.04	26	1.30	1.3	0	BGD	10.2	SHALE COBBLE.		-
	80					AA, (8.9-9.5').		ML	
	100/3					Dark grey, highly weathered SHALE, damp.		-	
						Light brown SHALE + CLAY, little Silt, saturated.		ML-CL	
.05	40	1.70	1.7	0	BGD	12.0	Light brown-grey SILT + SAND, little fine to medium Shale fragments, trace Clay, stiff, moist.		ML
	109					Dark grey, highly weathered SHALE, damp.		-	
	62								
	100/2					CLAY, little Silt, trace fine to medium Shale fragments, stiff, wet.		CL	
						No Recovery		-	
.06	25	1.30	1.2	0	BGD	14.0	Dark grey, highly weathered SHALE + grey CLAY, trace fine to medium Shale fragments, moist to wet.		-
	67								
	100/3					No Recovery		-	
						15.2			
						16	BORING TERMINATED AT 16' AUGER REFUSAL		

NOTES: The following samples were collected for chemical analysis: (SB69-1-00), (SB69-1-00-MRD), (SB69-1-20-DUP), (SB69-1-05), (SB69-1-06).



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LOG OF BORING SB69-1

# LOG OF BORING NO. SB69-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-43,56,69**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **05/16/94**  
 DATE COMPLETED: **05/16/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **8.2**  
 BORING LOCATION (N/E): **987108.9 754274.1**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **NA**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS		
.01	1	2.00	1.7	0	BGD	0.6		Brown SILT, little organic material, trace very fine Sand, loose, moist.	ML		
	3							1		Tan-grey SILT + very fine SAND, little(+) Clay, trace organic material, medium stiff, moist.	ML
	4									Pink-tan-grey very fine SAND, some Silt and Clay, trace fine to medium Shale fragments, trace organic material, some mottling, medium stiff, moist.	ML-CL
	7										-
.02	8	2.00	1.6	0	BGD	2.0	No Recovery	ML			
	13						3		Pink-brown very fine SAND + SILT, trace Clay, trace fine Shale fragment, some mottling, trace organic material, medium stiff, moist.	ML	
	18								Grey-brown SILT, little very fine Sand, trace(+) Clay, trace fine to medium Shale fragments, trace(-) Cobbles, stiff, dry.	ML	
	15									-	
.03	29	2.00	1.3	0	BGD	4.0	No Recovery	-			
	18						5		SHALE COBBLE	-	
	24								Light brown SILT + very fine SAND, little fine to medium weathered Shale fragments, trace fine to medium Shale fragments, loose to medium stiff, moist to wet.	ML	
	28									-	
.04	72	2.00	0.9	0	BGD	6.0	AA, (4.2-5.3').	ML			
	100/.4						7		Grey weathered SHALE.	-	
									No Recovery	-	
										-	
.05	26	1.90	1.9	0	BGD	8.0	Grey-brown SILT, little very fine to medium Shale fragments, stiff, very dry.	ML			
	60						9		Light brown very fine SAND, some Silt, little fine to medium Shale fragments, trace weathered Shale, loose, moist to wet (saturated from 8.2-8.6').	ML	
	83										
	100/.4										

NOTES: The following samples were collected for chemical analysis: (SB69-2-00), (SB69-2-04), (SB69-2-07).



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LOG OF BORING SB69-2

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	6 76 100/.2	1.20	0.7	0	BGD	10.0		Light grey SILT, trace very fine Sand and weathered Shale fragments, loose, dry.	ML
						10.3			ML
						10.4		Light grey SILT, trace weathered Shale fragments, loose, dry	ML
						10.5		Olive green very fine SAND, little Silt, moist.	ML
						10.7		AA, (10.3-10.4'). No Recovery	-
.07	33 72 100/.3	1.30	1.3	0	BGD	12.0		Light grey SILT + CLAY + weathered SHALE, medium stiff, moist.	ML-CL
						13.0			-
						13.3		Weathered, fractured SHALE, dry. No Recovery	-
.08	79 109	1.00	1.0	0	BGD	14.0		Grey, thinly laminated, highly weathered SHALE, saturated.	-
						15.0		No Recovery	-
.09	18 18 37 60	2.00	2.0	0	BGD	16.0		AA, (14-15').	-
						16.5		Grey-brown SILT, little fine to medium Shale fragments, very stiff, moist to dry.	-
.10	31 97 100/.1	1.10	1.1	0	BGD	18.0		Grey, highly weathered SHALE, saturated.	-
								BORING TERMINATED AT 19.1' SPOON REFUSAL	

NOTES: The following samples were collected for chemical analysis: (SB69-2-00), (SB69-2-04), (SB69-2-07).



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LOG OF BORING SB69-2

# LOG OF BORING NO. SB69-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-43,56,69**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **02/18/94**  
 DATE COMPLETED: **02/18/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **12.0**  
 BORING LOCATION (N/E): **987010.5 754262.6**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **NA**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO, KK**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION		USCS
.01	4	2.00	1.6	0	BGD	0.4		Grey-brown CLAY, little organic, frozen.	CL	
	6							Grey-brown CLAY, little Silt, trace Organics, medium plasticity, soft, moist.	CL	
	12							Grey-brown CLAY, trace Silt, fine Gravel and Shale, medium plasticity, stiff, dry to moist.	CL	
	15									
.02	22	2.00	1.8	0	BGD	2.0		No Recovery	-	
	25							Grey-brown CLAY, little fine Gravel and Shale, low plasticity, soft, moist.	CL	
	44							AA, (2-2.5'), some medium to coarse Gravel and Shale, low plasticity, loose, dry to moist.	GC	
	35									
.03	30	2.00	1.2	0	BGD	4.0		No Recovery	-	
	44							Grey-brown SILT, trace Clay.	ML	
	45							AA, (4-4.4'), fractured Shale, loose, moist.	GM	
	107									
.04	40	2.00	1.5	0	BGD	6.0		Grey-brown SILT, little Clay, some fine to coarse Shale fragments, trace Quartz, dense, dry.	ML	
	55							No Recovery	-	
	65									
	83									
.05	37	2.00	1.6	0	BGD	8.0		Grey SILT, some fine to coarse angular to subrounded Shale, trace Clay, very stiff, dry.	GM	
	68							AA, (8-9.1'), very stiff, very dry.	GM	
	87									
	92									
						10.0		No Recovery	-	









NOTES: The following samples were collected for chemical analysis: (SB69-3.01), (SB69-3.04), (SB69-3.06).



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LOG OF BORING SB69-3

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	52	2.00	1.6	0	BGD	10.9		AA, (9.1-9.6'), stiff, dry.	GM
	68					11		AA, (10-10.9'), some Limestone fragments (up to 0.2').	GM
	80					11.6		No Recovery	-
.07	71	1.40	1.2	0	BGD	12		Grey SILT + fine to medium SHALE fragments, loose, saturated.	GM
	100/4					12.7		AA (12-12.7') and weathered Shale, medium loose, saturated.	-
						13	13.2		No Recovery
.08	58	1.00	0.6	0	BGD	14		AA, (12.7-13.2').	-
	110					14.6		No Recovery	-
						15			
.09	28	0.90	0.9	0	BGD	16		Grey SILT + weathered SHALE fragments (up to 0.2'), soft, saturated.	GM
	100/4					16.7		Grey, weathered SHALE, trace Silt, stiff, dry to moist.	-
						17	16.9		No Recovery
.10	42	0.80	0.7	0	BGD	18			
	100/3					18.0			
						18.3		Grey SHALE, wet to saturated.	-
						18.5		Grey SILT + weathered SHALE fragments (up to 0.2'), little Clay, loose, saturated.	GM
					18.7		Grey SHALE, little Silt, trace Clay, wet.	-	
					19		No Recovery	-	
BORING TERMINATED AT 19.5'									

NOTES: The following samples were collected for chemical analysis: (SB69-3.01), (SB69-3.04), (SB69-3.06).



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












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LOG OF BORING SB69-3

# LOG OF BORING NO. MW44A-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-44A**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **02/16/94**  
 DATE COMPLETED: **02/16/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **8.0**  
 BORING LOCATION (N/E): **985665.4 753526.7**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **752.9**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO, KK**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	7	2.00	1.4	0	BGD	0.2		Brown SILT + fine SAND, trace Organics, moist.	ML
	5					0.3		Brown SILT, trace Organics, moist.	ML
	7					0.7		AA, grey-brown with trace weathered Shale and fine Gravel, moist.	ML
	10					1.4		No Recovery	-
.02	8	2.00	1.4	0	BGD	2.0		AA, grey-brown with little Clay and little Shale, rock fragments at 0.7, saturated.	ML
	10					2.7		Light brown SILT with little Shale, moist.	ML
	15					3.2		AA, fine Sand, wet to saturated.	ML
	22					3.4		No Recovery	-
.03	17	2.00	0.8	0	BGD	4.0		Brown SILT with trace very fine Sand, trace fine to medium Shale, trace fine to medium Gravel, wet.	ML
	24					4.8		No Recovery	-
	32					6.0		Grey-brown SILT with trace very fine Sand, trace Clay, moist to wet.	ML
.04	62	1.75	0.5	0	BGD	6.3		Silty grey SHALE.	-
	103					6.5		No Recovery	-
						8.0		Grey-brown SILT + very fine SAND, some(-) fine to coarse Shale, saturated.	ML
.05	61	2.00	2.0	0	BGD	8.7		Fractured black SHALE, saturated.	-
	82					9.5		AA, (8-8.7') saturated.	ML
	100/3					10.0			


NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW44A-1

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	75 100/.1	0.60	0.6	0	BGD			Grey SILT with trace Clay, black Shale(10.2-10.4').	ML
BORING TERMINATED AT 10.6' AUGER REFUSAL									

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW44A-1

# LOG OF BORING NO. MW44A-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-44A**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **06/06/94**  
 DATE COMPLETED: **06/06/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **25.4**  
 BORING LOCATION (N/E): **985425.4 753032.5**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **750.4**  
 DATUM: **NAD 1983**  
 INSPECTOR: **ES, KK**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS	
.01	1	2.00	1.3	0	BGD	1		Dark brown TOPSOIL, Silt, little Clay, Shale fragments, moist.	OL	
	1							1.0		
	4							1.3	Light brown SILT + CLAY, little Shale fragments, moist.	ML-CL
.02	6	2.00	1.3	0	BGD	2		No Recovery		
	5							2.0	AA, some Shale fragments.	GM-GC
	6									
	16							3.0		
.03	18	2.00	2.0	0	BGD	3		AA, little Cobbles.	GM-GC	
	20							4.0		
	23							4.3	AA (3.0-3.3')	GM-GC
.04	85	2.00	0	0	BGD	4		Light brown SILT, little Clay, little Shale fragments, dense, moist.	ML	
	100/1							6.0	No Recovery	
								7		
.05		2.00	0.9	0	BGD	8		Light brown SILT, little very fine Sand, little Shale fragments, dense, dry to slightly moist.	ML	
	43							8.0		
	100/4							8.9	No Recovery	
						9				
						10				

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW44A-2



Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	100 100/.2	2.00	0.8	0	BGD	10.3		Light grey SILT, little very fine Sand, little Shale fragments, dry to slightly moist.	ML
						10.8		Light grey SILT, little Shale fragments, dense, moist.	ML
						11		No Recovery	-
.07	29 42 74 80	2.00	2.0	0	BGD	12.0		AA (10.3-10.8')	ML
						13			
						14.0			
.08	35 50 70 100/.3	1.80	1.8	0	BGD	14.0		Light grey SILT + CLAY, little sub-rounded to angular fine to medium Shale fragments, little Silt, very stiff, dry to slightly moist.	ML-CL
						15			
						15.8			
.09	28 48 63 90	2.00	2.00	0	BGD	16.0		No Recovery	-
						16.2		Light grey SILT, little(-) Clay, little fine to medium subrounded to angular Shale fragments, loose, slightly moist.	ML ML-CL
						17		AA, (14-15.8).	
.10	40 76 100/.4	1.40	1.4	0	BGD	17.6		AA, (14-15.8), moist.	ML-CL
						18.0			
						18.3		Light grey SILT, little Clay, trace fine angular grey Shale fragments, loose, dry.	ML ML-CL
.11	38 75 90 95	2.00	2.0	0	BGD	19.4		AA, (14-15.8), medium stiff.	ML-CL
						20.0			
						20.5		Light grey brown CLAY, dense, dry to slightly moist.	CL
.12	35 50	2.00	2.0	0	BGD	20.9		AA, (20.5-20.9), trace fine to medium subrounded to angular grey Shale fragments, dry to slightly moist.	CL
						21			
						21.6		AA, moist.	CL
						21.8		Light grey brown SILT, some very fine Sand, trace(+) Clay, loose, moist.	ML
						22.0		Light grey brown SILT, some very fine Sand, trace(+) Clay, dense, slightly	ML
						22.5			

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW44A-2

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.13	54 71	1.90	1.9	0	BGD	23.0		moist.	GM
	23					Dark grey coarse sand-sized SHALE fragments, little(-) light grey Silt, dense, wet.		GM	
	23.8					Dark grey medium sand-sized SHALE fragments, little light grey Silt, medium dense, wet.			
	24.0					AA, wet to saturated.		GM	
	24.2					Light grey-brown CLAY, trace fine grey Shale fragments, very dense, dry to slightly moist.		CL	
.14	40 74 84 100/.4	1.40	1.4	0	BGD	24		Light grey fine SAND, trace Silt, trace lenses of (23-23.8), wet.	SM
	25								
	25.4					AA, (23-23.8), wet to saturated.		GM	
	25.9								
	26.0					Light grey SILT, some fine Sand, little grey Shale fragments, loose, dry.		ML	
.15	30 62 100/.4	0.80	0.8	0	BGD	26.1		Light grey fine SAND, little very fine Sand, trace Silt, loose, wet to saturated.	SP
	26.8								
	27.0					Dark grey medium sand-sized SHALE fragments, little lenses of light brown-grey Clay, loose, wet.		GC	
	27.4					Light grey-brown, highly weathered SHALE (weathered entirely to Clay), dense, dry to slightly moist.		-	
	28.0					No Recovery			
	40 100/.3	0.80	0.8	0	BGD	28		Light grey SILT + CLAY, little fine to medium grey Shale fragments, moist.	ML-CL
	28.8					No Recovery			
	29					No Recovery			
							BORING TERMINATED AT 30.1' AUGER REFUSAL		
NOTES: No samples were collected for chemical analysis.									



# LOG OF BORING NO. MW44A-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-44A**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **06/06/94**  
 DATE COMPLETED: **06/06/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **6.5**  
 BORING LOCATION (N/E): **985174.1 752661.6**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **748.2**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS			
.01	2	2.00	1.2	0	BGD	0.5		Brown SILT, some very fine Sand, little organic material, loose, moist.	ML			
	3							1	1.2		Grey-brown mottled SILT, little very fine Sand, trace(+) Clay, trace organic material, trace coarse Shale fragments, medium stiff, damp.	ML
	4										No Recovery	-
	6											
.02	12	2.00	1.3	0	BGD	2.0		Grey-brown SILT, some(-) very fine Sand, trace Clay, trace very fine Shale fragments, medium stiff, damp.	ML			
	14							3	3.3		No Recovery	-
	18											
	17											
.03	24	2.00	0	0	BGD	4		No Recovery	-			
	22							5	6.0		Light brown-grey SILT + very fine SAND, trace fine Shale fragments, stiff, damp, micaceous Shale at 6.5'.	ML
	24											
	34											
.04	38	0.90	0.9	0	BGD	6.0		Light brown-grey SILT + very fine SAND, trace fine Shale fragments, stiff, damp, micaceous Shale at 6.5'.	ML			
	100/4							7	6.9		Grey fractured SHALE, trace iron staining at 6.8', dry.	-
											No Recovery	-
.05	21	2.00	1.5	0	BGD	8.0		Light brown, fine SAND, little Silt, trace fine to medium Shale fragments, loose, wet to saturated.	SM			
	25							9	8.8		Light brown, very fine SAND + SILT, trace fine Shale fragments, loose, saturated.	ML
	37										Light brown-grey very fine SAND + SILT, little fine Shale fragments, medium stiff, moist.	ML
	40							9.5		No Recovery	-	
										10.0		


NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW44A-3

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	26 103	1.00	1.0	0	BGD	10.9		Grey-brown SILT, trace very fine Sand, trace fine Shale fragments, medium stiff, damp.	ML
						11 11.0		Grey weathered SHALE. No Recovery	
.07	100/1	0.10	0	NA	NA	12			
						13			
BORING TERMINATED AT 13.5' AUGER REFUSAL									

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW44A-3

# LOG OF BORING NO. MW44B-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-44B**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **03/21/94**  
 DATE COMPLETED: **03/21/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **7.6**  
 BORING LOCATION (N/E): **988170.5 751781.0**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **745.3**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS	
.01	1	2.00	1.5	0	BGD	0.8		Brown SILT, little organic material, wet to saturated.	ML	
	1							1	Orange, yellow, and grey CLAY, trace(+) Silt, trace organic material, trace Shale fragments, wet to saturated.	CL
	5								No Recovery	-
.02	6	2.00	1.4	0	BGD	1.5		Grey-brown SILT, little Clay, little fine to medium Shale fragments, trace coarse Shale fragments, soft, moist.	ML	
	9							2.0	No Recovery	-
	18								3	No Recovery
.03	26	2.00	1.8	0	BGD	3.4		Grey, brown, and yellow SILT + CLAY, trace(+) fine Shale fragments, stiff, moist.		ML-CL
	28							4	Light brown SILT, little Clay, little fine to medium Shale fragments, stiff, moist.	ML
	11								5	Light brown SILT, little fine to medium Shale fragments, stiff, moist.
	23							6		No Recovery
	25								7	Light brown SILT, trace Clay, trace(+) fine to medium Shale fragments, moist to wet, (saturated from 7.6-7.7').
34	8	No Recovery	-							
.04		23	2.00	1.7	0	BGD	7.7		Yellow-brown SILT + CLAY, wet.	ML-CL
	51	8.4							Grey, fractured SHALE, trace(+) iron staining, wet.	-
	41								9	No Recovery
46	10	No Recovery	-							

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW44B-1

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	100/.25	0.25	0.25	0	BGD	10.3	AA, (8.4-8.9').	No Recovery	-
						11			
.07	100/.15	0.15	0.15	0	BGD	12.0	AA, (8.4-8.9').		-
						12		BORING TERMINATED AT 12.15' SPOON REFUSAL	

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW44B-1

# LOG OF BORING NO. MW44B-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-44B**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **03/08/94**  
 DATE COMPLETED: **03/08/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **6.5**  
 BORING LOCATION (N/E): **988170.7 751447.4**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **741.5**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO, KK**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	1	2.00	1.5	0	BGD	0.1	Organics, snow.	PT	
	4					Olive grey SILT, some Clay, trace(-) fine Shale fragments and Gravel, trace Organics, soft, moist(+).	ML		
	7								
	8								
	1.1						Yellow-brown SILT + CLAY, trace very fine Sand, medium stiff, moist.	ML-CL	
.02	8 15 14 20	2.00	1.9	0	BGD	1.5	Yellow-brown SILT, some very fine Sand, little Clay, medium stiff, moist.	ML	
						2.0	No Recovery	-	
						2.3	AA, trace(-) fine Gravel.	ML	
						2.5	AA, soft, wet (saturated at 2.3').	ML	
						3.0	Yellow-brown SILT, little(-) Clay, little fine to medium Shale fragments and Gravel, trace very fine Sand, medium stiff, slightly moist.	ML	
.03	10 20 18 28	2.00	1.5	0	BGD	3.0	Grades downward from Yellow-brown to brown-grey SILT, grading downward from little Clay to some Clay in mottled pods, little coarse Shale fragments and Gravel, stiff, dry to slightly moist.	ML-CL	
						3.9	No Recovery	-	
						4.0	Brown-grey SILT, some Clay, little coarse Shale fragments, little fine Shale fragments and Gravel, stiff, dry to slightly moist-grading downward Shale fragments become more weathered, wet at 4.2'.	ML	
						5.5	No Recovery	-	
						6.0	AA, (4-5.5').	ML	
.04	55 42 34 21	2.00	1.6	0	BGD	6.2	Massive to finely bedded weathered dark grey SHALE (fragments have horizontal fracture planes), some brown grey Silt, trace very fine Sand, moist (saturated from 6.5-6.7).	GM	
						6.7	Very fine to fine light yellow-brown SAND, little fine to coarse Shale fragments, trace Silt, medium stiff, wet to saturated.	SP	
						7.6	No Recovery	-	
						8.0	Red-brown SILT + CLAY, trace fine Shale fragments and Gravel, very stiff, dry.	ML-CL	
						8.2	AA, (6.7-7.6'), soft.	SP	
.05	14 16 24 20	2.00	1.7	0	BGD	9.5	Very fine yellow-brown SAND + SILT, trace fine Shale fragments, moist.	ML	
						9.7	No Recovery	-	
						10.0	No Recovery	-	

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW44B-2

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	14	2.00	1.4	0	BGD	10.2	AA, (9.5-9.7').		ML
	20					Fractured, weathered, coarsely bedded SHALE, iron staining on joint surface, little olive grey Silt, loose, saturated.			
	24								
30					11				
.07	100/4	0.40	0.4	0	BGD	11.4	No Recovery		
						12.0			
						12.2	Light brown-grey SILT + CLAY, some fine Shale fragments, saturated.		ML-CL
						12.4	Finely laminated, fractured dark grey SHALE, loose, saturated.		
							No Recovery		
BORING TERMINATED AT 12.8' AUGER REFUSAL									

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW44B-2



# LOG OF BORING NO. MW44B-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-44B**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **03/20/94**  
 DATE COMPLETED: **03/20/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **10.5**  
 BORING LOCATION (N/E): **988015.1 751421.9**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **741.5**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	1	2.00	1.8	0	BGD	0.7		Brown SILT + very fine SAND, little organic material, trace Shale fragments, wet.	ML
	2 5 8							Light yellow-brown SILT + very fine SAND, wet to saturated.	ML
.02	8	2.00	1.5	0	BGD	2.0	No Recovery	-	
	15					2.6	Grey-brown CLAY, little(-) Silt, trace very fine Sand, trace fine Gravel, trace fine to medium Shale fragments, trace iron staining, trace saturated lenses.	CL	
	18					3.1	Grey fractured SHALE, iron staining within fractured planes, saturated.	-	
	29					3.5	Light brown SILT, trace fine to medium Shale fragments, dense, dry.	ML	
						4.0	No Recovery	-	
.03	20	2.00	1.5	0	BGD	4.0	Light brown SILT, little fine to medium Shale fragments, trace Cobble Shale fragments, dense, trace iron staining, dry to moist.	ML	
	31					5.5	No Recovery	-	
	37 41					6.0	AA, (4-5.5'), very dense, moist.	ML	
.04	51	2.00	1.9	0	BGD	7.0	AA, (4-5.5'), very dense, moist.	ML	
	57 75 100/4					7.9	No Recovery	-	
.05	28	2.00	2.0	0	BGD	8.0	AA, (6-7.9'), wet with trace saturated lenses.	ML	
	57					9.0	Grey fractured SHALE.	-	
	81					9.4	AA, (8-9'), moist.	ML	
	93					10.0			

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW44B-3

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	35 68 100/4	1.40	1.2	0	BGD	10.5		Grey-brown SILT, little fine to medium Gravel, loose, moist.	ML
						11.0		Yellow-brown very fine SAND, some(+) Silt, trace(+) fine Shale fragments, wet to saturated.	SM
						11.2		Dark grey, fractured, slightly weathered SHALE, saturated.	-
								No Recovery	-
						12			
						13			
						14			
						14.7			
.07	100/15	0.15	0.15	0	BGD			Dark grey, fractured SHALE.	-
BORING TERMINATED AT 14.85' SPOON REFUSAL									

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW44B-3

# LOG OF BORING NO. MW50-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-50**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **03/23/94**  
 DATE COMPLETED: **03/23/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **4.6**  
 BORING LOCATION (N/E): **992285.0 753133.3**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **759.8**  
 DATUM: **NAD 1983**  
 INSPECTOR: **KK,MB**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	3	2.00	1.8	0	BGD	0.6	Dark brown SILT, little Organics, trace coarse Sand, soft, wet.	ML	
	4					Yellow-brown, iron-stained CLAY, little Silt, trace very coarse Sand, trace fine to medium grey Shale fragments, trace Organics, medium stiff, moist.	CL		
	5								
.02	7	2.00	1.5	0	BGD	1.8	Grading from yellow-brown to olive grey SILT, some grey, iron-stained Clay, trace fine to medium grey Shale fragments, trace Organics, medium stiff, moist.	ML	
	18					2.0	No Recovery	-	
	22					2.2	AA, (1.3-1.8'), wet.	ML	
	22					3.2	Olive grey SILT, trace fine to medium grey Shale fragments, medium stiff, little saturation on Shale fragments, moist.	-	
						3.4	Grey, weathered LIMESTONE.	-	
						3.5	AA, (2.2-3.2').	ML	
						4.0	No Recovery	-	
.03	10	2.00	2.0	0	BGD	4.0	Light brown SILT, little Clay, little fine to coarse grey Shale fragments, stiff, dry to moist.	ML	
	14					Grey, finely bedded, weathered SHALE, dense, saturated.	-		
	18						4.9	AA, (4-4.6').	ML
	22						6.0	AA, (4-4.6'), some fine to coarse grey, weathered, iron-stained Shale fragments.	ML
.04	20	1.90	1.9	0	BGD	6.7	AA, moist, saturated on Shale fragments.	ML	
	28					AA, trace medium to coarse Sand.	-		
	38						7.0		
	100/.4					7.9	-		
.05	69	0.70	0.7	0	BGD	8.0	Fractured, weathered grey SHALE, dry to moist.	-	
	100/.2					8.7	No Recovery	-	
						9	-		

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW50-1

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	100/2	0.20	0	0	BGD			No Recovery	-
								BORING TERMINATED AT 10.2' SPOON REFUSAL	

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW50-1

# LOG OF BORING NO. MW50-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-50**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **03/23/94**  
 DATE COMPLETED: **03/23/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **1.1**  
 BORING LOCATION (N/E): **992800.8 753818.2**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **751.9**  
 DATUM: **NAD 1983**  
 INSPECTOR: **KK**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS	
.01	2	2.00	1.8	0	BGD	0.2		Brown SILT, some Organics, trace very fine Sand, soft, saturated.	OL	
	5					0.9		Brown SILT, trace Clay, trace fine to medium grey Shale fragments, trace Organics, soft, moist to wet.	ML	
	9					1		Brown SILT, little(+) very fine Sand, trace Clay, trace Organics, soft, wet to moist, saturated (1.1-1.5').	ML	
	13					1.5		Brown SILT + fine to coarse grey SHALE fragments, little very fine Sand, trace Clay, loose, saturated.	GM	
.02	10	2.00	1.6	0	BGD	1.7		Brown SILT + fine to coarse grey SHALE fragments, little very fine Sand, trace Clay, loose, saturated.	GP	
	9					2.0		Coarse grey SHALE fragments, trace Silt, trace very fine Sand, trace Clay, medium stiff, saturated.	GP	
	9					2.4		No Recovery	GM	
	18					2.6		AA, (1.7-1.8').	ML-CL	
						3		3.2	AA, (1.5-1.7').	ML-CL
						3.6		3.6	Light brown SILT + CLAY, little fine to coarse grey Shale fragments and Gravel, medium stiff, moist.	ML-CL
.03	10	2.00	1.7	0	BGD	4.0		AA, (2.6-3.2'), little(+) very fine to fine Sand, soft, saturated.	-	
	10					4.2		No Recovery	ML-CL	
	16					4.2		AA, (3.2-3.6'), moist.	SP	
	18					5.0		Light brown very fine to fine SAND, some fine to coarse grey Shale fragments, little Silt, medium dense, saturated.	ML	
.04	100/3	0.30	0.3	0	BGD	6.0		Grading from (4.2-5') to light brown SILT, little fine to medium grey Shale fragments, trace very fine Sand, trace Clay, stiff, saturated to moist.	ML	
						6.2		AA, (5-5.7'), some very fine to fine Sand, moist to wet.	ML	
						6.3		AA, (4.2-5').	SP	
								No Recovery	-	
BORING TERMINATED AT 6.9' AUGER REFUSAL										

NOTES: No samples were collected for chemical analysis.



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

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LOG OF BORING MW50-2

# LOG OF BORING NO. MW50-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-50**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **03/07/94**  
 DATE COMPLETED: **03/07/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **2.65**  
 BORING LOCATION (N/E): **992275.1 754379.7**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **753.4**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO, KK**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	13	2.00	1.8	0	BGD	0.1		Organics. Brown SILT, some Clay, trace fine to medium Shale fragments and Gravel, very stiff, slightly moist.	PT ML-CL
	18 13 8					1			
.02	18 45 100/.3	2.00	1.3	0	BGD	2.0		No Recovery AA, (.1-1.8'), increasing amounts of Clay, grading downward from stiff to medium stiff, moist.	ML-CL
						2.6		AA, (.1-1.8'), soft, wet (saturated from 2.65-2.7').	ML-CL
						2.7		Highly weathered, finely laminated, grey SHALE, loose, dry.	
						3.3		No Recovery	
.03	100/.2	0.20	0.2	0	BGD	4.0		Weathered and competent fractured, massive SHALE, dry.	
						4.2		No Recovery	
.04	100/.1	0.10	0.1	0	BGD	6.0		AA, (4-4.2').	
						6.2		No Recovery	
N/A	100/0	0.00	0	NA	NA	8		BORING TERMINATED AT 8.0' SPOON REFUSAL	

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW50-3

# LOG OF BORING NO. MW58-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-58**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **03/31/94**  
 DATE COMPLETED: **03/31/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **2.7**  
 BORING LOCATION (N/E): **1000107.7 739368.6**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **617.9**  
 DATUM: **NAD 1983**  
 INSPECTOR: **KK**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS			
.01	1	2.00	1.8	0	BGD	0.4		Light brown to dark brown SILT, little Clay, trace very fine Sand, trace Organics, soft, saturated.	ML			
	3							0.7	Dark brown SILT, little Organics, trace iron-stained Clay, trace(-) medium Gravel, soft, moist to wet.	ML		
	5									ML-CL		
	6											
.02		2.00	1.9	0	BGD	1.8		Grading from dark brown SILT, little iron-stained Clay to grey and iron-stained Clay, little Silt, trace Organics, trace (-) fine to medium Shale fragments and Gravel, soft to medium stiff.				
	5							2.0	No Recovery			
	12									2.4	AA, (0.7-1.8').	ML-CL
	10							2.7	Grading from AA, (0.7-1.8') to Silt, little very fine to fine Sand, some fine to coarse grey Shale fragments and Gravel, trace Clay, medium stiff, moist.			ML
	8											3
	.03							7	2.00			
7		4.0	No Recovery	ML								
9				4.3	Dark brown SILT, trace very fine to fine Sand, trace Clay, soft, moist to wet.	GM						
13		5	Dark brown very fine to fine SAND + SILT, some fine to coarse grey Shale fragments and Gravel, trace very coarse Gravel, loose, saturated.									
.04	11			2.00	2.0	0	BGD	5.7		No Recovery	-	
	14									6.0	AA, (4.3-5.7').	GM
	17											6.3
	18									7	Dark brown very fine to fine SAND, some fine to coarse grey Shale fragments and Gravel, little Silt, soft, saturated.	
.05	23			1.90	1.9	0	BGD	7.3				ML-CL
	24	7.6	Dark brown to olive grey SILT + CLAY, some fine to medium grey Shale fragments, moist to wet.							GM		
	29									8.0	Fine to coarse grey SHALE fragments + light brown SILT, trace Clay, loose, saturated.	
65	8	Slightly weathered, fractured, iron-stained grey SHALE, trace light brown Clay, loose, saturated.										
			9									
	9.9											
			10									

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW58-1

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	50 100/.2	0.70	0.7	0	BGD	10.0 10.5 10.7	Finely laminated, fractured SHALE, loose, saturated.		
							Grey Clay + fine to coarse grey SHALE fragments, soft, saturated.		
						11	No Recovery		
BORING TERMINATED AT 11' AUGER REFUSAL									

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW58-1



# LOG OF BORING NO. MW58-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-58**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **04/01/94**  
 DATE COMPLETED: **04/01/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **3.3**  
 BORING LOCATION (N/E): **1000232.2 739160.9**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **614.9**  
 DATUM: **NAD 1983**  
 INSPECTOR: **KK**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	1	2.00	1.6	0	BGD	0.3		Dark Brown SILT, little Organics, soft, wet to saturated.	ML
	3					0.8		AA, (0-0.3'), trace Organics, trace(-) very fine Shale fragments, soft, wet.	ML
	4					1.6		Grading from iron-stained CLAY + light brown SILT to grey, iron-stained CLAY, trace(-) fine to coarse grey Shale fragments, trace fine Sand throughout, medium stiff, moist.	ML-CL
	4					2.0		No Recovery	-
.02	9	2.00	1.7	0	BGD	2.1		AA, (0.75-1.6'), saturated.	ML-CL
	11					3.3		Olive grey, iron-stained CLAY, trace(+) fine to coarse grey Shale fragments and Gravel grading to some fine to coarse grey Shale fragments and Gravel, medium stiff to stiff, moist.	CL
	15					3.7		Fractured, weathered SHALE, trace grey iron-stained Clay, saturated.	-
	18					4.0		No Recovery	-
						4.3		Olive grey SILT + CLAY, trace very fine Sand, trace(+) fine to medium grey Shale fragments and Gravel, soft to medium stiff, wet.	ML-CL
.03	15	2.00	2.0	0	BGD	4.8		Light brown SILT, some fine to medium grey Shale fragments and Gravel, little Clay, trace very fine Sand, medium stiff to stiff, moist.	GM
	20					5.0		Light brown SILT, some fine to medium grey Shale fragments and Gravel, little(+) very fine Sand, trace Clay, medium stiff, moist.	GM
	24					5.7		Light brown SILT, little very fine Sand, little fine to medium grey Shale fragments and Gravel, trace fine Sand, trace coarse grey Shale fragments, loose to medium dense, saturated.	ML
	28					6.0		AA, (4.8-5').	GM
						6.2		Olive grey SILT, some very fine Sand, some fine to medium grey Shale fragments, wet.	ML
						7.0		Olive grey very fine SAND, little Silt, little fine to coarse grey Shale fragments, trace fine Sand, loose, saturated.	ML
.04	25	1.20	1.2	0	BGD	7.2		Olive grey SILT + very fine SAND, little fine grey Shale fragments, medium stiff, moist.	-
	28					8.0		No Recovery	-
	100/.2					8.2		Fractured grey SHALE, trace grey Clay, saturated.	-
								No Recovery	-
.05	100/.2	0.20	0.2	0	BGD	8.2		No Recovery	-
								No Recovery	-
							BORING TERMINATED AT 9.6'		

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW58-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT NO: **720519-01000**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**

GROUND SURFACE ELEVATION: **614.9**  
 INSPECTOR: **KK**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
								AUGER REFUSAL	

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW58-2

# LOG OF BORING NO. MW58-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-58**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **04/02/94**  
 DATE COMPLETED: **04/02/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **3.5**  
 BORING LOCATION (N/E): **1000163.5 738946.0**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **610.3**  
 DATUM: **NAD 1983**  
 INSPECTOR: **KK**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	1	2.00	1.8	0	BGD	1		Dark brown SILT, trace Organics, soft, moist.	ML
	3							0.9	Grey, iron-stained CLAY, some fine to medium grey Shale fragments, little Silt, trace coarse grey Shale fragments, medium stiff, wet.
.02	8	2.00	1.7	0	BGD	2		No Recovery	-
	11					2.0		Olive grey CLAY, iron-stained, little Silt, little(-) fine to medium grey Shale fragments and gravel, medium stiff, moist.	CL
	8					2.5		Olive grey CLAY, iron-stained, some grey, highly weathered Shale fragments, little(+) fine grey Shale fragments and Gravel, medium stiff, moist.	GC
	12					3.3		Olive grey CLAY + SILT, little very fine to fine Sand, little grey Shale fragments, medium stiff, moist to wet.	ML-CL GM
NA	75	0.90	0	0	NA	4	No Recovery	-	
	100/.4					5			
.03		0.20	0.2	0	BGD	6			
	100/.2					6.2	SHALE and GRANITE fragments, dry.	-	
.04		0.10	0.1	0	BGD	7			
						8.0			
	100/.1					8.1	Fractured SHALE, fine Shale fragments, loose, saturated.	-	
						9			
						10			

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW58-3

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	USCS
DESCRIPTION								
.05	100/2	0.20	0.2	0	BGD	10.2	Finely laminated, brittle grey SHALE, saturated. No Recovery	
BORING TERMINATED AT 10.5' SPOON REFUSAL								

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW58-3

# LOG OF BORING NO. MW58-4

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-58**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **04/04/94**  
 DATE COMPLETED: **04/04/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **3.1**  
 BORING LOCATION (N/E): **999963.8 739060.1**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **612.8**  
 DATUM: **NAD 1983**  
 INSPECTOR: **KK,LR**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS						
.01	1	2.00	1.5	0	BGD	0.8		Dark brown SILT, little Organics, trace(-) fine Gravel, soft, wet to saturated.	ML						
	3							Grading from dark brown SILT, trace(+) iron-stained grey Clay, trace(+) Silt, trace Organics throughout, soft to medium stiff, moist.	ML						
	4							No Recovery	-						
.02	3	2.00	1.6	0	BGD	2.0		AA, (0.8-1.5'), wet.	ML						
	4							Olive grey SILT + CLAY, little very fine Sand, little fine to medium grey Shale fragments and Gravel, medium stiff to soft, wet to saturated.	ML-CL						
	5								Olive grey SILT, some very fine to fine Sand, little fine to medium grey Shale fragments and Gravel, loose, saturated.	ML					
	5									No Recovery	-				
	.03								3	2.00	1.7	0	BGD	4.2	
5		Grey, iron-stained CLAY, little very fine Sand, little medium to coarse Gravel, trace fine grey Shale fragments, soft, saturated.	CL												
36		Fractured, slightly weathered grey SHALE fragments, trace grey Silt, saturated.	-												
59			No Recovery	-											
.04			72	1.80	1.8	0	BGD	6.2							
	40	Fractured, slightly weathered grey SHALE, trace Silt, saturated.	-												
	51		Olive grey CLAY, some highly weathered medium grey Shale fragments, medium stiff to stiff, saturated.							GC					
100/.3	7.2	Slightly weathered grey SHALE, dry.		-											
.05	55	0.60	0.6	0	BGD	8.3		No Recovery	-						
	100/.1							Fractured, weathered grey SHALE, trace olive grey Silt, saturated.	-						
	9								No Recovery	-					
								BORING TERMINATED AT 9.5'							

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW58-4

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT NO: **720519-01000**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**

GROUND SURFACE ELEVATION: **612.8**  
 INSPECTOR: **KK,LR**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
								AUGER REFUSAL	

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW58-4

# LOG OF BORING NO. SB58-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-58**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **06/09/94**  
 DATE COMPLETED: **06/09/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **5.1**  
 BORING LOCATION (N/E): **1000106.7 739053.2**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **NA**  
 DATUM: **NAD 1983**  
 INSPECTOR: **KK,LR**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	6	2.00	2.0	0	BGD	0.7		Brown SILT, trace fine grey Shale fragments, stiff, dry to slightly moist.	ML
	7 12 14							1	Brown SILT, some Clay, little fine grey Shale fragments, trace medium grey Shale fragments, trace coarse, slightly weathered grey Shale fragments, stiff, dry to moist.
.02	12	2.00	1.9	0	BGD	2.0		Weathered grey SHALE.	GM
	24					2.1		Brown SILT, some fine grey Shale fragments, trace medium to coarse grey Shale fragments and Gravel, stiff, moist.	
	44					3		Weathered, highly fractured, grey SHALE, dry.	
	40					3.4		Weathered, highly fractured, grey SHALE, dry.	
.03	21	2.00	2.0	0	BGD	3.9		No Recovery	ML
	33					4.0		Brown SILT, little(+) fine grey Shale fragments and Gravel, little Clay, trace medium grey Shale fragments, stiff, moist.	
	30					5		Light brown fine SAND + SILT, trace(+) fine grey Shale fragments, trace coarse, sand-sized grey Shale fragments, trace(-) medium to coarse grey Shale fragments, medium dense, saturated.	
.04	44	0.40	0.4	0	BGD	5.1		Light brown fine SAND + SILT, trace(+) fine grey Shale fragments, trace coarse, sand-sized grey Shale fragments, trace(-) medium to coarse grey Shale fragments, medium dense, saturated.	ML
	100/4					6.2		Slightly weathered, fractured grey SHALE.	
	0					6.3		AA (5-6.2').	
0	100/1	0.10	0	0	NA	8			
BORING TERMINATED AT 8.5' AUGER REFUSAL									

NOTES: The following samples were collected for chemical analysis: (SB58-1.00), (SB58-1.02), (SB58-1.03).



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LOG OF BORING SB58-1

# LOG OF BORING NO. SB58-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-58**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **06/09/94**  
 DATE COMPLETED: **06/09/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **NA**  
 BORING LOCATION (N/E): **1000131.8 739154.5**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **NA**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO,LR**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS		
.01	4	2.00	1.5	0	BGD	1		Grey-brown SILT, little very fine Sand, little organic material, trace fine Shale fragments, damp (trace wetness).	ML		
	5					1.5				No Recovery	-
.02	10	2.00	1.9	0	BGD	2		Light brown SILT, little very fine Sand, trace(+) fine Shale fragments, medium stiff, damp to moist.	ML		
	18					3				No Recovery	-
.03	26	1.90	1.9	0	BGD	4		No Recovery Light brown SILT, little very fine Sand, trace(-) fine to medium Shale fragments, stiff, dry.	ML		
	33					4.6				Grey-brown SILT, trace(+) Shale fragments, trace(-) very fine Sand, very stiff, dry to damp.	ML
	34					5				No Recovery	-
.04	37	1.30	1.3	0	BGD	6		No Recovery Light brown-grey SILT, little Shale fragments, trace very fine Sand, very stiff, damp to moist.	ML		
	53					7				No Recovery	-
	75					7.3				No Recovery	-
100/4	8	0.00	0	0	NA	BORING TERMINATED AT 8' SPOON REFUSAL					

NOTES: The following samples were collected for chemical analysis: (SB58-2-00), (SB58-2-02), (SB58-2-04).



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LOG OF BORING SB58-2



# LOG OF BORING NO. SB58-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-58**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **06/09/94**  
 DATE COMPLETED: **06/09/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **3.0**  
 BORING LOCATION (N/E): **1000161.4 739088.7**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **NA**  
 DATUM: **NAD 1983**  
 INSPECTOR: **KK,LR**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	2	2.00	1.6	0	BGD	0.1		Brown SILT + very fine SAND, little Organics, loose, dry.	ML
	4							Light brown SILT + very fine SAND, trace Organics, trace(-) medium Gravel, medium stiff to soft, slightly moist.	ML
	5							Medium weathered, fractured SHALE.	
	5							Olive grey SILT + iron-stained CLAY, little fine to coarse grey Shale fragments, trace medium grey Shale fragments, stiff, slightly moist.	ML-CL
						1.6	No Recovery		
.02	12	2.00	1.9	0	BGD	2.0		Brown-olive grey SILT, some very fine Sand, little fine grey Shale fragments, moist.	ML
	16							Slightly weathered, fractured SHALE.	
	17							Olive grey SILT + very fine SAND, little(+) fine grey Shale fragments and fine Gravel, stiff, slightly moist.	ML
	14							Olive grey SILT + very fine SAND, some coarse sand-sized grey Shale fragments, little fine grey Shale fragments, saturated.	ML SP GM
						3.9	No Recovery		
.03	13	2.00	1.6	0	BGD	4.0		Olive grey fine SAND, some coarse, sand-sized grey Shale fragments, trace very fine to fine grey Shale fragments, medium dense to loose, wet to saturated.	SP
	32								SP
	17								GM
	21								
						5.6	No Recovery		
.04	22	1.20	1.2	0	BGD	6.0		AA, (5.1-5.6').	GM
	34							Light brown very fine SAND, little(-) fine grey Shale fragments, trace Silt, wet to saturated.	SP
	100/2								SP
						7.2	No Recovery		
BORING TERMINATED AT 7.5' AUGER REFUSAL									

NOTES: The following samples were collected for chemical analysis: (SB58-3.00), (SB58-3.01), (SB58-3.02).



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LOG OF BORING SB58-3

# LOG OF BORING NO. SB59-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-59**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **02/20/94**  
 DATE COMPLETED: **02/20/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **10.0**  
 BORING LOCATION (N/E): **998982.1 750170.2**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **NA**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO, KK**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION		USCS
.01	19	2.00	1.5	0	NA	0.2	Black, fine to medium SHALE fragments, some Silt, saturated.		GM	
	15					Grey-brown SILT, some fine to coarse Gravel, little Clay, pieces of concrete, asphalt, and wood present, dry to moist (saturated top 0.2').	GM			
	14									
	10									
						1.5	No Recovery		-	
.02	7	2.00	1.4	0	NA	2.0	Brown SILT, trace Clay, trace Shale fragments.		ML	
	12									
	19									
	19					3.1				
						3.4	Dark grey SILT, little Clay, little fine to medium Shale fragments, trace cinders and black burnt material, moist to wet.		ML	
						4.0	No Recovery		-	
.03	10	2.00	0.3	0	NA	4.0				
	7					Brown-grey SILT, trace Clay fine to medium Shale fragments, soft, wet.	ML			
	7									
	6					4.3	No Recovery	-		
						5.0				
.04	9	2.00	0.8	0	NA	6.0	Grey SILT + CLAY, little wood shavings, little fine Gravel, soft to medium stiff, wet.		ML-CL	
	10									
	10									
	15					6.8	No Recovery	-		
						7.0				
.05	9	2.00	0.6	0	NA	8.0				
	8					Dark brown SILT + wood shavings, trace fine Sand, trace Gravel, wet.	ML			
	6									
	7					8.6	Brown-red-green CLAY, trace wood shavings, moist to wet.	CL		
						9.0	No Recovery	-		
						10.0				

NOTES: The following samples were collected for chemical analysis: (SB59-1.00), (SB59-1.04), (SB59-1.06), (SB59-1.04-MRD), (SB59-1.08-DUP).



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LOG OF BORING SB59-1

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS		
.06	6 18 40 25	2.00	0.9	0	NA	10.5		Light grey-brown SILT + CLAY, little fine to medium Shale, trace wood shavings, saturated.	ML-CL		
								10.9		Black SHALE.	-
								11	No Recovery	-	
.07	100/4	0.40	0	0	NA	12					
BORING TERMINATED AT 12.5' AUGER REFUSAL											

NOTES: The following samples were collected for chemical analysis: (SB59-1.00), (SB59-1.04), (SB59-1.06), (SB59-1.04-MRD), (SB59-1.08-DUP).



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LOG OF BORING SB59-1

# LOG OF BORING NO. MW59-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-59**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **03/18/94**  
 DATE COMPLETED: **03/19/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **4.0**  
 BORING LOCATION (N/E): **998909.7 749948.8**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **733.4**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO, KK, KS**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS	
.01	3	2.00	1.5	0	BGD	0.6		Light brown SILT, trace Organics, trace Clay, soft, moist.	ML	
	22							1.1	Light brown SILT, little(+) Clay, trace fine Shale fragments, trace Organics, soft, wet(+).	ML
	8							1.5	Light brown SILT, some mottled grey Clay, little medium angular Gravel, trace fine Shale fragments and subrounded Gravel, soft, wet(+).	ML-CL
	13							2.0	No Recovery	-
.02	23	2.00	0.5	0	BGD	2.5		Light brown SILT, some mottled grey Clay, trace medium Gravel, trace Organics, soft, wet(+).	ML-CL	
	30							3.0	No Recovery	-
	40							4.0	No Recovery	-
.03	18	2.00	0.4	0	BGD	4.1		Olive grey SILT + fine to medium SHALE fragments, soft, saturated.	GM	
	12							4.3	SHALE COBBLE.	GM
	7							4.5	Light reddish brown SILT + CLAY, some fine to medium Shale fragments, soft, saturated.	ML-CL
	3							5.0	No Recovery	-
.04	20	0.65	0.6	0	BGD	6.2		Grey, coarse sand-sized SHALE fragments + olive grey SILT, little fine to medium Shale fragments, loose, saturated.	GM	
	100/15							6.6	SHALE COBBLES, Quartz-rich Cobbles, little Sand, loose, saturated.	GP
								7.0	No Recovery	-
.05	31	0.90	0.9	0	BGD	8.2		Grey, medium sand-sized SHALE fragments + olive grey SILT, loose, saturated.	GM	
	100/4							8.6	Fractured grey SHALE, massive, slightly weathered, little olive grey Silt, loose, saturated.	GM
								8.9	Olive grey SILT + CLAY, some fine to medium Shale fragments, trace medium sand-sized Shale fragments, soft, saturated.	ML-CL
								9.0	No Recovery	-

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW59-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT NO: **720519-01000**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**

GROUND SURFACE ELEVATION: **733.4**  
 INSPECTOR: **FO, KK, KS**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
NA	100/1.1	0-10	0	0	NA			No Recovery  BORING TERMINATED AT 10.1' SPOON REFUSAL	

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW59-1

# LOG OF BORING NO. MW59-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-59**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **03/06/94**  
 DATE COMPLETED: **03/06/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **6.3**  
 BORING LOCATION (N/E): **999036.1 749874.0**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **734.3**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO, KK**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS		
.01	10	2.00	1.6	0	BGD	0.5		Olive grey SILT + Fine grey SHALE fragments, trace fine Sand, trace Organics, loose, dry to moist.	GM		
	4							1		Light brown-yellow orange mottling SILT, little Clay, trace fine Gravel, stiff, slightly moist.	ML
	5									No Recovery	-
.02	13	2.00	2.0	0	BGD	2		Light brown grey SILT, some grey Clay, little fine to coarse Shale fragments and Gravel, stiff, dry to slightly moist.	ML-CL		
	15							3			
	18										
.03	7	2.00	1.5	0	BGD	4		Olive grey SILT, some fine Shale fragments, moist.	GM		
	14							5		Light brown SILT, little tan and grey Clay, little fine to medium Shale fragments, trace fine Gravel, stiff, dry to slightly moist.	ML
	12										
.04	8	2.00	1.8	0	BGD	6		Light brown SILT, little Clay, trace fine Gravel and Shale fragments, soft, wet.	ML		
	11							7		AA, saturated.	ML
	11										
.05	18	2.00	1.7	0	BGD	8		Light brown SILT, little very fine Sand, trace Clay, trace fine Gravel and Shale fragments, saturated.	GM		
								9		Olive grey SILT, some medium to coarse Shale fragments, little very fine Sand, trace Clay, loose, saturated.	ML
.05	12	2.00	1.7	0	BGD	8		Light brown SILT, some very fine Sand, little fine to medium Shale fragments, soft, saturated.	-		
	31							9		No Recovery	SM
	23										
.05	33	2.00	1.7	0	BGD	9		Light brown very fine SAND, some Silt, little fine to medium Shale fragments, soft, saturated.	SM		
								9		Light brown very fine SAND, some Silt, some very fine Sand, little very fine to coarse Shale fragments, soft, wet with saturated zones.	ML
.05		2.00	1.7	0	BGD	9		Light brown SILT, little very fine Sand, little fine to medium Shale fragments, medium stiff, wet.	-		
								10			

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW59-2

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	55 30 100/.4	1.40	1.4	0	24	10.2		No Recovery	ML
						10.5		Olive grey SILT, little fine to medium Shale fragments, loose, soft, saturated.	GP
						10.8		Competent, massive grey SHALE fragments, loose, saturated.	ML
						11.0		AA, (10-10.2')	GP
						11.2		AA, (10.2-10.5')	ML
						11.4		AA, (10-10.2')	ML
BORING TERMINATED AT 11.4' AUGER REFUSAL									

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW59-2

# LOG OF BORING NO. MW59-3

**PROJECT:** EIGHT MODERATELY LOW PRIORITY AOCs  
**PROJECT LOCATION:** SENECA ARMY DEPOT, ROMULUS NY  
**ASSOCIATED UNIT/AREA:** SEAD-59  
**PROJECT NO:** 720519-01000  
**DATE STARTED:** 03/18/94  
**DATE COMPLETED:** 03/18/94  
**DRILLING CONTRACTOR:** EMPIRE SOILS INVESTIGATIONS  
**DRILLING METHOD:** HOLLOW STEM AUGER  
**SAMPLING METHOD:** 3" SPLIT SPOONS

**DEPTH TO WATER (ft):** 5.4  
**BORING LOCATION (N/E):** 999030.0 750345.9  
**REFERENCE COORDINATE SYSTEM:** New York State Plane  
**GROUND SURFACE ELEVATION (ft):** 737.7  
**DATUM:** NAD 1983  
**INSPECTOR:** FO  
**CHECKED BY:** KK

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	15	2.00	1.7	0	BGD	0.3		Brown SILT + GRAVEL, trace Shale, loose, wet.	GM
	30					0.7		Dark grey, highly fractured SHALE, little Silt.	GM
	24					0.9		Tan very fine SAND + SILT, loose, dry.	ML
	30					1.4		Grey-brown SILT + SLAG, loose, moist.	ML
						1.7		Burnt wood.	PT
						2.0		No Recovery	-
.02	37	2.00	1.5	0	BGD	2			
	23					2.3		Grey-yellow-brown CLAY, little(-) Silt, trace fine to medium Shale fragments, medium dense, wet.	CL
	15					2.7		Grey fractured SHALE, saturated at 2.5'.	GP
	18					2.9		AA, (2-2.3').	CL
						3.5		Grey-brown SILT, trace fine Shale fragments, black ash-like film at 2.9', loose, moist.	ML
	4.0		No Recovery	-					
.03	7	2.00	1.4	0	BGD	4		Grey-orange-tan CLAY, little Silt, trace very fine Sand, trace fine Gravel and fine Shale fragments, saturated at 5.4'.	CL
	10					5			
	12					5.4		No Recovery	-
	11								
.04	10	2.00	1.4	0	BGD	6		Orange-grey-tan CLAY, little Silt, little fine to coarse Shale fragments, trace very fine Sand, medium dense, wet.	CL
	53					6.4		Light brown very fine SAND, little Silt, trace medium Shale fragments, saturated.	SM
	84					7		Grey weathered + fractured SHALE, saturated.	-
	17					7.4		No Recovery	-
						8.0			
.05	113/5	0.50	0.3	0	BGD	8		Grey fractured SHALE, saturated.	-
						8.3		No Recovery	-
BORING TERMINATED AT 8.75' AUGER REFUSAL									

NOTES: No samples were collected for chemical analysis.



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LOG OF BORING MW59-3



# LOG OF BORING NO. MW59-3A

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA:  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **03/17/94**  
 DATE COMPLETED: **03/17/94**  
 DRILLING CONTRACTOR:  
 DRILLING METHOD:  
 SAMPLING METHOD:

DEPTH TO WATER (ft):  
 BORING LOCATION (N/E): **999026.3 750264.3**  
 REFERENCE COORDINATE SYSTEM:  
 GROUND SURFACE ELEVATION (ft): **NA**  
 DATUM: **NAD 1983**  
 INSPECTOR:  
 CHECKED BY:

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS	
.01	10	2.00	1.5	0	BGD	0.2		Brown SILT, trace very fine Sand, trace Organics, moist		
	14					0.4		Asphalt		
	10							Light brown SILT, trace Clay, trace fine Gravel, loose, moist		
	13					1.2				
.02	11 10 11 10	2.00	1.7	0	BGD	1.5		AA, trace wood		
								1.5		No Recovery
								2.0		
								2		Brown-gray-green SILT, trace fine Gravel and Shale fragments, loose, moist
								3		
								3.4		
.03	7 9 11 14	2.00	1.7	0	BGD	3.7		Wood		
								4.0		No Recovery
								4		Olive gray SILT, some Clay, trace organic material, trace fine Shale fragments, dense, moist
								5		
								5.4		
.04	21 21 20 21	2.00	2.0	0	BGD	5.7		Olive gray fine SAND, saturated		
								6.0		No Recovery
								6.3		AA (4.0-5.4')
								6		Tan and yellow SILT, some very fine Sand, trace fine Gravel and Shale fragments, moderately dense, wet
								7		
	7.5									
						8		BORING TERMINATED AT 8.0'		

NOTES: Encountered fill material. Monitoring well should be placed upgradient of fill, so MW59-3 was drilled and installed 50' east of MW59-3A. MW59-3A was grouted.



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LOG OF BORING MW59-3A

# LOG OF BORING NO. SB59-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-59**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **05/25/94**  
 DATE COMPLETED: **05/25/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **7.6**  
 BORING LOCATION (N/E): **998937.3 750131.8**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **NA**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	10	2.00	2.0	0	BGD	1		Gray-brown SILT, little fine to medium Shale fragments, trace very fine Sand, trace Organics, wet. AA, no organic material, trace loose asphalt, dry.	ML
	10					2.0		Gray-brown SILT, little Clay, trace Organics, trace fine Shale fragments. Gray SILT and very fine SAND, little Shale fragments, trace wood, medium stiff, dry.	
.02	8	2.00	1.7	0	BGD	2		Tan and orange CLAY, little Silt, trace very fine Sand, trace Organics, very stiff, damp.	ML-CL
	12					3		Gray and tan SILT, some very fine Sand, trace Clay, trace fine weathered Shale fragments, stiff, damp.	
	18					3.7		No Recovery	
	20					4.0		No Recovery	
.03	14	2.00	1.4	0	BGD	4		Light brown-gray SILT, trace very fine Sand, trace fine to medium weathered Shale fragments, medium stiff, moist.	ML
	16					5		Shale Cobble	
	28					5.4		No Recovery	
.04	30	2.00	2.0	0	BGD	6		Light brown SILT, trace very fine Sand, trace medium Gravel, trace fine to medium weathered Shale fragments, stiff, dry to damp.	ML
	62					7		Shale Cobble Light brown very fine SAND and SILT,, trace fine Shale fragments, loose, wet.	
	70					7.8		AA, saturated	
	75					8.2		Very fine GRAVEL and coarse SAND, trace Silt, trace very fine Sand, saturated.	
	.05					40		1.10	
41		8.8	Light brown SILT and very fine SAND, trace fine Shale fragments, loose, wet to saturated.						
100/.1		9.1	Fractured weathered SHALE, wet.						
							BORING TERMINATED AT 9.5' AUGER REFUSAL		

NOTES: The following samples were collected for chemical analysis: (SB59-3-00), (SB59-3-02), (SB59-3-04).



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LOG OF BORING SB59-3

# LOG OF BORING NO. SB59-4

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-59**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **05/25/94**  
 DATE COMPLETED: **05/25/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **19.1**  
 BORING LOCATION (N/E): **998947.0 750105.0**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **NA**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO**  
 CHECKED BY: **KK**

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	8	2.00	2.0	0	BGD	1		Gray-brown SILT and very fine Sand, little fine to medium Shale fragments, little- Organics, loose, moist. AA, medium stiff, dry. Asphalt Gray-brown SILT, little fine to medium Shale fragments, trace very fine Sand, trace Cobbles, medium stiff, damp.	ML
	12					2		Light brown SILT, trace very fine Sand, trace fine to medium Shale fragments, trace Cobbles, medium stiff, moist. Fractured shale Cobble, saturated. Light brown SILT,, some Clay, trace very fine Sand, medium stiff, wet.	
.02	21	2.00	1.2	0	BGD	3		No Recovery	-
	22					4		Olive gray-brown SILT, little Clay, trace very fine Sand, trace fine to medium Shale, moist, medium stiff. AA, trace Asphalt	
.03	5	2.00	1.6	0	BGD	5.6		No Recovery	-
	5					6		Shale Cobble AA (4.0-5.6') AA, trace Organics	
.04	8	2.00	1.4	0	BGD	7.4		No Recovery	-
	9					8		AA (4.0-5.6'), trace Organics Black slag and burnt material, little fine Shale fragments, trace nails, very loose, damp.	
.05	11	2.00	1.5	0	BGD	8.0		Off-white powdery material, little reddish brown hard material, wet to saturated Dark brown SILT, trace+ very fine Sand, trace Organics (loamy), dry.	ML
	13					9.5		No Recovery	
						10		No Recovery	

NOTES: The following samples were collected for chemical analysis: (SB59-4-00), (SB59-4-05), (SB59-4-10).



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LOG OF BORING SB59-4

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	5	2.00	1.7	0	BGD	10.5	AA (9.3-9.5')		ML
	8					Gray, tan, and yellow SILT and CLAY, trace very fine Sand, trace Organics, trace fine to medium Shale fragments, stiff, damp.	ML-CL		
	11								
	11								
.07	12	2.00	1.8	0	BGD	12.0	No Recovery		-
	18					Gray-brown SILT, some + very fine Sand, trace Clay, trace fine to medium Shale fragments, trace Shale Cobbles, stiff, moist.	ML		
	26								
	21								
.08	36	2.00	1.8	0	BGD	13.8	No Recovery		-
	33					Brown-pink fractured Shale.	-		
	52								
	50								
.09	28	1.90	2.0	0	BGD	14.3	Light brown very fine SAND and SILT, trace fine to medium Shale fragments, loose, moist.		ML
	26					Light brown to tan SILT, trace fine to medium Shale fragments, stiff, damp.	-		
	25								
	100/4								
.10	50	2.00	1.7	0	BGD	15.8	AA (14.3-15.8')		ML
	30					Light brown decomposed weathered SHALE, very stiff, damp.	-		
	20								
	20								
.11	100/1	0.10	.1	0	BGD	16.0	AA (16.8-17.3')		ML
						Gray to light brown very fine Sand, some- Silt, trace fine to medium Shale fragments, loose, moist to wet.	-		
						17.3	AA, some- iron-stained fractured Shale, saturated.		
						17.7	No Recovery		-
						19.7	Very fine SAND and SILT.		ML
						20.0	No Recovery		-
						20.1	No Recovery		-
BORING TERMINATED AT 20.5' AUGER REFUSAL									

NOTES: The following samples were collected for chemical analysis: (SB59-4-00), (SB59-4-05), (SB59-4-10).



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LOG OF BORING SB59-4

# LOG OF BORING NO. SB59-5

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 ASSOCIATED UNIT/AREA: **SEAD-59**  
 PROJECT NO: **720519-01000**  
 DATE STARTED: **05/25/94**  
 DATE COMPLETED: **05/26/94**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 SAMPLING METHOD: **3" SPLIT SPOONS**

DEPTH TO WATER (ft): **13.5**  
 BORING LOCATION (N/E): **999005.3 750070.2**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **NA**  
 DATUM: **NAD 1983**  
 INSPECTOR: **FO**  
 CHECKED BY: **KK**





Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.01	4	2.00	1.8	0	BGD	1		Gray-brown SILT, little very fine Sand, little Organics, trace + fine gray Shale fragments, loose, dry	ML
	7							AA, some fine to medium Shale fragments, trace Organics	
	9								
	10								
.02	10	2.00	1.9	0	BGD	2		AA, trace wood	ML
	18							No Recovery	
	15							Gray-brown SILT, little very fine Sand, trace medium Shale fragments, moist.	
	16							Shale Cobble	
.03	11	2.00	1.7	0	BGD	4		Light brown SILT and very fine SAND, trace fine to medium Shale, trace Cobbles, medium stiff, moist.	ML-CL
	12							Brown very fine Sand, some + Silt, trace fine Shale, medium stiff, damp.	
	12							Olive gray-brown SILT and CLAY, trace fine weathered Shale fragments, trace Organics, stiff, damp.	
	15							AA (4.6-5.0)	
.04	5	2.00	1.6	0	BGD	6		Black ash/slag/burnt material, some Gravel.	-
	8							No Recovery	
	6							AA (5.6-5.7')	
	5								
.05	6	2.00	1.8	0	BGD	8		Tan, gray and yellow SILT and CLAY, trace very fine SAND, trace fine to medium weathered SHale fragments, very stiff, damp.	ML-CL
	8								
	10								
	10								
						9			
						9.8		Gray very fine SAND, some + Silt, trace fine Shale fragments, wet.	

NOTES: The following samples were collected for chemical analysis: (SB59-5-00), (SB59-5-03), (SB59-5-06).



UNITED STATES ARMY  
 CORPS OF ENGINEERS  
 Seneca Army Depot  
 Romulus, New York

LOG OF BORING SB59-5

Sample Number	Blow Counts (# Blows per 6")	Sample Advance	Sample Recovery	VOC Screen-PID (ppm)	Rad Screen (cps)	Depth (ft)	Macro Lithology	DESCRIPTION	USCS
.06	12	2.00	1.7	0	BGD	10.0		Light brown very fine SAND and SILT, trace fine Shale fragments, trace fine to medium Gravel, wet.	ML
	16					11		Light gray-brown SILT, some very fine Sand, trace fine to medium Gravel, medium stiff, moist.	
	16					11.7		Olive green weathered, micaceous sandstone	
.07	15	2.00	1.6	0	BGD	12.0		No Recovery	ML
	21					12		Light brown SILT and very fine SAND, trace fine Shale fragments, trace Cobbles, trace medium to coarse Gravel	
	30					13			
						13.5			
						13.7		Weathered SHALE, saturated	
.08	45	2.00	1.7	0	BGD	14.0		No Recovery	ML
	42					14		Light brown very fine SAND, little Silt, little fine Shale fragments, little medium Gravel, Saturated	
	32					15			
	55					15.5			
.09	100/4	0.40	.3	0	BGD	16.0		Fractured weathered SHALE	-
						16.0		No Recovery	
						16.3		Dark gray fractured weathered SHALE, saturated.	
						16.3			
							BORING TERMINATED AT 16.4 ' SPOON REFUSAL		

NOTES: The following samples were collected for chemical analysis: (SB59-5-00), (SB59-5-03), (SB59-5-06).

## Test Pit Logs

# TEST PIT REPORT


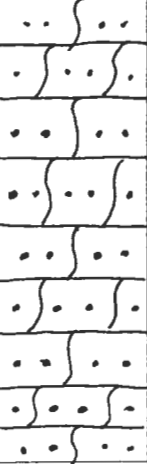
ENGINEERING-SCIENCE, INC.	CLIENT: <b>USACOE</b>	TEST PIT #: <b>TP5-1</b>
PROJECT: <b>15 SWMU ESI</b>	JOB NUMBER: <b>720519</b>	EST. GROUND ELEV.:
LOCATION: <b>ROMULUS, NY</b>	INSPECTOR: <b>BH/MB</b>	CONTRACTOR: <b>ES/UKB</b>
TEST PIT DATA		START DATE: <b>02/20/94</b>
LENGTH: <b>6'</b>	WIDTH: <b>2'</b>	DEPTH: <b>4.5'</b>
EXCAVATION/SHORING METHOD: <b>BACKHOE</b>		
COMPLETION DATE: <b>02/20/94</b>		CHECKED BY:
DATE CHECKED:		

MONITORING DATA				QA/QC DUPLICATE SAMPLE: <b>YES</b> or NO	
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE		
OVM-580B	10.0 eV	Ø PPM	1200h	2/20/94	Duplicate Sample Number: <b>TP5-6</b>
VICTOREEN-190	PANCAKE	µR/h	1200h	2/20/94	MRD Sample Number: <b>TP5-1MRD</b>
LEL		Ø	1200h	2/20/94	QA/QC Rinsate Sample Number: <b>TP5-1-R</b>
					COMMENTS:

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
1	ppm/ BKGD %				Coarse to Fine GRAVEL with some Light Brown and Dark Brown Silt and Trace amounts of clay	
2						
3		TP5-1	3' to 4.5'			
4						
5						BASE OF PIT @ 45 Feet.




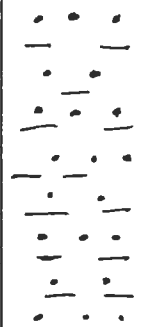
# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.		CLIENT: <u>USACOE</u>		TEST PIT #: <u>TP5-2</u>		
PROJECT: <u>15 SWMU ESI</u>				JOB NUMBER: <u>720519</u>		
LOCATION: <u>ROMULUS, NY</u>				EST. GROUND ELEV.:		
TEST PIT DATA						
LENGTH	WIDTH	DEPTH	EXCAVATION/SHORING METHOD			
<u>3.5'</u>	<u>2'</u>	<u>3.5'</u>	<u>BACKHOE</u>			
MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <input checked="" type="radio"/> NO		
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE			
<u>OVM-580B</u>	<u>10.0 eV</u>	<u>Ø PPM</u>	<u>1600h</u>	<u>02/17/94</u>		
<u>VICTOREEH-190</u>	<u>PANCAKE</u>	<u>1.2 µR/H</u>	<u>1600h</u>	<u>02/17/94</u>		
<u>LEL</u>		<u>0%</u>				
				Duplicate Sample Number:		
				MRD Sample Number:		
				QA/QC Rinsate Sample Number:		
COMMENTS:						
SCALE (FT)	VOC/RAD.	SAMPLE NUMBER	DEPTH RANGE	STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
1	<u>Ø PPM</u> <u>BKGD</u> <u>Ø%</u>	<u>TP5-2</u>	<u>1' to 2.5'</u>		<u>Light Brown fine SAND</u>	
2	<u>Ø PPM</u> <u>BKGD</u> <u>Ø%</u>				<u>1' 6"</u> <u>Dark Brown SILT with shale CLASTS</u>	
3						
4					<u>3' 6"</u> <u>BASE of PIT</u>	
5						

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: <u>USACOE</u>	TEST PIT #: <u>TP5-3</u>
PROJECT: <u>15 SWMU ESI</u>	JOB NUMBER: <u>720519</u>	
LOCATION: <u>ROMULUS, NY</u>	EST. GROUND ELEV. _____	
TEST PIT DATA		
LENGTH: <u>5.5'</u>	WIDTH: <u>2'</u>	DEPTH: <u>3.5'</u>
EXCAVATION/SHORING METHOD: <u>BACKHOE</u>		
INSPECTOR: <u>BH/MB</u>		
CONTRACTOR: <u>ES/UXB</u>		
START DATE: <u>02/18/94</u>		
COMPLETION DATE: <u>02/18/94</u>		
CHECKED BY: _____		
DATE CHECKED: _____		

MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <input checked="" type="checkbox"/> NO	
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	Duplicate Sample Number: _____	
<u>OVM-580B</u>	<u>10.0 eV</u>	<u>Ø PPM</u>	<u>1120h 02/18/94</u>	MRD Sample Number: _____	
<u>VICTOREEN-190</u>	<u>pancake</u>	<u>µR/h</u>	<u>1120h 02/18/94</u>	QA/QC Rinsate Sample Number: _____	
<u>LEL</u>		<u>Ø%</u>	<u>1120h 02/18/94</u>	COMMENTS: _____	

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
	Ø ppm BKGD 0%				Topsoil	
1	Ø ppm BKGD Ø%	TP5-3	Ø' to 3.5'		6" DARK BROWN SILT with fine gravel	Oxidation on Soil
2						
3	Ø ppm BKGD 0%				2' 0" BASE OF Sludge pile	
4					3.5 feet BASE OF PIT	
5						

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: <u>USACOE</u>	TEST PIT #: <u>TP5-4</u>	
PROJECT: <u>15 SWMU ESI</u>	JOB NUMBER: <u>720519</u>		
LOCATION: <u>ROMULUS, NY</u>	EST. GROUND ELEV.:		
TEST PIT DATA			
LENGTH	WIDTH	DEPTH	EXCAVATION/SHORING METHOD
4'	2'	2.5'	BACKHOE
INSPECTOR: <u>BH/MB</u>		CONTRACTOR: <u>ES/UKB</u>	
START DATE: <u>2/18/94</u>		COMPLETION DATE: <u>2/18/94</u>	
CHECKED BY: <u>F.O.</u>		DATE CHECKED: <u>2/19/94</u>	

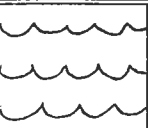
MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <input checked="" type="radio"/> NO	
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE		
<u>OVM-580B</u>	<u>10.0 eV</u>	<u>Ø PPM</u>	<u>1045h</u>	<u>2/18/94</u>	
<u>VICTOREEN-190</u>	<u>PANCAKE</u>	<u>µR/W</u>	<u>1045h</u>	<u>2/18/94</u>	
<u>LEL</u>		<u>Ø %</u>	<u>1045h</u>	<u>2/18/94</u>	
Duplicate Sample Number:			MRD Sample Number:		
QA/QC Rinsate Sample Number:			COMMENTS:		

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
1	Ø PPM BKGD Ø %				GRAVEL with Ligh Brown Silt	Found: OLD Chain Link Clay Sewer pipe pieces.
2		TP5-4	2.5'			
3					2.5' BASE OF PIT	
4						
5						

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.		CLIENT: <u>USACOE</u>		TEST PIT #: <u>TP5-5</u>		
PROJECT: <u>15 SWMU ESI</u>		LOCATION: <u>ROMULUS, NY</u>		JOB NUMBER: <u>720519</u>		
TEST PIT DATA		EXCAVATION/SHORING METHOD		EST. GROUND ELEV. <u>720519</u>		
LENGTH	WIDTH	DEPTH				
<u>3.5</u>	<u>2'</u>	<u>5'</u>	<u>BACKHOE</u>			
				INSPECTOR: <u>BH/MB</u>		
				CONTRACTOR: <u>ES/UXB</u>		
				START DATE: <u>2/18/94</u>		
				COMPLETION DATE: <u>2/18/94</u>		
				CHECKED BY: <u>F.O.</u>		
				DATE CHECKED: <u>2/19/94</u>		
MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or NO		
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE			
<u>OVM-580B</u>	<u>10.0 eV</u>	<u>0 PPM</u>	<u>0945h</u>	<u>2/18/94</u>		
<u>VICTOREEN-190</u>	<u>PANCAKE</u>	<u>μR/h</u>	<u>0945h</u>	<u>2/18/94</u>		
<u>LEL</u>		<u>0%</u>	<u>0945h</u>	<u>2/18/94</u>		
				Duplicate Sample Number:		
				MRD Sample Number:		
				QA/QC Rinsate Sample Number:		
				COMMENTS:		
SCALE (FT)	VOC/RAD.	SAMPLE NUMBER	DEPTH RANGE	STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
1	<u>0 ppm</u>				<u>Dark Brown SAND</u> <u>with Gravel</u>	<u>Found:</u> <u>Trace</u> <u>Amounts of</u> <u>Hair.</u> <u>Noted</u> <u>Very DARK</u> <u>clayish</u> <u>Lumps</u>
2	<u>0%</u>					
3						
4						
5		<u>TP5-5</u>	<u>4.5' to 5'</u>			
					<u>BASE OF PIT at 5.0'</u>	

## TEST PIT REPORT

ENGINEERING-SCIENCE, INC.		CLIENT: <b>USACOE</b>		TEST PIT #: <b>TP9-1</b>		
PROJECT: <b>15 SWMU ESI</b>		JOB NUMBER: <b>720519</b>		EST. GROUND ELEV.:		
LOCATION: <b>ROMULUS, NY</b>		INSPECTOR: <b>JWC/ABS</b>		CONTRACTOR: <b>ES/ESI</b>		
TEST PIT DATA						
LENGTH	WIDTH	DEPTH	EXCAVATION/SHORING METHOD			
13'	3'	3'6"	BACKHOE			
MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <input checked="" type="radio"/> NO		
INSTRUMENT		DETECTOR	BACKGROUND	TIME/DATE		
OVM-580B		10.0 eV	Ø PPM	1035 Am / 6/7/94		
VICTOREEN-190		pancake	10-15 µR/hr	1035 Am / 6/7/94		
				Duplicate Sample Number:		
				MRD Sample Number:		
				QA/QC Rinsate Sample Number:		
COMMENTS:						
SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
	Øppm BKGD				Top Soil	
1	Øppm BKGD				7" Iron STAINED fill in Burnt METAL Debris	
2						
3	Øppm BKGD				3' 0" Weathered SHALE with Some SILT	
4					3' 6" BASE OF PIT	
5						

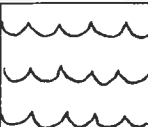
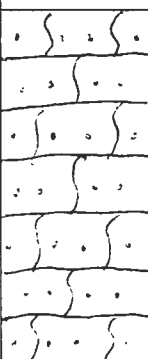
SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP9-1

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: <b>USACOE</b>	TEST PIT #: <b>TP9-2</b>
PROJECT: <b>15 SWMU ESI</b>	JOB NUMBER: <b>720519</b>	EST. GROUND ELEV.:
LOCATION: <b>ROMULUS, NY</b>	INSPECTOR: <b>JWC/ABS</b>	CONTRACTOR: <b>ES/ESI</b>
TEST PIT DATA		START DATE: <b>6/7/94</b>
LENGTH: <b>14'</b>	WIDTH: <b>2' 10"</b>	COMPLETION DATE: <b>6/7/94</b>
DEPTH: <b>4' 6"</b>	EXCAVATION/SHORING METHOD: <b>BACKHOE</b>	CHECKED BY:
		DATE CHECKED:

MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <input checked="" type="radio"/> NO
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	Duplicate Sample Number:
<b>OVM-580B</b>	<b>10.0 eV</b>	<b>0 PPM</b>	<b>1015<sup>Am</sup> / 6/7/94</b>	MRD Sample Number:
<b>VICTOREEN-190</b>	<b>pancake</b>	<b>10-15 µR/hr</b>	<b>1015<sup>Am</sup> / 6/7/94</b>	QA/QC Rinsate Sample Number:
				COMMENTS:

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
	Qppm BKGD				Top Soil	
1	Qppm BKGD				8" Black (burnt) Fill in Burnt Debris (wood, glass, metal)	ANOMALY: Wood melted To Light Rock matrix
2						
3	Qppm BKGD				2' 0" Iron stained Fill in Burnt metal Debris	
4	Qppm BKGD				3' 0" Light Gray silt with Some shale clasts	
5					4' 6" Base of Pit weathered shale	

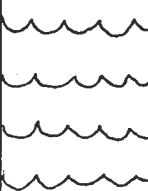

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP9-2

# TEST PIT REPORT

ENGINEERING—SCIENCE, INC.	CLIENT: <b>USACOE</b>	TEST PIT #: <b>TP9-3</b>
PROJECT: <b>15 SWMU ESI</b>	JOB NUMBER: <b>720519</b>	EST. GROUND ELEV.:
LOCATION: <b>ROMULUS, NY</b>	INSPECTOR: <b>JWC/ABS</b>	CONTRACTOR: <b>ES/ESI</b>
<b>TEST PIT DATA</b>		
LENGTH: <b>12'</b>	WIDTH: <b>5'</b>	DEPTH: <b>6'10"</b>
EXCAVATION/SHORING METHOD: <b>BACKHOE</b>		
START DATE: <b>6/7/94</b>		COMPLETION DATE: <b>6/7/94</b>
CHECKED BY:		DATE CHECKED:


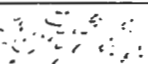
MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <input checked="" type="radio"/> NO
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	Duplicate Sample Number:
OVM-580B	10.0 eV	Ø PPM	0900 am / 6/7/94	MRD Sample Number:
VICTOREEN-190	PANCAKE	10-15 µR/Hr	0900 am / 6/7/94	QA/QC Rinsate Sample Number:
COMMENTS:				

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
1	Ø ppm BKGD				Top Soil	
	Ø ppm BKGD				1' 0" Fine SHALE Gravel (sub Angular) with OLIVE GRAY SILT	
2	Ø ppm BKGD				1' 6" OLIVE GRAY SILT with Construction Debris	Anomalies: METAL Fence POSTS, I-Beams in concrete BASES, Burnt wood, 43 lb Bricks, Construction Debris.
3					WOOD From Construction Debris (2"x4"; plywood)	
4						
5						

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP9-3

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.		CLIENT:		TEST PIT #: TP 9-3		
MONITORING DATA						
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	DATE START: _____		
				DATE FINISH: _____		
				INSPECTOR: JWC/ABS		
				CONTRACTOR: _____		
SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
						
					6' 6" Light GRAY Fine SAND with some SHALE CLASTS	
					6' 10" BASE OF PIT	

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP 9-3



# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: <b>USACOE</b>	TEST PIT #: <b>TP12A-1</b>
PROJECT: <b>15 SWMU ESI</b>	LOCATION: <b>ROMULUS, NY</b>	JOB NUMBER: <b>720519</b>
TEST PIT DATA		EST. GROUND ELEV.:
LENGTH	WIDTH	DEPTH
<b>10'</b>	<b>4'</b>	<b>5.5'</b>
EXCAVATION/SHORING METHOD		
<b>BACKHOE</b>		
INSPECTOR: <b>JWC/ABS</b>		CONTRACTOR: <b>ES/ESI</b>
START DATE: <b>6/24/94</b>		COMPLETION DATE: <b>6/24/94</b>
CHECKED BY:		DATE CHECKED:

MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <input checked="" type="radio"/> NO
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	Duplicate Sample Number:
OVM-580B	10.0 eV	Ø PPM	1120h / 6/24/94	MRD Sample Number:
VICTOREEN-190	pancake	10-15 µR/hr	1120h / 6/24/94	QA/QC Rinsate Sample Number:
LUDLUM 2221 w/ SCALER	α SCINT.	2-2 CPM	1120h / 6/24/94	COMMENTS: VISITOR: Kamal Gupta
LUDLUM 19 µR	γ-NaI	8-14 µR/hr	1120h / 6/24/94	

SCALE (FT)	VOC/ RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
1	Øppm BKGD				Light Brown Fill with miscellaneous metal fragments	Miscellaneous Components
2	Øppm				2.0' layer with elevated	Highest µ-R Reading: 46 µR/hr Highest victoreen Reading: 78 µR/hr
3	46 µR/hr	TP12A-1-1	2.5'		Miscellaneous METAL fragments and some BLACK granular fill	
4	Øppm BKGD	TP12A-1-2	3.0'		3.0'	
5	Øppm BKGD				4.0'	
					▽ = WATER TABLE	

# TEST PIT REPORT

<b>ENGINEERING-SCIENCE, INC.</b>	<b>CLIENT:</b>	<b>TEST PIT #: TP12A-1</b>	
<b>MONITORING DATA</b>			
<b>INSTRUMENT</b>	<b>DETECTOR</b>	<b>BACKGROUND</b>	<b>TIME/DATE</b>
			<b>DATE START:</b> _____
			<b>DATE FINISH:</b> _____
			<b>INSPECTOR:</b> _____
			<b>CONTRACTOR:</b> _____

SCALE (FT)	VOC/ RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
						↓
					5.5' BASE OF PIT ↓ Discontinued excavation DUE TO WATER	

# TEST PIT REPORT

ENGINEERING—SCIENCE, INC.	CLIENT: USACOE	TEST PIT #: TP12A-2
PROJECT: 15 SWMU ESI (SEAD-12A)		JOB NUMBER: 720519
LOCATION: SENECA ARMY DEPOT, ROMULUS, NY		EST. GROUND ELEV.:
TEST PIT DATA		INSPECTOR: JWC/AS
LENGTH: 12'	WIDTH: 6'	DEPTH: 8'
EXCAVATION/SHORING METHOD: BACKHOE		
		CONTRACTOR: ES/EMPRE
		START DATE: 6/22/94
		COMPLETION DATE: 6/22/94
		CHECKED BY:
		DATE CHECKED:


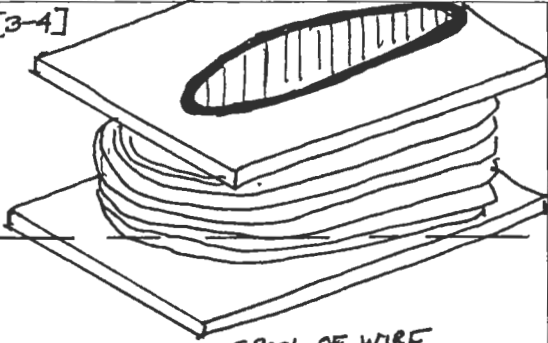

MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or NO
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	Duplicate Sample Number:
OVM-580B	10.6 eV	Ø		MRD Sample Number:
LUDLUM 2221 <sup>1/4</sup> SCALE	α SCINTIL	3 cpm		QA/QC Rinsate Sample Number:
LUDLUM 19 Micro-R	γ	1.5		SAMPLES SHIPPED:
VICTOREEN 190	β γ	1.59 µR/hr		

SCALE (FT)	VOC / RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS	
		NUMBER	DEPTH RANGE				
	ppm BK6D				TOPSOIL		
1	ppm BK6D				LIGHT BROWN SILT (FILL)		
2					[5-7]		
3	ppm BK6D						
4							 15-20 GALLON (EMPTY) [3-4]
5							 [MANY] TUBES ← TP12A-2-2 SAMPLED

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #:

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.		CLIENT: USACOE		TEST PIT #: TP12A-2		
MONITORING DATA						
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE			
SAME AS ABOVE			DATE START: 6/22/94			
			DATE FINISH: 6/22/94			
			INSPECTOR: JWC/AS			
			CONTRACTOR: ES/EMPIRE			
SCALE (FT)	VOC/RAD.	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
6		TP12A-2-1	6'		<p>[3-4]</p>  <p>SPOOL OF WIRE</p>	<p>Box FULL OF TOOLS</p>  <p>▽ 6' WATER</p>
7				<p>* Below</p>	<p>WATER TABLE</p>	
8					<p>BOTTOM OF PIT @ 8'</p> <p>Discontinued excavation Due To WATER</p>	

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #:

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: USACOE	TEST PIT #: TP12A-3
PROJECT: 15 SWMU ESI (SEAD-12A)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	JOB NUMBER: 720519
TEST PIT DATA		EST. GROUND ELEV.:
LENGTH: 11'	WIDTH: 8'	DEPTH: 6'
EXCAVATION/SHORING METHOD: BACKHOE		INSPECTOR: JWC/AS
		CONTRACTOR: ES/EMARC
		START DATE: 6/22/94
		COMPLETION DATE: 6/22/94
		CHECKED BY:
		DATE CHECKED:

MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <u>NO</u>	
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE		
OVM-580B	10.0 $\mu$ EV	0			
LUDLUM 2221 $\frac{1}{4}$ SCINT	$\alpha$ SCINTIL	3 CPM	0930	6/22/94	
LUDLUM $\frac{1}{4}$ MICRO-R	$\gamma$ COUNT	1.5	0930	6/22/94	
VICTOREEN 190	GM-PROBE	1.59 $\mu$ R/hr	0930	6/22/94	

Duplicate Sample Number: \_\_\_\_\_  
 MRD Sample Number: \_\_\_\_\_  
 QA/QC Rinsate Sample Number: \_\_\_\_\_  
 SAMPLES SHIPPED: 6/23/94

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
				TOPSOIL		
1	Oppm BKGD				LIGHT BROWN SILT WITH FOREIGN COMPONENTS DARK BURNT MATRIX	
2						* ANOMALIES
3	Oppm BKGD	TP12A-41	2.5'			SEAD "TRAINER" 1950'S STYLE "W31" 4 FOUND TO BE PRESENT 3 REMOVED FOR INSPECTION
4						
5						

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP12A-3

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.		CLIENT: USACOE		TEST PIT #: TP12A-4		
MONITORING DATA						
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE			
SAME	AS	ABOVE				
			DATE START: 6/22/94			
			DATE FINISH: 6/22/94			
			INSPECTOR: JWC/AS			
			CONTRACTOR: ES/EMPIRE			
SCALE (FT)	VOC./RAD.	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
6		TP12A-32	6'		BOTTOM OF PIT @ 6'	

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP12A-3

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: USACOE	TEST PIT #: TP1ZA-4
PROJECT: 15 SWMU ESI (SEAD-1ZA)		JOB NUMBER: 720519-0100
LOCATION: SENECA ARMY DEPOT, ROMULUS, NY		EST. GROUND ELEV.:

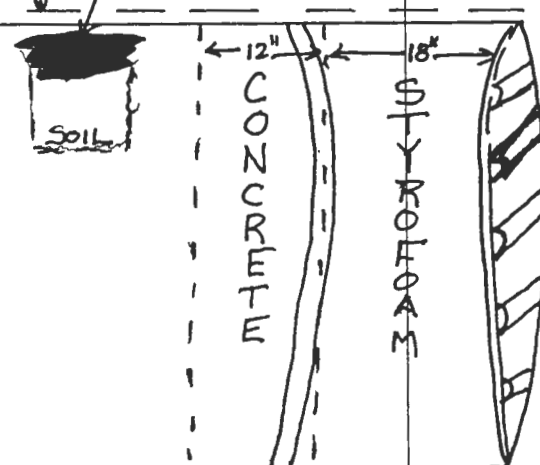
TEST PIT DATA			
LENGTH	WIDTH	DEPTH	EXCAVATION/SHORING METHOD
12'	7.5'	50"	BACKHOE

MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or NO
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	Duplicate Sample Number:
OVM-580B				MRD Sample Number:
LUDLUM 2221 w/scale or SCINTILL				QA/QC Rinsate Sample Number:
LUDLUM 19	Y	NAI		SAMPLES SHIPPED:
VICTOREEN 190	BY	GM-Probe		

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
1	Open BKGD			TOPSOIL	LIGHT BROWN SILT (FILL)	
2						
3	Open BKGD				LIGHT GRAY SILT (FILL)	
4	Open BKGD				CONCRETE	
5					SLY ROOF	

OPEN →

WT @ 3'



SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS TEST PIT #: TP1ZA-4

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: SEAD	TEST PIT #: TP12A-5
PROJECT: 15 SWMU INVESTIGATION	JOB NUMBER: 720	
LOCATION: SEAD 12A TEST PIT #5	EST. GROUND ELEV. _____	
TEST PIT DATA		INSPECTOR: JWC/AS
LENGTH: 21'	WIDTH: 5'	DEPTH: 7'4"
EXCAVATION/SHORING METHOD: BACKHOE		
		CONTRACTOR: ES
		START DATE: 6/23/94
		COMPLETION DATE: 6/23/94
		CHECKED BY: _____
		DATE CHECKED: _____

LENGTH	WIDTH	DEPTH	EXCAVATION/SHORING METHOD
21'	5'	7'4"	BACKHOE

MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <input checked="" type="radio"/> NO
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	Duplicate Sample Number: N/A
OVM-580B	10.6eV	Ø PPM	6/23/94	MRD Sample Number: N/A
VICTOREEN-190	GM-PANCAKE	8-12 uR/h	6/23/94	QA/QC Rinsate Sample Number: _____
LUDLUM 2221 W/43-5 probe	α	1-3 cpm	6/23/94	COMMENTS:
LUDLUM MKRO-R	NAI	8-12 uR/h	6/23/94	
EBERLINE RAP-1	FILTER		6/23/94	

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
1	Ø PPM BK60				TOPSOIL w/1" DIA. SHALE (FILL)  (6" PIECE OF GLASS)	0-18"
	Ø PPM BK60				NATURAL DECAYING PEAT 18"-19"	
2	Ø PPM BK60				OLIVE GRAY SILT	19"-42"
3	Ø PPM BK60	TP12A-5-1	3'			
4	Ø PPM BK60				LIGHT BROWN FINE SAND	42"-48"
5	Ø PPM BK60				OLIVE GRAY SILT	48"-60"

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP12A-5



# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: <u>SEAD</u>	TEST PIT #: <u>TP12A-5</u>
MONITORING DATA		
INSTRUMENT	DETECTOR	BACKGROUND
SAME AS ABOVE		
		DATE START: <u>6/23/94</u>
		DATE FINISH: <u>6/23/94</u>
		INSPECTOR: <u>JWC/AS</u>
		CONTRACTOR: _____

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
6					OLIVE GRAY SILT	60"-88"
7					BOTTOM OF TEST PIT @ 88"	
8						

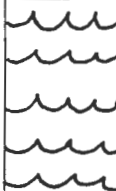
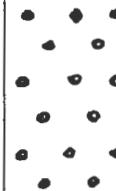
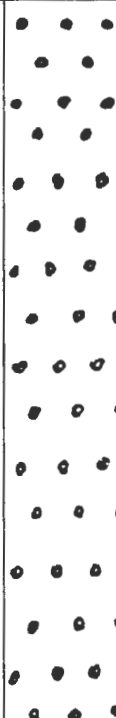
SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP12A-5

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: SEAD	TEST PIT #: TP12A-6
PROJECT: 15 SWMU INVESTIGATION	JOB NUMBER: 720519	
LOCATION: SEAD 12A TEST PIT #6	EST. GROUND ELEV. _____	
TEST PIT DATA		
LENGTH: 17'	WIDTH: 7'	DEPTH: 8'8"
EXCAVATION/SHORING METHOD: BACKHOE		
INSPECTOR: JWC/AS		CONTRACTOR: ES
START DATE: 6/23/94		COMPLETION DATE: 6/23/94
CHECKED BY: _____		DATE CHECKED: _____

MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <input checked="" type="radio"/> NO
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	Duplicate Sample Number: N/A
OVM-580B	10.6 <sup>uv</sup>	0 PPM	6/23/94	MRD Sample Number: N/A
VICTOREEN-190	GM-PANCAK	8-12 <sup>uR/hr</sup>	6/23/94	QA/QC Rinsate Sample Number: _____
LVDLUM 2221 <sup>w/A3-5</sup>	$\alpha$ SCINTE	1-3 CPM	6/23/94	COMMENTS: _____
LVDLUM MICRO-R	NAI	8-12 <sup>uR/hr</sup>	6/23/94	
EBERLINE-RAP-1	FILTER		6/23/94	

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
1	RPM BK60				TOPSOIL	0-11" }
1	RPM BK60	TP12A-6-1	1'		LIGHT GRAY SILT (FILL) (BASE OF FILL)	11"-22" }
2	RPM BK60				OLIVE GRAY SILT	22"-60" }
3						
4						
5						

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #:

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: SEAD	TEST PIT #: TP12A-6
MONITORING DATA		DATE START: 6/23/94
INSTRUMENT	DETECTOR	DATE FINISH: 6/23/94
BACKGROUND	TIME/DATE	INSPECTOR: JWC/AS
SAME AS ABOVE		CONTRACTOR:

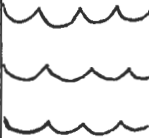

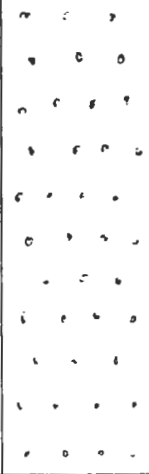

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
6				• •	OLIVE GRAY SILT	60"-104"
7		TP12A-6Z	7'	• •		
8				• •	BOTTOM OF TEST PIT @ 8'8"	
9				X X X X X X X X X X X X X X X X	WEATHERED BEDROCK	
10						

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS TEST PIT #: TP12A-6

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: <b>USACOE</b>	TEST PIT #: <b>TP12A-7</b>
PROJECT: <b>15 SWMU ESI</b>	JOB NUMBER: <b>720519</b>	EST. GROUND ELEV.:
LOCATION: <b>ROMULUS, NY</b>	INSPECTOR: <b>JWC/ABS</b>	CONTRACTOR: <b>ES/ESI</b>
<b>TEST PIT DATA</b>		
LENGTH: <b>11'</b>	WIDTH: <b>3'</b>	DEPTH: <b>7.5'</b>
EXCAVATION/SHORING METHOD: <b>BACKHOE</b>		
START DATE: <b>6/23/94</b>		
COMPLETION DATE: <b>6/23/94</b>		
CHECKED BY:		
DATE CHECKED:		

MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <input checked="" type="radio"/> NO
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	Duplicate Sample Number:
OVM-580B	10.0 eV	Ø PPM	1610h / 6/23/94	MRD Sample Number:
VICTOREEN-190	pancake	8-12 µR/h	1610h / 6/23/94	QA/QC Rinsate Sample Number:
LUDLUM 2221 w/SCALER	SCINT.	1-3 cpm	1610h / 6/23/94	COMMENTS:
LUDLUM 19 µR	γ-NaI	8-12 µR/h	1610h / 6/23/94	
Eberline RAP-1	Filter	—	1610h To 1645h 6/23/94	

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
	Ø PPM BKGD				Topsoil	
1   2	Ø PPM BKGD				10" Olive Gray Silt	
3  4	Ø PPM BKGD	TP12A-7-1	3.5'		2'5" Dark Gray Silt	
5	Ø PPM BKGD				4'5" Dark Gray Silt	

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP12A-7

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT:	TEST PIT #: TP12A-7	
MONITORING DATA			
INSTRUMENT	DETECTOR	BACKGROUND	DATE START: _____
			DATE FINISH: _____
			INSPECTOR: <u>Jwc/ABS</u>
			CONTRACTOR: _____

SCALE (FT)	VOC/ RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
6						
7						
8					7'6"	

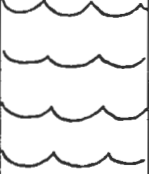

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP12A-7

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: <u>USACOE</u>	TEST PIT #: <u>TP12A-8</u>
PROJECT: <u>15 SWMU ESI</u>	JOB NUMBER: <u>72051</u>	EST. GROUND ELEV.:
LOCATION: <u>ROMULUS, NY</u>	INSPECTOR: <u>JWC/ABS</u>	CONTRACTOR: <u>ES/ESI</u>
TEST PIT DATA		START DATE: <u>6/24/94</u>
LENGTH: <u>12'</u>	WIDTH: <u>3'</u>	COMPLETION DATE: <u>6/24/94</u>
DEPTH: <u>7'</u>	EXCAVATION/SHORING METHOD: <u>BACKHOE</u>	
		CHECKED BY:
		DATE CHECKED:

MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <input checked="" type="radio"/> NO
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	Duplicate Sample Number:
<u>OVM-580B</u>	<u>10.0 eV</u>	<u>Ø PPM</u>	<u>0937h / 6/24/94</u>	MRD Sample Number:
<u>VICTOREEN-190</u>	<u>pancake</u>	<u>8-12 µR/h</u>	<u>0937h / 6/24/94</u>	QA/QC Rinsate Sample Number:
<u>LUDDLUM 2221 w/SCALER</u>	<u>α SCINT.</u>	<u>1-3 cpm</u>	<u>0937h / 6/24/94</u>	COMMENTS:
<u>LUDDLUM 19 µR</u>	<u>γ-NaI</u>	<u>8-12 µR/h</u>	<u>0937h / 6/24/94</u>	

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
1	<u>Ø PPM</u> <u>BKGD</u>				<u>Top Soil</u>	
2	<u>Ø PPM</u> <u>BKGD</u>				<u>1' 0"</u>  <u>Olive Gray Silt with</u> <u>Some Fine To Large</u> <u>Shale clasts</u>	
3						
4						
5						

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP12A-8

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT:	TEST PIT #: TP12A-8	
MONITORING DATA			
INSTRUMENT	DETECTOR	BACKGROUND	DATE START: _____
			DATE FINISH: _____
			INSPECTOR: JWC/ABS
			CONTRACTOR: _____

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
6						
7		TP12A-8-1	7.0'		7' 0" Base of Pit	

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP12A-8

# TEST PIT REPORT

TP12B-1

ENGINEERING-SCIENCE, INC.	CLIENT: <b>USACOE</b>	TEST PIT #: <del>TP12B-1</del> <b>KK</b>
PROJECT: <b>15 SWMU ESI</b>	JOB NUMBER: <b>720519</b>	EST. GROUND ELEV.:
LOCATION: <b>ROMULUS, NY</b>	INSPECTOR: <b>JWC/ABS</b>	CONTRACTOR: <b>ES/ESI</b>
TEST PIT DATA		START DATE: <b>6/25/94</b>
LENGTH: <b>43'</b>	WIDTH: <b>3'</b>	DEPTH: <b>5'3"</b>
EXCAVATION/SHORING METHOD: <b>BACKHOE</b>		
MONITORING DATA		COMPLETION DATE: <b>6/25/94</b>
		CHECKED BY:
		DATE CHECKED:

INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	QA/QC DUPLICATE SAMPLE: YES or <input checked="" type="radio"/> NO
OVM-580B	10.0 eV	0 PPM	0941h / 6/25/94	Duplicate Sample Number:
VICTOREEN-190	pancake	9-14 uR/h	0941h / 6/25/94	MRD Sample Number:
LVDLUM 2221 w/SCALER	SCINT.	2-4 cpm	0941h / 6/25/94	QA/QC Rinsate Sample Number:
LVDLUM 19 uR	8-NaI	9-12 uR/h	0941h / 6/25/94	COMMENTS:
Eberline RAP-1	Filter		0941h / 6/25/94	

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
	Qp BKGD				Top Soil	
1	Qp BKGD				2" Light Gray and Light Brown Silt and Sand	
3	Qp BKGD				2' 2" Olive Gray Silt with Shale clasts and Very Little Light Brown Silty SAND CLASTS	
4		TP12B-1	4'			
5						

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP





# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.		CLIENT: SEAD	TEST PIT #: TP12B-2
PROJECT: 15 SWMU INVESTIGATION		JOB NUMBER: 720519	
LOCATION: SEAD 12B TEST PIT 12B-2		EST. GROUND ELEV.:	
TEST PIT DATA		INSPECTOR: JWC/AS	
LENGTH	WIDTH	DEPTH	EXCAVATION/SHORING METHOD
18'	5'4"	5'10"	BACK HOE
MONITORING DATA		QA/QC DUPLICATE SAMPLE: YES or <input checked="" type="radio"/> NO	
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE
OVM-580B	10.6 <sup>uv</sup>	9 ppm	1530h 6/24/94
VICTOREEN-190	GM Probe	8-12 <sup>uv</sup>	1530h 6/24/94
LUDLUM 2221 4/435	α SCINT.	1-3 CPM	1530h 6/24/94
LUDLUM MKRO-R	β NAI	8-12 <sup>uv</sup>	1530h 6/24/94
EBERLINE RAP-1	Filter		6/24/94
		Duplicate Sample Number: N/A	
		MRD Sample Number: N/A	
		QA/QC Rinsate Sample Number: N/A	
COMMENTS:			

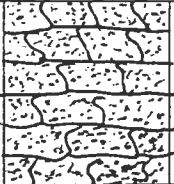
SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
	Qp				TOPSOIL, LIGHT BROWN SILT	
1	BK60				OLIVE GRAY SILT W/ SHALE CLASTS	2"-22"
2					LIGHT GRAY SILT (WET) W/ SHALE CLASTS	
3	Qp BK60	TP12B-2-1	2.5'		LIGHT BROWN SANDY SILT W/ SHALE CLASTS	SIGN Post + FENCE Post 22"-42"
4	Qp BK60				LIGHT BROWN SANDY SILT W/ SHALE CLASTS	42"-60"
5						

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #:

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: SEAD	TEST PIT #: TP12B-2
MONITORING DATA		
INSTRUMENT	DETECTOR	BACKGROUND
SAME AS ABOVE		
		DATE START: 6/24/94
		DATE FINISH: 6/24/94
		INSPECTOR: JWC/AS
		CONTRACTOR:

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
6					LIGHT BROWN SAND/SILT	60"-70" }
7					BOTTOM OF TEST PIT @ 5'10"	
8						

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP12B-2

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: <u>SEAD</u>	TEST PIT #: <u>TP12B-3</u>
PROJECT: <u>15 SWMU INVESTIGATION</u>	JOB NUMBER: <u>720519</u>	
LOCATION: <u>SEAD 12B TEST PIT #3</u>	EST. GROUND ELEV. _____	
INSPECTOR: <u>JWC/AS</u>		
CONTRACTOR: <u>ES</u>		
START DATE: <u>6/25/94</u>		
COMPLETION DATE: <u>6/25/94</u>		
CHECKED BY: _____		
DATE CHECKED: _____		

TEST PIT DATA			
LENGTH	WIDTH	DEPTH	EXCAVATION/SHORING METHOD
14'	3'	8'4"	BACKHOE

MONITORING DATA			
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE
OVM-580B	10.6eV	Ø PPM	0835h 6/25/94
VICTOREEN-190	GM PROBE	8-12 <sup>uCi</sup> /hr	0835h 6/25/94
LUDLUM 2221 W/43-S	α SCINT.	1-3 CPM	0835h 6/25/94
LUDLUM MKRO-R	γ NAI	8-12 <sup>uCi</sup> /hr	0835h 6/25/94

QA/QC DUPLICATE SAMPLE: (YES) or NO

Duplicate Sample Number: \_\_\_\_\_

MRD Sample Number: \_\_\_\_\_

QA/QC Rinsate Sample Number: \_\_\_\_\_

COMMENTS: \_\_\_\_\_

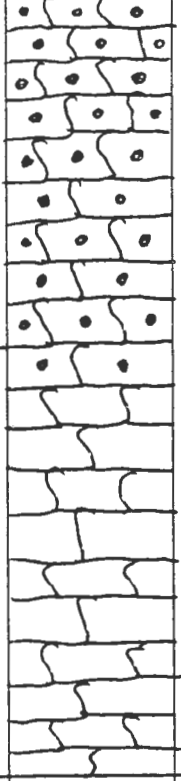
SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
	Qp BK6D				TOPSOIL	0-4" {
1  2	Qp BK6D				Yellow-ORANGE FINE SAND	4"-33" {
		TP12B-3-1	2.5'			
3  4  5	Qp BK6D				OLIVE GRAY SILT W/SMALL & LARGE SUBROUNDED SHALE	33"-60" {

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP12B-3

# TEST PIT REPORT


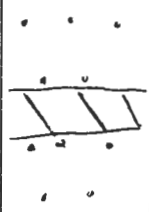
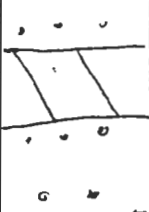
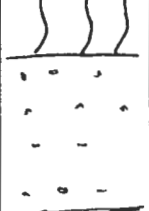
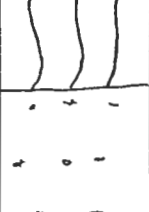

ENGINEERING-SCIENCE, INC.	CLIENT: <u>SEAD</u>	TEST PIT #: <u>TP12B-3</u>	
MONITORING DATA			
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE
SAME AS ABOVE			
		DATE START: <u>6/25/94</u>	
		DATE FINISH: <u>6/25/94</u>	
		INSPECTOR: <u>JWC/AS</u>	
		CONTRACTOR: <u>ES/EMPIRE</u>	

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
6					<p>OLIVE GRAY SILT w/SMALL &amp; LARGE SUBROUNDED SHALE</p>	
7						
8						
					BOTTOM OF TEST PIT @ 8'4"	
9						

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP12B-3

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.		CLIENT: <u>USACOE</u>		TEST PIT #: <u>TP58-1</u>		
PROJECT: <u>15 SWMU ESI</u>				JOB NUMBER: <u>72051<sup>0</sup></u>		
LOCATION: <u>ROMULUS, NY</u>				EST. GROUND ELEV. _____		
TEST PIT DATA						
LENGTH	WIDTH	DEPTH	EXCAVATION/SHORING METHOD			
<u>12'</u>	<u>2.5'</u>	<u>6'6"</u>	<u>BACKHOE</u>			
MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <input checked="" type="radio"/> NO		
INSTRUMENT		DETECTOR	BACKGROUND	TIME/DATE		
<u>OVM-580B</u>		<u>10.0 eV</u>	<u>Ø PPM</u>	<u>1545 / 6 / 10 / 194</u>		
<u>VICTOREEN-190</u>		<u>pancake</u>	<u>10-15 µR/Hr</u>	<u>1545 / 6 / 10 / 194</u>		
MRD Sample Number: _____				QA/QC Rinsate Sample Number: _____		
COMMENTS: _____						
SCALE (FT)	VOC/RAD.	SAMPLE NUMBER	DEPTH RANGE	STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
	<u>Ø ppm</u> <u>BKGD</u>				<u>Top Soil</u>	
1	<u>Ø ppm</u> <u>BKGD</u>				<u>1"</u> <u>Olive Gray Silt</u> <u>with Very Large Limestone</u> <u>and Shale pieces.</u>	
2		<u>TP58-1</u>	<u>2.5'</u>			
3						
4						
5	<u>Ø ppm</u> <u>BKGD</u>				<u>4' 7"</u> <u>Very Fine Olive Gray Sand with</u>	


SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.		CLIENT:		TEST PIT #:	
MONITORING DATA					
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE		

DATE START: \_\_\_\_\_  
 DATE FINISH: \_\_\_\_\_  
 INSPECTOR: \_\_\_\_\_  
 CONTRACTOR: \_\_\_\_\_

SCALE (FT)	VOC/ RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
6					Shale clasts --- ∇ --- = WATER TABLE	
7					6'6" BASE OF PIT	







SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #:

# TEST PIT REPORT

ENGINEERING—SCIENCE, INC.	CLIENT: <b>USACOE</b>	TEST PIT #: <b>TP58-2</b>
PROJECT: <b>15 SWMU ESI</b>	LOCATION: <b>ROMULUS, NY</b>	JOB NUMBER: <b>72051</b>
		EST. GROUND ELEV. _____
TEST PIT DATA		INSPECTOR: <b>JWC/ABS</b>
LENGTH: <b>12'</b>	WIDTH: <b>2.5'</b>	CONTRACTOR: <b>ES/ESI</b>
DEPTH: <b>5'8"</b>	EXCAVATION/SHORING METHOD: <b>BACKHOE</b>	START DATE: <b>6/11/94</b>
		COMPLETION DATE: <b>6/11/94</b>
		CHECKED BY: _____
		DATE CHECKED: _____

MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <b>NO</b>
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	Duplicate Sample Number: MRD Sample Number:
<b>OVM-580B</b>	<b>10.0 eV</b>	<b>Ø PPM</b>	<b>0800h / 6/11/94</b>	
<b>VICTOREEN-190</b>	<b>PANCAKE</b>	<b>10-15 µR/Hr</b>	<b>0800h / 6/11/94</b>	QA/QC Rinsate Sample Number:
COMMENTS:				

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
	<i>Open BK60</i>				<b>Topsoil</b>	
1	<i>Open BK60</i>				<b>1" OLIVE GREY SILT with shale clasts and LARGE limestone and shale boulders.</b>	
2	<i>Open BK60</i>					
3						
4						
5	<i>Open BK60 TP58-2</i>		<b>5'</b>		<b>4' 7" Light Brown Vert Fine SAND and shale clasts</b>	

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS


TEST PIT #: TP58-2



# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT:	TEST PIT #: TP58-2	
<b>MONITORING DATA</b>			
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE

DATE START: \_\_\_\_\_  
 DATE FINISH: \_\_\_\_\_  
 INSPECTOR: Jwc/AS  
 CONTRACTOR: \_\_\_\_\_

SCALE (FT)	VOC/ RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
6					5' 8" BASE OF PIT	

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP58-2

# TEST PIT REPORT

ENGINEERING—SCIENCE, INC.	CLIENT: <b>USACOE</b>	TEST PIT #: <b>TP58-3</b>
PROJECT: <b>15 SWMU ESI</b>	LOCATION: <b>ROMULUS, NY</b>	JOB NUMBER: <b>720519</b>
TEST PIT DATA		EST. GROUND ELEV.:
LENGTH: <b>13'</b>	WIDTH: <b>26"</b>	DEPTH: <b>5'8"</b>
EXCAVATION/SHORING METHOD: <b>BACKHOE</b>		
INSPECTOR: <b>JWC/ABS</b>		CONTRACTOR: <b>ES/ESI</b>
START DATE: <b>6/11/94</b>		COMPLETION DATE: <b>6/11/94</b>
CHECKED BY:		DATE CHECKED:

MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <input checked="" type="radio"/> NO
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	Duplicate Sample Number:
<b>OVM-580B</b>	<b>10.0 eV</b>	<b>Ø PPM</b>	<b>0830 / 6/11/94</b>	MRD Sample Number:
<b>VICTOREEH-190</b>	<b>pancake</b>	<b>10-15 µR/hr</b>	<b>0830 / 6/11/94</b>	QA/QC Rinsate Sample Number:
COMMENTS:				

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
	<b>Øppm BKGD</b>				<b>Top Soil</b>	
1	<b>Øppm BKGD</b>	<b>TP58-3</b>	<b>1'-2'</b>		<b>6" Light Brown Silt with LARGE Shale Boulders</b>	
	<b>Øppm BKGD</b>				<b>1'2" Light Gray Silt</b>	
2	<b>Øppm BKGD</b>				<b>1'8" Olive Gray Silt with shale clasts</b>	
3						
4						
5						

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS TEST PIT #: TP58-3

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.		CLIENT:		TEST PIT #: TP58-3	
MONITORING DATA					
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE		

DATE START:	_____
DATE FINISH:	_____
INSPECTOR:	JWC/AS
CONTRACTOR:	_____

SCALE (FT)	VOC/ RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
b					5' 8"	

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP58-3

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: USACOE	TEST PIT #: TP 58-4
PROJECT: 15 SWMU ESI	LOCATION: ROMULUS, NY	JOB NUMBER: 720519
TEST PIT DATA		EST. GROUND ELEV.:
LENGTH: 22' 8"	WIDTH: 5' 5"	DEPTH: 4' 10"
EXCAVATION/SHORING METHOD: BACKHOE		
INSPECTOR: JWC/ABS		CONTRACTOR: ES/ESI
START DATE: 6/4/94		COMPLETION DATE: 6/11/94
CHECKED BY:		DATE CHECKED:

MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <input checked="" type="radio"/> NO
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	Duplicate Sample Number:
OVM-580B	10.0 eV	Ø PPM	0915h / 6/11/94	MRD Sample Number:
VICTOREEN-190	pancake	10-15 µR/H	0915h / 6/11/94	QA/QC Rinsate Sample Number:
COMMENTS:				

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
1	Ø PPM BKGD				TOPSOIL	
2	Ø PPM BKGD				1' BK LIGHT BROWN SILT	
3	Ø PPM BKGD	TP58-4	3'		2' 10" Olive Gray SILT with Shale clasts	
4						
5					4' 10"	

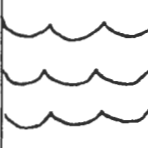

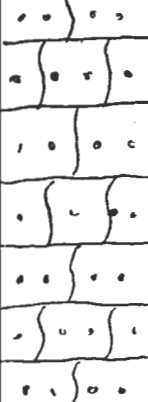
SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP58-4

# TEST PIT REPORT

ENGINEERING—SCIENCE, INC.	CLIENT: <b>USACOE</b>	TEST PIT #: <b>TP58-5</b>
PROJECT: <b>15 SWMU ESI</b>	LOCATION: <b>ROMULUS, NY</b>	JOB NUMBER: <b>720519</b>
TEST PIT DATA		EST. GROUND ELEV.:
LENGTH: <b>15' 4"</b>	WIDTH: <b>3' 10"</b>	INSPECTOR: <b>JWC/ABS</b>
DEPTH: <b>6'</b>	EXCAVATION/SHORING METHOD: <b>BACKHOE</b>	CONTRACTOR: <b>ES/ESI</b>
		START DATE: <b>6/4/94</b>
		COMPLETION DATE: <b>6/4/94</b>
		CHECKED BY:
		DATE CHECKED:

MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <b>NO</b>
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	Duplicate Sample Number:
<b>OVM-580B</b>	<b>10.0 eV</b>	<b>Ø PPM</b>	<b>1040h / 6/11/94</b>	MRD Sample Number:
<b>VICTOREEN-190</b>	<b>pancake</b>	<b>10-15 µR/h</b>	<b>1040h / 6/11/94</b>	QA/QC Rinsate Sample Number:
				COMMENTS: <b>visitor: DEC rep.</b>

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
	<b>ppm BKGD</b>				<b>TOPSOIL</b>	
1	<b>ppm BKGD</b>				<b>8" Light Brown SILT</b>	
2						
3						
4	<b>ppm BKGD</b>				<b>3' 2" Olive Gray SILT with Shale Clasts</b>	
5		<b>TP58-5</b>	<b>5'</b>			

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: **TP58-5**

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT:	TEST PIT #: TP58-5
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MONITORING DATA			
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE

DATE START: \_\_\_\_\_  
 DATE FINISH: \_\_\_\_\_  
 INSPECTOR: JWC/AS  
 CONTRACTOR: \_\_\_\_\_

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
6					6'0" BASE OF PIT	

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP58-5

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: <b>USACOE</b>	TEST PIT #: <b>TP58-6</b>
PROJECT: <b>15 SWMU ESI</b>	JOB NUMBER: <b>720519</b>	EST. GROUND ELEV.:
LOCATION: <b>ROMULUS, NY</b>	INSPECTOR: <b>JWC/ABS</b>	CONTRACTOR: <b>ES/ESI</b>

TEST PIT DATA			
LENGTH	WIDTH	DEPTH	EXCAVATION / SHORING METHOD
12'	3'	5'2"	BACKHOE

MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <input checked="" type="radio"/> NO	
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	Duplicate Sample Number:	MRD Sample Number:
OVM-580B	10.0 eV	Ø PPM	1140h / 6/11/94		
VICTOREEN-190	pancake	10-15 µR/h	1140h / 6/11/94		

QA/QC Rinsate Sample Number: \_\_\_\_\_

COMMENTS: \_\_\_\_\_

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
	ppm BKGD				TOPSOIL	
1	ppm BKGD				8" Light Gray SILT and GRAVEL	
2		TP58-6	2'			
3	ppm BKGD				2'0" OLIVE GRAY SILT with shale clasts	
4						
5						

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP58-6





# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: <b>USACOE</b>	TEST PIT #: <b>TP59-1</b>
PROJECT: <b>15 SWMU ESI</b>	JOB NUMBER: <b>720519</b>	EST. GROUND ELEV.:
LOCATION: <b>ROMULUS, NY</b>	INSPECTOR: <b>JWC/ABS</b>	CONTRACTOR: <b>ES/ESI</b>

TEST PIT DATA			
LENGTH	WIDTH	DEPTH	EXCAVATION/SHORING METHOD
10'	5'	2'6"	BACKHOE

MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <input checked="" type="radio"/> NO
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	Duplicate Sample Number:
<b>OVM-580B</b>	<b>10.0 eV</b>	<b>Ø PPM</b>	<b>0930 AM / 6/8/94</b>	MRD Sample Number:
<b>VICTOREEN-190</b>	<b>PANCAKE</b>	<b>10-15 µR/Hr</b>	<b>0930 AM / 6/8/94</b>	QA/QC Rinsate Sample Number:
				COMMENTS:

SCALE (FT)	VOC/ RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
	Ø ppm BKGD				Fine Shale Gravel	
1	590 ppm BKGD	TP59-1-1	2'		5" Industrial Waste with some silt fill.	Anomalies: Yellow Trash cans, Fencing, Sign, multiple PAINT CANS (2 gal) -- 3 Removed during excavation.
2						sampled @ 1030 AM
3					2' 0" Excavation HALTED at 2' due to paint cans.	
4						
5						

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP59-1

# TEST PIT REPORT

ENGINEERING—SCIENCE, INC.	CLIENT: <u>USACOE</u>	TEST PIT #: <u>TP59-2</u>
PROJECT: <u>15 SWMU ESI</u>	LOCATION: <u>ROMULUS, NY</u>	JOB NUMBER: <u>720519</u>
TEST PIT DATA		EST. GROUND ELEV.: _____
LENGTH	WIDTH	INSPECTOR: <u>BH/MB</u>
	<u>2'</u>	CONTRACTOR: <u>ES/OKB</u>
DEPTH		START DATE: <u>2/20/94</u>
	<u>7'</u>	COMPLETION DATE: <u>2/20/94</u>
	EXCAVATION/SHORING METHOD	CHECKED BY: _____
	<u>BACKHOE</u>	DATE CHECKED: _____

MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <b>NO</b>
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	Duplicate Sample Number:
<u>OVM-580B</u>	<u>10.0 eV</u>	<u>Ø PPM</u>	<u>2/20/94</u>	MRD Sample Number:
<u>VICTOREEN-190</u>	<u>PANCAKE</u>	<u>µR/h</u>	<u>2/20/94</u>	QA/QC Rinsate Sample Number:
<u>LEL</u>		<u>Ø %</u>	<u>2/20/94</u>	COMMENTS:

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
1	Ø ppm BKGD Ø %			— — — — —	ASPHALT on shale	
2	Ø ppm BKGD Ø %			— —	1.0' GRAVEL with pieces of Brick, Concrete and shale	
3	Ø ppm BKGD Ø %			· ·	3.0' SILT and GRAVEL	
4	Ø ppm BKGD Ø %			· ·		
5	Ø ppm BKGD Ø %			· ·		

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS TEST PIT #: TP59-2

## TEST PIT REPORT

ENGINEERING-SCIENCE, INC.		CLIENT:			TEST PIT #: TP59-2	
MONITORING DATA						
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE		DATE START:	DATE FINISH:
OVN	10.0 dV PED	ppm	1700 h	2/20/94	02/20/94	
VICTOREEN 190	9A/B/K/K	ppm	1700 h	2/20/94		
LEL		%	1700 h	2/20/94		
					INSPECTOR:	BH/MB
					CONTRACTOR:	ES/UKB
SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
6	ppm BKGD %				5.5' GRAVEL with wood chips, steel, Large Cinders, PLASTIC WATER PIPE	SLIGHT Petroleum ODOR From Pile
7					7.0' BASE OF PIT	

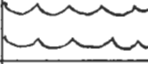
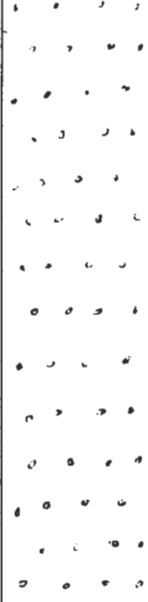
SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP59-2

# TEST PIT REPORT

ENGINEERING—SCIENCE, INC.	CLIENT: <b>USACOE</b>	TEST PIT #: <b>TP 59-3</b>
PROJECT: <b>15 SWMU ESI</b>	LOCATION: <b>ROMULUS, NY</b>	JOB NUMBER: <b>720519</b>
TEST PIT DATA		EST. GROUND ELEV.:
LENGTH: <b>8'</b>	WIDTH: <b>5'</b>	INSPECTOR: <b>JWC/AGS</b>
DEPTH: <b>3'</b>	EXCAVATION/SHORING METHOD: <b>BACKHOE</b>	CONTRACTOR: <b>ES/ESI</b>
		START DATE: <b>6/8/94</b>
		COMPLETION DATE: <b>6/8/94</b>
		CHECKED BY:
		DATE CHECKED:

MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <b>NO</b>
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	Duplicate Sample Number:
<b>OVM-580B</b>	<b>10.0 eV</b>	<b>0 PPM</b>	<b>11:5 Am / 6/8/94</b>	MRD Sample Number:
<b>VICTOREEN-190</b>	<b>PANCAKE</b>	<b>10-15 µB/M</b>	<b>11:5 Am / 6/8/94</b>	QA/QC Rinsate Sample Number:
				COMMENTS:

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
	<b>Dppm BKGD</b>				<b>Top Soil</b>	
1	<b>Dppm BKGD</b>				<b>4" Olive Gray Silt</b>	<b>Anomalies:</b> <b>Fencing,</b> <b>Crushed Bucket,</b> <b>(3) 55 gal Drums (Full)</b> <b>Uncovered at 3'</b>
3		<b>TP59-3-1</b>	<b>3'</b>			<b>sampled at 1205 pm</b>
4					<b>3' Excavation Halted due to presence of 3 55gal Drums.</b>	
5						

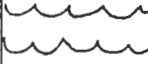
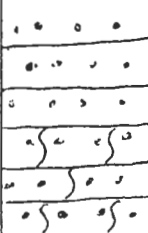
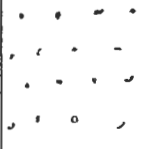


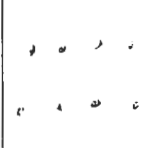
SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS TEST PIT #: TP59-3

# TEST PIT REPORT

ENGINEERING—SCIENCE, INC.	CLIENT: <b>USACOE</b>	TEST PIT #: <b>TP59-4</b>
PROJECT: <b>15 SWMU ESI</b>	JOB NUMBER: <b>72051</b>	EST. GROUND ELEV.:
LOCATION: <b>ROMULUS, NY</b>	INSPECTOR: <b>JWC/ABS</b>	CONTRACTOR: <b>ES/ESI</b>

TEST PIT DATA			EXCAVATION/SHORING METHOD
LENGTH	WIDTH	DEPTH	
16'	4' 7"	5' 10"	<b>BACKHOE</b>
START DATE: <b>6/8/94</b>			COMPLETION DATE: <b>6/8/94</b>
CHECKED BY:			DATE CHECKED:

MONITORING DATA				QA/QC DUPLICATE SAMPLE: YES or <b>NO</b>
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	Duplicate Sample Number:
<b>OVM-580B</b>	<b>10.0 eV</b>	<b>Ø PPM</b>	<b>1310<sup>pm</sup> / 6/8/94</b>	MRD Sample Number:
<b>VICTOREEN-190</b>	<b>pancake</b>	<b>10-15 µR/H</b>	<b>1310<sup>pm</sup> / 6/8/94</b>	QA/QC Rinsate Sample Number:
COMMENTS:				

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
	Øppm BK6D				Top Soil	
1	Øppm BK6D				Light GRAY Silt with Fine shale Gravel	Anomalies: 3 RCP sections (Filled w/DIRT)
	132ppm BK6D	TP59-4-1	2'		1' 5" STAINED BLACK Silt LAYER (Diesel)	Sampled @ 1330 <sup>pm</sup>
2	Øppm BK6D				1' 9" Light GRAY Silt	
3					2' 8" Olive GRAY Silt	
4						
5						

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP59-4

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.

CLIENT:

TEST PIT #: TP59-4

**MONITORING DATA**

INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE

DATE START: \_\_\_\_\_  
 DATE FINISH: \_\_\_\_\_  
 INSPECTOR: JWC/ABS  
 CONTRACTOR: \_\_\_\_\_

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
					5' 10" BASE of PIT WEATHERED Bedrock	

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP59-4

# TEST PIT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: <b>USACOE</b>	TEST PIT #: <b>TP59-5</b>
PROJECT: <b>15 SWMU ESI</b>	JOB NUMBER: <b>720519</b>	EST. GROUND ELEV.:
LOCATION: <b>ROMULUS, NY</b>	INSPECTOR: <b>JWC/ABS</b>	CONTRACTOR: <b>ES/ESI</b>
<b>TEST PIT DATA</b>		
LENGTH: <b>10'</b>	WIDTH: <b>2'6"</b>	DEPTH: <b>5'</b>
EXCAVATION/SHORING METHOD: <b>BACKHOE</b>		
START DATE: <b>6/8/94</b>		
COMPLETION DATE: <b>6/8/94</b>		
CHECKED BY: _____		
DATE CHECKED: _____		

<b>MONITORING DATA</b>				QA/QC DUPLICATE SAMPLE: YES or <b>NO</b>
INSTRUMENT	DETECTOR	BACKGROUND	TIME/DATE	Duplicate Sample Number:
<b>OVM-580B</b>	<b>10.0 eV</b>	<b>Ø PPM</b>	<b>0815 AM / 6/8/94</b>	MRD Sample Number:
<b>VICTOREEN-190</b>	<b>PANCAKE</b>	<b>10-15 µR/h</b>	<b>0815 AM / 6/8/94</b>	QA/QC Rinsate Sample Number:
				COMMENTS:

SCALE (FT)	VOC/RAD.	SAMPLE		STRATA SCHEMATIC	DESCRIPTION OF MATERIALS (BURMEISTER METHODOLOGY)	REMARKS
		NUMBER	DEPTH RANGE			
	Øppm BK60				Top Soil	Surface Anomaly Fence Debris
1	Øppm BK60	TP59-5-1	2.5'		8" Yellow Orange and Light Gray Silt with shale CLASTS	Sampled @ 0825
2					3' 0" Light Gray Silt with SHALE CLASTS	
3	Øppm BK60				4' 8" Weathered Shale @ 4' 8" BASE of PIT @ 5'	
4					5'	

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

TEST PIT #: TP59-5

**APPENDIX C**

**MONITORING WELL INSTALLATION DIAGRAMS**



# COMPLETION REPORT OF WELL No. MW5-1

PROJECT: <b>EIGHT MODERATELY LOW PRIORITY AOCs</b> PROJECT LOCATION: <b>SENECA ARMY DEPOT, ROMULUS NY</b> DRILLING CONTRACTOR: <b>EMPIRE SOILS INVESTIGATIONS</b> DRILLING METHOD: <b>HOLLOW STEM AUGER</b> WELL INSTALLATION STARTED: <b>03/16/94</b> WELL INSTALLATION COMPLETED: <b>03/16/94</b>	WELL LOCATION (N/E): <b>998728.7 750506.4</b> REFERENCE COORDINATE SYSTEM: <b>New York State Plane</b> GROUND SURFACE ELEVATION (ft): <b>738.4</b> DATUM: <b>NAD 1983</b> GEOLOGIST: <b>F. O'LOUGHLIN</b> CHECKED BY: <b>KK</b>
--	--

STRATA	SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS																																
MICRO DESCRIPTION (from boring log)	DEPTH (ft)																																				
				TPC	<b>PROTECTIVE COVER</b> Diameter: <b>4</b> Type: <b>RISER</b> Interval: <b>3.5</b>																																
				TR																																	
				TC																																	
			0.0	GS		738.4																															
OL					<b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>3.8</b>																																
GM			1.5	TBS		736.9																															
ML					<b>SCREEN</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC/0.010</b> Interval: <b>2, 4</b>																																
ML			2.9	TSP		735.5																															
CL					<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>1.5</b>																																
ML-CL			4.3	TSC		734.1																															
ML-CL					<b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>																																
-			5																																		
-					<b>SEAL</b> Type: <b>BENTONITE PELLETS</b> Interval: <b>1.4</b>																																
ML																																					
SM					<b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>8.95</b>																																
SM			11.0	BSC		727.4																															
-					<b>WELL DEVELOPMENT DATA</b> <table border="0" style="width: 100%; font-size: small;"> <tr> <td>Date:</td> <td><b>3/19/94</b></td> <td>Date</td> <td><b>3/18</b></td> <td>Time</td> <td><b>1500</b></td> <td>Depth, TR</td> <td><b>3.36</b></td> </tr> <tr> <td>Method:</td> <td><b>BAIL</b></td> <td></td> <td><b>3/19</b></td> <td></td> <td><b>1140</b></td> <td></td> <td><b>3.78</b></td> </tr> <tr> <td>Duration:</td> <td><b>2 DAYS</b></td> <td></td> <td><b>3/19</b></td> <td></td> <td><b>1300</b></td> <td></td> <td><b>9.40</b></td> </tr> <tr> <td>Rate:</td> <td><b>1.5 L/MIN</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Date:	<b>3/19/94</b>	Date	<b>3/18</b>	Time	<b>1500</b>	Depth, TR	<b>3.36</b>	Method:	<b>BAIL</b>		<b>3/19</b>		<b>1140</b>		<b>3.78</b>	Duration:	<b>2 DAYS</b>		<b>3/19</b>		<b>1300</b>		<b>9.40</b>	Rate:	<b>1.5 L/MIN</b>						
Date:	<b>3/19/94</b>	Date	<b>3/18</b>	Time		<b>1500</b>	Depth, TR	<b>3.36</b>																													
Method:	<b>BAIL</b>		<b>3/19</b>		<b>1140</b>		<b>3.78</b>																														
Duration:	<b>2 DAYS</b>		<b>3/19</b>		<b>1300</b>		<b>9.40</b>																														
Rate:	<b>1.5 L/MIN</b>																																				
			11.9	POW	726.6																																

WELL DEVELOPMENT DATA		WATER LEVELS		
Date	Time	Depth, TR		
3/18	1500	3.36		
3/19	1140	3.78		
3/19	1300	9.40		

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.12	6.0	650	1.21

<b>LEGEND</b> SURFACE SEAL GROUT SEAL SANDPACK	GRAVEL SAND SILT CLAY NO RECOVERY	TPC TOP OF PROTECTIVE CASING TR TOP OF WELL RISER GS GROUND SURFACE TG TOP OF GROUT TBS TOP BENTONITE SEAL TSP TOP OF SANDPACK TSC TOP OF SCREEN BSC BOTTOM OF SCREEN TD TOTAL DEPTH POW POINT OF WELL
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**ENGINEERING-SCIENCE, INC.**

**UNITED STATES ARMY**  
**CORPS OF ENGINEERS**  
 Seneca Army Depot  
 Romulus, New York

**COMPLETION REPORT OF**  
**WELL No. MW5-1**

# COMPLETION REPORT OF WELL No. MW5-2

PROJECT: <b>EIGHT MODERATELY LOW PRIORITY AOCs</b>	WELL LOCATION (N/E): <b>998755.5 750226.3</b>
PROJECT LOCATION: <b>SENECA ARMY DEPOT, ROMULUS NY</b>	REFERENCE COORDINATE SYSTEM: <b>New York State Plane</b>
DRILLING CONTRACTOR: <b>EMPIRE SOILS INVESTIGATIONS</b>	GROUND SURFACE ELEVATION (ft): <b>736.0</b>
DRILLING METHOD: <b>HOLLOW STEM AUGER</b>	DATUM: <b>NAD 1983</b>
WELL INSTALLATION STARTED: <b>03/04/94</b>	GEOLOGIST: <b>F. O'LOUGHLIN</b>
WELL INSTALLATION COMPLETED: <b>03/04/94</b>	CHECKED BY: <b>KK</b>

STRATA	SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS																																																												
				TPC	<b>PROTECTIVE COVER</b> Diameter: <b>4</b> Type: <b>RISER</b> Interval: <b>3.5</b>																																																												
				TR																																																													
				TC																																																													
			0.0	GS		736.0																																																											
PT					<b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>4</b>																																																												
ML-CL			1.8	TBS		734.2																																																											
SM					<b>SCREEN</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC/0.010</b> Interval: <b>4, .9</b>																																																												
-			2.8	TSP		733.2																																																											
ML					<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>1.8</b>																																																												
			3.3	TSC		732.7																																																											
ML					<b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>																																																												
ML						<b>SEAL</b> Type: <b>BENTONITE PELLETS</b> Interval: <b>1</b>																																																											
ML					<b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>7.2</b>																																																												
ML						<b>WELL DEVELOPMENT DATA</b> Date: <b>3/8/94</b> Method: <b>BAIL</b> Duration: <b>85 MIN</b> Rate: <b>2.1 L/MIN</b>																																																											
-					<b>WATER LEVELS</b> <table border="1" style="font-size: small;"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Depth, TR</th> </tr> </thead> <tbody> <tr> <td>3/8</td> <td>1000</td> <td>2.71</td> </tr> <tr> <td>3/8</td> <td>1116</td> <td>3.18</td> </tr> </tbody> </table>		Date	Time	Depth, TR	3/8	1000	2.71	3/8	1116	3.18																																																		
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3/8	1000	2.71																																																															
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-					<b>Final Measurements:</b> <table border="1" style="font-size: small;"> <thead> <tr> <th>pH</th> <th>Temperature (degrees C)</th> <th>Conductivity (micromhos/cm)</th> <th>Turbidity (NTU)</th> </tr> </thead> <tbody> <tr> <td>7.17</td> <td>4</td> <td>600</td> <td>2.42</td> </tr> </tbody> </table>	pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)	7.17	4	600	2.42																																																				
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7.17	4	600	2.42																																																														
ML					<b>LEGEND</b> <table border="0" style="font-size: x-small;"> <tr> <td></td> <td>SURFACE SEAL</td> <td></td> <td>SAND</td> <td>TPC</td> <td>TOP OF PROTECTIVE CASING</td> </tr> <tr> <td></td> <td>GROUT</td> <td></td> <td>SILT</td> <td>TR</td> <td>TOP OF WELL RISER</td> </tr> <tr> <td></td> <td>SEAL</td> <td></td> <td>CLAY</td> <td>GS</td> <td>GROUND SURFACE</td> </tr> <tr> <td></td> <td>SANDPACK</td> <td></td> <td>NO RECOVERY</td> <td>TG</td> <td>TOP OF GROUT</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>TBS</td> <td>TOP BENTONITE SEAL</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>TSP</td> <td>TOP OF SANDPACK</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>TSC</td> <td>TOP OF SCREEN</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>BSC</td> <td>BOTTOM OF SCREEN</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>TD</td> <td>TOTAL DEPTH</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>POW</td> <td>POINT OF WELL</td> </tr> </table>		SURFACE SEAL		SAND	TPC	TOP OF PROTECTIVE CASING		GROUT		SILT	TR	TOP OF WELL RISER		SEAL		CLAY	GS	GROUND SURFACE		SANDPACK		NO RECOVERY	TG	TOP OF GROUT					TBS	TOP BENTONITE SEAL					TSP	TOP OF SANDPACK					TSC	TOP OF SCREEN					BSC	BOTTOM OF SCREEN					TD	TOTAL DEPTH					POW	POINT OF WELL
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**COMPLETION REPORT OF  
WELL No. MW5-2**

# COMPLETION REPORT OF WELL No. MW5-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **03/17/94**  
 WELL INSTALLATION COMPLETED: **03/17/94**

WELL LOCATION (N/E): **998884.9 750255.7**  
 REFERENCE COORDINATE SYSTEM: **NEW YORK STATE PLAN**  
 GROUND SURFACE ELEVATION (ft): **736.9**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **F. O'LOUGHLIN**  
 CHECKED BY: **KK**

STRATA		SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS	
MICRO DESCRIPTION (from boring log)	DEPTH (ft)						
					TPC	<b>PROTECTIVE COVER</b> Diameter: <b>8</b> Type: <b>ROADWAY BOX</b> Interval: <b>1</b>	
					TR		
					TC		
	0			0.0	GS		736.9
ML ML				0.8	TBS	736.1	<b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>2.9</b>
ML - SM ML ML-CL				2.5	TSP	734.4	<b>SCREEN</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC/0.010</b> Interval: <b>3.95</b>
				3.5	TSC	733.4	
- CL-ML GM-GC CL - CL -	5			7.4	BSC	729.5	<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>.8</b>
ML	8.8			8.5	POW	728.4	<b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>
							<b>SEAL</b> Type: <b>BENTONITE</b> Interval: <b>1.7</b>
							<b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>6</b>
				<b>WELL DEVELOPMENT DATA</b>		<b>WATER LEVELS</b>	
				Date: <b>3/20/94</b>	Date	Time	Depth, TR
				Method: <b>BAIL/PUMP</b>	3/19	1430	3.33
				Duration: <b>2 DAYS</b>	3/19	1550	6.06
				Rate: <b>.100 L/MIN</b>	3/20	1020	5.3
				Final Measurements:			
pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)				
7.00	5	900	11.6				
<b>LEGEND</b>				GRAVEL	TSC	TOP OF PROTECTIVE CASING	
SURFACE SEAL	SAND	TSP	TOP OF WELL RISER				
GROUT	SILT	GS	GROUND SURFACE				
SEAL	CLAY	TG	TOP OF GROUT				
SANDPACK	NO RECOVERY	TBS	TOP BENTONITE SEAL				
		TSP	TOP OF SANDPACK				
		TSC	TOP OF SCREEN				
		BSC	BOTTOM OF SCREEN				
		TD	TOTAL DEPTH				
		POW	POINT OF WELL				



**ENGINEERING-SCIENCE, INC.**

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 Seneca Army Depot  
 Romulus, New York**

**COMPLETION REPORT OF  
 WELL No. MW5-3**

# COMPLETION REPORT OF WELL No. MW9-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **03/21/94**  
 WELL INSTALLATION COMPLETED: **03/21/94**

WELL LOCATION (N/E): **1000604.2 750938.1**  
 REFERENCE COORDINATE SYSTEM: **NEW YORK STATE PLAN**  
 GROUND SURFACE ELEVATION (ft): **747.3**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **F. O'LOUGHLIN**  
 CHECKED BY: **KK**

STRATA		SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)	WELL CONSTRUCTION DETAILS																										
MICRO DESCRIPTION <small>(from boring log)</small>	DEPTH (ft)																																
	0			0.0	GS	747.3	<b>PROTECTIVE COVER</b> Diameter: <b>4</b> Type: <b>RISER</b> Interval: <b>3.5</b>																										
ML				1.5	TBS	745.8	<b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>4.5</b>																										
ML				2.5	TSP	744.8	<b>SCREEN</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC/0.010</b> Interval: <b>.9</b>																										
ML				3.4	TSC	743.9	<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>1.5</b>																										
ML				4.3	BSC	743.0	<b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>																										
ML	5.2			5.2	POW	742.1	<b>SEAL</b> Type: <b>BENTONITE PELLETS</b> Interval: <b>1</b>																										
ML				5.75			<b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>2.55</b>																										
							<b>WELL DEVELOPMENT DATA</b> <table style="float: right; border-collapse: collapse;"> <thead> <tr> <th colspan="2"></th> <th style="text-align: center;">Date</th> <th style="text-align: center;">Time</th> <th style="text-align: center;">Depth, TR</th> </tr> </thead> <tbody> <tr> <td>Date:</td> <td style="text-align: center;">5/13/94</td> <td style="text-align: center;">4/1</td> <td style="text-align: center;">1245</td> <td style="text-align: center;">3.84</td> </tr> <tr> <td>Method:</td> <td style="text-align: center;">BAIL/PUMP</td> <td style="text-align: center;">4/14</td> <td style="text-align: center;">1150</td> <td style="text-align: center;">5.40</td> </tr> <tr> <td>Duration:</td> <td style="text-align: center;">110 DAYS</td> <td style="text-align: center;">7/19</td> <td style="text-align: center;">1004</td> <td style="text-align: center;">5.87</td> </tr> <tr> <td>Rate:</td> <td style="text-align: center;">308 L/MIN</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				Date	Time	Depth, TR	Date:	5/13/94	4/1	1245	3.84	Method:	BAIL/PUMP	4/14	1150	5.40	Duration:	110 DAYS	7/19	1004	5.87	Rate:	308 L/MIN			
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**ENGINEERING-SCIENCE, INC.**

UNITED STATES ARMY  
 CORPS OF ENGINEERS  
 Seneca Army Depot  
 Romulus, New York

**COMPLETION REPORT OF  
 WELL No. MW9-1**

# COMPLETION REPORT OF WELL No. MW9-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **03/09/94**  
 WELL INSTALLATION COMPLETED: **03/09/94**

WELL LOCATION (N/E): **1000653.0 750473.7**  
 REFERENCE COORDINATE SYSTEM: **NEW YORK STATE PLAN**  
 GROUND SURFACE ELEVATION (ft): **731.5**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **F. O'LOUGHLIN**  
 CHECKED BY: **KK**

STRATA	SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS	
MICRO DESCRIPTION (from boring log)	DEPTH (ft)					
				TPC	<b>PROTECTIVE COVER</b> Diameter: <b>4</b> Type: <b>RISER</b> Interval: <b>3.5</b>	
				TR		
				TC		
			0.0	GS		731.5
ML			1.0	TBS	730.5	<b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>4.75</b>
ML			1.9	TSP	729.6	
-			2.5	TSC	729.0	<b>SCREEN</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC/0.010</b> Interval: <b>2</b>
ML			4.5	BSC	727.0	
-			5.3	POW	726.2	<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>1.0</b>  <b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>  <b>SEAL</b> Type: <b>BENTONITE PELLETS</b> Interval: <b>.9</b>  <b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>3.4</b>
	5.3					

WELL DEVELOPMENT DATA		WATER LEVELS			
Date:	3/17/94	Date	Time	Depth, TR	
Method:	<b>BAIL</b>	▽	3/17	1015	2.11
Duration:	<b>65 MIN</b>	▽	3/17	1115	2.30
Rate:	<b>1.4 L/MIN</b>	▽			
Final Measurements:		▽			

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.07	1.5	500	3.18

LEGEND			
▨	SURFACE SEAL	▣	GRAVEL
▩	GROUT	▤	SAND
▧	SEAL	▥	SILT
▦	SANDPACK	▧	CLAY
▤		▩	NO RECOVERY

▽	TPC	TOP OF PROTECTIVE CASING
▽	TR	TOP OF WELL RISER
▽	GS	GROUND SURFACE
▽	TG	TOP OF GROUT
▽	TBS	TOP BENTONITE SEAL
▽	TSP	TOP OF SANDPACK
▽	TSC	TOP OF SCREEN
▽	BSC	BOTTOM OF SCREEN
▽	TD	TOTAL DEPTH
▽	POW	POINT OF WELL



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**COMPLETION REPORT OF  
 WELL No. MW9-2**

# COMPLETION REPORT OF WELL No. MW9-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **03/20/94**  
 WELL INSTALLATION COMPLETED: **03/20/94**

WELL LOCATION (N/E): **1000346.4 750523.7**  
 REFERENCE COORDINATE SYSTEM: **NEW YORK STATE PLAN**  
 GROUND SURFACE ELEVATION (ft): **734.4**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **F. O'LOUGHLIN**  
 CHECKED BY: **KK**

STRATA		SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS	
MICRO DESCRIPTION (from boring log)	DEPTH (ft)						
					TPC	<b>PROTECTIVE COVER</b> Diameter: <b>4</b> Type: <b>RISER</b> Interval: <b>3.5</b>	
					TR		
					TC		
	0			0.0	GS		734.4
ML				1.5	TBS	732.9	<b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>4.6</b>
- ML				2.5	TSP	731.9	
- SM				3.4	TSC	731.0	<b>SCREEN</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC/0.010</b> Interval: <b>.9, 3.95</b>
- SM				5			
- SP				9.0	BSC	725.4	<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>1.5</b>
- SP				10.2	POW	724.2	
- ML				10.2			<b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>
- ML							
-	10.2						<b>SEAL</b> Type: <b>BENTONITE PELLETS</b> Interval: <b>1</b>
-	10						
							<b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>7.65</b>
				<b>WELL DEVELOPMENT DATA</b>		<b>WATER LEVELS</b>	
				Date:	4/1/94	Date	4/1
				Method:	BAIL/PUMP	Time	1330
				Duration:	87 MIN	Depth, TR	1.68
				Rate:	1.5 L/MIN		1447
				Final Measurements:			
pH	Temperature (degrees C)	Conductivity (micromhos/cm)			Turbidity (NTU)		
6.86	6.4	750			3.05		
<b>LEGEND</b>							
	GRAVEL	TPC	TOP OF PROTECTIVE CASING				
	SURFACE SEAL	TR	TOP OF WELL RISER				
	GROUT	GS	GROUND SURFACE				
	SEAL	TG	TOP OF GROUT				
	SANDPACK	TBS	TOP BENTONITE SEAL				
	SILT	TSP	TOP OF SANDPACK				
	CLAY	TSC	TOP OF SCREEN				
	NO RECOVERY	BSC	BOTTOM OF SCREEN				
				TD	TOTAL DEPTH		
				POW	POINT OF WELL		



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**COMPLETION REPORT OF  
 WELL No. MW9-3**

# COMPLETION REPORT OF WELL No. MW12A-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **06/10/94**  
 WELL INSTALLATION COMPLETED: **06/11/94**

WELL LOCATION (N/E): **1015496.7 745165.9**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **656.9**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **F. O'LOUGHLIN**  
 CHECKED BY: **KK**

STRATA		SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS									
MICRO DESCRIPTION (from boring log)	DEPTH (ft)														
					TPC	<b>PROTECTIVE COVER</b> Diameter: <b>4</b> Type: <b>RISER</b> Interval: <b>3.5</b>									
					TR										
					TC										
				0.0	GS		656.9								
ML	0					<b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>5</b>									
ML				1.5	TBS		655.4								
-						<b>SCREEN</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC/0.010</b> Interval: <b>9</b>									
ML				2.9	TSP		654.0								
-						<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>1.5</b>									
ML				4.0	TSC		653.0								
-						<b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>									
ML	5														
-						<b>SEAL</b> Type: <b>BENTONITE PELLETS</b> Interval: <b>1.4</b>									
SM															
-						<b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>11.1</b>									
SM	10														
ML						<b>WELL DEVELOPMENT DATA</b> Date: <b>6/22/94</b> Method: <b>BAIL</b> Duration: <b>170 MIN</b> Rate: <b>1.4 L/MIN</b> Final Measurements:									
ML				13.0	BSC		644.0								
-						<b>WATER LEVELS</b> <table border="1" style="font-size: small;"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Depth, TR</th> </tr> </thead> <tbody> <tr> <td>6/22</td> <td>1130</td> <td>6.30</td> </tr> <tr> <td>6/22</td> <td>1525</td> <td>6.42</td> </tr> </tbody> </table>	Date	Time	Depth, TR	6/22	1130	6.30	6/22	1525	6.42
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pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)												
7.24	9.5	590	26.1												
-	14.0			14.0	POW	642.9									

	GRAVEL	TPC	TOP OF PROTECTIVE CASING
	SURFACE SEAL	TR	TOP OF WELL RISER
	GROUT	GS	GROUND SURFACE
	SEAL	TG	TOP OF GROUT
	SANDPACK	TBS	TOP BENTONITE SEAL
	GRAVEL	TSP	TOP OF SANDPACK
	SAND	TSC	TOP OF SCREEN
	SILT	BSC	BOTTOM OF SCREEN
	CLAY	TD	TOTAL DEPTH
	NO RECOVERY	POW	POINT OF WELL



**ENGINEERING-SCIENCE, INC.**

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 Seneca Army Depot  
 Romulus, New York**

**COMPLETION REPORT OF  
 WELL No. MW12A-1**

# COMPLETION REPORT OF WELL No. MW12A-2

PROJECT: <b>EIGHT MODERATELY LOW PRIORITY AOCs</b> PROJECT LOCATION: <b>SENECA ARMY DEPOT, ROMULUS NY</b> DRILLING CONTRACTOR: <b>EMPIRE SOILS INVESTIGATIONS</b> DRILLING METHOD: <b>HOLLOW STEM AUGER</b> WELL INSTALLATION STARTED: <b>06/11/94</b> WELL INSTALLATION COMPLETED: <b>06/11/94</b>	WELL LOCATION (N/E): <b>1015117.5 744926.6</b> REFERENCE COORDINATE SYSTEM: <b>New York State Plane</b> GROUND SURFACE ELEVATION (ft): <b>656.3</b> DATUM: <b>NAD 1983</b> GEOLOGIST: <b>F. O'LOUGHLIN</b> CHECKED BY: <b>KK</b>
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STRATA	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS																																								
					TPC	<b>PROTECTIVE COVER</b> Diameter: <b>4</b> Type: <b>RISER</b> Interval: <b>3.5</b>																																								
					TR																																									
					TC																																									
	0			0.0	GS 656.3																																									
SM ML				1.5	TBS 654.8	<b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>5.35</b>																																								
ML-CL ML-CL - ML-CL				3.2	TSP 653.1																																									
- SM ML-CL				4.3	TSC 652.0	<b>SCREEN</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC/0.010</b> Interval: <b>3.95, 1.95</b>																																								
ML-CL CL SM ML-CL	5																																													
- ML-CL						<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>1.5</b>																																								
- ML-CL																																														
- ML						<b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>																																								
- -																																														
- -	10					<b>SEAL</b> Type: <b>BENTONITE PELLETS</b> Interval: <b>1.7</b>																																								
- -																																														
- -				11.1	BSC 645.3	<b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>8.8</b>																																								
- -				12.0	POW 644.3																																									
	12.0					<b>WELL DEVELOPMENT DATA</b> Date: <b>6/23/94</b> Method: <b>BAIL</b> Duration: <b>130 MIN</b> Rate: <b>.1140 L/MIN</b>																																								
						<b>WATER LEVELS</b> <table border="1" style="font-size: small; width: 100%;"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Depth, TR</th> </tr> </thead> <tbody> <tr> <td>6/23</td> <td>0930</td> <td>5.30</td> </tr> <tr> <td>6/23</td> <td>1230</td> <td>5.36</td> </tr> <tr> <td>6/23</td> <td>1430</td> <td>5.85</td> </tr> </tbody> </table>	Date	Time	Depth, TR	6/23	0930	5.30	6/23	1230	5.36	6/23	1430	5.85																												
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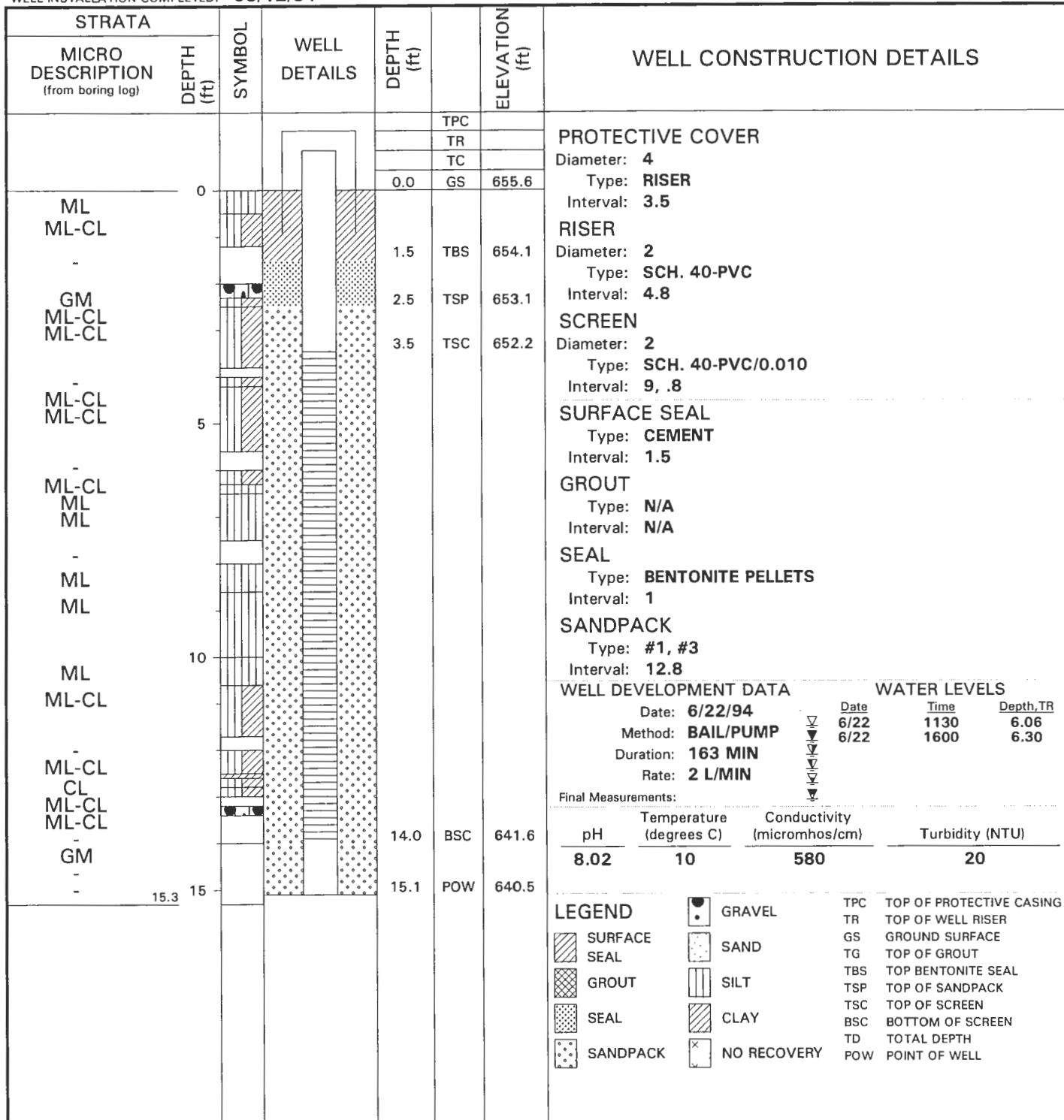
**UNITED STATES ARMY  
CORPS OF ENGINEERS  
Seneca Army Depot  
Romulus, New York**

**COMPLETION REPORT OF  
WELL No. MW12A-2**



# COMPLETION REPORT OF WELL No. MW12A-3

PROJECT: <b>EIGHT MODERATELY LOW PRIORITY AOCs</b> PROJECT LOCATION: <b>SENECA ARMY DEPOT, ROMULUS NY</b> DRILLING CONTRACTOR: <b>EMPIRE SOILS INVESTIGATIONS</b> DRILLING METHOD: <b>HOLLOW STEM AUGER</b> WELL INSTALLATION STARTED: <b>06/12/94</b> WELL INSTALLATION COMPLETED: <b>06/12/94</b>	WELL LOCATION (N/E): <b>1015521.5 744532.2</b> REFERENCE COORDINATE SYSTEM: <b>New York State Plane</b> GROUND SURFACE ELEVATION (ft): <b>655.6</b> DATUM: <b>NAD 1983</b> GEOLOGIST: <b>F. O'LOUGHLIN</b> CHECKED BY: <b>KK</b>
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<b>LEGEND</b>		GRAVEL	TPC	TOP OF PROTECTIVE CASING
SURFACE SEAL	SAND	TG	TOP OF GROUT	
GROUT	SILT	TBS	TOP BENTONITE SEAL	
SEAL	CLAY	TSP	TOP OF SANDPACK	
SANDPACK	NO RECOVERY	TSC	TOP OF SCREEN	
		BSC	BOTTOM OF SCREEN	
		TD	TOTAL DEPTH	
		POW	POINT OF WELL	



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**COMPLETION REPORT OF  
WELL No. MW12A-3**

# COMPLETION REPORT OF WELL No. MW12B-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **06/13/94**  
 WELL INSTALLATION COMPLETED: **06/13/94**

WELL LOCATION (N/E): **1015934.0 743739.7**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **652.0**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **F. O'LOUGHLIN**  
 CHECKED BY: **KK**

STRATA		SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS									
MICRO DESCRIPTION (from boring log)	DEPTH (ft)														
					TPC	<b>PROTECTIVE COVER</b> Diameter: <b>4</b> Type: <b>RISER</b> Interval: <b>3.5</b>									
					TR										
					TC										
	0			0.0	GS		652.0								
ML						<b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>6.25</b>									
ML-CL				1.5	TBS		650.5								
ML						<b>SCREEN</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC/0.010</b> Interval: <b>8.9, 1.95</b>									
-				4.3	TSP		647.8								
ML						<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>1.5</b>									
-				5.3	TSC		646.8								
ML						<b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>									
-				5											
ML						<b>SEAL</b> Type: <b>BENTONITE PELLETS</b> Interval: <b>2.75</b>									
-				10											
ML						<b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>13.55</b>									
-				15											
ML						<b>WELL DEVELOPMENT DATA</b> Date: <b>6/25/94</b> Method: <b>BAIL</b> Duration: <b>110 MIN</b> Rate: <b>.1890 L/MIN</b>									
GP				17.0	BSC		635.1								
GP						<b>WATER LEVELS</b> <table border="1" style="font-size: small;"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Depth, TR</th> </tr> </thead> <tbody> <tr> <td>6/25</td> <td>0900</td> <td>10.22</td> </tr> <tr> <td>6/25</td> <td>1045</td> <td>10.38</td> </tr> </tbody> </table>	Date	Time	Depth, TR	6/25	0900	10.22	6/25	1045	10.38
Date	Time	Depth, TR													
6/25	0900	10.22													
6/25	1045	10.38													
-				17.8	POW	634.2									
-				18.0											

**LEGEND**

	GRAVEL	TPC	TOP OF PROTECTIVE CASING
	SURFACE SEAL	TR	TOP OF WELL RISER
	GROUT	GS	GROUND SURFACE
	SEAL	TG	TOP OF GROUT
	SANDPACK	TBS	TOP BENTONITE SEAL
	GRAVEL	TSP	TOP OF SANDPACK
	SAND	TSC	TOP OF SCREEN
	SILT	BSC	BOTTOM OF SCREEN
	CLAY	TD	TOTAL DEPTH
	NO RECOVERY	POW	POINT OF WELL

# COMPLETION REPORT OF WELL No. MW12B-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **06/12/94**  
 WELL INSTALLATION COMPLETED: **06/12/94**

WELL LOCATION (N/E): **1015919.8 743522.9**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **648.1**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **F. O'LOUGHLIN**  
 CHECKED BY: **KK**

STRATA		SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)	WELL CONSTRUCTION DETAILS																																	
MICRO DESCRIPTION <small>(from boring log)</small>	DEPTH (ft)																																							
							<b>PROTECTIVE COVER</b> Diameter: <b>4</b> Type: <b>RISER</b> Interval: <b>3.5</b> <b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>5</b> <b>SCREEN</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC/0.010</b> Interval: <b>9</b> <b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>1.5</b> <b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b> <b>SEAL</b> Type: <b>BENTONITE PELLETS</b> Interval: <b>1.55</b> <b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>11</b>																																	
	0			0.0	GS	648.1																																		
ML				1.5	TBS	646.6																																		
ML				3.0	TSP	645.1																																		
-				3.9	TSC	644.2	<b>SEAL</b> Type: <b>BENTONITE PELLETS</b> Interval: <b>1.55</b> <b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>11</b> <b>WELL DEVELOPMENT DATA</b> <table border="1" style="float: right; margin-top: 10px;"> <thead> <tr> <th colspan="2"></th> <th colspan="3" style="text-align: center;">WATER LEVELS</th> </tr> <tr> <th>Date</th> <th>Time</th> <th>Depth, TR</th> <th colspan="2"></th> </tr> </thead> <tbody> <tr> <td>6/23/94</td> <td>1545</td> <td>7.15</td> <td></td> <td></td> </tr> <tr> <td>6/24</td> <td>1030</td> <td>7.36</td> <td></td> <td></td> </tr> <tr> <td>6/24</td> <td>1235</td> <td>7.20</td> <td></td> <td></td> </tr> </tbody> </table>						WATER LEVELS			Date	Time	Depth, TR			6/23/94	1545	7.15			6/24	1030	7.36			6/24	1235	7.20							
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ML				14.0	POW	634.1																																		
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SP							<b>LEGEND</b> <table style="width: 100%; margin-top: 10px;"> <tr> <td style="width: 33%;"> SURFACE SEAL</td> <td style="width: 33%;"> SAND</td> <td style="width: 33%;">TPC TOP OF PROTECTIVE CASING</td> </tr> <tr> <td> GROUT</td> <td> SILT</td> <td>TR TOP OF WELL RISER</td> </tr> <tr> <td> SEAL</td> <td> CLAY</td> <td>GS GROUND SURFACE</td> </tr> <tr> <td> SANDPACK</td> <td> NO RECOVERY</td> <td>TG TOP OF GROUT</td> </tr> <tr> <td></td> <td></td> <td>TBS TOP BENTONITE SEAL</td> </tr> <tr> <td></td> <td></td> <td>TSP TOP OF SANDPACK</td> </tr> <tr> <td></td> <td></td> <td>TSC TOP OF SCREEN</td> </tr> <tr> <td></td> <td></td> <td>BSC BOTTOM OF SCREEN</td> </tr> <tr> <td></td> <td></td> <td>TD TOTAL DEPTH</td> </tr> <tr> <td></td> <td></td> <td>POW POINT OF WELL</td> </tr> </table>				SURFACE SEAL	SAND	TPC TOP OF PROTECTIVE CASING	GROUT	SILT	TR TOP OF WELL RISER	SEAL	CLAY	GS GROUND SURFACE	SANDPACK	NO RECOVERY	TG TOP OF GROUT			TBS TOP BENTONITE SEAL			TSP TOP OF SANDPACK			TSC TOP OF SCREEN			BSC BOTTOM OF SCREEN			TD TOTAL DEPTH			POW POINT OF WELL
SURFACE SEAL	SAND	TPC TOP OF PROTECTIVE CASING																																						
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**UNITED STATES ARMY  
 CORPS OF ENGINEERS  
 Seneca Army Depot  
 Romulus, New York**

**COMPLETION REPORT OF  
 WELL No. MW12B-2**

# COMPLETION REPORT OF WELL No. MW12B-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **06/12/94**  
 WELL INSTALLATION COMPLETED: **06/12/94**

WELL LOCATION (N/E): **1015995.8 743517.1**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **655.6**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **F. O'LOUGHLIN**  
 CHECKED BY: **KK**

STRATA		SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)	WELL CONSTRUCTION DETAILS																															
MICRO DESCRIPTION <small>(from boring log)</small>	DEPTH (ft)																																					
	0			0.0	GS	655.6	<b>PROTECTIVE COVER</b> Diameter: <b>4</b> Type: <b>RISER</b> Interval: <b>3.5</b>																															
					TPC																																	
					TR																																	
					TC																																	
ML ML ML ML-CL				1.5	TBS	654.1	<b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>5.55</b>																															
ML-CL				3.5	TSP	652.1																																
ML-CL ML-CL				4.6	TSC	651.1	<b>SCREEN</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC/0.010</b> Interval: <b>8.9</b>																															
ML-CL				5																																		
- ML ML ML							<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>1.5</b>																															
ML																																						
ML ML ML							<b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>																															
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ML																																						
ML ML ML							<b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>11.1</b>																															
ML																																						
ML ML SP ML ML	10						<b>WELL DEVELOPMENT DATA</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2"></th> <th colspan="3" style="text-align: center;">WATER LEVELS</th> </tr> <tr> <th>Date</th> <th>6/26/94</th> <th>Date</th> <th>Time</th> <th>Depth, TR</th> </tr> </thead> <tbody> <tr> <td>Method</td> <td>BAIL</td> <td>6/26</td> <td>1010</td> <td>7.34</td> </tr> <tr> <td>Duration</td> <td>235 MIN</td> <td>6/26</td> <td>1310</td> <td>7.66</td> </tr> <tr> <td></td> <td></td> <td>6/26</td> <td>1445</td> <td>7.46</td> </tr> <tr> <td>Rate</td> <td>.1030 L/MIN</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				WATER LEVELS			Date	6/26/94	Date	Time	Depth, TR	Method	BAIL	6/26	1010	7.34	Duration	235 MIN	6/26	1310	7.66			6/26	1445	7.46	Rate	.1030 L/MIN			
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-				13.5	BSC	642.2																																
-				14.6	POW	641.0																																
-	14.8																																					

<b>LEGEND</b>		GRAVEL	TPC TOP OF PROTECTIVE CASING
SURFACE SEAL	SAND	TR TOP OF WELL RISER	
GROUT	SILT	GS GROUND SURFACE	
SEAL	CLAY	TG TOP OF GROUT	
SANDPACK	NO RECOVERY	TBS TOP BENTONITE SEAL	
		TSP TOP OF SANDPACK	
		TSC TOP OF SCREEN	
		BSC BOTTOM OF SCREEN	
		TD TOTAL DEPTH	
		POW POINT OF WELL	



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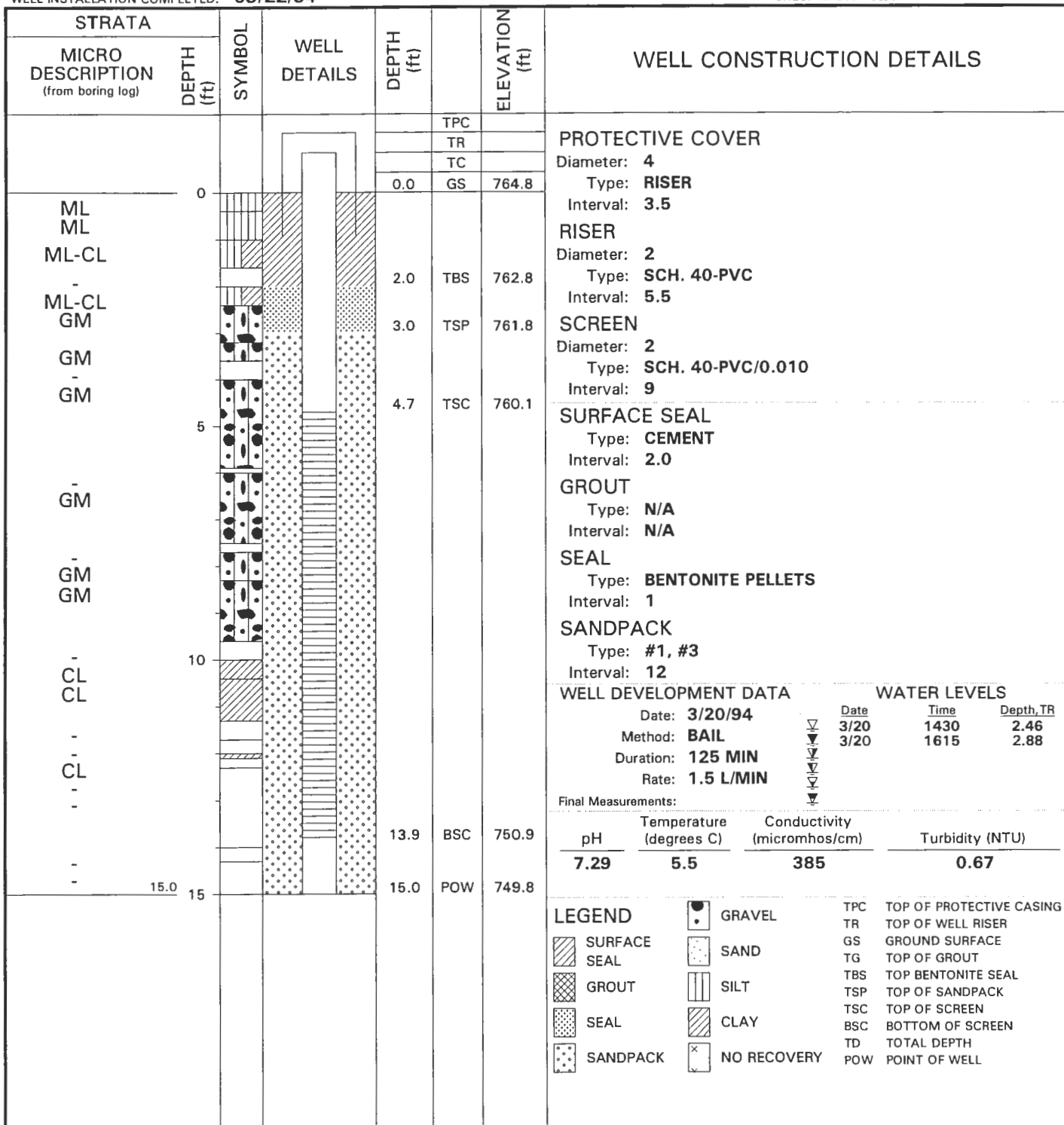
**COMPLETION REPORT OF  
WELL No. MW12B-3**

Sheet 1 of 1

# COMPLETION REPORT OF WELL No. MW43-1

PROJECT: EIGHT MODERATELY LOW PRIORITY AOCs  
 PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY  
 DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS  
 DRILLING METHOD: HOLLOW STEM AUGER  
 WELL INSTALLATION STARTED: 03/22/94  
 WELL INSTALLATION COMPLETED: 03/22/94

WELL LOCATION (N/E): 987079.1 754460.0  
 REFERENCE COORDINATE SYSTEM: New York State Plane  
 GROUND SURFACE ELEVATION (ft): 764.8  
 DATUM: NAD 1983  
 GEOLOGIST: F. O'LOUGHLIN  
 CHECKED BY: KK



# COMPLETION REPORT OF WELL No. MW43-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **03/19/94**  
 WELL INSTALLATION COMPLETED: **03/19/94**

WELL LOCATION (N/E): **987117.2 754149.1**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **762.5**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **F. O'LOUGHLIN**  
 CHECKED BY: **KK**

STRATA		SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)	WELL CONSTRUCTION DETAILS																																								
MICRO DESCRIPTION (from boring log)	DEPTH (ft)																																														
							<b>PROTECTIVE COVER</b> Diameter: <b>4</b> Type: <b>RISER</b> Interval: <b>3.5</b>																																								
ML	0			0.0	GS	762.5	<b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>3.85</b>																																								
ML-CL ML-CL				1.7	TBS	760.8																																									
- ML				2.7	TSP	759.8	<b>SCREEN</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC/0.010</b> Interval: <b>3.95, 8.95</b>																																								
				3.3	TSC	759.2																																									
- GM	5						<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>1.7</b>																																								
ML GM ML ML ML							<b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>																																								
- ML ML	10						<b>SEAL</b> Type: <b>BENTONITE PELLETS</b> Interval: <b>1</b>																																								
- ML ML							<b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>15.7</b>																																								
- GM GM GM							<b>WELL DEVELOPMENT DATA</b> Date: <b>3/23/94</b> Method: <b>BAIL</b> Duration: <b>3 DAYS</b> Rate: <b>.109 L/MIN</b>																																								
- GM GM							<b>WATER LEVELS</b> <table border="1" style="font-size: small;"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Depth, TR</th> </tr> </thead> <tbody> <tr> <td>3/21</td> <td>1345</td> <td>2.16</td> </tr> <tr> <td>3/22</td> <td>1114</td> <td>9.80</td> </tr> <tr> <td>3/23</td> <td>1215</td> <td>8.08</td> </tr> </tbody> </table>	Date	Time	Depth, TR	3/21	1345	2.16	3/22	1114	9.80	3/23	1215	8.08																												
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**COMPLETION REPORT OF  
 WELL No. MW43-2**

# COMPLETION REPORT OF WELL No. MW43-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **03/15/94**  
 WELL INSTALLATION COMPLETED: **03/15/94**

WELL LOCATION (N/E): **987371.6 753848.5**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **760.7**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **F. O'LOUGHLIN**  
 CHECKED BY: **KK**

STRATA	SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS																																																													
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				TR																																																														
				TC																																																														
			0.0	GS		760.7																																																												
ML ML -			1.7	TBS	759.0	<b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>4.6</b>																																																												
GM ML-CL -			2.7	TSP	758.0	<b>SCREEN</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC/0.010</b> Interval: <b>4, 9</b>																																																												
			3.6	TSC	757.1																																																													
GM-GC GM-GC			5			<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>1.7</b>																																																												
GM-GC GP ML-CL ML-CL			10			<b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>																																																												
GP ML			15			<b>SEAL</b> Type: <b>BENTONITE PELLETS</b> Interval: <b>1</b>																																																												
GM GM-GC			17.6	BSC	743.1	<b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>16</b>																																																												
GC GC			18.7	POW	742.0																																																													
GM-GC GM-GC			18.8			<b>WELL DEVELOPMENT DATA</b> Date: <b>3/18/94</b> Method: <b>BAIL</b> Duration: <b>101 MIN</b> Rate: <b>2 L/MIN</b> Final Measurements:																																																												
						<b>WATER LEVELS</b> <table border="1" style="font-size: small;"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Depth, TR</th> </tr> </thead> <tbody> <tr> <td>3/18</td> <td>1030</td> <td>2.78</td> </tr> <tr> <td>3/18</td> <td>1214</td> <td>3.56</td> </tr> </tbody> </table>	Date	Time	Depth, TR	3/18	1030	2.78	3/18	1214	3.56																																																			
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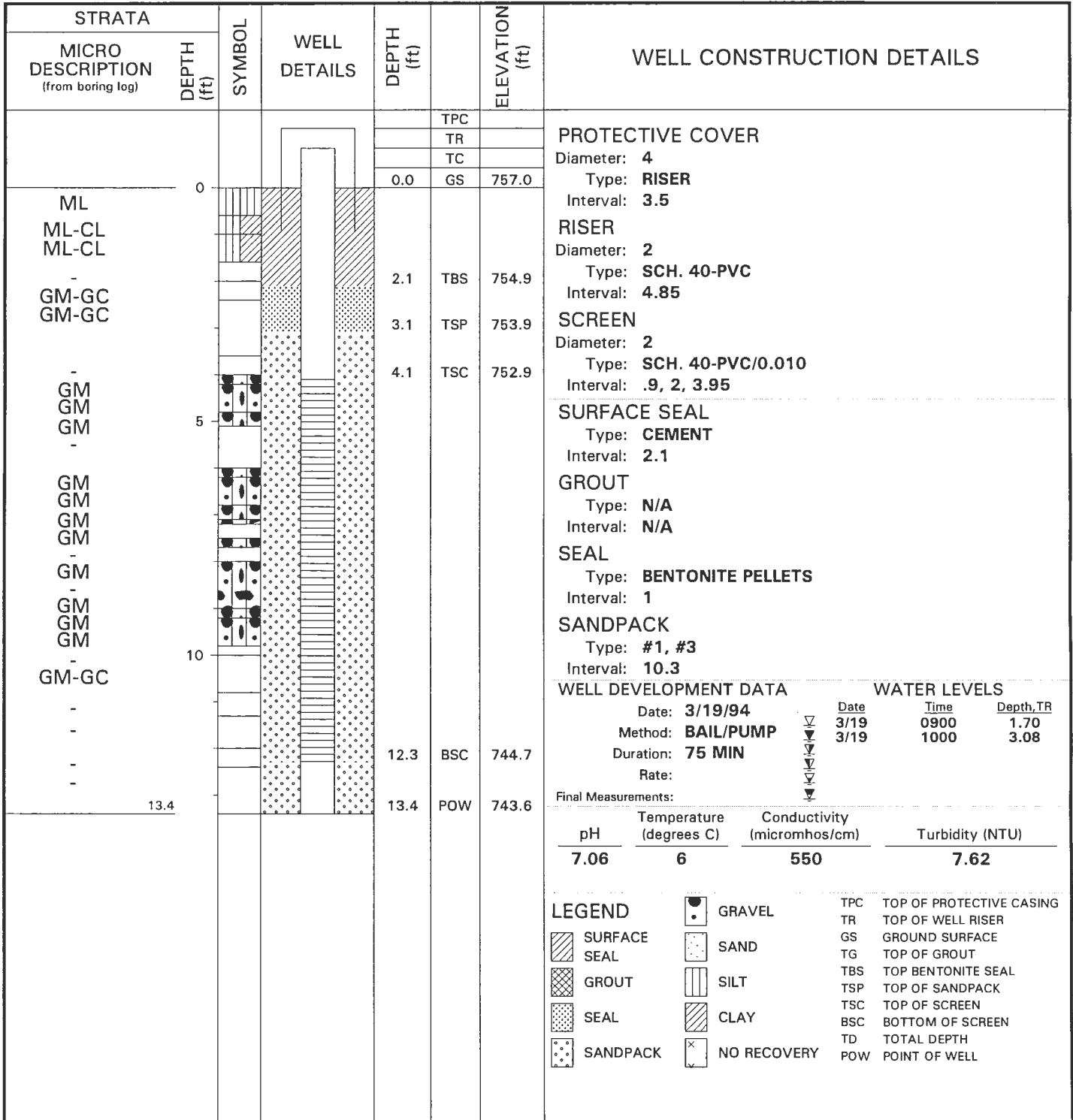
**UNITED STATES ARMY  
 CORPS OF ENGINEERS**  
 Seneca Army Depot  
 Romulus, New York

**COMPLETION REPORT OF  
 WELL No. MW43-3**

# COMPLETION REPORT OF WELL No. MW43-4

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **03/17/94**  
 WELL INSTALLATION COMPLETED: **03/17/94**

WELL LOCATION (N/E): **987469.7 753487.1**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **757.0**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **K. KELLY**  
 CHECKED BY: **KK**



<b>LEGEND</b>			GRAVEL	TPC	TOP OF PROTECTIVE CASING
	SURFACE SEAL		SAND	TR	TOP OF WELL RISER
	GROUT		SILT	GS	GROUND SURFACE
	SEAL		CLAY	TG	TOP OF GROUT
	SANDPACK		NO RECOVERY	TBS	TOP BENTONITE SEAL
				TSP	TOP OF SANDPACK
				TSC	TOP OF SCREEN
				BSC	BOTTOM OF SCREEN
				TD	TOTAL DEPTH
				POW	POINT OF WELL



# COMPLETION REPORT OF WELL No. MW44A-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **02/16/94**  
 WELL INSTALLATION COMPLETED: **02/16/94**

WELL LOCATION (N/E): **985665.4 753526.7**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **752.9**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **F. O'LOUGHLIN**  
 CHECKED BY: **KK**

STRATA		SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)	WELL CONSTRUCTION DETAILS	
MICRO DESCRIPTION (from boring log)	DEPTH (ft)							
	0		0.0	GS	752.9	<b>PROTECTIVE COVER</b> Diameter: <b>4</b> Type: <b>RISER</b> Interval: <b>3.5</b>		
ML ML ML			2.0	TBS	750.9	<b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>6.25</b>		
- ML ML ML -			3.0	TSP	749.9	<b>SCREEN</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC/0.010</b> Interval: <b>4</b>		
-	5		5.8	TSC	747.2	<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>2</b>		
ML -			9.7	BSC	743.2	<b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>		
-			9.7	BSC	743.2	<b>SEAL</b> Type: <b>BENTONITE</b> Interval: <b>2-3</b>		
ML -			9.7	BSC	743.2	<b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>7.75</b>		
ML ML	10		10.8	POW	742.2	<b>WELL DEVELOPMENT DATA</b>		
	10.8					<b>WATER LEVELS</b>		
						Date	Time	Depth, TR
						Date: <b>3/5/94</b>	3/5	1500
						Method: <b>BAIL</b>	3/5	1605
						Duration: <b>73 MIN</b>		
						Rate: <b>2.1 L/MIN</b>		
						Final Measurements:		
pH		Temperature (degrees C)		Conductivity (micromhos/cm)		Turbidity (NTU)		
7.41		6		315		3.47		
<b>LEGEND</b>								
		SURFACE SEAL				SAND		TPC TOP OF PROTECTIVE CASING
		GROUT				SILT		TR TOP OF WELL RISER
		SEAL				CLAY		GS GROUND SURFACE
		SANDPACK				NO RECOVERY		TG TOP OF GROUT
								TBS TOP BENTONITE SEAL
								TSP TOP OF SANDPACK
								TSC TOP OF SCREEN
								BSC BOTTOM OF SCREEN
								TD TOTAL DEPTH
								POW POINT OF WELL



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 Seneca Army Depot  
 Romulus, New York

**COMPLETION REPORT OF  
 WELL No. MW44A-1**

# COMPLETION REPORT OF WELL No. MW44A-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **06/06/94**  
 WELL INSTALLATION COMPLETED: **06/06/94**

WELL LOCATION (N/E): **985425.4 753032.5**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **750.4**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **K. KELLY**  
 CHECKED BY: **KK**

STRATA		SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS																																													
MICRO DESCRIPTION (from boring log)	DEPTH (ft)																																																		
						<b>PROTECTIVE COVER</b> Diameter: <b>4</b> Type: <b>RISER</b> Interval: <b>3.5</b>																																													
OL	0			0.0	750.4	<b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>16</b>																																													
				0.5	749.9																																														
ML-CL						<b>SCREEN</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC/0.010</b> Interval: <b>3.9, 8.9</b>																																													
GM-GC																																																			
GM-GC						<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>.5</b>																																													
GM-GC ML	5																																																		
						<b>GROUT</b> Type: <b>BENTONITE/CONCRETE</b> Interval: <b>10.5</b>																																													
ML						<b>SEAL</b> Type: <b>BENTONITE PELLETS</b> Interval: <b>3</b>																																													
ML ML	10			11.0	739.4	<b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>16.05</b>																																													
ML						<b>WELL DEVELOPMENT DATA</b>																																													
ML-CL				14.0	736.4	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">WELL DEVELOPMENT DATA</th> <th colspan="3">WATER LEVELS</th> </tr> <tr> <th>Date</th> <th>Time</th> <th>Depth, TR</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>Date: <b>7/6/94</b></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Method: <b>BAIL/PUMP</b></td> <td>6/20</td> <td>1555</td> <td>15.68</td> <td></td> </tr> <tr> <td>Duration: <b>16 DAYS</b></td> <td>6/23</td> <td>1315</td> <td>29.70</td> <td></td> </tr> <tr> <td>Rate: <b>.205 L/MIN</b></td> <td>7/6</td> <td>0915</td> <td>16.55</td> <td></td> </tr> <tr> <td>Final Measurements:</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pH</td> <td>Temperature (degrees C)</td> <td>Conductivity (micromhos/cm)</td> <td colspan="2">Turbidity (NTU)</td> </tr> <tr> <td><b>7.18</b></td> <td><b>13</b></td> <td><b>87</b></td> <td colspan="2"><b>13</b></td> </tr> </tbody> </table>	WELL DEVELOPMENT DATA		WATER LEVELS			Date	Time	Depth, TR			Date: <b>7/6/94</b>					Method: <b>BAIL/PUMP</b>	6/20	1555	15.68		Duration: <b>16 DAYS</b>	6/23	1315	29.70		Rate: <b>.205 L/MIN</b>	7/6	0915	16.55		Final Measurements:					pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)		<b>7.18</b>	<b>13</b>	<b>87</b>	<b>13</b>	
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ML-CL	15					<b>LEGEND</b>																																													
ML ML-CL						<table style="width: 100%;"> <tr> <td> SURFACE SEAL</td> <td> SAND</td> <td> GRAVEL</td> <td>TPC TOP OF PROTECTIVE CASING</td> </tr> <tr> <td> GROUT</td> <td> SILT</td> <td> NO RECOVERY</td> <td>TR TOP OF WELL RISER</td> </tr> <tr> <td> SEAL</td> <td> CLAY</td> <td></td> <td>GS GROUND SURFACE</td> </tr> <tr> <td> SANDPACK</td> <td></td> <td></td> <td>TG TOP OF GROUT</td> </tr> <tr> <td></td> <td></td> <td></td> <td>TBS TOP BENTONITE SEAL</td> </tr> <tr> <td></td> <td></td> <td></td> <td>TSP TOP OF SANDPACK</td> </tr> <tr> <td></td> <td></td> <td></td> <td>TSC TOP OF SCREEN</td> </tr> <tr> <td></td> <td></td> <td></td> <td>BSC BOTTOM OF SCREEN</td> </tr> <tr> <td></td> <td></td> <td></td> <td>TD TOTAL DEPTH</td> </tr> <tr> <td></td> <td></td> <td></td> <td>POW POINT OF WELL</td> </tr> </table>	SURFACE SEAL	SAND	GRAVEL	TPC TOP OF PROTECTIVE CASING	GROUT	SILT	NO RECOVERY	TR TOP OF WELL RISER	SEAL	CLAY		GS GROUND SURFACE	SANDPACK			TG TOP OF GROUT				TBS TOP BENTONITE SEAL				TSP TOP OF SANDPACK				TSC TOP OF SCREEN				BSC BOTTOM OF SCREEN				TD TOTAL DEPTH				POW POINT OF WELL					
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ML-CL ML ML-CL																																																			
	20.0																																																		



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 Seneca Army Depot  
 Romulus, New York**

**COMPLETION REPORT OF  
 WELL No. MW44A-2**

# COMPLETION REPORT OF WELL No. MW44A-2

PROJECT: EIGHT MODERATELY LOW PRIORITY AOCs  
 PROJECT NO: 720519-01000  
 PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY

GROUND SURFACE ELEVATION (ft): 750.4  
 GEOLOGIST: K. KELLY  
 CHECKED BY: KK

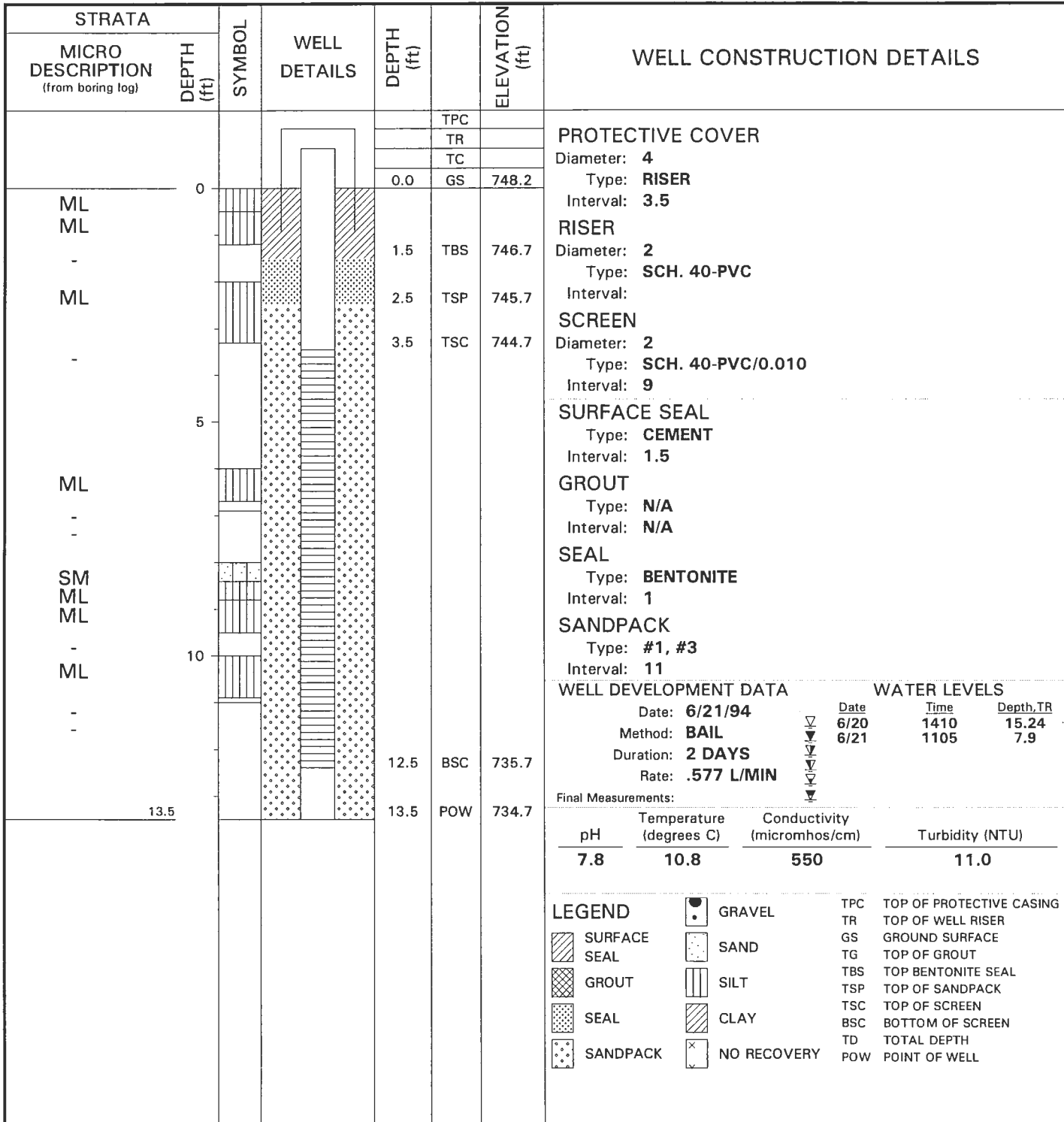
STRATA		SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS
MICRO DESCRIPTION (from boring log)	DEPTH (ft)					
	20					(See Page 1)
ML-CL						
CL						
CL						
CL						
ML						
ML						
GM						
GM						
GM						
CL						
SM	25					
GM						
-						
ML						
SP						
GC						
-						
-						
ML-CL						
-						
	30.1			28.9	BSC	721.5
	30			30.1	POW	720.3

<b>LEGEND</b>		
	SURFACE SEAL	
	GROUT	
	SEAL	
	SANDPACK	
	GRAVEL	
	SAND	
	SILT	
	CLAY	
	NO RECOVERY	
	TPC	TOP OF PROTECTIVE CASING
	TR	TOP OF WELL RISER
	GS	GROUND SURFACE
	TG	TOP OF GROUT
	TBS	TOP BENTONITE SEAL
	TSP	TOP OF SANDPACK
	TSC	TOP OF SCREEN
	BSC	BOTTOM OF SCREEN
	TD	TOTAL DEPTH
	POW	POINT OF WELL

# COMPLETION REPORT OF WELL No. MW44A-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **06/06/94**  
 WELL INSTALLATION COMPLETED: **06/06/94**

WELL LOCATION (N/E): **985174.1 752661.6**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **748.2**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **F. O'LOUGHLIN**  
 CHECKED BY: **KK**



# COMPLETION REPORT OF WELL No. MW44B-1

PROJECT: <b>EIGHT MODERATELY LOW PRIORITY AOCs</b> PROJECT LOCATION: <b>SENECA ARMY DEPOT, ROMULUS NY</b> DRILLING CONTRACTOR: <b>EMPIRE SOILS INVESTIGATIONS</b> DRILLING METHOD: <b>HOLLOW STEM AUGER</b> WELL INSTALLATION STARTED: <b>03/21/94</b> WELL INSTALLATION COMPLETED: <b>03/21/94</b>	WELL LOCATION (N/E): <b>988170.5 751781.0</b> REFERENCE COORDINATE SYSTEM: <b>New York State Plane</b> GROUND SURFACE ELEVATION (ft): <b>745.3</b> DATUM: <b>NAD 1983</b> GEOLOGIST: <b>F. O'LOUGHLIN</b> CHECKED BY: <b>KK</b>
--	--

STRATA	SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS								
				TPC	<b>PROTECTIVE COVER</b> Diameter: 4 Type: RISER Interval: 3.5  <b>RISER</b> Diameter: 2 Type: SCH. 40-PVC Interval: 4.85  <b>SCREEN</b> Diameter: 2 Type: SCH. 40-PVC/0.010 Interval: 2, 4  <b>SURFACE SEAL</b> Type: CEMENT Interval: 1.6  <b>GROUT</b> Type: N/A Interval: N/A  <b>SEAL</b> Type: BENTONITE CHIPS Interval: 1.5  <b>SANDPACK</b> Type: #1, #3 Interval: 8.7								
				TR									
				TC									
			0.0	GS 745.3									
ML					<b>WELL DEVELOPMENT DATA</b> Date: 4/1/94 Method: BAIL/PUMP Duration: 130 MIN Rate: .1028 L/MIN  <b>Final Measurements:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>pH</th> <th>Temperature (degrees C)</th> <th>Conductivity (micromhos/cm)</th> <th>Turbidity (NTU)</th> </tr> <tr> <td>7.50</td> <td>6</td> <td>400</td> <td>30.1</td> </tr> </table>	pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)	7.50	6	400	30.1
pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)										
7.50	6	400	30.1										
CL			1.6	TBS 743.7									
-													
ML			3.1	TSP 742.2									
-													
ML-CL			4.2	TSC 741.1									
ML													
ML													
ML-CL													
-													
			11.0	BSC 734.3									
			11.8	POW 733.5									
			12.2										

WELL DEVELOPMENT DATA		WATER LEVELS		
Date:	4/1/94	Date	Time	Depth, TR
Method:	BAIL/PUMP	4/1	1115	1.85
Duration:	130 MIN	4/1	1304	10.48
Rate:	.1028 L/MIN			

<b>LEGEND</b>	GRAVEL	TPC	TOP OF PROTECTIVE CASING
SURFACE SEAL	SAND	TR	TOP OF WELL RISER
GROUT	SILT	GS	GROUND SURFACE
SEAL	CLAY	TG	TOP OF GROUT
SANDPACK	NO RECOVERY	TBS	TOP BENTONITE SEAL
		TSP	TOP OF SANDPACK
		TSC	TOP OF SCREEN
		BSC	BOTTOM OF SCREEN
		TD	TOTAL DEPTH
		POW	POINT OF WELL



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 Seneca Army Depot  
 Romulus, New York

**COMPLETION REPORT OF**  
**WELL No. MW44B-1**

# COMPLETION REPORT OF WELL No. MW44B-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **03/08/94**  
 WELL INSTALLATION COMPLETED: **03/08/94**

WELL LOCATION (N/E): **988170.7 751447.4**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **741.5**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **F. O'LOUGHLIN**  
 CHECKED BY: **KK**

STRATA	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS									
						<b>PROTECTIVE COVER</b> Diameter: 4 Type: <b>RISER</b> Interval: 3.5									
				0.0	741.5										
PT						<b>RISER</b> Diameter: 2 Type: <b>SCH. 40-PVC</b> Interval: 5									
ML				2.0	739.5										
ML-CL						<b>SCREEN</b> Diameter: 2 Type: <b>SCH. 40-PVC/0.010</b> Interval: .9, .9, 4									
ML				3.4	738.1										
ML						<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: 2									
ML-CL				4.4	737.1										
ML						<b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>									
ML				5											
ML						<b>SEAL</b> Type: <b>BENTONITE PELLETS</b> Interval: 1.4									
GM															
SP						<b>SANDPACK</b> Type: <b>#1, #3</b> Interval: 9.4									
ML-CL															
SP						<b>WELL DEVELOPMENT DATA</b> Date: <b>3/15/94</b> Method: <b>BAIL</b> Duration: <b>75 MIN</b> Rate:									
ML				11.7	729.9										
ML						<b>WATER LEVELS</b> <table border="1" style="font-size: small;"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Depth, TR</th> </tr> </thead> <tbody> <tr> <td>3/15</td> <td>0925</td> <td>1.14</td> </tr> <tr> <td>3/15</td> <td>1040</td> <td>1.40</td> </tr> </tbody> </table>	Date	Time	Depth, TR	3/15	0925	1.14	3/15	1040	1.40
Date	Time	Depth, TR													
3/15	0925	1.14													
3/15	1040	1.40													
ML-CL				12.8	728.7	Final Measurements: <table border="1" style="font-size: small;"> <thead> <tr> <th>pH</th> <th>Temperature (degrees C)</th> <th>Conductivity (micromhos/cm)</th> <th>Turbidity (NTU)</th> </tr> </thead> <tbody> <tr> <td>7.25</td> <td>6</td> <td>340</td> <td>22.1</td> </tr> </tbody> </table>	pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)	7.25	6	340	22.1	
pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)												
7.25	6	340	22.1												
	12.8														

<b>LEGEND</b> SURFACE SEAL GROUT SEAL SANDPACK	GRAVEL SAND SILT CLAY NO RECOVERY	TPC TOP OF PROTECTIVE CASING TR TOP OF WELL RISER GS GROUND SURFACE TG TOP OF GROUT TBS TOP BENTONITE SEAL TSP TOP OF SANDPACK TSC TOP OF SCREEN BSC BOTTOM OF SCREEN TD TOTAL DEPTH POW POINT OF WELL
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**ENGINEERING-SCIENCE, INC.**

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 Seneca Army Depot  
 Romulus, New York

**COMPLETION REPORT OF  
 WELL No. MW44B-2**

# COMPLETION REPORT OF WELL No. MW44B-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **03/20/94**  
 WELL INSTALLATION COMPLETED: **03/20/94**

WELL LOCATION (N/E): **988015.1 751421.9**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **741.5**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **F. O'LOUGHLIN**  
 CHECKED BY: **KK**

STRATA		SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)	WELL CONSTRUCTION DETAILS									
MICRO DESCRIPTION (from boring log)	DEPTH (ft)															
							<b>PROTECTIVE COVER</b> Diameter: <b>4</b> Type: <b>RISER</b> Interval: <b>3.5</b>									
					TPC											
					TR											
					TC											
				0.0	GS	741.5										
ML	0						<b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>5.3</b>									
ML				1.8	TBS	739.7										
-							<b>SCREEN</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC/0.010</b> Interval: <b>9</b>									
CL				3.1	TSP	738.4										
-							<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>1.75</b>									
ML				4.3	TSC	737.2										
ML	5						<b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>									
-							<b>SEAL</b> Type: <b>BENTONITE</b> Interval: <b>1.35</b>									
ML							<b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>11.75</b>									
ML	10						<b>WELL DEVELOPMENT DATA</b>									
SM							<b>WATER LEVELS</b>									
-							Date: <b>3/31/94</b> Date: <b>3/22</b> Time: <b>1455</b> Depth, TR: <b>1.72</b> Method: <b>BAIL/PUMP</b> <b>3/31</b> <b>0822</b> <b>2.06</b> Duration: <b>10 DAYS</b> Rate: <b>.433 L/MIN</b>									
-							Final Measurements:									
				13.3	BSC	728.2	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>pH</th> <th>Temperature (degrees C)</th> <th>Conductivity (micromhos/cm)</th> <th>Turbidity (NTU)</th> </tr> </thead> <tbody> <tr> <td>7.34</td> <td>7.5</td> <td>465</td> <td>.83</td> </tr> </tbody> </table>		pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)	7.34	7.5	465	.83
pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)													
7.34	7.5	465	.83													
				14.4	POW	727.1										
	14.9															

	GRAVEL	TPC	TOP OF PROTECTIVE CASING
	SURFACE SEAL	TR	TOP OF WELL RISER
	GROUT	GS	GROUND SURFACE
	SEAL	TG	TOP OF GROUT
	SANDPACK	TBS	TOP BENTONITE SEAL
	SAND	TSP	TOP OF SANDPACK
	SILT	TSC	TOP OF SCREEN
	CLAY	BSC	BOTTOM OF SCREEN
	NO RECOVERY	TD	TOTAL DEPTH
		POW	POINT OF WELL



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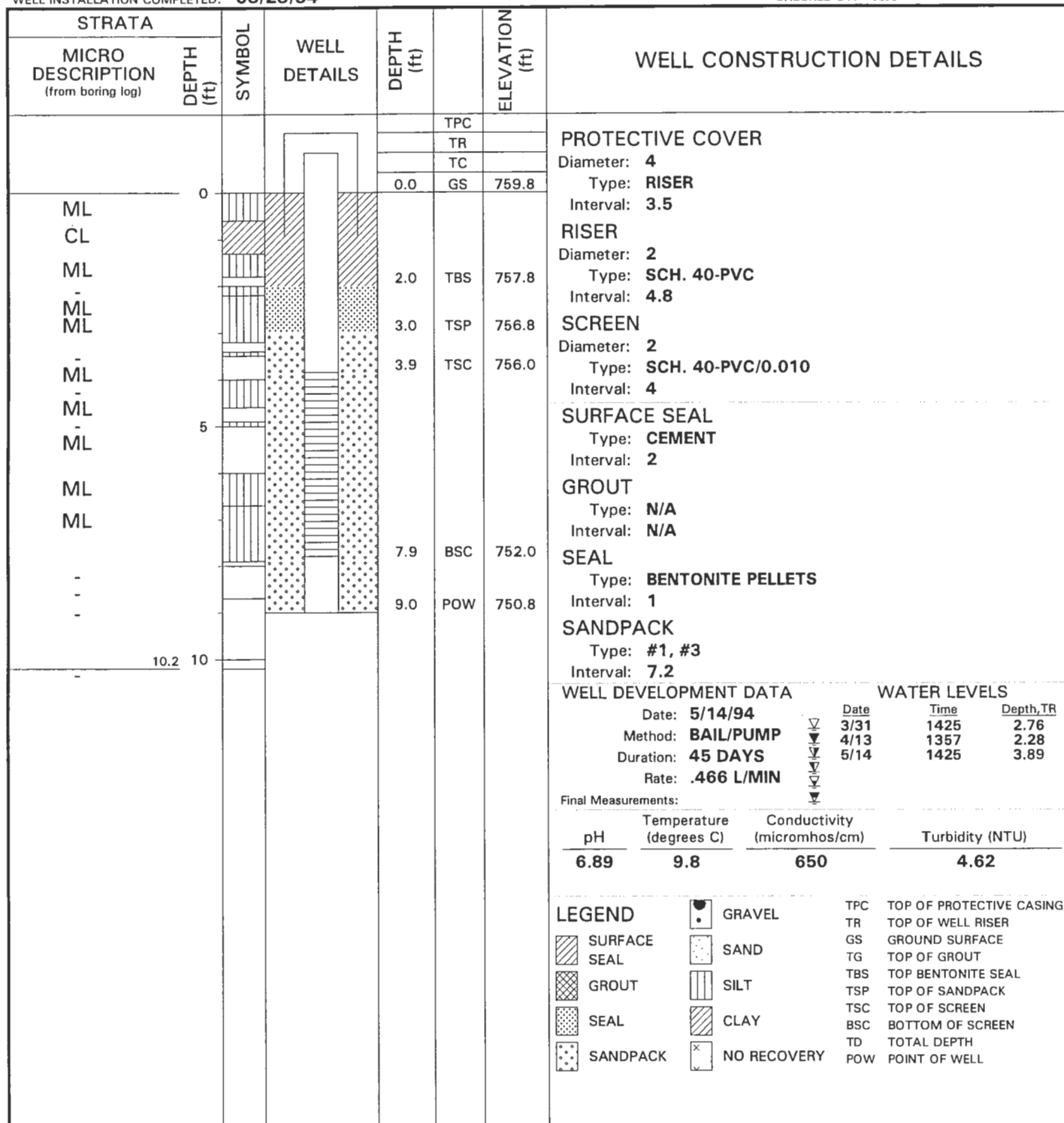
**UNITED STATES ARMY  
 CORPS OF ENGINEERS**  
 Seneca Army Depot  
 Romulus, New York

**COMPLETION REPORT OF  
 WELL No. MW44B-3**

# COMPLETION REPORT OF WELL No. MW50-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **03/23/94**  
 WELL INSTALLATION COMPLETED: **03/23/94**

WELL LOCATION (N/E): **992285.0 753133.3**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **759.8**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **K. KELLY**  
 CHECKED BY: **KK**



<b>LEGEND</b>	GRAVEL	TPC	TOP OF PROTECTIVE CASING
SURFACE SEAL	SAND	TR	TOP OF WELL RISER
GROUT	SILT	GS	GROUND SURFACE
SEAL	CLAY	TG	TOP OF GROUT
SANDPACK	NO RECOVERY	TBS	TOP BENTONITE SEAL
		TSP	TOP OF SANDPACK
		TSC	TOP OF SCREEN
		BSC	BOTTOM OF SCREEN
		TD	TOTAL DEPTH
		POW	POINT OF WELL



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 CORPS OF ENGINEERS  
 Seneca Army Depot  
 Romulus, New York**

**COMPLETION REPORT OF  
 WELL No. MW50-1**



# COMPLETION REPORT OF WELL No. MW50-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **03/23/94**  
 WELL INSTALLATION COMPLETED: **03/23/94**

WELL LOCATION (N/E): **992800.8 753818.2**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **751.9**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **K. KELLY**  
 CHECKED BY: **KK**

STRATA	SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS																														
MICRO DESCRIPTION (from boring log)	DEPTH (ft)																																		
				TPC	<b>PROTECTIVE COVER</b> Diameter: <b>4</b> Type: <b>RISER</b> Interval: <b>3.5</b>																														
				TR																															
				TC																															
			0.0	GS		751.9																													
OL					<b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>4.8</b>																														
ML			2.0	TBS		749.9																													
GM					<b>SCREEN</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC/0.010</b> Interval: <b>2</b>																														
GP			3.0	TSP		748.9																													
-					<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>2</b>																														
GP			4.1	TSC		747.9																													
GM																																			
ML-CL					<b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>																														
ML-CL			6.1	BSC		745.9																													
-					<b>SEAL</b> Type: <b>BENTONITE PELLETS</b> Interval: <b>1</b>																														
ML-CL			6.9	POW		745.0																													
SP					<b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>3.9</b>																														
ML																																			
-					<b>WELL DEVELOPMENT DATA</b> Date: <b>4/1/94</b> Method: <b>BAIL/PUMP</b> Duration: <b>2 DAYS</b> Rate: <b>.583 L/MIN</b>																														
ML																																			
SP					<b>WATER LEVELS</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Depth, TR</th> </tr> </thead> <tbody> <tr> <td>3/31</td> <td>1515</td> <td>1.98</td> </tr> <tr> <td>4/1</td> <td>0950</td> <td>2.21</td> </tr> </tbody> </table>	Date	Time	Depth, TR	3/31	1515	1.98	4/1	0950	2.21																					
Date	Time	Depth, TR																																	
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7.23	5	580	7																																
					<b>LEGEND</b> <table style="width: 100%;"> <tr> <td style="width: 33%;"> SURFACE SEAL</td> <td style="width: 33%;"> SAND</td> <td style="width: 33%;">TPC TOP OF PROTECTIVE CASING</td> </tr> <tr> <td> GROUT</td> <td> SILT</td> <td>TR TOP OF WELL RISER</td> </tr> <tr> <td> SEAL</td> <td> CLAY</td> <td>GS GROUND SURFACE</td> </tr> <tr> <td> SANDPACK</td> <td> NO RECOVERY</td> <td>TG TOP OF GROUT</td> </tr> <tr> <td></td> <td></td> <td>TBS TOP BENTONITE SEAL</td> </tr> <tr> <td></td> <td></td> <td>TSP TOP OF SANDPACK</td> </tr> <tr> <td></td> <td></td> <td>TSC TOP OF SCREEN</td> </tr> <tr> <td></td> <td></td> <td>BSC BOTTOM OF SCREEN</td> </tr> <tr> <td></td> <td></td> <td>TD TOTAL DEPTH</td> </tr> <tr> <td></td> <td></td> <td>POW POINT OF WELL</td> </tr> </table>	SURFACE SEAL	SAND	TPC TOP OF PROTECTIVE CASING	GROUT	SILT	TR TOP OF WELL RISER	SEAL	CLAY	GS GROUND SURFACE	SANDPACK	NO RECOVERY	TG TOP OF GROUT			TBS TOP BENTONITE SEAL			TSP TOP OF SANDPACK			TSC TOP OF SCREEN			BSC BOTTOM OF SCREEN			TD TOTAL DEPTH			POW POINT OF WELL
SURFACE SEAL	SAND	TPC TOP OF PROTECTIVE CASING																																	
GROUT	SILT	TR TOP OF WELL RISER																																	
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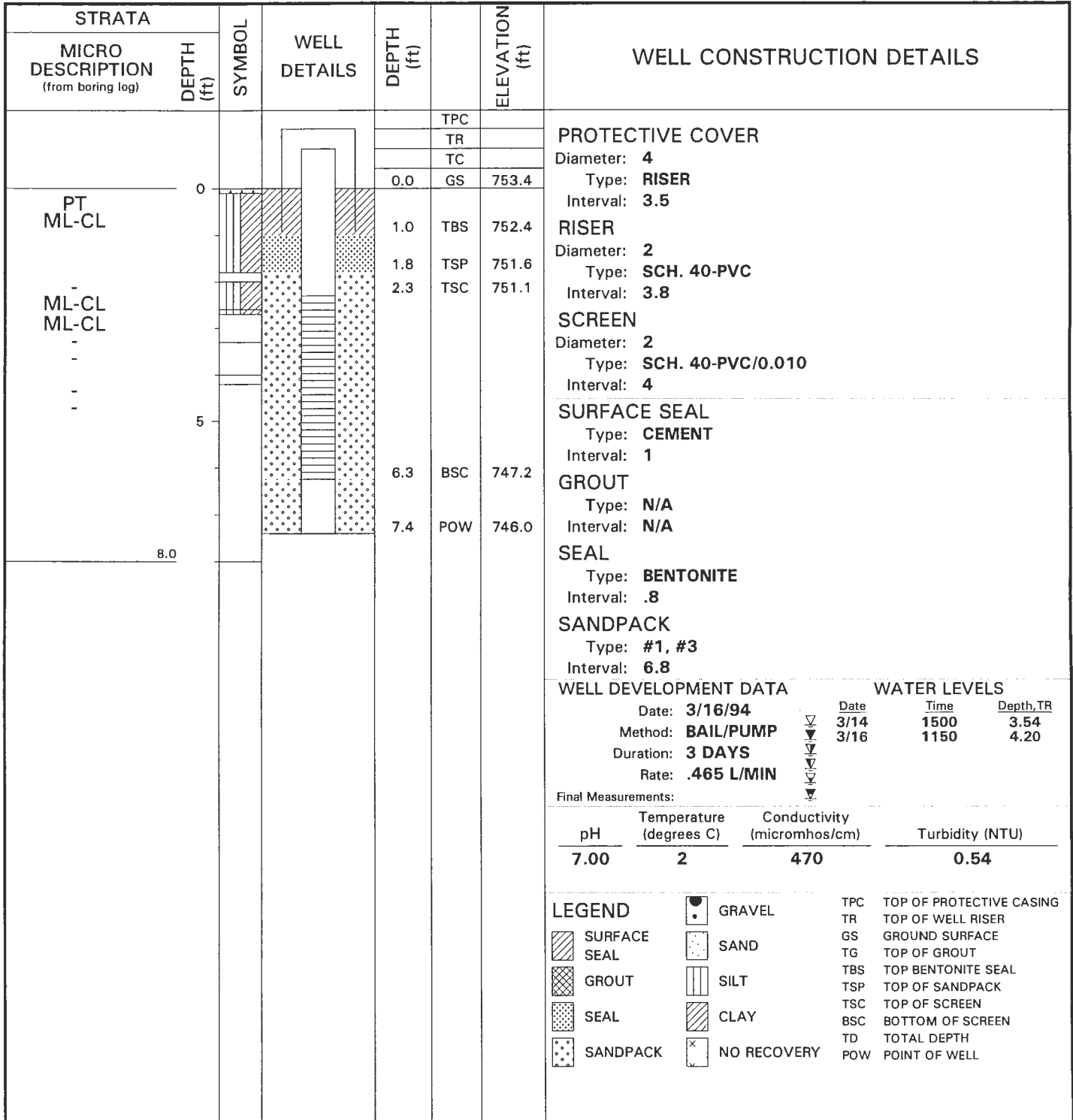
**ENGINEERING-SCIENCE, INC.**

**UNITED STATES ARMY  
 CORPS OF ENGINEERS**  
 Seneca Army Depot  
 Romulus, New York

**COMPLETION REPORT OF  
 WELL No. MW50-2**

# COMPLETION REPORT OF WELL No. MW50-3

PROJECT: <b>EIGHT MODERATELY LOW PRIORITY AOCs</b>	WELL LOCATION (N/E): <b>992275.1 754379.7</b>
PROJECT LOCATION: <b>SENECA ARMY DEPOT, ROMULUS NY</b>	REFERENCE COORDINATE SYSTEM: <b>New York State Plane</b>
DRILLING CONTRACTOR: <b>EMPIRE SOILS INVESTIGATIONS</b>	GROUND SURFACE ELEVATION (ft): <b>753.4</b>
DRILLING METHOD: <b>HOLLOW STEM AUGER</b>	DATUM: <b>NAD 1983</b>
WELL INSTALLATION STARTED: <b>03/07/94</b>	GEOLOGIST: <b>F. O'LOUGHLIN</b>
WELL INSTALLATION COMPLETED: <b>03/07/94</b>	CHECKED BY: <b>KK</b>



**ENGINEERING-SCIENCE, INC.**

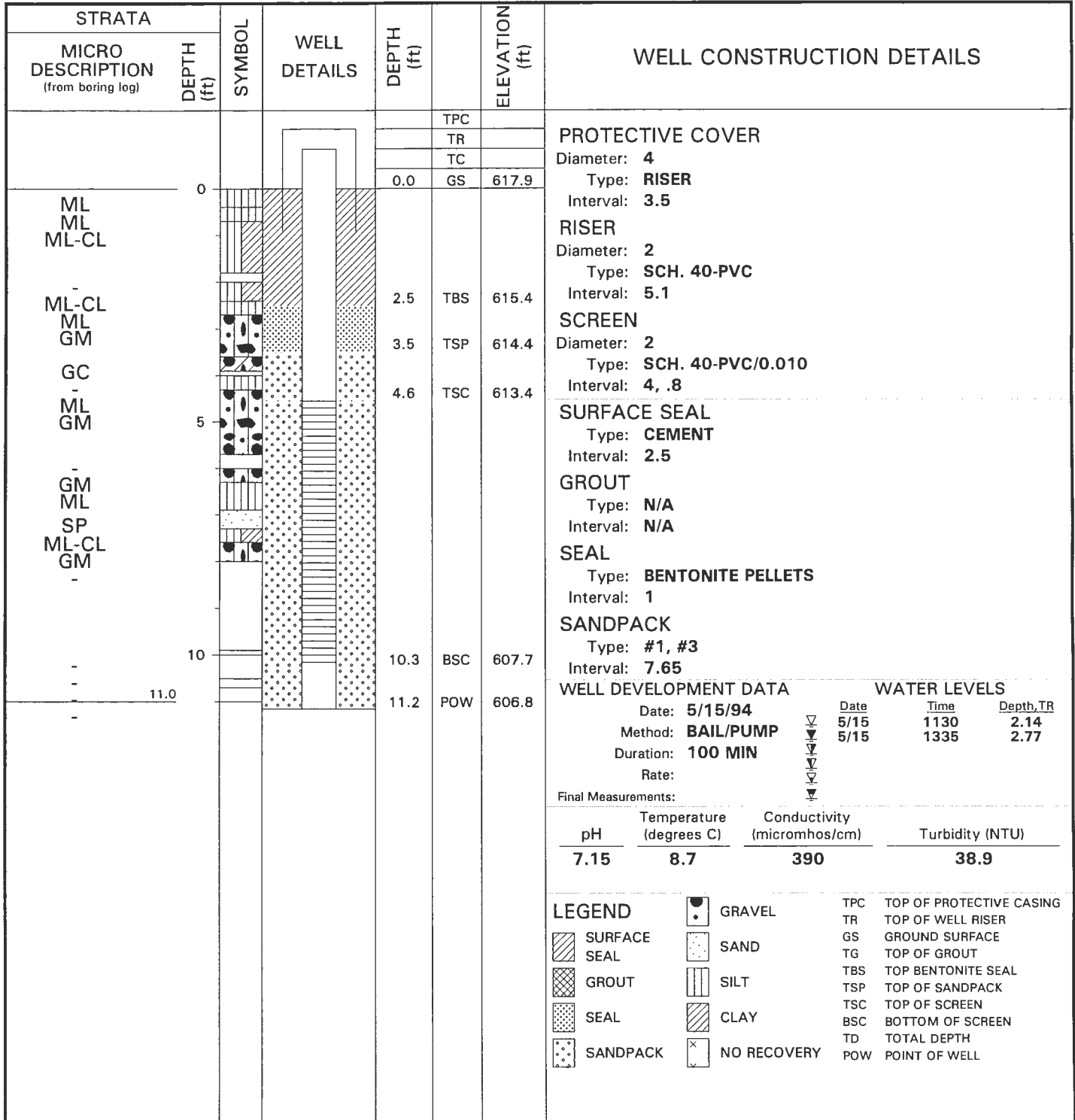
**UNITED STATES ARMY  
CORPS OF ENGINEERS**  
Seneca Army Depot  
Romulus, New York

**COMPLETION REPORT OF  
WELL No. MW50-3**

# COMPLETION REPORT OF WELL No. MW58-1

PROJECT: EIGHT MODERATELY LOW PRIORITY AOCs  
 PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY  
 DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS  
 DRILLING METHOD: HOLLOW STEM AUGER  
 WELL INSTALLATION STARTED: 03/31/94  
 WELL INSTALLATION COMPLETED: 03/31/94

WELL LOCATION (N/E): 1000107.7 739368.6  
 REFERENCE COORDINATE SYSTEM: New York State Plane  
 GROUND SURFACE ELEVATION (ft): 617.9  
 DATUM: NAD 1983  
 GEOLOGIST: K. KELLY  
 CHECKED BY: KK



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 Seneca Army Depot  
 Romulus, New York

COMPLETION REPORT OF  
 WELL No. MW58-1

# COMPLETION REPORT OF WELL No. MW58-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **04/01/94**  
 WELL INSTALLATION COMPLETED: **04/01/94**

WELL LOCATION (N/E): **1000232.2 739160.9**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **614.9**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **K. KELLY**  
 CHECKED BY: **KK**

STRATA		SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS				
MICRO DESCRIPTION (from boring log)	DEPTH (ft)									
				TPC		<b>PROTECTIVE COVER</b> Diameter: <b>4</b> Type: <b>RISER</b> Interval: <b>3.5</b>				
				TR						
				TC						
	0			GS	614.9					
ML ML ML-CL						<b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>5.2</b>				
- ML-CL CL			2.0	TBS	612.9					
- ML-CL CL						<b>SCREEN</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC/0.010</b> Interval: <b>4</b>				
- ML-CL GM GM ML GM GM ML ML			3.0	TSP	611.9					
- ML-CL GM GM ML GM GM ML ML						<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>2.0</b>				
- ML-CL GM GM ML GM GM ML ML			4.5	TSC	610.5					
- ML-CL GM GM ML GM GM ML ML	5					<b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>				
- ML-CL GM GM ML GM GM ML ML			8.5	BSC	606.5					
- ML-CL GM GM ML GM GM ML ML						<b>SEAL</b> Type: <b>BENTONITE PELLETS</b> Interval: <b>1</b>				
- ML-CL GM GM ML GM GM ML ML			9.6	POW	605.4					
	9.6					<b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>6.55</b>				
			<b>WELL DEVELOPMENT DATA</b>		<b>WATER LEVELS</b>					
			Date:	5/16/94	Date	5/15	Time	1445	Depth, TR	1.85
			Method:	BAIL/PUMP		5/16		1140		7.20
			Duration:	2 DAYS						
			Rate:	.300 L/MIN						
			Final Measurements:							
		pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)					
		7.19	9.6	400	16.4					
<b>LEGEND</b>			GRAVEL	TPC	TOP OF PROTECTIVE CASING					
			SURFACE SEAL	TR	TOP OF WELL RISER					
			GROUT	GS	GROUND SURFACE					
			SEAL	TG	TOP OF GROUT					
			SANDPACK	TBS	TOP BENTONITE SEAL					
			SILT	TSP	TOP OF SANDPACK					
			CLAY	TSC	TOP OF SCREEN					
			NO RECOVERY	BSC	BOTTOM OF SCREEN					
				TD	TOTAL DEPTH					
				POW	POINT OF WELL					

# COMPLETION REPORT OF WELL No. MW58-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **04/02/94**  
 WELL INSTALLATION COMPLETED: **04/02/94**

WELL LOCATION (N/E): **1000163.5 738946.0**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **610.3**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **K. KELLY**  
 CHECKED BY: **KK**

STRATA	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS																				
					TPC	<b>PROTECTIVE COVER</b> Diameter: <b>4</b> Type: <b>RISER</b> Interval: <b>3.5</b>																				
					TR																					
					TC																					
	0			0.0	GS		610.3																			
ML						<b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>5.2</b>																				
ML-CL CL				2.0	TBS		608.3																			
- CL GC				3.0	TSP	607.3																				
ML-CL GM				4.0	TSC	606.4																				
-	5					<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>2</b>																				
-						<b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>																				
-						<b>SEAL</b> Type: <b>BENTONITE PELLETS</b> Interval: <b>1</b>																				
-				9.7	BSC	600.7																				
-	10					<b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>7.55</b>																				
-	10.5			10.6	POW	599.8																				
						<b>WELL DEVELOPMENT DATA</b> Date: <b>5/16/94</b> Method: <b>BAIL/PUMP</b> Duration: <b>340 MIN</b> Rate: <b>.5 L/MIN</b> Final Measurements:																				
						<b>WATER LEVELS</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Depth, TR</th> </tr> </thead> <tbody> <tr> <td>5/16</td> <td>0840</td> <td>2.09</td> </tr> <tr> <td>5/16</td> <td>1400</td> <td>10.0</td> </tr> </tbody> </table>	Date	Time	Depth, TR	5/16	0840	2.09	5/16	1400	10.0											
Date	Time	Depth, TR																								
5/16	0840	2.09																								
5/16	1400	10.0																								
						<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>pH</th> <th>Temperature (degrees C)</th> <th>Conductivity (micromhos/cm)</th> <th>Turbidity (NTU)</th> </tr> </thead> <tbody> <tr> <td>7.1</td> <td>10.5</td> <td>390</td> <td>42</td> </tr> </tbody> </table>	pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)	7.1	10.5	390	42												
pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)																							
7.1	10.5	390	42																							
						<b>LEGEND</b> <table style="width: 100%;"> <tr> <td style="width: 33%;"></td> <td style="width: 33%;">SURFACE SEAL</td> <td style="width: 33%;"></td> <td>GRAVEL</td> </tr> <tr> <td></td> <td>GROUT</td> <td></td> <td>SAND</td> </tr> <tr> <td></td> <td>SEAL</td> <td></td> <td>SILT</td> </tr> <tr> <td></td> <td>SANDPACK</td> <td></td> <td>CLAY</td> </tr> <tr> <td></td> <td>NO RECOVERY</td> <td></td> <td></td> </tr> </table>		SURFACE SEAL		GRAVEL		GROUT		SAND		SEAL		SILT		SANDPACK		CLAY		NO RECOVERY		
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 Romulus, New York

**COMPLETION REPORT OF  
 WELL No. MW58-3**

# COMPLETION REPORT OF WELL No. MW58-4

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **04/04/94**  
 WELL INSTALLATION COMPLETED: **04/04/94**

WELL LOCATION (N/E): **999963.8 739060.1**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **612.8**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **K. KELLY**  
 CHECKED BY: **KK**

STRATA		SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS																																	
MICRO DESCRIPTION <small>(from boring log)</small>	DEPTH (ft)																																						
				TPC		<b>PROTECTIVE COVER</b> Diameter: <b>4</b> Type: <b>RISER</b> Interval: <b>3.5</b>																																	
				TR																																			
				TC																																			
			0.0	GS	612.8																																		
ML	0					<b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>5.2</b>																																	
ML			2.0	TBS	610.8																																		
- ML			3.0	TSP	609.8	<b>SCREEN</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC/0.010</b> Interval: <b>3.95</b>																																	
ML-CL			4.4	TSC	608.4																																		
ML						<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>2</b>																																	
- CL	5																																						
CL						<b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>																																	
- GM																																							
GC			8.4	BSC	604.5	<b>SEAL</b> Type: <b>BENTONITE PELLETS</b> Interval: <b>1</b>																																	
- -			9.5	POW	603.4																																		
-						<b>SANDPACK</b> Type: <b>#1, #3</b> Interval: <b>6.45</b>																																	
-																																							
	9.5					<table border="0" style="width: 100%;"> <tr> <th colspan="2" style="text-align: left;">WELL DEVELOPMENT DATA</th> <th colspan="3" style="text-align: left;">WATER LEVELS</th> </tr> <tr> <td>Date:</td> <td style="text-align: center;">5/16/94</td> <td style="text-align: center;">Date</td> <td style="text-align: center;">Time</td> <td style="text-align: center;">Depth, TR</td> </tr> <tr> <td>Method:</td> <td style="text-align: center;">BAIL/PUMP</td> <td style="text-align: center;">5/16</td> <td style="text-align: center;">1430</td> <td style="text-align: center;">3.07</td> </tr> <tr> <td>Duration:</td> <td style="text-align: center;">60 MIN</td> <td style="text-align: center;">5/16</td> <td style="text-align: center;">1540</td> <td style="text-align: center;">3.5</td> </tr> <tr> <td>Rate:</td> <td style="text-align: center;">1.5 L/MIN</td> <td></td> <td></td> <td></td> </tr> </table> <p>Final Measurements:</p> <table border="0" style="width: 100%;"> <tr> <th style="text-align: center;">pH</th> <th style="text-align: center;">Temperature (degrees C)</th> <th style="text-align: center;">Conductivity (micromhos/cm)</th> <th style="text-align: center;">Turbidity (NTU)</th> </tr> <tr> <td style="text-align: center;">7.7</td> <td style="text-align: center;">11</td> <td style="text-align: center;">380</td> <td style="text-align: center;">5.18</td> </tr> </table>	WELL DEVELOPMENT DATA		WATER LEVELS			Date:	5/16/94	Date	Time	Depth, TR	Method:	BAIL/PUMP	5/16	1430	3.07	Duration:	60 MIN	5/16	1540	3.5	Rate:	1.5 L/MIN				pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)	7.7	11	380	5.18
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		□		□	POW	POINT OF WELL																																	

# COMPLETION REPORT OF WELL No. MW59-1

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **03/18/94**  
 WELL INSTALLATION COMPLETED: **03/19/94**

WELL LOCATION (N/E): **998909.7 749948.8**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **733.4**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **F. O'LOUGHLIN**  
 CHECKED BY: **KK**

STRATA		SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS
MICRO DESCRIPTION (from boring log)	DEPTH (ft)					
					TPC	<b>PROTECTIVE COVER</b> Diameter: 4 Type: <b>RISER</b> Interval: 3.5 <b>RISER</b> Diameter: 2 Type: <b>SCH. 40-PVC</b> Interval: 3.65 <b>SCREEN</b> Diameter: 2 Type: <b>SCH. 40-PVC/0.010</b> Interval: 3.95 <b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: 2 <b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b> <b>SEAL</b> Type: <b>BENTONITE CHIPS</b> Interval: 1.2 <b>SANDPACK</b> Type: <b>#1, #3</b> Interval: 6
	0			0.0	GS	
ML						
ML						
ML-CL				2.0	TBS	731.4
-						
ML-CL				3.2	TSP	730.2
-						
				4.2	TSC	729.2
GM						
ML-CL				5		
-						
GM						
GP						
-						
				8.1	BSC	725.3
GM						
GM						
ML-CL				9.2	POW	724.2
-						
	10.1			10		

WELL DEVELOPMENT DATA		WATER LEVELS		
Date:	3/21/94	Date	Time	Depth, TR
Method:	BAIL/PUMP	3/21	0930	1.72
Duration:	80 MIN	3/21	1055	3.08
Rate:	2.1 L/MIN			
Final Measurements:				
pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)	
7.30	5	700	38.9	

<b>LEGEND</b> SURFACE SEAL GROUT SEAL SANDPACK	GRAVEL SAND SILT CLAY NO RECOVERY	TPC TOP OF PROTECTIVE CASING TR TOP OF WELL RISER GS GROUND SURFACE TG TOP OF GROUT TBS TOP BENTONITE SEAL TSP TOP OF SANDPACK TSC TOP OF SCREEN BSC BOTTOM OF SCREEN TD TOTAL DEPTH POW POINT OF WELL
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**COMPLETION REPORT OF  
 WELL No. MW59-1**

# COMPLETION REPORT OF WELL No. MW59-2

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **03/06/94**  
 WELL INSTALLATION COMPLETED: **03/06/94**

WELL LOCATION (N/E): **999036.1 749874.0**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **734.3**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **F. O'LOUGHLIN**  
 CHECKED BY: **KK**

STRATA		SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS									
MICRO DESCRIPTION (from boring log)	DEPTH (ft)														
					TPC	<b>PROTECTIVE COVER</b> Diameter: 4 Type: <b>RISER</b> Interval: 3.5  <b>RISER</b> Diameter: 2 Type: <b>SCH. 40-PVC</b> Interval: 6.2  <b>SCREEN</b> Diameter: 2 Type: <b>SCH. 40-PVC/0.010</b> Interval: 4, .9  <b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: 1.5  <b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>  <b>SEAL</b> Type: <b>BENTONITE PELLETS</b> Interval: 2  <b>SANDPACK</b> Type: <b>#1, #3</b> Interval: 7.9									
	0			0.0	GS		734.3								
GM ML				1.5	TBS		732.8								
- ML-CL				3.5	TSP		730.8								
GM ML				4.7	TSC	729.6									
- ML ML ML GM ML	5														
- SM SM															
ML															
- ML GP ML GP ML ML	10			10.5	BSC	723.8									
	11.4			11.4	POW	722.9									
						<b>WELL DEVELOPMENT DATA</b> Date: <b>3/8/94</b> Method: <b>BAIL/PUMP</b> Duration: <b>67 MIN</b> Rate: <b>2.1 L/MIN</b>  Final Measurements:									
						<b>WATER LEVELS</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Depth, TR</th> </tr> </thead> <tbody> <tr> <td>3/8</td> <td>1310</td> <td>3.40</td> </tr> <tr> <td>3/8</td> <td>1407</td> <td>3.60</td> </tr> </tbody> </table>	Date	Time	Depth, TR	3/8	1310	3.40	3/8	1407	3.60
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3/8	1407	3.60													
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<b>LEGEND</b>															
SURFACE SEAL GROUT SEAL SANDPACK		GRAVEL SAND SILT CLAY NO RECOVERY		TPC TOP OF PROTECTIVE CASING TR TOP OF WELL RISER GS GROUND SURFACE TG TOP OF GROUT TBS TOP BENTONITE SEAL TSP TOP OF SANDPACK TSC TOP OF SCREEN BSC BOTTOM OF SCREEN TD TOTAL DEPTH POW POINT OF WELL											



# COMPLETION REPORT OF WELL No. MW59-3

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**  
 DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**  
 DRILLING METHOD: **HOLLOW STEM AUGER**  
 WELL INSTALLATION STARTED: **03/18/94**  
 WELL INSTALLATION COMPLETED: **03/18/94**

WELL LOCATION (N/E): **999030.0 750345.9**  
 REFERENCE COORDINATE SYSTEM: **New York State Plane**  
 GROUND SURFACE ELEVATION (ft): **737.7**  
 DATUM: **NAD 1983**  
 GEOLOGIST: **F. O'LOUGHLIN**  
 CHECKED BY: **KK**

STRATA	SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS																																								
				TPC	<b>PROTECTIVE COVER</b> Diameter: <b>4</b> Type: <b>ROADWAY BOX</b> Interval: <b>3.5</b>																																								
				TR																																									
				TC																																									
			0.0	GS 737.7																																									
GM			0.8	TBS 736.9	<b>RISER</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC</b> Interval: <b>2.85</b>																																								
ML			2.4	TSP 735.3	<b>SCREEN</b> Diameter: <b>2</b> Type: <b>SCH. 40-PVC/0.010</b> Interval: <b>3.95</b>																																								
ML			3.7	TSC 734.0																																									
PT			5		<b>SURFACE SEAL</b> Type: <b>CEMENT</b> Interval: <b>.8</b>																																								
-					<b>GROUT</b> Type: <b>N/A</b> Interval: <b>N/A</b>																																								
CL			7.7	BSC 730.0																																									
GP					<b>SEAL</b> Type: <b>BENTONITE</b> Interval: <b>1.6</b>																																								
CL			8.8	POW 728.9																																									
ML					<b>SANDPACK</b> Type: <b>#1, #3</b> Interval:																																								
CL																																													
-					<b>WELL DEVELOPMENT DATA</b>																																								
CL					Date: <b>3/20/94</b>																																								
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**COMPLETION REPORT OF  
 WELL No. MW59-3**

# COMPLETION REPORT OF WELL No. MW59-3A

PROJECT: **EIGHT MODERATELY LOW PRIORITY AOCs** WELL LOCATION (N/E): **999026.3 750264.3**  
 PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS, NY** REFERENCE COORDINATE SYSTEM:  
 DRILLING CONTRACTOR: GROUND SURFACE ELEVATION (ft): **NA**  
 DRILLING METHOD: DATUM: **NAD 1983**  
 INSTALLATION STARTED: **03/17/94** GEOLOGIST:  
 INSTALLATION COMPLETED: **03/17/94** CHECKED BY:

STRATA		SYMBOL	WELL DETAILS	DEPTH (ft)	ELEVATION (ft)	WELL CONSTRUCTION DETAILS
MICRO DESCRIPTION <small>(from boring log)</small>	DEPTH (ft)					
	0			0.0	NA	PROTECTIVE COVER Diameter: Type: Interval: RISER Diameter: Type: Interval: SCREEN Diameter: Type: Interval: SURFACE SEAL Type: Interval: GROUT Type: Interval: SEAL Type: Interval: SANDPACK Type: Interval:
	5					WELL DEVELOPMENT DATA Date: <span style="float: right;">Date</span> <span style="float: right;">Time</span> <span style="float: right;">Depth</span> <span style="float: right;">TR</span> Method: <span style="float: right;">▼</span> Duration: <span style="float: right;">▼</span> Rate: <span style="float: right;">▼</span> Final Measurements: <span style="float: right;">▼</span>
	8.0					Temperature <span style="float: right;">Conductivity</span> pH (degrees C) <span style="float: right;">(micromhos/cm)</span> <span style="float: right;">Turbidity (NTU)</span>
						<b>LEGEND</b> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <p> SURFACE SEAL</p> <p> GROUT</p> <p> SEAL</p> <p> SANDPACK</p> </div> <div style="width: 50%;"> <p> GRAVEL</p> <p> SAND</p> <p> SILT</p> <p> CLAY</p> <p> NO RECOVERY</p> </div> <div style="width: 50%;"> <p>TPC TOP OF PROTECTIVE CASING</p> <p>TR TOP OF WELL RISER</p> <p>GS GROUND SURFACE</p> <p>TG TOP OF GROUT</p> <p>TBS TOP BENTONITE SEAL</p> <p>TSP TOP OF SANDPACK</p> <p>TSC TOP OF SCREEN</p> <p>BSC BOTTOM OF SCREEN</p> <p>TD TOTAL DEPTH</p> <p>POW POINT OF WELL</p> </div> </div>

**APPENDIX D**  
**WELL DEVELOPMENT REPORTS**

# WELL DEVELOPMENT REPORT

ENGINEERING—SCIENCE, INC.	CLIENT: <u>USACOE</u>	WELL #: <u>MW 5-1</u>
PROJECT: <u>15 SWMU ESI (SEAD-5)</u>	DATE: <u>3/18/94</u>	PROJECT NO.: <u>720519</u>
LOCATION: <u>SENECA ARMY DEPOT, ROMULUS, NY</u>		

DRILLING METHOD (s): <u>HSA</u> PUMP METHOD (s): <u>Peristaltic Pump</u> SURGE METHOD (s): <u>Boiler</u> INSTALLATION DATE: <u>3/16/94</u>	INSPECTOR: <u>BH</u> CONTRACTOR: _____ CREW: _____ START DEVELOPMENT DATE: <u>3/18/94</u> END DEVELOPMENT DATE: <u>3/19/94</u>
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WATER DEPTH (TOC): <u>3.36</u> ft WELL DIA. (ID CASING): <u>2 in</u> <del>in</del> BORING DIAMETER: <u>8.5 in</u> <del>in</del>	INSTALLED POW DEPTH(TOC): <u>11.85</u> ft MEASURED POW DEPTH(TOC): <u>13.32</u> ft SILT THICKNESS: _____ ft POW AFTER DEVELOPMENT: _____ ft
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### DIAMETER FACTORS (GAL/FT):

DIAMETER (IN):	2	3	4	5	6	7	8	8.5	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	2.88	3.30	4.08	4.93	5.87

11.85  
2.9

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR = 1.62 GAL. = A  
 $9.96 \times .103$

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 = 7.48 GAL. = B  
 $8.95$

SINGLE STANDING WATER VOLUME = A + B = ..... 9.1 GAL. = C

MINIMUM VOLUME TO BE REMOVED = 5 X C ..... 45.5 GALS.  
 $3 \times C$  27.3

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
3/18	Surge	3.36	1500	1525	25	7				Dark Brown		
3/18	1st Vol.	5.60	1545	1620	35	11 gals	7.29	590	5.5	Dark Brown	NA	1070
3/18	2nd Vol.	8.38	1625	1645	20	10 gals	7.24	600	6.5	Dark Brown	NA	1240
3/18	Water Pumped					3.5 gals						Near Dryness
3/19	3rd Vol.	3.78	1140	1205	25	10 gals	7.19	650	6.0	Cloudy		1228
3/19	4th Vol.	10.25	1205	1230	25	10	7.20	650	5.5	clear	9.38	9.30
3/19	5th Vol.	9.30	1230	1300	30	10	7.20	650	6.5	slightly cloudy	55.5	9.40
3/19	6th Vol.	9.40	1300	1336	36	10	7.12	650	6.0	clear	1.21	5.90
<b>TOTALS/FINAL</b>						71.5						

<b>RECOVERY</b> (GOOD) FAIR POOR <div style="text-align: center; font-size: 2em; font-family: cursive;">Complete</div>	<b>INVESTIGATION DERIVED WASTE (IDW)</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>DATE</td> <td>3/18/94</td> <td>3/19/94</td> <td>3/19/94</td> </tr> <tr> <td>VOLUME</td> <td>31.96</td> <td>18.51</td> <td>22.5</td> </tr> <tr> <td>DRUM #</td> <td>5-5W</td> <td>5-5W</td> <td>5-6W</td> </tr> </table>	DATE	3/18/94	3/19/94	3/19/94	VOLUME	31.96	18.51	22.5	DRUM #	5-5W	5-5W	5-6W
DATE	3/18/94	3/19/94	3/19/94										
VOLUME	31.96	18.51	22.5										
DRUM #	5-5W	5-5W	5-6W										

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS WELL #: \_\_\_\_\_

# WELL DEVELOPMENT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: USACOE	WELL #: MW 5-2
PROJECT: 15 SWMU ESI (SEAD- 5)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: 03/08/94
		PROJECT NO.: 720519

DRILLING METHOD (s): <u>HOLLOW STEM ANGER</u> PUMP METHOD (s): <u>PERISTALTIC PUMP</u> SURGE METHOD (s): <u>BALER</u> INSTALLATION DATE: <u>3/5/94</u>	INSPECTOR: <u>BH/MB</u> CONTRACTOR: <u>N/A</u> CREW: <u>N/A</u> START DEVELOPMENT DATE: <u>03/08/94</u> END DEVELOPMENT DATE: <u>3/8/94</u> (Ground Surface)
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WATER DEPTH (TOC): <u>2.71</u> ft WELL DIA. (ID CASING): <u>2</u> in BORING DIAMETER: <u>8.5</u> in	INSTALLED POW DEPTH (TOC): <u>10.0</u> ft MEASURED POW DEPTH (TOC): <u>11.09</u> ft SILT THICKNESS: _____ ft POW AFTER DEVELOPMENT: _____ ft
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**DIAMETER FACTORS (GAL/FT):**

DIAMETER (IN):	2	3	4	5	6	7	8	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	4.08	4.93	5.87

$(7.2) < (8.38)$   
 STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR =  $2.71 \times 8.5 = 23.035$  GAL = A  
 STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL (ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 =  $(2.95 - 0.163) \times 0.3 = 0.849$  GAL = B  
 SINGLE STANDING WATER VOLUME = A + B =  $23.035 + 0.849 = 23.884$  GAL = C  
 MINIMUM VOLUME TO BE REMOVED = 5 X C =  $5 \times 23.884 = 119.42$  GALS.

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
3/8	SURGE	2.71	10:00	10:30	30	5.0				Silty	N/A	
3/8	1st Volume	2.80	10:35	10:55	20	8.0	7.09	600	4.5	CLOUDY	238	3.12
3/8	2ND VOLUME	3.18	10:56	11:14	18	8.0	7.17	600	4.5	CLEAR	16.8	3.18
3/8	3RD VOLUME	3.18	11:16	11:33	17	7.5	7.17	600	4.0	CLEAR	2.42	3.20
<b>TOTALS/FINAL</b>						29						

<b>RECOVERY</b> (GOOD) FAIR POOR	<b>INVESTIGATION DERIVED WASTE (IDW)</b> DATE: 03/08 VOLUME: 27 gal DRUM #: 5-2W
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SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS WELL #: MW 5-2

# WELL DEVELOPMENT REPORT

ENGINEERING—SCIENCE, INC.	CLIENT: USACOE	WELL #: MW5-3
PROJECT: 15 SWMU ESI (SEAD- 5)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: 3/19/94 PROJECT NO.: 22519

DRILLING METHOD (S): HSA PUMP METHOD (S): Peristaltic Pump SURGE METHOD (S): Bailor INSTALLATION DATE: 3/17/94	INSPECTOR: JH/KS CONTRACTOR: CREW: START DEVELOPMENT DATE: 3/19/94 END DEVELOPMENT DATE: 3/20/94
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WATER DEPTH (TOC): 3.33 ft WELL DIA. (ID CASING): 2in ✓ BORING DIAMETER: 8.5in ✓	INSTALLED POW DEPTH(TOC): 8.5 ft MEASURED POW DEPTH(TOC): 8.51 ft SILT THICKNESS: .05 ft POW AFTER DEVELOPMENT: 8.56 ft
--	--

### DIAMETER FACTORS (GAL/FT):

DIAMETER (IN):	2	3	4	5	6	7	8	8.5	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	2.95	3.30	4.08	4.93	5.87

3.5  
2.5  
5

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR = 84' GAL. = A  
 $5.18 \times 1.63$

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 = 4.33 GAL. = B

SINGLE STANDING WATER VOLUME = A + B = ..... 5.17 GAL. = C

MINIMUM VOLUME TO BE REMOVED = 5 X C ..... 25.85 GALS.  
 $3 \times C$  15.51

Bail pump pump pump pump pump pump pump pump pump

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
3/19	Surge	3.33	1430	1450	20	5.0 gals				Dark Brown		
3/19	1st Vol.	4.15	1452	1500	8	5.0	7.09	950	5	Dark Brown	1000	5.30
3/19	2nd Vol.	5.3	1500	1515	15	5.0	6.98	925	5	Brown	1000	5.70
3/19	3rd Vol.	5.70	1515	1534	19	5.0	6.98	900	5	Lighter Brown	1000	5.90
3/19	4th Vol.	5.9	1535	1550	15	5.0	6.99	925	5	Light Brown	1000	6.06
3/19	5th Vol.	6.06	1550	1607	12	5.0	6.96	925	5	Light Brown	1000	6.10
3/19	6th Vol.	6.10	1608	1620	12	5.0	6.96	900	5	clear	62.6	6.30
3/19	7th Vol.	6.30	1620	1643	13	5.0	6.97	900	4.5	clear	101	6.40
3/20	8th Vol.	3.91	0950	1005	15	5.0	7.19	925	5	silty	450	8.90
3/20	9th Vol.	4.90	1008	1020	12	5.0	7.08	900	5	silty	223	5.3
3/20	TOTALS/FINAL	5.3	1020	1035	15	5.0	7.00	900	5	clear	11.6	4.90

RECOVERY  
 GOOD FAIR POOR  
 Total 55.0  
Complete

INVESTIGATION DERIVED WASTE (IDW)			
DATE	VOLUME	DRUM #	
3/19/94	53 gal	5-7W	

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS WELL #: MW5-3

# WELL DEVELOPMENT REPORT

ENGINEERING—SCIENCE, INC.	CLIENT: USACOE	WELL #: MW9-1
PROJECT: 15 SWMU ESI (SEAD-9)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: 04/01/94
		PROJECT NO.: 720519

DRILLING METHOD (s): Hollow Stem Auger  
 PUMP METHOD (s): PUMP - PERISTALTIC  
 SURGE METHOD (s): BAILER-TFLOW  
 INSTALLATION DATE: 3/21/94

INSPECTOR: KS/MB  
 CONTRACTOR: \_\_\_\_\_  
 CREW: \_\_\_\_\_  
 START DEVELOPMENT DATE: 4/1/94  
 END DEVELOPMENT DATE: 5/13/94

WATER DEPTH (TOC): <u>3.84</u> ft	INSTALLED POW DEPTH: <u>5.15</u> ft
WELL DIA. (ID CASING): <u>2"</u> #	MEASURED POW DEPTH(TOC): <u>6.54</u> ft
BORING DIAMETER: <u>8.5"</u> #	SILT THICKNESS: _____ ft
	POW AFTER DEVELOPMENT: <u>6.63</u> ft

### DIAMETER FACTORS (GAL/FT):

DIAMETER (IN):	2	3	4	5	6	7	8	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	4.08	4.93	5.87

$+ 3 + (6.54 - 3.84) = 2.7$   
 STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR = 0.44 GAL. = A  
 $2.7 \times 0.163$   
 STANDING WATER IN ANNULAR SPACE = 2.787  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 = 2.2 GAL. = B  
 $(5.15 - 2.3) \times (2.95 - 0.163) \times 0.3$   
 SINGLE STANDING WATER VOLUME = A + B = 2.64 GAL. = C  
 MINIMUM VOLUME TO BE REMOVED = 5 X C = 11.1 GALS.

**3X 6.6**

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
Bailer 7-1	Surge	3.84	1245	1305	20	1.3				dark brown	1000+	Dry
Bailer 7-2	Surge	3.90	0825	0845	20	0.4				dark brown	1000+	Dry
Bailer 7-13	Surge	2.61	1445	1510	25	1.8				dark brown	1000+	Dry
PUMP 4/14	1st Vol	3.18	1025	1130	5	1.0	7.28	410	6°C	silty	700	Near Dry
PUMP 4/14	1st Vol	5.40	1150	1158	8	1.0	7.30	415	6°C	cloudy	98	Near Dry
PUMP 4/14	1st Vol	3.96	1230	1235	5	1.0	7.39	395	5.8°C	Dark Green	90	Near Dry
PUMP 4/28	2nd Vol	5.10	1104	1110	6	0.5	7.54	410	7°C	Cloudy	15.3	Dry
PUMP 4/28	2nd Vol	5.50	1140	1145	5	0.25	7.63	425	7.5°C	Cloudy	19.5	Dry
5/13	2nd Vol	5.96	0905	0910	5	0.1 gal	7.6	420	7.6°C	clear	-	Dry
5/17/94	Pump	5.87	1004	1005	1	300 ml	Static	level of Water below Screen				Dry
<b>TOTALS/FINAL</b>												

**RECOVERY**  
 GOOD FAIR POOR

INVESTIGATION DERIVED WASTE (IDW)				
DATE	VOLUME	DRUM #	WELL #	
4/1	1.3	19-50	MW9-1	
4/2	0.4			
4/13	1.8			
4/14	3.0			

**NOTE: SET UP NEW DRUM 9-5W**

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

WELL #: MW9-1

# WELL DEVELOPMENT REPORT

ENGINEERING—SCIENCE, INC.	CLIENT: USACOE	WELL #: MW9-2
PROJECT: 15 SWMU ESI (SEAD-9)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: 3/17/94
		PROJECT NO.: 720574

DRILLING METHOD (s): HSA PUMP METHOD (s): Peristaltic Pump SURGE METHOD (s): Baller INSTALLATION DATE: 3-9-94	INSPECTOR: BHT/KS CONTRACTOR: CREW: START DEVELOPMENT DATE: 3/17/94 END DEVELOPMENT DATE: 3/17/94
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WATER DEPTH (TOC): 2.11 ft WELL DIA. (ID CASING): 3.11 in BORING DIAMETER: 8.5 in	INSTALLED POW DEPTH(TOC): 5.3 ft MEASURED POW DEPTH(TOC): 7.06 ft SILT THICKNESS: .02 ft POW AFTER DEVELOPMENT: 7.08 ft
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**DIAMETER FACTORS (GAL/FT):**

DIAMETER (IN):	2	3	4	5	6	7	8	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	4.08	4.93	5.87

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR =  $4.75 \times .163 = .826$  GAL = A

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 =  $3.40 \times (8.5 - 3.11) \times 0.3 = 2.184$  GAL = B

SINGLE STANDING WATER VOLUME = A + B =  $.826 + 2.184 = 3.01$  GAL = C

MINIMUM VOLUME TO BE REMOVED = 5 X C =  $5 \times 3.01 = 15.05$  GALS.

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
3/17	Surge	2.11	10:55	10:55	10	3.0 gal				Dark Green		
3/17	1st U/L	2.11	10:35	10:45	10	4.5 gal	7.07	500	2.50	Bm	NA	2.30
3/17	2nd U/L	2.30	11:00	11:00	15	3.0 gal	7.10	500	2.50	Cloudy	134	2.30
3/17	3rd U/L	2.30	11:00	11:15	15	3.0	7.07	500	2.50	Clear	670	2.30
3/17	4th U/L	2.30	11:15	11:30	15	2.8	7.07	500	1.50	Clear	3.16	2.30
						2.0	Extra Removed					
<b>TOTALS/FINAL</b>						20.5						

<b>RECOVERY</b> GOOD FAIR POOR (GOOD circled)	<b>INVESTIGATION DERIVED WASTE (IDW)</b> DATE: 3/17/94 VOLUME: 20.5 DRUM #: 9-2W
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SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS WELL #: 9-2



# WELL DEVELOPMENT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: USACOE	WELL #: <u>MW9-3</u>
PROJECT: 15 SWMU ESI (SEAD-9)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: <u>04/01/94</u>
		PROJECT NO.: <u>720519</u>

DRILLING METHOD (s): <u>HOLLOW STEM AUGER</u> PUMP METHOD (s): <u>PUMP - PERISTALTIC</u> SURGE METHOD (s): <u>BAILER - TEFLON</u> INSTALLATION DATE: <u>3/21/94</u>	INSPECTOR: <u>KS/MB</u> CONTRACTOR: _____ CREW: _____ START DEVELOPMENT DATE: <u>4/1/94</u> END DEVELOPMENT DATE: <u>4/1/94</u>
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WATER DEPTH (TOC): <u>1.68</u> ft WELL DIA. (ID CASING): <u>8"</u> ft BORING DIAMETER: <u>8.5"</u> ft	INSTALLED POW DEPTH(TOC): <u>10.15</u> ft MEASURED POW DEPTH(TOC): <u>11.62</u> ft SILT THICKNESS: _____ ft POW AFTER DEVELOPMENT: _____ ft
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### DIAMETER FACTORS (GAL/FT):

DIAMETER (IN):	2	3	4	5	6	7	8	9	10	11	12
GALLONS/FT:	<u>0.163</u>	0.367	0.654	1.02	1.47	2.00	2.61	3.30	4.08	4.93	5.87

$(11.62 - 1.68) \times 0.163$   
 STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR = 1.9 GAL. = A

STANDING WATER IN ANNULAR SPACE =  
 $2.789$   
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 = 6.4 GAL. = B

$(10.15 - 2.5) \times (2.95 - 0.163) \times 0.3$   
 SINGLE STANDING WATER VOLUME = A + B = 8.3 GAL. = C

MINIMUM VOLUME TO BE REMOVED = 5 X C = 41.5 GALS.

3x = 24.9

PUMP  
 pump  
 PUMP

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
4/1	Surf	1.68	1330	1350	20	5.5	6.4	780	6.4	Dark brown		
4/1	PURGE-1	1.85	1400	1420	20	8.3	6.87	780	6.4	silty	80.5	4.90
4/1	Vol. -2	4.90	1420	1447	27	8.5	6.93	760	6.5	clear	1.89	5.12
4/1	VOL.-3	5:12	1447	1507	20	8.5	6.86	750	6.4	clear	3.05	4.94
						Complete						
TOTALS/FINAL						30.8						

RECOVERY GOOD FAIR POOR	INVESTIGATION DERIVED WASTE (IDW) DATE: <u>4-1-94</u> VOLUME: <u>30.8</u> DRUM #: <u>9-6</u>
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SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

WELL #: MW9-3

# WELL DEVELOPMENT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: USACOE	WELL #: MW12A-1
PROJECT: 15 SWMU BSI (SEAD-12A)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: 6/22/94 PROJECT NO.: 720519

DRILLING METHOD (S): HSA PUMP METHOD (S): Peristaltic SURGE METHOD (S): Teflon balls INSTALLATION DATE: 6/11/94	INSPECTOR: ES CONTRACTOR: CREW: START DEVELOPMENT DATE: 6/22/94 END DEVELOPMENT DATE: 10/22/94 Stick up 1.44 ft
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WATER DEPTH (TOC): 6.30 ft WELL DIA. (ID CASING): 2.0" <del>ft</del> BORING DIAMETER: 8.5" <del>ft</del>	INSTALLED POW DEPTH (TOC) <sup>65</sup> : 14.00 ft MEASURED POW DEPTH (TOC): 15.44 ft SILT THICKNESS: ft POW AFTER DEVELOPMENT: 15.36 (?) ft
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### DIAMETER FACTORS (GAL/FT):

DIAMETER (IN):	2	3	4	5	6	7	8	8.5	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	2.95	3.30	4.08	4.93	5.87

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR = 1.49 GAL = A  
 $(15.44 - 6.30) \times 0.163$

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL (ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 = 7.64 GAL = B  
 $(15.44 - 6.30) \times (2.95 - 0.163) \times 0.3$

SINGLE STANDING WATER VOLUME = A + B = ..... 9.13 GAL = C

MINIMUM VOLUME TO BE REMOVED = 5 X C ..... 45.5 GALS.  
 $3 \times 27.3$

Flow Rate  
1.4 L/m

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
6/22	Surging	6.30	1130	1150	20 min	4				dk brown	Very silty!	6.72
	1 <sup>st</sup> vol. (cont)	6.36	1335	1355	30 min	5.1	7.16	600	11° C	dk brown	1000+	6.40
	2 <sup>nd</sup> vol.	6.40	1355	14:25	30 min	9.1	7.19	590	11° C	cloudy	219	6.42
	3 <sup>rd</sup> vol.	6.42	1425	1455	30 min	9.1	7.26	590	11° C	clean	14.3	6.42
	4 <sup>th</sup> vol.	6.42	1455	1525	30 min	9.1	7.26	580	10° C	clean	10.2	6.42
	5 <sup>th</sup> vol.	6.42	1525	15:55	30 min	9.1	7.24	590	9.5° C	clean	26.1	6.38
<b>TOTALS/FINAL</b>						45.5						

**RECOVERY**  
 (GOOD) FAIR POOR

#### INVESTIGATION DERIVED WASTE (IDW)

DATE	6/22			
VOLUME	45.5			
DRUM #	12A-4W			

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS WELL #:

342 9.1  
 243 5  
 34 455

HAENG\SENECA\15SWMU\FIELD\FMS\WELLDEV.WK3  
 4

# WELL DEVELOPMENT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: USACOE	WELL #: MW12A-2
PROJECT: 15 SWMU BSI (SEAD- 12A)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: 6/23/94
		PROJECT NO.: 720519

DRILLING METHOD (s): HSA PUMP METHOD (s): Peristaltic SURGE METHOD (s): Teflon bailer INSTALLATION DATE: 6/11/94	INSPECTOR: ES CONTRACTOR: - CREW: - START DEVELOPMENT DATE: 6/23/94 END DEVELOPMENT DATE: 6/23/94 Stickup = 1.0 ft.
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WATER DEPTH (TOC): 5.25 * ft WELL DIA. (ID CASING): 2" ft BORING DIAMETER: 0.5" ft	INSTALLED POW DEPTH (TOC): 12.0 ft MEASURED POW DEPTH (TOC): 13.00 ft SILT THICKNESS: ft POW AFTER DEVELOPMENT: 13.0 ft
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### DIAMETER FACTORS (GAL/FT):

DIAMETER (IN):	2	3	4	5	6	7	8	8.5	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	2.95	3.30	4.08	4.93	5.87

4.2 TP  
5.25 ft

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR =  $1.26 \text{ GAL} = A$   
 $(13 - 5.25) \times .163$

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL (ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 =  $6.5 \text{ GAL} = B$   
 $13 - 5.25 = 7.75$        $7.75 (2.95 - .163) \times .3$

SINGLE STANDING WATER VOLUME = A + B =  $7.8 \text{ GAL} = C$

MINIMUM VOLUME TO BE REMOVED = 5 X C =  $39 \text{ GALS.}$   
 $3 \times = 23.4$

Flow Rate

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
6/23	Surge	5.30	9:30	9:50	20 min	6.5						5.46
	1st vol cont.	5.46	10:40	10:45	5 min	1.3	7.11	490	9°C	dk. brown	1000+	5.76
1140	2nd vol.	5.76	10:45	11:10	25 min	7.8	7.12	425	8°C	cloudy	54.5	5.82
1140	3rd vol	5.82	11:10	11:20	10 min	3	7.10	425	8.5°C	clear	55.6	5.83
	3rd vol cont.	5.36	12:30	12:50	20 min	4.8	7.11	425	8.5°C	clear	55.6	5.83
1140	4th vol.	5.83	12:50	1:00	10 min	1.5						
	4th vol cont.	5.38	14:15	14:30	15 min	6.3	7.10	400	8.5°C	clear	13.7	5.85
1140	5th vol.	5.85	14:30	14:55	25 min	7.8	7.11	425	8.5°C	clear	4.94	5.56
<b>TOTALS/FINAL</b>						39						

<b>RECOVERY</b> (GOOD) FAIR POOR	<b>INVESTIGATION DERIVED WASTE (IDW)</b> DATE: 6/23 VOLUME: 39 DRUM #: 12A-6W
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SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS      WELL #: MW12A-2

\* initial Gw measurement done on 6/22/94.

# WELL DEVELOPMENT REPORT

ENGINEERING--SCIENCE, INC.	CLIENT: USACOE	WELL #: MW12A-3
PROJECT: 15 SWMU BSI (SEAD- 12A)	LOCATION: SENECA ARMY DBPOT, ROMULUS, NY	DATE: 6/22/94
		PROJECT NO.: 720519

DRILLING METHOD (S): HSA PUMP METHOD (S): Peristaltic SURGE METHOD (S): Teflon Borelev INSTALLATION DATE: 6/12/94	INSPECTOR: KES CONTRACTOR: CREW: START DEVELOPMENT DATE: END DEVELOPMENT DATE: 1.56 Striking
--	--

WATER DEPTH (TOC): 6.06 ft WELL DIA. (ID CASING): 2.0" ft BORING DIAMETER: 8.5" ft	INSTALLED POW DEPTH (TOC): 15.3 ft MEASURED POW DEPTH (TOC): 16.86 ft SILT THICKNESS: POW AFTER DEVELOPMENT: 16.86 ft
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### DIAMETER FACTORS (GAL/FT):

DIAMETER (IN):	2	3	4	5	6	7	8	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	4.08	4.93	5.87

ESP - 2.5  
+ 1.56  
4.06

$10.8 \times .163$

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR = 1.76 GAL. = A

STANDING WATER IN ANNULAR SPACE =  $12.8 \times (2.95 - .163) \times .3$

WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 = 10.7 GAL. = B

SINGLE STANDING WATER VOLUME = A + B = ..... 12.5 GAL. = C

MINIMUM VOLUME TO BE REMOVED = 5 X C ..... 62.5 GALS.

$3x = 37.5$

2L/min

DATE	ACTIVITY	STARTING HD DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
6/22	Surge	6.06	1130	1200	30 min	9 gal				Dark Brown		6.23
6/22	pump Vol #1	6.15	1405	1415	10 min	3.5	7.94	600	10.6	Dark Brown	100+	6.20
6/22	pump Vol #2	6.20	1415	1500	45 min	12.5	7.94	590	9.6	light brown	100+	6.30
6/22	pump Vol #3	6.30	1500	1530	30 min	12.5	7.82	565	9.7	silty	90	6.30
6/22	pump Vol #4	6.30	1530	1600	30 min	12.5	7.88	600	9.8	clearing	25	6.30
6/22	pump Vol #5	6.30	1600	1610	18 min	8 gallons	8.02	580	10.0	clear	20	6.30
							Complete					
<b>TOTALS/FINAL</b>						58						

<b>RECOVERY</b> GOOD FAIR POOR	<b>INVESTIGATION DERIVED WASTE (IDW)</b> DATE: 6/22/94 6/22/94 VOLUME: 54 4 DRUM #: 12A-5 12A-4
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SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS WELL #: MW12A-3  
 Note - Measurements taken 2 Ft. above Bottom of Screen

# WELL DEVELOPMENT REPORT

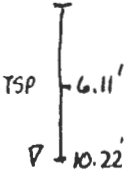
ENGINEERING--SCIENCE, INC.	CLIENT: USACOE	WELL #: MW12B-1
PROJECT: 15 SWMU BSI (SEAD-12B)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: 6/25/94
		PROJECT NO.: 720519

DRILLING METHOD (s): <u>HSA</u> PUMP METHOD (s): <u>peristaltic</u> SURGE METHOD (s): <u>teflon bailer</u> INSTALLATION DATE: <u>6/13/94</u>	INSPECTOR: <u>ES</u> CONTRACTOR: _____ CREW: _____ START DEVELOPMENT DATE: <u>6/25/94</u> END DEVELOPMENT DATE: <u>stickup 1.86'</u>
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WATER DEPTH (TOC): <u>10.22</u> ft WELL DIA. (ID CASING): <u>2"</u> ft BORING DIAMETER: <u>8.5"</u> ft	INSTALLED POW DEPTH (TOC): <u>17.8'</u> ft MEASURED POW DEPTH (TOC): <u>19.66</u> ft ? SILT THICKNESS: _____ ft POW AFTER DEVELOPMENT: <u>19.26</u> ft
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### DIAMETER FACTORS (GAL/FT):

DIAMETER (IN):	<u>2</u>	3	4	5	6	7	<u>8.5</u>	9	10	11	12
GALLONS/FT:	<u>0.163</u>	0.367	0.654	1.02	1.47	2.00	<u>2.61295380</u>	3.30	4.08	4.93	5.87



STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR = 1.5 GAL. = A  
 $(19.66 - 10.22) \times .163$

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL (ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 = 7.9 GAL. = B  
 $(19.66 - 10.22) \times (2.95 - .163) \times .3$

SINGLE STANDING WATER VOLUME = A + B = ..... 9.4 GAL. = C

MINIMUM VOLUME TO BE REMOVED = 5 X C ..... 47 GALS.  
 $3 \times 28.2$

Flow Rate

1800

2160

2160

1440

DATE	ACTIVITY	STARTING HD DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
6/25	Surging	10.22	9:00	9:20	20min	3						10.48
	1st vol. cont.	10.48	9:35	9:45	10min	6.4	6.98	1025	12°C	dk. brown	1000+	10.40
	2nd vol.	10.40	9:45	10:05	20min	9.4	6.99	1025	10°C	cloudy	78.5	10.36
	3rd vol.	10.36	10:10	10:30	20min	9.4	7.01	1050	10°C	clear	15.7	10.36
	4th vol.	10.36	10:30	10:45	15min	9.4	7.00	1050	11°C	clear	20.5	10.38
	5th vol.	10.38	10:45	11:00	25min	9.4	6.96	1100	10°C	clear	14.9	10.26
<b>TOTALS/FINAL</b>						47 gal.						

<b>RECOVERY</b> GOOD FAIR POOR (GOOD)	<b>INVESTIGATION DERIVED WASTE (IDW)</b> DATE: 6/25 VOLUME: 47 gal DRUM #: 12B-5W
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SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

WELL #: MW12B-1

# WELL DEVELOPMENT REPORT

ENGINEERING--SCIENCE, INC.	CLIENT: USACOE	WELL #: MW12B-2
PROJECT: 15 SWMU BSI (SEAD- 12B)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: 6/23/94
		PROJECT NO.: 720519

DRILLING METHOD (s): <u>HSA</u> PUMP METHOD (s): <u>peristaltic</u> SURGE METHOD (s): <u>bailey</u> INSTALLATION DATE: <u>6/13/94</u>	INSPECTOR: <u>ES</u> CONTRACTOR: _____ CREW: _____ START DEVELOPMENT DATE: <u>6/23/94</u> END DEVELOPMENT DATE: _____ <u>stickup 2.2 ft</u>
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WATER DEPTH (TOC): <u>7.15</u> ft WELL DIA. (ID CASING): <u>2"</u> ft BORING DIAMETER: <u>8.5"</u> ft	INSTALLED POW DEPTH (TOC): <u>14.0</u> ft MEASURED POW DEPTH (TOC): <u>16.2</u> ft SILT THICKNESS: _____ ft POW AFTER DEVELOPMENT: <u>16.26</u> ft
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**DIAMETER FACTORS (GAL/FT):**

DIAMETER (IN):	<u>2</u>	3	4	5	6	7	8	<u>8.5</u>	9	10	11	12
GALLONS/FT:	<u>0.163</u>	0.367	0.654	1.02	1.47	2.00	2.61	<u>2.95</u>	3.30	4.08	4.93	5.87

5.2 TSP  
7.15

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR = 1.5 GAL. = A  
 (16.2 - 7.15) .163

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL (ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 = 7.6 GAL. = B  
 (16.2 - 7.15) = 9.05      9.05 (2.95 - .163) .3 =

SINGLE STANDING WATER VOLUME = A + B = ..... 9.1 GAL. = C

MINIMUM VOLUME TO BE REMOVED = 5 X C ..... 45.5 GALS.  
 3x = 27.3

Flow Rate  
1200  
2400  
480

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
6/23	swaging	7.15	15:45	16:05	20 min	6						7.34
6/24	1st vol. cont.	7.16	10:00	10:05	5 min	3.1	7.14	800	10°C	1 <sup>1/2</sup> brown	1000+	7.44
	2nd vol.	7.44	10:05	10:30	25 min	9.1	7.08	825	10°C	clear	27.3	7.36
	3rd vol.	7.36	10:30	11:00	30 min	9.1	7.06	800	10°C	clear	34.7	7.36
	4th vol.	7.36	11:00	11:35	35 min	9.1	7.11	800	10°C	clear	74.5	7.32
	5th vol.	7.32	11:35	12:00	25 min	9.1	7.15	800	9.5C	clear	43.3	7.50
		7.20	12:35	12:45	10 min	1.5				clear	4.33	
<b>TOTALS/FINAL</b>						47						

**RECOVERY**  
GOOD FAIR POOR

**INVESTIGATION DERIVED WASTE (IDW)**

DATE	6/23	6/24		
VOLUME	6	41		
DRUM #	12B-4W	12B-4W		

3

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

WELL #: MW12B-2

# WELL DEVELOPMENT REPORT

ENGINEERING--SCIENCE, INC. CLIENT: USACOE WELL #: MW12B-3

PROJECT: 15 SWMU BSI (SEAD- 12B) DATE: 6/26/94  
 LOCATION: SENECA ARMY DEPOT, ROMULUS, NY PROJECT NO.: 720519

DRILLING METHOD (s): HSA INSPECTOR: ES  
 PUMP METHOD (s): peristaltic CONTRACTOR:  
 SURGE METHOD (s): bellon bailer CREW:  
 INSTALLATION DATE: 6/12/94 START DEVELOPMENT DATE: 6/26/94  
 END DEVELOPMENT DATE:

WATER DEPTH (TOC): 6.70 ft  
 WELL DIA. (ID CASING): 2" ft  
 BORING DIAMETER: 8.5" ft  
 INSTALLED POW DEPTH(TOC): ~~65~~ 14.6 ft  
 MEASURED POW DEPTH(TOC): 10.80 ft  
 SILT THICKNESS: 5.2 ft  
 POW AFTER DEVELOPMENT: 15.98 ft

### DIAMETER FACTORS (GAL/FT):

DIAMETER (IN):	2	3	4	5	6	7	8	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	4.08	4.93	5.87

measured  
assumed  
1.8 stickup

5.3  
6.35  
6.7

TSP  
TSC

JA - POW

Calculations assuming (1) several inches of sediment and using 1.8 ft = stickups

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR =  $16.4 \times 1.63 = 26.7$  GAL = A

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 =  $6 \times (2.95 - 0.163) \times 0.3 = 5.1$  GAL = B

SINGLE STANDING WATER VOLUME = A + B =  $26.7 + 5.1 = 31.8$  GAL = C \* 7.8 = 248.04

MINIMUM VOLUME TO BE REMOVED = 5 X C =  $5 \times 31.8 = 159.0$  GALS. \* 39 = 6213

Flow Rate

1200  
600  
960

2 = 1080  
3 = 1260

1260

DATE	ACTIVITY	STARTING HD DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
6/26	Surging A	7.34	10:10	10:40	30 min	4	POW	measured	15.80 ft			8.06
	1st vol. cont	7.74	10:55	11:15	20 min	3.8	7.22	700	12°C	very silty	1000+	7.64
	2nd vol.	7.64	11:15	11:50	35 min	7.8	7.27	850	12°C	light brown	1000+	7.38
	Surging B	7.26	12:40	1:05	25 min	4						7.66
	1st vol. **	7.66	1:10	1:30	20 min	4.7	7.34	850	12°C	dk brn.	1000+	7.51
	2nd vol.	7.51	1:30	1:55	25 min	8.7	7.34	875	12°C	cloudy	109	7.45
	3rd vol.	7.45	1:55	2:20	25 min	8.7	7.23	850	11°C	cloudy	9.12	7.45
	4th vol.	7.45	2:20	2:45	25 min	8.7	7.21	900	12°C	clear	12.4	7.46
	5th vol.	7.46	2:45	3:15	30 min	8.7	7.19	850-825	12°C	clear	15.8	7.46
<b>TOTALS/FINAL</b>						59.1						

**RECOVERY** \*\* Recalculation after surge B  
 GOOD FAIR POOR A = (15.94 - 7.26) .163 = 1.4  
 A+B=C = 8.7 \*\* POW = 15.94  $\nabla$  7.26  
 5xC = 43.5 B = (15.94 - 7.26) 2.787(.3) = 7.3

**INVESTIGATION DERIVED WASTE (IDW)**

DATE	6/26	6/26		
VOLUME	55 gal	4		
DRUM #	12B-5-W	12B-4W		

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS WELL #: MW12B-3

\* after surging A, POW = 15.80  $\nabla$  = 8.06. Recalculated water vol.  
 A = (15.80 - 8.06) .163 = 1.3  
 B = (15.80 - 8.06) (2.787) .3 = 6.5

# WELL DEVELOPMENT REPORT

ENGINEERING—SCIENCE, INC.	CLIENT: USACOE	WELL #: MWV 43-1
PROJECT : 15 SWMU ESI (SEAD- 43)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: 3/20/94 PROJECT NO.: 220519

DRILLING METHOD (s): <u>HSA</u> PUMP METHOD (s): <u>Peristaltic Pump</u> SURGE METHOD (s): <u>Bailer</u> INSTALLATION DATE: <u>3/18/94</u>	INSPECTOR: <u>BSH</u> CONTRACTOR: _____ CREW: _____ START DEVELOPMENT DATE: <u>3/20/94</u> END DEVELOPMENT DATE: <u>3/20/94</u>
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WATER DEPTH (TOC): <u>2.46</u> ft WELL DIA. (ID CASING): <u>2 in</u> # BORING DIAMETER: <u>8.5 in</u> #	INSTALLED POW DEPTH(TOC): <u>15.0</u> ft MEASURED POW DEPTH(TOC): <u>16.0</u> ft SILT THICKNESS: <u>0</u> ft POW AFTER DEVELOPMENT: <u>16.0</u> ft
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**DIAMETER FACTORS (GAL/FT):**

DIAMETER (IN):	<u>2</u>	3	4	5	6	7	8	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	<u>3.30</u>	4.08	4.93	5.87

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR =  $13.54 \times 1.63 = 2.20$  GAL. = A

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 =  $10 \times 0.8361 = 8.361$  GAL. = B

SINGLE STANDING WATER VOLUME = A + B =  $2.20 + 8.361 = 10.561$  GAL. = C

MINIMUM VOLUME TO BE REMOVED = 5 X C =  $5 \times 10.561 = 52.805$  GALS.

36 gals

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
3/20	Surge/H2O	2.46	1430	1500	30	7 gals				Dark Blue		
3/20	1st Volume	2.56	1510	1535	25	8 gals	7.10	395	6°C	Cloudy	1.40	2.82
3/20	2nd Vol.	2.82	1535	1615	40	13.5 gals	7.31	385	5.5°C	Clear	4.09	2.88
3/20	3rd Vol.	2.88	1615	1645	30	12.0 gals	7.29	385	5.5°C	Clear	0.67	2.90
Complete												
<b>TOTALS/FINAL</b>						40.5						

<b>RECOVERY</b> <input checked="" type="radio"/> GOOD <input type="radio"/> FAIR <input type="radio"/> POOR	<b>INVESTIGATION DERIVED WASTE (IDW)</b> DATE: <u>3/20/94</u> VOLUME: <u>40.5</u> DRUM #: <u>43-10-W</u>
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SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS    WELL #: MWV 43-1



# WELL DEVELOPMENT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: USACOE	WELL #: MWV 43-2
PROJECT: 15 SWMU ESI (SEAD- 43)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: 3/21/94
		PROJECT NO.: 720519

DRILLING METHOD (s): <u>HSA</u> PUMP METHOD (s): <u>Peristaltic Pump</u> SURGE METHOD (s): <u>Bailer</u> INSTALLATION DATE: <u>3/19/94</u>	INSPECTOR: <u>BH</u> CONTRACTOR: _____ CREW: _____ START DEVELOPMENT DATE: <u>3/21/94</u> END DEVELOPMENT DATE: <u>3-23-94</u>
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WATER DEPTH (TOC): <u>2.16</u> ft WELL DIA. (ID CASING): <u>2in</u> # BORING DIAMETER: <u>8.5in</u> #	INSTALLED POW DEPTH (TOC): <u>18.4</u> ft MEASURED POW DEPTH (TOC): <u>19.34</u> ft SILT THICKNESS: <u>0</u> ft POW AFTER DEVELOPMENT: <u>19.34</u> ft
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### DIAMETER FACTORS (GAL/FT):

DIAMETER (IN):	2	3	4	5	6	7	8	8.5	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	2.95	3.30	4.08	4.93	5.87

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR = 2.80 GAL. = A  
 $17.18 \times .163$

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 = 13.12 GAL. = B

SINGLE STANDING WATER VOLUME = A + B = ..... 15.92 GAL. = C

MINIMUM VOLUME TO BE REMOVED = 5 X C ..... 79.60 GALS.  
 $3 \times C$  47.76

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
3/21	Surge	2.16	1345	1400	15	3.0 gal				Brown		
3/21	1st Vol.	4.54	1400	1453	30	13.0 gal	7.30	600	8°C	Brown	448	15.36
3/21	2nd Vol.	15.36	1453	1530	37	12.0 gal						
* 3/22 2nd Vol. 1.92 1048 1114 26 7.5 7.17 500 6.25°C cloudy 169 9.80												
* 3/22 3rd Vol. 9.80 1114 1212 58 16.0 7.32 550 8°C cloudy NA 18.20												
* 3/23 Surge 1.82 0830 0930 60 4.0												
3/23	4th Vol.	2.80	0945	1045	60	12.0	7.14	550	9.5°C	cloudy	1000	6.88
3/23	5th Vol.	6.88	1045	1215	90	16.0	7.19	550	8.5°C	clear	30.3	8.08
3/23	6th Vol.	8.08	1215	1335	70	16.0	7.20	550	8.5°C	clear	1.79	8.46
TOTALS/FINAL						Complete						

RECOVERY GOOD <input type="radio"/> FAIR <input checked="" type="radio"/> POOR <input type="radio"/>	Notes: Total <u>87.5</u> Re-Surge 3/23/94 <u>96.5</u>	INVESTIGATION DERIVED WASTE (IDW) DATE: 3/21/94 3/22/94 3/23/94 VOLUME: 25 gal 23.5 48.0 DRUM #: 43-11-W 43-11-W 43-12-W
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SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS WELL #: MWV 43-2

# WELL DEVELOPMENT REPORT

ENGINEERING—SCIENCE, INC.	CLIENT: USACOE	WELL #: MW 43-3
PROJECT: 15 SWMU ESI (SEAD-43)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: 3/18/94 PROJECT NO.: 720519

DRILLING METHOD (s): <u>HSA</u> PUMP METHOD (s): <u>Peristaltic Pump</u> SURGE METHOD (s): <u>Bailer</u> INSTALLATION DATE: <u>3/15/94</u>	INSPECTOR: <u>BH</u> CONTRACTOR: _____ CREW: _____ START DEVELOPMENT DATE: <u>3/18/94</u> END DEVELOPMENT DATE: _____
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WATER DEPTH (TOC): <u>2.78</u> ft WELL DIA. (ID CASING): <u>2 in</u> ✓ BORING DIAMETER: <u>8.5 in</u> ✓	INSTALLED POW DEPTH(TOC): <u>18.7</u> ft MEASURED POW DEPTH(TOC): <u>20.22</u> ft SILT THICKNESS: <u>0</u> ft POW AFTER DEVELOPMENT: <u>20.22</u> ft
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**DIAMETER FACTORS (GAL/FT):**

DIAMETER (IN):	2	3	4	5	6	7	8	<u>8.5</u>	9	10	11	12
GALLONS/ FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	<u>2.75</u>	3.30	4.08	4.93	5.87

16

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR = 2.60 GAL. = A  
 $15.92 \times .163$

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 = 13.31 GAL. = B

SINGLE STANDING WATER VOLUME = A + B = ..... 15.91 GAL. = C

MINIMUM VOLUME TO BE REMOVED = 5 X C ..... 79.55 GALS.  
 $3 \times C$  47.73

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
3/15	Surf. Wash	2.78	10:30	10:45	15	5.0 gal				Dark Brown		
3/18	1st Volume	3.20	11:05	11:30	25	13.5 gal	6.89	625	8.5	Clear	49.5	4.98
3/18	2nd Volume	3.40	12:05	12:10	35	15.9	6.97	700	8.5	Clear	14.7	4.90
3/18	3rd Volume	3.50	12:40	12:40	26	16.5	7.01	700	8.5	Clear	7.51	5.90
Complete												
<b>TOTALS/FINAL</b>						50.9						

RECOVERY <input checked="" type="radio"/> GOOD <input type="radio"/> FAIR <input type="radio"/> POOR	INVESTIGATION DERIVED WASTE (IDW) DATE: <u>3/18/94</u> VOLUME: <u>43-20</u> DRUM #: <u>43-20A TW</u>
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SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS      WELL #: \_\_\_\_\_

# WELL DEVELOPMENT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: USACOE	WELL #: MW 43-4
PROJECT: 15 SWMU ESI (SEAD- 43)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: 3/19/94 PROJECT NO.: 720519

DRILLING METHOD (s): <u>HSA</u> PUMP METHOD (s): <u>Peristaltic Pump</u> SURGE METHOD (s): <u>Bitur</u> INSTALLATION DATE: <u>3/17/94</u>	INSPECTOR: <u>BH/KS</u> CONTRACTOR: _____ CREW: _____ START DEVELOPMENT DATE: <u>3/17/94</u> END DEVELOPMENT DATE: <u>3/19/94</u>
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WATER DEPTH (TOC): <u>1.70</u> ft WELL DIA. (ID CASING): <u>2 in</u> ft BORING DIAMETER: <u>8.5 in</u> ft	INSTALLED POW DEPTH(TOC): <del>18.2</del> <u>13.4</u> ft MEASURED POW DEPTH(TOC): <u>14.38</u> ft SILT THICKNESS: _____ ft POW AFTER DEVELOPMENT: _____ ft
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### DIAMETER FACTORS (GAL/FT):

DIAMETER (IN):	2	3	4	5	6	7	8	8.5	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	2.75	3.30	4.08	4.93	5.87

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR = 200 GAL = A  
 $12.68 \times 1.63$

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 = 8.61 GAL = B

SINGLE STANDING WATER VOLUME = A + B = ..... 10.07 GAL = C

MINIMUM VOLUME TO BE REMOVED = 5 X C ..... 53.35 GALS.  
 $3 \times C$  32.01

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
3/19	Surge	1.70	0940	0945	5	8.5	—	—	—	Dark Brn	NA	—
3/19	Purshp		0930	0933	3	1.5	—	—	—	Dark Brn	NA	—
3/19	Pump	3.04	0933	0945	12	10.0	6.91	550	6°	milky	245	3.04
3/19	Pump	3.04	0945	1000	15	10.0	7.00	550	6°	clear	36	3.08
3/19	Pump	3.08	1000	1020	20	10.0	7.06	550	6°	clear	7.62	3.04
<i>Complete</i>												
<b>TOTALS/FINAL</b>						40						

RECOVERY <input checked="" type="checkbox"/> GOOD <input type="checkbox"/> FAIR <input type="checkbox"/> POOR	INVESTIGATION DERIVED WASTE (IDW) DATE: <u>3/19/94</u> VOLUME: <u>40</u> DRUM #: <u>43-6</u>
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SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS WELL #: MW43-4

# WELL DEVELOPMENT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: USACOE	WELL #: MW44A-1
PROJECT: 15 SWMU ESI (SEAD- 44A)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: 3/5/94 PROJECT NO.: 720519

DRILLING METHOD (s): <u>Hollow Stem Auger</u> PUMP METHOD (s): <u>Installatic Pump</u> SURGE METHOD (s): <u>Bailer</u> INSTALLATION DATE: <u>2/17/94</u>	INSPECTOR: <u>BH/MB</u> CONTRACTOR: <u>N/A</u> CREW: _____ START DEVELOPMENT DATE: <u>3/5/94</u> END DEVELOPMENT DATE: <u>3/5/94</u>
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WATER DEPTH (TOC): <u>2.12</u> ft WELL DIA. (ID CASING): <u>2.00 in</u> BORING DIAMETER: <u>8.5 in</u>	INSTALLED POW DEPTH(TOC): <u>10.25</u> ft MEASURED POW DEPTH(TOC): <u>11.62</u> ft SILT THICKNESS: _____ ft POW AFTER DEVELOPMENT: _____ ft
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### DIAMETER FACTORS (GAL/FT):

DIAMETER (IN):	2	3	4	5	6	7	8.5	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.95	3.30	4.08	4.93	5.87

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR =  $1.6 \text{ GAL} = A$   
 $9.5 \text{ (FT)} \times 0.163$

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 =  $6.5 \text{ GAL} = B$   
 $7.25 \text{ Ft} \times (2.95 - 0.163)$

SINGLE STANDING WATER VOLUME = A + B =  $8.1 \text{ GAL} = C$

MINIMUM VOLUME TO BE REMOVED =  $3 \times C = 24.3 \text{ GALS.}$

SALER

Flow rate (liters)

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
3/5	SURGE	2.12	1500	1520	20	7.5		SILT REMOVAL			23.5	2.90
"	1 <sup>st</sup> VOLUME	2.24	1520	1540	20	9.0	7.41	370	6.5	CLEAR	23.5	2.90
"	2 <sup>ND</sup>	2.32	1545	1603	18	8.5	7.40	360	6.0	CLEAR	20.5	3.00
"	3 <sup>RD</sup>	2.30	1605	1620	15	8.0	7.41	315	6.0	CLEAR	3.47	3.00
TOTALS/FINAL						33						

RECOVERY  
 GOOD     FAIR     POOR

Comments:  
 Removed a lot of silt during the surge process

INVESTIGATION DERIVED WASTE (IDW)				
DATE	3/3/05			
VOLUME	33 gal			
DRUM #	MW44A-1W			

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS      WELL #: 44A-1

# WELL DEVELOPMENT REPORT

ENGINEERING-SCIENCE, INC. CLIENT: USACOE WELL #: MW44A-2  
 PROJECT: 15 SWMU ESI (SEAD- 44A) DATE: 6/20/94  
 LOCATION: SENECA ARMY DEPOT, ROMULUS, NY PROJECT NO.: 700519

Q-tc  
 240  
 4-120-1  
 3-152-1  
 5-420

DRILLING METHOD (S): HSA  
 PUMP METHOD (S): peristaltic  
 SURGE METHOD (S): left on bales  
 INSTALLATION DATE: 6/7/94

INSPECTOR: KS/ES  
 CONTRACTOR: Empire  
 CREW:  
 START DEVELOPMENT DATE: 6/20/94  
 END DEVELOPMENT DATE: 7/4/94

WATER DEPTH (TOC): 15.68 ft  
 WELL DIA. (ID CASING): 2" ft  
 BORING DIAMETER: 8.5" ft

INSTALLED POW DEPTH(TOC): 30.05 (Δ=1.37) ft  
 MEASURED POW DEPTH(TOC): 31.42 ft  
 SILT THICKNESS: 0.03 ft  
 POW AFTER DEVELOPMENT: 31.45 ft

### DIAMETER FACTORS (GAL/FT):

DIAMETER (IN):	2	3	4	5	6	7	8	8.5	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	2.95	3.30	4.08	4.93	5.87

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR = 257 GAL. = A  
 (31.42 - 15.68) .163 =  
 STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 = 130 GAL. = B  
 30.05 - 14.5 = 15.55      15.55 (2.95 - .163) .3  
 SINGLE STANDING WATER VOLUME = A + B = ..... 15.6 GAL. = C  
 MINIMUM VOLUME TO BE REMOVED = 5 X C ..... 77.9 GALS.  
 3 x 15.6 = 46.8

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED min. TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
6/20	Surge	15.68	1555	1615		2					1000+	
6/20	1st volume		1615	1650		9				dk. brown		near dry
6/21	1st Vol. Cont'd	22.78	1305	1355	50	4.6	7.48	900	12.48	cloudy	67.1	28.2
6/21	2nd Vol.	28.2	1355	1405	10	1					Dry	29.4
6/22	2nd Vol. cont	24.74	0945	1020	35	4				brown	near Dry	31.0
6/23	2nd Vol. - Surge	25.34	0920	0940	20	0						
6/23	2nd Vol. - Pump	26.35	0950	1125		3.75				Dark Brown		30.4
6/23	2nd Vol. - Pump	24.70	1315	1330	15	0.5						31.0
6/25	Surge + Pump	22.32	0905	1025	15/65	surge/pump .5/5	7.56	900	13.3	Dark Brown	1000+	Dry 29.9
6/25	Pump	24.60	0935	1100	85	5	7.50	850	12.6	Dark Brown	1000+	31.4 Dry
TOTALS/FINAL						8						

232  
 Pump  
 Pump  
 700 ml/min  
 140 ml/min  
 140 ml/min

RECOVERY  
 GOOD FAIR POOR

INVESTIGATION DERIVED WASTE (IDW)					
DATE	6/20	6/21	6/22	6/23	6/25
VOLUME	11	5.6	4	4.25	5.5
DRUM #	44A-8	44A-8	44A-8	44A-8	44A-8

ste 6/23 @ 28' recovery rate =  $\frac{400}{3 \text{ min.}}$   
 6/26 @ 28.5' recovery rate =  $\frac{100 \text{ ml/min.}}{3.25 \text{ min.}}$

WELL #: MW44A-2  
 Note: measurements taken at bottom of screen.  
 6/26  
 5.0  
 44A-8

# WELL DEVELOPMENT REPORT

ENGINEERING--SCIENCE, INC.	CLIENT: USACOE	WELL #: MW44A-2 Cont'd
LOCATION: 15 SWMU BSI (SEAD--)		DATE: _____
LOCATION: SENECA ARMY DEPOT, ROMULUS, NY		PROJECT NO.: _____

DIG METHOD (s): \_\_\_\_\_  
 PUMP METHOD (s): \_\_\_\_\_  
 SURGE METHOD (s): \_\_\_\_\_  
 INSTALLATION DATE: \_\_\_\_\_

INSPECTOR: \_\_\_\_\_  
 CONTRACTOR: \_\_\_\_\_  
 CREW: \_\_\_\_\_  
 START DEVELOPMENT DATE: 8/20/94  
 END DEVELOPMENT DATE: 7/6/94

*Re-calculate Volumes*

WATER DEPTH (TOC): 23.0 ft  
 WELL DIA. (ID CASING): \_\_\_\_\_ ft  
 BORING DIAMETER: \_\_\_\_\_ ft

INSTALLED POW DEPTH(TOC): \_\_\_\_\_ ft  
 MEASURED POW DEPTH(TOC): 31.42 ft  
 SILT THICKNESS: \_\_\_\_\_ ft  
 POW AFTER DEVELOPMENT: FOOT, 31.5 ft

**DIAMETER FACTORS (GAL/FT):**

DIAMETER (IN):	2	3	4	5	6	7	8	8.5	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	2.95	3.30	4.08	4.93	5.87

$6.42 \times .163 =$   
 STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR = 1.4 GAL. = A  
 STANDING WATER IN ANNULAR SPACE =  $\frac{1.4 \times (2.95 - .163) \times .3}{8.42} =$  7.0  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 =  $1.2 \times$  GAL. = B  
 SINGLE STANDING WATER VOLUME = A + B = 8.4 GAL. = C  
 MINIMUM VOLUME TO BE REMOVED = 5 X C = 42 GALS.

*Pump Rate*  
 500 → 230 ml  
 230 → 100 ml  
 100 → 20.6

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
6/27	Surge		1035	1100	25	4						Dry
6/28	Pump	25.22	0925	1030	65	2.6	7.40	825	11.9	Brown silty	100+	29.15
6/28	pump	29.15	1030	1100	30	1.3	7.35	825	12.2	Brown silty	100+	31.4
6/28	pump	29.50	1505	1540	35	1.75	7.60	875	13.0	Brown silty	100+	31.4
7/5	pump	15.26				1.25				silty	100+	30.0
7/6	pump	16.55	0915		45	2.7	6.98	87	13.0	clear	13.0	20.6
7/6	pump		1030		75	4.5	7.18	87	13.0	clear		
						6.0		Completed		7/6/94		
<b>TOTALS/FINAL</b>						58.45						

**RECOVERY**  
 GOOD FAIR POOR

*Final Pump rate 7/6/94 ~ 270 ml/min*

INVESTIGATION DERIVED WASTE (IDW)				
DATE	6/27	6/29	7/5	7/6
VOLUME	4	3.9	1.25	6.0
DRUM #	44A-8	44A-8	44A-8	44A-8

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS WELL #: MW44A-2

# WELL DEVELOPMENT REPORT

ENGINEERING--SCIENCE, INC.	CLIENT: USACOE	WELL #: MW44A-3
PROJECT: 15 SWMU BSI (SEAD- 44A)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: 6/20/94
		PROJECT NO.: 720519

DRILLING METHOD (s): HSA PUMP METHOD (s): Peristaltic SURGE METHOD (s): Teflon Bailers INSTALLATION DATE: 6/7/94	INSPECTOR: KS/ES CONTRACTOR: Empire CREW: J. Warner START DEVELOPMENT DATE: 6/20/94 END DEVELOPMENT DATE:
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WATER DEPTH (TOC): 3.72 ft WELL DIA. (ID CASING): 2.0" ft BORING DIAMETER: 8.5" ft	INSTALLED POW DEPTH(TOC): 13.5' (Δ=1.74) MEASURED POW DEPTH(TOC): 15.24 ft ← SILT THICKNESS: ft POW AFTER DEVELOPMENT: ft
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**DIAMETER FACTORS (GAL/FT):**

DIAMETER (IN):	2	3	4	5	6	7	8	8.5	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	2.96	3.30	4.08	4.93	5.87

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR =  $\frac{1.88}{(15.24 - 3.72) \cdot 1.63}$  GAL. = A

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 =  $\frac{9.20}{13.5 - 2.5 = 11.0 \quad 11.0 \times (2.95 - .163) \times .3 = 9.20}$  GAL. = B

SINGLE STANDING WATER VOLUME = A + B = 11.08 GAL. = C

MINIMUM VOLUME TO BE REMOVED = 5 X C = 55.4 GALS.  
 water is 15' above top of sand. 3 X C = 33.2 gal.

Flow Rate  
 400 ml/min  
 700 ml/min  
 780/500  
 500  
 500  
 7

DATE	ACTIVITY	STARTING HOOD DEPTH	START TIME	END TIME	ELAPSED (min)	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
6/20	surge	15.24	1410	1435	25	2	7.37			dark brown	1000+	
	1st vol. (cont.)		1445	1520	35	9.8	6.10	610	10.5°C	dark brown	1000+	8.30
	2nd vol.	8.30	1520	1618	58	11	7.68	575	10.0°C	light brown	115	8.2
	3rd vol.	8.2	1618	1719	61	11	7.51	600	10.0°C	cloudy	6.09	8.2
6/21	4th vol.	3.77	1010	1105	55	11	8.02	575	10.7°C	clear	3.15	7.9
6/21	5th vol.	7.9	1105	1125	20	4	7.80	550	10.8°C	clear	11.0	8.0
												Top of column
<b>TOTALS/FINAL</b>						48						

**RECOVERY**  
 GOOD    FAIR    POOR

**INVESTIGATION DERIVED WASTE (IDW)**

DATE	6/20	6/21		
VOLUME	3.5 gal.	1.5 gal.		
DRUM #	441-7	44A-7		

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS      WELL #: MW44A-3

note: annular space not extent above seal.  
 Note - measurements taken at bottom of screen.  
 - NTU's much higher at top of water column.  
 - will stop development when top of column clears

# WELL DEVELOPMENT REPORT

<b>ENGINEERING-SCIENCE, INC.</b>	<b>CLIENT:</b> USACOE	<b>WELL #:</b> MW 44B-1
<b>PROJECT:</b> 15 SWMU ESI (SEAD-44B)		<b>DATE:</b> 4-1-94
<b>LOCATION:</b> SENECA ARMY DEPOT, ROMULUS, NY		<b>PROJECT NO.:</b> 720519

<b>DRILLING METHOD (s):</b> HSA <b>PUMP METHOD (s):</b> Peristaltic Pump <b>SURGE METHOD (s):</b> Bailer <b>INSTALLATION DATE:</b> 3/21/94	<b>INSPECTOR:</b> BH <b>CONTRACTOR:</b> <b>CREW:</b> <b>START DEVELOPMENT DATE:</b> 4-1-94 <b>END DEVELOPMENT DATE:</b> 4-1-94
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<b>WATER DEPTH (TOC):</b> 11.85 ft <b>WELL DIA. (ID CASING):</b> 2 in <b>BORING DIAMETER:</b> 8.5 in	<b>INSTALLED POW DEPTH (TOC):</b> 11.8 ft <b>MEASURED POW DEPTH (TOC):</b> 12.96 ft <b>SILT THICKNESS:</b> .00 ft <b>POW AFTER DEVELOPMENT:</b> 12.96 ft
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**DIAMETER FACTORS (GAL/FT):**

DIAMETER (IN):	2	3	4	5	6	7	8	8.5	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	2.95	3.30	4.08	4.93	5.87

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR =  $11.85 \times .163 = 1.91$  GAL. = A

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL (ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 =  $8.7 \times (2.95 - .163) \times 0.3 = 7.22$  GAL. = B

SINGLE STANDING WATER VOLUME = A + B =  $1.91 + 7.22 = 9.13$  GAL. = C

MINIMUM VOLUME TO BE REMOVED = 5 X C =  $5 \times 9.13 = 45.65$  GALS.

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
4/1	Bailer Surge	11.85	1115	1130	15	5 gals				Bm		5.00
4/1	Pump 1st Volume	2.80	1144	1209	25	10 gals	7.40	430	60C	Bm	N/A	8.54
4/1	Pump 2nd Volume	8.54	1209	1239	30	10 gals	7.40	405	70C	Bm	N/A	9.30
4/1	Pump 3rd Volume	9.30	1239	1304	24	10 gals	7.35	400	70C	Slightly Cloudy	64.9	10.68
4/1	Pump 4th Volume	10.48	1304	1308	4	2 gals	NTU	Check Only		Clear	10.1	
4/1	Pump 4th Volume Cont.		1308	1310	32	8 gals	7.50	400	60C	Clear	30.1	10.68
Complete												
<b>TOTALS/FINAL</b>						45						

<b>RECOVERY</b> GOOD FAIR POOR Notes: 1st Volume very turbid	<b>INVESTIGATION DERIVED WASTE (IDW)</b> DATE: 4/1/94 VOLUME: 45 gals DRUM #: 44B-6W
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SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS WELL #: MW 44B-1



# WELL DEVELOPMENT REPORT

ENGINEERING-SCIENCE, INC. CLIENT: USACOE WELL #: MW 44B-2

PROJECT: 15 SWMU ESI (SEAD-~~44B~~ 44B)  
 LOCATION: SENECA ARMY DEPOT, ROMULUS, NY

DATE: 3/15/94  
 PROJECT NO.: 220579

DRILLING METHOD (s): HSA  
 PUMP METHOD (s): Peristaltic Pump  
 SURGE METHOD (s): Bailor  
 INSTALLATION DATE: 3/8/94

INSPECTOR: JBH  
 CONTRACTOR:  
 CREW:  
 START DEVELOPMENT DATE: 3/15/94  
 END DEVELOPMENT DATE: 3/15/94

WATER DEPTH (TOC): 1.14 ft  
 WELL DIA. (ID CASING): 2 in  
 BORING DIAMETER: 8.5 in

INSTALLED POW DEPTH(TOC): 12.8 ft  
 MEASURED POW DEPTH(TOC): 13.60 ft  
 SILT THICKNESS: .03 ft  
 POW AFTER DEVELOPMENT: 13.57 ft

**DIAMETER FACTORS (GAL/FT):**

DIAMETER (IN):	2	3	4	5	6	7	8	8.5	9	10	11	12
GALLONS/ FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	4.08	4.93	5.87	

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR =  $12.46 \times .163 = 2.03$  GAL. = A

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 =  $7.85$  GAL. = B

SINGLE STANDING WATER VOLUME = A + B =  $9.88$  GAL. = C

MINIMUM VOLUME TO BE REMOVED = 5 X C =  $49.4$  GALS.  
 $3XC = 29.6$  Gals.

9.4

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
3/15	Surge/1st Vol.	1.14	0925	0945	20	5.0 gals				Dark Brown		1.50
3/15	1st Volume	1.40	0950	1005	15	6.0 gals	7.09	370	6.0	Cloudy	19.0	1.48
3/15	2nd Vol	1.50	1010	1030	20	11.0 gals	7.28	360	6.0	Clear	17.8	1.50
3/15	3rd Vol.	1.40	1040	1100	20	10.0	7.25	340	6.0	Clear	22.1	1.50
<b>TOTALS/FINAL</b>						32						

RECOVERY  
 (GOOD) FAIR POOR

Notes:  
 Drum not Labeled (wet drum)

INVESTIGATION DERIVED WASTE (IDW)			
DATE	3/15		
VOLUME	32 gals		
DRUM #	44B-2		

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS WELL #: MW 44B

# WELL DEVELOPMENT REPORT

ENGINEERING—SCIENCE, INC.	CLIENT: USACOE	WELL #: MW 44B-3
PROJECT: 15 SWMU ESI (SEAD- 44B)		DATE: 3-22-94
LOCATION: SENECA ARMY DEPOT, ROMULUS, NY		PROJECT NO.: 220519

DRILLING METHOD (s): HSA PUMP METHOD (s): Peristaltic Pump SURGE METHOD (s): Bailor INSTALLATION DATE: 3-20-94	INSPECTOR: BH CONTRACTOR: CREW: START DEVELOPMENT DATE: 3-22-94 END DEVELOPMENT DATE: 3-31-94
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WATER DEPTH (TOC): 1.72 ft WELL DIA. (ID CASING): 2 in BORING DIAMETER: 8.5 in	INSTALLED POW DEPTH (TOC): 14.35 ft MEASURED POW DEPTH (TOC): 15.80 ft SILT THICKNESS: .02 ft POW AFTER DEVELOPMENT: 15.82 ft
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**DIAMETER FACTORS (GAL/FT):**

DIAMETER (IN):	2	3	4	5	6	7	8	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	4.08	4.93	5.87

295

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR =  $1408 \times .163 = 2.29$  GAL. = A

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 =  $11.35 \times .8361 = 9.48$  GAL. = B

SINGLE STANDING WATER VOLUME = A + B =  $2.29 + 9.48 = 11.77$  GAL. = C

MINIMUM VOLUME TO BE REMOVED = 5 X C =  $5 \times 11.77 = 58.85$  GALS.  
 35.31

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
3/20	Surge	1.72	1455	1530	35	10.5				Brn		Near Druggess
3/20	1st Volume	1.70	1055	1200	65	11.5	7.24	475	6°C	Cloudy	236	13.86
3/20	2nd Volume	4.40	1355	1500	65	11.5	7.60	525	7°C	Cloudy	556	14.30
3/20	3rd Volume	1.94	1445	1635	110	13.5	7.18	455	6.5°C	Clear	37.2	13.04
3/21	4th Volume	2.06	0832	1105		12.0	7.34	465	7.5	Clear	83	10.56
Complete												
<b>TOTALS/FINAL</b>						59						

<b>RECOVERY</b> GOOD <u>FAIR</u> POOR Note: Recharges fully overnight 3rd Vol. - Last 2 gal. very turbid 4th Vol. - Very clear	<b>INVESTIGATION DERIVED WASTE (IDW)</b> DATE: 3/22/94 3/25/94 3/29/94 3/31/94 3/31/94 VOLUME: 10.5 gal 23 gal 13.5 gal 7 gal 5 gal DRUM #: 44B-5W 44B-5W 44B-5W 44B-5W 44B-5W
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SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS WELL #: MW 44B-3

44B-3

# WELL DEVELOPMENT REPORT

ENGINEERING—SCIENCE, INC.	CLIENT: USACOE	WELL #: MW 50-1
PROJECT: 15 SWMU ESI (SEAD-50)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: 3-30-94
		PROJECT NO.: 72079

DRILLING METHOD (s): <u>HSA</u> PUMP METHOD (s): <u>Peristaltic</u> SURGE METHOD (s): <u>Teflon Bailer</u> INSTALLATION DATE: <u>3/23/94</u>	INSPECTOR: <u>KS/CR</u> CONTRACTOR: <u>—</u> CREW: <u>—</u> START DEVELOPMENT DATE: <u>3-30-94</u> END DEVELOPMENT DATE: <u>5-14-94</u>
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WATER DEPTH (TOC): <u>2.76</u> ft WELL DIA. (ID CASING): <u>2.0"</u> # BORING DIAMETER: <u>8.5"</u> #	INSTALLED POW DEPTH (TOC): <u>ACUWA 9.0</u> ft MEASURED POW DEPTH (TOC): <u>10.25</u> ft SILT THICKNESS: <u>.03</u> ft POW AFTER DEVELOPMENT: <u>10.32</u> ft
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### DIAMETER FACTORS (GAL/FT):

DIAMETER (IN):	<u>3</u>	3	4	5	6	7	8	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	4.08	4.93	5.87

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR = 1.23 GAL. = A  
 $7.53' \times 0.163 \text{ gal/ft}$

STANDING WATER IN ANNULAR SPACE = 5.0  
 $\frac{6.00}{100}$  GAL. = B

WATER COL. BELOW SEAL (ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 = 6.00 GAL. = B  
 $7.53 \times 6.0 \times 0.163$

SINGLE STANDING WATER VOLUME = A + B = 6.23 GAL. = C

MINIMUM VOLUME TO BE REMOVED = 5 X C = 31.15 GALS.  
 $3 \times 18.7$

Bail  
 1st Vol.  
 1st Vol.  
 1st Vol.  
 2nd Vol.  
 PUMP  
 PUMP  
 PUMP  
 P

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
3/30	Surge	2.76	1425	1450	25	5				dark brown	1000+	Dry
3/30	surge	8.5	1505	1515	10	1.25				↓	1000+	9.6
3/30	pump	8.20	1535	1555	20	1.8				silty	1000+	Dry
4/1	Surge	2.92	0900	0945	45	4				dark brown	1000+	Dry
4/1	pump	6.06	1040	1050	10	.5	7.03	620	6.1°C	silty	1000+	6.85
4/1	pump	6.85	1050	1115	25	3				silty	1000+	Dry
4/13	2 <sup>ND</sup> Vol	2.28	1357	1403	6	3.5	7.05	650	6.5°C	silty	1000+	9.18
4/13	Surge	3.18	1410	1430	30	4				dark brown		dry
4/14	3 <sup>RD</sup> Vol	2.56	0830	1005	75	6.3	7.03	600	6.1°C	silty	430	9.01
4/13	4 <sup>TH</sup> Vol	3.77	0940	1050	50 min	5.5	6.44	620	8.0°C	clear	31.6	dry
5/14	5 <sup>TH</sup> Vol	3.89	1425	1530	65 min	5.8	6.89	650	9.8°C	clear	4.62	dry
TOTALS/FINAL												

RECOVERY  
 GOOD FAIR POOR

45.15 gal  
 total

INVESTIGATION DERIVED WASTE (IDW)				
DATE	3/31	4/1	4/13	4/14
VOLUME	8.05	7.5	3.5	6.3
DRUM #	50-SW	50-SW	50-SW	50-SW

NOTE: 04/13 started clear became silty  
 next activity will surge (ms)

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS

WELL #: MW 50-1

# WELL DEVELOPMENT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: USACOE	WELL #: MW 50-2
PROJECT: 15 SWMU ESI (SEAD-50)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: 3/30/94
		PROJECT NO.: 720519

DRILLING METHOD (s): HSA PUMP METHOD (s): Peristaltic SURGE METHOD (s): Boiler - Teflon INSTALLATION DATE: 3/23/94	INSPECTOR: KS/LR CONTRACTOR: CREW: START DEVELOPMENT DATE: 3/30/94 END DEVELOPMENT DATE: 4/1/94
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WATER DEPTH (TOC): 1.98 ft WELL DIA. (ID CASING): 2.0" ft BORING DIAMETER: 8.5" ft	INSTALLED POW DEPTH(TOC): 7.78 ft MEASURED POW DEPTH(TOC): _____ ft SILT THICKNESS: _____ ft POW AFTER DEVELOPMENT: 7.80 ft
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### DIAMETER FACTORS (GAL/FT):

DIAMETER (IN):	2	3	4	5	6	7	8	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	4.08	4.93	5.87

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR =  $5.8 \times .163 = 0.95$  GAL = A

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 =  $4.4 \times (2.95 - 0.163) \times 0.3 = 2.8 \times 2.8 = 3.7$  GAL = B

SINGLE STANDING WATER VOLUME = A + B =  $0.95 + 3.7 = 4.65$  GAL = C

MINIMUM VOLUME TO BE REMOVED = 5 X C =  $5 \times 4.65 = 23.25$  GALS.

$3 \times = 14.0$  gals.

pump  
 pump  
 pump  
 pump

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
3/30	Surge	1.98	1515	1535	20	4.7				Dark Brown		
3/30	Surge		1545	1555	10	1.6				Dark Brown		
3/30	1 <sup>st</sup> Vol	3.08	1610	1625	15	3.1	7.20	630	5°C	Dark Brown	-	6.50
3/30	2nd Vol	6.50	1625	1640	15	<del>2.25</del>	-	-	-	Light Brown	-	Dry
4/1	2nd Vol	2.00	0910	0924	14	2.4	7.18	580	4.7°C	Light silt	60	5.50
4/1	3RD	2.21	0950	1020	30	4.65	7.23	580	5.0°C	clear	7	5.60
						Complete						
TOTALS/FINAL						18.7						

RECOVERY GOOD (FAIR) (POOR)	INVESTIGATION DERIVED WASTE (IDW)
	DATE: 3-31-94
	VOLUME: 11.065 3.05
	DRUM #: 50-5W 50-5W

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS WELL #: MW50-2

# WELL DEVELOPMENT REPORT

ENGINEERING—SCIENCE, INC.	CLIENT: <u>USACOE</u>	WELL #: <u>MW 50-3</u>
PROJECT: <u>15 SWMU ESI (SEAD-50)</u>	LOCATION: <u>SENECA ARMY DEPOT, ROMULUS, NY</u>	DATE: <u>3/14/94</u>
		PROJECT NO.: <u>220519</u>

DRILLING METHOD (s): <u>HSA</u> PUMP METHOD (s): <u>Peristaltic Pump</u> SURGE METHOD (s): <u>Bailer</u> INSTALLATION DATE: <u>3-7-94</u>	INSPECTOR: <u>BH</u> CONTRACTOR: _____ CREW: _____ START DEVELOPMENT DATE: <u>3/14/94</u> END DEVELOPMENT DATE: _____
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WATER DEPTH (TOC): <u>3.54</u> ft WELL DIA. (ID CASING): <u>2in</u> in BORING DIAMETER: <u>8.5in</u> in	INSTALLED POW DEPTH(TOC): <u>7.4</u> ft MEASURED POW DEPTH(TOC): <u>9.22</u> ft SILT THICKNESS: <u>0.0</u> ft POW AFTER DEVELOPMENT: <u>9.22</u> ft
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**DIAMETER FACTORS (GAL/FT):**

DIAMETER (IN):	2	3	4	5	6	7	8	8.5	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	<u>2.85</u>	3.30	4.08	4.93	5.87

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR = 9.25 GAL. = A  
 $5.68 \times .163$

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 = 4.7 GAL. = B  
 $5.6$

SINGLE STANDING WATER VOLUME = A + B = ..... 5.6 GAL. = C

MINIMUM VOLUME TO BE REMOVED = 5 X C ..... 28 GALS.  
 $3 \times 5 = 16.8$

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
3/14	Surge <del>1st</del> 1st	3.54	1500	1515	15	3 gals	Bailed to Near Dryness				Cloudy	8.8
3/14	1st Volume	6.0	1545	1550	5	1.5 gals	Pumped to Near Dryness			Clear		
3/14	2nd Volume	7.0	<del>1635</del> 1645	1645	10	1.0 gals	7.00	500	4.5	Clear	1.09	Near Dryness
* 3/15	2nd Volume	3.02	1420	1455	35	4.5 gals						Near Dryness
3/15	2nd Volume	8.20	1520	1530	10	1.0 gal	7.45	450	4°C	Clear	0.26	
* 3/16	3rd Volume	3.06	1005	1035	30	4.3 gal						Near Dryness
3/16	3rd Volume	4.20	1150	1205	15	1.0 gal	7.07	470	2°C	Clear	0.54	
<b>TOTALS/FINAL</b>						16.3						

<b>RECOVERY</b> GOOD <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">FAIR</span> POOR	<b>INVESTIGATION DERIVED WASTE (IDW)</b> DATE: <u>3/14/94</u> <u>3/15/94</u> <u>3/16/94</u> VOLUME: <u>5.5</u> <u>5.5</u> <u>5.3</u> DRUM #: <u>50-2W</u> <u>50-2W</u> <u>50-2W</u>
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SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS WELL #: MW 50-3

# WELL DEVELOPMENT REPORT

ENGINEERING—SCIENCE, INC.	CLIENT: USACOE	WELL #: MW58-1
PROJECT: 15 SWMU ESI (SEAD-58)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: 05-15-94 PROJECT NO.: 720518

DRILLING METHOD (s): <u>Hollow Stem Auger</u> PUMP METHOD (s): <u>Pump/Peristaltic</u> SURGE METHOD (s): <u>Boiler - Tekon</u> INSTALLATION DATE: <u>4-1-94</u>	INSPECTOR: <u>Richard S. Moravec</u> CONTRACTOR: _____ CREW: _____ START DEVELOPMENT DATE: <u>05-15-94</u> END DEVELOPMENT DATE: <u>5-15-94</u>
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WATER DEPTH (TOC): <u>2.14'</u> ft WELL DIA. (ID CASING): <u>2"</u> ft BORING DIAMETER: <u>8.5"</u> ft	INSTALLED POW DEPTH: <del>8.65</del> <u>11.15'</u> ft MEASURED POW DEPTH(TOC): <u>11.83'</u> ft SILT THICKNESS: <u>.08</u> ft POW AFTER DEVELOPMENT: <u>11.85</u> ft
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**DIAMETER FACTORS (GAL/FT):**

DIAMETER (IN):	2	3	4	5	6	7	8	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	4.08	4.93	5.87

2.955

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR =  $9.01 \times 0.163 = 1.47$  GAL. = A

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 =  $7.65 \times (2.955 - 0.163) \times 0.3 = 6.41$  GAL. = B

TSP = 3.5

SINGLE STANDING WATER VOLUME = A + B =  $1.47 + 6.41 = 7.88$  GAL. = C

MINIMUM VOLUME TO BE REMOVED = 5 X C =  $5 \times 7.88 = 39.4$  GALS.

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
1st Vol 5/15	Boiler Surge	2.14'	1130	1140	10	8.0	6.90	400	11.3	Grey Brown	71000	2.46
2nd Vol 5/15	Boiler	2.43	1150	1700	10	8.5	6.99	420	11.5	Grey	71000	2.61
3rd Vol 5/15	Pump	2.20	1250	1312	22	8.0	7.19	400	10.5	lt. Grey Brown	479	2.72
4th Vol 5/15	Pump	2.72	1312	1335	23	8.0	7.14	390	8.5	1st way	208	2.77
5th Vol 5/15	Pump	2.77	1335	1410	35	13.0	7.15	390	8.7	Slightly Cloudy	38.9	2.79
<b>TOTALS/FINAL</b>						45.5						

<b>RECOVERY</b> <input checked="" type="radio"/> GOOD <input type="radio"/> FAIR <input type="radio"/> POOR	<b>INVESTIGATION DERIVED WASTE (IDW)</b> DATE: _____ VOLUME: _____ DRUM #: _____
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SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS      WELL #: \_\_\_\_\_

# WELL DEVELOPMENT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: USACOE	WELL #: MW58-2
PROJECT: 15 SWMU ESI (SEAD-58)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: 05-15-94 PROJECT NO.: 720518

DRILLING METHOD (s): <u>Hollow Stem Auger</u> PUMP METHOD (s): <u>Peristaltic</u> SURGE METHOD (s): <u>Beuler-telton</u> INSTALLATION DATE: <u>4/1/94</u>	INSPECTOR: <u>Richard Moravec</u> CONTRACTOR: <u>-</u> CREW: <u>-</u> START DEVELOPMENT DATE: <u>05-15-94</u> END DEVELOPMENT DATE: <u>5-16-94</u>
--	--

WATER DEPTH (TOC): <u>1.85</u> ft WELL DIA. (ID CASING): <u>2.0"</u> X BORING DIAMETER: <u>8.5"</u> X	INSTALLED POW DEPTH: <u>9.55</u> ft MEASURED POW DEPTH(TOC): <u>10.60</u> ft SILT THICKNESS: <u>.01</u> ft POW AFTER DEVELOPMENT: _____ ft
---	---

**DIAMETER FACTORS (GAL/FT):**

DIAMETER (IN):	2	3	4	5	6	7	8	9	10	11	12
GALLONS/FT:	<u>0.163</u>	0.367	0.654	1.02	1.47	2.00	2.61	3.30	4.08	4.93	5.87

2.955

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR =  $7.7 \times 0.163 = \underline{1.26}$  GAL. = A

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 =  $3.0 \times (6.55 - 0.163) \times 0.3 = \underline{5.49}$  GAL. = B

SINGLE STANDING WATER VOLUME = A + B =  $1.26 + 5.49 = \underline{6.75}$  GAL. = C

MINIMUM VOLUME TO BE REMOVED = 5 X C =  $5 \times 6.75 = \underline{33.7}$  GALS.

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
5/15/94	Bail Surge	1.85	1445	1515	30	7.0	7.18	440	10.5	Clear	7.00	9.65
5/15/94	Pump	6.22	1530	1635	65	7.5	7.22	420	10.8	Clear	9.28	7.68
5/16/94	Pump	1.90	0835	0915	40	7.0	7.10	410	9.6	Clear	2.34	7.96
5/16/94	Pump	7.96	0915	1020	65	7.5	7.28	400	9.4	Clear	6.69	8.96
5/16/94	Pump	8.96	1020	1135	65	7.5	7.14	400	9.4	Clear	73.6	9.21
5/16/94	Pump	7.20	1140	1350	70	8.0	7.19	400	9.6	Clear	16.4	8.6
<b>TOTALS/FINAL</b>						<b>44.5</b>						

RECOVERY GOOD <input checked="" type="radio"/> FAIR <input type="radio"/> POOR <input type="radio"/> RATE = 230 - 300 ml/min.	INVESTIGATION DERIVED WASTE (IDW) DATE: _____ VOLUME: _____ DRUM #: _____
---	--

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS WELL #: \_\_\_\_\_

1st Vol  
 2nd Vol  
 3rd Vol  
 4th Vol  
 5th Vol  
 6th Vol  
 Will Attempt to gain access

# WELL DEVELOPMENT REPORT

ENGINEERING-SCIENCE, INC. CLIENT: USACOE WELL #: MW58-3

PROJECT: 15 SWMU ESI (SEAD-58)  
 LOCATION: SENECA ARMY DEPOT, ROMULUS, NY

DATE: 5/16/94  
 PROJECT NO.: 720518

DRILLING METHOD (s): Hollow Stem Auger  
 PUMP METHOD (s): Peristaltic  
 SURGE METHOD (s): Bailer  
 INSTALLATION DATE: 4/2/94

INSPECTOR: Richard Moravec  
 CONTRACTOR: -  
 CREW: -  
 START DEVELOPMENT DATE: 5-16-94  
 END DEVELOPMENT DATE: 5-16-94

WATER DEPTH (TOC): 2.09 ft  
 WELL DIA. (ID. CASING): 2"  
 BORING DIAMETER: 8.511

INSTALLED POW DEPTH: 10.55 ft  
 MEASURED POW DEPTH (TOC): 10.74 ft  
 SILT THICKNESS: 1.41 ft  
 POW AFTER DEVELOPMENT: \_\_\_\_\_ ft

### DIAMETER FACTORS (GAL/FT):

DIAMETER (IN):	2	3	4	5	6	7	8	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	4.08	4.93	5.87

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR =  $10.06 \times 0.163 = 1.65$  GAL. = A

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL (ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 =  $7.55 \times (2.955 - 0.163) \times 0.3 = 6.32$  GAL. = B

SINGLE STANDING WATER VOLUME = A + B =  $1.65 + 6.32 = 7.97$  GAL. = C

MINIMUM VOLUME TO BE REMOVED = 5 X C =  $5 \times 7.97 = 40.0$  GALS.

1st  
2nd  
3rd  
4th  
5th  
6th

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
5-16	Surge/Bail	10.0	0840	0930	50min	10	7.1	390	11.5	silt grey	7100	-
5-16	pump	10.0	0940	1045	65min	15	7.35	385	11.5	grey	855	-
5-16	pump	10.9	1045	1145	60 min	10	7.38	390	10.5	clear	5.66	8.06
5-16	pump	8.06	1145	1245	60 min	10	7.59	320	10.5	silt grey	579	10.92
5-16	pump	10.92	1245	1400	75 min	10	6.8	390	10.5	cloudy	241	10.0
5-16	pump	10.0	1400	1430	30 min	5	7.1	390	10.5	clear	42	2.09
TOTALS/FINAL						60						

RECOVERY  
 GOOD FAIR POOR  
 Rate 5500ml/min

INVESTIGATION DERIVED WASTE (IDW)				
DATE				
VOLUME				
DRUM #				

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS WELL #:



# WELL DEVELOPMENT REPORT

ENGINEERING-SCIENCE, INC.	CLIENT: USACOE	WELL #: MW58-A
PROJECT: 15 SWMU ESI (SEAD-58)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: 5/16/94 PROJECT NO.: 720519

DRILLING METHOD (s): <u>Hollow Stem Auger</u> PUMP METHOD (s): <u>Peristaltic</u> SURGE METHOD (s): <u>Bailer - 1/2" dia</u> INSTALLATION DATE: <u>4/4/94</u>	INSPECTOR: <u>Richard Moravec</u> CONTRACTOR: _____ CREW: _____ START DEVELOPMENT DATE: <u>5/14/94</u> END DEVELOPMENT DATE: <u>5/16/94</u>
--	---

WATER DEPTH (TOC): <u>3.07</u> ft WELL DIA. (ID CASING): <u>2.0"</u> # BORING DIAMETER: <u>8.5"</u> #	INSTALLED POW DEPTH (TOC): <u>9.45</u> ft MEASURED POW DEPTH (TOC): <u>10.6</u> ft SILT THICKNESS: <u>0.1</u> ft POW AFTER DEVELOPMENT: _____ ft
---	---

**DIAMETER FACTORS (GAL/FT):**

DIAMETER (IN):	2	3	4	5	6	7	8	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	4.08	4.93	5.87

2.955

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR =  $7.53 \times 0.163 = 1.22$  GAL. = A

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 =  $6.45 \times (2.955 - 0.163) = 5.4$  GAL. = B

SINGLE STANDING WATER VOLUME = A + B =  $1.22 + 5.4 = 6.6$  GAL. = C

MINIMUM VOLUME TO BE REMOVED = 5 X C =  $5 \times 6.6 = 33$  GALS.

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME (min)	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
5-16	Sample/bail	3.07	1430	1445	15 min	10	6.9	420	11	silty grey	7000	3.0
5-16	pump	3.0	1445	1510	25	10	7.4	410	11	silty	260	3
5-16	pump	3.5	1510	1540	30	10	7.6	380	11.5	clear	8.17	3.5
5-16	pump	3.5	1540	1600	20	10	7.7	380	11	clear	5.18	3.35
<b>TOTALS/FINAL</b>						40						

<b>RECOVERY</b> GOOD FAIR POOR <u>1500ml/min</u>	<b>INVESTIGATION DERIVED WASTE (IDW)</b> DATE: <u>5/16/94</u> VOLUME: _____ DRUM #: _____
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SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS WELL #: MW58-4

# WELL DEVELOPMENT REPORT

ENGINEERING—SCIENCE, INC.	CLIENT: USACOE	WELL #: MW 59-1
PROJECT: 15 SWMU ESI (SEAD - 59)	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: 3-21-94 PROJECT NO.: 720519

DRILLING METHOD (s): <u>HSA</u> PUMP METHOD (s): <u>Peristaltic Pump</u> SURGE METHOD (s): <u>Bailer</u> INSTALLATION DATE: <u>3/19/94</u>	INSPECTOR: <u>BH</u> CONTRACTOR: _____ CREW: _____ START DEVELOPMENT DATE: <u>3-21-94</u> END DEVELOPMENT DATE: <u>3-21-94</u>
---	--

WATER DEPTH (TOC): <u>1.72</u> ft WELL DIA. (ID CASING): <u>2 in</u> # BORING DIAMETER: <u>8.5 in</u> #	INSTALLED POW DEPTH (TOC): <u>9.2</u> ft MEASURED POW DEPTH (TOC): <u>10.50</u> ft SILT THICKNESS: <u>.02</u> ft POW AFTER DEVELOPMENT: <u>10.52</u> ft
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### DIAMETER FACTORS (GAL/FT):

DIAMETER (IN):	2	3	4	5	6	7	8	8.5	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	4.08	4.93	5.87	

*(Note: 2 is circled in the original image)*

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR = 1.43 GAL = A  
 $8.75 \times 1.63$

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 = 5.01 GAL = B  
 $7.75 - 1.63$

SINGLE STANDING WATER VOLUME = A + B = ..... 6.44 GAL = C

MINIMUM VOLUME TO BE REMOVED = 5 X C ..... 32.2 GALS.  
19.32

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
3/21	Surge	1.72	0930	0953	23	Seals				Dark Brown	NA	2.10
Pump 3/21	1st Vol.	1.80	1010	1025	15	7 gals	8.90	650	5°C	Cloudy	271	3.04
Pump 3/21	2nd Vol.	3.04	1035	1058	23	7.5 gals	7.22	700	5°C	Clear	35.9	3.04
Pump 3/21	3rd Vol.	3.01	1038	1050	12	7.5	7.26	700	5°C	Clear	31.3	3.08
3/21	4th Vol.	3.08	1055	1105	10	7.0	7.30	700	5°C	Clear	38.7	3.10
<i>Complete</i>												
<b>TOTALS/FINAL</b>						37						

RECOVERY <input checked="" type="radio"/> GOOD <input type="radio"/> FAIR <input type="radio"/> POOR	INVESTIGATION DERIVED WASTE (IDW) DATE: <u>3/21/94</u> VOLUME: <u>37 gals</u> DRUM #: <u>59-6-W</u>
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*Note: Need Well Lock*

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS    WELL #: MW 59-1

# WELL DEVELOPMENT REPORT MW

ENGINEERING-SCIENCE, INC.	CLIENT: USACOE	WELL #: <u>59-2</u>
PROJECT: 15 SWMU ESI (SEAD- <u>59</u> )	LOCATION: SENECA ARMY DEPOT, ROMULUS, NY	DATE: <u>3/8/94</u>
		PROJECT NO.: <u>720519</u>

DRILLING METHOD (s): <u>HSA</u> PUMP METHOD (s): <u>Prist-Itic Pump</u> SURGE METHOD (s): <u>Beaker</u> INSTALLATION DATE: <u>3/6/94</u>	INSPECTOR: <u>BH/MR</u> CONTRACTOR: <u>N/A</u> CREW: _____ START DEVELOPMENT DATE: <u>3/8/94</u> END DEVELOPMENT DATE: <u>3/8/94</u>
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WATER DEPTH (TOC): <u>3.40</u> ft WELL DIA. (ID CASING): <u>2 in</u> BORING DIAMETER: <u>8.5 in</u>	INSTALLED POW DEPTH (TOC): <u>11.4</u> ft MEASURED POW DEPTH (TOC): <u>13.26'</u> ft SILT THICKNESS: <u>0.1'</u> ft POW AFTER DEVELOPMENT: <u>13.26'</u> ft
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**DIAMETER FACTORS (GAL/FT):**

DIAMETER (IN):	2	3	4	5	6	7	8	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	4.08	4.93	5.87

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR = 1.60 GAL = A  
 $984$

STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 = 6.60 GAL = B  
 $7.9$

SINGLE STANDING WATER VOLUME = A + B = ..... 8.2 GAL = C

MINIMUM VOLUME TO BE REMOVED = 5 X C ..... 41 GALS.  
 $3XC$  24.6

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
3/8	Surge	3.40	1310	1325	15	5 gal						
3/8	1 <sup>st</sup> Vol	3.40	1333	1345	12	3.0 gal	7.35	550	6.0	SILTY	>1000	3.58
3/8	2 <sup>nd</sup> Vol	3.58	1340	1405	25	8.0 gal	7.33	550	6.0	CLEAR	14.9	3.80
3/8	3 <sup>rd</sup> Vol	3.60	1407	1422	15	8.0 gal	7.32	550	6.5	CLEAR	2.9	3.70
<b>TOTALS/FINAL</b>						<u>24.5</u>						

RECOVERY (GOOD) FAIR POOR	INVESTIGATION DERIVED WASTE (IDW) DATE: <u>3/8/94</u> VOLUME: <u>24.5</u> DRUM #: <u>59-3W</u>
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SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS WELL #: MW 59-3

# WELL DEVELOPMENT REPORT

ENGINEERING-SCIENCE, INC. CLIENT: USACOE WELL #: MW59-~~11~~3  
 PROJECT : 15 SWMU ESI (SEAD- DATE: 3-20-94  
 LOCATION: SENECA ARMY DEPOT, ROMULUS, NY PROJECT NO.: 720519

DRILLING METHOD (s): HSA INSPECTOR: KS  
 PUMP METHOD (s): Peristaltic CONTRACTOR: E-S  
 SURGE METHOD (s): Teflon Bealer CREW:  
 INSTALLATION DATE: 3-18-94 START DEVELOPMENT DATE: 3-20-94  
 END DEVELOPMENT DATE:

WATER DEPTH (TOC): 1.44 ft INSTALLED POW DEPTH(TOC): 8.75 ft  
 WELL DIA. (ID CASING): 2.0" ft MEASURED POW DEPTH(TOC): 8.35 ft  
 BORING DIAMETER: 8.5" ft SILT THICKNESS: .01 ft  
 POW AFTER DEVELOPMENT: 8.36 ft

**DIAMETER FACTORS (GAL/FT):**

DIAMETER (IN):	2	3	4	5	6	7	8	9	10	11	12
GALLONS/FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	4.08	4.93	5.87

STANDING VOLUME INSIDE WELL = WATER COLUMN X WELL DIAMETER FACTOR = 1.13 GAL = A  
 STANDING WATER IN ANNULAR SPACE =  
 WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 = 4.98 GAL = B  
 SINGLE STANDING WATER VOLUME = A + B = 6.11 GAL = C  
 MINIMUM VOLUME TO BE REMOVED = 5 X C = 30.5 GALS.  
 18.3

DATE	ACTIVITY	STARTING H2O DEPTH	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP	COLOR	Turbidity (NTU)	Ending Water Depth
3/20	Surge	1.44	1140	1155	15	6				Dark Brown	1000+	3.2
3/20	1st Vol	1.80	1200	1215	15	6	7.11	1100	5.7	Brown	1000+	1.75
3/20	2nd Vol	2.75	1215	1227	12	6	7.20	1100	5.7	clear	18.2	1.70
3/20	3rd Vol	1.70	1227	1240	13	6	7.23	1100	5.5	clear	20.3	1.70
TOTALS/FINAL						24						

RECOVERY: GOOD FAIR POOR 3/20 - Needs lock  
 INVESTIGATION DERIVED WASTE (IDW)  
 DATE: 3-20-94  
 VOLUME: 24  
 DRUM #: 59-8

SEE MASTER ACRONYM LIST FOR COMPLETE LISTING OF ABBREVIATIONS WELL #: MW59-~~11~~3

## APPENDIX E

### ANALYTICAL RESULTS

- SEAD-5
- SEAD-9
- SEAD-12 (A,B)
- SEADS-43, 56 AND 69
- SEAD-44 (A,B)
- SEAD-50
- SEAD-58
- SEAD-59
- QC RINSATES AND TRIP BLANKS

**SEAD-5**

SENECA ARMY DEPOT  
SEAD-5 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION	SOIL SEAD-5	SOIL SEAD-5	SOIL SEAD-5	SOIL SEAD-5	SOIL SEAD-5	SOIL SEAD-5	SOIL SEAD-5	SOIL SEAD-5	SOIL SEAD-5	
DEPTH (FEET)	7	7	3	3	3	3	3	3	3	
SAMPLE DATE	02/20/94	02/20/94	02/17/94	02/17/94	02/18/94	02/18/94	02/18/94	02/18/94	02/18/94	
ES ID	TP5-1	TP5-6	TP5-2	TP5-2RE	TP5-3	TP5-3RE	TP5-4	TP5-4RE	TP5-5	
LAB ID	212039	212041	211730	211730	211731	211731	211732	211732	211733	
SDG NUMBER	42494	42494	42480	42480	42480	42480	42480	42480	42480	
COMPOUND UNITS										
<b>VOLATILE ORGANICS</b>										
Chloromethane	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
Bromomethane	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
Vinyl Chloride	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
Chloroethane	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
Methylene Chloride	ug/Kg	14 U	12 U	12 UJ	12 UJ	11 U	12 U		13 U	
Acetone	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
Carbon Disulfide	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
1,1-Dichloroethane	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
1,1-Dichloroethane	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
1,2-Dichloroethane (total)	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
Chloroform	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
1,2-Dichloroethane	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
2-Butanone	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
1,1,1-Trichloroethane	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
Carbon Tetrachloride	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
Bromodichloromethane	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
1,2-Dichloropropane	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
cis-1,3-Dichloropropene	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
Trichloroethene	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
Dibromochloromethane	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
1,1,2-Trichloroethane	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
Benzene	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
trans-1,3-Dichloropropene	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
Bromoform	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
4-Methyl-2-Pentanone	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
2-Hexanone	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
Tetrachloroethene	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
1,1,2,2-Tetrachloroethane	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
Toluene	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
Chlorobenzene	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
Ethylbenzene	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
Styrene	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
Xylene (total)	ug/Kg	11 U	11 U	12 UJ	12 UJ	11 U	12 U		13 U	
<b>HERBICIDES</b>										
2,4-D	ug/Kg									
2,4-DB	ug/Kg									
2,4,5-T	ug/Kg									
2,4,5-TP (Silvex)	ug/Kg									
Dalapon	ug/Kg									
Dicamba	ug/Kg									
Dichloroprop	ug/Kg									
Dinoseb	ug/Kg									
MCPA	ug/Kg									
MCPP	ug/Kg									
<b>NITROAROMATICS</b>										
HMX	ug/Kg									
RDX	ug/Kg									
1,3,5-Trinitrobenzene	ug/Kg									
1,3-Dinitrobenzene	ug/Kg									
Tetryl	ug/Kg									
2,4,6-Trinitrotoluene	ug/Kg									
4-amino-2,6-Dinitrotoluene	ug/Kg									
2-amino-4,6-Dinitrotoluene	ug/Kg									
2,6-Dinitrotoluene	ug/Kg									
2,4-Dinitrotoluene	ug/Kg									

SENECA ARMY DEPOT  
SEAD-5 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-5 7 02/20/94 TP5-1 212039 42494	SOIL SEAD-5 7 02/20/94 TP5-6 212041 42494 TP5-1DUP	SOIL SEAD-5 3 02/17/94 TP5-2 211730 42460	SOIL SEAD-5 3 02/17/94 TP5-2RE 211730 42460	SOIL SEAD-5 3 02/18/94 TP5-3 211731 42460	SOIL SEAD-5 3 02/18/94 TP5-3RE 211731 42460	SOIL SEAD-5 3 02/18/94 TP5-4 211732 42460	SOIL SEAD-5 3 02/18/94 TP5-4RE 211732 42460	SOIL SEAD-5 3 02/18/94 TP5-5 211733 42460
SEMIVOLATILE ORGANICS									
Phenol	ug/Kg	1000 U	1200 U	31 J	390 U	380 U	380 U	380 U	4500 U
bis(2-Chloroethyl) ether	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
2-Chlorophenol	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
1,3-Dichlorobenzene	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
1,4-Dichlorobenzene	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
1,2-Dichlorobenzene	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
2-Methylphenol	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
2,2'-oxybis(1-Chloropropane)	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
4-Methylphenol	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
N-Nitroso-di-n-propylamine	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
Hexachloroethane	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
Nitrobenzene	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
Isophorone	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
2-Nitrophenol	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
2,4-Dimethylphenol	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
bis(2-Chloroethoxy) methane	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
2,4-Dichlorophenol	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
1,2,4-Trichlorobenzene	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
Naphthalene	ug/Kg	1000 U	120 J	380 U	20 J	380 U	380 U	380 U	4500 U
4-Chloroaniline	ug/Kg	1000 U	1200 U	530	24 J	380 U	42 J	380 U	300 J
Hexachlorobutadiene	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
4-Chloro-3-methylphenol	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
2-Methylnaphthalene	ug/Kg	1000 U	1200 U	28 J	390 U	380 U	380 U	380 U	4500 U
Hexachlorocyclopentadiene	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
2,4,6-Trichlorophenol	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
2,4,5-Trichlorophenol	ug/Kg	2500 U	2900 U	920 U	940 U	930 U	930 U	930 U	11000 U
2-Chloronaphthalene	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
2-Nitroaniline	ug/Kg	2500 U	2900 U	920 U	940 U	930 U	930 U	930 U	11000 U
Dimethylphthalate	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
Acenaphthylene	ug/Kg	84 J	110 J	380 U	54 J	380 U	380 U	380 U	4500 U
2,6-Dinitrotoluene	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
3-Nitroaniline	ug/Kg	2500 U	2900 U	920 U	940 U	930 U	930 U	930 U	11000 U
Acenaphthene	ug/Kg	270 J	230 J	380 U	27 J	380 U	380 U	380 U	4500 U
2,4-Dinitrophenol	ug/Kg	2500 U	2900 U	920 U	940 U	930 U	930 U	930 U	11000 U
4-Nitrophenol	ug/Kg	2500 U	2900 U	920 U	940 U	930 U	930 U	930 U	11000 U
Dibenzofuran	ug/Kg	120 J	100 J	380 U	20 J	380 U	380 U	380 U	4500 U
2,4-Dinitrotoluene	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
Diethylphthalate	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
4-Chlorophenyl-phenylether	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
Fluorene	ug/Kg	230 J	210 J	380 U	39 J	380 U	380 U	380 U	4500 U
4-Nitroaniline	ug/Kg	2500 U	2900 U	920 U	940 U	930 U	930 U	930 U	11000 U
4,6-Dinitro-2-methylphenol	ug/Kg	2500 U	2900 U	920 U	940 U	930 U	930 U	930 U	11000 U
N-Nitrosodiphenylamine	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
4-Bromophenyl-phenylether	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
Hexachlorobenzene	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
Pentachlorophenol	ug/Kg	2500 U	2900 U	920 U	940 U	930 U	930 U	930 U	11000 U
Phenanthrene	ug/Kg	2700	2400	76 J	520	29 J	29 J	29 J	4500 U
Anthracene	ug/Kg	440 J	430 J	380 U	120 J	380 U	380 U	380 U	4500 U
Carbazole	ug/Kg	780 J	740 J	380 U	50 J	380 U	380 U	380 U	4500 U
Di-n-butylphthalate	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
Fluoranthene	ug/Kg	5100	5100	120 J	1400	58 J	58 J	58 J	4500 U
Pyrene	ug/Kg	3500	3700	150 J	1200	50 J	50 J	50 J	300 J
Butylbenzylphthalate	ug/Kg	1000 U	1200 U	43 J	390 U	380 U	380 U	380 U	4500 U
3,3'-Dichlorobenzidine	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
Benzo(a)anthracene	ug/Kg	2000	2200	85 J	800	27 J	27 J	27 J	4500 U
Chrysene	ug/Kg	2400	2600	110 J	840	33 J	33 J	33 J	230 J
bis(2-Ethylhexyl)phthalate	ug/Kg	1100	1400	720	890	860	860	860	5800
Di-n-octylphthalate	ug/Kg	1000 U	1200 U	380 U	390 U	380 U	380 U	380 U	4500 U
Benzo(b)fluoranthene	ug/Kg	2000	2300	120 J	900	35 J	35 J	35 J	230 J
Benzo(k)fluoranthene	ug/Kg	2100	2000	89 J	710	33 J	33 J	33 J	4500 U
Benzo(a)pyrene	ug/Kg	2200	2500	110 J	840	32 J	32 J	32 J	220 J
Indeno(1,2,3-cd)pyrene	ug/Kg	1200	1300	80 J	580	21 J	21 J	21 J	4500 U
Dibenz(a,h)anthracene	ug/Kg	1000 U	1200 U	34 J	250 J	380 U	380 U	380 U	4500 U
Benzo(g,h,i)perylene	ug/Kg	1000 J	1100 J	92 J	600	26 J	26 J	26 J	4500 U



SENECA ARMY DEPOT  
SEAD-5 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-5	SOIL SEAD-5	SOIL SEAD-5	SOIL SEAD-5	SOIL SEAD-5	SOIL SEAD-5	SOIL SEAD-5	SOIL SEAD-5	SOIL SEAD-5
UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS
COMPONENT									
PESTICIDES/PCB									
alpha-BHC	ug/Kg	1.9 U	3.6 U	2 U	4 U	4 U	2 U	2 U	2.3 U
beta-BHC	ug/Kg	1.9 U	3.6 U	2 U	4 U	4 U	2 U	2 U	1.9 J
delta-BHC	ug/Kg	1.9 U	3.6 U	2 U	4 U	4 U	2 U	2 U	2.3 U
gamma-BHC (Lindane)	ug/Kg	1.9 U	3.6 U	2 U	4 U	4 U	2 U	2 U	4.3 J
Heptachlor	ug/Kg	1.9 U	3.6 U	2 U	4 U	4 U	2 U	2 U	7.5 J
Aldrin	ug/Kg	1.9 U	3.6 U	2.4 J	4 U	4 U	2 U	2 U	2.3 U
Heptachlor epoxide	ug/Kg	1.9 U	3.6 U	2 U	4 U	4 U	2 U	2 U	2.7 J
Endosulfan I	ug/Kg	1.9 U	3.6 U	2 U	4 U	4 U	2 U	2 U	2.3 U
Dieldrin	ug/Kg	3.6 U	7.1 U	3.8 U	7.8 U	7.8 U	3.8 U	3.8 U	4.5 U
4,4'-DDE	ug/Kg	8 J	7.6 J	25	12	16 J	3.8 U	3.8 U	9.1
Endrin	ug/Kg	3.6 U	3.6 J	3.8 U	7.8 U	7.8 U	3.8 U	3.8 U	4.5 U
Endosulfan II	ug/Kg	5.8	8.4	3.8 U	7.8 U	9.2	3.8 U	3.8 U	4.5 U
4,4'-DDD	ug/Kg	3.6 U	7.1 U	27	3.9 J	5.7 J	3.8 U	3.8 U	12
Endosulfan sulfate	ug/Kg	3.6 U	7.1 U	3.8 U	7.8 U	7.8 U	3.8 U	3.8 U	4.5 U
4,4'-DDT	ug/Kg	12	15	1.9 J	6 J	10	3.8 U	3.8 U	4.5 U
Methoxychlor	ug/Kg	19 U	36 U	20 U	40 U	40 U	20 U	20 U	23 U
Endrin ketone	ug/Kg	3.6 U	7.1 U	3.8 U	7.8 U	7.8 U	3.8 U	3.8 U	4.5 U
Endrin aldehyde	ug/Kg	4.7 J	6.8 J	7.3	7.8 U	7.8 U	3.8 U	3.8 U	6.6 J
alpha-Chlordane	ug/Kg	1.9 U	3.6 U	11	4 U	3.8 J	6.2	6.8	13
gamma-Chlordane	ug/Kg	1.9 U	3.6 U	8.7	4 U	4 U	5.5	7.5	7.9
Toxaphene	ug/Kg	190 U	360 U	200 U	400 U	400 U	200 U	200 U	230 U
Aroclor-1016	ug/Kg	36 U	71 U	38 U	78 U	78 U	38 U	38 U	45 U
Aroclor-1221	ug/Kg	73 U	140 U	77 U	160 U	160 U	78 U	78 U	92 U
Aroclor-1232	ug/Kg	36 U	71 U	38 U	78 U	78 U	38 U	38 U	45 U
Aroclor-1242	ug/Kg	36 U	71 U	38 U	78 U	78 U	38 U	38 U	45 U
Aroclor-1248	ug/Kg	36 U	71 U	38 U	78 U	78 U	38 U	38 U	45 U
Aroclor-1254	ug/Kg	36 U	71 U	38 U	78 U	78 U	38 U	38 U	45 U
Aroclor-1260	ug/Kg	36 U	71 U	38 U	78 U	78 U	38 U	38 U	45 U
METALS									
Aluminum	mg/Kg	7360 J	6010 J	5660 J	13100 J		13900 J		7060 J
Antimony	mg/Kg	0.53 J	0.55 J	9.1 J	8.1 J		6.5 J		4.3 UJ
Arsenic	mg/Kg	5.4 J	5.2 J	4.4 J	4.2 J		3.8 J		3.4 J
Barium	mg/Kg	106 J	148 J	138 J	84.6 J		101 J		166 J
Beryllium	mg/Kg	0.31 J	0.3 J	0.26 J	0.56 J		0.64 J		0.24 J
Cadmium	mg/Kg	0.34 J	0.35 J	1.7	0.44 U		0.49 U		1.4
Calcium	mg/Kg	90700 J	191000 J	107000 J	34700 J		55600 J		48700 J
Chromium	mg/Kg	12.3 J	11.3 J	12.6	21.3		19.5		11.6
Cobalt	mg/Kg	6.5 J	6.7 J	4.8 J	11		9.6 J		4.6 J
Copper	mg/Kg	28.2 J	21.4 J	233	39.5		47.3		285
Iron	mg/Kg	15800 J	14200 J	13500 J	25700 J		23900 J		13300 J
Lead	mg/Kg	42.3 J	47.4 J	59.7	42.4		15.1		36.2
Magnesium	mg/Kg	10100 J	14800 J	31100 J	11700 J		21800 J		13200 J
Manganese	mg/Kg	584 J	816 J	436 R	514 R		534 R		277 R
Mercury	mg/Kg	0.03 J	0.03 J	0.88 J	0.2 J		0.92 J		1.6 J
Nickel	mg/Kg	21.1 J	15.9 J	17	33.5		25.6		14.2
Potassium	mg/Kg	1240 J	1400 J	940 J	1440		1750		1020
Selenium	mg/Kg	0.14 U	0.14 U	0.8 J	0.34 J		0.19 UJ		1.1 J
Silver	mg/Kg	0.15 U	0.15 U	4.7	0.88 U		1.7 J		8
Sodium	mg/Kg	101 J	140 J	202 J	77.4 J		127 J		162 J
Thallium	mg/Kg	1.2 U	1.2 U	0.19 U	0.24 U		0.21 U		0.29 U
Vanadium	mg/Kg	16.1 J	15.8 J	14	21.7		23.2		11.5
Zinc	mg/Kg	101 J	66.3 J	304 J	197 J		91.8 J		242 J
Cyanide	mg/Kg	0.53 U	0.54 U	0.79	0.59 U		0.57 U		0.64 U
OTHER ANALYSES									
Nitrate/Nitrite-Nitrogen	mg/Kg	3.3	3	1.49	8.4		4.1		220
Total Petroleum Hydrocarbons	mg/Kg								72.6
Total Solids	%W/W	90.4	92.3	86.6	85		86.1		

SENECA ARMY DEPOT  
SEAD-5 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

COMPOUND	MATRIX	WATER	WATER	WATER
	LOCATION	SEAD-5	SEAD-5	SEAD-5
	SAMPLE DATE	07/11/94	03/30/94	07/11/94
	ES ID	MW5-1	MW5-2	MW5-3
	LAB ID	226680	218045	226681
	SDG NUMBER	45282	43178	45282
	UNITS			
VOLATILE ORGANICS				
Chloromethane	ug/L	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U
Chloroethane	ug/L	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	10 U
Carbon Disulfide	ug/L	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U
1,2-Dichloroethane (total)	ug/L	10 U	10 U	10 U
Chloroform	ug/L	10 U	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	10 U	10 U
2-Butanone	ug/L	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	10 U	10 U
Bromodichloromethane	ug/L	10 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U	10 U	10 U
Trichloroethene	ug/L	10 U	10 U	10 U
Dibromochloromethane	ug/L	10 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	10 U	10 U
Benzene	ug/L	10 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	10 U	10 U
Bromoform	ug/L	10 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U
Tetrachloroethene	ug/L	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 U	10 U
Toluene	ug/L	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U	10 U	10 U
Ethylbenzene	ug/L	10 U	10 U	10 U
Styrene	ug/L	10 U	10 U	10 U
Xylene (total)	ug/L	10 U	10 U	10 U
HERBICIDES				
2,4-D	ug/L			
2,4-DB	ug/L			
2,4,5-T	ug/L			
2,4,5-TP (Silvex)	ug/L			
Dalapon	ug/L			
Dicamba	ug/L			
Dichloroprop	ug/L			
Dinoseb	ug/L			
MCPA	ug/L			
MCPP	ug/L			
NITROAROMATICS				
HMX	ug/L			
RDX	ug/L			
1,3,5-Trinitrobenzene	ug/L			
1,3-Dinitrobenzene	ug/L			
Tetryl	ug/L			
2,4,6-Trinitrotoluene	ug/L			
4-amino-2,6-Dinitrotoluene	ug/L			
2-amino-4,6-Dinitrotoluene	ug/L			
2,6-Dinitrotoluene	ug/L			
2,4-Dinitrotoluene	ug/L			

NOTES:  
NR stands for NOT RECORDED

SENECA ARMY DEPOT  
SEAD-5 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

COMPOUND	MATRIX LOCATION SAMPLE DATE ES ID LAB ID SDG NUMBER	WATER SEAD-5 07/11/94 MW5-1 226660 45282	WATER SEAD-5 03/30/94 MW5-2 218045 43179	WATER SEAD-5 07/11/94 MW5-3 226661 45282
SEMIVOLATILE ORGANICS				
Phenol	ug/L	10 U	10 U	10 U
bis(2-Chloroethyl) ether	ug/L	10 U	10 U	10 U
2-Chlorophenol	ug/L	10 U	10 U	10 U
1,3-Dichlorobenzene	ug/L	10 U	10 U	10 U
1,4-Dichlorobenzene	ug/L	10 U	10 U	10 U
1,2-Dichlorobenzene	ug/L	10 U	10 U	10 U
2-Methylphenol	ug/L	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	ug/L	10 U	10 U	10 U
4-Methylphenol	ug/L	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	ug/L	10 U	10 U	10 U
Hexachloroethane	ug/L	10 U	10 U	10 U
Nitrobenzene	ug/L	10 U	10 U	10 U
Isophorone	ug/L	10 U	10 U	10 U
2-Nitrophenol	ug/L	10 U	10 U	10 U
2,4-Dimethylphenol	ug/L	10 U	10 U	10 U
bis(2-Chloroethoxy) methane	ug/L	10 U	10 U	10 U
2,4-Dichlorophenol	ug/L	10 U	10 U	10 U
1,2,4-Trichlorobenzene	ug/L	10 U	10 U	10 U
Naphthalene	ug/L	10 U	10 U	10 U
4-Chloroaniline	ug/L	10 U	10 U	10 U
Hexachlorobutadiene	ug/L	10 U	10 U	10 U
4-Chloro-3-methylphenol	ug/L	10 U	10 U	10 U
2-Methylnaphthalene	ug/L	10 U	10 U	10 U
Hexachlorocyclopentadiene	ug/L	10 U	10 U	10 U
2,4,6-Trichlorophenol	ug/L	10 U	10 U	10 U
2,4,5-Trichlorophenol	ug/L	25 U	25 U	26 U
2-Chloronaphthalene	ug/L	10 U	10 U	10 U
2-Nitroaniline	ug/L	25 U	25 U	26 U
Dimethylphthalate	ug/L	10 U	10 U	10 U
Acenaphthylene	ug/L	10 U	10 U	10 U
2,6-Dinitrotoluene	ug/L	10 U	10 U	10 U
3-Nitroaniline	ug/L	25 U	25 U	26 U
Acenaphthene	ug/L	10 U	10 U	10 U
2,4-Dinitrophenol	ug/L	25 U	25 U	26 U
4-Nitrophenol	ug/L	25 U	25 U	26 U
Dibenzofuran	ug/L	10 U	10 U	10 U
2,4-Dinitrotoluene	ug/L	10 U	10 U	10 U
Diethylphthalate	ug/L	10 U	10 U	10 U
4-Chlorophenyl-phenylether	ug/L	10 U	10 U	10 U
Fluorene	ug/L	10 U	10 U	10 U
4-Nitroaniline	ug/L	25 U	25 U	26 U
4,6-Dinitro-2-methylphenol	ug/L	25 U	25 U	26 U
N-Nitrosodiphenylamine	ug/L	10 U	10 U	10 U
4-Bromophenyl-phenylether	ug/L	10 U	10 U	10 U
Hexachlorobenzene	ug/L	10 U	10 U	10 U
Pentachlorophenol	ug/L	25 U	25 U	26 U
Phenanthrene	ug/L	10 U	10 U	10 U
Anthracene	ug/L	10 U	10 U	10 U
Carbazole	ug/L	10 U	10 U	10 U
Di-n-butylphthalate	ug/L	10 U	10 U	10 U
Fluoranthene	ug/L	10 U	10 U	10 U
Pyrene	ug/L	10 U	10 U	10 U
Butylbenzyl phthalate	ug/L	10 U	10 U	10 U
3,3'-Dichlorobenzidine	ug/L	10 U	10 U	10 U
Benzo(a)anthracene	ug/L	10 U	10 U	10 U
Chrysene	ug/L	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	ug/L	10 U	10 U	10 U
Di-n-octylphthalate	ug/L	10 U	10 U	10 U
Benzo(b)fluoranthene	ug/L	10 U	10 U	10 U
Benzo(k)fluoranthene	ug/L	10 U	10 U	10 U
Benzo(a)pyrene	ug/L	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	ug/L	10 U	10 U	10 U
Dibenz(a,h)anthracene	ug/L	10 U	10 U	10 U
Benzo(g,h,i)perylene	ug/L	10 U	10 U	10 U

SENECA ARMY DEPOT  
SEAD-5 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

COMPOUND	MATRIX	WATER	WATER	WATER
	LOCATION	SEAD-5	SEAD-5	SEAD-5
	SAMPLE DATE	07/11/94	03/30/94	07/11/94
	ES ID	MW5-1	MW5-2	MW5-3
	LAB ID	226660	216045	226661
	SDG NUMBER	45282	43179	45282
UNITS				
<b>PESTICIDES/PCB</b>				
alpha-BHC	ug/L	0.056 U	0.05 U	0.052 U
beta-BHC	ug/L	0.056 U	0.05 U	0.052 U
delta-BHC	ug/L	0.056 U	0.05 U	0.052 U
gamma-BHC (Lindane)	ug/L	0.056 U	0.05 U	0.052 U
Heptachlor	ug/L	0.056 U	0.05 U	0.052 U
Aldrin	ug/L	0.056 U	0.05 U	0.052 U
Heptachlor epoxide	ug/L	0.056 U	0.05 U	0.052 U
Endosulfan I	ug/L	0.056 U	0.05 U	0.052 U
Dieldrin	ug/L	0.11 U	0.1 U	0.1 U
4,4'-DDE	ug/L	0.11 U	0.1 U	0.1 U
Endrin	ug/L	0.11 U	0.1 U	0.1 U
Endosulfan II	ug/L	0.11 U	0.1 U	0.1 U
4,4'-DDD	ug/L	0.11 U	0.1 U	0.1 U
Endosulfan sulfate	ug/L	0.11 U	0.1 U	0.1 U
4,4'-DDT	ug/L	0.11 U	0.1 U	0.1 U
Methoxychlor	ug/L	0.56 U	0.5 U	0.52 U
Endrin ketone	ug/L	0.11 U	0.1 U	0.1 U
Endrin aldehyde	ug/L	0.11 U	0.1 U	0.1 U
alpha-Chlordane	ug/L	0.056 U	0.05 U	0.052 U
gamma-Chlordane	ug/L	0.056 U	0.05 U	0.052 U
Toxaphene	ug/L	5.6 U	5 U	5.2 U
Aroclor-1016	ug/L	1.1 U	1 U	1 U
Aroclor-1221	ug/L	2.2 U	2 U	2.1 U
Aroclor-1232	ug/L	1.1 U	1 U	1 U
Aroclor-1242	ug/L	1.1 U	1 U	1 U
Aroclor-1246	ug/L	1.1 U	1 U	1 U
Aroclor-1254	ug/L	1.1 U	1 U	1 U
Aroclor-1280	ug/L	1.1 U	1 U	1 U
<b>METALS</b>				
Aluminum	ug/L	1310	1090	2610
Antimony	ug/L	1.3 U	1 U	1.3 U
Arsenic	ug/L	2 U	1.5 U	2.8 J
Barium	ug/L	42.2 J	71.3 J	126 J
Beryllium	ug/L	0.1 U	0.08 U	0.16 J
Cadmium	ug/L	0.2 U	0.1 U	0.2 U
Calcium	ug/L	240000	110000	132000
Chromium	ug/L	2.5 J	2.3 J	5.7 J
Cobalt	ug/L	2.8 J	1.6 J	8.4 J
Copper	ug/L	2.2 J	3.2 J	8.2 J
Iron	ug/L	2670	2100	5500
Lead	ug/L	0.89 U	0.8 U	6.5
Magnesium	ug/L	43200	18200	21200
Manganese	ug/L	450	62.5	5230
Mercury	ug/L	0.04 U	0.03 U	0.04 U
Nickel	ug/L	5.3 J	4 J	12.7 J
Potassium	ug/L	4650 J	2090 J	2400 J
Selenium	ug/L	2.7 U	1.7 U	2.7 U
Silver	ug/L	0.5 U	0.7 U	0.5 U
Sodium	ug/L	73500	80000	210000
Thallium	ug/L	1.9 U	1.8 U	1.9 J
Vanadium	ug/L	2.6 J	2.3 J	5.3 J
Zinc	ug/L	11.5 J	10 J	45.8
Cyanide	ug/L	5 U	5 U	5 U
<b>OTHER ANALYSES</b>				
Nitrate/Nitrite-Nitrogen	mg/L	0.24	1.33	0.02 U
Total Petroleum Hydrocarbons	mg/L			
pH	Standard Urts	6.9	7.2	6.7
Conductivity	umhos/cm	1220	550	NR
Temperature	°C	13.1	3.4	18.5
Turbidity	NTU	40	70.6	>100

**SEAD-9**

SENECA ARMY DEPOT  
SEAD-9 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

COMPOUND	MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER UNITS	SEAD-9 0-0.2 05/24/94 SB9-1-00 222207 44345	SEAD-9 4-6 05/24/94 SB9-1-03 222206 44345	SEAD-9 8-9 05/24/94 SB9-1-05 222209 44345	SEAD-9 0-0.2 05/24/94 SB9-2-00 222210 44345	SEAD-9 4-6 05/24/94 SB9-2-03 222211 44345	SEAD-9 8-9 05/24/94 SB9-2-05 222212 44345	SEAD-9 0-0.2 05/24/94 SB9-3-00 222213 44345	SEAD-9 4-6 05/24/94 SB9-3-03 222214 44345	SEAD-9 6-8 05/24/94 SB9-3-04 222215 44345
<b>VOLATILE ORGANICS</b>										
Chloromethane	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
Bromomethane	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
Vinyl Chloride	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
Chloroethane	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
Methylene Chloride	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
Acetone	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
Carbon Disulfide	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
1,1-Dichloroethane	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
1,1-Dichloroethane	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
1,2-Dichloroethane (total)	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
Chloroform	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
1,2-Dichloroethane	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
2-Butanone	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
1,1,1-Trichloroethane	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
Carbon Tetrachloride	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
Bromodichloromethane	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
1,2-Dichloropropane	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
cis-1,3-Dichloropropene	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
Trichloroethene	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
Dibromochloromethane	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
1,1,2-Trichloroethane	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
Benzene	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
trans-1,3-Dichloropropene	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
Bromoform	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
4-Methyl-2-Pentanone	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
2-Hexanone	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
Tetrachloroethene	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
1,1,2,2-Tetrachloroethane	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
Toluene	ug/Kg	11 U	1 J	12 U	11 U	1 J	12 U	12 U	12 U	12 U
Chlorobenzene	ug/Kg	11 U	12 U	12 U	11 U	2 J	12 U	12 U	12 U	12 U
Ethylbenzene	ug/Kg	11 U	1 J	12 U	11 U	11 U	12 U	12 U	12 U	12 U
Styrene	ug/Kg	11 U	12 U	12 U	11 U	11 U	12 U	12 U	12 U	12 U
Xylene (total)	ug/Kg	11 U	2 J	12 U	11 U	11 U	12 U	12 U	12 U	12 U
<b>HERBICIDES</b>										
2,4-D	ug/Kg									
2,4-DB	ug/Kg									
2,4,5-T	ug/Kg									
2,4,5-TP (Silvex)	ug/Kg									
Dalapon	ug/Kg									
Dicamba	ug/Kg									
Dichloroprop	ug/Kg									
Dinoseb	ug/Kg									
MCPA	ug/Kg									
MCPP	ug/Kg									
<b>NITROAROMATICS</b>										
HMX	ug/Kg									
RDX	ug/Kg									
1,3,5-Trinitrobenzene	ug/Kg									
1,3-Dinitrobenzene	ug/Kg									
Tetryl	ug/Kg									
2,4,6-Trinitrotoluene	ug/Kg									
4-amino-2,6-Dinitrotoluene	ug/Kg									
2-amino-4,6-Dinitrotoluene	ug/Kg									
2,6-Dinitrotoluene	ug/Kg									
2,4-Dinitrotoluene	ug/Kg									

SENECA ARMY DEPOT  
SEAD-9 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-9 0-0.2 05/24/94 SB9-1-00 222207 44345	SOIL SEAD-9 4-6 05/24/94 SB9-1-03 222208 44345	SOIL SEAD-9 8-9 05/24/94 SB9-1-05 222209 44345	SOIL SEAD-9 0-0.2 05/24/94 SB9-2-00 222210 44345	SOIL SEAD-9 4-6 05/24/94 SB9-2-03 222211 44345	SOIL SEAD-9 8-9 05/24/94 SB9-2-05 222212 44345	SOIL SEAD-9 0-0.2 05/24/94 SB9-3-00 222213 44345	SOIL SEAD-9 4-6 05/24/94 SB9-3-03 222214 44345	SOIL SEAD-9 8-8 05/24/94 SB9-3-04 222215 44345	
SEMIVOLATILE ORGANICS										
Phenol	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
bis(2-Chloroethyl) ether	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
2-Chlorophenol	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
1,3-Dichlorobenzene	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
1,4-Dichlorobenzene	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
1,2-Dichlorobenzene	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
2-Methylphenol	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
2,2'-oxybis(1-Chloropropane)	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
4-Methylphenol	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
N-Nitroso-d-n-propylamine	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
Hexachloroethane	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
Nitrobenzene	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
Isophorone	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
2-Nitrophenol	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
2,4-Dimethylphenol	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
bis(2-Chloroethoxy) methane	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
2,4-Dichlorophenol	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
1,2,4-Trichlorobenzene	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
Naphthalene	ug/Kg	23 J	380 J	380 U	32 J	20 J	410 U	31 J	400 U	370 U
4-Chloroaniline	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
Hexachlorobutadiene	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
4-Chloro-3-methylphenol	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
2-Methylnaphthalene	ug/Kg	27 J	140 J	380 U	470 U	33 J	410 U	390 U	400 U	370 U
Hexachlorocyclopentadiene	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
2,4,6-Trichlorophenol	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
2,4,5-Trichlorophenol	ug/Kg	850 U	1900 U	930 U	1100 U	880 U	1000 U	940 U	980 U	910 U
2-Chloronaphthalene	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
2-Nitroaniline	ug/Kg	850 U	1900 U	930 U	1100 U	880 U	1000 U	940 U	980 U	910 U
Dimethylphthalate	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
Acenaphthylene	ug/Kg	28 J	40 J	380 U	29 J	350 U	410 U	24 J	400 U	370 U
2,6-Dinitrotoluene	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
3-Nitroaniline	ug/Kg	850 U	1900 U	930 U	1100 U	880 U	1000 U	940 U	980 U	910 U
Acenaphthene	ug/Kg	90 J	790 J	380 U	130 J	350 U	410 U	87 J	400 U	370 U
2,4-Dinitrophenol	ug/Kg	850 U	1900 U	930 U	1100 U	880 U	1000 U	940 U	980 U	910 U
4-Nitrophenol	ug/Kg	850 U	1900 U	930 U	1100 U	880 U	1000 U	940 U	980 U	910 U
Dibenzofuran	ug/Kg	39 J	380 J	380 U	39 J	350 U	410 U	36 J	400 U	370 U
2,4-Dinitrotoluene	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
Diethylphthalate	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
4-Chlorophenyl-phenylether	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
Fluorene	ug/Kg	87 J	610 J	380 U	85 J	350 U	410 U	87 J	400 U	370 U
4-Nitroaniline	ug/Kg	850 U	1900 U	930 U	1100 U	880 U	1000 U	940 U	980 U	910 U
4,6-Dinitro-2-methylphenol	ug/Kg	850 U	1900 U	930 U	1100 U	880 U	1000 U	940 U	980 U	910 U
N-Nitrosodiphenylamine	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
4-Bromophenyl-phenylether	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
Hexachlorobenzene	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
Pentachlorophenol	ug/Kg	850 U	1900 U	930 U	1100 U	880 U	1000 U	940 U	980 U	910 U
Phenanthrene	ug/Kg	720	4300	380 U	1200	280 J	79 J	910	400 U	370 U
Anthracene	ug/Kg	210 J	1100	380 U	280 J	88 J	410 U	220 J	400 U	370 U
Carbazole	ug/Kg	150 J	880	380 U	240 J	350 U	410 U	160 J	400 U	370 U
Di-n-butylphthalate	ug/Kg	55 J	70 J	380 U	470 U	350 U	65 J	56 J	43 J	370 U
Fluoranthene	ug/Kg	1700	8200	380 U	2500	540	97 J	1200	25 J	370 U
Pyrene	ug/Kg	1400	5100	380 U	2400	570	160 J	1400	39 J	370 U
Butylbenzylphthalate	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
3,3'-Dichlorobenzidine	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
Benzo(a)anthracene	ug/Kg	680	2600	380 U	1200	380	410 U	670	400 U	370 U
Chrysene	ug/Kg	720	2300	380 U	1200	440	410 U	680	400 U	370 U
bis(2-Ethylhexyl)phthalate	ug/Kg	88 J	240 J	20 J	84 J	350 U	410 U	95 J	400 U	60 J
Di-n-octylphthalate	ug/Kg	350 U	800 U	380 U	470 U	350 U	410 U	390 U	400 U	370 U
Benzo(b)fluoranthene	ug/Kg	1600 JN	4700 JN	380 U	2400 JN	580 JN	410 U	1600 JN	400 U	370 U
Benzo(k)fluoranthene	ug/Kg	350 UJN	800 UJN	380 U	470 UJN	350 UJN	410 U	390 UJN	400 U	370 U
Benzo(a)pyrene	ug/Kg	670	2100	380 U	990	350 J	410 U	750	400 U	370 U
Indeno(1,2,3-cd)pyrene	ug/Kg	430	1100	380 U	570	350 U	410 U	420	400 U	370 U
Dibenz(a,h)anthracene	ug/Kg	190 J	870 J	380 U	290 J	350 U	410 U	160 J	400 U	370 U
Benzo(g,h,i)perylene	ug/Kg	310 J	760 J	380 U	480 J	350 U	410 U	230 J	400 U	370 U

SENECA ARMY DEPOT  
SEAD-9 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-9 0-0.2 05/24/94 SB9-1-00 222207 44345	SOIL SEAD-9 4-8 05/24/94 SB9-1-03 222208 44345	SOIL SEAD-9 8-9 05/24/94 SB9-1-05 222209 44345	SOIL SEAD-9 0-0.2 05/24/94 SB9-2-00 222210 44345	SOIL SEAD-9 4-8 05/24/94 SB9-2-03 222211 44345	SOIL SEAD-9 8-9 05/24/94 SB9-2-05 222212 44345	SOIL SEAD-9 0-0.2 05/24/94 SB9-3-00 222213 44345	SOIL SEAD-9 4-8 05/24/94 SB9-3-03 222214 44345	SOIL SEAD-9 8-8 05/24/94 SB9-3-04 222215 44345
<b>PESTICIDES/PCB</b>									
alpha-BHC	ug/Kg 3.6 U	4.1 U	2 U	1.8 U	1.6 U	2.1 U	2 U	2 U	1.9 U
beta-BHC	ug/Kg 3.6 U	4.1 U	2 U	1.8 U	1.8 U	2.1 U	2 U	2 U	1.9 U
delta-BHC	ug/Kg 3.6 U	4.1 U	2 U	1.8 U	1.8 U	2.1 U	0.94 J	2 U	1.9 U
gamma-BHC (Lindane)	ug/Kg 3.6 U	4.1 U	2 U	1.8 U	1.3 J	2.1 U	2 U	2 U	1.9 U
Heptachlor	ug/Kg 3.6 U	4.1 U	2 U	1.8 U	5.7	2.1 U	2 U	2 U	1.9 U
Aldrin	ug/Kg 2.4 J	4.1 U	2 U	1.8 U	1.8 U	2.1 U	2 U	2 U	1.9 U
Heptachlor epoxide	ug/Kg 3.6 U	4.1 U	2 U	1.8 U	1.1 J	2.1 U	2 U	2 U	1.9 U
Endosulfan I	ug/Kg 3.8 U	4.1 U	2 U	1.8 U	1.8 U	2.1 U	2 U	2 U	1.9 U
Dieldrin	ug/Kg 7 U	8 U	3.8 U	3.5 U	3.5 U	4.1 U	3 J	4 U	3.7 U
4,4'-DDE	ug/Kg 55	13 J	3.8 U	25	25	4 J	23	4 U	3.7 U
Endrin	ug/Kg 7 U	8 U	3.8 U	3.5 U	3.5 U	4.1 U	3.9 U	4 U	3.7 U
Endosulfan II	ug/Kg 7 U	8 U	3.8 U	3.5 U	3.5 U	4.1 U	3.9 U	4 U	3.7 U
4,4'-DDD	ug/Kg 14 J	8.1 J	3.8 U	16	14	2.8 J	4.2 J	4 U	3.7 U
Endosulfan sulfate	ug/Kg 7 U	8 U	3.8 U	3.5 U	3.5 U	4.1 U	3.9 U	4 U	3.7 U
4,4'-DDT	ug/Kg 73 J	33 J	3.8 U	37	45 J	4 J	27	4 U	3.7 U
Methoxychlor	ug/Kg 38 U	41 U	20 U	18 U	18 U	21 U	20 U	20 U	19 U
Endrin ketone	ug/Kg 7 U	8 U	3.8 U	3.5 U	3.5 U	4.1 U	3.9 U	4 U	3.7 U
Endrin aldehyde	ug/Kg 7 U	8 U	3.8 U	3.5 U	3.5 U	4.1 U	3.9 U	4 U	3.7 U
alpha-Chlordane	ug/Kg 8	4.7 J	2 U	1.8 U	1.6 J	1.2 J	1.9 J	2 U	1.9 U
gamma-Chlordane	ug/Kg 3.8 U	4.1 U	2 U	1.7 J	19	1.4 J	2 U	2 U	1.9 U
Toxaphene	ug/Kg 380 U	410 U	200 U	180 U	180 U	210 U	200 U	200 U	190 U
Aroclor-1016	ug/Kg 70 U	80 U	38 U	35 U	35 U	41 U	39 U	40 U	37 U
Aroclor-1221	ug/Kg 140 U	180 U	78 U	72 U	72 U	84 U	79 U	81 U	76 U
Aroclor-1232	ug/Kg 70 U	80 U	38 U	35 U	35 U	41 U	39 U	40 U	37 U
Aroclor-1242	ug/Kg 70 U	80 U	38 U	35 U	35 U	41 U	39 U	40 U	37 U
Aroclor-1248	ug/Kg 70 U	80 U	38 U	35 U	35 U	41 U	39 U	40 U	37 U
Aroclor-1254	ug/Kg 140 J	80 U	38 U	35 U	35 U	41 U	39 U	40 U	37 U
Aroclor-1260	ug/Kg 70 U	80 U	38 U	35 U	35 U	41 U	39 U	40 U	37 U
<b>METALS</b>									
Aluminum	mg/Kg 12700	12800	13800	8130	5230	14800	14000	15000	13300
Antimony	mg/Kg 0.34 J	0.13 UJ	0.19 UJ	0.45 J	0.31 J	0.27 J	0.71 J	0.21 UJ	0.13 UJ
Arsenic	mg/Kg 5.7	5.4	5.9	8.5	3.9	8.9	5.4	5.3	4.8
Barium	mg/Kg 78.9	73.1	51.2	91.4	38.3	84.9	88.3	101	70.8
Beryllium	mg/Kg 0.81 J	0.6 J	0.82 J	0.46 J	0.34 J	0.82 J	0.87 J	0.78 J	0.65
Cadmium	mg/Kg 0.97	0.89	0.44 J	1.1	0.81 J	0.88 J	0.76 J	0.85 J	0.85
Calcium	mg/Kg 83000	40900	2790	120000	217000	17100	20600	4780	19800
Chromium	mg/Kg 22.4	17.6	21.3	19.9	12.3	19.9	21	22.8	20.5
Cobalt	mg/Kg 12	10.2	7.8 J	10.5	5.8 J	10.4	11.4	12	11.5
Copper	mg/Kg 33	20.3	23.3	27.4	19.1	15.2	29.5	23.1	24.9
Iron	mg/Kg 24200	22400	25400	18400	10200	27700	25800	28600	26100
Lead	mg/Kg 50.3 J	21.7 J	10.4 J	85.1 J	43 J	20.8 J	47.4 J	18.2 J	11.5 J
Magnesium	mg/Kg 9240	8310	4140	13000	10900	4840	9360	4700	8860
Manganese	mg/Kg 524	835	313	984	320	487	710	881	472
Mercury	mg/Kg 0.05 J	0.08 J	0.28	0.1	0.07 J	0.07 J	0.06 J	0.09 J	0.08 J
Nickel	mg/Kg 35.1	25.1	35.7	41.6	15.6	21.4	24	28.4	23
Potassium	mg/Kg 2140 J	1430 J	1730 J	1790 J	1490 J	1250 J	2070 J	1420 J	1300 J
Selenium	mg/Kg 0.58 J	0.23 J	0.9 J	0.25 U	0.31 U	0.82 J	0.78 J	0.52 J	0.42 J
Silver	mg/Kg 0.12 UJ	0.09 UJ	0.13 UJ	0.1 UJ	0.13 UJ	0.14 UJ	0.13 UJ	0.15 UJ	0.09 UJ
Sodium	mg/Kg 115 J	85 J	84.7 J	139 J	168 J	185 J	29 U	48.2 J	65 J
Thallium	mg/Kg 0.27 U	0.2 U	0.3 U	0.23 U	0.29 U	0.32 U	0.29 U	0.34 U	0.2 U
Vanadium	mg/Kg 24.5	21.1	23.7	22.7	21.1	21.8	26.8	25.5	21.7
Zinc	mg/Kg 128	75.7	82.7	102	59.7	72	98.8	70.3	54.4
Cyanide	mg/Kg 0.47 U	0.58 U	0.54 U	0.53 U	0.48 U	0.61 U	0.48 U	0.59 U	0.55 U
<b>OTHER ANALYSES</b>									
Nitrates/Nitrite - Nitrogen	mg/Kg								
Total Petroleum Hydrocarbons	mg/Kg 245	1170	30 U	580	15900	1520	145	47	33
Total Solids	%W/W 93.9	83.1	85.8	93	93.4	80.2	84.7	83.4	88.2



SENECA ARMY DEPOT  
SEAD-9 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

COMPOUND	MATRIX LOCATION SAMPLE DATE ES ID LAB ID SDG NUMBER UNITS	WATER SEAD-9 03/30/94 MW9-2 218046 43179	WATER SEAD-9 07/19/94 MW9-3 227439 45332	WATER SEAD-9 07/19/94 MW9-4 227441 45332 MW9-3DUP
<b>VOLATILE ORGANICS</b>				
Chloromethane	ug/L	10 U	10 U	
Bromomethane	ug/L	10 U	10 U	
Vinyl Chloride	ug/L	10 U	10 U	
Chloroethane	ug/L	10 U	10 U	
Methylene Chloride	ug/L	10 U	10 U	
Acetone	ug/L	10 U	10 U	
Carbon Disulfide	ug/L	10 U	10 U	
1,1-Dichloroethane	ug/L	10 U	10 U	
1,1-Dichloroethane	ug/L	10 U	10 U	
1,2-Dichloroethane (total)	ug/L	10 U	10 U	
Chloroform	ug/L	10 U	10 U	
1,2-Dichloroethane	ug/L	10 U	10 U	
2-Butanone	ug/L	10 U	10 U	
1,1,1-Trichloroethane	ug/L	10 U	10 U	
Carbon Tetrachloride	ug/L	10 U	10 U	
Bromochloromethane	ug/L	10 U	10 U	
1,2-Dichloropropane	ug/L	10 U	10 U	
cis-1,3-Dichloropropene	ug/L	10 U	10 U	
Trichloroethene	ug/L	10 U	10 U	
Dibromochloromethane	ug/L	10 U	10 U	
1,1,2-Trichloroethane	ug/L	10 U	10 U	
Benzene	ug/L	10 U	10 U	
trans-1,3-Dichloropropene	ug/L	10 U	10 U	
Bromoform	ug/L	10 U	10 U	
4-Methyl-2-Pentanone	ug/L	10 U	10 U	
2-Hexanone	ug/L	10 U	10 U	
Tetrachloroethene	ug/L	10 U	10 U	
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 U	
Toluene	ug/L	10 U	10 U	
Chlorobenzene	ug/L	10 U	10 U	
Ethylbenzene	ug/L	10 U	10 U	
Styrene	ug/L	10 U	10 U	
Xylene (total)	ug/L	10 U	10 U	
<b>HERBICIDES</b>				
2,4-D	ug/L			
2,4-DB	ug/L			
2,4,5-T	ug/L			
2,4,5-TP (Silvex)	ug/L			
Dalapon	ug/L			
Dicamba	ug/L			
Dichloroprop	ug/L			
Dinoseb	ug/L			
MCPA	ug/L			
MCPP	ug/L			
<b>NITROAROMATICS</b>				
HMX	ug/L			
RDX	ug/L			
1,3,5-Trinitrobenzene	ug/L			
1,3-Dinitrobenzene	ug/L			
Tetryl	ug/L			
2,4,6-Trinitrotoluene	ug/L			
4-amino-2,6-Dinitrotoluene	ug/L			
2-amino-4,6-Dinitrotoluene	ug/L			
2,6-Dinitrotoluene	ug/L			
2,4-Dinitrotoluene	ug/L			

SENECA ARMY DEPOT  
SEAD-9 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

COMPOUND	MATRIX LOCATION SAMPLE DATE ES ID LAB ID SDG NUMBER UNITS	WATER SEAD-9 03/30/94 MW9-2 218046 43179	WATER SEAD-9 07/19/94 MW9-3 227439 45332	WATER SEAD-9 07/19/94 MW9-4 227441 45332 MW9-3DUP
SEMIVOLATILE ORGANICS				
Phenol	ug/L	10 U	11 U	
bis(2-Chloroethyl) ether	ug/L	10 U	11 U	
2-Chlorophenol	ug/L	10 U	11 U	
1,3-Dichlorobenzene	ug/L	10 U	11 U	
1,4-Dichlorobenzene	ug/L	10 U	11 U	
1,2-Dichlorobenzene	ug/L	10 U	11 U	
2-Methylphenol	ug/L	10 U	11 U	
2,2'-oxybis(1-Chloropropane)	ug/L	10 U	11 U	
4-Methylphenol	ug/L	10 U	11 U	
N-Nitroso-d-n-propylamine	ug/L	10 U	11 U	
Hexachloroethane	ug/L	10 U	11 U	
Nitrobenzene	ug/L	10 U	11 U	
Isophorone	ug/L	10 U	11 U	
2-Nitrophenol	ug/L	10 U	11 U	
2,4-Dimethylphenol	ug/L	10 U	11 U	
bis(2-Chloroethoxy) methane	ug/L	10 U	11 U	
2,4-Dichlorophenol	ug/L	10 U	11 U	
1,2,4-Trichlorobenzene	ug/L	10 U	11 U	
Naphthalene	ug/L	10 U	11 U	
4-Chloroaniline	ug/L	10 U	11 U	
Hexachlorobutadiene	ug/L	10 U	11 U	
4-Chloro-3-methylphenol	ug/L	10 U	11 U	
2-Methylnaphthalene	ug/L	10 U	11 U	
Hexachlorocyclopentadiene	ug/L	10 U	11 U	
2,4,6-Trichlorophenol	ug/L	26 U	26 U	
2,4,5-Trichlorophenol	ug/L	10 U	11 U	
2-Chloronaphthalene	ug/L	26 U	26 U	
2-Nitroaniline	ug/L	10 U	11 U	
Dimethylphthalate	ug/L	10 U	11 U	
Acenaphthylene	ug/L	10 U	11 U	
2,6-Dinitrotoluene	ug/L	10 U	11 U	
3-Nitroaniline	ug/L	26 U	26 U	
Acenaphthene	ug/L	10 U	11 U	
2,4-Dinitrophenol	ug/L	26 U	26 U	
4-Nitrophenol	ug/L	26 U	26 U	
Dibenzofuran	ug/L	10 U	11 U	
2,4-Dinitrotoluene	ug/L	10 U	11 U	
Diethylphthalate	ug/L	10 U	11 U	
4-Chlorophenyl-phenylether	ug/L	10 U	11 U	
Fluorene	ug/L	10 U	11 U	
4-Nitroaniline	ug/L	26 U	26 U	
4,6-Dinitro-2-methylphenol	ug/L	10 U	11 U	
N-Nitrosodiphenylamine	ug/L	10 U	11 U	
4-Bromophenyl-phenylether	ug/L	10 U	11 U	
Hexachlorobenzene	ug/L	10 U	11 U	
Pentachlorophenol	ug/L	26 U	26 U	
Phenanthrene	ug/L	10 U	11 U	
Anthracene	ug/L	10 U	11 U	
Carbazole	ug/L	10 U	11 U	
Di-n-butylphthalate	ug/L	10 U	11 U	
Fluoranthene	ug/L	10 U	11 U	
Pyrene	ug/L	10 U	11 U	
Butylbenzylphthalate	ug/L	10 U	11 U	
3,3'-Dichlorobenzidine	ug/L	10 U	11 U	
Benzo(a)anthracene	ug/L	10 U	11 U	
Chrysene	ug/L	10 U	11 U	
bis(2-Ethylhexyl)phthalate	ug/L	10 U	11 U	
Di-n-octylphthalate	ug/L	10 U	11 U	
Benzo(b)fluoranthene	ug/L	10 U	11 U	
Benzo(k)fluoranthene	ug/L	10 U	11 U	
Benzo(a)pyrene	ug/L	10 U	11 U	
Indeno(1,2,3-cd)pyrene	ug/L	10 U	11 U	
Dibenz(a,h)anthracene	ug/L	10 U	11 U	
Benzo(g,h,i)perylene	ug/L	10 U	11 U	

SENECA ARMY DEPOT  
SEAD-9 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

COMPOUND	MATRIX	WATER	WATER	WATER
	LOCATION	SEAD-9	SEAD-9	SEAD-9
	SAMPLE DATE	03/30/94	07/19/94	07/19/94
	ES ID	MW9-2	MW9-3	MW9-4
	LAB ID	216046	227439	227441
	SDG NUMBER	43179	45332	45332
	UNITS			MW9-3DUP
<b>PESTICIDES/PCB</b>				
alpha-BHC	ug/L	0.052 U	0.051 U	
beta-BHC	ug/L	0.052 U	0.051 U	
delta-BHC	ug/L	0.052 U	0.051 U	
gamma-BHC (Lindane)	ug/L	0.052 U	0.051 U	
Heptachlor	ug/L	0.052 U	0.051 U	
Aldrin	ug/L	0.052 U	0.051 U	
Heptachlor epoxide	ug/L	0.052 U	0.051 U	
Endosulfan I	ug/L	0.052 U	0.051 U	
Dieldrin	ug/L	0.1 U	0.1 U	
4,4'-DDE	ug/L	0.1 U	0.1 U	
Endrin	ug/L	0.1 U	0.1 U	
Endosulfan II	ug/L	0.1 U	0.1 U	
4,4'-DDD	ug/L	0.1 U	0.1 U	
Endosulfan sulfate	ug/L	0.1 U	0.1 U	
4,4'-DDT	ug/L	0.1 U	0.1 U	
Methoxychlor	ug/L	0.52 U	0.51 U	
Endrin ketone	ug/L	0.1 U	0.1 U	
Endrin aldehyde	ug/L	0.1 U	0.1 U	
alpha-Chlordane	ug/L	0.052 U	0.051 U	
gamma-Chlordane	ug/L	0.052 U	0.051 U	
Toxaphene	ug/L	5.2 U	5.1 U	
Aroclor-1016	ug/L	1 U	1 U	
Aroclor-1221	ug/L	2.1 U	2 U	
Aroclor-1232	ug/L	1 U	1 U	
Aroclor-1242	ug/L	1 U	1 U	
Aroclor-1248	ug/L	1 U	1 U	
Aroclor-1254	ug/L	1 U	1 U	
Aroclor-1260	ug/L	1 U	1 U	
<b>METALS</b>				
Aluminum	ug/L	5000	1570 J	
Antimony	ug/L	0.89 U	1.3 U	
Arsenic	ug/L	1.8 J	2 U	
Barium	ug/L	102 J	105 J	
Beryllium	ug/L	0.13 J	0.1 U	
Cadmium	ug/L	0.1 U	0.2 U	
Calcium	ug/L	192000	186000	
Chromium	ug/L	8.4 J	2.8 J	
Cobalt	ug/L	5.6 J	2.1 J	
Copper	ug/L	5.4 J	2.3 J	
Iron	ug/L	9350	2950	
Lead	ug/L	1.7 J	0.89 U	
Magnesium	ug/L	26000	30900	
Manganese	ug/L	411	222	
Mercury	ug/L	0.03 U	0.04 U	
Nickel	ug/L	13 J	4.9 J	
Potassium	ug/L	1700 J	2700 J	
Selenium	ug/L	1.7 U	2.7 U	
Silver	ug/L	0.89 U	1 J	
Sodium	ug/L	26600	106000	
Thallium	ug/L	1.6 U	1.9 U	
Vanadium	ug/L	7 J	2.8 J	
Zinc	ug/L	29.1	13 J	
Cyanide	ug/L	5 U	5 U	
<b>OTHER ANALYSES</b>				
Nitrate/Nitrite-Nitrogen	mg/L			
Total Petroleum Hydrocarbons	mg/L	0.59	3	3
pH	Standard Units	7.7	7.4	
Conductivity	umhos/cm	550	1100	
Temperature	°C	3.9	14.1	
Turbidity	NTU	309	160	

**SEAD-12 (A,B)**

SENECA ARMY DEPOT  
SEAD-12 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-12 2.5 06/24/94 TP12A-1-1 225531 45048	SOIL SEAD-12 3 06/24/94 TP12A-1-2 225532 45048	SOIL SEAD-12 6 06/22/94 TP12A-2-1 225398 44799	SOIL SEAD-12 5 06/22/94 TP12A-2-2 225399 44799	SOIL SEAD-12 2.5 06/22/94 TP12A-3-1 225400 44799	SOIL SEAD-12 6 06/22/94 TP12A-3-2 225401 44799	SOIL SEAD-12 4 06/21/94 TP12A-4-1 224878 44799	SOIL SEAD-12 4 06/21/94 TP12A-4-2 224879 44799	SOIL SEAD-12 3 06/23/94 TP12A-5-1 225539 45048	SOIL SEAD-12 1 06/23/94 TP12A-6-1 225540 45048	
VOLATILE ORGANICS											
Chloromethane	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
Bromomethane	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
Vinyl Chloride	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
Chloroethane	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
Methylene Chloride	ug/Kg 12 U	11 U	14 U	12 U	1 J	1 J	12 U	12 U	11 U	11 U	
Acetone	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
Carbon Disulfide	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
1,1-Dichloroethane	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
1,1-Dichloroethane	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
1,2-Dichloroethane (total)	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
Chloroform	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
1,2-Dichloroethane	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
2-Butanone	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
1,1,1-Trichloroethane	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
Carbon Tetrachloride	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
Bromodichloromethane	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
1,2-Dichloropropane	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
cis-1,3-Dichloropropene	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
Trichloroethene	ug/Kg 3 J	26	14 U	12 U	13 U	11 U	2 J	12 U	11 U	11 U	
Dibromochloromethane	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
1,1,2-Trichloroethane	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
Benzene	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
trans-1,3-Dichloropropene	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
Bromoform	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
4-Methyl-2-Pentanone	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
2-Hexanone	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
Tetrachloroethene	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
1,1,2,2-Tetrachloroethane	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	2 J	12 U	11 U	11 U	
Toluene	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	5 J	1 J	11 U	11 U	
Chlorobenzene	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
Ethylbenzene	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
Styrene	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
Xylene (total)	ug/Kg 12 U	11 U	14 U	12 U	13 U	11 U	12 U	12 U	11 U	11 U	
HERBICIDES											
2,4-D	ug/Kg										
2,4-DB	ug/Kg										
2,4,5-T	ug/Kg										
2,4,5-TP (Silvex)	ug/Kg										
Dalapon	ug/Kg										
Dicamba	ug/Kg										
Dichloroprop	ug/Kg										
Dinoseb	ug/Kg										
MCPA	ug/Kg										
MCPP	ug/Kg										
NITROAROMATICS											
HMX	ug/Kg										
RDX	ug/Kg										
1,3,5-Trinitrobenzene	ug/Kg										
1,3-Dinitrobenzene	ug/Kg										
Tetryl	ug/Kg										
2,4,6-Trinitrotoluene	ug/Kg										
4-amino-2,6-Dinitrotoluene	ug/Kg										
2-amino-4,6-Dinitrotoluene	ug/Kg										
2,6-Dinitrotoluene	ug/Kg										
2,4-Dinitrotoluene	ug/Kg										

SENECA ARMY DEPOT  
SEAD-12 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-12 2.5 06/24/94 TP12A-1-1 225531 45048	SOIL SEAD-12 3 06/24/94 TP12A-1-2 225532 45048	SOIL SEAD-12 6 06/22/94 TP12A-2-1 225398 44799	SOIL SEAD-12 5 06/22/94 TP12A-2-2 225399 44799	SOIL SEAD-12 2.5 06/22/94 TP12A-3-1 225400 44799	SOIL SEAD-12 8 06/22/94 TP12A-3-2 225401 44799	SOIL SEAD-12 4 06/21/94 TP12A-4-1 224878 44799	SOIL SEAD-12 4 06/21/94 TP12A-4-2 224879 44799	SOIL SEAD-12 3 06/23/94 TP12A-5-1 225539 45048	SOIL SEAD-12 1 06/23/94 TP12A-6-1 225540 45048
COMPOUND UNITS										
SEMIVOLATILE ORGANICS										
Phend	ug/Kg 300 J	48 J	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
bis(2-Chloroethyl) ether	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
2-Chlorophend	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
1,3-Dichlorobenzene	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
1,4-Dichlorobenzene	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
1,2-Dichlorobenzene	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
2-Methylphend	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
2,2'-oxybis(1-Chloropropane)	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
4-Methylphend	ug/Kg 140 J	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
N-Nitroso-d-n-propylamine	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
Hexachloroethane	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
Nitrobenzene	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
Isophorone	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
2-Nitrophenol	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
2,4-Dimethylphenol	ug/Kg 25 J	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
bis(2-Chloroethoxy) methane	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
2,4-Dichlorophenol	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
1,2,4-Trichlorobenzene	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
Naphthalene	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
4-Chloroaniline	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
Hexachlorobutadiene	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
4-Chloro-3-methylphenol	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
2-Methylnaphthalene	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
Hexachlorocyclopentadiene	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
2,4,6-Trichlorophenol	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
2,4,5-Trichlorophenol	ug/Kg 980 U	920 U	11000 U	940 U	1100 U	900 U	940 U	960 U	900 U	920 U
2-Chloronaphthalene	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
2-Nitroaniline	ug/Kg 980 U	920 U	11000 U	940 U	1100 U	900 U	940 U	960 U	900 U	920 U
Dimethylphthalate	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
Acenaphthylene	ug/Kg 33 J	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
2,6-Dinitrotoluene	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
3-Nitroaniline	ug/Kg 980 U	920 U	11000 U	940 U	1100 U	900 U	940 U	960 U	900 U	920 U
Acenaphthene	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
2,4-Dinitrophenol	ug/Kg 980 U	920 U	11000 U	940 U	1100 U	900 U	940 U	960 U	900 U	920 U
4-Nitrophenol	ug/Kg 980 U	920 U	11000 U	940 U	1100 U	900 U	940 U	960 U	900 U	920 U
Dibenzofuran	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
2,4-Dinitrotoluene	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
Diallylphthalate	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
4-Chlorophenyl-phenylether	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
Fluorene	ug/Kg 400 U	52 J	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	35 J
4-Nitroaniline	ug/Kg 980 U	920 U	11000 U	940 U	1100 U	900 U	940 U	960 U	900 U	920 U
4,6-Dinitro-2-methylphenol	ug/Kg 980 U	920 U	11000 U	940 U	1100 U	900 U	940 U	960 U	900 U	920 U
N-Nitrosodiphenylamine	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
4-Bromophenyl-phenylether	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
Hexachlorobenzene	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
Pentachlorophend	ug/Kg 980 U	920 U	11000 U	940 U	1100 U	900 U	940 U	960 U	900 U	920 U
Phenanthrene	ug/Kg 27 J	340 J	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	280 J
Anthracene	ug/Kg 400 U	96 J	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	83 J
Carbazole	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	40 J
Di-n-butylphthalate	ug/Kg 79 J	1700	4500 U	390 U	430 U	370 U	390 U	400 U	28 J	47 J
Fluoranthene	ug/Kg 40 J	420	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	300 J
Pyrene	ug/Kg 37 J	380	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	230 J
Butylbenzylphthalate	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
3,3'-Dichlorobenzidine	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
Benzofuran	ug/Kg 21 J	180 J	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	99 J
Chrysene	ug/Kg 28 J	240 J	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	130 J
bis(2-Ethylhexyl)phthalate	ug/Kg 230 J	880	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
Di-n-octylphthalate	ug/Kg 400 U	380 U	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	380 U
Benzofluoranthene	ug/Kg 28 J	190 J	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	95 J
Benzofluoranthene	ug/Kg 32 J	160 J	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	76 J
Benzofluoranthene	ug/Kg 30 J	200 J	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	92 J
Indeno(1,2,3-cd)pyrene	ug/Kg 400 U	120 J	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	89 J
Dibenz(a,h)anthracene	ug/Kg 400 U	57 J	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	43 J
Benzofluoranthene	ug/Kg 400 U	120 J	4500 U	390 U	430 U	370 U	390 U	400 U	370 U	29 J

SENECA ARMY DEPOT  
SEAD-12 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-12 2.5 06/24/94 TP12A-1-1 225531 45048	SOIL SEAD-12 3 06/24/94 TP12A-1-2 225532 45048	SOIL SEAD-12 6 06/22/94 TP12A-2-1 225398 44799	SOIL SEAD-12 5 06/22/94 TP12A-2-2 225399 44799	SOIL SEAD-12 2.5 06/22/94 TP12A-3-1 225400 44799	SOIL SEAD-12 6 06/22/94 TP12A-3-2 225401 44799	SOIL SEAD-12 4 06/21/94 TP12A-4-1 224878 44799	SOIL SEAD-12 4 06/21/94 TP12A-4-2 224879 44799	SOIL SEAD-12 3 06/23/94 TP12A-5-1 225539 45048	SOIL SEAD-12 1 06/23/94 TP12A-6-1 225540 45048
COMPOUND	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS
PESTICIDES/PCB										
alpha-BHC	ug/Kg	2.1 U	2 U	4.7 U	2 U	2.2 U	1.9 U	2 U	2 U	1.9 U
beta-BHC	ug/Kg	2.1 U	2 U	4.7 U	2 U	2.2 U	1.9 U	2 U	2 U	1.9 U
delta-BHC	ug/Kg	2.1 U	2 U	4.7 U	2 U	2.2 U	1.9 U	2 U	2 U	1.9 U
gamma-BHC (Lindane)	ug/Kg	2.1 U	2 U	4.7 U	2 U	2.2 U	1.9 U	2 U	2 U	1.9 U
Heptachlor	ug/Kg	2.1 U	2 U	4.7 U	2 U	2.2 U	1.9 U	2 U	2 U	1.9 U
Aldrin	ug/Kg	0.79 J	2 U	4.7 U	2 U	2.2 U	1.9 U	2 U	2 U	1.9 U
Heptachlor epoxide	ug/Kg	2.1 U	2 U	4.7 U	2 U	2.2 U	1.9 U	2 U	2 U	1.9 U
Endosulfan I	ug/Kg	2.1 U	2 U	4.7 U	2 U	2.2 U	1.9 U	2 U	2 U	1.9 U
Dieldrin	ug/Kg	4 U	3.8 U	9 U	3.9 U	4.3 U	3.7 U	3.9 U	4 U	3.7 U
4,4'-DDE	ug/Kg	4 U	2.2 J	9 U	3.9 U	4.3 U	3.7 U	3.9 U	4 U	3.7 U
Endrin	ug/Kg	4 U	3.8 J	20 J	3.8 J	4.3 U	3.7 U	3.9 U	4 U	3.7 U
Endosulfan II	ug/Kg	4 U	3.8 U	9 U	3.9 U	4.3 U	3.7 U	3.9 U	4 U	3.7 U
4,4'-DDD	ug/Kg	4 U	3.8 U	9 U	3.9 U	4.3 U	3.7 U	3.9 U	4 U	3.7 U
Endosulfan sulfate	ug/Kg	4 U	3.8 U	9 U	3.9 U	4.3 U	3.7 U	3.9 U	4 U	3.7 U
4,4'-DDT	ug/Kg	4 U	3.8 U	9 U	2.1 J	4.3 U	3.7 U	3.9 U	4 U	3.7 U
Methoxychlor	ug/Kg	21 U	20 U	47 U	20 U	22 U	19 U	20 U	20 U	19 U
Endrin ketone	ug/Kg	4 U	3.8 U	9 U	3.9 U	4.3 U	3.7 U	3.9 U	4 U	3.7 U
Endrin aldehyde	ug/Kg	4 U	3.8 U	9 U	3.9 U	4.3 U	3.7 U	3.9 U	4 U	3.7 U
alpha-Chlordane	ug/Kg	2.1 U	1.5 J	4.7 U	2 U	2.2 U	1.9 U	2 U	2 U	1.9 U
gamma-Chlordane	ug/Kg	2.1 U	2 U	4.7 U	2.1 J	2.2 U	1.9 U	2 U	2 U	1.9 U
Toxaphene	ug/Kg	210 U	200 U	470 U	200 U	220 U	190 U	200 U	200 U	190 U
Aroclor-1016	ug/Kg	40 U	36 U	90 U	39 U	43 U	37 U	39 U	40 U	37 U
Aroclor-1221	ug/Kg	82 U	77 U	180 U	79 U	88 U	75 U	81 U	79 U	77 U
Aroclor-1232	ug/Kg	40 U	36 U	90 U	39 U	43 U	37 U	39 U	40 U	37 U
Aroclor-1242	ug/Kg	40 U	36 U	90 U	39 U	43 U	37 U	39 U	40 U	37 U
Aroclor-1248	ug/Kg	40 U	36 U	90 U	39 U	43 U	37 U	39 U	40 U	37 U
Aroclor-1254	ug/Kg	49	73	2300	500	43 U	37 U	39 U	40 U	37 U
Aroclor-1260	ug/Kg	40 U	36 U	150	31 J	43 U	37 U	39 U	40 U	37 U
METALS										
Aluminum	mg/Kg	11400	11400	10900	17100	13200	9720	9600	13400	9750
Antimony	mg/Kg	0.31 J	1.9 J	7.2 J	1.9 J	0.25 UJ	0.27 UJ	0.25 UJ	0.18 UJ	0.26 UJ
Arsenic	mg/Kg	3.8	5.2	4.7	4.9	5	3.7	4.2	4.9	3.8
Barium	mg/Kg	96.3	93.3	81	73.6	89	73.6	72	102	94.5
Beryllium	mg/Kg	0.5 J	0.82 J	0.74 J	0.74 J	0.71 J	0.49 J	0.48 J	0.63 J	0.45 J
Cadmium	mg/Kg	7.8	94.3	27.3	37.3	3.8	0.68 J	0.57 J	0.82	0.4 J
Calcium	mg/Kg	38900 J	81800 J	77700	10900	5600	85400	82600	39100	78600 J
Chromium	mg/Kg	27.5	63.3	16.5	32.4	18.1	14.8	14.1	18.5	15.1
Cobalt	mg/Kg	9.9	9.4 J	13.1	26.5	10.2	8.3 J	8.6 J	9.6	8.2 J
Copper	mg/Kg	25.7	215	43.6	128	18.6	18	21.2	24.2	19.5
Iron	mg/Kg	20100	24200	19000	27500	24100	19400	18700	23300	18900
Lead	mg/Kg	18.9 J	368 J	20	20.2	25.7	10	8.9	16.8	15.5 J
Magnesium	mg/Kg	8390	9310	5380	5290	4530	12700	15700	9930	19100
Manganese	mg/Kg	518	495	502	428	490	429	395	419	394
Mercury	mg/Kg	0.04 J	0.05 J	0.04 J	0.03 J	0.06 J	0.02 J	0.03 J	0.03 J	0.04 J
Nickel	mg/Kg	25.3	39	201	27.2	25	24.8	30.9	24	28.4
Potassium	mg/Kg	1640 J	1490 J	1530 J	1370 J	1290 J	1700 J	1990 J	2880 J	2350 J
Selenium	mg/Kg	1.1	0.6 J	1.2	1	1.9	0.85 J	0.95 J	1.6	0.54 U
Silver	mg/Kg	0.1 U	11.9	0.49 J	0.33 J	0.1 U	0.1 U	0.1 U	0.07 U	0.1 U
Sodium	mg/Kg	45.2 J	101 J	46.2 J	86.8 J	30.3 J	129 J	124 J	107 J	115 J
Thallium	mg/Kg	0.37 U	0.44 J	0.96 J	0.59 J	0.56 J	0.7 J	0.41 J	0.56 J	0.38 U
Vanadium	mg/Kg	17.9	19.2	17.9	19.6	22.5	15.4	18.2	21.5	17.5
Zinc	mg/Kg	95.4	285	93.3	424	112	53.8	79.3	281	51.1
Cyanide	mg/Kg	0.48 U	0.54 U	0.63 U	0.48 U	0.58 U	0.45 U	0.46 U	0.5 U	0.52 U
OTHER ANALYSES										
Nitrate/Nitrite-Nitrogen	mg/Kg									
Total Petroleum Hydrocarbons	mg/Kg									
Total Solids	%W/W	82.2	88.8	72.9	84.8	76.4	89.1	84.8	83.4	88.7

SENECA ARMY DEPOT  
SEAD-12 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12
DEPTH (FEET)	7	4	4	7	4	2.5	2.5	2.5	2.5	0-0.2	4-6
SAMPLE DATE	06/23/94	06/23/94	06/23/94	06/24/94	06/25/94	06/24/94	06/25/94	06/25/94	06/25/94	06/10/94	06/10/94
ES ID	TP12A-6--2	TP12A-7-1	TP12A-7-1RE	TP12A-8-1	TP12B-1	TP12B-2-1	TP12B-3	TP12B-53	TP12B-3DUP	MW12A-1-00	MW12A-1-03
LAB ID	225541	225543	225543	225533	225582	225550	225551	225553	45058	223886	223887
SDG NUMBER	45048	45048	45048	45048	45058	45058	45058	45058	45058	44725	44725
UNITS											
<b>VOLATILE ORGANICS</b>											
Chloromethane	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
Bromomethane	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
Vinyl Chloride	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
Chloroethane	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
Methylene Chloride	ug/Kg	11 U	15 UJ	15 UJ	11 U	1 J	12 U	11 U	11 U	13 U	11 U
Acetone	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
Carbon Disulfide	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
1,1-Dichloroethane	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
1,1-Dichloroethane	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
1,2-Dichloroethane (total)	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
Chloroform	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
1,2-Dichloroethane	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
2-Butanone	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
1,1,1-Trichloroethane	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
Carbon Tetrachloride	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
Bromodichloromethane	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
1,2-Dichloropropane	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
cis-1,3-Dichloropropene	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
Trichloroethene	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
Dibromochloromethane	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
1,1,2-Trichloroethane	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
Benzene	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
trans-1,3-Dichloropropene	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
Bromoform	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
4-Methyl-2-Pentanone	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
2-Hexanone	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
Tetrachloroethene	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
1,1,2,2-Tetrachloroethane	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
Toluene	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
Chlorobenzene	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
Ethylbenzene	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
Styrene	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
Xylene (total)	ug/Kg	11 U	15 UJ	15 UJ	11 U	11 U	12 U	11 U	11 U	13 U	11 U
<b>HERBICIDES</b>											
2,4-D	ug/Kg										
2,4-DB	ug/Kg										
2,4,5-T	ug/Kg										
2,4,5-TP (Silvex)	ug/Kg										
Dalapon	ug/Kg										
Dicamba	ug/Kg										
Dicloroprop	ug/Kg										
Dinoseb	ug/Kg										
MCPA	ug/Kg										
MCPP	ug/Kg										
<b>NITROAROMATICS</b>											
HMX	ug/Kg										
RDX	ug/Kg										
1,3,5-Trinitrobenzene	ug/Kg										
1,3-Dinitrobenzene	ug/Kg										
Tetryl	ug/Kg										
2,4,6-Trinitrotoluene	ug/Kg										
4-amino-2,6-Dinitrotoluene	ug/Kg										
2-amino-4,6-Dinitrotoluene	ug/Kg										
2,8-Dinitrotoluene	ug/Kg										
2,4-Dinitrotoluene	ug/Kg										



SENECA ARMY DEPOT  
SEAD-12 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-12 7 08/23/94 TP 12A-6-2 225541 45048	SOIL SEAD-12 4 08/23/94 TP 12A-7-1 225543 45048	SOIL SEAD-12 4 08/23/94 TP 12A-7-1RE 225543 45048	SOIL SEAD-12 7 08/24/94 TP 12A-8-1 225533 45058	SOIL SEAD-12 4 08/25/94 TP 12B-1 225582 45058	SOIL SEAD-12 2.5 06/24/94 TP 12B-2-1 225550 45058	SOIL SEAD-12 2.5 06/25/94 TP 12B-3 225551 45058	SOIL SEAD-12 0-0.2 06/10/94 MW 12A-1-00 223888 44725	SOIL SEAD-12 4-6 06/10/94 MW 12A-1-03 223887 44725
COMPOUND									
SEMIVOLATILE ORGANICS									
Phend	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
bis(2-Chloroethyl) ether	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
2-Chlorophend	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
1,3-Dichlorobenzene	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
1,4-Dichlorobenzene	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
1,2-Dichlorobenzene	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
2-Methylphenol	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
2,2'-oxybis(1-Chloropropane)	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
4-Methylphenol	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
N-Nitroso-d-n-propylamine	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Hexachloroethane	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Nitrobenzene	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Isophorone	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
2-Nitrophenol	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
2,4-Dimethylphenol	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
bis(2-Chloroethoxy) methane	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
2,4-Dichlorophenol	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
1,2,4-Trichlorobenzene	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Naphthalene	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
4-Chloroaniline	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Hexachlorobutadiene	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
4-Chloro-3-methylphenol	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
2-Methylnaphthalene	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Hexachlorocyclopentadiene	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
2,4,6-Trichlorophenol	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
2,4,5-Trichlorophenol	ug/Kg 900 U	1300 U	890 U	880 U	930 U	900 U	900 U	1000 U	890 U
2-Chloronaphthalene	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
2-Nitroaniline	ug/Kg 900 U	1300 U	890 U	880 U	930 U	900 U	900 U	1000 U	890 U
Dimethylphthalate	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Aceraphthylene	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
2,6-Dinitrotoluene	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
3-Nitroaniline	ug/Kg 900 U	1300 U	890 U	880 U	930 U	900 U	900 U	1000 U	890 U
Aceraphthene	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
2,4-Dinitrophenol	ug/Kg 900 U	1300 U	890 U	880 U	930 U	900 U	900 U	1000 U	890 U
4-Nitrophenol	ug/Kg 900 U	1300 U	890 U	880 U	930 U	900 U	900 U	1000 U	890 U
Dibenzofuran	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
2,4-Dinitrotoluene	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Diethylphthalate	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
4-Chlorophenyl-phenylether	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Fluorene	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
4-Nitroaniline	ug/Kg 900 U	1300 U	890 U	880 U	930 U	900 U	900 U	1000 U	890 U
4,6-Dinitro-2-methylphenol	ug/Kg 900 U	1300 U	890 U	880 U	930 U	900 U	900 U	1000 U	890 U
N-Nitrosodiphenylamine	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
4-Bromophenyl-phenylether	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Hexachlorobenzene	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Pentachlorophenol	ug/Kg 900 U	1300 U	890 U	880 U	930 U	900 U	900 U	1000 U	890 U
Phenanthrene	ug/Kg 370 U	120 J	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Anthracene	ug/Kg 370 U	43 J	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Carbazole	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Di-n-butylphthalate	ug/Kg 32 J	50 J	52 J	44 J	380 U	370 U	370 U	430 U	370 U
Fluoranthene	ug/Kg 370 U	320 J	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Pyrene	ug/Kg 370 U	230 J	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Butylbenzylphthalate	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
3,3'-Dichlorobenzidine	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Benzof(a)anthracene	ug/Kg 370 U	150 J	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Chrysene	ug/Kg 370 U	210 J	370 U	360 U	380 U	370 U	370 U	430 U	370 U
bis(2-Ethylhexyl)phthalate	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	73 J
Di-n-octylphthalate	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Benzof(b)fluoranthene	ug/Kg 370 U	320 J	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Benzof(k)fluoranthene	ug/Kg 370 U	540 U	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Benzof(a)pyrene	ug/Kg 370 U	180 J	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Indeno(1,2,3-cd)pyrene	ug/Kg 370 U	140 J	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Dibenz(a,h)anthracene	ug/Kg 370 U	99 J	370 U	360 U	380 U	370 U	370 U	430 U	370 U
Benzof(g,h)perylene	ug/Kg 370 U	98 J	370 U	360 U	380 U	370 U	370 U	430 U	370 U

SENECA ARMY DEPOT  
SEAD-12 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-12 7 06/23/94 TP12A-6-2 225541 45048	SOIL SEAD-12 4 06/23/94 TP12A-7-1 225543 45048	SOIL SEAD-12 4 06/23/94 TP12A-7-1RE 225543 45048	SOIL SEAD-12 7 06/24/94 TP12A-8-1 225533 45058	SOIL SEAD-12 4 06/25/94 TP12B-1 225582 45058	SOIL SEAD-12 2.5 06/24/94 TP12B-2-1 225550 45058	SOIL SEAD-12 2.5 06/25/94 TP12B-3 225551 45058	SOIL SEAD-12 2.5 06/25/94 TP12B-53 MW12A-1-00 223886 44725	SOIL SEAD-12 0-0.2 06/10/94 MW12A-1-00 223886 44725	SOIL SEAD-12 4-6 06/10/94 MW12A-1-03 223867 44725
PESTICIDES/PCB										
alpha-BHC ug/Kg	1.9 U	2.6 U	1.9 U	1.9 U	1.9 U	2 U	1.9 U	1.9 U	2.2 U	1.9 U
beta-BHC ug/Kg	1.9 U	2.8 U	1.9 U	1.9 U	1.9 U	2 U	1.9 U	1.9 U	2.2 U	1.9 U
delta-BHC ug/Kg	1.8 U	2.8 U	1.9 U	1.9 U	1.9 U	2 U	1.9 U	1.9 U	2.2 U	1.9 U
gamma-BHC (Lindane) ug/Kg	1.9 U	2.8 U	1.9 U	1.9 U	1.9 U	2 U	1.9 U	1.9 U	2.2 U	1.9 U
Heptachlor ug/Kg	1.9 U	2.8 U	1.9 U	1.9 U	1.9 U	2 U	1.9 U	1.9 U	2.2 U	1.9 U
Aldrin ug/Kg	1.9 U	2.8 U	1.9 U	1.9 U	1.9 U	2 U	1.9 U	1.9 U	2.2 U	1.9 U
Heptachlor epoxide ug/Kg	1.9 U	2.8 U	1.9 U	1.9 U	1.9 U	2 U	1.9 U	1.9 U	2.2 U	1.9 U
Endosulfan I ug/Kg	1.9 U	2.8 U	1.9 U	1.9 U	1.9 U	2 U	1.9 U	1.9 U	2.2 U	1.9 U
Dieldrin ug/Kg	3.7 U	5.4 U	3.7 U	3.7 U	3.6 U	3.8 U	3.7 U	3.7 U	4.3 U	3.7 U
4,4'-DDE ug/Kg	3.7 U	2.3 J	3.7 U	3.7 U	3.6 U	3.8 U	3.7 U	3.7 U	4.3 U	3.7 U
Endrin ug/Kg	3.7 U	5.4 U	3.7 U	3.7 U	3.6 U	3.8 U	3.7 U	3.7 U	4.3 U	3.7 U
Endosulfan II ug/Kg	3.7 U	5.4 U	3.7 U	3.7 U	3.6 U	3.8 U	3.7 U	3.7 U	4.3 U	3.7 U
4,4'-DDD ug/Kg	3.7 U	5.4 U	3.7 U	3.7 U	3.6 U	3.8 U	3.7 U	3.7 U	4.3 U	3.7 U
Endosulfan sulfate ug/Kg	3.7 U	5.4 U	3.7 U	3.7 U	3.6 U	3.8 U	3.7 U	3.7 U	4.3 U	3.7 U
4,4'-DDT ug/Kg	3.7 U	5.4 U	3.7 U	3.7 U	3.6 U	3.8 U	3.7 U	3.7 U	4.3 U	3.7 U
Methoxychlor ug/Kg	19 U	28 U	19 U	19 U	19 U	20 U	19 U	19 U	22 U	19 U
Endrin ketone ug/Kg	3.7 U	5.4 U	3.7 U	3.7 U	3.6 U	3.8 U	3.7 U	3.7 U	4.3 U	3.7 U
Endrin aldehyde ug/Kg	3.7 U	5.4 U	3.7 U	3.7 U	3.6 U	3.8 U	3.7 U	3.7 U	4.3 U	3.7 U
alpha-Chlordane ug/Kg	1.9 U	2.6 J	1.9 U	1.9 U	1.9 U	2 U	1.9 U	1.9 U	2.2 U	1.9 U
gamma-Chlordane ug/Kg	1.9 U	2.3 J	1.9 U	1.9 U	1.9 U	2 U	1.9 U	1.9 U	2.2 U	1.9 U
Toxaphene ug/Kg	190 U	280 U	190 U	190 U	190 U	200 U	190 U	190 U	220 U	190 U
Aroclor-1016 ug/Kg	37 U	54 U	37 U	36 U	36 U	36 U	37 U	37 U	43 U	37 U
Aroclor-1221 ug/Kg	75 U	110 U	75 U	74 U	74 U	75 U	75 U	75 U	87 U	74 U
Aroclor-1232 ug/Kg	37 U	54 U	37 U	36 U	36 U	36 U	37 U	37 U	43 U	37 U
Aroclor-1242 ug/Kg	37 U	54 U	37 U	36 U	36 U	36 U	37 U	37 U	43 U	37 U
Aroclor-1248 ug/Kg	37 U	54 U	37 U	36 U	36 U	36 U	37 U	37 U	43 U	37 U
Aroclor-1254 ug/Kg	37 U	54 U	37 U	36 U	36 U	36 U	37 U	37 U	43 U	37 U
Aroclor-1280 ug/Kg	37 U	54 U	37 U	36 U	36 U	36 U	37 U	37 U	43 U	37 U
METALS										
Aluminum mg/Kg	8480	18600	8610	7400	10300	8850	6120	18700	11000	
Antimony mg/Kg	0.28 J	0.39 J	0.26 UJ	0.23 UJ	0.24 UJ	0.26 UJ	0.22 UJ	0.22 UJ	0.24 UJ	
Arsenic mg/Kg	2.9	7.7	3.1	4.4 J	4.6 J	3.3 J	2.8 J	5.2	3.5	
Barium mg/Kg	78.2	135	67.4	78.3	90.5	38.5 J	32.5 J	125	82.8	
Beryllium mg/Kg	0.4 J	0.83 J	0.31 J	0.37 J	0.52 J	0.26 J	0.24 J	0.8 J	0.46 J	
Cadmium mg/Kg	0.35 J	1 J	0.5 J	0.36 J	0.43 J	0.18 J	0.17 J	0.86	0.52 J	
Calcium mg/Kg	62000 J	25400 J	86700 J	85300	76400	44100	45500	3370	71200	
Chromium mg/Kg	14	25	10.6	11.4	15.9	9.1	6	23.1	15.3	
Cobalt mg/Kg	8.8 J	15.7	7.1 J	7.8 J	9.7	4.2 J	4.3 J	10.9	10.1	
Copper mg/Kg	16.4	38.4	17.7	22.1	21.9	13.8	12.9	19.1	20.6	
Iron mg/Kg	17100	34500	14400	15600	20100	11700	11000	23500	17400	
Lead mg/Kg	431 J	49 J	12.3 J	7.9	10.6	4.8	4.3	21.6	7.6	
Magnesium mg/Kg	11800	10800	36100	22800	16900	15800	18300	3680	19200	
Manganese mg/Kg	358	857	328	340	383	316	337	939	414	
Mercury mg/Kg	0.03 J	0.11	0.02 J	0.03 J	0.02 J	0.03 J	0.03 J	0.06 J	0.02 J	
Nickel mg/Kg	22	39.4	18.9	29	29	9.2	8.7	25.7	23.7	
Potassium mg/Kg	1700 J	3670 J	1480 J	1940 J	2330 J	2150 J	1840 J	2680 J	3460 J	
Selenium mg/Kg	0.48 U	1.2 J	0.54 U	0.48 U	0.5 U	0.54 U	0.45 U	1.2	0.5 U	
Silver mg/Kg	0.09 U	0.13 U	0.1 U	0.09 U	0.09 U	0.1 U	0.08 U	0.09 U	0.09 U	
Sodium mg/Kg	95 J	26.5 U	112 J	252 J	233 J	157 J	144 J	16.9 U	79.9 J	
Thallium mg/Kg	0.34 U	0.98 J	0.36 U	0.39 J	0.79 J	0.46 J	0.32 U	0.32 U	0.35 U	
Vanadium mg/Kg	14.1	36.4	11	14.8	18.5	15.4	13.5	33.1	21.7	
Zinc mg/Kg	53.8	155	42.6	40.7 J	51.7 J	28.9 J	26 J	77.8	41.4	
Cyanide mg/Kg	0.48 U	0.8 U	0.49 U	0.53 UJ	0.53 UJ	0.54 UJ	0.54 UJ	0.6 U	0.53 U	
OTHER ANALYSES										
Nitrate/Nitrite-Nitrogen mg/Kg										
Total Petroleum Hydrocarbons mg/Kg										
Total Solids %W/W	89.1	81.4	89.8	91	86	88.8	88.7	76.8	89.6	

SENECA ARMY DEPOT  
SEAD-12 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12
DEPTH (FEET)	8-9.5	0-0.2	4-6	4-6	12-13.5	18-21
SAMPLE DATE	06/10/94	06/13/94	06/13/94	06/13/94	06/13/94	06/29/94
ES ID	MW12A-1-05	MW12B-1-00	MW12B-1-03	MW12B-1-20	MW12B-1-07	SB12B-1
LAB ID	223888	224233	224234	224236	224235	225902
SDG NUMBER	44725	44799	44799	44799	44799	45062
UNITS				MW12B-1-03DUP		
<b>VOLATILE ORGANICS</b>						
Chloromethane	ug/Kg	11 U	11 U	11 U	11 U	11 U
Bromomethane	ug/Kg	11 U	11 U	11 U	11 U	11 U
Vinyl Chloride	ug/Kg	11 U	11 U	11 U	11 U	11 U
Chloroethane	ug/Kg	11 U	11 U	11 U	11 U	11 U
Methylene Chloride	ug/Kg	11 U	11 U	11 U	11 U	11 U
Acetone	ug/Kg	11 U	11 U	11 U	11 U	11 U
Carbon Disulfide	ug/Kg	11 U	11 U	11 U	11 U	1 J
1,1-Dichloroethane	ug/Kg	11 U	11 U	11 U	11 U	11 U
1,1-Dichloroethane	ug/Kg	11 U	11 U	11 U	11 U	11 U
1,2-Dichloroethane (total)	ug/Kg	11 U	11 U	11 U	11 U	11 U
Chloroform	ug/Kg	11 U	11 U	11 U	11 U	11 U
1,2-Dichloroethane	ug/Kg	11 U	11 U	11 U	11 U	11 U
2-Butanone	ug/Kg	11 U	11 U	11 U	11 U	3 J
1,1,1-Trichloroethane	ug/Kg	11 U	11 U	11 U	11 U	11 U
Carbon Tetrachloride	ug/Kg	11 U	11 U	11 U	11 U	11 U
Bromodichloromethane	ug/Kg	11 U	11 U	11 U	11 U	11 U
1,2-Dichloropropane	ug/Kg	11 U	11 U	11 U	11 U	11 U
cis-1,3-Dichloropropene	ug/Kg	11 U	11 U	11 U	11 U	11 U
Trichloroethane	ug/Kg	11 U	11 U	11 U	11 U	11 U
Dibromochloromethane	ug/Kg	11 U	11 U	11 U	11 U	11 U
1,1,2-Trichloroethane	ug/Kg	11 U	11 U	11 U	11 U	11 U
Benzene	ug/Kg	11 U	11 U	11 U	11 U	11 U
trans-1,3-Dichloropropene	ug/Kg	11 U	11 U	11 U	11 U	11 U
Bromoform	ug/Kg	11 U	11 U	11 U	11 U	11 U
4-Methyl-2-Pentanone	ug/Kg	11 U	11 U	11 U	11 U	11 U
2-Hexanone	ug/Kg	11 U	11 U	11 U	11 U	11 U
Tetrachloroethane	ug/Kg	11 U	11 U	11 U	11 U	11 U
1,1,2,2-Tetrachloroethane	ug/Kg	11 U	11 U	11 U	11 U	11 U
Toluene	ug/Kg	11 U	11 U	11 U	11 U	11 U
Chlorobenzene	ug/Kg	11 U	11 U	11 U	11 U	11 U
Ethylbenzene	ug/Kg	11 U	11 U	11 U	11 U	11 U
Styrene	ug/Kg	11 U	11 U	11 U	11 U	11 U
Xylene (total)	ug/Kg	11 U	11 U	11 U	11 U	11 U
<b>HERBICIDES</b>						
2,4-D	ug/Kg					
2,4-DB	ug/Kg					
2,4,5-T	ug/Kg					
2,4,5-TP (Silvex)	ug/Kg					
Dalapon	ug/Kg					
Dicamba	ug/Kg					
Dichloroprop	ug/Kg					
Dinoseb	ug/Kg					
MCPA	ug/Kg					
MCPP	ug/Kg					
<b>NITROAROMATICS</b>						
HMX	ug/Kg					
RDX	ug/Kg					
1,3,5-Trinitrobenzene	ug/Kg					
1,3-Dinitrobenzene	ug/Kg					
Tetryl	ug/Kg					
2,4,6-Trinitrotoluene	ug/Kg					
4-amino-2,6-Dinitrotoluene	ug/Kg					
2-amino-4,6-Dinitrotoluene	ug/Kg					
2,6-Dinitrotoluene	ug/Kg					
2,4-Dinitrotoluene	ug/Kg					

SENECA ARMY DEPOT  
SEAD-12 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-12 8-9.5 06/10/94 MW12A-1-05 223888 44725	SOIL SEAD-12 0-0.2 06/13/94 MW12B-1-00 224233 44799	SOIL SEAD-12 4-8 06/13/94 MW12B-1-03 224234 44799	SOIL SEAD-12 4-6 06/13/94 MW12B-1-20 224236 44799	SOIL SEAD-12 12-13.5 06/13/94 MW12B-1-07 224235 44799	SOIL SEAD-12 18-21 06/26/94 SB12B-1 225902 45062
COMPOUND	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS
SEMIVOLATILE ORGANICS						
Phenol	ug/Kg	350 U	380 U	380 U	380 U	380 U
bis(2-Chloroethyl) ether	ug/Kg	350 U	380 U	380 U	380 U	380 U
2-Chlorophenol	ug/Kg	350 U	380 U	380 U	380 U	380 U
1,3-Dichlorobenzene	ug/Kg	350 U	380 U	380 U	380 U	380 U
1,4-Dichlorobenzene	ug/Kg	350 U	380 U	380 U	380 U	380 U
1,2-Dichlorobenzene	ug/Kg	350 U	380 U	380 U	380 U	380 U
2-Methylphenol	ug/Kg	350 U	380 U	380 U	380 U	380 U
2,2'-oxybis(1-Chloropropane)	ug/Kg	350 U	380 U	380 U	380 U	380 U
4-Methylphenol	ug/Kg	350 U	380 U	380 U	380 U	380 U
N-Nitroso-di-n-propylamine	ug/Kg	350 U	380 U	380 U	380 U	380 U
Hexachloroethane	ug/Kg	350 U	380 U	380 U	380 U	380 U
Nitrobenzene	ug/Kg	350 U	380 U	380 U	380 U	380 U
Isophorone	ug/Kg	350 U	380 U	380 U	380 U	380 U
2-Nitrophenol	ug/Kg	350 U	380 U	380 U	380 U	380 U
2,4-Dimethylphenol	ug/Kg	350 U	380 U	380 U	380 U	380 U
bis(2-Chloroethoxy) methane	ug/Kg	350 U	380 U	380 U	380 U	380 U
2,4-Dichlorophenol	ug/Kg	350 U	380 U	380 U	380 U	380 U
1,2,4-Trichlorobenzene	ug/Kg	350 U	380 U	380 U	380 U	380 U
Naphthalene	ug/Kg	350 U	380 U	380 U	380 U	380 U
4-Chloroaniline	ug/Kg	350 U	380 U	380 U	380 U	380 U
Hexachlorobutadiene	ug/Kg	350 U	380 U	380 U	380 U	380 U
4-Chloro-3-methylphenol	ug/Kg	350 U	380 U	380 U	380 U	380 U
2-Methylnaphthalene	ug/Kg	350 U	380 U	380 U	380 U	380 U
Hexachlorocyclopentadiene	ug/Kg	350 U	380 U	380 U	380 U	380 U
2,4,6-Trichlorophenol	ug/Kg	350 U	380 U	380 U	380 U	380 U
2,4,5-Trichlorophenol	ug/Kg	880 U	880 U	880 U	870 U	880 U
2-Chloronaphthalene	ug/Kg	350 U	380 U	380 U	380 U	380 U
2-Nitroaniline	ug/Kg	880 U	880 U	880 U	870 U	880 U
Dimethylphthalate	ug/Kg	350 U	380 U	380 U	380 U	380 U
Acenaphthylene	ug/Kg	350 U	380 U	380 U	380 U	380 U
2,6-Dinitrotoluene	ug/Kg	880 U	880 U	880 U	870 U	880 U
3-Nitroaniline	ug/Kg	350 U	380 U	380 U	380 U	380 U
Acenaphthene	ug/Kg	880 U	880 U	880 U	870 U	880 U
2,4-Dinitrophenol	ug/Kg	880 U	880 U	880 U	870 U	880 U
4-Nitrophenol	ug/Kg	880 U	880 U	880 U	870 U	880 U
Dibenzofuran	ug/Kg	350 U	380 U	380 U	380 U	380 U
2,4-Dinitrotoluene	ug/Kg	350 U	380 U	380 U	380 U	380 U
Diethylphthalate	ug/Kg	350 U	380 U	380 U	380 U	380 U
4-Chlorophenyl-phenylether	ug/Kg	350 U	380 U	380 U	380 U	380 U
Fluorene	ug/Kg	350 U	380 U	380 U	380 U	380 U
4-Nitroaniline	ug/Kg	880 U	880 U	880 U	870 U	880 U
4,6-Dinitro-2-methylphenol	ug/Kg	880 U	880 U	880 U	870 U	880 U
N-Nitrosodiphenylamine	ug/Kg	350 U	380 U	380 U	380 U	380 U
4-Bromophenyl-phenylether	ug/Kg	350 U	380 U	380 U	380 U	380 U
Hexachlorobenzene	ug/Kg	350 U	380 U	380 U	380 U	380 U
Pentachlorophenol	ug/Kg	880 U	880 U	880 U	870 U	880 U
Phenanthrene	ug/Kg	350 U	34 J	380 U	380 U	380 U
Anthracene	ug/Kg	350 U	380 U	380 U	380 U	380 U
Carbazole	ug/Kg	350 U	380 U	380 U	380 U	380 U
Di-n-butylphthalate	ug/Kg	350 U	380 U	380 U	380 U	380 U
Fluoranthene	ug/Kg	350 U	64 J	380 U	380 U	380 U
Pyrene	ug/Kg	350 U	51 J	380 U	380 U	380 U
Butylbenzylphthalate	ug/Kg	350 U	380 U	380 U	380 U	380 U
3,3'-Dichlorobenzidine	ug/Kg	350 U	380 U	380 U	380 U	380 U
Benzofluoranthene	ug/Kg	350 U	26 J	380 U	380 U	380 U
Chrysene	ug/Kg	350 U	32 J	380 U	380 U	380 U
bis(2-Ethylhexyl)phthalate	ug/Kg	350 U	380 U	380 U	45 J	83 J
Di-n-octylphthalate	ug/Kg	350 U	380 U	380 U	380 U	380 U
Benzofluoranthene	ug/Kg	350 U	34 J	380 U	380 U	380 U
Benzofluoranthene	ug/Kg	350 U	20 J	380 U	380 U	380 U
Benzofluoranthene	ug/Kg	350 U	20 J	380 U	380 U	380 U
Benzofluoranthene	ug/Kg	350 U	20 J	380 U	380 U	380 U
Indeno(1,2,3-cd)pyrene	ug/Kg	350 U	380 U	380 U	380 U	380 U
Dibenz(a,h)anthracene	ug/Kg	350 U	380 U	380 U	380 U	380 U
Benzofluoranthene	ug/Kg	350 U	380 U	380 U	380 U	380 U

GENECA ARMY DEPOT  
SEAD-12 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

COMPOUND	MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER UNITS	SEAD-12 8-9.5 06/10/94 MW12A-1-05 223888 44725	SEAD-12 0-0.2 06/13/94 MW12B-1-00 224233 44799	SEAD-12 4-6 06/13/94 MW12B-1-03 224234 44799	SEAD-12 4-6 06/13/94 MW12B-1-20 224236 44799	SEAD-12 12-13.5 06/13/94 MW12B-1-07 224235 44799	SEAD-12 16-21 06/29/94 SB12B-1 225902 45062
PESTICIDES/PCB							
alpha-BHC	ug/Kg	1.8 U	1.9 U	1.9 U	1.8 U	1.9 U	2 U
beta-BHC	ug/Kg	1.8 U	1.9 U	1.9 U	1.8 U	1.9 U	2 U
delta-BHC	ug/Kg	1.8 U	1.9 U	1.9 U	1.8 U	1.9 U	2 U
gamma-BHC (Lindane)	ug/Kg	1.8 U	1.9 U	1.9 U	1.8 U	1.9 U	2 U
Heptachlor	ug/Kg	1.8 U	1.9 U	1.9 U	1.8 U	1.9 U	2 U
Aldrin	ug/Kg	1.8 U	1.9 U	1.9 U	1.8 U	1.9 U	2 U
Heptachlor epoxide	ug/Kg	1.8 U	1.9 U	1.9 U	1.8 U	1.9 U	2 U
Endosulfan I	ug/Kg	1.8 U	1.9 U	1.9 U	1.8 U	1.9 U	2 U
Dieldrin	ug/Kg	3.5 U	3.6 U	3.6 U	3.6 U	3.6 U	3.8 U
4,4'-DDE	ug/Kg	3.5 U	2 J	3.6 U	3.6 U	3.6 U	3.8 U
Endrin	ug/Kg	3.5 U	3.6 U	3.6 U	3.6 U	3.6 U	3.8 U
Endosulfan II	ug/Kg	3.5 U	3.6 U	3.6 U	3.6 U	3.6 U	3.8 U
4,4'-DDD	ug/Kg	3.5 U	3.6 U	3.6 U	3.6 U	3.6 U	3.8 U
Endosulfan sulfate	ug/Kg	3.5 U	3.6 U	3.6 U	3.6 U	3.6 U	3.8 U
4,4'-DDT	ug/Kg	3.5 U	3.6 U	3.6 U	3.6 U	3.6 U	3.8 U
Methoxychlor	ug/Kg	18 U	19 U	19 U	18 U	19 U	20 U
Endrin ketone	ug/Kg	3.5 U	3.6 U	3.6 U	3.6 U	3.6 U	3.8 U
Endrin aldehyde	ug/Kg	3.5 U	3.6 U	3.6 U	3.6 U	3.6 U	3.8 U
alpha-Chlordane	ug/Kg	1.8 U	1.9 U	1.9 U	1.8 U	1.9 U	2 U
gamma-Chlordane	ug/Kg	1.8 U	1.9 U	1.9 U	1.8 U	1.9 U	2 U
Toxaphene	ug/Kg	180 U	190 U	190 U	180 U	190 U	200 U
Aroclor-1016	ug/Kg	35 U	36 U	36 U	36 U	36 U	38 U
Aroclor-1221	ug/Kg	72 U	74 U	74 U	73 U	74 U	77 U
Aroclor-1232	ug/Kg	35 U	36 U	36 U	36 U	36 U	38 U
Aroclor-1242	ug/Kg	35 U	17 J	16 J	36 U	36 U	38 U
Aroclor-1248	ug/Kg	35 U	36 U	36 U	36 U	36 U	36 U
Aroclor-1254	ug/Kg	35 U	36 U	36 U	36 U	36 U	36 U
Aroclor-1260	ug/Kg	35 U	36 U	36 U	36 U	36 U	36 U
METALS							
Aluminum	mg/Kg	12400	10800	8080	7510	5940	9050 J
Antimony	mg/Kg	0.2 UJ	0.23 UJ	0.2 UJ	0.25 UJ	0.26 UJ	0.26 UJ
Arsenic	mg/Kg	3.6	8.6	4.6	4.6	2.9	1.9 J
Barium	mg/Kg	78.3	102	89.1	88.3	43.8	138 J
Beryllium	mg/Kg	0.58 J	0.53 J	0.4 J	0.38 J	0.27 J	0.44 J
Cadmium	mg/Kg	0.85	0.63 J	0.52 J	0.46 J	0.32 J	0.29 J
Calcium	mg/Kg	70300	45900	74200	79400	51100	83400 J
Chromium	mg/Kg	19.7	18	12.7	12.6	12	13.6 J
Cobalt	mg/Kg	10.8	9.2	6.3	6.6 J	5.2 J	4.6 J
Copper	mg/Kg	29.6	30.4	22.5	20.3	17.3	15.6 J
Iron	mg/Kg	22600	23400	17200	17000	13500	14100 J
Lead	mg/Kg	10.8	17.1	10.3	8.4	7.3	7.5
Magnesium	mg/Kg	12000	11400	16300	16000	8320	12200 J
Manganese	mg/Kg	409	418	369	388	244	386 J
Mercury	mg/Kg	0.03 J	0.04 J	0.5	0.11	0.03 J	0.03 J
Nickel	mg/Kg	35.5	28	23.5	23.8	19	16.2 J
Potassium	mg/Kg	2910 J	1870 J	1680 J	1390 J	1040 J	1650 J
Selenium	mg/Kg	0.41 U	1.3	0.72 J	0.54 J	2.1	0.53 U
Silver	mg/Kg	0.08 U	0.09 U	0.08 U	0.1 U	0.1 U	0.1 U
Sodium	mg/Kg	136 J	76.2 J	135 J	120 J	77.3 J	115 J
Thallium	mg/Kg	0.29 U	0.41 J	0.37 J	0.84 J	0.39 J	0.37 U
Vanadium	mg/Kg	20.2	20.9	13.8	13.2	11.5	13.5 J
Zinc	mg/Kg	82.1	62.7	50.5	46.9	36.2	46.7 J
Cyanide	mg/Kg	0.43 U	0.5 U	0.47 U	0.46 U	0.47 U	0.41 U
OTHER ANALYSES							
Nitrate/Nitrite-Nitrogen	mg/Kg						
Total Petroleum Hydrocarbons	mg/Kg						
Total Solids	%W/W	93	91.4	90.6	92.3	90.9	87.1

SENECA ARMY DEPOT  
SEAD-12 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

COMPOUND	MATRIX	WATER	WATER	WATER	WATER	WATER	WATER
	LOCATION	SEAD-12	SEAD-12	SEAD-12	SEAD-12	SEAD-12	SEAD-12
	SAMPLE DATE	07/20/94	07/20/94	07/20/94	07/19/94	07/19/94	07/19/94
	ES ID	MW12A-1	MW12A-2	MW12A-3	MW12B-1	MW12B-2	MW12B-3
	LAS ID	227608	227609	227610	227442	227443	227444
	SDG NUMBER	45448	45448	45448	45332	45332	45332
	UNITS						
<b>VOLATILE ORGANICS</b>							
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	9 J	10 U	10 U	10 U
Carbon Disulfide	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
<b>HERBICIDES</b>							
2,4-D	ug/L						
2,4-DB	ug/L						
2,4,5-T	ug/L						
2,4,5-TP (Silvex)	ug/L						
Dalapon	ug/L						
Dicamba	ug/L						
Dichloroprop	ug/L						
Dinoseb	ug/L						
MCPA	ug/L						
MCPP	ug/L						
<b>NITROAROMATICS</b>							
HMX	ug/L						
RDX	ug/L						
1,3,5-Trinitrobenzene	ug/L						
1,3-Dinitrobenzene	ug/L						
Tetryl	ug/L						
2,4,6-Trinitrotoluene	ug/L						
4-amino-2,6-Dinitrotoluene	ug/L						
2-amino-4,6-Dinitrotoluene	ug/L						
2,6-Dinitrotoluene	ug/L						
2,4-Dinitrotoluene	ug/L						

SENEGA ARMY DEPOT  
SEAD-12 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

MATRIX LOCATION SAMPLE DATE ES ID LAB ID SDG NUMBER	WATER SEAD-12 07/20/94 MW12A-1 227608 45448	WATER SEAD-12 07/20/94 MW12A-2 227609 45448	WATER SEAD-12 07/20/94 MW12A-3 227610 45448	WATER SEAD-12 07/19/94 MW12B-1 227442 45332	WATER SEAD-12 07/19/94 MW12B-2 227443 45332	WATER SEAD-12 07/19/94 MW12B-3 227444 45332
COMPOUND						
SEMIVOLATILE ORGANICS						
Phenol	ug/L	10 U	10 U	11 U	11 U	10 U
bis(2-Chloroethyl) ether	ug/L	10 U	10 U	11 U	11 U	10 U
2-Chlorophenol	ug/L	10 U	10 U	11 U	11 U	10 U
1,3-Dichlorobenzene	ug/L	10 U	10 U	11 U	11 U	10 U
1,4-Dichlorobenzene	ug/L	10 U	10 U	11 U	11 U	10 U
1,2-Dichlorobenzene	ug/L	10 U	10 U	11 U	11 U	10 U
2-Methylphenol	ug/L	10 U	10 U	11 U	11 U	10 U
2,2'-oxybis(1-Chloropropane)	ug/L	10 U	10 U	11 U	11 U	10 U
4-Methylphenol	ug/L	10 U	10 U	11 U	11 U	10 U
N-Nitroso-d-n-propylamine	ug/L	10 U	10 U	11 U	11 U	10 U
Hexachloroethane	ug/L	10 U	10 U	11 U	11 U	10 U
Nitrobenzene	ug/L	10 U	10 U	11 U	11 U	10 U
Isophorone	ug/L	10 U	10 U	11 U	11 U	10 U
2-Nitrophenol	ug/L	10 U	10 U	11 U	11 U	10 U
2,4-Dimethylphenol	ug/L	10 U	10 U	11 U	11 U	10 U
bis(2-Chloroethoxy) methane	ug/L	10 U	10 U	11 U	11 U	10 U
2,4-Dichlorophenol	ug/L	10 U	10 U	11 U	11 U	10 U
1,2,4-Trichlorobenzene	ug/L	10 U	10 U	11 U	11 U	10 U
Naphthalene	ug/L	10 U	10 U	11 U	11 U	10 U
4-Chloroaniline	ug/L	10 U	10 U	11 U	11 U	10 U
Hexachlorobutadiene	ug/L	10 U	10 U	11 U	11 U	10 U
4-Chloro-3-methylphenol	ug/L	10 U	10 U	11 U	11 U	10 U
2-Methylnaphthalene	ug/L	10 U	10 U	11 U	11 U	10 U
Hexachlorocyclopentadiene	ug/L	10 U	10 U	11 U	11 U	10 U
2,4,6-Trichlorophenol	ug/L	10 U	10 U	11 U	11 U	10 U
2,4,5-Trichlorophenol	ug/L	28 U	26 U	29 U	28 U	26 U
2-Chloronaphthalene	ug/L	10 U	10 U	11 U	11 U	10 U
2-Nitroaniline	ug/L	26 U	26 U	29 U	27 U	26 U
Dimethylphthalate	ug/L	10 U	10 U	11 U	11 U	10 U
Acenaphthylene	ug/L	10 U	10 U	11 U	11 U	10 U
2,6-Dinitrotoluene	ug/L	10 U	10 U	11 U	11 U	10 U
3-Nitroaniline	ug/L	26 U	26 U	29 U	27 U	26 U
Acenaphthene	ug/L	10 U	10 U	11 U	11 U	10 U
2,4-Dinitrophenol	ug/L	26 U	26 U	29 U	27 U	26 U
4-Nitrophenol	ug/L	26 U	26 U	29 U	27 U	26 U
Dibenzofuran	ug/L	10 U	10 U	11 U	11 U	10 U
2,4-Dinitrotoluene	ug/L	10 U	10 U	11 U	11 U	10 U
Diethylphthalate	ug/L	10 U	10 U	11 U	11 U	10 U
4-Chlorophenyl-phenyl ether	ug/L	10 U	10 U	11 U	11 U	10 U
Fluorene	ug/L	10 U	10 U	11 U	11 U	10 U
4-Nitroaniline	ug/L	26 U	26 U	29 U	27 U	26 U
4,6-Dinitro-2-methylphenol	ug/L	26 U	26 U	29 U	27 U	26 U
N-Nitrosodiphenylamine	ug/L	10 U	10 U	11 U	11 U	10 U
4-Bromophenyl-phenyl ether	ug/L	10 U	10 U	11 U	11 U	10 U
Hexachlorobenzene	ug/L	10 U	10 U	11 U	11 U	10 U
Pentachlorophenol	ug/L	26 U	26 U	29 U	27 U	26 U
Phenanthrene	ug/L	10 U	10 U	11 U	11 U	10 U
Anthracene	ug/L	10 U	10 U	11 U	11 U	10 U
Carbazole	ug/L	10 U	10 U	11 U	11 U	10 U
Di-n-butylphthalate	ug/L	10 U	10 U	11 U	11 U	10 U
Fluoranthene	ug/L	10 U	10 U	11 U	11 U	10 U
Pyrene	ug/L	10 U	10 U	11 U	11 U	10 U
Butylbenzylphthalate	ug/L	10 U	10 U	11 U	11 U	10 U
3,3'-Dichlorobenzidine	ug/L	10 U	10 U	11 U	11 U	10 U
Benzo(a)anthracene	ug/L	10 U	10 U	11 U	11 U	10 U
Chrysene	ug/L	10 U	10 U	11 U	11 U	10 U
bis(2-Ethylhexyl)phthalate	ug/L	10 U	10 U	11 U	11 U	10 U
Di-n-octylphthalate	ug/L	10 U	10 U	11 U	11 U	10 U
Benzo(b)fluoranthene	ug/L	10 U	10 U	11 U	11 U	10 U
Benzo(k)fluoranthene	ug/L	10 U	10 U	11 U	11 U	10 U
Benzo(a)pyrene	ug/L	10 U	10 U	11 U	11 U	10 U
Indeno(1,2,3-cd)pyrene	ug/L	10 U	10 U	11 U	11 U	10 U
Dibenz(a,h)anthracene	ug/L	10 U	10 U	11 U	11 U	10 U
Benzo(g,h,i)perylene	ug/L	10 U	10 U	11 U	11 U	10 U

SENECA ARMY DEPOT  
SEAD-12 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

MATRIX LOCATION	WATER SEAD-12	WATER SEAD-12	WATER SEAD-12	WATER SEAD-12	WATER SEAD-12	WATER SEAD-12
SAMPLE DATE	07/20/94	07/20/94	07/20/94	07/19/94	07/19/94	07/19/94
ES ID	MW12A-1	MW12A-2	MW12A-3	MW12B-1	MW12B-2	MW12B-3
LAB ID	227608	227609	227610	227442	227443	227444
SDG NUMBER	45448	45448	45448	45332	45332	45332
COMPOUND	UNITS					
<b>PESTICIDES/PCB</b>						
alpha-BHC	ug/L	0.052 U	0.054 U	0.054 U	0.058 U	0.058 U
beta-BHC	ug/L	0.052 U	0.054 U	0.054 U	0.058 U	0.058 U
delta-BHC	ug/L	0.052 U	0.054 U	0.054 U	0.058 U	0.058 U
gamma-BHC (Lindane)	ug/L	0.052 U	0.054 U	0.054 U	0.058 U	0.058 U
Heptachlor	ug/L	0.052 U	0.054 U	0.054 U	0.058 U	0.058 U
Aldrin	ug/L	0.052 U	0.054 U	0.054 U	0.058 U	0.058 U
Heptachlor epoxide	ug/L	0.052 U	0.054 U	0.054 U	0.058 U	0.058 U
Endosulfan I	ug/L	0.052 U	0.054 U	0.054 U	0.058 U	0.058 U
Dieldrin	ug/L	0.1 U	0.11 U	0.11 U	0.12 U	0.12 U
4,4'-DDE	ug/L	0.1 U	0.11 U	0.11 U	0.12 U	0.12 U
Endrin	ug/L	0.1 U	0.11 U	0.11 U	0.12 U	0.12 U
Endosulfan II	ug/L	0.1 U	0.11 U	0.11 U	0.12 U	0.12 U
4,4'-DDD	ug/L	0.1 U	0.11 U	0.11 U	0.12 U	0.12 U
Endosulfan sulfate	ug/L	0.1 U	0.11 U	0.11 U	0.12 U	0.12 U
4,4'-DDT	ug/L	0.1 U	0.11 U	0.11 U	0.12 U	0.12 U
Methoxychlor	ug/L	0.52 U	0.54 U	0.54 U	0.58 U	0.58 U
Endrin ketone	ug/L	0.1 U	0.11 U	0.11 U	0.12 U	0.12 U
Endrin aldehyde	ug/L	0.1 U	0.11 U	0.11 U	0.12 U	0.12 U
alpha-Chlordane	ug/L	0.052 U	0.054 U	0.054 U	0.058 U	0.058 U
gamma-Chlordane	ug/L	0.052 U	0.054 U	0.054 U	0.058 U	0.058 U
Toxaphene	ug/L	5.2 U	5.4 U	5.4 U	5.8 U	5.8 U
Aroclor-1018	ug/L	1 U	1.1 U	1.1 U	1.2 U	1.2 U
Aroclor-1221	ug/L	2.1 U	2.1 U	2.2 U	2.3 U	2.2 U
Aroclor-1232	ug/L	1 U	1.1 U	1.1 U	1.2 U	1.1 U
Aroclor-1242	ug/L	1 U	1.1 U	1.1 U	1.2 U	1.1 U
Aroclor-1248	ug/L	1 U	1.1 U	1.1 U	1.2 U	1.1 U
Aroclor-1254	ug/L	1 U	1.1 U	1.1 U	1.2 U	1.1 U
Aroclor-1260	ug/L	1 U	1.1 U	1.1 U	1.2 U	1.1 U
<b>METALS</b>						
Aluminum	ug/L	5640	2910	1040	4680 J	9680 J
Antimony	ug/L	1.3 U	1.3 U	1.3 U	1.4 J	1.3 U
Arsenic	ug/L	2 U	2 U	2 U	3.2 J	3 J
Barium	ug/L	94.2 J	79.1 J	146 J	102 J	171 J
Beryllium	ug/L	0.1 U	0.1 U	0.1 U	0.21 J	0.71 J
Cadmium	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.26 J
Calcium	ug/L	123000	108000	109000	183000	280000
Chromium	ug/L	9.4 J	4.1 J	1.7 J	9.8 J	16.5
Cobalt	ug/L	6.2 J	2.4 J	1.1 J	8 J	15.2 J
Copper	ug/L	11.7 J	4.5 J	1.3 J	16.8 J	25.1
Iron	ug/L	9830 J	4030 J	2140 J	10500	20700
Lead	ug/L	4.5	2 J	0.89 U	11	18.6
Magnesium	ug/L	32800	17500	29900	46800	71100
Manganese	ug/L	223	237	77	536	800
Mercury	ug/L	0.08 J	0.05 J	0.06 J	0.08 J	0.05 J
Nickel	ug/L	17.3 J	8.9 J	2.6 J	24.4 J	38.6 J
Potassium	ug/L	4180 J	2470 J	4730 J	13000 J	5510 J
Selenium	ug/L	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U
Silver	ug/L	0.5 U	0.7 J	0.5 U	2.7 J	0.59 J
Sodium	ug/L	9020	5120	8770	18500	16400
Thallium	ug/L	1.9 U	1.9 U	1.9 U	2.6 J	1.9 U
Vanadium	ug/L	10 J	4.9 J	2.2 J	9.5 J	18.3 J
Zinc	ug/L	50.3	18.7 J	18.6 J	32.8	55.7
Cyanide	ug/L	5 UJ	5 UJ	5 UJ	5 U	5 U
<b>OTHER ANALYSES</b>						
Nitrate/Nitrite - Nitrogen	mg/L					
Total Petroleum Hydrocarbons	mg/L					
pH	Standard Units	7.9	7.4	7.1	5.8	8.2
Conductivity	umhos/cm	625	500	575	1100	1075
Temperature	°C	13.7	11.5	13.2	12.9	14.3
Turbidity	NTU	198	114	165	>1000	>1000



SENECA ARMY DEPOT  
SEAD-12 ENVIRONMENTAL SITE INSPECTION  
SURFACE WATER ANALYSIS RESULTS

COMPOUND	MATRIX	WATER	WATER	WATER	WATER
	LOCATION	SEAD-12	SEAD-12	SEAD-12	SEAD-12
	SAMPLE DATE	06/24/94	06/24/94	06/11/94	06/11/94
	ES ID	SW12A-1	SW12A-20	SW12A-2	SW12A-3
	LAB ID	225429	225430	223898	223899
	SDG NUMBER	44745	44745	44745	44745
	UNITS		SW12A-1DUP		
VOLATILE ORGANICS					
Chloromethane	ug/L	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U
1,2-Dichloroethane (total)	ug/L	10 U	10 U	10 U	10 U
Chloroform	ug/L	10 U	10 U	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	10 U	10 U	10 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	10 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	10 U	10 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U
Trichloroethene	ug/L	10 U	10 U	10 U	10 U
Dibromochloromethane	ug/L	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	10 U	10 U	10 U
Benzene	ug/L	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U
Bromoform	ug/L	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 U	10 U	10 U
Toluene	ug/L	10 U	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	10 U	10 U	10 U	10 U
Styrene	ug/L	10 U	10 U	10 U	10 U
Xylene (total)	ug/L	10 U	10 U	10 U	10 U
HERBICIDES					
2,4-D	ug/L				
2,4-DB	ug/L				
2,4,5-T	ug/L				
2,4,5-TP (Silvex)	ug/L				
Dalapon	ug/L				
Dicamba	ug/L				
Dichloroprop	ug/L				
Dinoseb	ug/L				
MCPA	ug/L				
MCPP	ug/L				
NITROAROMATICS					
HMX	ug/L				
RDX	ug/L				
1,3,5-Trinitrobenzene	ug/L				
1,3-Dinitrobenzene	ug/L				
Tetryl	ug/L				
2,4,6-Trinitrotoluene	ug/L				
4-amino-2,6-Dinitrotoluene	ug/L				
2-amino-4,6-Dinitrotoluene	ug/L				
2,6-Dinitrotoluene	ug/L				
2,4-Dinitrotoluene	ug/L				

SENECA ARMY DEPOT  
SEAD-12 ENVIRONMENTAL SITE INSPECTION  
SURFACE WATER ANALYSIS RESULTS

COMPOUND	MATRIX	WATER	WATER	WATER	WATER
	LOCATION	SEAD-12	SEAD-12	SEAD-12	SEAD-12
SDG NUMBER	SAMPLE DATE	06/24/94	06/24/94	06/11/94	06/11/94
UNITS	ES ID	SW12A-1	SW12A-20	SW12A-2	SW12A-3
	LAB ID	225429	225430	223898	223899
	SDG NUMBER	44745	44745	44745	44745
	UNITS		SW12A-1DUP		
SEMIVOLATILE ORGANICS					
Phenol	ug/L	10 U	10 U	10 U	10 U
bis(2-Chloroethyl) ether	ug/L	10 U	10 U	10 U	10 U
2-Chlorophenol	ug/L	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	ug/L	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	ug/L	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	ug/L	10 U	10 U	10 U	10 U
2-Methylphenol	ug/L	10 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	ug/L	10 U	10 U	10 U	10 U
4-Methylphenol	ug/L	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	ug/L	10 U	10 U	10 U	10 U
Hexachloroethane	ug/L	10 U	10 U	10 U	10 U
Nitrobenzene	ug/L	10 U	10 U	10 U	10 U
Isophorone	ug/L	10 U	10 U	10 U	10 U
2-Nitrophenol	ug/L	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	ug/L	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy) methane	ug/L	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	ug/L	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	ug/L	10 U	10 U	10 U	10 U
Naphthalene	ug/L	10 U	10 U	10 U	10 U
4-Chloroaniline	ug/L	10 U	10 U	10 U	10 U
Hexachlorobutadiene	ug/L	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	ug/L	10 U	10 U	10 U	10 U
2-Methylnaphthalene	ug/L	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	ug/L	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	ug/L	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	ug/L	25 U	25 U	25 U	26 U
2-Chloronaphthalene	ug/L	10 U	10 U	10 U	10 U
2-Nitroaniline	ug/L	25 U	25 U	25 U	26 U
Dimethylphthalate	ug/L	10 U	10 U	10 U	10 U
Acenaphthylene	ug/L	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	ug/L	10 U	10 U	10 U	10 U
3-Nitroaniline	ug/L	25 U	25 U	25 U	26 U
Acenaphthene	ug/L	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	ug/L	25 U	25 U	25 U	26 U
4-Nitrophenol	ug/L	25 U	25 U	25 U	26 U
Dibenzofuran	ug/L	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	ug/L	10 U	10 U	10 U	10 U
Diethylphthalate	ug/L	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	ug/L	10 U	10 U	10 U	10 U
Fluorane	ug/L	10 U	10 U	10 U	10 U
4-Nitroaniline	ug/L	25 U	25 U	25 U	26 U
4,6-Dinitro-2-methylphenol	ug/L	25 U	25 U	25 U	26 U
N-Nitrosodiphenylamine	ug/L	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	ug/L	10 U	10 U	10 U	10 U
Hexachlorobenzene	ug/L	10 U	10 U	10 U	10 U
Pentachlorophenol	ug/L	2 J	25 U	25 U	26 U
Phenanthrene	ug/L	10 U	10 U	10 U	10 U
Anthracene	ug/L	10 U	10 U	10 U	10 U
Carbazole	ug/L	10 U	10 U	10 U	10 U
Di-n-butylphthalate	ug/L	1 J	0.9 J	2 J	10 U
Fluoranthene	ug/L	10 U	10 U	10 U	10 U
Pyrene	ug/L	1 J	10 U	10 U	10 U
Butylbenzylphthalate	ug/L	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	ug/L	10 U	10 U	10 U	10 U
Benzo(a)anthracene	ug/L	10 U	0.5 J	10 U	10 U
Chrysene	ug/L	10 U	0.5 J	10 U	10 U
bis(2-Ethylhexyl)phthalate	ug/L	10 U	10 U	10 U	10 U
Di-n-octylphthalate	ug/L	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	ug/L	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	ug/L	10 U	1 J	10 U	10 U
Benzo(a)pyrene	ug/L	10 U	0.6 J	10 U	10 U
Indeno(1,2,3-cd)pyrene	ug/L	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	ug/L	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	ug/L	10 U	10 U	10 U	10 U

SENECA ARMY DEPOT  
SEAD-12 ENVIRONMENTAL SITE INSPECTION  
SURFACE WATER ANALYSIS RESULTS

COMPOUND	MATRIX	WATER	WATER	WATER	WATER
	LOCATION	SEAD-12	SEAD-12	SEAD-12	SEAD-12
	SAMPLE DATE	06/24/94	06/24/94	06/11/94	06/11/94
	ES ID	SW12A-1	SW12A-20	SW12A-2	SW12A-3
	LAB ID	225429	225430	223898	223899
	SDG NUMBER	44745	44745	44745	44745
	UNITS		SW12A-1DUP		
PESTICIDES/PCB					
alpha-BHC	ug/L	0.052 U	0.051 U	0.054 U	0.052 U
beta-BHC	ug/L	0.052 U	0.051 U	0.054 U	0.052 U
delta-BHC	ug/L	0.052 U	0.051 U	0.054 U	0.052 U
gamma-BHC (Lindane)	ug/L	0.052 U	0.051 U	0.054 U	0.052 U
Heptachlor	ug/L	0.052 U	0.051 U	0.054 U	0.052 U
Aldrin	ug/L	0.052 U	0.051 U	0.054 U	0.052 U
Heptachlor epoxide	ug/L	0.052 U	0.051 U	0.054 U	0.052 U
Endosulfan I	ug/L	0.052 U	0.051 U	0.054 U	0.052 U
Dieldrin	ug/L	0.1 U	0.1 U	0.11 U	0.1 U
4,4'-DDE	ug/L	0.1 U	0.1 U	0.11 U	0.1 U
Endrin	ug/L	0.1 U	0.1 U	0.11 U	0.1 U
Endosulfan II	ug/L	0.1 U	0.1 U	0.11 U	0.1 U
4,4'-DDD	ug/L	0.1 U	0.1 U	0.11 U	0.1 U
Endosulfan sulfate	ug/L	0.1 U	0.1 U	0.11 U	0.1 U
4,4'-DDT	ug/L	0.1 U	0.1 U	0.11 U	0.1 U
Methoxychlor	ug/L	0.52 U	0.51 U	0.54 U	0.52 U
Endrin ketone	ug/L	0.1 U	0.1 U	0.11 U	0.1 U
Endrin aldehyde	ug/L	0.1 U	0.1 U	0.11 U	0.1 U
alpha-Chlordane	ug/L	0.052 U	0.051 U	0.054 U	0.052 U
gamma-Chlordane	ug/L	0.052 U	0.051 U	0.054 U	0.052 U
Toxaphene	ug/L	5.2 U	5.1 U	5.4 U	5.2 U
Aroclor-1016	ug/L	1 U	1 U	1.1 U	1 U
Aroclor-1221	ug/L	2.1 U	2 U	2.2 U	2.1 U
Aroclor-1232	ug/L	1 U	1 U	1.1 U	1 U
Aroclor-1242	ug/L	1 U	1 U	1.1 U	1 U
Aroclor-1248	ug/L	1 U	1 U	1.1 U	1 U
Aroclor-1254	ug/L	1 U	1 U	1.1 U	1 U
Aroclor-1260	ug/L	1 U	1 U	1.1 U	1 U
METALS					
Aluminum	ug/L	175 J	153 J	86.7 J	879
Antimony	ug/L	1.3 U	1.3 U	1.3 U	1.3 U
Arsenic	ug/L	2 U	2 U	2 U	2 U
Barium	ug/L	28.6 J	27.9 J	30.9 J	41.2 J
Beryllium	ug/L	0.1 U	0.1 U	0.1 U	0.1 U
Cadmium	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Calcium	ug/L	85700	84600	77400	83700
Chromium	ug/L	0.89 J	0.85 J	0.56 J	1.5 J
Cobalt	ug/L	0.5 U	0.53 J	0.81 J	0.73 J
Copper	ug/L	1.2 J	1.2 J	1.6 J	2 J
Iron	ug/L	250	221	126	966
Lead	ug/L	0.9 U	0.89 U	0.9 U	0.89 U
Magnesium	ug/L	15000	14700	17600	18100
Manganese	ug/L	20.1	18.2	492	104
Mercury	ug/L	0.11 J	0.03 J	0.08 J	0.03 U
Nickel	ug/L	0.7 U	0.89 U	0.7 U	1.3 J
Potassium	ug/L	1610 J	1550 J	3360 J	1650 J
Selenium	ug/L	2.7 U	2.7 U	2.7 U	2.7 U
Silver	ug/L	0.5 U	0.57 J	0.58 J	0.5 U
Sodium	ug/L	7030	6830	70700	6940
Thallium	ug/L	1.9 U	1.9 U	2 J	1.9 U
Vanadium	ug/L	0.98 J	0.89 J	0.86 J	1.6 J
Zinc	ug/L	5.4 J	3.4 J	2.2 J	12.9 J
Cyanide	ug/L	5 U	5 U	5 U	5 U
OTHER ANALYSES					
Nitrate/Nitrite-Nitrogen	mg/L				
Total Petroleum Hydrocarbons	mg/L				
pH	Standard Units	7.9		6.8	5.6
Conductivity	umhos/cm	530		800	825
Temperature	°C	20.3		14	25
Turbidity	NTU	4.8		2.8	3.5

SENECA ARMY DEPOT  
 SEAD-12 ENVIRONMENTAL SITE INSPECTION  
 SEDIMENT ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-12 0-0.2 08/22/94 SD12A-1 225398 44799	SOIL SEAD-12 0-0.2 08/22/94 SD12A-20 225397 44799 SD12A-1DUP	SOIL SEAD-12 0-0.2 08/11/94 SD12A-2 223908 44748	SOIL SEAD-12 0-0.2 08/11/94 SD12A-3 223909 44748	SOIL SEAD-12 0-0.2 08/11/94 SD12A-4 223910 44748
<b>VOLATILE ORGANICS</b>					
Chloromethane	ug/Kg	13 U	12 U	20 U	19 U
Bromomethane	ug/Kg	13 U	12 U	20 U	19 U
Vinyl Chloride	ug/Kg	13 U	12 U	20 U	19 U
Chloroethane	ug/Kg	13 U	12 U	20 U	19 U
Methylene Chloride	ug/Kg	13 U	12 U	20 U	19 U
Acetone	ug/Kg	13 U	12 U	20 U	24 U
Carbon Disulfide	ug/Kg	13 U	12 U	20 U	19 U
1,1-Dichloroethane	ug/Kg	13 U	12 U	20 U	19 U
1,1-Dichloroethane	ug/Kg	13 U	12 U	20 U	19 U
1,2-Dichloroethane (total)	ug/Kg	13 U	12 U	20 U	19 U
Chloroform	ug/Kg	13 U	12 U	20 U	19 U
1,2-Dichloroethane	ug/Kg	13 U	12 U	20 U	19 U
2-Butanone	ug/Kg	13 U	12 U	20 U	19 U
1,1,1-Trichloroethane	ug/Kg	13 U	12 U	20 U	19 U
Carbon Tetrachloride	ug/Kg	13 U	12 U	20 U	19 U
Bromodichloromethane	ug/Kg	13 U	12 U	20 U	19 U
1,2-Dichloropropane	ug/Kg	13 U	12 U	20 U	19 U
cis-1,3-Dichloropropene	ug/Kg	13 U	12 U	20 U	19 U
Trichloroethene	ug/Kg	13 U	12 U	20 U	19 U
Dibromochloromethane	ug/Kg	13 U	12 U	20 U	19 U
1,1,2-Trichloroethane	ug/Kg	13 U	12 U	20 U	19 U
Benzene	ug/Kg	13 U	12 U	20 U	19 U
trans-1,3-Dichloropropene	ug/Kg	13 U	12 U	20 U	19 U
Bromoform	ug/Kg	13 U	12 U	20 U	19 U
4-Methyl-2-Pentanone	ug/Kg	13 U	12 U	20 U	19 U
2-Hexanone	ug/Kg	13 U	12 U	20 U	19 U
Tetrachloroethene	ug/Kg	13 U	12 U	20 U	19 U
1,1,2,2-Tetrachloroethane	ug/Kg	13 U	12 U	20 U	19 U
Toluene	ug/Kg	13 U	12 U	20 U	19 U
Chlorobenzene	ug/Kg	13 U	12 U	20 U	19 U
Ethylbenzene	ug/Kg	13 U	12 U	20 U	19 U
Styrene	ug/Kg	13 U	12 U	20 U	19 U
Xylene (total)	ug/Kg	13 U	12 U	20 U	19 U
<b>HERBICIDES</b>					
2,4-D	ug/Kg				
2,4-DB	ug/Kg				
2,4,5-T	ug/Kg				
2,4,5-TP (Silvex)	ug/Kg				
Dalapon	ug/Kg				
Dicamba	ug/Kg				
Dichloroprop	ug/Kg				
Dinoseb	ug/Kg				
MCPA	ug/Kg				
MCPP	ug/Kg				
<b>NITROAROMATICS</b>					
HMX	ug/Kg				
RDX	ug/Kg				
1,3,5-Trinitrobenzene	ug/Kg				
1,3-Dinitrobenzene	ug/Kg				
Tetryl	ug/Kg				
2,4,6-Trinitrotoluene	ug/Kg				
4-amino-2,6-Dinitrotoluene	ug/Kg				
2-amino-4,6-Dinitrotoluene	ug/Kg				
2,6-Dinitrotoluene	ug/Kg				
2,4-Dinitrotoluene	ug/Kg				

SENECA ARMY DEPOT  
SEAD-12 ENVIRONMENTAL SITE INSPECTION  
SEDIMENT ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-12 0-0.2 06/22/94 SD12A-1 225396 44799	SOIL SEAD-12 0-0.2 06/22/94 SD12A-20 225397 44799	SOIL SEAD-12 0-0.2 06/11/94 SD12A-2 223908 44748	SOIL SEAD-12 0-0.2 06/11/94 SD12A-3 223909 44748	SOIL SEAD-12 0-0.2 06/11/94 SD12A-4 223910 44748
COMPOUND UNITS					
SEMIVOLATILE ORGANICS					
Phenol	ug/Kg 430 U	450 U	610 U	450 U	400 U
bis(2-Chloroethyl) ether	ug/Kg 430 U	450 U	610 U	450 U	400 U
2-Chlorophenol	ug/Kg 430 U	450 U	610 U	450 U	400 U
1,3-Dichlorobenzene	ug/Kg 430 U	450 U	610 U	450 U	400 U
1,4-Dichlorobenzene	ug/Kg 430 U	450 U	610 U	450 U	400 U
1,2-Dichlorobenzene	ug/Kg 430 U	450 U	610 U	450 U	400 U
2-Methylphenol	ug/Kg 430 U	450 U	610 U	450 U	400 U
2,2'-oxybis(1-Chloropropane)	ug/Kg 430 U	450 U	610 U	450 U	400 U
4-Methylphenol	ug/Kg 430 U	450 U	610 U	450 U	400 U
N-Nitroso-d-n-propylamine	ug/Kg 430 U	450 U	610 U	450 U	400 U
Hexachloroethane	ug/Kg 430 U	450 U	610 U	450 U	400 U
Nitrobenzene	ug/Kg 430 U	450 U	610 U	450 U	400 U
Isophorone	ug/Kg 430 U	450 U	610 U	450 U	400 U
2-Nitrophenol	ug/Kg 430 U	450 U	610 U	450 U	400 U
2,4-Dimethylphenol	ug/Kg 430 U	450 U	610 U	450 U	400 U
bis(2-Chloroethoxy) methane	ug/Kg 430 U	450 U	610 U	450 U	400 U
2,4-Dichlorophenol	ug/Kg 430 U	450 U	610 U	450 U	400 U
1,2,4-Trichlorobenzene	ug/Kg 430 U	450 U	610 U	450 U	400 U
Naphthalene	ug/Kg 430 U	450 U	610 U	450 U	400 U
4-Chloroaniline	ug/Kg 430 U	450 U	610 U	450 U	400 U
Hexachlorobutadiene	ug/Kg 430 U	450 U	610 U	450 U	400 U
4-Chloro-3-methylphenol	ug/Kg 430 U	450 U	610 U	450 U	400 U
2-Methylnaphthalene	ug/Kg 430 U	450 U	610 U	450 U	400 U
Hexachlorocyclopentadiene	ug/Kg 430 U	450 U	610 U	450 U	400 U
2,4,6-Trichlorophenol	ug/Kg 430 U	450 U	610 U	450 U	400 U
2,4,5-Trichlorophenol	ug/Kg 1000 U	1100 U	1500 U	1100 U	960 U
2-Chloronaphthalene	ug/Kg 430 U	450 U	610 U	450 U	400 U
2-Nitroaniline	ug/Kg 1000 U	1100 U	1500 U	1100 U	960 U
Dimethylphthalate	ug/Kg 430 U	450 U	610 U	450 U	400 U
Acenaphthylene	ug/Kg 430 U	450 U	610 U	450 U	400 U
2,6-Dinitrotoluene	ug/Kg 430 U	450 U	610 U	450 U	400 U
3-Nitroaniline	ug/Kg 1000 U	1100 U	1500 U	1100 U	960 U
Acenaphthene	ug/Kg 430 U	450 U	610 U	450 U	400 U
2,4-Dinitrophenol	ug/Kg 1000 U	1100 U	1500 U	1100 U	960 U
4-Nitrophenol	ug/Kg 1000 U	1100 U	1500 U	1100 U	960 U
Dibenzofuran	ug/Kg 430 U	450 U	610 U	450 U	400 U
2,4-Dinitrotoluene	ug/Kg 430 U	450 U	610 U	450 U	400 U
Diethylphthalate	ug/Kg 430 U	450 U	610 U	450 U	400 U
4-Chlorophenyl-phenylether	ug/Kg 430 U	450 U	610 U	450 U	400 U
Fluorene	ug/Kg 430 U	450 U	610 U	450 U	400 U
4-Nitroaniline	ug/Kg 1000 U	1100 U	1500 U	1100 U	960 U
4,6-Dinitro-2-methylphenol	ug/Kg 1000 U	1100 U	1500 U	1100 U	960 U
N-Nitrosodiphenylamine	ug/Kg 430 U	450 U	610 U	450 U	400 U
4-Bromophenyl-phenylether	ug/Kg 430 U	450 U	610 U	450 U	400 U
Hexachlorobenzene	ug/Kg 430 U	450 U	610 U	450 U	400 U
Pentachlorophenol	ug/Kg 1000 U	1100 U	1500 U	1100 U	960 U
Phenanthrene	ug/Kg 430 U	450 U	610 U	450 U	400 U
Anthracene	ug/Kg 430 U	450 U	610 U	450 U	400 U
Carbazole	ug/Kg 430 U	450 U	610 U	450 U	400 U
Di-n-butylphthalate	ug/Kg 430 U	53 J	610 U	450 U	400 U
Fluoranthene	ug/Kg 430 U	450 U	610 U	28 J	400 U
Pyrene	ug/Kg 430 U	450 U	610 U	450 U	400 U
Butylbenzylphthalate	ug/Kg 430 U	450 U	610 U	450 U	400 U
3,3'-Dichlorobenzidine	ug/Kg 430 U	450 U	610 U	450 U	400 U
Benzo(a)anthracene	ug/Kg 430 U	450 U	610 U	450 U	400 U
Chrysene	ug/Kg 430 U	450 U	610 U	450 U	400 U
bis(2-Ethylhexyl)phthalate	ug/Kg 430 U	450 U	610 U	450 U	400 U
Di-n-octylphthalate	ug/Kg 430 U	450 U	610 U	450 U	400 U
Benzo(b)fluoranthene	ug/Kg 430 U	450 U	610 U	450 U	400 U
Benzo(k)fluoranthene	ug/Kg 430 U	450 U	610 U	450 U	400 U
Benzo(a)pyrene	ug/Kg 430 U	450 U	610 U	450 U	400 U
Indeno(1,2,3-cd)pyrene	ug/Kg 430 U	450 U	610 U	450 U	400 U
Dibenz(a,h)anthracene	ug/Kg 430 U	450 U	610 U	450 U	400 U
Benzo(g,h,i)perylene	ug/Kg 430 U	450 U	610 U	450 U	400 U

SENECA ARMY DEPOT  
SEAD-12 ENVIRONMENTAL SITE INSPECTION  
SEDIMENT ANALYSIS RESULTS

MATRIX LOCATION	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	
DEPTH (FEET)	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	
SAMPLE DATE	08/22/94	08/22/94	08/11/94	08/11/94	08/11/94	
ES ID	SD12A-1	SD12A-20	SD12A-2	SD12A-3	SD12A-4	
LAB ID	225396	225397	223908	223909	223910	
SDG NUMBER	44799	44799	44748	44748	44748	
UNITS		SD12A-1DUP				
<b>PESTICIDES/PCB</b>						
alpha-BHC	ug/Kg	2.2 U	2.3 U	3.1 U	2.3 U	2 U
beta-BHC	ug/Kg	2.2 U	2.3 U	3.1 U	2.3 U	2 U
delta-BHC	ug/Kg	2.2 U	2.3 U	3.1 U	2.3 U	2 U
gamma-BHC (Lindane)	ug/Kg	2.2 U	2.3 U	3.1 U	2.3 U	2 U
Heptachlor	ug/Kg	2.2 U	2.3 U	3.1 U	2.3 U	2 U
Aldrin	ug/Kg	2.2 U	2.3 U	3.1 U	2.3 U	2 U
Heptachlor epoxide	ug/Kg	2.2 U	2.3 U	3.1 U	2.3 U	2 U
Endosulfan I	ug/Kg	2.2 U	2.3 U	3.1 U	2.3 U	2 U
Dieldrin	ug/Kg	4.3 U	4.5 U	6.1 U	4.5 U	4 U
4,4'-DDE	ug/Kg	4.3 U	4.5 U	6.1 U	4.5 U	4 U
Endrin	ug/Kg	4.3 U	4.5 U	6.1 U	4.5 U	4 U
Endosulfan II	ug/Kg	4.3 U	4.5 U	6.1 U	4.5 U	4 U
4,4'-DDD	ug/Kg	4.3 U	4.5 U	6.1 U	4.5 U	4 U
Endosulfan sulfate	ug/Kg	4.3 U	4.5 U	6.1 U	4.5 U	4 U
4,4'-DDT	ug/Kg	4.3 U	4.5 U	6.1 U	4.5 U	4 U
Methoxychlor	ug/Kg	22 U	23 U	31 U	23 U	20 U
Endrin ketone	ug/Kg	4.3 U	4.5 U	6.1 U	4.5 U	4 U
Endrin aldehyde	ug/Kg	4.3 U	4.5 U	6.1 U	4.5 U	4 U
alpha-Chlordane	ug/Kg	2.2 U	2.3 U	3.1 U	2.3 U	2 U
gamma-Chlordane	ug/Kg	2.2 U	2.3 U	3.1 U	2.3 U	2 U
Toxaphene	ug/Kg	220 U	230 U	310 U	230 U	200 U
Aroclor-1016	ug/Kg	43 U	45 U	61 U	45 U	40 U
Aroclor-1221	ug/Kg	87 U	91 U	120 U	92 U	81 U
Aroclor-1232	ug/Kg	43 U	45 U	61 U	45 U	40 U
Aroclor-1242	ug/Kg	43 U	45 U	61 U	45 U	40 U
Aroclor-1248	ug/Kg	43 U	45 U	61 U	45 U	40 U
Aroclor-1254	ug/Kg	43 U	45 U	61 U	45 U	40 U
Aroclor-1260	ug/Kg	43 U	45 U	61 U	45 U	40 U
<b>METALS</b>						
Aluminum	mg/Kg	17400	18800	11800	13800	11700
Antimony	mg/Kg	0.34 UJ	0.34 UJ	0.3 UJ	0.23 UJ	0.29 UJ
Arsenic	mg/Kg	8	15.8	4	5.8	4.1
Barium	mg/Kg	349	848	84.1	83.7	108
Beryllium	mg/Kg	1 J	1.2 J	0.82 J	0.86 J	0.54 J
Cadmium	mg/Kg	1.5	3.8	0.82 J	0.85 J	6.9
Calcium	mg/Kg	8060	5560	8630	18200	29800
Chromium	mg/Kg	25.2	26.3	19.1 J	22.2 J	18.9 J
Cobalt	mg/Kg	26.1	71.3	10.3 J	12.6	9.8 J
Copper	mg/Kg	14.1	17.5	29.7	28.9	22.3
Iron	mg/Kg	48900	76200	21800	30400	21600
Lead	mg/Kg	21.4	22.9	18.8 R	15.6 R	14.2 R
Magnesium	mg/Kg	5210	4450	4900	7620	6300
Manganese	mg/Kg	4200 J	13500 J	340	478	408
Mercury	mg/Kg	0.07	0.05 J	0.25	0.06 J	0.03 J
Nickel	mg/Kg	35.7	52.8	31.8	38.8	26
Potassium	mg/Kg	1610 J	1810 J	1450 J	1830 J	1490 J
Selenium	mg/Kg	3.3	4.3	0.82 J	0.89	0.83 J
Silver	mg/Kg	0.13 U	0.44 J	0.12 U	0.06 U	0.11 U
Sodium	mg/Kg	96.2 J	87.1 J	136 J	139 J	47.9 J
Thallium	mg/Kg	0.48 U	0.49 U	0.44 U	0.33 U	0.42 U
Vanadium	mg/Kg	31.7	40.1	21.7	23.7	20
Zinc	mg/Kg	158	170	172	147	222
Cyanide	mg/Kg	0.57 U	0.82 U	0.87 U	0.87 U	0.6 U
<b>OTHER ANALYSES</b>						
Nitrate/Nitrite - Nitrogen	mg/Kg					
Total Petroleum Hydrocarbons	mg/Kg					
Total Solids	%W/W	78.8	73.8	54.2	72.9	83.2

**SENECA ARMY DEPOT  
SEAD-12 EXPANDED SITE INSPECTION  
SOIL RADIOACTIVITY ANALYSIS RESULTS**

	MEDIA SWMU	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12
	DEPTH (FT)	0-0.2	4-6	8-9.5	2.5	3	6	5	2.5
	DATE SAMPLED	6/10/94	6/10/94	6/10/94	6/24/94	6/24/94	6/22/94	6/22/94	6/22/94
	ES ID	MW12A-1-00	MW12A-1-03	MW12A-1-05	TP12A-1-1	TP12A-1-2	TP12A-2-1	TP12A-2-2	TP12A-3-1
	LAB ID	224295	224296	224297	225663	225664	255657	225658	225659
	UNITS								
Gross Alpha	pCi/g	13 ± 5	8 ± 4	6 ± 4	17 ± 8	74 ± 14	21 ± 7	15 ± 7	21 ± 8
Gross Beta	pCi/g	27 ± 6	21 ± 5	24 ± 6	33 ± 6	52 ± 7	28 ± 6	27 ± 6	30 ± 6
Gamma Spectral									
Lead-210 @ 46KeV	pCi/g	2.8 ± 7	1.2 ± 0.6	1.5 ± 0.6	6.9 ± 1.4	14 ± 3	1.9 ± 0.5	2.3 ± 0.7	1.9 ± 0.5
Thorium-234 @ 63.3 KeV	pCi/g	0.76 ± 0.4	0.38 ± 0.39	0.27 ± 0.26	0.91 ± 0.48	-0.24 ± 0.62	0.31 ± 0.29	0.56 ± 0.43	0.58 ± 0.28
Thorium-234 @ 92.6 KeV	pCi/g	0.38 ± 0.39	0.3 ± 0.39	0.3 ± 0.22	0.15 ± 0.65	1.6 ± 0.6	0.10 ± 0.23	0.30 ± 0.34	0.34 ± 0.22
Radium-226 @ 186 KeV	pCi/g	0.75 ± 0.35	0.88 ± 0.35	1.2 ± 0.4	7.6 ± 1.0	22 ± 2	1.9 ± 0.4	2.1 ± 0.5	1.3 ± 0.4
Lead-214 @ 295.2 KeV	pCi/g	0.78 ± 0.13	0.74 ± 0.13	0.84 ± 0.14	6.9 ± 0.8	25 ± 2	1.6 ± 0.2	1.7 ± 0.2	1.0 ± 0.2
Lead-214 @ 352 KeV	pCi/g	0.83 ± 0.11	0.78 ± 0.1	0.78 ± 0.1	6.8 ± 0.7	25 ± 2	1.6 ± 0.2	1.9 ± 0.2	0.96 ± 0.12
Bismuth-214 @ 609.4 KeV	pCi/g	0.7 ± 0.11	0.69 ± 0.11	0.8 ± 0.13	6.8 ± 0.6	23 ± 2	1.5 ± 0.2	1.8 ± 0.2	0.93 ± 0.12
Bismuth-214 @ 1120.4 KeV	pCi/g	0.54 ± 0.24	0.36 ± 0.42	0.88 ± 0.27	7.0 ± 0.8	25 ± 2	1.7 ± 0.3	1.7 ± 0.4	0.84 ± 0.26
Bismuth-214 @ 1764.7 KeV	pCi/g	0.72 ± 0.28	0.58 ± 0.27	0.69 ± 0.21	5.7 ± 0.8	22 ± 2	1.4 ± 0.3	1.5 ± 0.3	0.86 ± 0.25
Actinium-228 @ 338 KeV	pCi/g	0.78 ± 0.34	0.68 ± 0.3	0.64 ± 0.29	0.74 ± 0.33	0.65 ± 0.35	0.74 ± 0.32	0.60 ± 0.27	0.91 ± 0.38
Actinium-228 @ 911 KeV	pCi/g	0.61 ± 0.2	0.67 ± 0.2	0.81 ± 0.23	0.68 ± 0.21	0.90 ± 0.27	0.84 ± 0.23	0.67 ± 0.20	1.2 ± 0.3
Actinium-228 @ 968 KeV	pCi/g	0.5 ± 0.25	0.34 ± 0.23	0.84 ± 0.28	0.67 ± 0.27	0.91 ± 0.34	0.70 ± 0.26	0.81 ± 0.27	0.84 ± 0.29
Lead-212 @ 238 KeV	pCi/g	0.66 ± 0.15	0.61 ± 0.14	0.86 ± 0.17	0.40 ± 0.39	-0.07 ± 0.12	0.75 ± 0.18	0.59 ± 0.20	0.92 ± 0.19
Bismuth-212 @ 727 KeV	pCi/g	1.1 ± 0.4	0.75 ± 0.38	1.2 ± 0.6	0.86 ± 0.47	1.2 ± 0.6	1.3 ± 0.4	1.3 ± 0.4	1.3 ± 0.4
Thallium-208 @ 583 KeV	pCi/g	0.26 ± 0.05	0.21 ± 0.05	0.29 ± 0.05	0.26 ± 0.05	0.25 ± 0.06	0.27 ± 0.05	0.23 ± 0.05	0.35 ± 0.06
Thallium-208 @ 860 KeV	pCi/g	0.2 ± 0.69	0.39 ± 0.23	0.41 ± 0.22	0.43 ± 0.27	0.88 ± 1.4	0.35 ± 0.21	0.49 ± 0.74	0.49 ± 0.23
Uranium-235 @ 143.8 KeV	pCi/g	-0.02 ± 0.14	0.04 ± 0.05	0.08 ± 0.02	0.05 ± 0.08	-0.18 ± 0.49	0.15 ± 0.22	0.06 ± 0.07	-0.04 ± 0.22
Cesium-137 @ 661 KeV	pCi/g	0.51 ± 0.06	-0.02 ± 0.08	-0.07 ± 0.11	-0.02 ± 0.07	0.05 ± 0.04	0.10 ± 0.03	0.04 ± 0.03	0.29 ± 0.04
Potassium-40 @ 1460 KeV	pCi/g	14 ± 1	15 ± 2	20 ± 2	16 ± 2	18 ± 2	17 ± 1	16 ± 2	15 ± 1

**SENECA ARMY DEPOT  
SEAD-12 EXPANDED SITE INSPECTION  
SOIL RADIOACTIVITY ANALYSIS RESULTS**

	MEDIA SWMU DEPTH (FT) DATE SAMPLED ES ID LAB ID UNITS	SOIL SEAD-12 6 6/22/94 TP12A-3-2 225660	SOIL SEAD-12 4 6/21/94 TP12A-4-1 224946	SOIL SEAD-12 4 6/21/94 TP12A-4-2 224947	SOIL SEAD-12 3 6/23/94 TP12A-5-1 225650	SOIL SEAD-12 1 6/23/94 TP12A-6-1 225651	SOIL SEAD-12 7 6/23/94 TP12A-6-2 225652	SOIL SEAD-12 4 6/23/94 TP12A-7-1 225653	SOIL SEAD-12 7 6/24/94 TP12A-8-1 225665
Gross Alpha	pCi/g	10 ± 6	12 ± 6	7 ± 5	8 ± 6	14 ± 7	10 ± 6	20 ± 7	5 ± 6
Gross Beta	pCi/g	27 ± 6	17 ± 6	21 ± 6	22 ± 6	29 ± 6	21 ± 6	30 ± 6	23 ± 6
<b>Gamma Spectral</b>									
Lead-210 @ 46KeV	pCi/g	1.7 ± 0.6	1.3 ± 0.7	1.5 ± 0.4	1.3 ± 0.4	2.0 ± 0.6	1.4 ± 0.5	3.8 ± 0.8	1.3 ± 0.7
Thorium-234 @ 63.3 KeV	pCi/g	0.52 ± 0.39	0.88 ± 0.41	0.24 ± 0.24	0.36 ± 0.24	1.1 ± 0.4	0.15 ± 0.23	0.54 ± 0.43	0.44 ± 0.38
Thorium-234 @ 92.6 KeV	pCi/g	0.26 ± 0.38	0.33 ± 0.39	0.20 ± 0.16	0.27 ± 0.18	0.48 ± 0.39	0.38 ± 0.17	0.24 ± 0.30	0.19 ± 0.40
Radium-226 @ 186 KeV	pCi/g	1.1 ± 0.4	0.88 ± 0.35	1.1 ± 0.3	0.77 ± 0.31	1.1 ± 0.4	0.96 ± 0.33	1.3 ± 0.4	1.0 ± 0.40
Lead-214 @ 295.2 KeV	pCi/g	0.85 ± 0.15	0.84 ± 0.15	0.71 ± 0.14	0.68 ± 0.14	0.88 ± 0.16	0.71 ± 0.15	0.78 ± 0.14	0.65 ± 0.13
Lead-214 @ 352 KeV	pCi/g	0.80 ± 0.11	0.83 ± 0.11	0.77 ± 0.10	0.72 ± 0.10	0.82 ± 0.11	0.67 ± 0.09	0.94 ± 0.12	0.60 ± 0.09
Bismuth-214 @ 609.4 KeV	pCi/g	0.74 ± 0.11	0.86 ± 0.12	0.73 ± 0.10	0.61 ± 0.10	0.69 ± 0.14	0.64 ± 0.11	0.96 ± 0.13	0.68 ± 0.11
Bismuth-214 @ 1120.4 KeV	pCi/g	0.84 ± 0.28	0.86 ± 0.29	0.69 ± 0.24	0.56 ± 0.23	0.86 ± 0.29	0.78 ± 0.25	0.75 ± 0.29	0.52 ± 0.26
Bismuth-214 @ 1764.7 KeV	pCi/g	0.68 ± 0.25	0.92 ± 0.31	0.68 ± 0.23	0.44 ± 0.21	0.66 ± 0.24	0.70 ± 0.23	0.64 ± 0.24	0.78 ± 0.26
Actinium-228 @ 338 KeV	pCi/g	0.83 ± 0.35	0.84 ± 0.35	0.55 ± 0.26	0.47 ± 0.23	0.85 ± 0.36	0.63 ± 0.28	0.79 ± 0.34	0.70 ± 0.31
Actinium-228 @ 911 KeV	pCi/g	0.96 ± 0.26	0.72 ± 0.21	0.75 ± 0.21	0.71 ± 0.21	0.87 ± 0.24	0.66 ± 0.19	0.84 ± 0.24	0.52 ± 0.18
Actinium-228 @ 968 KeV	pCi/g	0.79 ± 0.26	0.93 ± 0.29	0.54 ± 0.22	0.72 ± 0.25	0.98 ± 0.30	0.57 ± 0.23	0.68 ± 0.25	0.74 ± 0.26
Lead-212 @ 238 KeV	pCi/g	0.68 ± 0.15	0.62 ± 0.13	0.72 ± 0.15	0.61 ± 0.12	0.71 ± 0.17	0.66 ± 0.13	0.66 ± 0.15	0.54 ± 0.11
Bismuth-212 @ 727 KeV	pCi/g	0.81 ± 0.39	1.1 ± 0.4	0.85 ± 0.37	0.56 ± 0.34	0.96 ± 0.39	0.61 ± 0.36	0.78 ± 0.38	0.69 ± 0.37
Thallium-208 @ 583 KeV	pCi/g	0.24 ± 0.05	0.28 ± 0.05	0.27 ± 0.05	0.24 ± 0.05	0.27 ± 0.05	0.23 ± 0.04	0.30 ± 0.06	0.20 ± 0.04
Thallium-208 @ 860 KeV	pCi/g	0.89 ± 0.66	1.6 ± 0.7	0.55 ± 0.22	-0.05 ± 0.8	0.49 ± 0.23	0.67 ± 0.75	0.37 ± 0.22	0.34 ± 0.21
Uranium-235 @ 143.8 KeV	pCi/g	0.00 ± 0.12	0.07 ± 0.06	0.11 ± 0.20	0.23 ± 0.20	0.18 ± 0.15	0.05 ± 0.2	0.05 ± 0.06	0.03 ± 0.05
Cesium-137 @ 661 KeV	pCi/g	0.02 ± 0.08	0.05 ± 0.03	-0.11 ± 0.11	-0.03 ± 0.10	0.33 ± 0.05	-0.02 ± 0.10	1.3 ± 0.1	0.04 ± 0.07
Potassium-40 @ 1460 KeV	pCi/g	19 ± 2	16 ± 2	17 ± 1	15 ± 1	19 ± 2	16 ± 1	18 ± 2	15 ± 2



**SENECA ARMY DEPOT  
SEAD-12 EXPANDED SITE INSPECTION  
SOIL RADIOACTIVITY ANALYSIS RESULTS**

	MEDIA SWMU	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12	SOIL SEAD-12
	DEPTH (FT)	18-21	4-6	4-6	12-13.5	4	2.5	2.5	2.5
	DATE SAMPLED	6/29/94	6/13/94	6/13/94	6/13/94	6/25/94	6/24/94	6/25/94	6/25/94
	ES ID	SB12B-1	MW12B-1-03	MW12B-1-20	MW12B-1-07	TP12B-1	TP12B-2-1	TP12B-3	TP12B-53
	LAB ID	225920	224318	224320	224319	225671	225666	225667	225669
	UNITS			MW12B-1-03DUP					TP12B-3DUP
Gross Alpha	pCi/g	12 ± 5	3 ± 3	6 ± 4	7 ± 5	8 ± 6	8 ± 6	6 ± 6	7 ± 6
Gross Beta	pCi/g	26 ± 6	22 ± 5	18 ± 5	25 ± 6	25 ± 6	28 ± 6	20 ± 6	14 ± 5
Gamma Spectral									
Lead-210 @ 46KeV	pCi/g	1.2 ± 0.5	1.2 ± 0.4	1.1 ± 0.4	1.9 ± 0.6	1.4 ± 0.5	1.4 ± 0.4	1.0 ± 0.6	2.1 ± 0.6
Thorium-234 @ 63.3 KeV	pCi/g	0.36 ± 0.25	0.23 ± 0.24	0.27 ± 0.25	0.38 ± 0.38	0.20 ± 0.23	0.35 ± 0.25	0.28 ± 0.37	0.39 ± 0.41
Thorium-234 @ 92.6 KeV	pCi/g	0.33 ± 0.18	0.17 ± 0.17	0.11 ± 0.16	0.25 ± 0.34	0.21 ± 0.16	0.16 ± 0.18	0.38 ± 0.31	0.06 ± 0.27
Radium-226 @ 186 KeV	pCi/g	1.2 ± 0.3	0.86 ± 0.34	1.4 ± 0.4	-0.19 ± 0.97	0.78 ± 0.31	0.95 ± 0.33	0.43 ± 0.32	0.94 ± 0.35
Lead-214 @ 295.2 KeV	pCi/g	0.76 ± 0.14	0.76 ± 0.13	0.79 ± 0.14	0.74 ± 0.13	0.66 ± 0.13	0.82 ± 0.14	0.56 ± 0.12	0.54 ± 0.12
Lead-214 @ 352 KeV	pCi/g	0.78 ± 0.10	0.76 ± 0.1	0.73 ± 0.1	0.74 ± 0.1	0.72 ± 0.10	0.84 ± 0.11	0.50 ± 0.08	0.49 ± 0.08
Bismuth-214 @ 609.4 KeV	pCi/g	0.76 ± 0.11	0.73 ± 0.11	0.82 ± 0.12	0.75 ± 0.11	0.68 ± 0.11	0.84 ± 0.11	0.49 ± 0.09	0.52 ± 0.10
Bismuth-214 @ 1120.4 KeV	pCi/g	0.62 ± 0.24	0.91 ± 0.27	0.85 ± 0.26	0.68 ± 0.26	0.69 ± 0.24	0.76 ± 0.24	0.41 ± 0.24	0.45 ± 0.25
Bismuth-214 @ 1764.7 KeV	pCi/g	0.62 ± 0.23	0.98 ± 0.24	0.55 ± 0.19	0.93 ± 0.32	0.51 ± 0.22	0.57 ± 0.22	0.47 ± 0.22	0.51 ± 0.22
Actinium-228 @ 338 KeV	pCi/g	0.65 ± 0.29	0.59 ± 0.26	0.45 ± 0.22	0.57 ± 0.26	0.48 ± 0.23	0.56 ± 0.26	0.41 ± 0.21	0.51 ± 0.24
Actinium-228 @ 911 KeV	pCi/g	0.73 ± 0.21	0.67 ± 0.2	0.67 ± 0.2	0.63 ± 0.2	0.63 ± 0.19	0.74 ± 0.21	0.56 ± 0.18	0.52 ± 0.17
Actinium-228 @ 968 KeV	pCi/g	0.74 ± 0.25	0.67 ± 0.25	0.81 ± 0.26	0.48 ± 0.25	0.51 ± 0.23	0.53 ± 0.21	0.51 ± 0.22	0.46 ± 0.21
Lead-212 @ 238 KeV	pCi/g	0.62 ± 0.13	0.65 ± 0.15	0.65 ± 0.14	0.52 ± 0.13	0.56 ± 0.12	0.70 ± 0.14	0.45 ± 0.11	0.39 ± 0.09
Bismuth-212 @ 727 KeV	pCi/g	0.66 ± 0.37	0.91 ± 0.53	0.55 ± 0.53	0.68 ± 0.36	0.72 ± 0.34	0.88 ± 0.37	0.73 ± 0.37	0.69 ± 0.35
Thallium-208 @ 583 KeV	pCi/g	0.24 ± 0.05	0.22 ± 0.04	0.19 ± 0.04	0.22 ± 0.5	0.21 ± 0.04	0.23 ± 0.05	0.13 ± 0.04	0.14 ± 0.04
Thallium-208 @ 860 KeV	pCi/g	0.33 ± 0.78	0.32 ± 0.2	-0.45 ± 0.88	0.38 ± 0.23	0.35 ± 0.20	0.44 ± 0.22	0.21 ± 0.70	0.46 ± 0.22
Uranium-235 @ 143.8 KeV	pCi/g	0.13 ± 0.21	0.61 ± 0.2	0.09 ± 0.21	0.02 ± 0.05	0.05 ± 0.20	-0.14 ± 0.21	0.05 ± 0.05	0.02 ± 0.13
Cesium-137 @ 661 KeV	pCi/g	-0.01 ± 0.10	0.01 ± 0.1	0.03 ± 0.03	0.02 ± 0.07	0.03 ± 0.10	0.07 ± 0.10	0.00 ± 0.08	0.04 ± 0.07
Potassium-40 @ 1460 KeV	pCi/g	16 ± 1	15 ± 1	16 ± 1	14 ± 2	14 ± 1	17 ± 1	13 ± 1	11 ± 2

**SENECA ARMY DEPOT  
SEAD-12 EXPANDED SITE INSPECTION  
GROUNDWATER RADIOACTIVITY ANALYSIS RESULTS**

	MEDIA SWMU DATE SAMPLED ES ID LAB ID UNITS	WATER SEAD-12 7/20/94 MW12A-1 227883	WATER SEAD-12 7/20/94 MW12A-2 227884	WATER SEAD-12 7/20/94 MW12A-3 227885	WATER SEAD-12 7/19/94 MW12B-1 227878	WATER SEAD-12 7/19/94 MW12B-5 227882 MW12B-1DUP	WATER SEAD-12 7/19/94 MW12B-2 227880	WATER SEAD-12 7/19/94 MW12B-3 227881
Gross Alpha	pCi/L	5 ± 10	18 ± 20	0 ± 5	50 ± 26	23 ± 22	6 ± 25	10 ± 24
Gross Beta	pCi/L	30 ± 9	110 ± 20	10 ± 5	100 ± 30	59 ± 17	100 ± 20	94 ± 22
Tritium (Oxide)	pCi/mL				-0.12 ± 0.21	0.00 ± 0.21	0.06 ± 0.21	-0.14 ± 0.20
Gamma Spectral								
Lead-210 @ 46KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Thorium-234 @ 63.3 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Thorium-234 @ 92.6 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Radium-226 @ 186 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Lead-214 @ 295.2 KeV	pCi/L	ND	ND	ND	44 ± 15	ND	ND	ND
Lead-214 @ 352 KeV	pCi/L	ND	ND	ND	45 ± 11	ND	ND	ND
Bismuth-214 @ 609.4 KeV	pCi/L	ND	ND	ND	66 ± 14	ND	ND	ND
Bismuth-214 @ 1120.4 KeV	pCi/L	ND	ND	ND	75 ± 34	ND	ND	ND
Bismuth-214 @ 1764.7 KeV	pCi/L	ND	ND	ND	65 ± 34	ND	ND	ND
Actinium-228 @ 338 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Actinium-228 @ 911 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Actinium-228 @ 968 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Lead-212 @ 238 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Bismuth-212 @ 727 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Thallium-208 @ 583 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Thallium-208 @ 860 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Uranium-235 @ 143.8 KeV	pCi/L	ND	ND	ND	28 ± 16	ND	ND	ND
Cesium-137 @ 661 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Potassium-40 @ 1460 KeV	pCi/L	ND	120 ± 73	ND	170 ± 72	84 ± 65	85 ± 66	140 ± 69
Radon-226 @ 186 KeV	pCi/L	ND	ND	ND	22 ± 75	ND	ND	ND

**SENECA ARMY DEPOT  
SEAD-12 EXPANDED SITE INSPECTION  
SURFACE WATER RADIOACTIVITY ANALYSIS RESULTS**

	MEDIA SWMU	WATER SEAD-12	WATER SEAD-12	WATER SEAD-12	WATER SEAD-12
	DATE SAMPLED	6/24/94	6/24/94	6/11/94	6/11/94
	ES ID	SW12A-1	SW12A-20	SW12A-2	SW12A-3
	LAB ID	225648	225649	224301	224302
	UNITS		SW12A-1DUP		
Gross Alpha	pCi/L	8 ± 3	9 ± 3	-1 ± 3	2 ± 3
Gross Beta	pCi/L	13 ± 3	9 ± 3	5 ± 4	6 ± 4
Tritium (Oxide)	pCi/mL				
Gamma Spectral					
Lead-210 @ 46KeV	pCi/L	ND	ND	ND	ND
Thorium-234 @ 63.3 KeV	pCi/L	ND	ND	ND	ND
Thorium-234 @ 92.6 KeV	pCi/L	ND	ND	ND	ND
Radium-226 @ 186 KeV	pCi/L	ND	ND	ND	ND
Lead-214 @ 295.2 KeV	pCi/L	ND	ND	ND	ND
Lead-214 @ 352 KeV	pCi/L	ND	ND	ND	ND
Bismuth-214 @ 609.4 KeV	pCi/L	ND	ND	ND	ND
Bismuth-214 @ 1120.4 KeV	pCi/L	ND	ND	ND	ND
Bismuth-214 @ 1764.7 KeV	pCi/L	ND	ND	ND	ND
Actinium-228 @ 338 KeV	pCi/L	ND	ND	ND	ND
Actinium-228 @ 911 KeV	pCi/L	ND	ND	ND	ND
Actinium-228 @ 968 KeV	pCi/L	ND	ND	ND	ND
Lead-212 @ 238 KeV	pCi/L	ND	ND	ND	ND
Bismuth-212 @ 727 KeV	pCi/L	ND	ND	ND	ND
Thallium-208 @ 583 KeV	pCi/L	ND	ND	ND	ND
Thallium-208 @ 860 KeV	pCi/L	ND	ND	ND	ND
Uranium-235 @ 143.8 KeV	pCi/L	ND	ND	ND	ND
Cesium-137 @ 661 KeV	pCi/L	ND	ND	ND	ND
Potassium-40 @ 1460 KeV	pCi/L	-3 ± 58	26 ± 72	4 ± 70	-38 ± 56
Radon-226 @ 186 KeV	pCi/L	ND	ND	ND	ND

**SENECA ARMY DEPOT  
SEAD-12 EXPANDED SITE INSPECTION  
SEDIMENT RADIOACTIVITY ANALYSIS RESULTS**

	MEDIA	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	SWMU	SEAD-12	SEAD-12	SEAD-12	SEAD-12	SEAD-12	SEAD-12
	DEPTH (FT)	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	18-21
	DATE SAMPLED	6/22/94	6/22/94	6/11/94	6/11/94	6/11/94	6/29/94
	ES ID	SD12A-1	SD12A-20	SD12A-2	SD12A-3	SD12A-4	SB12B-1
	LAB ID	225654	255656	224298	224299	224300	225920
	UNITS		SD12A-1DUP				
Gross Alpha	pCi/g	18 ± 7	17 ± 7	8 ± 4	12 ± 5	9 ± 5	12 ± 5
Gross Beta	pCi/g	27 ± 6	26 ± 6	28 ± 6	36 ± 6	28 ± 5	26 ± 6
Gamma Spectral							
Lead-210 @ 46KeV	pCi/g	1.7 ± 0.5	1.7 ± 0.6	3.2 ± 0.9	1.6 ± 0.6	1.5 ± 0.6	1.2 ± 0.5
Thorium-234 @ 63.3 KeV	pCi/g	0.56 ± 0.39	1.6 ± 0.4	0.61 ± 0.47	0.44 ± 0.26	0.43 ± 0.5	0.36 ± 0.25
Thorium-234 @ 92.6 KeV	pCi/g	0.42 ± 0.23	0.67 ± 0.41	0.19 ± 0.32	0.18 ± 0.2	0.54 ± 0.37	0.33 ± 0.18
Radium-226 @ 186 KeV	pCi/g	1.9 ± 0.4	1.7 ± 0.4	0.98 ± 0.36	1.3 ± 0.4	0.93 ± 0.35	1.2 ± 0.3
Lead-214 @ 295.2 KeV	pCi/g	1.2 ± 0.2	1.1 ± 0.2	0.92 ± 0.15	0.76 ± 0.13	0.82 ± 0.14	0.76 ± 0.14
Lead-214 @ 352 KeV	pCi/g	1.1 ± 0.1	1.1 ± 0.1	0.89 ± 0.11	0.83 ± 0.11	0.86 ± 0.11	0.78 ± 0.10
Bismuth-214 @ 609.4 KeV	pCi/g	0.99 ± 0.13	1.0 ± 0.1	0.85 ± 0.13	0.92 ± 0.13	0.82 ± 0.12	0.76 ± 0.11
Bismuth-214 @ 1120.4 KeV	pCi/g	1.1 ± 0.3	1.2 ± 0.3	0.97 ± 0.28	1.1 ± 0.3	0.69 ± 0.45	0.62 ± 0.24
Bismuth-214 @ 1764.7 KeV	pCi/g	0.92 ± 0.25	1.1 ± 0.3	0.87 ± 0.3	0.71 ± 0.21	0.78 ± 0.29	0.62 ± 0.23
Actinium-228 @ 338 KeV	pCi/g	0.92 ± 0.38	1.1 ± 0.5	0.63 ± 0.28	0.74 ± 0.32	0.65 ± 0.29	0.65 ± 0.29
Actinium-228 @ 911 KeV	pCi/g	0.88 ± 0.24	0.69 ± 0.21	0.62 ± 0.2	0.83 ± 0.23	0.72 ± 0.22	0.73 ± 0.21
Actinium-228 @ 968 KeV	pCi/g	0.67 ± 0.24	0.95 ± 0.29	0.57 ± 0.27	0.88 ± 0.27	0.72 ± 0.28	0.74 ± 0.25
Lead-212 @ 238 KeV	pCi/g	0.81 ± 0.18	0.75 ± 0.20	0.68 ± 0.14	0.9 ± 0.18	0.7 ± 0.16	0.62 ± 0.13
Bismuth-212 @ 727 KeV	pCi/g	1.3 ± 0.4	0.83 ± 0.38	1.4 ± 0.5	1.5 ± 0.6	0.82 ± 0.39	0.66 ± 0.37
Thallium-208 @ 583 KeV	pCi/g	0.28 ± 0.05	0.28 ± 0.06	0.26 ± 0.05	0.29 ± 0.05	0.25 ± 0.05	0.24 ± 0.05
Thallium-208 @ 860 KeV	pCi/g	0.39 ± 0.21	0.52 ± 0.23	-0.58 ± 0.8	0.39 ± 0.21	0.85 ± 0.28	0.33 ± 0.78
Uranium-235 @ 143.8 KeV	pCi/g	0.10 ± 0.21	0.04 ± 0.06	0.04 ± 0.06	0.2 ± 0.21	0.04 ± 0.14	0.13 ± 0.21
Cesium-137 @ 661 KeV	pCi/g	0.06 ± 0.03	0.05 ± 0.03	0.27 ± 0.05	0.12 ± 0.03	0.12 ± 0.04	-0.01 ± 0.10
Potassium-40 @ 1460 KeV	pCi/g	19 ± 2	17 ± 2	17 ± 2	19 ± 2	16 ± 2	16 ± 1

**SEAS-43, 56 AND 69**

SENECA ARMY DEPOT  
SEAD-43, 56, AND 69 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER UNITS	SOIL SEAD-43 0-0.2 06/10/94 SB43-1-00 223889 44725	SOIL SEAD-43 0-0.2 06/10/94 SB43-1-20 223893 44725 SB43-1-00DUP	SOIL SEAD-43 4-5 06/10/94 SB43-1-03 223891 44725	SOIL SEAD-43 14-16 06/10/94 SB43-1-08 223892 44725	SOIL SEAD-43 14-16 06/10/94 SB43-1-08RE 223892 44725	SOIL SEAD-43 0-0.2 06/10/94 SB43-2-00 223682 44894	SOIL SEAD-43 4-8 06/10/94 SB43-2-03 223684 44894	SOIL SEAD-43 10-12 06/10/94 SB43-2-06 223685 44894	SOIL SEAD-43 SEAD-43 06/10/94 SB43-2-06RE 223685 44894	SOIL SEAD-43 SEAD-43 06/09/94 SB43-3-00 223686 44894
VOLATILE ORGANICS										
Chloromethane	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
Bromomethane	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
Vinyl Chloride	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
Chloroethane	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
Methylene Chloride	ug/Kg	13 U	10 UJ	11 U	11 U R	10 J R	12 U	11 U	11 U R	11 U R
Acetone	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	18 U R	21 U R
Carbon Disulfide	ug/Kg	13 U	10 UJ	11 U	11 U R	1 J R	12 U	11 U	11 U R	11 U R
1,1-Dichloroethane	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
1,1-Dichloroethane	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
1,2-Dichloroethane (total)	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
Chloroform	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
1,2-Dichloroethane	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
2-Butanone	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
1,1,1-Trichloroethane	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
Carbon Tetrachloride	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
Bromodichloromethane	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
1,2-Dichloropropane	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
cis-1,3-Dichloropropene	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
Trichloroethene	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
Dibromochloromethane	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
1,1,2-Trichloroethane	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
Benzene	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
trans-1,3-Dichloropropene	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
Bromoform	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
4-Methyl-2-Pentanone	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
2-Hexanone	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
Tetrachloroethene	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
1,1,2,2-Tetrachloroethane	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
Toluene	ug/Kg	13 U	10 UJ	11 U	11 U R	2 J R	12 U	11 U	11 U R	11 U R
Chlorobenzene	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
Ethylbenzene	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
Styrene	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
Xylene (total)	ug/Kg	13 U	10 UJ	11 U	11 U R	11 U R	12 U	11 U	11 U R	11 U R
HERBICIDES										
2,4-D	ug/Kg	62 U	62 U	56 U	53 U		64 U	55 U	54 U	55 U
2,4-DB	ug/Kg	62 U	62 U	56 U	53 U		64 U	55 U	54 U	55 U
2,4,5-T	ug/Kg	6.2 U	12 J	5.6 U	5.3 U		6.4 U	5.5 U	5.4 U	5.5 U
2,4,5-TP (Silvex)	ug/Kg	6.2 U	6.2 U	5.6 U	5.3 U		6.4 U	5.5 U	5.4 U	5.5 U
Dalapon	ug/Kg	148 U	148 U	140 U	130 U		160 U	140 U	130 U	130 U
Dicamba	ug/Kg	6.2 U	11 J	5.6 U	5.3 U		6.4 U	5.5 U	5.4 U	5.5 U
Dichloroprop	ug/Kg	62 U	72 J	56 U	53 U		64 U	55 U	54 U	55 U
Dinoseb	ug/Kg	31 UJ	31 UJ	28 UJ	27 UJ		32 U	28 U	27 U	28 U
MCPA	ug/Kg	6200 U	6200 U	5600 U	5300 U		6400 U	5500 U	5400 U	5500 U
MCPP	ug/Kg	6200 U	7300 J	5600 U	5300 U		6400 U	5500 U	5400 U	7100
NITROAROMATICS										
HMX	ug/Kg	130 U	130 U	130 U	130 U		130 U	130 U	130 U	130 U
RDX	ug/Kg	130 U	130 U	130 U	130 U		130 U	130 U	130 U	130 U
1,3,5-Trinitrobenzene	ug/Kg	130 U	130 U	130 U	130 U		130 U	130 U	130 U	130 U
1,3-Dinitrobenzene	ug/Kg	130 U	130 U	130 U	130 U		130 U	130 U	130 U	130 U
Tetryl	ug/Kg	130 U	130 U	130 U	130 U		130 U	130 U	130 U	130 U
2,4,6-Trinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U		130 U	130 U	130 U	130 U
4-amino-2,6-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U		130 U	130 U	130 U	130 U
2-amino-4,6-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U		130 U	130 U	130 U	130 U
2,6-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U		130 U	130 U	130 U	130 U
2,4-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U		130 U	130 U	130 U	130 U

SENECA ARMY DEPOT  
SEAD-43, 56, AND 69 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-43 0-0.2 08/10/94 SB43-1-00 223889 44725	SOIL SEAD-43 0-0.2 08/10/94 SB43-1-20 223893 44725	SOIL SEAD-43 4-5 08/10/94 SB43-1-03 223891 44725	SOIL SEAD-43 14-18 08/10/94 SB43-1-08 223892 44725	SOIL SEAD-43 0-0.2 08/10/94 SB43-1-08RE 223882 44694	SOIL SEAD-43 4-8 08/10/94 SB43-2-03 223684 44694	SOIL SEAD-43 10-12 08/10/94 SB43-2-06 223685 44694	SOIL SEAD-43 10-12 08/10/94 SB43-2-06RE 223685 44694	SOIL SEAD-43 0-0.2 08/09/94 SB43-3-00 223686 44694
SEMIVOLATILE ORGANICS									
Phend	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
bis(2-Chloroethyl) ether	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
2-Chlorophend	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
1,3-Dichlorobenzene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
1,4-Dichlorobenzene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
1,2-Dichlorobenzene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
2-Methylphend	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
2,2'-oxybis(1-Chloropropane)	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
4-Methylphend	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
N-Nitroso-dl-n-propylamine	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
Hexachloroethane	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
Nitrobenzene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
Isophorone	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
2-Nitrophend	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
2,4-Dimethylphend	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
bis(2-Chloroethoxy) methane	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
2,4-Dichlorophenol	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
1,2,4-Trichlorobenzene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
Naphthalene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
4-Chloroaniline	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
Hexachlorobutadiene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
4-Chloro-3-methylphenol	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
2-Methylnaphthalene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
Hexachlorocyclopentadiene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
2,4,6-Trichlorophenol	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
2,4,5-Trichlorophenol	990 U	1000 U	890 U	850 U	1000 U	870 U	850 U	870 U	870 U
2-Chloronaphthalene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
2-Nitroaniline	990 U	1000 U	890 U	850 U	1000 U	870 U	850 U	870 U	870 U
Dimethylphthalate	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
Aceraphthylene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
2,6-Dinitrotoluene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
3-Nitroaniline	990 U	1000 U	890 U	850 U	1000 U	870 U	850 U	870 U	870 U
Aceraphthene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
2,4-Dinitrophend	990 U	1000 U	890 U	850 U	1000 U	870 U	850 U	870 U	870 U
4-Nitrophend	990 U	1000 U	890 U	850 U	1000 U	870 U	850 U	870 U	870 U
Dibenzofuran	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
2,4-Dinitrotoluene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
Diethylphthalate	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
4-Chlorophenyl-phenylether	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
Fluorene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
4-Nitroaniline	990 U	1000 U	890 U	850 U	1000 U	870 U	850 U	870 U	870 U
4,6-Dinitro-2-methylphenol	990 U	1000 U	890 U	850 U	1000 U	870 U	850 U	870 U	870 U
N-Nitrosodiphenylamine	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
4-Bromophenyl-phenylether	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
Hexachlorobenzene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
Pentachlorophend	990 U	1000 U	890 U	850 U	1000 U	870 U	850 U	870 U	870 U
Phenanthrene	410 U	410 U	370 U	350 U	27 J	360 U	350 U	360 U	140 J
Anthracene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	35 J
Carbazole	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	20 J
Di-n-butylphthalate	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
Fluoranthene	410 U	410 U	370 U	350 U	42 J	360 U	350 U	360 U	240 J
Pyrene	410 U	410 U	370 U	350 U	45 J	360 U	350 U	360 U	230 J
Butylbenzylphthalate	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
3,3'-Dichlorobenzidine	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
Benzo(a)anthracene	410 U	410 U	370 U	350 U	22 J	360 U	350 U	360 U	110 J
Chrysene	410 U	410 U	370 U	350 U	25 J	360 U	350 U	360 U	120 J
bis(2-Ethylhexyl)phthalate	82 J	510 J	370 U	70 J	53 J	50 J	29 J	360 U	530
Di-n-octylphthalate	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	360 U
Benzo(b)fluoranthene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	86 J
Benzo(k)fluoranthene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	96 J
Benzo(a)pyrene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	75 J
Indeno(1,2,3-cd)pyrene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	33 J
Dibenzo(a,h)anthracene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	88 J
Benzo(g,h,i)perylene	410 U	410 U	370 U	350 U	420 U	360 U	350 U	360 U	

SENECA ARMY DEPOT  
SEAD-43, 58, AND 69 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-43 0-0.2 08/10/94 SB43-1-00 223889 44725	SOIL SEAD-43 0-0.2 08/10/94 SB43-1-20 223893 44725	SOIL SEAD-43 4-5 08/10/94 SB43-1-03 223891 44725	SOIL SEAD-43 14-16 08/10/94 SB43-1-08 223892 44725	SOIL SEAD-43 14-16 08/10/94 SB43-1-08RE 223892 44694	SOIL SEAD-43 0-0.2 08/10/94 SB43-2-00 223882 44694	SOIL SEAD-43 4-6 08/10/94 SB43-2-03 223884 44694	SOIL SEAD-43 10-12 08/10/94 SB43-2-06 223685 44694	SOIL SEAD-43 10-12 08/10/94 SB43-2-06RE 223685 44694	SOIL SEAD-43 0-0.2 08/09/94 SB43-3-00 223688 44694
PESTICIDES/PCB										
alpha-BHC	ug/Kg 2.1 U	2.1 U	1.9 U	1.8 U		2.2 U	1.8 U	1.8 U		1.8 U
beta-BHC	ug/Kg 2.1 U	2.1 U	1.9 U	1.8 U		2.2 U	1.8 U	1.8 U		1.8 U
delta-BHC	ug/Kg 2.1 U	2.1 U	1.9 U	1.8 U		2.2 U	1.8 U	1.8 U		1.8 U
gamma-BHC (Lindane)	ug/Kg 2.1 U	2.1 U	1.9 U	1.8 U		2.2 U	1.8 U	1.8 U		1.8 U
Heptachlor	ug/Kg 2.1 U	2.1 U	1.9 U	1.8 U		2.2 U	1.8 U	1.8 U		1.8 U
Aldrin	ug/Kg 2.1 U	2.1 U	1.9 U	1.8 U		2.2 U	1.8 U	1.8 U		1.8 U
Heptachlor epoxide	ug/Kg 2.1 U	2.1 U	1.9 U	1.8 U		2.2 U	1.8 U	1.8 U		1.8 U
Endosulfan I	ug/Kg 2.1 U	2.1 U	1.9 U	1.8 U		2.2 U	1.8 U	1.8 U		1.2 J
Dieldrin	ug/Kg 4.1 U	4.1 U	3.7 U	3.5 U		4.2 U	3.6 U	3.5 U		3.6 U
4,4'-DDE	ug/Kg 4.1 U	4.1 U	3.7 U	3.5 U		4.2 U	3.6 U	3.5 U		3.6 U
Endrin	ug/Kg 4.1 U	4.1 U	3.7 U	3.5 U		4.2 U	3.6 U	3.5 U		3.6 U
Endosulfan II	ug/Kg 4.1 U	4.1 U	3.7 U	3.5 U		4.2 U	3.6 U	3.5 U		3.6 U
4,4'-DDD	ug/Kg 4.1 U	4.1 U	3.7 U	3.5 U		4.2 U	3.6 U	3.5 U		3.6 U
Endosulfan sulfate	ug/Kg 4.1 U	4.1 U	3.7 U	3.5 U		4.2 U	3.6 U	3.5 U		3.6 U
4,4'-DDT	ug/Kg 4.1 U	4.1 U	3.7 U	3.5 U		4.2 U	3.6 U	3.5 U		3.6 U
Methoxychlor	ug/Kg 21 U	21 U	19 U	18 U		22 U	18 U	18 U		18 U
Endrin ketone	ug/Kg 4.1 U	4.1 U	3.7 U	3.5 U		4.2 U	3.6 U	3.5 U		3.6 U
Endrin aldehyde	ug/Kg 4.1 U	4.1 U	3.7 U	3.5 U		4.2 U	3.6 U	3.5 U		3.6 U
alpha-Chlordane	ug/Kg 2.1 U	2.1 U	1.9 U	1.8 U		2.2 U	1.8 U	1.8 U		1.8 U
gamma-Chlordane	ug/Kg 2.1 U	2.1 U	1.9 U	1.8 U		2.2 U	1.8 U	1.8 U		1.8 U
Toxaphene	ug/Kg 210 U	210 U	190 U	180 U		220 U	180 U	180 U		180 U
Aroclor-1016	ug/Kg 41 U	41 U	37 U	35 U		42 U	36 U	35 U		36 U
Aroclor-1221	ug/Kg 83 U	84 U	74 U	71 U		85 U	73 U	71 U		73 U
Aroclor-1232	ug/Kg 41 U	41 U	37 U	35 U		42 U	36 U	35 U		36 U
Aroclor-1242	ug/Kg 41 U	41 U	37 U	35 U		42 U	36 U	35 U		36 U
Aroclor-1248	ug/Kg 41 U	41 U	37 U	35 U		42 U	36 U	35 U		36 U
Aroclor-1254	ug/Kg 41 U	41 U	37 U	35 U		42 U	36 U	35 U		36 U
Aroclor-1260	ug/Kg 41 U	41 U	37 U	35 U		42 U	36 U	35 U		36 U
METALS										
Aluminum	mg/Kg 20800	15700	8620	16200		14700 J	11600 J	12800 J		10900 J
Antimony	mg/Kg 0.23 UJ	0.26 UJ	0.19 UJ	0.21 UJ		0.32 UJ	0.24 J	0.23 UJ		0.24 J
Arsenic	mg/Kg 6.1	5.4	3.9	6.2		6.1	5.4	5.5		5.3
Barium	mg/Kg 145	112	46	54.8		104 J	72.1 J	70.9 J		60.3 J
Beryllium	mg/Kg 0.86 J	0.77 J	0.41 J	0.73 J		0.69 J	0.52 J	0.58 J		0.44 J
Cadmium	mg/Kg 0.96	0.85 J	0.91	0.98		0.68 J	0.71 J	0.64 J		0.58 J
Calcium	mg/Kg 8980	7830	67800	48900		11800 J	69200 J	77400 J		41900 J
Chromium	mg/Kg 26.2	21.5	13.3	25.7		21.2 J	18.5 J	20.5 J		15.7 J
Cobalt	mg/Kg 10.9	9 J	7.2 J	13.1		9.3 J	10.2 J	10.8 J		8.2 J
Copper	mg/Kg 21.8	21.4	24.5	24.7		21 J	22.6 J	20.3 J		23.6 J
Iron	mg/Kg 26800	25400	17200	30900		26800 J	23000 J	24900 J		19200 J
Lead	mg/Kg 19.2	18.6	7.6	6.8		19.8	8.2	8.8		19.1
Magnesium	mg/Kg 5440	5400	17600	11500		6080 J	18500 J	12700 J		20000 J
Manganese	mg/Kg 782	502	387	510		546 J	416 J	493 J		593 J
Mercury	mg/Kg 0.06 J	0.07 J	0.01 J	0.02 J		0.06 J R	0.03 J	0.03 J		0.08 J R
Nickel	mg/Kg 26.1	26.2	22.6	41.5		26.7 J	31.6 J	33.3 J		20.6 J
Potassium	mg/Kg 3580 J	2050 J	2000 J	2670 J		2060	2160	2630		2550
Selenium	mg/Kg 1.1	0.85 J	0.39 U	0.54 J		1.3	0.43 U	0.47 U		0.48 J
Silver	mg/Kg 0.09 U	0.1 U	0.07 U	0.08 U		0.12 UJ	0.08 UJ	0.09 UJ		0.09 UJ
Sodium	mg/Kg 17.8 U	19.6 U	88.3 J	136 J		24.8 U	101 J	151 J		27.5 J
Thallium	mg/Kg 0.34 U	0.37 U	0.28 U	0.31 U		0.47 U	0.3 U	0.33 U		0.33 U
Vanadium	mg/Kg 36.7	27	17.6	23.8		27 J	18.8 J	20.1 J		21.1 J
Zinc	mg/Kg 98.8	92	116	122		91.1 J	94.7 J	59.9 J		121 J
Cyanide	mg/Kg 0.58 U	0.58 U	0.56 U	0.48 U		0.58 U	0.48 U	0.34 U		0.45 U
OTHER ANALYSES										
Nitrate/Nitrite-Nitrogen	mg/Kg 0.94 J	0.22 J	0.26	0.04 U		0.01 U	0.03	0.01 U		0.08
Total Petroleum Hydrocarbons	mg/Kg									
Total Solids	%W/W 80.7	80.5	89.8	94		78.8	91.6	94.4		92



SENECA ARMY DEPOT  
SEAD-43, 56, AND 69 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-43 2-4 06/09/94 SB43-3-02 223687 44694	SOIL SEAD-43 4-5.5 06/09/94 SB43-3-03 223688 44694	SOIL SEAD-43 1.0-1.5 02/17/94 SB43-4.01 211724 42460	SOIL SEAD-43 2-4 02/17/94 SB43-4.02 211725 42460	SOIL SEAD-43 2-4 02/17/94 SB43-4.20 211727 42460	SOIL SEAD-43 1.0-1.2 02/18/94 SB43-4.07 211726 42460	SOIL SEAD-43 1.0-1.2 02/18/94 SB43-4.07RE 211728 42460	SOIL SEAD-56 0-0.2 05/23/94 SB56-1-00 222124 44090	SOIL SEAD-56 4-6 05/23/94 SB56-1-03 222125 44090	SOIL SEAD-56 12-13 05/23/94 SB56-1-07 222126 44090
VOLATILE ORGANICS										
Chloromethane ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
Bromomethane ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
Vinyl Chloride ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
Chloroethane ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
Methylene Chloride ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	4 J
Acetone ug/Kg	13 U	11 U	15 U	12 U	12 U	52 U R	20 UJ	11 U	19 U	16 UJ
Carbon Disulfide ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
1,1-Dichloroethane ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
1,1-Dichloroethane (total) ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
1,2-Dichloroethane (total) ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
Chloroform ug/Kg	13 U	11 U	3 J	4 J	4 J	11 U R	11 UJ	11 U	11 U	11 UJ
1,2-Dichloroethane ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
2-Butanone ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
1,1,1-Trichloroethane ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
Carbon Tetrachloride ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
Bromodichloromethane ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
1,2-Dichloropropane ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
cis-1,3-Dichloropropene ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
Trichloroethene ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
Dibromochloromethane ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
1,1,2-Trichloroethane ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
Benzene ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
trans-1,3-Dichloropropene ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
Bromoform ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
4-Methyl-2-Pentanone ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
2-Hexanone ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
Tetrachloroethene ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
1,1,2,2-Tetrachloroethane ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
Toluene ug/Kg	13 U	11 U	3 J	12 U	12 U	11 J	11 J	11 U	11 U	2 J
Chlorobenzene ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
Ethylbenzene ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
Styrene ug/Kg	13 U	11 U	11 U	12 U	12 U	11 U R	11 UJ	11 U	11 U	11 UJ
Xylenes (total) ug/Kg	13 U	11 U	4 J	12 U	12 U	12 J	12 J	11 U	11 U	11 UJ
HERBICIDES										
2,4-D ug/Kg	60 U	55 U	50 U	61 U	61 U	54 U	65 U	56 U	53 U	53 U
2,4-DB ug/Kg	60 U	55 U	50 U	61 U	61 U	54 U	65 U	56 U	53 U	53 U
2,4,5-T ug/Kg	6 U	5.5 U	5.0 U	6.1 U	6.1 U	5.4 U	6.5 U	5.6 U	5.3 U	5.3 U
2,4,5-TP (Silvex) ug/Kg	6 U	5.5 U	5.0 U	6.1 U	6.1 U	5.4 U	6.5 U	5.6 U	5.3 U	5.3 U
Dalapon ug/Kg	143 U	140 U	150 U	150 U	150 U	130 U	160 U	140 U	130 U	130 U
Dicamba ug/Kg	6 U	5.5 U	5.0 U	6.1 U	6.1 U	5.4 U	6.5 U	5.6 U	5.3 U	5.3 U
Dichloroprop ug/Kg	60 U	55 U	50 U	61 U	61 U	54 U	65 U	56 U	53 U	53 U
Dinoseb ug/Kg	30 U	26 U	30 U	31 U	31 U	27 U	33 U	28 U	27 U	27 U
MCPA ug/Kg	6000 U	5500 U	5900 U	6100 U	6100 U	5400 U	6500 U	5600 U	5300 U	5300 U
MCPP ug/Kg	7700 U	5500 U	5900 U	6100 U	6100 U	5400 U	6500 U	5600 U	5300 U	5300 U
NITROAROMATICS										
HMX ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
RDX ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
1,3,5-Trinitrobenzene ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
1,3-Dinitrobenzene ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
Tetryl ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
2,4,6-Trinitrotoluene ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
4-amino-2,6-Dinitrotoluene ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
2-amino-4,6-Dinitrotoluene ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
2,6-Dinitrotoluene ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
2,4-Dinitrotoluene ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U

SENECA ARMY DEPOT  
SEAD-43, 56, AND 69 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-43 2-4 06/09/94 SB43-3-02 223687 44694	SOIL SEAD-43 4-5.5 06/09/94 SB43-3-03 223688 44694	SOIL SEAD-43 1.0-1.5 02/17/94 SB43-4.01 211724 42460	SOIL SEAD-43 2-4 02/17/94 SB43-4.02 211725 42460	SOIL SEAD-43 2-4 02/17/94 SB43-4.20 211727 42460	SOIL SEAD-43 1.0-1.2 02/18/94 SB43-4.07RE 211728 42460	SOIL SEAD-43 1.0-1.2 02/18/94 SB43-4.07RE 211728 42460	SOIL SEAD-56 0-0.2 05/23/94 SB56-1-00 222124 44090	SOIL SEAD-56 4-6 05/23/94 SB56-1-03 222125 44090	SOIL SEAD-56 12-13 05/23/94 SB56-1-07 222126 44090
COMPOUND										
SEMIVOLATILE ORGANICS										
Phend	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
bis(2-Chloroethyl) ether	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
2-Chlorophend	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
1,3-Dichlorobenzene	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
1,4-Dichlorobenzene	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
1,2-Dichlorobenzene	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
2-Methylphend	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
2,2'-oxybis(1-Chloropropane)	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
4-Methylphend	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
N-Nitroso-d-n-propylamine	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
Hexachloroethane	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
Nitrobenzene	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
Isochlorane	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
2-Nitrophenol	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
2,4-Dimethylphenol	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
bis(2-Chloroethoxy) methane	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
2,4-Dichlorophenol	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
1,2,4-Trichlorobenzene	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
Naphthalene	ug/Kg 390 U	360 U	140 J	200 J	400 U	350 U	430 U	370 U	350 U	
4-Chloroaniline	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
Hexachlorobutadiene	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
4-Chloro-3-methylphenol	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
2-Methylnaphthalene	ug/Kg 390 U	360 U	48 J	88 J	400 U	350 U	430 U	370 U	350 U	
Hexachlorocyclopentadiene	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
2,4,6-Trichlorophenol	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
2,4,5-Trichlorophenol	ug/Kg 950 U	880 U	1200 U	2800 U	980 U	860 U	1000 U	890 U	850 U	
2-Chloronaphthalene	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
2-Nitroaniline	ug/Kg 950 U	880 U	1200 U	2800 U	980 U	860 U	1000 U	890 U	850 U	
Dimethylphthalate	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
Aceraphthylene	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
2,6-Dinitrotoluene	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
3-Nitroaniline	ug/Kg 950 U	880 U	1200 U	2800 U	980 U	860 U	1000 U	890 U	850 U	
Aceraphthene	ug/Kg 390 U	360 U	300 J	570 J	400 U	350 U	430 U	370 U	350 U	
2,4-Dinitrophenol	ug/Kg 950 U	880 U	1200 U	2800 U	980 U	860 U	1000 U	890 U	850 U	
4-Nitrophenol	ug/Kg 880 U	880 U	1200 U	2800 U	980 U	860 U	1000 U	890 U	850 U	
Dibenzofuran	ug/Kg 390 U	360 U	170 J	310 J	400 U	350 U	430 U	370 U	350 U	
2,4-Dinitrotoluene	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
Diethylphthalate	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
4-Chlorophenyl-phenylether	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
Fluorene	ug/Kg 390 U	360 U	320 J	610 J	400 U	350 U	430 U	370 U	350 U	
4-Nitroaniline	ug/Kg 950 U	880 U	1200 U	2800 U	980 U	860 U	1000 U	890 U	850 U	
4,6-Dinitro-2-methylphenol	ug/Kg 950 U	880 U	1200 U	2800 U	980 U	860 U	1000 U	890 U	850 U	
N-Nitrosodiphenylamine	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
4-Bromophenyl-phenylether	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
Hexachlorobenzene	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
Pentachlorophend	ug/Kg 950 U	880 U	1200 U	2800 U	980 U	860 U	1000 U	890 U	850 U	
Phenanthrene	ug/Kg 390 U	360 U	2600	5200 J	82 J	350 U	430 U	370 U	350 U	
Anthracene	ug/Kg 390 U	360 U	700	1300 J	21 J	350 U	430 U	370 U	350 U	
Carbazole	ug/Kg 390 U	360 U	350 J	620 J	400 U	350 U	430 U	370 U	350 U	
Di-n-butylphthalate	ug/Kg 390 U	360 U	48 J	1100 U	400 U	350 U	430 U	370 U	350 U	
Fluoranthene	ug/Kg 390 U	360 U	3200	6300 J	96 J	350 U	430 U	370 U	350 U	
Pyrene	ug/Kg 390 U	360 U	2700	4700 J	80 J	350 U	430 U	370 U	350 U	
Butylbenzylphthalate	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
3,3'-Dichlorobenzidine	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
Benzofluoranthene	ug/Kg 390 U	360 U	1200	2400 J	38 J	350 U	430 U	370 U	350 U	
Chrysene	ug/Kg 390 U	360 U	1200	2400 J	38 J	350 U	430 U	370 U	350 U	
bis(2-Ethylhexyl)phthalate	ug/Kg 36 J	2100	2700	700 J	540	1300	280 J	89 J	350 U	
Di-n-octylphthalate	ug/Kg 390 U	360 U	520 U	1100 U	400 U	350 U	430 U	370 U	350 U	
Benzofluoranthene	ug/Kg 390 U	360 U	1000	1600 J	26 J	350 U	430 U	370 U	350 U	
Benzofluoranthene	ug/Kg 390 U	360 U	960	2000 J	30 J	350 U	430 U	370 U	350 U	
Benzofluoranthene	ug/Kg 390 U	360 U	1200	2000 J	29 J	350 U	430 U	370 U	350 U	
Indeno(1,2,3-cd)pyrene	ug/Kg 390 U	360 U	680	1200 J	400 U	350 U	430 U	370 U	350 U	
Dibenz(a,h)anthracene	ug/Kg 390 U	360 U	300 J	520 J	400 U	350 U	430 U	370 U	350 U	
Benzofluoranthene	ug/Kg 390 U	360 U	730	1300 J	400 U	350 U	430 U	370 U	350 U	

SENECA ARMY DEPOT  
SEAD-43, 56, AND 69 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-43 2-4 06/09/94 SB43-3-02 223687 44694	SOIL SEAD-43 4-5.5 06/09/94 SB43-3-03 223688 44694	SOIL SEAD-43 1.0-1.5 02/17/94 SB43-4.01 211724 42460	SOIL SEAD-43 2-4 02/17/94 SB43-4.02 211725 42460	SOIL SEAD-43 2-4 02/17/94 SB43-4.20 211727 42460	SOIL SEAD-43 1.0-1.2 02/18/94 SB43-4.07RE 211728 42460	SOIL SEAD-43 1.0-1.2 05/23/94 SB56-1-00 222124 44090	SOIL SEAD-56 4-6 05/23/94 SB56-1-03 222125 44090	SOIL SEAD-56 12-13 05/23/94 SB56-1-07 222126 44090	
PESTICIDES/PCB										
alpha-BHC	ug/Kg 2 U	1.9 U	2 U	2.1 U	2.1 U	1.8 U	2.2 U	1.9 U	1.8 U	
beta-BHC	ug/Kg 2 U	1.9 U	2 U	2.1 U	2.1 U	1.8 U	2.2 U	1.9 U	1.8 U	
delta-BHC	ug/Kg 2 U	1.9 U	2 U	2.1 U	2.1 U	1.8 U	2.2 U	1.9 U	1.8 U	
gamma-BHC (Lindane)	ug/Kg 2 U	1.9 U	2 U	2.1 U	2.1 U	1.8 U	2.2 U	1.9 U	1.8 U	
Heptachlor	ug/Kg 2 U	1.9 U	2 U	2.1 U	2.1 U	1.8 U	2.2 U	1.9 U	1.8 U	
Aldrin	ug/Kg 2 U	1.9 U	2 U	2.1 U	2.1 U	1.8 U	2.2 U	1.9 U	1.8 U	
Heptachlor epoxide	ug/Kg 2 U	1.9 U	2 U	2.1 U	2.1 U	1.8 U	2.2 U	1.9 U	1.8 U	
Endosulfan I	ug/Kg 2 U	1.9 U	2 U	2.1 U	2.1 U	1.8 U	2.2 U	1.9 U	1.8 U	
Dieldrin	ug/Kg 3.9 U	3.6 U	3.9 U	4 U	4 U	3.5 U	4.3 U	3.7 U	3.5 U	
4,4'-DDE	ug/Kg 3.9 U	3.6 U	3.9 U	4 U	4 U	3.5 U	4.3 U	3.7 U	3.5 U	
Endrin	ug/Kg 3.9 U	3.6 U	3.9 U	4 U	4 U	3.5 U	4.3 U	3.7 U	3.5 U	
Endosulfan II	ug/Kg 3.9 U	3.6 U	3.9 U	4 U	4 U	3.5 U	4.3 U	3.7 U	3.5 U	
4,4'-DDD	ug/Kg 3.9 U	3.6 U	3.9 U	4 U	4 U	3.5 U	4.3 U	3.7 U	3.5 U	
Endosulfan sulfate	ug/Kg 3.9 U	3.6 U	3.9 U	4 U	4 U	3.5 U	4.3 U	3.7 U	3.5 U	
4,4'-DDT	ug/Kg 3.9 U	3.6 U	3.9 U	4 U	4 U	3.5 U	4.3 U	3.7 U	3.5 U	
Methoxychlor	ug/Kg 20 U	19 U	20 U	21 U	21 U	18 U	22 U	19 U	18 U	
Endrin ketone	ug/Kg 3.9 U	3.6 U	3.9 U	4 U	4 U	3.5 U	4.3 U	3.7 U	3.5 U	
Endrin aldehyde	ug/Kg 3.9 U	3.6 U	3.9 U	4 U	4 U	3.5 U	4.3 U	3.7 U	3.5 U	
alpha-Chlordane	ug/Kg 2 U	1.9 U	2.4 J	2.1 U	2.1 U	1.8 U	2.2 U	1.9 U	1.8 U	
gamma-Chlordane	ug/Kg 2 U	1.9 U	2 U	2.1 U	2.1 U	1.8 U	2.2 U	1.9 U	1.8 U	
Toxaphene	ug/Kg 200 U	190 U	200 U	210 U	210 U	180 U	220 U	190 U	180 U	
Aroclor-1016	ug/Kg 39 U	36 U	36 U	40 U	40 U	35 U	43 U	37 U	35 U	
Aroclor-1221	ug/Kg 80 U	74 U	79 U	82 U	82 U	72 U	87 U	74 U	71 U	
Aroclor-1232	ug/Kg 39 U	36 U	39 U	40 U	40 U	35 U	43 U	37 U	35 U	
Aroclor-1242	ug/Kg 39 U	36 U	39 U	40 U	40 U	35 U	43 U	37 U	35 U	
Aroclor-1248	ug/Kg 39 U	36 U	39 U	40 U	40 U	35 U	43 U	37 U	35 U	
Aroclor-1254	ug/Kg 39 U	36 U	39 U	40 U	40 U	35 U	43 U	37 U	35 U	
Aroclor-1260	ug/Kg 39 U	36 U	39 U	40 U	40 U	35 U	43 U	37 U	35 U	
METALS										
Aluminum	mg/Kg 27000 J	10600 J	13300 J	15500 J	15200 J	15200 J	4620	11700	13200	
Antimony	mg/Kg 0.26 J	0.25 UJ	4.6 J	7.2 J	4.9 UJ	3.3 J	0.21 UJ	0.19 UJ	0.19 UJ	
Arsenic	mg/Kg 4.3	4	6 J	6.5 J	4.8 J	4 J	3.5	6	3.5	
Barium	mg/Kg 175 J	82.2 J	92.1 J	123 J	121 J	49.9 J	26 J	70.7	49.7	
Beryllium	mg/Kg 1.2	0.48 J	0.58 J	0.72 J	0.74 J	0.72	0.22 J	0.59 J	0.6 J	
Cadmium	mg/Kg 0.7 J	0.58 J	0.41 U	0.51 U	0.48 U	0.28 U	1.5	0.78 J	0.7 J	
Calcium	mg/Kg 7280 J	62400 J	60500 J	6420 J	15900 J	21500 J	62200	51500	31200	
Chromium	mg/Kg 30.7 J	16.8 J	23.1	23.9	22.3	25.7	7.1	18.6	22.8	
Cobalt	mg/Kg 6.7 J	8.5 J	8.7 J	13.4	11.3 J	15.7	3.8 J	10.7	13.6	
Copper	mg/Kg 23.8 J	22.5 J	23.8	28	23.4	28.1	18.8	24.5	25.8	
Iron	mg/Kg 28100 J	20700 J	23900 J	30700 J	29500 J	31000 J	10900	26300	29000	
Lead	mg/Kg 12.7	9	15.9	11.8	13.6	15.6	30.2	11.1	17.1	
Magnesium	mg/Kg 5210 J	13400 J	18800 J	6050 J	7270 J	8540 J	29500	11700	8440	
Manganese	mg/Kg 182 J	453 J	530 R	1100 R	724 R	479 R	529	575	404	
Mercury	mg/Kg 0.05 J R	0.04 J R	0.04 J	0.06 J	0.05 J	0.02 J	0.02 J	0.02 J	0.01 U	
Nickel	mg/Kg 27 J	27 J	29.1 J	43.8	32.7	53.4	10.9	32.5	41.5	
Potassium	mg/Kg 3130	2070	1940	1740	1590	1580	1020 J	1180	1430	
Selenium	mg/Kg 1.1	0.52 U	0.17 UJ	0.2 UJ	0.17 J	1.8 J	0.35 U	0.51 J	1	
Silver	mg/Kg 0.08 UJ	0.1 UJ	0.82 U	1 U	0.96 U	0.51 U	0.14 UJ	0.13 UJ	0.13 UJ	
Sodium	mg/Kg 72.5 J	96.5 J	128 J	65 J	82.5 J	98.5 J	94.6 J	100 J	94.6 J	
Thallium	mg/Kg 0.3 U	0.36 U	0.18 U	1.1 U	0.18 U	0.21 U	0.33 U	0.31 U	0.3 U	
Vanadium	mg/Kg 41.8 J	18.3 J	24.6	26.8	28.2	21.3	10.2 J	18	17.9	
Zinc	mg/Kg 94 J	89.6 J	71.7 J	79.6 J	84.4 J	126 J	295	84.6	83.6	
Cyanide	mg/Kg 0.49 U	0.37 U	0.58 U	0.54 U	0.59 U	0.51 U	0.61 U	0.42 U	0.53 U	
OTHER ANALYSES										
Nitrate/Nitrite-Nitrogen	mg/Kg 0.64	0.12	1.63	1.25	1.18	0.13	0.58	0.18	0.04	
Total Petroleum Hydrocarbons	mg/Kg 32 U	42 J	31 U	42 J	31 U	28 U				
Total Solids	%W/W 83.8	90.8	84.8	82.1	82.2	92.8	77.4	90.4	94.1	

SENECA ARMY DEPOT  
SEAD-43, 56, AND 89 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-56 12-13 05/23/94 SB56-1-07RE 222126 44090	SOIL SEAD-56 0-0.2 05/23/94 SB56-2-00 222127 44090	SOIL SEAD-56 4-6 05/23/94 SB56-2-03 222128 44345	SOIL SEAD-56 6-10 05/23/94 SB56-2-05 222129 44345	SOIL SEAD-56 0-0.2 05/18/94 SB56-3-00 221480 44090	SOIL SEAD-56 6-6 05/18/94 SB56-3-04 221481 44090	SOIL SEAD-56 14-16 05/18/94 SB56-3-08 221482 44090	SOIL SEAD-89 0-0.2 05/17/94 SB89-1-00 221354 44090	SOIL SEAD-89 0-0.2 05/17/94 SB89-1-20 221355 44090	SOIL SEAD-89 0-0.2 05/17/94 SB89-1-00 221355 44090	SOIL SEAD-89 8-10 05/17/94 SB89-1-05 221483 44090
VOLATILE ORGANICS											
Chloromethane	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
Bromomethane	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
Vinyl Chloride	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
Chloroethane	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
Methylene Chloride	ug/Kg	3 J	11 U	12 U	11 U	12 U	11 U	3 J	15 U	14 U	11 U
Acetone	ug/Kg	11 U R	11 U	5 J	11 U	12 U	11 U	11 U	15 U	14 U	11 U
Carbon Disulfide	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
1,1-Dichloroethane	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
1,1-Dichloroethane	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
1,2-Dichloroethane (total)	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
Chloroform	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
1,2-Dichloroethane	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
2-Butanone	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
1,1,1-Trichloroethane	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
Carbon Tetrachloride	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
Bromodichloromethane	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
1,2-Dichloropropane	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
cis-1,3-Dichloropropene	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
Trichloroethene	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
Dibromochloromethane	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
1,1,2-Trichloroethane	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
Benzene	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
trans-1,3-Dichloropropene	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
Bromoform	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
4-Methyl-2-Pentanone	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
2-Hexanone	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
Tetrachloroethene	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
1,1,2,2-Tetrachloroethane	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
Toluene	ug/Kg	2 J	11 U	12 U	11 U	12 U	11 U	2 J	15 U	14 U	11 U
Chlorobenzene	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
Ethylbenzene	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
Styrene	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
Xylene (total)	ug/Kg	11 U R	11 U	12 U	11 U	12 U	11 U	11 U	15 U	14 U	11 U
HERBICIDES											
2,4-D	ug/Kg	59 U	58 U	58 U	56 U	61 U	61 U	54 U	74 U	75 U	57 U
2,4-DB	ug/Kg	59 U	58 U	58 U	56 U	61 U	61 U	54 U	74 U	75 U	57 U
2,4,5-T	ug/Kg	5.9 U	5.8 U	5.8 U	5.6 U	6.1 U	6.1 U	5.4 U	7.4 U	7.5 U	5.7 U
2,4,5-TP (Silvex)	ug/Kg	5.9 U	5.8 U	5.8 U	5.6 U	6.1 U	6.1 U	5.4 U	7.4 U	7.5 U	5.7 U
Dalapon	ug/Kg	140 U	140 U	140 U	140 U	150 U	150 U	130 U	180 U	180 U	140 U
Dicamba	ug/Kg	5.9 U	5.8 U	5.8 U	5.6 U	6.1 U	6.1 U	5.4 U	7.4 U	7.5 U	5.7 U
Dichloroprop	ug/Kg	59 U	58 U	58 U	56 U	61 U	61 U	54 U	74 U	75 U	57 U
Dinoseb	ug/Kg	30 U	29 U	29 U	28 U	31 U	31 U	27 U	37 U	38 U	29 U
MCPA	ug/Kg	5900 U	5800 U	5800 U	5800 U	6100 U	6100 U	5400 U	7400 U	7500 U	5700 U
MCPP	ug/Kg	5900 U	5800 U	5800 U	5800 U	6100 U	6100 U	5400 U	7400 U	7500 U	5700 U
NITROAROMATICS											
HMX	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
RDX	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
1,3,5-Trinitrobenzene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
1,3-Dinitrobenzene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
Tetryl	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
2,4,6-Trinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
4-amino-2,6-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
2-amino-4,6-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
2,6-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
2,4-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U

SENECA ARMY DEPOT  
SEAD-43, 56, AND 69 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-56 12-13 05/23/94 SB56-1-07RE 222126 44090	SOIL SEAD-56 0-0.2 05/23/94 SB56-2-00 222127 44090	SOIL SEAD-56 4-6 05/23/94 SB56-2-03 222128 44345	SOIL SEAD-56 8-10 05/23/94 SB56-2-05 222129 44345	SOIL SEAD-56 0-0.2 05/18/94 SB56-3-00 221480 44090	SOIL SEAD-56 6-8 05/18/94 SB56-3-04 221481 44090	SOIL SEAD-56 14-16 05/18/94 SB56-3-08 221482 44090	SOIL SEAD-69 0-0.2 05/17/94 SB69-1-00 221354 44090	SOIL SEAD-69 0-0.2 05/17/94 SB69-1-20 221355 44090	SOIL SEAD-69 8-10 05/17/94 SB69-1-05 221483 44090
COMPOUND										
SEMIVOLATILE ORGANICS										
Phend	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
bis(2-Chloroethyl) ether	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
2-Chlorophend	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
1,3-Dichlorobenzene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
1,4-Dichlorobenzene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
1,2-Dichlorobenzene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
2-Methylphend	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
2,2'-oxybis(1-Chloropropane)	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
4-Methylphend	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
N-Nitroso-di-n-propylamine	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Hexachloroethane	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Nitrobenzene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Isophorone	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
2-Nitrophenol	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
2,4-Dimethylphend	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
bis(2-Chloroethoxy) methane	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
2,4-Dichlorophenol	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
1,2,4-Trichlorobenzene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Naphthalene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
4-Chloroaniline	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Hexachlorobutadiene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
4-Chloro-3-methylphend	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
2-Methylnaphthalene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Hexachlorocyclopentadiene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
2,4,6-Trichlorophenol	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
2,4,5-Trichlorophenol	ug/Kg	930 U	930 U	890 U	970 U	960 U	860 U	1200 U	1200 U	890 U
2-Chloronaphthalene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
2-Nitroaniline	ug/Kg	930 U	930 U	890 U	970 U	960 U	860 U	1200 U	1200 U	890 U
Dimethylphthalate	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Aceaphthylene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
2,6-Dinitrotoluene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
3-Nitroaniline	ug/Kg	930 U	930 U	890 U	970 U	960 U	860 U	1200 U	1200 U	890 U
Aceaphthene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
2,4-Dinitrophenol	ug/Kg	930 U	930 U	890 U	970 U	960 U	860 U	1200 U	1200 U	890 U
4-Nitrophenol	ug/Kg	930 U	930 U	890 U	970 U	960 U	860 U	1200 U	1200 U	890 U
Dibenzofuran	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
2,4-Dinitrotoluene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Diethylphthalate	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
4-Chlorophenyl-phenylether	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Fluorene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
4-Nitroaniline	ug/Kg	930 U	930 U	890 U	970 U	960 U	860 U	1200 U	1200 U	890 U
4,6-Dinitro-2-methylphend	ug/Kg	930 U	930 U	890 U	970 U	960 U	860 U	1200 U	1200 U	890 U
N-Nitrosodiphenylamine	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
4-Bromophenyl-phenylether	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Hexachlorobenzene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Pentachlorophend	ug/Kg	930 U	930 U	890 U	970 U	960 U	860 U	1200 U	1200 U	890 U
Phenanthrene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Anthracene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Carbazole	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Di-n-butylphthalate	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Fluoranthene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Pyrene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Butylbenzylphthalate	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
3,3'-Dichlorobenzidine	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Benzofluoranthene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Chrysene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
bis(2-Ethylhexyl)phthalate	ug/Kg	81 J	40 J	32 J	1300	400 U	350 U	490 U	490 U	370 U
Di-n-octylphthalate	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Benzofluoranthene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Benzofluoranthene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Benzofluoranthene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Benzofluoranthene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Indeno(1,2,3-cd)pyrene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Dibenz(a,h)anthracene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U
Benzofluoranthene	ug/Kg	380 U	380 U	370 U	400 U	400 U	350 U	490 U	490 U	370 U

SENECA ARMY DEPOT  
SEAD-43, 56, AND 69 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

COMPOUND	MATRIX LOCATION DEPTH (FEET)	SOIL SEAD-56	SOIL SEAD-56	SOIL SEAD-56	SOIL SEAD-56	SOIL SEAD-56	SOIL SEAD-56	SOIL SEAD-56	SOIL SEAD-69	SOIL SEAD-69	SOIL SEAD-69
	SAMPLE DATE ES ID LAB ID SDG NUMBER UNITS	12-13 05/23/94 SB56-1-07RE 222126 44090	0-0.2 05/23/94 SB56-2-00 222127 44090	4-6 05/23/94 SB56-2-03 222128 44345	8-10 05/23/94 SB56-2-05 222129 44345	0-0.2 05/18/94 SB56-3-00 221480 44090	6-8 05/18/94 SB56-3-04 221481 44090	14-16 05/18/94 SB56-3-08 221482 44090	0-0.2 05/17/94 SB69-1-00 221354 44090	0-0.2 05/17/94 SB69-1-20 221355 44090	8-10 05/17/94 SB69-1-05 221483 44090
<b>PESTICIDES/PCB</b>											
alpha-BHC	ug/Kg	2 U	2 U	1.9 U	2.1 U	2 U	1.8 U	2.5 U	2.5 U	2.5 U	1.9 U
beta-BHC	ug/Kg	2 U	2 U	1.9 U	2.1 U	2 U	1.8 U	2.5 U	2.5 U	2.5 U	1.9 U
delta-BHC	ug/Kg	2 U	2 U	1.9 U	2.1 U	2 U	1.8 U	2.5 U	2.5 U	2.5 U	1.9 U
gamma-BHC (Lindane)	ug/Kg	2 U	2 U	1.9 U	2.1 U	2 U	1.8 U	2.5 U	2.5 U	2.5 U	1.9 U
Heptachlor	ug/Kg	2 U	2 U	1.9 U	2.1 U	2 U	1.8 U	2.5 U	2.5 U	2.5 U	1.9 U
Aldrin	ug/Kg	2 U	2 U	1.9 U	2.1 U	2 U	1.8 U	2.5 U	2.5 U	2.5 U	1.9 U
Heptachlor epoxide	ug/Kg	2 U	2 U	1.9 U	2.1 U	2 U	1.8 U	2.5 U	2.5 U	2.5 U	1.9 U
Endosulfan I	ug/Kg	2 U	2 U	1.9 U	2.1 U	2 U	1.8 U	2.5 U	2.5 U	2.5 U	1.9 U
Dieldrin	ug/Kg	3.8 U	3.8 U	3.7 U	4 U	4 U	3.5 U	4.9 U	4.9 U	4.9 U	3.7 U
4,4'-DDE	ug/Kg	3.8 U	3.8 U	3.7 U	4 U	4 U	3.5 U	4.9 U	4.9 U	4.9 U	3.7 U
Endrin	ug/Kg	3.8 U	3.8 U	3.7 U	4 U	4 U	3.5 U	4.9 U	4.9 U	4.9 U	3.7 U
Endosulfan II	ug/Kg	3.8 U	3.8 U	3.7 U	4 U	4 U	3.5 U	4.9 U	4.9 U	4.9 U	3.7 U
4,4'-DDD	ug/Kg	3.8 U	3.8 U	3.7 U	4 U	4 U	3.5 U	4.9 U	4.9 U	4.9 U	3.7 U
Endosulfan sulfate	ug/Kg	3.8 U	3.8 U	3.7 U	4 U	4 U	3.5 U	4.9 U	4.9 U	4.9 U	3.7 U
4,4'-DDT	ug/Kg	3.8 U	3.8 U	3.7 U	4 U	4 U	3.5 U	4.9 U	4.9 U	4.9 U	3.7 U
Methoxychlor	ug/Kg	20 U	20 U	19 U	21 U	20 U	18 U	25 U	25 U	25 U	19 U
Endrin ketone	ug/Kg	3.8 U	3.8 U	3.7 U	4 U	4 U	3.5 U	4.9 U	4.9 U	4.9 U	3.7 U
Endrin aldehyde	ug/Kg	3.8 U	3.8 U	3.7 U	4 U	4 U	3.5 U	4.9 U	4.9 U	4.9 U	3.7 U
alpha-Chlordane	ug/Kg	2 U	2 U	1.9 U	2.1 U	2 U	1.8 U	2.5 U	2.5 U	2.5 U	1.9 U
gamma-Chlordane	ug/Kg	2 U	2 U	1.9 U	2.1 U	2 U	1.8 U	2.5 U	2.5 U	2.5 U	1.9 U
Toxaphene	ug/Kg	200 U	200 U	190 U	210 U	200 U	180 U	250 U	250 U	250 U	190 U
Aroclor-1016	ug/Kg	38 U	38 U	37 U	40 U	40 U	35 U	49 U	49 U	49 U	37 U
Aroclor-1221	ug/Kg	78 U	78 U	74 U	81 U	81 U	72 U	99 U	100 U	100 U	75 U
Aroclor-1232	ug/Kg	38 U	38 U	37 U	40 U	40 U	35 U	49 U	49 U	49 U	37 U
Aroclor-1242	ug/Kg	38 U	38 U	37 U	40 U	40 U	35 U	49 U	49 U	49 U	37 U
Aroclor-1248	ug/Kg	38 U	38 U	37 U	40 U	40 U	35 U	49 U	49 U	49 U	37 U
Aroclor-1254	ug/Kg	38 U	38 U	37 U	40 U	40 U	35 U	49 U	49 U	49 U	37 U
Aroclor-1280	ug/Kg	38 U	38 U	37 U	40 U	40 U	35 U	49 U	49 U	49 U	37 U
<b>METALS</b>											
Aluminum	mg/Kg	4650	12700	11700	2900	10200	9590	13800	13900	13900	13700
Antimony	mg/Kg	0.19 UJ	0.15 UJ	0.21 UJ	0.17 UJ	0.21 UJ	0.17 UJ	0.26 UJ	0.3 UJ	0.3 UJ	0.15 UJ
Arsenic	mg/Kg	3.3	5.7	4	4.5	3.9	3.6	5.3	5.8	5.8	4.8
Barium	mg/Kg	33 J	70.1	49	14.4 J	53.4	43.1	124	132	132	52.7
Beryllium	mg/Kg	0.22 J	0.82 J	0.58 J	0.17 J	0.5 J	0.46 J	0.74 J	0.75 J	0.75 J	0.63 J
Cadmium	mg/Kg	0.51 J	0.83 J	0.58 J	0.55 J	0.67 J	0.83 J	0.79 J	0.83 J	0.83 J	0.87
Calcium	mg/Kg	66400	8840	39800	111000	77700	50500	8360	6320	6320	26800
Chromium	mg/Kg	7	20.8	19.9	5.4	17.3	16.7	19.5	19.9	19.9	22.6
Cobalt	mg/Kg	4.5 J	12.1	12.5	2.8 J	8.3 J	9.6	7.5 J	9.2 J	9.2 J	14.8
Copper	mg/Kg	17.3	23.1	23.2	11.4	19.7	17.1	20.3	20.5	20.5	23.6
Iron	mg/Kg	11500	29200	25500	8520	21200	21600	23500	24800	24800	29300
Lead	mg/Kg	12.8	14.8 J	12.1 J	19.3	10.2	9.8	23.2	23.9	23.9	15.6
Magnesium	mg/Kg	26400	7550	13200	17800	16900	14700	4290	3810	3810	10500
Manganese	mg/Kg	533	421	373	502	394	388	395	540	540	373
Mercury	mg/Kg	0.03 J	0.06	0.06 J	0.01 J	0.02 J	0.01 U	0.06 J	0.06 J	0.06 J	0.02 J
Nickel	mg/Kg	10.3	28.6	33.4	6.8	26.8	29.7	22.2	22.5	22.5	44.8
Potassium	mg/Kg	1030	1250 J	1440 J	730 J	1630	1230	2140	2080	2080	1770
Selenium	mg/Kg	0.55 J	0.6 J	0.52 J	0.29 U	0.38 U	0.28 U	1.4	1.2 J	1.2 J	0.28 J
Silver	mg/Kg	0.13 UJ	0.11 UJ	0.15 UJ	0.12 UJ	0.15 UJ	0.12 UJ	0.18 UJ	0.21 UJ	0.21 UJ	0.1 UJ
Sodium	mg/Kg	52 J	50.3 J	88.4 J	86.1 J	88 J	117 J	41 U	47.2 U	47.2 U	90.2 J
Thallium	mg/Kg	0.31 U	0.24 U	0.34 U	0.27 U	0.34 U	0.26 U	0.41 U	0.48 U	0.48 U	0.23 U
Vanadium	mg/Kg	10.8	21.4	17.6	6.4 J	16.7	24.5	25	19.4	19.4	19.4
Zinc	mg/Kg	75.4	89	98	139	89.1	81.9	92.8	94.2	94.2	162
Cyanide	mg/Kg	0.55 U	0.55 U	0.48 U	0.54 U	1.7	0.45 U	0.5 U	0.74 U	0.74 U	0.52 U
<b>OTHER ANALYSES</b>											
Nitrate/Nitrite-Nitrogen	mg/Kg	1.02	0.08	0.2	0.02	0.67	0.15	9.7	6.9	6.9	0.29
Total Petroleum Hydrocarbons	mg/Kg										
Total Solids	%W/W	86.4	86.5	80.3	82	83.4	93	67.9	68.5	68.5	89.4

SENECA ARMY DEPOT  
SEAD-43, 56, AND 69 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-69 10-12 05/17/94 SB69-1-06 221484 44090	SOIL SEAD-69 10-12 05/17/94 SB69-1-06RE 221484 44090	SOIL SEAD-69 0-0.2 02/19/94 SB69-2.01 211964 42460	SOIL SEAD-69 6-8 05/16/94 SB69-2-04 221356 44090	SOIL SEAD-69 12-14 05/16/94 SB69-2-07 221357 44090	SOIL SEAD-69 12-14 05/16/94 SB69-2-07RE 221357 44090	SOIL SEAD-69 0-0.2 02/18/94 SB69-3.01 211967 42493	SOIL SEAD-69 6-8 02/18/94 SB69-3.04 212007 42493	SOIL SEAD-69 10-12 02/18/94 SB69-3.06 211970 42493	
VOLATILE ORGANICS										
Chloromethane	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
Bromomethane	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
Vinyl Chloride	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
Chloroethane	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
Methylene Chloride	ug/Kg 11 UJ	3 J	24 U	11 U	4 J	4 J	19 U	11 U	11 U R	
Acetone	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
Carbon Disulfide	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
1,1-Dichloroethane	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
1,1-Dichloroethane	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
1,2-Dichloroethane (total)	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
Chloroform	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
1,2-Dichloroethane	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
2-Butanone	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
1,1,1-Trichloroethane	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
Carbon Tetrachloride	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
Bromodichloromethane	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
1,2-Dichloropropane	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
cis-1,3-Dichloropropene	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
Trichloroethene	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
Dibromochloromethane	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
1,1,2-Trichloroethane	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
Benzene	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
trans-1,3-Dichloropropene	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
Bromoform	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
4-Methyl-2-Pentanone	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
2-Hexanone	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
Tetrachloroethene	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
1,1,2,2-Tetrachloroethane	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
Toluene	ug/Kg 11 UJ	2 J	24 U	11 U	27 J	6 J	19 U	11 U	4 J	
Chlorobenzene	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
Ethylbenzene	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
Styrene	ug/Kg 11 UJ	11 UJ	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
Xylene (total)	ug/Kg 11 UJ	2 J	24 U	11 U	11 U R	11 U R	19 U	11 U	11 U R	
HERBICIDES										
2,4-D	ug/Kg 54 U		94 U	54 U	53 U		98 U	55 U	54 U	
2,4-DB	ug/Kg 54 U		94 U	54 U	53 U		98 U	55 U	54 U	
2,4,5-T	ug/Kg 5.4 U		9.4 U	5.4 U	5.3 U		9.8 U	5.5 U	5.4 U	
2,4,5-TP (Silvex)	ug/Kg 5.4 U		9.4 U	5.4 U	5.3 U		9.8 U	5.5 U	5.4 U	
Dalapon	ug/Kg 130 U		230 U	130 U	130 U		240 U	140 U	130 U	
Dicamba	ug/Kg 5.4 U		9.4 U	5.4 U	5.3 U		9.8 U	5.5 U	5.4 U	
Dichloroprop	ug/Kg 54 U		94 U	54 U	53 U		98 U	55 U	54 U	
Dinoseb	ug/Kg 27 U		47 U	27 U	27 U		49 U	28 U	27 UJ	
MCPA	ug/Kg 5400 U		9400 U	5400 U	5300 U		9800 U	5500 U	5400 U	
MCPP	ug/Kg 5400 U		9400 U	5400 U	5300 U		9800 U	5500 U	5400 U	
NITROAROMATICS										
HMX	ug/Kg 130 U		130 U	130 U	130 U		130 U	130 U	130 U	
RDX	ug/Kg 130 U		130 U	130 U	130 U		130 U	130 U	130 U	
1,3,5-Trinitrobenzene	ug/Kg 130 U		130 U	130 U	130 U		130 U	130 U	130 U	
1,3-Dinitrobenzene	ug/Kg 130 U		130 U	130 U	130 U		130 U	130 U	130 U	
Tetryl	ug/Kg 130 U		130 U	130 U	130 U		130 U	130 U	130 U	
2,4,6-Trinitrotoluene	ug/Kg 130 U		130 U	130 U	130 U		130 U	130 U	130 U	
4-amino-2,6-Dinitrotoluene	ug/Kg 130 U		130 U	130 U	130 U		130 U	130 U	130 U	
2-amino-4,6-Dinitrotoluene	ug/Kg 130 U		130 U	130 U	130 U		130 U	130 U	130 U	
2,6-Dinitrotoluene	ug/Kg 130 U		130 U	130 U	130 U		130 U	130 U	130 U	
2,4-Dinitrotoluene	ug/Kg 130 U		130 U	130 U	130 U		130 U	130 U	130 U	

SENECA ARMY DEPOT  
SEAD-43, 56, AND 69 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-69 10-12 05/17/94 SB69-1-06 221484 44090	SOIL SEAD-69 10-12 05/17/94 SB69-1-06RE 221484 44090	SOIL SEAD-69 0-0.2 02/19/94 SB69-2.01 211964 42480	SOIL SEAD-69 6-8 05/16/94 SB69-2-04 221356 44090	SOIL SEAD-69 12-14 05/16/94 SB69-2-07 221357 44090	SOIL SEAD-69 12-14 05/16/94 SB69-2-07RE 221357 44090	SOIL SEAD-69 0-0.2 02/18/94 SB69-3.01 211967 42493	SOIL SEAD-69 6-8 02/18/94 SB69-3.04 212007 42493	SOIL SEAD-69 10-12 02/18/94 SB69-3.06 211970 42493
SEMIVOLATILE ORGANICS									
Phend	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
bis(2-Chloroethyl) ether	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
2-Chlorophend	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
1,3-Dichlorobenzene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
1,4-Dichlorobenzene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
1,2-Dichlorobenzene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
2-Methylphend	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
2,2'-oxybis(1-Chloropropane)	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
4-Methylphend	ugKg 360 U	580 J	350 U	350 U	650 U	360 U	350 U	350 U	350 U
N-Nitroso-d-n-propylamine	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Hexachloroethane	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Nitrobenzene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Isophorone	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
2-Nitrophend	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
2,4-Dimethylphend	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
bis(2-Chloroethoxy) methane	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
2,4-Dichlorophenol	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
1,2,4-Trichlorobenzene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Naphthalene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
4-Chloroaniline	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Hexachlorobutadiene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
4-Chloro-3-methylphenol	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
2-Methylnaphthalene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Hexachlorocyclopentadiene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
2,4,6-Trichlorophenol	ugKg 660 U	1500 U	850 U	840 U	1600 U	880 U	860 U	860 U	860 U
2,4,5-Trichlorophenol	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
2-Chloronaphthalene	ugKg 660 U	1500 U	850 U	840 U	1600 U	880 U	860 U	860 U	860 U
2-Nitroaniline	ugKg 660 U	1500 U	850 U	840 U	1600 U	880 U	860 U	860 U	860 U
Dimethylphthalate	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Aceraphthylene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
2,6-Dinitrotoluene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
3-Nitroaniline	ugKg 660 U	1500 U	850 U	840 U	1600 U	880 U	860 U	860 U	860 U
Aceraphthene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
2,4-Dinitrophend	ugKg 660 U	1500 U	850 U	840 U	1600 U	880 U	860 U	860 U	860 U
4-Nitrophend	ugKg 660 U	1500 U	850 U	840 U	1600 U	880 U	860 U	860 U	860 U
Dibenzofuran	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
2,4-Dinitrotoluene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Diethylphthalate	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
4-Chlorophenyl-phenylether	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Fluorene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
4-Nitroaniline	ugKg 660 U	1500 U	850 U	840 U	1600 U	880 U	860 U	860 U	860 U
4,6-Dinitro-2-methylphenol	ugKg 660 U	1500 U	850 U	840 U	1600 U	880 U	860 U	860 U	860 U
N-Nitrosodiphenylamine	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
4-Bromophenyl-phenylether	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Hexachlorobenzene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Pentachlorophend	ugKg 660 U	1500 U	850 U	840 U	1600 U	880 U	860 U	860 U	860 U
Phenanthrene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Anthracene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Carbazole	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Di-n-butylphthalate	ugKg 360 U	620 U	350 U	350 U	650 U	82 J	25 J	350 U	350 U
Fluoranthene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Pyrene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Butylbenzylphthalate	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
3,3'-Dichlorobenzidine	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Benzof[ar]anthracene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Chrysene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
bis(2-Ethylhexyl)phthalate	ugKg 360 U	690	350 U	350 U	580 J	140 J	340 J	350 U	350 U
Di-n-octylphthalate	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Benzof[fluor]anthracene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Benzof[k]fluoranthene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Benzof[a]pyrene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Indeno(1,2,3-cd)pyrene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Dibenz[ghi]anthracene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U
Benzof[g,h,i]perylene	ugKg 360 U	620 U	350 U	350 U	650 U	360 U	350 U	350 U	350 U



SENECA ARMY DEPOT  
SEAD-43, 56, AND 69 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-69 10-12 05/17/94 SB69-1-06 221484 44090	SOIL SEAD-69 10-12 05/17/94 SB69-1-06RE 221484 44090	SOIL SEAD-69 0-0.2 02/19/94 SB69-2.01 211964 42480	SOIL SEAD-69 6-8 05/18/94 SB69-2-04 221358 44090	SOIL SEAD-69 12-14 05/18/94 SB69-2-07 221357 44090	SOIL SEAD-69 12-14 05/18/94 SB69-2-07RE 221357 44090	SOIL SEAD-69 0-0.2 02/18/94 SB69-3.01 211967 42493	SOIL SEAD-69 6-8 02/18/94 SB69-3.04 212007 42493	SOIL SEAD-69 10-12 02/18/94 SB69-3.06 211970 42493
COMPOUND									
PESTICIDES/PCB									
alpha-BHC	ug/Kg	1.8 U	3.3 U	1.8 U	1.8 U	3.3 U	1.9 U	1.8 U	1.8 U
beta-BHC	ug/Kg	1.8 U	3.3 U	1.8 U	1.8 U	3.3 U	1.9 U	1.8 U	1.8 U
delta-BHC	ug/Kg	1.8 U	3.3 U	1.8 U	1.8 U	3.3 U	1.9 U	1.8 U	1.8 U
gamma-BHC (Lindane)	ug/Kg	1.8 U	3.3 U	1.8 U	1.8 U	3.3 U	1.9 U	1.8 U	1.8 U
Heptachlor	ug/Kg	1.8 U	3.3 U	1.8 U	1.8 U	3.3 U	1.9 U	1.8 U	1.8 U
Aldrin	ug/Kg	1.8 U	3.3 U	1.8 U	1.8 U	3.3 U	1.9 U	1.8 U	1.8 U
Heptachlor epoxide	ug/Kg	1.8 U	3.3 U	1.8 U	1.8 U	3.3 U	1.9 U	1.8 U	1.8 U
Endosulfan I	ug/Kg	1.8 U	3.3 U	1.8 U	1.8 U	3.3 U	1.9 U	1.8 U	1.8 U
Dieldrin	ug/Kg	3.8 U	6.3 U	3.5 U	3.5 U	6.5 U	3.8 U	3.5 U	3.5 U
4,4'-DDE	ug/Kg	3.8 U	6.3 U	3.5 U	3.5 U	6.5 U	3.8 U	3.5 U	3.5 U
Endrin	ug/Kg	3.8 U	6.3 U	3.5 U	3.5 U	6.5 U	3.8 U	3.5 U	3.5 U
Endosulfan II	ug/Kg	3.8 U	6.3 U	3.5 U	3.5 U	6.5 U	3.8 U	3.5 U	3.5 U
4,4'-DDD	ug/Kg	3.8 U	6.3 U	3.5 U	3.5 U	6.5 U	3.8 U	3.5 U	3.5 U
Endosulfan sulfate	ug/Kg	3.8 U	6.3 U	3.5 U	3.5 U	6.5 U	3.8 U	3.5 U	3.5 U
4,4'-DDT	ug/Kg	3.8 U	6.3 U	3.5 U	3.5 U	6.5 U	3.8 U	3.5 U	3.5 U
Methoxychlor	ug/Kg	18 U	33 U	18 U	18 U	33 U	19 U	18 U	18 U
Endrin ketone	ug/Kg	3.8 U	6.3 U	3.5 U	3.5 U	6.5 U	3.8 U	3.5 U	3.5 U
Endrin aldehyde	ug/Kg	3.8 U	6.3 U	3.5 U	3.5 U	6.5 U	3.8 U	3.5 U	3.5 U
alpha-Chlordane	ug/Kg	1.8 U	3.3 U	1.8 U	1.8 U	3.3 U	1.9 U	1.8 U	1.8 U
gamma-Chlordane	ug/Kg	1.8 U	3.3 U	1.8 U	1.8 U	3.3 U	1.9 U	1.8 U	1.8 U
Toxaphene	ug/Kg	180 U	330 U	180 U	180 U	330 U	190 U	180 U	180 U
Aroclor-1016	ug/Kg	36 U	63 U	35 U	35 U	65 U	36 U	35 U	35 U
Aroclor-1221	ug/Kg	73 U	130 U	71 U	71 U	130 U	73 U	72 U	72 U
Aroclor-1232	ug/Kg	36 U	63 U	35 U	35 U	65 U	36 U	35 U	35 U
Aroclor-1242	ug/Kg	36 U	63 U	35 U	35 U	65 U	36 U	35 U	35 U
Aroclor-1248	ug/Kg	36 U	63 U	35 U	35 U	65 U	36 U	35 U	35 U
Aroclor-1254	ug/Kg	36 U	63 U	35 U	35 U	65 U	36 U	35 U	35 U
Aroclor-1260	ug/Kg	36 U	63 U	35 U	35 U	65 U	36 U	35 U	35 U
METALS									
Aluminum	mg/Kg	8550	16000 J	14100	17500	14900	11500	10900	10900
Antimony	mg/Kg	0.13 UJ	6 UJ	0.16 UJ	0.12 J	0.37 UJ	0.23 J	0.32 J	0.32 J
Arsenic	mg/Kg	3.1	5.4 J	5.1	7.1	4.7	5.1	6.5	6.5
Barium	mg/Kg	50.9	133 J	42.7	82.1	118	80.4	80.2	80.2
Beryllium	mg/Kg	0.46 J	0.9 J	0.66 J	0.78	0.67 J	0.55 J	0.49 J	0.49 J
Cadmium	mg/Kg	0.84 J	0.58 U	0.83	1.1	0.31 J	0.28 J	0.23 J	0.23 J
Calcium	mg/Kg	112000	7760 J	26900	22000	7510 J	141000 J	58900 J	58900 J
Chromium	mg/Kg	14.1	22.6	24.1	30.2	21.5	17.9	18.4	18.4
Cobalt	mg/Kg	8.1	8.9 J	17.8	20.9	8.2 J	10.5	10.8	10.8
Copper	mg/Kg	18.3	22.9	27.8	25	20.6	21.1	23	23
Iron	mg/Kg	17800	27100 J	31400	40300	24900	22300	24200	24200
Lead	mg/Kg	9.1	21.1	9.7	13.6	25.1	6.1	5.9	5.9
Magnesium	mg/Kg	47500	4940 J	10200	9880	4730	10900	10900	10900
Manganese	mg/Kg	423	576 R	488	539	368	403	484	484
Mercury	mg/Kg	0.01 J	0.08 J	0.02 J	0.02 J	0.06 J	0.03 J	0.02 J	0.02 J
Nickel	mg/Kg	24.1	28.1	47.2	57.2	26.8 J	30.2 J	30 J	30 J
Potassium	mg/Kg	1300	1930	1350	1800	1940 J	2350 J	1490 J	1490 J
Selenium	mg/Kg	0.22 U	0.54 J	0.28 U	0.36 J	1.2 J	0.51 J	0.66 J	0.66 J
Silver	mg/Kg	0.09 UJ	1.2 U	0.11 UJ	0.07 UJ	0.28 U	0.14 U	0.1 U	0.1 U
Sodium	mg/Kg	111 J	54.9 U	85.8 J	113 J	85.5 J	139 J	122 J	122 J
Thallium	mg/Kg	0.21 U	0.3 U	0.26 U	0.17 U	0.46 U	0.23 U	0.24 U	0.24 U
Vanadium	mg/Kg	13	28.3	20	24.5	27.6	18.4	15.7	15.7
Zinc	mg/Kg	67.5	338 J	182	97.2	273	82.6	64.3	64.3
Cyanide	mg/Kg	0.43 U	0.94 U	0.48 U	0.5 U	0.92 U	0.54 U	0.47 U	0.47 U
OTHER ANALYSES									
Nitrate/Nitrite-Nitrogen	mg/Kg	0.18	0.02 U	0.58	0.19	0.02 U	0.04	0.03	0.03
Total Petroleum Hydrocarbons	mg/Kg								
Total Solids	%W/W	92.1	52.5	93.6	95.4	51.2	91	92.8	92.8

SENECA ARMY DEPOT  
SEAD-43, 56, AND 69 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

COMPOUND	MATRIX LOCATION SAMPLE DATE ES ID LAB ID SDG NUMBER UNITS	WATER SEAD-43 07/19/94 MW43-1 227445 45332	WATER SEAD-43 07/19/94 MW43-5 227449 45332 MW43-1DUP	WATER SEAD-43 07/19/94 MW43-2 227448 45332	WATER SEAD-43 03/28/94 MW43-3 215554 43179	WATER SEAD-43 03/28/94 MW43-5 215558 43179 MW43-3DUP	WATER SEAD-43 03/28/94 MW43-4 215557 43179
<b>VOLATILE ORGANICS</b>							
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromotorm	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
<b>HERBICIDES</b>							
2,4-D	ug/L	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
2,4-DB	ug/L	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
2,4,5-T	ug/L	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
2,4,5-TP (Silvex)	ug/L	0.11 U	0.11 U	0.11 U	0.11 U	0.44 J	0.11 U
Dalapon	ug/L	2.5 U	2.4 U	2.4 U	2.5 U	2.5 U	2.4 U
Dicamba	ug/L	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
Dichloroprop	ug/L	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Dinoseb	ug/L	0.54 U	0.51 U	0.51 U	0.54 U	0.53 U	0.52 U
MCPA	ug/L	110 U	110 U	110 U	110 U	110 U	110 U
MCPP	ug/L	110 U	110 U	110 U	110 U	110 U	110 U
<b>NITROAROMATICS</b>							
HMX	ug/L	0.13 U	0.13 U	0.13 U	0.13 UJ	0.13 UJ	0.13 UJ
RDX	ug/L	0.13 U	0.13 U	0.13 U	0.13 UJ	0.13 UJ	0.13 UJ
1,3,5-Trinitrobenzene	ug/L	0.13 U	0.13 U	0.13 U	0.13 UJ	0.13 UJ	0.13 UJ
1,3-Dinitrobenzene	ug/L	0.13 U	0.13 U	0.13 U	0.13 UJ	0.13 UJ	0.13 UJ
Tetryl	ug/L	0.13 U	0.13 U	0.13 U	0.13 UJ	0.13 UJ	0.13 UJ
2,4,6-Trinitrotoluene	ug/L	0.13 U	0.13 U	0.13 U	0.13 UJ	0.13 UJ	0.13 UJ
4-amino-2,6-Dinitrotoluene	ug/L	0.13 U	0.13 U	0.13 U	0.13 UJ	0.13 UJ	0.13 UJ
2-amino-4,6-Dinitrotoluene	ug/L	0.13 U	0.13 U	0.13 U	0.13 UJ	0.13 UJ	0.13 UJ
2,6-Dinitrotoluene	ug/L	0.13 U	0.13 U	0.13 U	0.13 UJ	0.13 UJ	0.13 UJ
2,4-Dinitrotoluene	ug/L	0.13 U	0.13 U	0.13 U	0.13 UJ	0.13 UJ	0.13 UJ

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COMPOUND	UNITS						
PESTICIDES/PCB							
alpha-BHC	ug/L	0.053 U	0.053 U	0.054 U	0.052 U	0.052 U	0.054 U
beta-BHC	ug/L	0.053 U	0.053 U	0.054 U	0.052 U	0.052 U	0.054 U
delta-BHC	ug/L	0.053 U	0.053 U	0.054 U	0.052 U	0.052 U	0.054 U
gamma-BHC (Lindane)	ug/L	0.053 U	0.053 U	0.054 U	0.052 U	0.052 U	0.054 U
Heptachlor	ug/L	0.053 U	0.053 U	0.054 U	0.052 U	0.052 U	0.054 U
Aldrin	ug/L	0.053 U	0.053 U	0.054 U	0.052 U	0.052 U	0.054 U
Heptachlor epoxide	ug/L	0.053 U	0.053 U	0.054 U	0.052 U	0.052 U	0.054 U
Endosulfan I	ug/L	0.053 U	0.053 U	0.054 U	0.052 U	0.052 U	0.054 U
Dieldrin	ug/L	0.11 U	0.11 U	0.11 U	0.1 U	0.1 U	0.11 U
4,4'-DDE	ug/L	0.11 U	0.11 U	0.11 U	0.1 U	0.1 U	0.11 U
Endrin	ug/L	0.11 U	0.11 U	0.11 U	0.1 U	0.1 U	0.11 U
Endosulfan II	ug/L	0.11 U	0.11 U	0.11 U	0.1 U	0.1 U	0.11 U
4,4'-DDD	ug/L	0.11 U	0.11 U	0.11 U	0.1 U	0.1 U	0.11 U
Endosulfan sulfate	ug/L	0.11 U	0.11 U	0.11 U	0.1 U	0.1 U	0.11 U
4,4'-DDT	ug/L	0.11 U	0.11 U	0.11 U	0.1 U	0.1 U	0.11 U
Methoxychlor	ug/L	0.53 U	0.53 U	0.54 U	0.52 U	0.52 U	0.54 U
Endrin ketone	ug/L	0.11 U	0.11 U	0.11 U	0.1 U	0.1 U	0.11 U
Endrin aldehyde	ug/L	0.11 U	0.11 U	0.11 U	0.1 U	0.1 U	0.11 U
alpha-Chlordane	ug/L	0.053 U	0.053 U	0.054 U	0.052 U	0.052 U	0.054 U
gamma-Chlordane	ug/L	0.053 U	0.053 U	0.054 U	0.052 U	0.052 U	0.054 U
Toxaphene	ug/L	5.3 U	5.3 U	5.4 U	5.2 U	5.2 U	5.4 U
Aroclor-1016	ug/L	1.1 U	1.1 U	1.1 U	1 U	1 U	1.1 U
Aroclor-1221	ug/L	2.1 U	2.1 U	2.2 U	2.1 U	2.1 U	2.1 U
Aroclor-1232	ug/L	1.1 U	1.1 U	1.1 U	1 U	1 U	1.1 U
Aroclor-1242	ug/L	1.1 U	1.1 U	1.1 U	1 U	1 U	1.1 U
Aroclor-1248	ug/L	1.1 U	1.1 U	1.1 U	1 U	1 U	1.1 U
Aroclor-1254	ug/L	1.1 U	1.1 U	1.1 U	1 U	1 U	1.1 U
Aroclor-1260	ug/L	1.1 U	1.1 U	1.1 U	1 U	1 U	1.1 U
METALS							
Aluminum	ug/L	2610 J	1020 J	169 J	2670	1820	1010
Antimony	ug/L	1.3 U	1.3 U	1.5 J	1 U	1 U	1 U
Arsenic	ug/L	2 U	2 U	2 U	1.5 J	1.5 U	1.5 U
Barium	ug/L	77.1 J	65.1 J	43.4 J	113 J	101 J	97.2 J
Beryllium	ug/L	0.1 U	0.1 U	0.1 U	0.06 U	0.06 U	0.06 U
Cadmium	ug/L	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U
Calcium	ug/L	102000	100000	112000	138000	136000	123000
Chromium	ug/L	3.5 J	1.4 J	0.4 U	5.3 J	3.8 J	2 J
Cobalt	ug/L	2.2 J	1.5 J	0.5 U	3.3 J	2.2 J	4.2 J
Copper	ug/L	3.3 J	1 J	0.5 U	4 J	3 J	1.9 J
Iron	ug/L	4010 J	1750 J	1000	7170	4890	1930
Lead	ug/L	0.9 U	0.89 U	0.9 U	2.4 J	1.5 J	0.8 U
Magnesium	ug/L	27500	26400	46800	42700	42200	36800
Manganese	ug/L	120	101	139	183	159	297
Mercury	ug/L	0.04 J	0.04 U	0.04 U	0.03 U	0.03 U	0.03 U
Nickel	ug/L	7.7 J	3.9 J	0.7 U	9.2 J	6.4 J	9.4 J
Potassium	ug/L	2420 J	1840 J	3010 J	3280 J	3190 J	3250 J
Selenium	ug/L	2.7 U	2.7 U	2.7 U	1.7 U	1.7 U	1.7 U
Silver	ug/L	0.5 U	0.7 J	0.5 U	0.7 U	0.7 U	0.7 U
Sodium	ug/L	4600 J	4310 J	6100	7330	7410	13400
Thallium	ug/L	2.2 J	1.9 U	1.9 U	1.6 U	1.6 U	1.6 U
Vanadium	ug/L	4.4 J	2.1 J	0.5 U	5.2 J	3.5 J	2.3 J
Zinc	ug/L	11 J	5.8 J	2.3 J	22.5 J	13.3 J	11.8 J
Cyanide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
OTHER ANALYSES							
Nitrate/Nitrite - Nitrogen	mg/L	0.06	0.06	0.01 U	0.03 J	0.01 U	0.02
Total Petroleum Hydrocarbons	mg/L						
pH	Standard Units	7.1	7.1	7.1	7.7		7.1
Conductivity	umhos/cm	460	460	610	600		535
Temperature	°C	13.7	13.7	13.1	8		6.1
Turbidity	NTU	146	146	16.6	431		0.2

SENECA ARMY DEPOT  
SEAD-43, 56, AND 69 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

MATRIX LOCATION SAMPLE DATE ES ID LAB ID SDG NUMBER	WATER SEAD-43 07/19/94 MW43-1 227445 45332	WATER SEAD-43 07/19/94 MW43-5 227449 45332 MW43-1DUP	WATER SEAD-43 07/19/94 MW43-2 227448 45332	WATER SEAD-43 03/28/94 MW43-3 215554 43179	WATER SEAD-43 03/28/94 MW43-5 215558 43179 MW43-3DUP	WATER SEAD-43 03/28/94 MW43-4 215557 43179
COMPOUND						
SEMIVOLATILE ORGANICS						
Phenol	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl) ether	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Isophorone	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy) methane	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	ug/L 27 U	26 U	26 U	26 U	26 U	26 U
2-Chloronaphthalene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	ug/L 27 U	26 U	26 U	26 U	26 U	26 U
Dimethylphthalate	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	ug/L 27 U	26 U	26 U	26 U	26 U	26 U
Acenaphthene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	ug/L 27 U	26 U	26 U	26 U	26 U	26 U
4-Nitrophenol	ug/L 27 U	26 U	26 U	26 U	26 U	26 U
Dibenzofuran	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Fluorene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	ug/L 27 U	26 U	26 U	26 U	26 U	26 U
4,6-Dinitro-2-methylphenol	ug/L 27 U	26 U	26 U	26 U	26 U	26 U
N-Nitrosodiphenylamine	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	ug/L 27 U	26 U	26 U	26 U	26 U	26 U
Phenanthrene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Anthracene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Carbazole	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Pyrene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Butylbenzylphthalate	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Chrysene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	ug/L 11 U	10 U	10 U	160 U	10 U	10 U
Di-n-octylphthalate	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	ug/L 11 U	10 U	10 U	10 U	10 U	10 U

SENECA ARMY DEPOT  
SEAD-43, 58, AND 69 ENVIRONMENTAL SITE INSPECTION  
SURFACE WATER ANALYSIS RESULTS

COMPOUND	MATRIX	WATER	WATER	WATER	WATER	WATER	WATER
	LOCATION	SEAD-43	SEAD-43	SEAD-43	SEAD-43	SEAD-43	SEAD-43
	SAMPLE DATE	04/18/94	04/18/94	04/15/94	04/15/94	04/18/94	04/15/94
	ES ID	SW43-1	SW43-2	SW43-3	SW43-20	SW43-4	SW43-5
	LAB ID	217864	217865	217769	217772	217868	217770
	SDG NUMBER	43549	43549	43549	43549	43549	43549
	UNITS				SW43-3DUP		
<b>VOLATILE ORGANICS</b>							
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	5 J	10 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
<b>HERBICIDES</b>							
2,4-D	ug/L	1.1 U	1.1 U	1.3 U	1.2 U	1.1 U	1.1 U
2,4-DB	ug/L	1.1 U	1.1 U	1.3 U	1.2 U	1.1 U	1.1 U
2,4,5-T	ug/L	0.11 U	0.11 U	0.13 U	0.12 U	0.11 U	0.11 U
2,4,5-TP (Silvex)	ug/L	0.11 U	0.11 U	0.13 U	0.12 U	0.11 U	0.11 U
Dalapon	ug/L	2.5 U	2.5 U	2.9 U	2.7 U	2.5 U	2.4 U
Dicamba	ug/L	0.11 U	0.11 U	0.13 U	0.12 U	0.11 U	0.11 U
Dichloroprop	ug/L	1.1 U	1.1 U	1.3 U	1.2 U	1.1 U	1.1 U
Dinoseb	ug/L	0.54 U	0.53 U	0.64 U	0.58 U	0.54 U	0.52 U
MCPA	ug/L	110 U	110 U	130 U	120 U	110 U	110 U
MCPP	ug/L	110 U	110 U	130 U	120 U	110 U	110 U
<b>NITROAROMATICS</b>							
HMX	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
RDX	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,3,5-Trinitrobenzene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,3-Dinitrobenzene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Tetryl	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2,4,6-Trinitrotoluene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
4-amino-2,6-Dinitrotoluene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2-amino-4,6-Dinitrotoluene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2,6-Dinitrotoluene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2,4-Dinitrotoluene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U

SENECA ARMY DEPOT  
SEAD-43, 56, AND 69 ENVIRONMENTAL SITE INSPECTION  
SURFACE WATER ANALYSIS RESULTS

MATRIX LOCATION	WATER SEAD-43	WATER SEAD-43	WATER SEAD-43	WATER SEAD-43	WATER SEAD-43	WATER SEAD-43	
SAMPLE DATE	04/16/94	04/16/94	04/15/94	04/15/94	04/16/94	04/15/94	
ES ID	SW43-1	SW43-2	SW43-3	SW43-20	SW43-4	SW43-5	
LAB ID	217864	217865	217779	217772	217868	217770	
SDG NUMBER	43549	43549	43549	43549	43549	43549	
COMPOUND	SEAD-43						SEAD-43
UNITS	SW43-3DUP						SW43-5
SEMIVOLATILE ORGANICS							
Phenol	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
bis(2-Chloroethyl) ether	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
2-Chlorophenol	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
1,3-Dichlorobenzene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
1,4-Dichlorobenzene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
1,2-Dichlorobenzene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
2-Methylphenol	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
2,2'-oxybis(1-Chloropropane)	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
4-Methylphenol	ug/L	36 U	1 J	12 U	12 U	10 U	11 U
N-Nitroso-d-n-propylamine	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Hexachloroethane	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Nitrobenzene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Isophorone	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
2-Nitrophenol	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
2,4-Dimethylphenol	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
bis(2-Chloroethoxy) methane	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
2,4-Dichlorophenol	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
1,2,4-Trichlorobenzene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Naphthalene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
4-Chloroaniline	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Hexachlorobutadiene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
4-Chloro-3-methylphenol	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
2-Methylnaphthalene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Hexachlorocyclopentadiene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
2,4,6-Trichlorophenol	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
2,4,5-Trichlorophenol	ug/L	91 U	29 U	29 U	30 U	26 U	26 U
2-Chloronaphthalene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
2-Nitroaniline	ug/L	91 U	29 U	29 U	30 U	26 U	26 U
Dimethylphthalate	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Acenaphthylene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
2,6-Dinitrotoluene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
3-Nitroaniline	ug/L	91 U	29 U	29 U	30 U	26 U	26 U
Acenaphthene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
2,4-Dinitrophenol	ug/L	91 U	29 U	29 U	30 U	26 U	26 U
4-Nitrophenol	ug/L	91 U	29 U	29 U	30 U	26 U	26 U
Dibenzofuran	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
2,4-Dinitrotoluene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Diethylphthalate	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
4-Chlorophenyl-phenylether	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Fluorene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
4-Nitroaniline	ug/L	91 U	29 U	29 U	30 U	26 U	26 U
4,6-Dinitro-2-methylphenol	ug/L	91 U	29 U	29 U	30 U	26 U	26 U
N-Nitrosodiphenylamine	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
4-Bromophenyl-phenylether	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Hexachlorobenzene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Pentachlorophenol	ug/L	91 U	29 U	29 U	30 U	26 U	26 U
Phenanthrene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Anthracene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Carbazole	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Di-n-butylphthalate	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Fluoranthene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Pyrene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Butylbenzylphthalate	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
3,3'-Dichlorobenzidine	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Benzo(a)anthracene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Chrysene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
bis(2-Ethylhexyl)phthalate	ug/L	150	12 U	12 U	12 U	10 U	11 U
Di-n-octylphthalate	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Benzo(b)fluoranthene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Benzo(k)fluoranthene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Benzo(a)pyrene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Indeno(1,2,3-cd)pyrene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Dibenz(a,h)anthracene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U
Benzo(g,h,i)perylene	ug/L	36 U	12 U	12 U	12 U	10 U	11 U

SENECA ARMY DEPOT  
SEAD-43, 56, AND 69 ENVIRONMENTAL SITE INSPECTION  
SURFACE WATER ANALYSIS RESULTS

COMPOUND	MATRIX	WATER	WATER	WATER	WATER	WATER	WATER
	LOCATION	SEAD-43	SEAD-43	SEAD-43	SEAD-43	SEAD-43	SEAD-43
	SAMPLE DATE	04/16/94	04/16/94	04/15/94	04/15/94	04/16/94	04/15/94
	ES ID	SW43-1	SW43-2	SW43-3	SW43-20	SW43-4	SW43-5
	LAB ID	217864	217865	217769	217772	217866	217770
	SDG NUMBER	43549	43549	43549	43549	43549	43549
	UNITS				SW43-3DUP		
PESTICIDES/PCB							
alpha-BHC	ug/L	0.056 U	0.052 U	0.061 U	0.058 U	0.06 U	0.052 U
beta-BHC	ug/L	0.056 U	0.052 U	0.061 U	0.058 U	0.06 U	0.052 U
delta-BHC	ug/L	0.056 U	0.052 U	0.061 U	0.058 U	0.06 U	0.052 U
gamma-BHC (Lindane)	ug/L	0.056 U	0.052 U	0.061 U	0.058 U	0.06 U	0.052 U
Heptachlor	ug/L	0.056 U	0.052 U	0.061 U	0.058 U	0.06 U	0.052 U
Aldrin	ug/L	0.056 U	0.052 U	0.061 U	0.058 U	0.06 U	0.052 U
Heptachlor epoxide	ug/L	0.056 U	0.052 U	0.061 U	0.058 U	0.06 U	0.052 U
Endosulfan I	ug/L	0.056 U	0.052 U	0.061 U	0.058 U	0.06 U	0.052 U
Dieldrin	ug/L	0.11 U	0.1 U	0.12 U	0.12 U	0.12 U	0.1 U
4,4'-DDE	ug/L	0.11 U	0.1 U	0.12 U	0.12 U	0.12 U	0.1 U
Endrin	ug/L	0.11 U	0.1 U	0.12 U	0.12 U	0.12 U	0.1 U
Endosulfan II	ug/L	0.11 U	0.1 U	0.12 U	0.12 U	0.12 U	0.1 U
4,4'-DDD	ug/L	0.11 U	0.1 U	0.12 U	0.12 U	0.12 U	0.1 U
Endosulfan sulfate	ug/L	0.11 U	0.1 U	0.12 U	0.12 U	0.12 U	0.1 U
4,4'-DDT	ug/L	0.11 U	0.1 U	0.12 U	0.12 U	0.12 U	0.1 U
Methoxychlor	ug/L	0.58 U	0.52 U	0.61 U	0.58 U	0.6 U	0.52 U
Endrin ketone	ug/L	0.11 U	0.1 U	0.12 U	0.12 U	0.12 U	0.1 U
Endrin aldehyde	ug/L	0.11 U	0.1 U	0.12 U	0.12 U	0.12 U	0.1 U
alpha-Chlordane	ug/L	0.056 U	0.052 U	0.061 U	0.058 U	0.06 U	0.052 U
gamma-Chlordane	ug/L	0.056 U	0.052 U	0.061 U	0.058 U	0.06 U	0.052 U
Toxaphene	ug/L	5.6 U	5.2 U	6.1 U	5.8 U	6 U	5.2 U
Aroclor-1016	ug/L	1.1 U	1 U	1.2 U	1.2 U	1.2 U	1 U
Aroclor-1221	ug/L	2.2 U	2.1 U	2.4 U	2.3 U	2.4 U	2.1 U
Aroclor-1232	ug/L	1.1 U	1 U	1.2 U	1.2 U	1.2 U	1 U
Aroclor-1242	ug/L	1.1 U	1 U	1.2 U	1.2 U	1.2 U	1 U
Aroclor-1248	ug/L	1.1 U	1 U	1.2 U	1.2 U	1.2 U	1 U
Aroclor-1254	ug/L	1.1 U	1 U	1.2 U	1.2 U	1.2 U	1 U
Aroclor-1260	ug/L	1.1 U	1 U	1.2 U	1.2 U	1.2 U	1 U
METALS							
Aluminum	ug/L	400	1190	72.2 J	71.4 J	335	111 J
Antimony	ug/L	0.99 U	1 U	0.99 U	0.99 U	0.99 U	0.99 U
Arsenic	ug/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Barium	ug/L	23.6 J	27.9 J	55.2 J	47.6 J	32.7 J	40.4 J
Beryllium	ug/L	0.1 J	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U
Cadmium	ug/L	0.14 J	0.1 U	0.1 U	0.1 U	0.34 J	0.1 U
Calcium	ug/L	49900	43200	92900	92800	52300	79400
Chromium	ug/L	0.82 J	1.6 J	0.4 UJ	3.3 J	0.51 J	0.47 J
Cobalt	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.59 U	0.6 U
Copper	ug/L	1.9 J	2.5 J	1.6 J	1.1 J	2.3 J	1.3 J
Iron	ug/L	397	1750	177	183	503	150
Lead	ug/L	0.8 U	0.8 U	0.8 U	0.8 U	1.4 J	0.8 U
Magnesium	ug/L	9210	7820	15900	15900	9420	14600
Manganese	ug/L	13.9 J	94.6	91.5 J	48.9 J	39.1	12.2 J
Mercury	ug/L	0.04 J	0.06 J	0.06 J	0.04 J	0.04 J	0.05 J
Nickel	ug/L	1.6 J	2.8 J	0.71 J	1.6 J	277	1.4 J
Potassium	ug/L	1000 J	2290 J	1520 J	1500 J	2660 J	1810 J
Selenium	ug/L	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Silver	ug/L	0.7 U	0.7 U	0.7 U	0.7 U	0.69 U	0.7 U
Sodium	ug/L	2450 J	892 J	4440 J	4550 J	3240 J	5180
Thallium	ug/L	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Vanadium	ug/L	0.89 J	2.1 J	0.7 U	0.7 U	0.69 U	0.7 U
Zinc	ug/L	5.3 J	12.1 J	3.8 J	3.9 J	1040	14.2 J
Cyanide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
OTHER ANALYSES							
Nitrate/Nitrite-Nitrogen	mg/L	0.01	0.02	1.42	1.17	0.02	0.04
Total Petroleum Hydrocarbons	mg/L			7.3		7.6	7.9
pH	Standard Units	9.2	8.8	7.3		255	432
Conductivity	umhos/cm	215	185	333		16	21
Temperature	°C	11	10	21		9.7	2.3
Turbidity	NTU	9.8	31.2	1.9			

SENECA ARMY DEPOT  
SEAD-43, 50, AND 60 ENVIRONMENTAL SITE INSPECTION  
SEDIMENT ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-43 0-0.2 04/16/94 SD43-1 217861 43543	SOIL SEAD-43 0-0.2 04/16/94 SD43-2 217862 43543	SOIL SEAD-43 0.4 04/15/94 SD43-3 217764 43543	SOIL SEAD-43 0.4 04/15/94 SD43-20 217767 43543	SOIL SEAD-43 0-0.2 04/16/94 SD43-4 217863 43543	SOIL SEAD-43 0.6 04/15/94 SD43-5 217766 43543	
COMPOUND UNITS				SD43-3DUP			
<b>VOLATILE ORGANICS</b>							
Chloromethane	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
Bromomethane	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
Vinyl Chloride	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
Chloroethane	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
Methylene Chloride	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
Acetone	ug/Kg	82 U	20 U	220	120	32 U	85 U
Carbon Disulfide	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
1,1-Dichloroethene	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
1,1-Dichloroethane	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
1,2-Dichloroethene (total)	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
Chloroform	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
1,2-Dichloroethane	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
2-Butanone	ug/Kg	19	17 U	49	30	14 U	16 U
1,1,1-Trichloroethane	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
Carbon Tetrachloride	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
Bromodichloromethane	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
1,2-Dichloropropane	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
cis-1,3-Dichloropropene	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
Trichloroethene	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
Dibromochloromethane	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
1,1,2-Trichloroethane	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
Benzene	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
trans-1,3-Dichloropropene	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
Bromoform	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
4-Methyl-2-Pentanone	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
2-Hexanone	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
Tetrachloroethene	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
1,1,2,2-Tetrachloroethane	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
Toluene	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
Chlorobenzene	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
Ethylbenzene	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
Styrene	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
Xylene (total)	ug/Kg	17 U	17 U	21 U	21 U	14 U	16 U
<b>HERBICIDES</b>							
2,4-D	ug/Kg	84 U	81 U	110 U	110 U	72 U	81 U
2,4-DB	ug/Kg	84 U	110	110 U	110 U	72 U	81 U
2,4,5-T	ug/Kg	18	18	23 J	11 U	7.2 U	11
2,4,5-TP (Silvex)	ug/Kg	8.4 U	8.1 U	11 U	11 U	7.2 U	8.1 U
Dalapon	ug/Kg	200 U	200 U	250 U	250 U	180 U	200 U
Dicamba	ug/Kg	8.4 U	8.1 U	11 U	11 U	7.2 U	8.1 U
Dichloroprop	ug/Kg	84 U	81 U	110 U	110 U	72 U	81 U
Dinoseb	ug/Kg	42 U	41 U	51 U	52 U	36 U	41 U
MCPA	ug/Kg	8400 U	8100 U	11000 U	11000 U	7200 U	8100 U
MCPP	ug/Kg	16000	17000	11000 U	11000 U	7200 U	8100 U
<b>NITROAROMATICS</b>							
HMX	ug/Kg	130 U	110 J	130 U	130 U	72 J	130 U
RDX	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U
1,3,5-Trinitrobenzene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U
1,3-Dinitrobenzene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U
Tetryl	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U
2,4,6-Trinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U
4-amino-2,6-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U
2-amino-4,6-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U
2,6-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U
2,4-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U



SENECA ARMY DEPOT  
SEAD-43, 58, AND 69 ENVIRONMENTAL SITE INSPECTION  
SEDIMENT ANALYSIS RESULTS

MATRIX LOCATION	SOIL SEAD-43	SOIL SEAD-43	SOIL SEAD-43	SOIL SEAD-43	SOIL SEAD-43	SOIL SEAD-43
DEPTH (FEET)	0-0.2	0-0.2	0.4	0.4	0-0.2	0.8
SAMPLE DATE	04/18/94	04/18/94	04/15/94	04/15/94	04/18/94	04/15/94
ES ID	SD43-1	SD43-2	SD43-3	SD43-20	SD43-4	SD43-5
LAB ID	217861	217862	217784	217787	217863	217786
SDG NUMBER	43543	43543	43543	43543	43543	43543
COMPOUND UNITS				SD43-3DUP		
SEMIVOLATILE ORGANICS						
Phenol	ug/Kg	550 U	530 U	670 U	690 U	470 U
bis(2-Chloroethyl) ether	ug/Kg	550 U	530 U	670 U	690 U	470 U
2-Chlorophenol	ug/Kg	550 U	530 U	670 U	690 U	470 U
1,3-Dichlorobenzene	ug/Kg	550 U	530 U	670 U	690 U	470 U
1,4-Dichlorobenzene	ug/Kg	550 U	530 U	670 U	690 U	470 U
1,2-Dichlorobenzene	ug/Kg	550 U	530 U	670 U	690 U	470 U
2-Methylphenol	ug/Kg	550 U	530 U	670 U	690 U	470 U
2,2'-oxybis(1-Chloropropane)	ug/Kg	550 U	530 U	670 U	690 U	470 U
4-Methylphenol	ug/Kg	550 U	530 U	670 U	690 U	470 U
N-Nitroso-di-n-propylamine	ug/Kg	550 U	530 U	670 U	690 U	470 U
Hexachloroethane	ug/Kg	550 U	530 U	670 U	690 U	470 U
Nitrobenzene	ug/Kg	550 U	530 U	670 U	690 U	470 U
Isophorone	ug/Kg	550 U	530 U	670 U	690 U	470 U
2-Nitrophenol	ug/Kg	550 U	530 U	670 U	690 U	470 U
2,4-Dimethylphenol	ug/Kg	550 U	530 U	670 U	690 U	470 U
bis(2-Chloroethoxy) methane	ug/Kg	550 U	530 U	670 U	690 U	470 U
2,4-Dichlorophenol	ug/Kg	550 U	530 U	670 U	690 U	470 U
1,2,4-Trichlorobenzene	ug/Kg	550 U	530 U	670 U	690 U	470 U
Naphthalene	ug/Kg	550 U	530 U	670 U	690 U	470 U
4-Chloroaniline	ug/Kg	550 U	530 U	670 U	690 U	470 U
Hexachlorobutadiene	ug/Kg	550 U	530 U	670 U	690 U	470 U
4-Chloro-3-methylphenol	ug/Kg	550 U	530 U	670 U	690 U	470 U
2-Methylnaphthalene	ug/Kg	550 U	530 U	670 U	690 U	470 U
Hexachlorocyclopentadiene	ug/Kg	550 U	530 U	670 U	690 U	470 U
2,4,6-Trichlorophenol	ug/Kg	550 U	530 U	670 U	690 U	470 U
2,4,5-Trichlorophenol	ug/Kg	1300 U	1300 U	1800 U	1700 U	1100 U
2-Chloronaphthalene	ug/Kg	550 U	530 U	670 U	690 U	470 U
2-Nitroaniline	ug/Kg	1300 U	1300 U	1800 U	1700 U	1100 U
Dimethylphthalate	ug/Kg	550 U	530 U	670 U	690 U	470 U
Acenaphthylene	ug/Kg	550 U	530 U	670 U	690 U	470 U
2,6-Dinitrotoluene	ug/Kg	550 U	530 U	670 U	690 U	470 U
3-Nitroaniline	ug/Kg	1300 U	1300 U	1800 U	1700 U	1100 U
Acenaphthene	ug/Kg	550 U	530 U	670 U	690 U	470 U
2,4-Dinitrophenol	ug/Kg	1300 U	1300 U	1800 U	1700 U	1100 U
4-Nitrophenol	ug/Kg	1300 U	1300 U	1800 U	1700 U	1100 U
Dibenzofuran	ug/Kg	550 U	530 U	670 U	690 U	470 U
2,4-Dinitrotoluene	ug/Kg	550 U	530 U	670 U	690 U	470 U
Diethylphthalate	ug/Kg	550 U	530 U	670 U	690 U	470 U
4-Chlorophenyl-phenylether	ug/Kg	550 U	530 U	670 U	690 U	470 U
Fluorene	ug/Kg	550 U	530 U	670 U	690 U	470 U
4-Nitroaniline	ug/Kg	1300 U	1300 U	1800 U	1700 U	1100 U
4,6-Dinitro-2-methylphenol	ug/Kg	1300 U	1300 U	1800 U	1700 U	1100 U
N-Nitrosodiphenylamine	ug/Kg	550 U	530 U	670 U	690 U	470 U
4-Bromophenyl-phenylether	ug/Kg	550 U	530 U	670 U	690 U	470 U
Hexachlorobenzene	ug/Kg	550 U	530 U	670 U	690 U	470 U
Pentachlorophenol	ug/Kg	1300 U	1300 U	1800 U	1700 U	1100 U
Phenanthrene	ug/Kg	550 U	530 U	670 U	690 U	470 U
Anthracene	ug/Kg	550 U	530 U	670 U	690 U	470 U
Carbazole	ug/Kg	550 U	530 U	670 U	690 U	470 U
Di-n-butylphthalate	ug/Kg	550 U	530 U	670 U	690 U	470 U
Fluoranthene	ug/Kg	550 U	530 U	670 U	690 U	470 U
Pyrene	ug/Kg	550 U	530 U	670 U	690 U	470 U
Butylbenzylphthalate	ug/Kg	550 U	530 U	670 U	690 U	470 U
3,3'-Dichlorobenzidine	ug/Kg	550 U	530 U	670 U	690 U	470 U
Benzo(a)anthracene	ug/Kg	550 U	530 U	670 U	690 U	470 U
Chrysene	ug/Kg	550 U	530 U	670 U	690 U	470 U
bis(2-Ethylhexyl)phthalate	ug/Kg	550 U	530 U	670 U	690 U	470 U
Di-n-octylphthalate	ug/Kg	550 U	530 U	670 U	690 U	470 U
Benzo(b)fluoranthene	ug/Kg	550 U	530 U	670 U	690 U	470 U
Benzo(k)fluoranthene	ug/Kg	550 U	530 U	670 U	690 U	470 U
Benzo(a)pyrene	ug/Kg	550 U	530 U	670 U	690 U	470 U
Indeno(1,2,3-cd)pyrene	ug/Kg	550 U	530 U	670 U	690 U	470 U
Dibenz(a,h)anthracene	ug/Kg	550 U	530 U	670 U	690 U	470 U
Benzo(g,h,i)perylene	ug/Kg	550 U	530 U	670 U	690 U	470 U

SENECA ARMY DEPOT  
SEAD-43, 56, AND 69 ENVIRONMENTAL SITE INSPECTION  
SEDIMENT ANALYSIS RESULTS

MATRIX LOCATION	SOIL SEAD-43	SOIL SEAD-43	SOIL SEAD-43	SOIL SEAD-43	SOIL SEAD-43	SOIL SEAD-43	
DEPTH (FEET)	0-0.2	0-0.2	0.4	0.4	0-0.2	0.6	
SAMPLE DATE	04/16/94	04/16/94	04/15/94	04/15/94	04/16/94	04/15/94	
ES ID	SD43-1	SD43-2	SD43-3	SD43-20	SD43-4	SD43-5	
LAB ID	217861	217862	217764	217767	217863	217766	
SDG NUMBER	43543	43543	43543	43543	43543	43543	
COMPOUND	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	
<b>PESTICIDES/PCB</b>							
alpha-BHC	ug/Kg	2.8 U	2.7 U	3.5 U	3.5 U	2.4 U	2.7 U
beta-BHC	ug/Kg	2.8 U	2.7 U	3.5 U	3.5 U	2.4 U	2.7 U
delta-BHC	ug/Kg	2.8 U	2.7 U	3.5 U	3.5 U	2.4 U	2.7 U
gamma-BHC (Lindane)	ug/Kg	2.8 U	2.7 U	3.5 U	3.5 U	2.4 U	2.7 U
Heptachlor	ug/Kg	2.8 U	2.7 U	3.5 U	3.5 U	2.4 U	2.7 U
Aldrin	ug/Kg	2.8 U	2.7 U	3.5 U	3.5 U	2.4 U	2.7 U
Heptachlor epoxide	ug/Kg	2.8 U	2.7 U	3.5 U	3.5 U	2.4 U	2.7 U
Endosulfan I	ug/Kg	2.8 U	2.7 U	3.5 U	3.5 U	2.4 U	2.7 U
Dieldrin	ug/Kg	5.5 U	5.3 U	6.7 U	6.9 U	4.7 U	5.3 U
4,4'-DDE	ug/Kg	5.5 U	5.3 U	6.7 U	6.9 U	4.7 U	5.3 U
Endrin	ug/Kg	5.5 U	5.3 U	6.7 U	6.9 U	4.7 U	5.3 U
Endosulfan II	ug/Kg	5.5 U	5.3 U	6.7 U	6.9 U	4.7 U	5.3 U
4,4'-DDD	ug/Kg	5.5 U	5.3 U	6.7 U	6.9 U	4.7 U	5.3 U
Endosulfan sulfate	ug/Kg	5.5 U	5.3 U	6.7 U	6.9 U	4.7 U	5.3 U
4,4'-DDT	ug/Kg	5.5 U	5.3 U	6.7 U	6.9 U	4.7 U	5.3 U
Methoxychlor	ug/Kg	28 U	27 U	35 U	35 U	24 U	27 U
Endrin ketone	ug/Kg	5.5 U	5.3 U	6.7 U	6.9 U	4.7 U	5.3 U
Endrin aldehyde	ug/Kg	5.5 U	5.3 U	6.7 U	6.9 U	4.7 U	5.3 U
alpha-Chlordane	ug/Kg	2.8 U	2.7 U	3.5 U	3.5 U	2.4 U	2.7 U
gamma-Chlordane	ug/Kg	2.8 U	2.7 U	3.5 U	3.5 U	2.4 U	2.7 U
Toxaphene	ug/Kg	280 U	270 U	350 U	350 U	240 U	270 U
Aroclor-1016	ug/Kg	55 U	53 U	67 U	69 U	47 U	53 U
Aroclor-1221	ug/Kg	110 U	110 U	140 U	140 U	96 U	110 U
Aroclor-1232	ug/Kg	55 U	53 U	67 U	69 U	47 U	53 U
Aroclor-1242	ug/Kg	55 U	53 U	67 U	69 U	47 U	53 U
Aroclor-1248	ug/Kg	55 U	53 U	67 U	69 U	47 U	53 U
Aroclor-1254	ug/Kg	55 U	53 U	67 U	69 U	47 U	53 U
Aroclor-1280	ug/Kg	55 U	53 U	67 U	69 U	47 U	53 U
<b>METALS</b>							
Aluminum	mg/Kg	19600	16800	11600	17600	13000	15400
Antimony	mg/Kg	0.26 UJ	0.29 UJ	0.37 J	0.27 UJ	0.19 UJ	0.27 UJ
Arsenic	mg/Kg	9	8.5	3	4.6	5.3	4.1
Barium	mg/Kg	158	127	104	133	85.1	97.8
Beryllium	mg/Kg	0.99 J	0.85 J	0.57 J	0.76 J	0.61 J	0.69 J
Cadmium	mg/Kg	0.63 J	0.46 J	0.5 J	0.58 J	0.33 J	0.37 J
Calcium	mg/Kg	7220	7170	6950	8230	68900	9030
Chromium	mg/Kg	27.4	23.1	15.9	23	19.5	21
Cobalt	mg/Kg	19.7	10.9 J	6 J	10.6 J	9.6	7.6 J
Copper	mg/Kg	30.1	20.3	20.1	24.1	20.4	18.5
Iron	mg/Kg	37100	28900	17300	23800	25300	22100
Lead	mg/Kg	28.7	23.2	17.4	22.2	9.8	16.7
Magnesium	mg/Kg	6870	5390	3500	4880	10500	5180
Manganese	mg/Kg	1480	501	357	433	615	198
Mercury	mg/Kg	0.06 J	0.04 J	0.06 J	0.06 J	0.03 J	0.07 J
Nickel	mg/Kg	44.3	27.4	23.2	26.8	29.7	24.8
Potassium	mg/Kg	2140	2080	1290 J	2320	2160	2440
Selenium	mg/Kg	0.44 U	0.49 U	1 J	0.76 J	0.32 U	0.45 U
Silver	mg/Kg	0.18 U	0.2 U	0.2 U	0.19 U	0.13 U	0.19 U
Sodium	mg/Kg	41.3 U	45.5 U	45.3 U	43.4 U	50 J	42.2 U
Thallium	mg/Kg	0.42 U	0.73 J	0.68 J	0.47 J	0.3 U	0.75 J
Vanadium	mg/Kg	37.4	32.4	21.4	32.1	20.6	27.1
Zinc	mg/Kg	122	124	96.7	105	64.3	178
Cyanide	mg/Kg	0.84 U	0.79 U	0.89 U	0.76 U	0.67 U	0.63 U
<b>OTHER ANALYSES</b>							
Nitrate/Nitrite - Nitrogen	mg/Kg	0.1	0.03	0.04 J	0.15 J	0.06	0.02 U
Total Petroleum Hydrocarbons	mg/Kg						
Total Solids	%W/W	59.5	62.2	46.6	48.1	69.5	62.1

**SEAD-44 (A,B)**

SENECA ARMY DEPOT  
SEAD-44 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-44 0-0.2 04/13/94 SS44A-1 217878 43535	SOIL SEAD-44 0-0.2 04/13/94 SS44A-20 217685 43535 SS44A-1DUP	SOIL SEAD-44 0-0.2 04/13/94 SS44A-2 217680 43535	SOIL SEAD-44 0-0.2 04/13/94 SS44A-3 217681 43535	SOIL SEAD-44 0-0.2 04/13/94 SS44A-4 217682 43535	SOIL SEAD-44 0-0.2 04/13/94 SS44A-5 217683 43535	SOIL SEAD-44 0-0.2 04/13/94 SS44A-6 217684 43535	SOIL SEAD-44 0-0.2 04/13/94 SS44B-1 217686 43535	SOIL SEAD-44 0-0.2 04/13/94 SS44B-1RE 217686 43535	SOIL SEAD-44 0-0.2 04/13/94 SS44B-2 217687 43535	
VOLATILE ORGANICS											
Chloromethane	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
Bromomethane	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
Vinyl Chloride	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
Chloroethane	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
Methylene Chloride	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
Acetone	ug/Kg	73	35	11 J	26	18	200	16 J	720 R	45	38
Carbon Disulfide	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
1,1-Dichloroethane	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
1,1-Dichloroethane	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
1,2-Dichloroethane (total)	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
Chloroform	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
1,2-Dichloroethane	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
2-Butanone	ug/Kg	16 U	16 U	15 U	18 U	16 U	28	16 U	12 UJ	10 J	18 U
1,1,1-Trichloroethane	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
Carbon Tetrachloride	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
Bromodichloromethane	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
1,2-Dichloropropane	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
cis-1,3-Dichloropropene	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
Trichloroethene	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
Dibromochloromethane	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
1,1,2-Trichloroethane	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
Benzene	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
trans-1,3-Dichloropropene	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
Bromoform	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
4-Methyl-2-Pentanone	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
2-Hexanone	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
Tetrachloroethane	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
1,1,2,2-Tetrachloroethane	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
Toluene	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
Chlorobenzene	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
Ethylbenzene	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
Styrene	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
Xylene (total)	ug/Kg	16 U	16 U	15 U	18 U	16 U	21 U	16 U	12 UJ	12 U	18 U
HERBICIDES											
2,4-D	ug/Kg										
2,4-DB	ug/Kg										
2,4,5-T	ug/Kg										
2,4,5-TP (Silvex)	ug/Kg										
Dalapon	ug/Kg										
Dicamba	ug/Kg										
Dichloroprop	ug/Kg										
Dinoseb	ug/Kg										
MCPA	ug/Kg										
MCPP	ug/Kg										
NITROAROMATICS											
HMX	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
RDX	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
1,3,5-Trinitrobenzene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
1,3-Dinitrobenzene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
Tetryl	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
2,4,6-Trinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U	110 J	130 U	130 U	130 U	130 U
4-amino-2,6-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
2-amino-4,6-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
2,6-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
2,4-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U

SENECA ARMY DEPOT  
SEAD-44 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44
DEPTH (FEET)	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2
SAMPLE DATE	04/13/94	04/13/94	04/13/94	04/13/94	04/13/94	04/13/94	04/13/94	04/13/94	04/13/94	04/13/94
ES ID	SS44A-1	SS44A-20	SS44A-2	SS44A-3	SS44A-4	SS44A-5	SS44A-6	SS44A-1RE	SS44B-2	SS44B-2
LAB ID	217678	217685	217680	217681	217682	217683	217684	217686	217687	217687
SDG NUMBER	43535	43535	43535	43535	43535	43535	43535	43535	43535	43535
UNITS		SS44A-1DUP								
COMPOUND										
SEMIVOLATILE ORGANICS										
Phenol	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
bis(2-Chloroethyl) ether	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
2-Chlorophenol	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
1,3-Dichlorobenzene	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
1,4-Dichlorobenzene	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
1,2-Dichlorobenzene	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
2-Methylphenol	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
2,2'-oxybis(1-Chloropropane)	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
4-Methylphenol	ug/Kg	520 U	510 U	520 U	250 J	580 U	680 U	64 J	420 U	630 U
N-Nitroso-di-n-propylamine	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
Hexachloroethane	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
Nitrobenzene	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
Isophorone	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
2-Nitrophenol	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
2,4-Dimethylphenol	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
bis(2-Chloroethoxy) methane	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
2,4-Dichlorophenol	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
1,2,4-Trichlorobenzene	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
Naphthalene	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
4-Chloroaniline	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
Hexachlorobutadiene	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
4-Chloro-3-methylphenol	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
2-Methylnaphthalene	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
Hexachlorocyclopentadiene	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
2,4,6-Trichlorophenol	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
2,4,5-Trichlorophenol	ug/Kg	1200 U	1200 U	1200 U	1400 U	1400 U	1800 U	1400 U	1000 U	1500 U
2-Chloronaphthalene	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
2-Nitroaniline	ug/Kg	1200 U	1200 U	1200 U	1400 U	1400 U	1800 U	1400 U	1000 U	1500 U
Dimethylphthalate	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
Acenaphthylene	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
2,6-Dinitrotoluene	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
3-Nitroaniline	ug/Kg	1200 U	1200 U	1200 U	1400 U	1400 U	1800 U	1400 U	1000 U	1500 U
Acenaphthene	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
2,4-Dinitrophenol	ug/Kg	1200 U	1200 U	1200 U	1400 U	1400 U	1800 U	1400 U	1000 U	1500 U
4-Nitrophenol	ug/Kg	1200 U	1200 U	1200 U	1400 U	1400 U	1800 U	1400 U	1000 U	1500 U
Dibenzofuran	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
2,4-Dinitrotoluene	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
Diethylphthalate	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
4-Chlorophenyl-phenyl ether	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
Fluorene	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
4-Nitroaniline	ug/Kg	1200 U	1200 U	1200 U	1400 U	1400 U	1800 U	1400 U	1000 U	1500 U
4,6-Dinitro-2-methylphenol	ug/Kg	1200 U	1200 U	1200 U	1400 U	1400 U	1800 U	1400 U	1000 U	1500 U
N-Nitrosodiphenylamine	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
4-Bromophenyl-phenyl ether	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
Hexachlorobenzene	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
Pentachlorophenol	ug/Kg	1200 U	1200 U	1200 U	1400 U	1400 U	1800 U	1400 U	1000 U	1500 U
Phenanthrene	ug/Kg	520 U	510 U	120 J	580 U	580 U	680 U	570 U	34 J	630 U
Anthracene	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
Carbazole	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
Di-n-butylphthalate	ug/Kg	520 U	26 J	520 U	580 U	580 U	53 J	570 U	420 U	630 U
Fluoranthene	ug/Kg	520 U	23 J	520 U	580 U	580 U	680 U	570 U	82 J	630 U
Pyrene	ug/Kg	520 U	26 J	120 J	580 U	580 U	680 U	570 U	89 J	630 U
Butylbenzylphthalate	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
3,3'-Dichlorobenzidine	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
Benzo(a)anthracene	ug/Kg	520 U	510 U	56 J	580 U	580 U	680 U	570 U	33 J	630 U
Chrysene	ug/Kg	520 U	510 U	53 J	580 U	580 U	680 U	570 U	52 J	630 U
bis(2-Ethylhexyl)phthalate	ug/Kg	520 U	54 J	520 U	580 U	580 U	32 J	30 J	34 J	630 U
Di-n-octylphthalate	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
Benzo(b)fluoranthene	ug/Kg	520 U	510 U	43 J	580 U	580 U	680 U	570 U	51 J	630 U
Benzo(k)fluoranthene	ug/Kg	520 U	510 U	52 J	580 U	580 U	680 U	570 U	40 J	630 U
Benzo(a)pyrene	ug/Kg	520 U	510 U	49 J	580 U	580 U	680 U	570 U	32 J	630 U
Indeno(1,2,3-cd)pyrene	ug/Kg	520 U	510 U	26 J	580 U	580 U	680 U	570 U	24 J	630 U
Dibenz(a,h)anthracene	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U
Benzo(g,h,i)perylene	ug/Kg	520 U	510 U	520 U	580 U	580 U	680 U	570 U	420 U	630 U

SENECA ARMY DEPOT  
SEAD-44 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44
DEPTH (FEET)	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2
SAMPLE DATE	04/13/94	04/13/94	04/13/94	04/13/94	04/13/94	04/13/94	04/13/94	04/13/94	04/13/94	04/13/94
ES ID	SS44A-1	SS44A-20	SS44A-2	SS44A-3	SS44A-4	SS44A-5	SS44A-6	SS44B-1	SS44B-1RE	SS44B-2
LAB ID	217678	217685	217680	217681	217682	217683	217684	217686	217686	217687
SDG NUMBER	43535	43535	43535	43535	43535	43535	43535	43535	43535	43535
UNITS		SS44A-1DUP								
PESTICIDES/PCB										
alpha-BHC	ug/Kg	2.7 U	2.8 U	2.7 U	2.9 U	3 U	3.4 U	2.9 U	2.2 U	3.3 U
beta-BHC	ug/Kg	2.7 U	2.8 U	2.7 U	2.9 U	3 U	3.4 U	2.9 U	2.2 U	3.3 U
delta-BHC	ug/Kg	2.7 U	2.8 U	2.7 U	2.9 U	3 U	3.4 U	2.9 U	2.2 U	3.3 U
gamma-BHC (Lindane)	ug/Kg	2.7 U	2.8 U	2.7 U	2.9 U	3 U	3.4 U	2.9 U	2.2 U	3.3 U
Heptachlor	ug/Kg	2.7 U	2.8 U	2.7 U	2.9 U	3 U	3.4 U	2.9 U	2.2 U	3.3 U
Aldrin	ug/Kg	2.7 U	2.8 U	2.7 U	2.9 U	3 U	3.4 U	2.9 U	2.2 U	3.3 U
Heptachlor epoxide	ug/Kg	2.7 U	2.8 U	2.7 U	2.9 U	3 U	3.4 U	2.9 U	2.2 U	3.3 U
Endosulfan I	ug/Kg	2.7 U	2.6 U	2.7 U	2.9 U	3 U	3.4 U	2.9 U	2 J	3.3 U
Dieldrin	ug/Kg	20 J	5.1 U	5.2 U	9.9 J	59	70	29	4.2 U	6.3 U
4,4'-DDE	ug/Kg	5.2 U	5.1 U	5.2 U	5.7 U	5.8 U	6.6 U	5.7 U	48	6.3 U
Endrin	ug/Kg	5.2 U	5.1 U	5.2 U	5.7 U	5.8 U	6.6 U	5.7 U	4.2 U	6.3 U
Endosulfan II	ug/Kg	5.2 U	5.1 U	5.2 U	5.7 U	5.8 U	6.6 U	5.7 U	4.2 U	6.3 U
4,4'-DDD	ug/Kg	5.2 U	5.1 U	5.2 U	5.7 U	5.8 U	6.6 U	5.7 U	28	6.3 U
Endosulfan sulfate	ug/Kg	5.2 U	5.1 U	5.2 U	5.7 U	5.8 U	6.6 U	5.7 U	4.2 U	6.3 U
4,4'-DDT	ug/Kg	5.2 U	5.1 U	5.2 U	5.7 U	5.8 U	6.6 U	5.7 U	27	6.3 U
Methoxychlor	ug/Kg	27 U	28 U	27 U	29 U	30 U	34 U	29 U	22 U	33 U
Endrin ketone	ug/Kg	5.2 U	5.1 U	5.2 U	5.7 U	5.8 U	6.6 U	5.7 U	4.2 U	6.3 U
Endrin aldehyde	ug/Kg	5.2 U	5.1 U	5.2 U	5.7 U	5.8 U	6.6 U	5.7 U	4.2 U	6.3 U
alpha-Chlordane	ug/Kg	2.7 U	2.8 U	2.7 U	2.9 U	3 U	3.4 U	2.9 U	2.2 U	3.3 U
gamma-Chlordane	ug/Kg	2.7 U	2.8 U	2.7 U	2.9 U	3 U	3.4 U	2.9 U	2.2 U	3.3 U
Toxaphene	ug/Kg	270 U	260 U	270 U	290 U	300 U	340 U	290 U	220 U	330 U
Aroclor-1016	ug/Kg	52 U	51 U	52 U	57 U	58 U	66 U	57 U	42 U	63 U
Aroclor-1221	ug/Kg	100 U	100 U	100 U	120 U	120 U	130 U	120 U	86 U	130 U
Aroclor-1232	ug/Kg	52 U	52 U	52 U	57 U	58 U	66 U	57 U	42 U	63 U
Aroclor-1242	ug/Kg	52 U	51 U	52 U	57 U	58 U	66 U	57 U	42 U	63 U
Aroclor-1248	ug/Kg	52 U	51 U	52 U	57 U	58 U	66 U	57 U	42 U	63 U
Aroclor-1254	ug/Kg	52 U	51 U	52 U	57 U	58 U	66 U	57 U	42 U	63 U
Aroclor-1280	ug/Kg	52 U	51 U	52 U	57 U	58 U	66 U	57 U	42 U	63 U
METALS										
Aluminum	mg/Kg	14500	16000	15300	15300	12900	17400	11500	11000	16400
Antimony	mg/Kg	0.21 UJ	0.18 UJ	0.27 UJ	0.23 UJ	0.2 UJ	0.25 UJ	0.19 UJ	0.22 UJ	0.2 UJ
Arsenic	mg/Kg	8.5	4.6	4.9	4.8	4.5	5.7	3.5	6.8	8.2
Barium	mg/Kg	93.4	94.1	92.5	148	108	164	116	60.6	136
Beryllium	mg/Kg	0.58 J	0.58 J	0.63 J	0.72 J	0.63 J	0.91 J	0.57 J	0.54 J	0.77 J
Cadmium	mg/Kg	0.24 J	0.26 J	0.26 J	0.36 J	0.39 J	0.48 J	0.36 J	0.33 J	0.34 J
Calcium	mg/Kg	3310	3480	6230	5890	4900	7160	5950	10900	5100
Chromium	mg/Kg	17.6	18.5	20.1	20.5	17.9	23.7	15	20	20.7
Cobalt	mg/Kg	7.9 J	7.2 J	7.7 J	8.6 J	8.3 J	8.8 J	5.1 J	10.8 J	7.6 J
Copper	mg/Kg	20.8	14.2	14.5	18.9	17.2	20	14	26.2	21.7
Iron	mg/Kg	23300	20700	24200	23800	21900	27400	16500	24100	23100
Lead	mg/Kg	21.4	21.6	18.8	18	16.5	22.5	13.9	39.5	21.4
Magnesium	mg/Kg	2940	3270	3970	4090	3630	4370	2690	5200	3910
Manganese	mg/Kg	370 J	251 J	298 J	489 J	326 J	678 J	301 J	372 J	318 J
Mercury	mg/Kg	0.05 J	0.03 J	0.03 J	0.04 J	0.04 J	0.07 J	0.05 J	0.02 J	0.04 J
Nickel	mg/Kg	18	20.7	20.4	24	21.2	26	14.4	34.8	20.8
Potassium	mg/Kg	1320	1450	1410	1980	1410	1980	1200	1380	1880
Selenium	mg/Kg	1 J	0.61 J	0.99 J	0.83 J	1.5	1.7	1.3	1.1 J	1.2
Silver	mg/Kg	0.64 U	0.7 U	1 U	0.89 U	0.76 U	0.99 U	0.74 U	0.87 U	0.78 U
Sodium	mg/Kg	34 U	28.3 U	42.1 U	36 U	31 U	40 U	30.2 U	35.3 U	31.5 U
Thallium	mg/Kg	0.34 U	0.29 U	0.42 U	0.36 U	0.31 U	0.4 U	0.3 U	0.36 U	0.32 U
Vanadium	mg/Kg	27.6	27.1	26.6	25.3	21.4	30.2	21	20.3	26
Zinc	mg/Kg	72.6	85	72.4	88.6	80.5	94	59.2	145	73.4
Cyanide	mg/Kg	0.62 U	0.77 U	0.73 U	0.85 U	0.73 U	0.8 U	0.76 U	0.58 U	0.93 U
OTHER ANALYSES										
Nitrate/Nitrite - Nitrogen	mg/Kg	0.19	0.19	0.11	0.3	0.11	0.1	1.14	0.47	0.08
Total Petroleum Hydrocarbons	mg/Kg									
Total Solids	%W/W	63.9	64.7	64.4	57.5	56.8	50.1	58	78.1	52.4

SENECA ARMY DEPOT  
SEAD-44 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44
DEPTH (FEET)	0-0.2	3	3	3	3	3	3	3	3	3	3
SAMPLE DATE	04/13/94	02/19/94	02/17/94	02/17/94	02/18/94	02/18/94	02/18/94	02/18/94	02/18/94	02/20/94	02/19/94
ES ID	SS44B-3	TP44A-1	TP44A-2	TP44A-3	TP44A-4	TP44A-5	TP44A-6	TP44A-7	TP44A-8	TP44A-8	TP44A-9
LAB ID	217688	211964	211734	211735	211985	211986	211987	212004	212042	212005	212005
SDG NUMBER	43535	42493	42460	42460	42493	42493	42493	42494	42494	42494	42494
COMPOUND	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS
<b>VOLATILE ORGANICS</b>											
Chloromethane	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
Bromomethane	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
Vinyl Chloride	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
Chloroethane	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
Methylene Chloride	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
Acetone	ug/Kg	47	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
Carbon Disulfide	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
1,1-Dichloroethane	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
1,1-Dichloroethane	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
1,2-Dichloroethane (total)	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
Chloroform	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
1,2-Dichloroethane	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
2-Butanone	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
1,1,1-Trichloroethane	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
Carbon Tetrachloride	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
Bromodichloromethane	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
1,2-Dichloropropane	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
cis-1,3-Dichloropropene	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
Trichloroethene	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
Dibromochloromethane	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
1,1,2-Trichloroethane	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
Benzene	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
trans-1,3-Dichloropropene	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
Bromoform	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
4-Methyl-2-Pentanone	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	4 J
2-Hexanone	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	4 J
Tetrachloroethane	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
1,1,2,2-Tetrachloroethane	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	2 J
Toluene	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	1 J	12 U	12 U
Chlorobenzene	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
Ethylbenzene	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
Styrene	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
Xylene (total)	ug/Kg	14 U	12 U	13 U	13 U	12 U	12 U	12 U	12 U	12 U	12 U
<b>HERBICIDES</b>											
2,4-D	ug/Kg										
2,4-DB	ug/Kg										
2,4,5-T	ug/Kg										
2,4,5-TP (Silvex)	ug/Kg										
Dalapon	ug/Kg										
Dicamba	ug/Kg										
Dichloroprop	ug/Kg										
Dinoseb	ug/Kg										
MCPA	ug/Kg										
MCPP	ug/Kg										
<b>NITROAROMATICS</b>											
HMX	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
RDX	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
1,3,5-Trinitrobenzene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
1,3-Dinitrobenzene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
Tetryl	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
2,4,6-Trinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
4-amino-2,6-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
2-amino-4,6-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
2,6-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
2,4-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U

**SENECA ARMY DEPOT  
SEAD-44 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS**

MATRIX LOCATION	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44
DEPTH (FEET)	0-0.2	3	3	3	3	3	3	3	3	3	3
SAMPLE DATE	04/13/94	02/19/94	02/17/94	02/17/94	02/17/94	02/18/94	02/18/94	02/18/94	02/18/94	02/18/94	02/20/94
ES ID	SS44B-3	TP44A-1	TP44A-2	TP44A-3	TP44A-4	TP44A-5	TP44A-6	TP44A-7	TP44A-8	TP44A-9	TP44A-9
LAB ID	217688	211984	211734	211985	211986	211987	212004	212042	212005		
SDG NUMBER	43535	42493	42460	42460	42493	42493	42493	42494	42494	42494	42494
COMPOUND UNITS											
<b>SEMIVOLATILE ORGANICS</b>											
Phenol	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
bis(2-Chloroethyl) ether	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
2-Chlorophenol	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
1,3-Dichlorobenzene	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
1,4-Dichlorobenzene	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
1,2-Dichlorobenzene	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
2-Methylphenol	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
2,2'-oxybis(1-Chloropropane)	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
4-Methylphenol	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
N-Nitroso-di-n-propylamine	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
Hexachloroethane	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
Nitrobenzene	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
Isophorone	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
2-Nitrophenol	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
2,4-Dimethylphenol	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
bis(2-Chloroethoxy) methane	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
2,4-Dichlorophenol	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
1,2,4-Trichlorobenzene	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
Naphthalene	ug/Kg	460 U	330 J	420 U	420 U	390 U	400 U	410 U	430 U	430 U	22 J
4-Chloroaniline	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
Hexachlorobutadiene	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
4-Chloro-3-methylphenol	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
2-Methylnaphthalene	ug/Kg	460 U	150 J	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
Hexachlorocyclopentadiene	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
2,4,6-Trichlorophenol	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
2,4,5-Trichlorophenol	ug/Kg	1100 U	950 U	1000 U	1000 U	940 U	960 U	990 U	1000 U	1000 U	980 U
2-Chloronaphthalene	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
2-Nitroaniline	ug/Kg	1100 U	950 U	1000 U	1000 U	940 U	960 U	990 U	1000 U	1000 U	980 U
Dimethylphthalate	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
Acenaphthylene	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	72 J	46 J	58 J
2,6-Dinitrotoluene	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
3-Nitroaniline	ug/Kg	1100 U	950 U	1000 U	1000 U	940 U	960 U	990 U	1000 U	1000 U	980 U
Acenaphthene	ug/Kg	460 U	380 J	36 J	420 U	40 J	21 J	410 U	40 J	22 J	23 J
2,4-Dinitrophenol	ug/Kg	1100 U	950 U	1000 U	1000 U	940 U	960 U	990 U	1000 U	1000 U	980 U
4-Nitrophenol	ug/Kg	1100 U	950 U	1000 U	1000 U	940 U	960 U	990 U	1000 U	1000 U	980 U
Dibenzofuran	ug/Kg	460 U	280 J	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
2,4-Dinitrotoluene	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
Diethylphthalate	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
4-Chlorophenyl-phenylether	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
Fluorene	ug/Kg	460 U	410	34 J	420 U	390 U	21 J	410 U	53 J	30 J	38 J
4-Nitroaniline	ug/Kg	1100 U	950 U	1000 U	1000 U	940 U	960 U	990 U	1000 U	1000 U	980 U
4,6-Dinitro-2-methylphenol	ug/Kg	1100 U	950 U	1000 U	1000 U	940 U	960 U	990 U	1000 U	1000 U	980 U
N-Nitrosodiphenylamine	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
4-Bromophenyl-phenylether	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
Hexachlorobenzene	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
Pentachlorophenol	ug/Kg	1100 U	950 U	1000 U	1000 U	940 U	960 U	990 U	1000 U	1000 U	980 U
Phenanthrene	ug/Kg	330 J	2100	240 J	170 J	88 J	240 J	100 J	980	510	580
Anthracene	ug/Kg	35 J	640	89 J	20 J	390 U	43 J	410 U	140 J	77 J	100 J
Carbazole	ug/Kg	460 U	370 J	36 J	420 U	390 U	26 J	410 U	190 J	150 J	150 J
Di-n-butylphthalate	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
Fluoranthene	ug/Kg	350 J	1900	300 J	330 J	120 J	400	190 J	2400	1200	1400
Pyrene	ug/Kg	380 J	1300	220 J	250 J	100 J	310 J	160 J	2000	910	1000
Butylbenzylphthalate	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
3,3'-Dichlorobenzidine	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
Benzo(a)anthracene	ug/Kg	130 J	970	130 J	110 J	52 J	180 J	77 J	990	520	560
Chrysene	ug/Kg	150 J	840	140 J	170 J	77 J	200 J	1200	850	740	740
bis(2-Ethylhexyl)phthalate	ug/Kg	42 J	480	420 U	420 U	280 J	500	200 J	150 J	940	720
Di-n-octylphthalate	ug/Kg	460 U	390 U	420 U	420 U	390 U	400 U	410 U	430 U	430 U	400 U
Benzo(b)fluoranthene	ug/Kg	99 J	790	120 J	170 J	82 J	190 J	88 J	1100	560	600
Benzo(k)fluoranthene	ug/Kg	110 J	610	100 J	130 J	66 J	180 J	81 J	1100	640	620
Benzo(a)pyrene	ug/Kg	98 J	780	100 J	130 J	68 J	160 J	84 J	1100	600	680
Indeno(1,2,3-cd)pyrene	ug/Kg	84 J	350 J	51 J	83 J	49 J	120 J	61 J	490	250 J	400 J
Dibenz(a,h)anthracene	ug/Kg	28 J	180 J	21 J	32 J	390 U	58 J	410 U	430 U	430 U	400 U
Benzo(g,h,i)perylene	ug/Kg	56 J	300 J	46 J	87 J	49 J	110 J	58 J	510	220 J	400 J



SENECA ARMY DEPOT  
SEAD-44 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-44 0-0.2 04/13/94 SS44B-3 217688 43535	SOIL SEAD-44 3 02/19/94 TP44A-1 211984 42493	SOIL SEAD-44 3 02/17/94 TP44A-2 211734 42460	SOIL SEAD-44 3 02/17/94 TP44A-3 211735 42460	SOIL SEAD-44 3 02/18/94 TP44A-4 211985 42493	SOIL SEAD-44 3 02/18/94 TP44A-5 211986 42493	SOIL SEAD-44 3 02/18/94 TP44A-6 211987 42493	SOIL SEAD-44 3 02/18/94 TP44A-7 212004 42494	SOIL SEAD-44 7 02/20/94 TP44A-8 212042 42494	SOIL SEAD-44 3 02/19/94 TP44A-9 212005 42464
PESTICIDES/PCB										
alpha-BHC	ug/Kg	2.4 U	2 U	2.2 U	2.2 U	2 U	2 U	2.1 U	2.2 U	2.2 U
beta-BHC	ug/Kg	2.4 U	2 U	2.2 U	2.2 U	2 U	2 U	2.1 U	2.2 U	2.2 U
delta-BHC	ug/Kg	2.4 U	2 U	2.2 U	2.2 U	2 U	2 U	2.1 U	2.2 U	2.1 U
gamma-BHC (Lindane)	ug/Kg	2.4 U	2 U	2.2 U	2.2 U	2 U	2 U	2.1 U	2.2 U	2.2 U
Heptachlor	ug/Kg	2.4 U	2 U	2.2 U	2.2 U	2 U	2 U	2.1 U	2.2 U	2.1 U
Aldrin	ug/Kg	2.4 U	2 U	2.2 U	2.2 U	2 U	2 U	2.1 U	2.2 U	2.1 U
Heptachlor epoxide	ug/Kg	2.4 U	1.2 J	2.2 U	2.2 U	2 U	2 U	2.1 U	2.2 U	2.2 U
Endosulfan I	ug/Kg	2.4 U	5.4	2.2 U	2.1 J	2.5	2 U	1.6 J	2.2 U	2.2 U
Dieldrin	ug/Kg	57	3.9 U	4.2 U	4.2 U	3.9 U	5.6 J	4.1 U	4.3 U	4.3 U
4,4'-DDE	ug/Kg	4.6 U	3.9 U	4.2 U	4.2 U	3.9 U	4 U	2.6 J	2.6 J	4.3 U
Endrin	ug/Kg	4.6 U	3.9 U	4.2 U	4.2 U	3.9 U	4 U	4.1 U	3.5 J	4.3 U
Endosulfan II	ug/Kg	4.6 U	3.9 U	4.2 U	4.2 U	3.9 U	4 U	4.1 U	2.6 J	2.7 J
4,4'-DDD	ug/Kg	4.6 U	3.9 U	4.2 U	4.2 U	3.9 U	4 U	4.1 U	4.3 U	4.3 U
Endosulfan sulfate	ug/Kg	4.6 U	3.9 U	4.2 U	4.2 U	3.9 U	4 U	4.1 U	4.3 U	4.3 U
4,4'-DDT	ug/Kg	4.6 U	3.9 U	4.2 U	4.2 U	3.9 U	4 U	4.1 U	5.6	2.6 J
Methoxychlor	ug/Kg	24 U	20 U	22 U	22 U	20 U	20 U	21 U	22 U	22 U
Endrin ketone	ug/Kg	4.6 U	3.9 U	4.2 U	4.2 U	3.9 U	4 U	4.1 U	4.3 U	5.2 J
Endrin aldehyde	ug/Kg	4.6 U	3.9 U	4.2 U	4.2 U	3.9 U	4 U	4.1 U	4.5 J	4.3 U
alpha-Chlordane	ug/Kg	2.4 U	2 U	2.2 U	2.2 U	2 U	2 U	2.1 U	2.2 U	2.2 U
gamma-Chlordane	ug/Kg	2.4 U	2 U	2.2 U	2.2 U	2 U	2 U	2.1 U	2.2 U	2.1 U
Toxaphene	ug/Kg	240 U	200 U	220 U	220 U	200 U	200 U	210 U	220 U	220 U
Aroclor-1016	ug/Kg	46 U	39 U	42 U	42 U	39 U	40 U	41 U	43 U	43 U
Aroclor-1221	ug/Kg	93 U	80 U	88 U	85 U	79 U	81 U	83 U	87 U	87 U
Aroclor-1232	ug/Kg	46 U	39 U	42 U	42 U	39 U	40 U	41 U	43 U	43 U
Aroclor-1242	ug/Kg	46 U	39 U	42 U	42 U	39 U	40 U	41 U	43 U	43 U
Aroclor-1248	ug/Kg	46 U	39 U	42 U	42 U	39 U	40 U	41 U	43 U	43 U
Aroclor-1254	ug/Kg	46 U	39 U	42 U	42 U	39 U	40 U	41 U	43 U	43 U
Aroclor-1280	ug/Kg	46 U	39 U	42 U	42 U	39 U	40 U	41 U	43 U	43 U
METALS										
Aluminum	mg/Kg	9820	11600	14600 J	12700 J	13800	11000	17500	16000 J	17200 J
Antimony	mg/Kg	0.18 UJ	0.35 J	8.2 J	10.6 J	0.57 J	0.33 J	0.85 J	0.31 J	0.62 J
Arsenic	mg/Kg	13.1	3.8	4.1 J	3.9 J	4	3.7	7.7	4.7 J	6 J
Barium	mg/Kg	70.8	77.9	86.2 J	83.2 J	69.3	62	124	121 J	106 J
Beryllium	mg/Kg	0.48 J	0.44 J	0.64 J	0.52 J	0.6 J	0.42 J	0.77 J	0.64 J	0.74 J
Cadmium	mg/Kg	0.24 J	0.22 J	0.33 U	0.41 U	0.14 J	0.26 J	0.18 J	0.25 J	0.29 J
Calcium	mg/Kg	33300	31400 J	22100 J	34100 J	25200 J	77400 J	13200 J	35400 J	30100 J
Chromium	mg/Kg	15.2	15.5	19.3	16.5	23.9	16.7	27.1	21.4 J	24.7 J
Cobalt	mg/Kg	8.2 J	7.6 J	9.2	7.6 J	11.8	8.4 J	14.5	8.7 J	12.9 J
Copper	mg/Kg	19.9	16.1	24.6	16.5	26.9	17.8	29	21.5 J	24.4 J
Iron	mg/Kg	19800	18400	22600 J	20100 J	28400	19900	34900	24000 J	30000 J
Lead	mg/Kg	12.4	17.3	17	18.4	19.3	13.6	23.8	24.9 J	18.7 J
Magnesium	mg/Kg	9680	5920	8630 J	6430 J	7510	40200	7130	6610 J	7330 J
Manganese	mg/Kg	364 J	323	403 R	440 R	479	589	528	451 J	741 J
Mercury	mg/Kg	0.02 J	0.12	0.04 J	0.04 J	0.02 U	0.17	0.04 J	0.06 J	0.04 J
Nickel	mg/Kg	24.3	20 J	25.6	21.3	41.8 J	26.1 J	41.7 J	26.9 J	34.7 J
Potassium	mg/Kg	1550	1150 J	1430	1310	1490 J	2310 J	2230 J	2530 J	1830 J
Selenium	mg/Kg	0.44 J	0.69 J	0.26 J	0.29 J	0.56 J	0.97	0.66 J	1.1 J	0.69 J
Silver	mg/Kg	0.71 U	0.14 U	0.67 U	0.61 U	0.13 U	0.14 U	0.15 U	0.16 U	0.1 U
Sodium	mg/Kg	43.2 J	70.7 J	69.7 J	73.5 J	81.6 J	142 J	56.6 J	57.4 J	73.3 J
Thallium	mg/Kg	0.29 U	0.2 U	0.24 U	0.21 U	0.24 U	0.23 U	0.27 U	0.24 U	0.29 U
Vanadium	mg/Kg	16.3	19.5	24.6	22.4	20.1	16.2	29.9	26.9 J	29.4 J
Zinc	mg/Kg	88.9	71.4	76.1 J	70.7 J	73.4	62.3	115	100 J	98.6 J
Cyanide	mg/Kg	0.67 U	0.57 U	0.61 U	0.61 U	0.59 U	0.59 U	0.61 U	0.64 U	0.58 U
OTHER ANALYSES										
Nitrate/Nitrite - Nitrogen	mg/Kg	0.04	10.6	6.6	7.9	0.52	4	3.7	13	12.9
Total Petroleum Hydrocarbons	mg/Kg									8.1
Total Solids	%W/W	72.5	84.5	77.7	78.8	85.1	83	80.9	77.2	77.4

SENECA ARMY DEPOT  
SEAD-44 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

MATRIX LOCATION SAMP LE DATE ES ID LAB ID SDG NUMBER	WATER SEAD-44 07/12/94 MW44A-1 226788 45282	WATER SEAD-44 07/12/94 MW44A-5 226791 45332 MW44A-10DUP	WATER SEAD-44 07/13/94 MW44A-2 226789 45282	WATER SEAD-44 07/13/94 MW44A-2RE 226789 45282	WATER SEAD-44 07/12/94 MW44A-3 226790 45282	WATER SEAD-44 07/12/94 MW44B-1 226792 45332	WATER SEAD-44 03/29/94 MW44B-2 215835 43179	WATER SEAD-44 07/13/94 MW44B-3 226793 45332	
VOLATILE ORGANICS									
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	8 J	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 U	3 J	10 U	10 U	10 U	10 U	10 U
Toluene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
HERBICIDES									
2,4-D	ug/L								
2,4-DB	ug/L								
2,4,5-T	ug/L								
2,4,5-TP (Silvex)	ug/L								
Dalapon	ug/L								
Dicamba	ug/L								
Dichloroprop	ug/L								
Dinoseb	ug/L								
MCPA	ug/L								
MCPP	ug/L								
NITROAROMATICS									
HMX	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
RDX	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,3,5-Trinitrobenzene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,3-Dinitrobenzene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Tetryl	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2,4,6-Trinitrotoluene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
4-amino-2,6-Dinitrotoluene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2-amino-4,6-Dinitrotoluene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2,6-Dinitrotoluene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2,4-Dinitrotoluene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U

SENECA ARMY DEPOT  
SEAD-44 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

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SEMIVOLATILE ORGANICS								
Phenol	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
bis(2-Chloroethyl) ether	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
2-Chlorophenol	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
1,3-Dichlorobenzene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
1,4-Dichlorobenzene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
1,2-Dichlorobenzene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
2-Methylphenol	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
4-Methylphenol	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
N-Nitroso-dl-n-propylamine	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Hexachloroethane	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Nitrobenzene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Isophorone	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
2-Nitrophenol	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
2,4-Dimethylphenol	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
bis(2-Chloroethoxy) methane	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
2,4-Dichlorophenol	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Naphthalene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
4-Chloroaniline	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Hexachlorobutadiene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
2-Methylnaphthalene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	ug/L	28 U	27 U	26 U	27 U	25 U	26 U	26 U
2-Chloronaphthalene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
2-Nitroaniline	ug/L	26 U	27 U	26 U	26 U	25 U	26 U	26 U
Dimethylphthalate	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Acenaphthylene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
2,6-Dinitrotoluene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
3-Nitroaniline	ug/L	28 U	27 U	26 U	26 U	25 U	26 U	26 U
Acenaphthene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
2,4-Dinitrophenol	ug/L	28 U	27 U	26 U	26 U	25 U	26 U	26 U
4-Nitrophenol	ug/L	28 U	27 U	26 U	26 U	25 U	26 U	26 U
Dibenzofuran	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
2,4-Dinitrotoluene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Diethylphthalate	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Fluorene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
4-Nitroaniline	ug/L	28 U	27 U	26 U	27 U	25 U	26 U	26 U
4,6-Dinitro-2-methylphenol	ug/L	28 U	27 U	26 U	28 U	25 U	26 U	26 U
N-Nitrosodiphenylamine	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Hexachlorobenzene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Pentachlorophenol	ug/L	28 U	27 U	26 U	28 U	25 U	26 U	26 U
Phenanthrene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Anthracene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Carbazole	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Di-n-butylphthalate	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Fluoranthene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Pyrene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Butylbenzylphthalate	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Benzo(a)anthracene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Chrysene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	ug/L	11 U	11 U	10 U	20 U	10 U	16 U	24 U
Di-n-octylphthalate	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Benzo(b)fluoranthene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Benzo(k)fluoranthene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Benzo(a)pyrene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	ug/L	11 U	11 U	10 U	11 U	10 U	10 U	10 U

SENECA ARMY DEPOT  
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PESTICIDES/PCB								
alpha-BHC	ug/L	0.051 U	0.054 U	0.051 U	0.054 U	0.05 U	0.051 U	0.053 U
beta-BHC	ug/L	0.051 U	0.054 U	0.051 U	0.054 U	0.05 U	0.051 U	0.053 U
delta-BHC	ug/L	0.051 U	0.054 U	0.051 U	0.054 U	0.05 U	0.051 U	0.053 U
gamma-BHC (Lindane)	ug/L	0.051 U	0.054 U	0.051 U	0.054 U	0.05 U	0.051 U	0.053 U
Heptachlor	ug/L	0.051 U	0.054 U	0.051 U	0.054 U	0.05 U	0.051 U	0.053 U
Aldrin	ug/L	0.051 U	0.054 U	0.051 U	0.054 U	0.05 U	0.051 U	0.053 U
Heptachlor epoxide	ug/L	0.051 U	0.054 U	0.051 U	0.054 U	0.05 U	0.051 U	0.053 U
Endosulfan I	ug/L	0.051 U	0.054 U	0.051 U	0.054 U	0.05 U	0.051 U	0.053 U
Dieldrin	ug/L	0.1 U	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U	0.11 U
4,4'-DDE	ug/L	0.1 U	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U	0.11 U
Endrin	ug/L	0.1 U	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U	0.11 U
Endosulfan II	ug/L	0.1 U	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U	0.11 U
4,4'-DDD	ug/L	0.1 U	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U	0.11 U
Endosulfan sulfate	ug/L	0.1 U	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U	0.11 U
4,4'-DDT	ug/L	0.1 U	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U	0.11 U
Methoxychlor	ug/L	0.51 U	0.54 U	0.51 U	0.54 U	0.5 U	0.51 U	0.53 U
Endrin ketone	ug/L	0.1 U	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U	0.11 U
Endrin aldehyde	ug/L	0.1 U	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U	0.11 U
alpha-Chlordane	ug/L	0.051 U	0.054 U	0.051 U	0.054 U	0.05 U	0.051 U	0.053 U
gamma-Chlordane	ug/L	0.051 U	0.054 U	0.051 U	0.054 U	0.05 U	0.051 U	0.053 U
Toxaphene	ug/L	5.1 U	5.4 U	5.1 U	5.4 U	5 U	5.1 U	5.3 U
Aroclor-1018	ug/L	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U
Aroclor-1221	ug/L	2 U	2.1 U	2 U	2.2 U	2 U	2 U	2.1 U
Aroclor-1232	ug/L	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U
Aroclor-1242	ug/L	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U
Aroclor-1248	ug/L	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U
Aroclor-1254	ug/L	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U
Aroclor-1260	ug/L	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U
METALS								
Aluminum	ug/L	69 J	125 J	2240	243	288 J	1230	80.2 J
Antimony	ug/L	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	0.99 U	1.3 U
Arsenic	ug/L	2 U	2 U	4.1 J	2 U	2 U	1.5 U	2 U
Barium	ug/L	102 J	104 J	41.8 J	52.4 J	72.6 J	77.7 J	39.3 J
Beryllium	ug/L	0.1 U	0.1 U	0.23 J	0.1 U	0.1 U	0.08 U	0.1 U
Cadmium	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.2 U
Calcium	ug/L	92200	91100	132000	102000	120000	92000	114000
Chromium	ug/L	0.4 U	0.4 U	4.8 J	0.74 J	0.4 U	2.5 J	0.4 U
Cobalt	ug/L	0.5 U	0.5 U	4 J	0.95 J	0.91 J	1.8 J	0.5 U
Copper	ug/L	0.5 U	0.5 U	4.5 J	1.9 J	0.5 U	2.4 J	0.5 U
Iron	ug/L	114 J	269 J	4810	419	886	2340	231
Lead	ug/L	0.9 U	0.9 U	4.1	0.89 U	0.9 U	0.79 U	0.89 U
Magnesium	ug/L	19000	18800	75600	34000	31800	22500	32900
Manganese	ug/L	18.2	18.2	217	131	219	29.4	151
Mercury	ug/L	0.04 U	0.04 U	0.06 J	0.05 J	0.04 U	0.03 U	0.04 U
Nickel	ug/L	0.7 U	0.7 U	12.3 J	2.6 J	0.73 J	4.4 J	0.89 U
Potassium	ug/L	1050 J	1040 J	6160	4050 J	2150 J	1380 J	2910 J
Selenium	ug/L	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	1.7 U	2.7 U
Silver	ug/L	0.5 U	0.83 J	0.5 U	0.5 U	0.68 J	0.7 J	0.5 U
Sodium	ug/L	2310 J	2390 J	18900	4300 J	7190	8350	8110
Thallium	ug/L	1.9 U	1.9 U	1.9 U	1.9 U	4.7 J	1.6 U	1.9 U
Vanadium	ug/L	0.5 U	0.63 J	4.7 J	1.4 J	0.5 U	2.7 J	0.63 J
Zinc	ug/L	3.8 J	2.2 U	12.8 J	4.3 J	2.2 U	10.4 J	4.9 J
Cyanide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
OTHER ANALYSES								
Nitrate/Nitrite - Nitrogen	mg/L	0.05 U	0.05	0.01 U	0.1	0.11	0.06	0.13
Total Petroleum Hydrocarbons	mg/L							
pH	Standard Units	7.8	7.8	7.5	7.5	7.1	8	7.2
Conductivity	umhos/cm	410	410	900	550	383	383	600
Temperature	°C	13.4	13.4	14.7	15.4	15.3	5.9	15
Turbidity	NTU	10.7	10.8	893	16.8	16.5	67	2.5

SENECA ARMY DEPOT  
SEAD-44 ENVIRONMENTAL SITE INSPECTION  
SURFACE WATER ANALYSIS RESULTS

MATRIX LOCATION	WATER SEAD-44	WATER SEAD-44	WATER SEAD-44	WATER SEAD-44	WATER SEAD-44	WATER SEAD-44
SAMP LE DATE	04/17/94	04/17/94	04/17/94	04/27/94	04/17/94	04/17/94
ES ID	SW44A-1	SW44A-2	SW44A-3	SW44A-4	SW44B-1	SW44B-2
LAB ID	218085	218086	218087	218414	218088	218089
SDG NUMBER	43549	43549	43549	43626	43549	43549
COMPOUND	UNITS					
<b>VOLATILE ORGANICS</b>						
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane (total)	ug/L	10 U	10 U	10 U	10 U	10 U
Chloroform	ug/L	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U
Trichloroethene	ug/L	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	ug/L	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U
Bromoform	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 U	10 U	10 U	10 U
Toluene	ug/L	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	10 U	10 U	10 U	10 U	10 U
Styrene	ug/L	10 U	10 U	10 U	10 U	10 U
Xylene (total)	ug/L	10 U	10 U	10 U	10 U	10 U
<b>HERBICIDES</b>						
2,4-D	ug/L					
2,4-DB	ug/L					
2,4,5-T	ug/L					
2,4,5-TP (Silvex)	ug/L					
Dalapon	ug/L					
Dicamba	ug/L					
Dichloroprop	ug/L					
Dinoseb	ug/L					
MCPA	ug/L					
MCPP	ug/L					
<b>NITROAROMATICS</b>						
HMX	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
RDX	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,3,5-Trinitrobenzene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,3-Dinitrobenzene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Tetryl	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2,4,6-Trinitrotoluene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
4-amino-2,6-Dinitrotoluene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2-amino-4,6-Dinitrotoluene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2,6-Dinitrotoluene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2,4-Dinitrotoluene	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U

SENECA ARMY DEPOT  
SEAD-44 ENVIRONMENTAL SITE INSPECTION  
SURFACE WATER ANALYSIS RESULTS

MATRIX LOCATION	WATER	WATER	WATER	WATER	WATER	WATER	
SAMPLE DATE	SEAD-44	SEAD-44	SEAD-44	SEAD-44	SEAD-44	SEAD-44	
ES ID	04/17/94	04/17/94	04/17/94	04/27/94	04/17/94	04/17/94	
LAB ID	SW44A-1	SW44A-2	SW44A-3	SW44A-4	SW44B-1	SW44B-2	
SDG NUMBER	218085	218086	218087	218414	218088	218089	
UNITS	43549	43549	43549	43626	43549	43549	
SEMIVOLATILE ORGANICS							
Phenol	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
bis(2-Chloroethyl) ether	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
2-Chlorophenol	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
1,3-Dichlorobenzene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
1,4-Dichlorobenzene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
1,2-Dichlorobenzene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
2-Methylphenol	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
2,2'-oxybis(1-Chloropropane)	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
4-Methylphenol	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
N-Nitroso-di-n-propylamine	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Hexachloroethane	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Nitrobenzene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Isophorone	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
2-Nitrophenol	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
2,4-Dimethylphenol	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
bis(2-Chloroethoxy) methane	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
2,4-Dichlorophenol	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
1,2,4-Trichlorobenzene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Naphthalene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
4-Chloroaniline	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Hexachlorobutadiene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
4-Chloro-3-methylphenol	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
2-Methylnaphthalene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Hexachlorocyclopentadiene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
2,4,6-Trichlorophenol	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
2,4,5-Trichlorophenol	ug/L	26 U	26 U	27 U	26 U	30 U	26 U
2-Chloronaphthalene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
2-Nitroaniline	ug/L	26 U	26 U	27 U	26 U	30 U	26 U
Dimethylphthalate	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Acenaphthylene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
2,6-Dinitrotoluene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
3-Nitroaniline	ug/L	26 U	26 U	27 U	26 U	30 U	26 U
Acenaphthene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
2,4-Dinitrophenol	ug/L	26 U	26 U	27 U	26 U	30 U	26 U
4-Nitrophenol	ug/L	26 U	26 U	27 U	26 U	30 U	26 U
Dibenzofuran	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
2,4-Dinitrotoluene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Diethylphthalate	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
4-Chlorophenyl-phenylether	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Fluorene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
4-Nitroaniline	ug/L	26 U	26 U	27 U	26 U	30 U	26 U
4,6-Dinitro-2-methylphenol	ug/L	26 U	26 U	27 U	26 U	30 U	26 U
N-Nitrosodiphenylamine	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
4-Bromophenyl-phenylether	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Hexachlorobenzene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Pentachlorophenol	ug/L	26 U	26 U	27 U	26 U	30 U	26 U
Phenanthrene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Anthracene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Carbazole	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Di-n-butylphthalate	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Fluoranthene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Pyrene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Butylbenzylphthalate	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
3,3'-Dichlorobenzidine	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Benzo(a)anthracene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Chrysene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
bis(2-Ethylhexyl)phthalate	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Di-n-octylphthalate	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Benzo(b)fluoranthene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Benzo(k)fluoranthene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Benzo(a)pyrene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Indeno(1,2,3-cd)pyrene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Dibenz(a,h)anthracene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U
Benzo(g,h,i)perylene	ug/L	11 U	11 U	11 U	11 U	12 U	10 U

SENECA ARMY DEPOT  
SEAD-44 ENVIRONMENTAL SITE INSPECTION  
SURFACE WATER ANALYSIS RESULTS

MATRIX LOCATION	WATER SEAD-44	WATER SEAD-44	WATER SEAD-44	WATER SEAD-44	WATER SEAD-44	WATER SEAD-44
SAMPLE DATE	04/17/94	04/17/94	04/17/94	04/27/94	04/17/94	04/17/94
ES ID	SW44A-1	SW44A-2	SW44A-3	SW44A-4	SW44B-1	SW44B-2
LAB ID	218085	218086	218087	219414	218088	218089
SDG NUMBER	43549	43549	43549	43828	43549	43549
COMPOUND	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS
<b>PESTICIDES/PCB</b>						
alpha-BHC	ug/L	0.054 U	0.055 U	0.058 U	0.06 U	0.058 U
beta-BHC	ug/L	0.054 U	0.055 U	0.058 U	0.06 U	0.058 U
delta-BHC	ug/L	0.054 U	0.055 U	0.058 U	0.06 U	0.058 U
gamma-BHC (Lindane)	ug/L	0.054 U	0.055 U	0.058 U	0.06 U	0.058 U
Heptachlor	ug/L	0.054 U	0.055 U	0.058 U	0.06 U	0.058 U
Aldrin	ug/L	0.054 U	0.055 U	0.058 U	0.06 U	0.058 U
Heptachlor epoxide	ug/L	0.054 U	0.055 U	0.058 U	0.06 U	0.058 U
Endosulfan I	ug/L	0.054 U	0.055 U	0.058 U	0.06 U	0.058 U
Dieldrin	ug/L	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
4,4'-DDE	ug/L	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
Endrin	ug/L	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
Endosulfan II	ug/L	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
4,4'-DDD	ug/L	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
Endosulfan sulfate	ug/L	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
4,4'-DDT	ug/L	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
Methoxychlor	ug/L	0.54 U	0.55 U	0.58 U	0.6 U	0.58 U
Endrin ketone	ug/L	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
Endrin aldehyde	ug/L	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
alpha-Chlordane	ug/L	0.054 U	0.055 U	0.058 U	0.06 U	0.058 U
gamma-Chlordane	ug/L	0.054 U	0.055 U	0.058 U	0.06 U	0.058 U
Toxaphene	ug/L	5.4 U	5.5 U	5.8 U	6 U	5.8 U
Aroclor-1016	ug/L	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U
Aroclor-1221	ug/L	2.2 U	2.2 U	2.3 U	2.4 U	2.3 U
Aroclor-1232	ug/L	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U
Aroclor-1242	ug/L	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U
Aroclor-1248	ug/L	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U
Aroclor-1254	ug/L	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U
Aroclor-1260	ug/L	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U
<b>METALS</b>						
Aluminum	ug/L	478	243	324	382	76.5 J
Antimony	ug/L	0.99 U	1 U	0.99 U	0.99 U	0.99 U
Arsenic	ug/L	1.5 U	1.5 U	1.5 U	1.5 U	5.8 J
Barium	ug/L	29.8 J	27.8 J	28.8 J	50.4 J	34 J
Beryllium	ug/L	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U
Cadmium	ug/L	0.23 J	0.1 U	0.1 U	0.1 U	0.1 U
Calcium	ug/L	41800	40600	42700	156000	87000
Chromium	ug/L	0.92 J	0.52 J	1 J	0.91 J	0.4 U
Cobalt	ug/L	0.6 U	0.8 U	0.59 U	1.1 J	0.6 U
Copper	ug/L	4.7 J	2 J	2.3 J	3.2 J	1.2 J
Iron	ug/L	632	344	479	525	79.8 J
Lead	ug/L	2.2 J	0.8 U	0.9 J	0.79 U	0.79 U
Magnesium	ug/L	7600	7670	8190	22500	8990
Manganese	ug/L	9.8 J	6.3 J	6.3 J	185	2.7 J
Mercury	ug/L	0.05 J	0.05 J	0.05 J	0.03 U	0.05 J
Nickel	ug/L	174	1 J	1.9 J	2.7 J	0.68 J
Potassium	ug/L	1210 J	1150 J	1100 J	3600 J	2680 J
Selenium	ug/L	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Silver	ug/L	0.7 U	0.7 U	0.69 U	0.69 U	0.7 U
Sodium	ug/L	3420 J	2780 J	2880 J	2730 J	73200
Thallium	ug/L	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Vanadium	ug/L	1 J	1 J	1 J	0.69 U	0.7 U
Zinc	ug/L	1050	5.8 J	10.4 J	5.5 J	2 J
Cyanide	ug/L	5 U	5 U	5 U	5 UJ	5 U
<b>OTHER ANALYSES</b>						
Nitrate/Nitrite - Nitrogen	mg/L	0.04	0.02	0.01	0.06	0.01
Total Petroleum Hydrocarbons	mg/L					0.01 U
pH	Standard Units	8	8.6	8.7	7.6	8.5
Conductivity	umhos/cm	180	168	175	800	690
Temperature	°C	8.6	8.1	7.5	22.7	16.2
Turbidity	NTU	12.2	9.1	9.4	14.2	2.8

SENECA ARMY DEPOT  
SEAD-44 ENVIRONMENTAL SITE INSPECTION  
SEDIMENT ANALYSIS RESULTS

MATRIX LOCATION	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44	SOIL SEAD-44
DEPTH (FEET)	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2
SAMPLE DATE	04/17/94	04/17/94	04/17/94	04/27/94	04/17/94	04/17/94
ES ID	SD44A-1	SD44A-2	SD44A-3	SD44A-4	SD44B-1	SD44B-2
LAB ID	218073	218075	218076	218399	218077	218078
SDG NUMBER	43543	43543	43543	43663	43543	43543
COMPOUND	UNITS					
VOLATILE ORGANICS						
Chloromethane	ug/Kg	14 U	13 U	14 U	14 U	16 U
Bromomethane	ug/Kg	14 U	13 U	14 U	14 U	16 U
Vinyl Chloride	ug/Kg	14 U	13 U	14 U	14 U	16 U
Chloroethane	ug/Kg	14 U	13 U	14 U	14 U	16 U
Methylene Chloride	ug/Kg	14 U	13 U	14 U	14 U	16 U
Acetone	ug/Kg	14 U	21 U	27 U	14 U	16 U
Carbon Disulfide	ug/Kg	14 U	13 U	14 U	14 U	16 U
1,1-Dichloroethane	ug/Kg	14 U	13 U	14 U	14 U	16 U
1,1-Dichloroethane	ug/Kg	14 U	13 U	14 U	14 U	16 U
1,2-Dichloroethane (total)	ug/Kg	14 U	13 U	14 U	14 U	16 U
Chloroform	ug/Kg	14 U	13 U	14 U	14 U	16 U
1,2-Dichloroethane	ug/Kg	14 U	13 U	14 U	14 U	16 U
2-Butanone	ug/Kg	14 U	13 U	14 U	14 U	16 U
1,1,1-Trichloroethane	ug/Kg	14 U	13 U	14 U	14 U	16 U
Carbon Tetrachloride	ug/Kg	14 U	13 U	14 U	14 U	16 U
Bromodichloromethane	ug/Kg	14 U	13 U	14 U	14 U	16 U
1,2-Dichloropropane	ug/Kg	14 U	13 U	14 U	14 U	16 U
cis-1,3-Dichloropropene	ug/Kg	14 U	13 U	14 U	14 U	16 U
Trichloroethane	ug/Kg	14 U	13 U	14 U	14 U	16 U
Dibromochloromethane	ug/Kg	14 U	13 U	14 U	14 U	16 U
1,1,2-Trichloroethane	ug/Kg	14 U	13 U	14 U	14 U	16 U
Benzene	ug/Kg	14 U	13 U	14 U	14 U	16 U
trans-1,3-Dichloropropene	ug/Kg	14 U	13 U	14 U	14 U	16 U
Bromoform	ug/Kg	14 U	13 U	14 U	14 U	16 U
4-Methyl-2-Pentanone	ug/Kg	14 U	13 U	14 U	14 U	16 U
2-Hexanone	ug/Kg	14 U	13 U	14 U	14 U	16 U
Tetrachloroethane	ug/Kg	14 U	13 U	14 U	14 U	16 U
1,1,2,2-Tetrachloroethane	ug/Kg	14 U	13 U	14 U	14 U	16 U
Toluene	ug/Kg	14 U	13 U	14 U	14 U	16 U
Chlorobenzene	ug/Kg	14 U	13 U	14 U	14 U	16 U
Ethylbenzene	ug/Kg	14 U	13 U	14 U	14 U	16 U
Styrene	ug/Kg	14 U	13 U	14 U	14 U	16 U
Xylene (total)	ug/Kg	14 U	13 U	14 U	14 U	16 U
HERBICIDES						
2,4-D	ug/Kg					
2,4-DB	ug/Kg					
2,4,5-T	ug/Kg					
2,4,5-TP (Silvex)	ug/Kg					
Diapron	ug/Kg					
Dicamba	ug/Kg					
Dichloroprop	ug/Kg					
Dinoseb	ug/Kg					
MCPA	ug/Kg					
MCPP	ug/Kg					
NITROAROMATICS						
HMX	ug/Kg	130 U	130 U	130 U	130 U	130 U
RDX	ug/Kg	130 U	130 U	130 U	130 U	130 U
1,3,5-Trinitrobenzene	ug/Kg	130 U	130 U	130 U	130 U	130 U
1,3-Dinitrobenzene	ug/Kg	130 U	130 U	130 U	130 U	130 U
Tetryl	ug/Kg	130 U	130 U	130 U	130 U	130 U
2,4,6-Trinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U
4-amino-2,6-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U
2-amino-4,6-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U
2,6-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U
2,4-Dinitrotoluene	ug/Kg	130 U	130 U	130 U	130 U	130 U



SENECA ARMY DEPOT  
SEAD-44 ENVIRONMENTAL SITE INSPECTION  
SEDIMENT ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-44 0-0.2 04/17/94 SD44A-1 218073 43543	SOIL SEAD-44 0-0.2 04/17/94 SD44A-2 218075 43543	SOIL SEAD-44 0-0.2 04/17/94 SD44A-3 218076 43543	SOIL SEAD-44 0-0.2 04/27/94 SD44A-4 218099 43663	SOIL SEAD-44 0-0.2 04/17/94 SD44B-1 218077 43543	SOIL SEAD-44 0-0.2 04/17/94 SD44B-2 218078 43543
SEMIVOLATILE ORGANICS						
Phenol	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
bis(2-Chloroethyl) ether	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
2-Chlorophenol	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
1,3-Dichlorobenzene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
1,4-Dichlorobenzene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
1,2-Dichlorobenzene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
2-Methylphenol	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
2,2'-oxybis(1-Chloropropane)	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
4-Methylphenol	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
N-Nitroso-d-n-propylamine	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Hexachloroethane	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Nitrobenzene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Isophorone	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
2-Nitrophenol	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
2,4-Dimethylphenol	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
bis(2-Chloroethoxy) methane	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
2,4-Dichlorophenol	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
1,2,4-Trichlorobenzene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Naphthalene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
4-Chloroaniline	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Hexachlorobutadiene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
4-Chloro-3-methylphenol	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
2-Methylnaphthalene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Hexachlorocyclopentadiene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
2,4,6-Trichlorophenol	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
2,4,5-Trichlorophenol	ug/Kg 1200 U	1100 U	1200 U	1300 U	1200 U	1300 U
2-Chloronaphthalene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
2-Nitroaniline	ug/Kg 1200 U	1100 U	1200 U	1300 U	1200 U	1300 U
Dimethylphthalate	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Acenaphthylene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
2,6-Dinitrotoluene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
3-Nitroaniline	ug/Kg 1200 U	1100 U	1200 U	1300 U	1200 U	1300 U
Acenaphthene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
2,4-Dinitrophenol	ug/Kg 1200 U	1100 U	1200 U	1300 U	1200 U	1300 U
4-Nitrophenol	ug/Kg 1200 U	1100 U	1200 U	1300 U	1200 U	1300 U
Dibenzofuran	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
2,4-Dinitrotoluene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Diethylphthalate	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
4-Chlorophenyl-phenyl ether	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Fluorene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
4-Nitroaniline	ug/Kg 1200 U	1100 U	1200 U	1300 U	1200 U	1300 U
4,6-Dinitro-2-methylphenol	ug/Kg 1200 U	1100 U	1200 U	1300 U	1200 U	1300 U
N-Nitrosodiphenylamine	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
4-Bromophenyl-phenyl ether	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Hexachlorobenzene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Hexachlorophenol	ug/Kg 1200 U	1100 U	1200 U	1300 U	1200 U	1300 U
Phenanthrene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Anthracene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Carbazole	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Di-n-butylphthalate	72 J	480 U	480 U	520 U	65 J	110 J
Fluoranthene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Pyrene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Butylbenzylphthalate	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
3,3'-Dichlorobenzidine	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Benzo(a)anthracene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Chrysene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
bis(2-Ethylhexyl)phthalate	ug/Kg 480 U	34 J	480 U	520 U	510 U	540 U
Di-n-octylphthalate	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Benzo(b)fluoranthene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Benzo(k)fluoranthene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Benzo(a)pyrene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Indeno(1,2,3-cd)pyrene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Dibenz(a,h)anthracene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U
Benzo(g,h,i)perylene	ug/Kg 480 U	480 U	480 U	520 U	510 U	540 U

SENECA ARMY DEPOT  
SEAD-44 ENVIRONMENTAL SITE INSPECTION  
SEDIMENT ANALYSIS RESULTS

MATRIX LOCATION	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
DEPTH (FEET)	SEAD-44	SEAD-44	SEAD-44	SEAD-44	SEAD-44	SEAD-44
SAMPLE DATE	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2
ES ID	04/17/94	04/17/94	04/17/94	04/17/94	04/17/94	04/17/94
LAB ID	SD44A-1	SD44A-2	SD44A-3	SD44A-4	SD44B-1	SD44B-2
SDG NUMBER	218073	218075	218078	218099	218077	218078
UNITS	43543	43543	43543	43663	43543	43543
<b>PESTICIDES/PCB</b>						
alpha-BHC	ug/Kg	2.5 U	2.4 U	2.5 U	2.7 U	2.8 U
beta-BHC	ug/Kg	2.5 U	2.4 U	2.5 U	2.7 U	2.8 U
delta-BHC	ug/Kg	2.5 U	2.4 U	2.5 U	2.7 U	2.8 U
gamma-BHC (Lindane)	ug/Kg	2.5 U	2.4 U	2.5 U	2.7 U	2.8 U
Heptachlor	ug/Kg	2.5 U	2.4 U	2.5 U	2.7 U	2.8 U
Aldrin	ug/Kg	2.5 U	2.4 U	2.5 U	2.7 U	2.8 U
Heptachlor epoxide	ug/Kg	2.5 U	2.4 U	2.5 U	2.7 U	2.8 U
Endosulfan I	ug/Kg	2.5 U	2.4 U	2.5 U	2.7 U	2.8 U
Dieldrin	ug/Kg	4.8 U	4.8 U	4.9 U	5.2 U	5.1 U
4,4'-DDE	ug/Kg	4.8 U	4.8 U	4.9 U	5.2 U	5.1 U
Endrin	ug/Kg	4.8 U	4.8 U	4.9 U	5.2 U	5.1 U
Endosulfan II	ug/Kg	4.8 U	4.8 U	4.9 U	5.2 U	5.1 U
4,4'-DDD	ug/Kg	4.8 U	4.8 U	4.9 U	5.2 U	5.1 U
Endosulfan sulfate	ug/Kg	4.8 U	4.8 U	4.9 U	5.2 U	5.1 U
4,4'-DDT	ug/Kg	4.8 U	4.8 U	4.9 U	5.2 U	5.1 U
Methoxychlor	ug/Kg	25 U	24 U	25 U	27 U	26 U
Endrin ketone	ug/Kg	4.8 U	4.8 U	4.9 U	5.2 U	5.1 U
Endrin aldehyde	ug/Kg	4.8 U	4.8 U	4.9 U	5.2 U	5.1 U
alpha-Chlordane	ug/Kg	2.5 U	2.4 U	2.5 U	2.7 U	2.8 U
gamma-Chlordane	ug/Kg	2.5 U	2.4 U	2.5 U	2.7 U	2.8 U
Toxaphene	ug/Kg	250 U	240 U	250 U	270 U	260 U
Aroclor-1018	ug/Kg	46 U	46 U	46 U	52 U	51 U
Aroclor-1221	ug/Kg	97 U	94 U	99 U	110 U	100 U
Aroclor-1232	ug/Kg	46 U	46 U	46 U	52 U	51 U
Aroclor-1242	ug/Kg	46 U	46 U	46 U	52 U	51 U
Aroclor-1248	ug/Kg	46 U	46 U	46 U	52 U	51 U
Aroclor-1254	ug/Kg	46 U	46 U	46 U	52 U	51 U
Aroclor-1280	ug/Kg	46 U	46 U	46 U	52 U	51 U
<b>METALS</b>						
Aluminum	mg/Kg	13400	14000	9880	13300	13000
Antimony	mg/Kg	0.4 J	0.19 J	0.27 UJ	0.16 UJ	0.37 J
Arsenic	mg/Kg	4.9	5.4	4.4	5.2	58.3
Barium	mg/Kg	121	88.8	86.1	91.2	93.8
Beryllium	mg/Kg	0.71 J	0.67 J	0.46 J	0.66 J	0.66 J
Cadmium	mg/Kg	0.37 J	0.41 J	0.26 J	0.29 J	0.38 J
Calcium	mg/Kg	3280	79400	12400	22400	4240
Chromium	mg/Kg	19.6	20.7	14.8	18.7	19.8
Cobalt	mg/Kg	8.5 J	11	7.2 J	10.3	11.9
Copper	mg/Kg	17.5	25.8	17.8	18.6	19.1
Iron	mg/Kg	23000	26300	19200	24200	26400
Lead	mg/Kg	13.1	12.6	10.7	13.6	17.7
Magnesium	mg/Kg	4100	12900	5520	7850	4530
Manganese	mg/Kg	462	510	365	393 J	679
Mercury	mg/Kg	0.07 J	0.05 J	0.05 J	0.03 J	0.05 J
Nickel	mg/Kg	25.9	31.9	21	26.2	28.4
Potassium	mg/Kg	1640	2760	1190 J	1200	1500
Selenium	mg/Kg	0.44 U	0.31 U	0.45 U	0.27 U	0.27 U
Silver	mg/Kg	0.18 U	0.13 U	0.19 U	0.11 U	0.11 U
Sodium	mg/Kg	41.4 U	69.7 J	42.3 U	52.7 J	378 J
Thallium	mg/Kg	0.53 J	0.29 U	0.43 U	0.25 U	0.26 U
Vanadium	mg/Kg	23.9	24	19.1	22.5	23.8
Zinc	mg/Kg	83.9	70.2	82.6	66.2	76.3
Cyanide	mg/Kg	0.71 U	0.57 U	0.73 U	0.66 U	0.78 U
<b>OTHER ANALYSES</b>						
Nitrate/Nitrite - Nitrogen	mg/Kg	1.39	0.07	0.01	0.03	0.06
Total Petroleum Hydrocarbons	mg/Kg					
Total Solids	%W/W	68.9	71.1	67.5	63.2	65

**SEAD-50**

SENECA ARMY DEPOT  
SEAD-50 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-50 0-1 02/18/94 SS50-1 211971 42493	SOIL SEAD-50 0-0.2 02/18/94 SS50-2 211972 42493	SOIL SEAD-50 0-1 02/18/94 SS50-3 211973 42493	SOIL SEAD-50 0-1 02/17/94 SS50-4 211728 42460	SOIL SEAD-50 0-0.2 02/18/94 SS50-5 211974 42493	SOIL SEAD-50 0-0.2 02/18/94 SS50-6 211975 42493	SOIL SEAD-50 0-1 02/18/94 SS50-7 211976 42493	SOIL SEAD-50 0-1 02/18/94 SS50-8 211977 42493	SOIL SEAD-50 0-0.2 02/18/94 SS50-9 211978 42493	SOIL SEAD-50 0-1 02/19/94 SS50-10 211979 42493
VOLATILE ORGANICS										
Chloromethane	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
Bromomethane	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
Vinyl Chloride	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
Chloroethane	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
Methylene Chloride	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
Acetone	14 U	83	13 U	72 U	16 U	41 U	12 U	12 U	22 U	14 U
Carbon Disulfide	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
1,1-Dichloroethane	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
1,1-Dichloroethane	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
1,2-Dichloroethane (total)	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
Chloroform	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
1,2-Dichloroethane	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
2-Butanone	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
1,1,1-Trichloroethane	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
Carbon Tetrachloride	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
Bromodichloromethane	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
1,2-Dichloropropane	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
cis-1,3-Dichloropropene	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
Trichloroethene	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
Dibromochloromethane	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
1,1,2-Trichloroethane	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
Benzene	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
trans-1,3-Dichloropropene	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
Bromoform	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
4-Methyl-2-Pentanone	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
2-Hexanone	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
Tetrachloroethene	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
1,1,2,2-Tetrachloroethane	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
Toluene	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
Chlorobenzene	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
Ethylbenzene	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
Styrene	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
Xylene (total)	14 U	17 U	13 U	12 U	16 U	29 U	12 U	12 U	15 U	13 U
HERBICIDES										
2,4-D	ug/Kg									
2,4-DB	ug/Kg									
2,4,5-T	ug/Kg									
2,4,5-TP (Silvex)	ug/Kg									
Dalapon	ug/Kg									
Dicamba	ug/Kg									
Dichloroprop	ug/Kg									
Dinoseb	ug/Kg									
MCPA	ug/Kg									
MCPP	ug/Kg									
NITROAROMATICS										
HMX	ug/Kg									
RDX	ug/Kg									
1,3,5-Trinitrobenzene	ug/Kg									
1,3-Dinitrobenzene	ug/Kg									
Tetryl	ug/Kg									
2,4,6-Trinitrotoluene	ug/Kg									
4-amino-2,6-Dinitrotoluene	ug/Kg									
2-amino-4,6-Dinitrotoluene	ug/Kg									
2,6-Dinitrotoluene	ug/Kg									
2,4-Dinitrotoluene	ug/Kg									

**SENECA ARMY DEPOT  
SEAD-50 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS**

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-50 0-1 02/18/94 SS50-1 211971	SOIL SEAD-50 0-0.2 02/18/94 SS50-2 211972	SOIL SEAD-50 0-1 02/18/94 SS50-3 211973	SOIL SEAD-50 0-1 02/17/94 SS50-4 211974	SOIL SEAD-50 0-0.2 02/18/94 SS50-5 211975	SOIL SEAD-50 0-0.2 02/18/94 SS50-6 211976	SOIL SEAD-50 0-1 02/18/94 SS50-7 211977	SOIL SEAD-50 0-1 02/18/94 SS50-8 211978	SOIL SEAD-50 0-0.2 02/18/94 SS50-9 211979	SOIL SEAD-50 0-1 02/18/94 SS50-10 211980	
UNITS	42493	42493	42493	42460	42493	42493	42493	42493	42493	42493	
<b>SEMIVOLATILE ORGANICS</b>											
Phenol	ug/Kg 31 J	810 U	480 U	410 U	450 U	810 UJ	390 U	370 U	430 U	430 U	
bis(2-Chloroethyl) ether	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
2-Chlorophenol	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
1,3-Dichlorobenzene	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
1,4-Dichlorobenzene	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
1,2-Dichlorobenzene	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
2-Methylphenol	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
2,2'-oxybis(1-Chloropropane)	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
4-Methylphenol	ug/Kg 490 U	100 J	480 U	410 U	95 J	310 J	390 U	370 U	430 U	430 U	
N-Nitroso-d-n-propylamine	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
Hexachloroethane	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
Nitrobenzene	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
Isophorone	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
2-Nitrophenol	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
2,4-Dimethylphenol	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
bis(2-Chloroethoxy) methane	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
2,4-Dichlorophenol	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
1,2,4-Trichlorobenzene	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
Naphthalene	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
4-Chloroaniline	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
Hexachlorobutadiene	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
4-Chloro-3-methylphenol	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
2-Methylnaphthalene	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
Hexachlorocyclopentadiene	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
2,4,6-Trichlorophenol	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
2,4,5-Trichlorophenol	ug/Kg 1200 U	1500 U	1200 U	990 U	1100 U	1500 UJ	940 U	910 U	1000 U	1000 U	
2-Chloronaphthalene	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
2-Nitroaniline	ug/Kg 1200 U	1500 U	1200 U	990 U	1100 U	1500 UJ	940 U	910 U	1000 U	1000 U	
Dimethylphthalate	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
Acenaphthylene	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
2,6-Dinitrotoluene	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
3-Nitroaniline	ug/Kg 1200 U	1500 U	1200 U	990 U	1100 U	1500 UJ	940 U	910 U	1000 U	1000 U	
Acenaphthene	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
2,4-Dinitrophenol	ug/Kg 1200 U	1500 U	1200 U	990 U	1100 U	1500 UJ	940 U	910 U	1000 U	1000 U	
4-Nitrophenol	ug/Kg 1200 U	1500 U	1200 U	990 U	1100 U	1500 UJ	940 U	910 U	1000 U	1000 U	
Dibenzofuran	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
2,4-Dinitrotoluene	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
Diethylphthalate	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
4-Chlorophenyl-phenylether	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
Fluorene	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
4-Nitroaniline	ug/Kg 1200 U	1500 U	1200 U	990 U	1100 U	1500 UJ	940 U	910 U	1000 U	1000 U	
4,6-Dinitro-2-methylphenol	ug/Kg 1200 U	1500 U	1200 U	990 U	1100 U	1500 UJ	940 U	910 U	1000 U	1000 U	
N-Nitrosodiphenylamine	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
4-Bromophenyl-phenylether	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
Hexachlorobenzene	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
Pentachlorophenol	ug/Kg 1200 U	1500 U	1200 U	990 U	1100 U	1500 UJ	940 U	910 U	1000 U	1000 U	
Phenanthrene	ug/Kg 490 U	150 J	480 U	20 J	27 J	140 J	390 U	370 U	40 J	430 U	
Anthracene	ug/Kg 480 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
Carbazole	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
Di-n-butylphthalate	ug/Kg 35 J	58 J	33 J	410 U	34 J	610 UJ	34 J	22 J	48 J	28 J	
Fluoranthene	ug/Kg 33 J	230 J	480 U	32 J	37 J	210 J	390 U	370 U	58 J	23 J	
Pyrene	ug/Kg 25 J	180 J	480 U	27 J	30 J	140 J	390 U	370 U	47 J	430 U	
Butylbenzylphthalate	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
3,3'-Dichlorobenzidine	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
Benzo(a)anthracene	ug/Kg 490 U	81 J	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
Chrysene	ug/Kg 490 U	100 J	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
bis(2-Ethylhexyl)phthalate	ug/Kg 950	720	780	690	820	980 J	500	1300	330 J	150 J	
Di-n-octylphthalate	ug/Kg 490 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
Benzo(b)fluoranthene	ug/Kg 490 U	180 J	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
Benzo(k)fluoranthene	ug/Kg 490 U	610 UJ	480 U	410 U	450 U	610 UJ	390 U	370 U	30 J	430 U	
Benzo(a)pyrene	ug/Kg 490 U	78 J	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
Indeno(1,2,3-cd)pyrene	ug/Kg 490 U	69 J	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
Dibenz(a,h)anthracene	ug/Kg 480 U	610 U	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	
Benzo(g,h,i)perylene	ug/Kg 490 U	58 J	480 U	410 U	450 U	610 UJ	390 U	370 U	430 U	430 U	

SENECA ARMY DEPOT  
SEAD-50 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-50 0-1 02/18/94 SS50-1 211971 42493	SOIL SEAD-50 0-0.2 02/18/94 SS50-2 211972 42493	SOIL SEAD-50 0-1 02/18/94 SS50-3 211973 42493	SOIL SEAD-50 0-1 02/18/94 SS50-4 211974 42460	SOIL SEAD-50 0-0.2 02/18/94 SS50-5 211974 42493	SOIL SEAD-50 0-0.2 02/18/94 SS50-6 211975 42493	SOIL SEAD-50 0-1 02/18/94 SS50-7 211977 42493	SOIL SEAD-50 0-1 02/18/94 SS50-8 211977 42493	SOIL SEAD-50 0-0.2 02/18/94 SS50-9 211978 42493	SOIL SEAD-50 0-1 02/18/94 SS50-10 211979 42493
PESTICIDES/PCB										
alpha-BHC	ug/Kg	2.5 U	3.1 U	2.5 U	2.1 U	2.3 U	3.2 U	2 U	1.9 U	2.2 U
beta-BHC	ug/Kg	2.5 U	3.1 U	2.5 U	2.1 U	2.3 U	3.2 U	2 U	1.9 U	2.2 U
delta-BHC	ug/Kg	2.5 U	3.1 U	2.5 U	2.1 U	2.3 U	3.2 U	2 U	1.9 U	2.2 U
gamma-BHC (Lindane)	ug/Kg	2.5 U	3.1 U	2.5 U	2.1 U	2.3 U	3.2 U	2 U	1.9 U	2.2 U
Heptachlor	ug/Kg	2.5 U	3.1 U	2.5 U	2.1 U	2.3 U	3.2 U	2 U	1.9 U	2.2 U
Aldrin	ug/Kg	2.5 U	3.1 U	2.5 U	2.1 U	1.3 J	3.2 U	2 U	1.9 U	2.2 U
Heptachlor epoxide	ug/Kg	2.5 U	3.1 U	2.5 U	2.1 U	2.4	2.1 J	2 U	1.9 U	2.2 U
Endosulfan I	ug/Kg	2.5 U	3.1 U	2.5 U	2.1 U	2.3 U	3.2 U	2 U	1.9 U	2.2 U
Dieldrin	ug/Kg	4.8 U	6.1 U	4.8 U	4.1 U	4.4 U	6.2 U	3.9 U	3.7 U	4.3 U
4,4'-DDE	ug/Kg	4.8 U	6.1 U	4.8 U	4.1 U	3.1 J	6.2 U	3.9 U	3.7 U	4.3 U
Endrin	ug/Kg	4.8 U	6.1 U	4.8 U	4.1 U	4.4 U	6.2 U	3.9 U	3.7 U	4.3 U
Endosulfan II	ug/Kg	4.8 U	6.1 U	4.8 U	4.1 U	4.4 U	6.2 U	3.9 U	3.7 U	4.3 U
4,4'-DDD	ug/Kg	4.8 U	6.1 U	4.8 U	4.1 U	4.4 U	6.2 U	3.9 U	3.7 U	4.3 U
Endosulfan sulfate	ug/Kg	4.8 U	6.1 U	4.8 U	4.1 U	4.4 U	6.2 U	3.9 U	3.7 U	4.3 U
4,4'-DDT	ug/Kg	4.8 U	6.1 U	4.8 U	4.1 U	2.2 J	6.2 U	3.9 U	3.7 U	4.3 U
Methoxychlor	ug/Kg	25 U	31 U	25 U	21 U	23 U	32 U	20 U	19 U	22 U
Endrin ketone	ug/Kg	4.8 U	6.1 U	4.8 U	4.1 U	4.4 U	6.2 U	3.9 U	3.7 U	4.3 U
Endrin aldehyde	ug/Kg	4.8 U	6.1 U	4.8 U	4.1 U	4.4 U	6.2 U	3.9 U	3.7 U	4.3 U
alpha-Chlordane	ug/Kg	2.5 U	3.1 U	2.5 U	2.1 U	2.3 U	3.2 U	2 U	1.9 U	2.2 U
gamma-Chlordane	ug/Kg	2.5 U	3.1 U	2.5 U	2.1 U	2.3 U	3.2 U	2 U	1.9 U	2.2 U
Toxaphene	ug/Kg	250 U	310 U	250 U	210 U	230 U	320 U	200 U	190 U	220 U
Aroclor-1016	ug/Kg	48 U	61 U	48 U	41 U	44 U	62 U	39 U	37 U	43 U
Aroclor-1221	ug/Kg	98 U	120 U	97 U	83 U	90 U	130 U	79 U	78 U	87 U
Aroclor-1232	ug/Kg	48 U	61 U	48 U	41 U	44 U	62 U	39 U	37 U	43 U
Aroclor-1242	ug/Kg	48 U	61 U	48 U	41 U	75	62 U	39 U	40	43 U
Aroclor-1246	ug/Kg	48 U	61 U	48 U	41 U	44 U	62 U	39 U	37 U	43 U
Aroclor-1254	ug/Kg	48 U	61 U	48 U	41 U	44 U	62 U	39 U	37 U	43 U
Aroclor-1260	ug/Kg	48 U	61 U	48 U	41 U	25 J	62 U	39 U	37 U	43 U
METALS										
Aluminum	mg/Kg	14500	13500	12500	15100 J	9050	12500	13800	9150	12300
Antimony	mg/Kg	1.4 J	1.8 J	2.9 J	7.1 J	2.7 J	1.5 J	1.7 J	0.71 J	2.3 J
Arsenic	mg/Kg	4.9	57.4	5	5.1 J	3.7	151	7.8	4.7	7.5
Barium	mg/Kg	95.6	115	87.5	96.8 J	66.2	103	55.5	58.1	39 J
Beryllium	mg/Kg	0.61 J	0.59 J	0.59 J	0.88 J	0.68 J	0.56 J	0.57 J	0.36 J	0.45 J
Cadmium	mg/Kg	0.17 J	0.22 J	0.12 J	0.46 U	0.25 J	0.19 J	0.09 J	0.28 J	0.17 J
Calcium	mg/Kg	12500 J	4740 J	6220 J	3650 J	46800 J	4650 J	27300 J	120000 J	3480 J
Chromium	mg/Kg	28.3	21.7	20.4	34.8	60.7	19.9	28.1	32.6	40.9
Cobalt	mg/Kg	11 J	9 J	8.8 J	9.9 J	7.4 J	7.3 J	12.6	6.4 J	11.2
Copper	mg/Kg	24.8	24.4	18.7	16.9	22.2	18.5	35.2	13.9	18.4
Iron	mg/Kg	25600	22800	22800	24400 J	18000	21700	29400	18200	26600
Lead	mg/Kg	94.8	40.1	27	74	398	25.2	52.7	242	181
Magnesium	mg/Kg	5300	3900	3930	3840 J	21100	3550	6600	15700	5690
Manganese	mg/Kg	569	630	490	539 R	350	467	374	604	413
Mercury	mg/Kg	0.06 J	0.05 J	0.04 J	0.04 J	0.37	0.22	0.02 J	0.04 J	0.03 J
Nickel	mg/Kg	35 J	25.2 J	22.8 J	24.3	22.9 J	20.8 J	42.6 J	15.4 J	30.2 J
Potassium	mg/Kg	1780 J	2160 J	1040 J	1190	1430 J	1550 J	1680 J	1540 J	1030 J
Selenium	mg/Kg	0.95 J	1.1 J	0.52 J	0.23 U	0.25 J	0.59 J	0.67 J	0.53 J	0.21 J
Silver	mg/Kg	0.16 U	0.25 U	0.18 U	0.91 U	0.11 U	0.21 U	0.15 U	0.34 J	0.14 U
Sodium	mg/Kg	64.7 J	55.8 U	42.5 J	43 U	86.1 J	66 J	81.8 J	89.3 J	53 J
Thallium	mg/Kg	0.29 U	0.3 U	0.2 U	0.25 U	0.24 U	0.33 U	0.18 U	0.2 U	0.26 U
Vanadium	mg/Kg	23.8	24.9	22.6	26.1	15.6	23.2	21	17	16.4
Zinc	mg/Kg	109	100	71.9	88.9 J	152	101	81.2	104	114
Cyanide	mg/Kg	0.67 U	0.9 U	0.67 U	0.54 U	0.65 U	0.91 U	0.57 U	0.54 U	0.64 U
OTHER ANALYSES										
Nitrate/Nitrite-Nitrogen	mg/Kg									
Total Petroleum Hydrocarbons	mg/Kg									
Total Solids	%W/W	67.6	53.6	68.9	80.6	73.9	53.3	84.9	88	76.8

SENECA ARMY DEPOT  
SEAD-50 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-50 0-0.2 02/19/94 SS50-11 211965 42460	SOIL SEAD-50 0-0.2 02/19/94 SS50-11RE 211965 42460	SOIL SEAD-50 0-1 02/19/94 SS50-12 211980 42493	SOIL SEAD-50 0-0.2 02/19/94 SS50-13 211981 42493	SOIL SEAD-50 0-1 02/19/94 SS50-14 211982 42493	SOIL SEAD-50 0-0.2 02/19/94 SS50-15 211983 42493	
COMPOUND	UNITS						
<b>VOLATILE ORGANICS</b>							
Chloromethane	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
Bromomethane	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
Vinyl Chloride	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
Chloroethane	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
Methylene Chloride	ug/Kg	14 U	16 UJ	13 U	15 U	12 U	15 U
Acetone	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
Carbon Disulfide	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
1,1-Dichloroethene	ug/Kg	51 R	14 UJ	13 U	15 U	12 U	15 U
1,1-Dichloroethane	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
1,2-Dichloroethene (total)	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
Chloroform	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
1,2-Dichloroethane	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
2-Butanone	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
1,1,1-Trichloroethane	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
Carbon Tetrachloride	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
Bromodichloromethane	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
1,2-Dichloropropane	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
cis-1,3-Dichloropropene	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
Trichloroethene	ug/Kg	60 R	14 UJ	13 U	15 U	12 U	15 U
Dibromochloromethane	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
1,1,2-Trichloroethane	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
Benzene	ug/Kg	61 R	14 UJ	13 U	15 U	12 U	15 U
trans-1,3-Dichloropropene	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
Bromoform	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
4-Methyl-2-Pentanone	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
2-Hexanone	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
Tetrachloroethene	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
1,1,2,2-Tetrachloroethane	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
Toluene	ug/Kg	62 R	14 UJ	13 U	15 U	12 U	15 U
Chlorobenzene	ug/Kg	63 R	14 UJ	13 U	15 U	12 U	15 U
Ethylbenzene	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
Styrene	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
Xylene (total)	ug/Kg	14 U	14 UJ	13 U	15 U	12 U	15 U
<b>HERBICIDES</b>							
2,4-D	ug/Kg						
2,4-DB	ug/Kg						
2,4,5-T	ug/Kg						
2,4,5-TP (Silvex)	ug/Kg						
Dalapon	ug/Kg						
Dicamba	ug/Kg						
Dichloroprop	ug/Kg						
Dinoseb	ug/Kg						
MCPA	ug/Kg						
MCPP	ug/Kg						
<b>NITROAROMATICS</b>							
HMX	ug/Kg						
RDX	ug/Kg						
1,3,5-Trinitrobenzene	ug/Kg						
1,3-Dinitrobenzene	ug/Kg						
Tetryl	ug/Kg						
2,4,6-Trinitrotoluene	ug/Kg						
4-amino-2,6-Dinitrotoluene	ug/Kg						
2-amino-4,6-Dinitrotoluene	ug/Kg						
2,6-Dinitrotoluene	ug/Kg						
2,4-Dinitrotoluene	ug/Kg						

SENECA ARMY DEPOT  
SEAD-50 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-50 0-0.2 02/19/94 SS50-11 211965 42480	SOIL SEAD-50 0-0.2 02/19/94 SS50-11RE 211965 42480	SOIL SEAD-50 0-1 02/19/94 SS50-12 211980 42483	SOIL SEAD-50 0-0.2 02/19/94 SS50-13 211981 42493	SOIL SEAD-50 0-1 02/19/94 SS50-14 211982 42493	SOIL SEAD-50 0-0.2 02/19/94 SS50-15 211983 42493
SEMIVOLATILE ORGANICS						
Phenol	ug/Kg	2300 U	420 U	480 U	420 U	520 U
bis(2-Chloroethyl) ether	ug/Kg	2300 U	420 U	480 U	420 U	520 U
2-Chlorophenol	ug/Kg	2300 U	420 U	480 U	420 U	520 U
1,3-Dichlorobenzene	ug/Kg	2300 U	420 U	480 U	420 U	520 U
1,4-Dichlorobenzene	ug/Kg	2300 U	420 U	480 U	420 U	520 U
1,2-Dichlorobenzene	ug/Kg	2300 U	420 U	480 U	420 U	520 U
2-Methylphenol	ug/Kg	2300 U	420 U	480 U	420 U	520 U
2,2'-oxybis(1-Chloropropane)	ug/Kg	2300 U	420 U	480 U	420 U	520 U
4-Methylphenol	ug/Kg	2300 U	420 U	480 U	420 U	520 U
N-Nitroso-d-n-propylamine	ug/Kg	2300 U	420 U	480 U	420 U	520 U
Hexachloroethane	ug/Kg	2300 U	420 U	480 U	420 U	520 U
Nitrobenzene	ug/Kg	2300 U	420 U	480 U	420 U	520 U
Isophorone	ug/Kg	2300 U	420 U	480 U	420 U	520 U
2-Nitrophenol	ug/Kg	2300 U	420 U	480 U	420 U	520 U
2,4-Dimethylphenol	ug/Kg	2300 U	420 U	480 U	420 U	520 U
bis(2-Chloroethoxy) methane	ug/Kg	2300 U	420 U	480 U	420 U	520 U
2,4-Dichlorophenol	ug/Kg	2300 U	420 U	480 U	420 U	520 U
1,2,4-Trichlorobenzene	ug/Kg	2300 U	420 U	480 U	420 U	520 U
Naphthalene	ug/Kg	2300 U	420 U	480 U	420 U	520 U
4-Chloroaniline	ug/Kg	2300 U	420 U	480 U	420 U	520 U
Hexachlorobutadiene	ug/Kg	2300 U	420 U	480 U	420 U	520 U
4-Chloro-3-methylphenol	ug/Kg	2300 U	420 U	480 U	420 U	520 U
2-Methylnaphthalene	ug/Kg	2300 U	420 U	480 U	420 U	520 U
Hexachlorocyclopentadiene	ug/Kg	2300 U	420 U	480 U	420 U	520 U
2,4,6-Trichlorophenol	ug/Kg	2300 U	420 U	480 U	420 U	520 U
2,4,5-Trichlorophenol	ug/Kg	5500 U	1000 U	1200 U	1000 U	1200 U
2-Chloronaphthalene	ug/Kg	2300 U	420 U	480 U	420 U	520 U
2-Nitroaniline	ug/Kg	5500 U	1000 U	1200 U	1000 U	1200 U
Dimethylphthalate	ug/Kg	2300 U	420 U	480 U	420 U	520 U
Acenaphthylene	ug/Kg	2300 U	420 U	480 U	420 U	520 U
2,6-Dinitrotoluene	ug/Kg	2300 U	420 U	480 U	420 U	520 U
3-Nitroaniline	ug/Kg	5500 U	1000 U	1200 U	1000 U	1200 U
Acenaphthene	ug/Kg	830 J	420 U	480 U	420 U	51 J
2,4-Dinitrophenol	ug/Kg	5500 U	1000 U	1200 U	1000 U	1200 U
4-Nitrophenol	ug/Kg	5500 U	1000 U	1200 U	1000 U	1200 U
Dibenzofuran	ug/Kg	280 J	420 U	480 U	420 U	520 U
2,4-Dinitrotoluene	ug/Kg	2300 U	420 U	480 U	420 U	520 U
Diethylphthalate	ug/Kg	2300 U	420 U	480 U	420 U	520 U
4-Chlorophenyl-phenylether	ug/Kg	2300 U	420 U	480 U	420 U	520 U
Fluorene	ug/Kg	590 J	420 U	480 U	420 U	36 J
4-Nitroaniline	ug/Kg	5500 U	1000 U	1200 U	1000 U	1200 U
4,6-Dinitro-2-methylphenol	ug/Kg	5500 U	1000 U	1200 U	1000 U	1200 U
N-Nitrosodiphenylamine	ug/Kg	2300 U	420 U	480 U	420 U	520 U
4-Bromophenyl-phenylether	ug/Kg	2300 U	420 U	480 U	420 U	520 U
Hexachlorobenzene	ug/Kg	2300 U	420 U	480 U	420 U	520 U
Pentachlorophenol	ug/Kg	5500 U	1000 U	1200 U	1000 U	1200 U
Phenanthrene	ug/Kg	7800	26 J	53 J	370 J	530
Anthracene	ug/Kg	1500 J	420 U	480 U	61 J	100 J
Carbazole	ug/Kg	1100 J	420 U	480 U	71 J	67 J
Di-n-butylphthalate	ug/Kg	2300 U	51 J	51 J	36 J	30 J
Fluoranthene	ug/Kg	14000	41 J	66 J	1300	1300
Pyrene	ug/Kg	12000	31 J	73 J	1200	1000
Butylbenzylphthalate	ug/Kg	2300 U	420 U	480 U	420 U	520 U
3,3'-Dichlorobenzidine	ug/Kg	2300 U	420 U	480 U	420 U	520 U
Benzo(a)anthracene	ug/Kg	5200	420 U	35 J	830	650
Chrysene	ug/Kg	5500	420 U	53 J	840	670
bis(2-Ethylhexyl)phthalate	ug/Kg	640 J	1800	960	610	1300
Di-n-octylphthalate	ug/Kg	2300 U	420 U	480 U	420 U	520 U
Benzo(b)fluoranthene	ug/Kg	4400	420 U	45 J	660	690
Benzo(k)fluoranthene	ug/Kg	4000	420 U	43 J	600	410 J
Benzo(a)pyrene	ug/Kg	3700	420 U	40 J	660	520
Indeno(1,2,3-cd)pyrene	ug/Kg	1800 J	420 U	480 U	400 J	360 J
Dibenz(a,h)anthracene	ug/Kg	840 J	420 U	480 U	200 J	190 J
Benzo(g,h,i)perylene	ug/Kg	1800 J	420 U	480 U	270 J	240 J



SENECA ARMY DEPOT  
SEAD-50 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION	SOIL SEAD-50	SOIL SEAD-50	SOIL SEAD-50	SOIL SEAD-50	SOIL SEAD-50	SOIL SEAD-50
DEPTH (FEET)	0-0.2	0-0.2	0-1	0-0.2	0-1	0-0.2
SAMPLE DATE	02/19/94	02/19/94	02/19/94	02/19/94	02/19/94	02/19/94
ES ID	SS50-11	SS50-11RE	SS50-12	SS50-13	SS50-14	SS50-15
LAB ID	211965	211965	211960	211961	211962	211963
SDG NUMBER	42460	42460	42493	42493	42493	42493
COMPOUND	UNITS					
<b>PESTICIDES/PCB</b>						
alpha-BHC	ug/Kg	2.3 U	4.3 U	2.5 U	2.2 U	2.7 U
beta-BHC	ug/Kg	2.3 U	4.3 U	2.5 U	2.2 U	2.7 U
delta-BHC	ug/Kg	2.3 U	4.3 U	2.5 U	2.2 U	2.7 U
gamma-BHC (Lindane)	ug/Kg	2.3 U	4.3 U	2.5 U	2.2 U	2.7 U
Heptachlor	ug/Kg	2.3 U	4.3 U	2.5 U	2.2 U	2.7 U
Aldrin	ug/Kg	2.3 U	4.3 U	2.5 U	2.2 U	2.7 U
Heptachlor epoxide	ug/Kg	2.3 U	4.3 U	2.5 U	2.2 U	2.7 U
Endosulfan I	ug/Kg	2.3 U	4.3 U	2.5 U	13	2.7 U
Dieldrin	ug/Kg	4.5 U	59 J	4.8 U	26 J	5.2 U
4,4'-DDE	ug/Kg	4.5 U	8.4 U	4.8 U	4.6 J	4 J
Endrin	ug/Kg	2.8 J	8.4 U	4.8 U	4.2 U	5.2 U
Endosulfan II	ug/Kg	4.5 U	8.4 U	4.8 U	4.2 U	5.2 U
4,4'-DDD	ug/Kg	4.5 U	8.4 U	4.8 U	2.2 J	5.2 U
Endosulfan sulfate	ug/Kg	4.5 U	8.4 U	4.8 U	4.2 U	5.2 U
4,4'-DDT	ug/Kg	4.5 U	8.4 U	4.8 U	4.1 J	4.1 J
Methoxychlor	ug/Kg	23 U	43 U	25 U	22 U	27 U
Endrin ketone	ug/Kg	4.5 U	8.4 U	4.8 U	4.2 U	5.2 U
Endrin aldehyde	ug/Kg	4.5 U	8.4 U	4.8 U	4.2 U	5.2 U
alpha-Chlordane	ug/Kg	3.8 J	4.3 U	2.5 U	2.2 U	2.7 U
gamma-Chlordane	ug/Kg	2.3 U	4.3 U	2.5 U	2.2 U	2.7 U
Toxaphene	ug/Kg	230 U	430 U	250 U	220 U	270 U
Aroclor-1016	ug/Kg	45 U	84 U	48 U	42 U	52 U
Aroclor-1221	ug/Kg	92 U	170 U	97 U	85 U	100 U
Aroclor-1232	ug/Kg	45 U	84 U	48 U	42 U	52 U
Aroclor-1242	ug/Kg	45 U	84 U	48 U	37 J	52 U
Aroclor-1248	ug/Kg	45 U	84 U	48 U	42 U	52 U
Aroclor-1254	ug/Kg	45 U	84 U	48 U	24 J	52 U
Aroclor-1260	ug/Kg	45 U	84 U	48 U	42 U	52 U
<b>METALS</b>						
Aluminum	mg/Kg	15300 J	15200	13600	10600	13300
Antimony	mg/Kg	5.2 UJ	0.55 J	0.63 J	0.6 J	0.85 J
Arsenic	mg/Kg	6 J	37.6	6.4	6.2	6.3
Barium	mg/Kg	101 J	91.2	78	73.1	92.1
Beryllium	mg/Kg	0.71 J	0.85 J	0.55 J	0.4 J	0.59 J
Cadmium	mg/Kg	0.51 U	0.15 J	0.09 J	0.6 J	0.22 J
Calcium	mg/Kg	15200 J	3670 J	10600 J	80100 J	18000 J
Chromium	mg/Kg	29.9	22.7	21.1	21.8	25.7
Cobalt	mg/Kg	10.3 J	11.6	10.4 J	9.2 J	12.6
Copper	mg/Kg	23.6	19.6	22.2	20.9	28.1
Iron	mg/Kg	27000 J	29400	26200	19700	30000
Lead	mg/Kg	25.7	18.5	22.6	61.4	45.3
Magnesium	mg/Kg	7510 J	4570	6330	48300	6780
Manganese	mg/Kg	496 R	722	481	548	589
Mercury	mg/Kg	0.05 J	0.05 J	0.05 J	0.03 J	0.03 J
Nickel	mg/Kg	37.2	30.1 J	28.9 J	24.4 J	37 J
Potassium	mg/Kg	2170	1600 J	1760 J	2140 J	1890 J
Selenium	mg/Kg	0.41 J	0.41 J	0.33 J	0.55 J	0.44 J
Silver	mg/Kg	1 U	0.16 J	0.18 U	0.16 U	0.14 U
Sodium	mg/Kg	63.7 J	26.7 U	64.9 J	136 J	64.6 J
Thallium	mg/Kg	0.32 U	0.26 U	0.2 U	0.22 U	0.21 U
Vanadium	mg/Kg	26.2	24.6	23.4	19.8	21.3
Zinc	mg/Kg	110 J	93.7	87.9	102	141
Cyanide	mg/Kg	0.58 U	0.58 U	0.7 U	0.6 U	0.75 U
<b>OTHER ANALYSES</b>						
Nitrate/Nitrite - Nitrogen	mg/Kg					
Total Petroleum Hydrocarbons	mg/Kg					
Total Solids	%W/W	72.9	78.2	69.3	76.8	63.9

SENECA ARMY DEPOT  
SEAD-50 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

COMPOUND	MATRIX	WATER	WATER	WATER
	LOCATION	SEAD-50	SEAD-50	SEAD-50
	SAMPLE DATE	07/12/94	07/18/94	07/18/94
	ES ID	MW50-1	MW50-2	MW50-3
	LAB ID	226794	227267	227268
	SDG NUMBER	45332	45332	45332
	UNITS			
VOLATILE ORGANICS				
Chloromethane	ug/L	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U
Chloroethane	ug/L	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	10 U
Carbon Disulfide	ug/L	10 U	10 U	10 U
1,1-Dichloroethene	ug/L	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U
1,2-Dichloroethene (total)	ug/L	10 U	10 U	10 U
Chloroform	ug/L	10 U	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	10 U	10 U
2-Butanone	ug/L	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	10 U	10 U
Bromodichloromethane	ug/L	10 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U	10 U	10 U
Trichloroethene	ug/L	10 U	10 U	10 U
Dibromochloromethane	ug/L	10 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	10 U	10 U
Benzene	ug/L	10 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	10 U	10 U
Bromoform	ug/L	10 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U
Tetrachloroethene	ug/L	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 U	10 U
Toluene	ug/L	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U	10 U	10 U
Ethylbenzene	ug/L	10 U	10 U	10 U
Styrene	ug/L	10 U	10 U	10 U
Xylene (total)	ug/L	10 U	10 U	10 U
HERBICIDES				
2,4-D	ug/L			
2,4-DB	ug/L			
2,4,5-T	ug/L			
2,4,5-TP (Silvex)	ug/L			
Dalapon	ug/L			
Dicamba	ug/L			
Dichloroprop	ug/L			
Dinoseb	ug/L			
MCPA	ug/L			
MCPP	ug/L			
NITROAROMATICS				
HMX	ug/L			
RDX	ug/L			
1,3,5-Trinitrobenzene	ug/L			
1,3-Dinitrobenzene	ug/L			
Tetryl	ug/L			
2,4,6-Trinitrotoluene	ug/L			
4-amino-2,6-Dinitrotoluene	ug/L			
2-amino-4,6-Dinitrotoluene	ug/L			
2,6-Dinitrotoluene	ug/L			
2,4-Dinitrotoluene	ug/L			

SENECA ARMY DEPOT  
SEAD-50 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

MATRIX LOCATION SAMPLE DATE ES ID LAB ID SDG NUMBER	WATER SEAD-50 07/12/94 MW50-1 227267 45332	WATER SEAD-50 07/18/94 MW50-2 227267 45332	WATER SEAD-50 07/18/94 MW50-3 227268 45332
COMPOUND			
SEMIVOLATILE ORGANICS			
Phenol	ug/L 10 U	10 U	11 U
bis(2-Chloroethyl) ether	ug/L 10 U	10 U	11 U
2-Chlorophenol	ug/L 10 U	10 U	11 U
1,3-Dichlorobenzene	ug/L 10 U	10 U	11 U
1,4-Dichlorobenzene	ug/L 10 U	10 U	11 U
1,2-Dichlorobenzene	ug/L 10 U	10 U	11 U
2-Methylphenol	ug/L 10 U	10 U	11 U
2,2'-oxybis(1-Chloropropane)	ug/L 10 U	10 U	11 U
4-Methylphenol	ug/L 10 U	10 U	11 U
N-Nitroso-di-n-propylamine	ug/L 10 U	10 U	11 U
Hexachloroethane	ug/L 10 U	10 U	11 U
Nitrobenzene	ug/L 10 U	10 U	11 U
Isophorone	ug/L 10 U	10 U	11 U
2-Nitrophenol	ug/L 10 U	10 U	11 U
2,4-Dimethylphenol	ug/L 10 U	10 U	11 U
bis(2-Chloroethoxy) methane	ug/L 10 U	10 U	11 U
2,4-Dichlorophenol	ug/L 10 U	10 U	11 U
1,2,4-Trichlorobenzene	ug/L 10 U	10 U	11 U
Naphthalene	ug/L 10 U	10 U	11 U
4-Chloroaniline	ug/L 10 U	10 U	11 U
Hexachlorobutadiene	ug/L 10 U	10 U	11 U
4-Chloro-3-methylphenol	ug/L 10 U	10 U	11 U
2-Methylnaphthalene	ug/L 10 U	10 U	11 U
Hexachlorocyclopentadiene	ug/L 10 U	10 U	11 U
2,4,6-Trichlorophenol	ug/L 10 U	10 U	11 U
2,4,5-Trichlorophenol	ug/L 25 U	26 U	26 U
2-Chloronaphthalene	ug/L 10 U	10 U	11 U
2-Nitroaniline	ug/L 25 U	26 U	26 U
Dimethylphthalate	ug/L 10 U	10 U	11 U
Acenaphthylene	ug/L 10 U	10 U	11 U
2,6-Dinitrotoluene	ug/L 10 U	10 U	11 U
3-Nitroaniline	ug/L 25 U	26 U	26 U
Acenaphthene	ug/L 10 U	10 U	11 U
2,4-Dinitrophenol	ug/L 25 U	26 U	26 U
4-Nitrophenol	ug/L 25 U	26 U	26 U
Dibenzofuran	ug/L 10 U	10 U	11 U
2,4-Dinitrotoluene	ug/L 10 U	10 U	11 U
Diethylphthalate	ug/L 10 U	10 U	11 U
4-Chlorophenyl-phenyl ether	ug/L 10 U	10 U	11 U
Fluorene	ug/L 10 U	10 U	11 U
4-Nitroaniline	ug/L 25 U	26 U	26 U
4,6-Dinitro-2-methylphenol	ug/L 25 U	26 U	26 U
N-Nitrosodiphenylamine	ug/L 10 U	10 U	11 U
4-Bromophenyl-phenyl ether	ug/L 10 U	10 U	11 U
Hexachlorobenzene	ug/L 10 U	10 U	11 U
Pentachlorophenol	ug/L 25 U	26 U	26 U
Phenanthrene	ug/L 10 U	10 U	11 U
Anthracene	ug/L 10 U	10 U	11 U
Carbazole	ug/L 10 U	10 U	11 U
Di-n-butylphthalate	ug/L 10 U	10 U	11 U
Fluoranthene	ug/L 10 U	10 U	11 U
Pyrene	ug/L 10 U	10 U	11 U
Butylbenzylphthalate	ug/L 10 U	10 U	11 U
3,3'-Dichlorobenzidine	ug/L 10 U	10 U	11 U
Benzo(a)anthracene	ug/L 10 U	10 U	11 U
Chrysene	ug/L 10 U	10 U	11 U
bis(2-Ethylhexyl)phthalate	ug/L 10 U	10 U	11 U
Di-n-octylphthalate	ug/L 10 U	10 U	5 J
Benzo(b)fluoranthene	ug/L 10 U	10 U	11 U
Benzo(k)fluoranthene	ug/L 10 U	10 U	11 U
Benzo(a)pyrene	ug/L 10 U	10 U	11 U
Indeno(1,2,3-cd)pyrene	ug/L 10 U	10 U	11 U
Dibenz(a,h)anthracene	ug/L 10 U	10 U	11 U
Benzo(g,h,i)perylene	ug/L 10 U	10 U	11 U

SENECA ARMY DEPOT  
SEAD-50 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

COMPOUND	MATRIX	WATER	WATER	WATER
	LOCATION	SEAD-50	SEAD-50	SEAD-50
SAMPLE DATE		07/12/94	07/18/94	07/18/94
ES ID		MW50-1	MW50-2	MW50-3
LAB ID		226794	227267	227268
SDG NUMBER		45332	45332	45332
UNITS				
<b>PESTICIDES/PCB</b>				
alpha-BHC	ug/L	0.054 U	0.051 U	0.052 U
beta-BHC	ug/L	0.054 U	0.051 U	0.052 U
delta-BHC	ug/L	0.054 U	0.051 U	0.052 U
gamma-BHC (Lindane)	ug/L	0.054 U	0.051 U	0.052 U
Heptachlor	ug/L	0.054 U	0.051 U	0.052 U
Aldrin	ug/L	0.054 U	0.051 U	0.052 U
Heptachlor epoxide	ug/L	0.054 U	0.051 U	0.052 U
Endosulfan I	ug/L	0.054 U	0.051 U	0.052 U
Dieldrin	ug/L	0.11 U	0.1 U	0.1 U
4,4'-DDE	ug/L	0.11 U	0.1 U	0.1 U
Endrin	ug/L	0.11 U	0.1 U	0.1 U
Endosulfan II	ug/L	0.11 U	0.1 U	0.1 U
4,4'-DDD	ug/L	0.11 U	0.1 U	0.1 U
Endosulfan sulfate	ug/L	0.11 U	0.1 U	0.1 U
4,4'-DDT	ug/L	0.11 U	0.1 U	0.1 U
Methoxychlor	ug/L	0.54 U	0.51 U	0.52 U
Endrin ketone	ug/L	0.11 U	0.1 U	0.1 U
Endrin aldehyde	ug/L	0.11 U	0.1 U	0.1 U
alpha-Chlordane	ug/L	0.054 U	0.051 U	0.052 U
gamma-Chlordane	ug/L	0.054 U	0.051 U	0.052 U
Toxaphene	ug/L	5.4 U	5.1 U	5.2 U
Aroclor-1016	ug/L	1.1 U	1 U	1 U
Aroclor-1221	ug/L	2.1 U	2 U	2.1 U
Aroclor-1232	ug/L	1.1 U	1 U	1 U
Aroclor-1242	ug/L	1.1 U	1 U	1 U
Aroclor-1248	ug/L	1.1 U	1 U	1 U
Aroclor-1254	ug/L	1.1 U	1 U	1 U
Aroclor-1260	ug/L	1.1 U	1 U	1 U
<b>METALS</b>				
Aluminum	ug/L	1790 J	137 J	19.6 J
Antimony	ug/L	1.3 U	1.3 U	1.3 U
Arsenic	ug/L	2.2 J	2 U	2 U
Barium	ug/L	50.8 J	68.9 J	96.5 J
Beryllium	ug/L	0.1 U	0.1 U	0.1 U
Cadmium	ug/L	0.2 U	0.2 U	0.2 U
Calcium	ug/L	153000	113000	113000
Chromium	ug/L	3 J	0.4 U	0.4 U
Cobalt	ug/L	4.9 J	1.8 J	0.82 J
Copper	ug/L	1.4 J	0.5 U	0.5 U
Iron	ug/L	5070	1400	206
Lead	ug/L	0.9 U	0.89 U	0.89 U
Magnesium	ug/L	40200	20800	16900
Manganese	ug/L	1040	791	317
Mercury	ug/L	0.05 J	0.04 U	0.04 U
Nickel	ug/L	8 J	2 J	0.69 U
Potassium	ug/L	4480 J	5770 J	10400 J
Selenium	ug/L	2.7 U	2.7 U	2.7 U
Silver	ug/L	0.5 U	0.75 J	0.76 J
Sodium	ug/L	22700	91200	10000
Thallium	ug/L	1.9 J	3 J	1.9 U
Vanadium	ug/L	3 J	0.5 U	0.54 J
Zinc	ug/L	20.2	2.4 J	2.2 U
Cyanide	ug/L	5 U	5 U	5 U
<b>OTHER ANALYSES</b>				
Nitrate/Nitrite - Nitrogen	mg/L			
Total Petroleum Hydrocarbons	mg/L			
pH	Standard Units	8.9	7	7.2
Conductivity	umhos/cm	820	900	580
Temperature	°C	17	17.9	18.7
Turbidity	NTU	160	27.7	1.5

SENECA ARMY DEPOT  
SEAD-50 ENVIRONMENTAL SITE INSPECTION  
SURFACE WATER ANALYSIS RESULTS

COMPOUND	MATRIX	WATER	WATER	WATER
	LOCATION	SEAD-50	SEAD-50	SEAD-50
	SAMPLE DATE	04/19/94	04/19/94	04/19/94
	ES ID	SW50-1	SW50-2	SW50-3
	LAB ID	218499	218500	218501
	SDG NUMBER	43626	43626	43626
	UNITS			
VOLATILE ORGANICS				
Chloromethane	ug/L	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U
Chloroethane	ug/L	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	10 U
Carbon Disulfide	ug/L	10 U	10 U	10 U
1,1-Dichloroethene	ug/L	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U
1,2-Dichloroethene (total)	ug/L	10 U	10 U	10 U
Chloroform	ug/L	10 U	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	10 U	10 U
2-Butanone	ug/L	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	10 U	10 U
Bromodichloromethane	ug/L	10 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U	10 U	10 U
Trichloroethene	ug/L	10 U	10 U	10 U
Dibromochloromethane	ug/L	10 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	10 U	10 U
Benzene	ug/L	10 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	10 U	10 U
Bromochloroform	ug/L	10 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U
Tetrachloroethane	ug/L	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 U	10 U
Toluene	ug/L	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U	10 U	10 U
Ethylbenzene	ug/L	10 U	10 U	10 U
Styrene	ug/L	10 U	10 U	10 U
Xylene (total)	ug/L	10 U	10 U	10 U
HERBICIDES				
2,4-D	ug/L			
2,4-DB	ug/L			
2,4,5-T	ug/L			
2,4,5-TP (Silvex)	ug/L			
Dalapon	ug/L			
Dicamba	ug/L			
Dichloroprop	ug/L			
Dinoseb	ug/L			
MCPA	ug/L			
MCPP	ug/L			
NITROAROMATICS				
HMX	ug/L			
RDX	ug/L			
1,3,5-Trinitrobenzene	ug/L			
1,3-Dinitrobenzene	ug/L			
Tetryl	ug/L			
2,4,6-Trinitrotoluene	ug/L			
4-amino-2,6-Dinitrotoluene	ug/L			
2-amino-4,6-Dinitrotoluene	ug/L			
2,6-Dinitrotoluene	ug/L			
2,4-Dinitrotoluene	ug/L			

SENECA ARMY DEPOT  
SEAD-50 ENVIRONMENTAL SITE INSPECTION  
SURFACE WATER ANALYSIS RESULTS

COMPOUND	MATRIX LOCATION SAMPLE DATE ES ID LAB ID SDG NUMBER UNITS	WATER SEAD-50 04/19/94 SW50-1 218499 43626	WATER SEAD-50 04/19/94 SW50-2 218500 43626	WATER SEAD-50 04/19/94 SW50-3 218501 43626
<b>SEMIVOLATILE ORGANICS</b>				
Phenol	ug/L	11 U	10 U	11 U
bis(2-Chloroethyl) ether	ug/L	11 U	10 U	11 U
2-Chlorophenol	ug/L	11 U	10 U	11 U
1,3-Dichlorobenzene	ug/L	11 U	10 U	11 U
1,4-Dichlorobenzene	ug/L	11 U	10 U	11 U
1,2-Dichlorobenzene	ug/L	11 U	10 U	11 U
2-Methylphenol	ug/L	11 U	10 U	11 U
2,2'-oxybis(1-Chloropropane)	ug/L	11 U	10 U	11 U
4-Methylphenol	ug/L	11 U	10 U	11 U
N-Nitroso-di-n-propylamine	ug/L	11 U	10 U	11 U
Hexachloroethane	ug/L	11 U	10 U	11 U
Nitrobenzene	ug/L	11 U	10 U	11 U
Isophorone	ug/L	11 U	10 U	11 U
2-Nitrophenol	ug/L	11 U	10 U	11 U
2,4-Dimethylphenol	ug/L	11 U	10 U	11 U
bis(2-Chloroethoxy) methane	ug/L	11 U	10 U	11 U
2,4-Dichlorophenol	ug/L	11 U	10 U	11 U
1,2,4-Trichlorobenzene	ug/L	11 U	10 U	11 U
Naphthalene	ug/L	11 U	10 U	11 U
4-Chloroaniline	ug/L	11 U	10 U	11 U
Hexachlorobutadiene	ug/L	11 U	10 U	11 U
4-Chloro-3-methylphenol	ug/L	11 U	10 U	11 U
2-Methylnaphthalene	ug/L	11 U	10 U	11 U
Hexachlorocyclopentadiene	ug/L	11 U	10 U	11 U
2,4,6-Trichlorophenol	ug/L	11 U	10 U	11 U
2,4,5-Trichlorophenol	ug/L	27 U	28 U	27 U
2-Chloronaphthalene	ug/L	11 U	10 U	11 U
2-Nitroaniline	ug/L	27 U	28 U	27 U
Dimethylphthalate	ug/L	11 U	10 U	11 U
Acenaphthylene	ug/L	11 U	10 U	11 U
2,6-Dinitrotoluene	ug/L	11 U	10 U	11 U
3-Nitroaniline	ug/L	27 U	28 U	27 U
Acenaphthene	ug/L	11 U	10 U	11 U
2,4-Dinitrophenol	ug/L	27 U	28 U	27 U
4-Nitrophenol	ug/L	27 U	28 U	27 U
Dibenzofuran	ug/L	11 U	10 U	11 U
2,4-Dinitrotoluene	ug/L	11 U	10 U	11 U
Diethylphthalate	ug/L	11 U	10 U	11 U
4-Chlorophenyl-phenylether	ug/L	11 U	10 U	11 U
Fluorene	ug/L	11 U	10 U	11 U
4-Nitroaniline	ug/L	27 U	28 U	27 U
4,6-Dinitro-2-methylphenol	ug/L	27 U	28 U	27 U
N-Nitrosodiphenylamine	ug/L	11 U	10 U	11 U
4-Bromophenyl-phenylether	ug/L	11 U	10 U	11 U
Hexachlorobenzene	ug/L	11 U	10 U	11 U
Pentachlorophenol	ug/L	27 U	28 U	27 U
Phenanthrene	ug/L	11 U	10 U	11 U
Anthracene	ug/L	11 U	10 U	11 U
Carbazole	ug/L	11 U	10 U	11 U
Di-n-butylphthalate	ug/L	11 U	10 U	11 U
Fluoranthene	ug/L	11 U	10 U	11 U
Pyrene	ug/L	11 U	10 U	11 U
Butylbenzylphthalate	ug/L	11 U	10 U	11 U
3,3'-Dichlorobenzidine	ug/L	11 U	10 U	11 U
Benzo(a)anthracene	ug/L	11 U	10 U	11 U
Chrysene	ug/L	11 U	10 U	11 U
bis(2-Ethylhexyl)phthalate	ug/L	11 U	37 U	11 U
Di-n-octylphthalate	ug/L	11 U	10 U	11 U
Benzo(b)fluoranthene	ug/L	11 U	10 U	11 U
Benzo(k)fluoranthene	ug/L	11 U	10 U	11 U
Benzo(a)pyrene	ug/L	11 U	10 U	11 U
Indeno(1,2,3-cd)pyrene	ug/L	11 U	10 U	11 U
Dibenz(a,h)anthracene	ug/L	11 U	10 U	11 U
Benzo(g,h,i)perylene	ug/L	11 U	10 U	11 U

SENECA ARMY DEPOT  
SEAD-50 ENVIRONMENTAL SITE INSPECTION  
SURFACE WATER ANALYSIS RESULTS

COMPOUND	MATRIX	WATER	WATER	WATER
	LOCATION	SEAD-50	SEAD-50	SEAD-50
	SAMPLE DATE	04/19/94	04/19/94	04/19/94
	ES ID	SW50-1	SW50-2	SW50-3
	LAB ID	218499	218500	218501
	SDG NUMBER	43828	43828	43828
	UNITS			
<b>PESTICIDES/PCB</b>				
alpha-BHC	ug/L	0.052 U	0.052 U	0.053 U
beta-BHC	ug/L	0.052 U	0.052 U	0.053 U
delta-BHC	ug/L	0.052 U	0.052 U	0.053 U
gamma-BHC (Lindane)	ug/L	0.052 U	0.052 U	0.053 U
Heptachlor	ug/L	0.052 U	0.052 U	0.053 U
Aldrin	ug/L	0.052 U	0.052 U	0.053 U
Heptachlor epoxide	ug/L	0.052 U	0.052 U	0.053 U
Endosulfan I	ug/L	0.052 U	0.052 U	0.053 U
Dieldrin	ug/L	0.1 U	0.1 U	0.11 U
4,4'-DDE	ug/L	0.1 U	0.1 U	0.11 U
Endrin	ug/L	0.1 U	0.1 U	0.11 U
Endosulfan II	ug/L	0.1 U	0.1 U	0.11 U
4,4'-DDD	ug/L	0.1 U	0.1 U	0.11 U
Endosulfan sulfate	ug/L	0.1 U	0.1 U	0.11 U
4,4'-DDT	ug/L	0.1 U	0.1 U	0.11 U
Methoxychlor	ug/L	0.52 U	0.52 U	0.53 U
Endrin ketone	ug/L	0.1 U	0.1 U	0.11 U
Endrin aldehyde	ug/L	0.1 U	0.1 U	0.11 U
alpha-Chlordane	ug/L	0.052 U	0.052 U	0.053 U
gamma-Chlordane	ug/L	0.052 U	0.052 U	0.053 U
Toxaphene	ug/L	5.2 U	5.2 U	5.3 U
Aroclor-1016	ug/L	1 U	1 U	1.1 U
Aroclor-1221	ug/L	2.1 U	2.1 U	2.1 U
Aroclor-1232	ug/L	1 U	1 U	1.1 U
Aroclor-1242	ug/L	1 U	1 U	1.1 U
Aroclor-1248	ug/L	1 U	1 U	1.1 U
Aroclor-1254	ug/L	1 U	1 U	1.1 U
Aroclor-1280	ug/L	1 U	1 U	1.1 U
<b>METALS</b>				
Aluminum	ug/L	378	63.1 J	68.2 J
Antimony	ug/L	0.99 U	0.99 U	1 U
Arsenic	ug/L	22.1	4.5 J	1.5 U
Barium	ug/L	33.4 J	34.3 J	21.9 J
Beryllium	ug/L	0.06 U	0.06 U	0.06 U
Cadmium	ug/L	0.1 U	0.1 U	0.1 U
Calcium	ug/L	82700	85200	43400
Chromium	ug/L	0.88 J	0.4 U	1.3 J
Cobalt	ug/L	0.6 U	0.6 U	0.6 U
Copper	ug/L	2.1 J	1.1 J	1.8 J
Iron	ug/L	575	91.6 J	121
Lead	ug/L	0.89 J	0.8 U	0.8 U
Magnesium	ug/L	12300	13200	8660
Manganese	ug/L	67.9	6.6 J	7.1 J
Mercury	ug/L	0.03 U	0.03 U	0.03 U
Nickel	ug/L	1.7 J	0.6 U	0.83 J
Potassium	ug/L	3140 J	1210 J	822 J
Selenium	ug/L	1.7 U	1.7 U	1.7 U
Silver	ug/L	0.69 U	0.7 U	0.7 U
Sodium	ug/L	1890 J	11000	11200
Thallium	ug/L	1.6 U	1.6 U	1.6 U
Vanadium	ug/L	1.1 J	0.7 U	0.7 U
Zinc	ug/L	10.5 J	8.1 J	1.5 J
Cyanide	ug/L	5 UJ	5 UJ	5 UJ
<b>OTHER ANALYSES</b>				
Nitrate/Nitrite-Nitrogen	mg/L			
Total Petroleum Hydrocarbons	mg/L			
pH	Standard Units	7.1	7.7	8.4
Conductivity	umhos/cm	360	450	260
Temperature	°C	13.2	15.7	16
Turbidity	NTU	1	5.1	1.6

SENECA ARMY DEPOT  
SEAD-50 ENVIRONMENTAL SITE INSPECTION  
SEDIMENT ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-50 0-0.2 04/19/94 SD50-1 218502 43663	SOIL SEAD-50 0-0.2 04/19/94 SD50-2 218503 43663	SOIL SEAD-50 0-0.2 04/19/94 SD50-3 218504 43663
COMPOUND UNITS			
VOLATILE ORGANICS			
Chloromethane	ug/Kg	20 U	21 UJ
Bromomethane	ug/Kg	20 U	21 UJ
Vinyl Chloride	ug/Kg	20 U	21 UJ
Chloroethane	ug/Kg	20 U	21 UJ
Methylene Chloride	ug/Kg	20 U	21 UJ
Acetone	ug/Kg	28 U	21 UJ
Carbon Disulfide	ug/Kg	20 U	21 UJ
1,1-Dichloroethene	ug/Kg	20 U	21 UJ
1,1-Dichloroethane	ug/Kg	20 U	21 UJ
1,2-Dichloroethene (total)	ug/Kg	20 U	21 UJ
Chloroform	ug/Kg	20 U	21 UJ
1,2-Dichloroethane	ug/Kg	20 U	21 UJ
2-Butanone	ug/Kg	11 J	21 UJ
1,1,1-Trichloroethane	ug/Kg	20 U	21 UJ
Carbon Tetrachloride	ug/Kg	20 U	21 UJ
Bromodichloromethane	ug/Kg	20 U	21 UJ
1,2-Dichloropropane	ug/Kg	20 U	21 UJ
cis-1,3-Dichloropropene	ug/Kg	20 U	21 UJ
Trichloroethene	ug/Kg	20 U	21 UJ
Dibromochloromethane	ug/Kg	20 U	21 UJ
1,1,2-Trichloroethane	ug/Kg	20 U	21 UJ
Benzene	ug/Kg	20 U	21 UJ
trans-1,3-Dichloropropene	ug/Kg	20 U	21 UJ
Bromoform	ug/Kg	20 U	21 UJ
4-Methyl-2-Pentanone	ug/Kg	20 U	21 UJ
2-Hexanone	ug/Kg	20 U	21 UJ
Tetrachloroethene	ug/Kg	20 U	21 UJ
1,1,2,2-Tetrachloroethane	ug/Kg	20 U	21 UJ
Toluene	ug/Kg	20 U	21 UJ
Chlorobenzene	ug/Kg	20 U	21 UJ
Ethylbenzene	ug/Kg	20 U	21 UJ
Styrene	ug/Kg	20 U	21 UJ
Xylene (total)	ug/Kg	20 U	21 UJ
HERBICIDES			
2,4-D	ug/Kg		
2,4-DB	ug/Kg		
2,4,5-T	ug/Kg		
2,4,5-TP (Silvex)	ug/Kg		
Dalapon	ug/Kg		
Dicamba	ug/Kg		
Dichloroprop	ug/Kg		
Dinoseb	ug/Kg		
MCPA	ug/Kg		
MCPP	ug/Kg		
NITROAROMATICS			
HMX	ug/Kg		
RDX	ug/Kg		
1,3,5-Trinitrobenzene	ug/Kg		
1,3-Dinitrobenzene	ug/Kg		
Tetryl	ug/Kg		
2,4,6-Trinitrotoluene	ug/Kg		
4-amino-2,6-Dinitrotoluene	ug/Kg		
2-amino-4,6-Dinitrotoluene	ug/Kg		
2,6-Dinitrotoluene	ug/Kg		
2,4-Dinitrotoluene	ug/Kg		



SENECA ARMY DEPOT  
SEAD-50 ENVIRONMENTAL SITE INSPECTION  
SEDIMENT ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-50 0-0.2 04/19/94 SD50-1 218502 43663	SOIL SEAD-50 0-0.2 04/19/94 SD50-2 218503 43663	SOIL SEAD-50 0-0.2 04/19/94 SD50-3 218504 43663
COMPOUND			
SEMIVOLATILE ORGANICS			
Phenol	ug/Kg	610 U	420 U
bis(2-Chloroethyl) ether	ug/Kg	610 U	420 U
2-Chlorophenol	ug/Kg	610 U	420 U
1,3-Dichlorobenzene	ug/Kg	610 U	420 U
1,4-Dichlorobenzene	ug/Kg	610 U	420 U
1,2-Dichlorobenzene	ug/Kg	610 U	420 U
2-Methylphenol	ug/Kg	610 U	420 U
2,2'-oxybis(1-Chloropropane)	ug/Kg	610 U	420 U
4-Methylphenol	ug/Kg	44 J	420 U
N-Nitroso-di-n-propylamine	ug/Kg	610 U	420 U
Hexachloroethane	ug/Kg	610 U	420 U
Nitrobenzene	ug/Kg	610 U	420 U
Isophorone	ug/Kg	610 U	420 U
2-Nitrophenol	ug/Kg	610 U	420 U
2,4-Dimethylphenol	ug/Kg	610 U	420 U
bis(2-Chloroethoxy) methane	ug/Kg	610 U	420 U
2,4-Dichlorophenol	ug/Kg	610 U	420 U
1,2,4-Trichlorobenzene	ug/Kg	610 U	420 U
Naphthalene	ug/Kg	610 U	420 U
4-Chloroaniline	ug/Kg	610 U	420 U
Hexachlorobutadiene	ug/Kg	610 U	420 U
4-Chloro-3-methylphenol	ug/Kg	610 U	420 U
2-Methylnaphthalene	ug/Kg	610 U	420 U
Hexachlorocyclopentadiene	ug/Kg	610 U	420 U
2,4,6-Trichlorophenol	ug/Kg	610 U	420 U
2,4,5-Trichlorophenol	ug/Kg	1500 U	1700 U
2-Chloronaphthalene	ug/Kg	610 U	420 U
2-Nitroaniline	ug/Kg	1500 U	1700 U
Dimethylphthalate	ug/Kg	610 U	420 U
Acenaphthylene	ug/Kg	610 U	420 U
2,6-Dinitrotoluene	ug/Kg	610 U	420 U
3-Nitroaniline	ug/Kg	1500 U	1700 U
Acenaphthene	ug/Kg	160 J	420 U
2,4-Dinitrophenol	ug/Kg	1500 U	1700 U
4-Nitrophenol	ug/Kg	1500 U	1700 U
Dibenzofuran	ug/Kg	87 J	420 U
2,4-Dinitrotoluene	ug/Kg	610 U	420 U
Diethylphthalate	ug/Kg	610 U	420 U
4-Chlorophenyl-phenyl ether	ug/Kg	610 U	420 U
Fluorene	ug/Kg	310 J	420 U
4-Nitroaniline	ug/Kg	1500 U	1700 U
4,6-Dinitro-2-methylphenol	ug/Kg	1500 U	1700 U
N-Nitrosodiphenylamine	ug/Kg	610 U	420 U
4-Bromophenyl-phenyl ether	ug/Kg	610 U	420 U
Hexachlorobenzene	ug/Kg	610 U	420 U
Pentachlorophenol	ug/Kg	1500 U	1700 U
Phenanthrene	ug/Kg	2700	140 J
Anthracene	ug/Kg	480 J	35 J
Carbazole	ug/Kg	250 J	420 U
Di-n-butylphthalate	ug/Kg	610 U	420 U
Fluoranthene	ug/Kg	3500	310 J
Pyrene	ug/Kg	4000	300 J
Butylbenzylphthalate	ug/Kg	610 U	420 U
3,3'-Dichlorobenzidine	ug/Kg	610 U	420 U
Benzo(a)anthracene	ug/Kg	1400	120 J
Chrysene	ug/Kg	1500	170 J
bis(2-Ethylhexyl)phthalate	ug/Kg	610 U	420 U
Di-n-octylphthalate	ug/Kg	610 U	420 U
Benzo(b)fluoranthene	ug/Kg	1300	160 J
Benzo(k)fluoranthene	ug/Kg	1200	160 J
Benzo(a)pyrene	ug/Kg	1200	160 J
Indeno(1,2,3-cd)pyrene	ug/Kg	770	120 J
Dibenz(a,h)anthracene	ug/Kg	260 J	890 U
Benzo(g,h,i)perylene	ug/Kg	790	120 J

SENECA ARMY DEPOT  
SEAD-50 ENVIRONMENTAL SITE INSPECTION  
SEDIMENT ANALYSIS RESULTS

COMPOUND	MATRIX	SOIL	SOIL	SOIL
	LOCATION	SEAD-50	SEAD-50	SEAD-50
	DEPTH (FEET)	0-0.2	0-0.2	0-0.2
	SAMPLE DATE	04/19/94	04/19/94	04/19/94
	ES ID	SD50-1	SD50-2	SD50-3
	LAB ID	218502	218503	218504
	SDG NUMBER	43863	43863	43863
	UNITS			
<b>PESTICIDES/PCB</b>				
alpha-BHC	ug/Kg	3.1 U	3.5 UJ	2.2 U
beta-BHC	ug/Kg	3.1 U	3.5 UJ	2.2 U
delta-BHC	ug/Kg	3.1 U	3.5 UJ	2.2 U
gamma-BHC (Lindane)	ug/Kg	3.1 U	3.5 UJ	2.2 U
Heptachlor	ug/Kg	3.1 U	3.5 UJ	2.2 U
Aldrin	ug/Kg	2.2 J	3.5 UJ	2.2 U
Heptachlor epoxide	ug/Kg	3.1 U	3.5 UJ	2.2 U
Endosulfan I	ug/Kg	15 J	3 J	2.2 U
Dieldrin	ug/Kg	6.1 U	6.9 UJ	4.2 U
4,4'-DDE	ug/Kg	4.3 J	6.9 UJ	4.2 U
Endrin	ug/Kg	6.1 U	6.9 UJ	4.2 U
Endosulfan II	ug/Kg	6.1 U	6.9 UJ	4.2 U
4,4'-DDD	ug/Kg	6.1 U	6.9 UJ	4.2 U
Endosulfan sulfate	ug/Kg	6.1 U	6.9 UJ	4.2 U
4,4'-DDT	ug/Kg	6.1 U	6.9 UJ	4.2 U
Methoxychlor	ug/Kg	31 U	35 UJ	22 U
Endrin ketone	ug/Kg	6.1 U	6.9 UJ	4.2 U
Endrin aldehyde	ug/Kg	6.1 U	6.9 UJ	4.2 U
alpha-Chlordane	ug/Kg	8 J	3.5 UJ	2.2 U
gamma-Chlordane	ug/Kg	3.1 U	3.5 UJ	2.2 U
Toxaphene	ug/Kg	310 U	350 UJ	220 U
Aroclor-1016	ug/Kg	61 U	69 UJ	42 U
Aroclor-1221	ug/Kg	120 U	140 UJ	85 U
Aroclor-1232	ug/Kg	61 U	69 UJ	42 U
Aroclor-1242	ug/Kg	120	69 UJ	42 U
Aroclor-1248	ug/Kg	61 U	69 UJ	42 U
Aroclor-1254	ug/Kg	61 U	69 UJ	42 U
Aroclor-1260	ug/Kg	56 J	69 UJ	42 U
<b>METALS</b>				
Aluminum	mg/Kg	16300	11000 J	10300
Antimony	mg/Kg	3.3 J	0.55 J	0.24 J
Arsenic	mg/Kg	62.7	27.5 J	4.1
Barium	mg/Kg	108	117 J	62.9
Beryllium	mg/Kg	0.75 J	0.53 J	0.48 J
Cadmium	mg/Kg	0.57 J	0.8 J	0.23 J
Calcium	mg/Kg	7570	14800 J	31400
Chromium	mg/Kg	25.1	23.3 J	15.9
Cobalt	mg/Kg	9.3 J	8.7 J	8.1
Copper	mg/Kg	25.5	18.9 J	19.9
Iron	mg/Kg	26800	20500 J	19700
Lead	mg/Kg	49.6	25.5 J	10.8
Magnesium	mg/Kg	4980	3780 J	6400
Manganese	mg/Kg	284 J	1380 J	390 J
Mercury	mg/Kg	0.05 J R	0.08 J R	0.02 J
Nickel	mg/Kg	29.4	27.4 J	24.4
Potassium	mg/Kg	2530	1680 J	1580
Selenium	mg/Kg	0.48 U	0.43 UJ	0.24 U
Silver	mg/Kg	0.2 U	0.16 UJ	0.1 U
Sodium	mg/Kg	45.1 U	121 J	69.7 J
Thallium	mg/Kg	0.48 U	0.4 UJ	0.23 U
Vanadium	mg/Kg	28.8	20.3 J	17.3
Zinc	mg/Kg	202	243 J	63.9
Cyanide	mg/Kg	0.84 U	1 UJ	0.53 U
<b>OTHER ANALYSES</b>				
Nitrate/Nitrite-Nitrogen	mg/Kg			
Total Petroleum Hydrocarbons	mg/Kg			
Total Solids	%W/W	54.5	48	78.7

**SENECA ARMY DEPOT  
SEAD-50 EXPANDED SITE INSPECTION  
BULK SAMPLE ASBESTOS ANALYSIS RESULTS**

<b>ES Sample ID</b>	<b>Asbestos (% Type)</b>	<b>Other Material</b>
SS50-1	10-15 % Chrysotile	Binder, Quartz, 3-5 % Organic Fiber
SS50-2	Not Detected	Binder, Quartz, 15-25 % Organic Fiber
SS50-3	Not Detected	Binder, Quartz, 10-15 % Organic Fiber
SS50-4	Not Detected	Binder, Quartz, 1-3 % Organic Fiber
SS50-5	Not Detected	Binder, Quartz, 15-25 % Organic Fiber
SS50-6	Not Detected	Binder, Quartz, 15-25 % Organic Fiber
SS50-7	Not Detected	Binder, Quartz, 15-25 % Organic Fiber
SS50-8	Not Detected	Binder, Quartz, 5-10 % Organic Fiber
SS50-9	Not Detected	Binder, Quartz, 35-45 % Organic Fiber
SS50-10	Not Detected	Binder, Quartz, 10-15 % Organic Fiber
SS50-11	Not Detected	Binder, Quartz, 10-15 % Organic Fiber
SS50-12	Not Detected	Binder, Quartz, 5-10 % Organic Fiber
SS50-13	Not Detected	Binder, Quartz, 10-15 % Organic Fiber
SS50-14	Not Detected	Binder, Quartz, 1-3 % Organic Fiber
SS50-15	Not Detected	Binder, Quartz, 5-10 % Organic Fiber
SS50-16	Not Detected	Binder, Quartz, 3-5 % Organic Fiber

**SEAD-58**

SENECA ARMY DEPOT  
SEAD-58 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

COMPOUND	MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER UNITS	SOIL SEAD-58 0-0.2 04/13/94 SS58-1 217689 43535	SOIL SEAD-58 0-0.2 04/13/94 SS58-2 217690 43535	SOIL SEAD-58 0-0.2 04/13/94 SS58-3 217691	SOIL SEAD-58 0-0.2 06/09/94 SB58-1-00 223689 44694	SOIL SEAD-58 2-4 06/09/94 SB58-1-02 223690 44694	SOIL SEAD-58 4-5 06/09/94 SB58-1-03 223691 44694	SOIL SEAD-58 0-0.2 06/09/94 SB58-2-00 223692 44694	SOIL SEAD-58 2-4 06/09/94 SB58-2-02 223693 44694	SOIL SEAD-58 4-6 06/09/94 SB58-2-04 223694 44694	SOIL SEAD-58 0-0.2 06/09/94 SB58-3-00 223695 44694
VOLATILE ORGANICS											
Chloromethane	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
Bromomethane	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
Vinyl Chloride	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
Chloroethane	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
Methylene Chloride	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
Acetone	ug/Kg	280 U	13 U	14 U	11 U	11 U	18 U	11 U	11 U	11 U	12 UJ
Carbon Disulfide	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
1,1-Dichloroethane	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
1,1-Dichloroethane	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
1,2-Dichloroethane (total)	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
Chloroform	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
1,2-Dichloroethane	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
2-Butanone	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
1,1,1-Trichloroethane	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
Carbon Tetrachloride	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
Bromodichloromethane	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
1,2-Dichloropropane	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
cis-1,3-Dichloropropene	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
Trichloroethane	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
Dibromochloromethane	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
1,1,2-Trichloroethane	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
Benzene	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
trans-1,3-Dichloropropene	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
Bromoform	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
4-Methyl-2-Pentanone	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
2-Hexanone	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
Tetrachloroethane	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
1,1,2,2-Tetrachloroethane	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
Toluene	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
Chlorobenzene	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
Ethylbenzene	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
Styrene	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
Xylene (total)	ug/Kg	12 U	13 U	14 U	11 U	11 U	11 U	11 U	11 U	11 U	12 UJ
HERBICIDES											
2,4-D	ug/Kg										
2,4-DB	ug/Kg										
2,4,5-T	ug/Kg										
2,4,5-TP (Silvex)	ug/Kg										
Dalapon	ug/Kg										
Dicamba	ug/Kg										
Dichloroprop	ug/Kg										
Dinoseb	ug/Kg										
MCPA	ug/Kg										
MCPP	ug/Kg										
NITROAROMATICS											
HMX	ug/Kg										
RDX	ug/Kg										
1,3,5-Trinitrobenzene	ug/Kg										
1,3-Dinitrobenzene	ug/Kg										
Tetryl	ug/Kg										
2,4,6-Trinitrotoluene	ug/Kg										
4-amino-2,6-Dinitrotoluene	ug/Kg										
2-amino-4,6-Dinitrotoluene	ug/Kg										
2,6-Dinitrotoluene	ug/Kg										
2,4-Dinitrotoluene	ug/Kg										

SENECA ARMY DEPOT  
SEAD-58 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-58 0-0.2 04/13/94 SS58-1 217689 43535	SOIL SEAD-58 0-0.2 04/13/94 SS58-2 217690 43535	SOIL SEAD-58 0-0.2 04/13/94 SS58-3 217691 43535	SOIL SEAD-58 0-0.2 06/09/94 SB58-1-00 223689 44694	SOIL SEAD-58 2-4 06/09/94 SB58-1-02 223690 44694	SOIL SEAD-58 4-5 06/09/94 SB58-1-03 223691 44694	SOIL SEAD-58 0-0.2 06/09/94 SB58-2-00 223692 44694	SOIL SEAD-58 2-4 06/09/94 SB58-2-02 223693 44694	SOIL SEAD-58 4-6 06/09/94 SB58-2-04 223694 44694	SOIL SEAD-58 0-0.2 06/09/94 SB58-3-00 223695 44694
SEMIVOLATILE ORGANICS										
Phend	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
bis(2-Chloroethyl) ether	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
2-Chlorophend	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
1,3-Dichlorobenzene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
1,4-Dichlorobenzene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
1,2-Dichlorobenzene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
2-Methylphend	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
2,2'-oxybis(1-Chloropropane)	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
4-Methylphend	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
N-Nitroso-d-n-propylamine	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Hexachloroethane	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Nitrobenzene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Isophorone	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
2-Nitrophenol	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
2,4-Dimethylphenol	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
bis(2-Chloroethoxy) methane	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
2,4-Dichlorophenol	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
1,2,4-Trichlorobenzene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Naphthalene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
4-Chloroaniline	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Hexachlorobutadiene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
4-Chloro-3-methylphenol	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
2-Methylnaphthalene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Hexachlorocyclopentadiene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
2,4,6-Trichlorophenol	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
2,4,5-Trichlorophenol	ug/Kg 980 U	1000 U	1100 U	920 U	870 U	830 U	920 U	860 U	860 U	1000 U
2-Chloronaphthalene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
2-Nitroaniline	ug/Kg 980 U	1000 U	1100 U	920 U	870 U	830 U	920 U	860 U	860 U	1000 U
Dimethylphthalate	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Acenaphthylene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
2,6-Dinitrotoluene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
3-Nitroaniline	ug/Kg 980 U	1000 U	1100 U	920 U	870 U	830 U	920 U	860 U	860 U	1000 U
Acenaphthene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
2,4-Dinitrophenol	ug/Kg 980 U	1000 U	1100 U	920 U	870 U	830 U	920 U	860 U	860 U	1000 U
4-Nitrophenol	ug/Kg 980 U	1000 U	1100 U	920 U	870 U	830 U	920 U	860 U	860 U	1000 U
Dibenzofuran	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
2,4-Dinitrotoluene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Diethylphthalate	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
4-Chlorophenyl-phenylether	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Fluorene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
4-Nitroaniline	ug/Kg 980 U	1000 U	1100 U	920 U	870 U	830 U	920 U	860 U	860 U	1000 U
4,6-Dinitro-2-methylphenol	ug/Kg 980 U	1000 U	1100 U	920 U	870 U	830 U	920 U	860 U	860 U	1000 U
N-Nitrosodiphenylamine	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
4-Bromophenyl-phenylether	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Hexachlorobenzene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Pentachlorophend	ug/Kg 980 U	1000 U	1100 U	920 U	870 U	830 U	920 U	860 U	860 U	1000 U
Phenanthrene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Anthracene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Carbazole	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Di-n-butylphthalate	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Fluoranthene	ug/Kg 400 U	430 U	21 J	380 U	360 U	340 U	26 J	350 U	350 U	410 U
Pyrene	ug/Kg 400 U	430 U	22 J	380 U	360 U	340 U	22 J	350 U	350 U	410 U
Butylbenzylphthalate	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
3,3'-Dichlorobenzidine	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Benzofluoranthene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Chrysene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	18 J	350 U	350 U	410 U
bis(2-Ethylhexyl)phthalate	ug/Kg 28 J	25 J	23 J	24 J	79 J	49 J	260 J	52 J	110 J	25 J
Di-n-octylphthalate	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Benzofluoranthene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Benzofluoranthene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Benzofluoranthene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Indeno(1,2,3-cd)pyrene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Dibenz(a,h)anthracene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U
Benzofluoranthene	ug/Kg 400 U	430 U	440 U	380 U	360 U	340 U	380 U	350 U	350 U	410 U

SENECA ARMY DEPOT  
SEAD-58 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

COMPOUND	MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER UNITS	SOIL SEAD-58 0-0.2 04/13/94 SS58-1 217689 43535	SOIL SEAD-58 0-0.2 04/13/94 SS58-2 217690 43535	SOIL SEAD-58 0-0.2 04/13/94 SS58-3 217691 43535	SOIL SEAD-58 0-0.2 06/09/94 SB58-1-00 223689 44694	SOIL SEAD-58 2-4 06/09/94 SB58-1-02 223690 44694	SOIL SEAD-58 4-5 06/09/94 SB58-1-03 223691 44694	SOIL SEAD-58 0-0.2 06/09/94 SB58-2-00 223692 44694	SOIL SEAD-58 2-4 06/09/94 SB58-2-02 223693 44694	SOIL SEAD-58 4-8 06/09/94 SB58-2-04 223694 44694	SOIL SEAD-58 0-0.2 06/09/94 SB58-3-00 223695 44694
<b>PESTICIDES/PCB</b>											
alpha-BHC	ug/Kg	2 U	2.2 U	2.3 U	2 U	1.8 U	1.8 U	2 U	1.8 U	1.8 U	2.1 U
beta-BHC	ug/Kg	2 U	2.2 U	2.3 U	2 U	1.8 U	1.8 U	2 U	1.8 U	1.8 U	2.1 U
delta-BHC	ug/Kg	2 U	2.2 U	2.3 U	2 U	1.8 U	1.8 U	2 U	1.8 U	1.8 U	2.1 U
gamma-BHC (Undane)	ug/Kg	2 U	2.2 U	2.3 U	2 U	1.8 U	1.8 U	2 U	1.8 U	1.8 U	2.1 U
Heptachlor	ug/Kg	2 U	2.2 U	2.3 U	2 U	1.8 U	1.8 U	2 U	1.8 U	1.8 U	2.1 U
Aldrin	ug/Kg	2 U	2.2 U	2.3 U	2 U	1.8 U	1.8 U	2 U	1.8 U	1.8 U	2.1 U
Heptachlor epoxide	ug/Kg	2 U	2.2 U	2.3 U	2 U	1.8 U	1.8 U	2 U	1.8 U	1.8 U	2.1 U
Endosulfan I	ug/Kg	2 U	2.2 U	2.3 U	2 U	1.8 U	1.8 U	2 U	1.8 U	1.8 U	1.3 J
Dieldrin	ug/Kg	4 U	4.3 U	4.4 U	3.8 U	3.6 U	3.4 U	3.8 U	3.5 U	3.5 U	4.1 U
4,4'-DDE	ug/Kg	4 U	4.3 U	4.4 U	3.8 U	3.6 U	3.4 U	3.8 U	3.5 U	3.5 U	4.1 U
Endrin	ug/Kg	4 U	4.3 U	4.4 U	3.8 U	3.6 U	3.4 U	3.8 U	3.5 U	3.5 U	4.1 U
Endosulfan II	ug/Kg	4 U	4.3 U	4.4 U	3.8 U	3.6 U	3.4 U	3.8 U	3.5 U	3.5 U	4.1 U
4,4'-DDD	ug/Kg	4 U	4.3 U	4.4 U	3.8 U	3.6 U	3.4 U	3.8 U	3.5 U	3.5 U	4.1 U
Endosulfan sulfate	ug/Kg	4 U	4.3 U	4.4 U	3.8 U	3.6 U	3.4 U	3.8 U	3.5 U	3.5 U	4.1 U
4,4'-DDT	ug/Kg	4 U	4.3 U	4.4 U	3.8 U	3.6 U	3.4 U	3.8 U	3.5 U	3.5 U	4.1 U
Methoxychlor	ug/Kg	20 U	22 U	23 U	20 U	18 U	18 U	20 U	18 U	18 U	21 U
Endrin ketone	ug/Kg	4 U	4.3 U	4.4 U	3.8 U	3.6 U	3.4 U	3.8 U	3.5 U	3.5 U	4.1 U
Endrin aldehyde	ug/Kg	4 U	4.3 U	4.4 U	3.8 U	3.6 U	3.4 U	3.8 U	3.5 U	3.5 U	4.1 U
alpha-Chlordane	ug/Kg	2 U	2.2 U	2.3 U	2 U	1.8 U	1.8 U	2 U	1.8 U	1.8 U	2.1 U
gamma-Chlordane	ug/Kg	2 U	2.2 U	2.3 U	2 U	1.8 U	1.8 U	2 U	1.8 U	1.8 U	2.1 U
Toxaphene	ug/Kg	200 U	220 U	230 U	200 U	180 U	180 U	200 U	180 U	180 U	210 U
Aroclor-1016	ug/Kg	40 U	43 U	44 U	38 U	36 U	34 U	38 U	35 U	35 U	41 U
Aroclor-1221	ug/Kg	81 U	87 U	89 U	77 U	73 U	70 U	77 U	72 U	72 U	84 U
Aroclor-1232	ug/Kg	40 U	43 U	44 U	38 U	36 U	34 U	38 U	35 U	35 U	41 U
Aroclor-1242	ug/Kg	40 U	43 U	44 U	38 U	36 U	34 U	38 U	35 U	35 U	41 U
Aroclor-1248	ug/Kg	40 U	43 U	44 U	38 U	36 U	34 U	38 U	35 U	35 U	41 U
Aroclor-1254	ug/Kg	40 U	43 U	44 U	38 U	36 U	34 U	38 U	35 U	35 U	41 U
Aroclor-1260	ug/Kg	40 U	43 U	44 U	38 U	36 U	34 U	38 U	35 U	35 U	41 U
<b>METALS</b>											
Aluminum	mg/Kg	12600	14300	6350	17000 J	11400 J	10500 J	9990 J	10400 J	11700 J	13800 J
Antimony	mg/Kg	0.16 UJ	0.15 UJ	0.14 UJ	0.25 UJ	0.24 UJ	0.26 J	0.36 J	0.22 UJ	0.24 UJ	0.22 UJ
Arsenic	mg/Kg	6.8	5	3.8	7	5	4.8	4.5	4.7	4.5	4.8
Barium	mg/Kg	111	73.7	51.1	101 J	78.8 J	71.7 J	63.2 J	72 J	77.8 J	88.3 J
Beryllium	mg/Kg	0.85 J	0.86 J	0.4 J	0.78 J	0.52 J	0.45 J	0.52 J	0.42 J	0.51 J	0.57 J
Cadmium	mg/Kg	0.59 J	0.42 J	0.32 J	0.69 J	0.61 J	0.6 J	0.53 J	0.5 J	0.48 J	0.32 J
Calcium	mg/Kg	66000	63400	79900	31300 J	64600 J	61500 J	55000 J	67100 J	91100 J	3250 J
Chromium	mg/Kg	19.3	21.7	12.8	25.6 J	18.9 J	17.3 J	15.7 J	17.4 J	19.5 J	19.6 J
Cobalt	mg/Kg	13.8	12.3	8.5	15.6 J	10.2 J	12 J	8.9 J	11.4 J	12.2 J	8.7 J
Copper	mg/Kg	28.3	22.8	19	25.7 J	29.4 J	28.4 J	21.2 J	25.8 J	20.4 J	15.1 J
Iron	mg/Kg	26100	26800	16400	30900 J	23900 J	21800 J	19700 J	21900 J	24800 J	23000 J
Lead	mg/Kg	22.5	13	11.1	17.3	11	8.7	14.9	10.7	8	16.3
Magnesium	mg/Kg	13700	10800	19800	9920 J	11800 J	12300 J	9510 J	15800 J	11900 J	3770 J
Manganese	mg/Kg	741 J	577 J	315 J	679 J	437 J	576 J	415 J	414 J	714 J	241 J
Mercury	mg/Kg	0.01 J	0.01 J	0.02 J	0.05 J	0.03 J	0.03 J	0.03 J	0.03 J	0.02 J	0.07 J
Nickel	mg/Kg	36.8	35.3	21.8	39.7 J	33 J	32.2 J	28.5 J	32.6 J	31 J	21.6 J
Potassium	mg/Kg	1440	1630	1450	2640	2150	2040	1510	2030	1610	1500
Selenium	mg/Kg	0.27 U	0.28 J	0.23 U	0.84 J	0.49 U	0.35 U	0.57 J	0.45 U	0.5 U	1
Silver	mg/Kg	0.61 U	0.59 U	0.54 U	0.1 UJ	0.06 UJ	0.06 UJ	0.09 UJ	0.09 UJ	0.09 UJ	0.08 UJ
Sodium	mg/Kg	79.9 J	95.1 J	80.1 J	53.4 J	110 J	117 J	82.9 J	113 J	172 J	18.8 U
Thallium	mg/Kg	0.25 U	0.24 U	0.22 U	0.37 U	0.35 U	0.25 U	0.33 U	0.35 U	0.35 U	0.32 U
Vanadium	mg/Kg	21.5	21.2	15.1	29.5 J	19 J	17.1 J	17.2 J	17.6 J	16.8 J	25.4 J
Zinc	mg/Kg	117	82.1	58.9	100 J	89.3 J	87.8 J	81.8 J	81.8 J	51.9 J	63.8 J
Cyanide	mg/Kg	0.55 U	0.62 U	0.57 U	0.55 U	0.34 U	0.47 U	0.58 U	0.42 U	0.52 U	0.58 U
<b>OTHER ANALYSES</b>											
Nitrate/Nitrite-Nitrogen	mg/Kg										
Total Petroleum Hydrocarbons	mg/Kg										
Total Solids	%W/W	82.7	76.9	74.6	87.2	92.4	95.6	87.1	92.8	93.3	80

SENECA ARMY DEPOT  
SEAD-58 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-58 0-0.2 06/09/94 SB58-3-00RE 223895 44894	SOIL SEAD-58 0.2-1.5 06/09/94 SB58-3-01 223756 44725	SOIL SEAD-58 1.5-3 06/09/94 SB58-3-02 223757 44725	SOIL SEAD-58 1.5-3 06/09/94 SB58-3-02RE 223757 44725	SOIL SEAD-58 2.5 06/10/94 TP58-1-1 223911 44748	SOIL SEAD-58 5 06/11/94 TP58-2-1 223912 44748	SOIL SEAD-58 2 06/11/94 TP58-3-1 223913 44748	SOIL SEAD-58 3 06/11/94 TP58-4 223914 44748	SOIL SEAD-58 5 06/11/94 TP58-5-1 223915 44748	SOIL SEAD-58 2 06/11/94 TP58-6-1 223916 44748	
<b>VOLATILE ORGANICS</b>											
Chloromethane	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
Bromomethane	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
Vinyl Chloride	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
Chloroethane	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
Methylene Chloride	ug/Kg	12 UJ	64	3 J	11 UJ	2 J	12 U	11 U	11 U	11 U	12 U
Acetone	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
Carbon Disulfide	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
1,1-Dichloroethane	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
1,1-Dichloroethane	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
1,2-Dichloroethane (total)	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
Chloroform	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
1,2-Dichloroethane	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
2-Butanone	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
1,1,1-Trichloroethane	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
Carbon Tetrachloride	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
Bromodichloromethane	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
1,2-Dichloropropane	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
cis-1,3-Dichloropropene	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
Trichloroethene	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
Dibromochloromethane	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
1,1,2-Trichloroethane	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
Benzene	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
trans-1,3-Dichloropropene	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
Bromoform	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
4-Methyl-2-Pentanone	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
2-Hexanone	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
Tetrachloroethene	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
1,1,2,2-Tetrachloroethane	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
Toluene	ug/Kg	12 UJ	11 U	11 U R	1 J	13 U	12 U	11 U	11 U	11 U	12 U
Chlorobenzene	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
Ethylbenzene	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
Styrene	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
Xylene (total)	ug/Kg	12 UJ	11 U	11 U R	11 UJ	13 U	12 U	11 U	11 U	11 U	12 U
<b>HERBICIDES</b>											
2,4-D	ug/Kg										
2,4-DB	ug/Kg										
2,4,5-T	ug/Kg										
2,4,5-TP (Silvex)	ug/Kg										
Dalapon	ug/Kg										
Dicamba	ug/Kg										
Dichloroprop	ug/Kg										
Dinoseb	ug/Kg										
MCPA	ug/Kg										
MCPP	ug/Kg										
<b>NITROAROMATICS</b>											
HMX	ug/Kg										
RDX	ug/Kg										
1,3,5-Trinitrobenzene	ug/Kg										
1,3-Dinitrobenzene	ug/Kg										
Tetryl	ug/Kg										
2,4,6-Trinitrotoluene	ug/Kg										
4-amino-2,6-Dinitrotoluene	ug/Kg										
2-amino-4,6-Dinitrotoluene	ug/Kg										
2,6-Dinitrotoluene	ug/Kg										
2,4-Dinitrotoluene	ug/Kg										



GENECA ARMY DEPOT  
SEAD-58 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-58 0-0.2 06/09/94 SB58-3-00RE 223895 44894	SOIL SEAD-58 0.2-1.5 06/09/94 SB58-3-01 223756 44725	SOIL SEAD-58 1.5-3 06/09/94 SB58-3-02 223757 44725	SOIL SEAD-58 1.5-3 06/09/94 SB58-3-02FRE 223757 44725	SOIL SEAD-58 2.5 06/10/94 TP58-1-1 223911 44748	SOIL SEAD-58 5 06/11/94 TP58-2-1 223912 44748	SOIL SEAD-58 2 06/11/94 TP58-3-1 223913 44748	SOIL SEAD-58 3 06/11/94 TP58-4 223914 44748	SOIL SEAD-58 5 06/11/94 TP58-5-1 223915 44748	SOIL SEAD-58 2 06/11/94 TP58-6-1 223916 44748
SEMIVOLATILE ORGANICS										
Phend	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
bis(2-Chloroethyl) ether	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
2-Chlorophend	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
1,3-Dichlorobenzene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
1,4-Dichlorobenzene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
1,2-Dichlorobenzene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
2-Methylphend	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
2,2'-oxybis(1-Chloropropane)	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
4-Methylphend	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
N-Nitroso-d-n-propylamine	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Hexachloroethane	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Nitrobenzene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Isophorone	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
2-Nitrophenol	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
2,4-Dimethylphenol	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
bis(2-Chloroethoxy) methane	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
2,4-Dichlorophenol	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
1,2,4-Trichlorobenzene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Naphthalene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
4-Chloroaniline	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Hexachlorobutadiene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
4-Chloro-3-methylphenol	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
2-Methylnaphthalene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Hexachlorocyclopentadiene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
2,4,6-Trichlorophenol	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
2,4,5-Trichlorophenol	ug/Kg	930 U	870 U	920 U	880 U	890 U	920 U	900 U	900 U	920 U
2-Chloronaphthalene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
2-Nitroaniline	ug/Kg	930 U	870 U	920 U	880 U	890 U	920 U	900 U	900 U	920 U
Dimethylphthalate	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Aceraphthylene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
2,6-Dinitrotoluene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
3-Nitroaniline	ug/Kg	930 U	870 U	920 U	880 U	890 U	920 U	900 U	900 U	920 U
Aceraphthene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
2,4-Dinitrophenol	ug/Kg	930 U	870 U	920 U	880 U	890 U	920 U	900 U	900 U	920 U
4-Nitrophenol	ug/Kg	930 U	870 U	920 U	880 U	890 U	920 U	900 U	900 U	920 U
Dibenzofuran	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
2,4-Dinitrotoluene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Diethylphthalate	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
4-Chlorophenyl-phenylether	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Fluorene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
4-Nitroaniline	ug/Kg	930 U	870 U	920 U	880 U	890 U	920 U	900 U	900 U	920 U
4,6-Dinitro-2-methylphenol	ug/Kg	930 U	870 U	920 U	880 U	890 U	920 U	900 U	900 U	920 U
N-Nitrosodiphenylamine	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
4-Bromophenyl-phenylether	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Hexachlorobenzene	ug/Kg	930 U	870 U	920 U	880 U	890 U	920 U	900 U	900 U	920 U
Pentachlorophend	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Phenanthrene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Anthracene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Carbazole	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Di-n-butylphthalate	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Fluoranthene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Pyrene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Butylbenzylphthalate	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
3,3'-Dichlorobenzidine	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Benzofluoranthene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Chrysene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
bis(2-Ethylhexyl)phthalate	ug/Kg	170 J	30 J		25 J					
Di-n-octylphthalate	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Benzofluoranthene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Benzofluoranthene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Benzofluoranthene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Indeno(1,2,3-cd)pyrene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Dibenz(a,h)anthracene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U
Benzofluoranthene	ug/Kg	380 U	380 U	380 U	380 U	360 U	370 U	380 U	370 U	380 U

SENECA ARMY DEPOT  
SEAD-58 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

COMPOUND	MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER UNITS	SOIL SEAD-58 0-0.2 06/09/94 SB58-3-00RE 223695 44694	SOIL SEAD-58 0.2-1.5 06/09/94 SB58-3-01 223756 44725	SOIL SEAD-58 1.5-3 06/09/94 SB58-3-02 223757 44725	SOIL SEAD-58 1.5-3 06/09/94 SB58-3-02RE 223757 44725	SOIL SEAD-58 2.5 06/10/94 TP58-1-1 223911 44748	SOIL SEAD-58 5 06/11/94 TP58-2-1 223912 44748	SOIL SEAD-58 2 06/11/94 TP58-3-1 223913 44748	SOIL SEAD-58 3 06/11/94 TP58-4 223914 44748	SOIL SEAD-58 5 06/11/94 TP58-5-1 223915 44748	SOIL SEAD-58 2 06/11/94 TP58-6-1 223916 44748
<b>PESTICIDES/PCB</b>											
alpha-BHC	ug/Kg	2 U	1.8 U	2 U	1.9 UJ	1.9 U	2 U	1.9 U	2 U	1.9 U	2 U
beta-BHC	ug/Kg	2 U	1.8 U	2 U	1.9 UJ	1.9 U	2 U	1.9 U	2 U	1.9 U	2 U
delta-BHC	ug/Kg	2 U	1.8 U	2 U	1.9 UJ	1.9 U	2 U	1.9 U	2 U	1.9 U	2 U
gamma-BHC (Lindane)	ug/Kg	2 U	1.8 U	2 U	1.9 UJ	1.9 U	2 U	1.9 U	2 U	1.9 U	2 U
Heptachlor	ug/Kg	2 U	1.8 U	2 U	1.9 UJ	1.9 U	2 U	1.9 U	2 U	1.9 U	2 U
Aldrin	ug/Kg	2 U	1.8 U	2 U	1.9 UJ	1.9 U	2 U	1.9 U	2 U	1.9 U	2 U
Heptachlor epoxide	ug/Kg	2 U	1.8 U	2 U	1.9 UJ	1.9 U	2 U	1.9 U	2 U	1.9 U	2 U
Endosulfan I	ug/Kg	2 U	1.8 U	2 U	1.9 UJ	1.9 U	2 U	1.9 U	2 U	1.9 U	2 U
Dieldrin	ug/Kg	3.8 U	3.8 U	3.8 U	3.8 UJ	3.7 U	3.8 U	3.7 U	3.8 U	3.7 U	3.8 U
4,4'-DDE	ug/Kg	3.8 U	3.8 U	3.8 U	3.8 UJ	3.7 U	3.8 U	3.7 U	3.8 U	3.7 U	3.8 U
Endrin	ug/Kg	3.8 U	3.8 U	3.8 U	3.8 UJ	3.7 U	3.8 U	3.7 U	3.8 U	3.7 U	3.8 U
Endosulfan II	ug/Kg	3.8 U	3.8 U	3.8 U	3.8 UJ	3.7 U	3.8 U	3.7 U	3.8 U	3.7 U	3.8 U
4,4'-DDD	ug/Kg	3.8 U	3.8 U	3.8 U	3.8 UJ	3.7 U	3.8 U	3.7 U	3.8 U	3.7 U	3.8 U
Endosulfan sulfate	ug/Kg	3.8 U	3.8 U	3.8 U	3.8 UJ	3.7 U	3.8 U	3.7 U	3.8 U	3.7 U	3.8 U
4,4'-DDT	ug/Kg	3.8 U	3.8 U	3.8 U	3.8 UJ	3.7 U	3.8 U	3.7 U	3.8 U	3.7 U	3.8 U
Methoxychlor	ug/Kg	20 U	18 U	20 U	19 UJ	19 U	20 U	19 U	20 U	19 U	20 U
Endrin ketone	ug/Kg	3.8 U	3.8 U	3.8 U	3.8 UJ	3.7 U	3.8 U	3.7 U	3.8 U	3.7 U	3.8 U
Endrin aldehyde	ug/Kg	3.8 U	3.8 U	3.8 U	3.8 UJ	3.7 U	3.8 U	3.7 U	3.8 U	3.7 U	3.8 U
alpha-Chlordane	ug/Kg	2 U	1.8 U	2 U	1.9 UJ	1.9 U	2 U	1.9 U	2 U	1.9 U	2 U
gamma-Chlordane	ug/Kg	2 U	1.8 U	2 U	1.9 UJ	1.9 U	2 U	1.9 U	2 U	1.9 U	2 U
Toxaphene	ug/Kg	200 U	180 U	200 U	190 UJ	190 U	200 U	190 U	200 U	190 U	200 U
Aroclor-1016	ug/Kg	38 U	38 U	38 U	38 UJ	37 U	38 U	37 U	38 U	37 U	38 U
Aroclor-1221	ug/Kg	78 U	73 U	77 U	74 UJ	74 U	77 U	75 U	77 U	75 U	77 U
Aroclor-1232	ug/Kg	38 U	38 U	38 U	38 UJ	37 U	38 U	37 U	38 U	37 U	38 U
Aroclor-1242	ug/Kg	38 U	38 U	38 U	38 UJ	37 U	38 U	37 U	38 U	37 U	38 U
Aroclor-1248	ug/Kg	38 U	38 U	38 U	38 UJ	37 U	38 U	37 U	38 U	37 U	38 U
Aroclor-1254	ug/Kg	38 U	38 U	38 U	38 UJ	37 U	38 U	37 U	38 U	37 U	38 U
Aroclor-1260	ug/Kg	38 U	38 U	38 U	38 UJ	37 U	38 U	37 U	38 U	37 U	38 U
<b>METALS</b>											
Aluminum	mg/Kg	19100	14100	9280	8220	9980	10100	8980	14100	8980	14100
Antimony	mg/Kg	0.29 UJ	0.19 UJ	0.17 UJ	0.27 UJ	0.26 UJ	0.18 UJ	0.15 UJ	0.17 UJ	0.15 UJ	0.17 UJ
Arsenic	mg/Kg	3.7	4.9	9	3.6	4.3	3.4	4	4.4	3.4	4.4
Barium	mg/Kg	76.2	62.6	47	79.7	63.1	40.8	49.8	76.3	40.8	76.3
Beryllium	mg/Kg	0.85 J	0.6 J	0.49 J	0.38 J	0.46 J	0.47 J	0.43 J	0.66 J	0.47 J	0.66 J
Cadmium	mg/Kg	0.92 J	0.78	0.5 J	0.38 J	0.37 J	0.39 J	0.42 J	0.54 J	0.39 J	0.54 J
Calcium	mg/Kg	94700	55400	106000	69900	72200	91700	101000	45500	91700	45500
Chromium	mg/Kg	28.6	20.8	18.2 J	13.1 J	18.3 J	18.3 J	14.5 J	22.5 J	18.3 J	22.5 J
Cobalt	mg/Kg	15	11.9	9.2	8.2 J	10.9	8.8	9.7	9.6	8.8	9.7
Copper	mg/Kg	20.7	27.6	24	33.4	25.4	18	20.8	23.7	18	23.7
Iron	mg/Kg	32300	23400	21900	19600	21000	20400	18700	27900	20400	27900
Lead	mg/Kg	4.1	11.2	11.2 R	7.8 R	8.9 R	5.5 R	6.8 R	9.5 R	5.5 R	9.5 R
Magnesium	mg/Kg	9580	11800	34100	20900	12900	7740	12900	9680	7740	9680
Manganese	mg/Kg	872	820	487	959	498	451	588	438	451	438
Mercury	mg/Kg	0.04 J	0.03 J	0.07 J	0.01 U	0.02 J	0.01 J	0.01 J	0.02 J	0.01 J	0.02 J
Nickel	mg/Kg	44.8	33.5	25.4	33	31.2	25.7	26.8	35.1	25.7	35.1
Potassium	mg/Kg	3220 J	3230 J	1370 J	1420 J	1900 J	1480 J	1500 J	1810 J	1480 J	1810 J
Selenium	mg/Kg	0.8 U	0.39 U	0.36 U	0.55 U	0.54 U	0.34 U	0.32 U	0.38 U	0.34 U	0.38 U
Silver	mg/Kg	0.11 U	0.07 U	0.07 U	0.1 U	0.1 U	0.08 U	0.06 U	0.07 U	0.08 U	0.07 U
Sodium	mg/Kg	189 J	96.5 J	97.6 J	94.6 J	118 J	108 J	115 J	73.2 J	108 J	73.2 J
Thallium	mg/Kg	0.42 U	0.28 U	0.26 U	0.39 U	0.38 U	0.24 U	0.23 U	0.26 U	0.24 U	0.26 U
Vanadium	mg/Kg	26.1	24.3	19.5	15.8	16.7	15.3	14.5	22.9	15.3	22.9
Zinc	mg/Kg	78.3	72.2	82.7	104	74.9	82.4	64.8	110	82.4	110
Cyanide	mg/Kg	0.54 U	0.5 U	0.54 U	0.5 U	0.47 U	0.49 U	0.5 U	0.5 U	0.49 U	0.5 U
<b>OTHER ANALYSES</b>											
Nitrate/Nitrite-Nitrogen	mg/Kg										
Total Petroleum Hydrocarbons	mg/Kg										
Total Solids	%W/W	88.2	92	87	91.3	90.5	87.2	88.6	87.4	88.6	87.4

SENECA ARMY DEPOT  
SEAD-58 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

COMPOUND	MATRIX	WATER	WATER	WATER	WATER
	LOCATION	SEAD-58	SEAD-58	SEAD-58	SEAD-58
	SAMPLE DATE	07/11/94	07/11/94	07/12/94	07/11/94
	ES ID	MW58-1	MW58-2	MW58-3	MW58-4
	LAB ID	226682	226683	226795	226684
	SDG NUMBER	45282	45282	45332	45282
	UNITS				
VOLATILE ORGANICS					
Chloromethane	ug/L	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U
1,2-Dichloroethane (total)	ug/L	10 U	10 U	10 U	10 U
Chloroform	ug/L	10 U	10 U	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	10 U	10 U	10 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	10 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	10 U	10 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U
Trichloroethene	ug/L	10 U	10 U	10 U	10 U
Dibromochloromethane	ug/L	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	10 U	10 U	10 U
Benzene	ug/L	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U
Bromoform	ug/L	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 U	10 U	10 U
Toluene	ug/L	10 U	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	10 U	10 U	10 U	10 U
Styrene	ug/L	10 U	10 U	10 U	10 U
Xylene (total)	ug/L	10 U	10 U	10 U	10 U
HERBICIDES					
2,4-D	ug/L				
2,4-DB	ug/L				
2,4,5-T	ug/L				
2,4,5-TP (Silvex)	ug/L				
Dalapon	ug/L				
Dicamba	ug/L				
Dichloroprop	ug/L				
Dinoseb	ug/L				
MCPA	ug/L				
MCPP	ug/L				
NITROAROMATICS					
HMX	ug/L				
RDX	ug/L				
1,3,5-Trinitrobenzene	ug/L				
1,3-Dinitrobenzene	ug/L				
Tetryl	ug/L				
2,4,6-Trinitrotoluene	ug/L				
4-amino-2,6-Dinitrotoluene	ug/L				
2-amino-4,6-Dinitrotoluene	ug/L				
2,6-Dinitrotoluene	ug/L				
2,4-Dinitrotoluene	ug/L				

SENECA ARMY DEPOT  
SEAD-58 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

MATRIX LOCATION	WATER	WATER	WATER	WATER
SAMPLE DATE	SEAD-58	SEAD-58	SEAD-58	SEAD-58
ES ID	07/11/94	07/11/94	07/12/94	07/11/94
LAB ID	MW58-1	MW58-2	MW58-3	MW58-4
SDG NUMBER	226662	226663	226795	226664
UNITS	45282	45282	45332	45282
SEMIVOLATILE ORGANICS				
Phenol	ug/L	10 U	10 U	10 U
bis(2-Chloroethyl) ether	ug/L	10 U	10 U	10 U
2-Chlorophenol	ug/L	10 U	10 U	10 U
1,3-Dichlorobenzene	ug/L	10 U	10 U	10 U
1,4-Dichlorobenzene	ug/L	10 U	10 U	10 U
1,2-Dichlorobenzene	ug/L	10 U	10 U	10 U
2-Methylphenol	ug/L	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	ug/L	10 U	10 U	10 U
4-Methylphenol	ug/L	10 U	10 U	10 U
N-Nitroso-d-n-propylamine	ug/L	10 U	10 U	10 U
Hexachloroethane	ug/L	10 U	10 U	10 U
Nitrobenzene	ug/L	10 U	10 U	10 U
Isophorone	ug/L	10 U	10 U	10 U
2-Nitrophenol	ug/L	10 U	10 U	10 U
2,4-Dimethylphenol	ug/L	10 U	10 U	10 U
bis(2-Chloroethoxy) methane	ug/L	10 U	10 U	10 U
2,4-Dichlorophenol	ug/L	10 U	10 U	10 U
1,2,4-Trichlorobenzene	ug/L	10 U	10 U	10 U
Naphthalene	ug/L	10 U	10 U	10 U
4-Chloroaniline	ug/L	10 U	10 U	10 U
Hexachlorobutadiene	ug/L	10 U	10 U	10 U
4-Chloro-3-methylphenol	ug/L	10 U	10 U	10 U
2-Methylnaphthalene	ug/L	10 U	10 U	10 U
Hexachlorocyclopentadiene	ug/L	10 U	10 U	10 U
2,4,6-Trichlorophenol	ug/L	10 U	10 U	10 U
2,4,5-Trichlorophenol	ug/L	25 U	25 U	25 U
2-Chloronaphthalene	ug/L	10 U	10 U	10 U
2-Nitroaniline	ug/L	25 U	25 U	25 U
Dimethylphthalate	ug/L	10 U	10 U	10 U
Acenaphthylene	ug/L	10 U	10 U	10 U
2,6-Dinitrotoluene	ug/L	10 U	10 U	10 U
3-Nitroaniline	ug/L	25 U	25 U	25 U
Acenaphthene	ug/L	10 U	10 U	10 U
2,4-Dinitrophenol	ug/L	25 U	25 U	25 U
4-Nitrophenol	ug/L	25 U	25 U	25 U
Dibenzofuran	ug/L	10 U	10 U	10 U
2,4-Dinitrotoluene	ug/L	10 U	10 U	10 U
Diethylphthalate	ug/L	10 U	10 U	10 U
4-Chlorophenyl-phenylether	ug/L	10 U	10 U	10 U
Fluorene	ug/L	10 U	10 U	10 U
4-Nitroaniline	ug/L	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	ug/L	25 U	25 U	25 U
N-Nitrosodiphenylamine	ug/L	10 U	10 U	10 U
4-Bromophenyl-phenylether	ug/L	10 U	10 U	10 U
Hexachlorobenzene	ug/L	10 U	10 U	10 U
Pentachlorophenol	ug/L	25 U	25 U	25 U
Phenanthrene	ug/L	10 U	10 U	10 U
Anthracene	ug/L	10 U	10 U	10 U
Carbazole	ug/L	10 U	10 U	10 U
Di-n-butylphthalate	ug/L	10 U	10 U	10 U
Fluoranthene	ug/L	10 U	10 U	10 U
Pyrene	ug/L	10 U	10 U	10 U
Butylbenzylphthalate	ug/L	10 U	10 U	10 U
3,3'-Dichlorobenzidine	ug/L	10 U	10 U	10 U
Benzo(a)anthracene	ug/L	10 U	10 U	10 U
Chrysene	ug/L	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	ug/L	10 U	11 U	10 U
Di-n-octylphthalate	ug/L	10 U	10 U	10 U
Benzo(b)fluoranthene	ug/L	10 U	10 U	10 U
Benzo(k)fluoranthene	ug/L	10 U	10 U	10 U
Benzo(a)pyrene	ug/L	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	ug/L	10 U	10 U	10 U
Dibenz(a,h)anthracene	ug/L	10 U	10 U	10 U
Benzo(g,h,i)perylene	ug/L	10 U	10 U	10 U

SENECA ARMY DEPOT  
SEAD-58 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

MATRIX LOCATION	WATER SEAD-58	WATER SEAD-58	WATER SEAD-58	WATER SEAD-58	
SAMPLE DATE	07/11/94	07/11/94	07/12/94	07/11/94	
ES ID	MW58-1	MW58-2	MW58-3	MW58-4	
LAB ID	226662	226663	226795	226664	
SDG NUMBER	45282	45282	45332	45282	
COMPOUND	UNITS				
<b>PESTICIDES/PCB</b>					
alpha-BHC	ug/L	0.054 U	0.054 U	0.051 U	0.06 U
beta-BHC	ug/L	0.054 U	0.054 U	0.051 U	0.06 U
delta-BHC	ug/L	0.054 U	0.054 U	0.051 U	0.06 U
gamma-BHC (Lindane)	ug/L	0.054 U	0.054 U	0.051 U	0.06 U
Heptachlor	ug/L	0.054 U	0.054 U	0.051 U	0.06 U
Aldrin	ug/L	0.054 U	0.054 U	0.051 U	0.06 U
Heptachlor epoxide	ug/L	0.054 U	0.054 U	0.051 U	0.06 U
Endosulfan I	ug/L	0.054 U	0.054 U	0.051 U	0.06 U
Dieldrin	ug/L	0.11 U	0.11 U	0.1 U	0.12 U
4,4'-DDE	ug/L	0.11 U	0.11 U	0.1 U	0.12 U
Endrin	ug/L	0.11 U	0.11 U	0.1 U	0.12 U
Endosulfan II	ug/L	0.11 U	0.11 U	0.1 U	0.12 U
4,4'-DDD	ug/L	0.11 U	0.11 U	0.1 U	0.12 U
Endosulfan sulfate	ug/L	0.11 U	0.11 U	0.1 U	0.12 U
4,4'-DDT	ug/L	0.11 U	0.11 U	0.1 U	0.12 U
Methoxychlor	ug/L	0.54 U	0.54 U	0.51 U	0.6 U
Endrin ketone	ug/L	0.11 U	0.11 U	0.1 U	0.12 U
Endrin aldehyde	ug/L	0.11 U	0.11 U	0.1 U	0.12 U
alpha-Chlordane	ug/L	0.054 U	0.054 U	0.051 U	0.06 U
gamma-Chlordane	ug/L	0.054 U	0.054 U	0.051 U	0.06 U
Toxaphene	ug/L	5.4 U	5.4 U	5.1 U	6 U
Aroclor-1016	ug/L	1.1 U	1.1 U	1 U	1.2 U
Aroclor-1221	ug/L	2.2 U	2.2 U	2 U	2.4 U
Aroclor-1232	ug/L	1.1 U	1.1 U	1 U	1.2 U
Aroclor-1242	ug/L	1.1 U	1.1 U	1 U	1.2 U
Aroclor-1248	ug/L	1.1 U	1.1 U	1 U	1.2 U
Aroclor-1254	ug/L	1.1 U	1.1 U	1 U	1.2 U
Aroclor-1260	ug/L	1.1 U	1.1 U	1 U	1.2 U
<b>METALS</b>					
Aluminum	ug/L	440	262	7180 J	2650
Antimony	ug/L	1.3 U	1.3 U	1.3 U	1.3 U
Arsenic	ug/L	2 U	2 U	2 U	2.1 J
Barium	ug/L	71.9 J	208	235	111 J
Beryllium	ug/L	0.1 U	0.1 U	0.41 J	0.2 J
Cadmium	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Calcium	ug/L	113000	104000	171000	162000
Chromium	ug/L	0.82 J	0.85 J	12.3	4 J
Cobalt	ug/L	0.64 J	0.5 U	9.2 J	2.9 J
Copper	ug/L	1.5 J	1.9 J	9 J	4.3 J
Iron	ug/L	678	580	14500	5310
Lead	ug/L	0.89 U	4.4	3	1.2 J
Magnesium	ug/L	17300	21400	29800	22000
Manganese	ug/L	84	86.2	677	406
Mercury	ug/L	0.04 U	0.04 U	0.04 J	0.04 U
Nickel	ug/L	1.6 J	2.2 J	20.5 J	8.1 J
Potassium	ug/L	1480 J	2980 J	8150 J	2080 J
Selenium	ug/L	2.7 U	2.7 U	2.7 U	2.7 U
Silver	ug/L	0.5 U	0.5 U	0.5 U	0.5 U
Sodium	ug/L	4180 J	5550	7180	4810 J
Thallium	ug/L	1.9 U	1.9 U	1.9 U	1.9 U
Vanadium	ug/L	0.81 J	0.77 J	10.6 J	4.1 J
Zinc	ug/L	7.1 J	18.8 J	37.2	14.6 J
Cyanide	ug/L	5 U	5 U	5 U	5 U
<b>OTHER ANALYSES</b>					
Nitrate/Nitrite - Nitrogen	mg/L				
Total Petroleum Hydrocarbons	mg/L				
pH	Standard Units	7.5	7.9	7.3	7.5
Conductivity	umhos/cm	445	500	480	475
Temperature	°C	13.1	16.1	15	13.3
Turbidity	NTU	49	2.8	1092	812

SENECA ARMY DEPOT  
SEAD-58 ENVIRONMENTAL SITE INSPECTION  
SURFACE WATER ANALYSIS RESULTS

COMPOUND	MATRIX	WATER	WATER	WATER	WATER	WATER	WATER
	LOCATION SAMPLE DATE ES ID LAB ID SDG NUMBER	SEAD-58 04/17/94 SW58-1 218090 43549	SEAD-58 04/17/94 SW58-2 218091 43549	SEAD-58 04/17/94 SW58-3 218092 43549	SEAD-58 04/17/94 SW58-4 218093 43549	SEAD-58 04/17/94 SW58-5 218094 43549	SEAD-58 04/17/94 SW58-6 218095 43549
<b>VOLATILE ORGANICS</b>							
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
<b>HERBICIDES</b>							
2,4-D	ug/L						
2,4-DB	ug/L						
2,4,5-T	ug/L						
2,4,5-TP (Silvex)	ug/L						
Dalapon	ug/L						
Dicamba	ug/L						
Dichloroprop	ug/L						
Dinoseb	ug/L						
MCPA	ug/L						
MCPP	ug/L						
<b>NITROAROMATICS</b>							
HMX	ug/L						
RDX	ug/L						
1,3,5-Trinitrobenzene	ug/L						
1,3-Dinitrobenzene	ug/L						
Tetryl	ug/L						
2,4,6-Trinitrotoluene	ug/L						
4-amino-2,6-Dinitrotoluene	ug/L						
2-amino-4,6-Dinitrotoluene	ug/L						
2,6-Dinitrotoluene	ug/L						
2,4-Dinitrotoluene	ug/L						

SENECA ARMY DEPOT  
SEAD-58 ENVIRONMENTAL SITE INSPECTION  
SURFACE WATER ANALYSIS RESULTS

MATRIX LOCATION	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DATE	SEAD-58	SEAD-58	SEAD-58	SEAD-58	SEAD-58	SEAD-58
ES ID	04/17/94	04/17/94	04/17/94	04/17/94	04/17/94	04/17/94
LAB ID	SW58-1	SW58-2	SW58-3	SW58-4	SW58-5	SW58-6
SDG NUMBER	218090	218091	218092	218093	218094	218095
UNITS	43549	43549	43549	43549	43549	43549
SEMIVOLATILE ORGANICS						
Phenol	ug/L	12 U	52 U	11 U	10 U	11 U
bis(2-Chloroethyl) ether	ug/L	12 U	52 U	11 U	10 U	11 U
2-Chlorophenol	ug/L	12 U	52 U	11 U	10 U	11 U
1,3-Dichlorobenzene	ug/L	12 U	52 U	11 U	10 U	11 U
1,4-Dichlorobenzene	ug/L	12 U	52 U	11 U	10 U	11 U
1,2-Dichlorobenzene	ug/L	12 U	52 U	11 U	10 U	11 U
2-Methylphenol	ug/L	12 U	52 U	11 U	10 U	11 U
2,2'-oxybis(1-Chloropropane)	ug/L	12 U	52 U	11 U	10 U	11 U
4-Methylphenol	ug/L	12 U	52 U	11 U	10 U	11 U
N-Nitroso-dl-n-propylamine	ug/L	12 U	52 U	11 U	10 U	11 U
Hexachloroethane	ug/L	12 U	52 U	11 U	10 U	11 U
Nitrobenzene	ug/L	12 U	52 U	11 U	10 U	11 U
Isophorone	ug/L	12 U	52 U	11 U	10 U	11 U
2-Nitrophenol	ug/L	12 U	52 U	11 U	10 U	11 U
2,4-Dimethylphenol	ug/L	12 U	52 U	11 U	10 U	11 U
bis(2-Chloroethoxy) methane	ug/L	12 U	52 U	11 U	10 U	11 U
2,4-Dichlorophenol	ug/L	12 U	52 U	11 U	10 U	11 U
1,2,4-Trichlorobenzene	ug/L	12 U	52 U	11 U	10 U	11 U
Naphthalene	ug/L	12 U	52 U	11 U	10 U	11 U
4-Chloroaniline	ug/L	12 U	52 U	11 U	10 U	11 U
Hexachlorobutadiene	ug/L	12 U	52 U	11 U	10 U	11 U
4-Chloro-3-methylphenol	ug/L	12 U	52 U	11 U	10 U	11 U
2-Methylnaphthalene	ug/L	12 U	52 U	11 U	10 U	11 U
Hexachlorocyclopentadiene	ug/L	12 U	52 U	11 U	10 U	11 U
2,4,6-Trichlorophenol	ug/L	31 U	130 U	27 U	26 U	29 U
2,4,5-Trichlorophenol	ug/L	12 U	52 U	11 U	10 U	11 U
2-Chloronaphthalene	ug/L	31 U	130 U	27 U	26 U	29 U
2-Nitroaniline	ug/L	12 U	52 U	11 U	10 U	11 U
Dimethylphthalate	ug/L	12 U	52 U	11 U	10 U	11 U
Acenaphthylene	ug/L	12 U	52 U	11 U	10 U	11 U
2,6-Dinitrotoluene	ug/L	12 U	52 U	11 U	10 U	11 U
3-Nitroaniline	ug/L	31 U	130 U	27 U	26 U	29 U
Acenaphthene	ug/L	12 U	52 U	11 U	10 U	11 U
2,4-Dinitrophenol	ug/L	31 U	130 U	27 U	26 U	29 U
4-Nitrophenol	ug/L	31 U	130 U	27 U	26 U	29 U
Dibenzofuran	ug/L	12 U	52 U	11 U	10 U	11 U
2,4-Dinitrotoluene	ug/L	12 U	52 U	11 U	10 U	11 U
Diethylphthalate	ug/L	12 U	52 U	11 U	10 U	11 U
4-Chlorophenyl-phenylether	ug/L	12 U	52 U	11 U	10 U	11 U
Fluorene	ug/L	12 U	52 U	11 U	10 U	11 U
4-Nitroaniline	ug/L	31 U	130 U	27 U	26 U	29 U
4,6-Dinitro-2-methylphenol	ug/L	12 U	52 U	11 U	10 U	11 U
N-Nitrosodiphenylamine	ug/L	12 U	52 U	11 U	10 U	11 U
4-Bromophenyl-phenylether	ug/L	12 U	52 U	11 U	10 U	11 U
Hexachlorobenzene	ug/L	12 U	52 U	11 U	10 U	11 U
Pentachlorophenol	ug/L	31 U	130 U	27 U	26 U	29 U
Phenanthrene	ug/L	12 U	52 U	11 U	10 U	11 U
Anthracene	ug/L	12 U	52 U	11 U	10 U	11 U
Carbazole	ug/L	12 U	52 U	11 U	10 U	11 U
Di-n-butylphthalate	ug/L	12 U	52 U	11 U	10 U	11 U
Fluoranthene	ug/L	12 U	52 U	11 U	10 U	11 U
Pyrene	ug/L	12 U	52 U	11 U	10 U	11 U
Butylbenzylphthalate	ug/L	12 U	52 U	11 U	10 U	11 U
3,3'-Dichlorobenzidine	ug/L	12 U	52 U	11 U	10 U	11 U
Benzo(a)anthracene	ug/L	12 U	52 U	11 U	10 U	11 U
Chrysene	ug/L	12 U	52 U	11 U	10 U	11 U
bis(2-Ethylhexyl)phthalate	ug/L	12 U	52 U	11 U	10 U	23 U
Di-n-octylphthalate	ug/L	12 U	52 U	11 U	10 U	11 U
Benzo(b)fluoranthene	ug/L	12 U	52 U	11 U	10 U	11 U
Benzo(k)fluoranthene	ug/L	12 U	52 U	11 U	10 U	11 U
Benzo(a)pyrene	ug/L	12 U	52 U	11 U	10 U	11 U
Indeno(1,2,3-cd)pyrene	ug/L	12 U	52 U	11 U	10 U	11 U
Dibenz(a,h)anthracene	ug/L	12 U	52 U	11 U	10 U	11 U
Benzo(g,h,i)perylene	ug/L	12 U	52 U	11 U	10 U	11 U

SENECA ARMY DEPOT  
SEAD-58 ENVIRONMENTAL SITE INSPECTION  
SURFACE WATER ANALYSIS RESULTS

MATRIX LOCATION	WATER SEAD-58	WATER SEAD-58	WATER SEAD-58	WATER SEAD-58	WATER SEAD-58	WATER SEAD-58
SAMPLE DATE	04/17/94	04/17/94	04/17/94	04/17/94	04/17/94	04/17/94
ES ID	SW58-1	SW58-2	SW58-3	SW58-4	SW58-5	SW58-6
LAB ID	218090	218091	218092	218093	218094	218095
SDG NUMBER	43549	43549	43549	43549	43549	43549
COMPOUND	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS
<b>PESTICIDES/PCB</b>						
alpha-BHC	ug/L	0.06 U	0.057 U	0.054 U	0.054 U	0.052 U
beta-BHC	ug/L	0.06 U	0.057 U	0.054 U	0.054 U	0.052 U
delta-BHC	ug/L	0.06 U	0.057 U	0.054 U	0.054 U	0.052 U
gamma-BHC (Lindene)	ug/L	0.06 U	0.057 U	0.054 U	0.054 U	0.052 U
Heptachlor	ug/L	0.06 U	0.057 U	0.054 U	0.054 U	0.052 U
Aldrin	ug/L	0.06 U	0.057 U	0.054 U	0.054 U	0.052 U
Heptachlor epoxide	ug/L	0.06 U	0.057 U	0.054 U	0.054 U	0.052 U
Endosulfan I	ug/L	0.06 U	0.057 U	0.054 U	0.054 U	0.052 U
Dieldrin	ug/L	0.12 U	0.11 U	0.11 U	0.11 U	0.1 U
4,4'-DDE	ug/L	0.12 U	0.11 U	0.11 U	0.11 U	0.1 U
Endrin	ug/L	0.12 U	0.11 U	0.11 U	0.11 U	0.1 U
Endosulfan II	ug/L	0.12 U	0.11 U	0.11 U	0.11 U	0.1 U
4,4'-DDD	ug/L	0.12 U	0.11 U	0.11 U	0.11 U	0.1 U
Endosulfan sulfate	ug/L	0.12 U	0.11 U	0.11 U	0.11 U	0.1 U
4,4'-DDT	ug/L	0.12 U	0.11 U	0.11 U	0.11 U	0.1 U
Methoxychlor	ug/L	0.8 U	0.57 U	0.54 U	0.54 U	0.52 U
Endrin ketone	ug/L	0.12 U	0.11 U	0.11 U	0.11 U	0.1 U
Endrin aldehyde	ug/L	0.12 U	0.11 U	0.11 U	0.11 U	0.1 U
alpha-Chlordane	ug/L	0.06 U	0.057 U	0.054 U	0.054 U	0.052 U
gamma-Chlordane	ug/L	0.06 U	0.057 U	0.054 U	0.054 U	0.052 U
Toxaphene	ug/L	6 U	5.7 U	5.4 U	5.4 U	5.2 U
Aroclor-1016	ug/L	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U
Aroclor-1221	ug/L	2.4 U	2.3 U	2.2 U	2.1 U	2.1 U
Aroclor-1232	ug/L	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U
Aroclor-1242	ug/L	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U
Aroclor-1248	ug/L	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U
Aroclor-1254	ug/L	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U
Aroclor-1280	ug/L	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U
<b>METALS</b>						
Aluminum	ug/L	73.5 J	102 J	135 J	421	127 J
Antimony	ug/L	1 U	0.99 U	1 U	0.99 U	0.99 U
Arsenic	ug/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Barium	ug/L	35.2 J	35 J	36.5 J	28.1 J	26.5 J
Beryllium	ug/L	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U
Cadmium	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Calcium	ug/L	82000	80800	74800	55800	53500
Chromium	ug/L	0.4 U	0.51 J	0.4 U	0.75 J	0.88 J
Cobalt	ug/L	0.6 U	0.59 U	0.6 U	0.59 U	0.59 U
Copper	ug/L	0.83 J	0.92 J	1.3 J	3.8 J	1.9 J
Iron	ug/L	74.5 J	127	198	588	168
Lead	ug/L	0.8 U	0.79 U	0.8 U	1.1 J	0.79 U
Magnesium	ug/L	11700	11500	11100	8500	8260
Manganese	ug/L	1.8 J	2.5 J	52.8	74.4	7.3 J
Mercury	ug/L	0.04 J	0.04 J	0.05 J	0.06 J	0.03 U
Nickel	ug/L	1.1 J	0.59 U	0.8 U	2.6 J	1.5 J
Potassium	ug/L	1380 J	1440 J	1520 J	2090 J	2610 J
Selenium	ug/L	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Silver	ug/L	0.7 U	0.69 U	0.7 U	0.69 U	0.69 U
Sodium	ug/L	4970 J	4880 J	13400	3070 J	1900 J
Thallium	ug/L	1.6 U	1.6 U	1.9 J	2.7 J	1.6 U
Vanadium	ug/L	0.7 U	0.69 U	0.7 U	0.9 J	0.69 U
Zinc	ug/L	3 J	2.5 J	2.2 J	10.6 J	4.8 J
Cyanide	ug/L	5 U	5 U	5 U	5 U	5 U
<b>OTHER ANALYSES</b>						
Nitrate/Nitrite - Nitrogen	mg/L					
Total Petroleum Hydrocarbons	mg/L					
pH	Standard Units	8.6	8.8	8.2	8.6	8.8
Conductivity	umhos/cm	320	325	285	225	215
Temperature	°C	10	11	12	10	9
Turbidity	NTU	1.1	1.8	1.6	2.4	1.9



SENECA ARMY DEPOT  
SEAD-58 ENVIRONMENTAL SITE INSPECTION  
SEDIMENT ANALYSIS RESULTS

MATRIX LOCATION	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
DEPTH (FEET)	SEAD-58	SEAD-58	SEAD-58	SEAD-58	SEAD-58	SEAD-58
SAMPLE DATE	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2
ES ID	04/17/94	04/17/94	04/17/94	04/17/94	04/17/94	04/17/94
LAB ID	SD58-1	SD58-2	SD58-3	SD58-4	SD58-5	SD58-6
SDG NUMBER	218079	218080	218081	218082	218083	218084
UNITS	43543	43543	43543	43543	43543	43543
<b>VOLATILE ORGANICS</b>						
Chloromethane	ug/Kg	18 U	23 U	20 U	20 U	19 U
Bromomethane	ug/Kg	18 U	23 U	20 U	20 U	19 U
Vinyl Chloride	ug/Kg	18 U	23 U	20 U	20 U	19 U
Chloroethane	ug/Kg	18 U	23 U	20 U	20 U	19 U
Methylene Chloride	ug/Kg	18 U	23 U	20 U	20 U	19 U
Acetone	ug/Kg	23 U	68 U	34 U	34 U	50 U
Carbon Disulfide	ug/Kg	18 U	23 U	20 U	20 U	19 U
1,1-Dichloroethene	ug/Kg	18 U	23 U	20 U	20 U	19 U
1,1-Dichloroethane	ug/Kg	18 U	23 U	20 U	20 U	19 U
1,2-Dichloroethene (total)	ug/Kg	18 U	23 U	20 U	20 U	19 U
Chloroform	ug/Kg	18 U	23 U	20 U	20 U	19 U
1,2-Dichloroethane	ug/Kg	18 U	23 U	20 U	20 U	19 U
2-Butanone	ug/Kg	18 U	23 U	20 U	20 U	19 U
1,1,1-Trichloroethane	ug/Kg	18 U	23 U	20 U	20 U	19 U
Carbon Tetrachloride	ug/Kg	18 U	23 U	20 U	20 U	19 U
Bromodichloromethane	ug/Kg	18 U	23 U	20 U	20 U	19 U
1,2-Dichloropropane	ug/Kg	18 U	23 U	20 U	20 U	19 U
cis-1,3-Dichloropropene	ug/Kg	18 U	23 U	20 U	20 U	19 U
Trichloroethene	ug/Kg	18 U	23 U	20 U	20 U	19 U
Dibromochloromethane	ug/Kg	18 U	23 U	20 U	20 U	19 U
1,1,2-Trichloroethane	ug/Kg	18 U	23 U	20 U	20 U	19 U
Benzene	ug/Kg	18 U	23 U	20 U	20 U	19 U
trans-1,3-Dichloropropene	ug/Kg	18 U	23 U	20 U	20 U	19 U
Bromoform	ug/Kg	18 U	23 U	20 U	20 U	19 U
4-Methyl-2-Pentanone	ug/Kg	18 U	23 U	20 U	20 U	19 U
2-Hexanone	ug/Kg	18 U	23 U	20 U	20 U	19 U
Tetrachloroethene	ug/Kg	18 U	23 U	20 U	20 U	19 U
1,1,2,2-Tetrachloroethane	ug/Kg	18 U	23 U	20 U	20 U	19 U
Toluene	ug/Kg	18 U	23 U	20 U	20 U	19 U
Chlorobenzene	ug/Kg	18 U	23 U	20 U	20 U	19 U
Ethylbenzene	ug/Kg	18 U	23 U	20 U	20 U	19 U
Styrene	ug/Kg	18 U	23 U	20 U	20 U	19 U
Xylene (total)	ug/Kg	18 U	23 U	20 U	20 U	19 U
<b>HERBICIDES</b>						
2,4-D	ug/Kg					
2,4-DB	ug/Kg					
2,4,5-T	ug/Kg					
2,4,5-TP (Silvex)	ug/Kg					
Dalapon	ug/Kg					
Dicamba	ug/Kg					
Dichloroprop	ug/Kg					
Dinoseb	ug/Kg					
MCPA	ug/Kg					
MCPP	ug/Kg					
<b>NITROAROMATICS</b>						
HMX	ug/Kg					
RDX	ug/Kg					
1,3,5-Trinitrobenzene	ug/Kg					
1,3-Dinitrobenzene	ug/Kg					
Tetryl	ug/Kg					
2,4,6-Trinitrotoluene	ug/Kg					
4-amino-2,6-Dinitrotoluene	ug/Kg					
2-amino-4,6-Dinitrotoluene	ug/Kg					
2,6-Dinitrotoluene	ug/Kg					
2,4-Dinitrotoluene	ug/Kg					

SENECA ARMY DEPOT  
SEAD-58 ENVIRONMENTAL SITE INSPECTION  
SEDIMENT ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-58 0-0.2 04/17/94 SD58-1 218079 43543	SOIL SEAD-58 0-0.2 04/17/94 SD58-2 218080 43543	SOIL SEAD-58 0-0.2 04/17/94 SD58-3 218081 43543	SOIL SEAD-58 0-0.2 04/17/94 SD58-4 218082 43543	SOIL SEAD-58 0-0.2 04/17/94 SD58-5 218083 43543	SOIL SEAD-58 0-0.2 04/17/94 SD58-6 218084 43543	
SEMIVOLATILE ORGANICS							
Phenol	ug/Kg	590 U	770 U	36 J	670 U	610 U	650 U
bis(2-Chloroethyl) ether	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
2-Chlorophenol	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
1,3-Dichlorobenzene	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
1,4-Dichlorobenzene	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
1,2-Dichlorobenzene	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
2-Methylphenol	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
2,2'-oxybis(1-Chloropropane)	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
4-Methylphenol	ug/Kg	590 U	770 U	120 J	670 U	610 U	650 U
N-Nitroso-d-n-propylamine	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
Hexachloroethane	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
Nitrobenzene	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
Isophorone	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
2-Nitrophenol	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
2,4-Dimethylphenol	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
bis(2-Chloroethoxy) methane	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
2,4-Dichlorophenol	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
1,2,4-Trichlorobenzene	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
Naphthalene	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
4-Chloroaniline	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
Hexachlorobutadiene	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
4-Chloro-3-methylphenol	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
2-Methylnaphthalene	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
Hexachlorocyclopentadiene	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
2,4,6-Trichlorophenol	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
2,4,5-Trichlorophenol	ug/Kg	1400 U	1900 U	1500 U	1600 U	1500 U	1600 U
2-Chloronaphthalene	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
2-Nitroaniline	ug/Kg	1400 U	1900 U	1500 U	1600 U	1500 U	1600 U
Dimethylphthalate	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
Acenaphthylene	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
2,6-Dinitrotoluene	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
3-Nitroaniline	ug/Kg	1400 U	1900 U	1500 U	1600 U	1500 U	1600 U
Acenaphthene	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
2,4-Dinitrophenol	ug/Kg	1400 U	1900 U	1500 U	1600 U	1500 U	1600 U
4-Nitrophenol	ug/Kg	1400 U	1900 U	1500 U	1600 U	1500 U	1600 U
Dibenzofuran	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
2,4-Dinitrotoluene	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
Diethylphthalate	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
4-Chlorophenyl-phenyl ether	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
Fluorene	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
4-Nitroaniline	ug/Kg	1400 U	1900 U	1500 U	1600 U	1500 U	1600 U
4,6-Dinitro-2-methylphenol	ug/Kg	1400 U	1900 U	1500 U	1600 U	1500 U	1600 U
N-Nitrosodiphenylamine	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
4-Bromophenyl-phenyl ether	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
Hexachlorobenzene	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
Pentachlorophenol	ug/Kg	1400 U	1900 U	1500 U	1600 U	1500 U	1600 U
Phenanthrene	ug/Kg	120 J	63 J	71 J	80 J	66 J	72 J
Anthracene	ug/Kg	30 J	770 U	630 U	670 U	610 U	650 U
Carbazole	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
Di-n-butylphthalate	ug/Kg	130 J	120 J	80 J	670 U	610 U	650 U
Fluoranthene	ug/Kg	180 J	100 J	130 J	100 J	110 J	130 J
Pyrene	ug/Kg	210 J	92 J	180 J	100 J	74 J	85 J
Butylbenzylphthalate	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
3,3'-Dichlorobenzidine	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
Benzo(a)anthracene	ug/Kg	92 J	770 U	630 U	670 U	64 J	72 J
Chrysene	ug/Kg	110 J	76 J	96 J	88 J	610 U	650 U
bis(2-Ethylhexyl)phthalate	ug/Kg	590 U	770 U	38 J	81 J	52 J	100 J
Di-n-octylphthalate	ug/Kg	590 U	770 U	630 U	670 U	610 U	650 U
Benzo(b)fluoranthene	ug/Kg	110 J	92 J	130 J	89 J	610 U	650 U
Benzo(k)fluoranthene	ug/Kg	100 J	70 J	55 J	58 J	610 U	650 U
Benzo(a)pyrene	ug/Kg	110 J	71 J	95 J	82 J	610 U	650 U
Indeno(1,2,3-cd)pyrene	ug/Kg	110 J	770 U	87 J	670 U	76 J	84 J
Dibenz(a,h)anthracene	ug/Kg	590 U	770 U	630 U	670 U	53 J	63 J
Benzo(g,h,i)perylene	ug/Kg	110 J	770 U	630 U	670 U	80 J	86 J

SENECA ARMY DEPOT  
SEAD-58 ENVIRONMENTAL SITE INSPECTION  
SEDIMENT ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-58 0-0.2 04/17/94 SD58-1 218079 43543	SOIL SEAD-58 0-0.2 04/17/94 SD58-2 218080 43543	SOIL SEAD-58 0-0.2 04/17/94 SD58-3 218081 43543	SOIL SEAD-58 0-0.2 04/17/94 SD58-4 218082 43543	SOIL SEAD-58 0-0.2 04/17/94 SD58-5 218083 43543	SOIL SEAD-58 0-0.2 04/17/94 SD58-6 218084 43543	
COMPOUND UNITS							
<b>PESTICIDES/PCB</b>							
alpha-BHC	ug/Kg	3 UJ	4 U	3.3 U	3.4 UJ	3.1 U	3.3 U
beta-BHC	ug/Kg	3 UJ	4 U	3.3 U	3.4 UJ	3.1 U	3.3 U
delta-BHC	ug/Kg	3 UJ	4 U	3.3 U	3.4 UJ	3.1 U	3.3 U
gamma-BHC (Lindane)	ug/Kg	3 UJ	4 U	3.3 U	3.4 UJ	3.1 U	3.3 U
Heptachlor	ug/Kg	3 UJ	4 U	3.3 U	3.4 UJ	3.1 U	3.3 U
Aldrin	ug/Kg	3 UJ	4 U	3.3 U	3.4 UJ	3.1 U	3.3 U
Heptachlor epoxide	ug/Kg	3 UJ	4 U	3.3 U	3.4 UJ	3.1 U	3.3 U
Endosulfan I	ug/Kg	3 UJ	4 U	3.3 U	3.4 UJ	3.1 U	3.3 U
Dieldrin	ug/Kg	5.9 UJ	7.7 U	8.3 U	8.7 UJ	8.1 U	8.5 U
4,4'-DDE	ug/Kg	5.9 UJ	7.7 U	8.3 U	8.7 UJ	8.1 U	8.5 U
Endrin	ug/Kg	5.9 UJ	7.7 U	8.3 U	8.7 UJ	8.1 U	8.5 U
Endosulfan II	ug/Kg	5.9 UJ	7.7 U	8.3 U	8.7 UJ	8.1 U	8.5 U
4,4'-DDD	ug/Kg	5.9 UJ	7.7 U	8.3 U	8.7 UJ	8.1 U	8.5 U
Endosulfan sulfate	ug/Kg	5.9 UJ	7.7 U	8.3 U	8.7 UJ	8.1 U	8.5 U
4,4'-DDT	ug/Kg	5.9 UJ	7.7 U	8.3 U	8.7 UJ	8.1 U	8.5 U
Methoxychlor	ug/Kg	30 UJ	40 U	33 U	34 UJ	31 U	33 U
Endrin ketone	ug/Kg	5.9 UJ	7.7 U	8.3 U	8.7 UJ	8.1 U	8.5 U
Endrin aldehyde	ug/Kg	5.9 UJ	7.7 U	8.3 U	8.7 UJ	8.1 U	8.5 U
alpha-Chlordane	ug/Kg	3 UJ	4 U	3.3 U	3.4 UJ	3.1 U	3.3 U
gamma-Chlordane	ug/Kg	3 UJ	4 U	3.3 U	3.4 UJ	3.1 U	3.3 U
Toxaphene	ug/Kg	300 UJ	400 U	330 U	340 UJ	310 U	330 U
Aroclor-1016	ug/Kg	59 UJ	77 U	83 U	87 UJ	81 U	85 U
Aroclor-1221	ug/Kg	120 UJ	160 U	130 U	140 UJ	120 U	130 U
Aroclor-1232	ug/Kg	59 UJ	77 U	83 U	87 UJ	81 U	85 U
Aroclor-1242	ug/Kg	59 UJ	77 U	83 U	87 UJ	81 U	85 U
Aroclor-1248	ug/Kg	59 UJ	77 U	83 U	87 UJ	81 U	85 U
Aroclor-1254	ug/Kg	59 UJ	77 U	83 U	87 UJ	81 U	85 U
Aroclor-1260	ug/Kg	59 UJ	77 U	83 U	87 UJ	81 U	85 U
<b>METALS</b>							
Aluminum	mg/Kg	18200	17800	14800	20100	18000	18200
Antimony	mg/Kg	0.31 J	0.36 UJ	0.22 UJ	0.35 UJ	0.36 J	0.37 J
Arsenic	mg/Kg	5.5	5.7	4.9	5.9	5.6	5.7
Barium	mg/Kg	139	142	86.9	130	114	130
Beryllium	mg/Kg	0.83 J	0.9 J	0.71 J	0.98 J	0.81 J	0.86 J
Cadmium	mg/Kg	0.42 J	0.58 J	0.5 J	0.7 J	0.52 J	0.53 J
Calcium	mg/Kg	10900	15600	70500	6970	7960	8300
Chromium	mg/Kg	24.8	25.2	23.7	28.2	23.2	25.3
Cobalt	mg/Kg	9 J	10.1 J	11.6	10.5 J	8.9 J	8.8 J
Copper	mg/Kg	24	24.7	23.1	37	30.8	24.8
Iron	mg/Kg	28100	28900	27600	29300	25700	26300
Lead	mg/Kg	20.9	23.5	20	26.8	27.6	25.6
Magnesium	mg/Kg	6030	6040	12100	5520	4730	4980
Manganese	mg/Kg	564	632	735	447	382	373
Mercury	mg/Kg	0.1 J	0.06 J	0.05 J	0.11 J	0.12 J	0.11 J
Nickel	mg/Kg	29.3	29.9	32.2	33.5	29.9	28.9
Potassium	mg/Kg	2400	2430	2340	3170	2400	2940
Selenium	mg/Kg	0.79 J	0.89 J	0.37 U	0.7 J	0.68 J	0.66 J
Silver	mg/Kg	0.2 U	0.25 U	0.15 U	0.25 U	0.21 U	0.25 U
Sodium	mg/Kg	44.8 U	57.3 U	134 J	55.9 U	47.5 U	55.7 U
Thallium	mg/Kg	0.55 J	0.58 U	0.35 U	0.58 U	0.51 J	0.56 U
Vanadium	mg/Kg	27.9	29.6	24.5	33.7	27.2	29.8
Zinc	mg/Kg	106	131	86.6	119	119	109
Cyanide	mg/Kg	0.86 U	0.95 U	0.81 U	0.9 U	0.91 U	0.96 U
<b>OTHER ANALYSES</b>							
Nitrate/Nitrite - Nitrogen	mg/Kg						
Total Petroleum Hydrocarbons	mg/Kg						
Total Solids	%W/W	56	43.2	52.4	48.9	54.3	51.3

**SEAD-59**

SENECA ARMY DEPOT  
SEAD-59 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-59 0-0.2 02/20/94 SB59-1.01 212224 42494	SOIL SEAD-59 6-8 02/20/94 SB59-1.04 212225 42494	SOIL SEAD-59 6-8 02/20/94 SB59-1.08 212227 42494	SOIL SEAD-59 10-12 02/20/94 SB59-1.08 212228 42494	SOIL SEAD-59 0-0.2 05/26/94 SB59-2-00 222479 44410	SOIL SEAD-59 0-0.2 05/26/94 SB59-2-20 222483 44410	SOIL SEAD-59 2-4 05/26/94 SB59-2-02 222481 44410	SOIL SEAD-59 6-7 05/26/94 SB59-2-04 222482 44410	SOIL SEAD-59 0-0.2 05/25/94 SB59-3-00 222426 44345	SOIL SEAD-59 2-4 05/25/94 SB59-3-02 222429 44345
VOLATILE ORGANICS										
Chloromethane	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
Bromomethane	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
Vinyl Chloride	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
Chloroethane	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
Methylene Chloride	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
Acetone	ug/Kg	12 U	47 U	23 U	11 U	11 U	45 U	23 U	11 U	12 U
Carbon Disulfide	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
1,1-Dichloroethane	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
1,1-Dichloroethane	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
1,2-Dichloroethane (total)	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
Chloroform	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
1,2-Dichloroethane	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
2-Butanone	ug/Kg	12 U	14 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
1,1,1-Trichloroethane	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
Carbon Tetrachloride	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
Bromodichloromethane	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
1,2-Dichloropropane	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
cis-1,3-Dichloropropene	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
Trichloroethene	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
Dibromodichloromethane	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
1,1,2-Trichloroethane	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
Benzene	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
trans-1,3-Dichloropropene	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
Bromoform	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
4-Methyl-2-Pentanone	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
2-Hexanone	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
Tetrachloroethene	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
1,1,2,2-Tetrachloroethane	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
Toluene	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
Chlorobenzene	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
Ethylbenzene	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
Styrene	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
Xylene (total)	ug/Kg	12 U	13 U	12 U	11 U	11 U	12 U	12 U	11 U	12 U
HERBICIDES										
2,4-D	ug/Kg									
2,4-DB	ug/Kg									
2,4,5-T	ug/Kg									
2,4,5-TP (Silvex)	ug/Kg									
Dalapon	ug/Kg									
Dicamba	ug/Kg									
Dichloroprop	ug/Kg									
Dinoseb	ug/Kg									
MCPA	ug/Kg									
MCPP	ug/Kg									
NITROAROMATICS										
HMX	ug/Kg									
RDX	ug/Kg									
1,3,5-Trinitrobenzene	ug/Kg									
1,3-Dinitrobenzene	ug/Kg									
Tetryl	ug/Kg									
2,4,6-Trinitrotoluene	ug/Kg									
4-amino-2,6-Dinitrotoluene	ug/Kg									
2-amino-4,6-Dinitrotoluene	ug/Kg									
2,6-Dinitrotoluene	ug/Kg									
2,4-Dinitrotoluene	ug/Kg									

SENECA ARMY DEPOT  
SEAD-59 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION DEPTH (FEET) SAMPLE DATE ES ID LAB ID SDG NUMBER	SOIL SEAD-59 0-0.2 02/20/94 SB59-1.01 212224 42494	SOIL SEAD-59 6-8 02/20/94 SB59-1.04 212225 42494	SOIL SEAD-59 6-8 02/20/94 SB59-1.08 212227 42494	SOIL SEAD-59 10-12 02/20/94 SB59-1.06 212226 42494	SOIL SEAD-59 0-0.2 05/26/94 SB59-2-00 222479 44410	SOIL SEAD-59 0-0.2 05/26/94 SB59-2-20 222483 44410	SOIL SEAD-59 2-4 05/26/94 SB59-2-02 222481 44410	SOIL SEAD-59 6-7 05/26/94 SB59-2-04 222482 44410	SOIL SEAD-59 0-0.2 05/25/94 SB59-3-00 222428 44345	SOIL SEAD-59 2-4 05/25/94 SB59-3-02 222429 44345
COMPOUND UNITS										
SEMIVOLATILE ORGANICS										
Phend	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
bis(2-Chloroethyl) ether	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
2-Chlorophend	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
1,3-Dichlorobenzene	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
1,4-Dichlorobenzene	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
1,2-Dichlorobenzene	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
2-Methylphenol	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
2,2'-oxybis(1-Chloropropane)	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
4-Methylphenol	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	28 J	370 U	380 U
N-Nitroso-d-n-propylamine	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
Hexachloroethane	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
Nitrobenzene	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
Isophorone	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
2-Nitrophenol	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
2,4-Dimethylphenol	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
bis(2-Chloroethoxy) methane	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
2,4-Dichlorophenol	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
1,2,4-Trichlorobenzene	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
Naphthalene	ug/Kg 130 J	160 J	140 J	110 J	88 J	78 J	170 J	160 J	21 J	380 U
4-Chloroaniline	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
Hexachlorobutadiene	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
4-Chloro-3-methylphenol	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
2-Methylnaphthalene	ug/Kg 150 J	110 J	150 J	78 J	75 J	68 J	150 J	150 J	370 U	380 U
Hexachlorocyclopentadiene	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
2,4,6-Trichlorophenol	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
2,4,5-Trichlorophenol	ug/Kg 3700 U	1000 U	4700 U	1300 U	1800 U	1800 U	2000 U	940 U	890 U	930 U
2-Chloronaphthalene	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
2-Nitroaniline	ug/Kg 3700 U	1000 U	4700 U	1300 U	1800 U	1800 U	2000 U	940 U	890 U	930 U
Dimethylphthalate	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
Aceraphthylene	ug/Kg 680 J	120 J	640 J	97 J	390 J	490 J	100 J	23 J	120 J	380 U
2,6-Dinitrotoluene	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
3-Nitroaniline	ug/Kg 3700 U	1000 U	4700 U	1300 U	1800 U	1800 U	2000 U	940 U	890 U	930 U
Aceraphthene	ug/Kg 390 J	160 J	390 J	190 J	60 J	110 J	230 J	100 J	56 J	380 U
2,4-Dinitrophenol	ug/Kg 3700 U	1000 U	4700 U	1300 U	1800 U	1800 U	2000 U	940 U	890 U	930 U
4-Nitrophenol	ug/Kg 3700 U	1000 U	4700 U	1300 U	1800 U	1800 U	2000 U	940 U	890 U	930 U
Dibenzofuran	ug/Kg 280 J	110 J	280 J	130 J	53 J	83 J	820 U	82 J	26 J	380 U
2,4-Dinitrotoluene	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
Diethylphthalate	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
4-Chlorophenyl-phenylether	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
Fluorene	ug/Kg 730 J	200 J	730 J	280 J	130 J	220 J	380 J	160 J	79 J	380 U
4-Nitroaniline	ug/Kg 3700 U	1000 U	4700 U	1300 U	1800 U	1800 U	2000 U	940 U	890 U	930 U
4,6-Dinitro-2-methylphenol	ug/Kg 3700 U	1000 U	4700 U	1300 U	1800 U	1800 U	2000 U	940 U	890 U	930 U
N-Nitrosodiphenylamine	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
4-Bromophenyl-phenylether	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
Hexachlorobenzene	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
Pentachlorophend	ug/Kg 3700 U	1000 U	4700 U	1300 U	1800 U	1800 U	2000 U	940 U	890 U	930 U
Phenanthrene	ug/Kg 6100	980	6200	1800	870 J	2100 J	1800	820	740	380 U
Anthracene	ug/Kg 1400 J	270 J	1400 J	600	250 J	580 J	440 J	160 J	290 J	380 U
Carbazole	ug/Kg 1200 J	210 J	1300 J	280 J	97 J	190 J	220 J	84 J	39 J	380 U
Di-n-butylphthalate	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
Fluoranthene	ug/Kg 9700	1500	9900	2800	2600 J	4400 J	3200	750	1700	67 J
Pyrene	ug/Kg 12000	1400	13000	2200	3200 J	5800 J	3200	510	190 J	32 J
Butylbenzylphthalate	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
3,3'-Dichlorobenzidine	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
Benzofluoranthrene	ug/Kg 4700	780	5000	1200	1700 J	3500 J	1800	260 J	910	34 J
Chrysene	ug/Kg 4800	930	5100	1200	1600 J	2700 J	1500	270 J	700	42 J
bis(2-Ethylhexyl)phthalate	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
Di-n-octylphthalate	ug/Kg 1500 U	420 U	1900 U	530 U	740 U	740 U	820 U	390 U	370 U	380 U
Benzofluoranthrene	ug/Kg 5000 J	730	5100 J	860	3700 J	4400	3100 J	290 J	430	45 J
Benzofluoranthrene	ug/Kg 5800 J	800	6100 J	810	740 U	2100 J	820 U	270 J	440	26 J
Benzofluoranthrene	ug/Kg 5400 J	870	5500 J	1100	1900	3000	1500	250 J	47 J	380 U
Indeno(1,2,3-cd)pyrene	ug/Kg 2000 J	400 J	2200 J	590	1800	2200	940	130 J	82 J	380 U
Dibenz(a,h)anthracene	ug/Kg 930 J	420 U	1900 U	530 U	610 J	870	470 J	84 J	160 J	380 U
Benzofluoranthrene	ug/Kg 1900 J	430	2400 J	560	1100	1500	740 J	130 J	370 U	380 U

SENECA ARMY DEPOT  
SEAD-59 ENVIRONMENTAL SITE INSPECTION  
SOIL ANALYSIS RESULTS

MATRIX LOCATION	SOIL SEAD-59	SOIL SEAD-59	SOIL SEAD-59	SOIL SEAD-59	SOIL SEAD-59	SOIL SEAD-59	SOIL SEAD-59	SOIL SEAD-59	SOIL SEAD-59	SOIL SEAD-59	SOIL SEAD-59
DEPTH (FEET)	0-0.2	0-8	6-8	10-12	0-0.2	0-0.2	2-4	6-7	0-0.2	2-4	2-4
SAMPLE DATE	02/20/94	02/20/94	02/20/94	02/20/94	05/26/94	05/26/94	05/26/94	05/26/94	05/25/94	05/25/94	05/25/94
ES ID	SB59-1.01	SB59-1.04	SB59-1.08	SB59-1.08	SB59-2-00	SB59-2-20	SB59-2-02	SB59-2-04	SB59-3-00	SB59-3-00	SB59-3-02
LAB ID	212224	212225	212227	212226	222479	222483	222481	222482	222428	222428	222429
SDG NUMBER	42494	42494	42494	42494	44410	44410	44410	44410	44345	44345	44345
COMPOUND UNITS			SB59-1.04DUP			SB59-2-00DUP					
<b>PESTICIDES/PCB</b>											
alpha-BHC	ug/Kg	2 U	2.2 U	2.1 U	1.9 UJ	1.9 UJ	2.1 UJ	2 UJ	3.8 U	2 U	2 U
beta-BHC	ug/Kg	2 U	2.2 U	2.1 U	1.9 UJ	1.9 UJ	2.1 UJ	2 UJ	3.8 U	2 U	2 U
delta-BHC	ug/Kg	2 U	2.2 U	2.1 U	1.9 UJ	1.9 UJ	2.1 UJ	2 UJ	3.8 U	2 U	2 U
gamma-BHC (Lindane)	ug/Kg	2 U	2.2 U	2.1 U	1.9 UJ	1.9 UJ	2.1 UJ	2 UJ	3.8 U	2 U	2 U
Heptachlor	ug/Kg	2 U	2.2 U	2.1 U	1.9 UJ	1.9 UJ	2.1 UJ	2 UJ	3.8 U	2 U	2 U
Aldrin	ug/Kg	2 U	2.2 U	2.1 U	1.9 UJ	0.96 J	1.2 J	2 UJ	3.8 U	2 U	2 U
Heptachlor epoxide	ug/Kg	2 U	2.2 U	2.1 U	1.9 UJ	1.9 UJ	2.1 UJ	2 UJ	3.8 U	2 U	2 U
Endosulfan I	ug/Kg	2 U	2.2 U	2.1 U	2.2 J	2.6 J	16 J	4.1 J	3.8 U	2 U	2 U
Dieldrin	ug/Kg	3.8 U	4.2 U	4 U	3.7 UJ	3.7 UJ	4.1 UJ	3.9 UJ	7.3 U	3.8 U	3.8 U
4,4'-DDE	ug/Kg	11 J	25	7.3 J	11 J	8.5 J	81 J	8.2 J	19 J	3.8 U	3.8 U
Endrin	ug/Kg	3.8 U	4.2 U	4 U	3.9 J	3.7 UJ	4.1 UJ	3.9 UJ	7.3 U	3.8 U	3.8 U
Endosulfan II	ug/Kg	5.1 J	4.2 U	4 U	3.7 UJ	4 J	4.1 UJ	3.9 UJ	7.3 U	3.8 U	3.8 U
4,4'-DDD	ug/Kg	5.9	38	11	4.3 J	4.8 J	46 J	5.4 J	7.7 J	3.8 U	3.8 U
Endosulfan sulfate	ug/Kg	3.8 U	4.2 U	4 U	3.7 UJ	3.7 UJ	4.1 UJ	3.9 UJ	7.3 U	3.8 U	3.8 U
4,4'-DDT	ug/Kg	38 J	25	21	26 J	13 J	16 J	3.9 UJ	35	3.8 U	3.8 U
Methoxychlor	ug/Kg	20 U	22 U	21 U	19 UJ	19 UJ	21 UJ	20 UJ	38 U	20 U	20 U
Endrin ketone	ug/Kg	3.8 U	4.2 U	4 U	3.7 UJ	3.7 UJ	4.1 UJ	3.9 UJ	7.3 U	3.8 U	3.8 U
Endrin aldehyde	ug/Kg	5.6 J	4.2 U	3.9 J	3.7 UJ	3.7 UJ	4.1 UJ	3.9 UJ	13 J	3.8 U	3.8 U
alpha-Chlordane	ug/Kg	2 U	2.2 U	2.1 U	2.1 J	3.4 J	5.2 J	2 UJ	5.1 J	2 U	2 U
gamma-Chlordane	ug/Kg	2 U	2.2 U	2.1 U	1.9 UJ	1.9 UJ	2.1 UJ	2 UJ	7.4	2 U	2 U
Toxaphene	ug/Kg	200 U	220 U	210 U	190 UJ	190 UJ	210 UJ	200 UJ	380 U	200 U	200 U
Aroclor-1016	ug/Kg	38 U	42 U	40 U	37 UJ	37 UJ	41 UJ	39 UJ	73 U	38 U	38 U
Aroclor-1221	ug/Kg	78 U	88 U	81 U	75 UJ	75 UJ	84 UJ	79 UJ	150 U	78 U	78 U
Aroclor-1232	ug/Kg	38 U	42 U	40 U	37 UJ	37 UJ	41 UJ	39 UJ	73 U	38 U	38 U
Aroclor-1242	ug/Kg	38 U	42 U	40 U	37 UJ	37 UJ	41 UJ	39 UJ	73 U	38 U	38 U
Aroclor-1248	ug/Kg	38 U	42 U	40 U	37 UJ	37 UJ	41 UJ	39 UJ	73 U	38 U	38 U
Aroclor-1254	ug/Kg	38 U	42 U	40 U	37 UJ	37 UJ	41 UJ	39 UJ	73 U	25 J	25 J
Aroclor-1280	ug/Kg	38 U	42 U	40 U	37 UJ	37 UJ	41 UJ	39 UJ	73 U	38 U	38 U
<b>METALS</b>											
Aluminum	mg/Kg	11200 J	13000 J	11800 J	8840	11800	12500	9340	9020	11700	11700
Antimony	mg/Kg	0.56 J	0.74 J	0.24 J	0.43 J	0.36 J	0.84 J	0.26 J	0.15 UJ	0.17 UJ	0.17 UJ
Arsenic	mg/Kg	5 J	4.4 J	3.8 J	5.5	5.7	8	3.8	5.1	4.3	4.3
Barium	mg/Kg	77.6 J	108 J	75.7 J	76.4	79.5	93.4	66	59.1	77.5	77.5
Beryllium	mg/Kg	0.46 J	0.58 J	0.48 J	0.41 J	0.53 J	0.67 J	0.42 J	0.48 J	0.54 J	0.54 J
Cadmium	mg/Kg	0.5 J	0.37 J	0.1 J	0.74 J	0.87 J	0.9 J	0.41 J	0.75	0.55 J	0.55 J
Calcium	mg/Kg	150000 J	83700 J	37400 J	135000	66400	44500	65800	108000	69500	69500
Chromium	mg/Kg	18.4 J	18.4 J	18.1 J	16.3	21.2	21.1	15.5	15.2	17.7	17.7
Cobalt	mg/Kg	9.4 J	7.1 J	8.6 J	7.9 J	12.3	11.7	9.1	8.7	8.1 J	8.1 J
Copper	mg/Kg	25.4 J	32.9 J	23.5 J	21.7	28.9	28.1	19.7	21.1	24.2	24.2
Iron	mg/Kg	20400 J	18300 J	20500 J	18200	24500	24600	20900	18100	19400	19400
Lead	mg/Kg	51.8 J	38.4 J	10.5 J	40	49.8	50.3	12.9	29.2 J	11.4 J	11.4 J
Magnesium	mg/Kg	8690 J	8610 J	14500 J	11100	15200	8540	9190	11500	17500	17500
Manganese	mg/Kg	516 J	418 J	329 J	410	542	664	636	555	411	411
Mercury	mg/Kg	0.05 J	0.16 J	0.03 J	0.06 J	1.6 J	0.08 J	0.04 J	0.04 J	0.05 J	0.05 J
Nickel	mg/Kg	27 J	23 J	27.9 J	23.8	32.3	31.8	24.7	23.4	29	29
Potassium	mg/Kg	2140 J	2290 J	2520 J	1590 J	1750 J	1690 J	1280 J	1460 J	1860 J	1860 J
Selenium	mg/Kg	0.27 J	1 J	0.42 J	0.48 U	0.81 J	1.3	0.49 J	0.36 J	0.3 U	0.3 U
Silver	mg/Kg	0.18 U	0.15 U	0.12 U	0.08 UJ	0.11 UJ	0.32 J	0.08 UJ	0.1 UJ	0.12 UJ	0.12 UJ
Sodium	mg/Kg	135 J	353 J	184 J	169 J	171 J	168 J	148 J	183 J	556 J	556 J
Thallium	mg/Kg	0.17 U	0.27 U	0.22 U	0.34 U	0.41 U	0.4 U	0.24 U	0.24 U	0.28 U	0.28 U
Vanadium	mg/Kg	41.9 J	24.8 J	22 J	18.1	21.3	24.2	16.4	17.3	19.9	19.9
Zinc	mg/Kg	86.4 J	116 J	69.7 J	78.5	102	115	75.5	75	59.1	59.1
Cyanide	mg/Kg	0.58 U	0.83 U	0.59 U	0.5 U	0.54 U	0.56 U	0.59 U	0.46 U	0.57 U	0.57 U
<b>OTHER ANALYSES</b>											
Nitrate/Nitrite-Nitrogen	mg/Kg										
Total Petroleum Hydrocarbons	mg/Kg	380	220	182	78	951	774	513	69	1360	29 U
Total Solids	%W/W	85.3	78.1	71	82.3	89.4	89.2	79.6	84.9	89.6	85.6

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VOLATILE ORGANICS										
Chloromethane	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
Bromomethane	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
Vinyl Chloride	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
Chloroethane	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
Methylene Chloride	ug/Kg	11 U	11 U	2 J	11 U	11 U	11 U	11 U	30000 U	
Acetone	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
Carbon Disulfide	ug/Kg	11 U	11 U	4 J	11 U	11 U	11 U	11 U	30000 U	
1,1-Dichloroethane	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
1,1-Dichloroethane	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
1,2-Dichloroethane (total)	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
Chloroform	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
1,2-Dichloroethane	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
2-Butanone	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
1,1,1-Trichloroethane	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
Carbon Tetrachloride	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
Bromochloromethane	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
1,2-Dichloropropane	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
cis-1,3-Dichloropropene	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
Trichloroethene	ug/Kg	11 U	11 U	18 U	11 U	11 U	1 J	11 U	30000 U	
Dibromochloromethane	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
1,1,2-Trichloroethane	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
Benzene	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	5900 J	
trans-1,3-Dichloropropene	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
Bromoform	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
4-Methyl-2-Pentanone	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
2-Hexanone	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
Tetrachloroethene	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
1,1,2,2-Tetrachloroethane	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
Toluene	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	630000	
Chlorobenzene	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
Ethylbenzene	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	260000	
Styrene	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	30000 U	
Xylene (total)	ug/Kg	11 U	11 U	18 U	11 U	11 U	11 U	11 U	1000000	
HERBICIDES										
2,4-D	ug/Kg									
2,4-DB	ug/Kg									
2,4,5-T	ug/Kg									
2,4,5-TP (Silvex)	ug/Kg									
Dalapon	ug/Kg									
Dicamba	ug/Kg									
Dichloroprop	ug/Kg									
Dinoseb	ug/Kg									
MCPA	ug/Kg									
MCPP	ug/Kg									
NITROAROMATICS										
HMX	ug/Kg									
RDX	ug/Kg									
1,3,5-Trinitrobenzene	ug/Kg									
1,3-Dinitrobenzene	ug/Kg									
Tetryl	ug/Kg									
2,4,6-Trinitrotoluene	ug/Kg									
4-amino-2,6-Dinitrotoluene	ug/Kg									
2-amino-4,6-Dinitrotoluene	ug/Kg									
2,6-Dinitrotoluene	ug/Kg									
2,4-Dinitrotoluene	ug/Kg									



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SEMIVOLATILE ORGANICS										
Phend	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
bis(2-Chloroethyl) ether	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
2-Chlorophend	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
1,3-Dichlorobenzene	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
1,4-Dichlorobenzene	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
1,2-Dichlorobenzene	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
2-Methylphend	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
2,2'-oxybis(1-Chloropropane)	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
4-Methylphend	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
N-Nitroso-d-n-propylamine	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
Hexachloroethane	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
Nitrobenzene	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
Isophorane	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
2-Nitrophenol	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
2,4-Dimethylphenol	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
bis(2-Chloroethoxy) methane	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
2,4-Dichlorophenol	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
1,2,4-Trichlorobenzene	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
Naphthalene	ug/Kg	360 U	95 J	100 J	360 U	240 J	44 J	55 J	360 U	87000 U
4-Chloroaniline	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
Hexachlorobutadiene	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
4-Chloro-3-methylphenol	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
2-Methylnaphthalene	ug/Kg	360 U	56 J	37 J	360 U	1800 U	45 J	55 J	360 U	87000 U
Hexachlorocyclopentadiene	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
2,4,6-Trichlorophenol	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
2,4,5-Trichlorophenol	ug/Kg	860 U	1800 U	1000 U	870 U	4400 U	910 U	1300 U	920 U	210000 U
2-Chloronaphthalene	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
2-Nitroaniline	ug/Kg	880 U	1800 U	1000 U	870 U	4400 U	910 U	1300 U	920 U	210000 U
Dimethylphthalate	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
Aceraphthylene	ug/Kg	360 U	610 J	52 J	360 U	1100 J	190 J	250 J	360 U	87000 U
2,6-Dinitrotoluene	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
3-Nitroaniline	ug/Kg	880 U	1800 U	1000 U	870 U	4400 U	910 U	1300 U	920 U	210000 U
Aceraphthene	ug/Kg	360 U	83 J	93 J	360 U	310 J	44 J	50 J	360 U	87000 U
2,4-Dinitrophenol	ug/Kg	880 U	1800 U	1000 U	870 U	4400 U	910 U	1300 U	920 U	210000 U
4-Nitrophenol	ug/Kg	880 U	1800 U	1000 U	870 U	4400 U	910 U	1300 U	920 U	210000 U
Dibenzofuran	ug/Kg	360 U	45 J	64 J	360 U	1800 U	28 J	42 J	360 U	87000 U
2,4-Dinitrotoluene	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
Diethylphthalate	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
4-Chlorophenyl-phenylether	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
Fluorene	ug/Kg	360 U	90 J	100 J	360 U	300 J	90 J	110 J	360 U	87000 U
4-Nitroaniline	ug/Kg	880 U	1800 U	1000 U	870 U	4400 U	910 U	1300 U	920 U	210000 U
4,6-Dinitro-2-methylphenol	ug/Kg	880 U	1800 U	1000 U	870 U	4400 U	910 U	1300 U	920 U	210000 U
N-Nitrosodiphenylamine	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
4-Bromophenyl-phenylether	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
Hexachlorobenzene	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
Pentachlorophenol	ug/Kg	880 U	1800 U	1000 U	870 U	4400 U	910 U	1300 U	920 U	210000 U
Phenanthrene	ug/Kg	360 U	1100	1100	360 U	4300	1200 J	1500 J	360 U	87000 U
Anthracene	ug/Kg	360 U	740 J	250 J	360 U	1500 J	410 J	550 J	360 U	87000 U
Carbazole	ug/Kg	360 U	83 J	160 J	360 U	180 J	370 U	540 U	360 U	87000 U
Di-n-butylphthalate	ug/Kg	360 U	250 J	120 J	360 U	1800 U	370 U	540 U	360 U	87000 U
Fluoranthene	ug/Kg	360 U	3200	1900	19 J	9900	2300 J	3100 J	360 U	87000 U
Pyrene	ug/Kg	360 U	1200	940	28 J	10000	2800	3300	360 U	87000 U
Butylbenzylphthalate	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
3,3'-Dichlorobenzidine	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
Benzo(a)anthracene	ug/Kg	360 U	2100	740	360 U	6400	1400	1800	360 U	87000 U
Chrysene	ug/Kg	360 U	1800	820	360 U	6200	1400	1900	360 U	87000 U
bis(2-Ethylhexyl)phthalate	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	15000 J
Di-n-octylphthalate	ug/Kg	360 U	740 U	420 U	360 U	1800 U	370 U	540 U	360 U	87000 U
Benzo(b)fluoranthene	ug/Kg	360 U	2200	730	360 U	6300	1100 J	1300 J	360 U	87000 U
Benzo(k)fluoranthene	ug/Kg	360 U	1500	590	360 U	4800	870 J	1400 J	360 U	87000 U
Benzo(a)pyrene	ug/Kg	360 U	420 J	360 J	360 U	5800	1200 J	1500 J	360 U	87000 U
indeno(1,2,3-cd)pyrene	ug/Kg	360 U	470 J	300 J	360 U	5300	570 J	790 J	360 U	87000 U
Dibenz(a,h)anthracene	ug/Kg	360 U	570 J	160 J	360 U	1900	300 J	320 J	360 U	87000 U
Benzo(g,h,i)perylene	ug/Kg	360 U	740 U	420 U	360 U	790 J	150 J	200 J	360 U	87000 U

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PESTICIDES/PCB										
alpha-BHC	ug/Kg 2 U	1.9 UJ	3.8 U	22 U	1.8 UJ	19 U	3.9 U		2 U	2.2 U
beta-BHC	ug/Kg 2 U	1.9 UJ	3.8 U	22 U	1.8 UJ	19 U	3.9 U		2 U	2.2 U
delta-BHC	ug/Kg 2 U	1.9 UJ	3.8 U	22 U	1.8 UJ	19 U	3.9 U		2 U	2.2 U
gamma-BHC (Lindane)	ug/Kg 2 U	1.9 UJ	3.8 U	22 U	1.8 UJ	19 U	3.9 U		2 U	2.2 U
Heptachlor	ug/Kg 2 U	1.9 UJ	3.8 U	22 U	1.8 UJ	19 U	3.9 U		2 U	2.2 U
Aldrin	ug/Kg 2 U	1.9 UJ	3.8 U	22 U	1.8 UJ	19 U	3.9 U		2 U	2.2 U
Heptachlor epoxide	ug/Kg 2 U	1.9 UJ	3.8 U	22 U	1.8 UJ	19 U	3.9 U		2 U	2.2 U
Endosulfan I	ug/Kg 2 U	1.9 UJ	3.8 U	22 U	1.8 UJ	19 U	3.9 U		2 U	1.5 J
Dieldrin	ug/Kg 3.8 U	3.8 UJ	7.4 U	42 U	3.6 UJ	37 U	7.5 U		3.8 U	3.6 J
4,4'-DDE	ug/Kg 3.8 U	3.8 UJ	7.3 J	140	3.6 UJ	37 U	21		3.8 U	13 J
Endrin	ug/Kg 3.8 U	3.8 UJ	7.4 U	42 U	3.6 UJ	37 U	7.5 U		3.8 U	4.3 U
Endosulfan II	ug/Kg 3.8 U	3.8 UJ	7.4 U	42 U	3.6 UJ	37 U	7.5 U		3.8 U	4.3 U
4,4'-DDD	ug/Kg 3.8 U	3.8 UJ	6.1 J	450	3.6 UJ	37 U	22 J		3.8 U	7
Endosulfan sulfate	ug/Kg 3.8 U	3.8 UJ	7.4 U	42 U	3.6 UJ	37 U	7.5 U		3.8 U	4.3 U
4,4'-DDT	ug/Kg 3.8 U	3.8 UJ	15 J	350	3.6 UJ	37 U	23 J		3.8 U	4.3 U
Methoxychlor	ug/Kg 20 U	19 UJ	38 U	220 U	18 UJ	190 U	39 U		20 U	22 U
Endrin ketone	ug/Kg 3.8 U	3.8 UJ	7.4 U	42 U	3.6 UJ	37 U	7.5 U		3.8 U	4.3 U
Endrin aldehyde	ug/Kg 3.8 U	3.8 UJ	7.4 U	42 U	3.6 UJ	37 U	7.5 U		3.8 U	4.3 U
alpha-Chlordane	ug/Kg 2 U	1.9 UJ	3.8 U	22 U	1.8 UJ	19 U	3.9 U		2 U	1.3 J
gamma-Chlordane	ug/Kg 2 U	1.9 UJ	2.7 J	22 U	1.8 UJ	19 U	2.2 J		2 U	2.2 U
Toxaphene	ug/Kg 200 U	190 UJ	380 U	2200 U	180 UJ	1900 U	390 U		200 U	220 U
Aroclor-1016	ug/Kg 38 U	36 UJ	74 U	420 U	36 UJ	370 U	75 U		38 U	43 U
Aroclor-1221	ug/Kg 78 U	74 UJ	150 U	850 U	73 UJ	740 U	150 U		77 U	86 U
Aroclor-1232	ug/Kg 38 U	36 UJ	74 U	420 U	36 UJ	370 U	75 U		38 U	43 U
Aroclor-1242	ug/Kg 38 U	36 UJ	74 U	420 U	36 UJ	370 U	75 U		38 U	43 U
Aroclor-1248	ug/Kg 38 U	36 UJ	74 U	420 U	36 UJ	370 U	75 U		38 U	43 U
Aroclor-1254	ug/Kg 30 J	38 UJ	74 U	420 U	36 UJ	370 U	38 U		38 U	43 U
Aroclor-1280	ug/Kg 38 U	36 UJ	74 U	420 U	36 UJ	370 U	75 U		38 U	43 U
METALS										
Aluminum	mg/Kg	8020	13100	4200	7550	12600	12800		7030	16000 J
Antimony	mg/Kg	0.15 UJ	0.17 UJ	424 J	0.22 UJ	0.41 J	0.2 UJ		0.16 UJ	0.26 UJ
Arsenic	mg/Kg	4.4	5.3	3.8	3.7	5.1	5.5		5.1	6.1
Barium	mg/Kg	62.9	90.1	304	21.1 J	101	81.9		36 J	120 J
Beryllium	mg/Kg	0.39 J	0.62 J	0.37 J	0.36 J	0.63 J	0.61 J		0.42 J	0.61 J
Cadmium	mg/Kg	0.52 J	1	3.2	0.42 J	1.3	0.91 J		0.61 J	0.6 J
Calcium	mg/Kg	71100	51000	214000	61700	59500	62800		85200	7890 J
Chromium	mg/Kg	13.3	20.8	14.7	12.8	22.1	20.1		13.1	23.8 J
Cobalt	mg/Kg	7.9	10.7	4 J	7.7 J	11.3	10.8		8.1 J	14.7 J
Copper	mg/Kg	18.4	31	14.2	15.8	32.5	28		18.8	19.8 J
Iron	mg/Kg	17600	23800	8540	17300	24800	24100		16100	33300 J
Lead	mg/Kg	9.3 J	59.8 J	139 J	9.5 J	91.9 J	42.1 J		12.3 J	15
Magnesium	mg/Kg	18500	10600	7980	14800	8840	11500		34400	5210 J
Manganese	mg/Kg	403	653	298	328	586	840		477	507 J
Mercury	mg/Kg	0.03 J	0.08	0.11	0.03 J	0.04 J	0.15		0.04 J	0.07 J R
Nickel	mg/Kg	22.5	41.3	10.8	21.3	33.1	29.8		27	34.4 J
Potassium	mg/Kg	1370 J	1850 J	845 J	1100 J	1620 J	1710 J		922 J	1540
Selenium	mg/Kg	0.28 U	0.28 U	0.28 U	0.28 U	0.37 U	0.31 U		0.31 U	1.2
Silver	mg/Kg	0.11 UJ	0.12 UJ	0.11 J	0.15 UJ	0.15 UJ	0.14 UJ		0.13 UJ	0.1 UJ
Sodium	mg/Kg	198 J	80 J	125 J	140 J	79.1 J	181 J		274 J	140 J
Thallium	mg/Kg	0.24 U	0.27 U	0.22 U	0.34 U	0.35 U	0.32 U		0.29 U	0.36 U
Vanadium	mg/Kg	13.6	23.2	13.9	12.1	22.1	23.2		13.3	25.3 J
Zinc	mg/Kg	53.8	131	341	54.9	108	101		84.9	1550 J
Cyanide	mg/Kg	0.51 U	0.51 U	0.81 U	0.47 U	0.53 U	0.5 U		0.56 U	0.58 U
OTHER ANALYSES										
Nitrate/Nitrite-Nitrogen	mg/Kg									
Total Petroleum Hydrocarbons	mg/Kg	29 U	594	778	40	527	637		70	3820
Total Solids	%W/W	91	89.2	78.8	92	90.3	87.6		86.7	78

SENECA ARMY DEPOT  
SEAD-59 ENVIRONMENTAL SITE INSPECTION  
SEDIMENT ANALYSIS RESULTS

COMPOUND	MATRIX LOCATION DEPTH (FEET)	SOIL SEAD-59	SOIL SEAD-59	SOIL SEAD-59	SOIL SEAD-59	SOIL SEAD-59	SOIL SEAD-59	SOIL SEAD-59
	SAMPLE DATE	7	7	3	1.5	1.5	2	2.5
	ES ID	TP59-2	TP59-2RE	TP59-3	TP59-3	TP59-3X	TP59-4	TP59-5
	LAB ID	212043	212043	223515	225801	225802	223516	223517
	SDG NUMBER	42494	42494	44694	45062	45062	44694	44694
	UNITS							
<b>VOLATILE ORGANICS</b>								
Chloromethane	ug/Kg	11 U			12 U	3300 U	1800 U	3 J
Bromomethane	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
Vinyl Chloride	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
Chloroethane	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
Methylene Chloride	ug/Kg	11 U			12 U	3300 U	1800 U	1 J
Acetone	ug/Kg	17 U			18 U	3300 U	1800 U	30
Carbon Disulfide	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
1,1-Dichloroethane	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
1,1-Dichloroethane	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
1,2-Dichloroethane (total)	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
Chloroform	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
1,2-Dichloroethane	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
2-Butanone	ug/Kg	11 U			12 U	3300 U	1800 U	12
1,1,1-Trichloroethane	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
Carbon Tetrachloride	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
Bromodichloromethane	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
1,2-Dichloropropane	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
cis-1,3-Dichloropropene	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
Trichloroethene	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
Dibromochloromethane	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
1,1,2-Trichloroethane	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
Benzene	ug/Kg	11 U			12 U	2000 J	1800 U	12 U
trans-1,3-Dichloropropene	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
Bromoform	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
4-Methyl-2-Pentanone	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
2-Hexanone	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
Tetrachloroethene	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
1,1,2,2-Tetrachloroethane	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
Toluene	ug/Kg	11 U			12 U	440 J	220 J	2 J
Chlorobenzene	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
Ethylbenzene	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
Styrene	ug/Kg	11 U			12 U	3300 U	1800 U	12 U
Xylene (total)	ug/Kg	11 U			12 U	1200 J	410 J	12 U
<b>HERBICIDES</b>								
2,4-D	ug/Kg							
2,4-DB	ug/Kg							
2,4,5-T	ug/Kg							
2,4,5-TP (Silvex)	ug/Kg							
Dalapon	ug/Kg							
Dicamba	ug/Kg							
Dichloroprop	ug/Kg							
Dinoseb	ug/Kg							
MCPA	ug/Kg							
MCPP	ug/Kg							
<b>NITROAROMATICS</b>								
HMX	ug/Kg							
RDX	ug/Kg							
1,3,5-Trinitrobenzene	ug/Kg							
1,3-Dinitrobenzene	ug/Kg							
Tetryl	ug/Kg							
2,4,6-Trinitrotoluene	ug/Kg							
4-amino-2,6-Dinitrotoluene	ug/Kg							
2-amino-4,6-Dinitrotoluene	ug/Kg							
2,6-Dinitrotoluene	ug/Kg							
2,4-Dinitrotoluene	ug/Kg							

SENECA ARMY DEPOT  
SEAD-59 ENVIRONMENTAL SITE INSPECTION  
SEDIMENT ANALYSIS RESULTS

MATRIX LOCATION	SOIL SEAD-59	SOIL SEAD-59	SOIL SEAD-59	SOIL SEAD-59	SOIL SEAD-59	SOIL SEAD-59	SOIL SEAD-59	SOIL SEAD-59
DEPTH (FEET)	7	7	3	1.5	1.5	2	2.5	
SAMPLE DATE	02/20/94	02/20/94	06/08/94	06/28/94	06/28/94	06/08/94	06/08/94	06/08/94
ES ID	TP59-2	TP59-2RE	TP59-3	TP59-3	TP59-3X	TP59-4	TP59-5	
LAB ID	212043	212043	223515	225801	225802	223518	223517	
SDG NUMBER	42494	42494	44894	45062	45062	44894	44694	
COMPOUND	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS
SEMIVOLATILE ORGANICS								
Phend	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
bis(2-Chloroethyl) ether	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
2-Chlorophend	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
1,3-Dichlorobenzene	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
1,4-Dichlorobenzene	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
1,2-Dichlorobenzene	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
2-Methylphend	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
2,2'-oxybis(1-Chloropropane)	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
4-Methylphend	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
N-Nitroso-di-n-propylamine	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
Hexachloroethane	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
Nitrobenzene	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
Isophorone	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
2-Nitrophenol	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
2,4-Dimethylphenol	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
bis(2-Chloroethoxy) methane	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
2,4-Dichlorophenol	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
1,2,4-Trichlorobenzene	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
Naphthalene	ug/Kg	290 J	340 J	4000 U		98000 U		390 U
4-Chloroaniline	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
Hexachlorobutadiene	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
4-Chloro-3-methylphenol	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
2-Methylnaphthalene	ug/Kg	400 J	430 J	4000 U		87000 J		390 U
Hexachlorocyclopentadiene	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
2,4,6-Trichlorophenol	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
2,4,5-Trichlorophenol	ug/Kg	4500 U	7400 U	9800 U		240000 U		940 U
2-Chloronaphthalene	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
2-Nitroaniline	ug/Kg	4500 U	7400 U	9800 U		240000 U		940 U
Dimethylphthalate	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
Aceraphthylene	ug/Kg	480 J	450 J	4000 U		98000 U		390 U
2,6-Dinitrotoluene	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
3-Nitroaniline	ug/Kg	4500 U	7400 U	9800 U		240000 U		940 U
Aceraphthene	ug/Kg	870 J	960 J	4000 U		98000 U		390 U
2,4-Dinitrophenol	ug/Kg	4500 U	7400 U	9800 U		240000 U		940 U
4-Nitrophenol	ug/Kg	4500 U	7400 U	9800 U		240000 U		940 U
Dibenzofuran	ug/Kg	1800 U	560 J	4000 U		98000 U		390 U
2,4-Dinitrotoluene	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
Diethylphthalate	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
4-Chlorophenyl-phenylether	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
Fluorene	ug/Kg	1300 J	1300 J	4000 U		22000 J		390 U
4-Nitroaniline	ug/Kg	4500 U	7400 U	9800 U		240000 U		940 U
4,6-Dinitro-2-methylphenol	ug/Kg	4500 U	7400 U	9800 U		240000 U		940 U
N-Nitrosodiphenylamine	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
4-Bromophenyl-phenylether	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
Hexachlorobenzene	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
Pentachlorophenol	ug/Kg	4500 U	7400 U	9800 U		240000 U		940 U
Phenanthrene	ug/Kg	8300	9000	980 J		48000 J		390 U
Anthracene	ug/Kg	2100	2400 J	4000 U		98000 U		390 U
Carbazole	ug/Kg	1500 J	1800 J	4000 U		98000 U		390 U
Di-n-butylphthalate	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
Fluoranthene	ug/Kg	10000	11000	1500 J		98000 U		390 U
Pyrene	ug/Kg	12000	17000 J	1700 J		98000 U		390 U
Butylbenzylphthalate	ug/Kg	1800 U	3100 U	320 J		98000 U		390 U
3,3'-Dichlorobenzidine	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
Benzofluoranthracene	ug/Kg	4200	4900 J	930 J		98000 U		390 U
Chrysene	ug/Kg	4400	5000 J	1100 J		98000 U		390 U
bis(2-Ethylhexyl)phthalate	ug/Kg	1800 U	200 J	4000 U		98000 U		46 J
Di-n-octylphthalate	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
Benzofluoranthene	ug/Kg	4400 J	5300 J	830 J		98000 U		390 U
Benzofluoranthene	ug/Kg	4900 J	5700 J	710 J		98000 U		390 U
Benzofluoranthene	ug/Kg	4800 J	5300 J	900 J		98000 U		390 U
Benzofluoranthene	ug/Kg	1500 J	1800 J	520 J		98000 U		390 U
Indeno(1,2,3-cd)pyrene	ug/Kg	1800 U	3100 U	4000 U		98000 U		390 U
Dibenz(a,h)anthracene	ug/Kg	1400 J	3100 U	840 J		98000 U		390 U
Benzofluoranthene	ug/Kg							

SENECA ARMY DEPOT  
SEAD-59 ENVIRONMENTAL SITE INSPECTION  
SEDIMENT ANALYSIS RESULTS

COMPOUND	MATRIX LOCATION	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	DEPTH (FEET)	SEAD-59	SEAD-59	SEAD-59	SEAD-59	SEAD-59	SEAD-59	SEAD-59
		7	7	3	1.5	1.5	2	2.5
	SAMPLE DATE	02/20/94	02/20/94	06/08/94	06/28/94	06/28/94	06/08/94	06/08/94
	ES ID	TP59-2	TP59-2RE	TP59-3	TP59-3	TP59-3X	TP59-4	TP59-5
	LAB ID	212043	212043	223515	225801	225802	223516	223517
	SDG NUMBER	42494	42494	44694	45062	45062	44694	44694
	UNITS							
PESTICIDES/PCB								
alpha-BHC	ug/Kg	3.8 U		2.1 U			2.5 U	2 U
beta-BHC	ug/Kg	3.8 U		2.1 U			2.5 U	2 U
delta-BHC	ug/Kg	3.8 U		2.1 U			2.5 U	2 U
gamma-BHC (Lindane)	ug/Kg	3.8 U		2.1 U			2.5 U	2 U
Heptachlor	ug/Kg	3.8 U		2.1 U			2.5 U	2 U
Aldrin	ug/Kg	3.8 U		2.1 U			2.5 U	2 U
Heptachlor epoxide	ug/Kg	2.2 J		2.1 U			2.5 U	2 U
Endosulfan I	ug/Kg	3.6 U		2.1 U			1.5 J	2 U
Dieldrin	ug/Kg	7.3 U		4 U			4.9 U	3.9 U
4,4'-DDE	ug/Kg	26 J		7.7 J			12	3.9 U
Endrin	ug/Kg	7.3 U		4 U			4.9 U	3.9 U
Endosulfan II	ug/Kg	7.1 J		4 U			4.9 U	3.9 U
4,4'-DDD	ug/Kg	15		7 J			25 J	3.9 U
Endosulfan sulfate	ug/Kg	7.3 U		2.6 J			4.9 U	3.9 U
4,4'-DDT	ug/Kg	20 J		8.2 J			4.9 U	3.9 U
Methoxychlor	ug/Kg	36 U		21 U			25 U	20 U
Endrin ketone	ug/Kg	7.3 U		4 U			4.9 U	3.9 U
Endrin aldehyde	ug/Kg	6.3 J		4 U			4.9 U	3.9 U
alpha-Chlordane	ug/Kg	3.8 U		2.1 U			2.5 U	2 U
gamma-Chlordane	ug/Kg	3.6 U		2.1 U			2.5 U	2 U
Toxaphene	ug/Kg	380 U		210 U			250 U	200 U
Aroclor-1016	ug/Kg	73 U		40 U			49 U	39 U
Aroclor-1221	ug/Kg	150 U		82 U			100 U	79 U
Aroclor-1232	ug/Kg	73 U		40 U			49 U	39 U
Aroclor-1242	ug/Kg	73 U		40 U			49 U	39 U
Aroclor-1248	ug/Kg	73 U		40 U			49 U	39 U
Aroclor-1254	ug/Kg	73 U		63			49 U	39 U
Aroclor-1260	ug/Kg	73 U		40 U			49 U	39 U
METALS								
Aluminum	mg/Kg	10200 J		12300 J			14600 J	8730 J
Antimony	mg/Kg	0.47 J		0.32 J			0.65 J	0.25 UJ
Arsenic	mg/Kg	4.8 J		4.6			4.9	4.1
Barium	mg/Kg	52.6 J		104 J			114 J	72 J
Beryllium	mg/Kg	0.43 J		0.52 J			0.72 J	0.33 J
Cadmium	mg/Kg	0.4 J		0.63 J			0.74 J	0.38 J
Calcium	mg/Kg	42700 J		53100 J			7780 J	77700 J
Chromium	mg/Kg	16.9 J		20.7 J			19.9 J	13.2 J
Cobalt	mg/Kg	9.1 J		9.6 J			7.9 J	6.3 J
Copper	mg/Kg	24 J		26.9 J			23.2 J	17.2 J
Iron	mg/Kg	19700 J		23600 J			21000 J	16800 J
Lead	mg/Kg	29.7 J		31.2			19.9	10.2
Magnesium	mg/Kg	6390 J		14800 J			2710 J	15400 J
Manganese	mg/Kg	425 J		426 J			1050 J	326 J
Mercury	mg/Kg	0.04 J		0.11 R			0.17 R	0.05 J R
Nickel	mg/Kg	25.3 J		30.1 J			17.2 J	21.1 J
Potassium	mg/Kg	1350 J		1820			1320	1310
Selenium	mg/Kg	0.12 U		0.49 U			1.9	0.52 U
Silver	mg/Kg	0.09 U		0.09 UJ			0.13 UJ	0.1 UJ
Sodium	mg/Kg	116 J		272 J			2310	169 J
Thallium	mg/Kg	0.21 U		0.34 U			0.48 U	0.37 U
Vanadium	mg/Kg	18.7 J		22.1 J			24 J	15.2 J
Zinc	mg/Kg	72.3 J		89.7 J			73.1 J	52.5 J
Cyanide	mg/Kg	0.55 U		0.46 U			0.69 U	0.45 U
OTHER ANALYSES								
Nitrate/Nitrite-Nitrogen	mg/Kg							
Total Petroleum Hydrocarbons	mg/Kg	1790		440			7870	47
Total Solids	%W/W	89.1		81.9			67.4	64.6

SENECA ARMY DEPOT  
SEAD-50 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

MATRIX LOCATION	WATER	WATER	WATER	WATER
SAMPLE DATE	SEAD-50	SEAD-50	SEAD-50	SEAD-50
ES ID	MW50-1	MW50-4	MW50-2	MW50-3
LAB ID	218048	218049	227728	227727
SDG NUMBER	43179	43179	45448	45448
UNITS		MW50-1DUP		
<b>VOLATILE ORGANICS</b>				
Chloromethane	ug/L	10 U	10 UJ	10 U
Bromomethane	ug/L	10 U	10 UJ	10 U
Vinyl Chloride	ug/L	10 U	10 UJ	10 U
Chloroethane	ug/L	10 U	10 UJ	10 U
Methylene Chloride	ug/L	10 U	10 UJ	10 U
Acetone	ug/L	10 U	10 UJ	10 U
Carbon Disulfide	ug/L	10 U	10 UJ	10 U
1,1-Dichloroethane	ug/L	10 U	10 UJ	10 U
1,1-Dichloroethane	ug/L	10 U	10 UJ	10 U
1,2-Dichloroethane (total)	ug/L	10 U	10 UJ	10 U
Chloroform	ug/L	10 U	10 UJ	10 U
1,2-Dichloroethane	ug/L	10 U	10 UJ	10 U
2-Butanone	ug/L	10 U	10 UJ	10 U
1,1,1-Trichloroethane	ug/L	10 U	10 UJ	10 U
Carbon Tetrachloride	ug/L	10 U	10 UJ	10 U
Bromodichloromethane	ug/L	10 U	10 UJ	10 U
1,2-Dichloropropane	ug/L	10 U	10 UJ	10 U
cis-1,3-Dichloropropene	ug/L	10 U	10 UJ	10 U
Trichloroethane	ug/L	10 U	10 UJ	10 U
Dibromochloromethane	ug/L	10 U	10 UJ	10 U
1,1,2-Trichloroethane	ug/L	10 U	10 UJ	10 U
Benzene	ug/L	10 U	10 UJ	10 U
trans-1,3-Dichloropropene	ug/L	10 U	10 UJ	10 U
Bromoform	ug/L	10 U	10 UJ	10 U
4-Methyl-2-Pentanone	ug/L	10 U	10 UJ	10 U
2-Hexanone	ug/L	10 U	10 UJ	10 U
Tetrachloroethane	ug/L	10 U	10 UJ	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 UJ	10 U
Toluene	ug/L	10 U	10 UJ	10 U
Chlorobenzene	ug/L	10 U	10 UJ	10 U
Ethylbenzene	ug/L	10 U	10 UJ	10 U
Styrene	ug/L	10 U	10 UJ	10 U
Xylene (total)	ug/L	10 U	10 UJ	10 U
<b>HERBICIDES</b>				
2,4-D	ug/L			
2,4-DB	ug/L			
2,4,5-T	ug/L			
2,4,5-TP (Silvex)	ug/L			
Dalapon	ug/L			
Dicamba	ug/L			
Dichloroprop	ug/L			
Dinoseb	ug/L			
MCPA	ug/L			
MCPP	ug/L			
<b>NITROAROMATICS</b>				
HMX	ug/L			
RDX	ug/L			
1,3,5-Trinitrobenzene	ug/L			
1,3-Dinitrobenzene	ug/L			
Tetryl	ug/L			
2,4,6-Trinitrotoluene	ug/L			
4-amino-2,6-Dinitrotoluene	ug/L			
2-amino-4,6-Dinitrotoluene	ug/L			
2,6-Dinitrotoluene	ug/L			
2,4-Dinitrotoluene	ug/L			

SENECA ARMY DEPOT  
SEAD-59 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

MATRIX LOCATION	WATER	WATER	WATER	WATER
SAMPLE DATE	SEAD-59	SEAD-59	SEAD-59	SEAD-59
ES ID	03/30/94	03/30/94	07/21/94	07/21/94
LAB ID	MW59-1	MW59-4	MW59-2	MW59-3
SDG NUMBER	218048	218049	227728	227727
UNITS	43179	43179	45448	45448
COMPOUND				
SEMIVOLATILE ORGANICS				
Phenol	ug/L	10 U	2 J	1 J
bis(2-Chloroethyl) ether	ug/L	10 U	10 U	11 U
2-Chlorophenol	ug/L	10 U	10 U	11 U
1,3-Dichlorobenzene	ug/L	10 U	10 U	11 U
1,4-Dichlorobenzene	ug/L	10 U	10 U	11 U
1,2-Dichlorobenzene	ug/L	10 U	10 U	11 U
2-Methylphenol	ug/L	10 U	10 U	11 U
2,2'-oxybis(1-Chloropropane)	ug/L	10 U	10 U	11 U
4-Methylphenol	ug/L	10 U	10 U	11 U
N-Nitroso-d-n-propylamine	ug/L	10 U	10 U	11 U
Hexachloroethane	ug/L	10 U	10 U	11 U
Nitrobenzene	ug/L	10 U	10 U	11 U
Isophorone	ug/L	10 U	10 U	11 U
2-Nitrophenol	ug/L	10 U	10 U	11 U
2,4-Dimethylphenol	ug/L	10 U	10 U	11 U
bis(2-Chloroethoxy) methane	ug/L	10 U	10 U	11 U
2,4-Dichlorophenol	ug/L	10 U	10 U	11 U
1,2,4-Trichlorobenzene	ug/L	10 U	10 U	11 U
Naphthalene	ug/L	10 U	10 U	11 U
4-Chloroaniline	ug/L	10 U	10 U	11 U
Hexachlorobutadiene	ug/L	10 U	10 U	11 U
4-Chloro-3-methylphenol	ug/L	10 U	10 U	11 U
2-Methylnaphthalene	ug/L	10 U	10 U	11 U
Hexachlorocyclopentadiene	ug/L	10 U	10 U	11 U
2,4,6-Trichlorophenol	ug/L	10 U	10 U	11 U
2,4,5-Trichlorophenol	ug/L	25 U	26 U	26 U
2-Chloronaphthalene	ug/L	10 U	10 U	11 U
2-Nitroaniline	ug/L	25 U	26 U	26 U
Dimethylphthalate	ug/L	10 U	10 U	11 U
Acenaphthylene	ug/L	10 U	10 U	11 U
2,6-Dinitrotoluene	ug/L	25 U	26 U	26 U
3-Nitroaniline	ug/L	10 U	10 U	11 U
Acenaphthene	ug/L	10 U	10 U	26 U
2,4-Dinitrophenol	ug/L	25 U	26 U	26 U
4-Nitrophenol	ug/L	25 U	26 U	26 U
Dibenzofuran	ug/L	10 U	10 U	11 U
2,4-Dinitrotoluene	ug/L	10 U	10 U	11 U
Diethylphthalate	ug/L	10 U	10 U	11 U
4-Chlorophenyl-phenyl ether	ug/L	10 U	10 U	11 U
Fluorene	ug/L	10 U	10 U	11 U
4-Nitroaniline	ug/L	25 U	26 U	26 U
4,6-Dinitro-2-methylphenol	ug/L	25 U	26 U	26 U
N-Nitrosodiphenylamine	ug/L	10 U	10 U	11 U
4-Bromophenyl-phenyl ether	ug/L	10 U	10 U	11 U
Hexachlorobenzene	ug/L	10 U	10 U	11 U
Pentachlorophenol	ug/L	25 U	26 U	26 U
Phenanthrene	ug/L	10 U	10 U	11 U
Anthracene	ug/L	10 U	10 U	11 U
Carbazole	ug/L	10 U	10 U	11 U
Di-n-butylphthalate	ug/L	10 U	10 U	11 U
Fluoranthene	ug/L	10 U	10 U	11 U
Pyrene	ug/L	10 U	10 U	11 U
Butylbenzylphthalate	ug/L	10 U	10 U	11 U
3,3'-Dichlorobenzidine	ug/L	10 U	10 U	11 U
Benzo(a)anthracene	ug/L	10 U	10 U	11 U
Chrysene	ug/L	10 U	10 U	11 U
bis(2-Ethylhexyl)phthalate	ug/L	10 U	10 U	11 U
Di-n-octylphthalate	ug/L	10 U	10 U	11 U
Benzo(b)fluoranthene	ug/L	10 U	10 U	11 U
Benzo(k)fluoranthene	ug/L	10 U	10 U	11 U
Benzo(a)pyrene	ug/L	10 U	10 U	11 U
Indeno(1,2,3-cd)pyrene	ug/L	10 U	10 U	11 U
Dibenz(a,h)anthracene	ug/L	10 U	10 U	11 U
Benzo(g,h,i)perylene	ug/L	10 U	10 U	11 U

SENECA ARMY DEPOT  
SEAD-59 ENVIRONMENTAL SITE INSPECTION  
GROUNDWATER ANALYSIS RESULTS

MATRIX LOCATION	WATER	WATER	WATER	WATER
SAMPLE DATE	SEAD-59	SEAD-59	SEAD-59	SEAD-59
ES ID	MW59-1	MW59-4	MW59-2	MW59-3
LAB ID	218048	218049	227726	227727
SDG NUMBER	43179	43179	45448	45448
COMPOUND	UNITS			
<b>PESTICIDES/PCB</b>				
alpha-BHC	ug/L	0.052 U	0.052 U	0.052 U
beta-BHC	ug/L	0.052 U	0.052 U	0.052 U
delta-BHC	ug/L	0.052 U	0.052 U	0.052 U
gamma-BHC (Lindane)	ug/L	0.052 U	0.052 U	0.052 U
Heptachlor	ug/L	0.052 U	0.052 U	0.052 U
Aldrin	ug/L	0.052 U	0.052 U	0.052 U
Heptachlor epoxide	ug/L	0.052 U	0.052 U	0.052 U
Endosulfan I	ug/L	0.052 U	0.052 U	0.052 U
Dieldrin	ug/L	0.1 U	0.1 U	0.1 U
4,4'-DDE	ug/L	0.1 U	0.1 U	0.1 U
Endrin	ug/L	0.1 U	0.1 U	0.1 U
Endosulfan II	ug/L	0.1 U	0.1 U	0.1 U
4,4'-DDD	ug/L	0.1 U	0.1 U	0.1 U
Endosulfan sulfate	ug/L	0.1 U	0.1 U	0.1 U
4,4'-DDT	ug/L	0.1 U	0.1 U	0.1 U
Methoxychlor	ug/L	0.52 U	0.52 U	0.52 U
Endrin ketone	ug/L	0.1 U	0.1 U	0.1 U
Endrin aldehyde	ug/L	0.1 U	0.1 U	0.1 U
alpha-Chlordane	ug/L	0.052 U	0.052 U	0.052 U
gamma-Chlordane	ug/L	0.052 U	0.052 U	0.052 U
Toxaphene	ug/L	5.2 U	5.2 U	5.2 U
Aroclor-1016	ug/L	1 U	1 U	1 U
Aroclor-1221	ug/L	2.1 U	2.1 U	2.1 U
Aroclor-1232	ug/L	1 U	1 U	1 U
Aroclor-1242	ug/L	1 U	1 U	1 U
Aroclor-1248	ug/L	1 U	1 U	1 U
Aroclor-1254	ug/L	1 U	1 U	1 U
Aroclor-1260	ug/L	1 U	1 U	1 U
<b>METALS</b>				
Aluminum	ug/L	1940	299	2580
Antimony	ug/L	0.99 U	1.3 U	1.3 U
Arsenic	ug/L	2 J	2 U	2 U
Barium	ug/L	102 J	99.8 J	103 J
Beryllium	ug/L	0.06 U	0.1 U	0.1 U
Cadmium	ug/L	0.1 U	0.2 U	0.2 U
Calcium	ug/L	140000	125000	146000
Chromium	ug/L	3.4 J	0.78 J	3.6 J
Cobalt	ug/L	3.5 J	1.1 J	2.1 J
Copper	ug/L	4.3 J	0.5 U	3.6 J
Iron	ug/L	3120	731 J	3940 J
Lead	ug/L	2.4 J	0.9 U	1.5 J
Magnesium	ug/L	29000	29200	21200
Manganese	ug/L	780	109	253
Mercury	ug/L	0.03 U	0.05 J	0.06 J
Nickel	ug/L	7.8 J	1.9 J	6.7 J
Potassium	ug/L	2110 J	2640 J	4150 J
Selenium	ug/L	1.7 U	2.7 U	2.7 U
Silver	ug/L	0.7 U	0.5 U	0.5 U
Sodium	ug/L	66000	32100	239000
Thallium	ug/L	1.6 U	4 J	2.8 J
Vanadium	ug/L	3.4 J	1.1 J	4.7 J
Zinc	ug/L	21.8	4 J	26.2
Cyanide	ug/L	5 U	5 UJ	5 UJ
<b>OTHER ANALYSES</b>				
Nitrate/Nitrite - Nitrogen	mg/L			
Total Petroleum Hydrocarbons	mg/L	1.16 J	2.6 J	1.36
pH	Standard Units	7.2		7.9
Conductivity	umhos/cm	650		750
Temperature	°C	3.9		14.8
Turbidity	NTU	146		14



## QC RINSATES AND TRIP BLANKS

SENECA ARMY DEPOT  
ENVIRONMENTAL SITE INSPECTIONS AT 15 SWMUS  
QUALITY ASSURANCE / QUALITY CONTROL ANALYSIS RESULTS

MATRIX LOCATION	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DATE	02/20/94	02/20/94	07/19/94	06/22/94	06/25/94	06/13/94	06/10/94	02/17/94	04/15/94	07/19/94	07/19/94
ES ID	TP5-1R	TP5-1RRE	MW9-3R	SD12A-1R	TP12B-3R	MW12B-1.03R	SB43-1-00R	SB43-4R	SD43-3R	SD43-3R	MW43-1R
LAB ID	212040	212040	227440	225192	225552	224123	223890	211723	217765	217765	227447
SDG NUMBER	42494	42494	45332	44745	45058	44745	44725	42480	43543	43543	45332
COMPOUND	UNITS	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE
VOLATILE ORGANICS											
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	12	22	10 U
Carbon Disulfide	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
HERBICIDES											
2,4-D	ug/L							1.1 U	1.1 U		1.1 U
2,4-DB	ug/L							1.1 U	1.1 U		1.1 U
2,4,5-T	ug/L							0.11 U	0.11 U		0.11 U
2,4,5-TP (Silvex)	ug/L							0.11 U	0.11 U		0.11 U
Dalapon	ug/L							2.4 U	2.4 U		2.4 U
Dicamba	ug/L							0.11 U	0.11 U		0.11 U
Dichloroprop	ug/L							1.1 U	1.1 U		1.1 U
Dinoseb	ug/L							0.5 U	0.5 U		0.5 U
MCPA	ug/L							110 U	110 U		110 U
MCPP	ug/L							110 U	110 U		110 U
NITROAROMATICS											
HMX	ug/L							0.13 U	0.13 U		0.13 U
RDX	ug/L							0.13 U	0.13 U		0.13 U
1,3,5-Trinitrobenzene	ug/L							0.13 U	0.13 U		0.13 U
1,3-Dinitrobenzene	ug/L							0.13 U	0.13 U		0.13 U
Tetryl	ug/L							0.064 U	0.13 U		0.13 U
2,4,6-Trinitrotoluene	ug/L							0.13 U	0.13 U		0.13 U
4-amino-2,6-Dinitrotoluene	ug/L							0.13 U	0.13 U		0.13 U
2-amino-4,6-Dinitrotoluene	ug/L							0.13 U	0.13 U		0.13 U
2,6-Dinitrotoluene	ug/L							0.13 U	0.13 U		0.13 U
2,4-Dinitrotoluene	ug/L							0.13 U	0.13 U		0.13 U

SENECA ARMY DEPOT  
 ENVIRONMENTAL SITE INSPECTIONS AT 15 SWMUS  
 QUALITY ASSURANCE / QUALITY CONTROL ANALYSIS RESULTS

MATRIX LOCATION	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DATE	02/20/94	02/20/94	07/19/94	06/22/94	06/25/94	06/13/94	06/10/94	02/17/94	04/15/94	07/19/94	07/19/94
ES ID	TP5-1R	TP5-1RRE	MW9-3R	SD12A-1R	TP12B-3R	MW12B-1.03R	SB43-1-00R	SB43-4R	SD43-3R	SD43-3R	MW43-1R
LAB ID	212040	212040	227440	225182	225552	224123	223890	211723	217765	227447	227447
SDG NUMBER	42494	42494	45332	44745	45058	44745	44725	42480	43543	45332	45332
COMPOUND	UNITS	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE
SEMIVOLATILE ORGANICS											
Phenol	ug/L	10 U	11 UJ	10 U	10 U	2 J	1 J	10 U	10 U	11 U	11 U
bis(2-Chloroethyl) ether	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
2-Chlorophenol	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
1,3-Dichlorobenzene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
1,4-Dichlorobenzene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
1,2-Dichlorobenzene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
2-Methylphenol	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
2,2'-oxybis(1-Chloropropane)	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
4-Methylphenol	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
N-Nitroso-d-n-propylamine	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Hexachloroethane	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Nitrobenzene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Isophorone	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
2-Nitrophenol	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
2,4-Dimethylphenol	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
bis(2-Chloroethoxy) methane	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
2,4-Dichlorophenol	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
1,2,4-Trichlorobenzene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Naphthalene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
4-Chloroaniline	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Hexachlorobutadiene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
4-Chloro-3-methylphenol	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
2-Methylnaphthalene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Hexachlorocyclopentadiene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
2,4,6-Trichlorophenol	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
2,4,5-Trichlorophenol	ug/L	26 U	27 UJ	25 U	26 U	25 U	26 U	26 U	26 U	27 U	27 U
2-Chloronaphthalene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
2-Nitroaniline	ug/L	26 U	27 UJ	25 U	26 U	25 U	26 U	26 U	26 U	27 U	27 U
Dimethylphthalate	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Acenaphthylene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
2,6-Dinitrotoluene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
3-Nitroaniline	ug/L	26 U	27 UJ	25 U	26 U	25 U	26 U	26 U	26 U	27 U	27 U
Acenaphthene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
2,4-Dinitrophenol	ug/L	26 U	27 UJ	25 U	26 U	25 U	26 U	26 U	26 U	27 U	27 U
4-Nitrophenol	ug/L	26 U	27 UJ	25 U	26 U	25 U	26 U	26 U	26 U	27 U	27 U
Dibenzofuran	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
2,4-Dinitrotoluene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Diethylphthalate	ug/L	10 U	11 UJ	10 U	10 U	0.7 J	10 U	10 U	10 U	0.6 J	0.6 J
4-Chlorophenyl-phenylether	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Fluorene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
4-Nitroaniline	ug/L	26 U	27 UJ	25 U	26 U	25 U	26 U	26 U	26 U	27 U	27 U
4,6-Dinitro-2-methylphenol	ug/L	26 U	27 UJ	25 U	26 U	25 U	26 U	26 U	26 U	27 U	27 U
N-Nitrosodiphenylamine	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
4-Bromophenyl-phenylether	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Hexachlorobenzene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Pentachlorophenol	ug/L	26 U	27 UJ	25 U	26 U	25 U	26 U	26 U	26 U	27 U	27 U
Phenanthrene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Anthracene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Carbazole	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Di-n-butylphthalate	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	0.8 J	0.8 J
Fluoranthene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Pyrene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Butylbenzylphthalate	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
3,3'-Dichlorobenzidine	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Benzo(a)anthracene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Chrysene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
bis(2-Ethylhexyl)phthalate	ug/L	10 U	11 UJ	10 U	10 U	7 BJ	10 U	10 U	10 U	4 JB	4 JB
Di-n-octylphthalate	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Benzo(b)fluoranthene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Benzo(k)fluoranthene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Benzo(a)pyrene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Indeno(1,2,3-cd)pyrene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Dibenz(a,h)anthracene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U
Benzo(g,h,i)perylene	ug/L	10 U	11 UJ	10 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U

SENECA ARMY DEPOT  
ENVIRONMENTAL SITE INSPECTIONS AT 15 SWMUS  
QUALITY ASSURANCE / QUALITY CONTROL ANALYSIS RESULTS

MATRIX LOCATION	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DATE	02/20/94	02/20/94	07/19/94	06/22/94	06/25/94	06/13/94	06/10/94	02/17/94	04/15/94	07/19/94	07/19/94
ES ID	TP5-1R	TP5-1RRE	MW9-3R	SD12A-1R	TP12B-3R	MW12B-1.03R	SB43-1-00R	SB43-4R	SD43-3R	SD43-3R	MW43-1R
LAB ID	212040	212040	227440	225192	225552	224123	223890	211723	217765	227447	227447
SDG NUMBER	42494	42494	45332	44745	45058	44745	44725	42460	43543	45332	45332
COMPOUND	UNITS	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE
<b>PESTICIDES/PCB</b>											
alpha-BHC	ug/L	0.052 U		0.054 U	0.052 U	0.051 U	0.052 U	0.054 U	0.052 U	0.051 U	0.051 U
beta-BHC	ug/L	0.052 U		0.054 U	0.052 U	0.051 U	0.052 U	0.03 J	0.052 U	0.051 U	0.051 U
delta-BHC	ug/L	0.052 U		0.054 U	0.052 U	0.051 U	0.052 U	0.054 U	0.052 U	0.051 U	0.051 U
gamma-BHC (Lindane)	ug/L	0.052 U		0.054 U	0.052 U	0.051 U	0.052 U	0.054 U	0.052 U	0.051 U	0.051 U
Heptachlor	ug/L	0.052 U		0.054 U	0.052 U	0.051 U	0.052 U	0.054 U	0.052 U	0.051 U	0.051 U
Aldrin	ug/L	0.052 U		0.054 U	0.052 U	0.051 U	0.052 U	0.054 U	0.052 U	0.051 U	0.051 U
Heptachlor epoxide	ug/L	0.052 U		0.054 U	0.052 U	0.051 U	0.052 U	0.054 U	0.052 U	0.051 U	0.051 U
Endosulfan I	ug/L	0.052 U		0.054 U	0.052 U	0.051 U	0.052 U	0.054 U	0.052 U	0.051 U	0.051 U
Dieldrin	ug/L	0.1 U		0.11 U	0.1 U	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U
4,4'-DDE	ug/L	0.1 U		0.11 U	0.1 U	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U
Endrin	ug/L	0.1 U		0.11 U	0.1 U	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U
Endosulfan II	ug/L	0.1 U		0.11 U	0.1 U	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U
4,4'-DDD	ug/L	0.1 U		0.11 U	0.1 U	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U
Endosulfan sulfate	ug/L	0.1 U		0.11 U	0.1 U	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	ug/L	0.1 U		0.11 U	0.1 U	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U
Methoxychlor	ug/L	0.52 U		0.54 U	0.52 U	0.51 U	0.52 U	0.54 U	0.52 U	0.51 U	0.51 U
Endrin ketone	ug/L	0.1 U		0.11 U	0.1 U	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	ug/L	0.1 U		0.11 U	0.1 U	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U
alpha-Chlordane	ug/L	0.052 U		0.054 U	0.052 U	0.051 U	0.052 U	0.054 U	0.052 U	0.051 U	0.051 U
gamma-Chlordane	ug/L	0.052 U		0.054 U	0.052 U	0.051 U	0.052 U	0.054 U	0.052 U	0.051 U	0.051 U
Toxaphene	ug/L	5.2 U		5.4 U	5.2 U	5.1 U	5.2 U	5.4 U	5.2 U	5.1 U	5.1 U
Aroclor-1016	ug/L	1 U		1.1 U	1 U	1 U	1 U	1.1 U	1 U	1 U	1 U
Aroclor-1221	ug/L	2.1 U		2.2 U	2.1 U	2 U	2.1 U	2.1 U	2.1 U	2.1 U	2 U
Aroclor-1232	ug/L	1 U		1.1 U	1 U	1 U	1 U	1.1 U	1 U	1 U	1 U
Aroclor-1242	ug/L	1 U		1.1 U	1 U	1 U	1 U	1.1 U	1 U	1 U	1 U
Aroclor-1246	ug/L	1 U		1.1 U	1 U	1 U	1 U	1.1 U	1 U	1 U	1 U
Aroclor-1254	ug/L	1 U		1.1 U	1 U	1 U	1 U	1.1 U	1 U	1 U	1 U
Aroclor-1260	ug/L	1 U		1.1 U	1 U	1 U	1 U	1.1 U	1 U	1 U	1 U
<b>METALS</b>											
Aluminum	ug/L	40.1 J		21.7 J	99.2 J	25.5 J	13.2 J	41.8 U	20 J	8.7 UJ	
Antimony	ug/L	0.99 U		1.3 U	4.2 J	1.3 U	1.3 U	21.5 U	1.5 J	1.3 U	
Arsenic	ug/L	1.5 U		2 U	2.4 J	2 U	2 U	1.4 U	1.5 U	2 U	
Barium	ug/L	2.2 U		2 U	2 U	2 U	2 U	3.5 U	2.2 U	2 U	
Beryllium	ug/L	0.06 U		0.1 U	0.9 J	0.1 U	0.1 U	0.4 U	0.17 J	0.1 U	
Cadmium	ug/L	0.1 U		0.2 U	0.88 J	0.2 U	0.2 U	2.1 U	0.28 J	0.2 U	
Calcium	ug/L	41.1 U		98.7 J	408 J	132 J	131 U	127 U	811 J	40.7 U	
Chromium	ug/L	0.4 U		0.4 U	1.1 J	2.6 J	0.61 J	2.6 U	0.79 J	0.4 U	
Cobalt	ug/L	0.8 U		0.5 U	1 J	0.54 J	0.5 U	4.4 U	0.87 J	0.5 U	
Copper	ug/L	1.1 J		1.2 J	2.4 J	1.1 J	1.7 J	4 J	12.2 J	0.85 J	
Iron	ug/L	9.6 U		16.5 J	121	30.1 J	25.7 J	17.8 J	42.2 J	11.7 U	
Lead	ug/L	0.8 U		0.9 U	1.7 J	0.89 U	0.9 U	0.89 U	0.79 U	0.9 U	
Magnesium	ug/L	31.2 U		34.4 U	133 J	34.4 U	34.4 U	114 U	65.9 J	34.8 U	
Manganese	ug/L	0.5 U		0.36 J	1.3 J	0.73 J	0.8 U	1.1 U	0.81 J	0.2 U	
Mercury	ug/L	0.04 U		0.03 J	0.04 U	0.11 J	0.03 U	0.04 U	0.03 U	0.06 J	
Nickel	ug/L	0.8 U		0.7 U	3.1 J	0.7 U	4.1 J	4 U	2.8 J	0.7 U	
Potassium	ug/L	43.4 U		47.2 U	98.2 J	47.2 U	47.3 U	906 U	53.6 J	47.5 U	
Selenium	ug/L	1.5 J		2.7 U	2.7 U	2.7 U	2.7 U	1.1 U	1.7 U	2.7 U	
Silver	ug/L	0.7 U		0.5 U	1.1 J	0.6 J	0.5 U	4.2 U	0.89 U	1.9 J	
Sodium	ug/L	1350 J		1200 J	1170 J	1150 J	1480 J	1990 J	1460 J	523 J	
Thallium	ug/L	1.2 U		1.9 U	2.7 J	1.9 U	1.9 U	1.2 U	2.3 J	2.6 J	
Vanadium	ug/L	0.7 U		0.5 U	1.1 J	0.5 U	0.5 U	3.7 U	0.89 U	0.5 U	
Zinc	ug/L	9.8 J		9.5 J	16.1 J	8.1 J	5.6 J	3.3 J	12.6 J	2.2 U	
Cyanide	ug/L	5 U		5 U	5 U	5 U	5 U	5 U	5 U	5 U	
<b>OTHER ANALYSES</b>											
Nitrate/Nitrite - Nitrogen	mg/L	0.01					0.03	0.02	0.01	0.01	
Total Petroleum Hydrocarbons	mg/L	0.39 U		0.36 U				0.41 U			

BENECA ARMY DEPOT  
ENVIRONMENTAL SITE INSPECTIONS AT 15 8WMUS  
QUALITY ASSURANCE / QUALITY CONTROL ANALYSIS RESULTS

MATRIX LOCATION SAMPLE DATE ES ID LAB ID SDG NUMBER	WATER SEAD-43 03/28/94 MW43-3R 21556 43179	WATER SEAD-43 02/17/94 SB43-4RRE 211723 42480	WATER SEAD-44 07/12/94 MW44A-1R 228788 45282	WATER SEAD-44 04/13/94 SS44A-1R 217677 43535	WATER SEAD-59 05/28/94 SB59-2-00R 222480 44410	WATER SEAD-60 02/28/94 SB60-1R 212865 42510	WATER SEAD-60 05/27/94 SB60-1-00R 222474 44410	WATER SEAD-60 06/07/94 SB60-2-00R 223338 44410	WATER SEAD-60 06/07/94 SB60-2-00RRE 223338 44410	WATER SEAD-60 07/07/94 MW60-2R 226304 45257
COMPOUND	UNITS	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE
VOLATILE ORGANICS										
Chloromethane	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	28		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane (total)	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	ug/L	10 U		10 U	10 U	10 U	13 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethane	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	ug/L	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U
HERBICIDES										
2,4-D	ug/L	1.1 U								
2,4-DB	ug/L	1.1 U								
2,4,5-T	ug/L	0.11 U								
2,4,5-TP (Silvex)	ug/L	0.11 U								
Dalapon	ug/L	2.4 U								
Dicamba	ug/L	1.1 U								
Dichloroprop	ug/L	1.1 U								
Dinoseb	ug/L	0.51 U								
MCPA	ug/L	110 U								
MCPP	ug/L	110 U								
NITROAROMATICS										
HMX	ug/L	0.13 UJ		0.13 U	0.13 U					
RDX	ug/L	0.13 UJ		0.13 U	0.13 U					
1,3,5-Trinitrobenzene	ug/L	0.13 UJ		0.13 U	0.13 U					
1,3-Dinitrobenzene	ug/L	0.13 UJ		0.13 U	0.13 U					
Tetryl	ug/L	0.13 UJ		0.13 U	0.13 U					
2,4,6-Trinitrotoluene	ug/L	0.13 UJ		0.13 U	0.13 U					
4-amino-2,6-Dinitrotoluene	ug/L	0.13 UJ		0.13 U	0.13 U					
2-amino-4,6-Dinitrotoluene	ug/L	0.13 UJ		0.13 U	0.13 U					
2,6-Dinitrotoluene	ug/L	0.13 UJ		0.13 U	0.13 U					
2,4-Dinitrotoluene	ug/L	0.13 UJ		0.13 U	0.13 U					

SENECA ARMY DEPOT  
ENVIRONMENTAL SITE INSPECTIONS AT 15 SWMUS  
QUALITY ASSURANCE / QUALITY CONTROL ANALYSIS RESULTS

MATRIX LOCATION SAMPLE DATE ES ID LAB ID SDG NUMBER COMPOUND UNITS	WATER SEAD-43 03/28/94 MW43-3R 215558 43179 RINSATE	WATER SEAD-43 02/17/94 SB43-4FRE 211723 42480 RINSATE	WATER SEAD-44 07/12/94 MW44A-1R 228788 43535 RINSATE	WATER SEAD-44 04/13/94 SB44A-1R 217077 43535 RINSATE	WATER SEAD-59 05/28/94 SB59-2-00R 222480 44410 RINSATE	WATER SEAD-60 02/28/94 SB60-1R 212885 44510 RINSATE	WATER SEAD-60 05/27/94 SB60-1-00R 222474 44410 RINSATE	WATER SEAD-60 08/07/94 SB60-2-00R 223338 44410 RINSATE	WATER SEAD-60 06/07/94 SB60-2-00RRE 223338 44410 RINSATE	WATER SEAD-60 07/07/94 MW60-2R 226304 45257 RINSATE
SEMIVOLATILE ORGANICS										
Phenol	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
bis(2-Chloroethyl) ether	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
2-Chlorophenol	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
1,3-Dichlorobenzene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
1,4-Dichlorobenzene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
1,2-Dichlorobenzene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
2-Methylphenol	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
2,2'-oxybis(1-Chloropropane)	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
4-Methylphenol	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
N-Nitroso-d-n-propylamine	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Hexachloroethane	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Nitrobenzene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Isophorone	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
2-Nitrophenol	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
2,4-Dimethylphenol	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
bis(2-Chloroethoxy) methane	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
2,4-Dichlorophenol	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
1,2,4-Trichlorobenzene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Naphthalene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
4-Chloroaniline	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Hexachlorobutadiene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
4-Chloro-3-methylphenol	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
2-Methylnaphthalene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Hexachlorocyclopentadiene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
2,4,6-Trichlorophenol	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
2,4,5-Trichlorophenol	ug/L	26 U	26 U	26 U	25 U	26 U	25 U	25 U	27 U	26 U
2-Chloronaphthalene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
2-Nitroaniline	ug/L	26 U	26 U	26 U	25 U	26 U	25 U	25 U	27 U	26 U
Dimethylphthalate	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Acenaphthylene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
2,6-Dinitrotoluene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
3-Nitroaniline	ug/L	26 U	26 U	26 U	25 U	26 U	25 U	25 U	27 U	26 U
Acenaphthene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
2,4-Dinitrophenol	ug/L	26 U	26 U	26 U	25 U	26 U	25 U	25 U	27 U	26 U
4-Nitrophenol	ug/L	26 U	26 U	26 U	25 U	26 U	25 U	25 U	27 U	26 U
Dibenzofuran	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
2,4-Dinitrotoluene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Diethylphthalate	ug/L	10 U	10 U	11 U	10 U	10 U	0.8 J	10 U	11 U	0.7 J
4-Chlorophenyl-phenyl ether	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Fluorene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
4-Nitroaniline	ug/L	26 U	26 U	26 U	25 U	26 U	25 U	25 U	27 U	26 U
4,6-Dinitro-2-methylphenol	ug/L	26 U	26 U	26 U	25 U	26 U	25 U	25 U	27 U	26 U
N-Nitrosodiphenylamine	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
4-Bromophenyl-phenyl ether	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Hexachlorobenzene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Pentachlorophenol	ug/L	26 U	26 U	26 U	25 U	26 U	25 U	25 U	27 U	26 U
Phenanthrene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Anthracene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Carbazole	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Di-n-butylphthalate	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	0.7 J
Fluoranthene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Pyrene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Butylbenzyl phthalate	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
3,3'-Dichlorobenzidine	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Benzo(a)anthracene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Chrysene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
bis(2-Ethylhexyl)phthalate	ug/L	10 U	14 U	11 U	10 U	10 U	10 U	10 U	11 U	34 B
Di-n-octylphthalate	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Benzo(b)fluoranthene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Benzo(k)fluoranthene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Benzo(a)pyrene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Indeno(1,2,3-cd)pyrene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Dibenz(a,h)anthracene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U
Benzo(g,h,i)perylene	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	10 U	11 U	11 U

SENECA ARMY DEPOT  
 ENVIRONMENTAL SITE INSPECTIONS AT 15 SWMUS  
 QUALITY ASSURANCE / QUALITY CONTROL ANALYSIS RESULTS

MATRIX LOCATION	WATER SEAD-43	WATER SEAD-43	WATER SEAD-44	WATER SEAD-44	WATER SEAD-59	WATER SEAD-60	WATER SEAD-60	WATER SEAD-60	WATER SEAD-60	WATER SEAD-60	WATER SEAD-60
SAMPLE DATE	03/28/94	02/17/94	07/12/94	04/13/94	05/28/94	02/28/94	05/27/94	06/07/94	06/07/94	06/07/94	07/07/94
ES ID	MW43-3R	SB43-4RRE	MW44A-1R	SB44A-1R	SB59-2-00R	SB60-1R	SB60-1-00R	SB60-2-00R	SB60-2-00R	SB60-2-00RRE	MW60-2R
LAB ID	215556	211723	226786	217677	222460	212685	222474	223338	223338	223338	226304
SDG NUMBER	43179	42460	45262	43535	44410	42510	44410	44410	44410	44410	45257
COMPOUND	UNITS	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE
<b>PESTICIDES/PCB</b>											
alpha-BHC	ug/L	0.052 U	0.052 U	0.056 U	0.051 U	0.052 U	0.051 U	0.052 U	0.052 U	0.052 U	0.051 U
beta-BHC	ug/L	0.052 U	0.052 U	0.056 U	0.051 U	0.052 U	0.051 U	0.052 U	0.052 U	0.052 U	0.051 U
delta-BHC	ug/L	0.052 U	0.052 U	0.056 U	0.051 U	0.052 U	0.051 U	0.052 U	0.052 U	0.052 U	0.051 U
gamma-BHC (Lindane)	ug/L	0.052 U	0.052 U	0.056 U	0.051 U	0.052 U	0.051 U	0.052 U	0.052 U	0.052 U	0.051 U
Heptachlor	ug/L	0.052 U	0.052 U	0.056 U	0.051 U	0.052 U	0.051 U	0.052 U	0.052 U	0.052 U	0.051 U
Aldrin	ug/L	0.052 U	0.052 U	0.056 U	0.051 U	0.052 U	0.051 U	0.052 U	0.052 U	0.052 U	0.051 U
Heptachlor epoxide	ug/L	0.052 U	0.052 U	0.056 U	0.051 U	0.052 U	0.051 U	0.052 U	0.052 U	0.052 U	0.051 U
Endosulfan I	ug/L	0.052 U	0.052 U	0.056 U	0.051 U	0.052 U	0.051 U	0.052 U	0.052 U	0.052 U	0.051 U
Dieldrin	ug/L	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDE	ug/L	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/L	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan II	ug/L	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDD	ug/L	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan sulfate	ug/L	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	ug/L	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Methoxychlor	ug/L	0.52 U	0.52 U	0.56 U	0.51 U	0.52 U	0.51 U	0.52 U	0.52 U	0.52 U	0.51 U
Endrin ketone	ug/L	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	ug/L	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
alpha-Chlordane	ug/L	0.052 U	0.052 U	0.056 U	0.051 U	0.052 U	0.051 U	0.052 U	0.052 U	0.052 U	0.051 U
gamma-Chlordane	ug/L	0.052 U	0.052 U	0.056 U	0.051 U	0.052 U	0.051 U	0.052 U	0.052 U	0.052 U	0.051 U
Toxaphene	ug/L	5.2 U	5.2 U	5.6 U	5.1 U	5.2 U	5.1 U	5.2 U	5.2 U	5.2 U	5.1 U
Aroclor-1016	ug/L	1 U	1 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1221	ug/L	2.1 U	2.1 U	2.2 U	2 U	2.1 U	2 U	2.1 U	2.1 U	2.1 U	2 U
Aroclor-1232	ug/L	1 U	1 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1242	ug/L	1 U	1 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1248	ug/L	1 U	1 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1254	ug/L	1 U	1 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1260	ug/L	1 U	1 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
<b>METALS</b>											
Aluminum	ug/L	25.8 J	8.7 U	187 J	23.5 J	21.9 J	35 J	25.8 J	25.8 J	25.8 J	17.6 J
Antimony	ug/L	1 U	1.3 U	1 U	1.3 U	1 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Arsenic	ug/L	1.5 U	2 U	1.5 U	2 U	1.5 U	2 U	2 U	2 U	2 U	2 U
Barium	ug/L	2.2 U	2 U	2.2 U	2 U	2.2 U	2 U	2 U	2 U	2 U	2 U
Beryllium	ug/L	0.06 U	0.1 U	0.06 U	0.1 U	0.06 U	0.1 U	0.06 U	0.06 U	0.06 U	0.1 U
Cadmium	ug/L	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Calcium	ug/L	170 J	40.6 U	95.6 J	45.1 J	88.6 J	40.4 U	144 J	144 J	144 J	46.8 J
Chromium	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Cobalt	ug/L	0.8 U	0.5 U	0.6 U	0.5 U	0.6 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Copper	ug/L	13.6 J	1.4 J	1.2 J	0.89 J	3.9 J	0.95 J	0.76 J	0.76 J	0.76 J	0.82 J
Iron	ug/L	18.3 J	15.8 J	146	11.8 U	29.3 J	14.4 J	12.7 J	12.7 J	12.7 J	11.8 U
Lead	ug/L	0.8 U	0.9 U	0.6 U	0.89 U	0.6 U	0.89 U	1.2 J	1.2 J	1.2 J	0.89 U
Magnesium	ug/L	31.4 U	34.5 U	39.3 J	34.3 U	31.4 U	34.3 U	34.4 U	34.4 U	34.4 U	34.3 U
Manganese	ug/L	0.5 U	0.2 U	1.4 J	0.2 U	1.2 J	0.27 J	0.27 J	0.27 J	0.27 J	0.2 U
Mercury	ug/L	0.03 U	0.04 U	0.03 U	0.03 U	0.04 U	0.04 J	0.03 J	0.03 J	0.03 J	0.05 J
Nickel	ug/L	0.96 J	0.7 U	3.2 J	3.1 J	0.89 J	8.9 J	3.8 J	3.8 J	3.8 J	0.69 U
Potassium	ug/L	43.8 U	47.4 U	54.8 J	47.1 U	43.8 U	47.1 U	47.3 U	47.3 U	47.3 U	47.1 U
Selenium	ug/L	1.7 U	2.7 U	1.7 U	2.7 U	1.1 J	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U
Silver	ug/L	0.7 U	0.5 U	3.9 U	0.5 U	0.7 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Sodium	ug/L	1520 J	496 J	1550 J	1050 J	1380 J	1500 J	1110 J	1110 J	1110 J	421 J
Thallium	ug/L	1.8 U	1.9 U	1.8 U	3 J	1.2 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Vanadium	ug/L	0.7 U	0.5 U	0.7 U	0.5 U	0.7 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Zinc	ug/L	18.5 J	2.2 U	3.7 J	6.5 J	4.1 J	3.9 J	12 J	12 J	12 J	2.2 U
Cyanide	ug/L	5 U	5 U	5 U	5 U	5.9 U	5 U	5 U	5 U	5 U	5 U
<b>OTHER ANALYSES</b>											
Nitrate/Nitrite - Nitrogen	mg/L	0.01 U	0.01	0.02	0.77	0.41 U	0.41	0.41 U	0.41 U	0.41 U	0.37 U
Total Petroleum Hydrocarbons	mg/L	0.4 U									

SENECA ARMY DEPOT  
 ENVIRONMENTAL SITE INSPECTIONS AT 15 SWMUS  
 QUALITY ASSURANCE / QUALITY CONTROL ANALYSIS RESULTS

MATRIX LOCATION	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SEAD-60	SEAD-63	SEAD-63	SEAD-64	SEAD-64	SEAD-64	SEAD-64	SEAD-69	SEAD-69	SEAD-69	SEAD-69
04/20/94	06/27/94	06/28/94	04/11/94	04/11/94	06/24/94	05/17/94	02/17/94	02/17/94	02/17/94	02/17/94
SW60-3R	TP63-7R	TP63-11R	SS64C-1R	SS64C-1RRE	SB64D-3R	SB69-1R	DAF2-17	DAF2-17	DAF2-17	DAF2-17RE
218492	225567	225800	217071	217071	225474	221353	211776	211776	211776	211776
43683	45082	45082	43257	43257	44799	44090	42510	42510	42510	42510
SDG NUMBER	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE
UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS
VOLATILE ORGANICS										
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	2 J	10 U	10 U	10 U	10 U	7 J	10 U	10 U	10 U
Carbon Disulfide	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromochloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
HERBICIDES										
2,4-D	ug/L						1.2 U		1.1 U	
2,4-DB	ug/L						1.2 U		1.1 U	
2,4,5-T	ug/L						0.12 U		0.11 U	
2,4,5-TP (Silvex)	ug/L						0.12 U		0.11 U	
Dalapon	ug/L						2.8 U		2.4 U	
Dicamba	ug/L						0.12 U		0.11 U	
Dichloroprop	ug/L						1.2 U		1.1 U	
Dinoseb	ug/L						0.59 U		0.52 U	
MCPA	ug/L						120 U		110 U	
MCPP	ug/L						120 U		110 U	
NITROAROMATICS										
HMX	ug/L						0.13 U		0.13 U	
RDX	ug/L						0.13 U		0.13 U	
1,3,5-Trinitrobenzene	ug/L						0.13 U		0.13 U	
1,3-Dinitrobenzene	ug/L						0.13 U		0.13 U	
Tetryl	ug/L						0.11 J		0.13 U	
2,4,6-Trinitrotoluene	ug/L						0.13 U		0.13 U	
4-amino-2,6-Dinitrotoluene	ug/L						0.13 U		0.13 U	
2-amino-4,6-Dinitrotoluene	ug/L						0.13 U		0.13 U	
2,6-Dinitrotoluene	ug/L						0.13 U		0.13 U	
2,4-Dinitrotoluene	ug/L						0.13 U		0.13 U	



SENECA ARMY DEPOT  
 ENVIRONMENTAL SITE INSPECTIONS AT 15 SWMUS  
 QUALITY ASSURANCE / QUALITY CONTROL ANALYSIS RESULTS

MATRIX LOCATION	WATER SEAD-80	WATER SEAD-83	WATER SEAD-83	WATER SEAD-84	WATER SEAD-84	WATER SEAD-84	WATER SEAD-84	WATER SEAD-89	WATER	WATER
SAMPLE DATE	04/20/94	06/27/94	06/28/94	04/11/94	04/11/94	06/24/94	05/17/94	02/17/94	02/17/94	02/17/94
ES ID	SW80-3R	TP83-7R	TP83-11R	SS84C-1R	SS84C-1RRE	SB84D-3R	SB89-1R	DAF2-17	DAF2-17RE	DAF2-17RE
LAB ID	218492	225567	225800	217071	217071	225474	221353	211776	211776	211776
SDG NUMBER	43683	45082	45082	43257	43257	44799	44090	42510	42510	42510
COMPOUND UNITS	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	DIST. WATER	DIST. WATER	DIST. WATER
SEMIVOLATILE ORGANICS										
Phenol	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
bis(2-Chloroethyl) ether	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
2-Chlorophenol	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
1,3-Dichlorobenzene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
1,4-Dichlorobenzene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
1,2-Dichlorobenzene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
2-Methylphenol	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
2,2'-oxybis(1-Chloropropane)	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
4-Methylphenol	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
N-Nitroso-d-n-propylamine	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Hexachloroethane	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Nitrobenzene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Isophorone	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
2-Nitrophenol	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
2,4-Dimethylphenol	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
bis(2-Chloroethoxy) methane	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
2,4-Dichlorophenol	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
1,2,4-Trichlorobenzene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Naphthalene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
4-Chloroaniline	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Hexachlorobutadiene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
4-Chloro-3-methylphenol	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
2-Methylnaphthalene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Hexachlorocyclopentadiene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
2,4,6-Trichlorophenol	ug/L	34 U	25 U	27 U	27 U	25 U	26 U	25 U	26 U	26 UJ
2,4,5-Trichlorophenol	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
2-Chloronaphthalene	ug/L	34 U	25 U	27 U	27 U	25 U	26 U	25 U	26 U	26 UJ
2-Nitroaniline	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Dimethylphthalate	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Acenaphthylene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
2,6-Dinitrotoluene	ug/L	34 U	25 U	27 U	27 U	25 U	26 U	25 U	26 U	26 UJ
3-Nitroaniline	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Acenaphthene	ug/L	34 U	25 U	27 U	27 U	25 U	26 U	25 U	26 U	26 UJ
2,4-Dinitrophenol	ug/L	34 U	25 U	27 U	27 U	25 U	26 U	25 U	26 U	26 UJ
4-Nitrophenol	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Dibenzofuran	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
2,4-Dinitrotoluene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Diethylphthalate	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
4-Chlorophenyl-phenyl ether	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Fluorene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
4-Nitroaniline	ug/L	34 U	25 U	27 U	27 U	25 U	26 U	25 U	26 U	26 UJ
4,6-Dinitro-2-methylphenol	ug/L	34 U	25 U	27 U	27 U	25 U	26 U	25 U	26 U	26 UJ
N-Nitrosodiphenylamine	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
4-Bromophenyl-phenyl ether	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Hexachlorobenzene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Pentachlorophenol	ug/L	34 U	25 U	27 U	27 U	25 U	26 U	25 U	26 U	26 UJ
Phenanthrene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Anthracene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Carbazole	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Di-n-butylphthalate	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Fluoranthene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Pyrene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Butylbenzylphthalate	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
3,3'-Dichlorobenzidine	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Benzo(a)anthracene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Chrysene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
bis(2-Ethylhexyl)phthalate	ug/L	14 U	10 U	11 U	11 U	10 U	2 J	10 U	10 U	12 UJ
Di-n-octylphthalate	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Benzo(b)fluoranthene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Benzo(k)fluoranthene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Benzo(a)pyrene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Indeno(1,2,3-cd)pyrene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Dibenz(a,h)anthracene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ
Benzo(g,h,i)perylene	ug/L	14 U	10 U	11 U	11 U	10 U	10 U	10 U	10 U	10 UJ

SENECA ARMY DEPOT  
 ENVIRONMENTAL SITE INSPECTIONS AT 15 SWMUS  
 QUALITY ASSURANCE / QUALITY CONTROL ANALYSIS RESULTS

MATRIX LOCATION	WATER SEAD-80	WATER SEAD-83	WATER SEAD-83	WATER SEAD-84	WATER SEAD-84	WATER SEAD-84	WATER SEAD-84	WATER SEAD-89	WATER	WATER
SAMPLE DATE	04/20/94	06/27/94	06/28/94	04/11/94	04/11/94	06/24/94	06/24/94	05/17/94	02/17/94	02/17/94
ES ID	SW80-3R	TP63-7R	TP63-11R	SS84C-1R	SS84C-1RRE	SB64D-3R	SB64D-3R	SB69-1R	DAF2-17	DAF2-17RE
LAB ID	218492	225567	225800	217071	217071	225474	221353	221353	211776	211776
SDG NUMBER	43683	45062	45062	43257	43257	44799	44090	44090	42510	42510
COMPOUND	UNITS	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	RINSATE	DIST. WATER	DIST. WATER
<b>PESTICIDES/PCB</b>										
alpha-BHC	ug/L	0.054 U	0.052 UJ	0.054 U	0.052 U		0.053 U	0.052 U	0.052 U	
beta-BHC	ug/L	0.054 U	0.052 UJ	0.054 U	0.052 U		0.053 U	0.052 U	0.052 U	
delta-BHC	ug/L	0.054 U	0.052 UJ	0.054 U	0.052 U		0.053 U	0.052 U	0.052 U	
gamma-BHC (Lindane)	ug/L	0.054 U	0.052 UJ	0.054 U	0.052 U		0.053 U	0.052 U	0.052 U	
Heptachlor	ug/L	0.054 U	0.052 UJ	0.054 U	0.052 U		0.053 U	0.052 U	0.052 U	
Aldrin	ug/L	0.054 U	0.052 UJ	0.054 U	0.052 U		0.053 U	0.052 U	0.052 U	
Heptachlor epoxide	ug/L	0.054 U	0.052 UJ	0.054 U	0.052 U		0.053 U	0.052 U	0.052 U	
Endosulfan I	ug/L	0.054 U	0.052 UJ	0.054 U	0.052 U		0.053 U	0.052 U	0.052 U	
Dieldrin	ug/L	0.11 U	0.1 UJ	0.055 J	0.1 U		0.11 U	0.1 U	0.1 U	
4,4'-DDE	ug/L	0.11 U	0.1 UJ	0.11 U	0.1 U		0.11 U	0.1 U	0.1 U	
Endrin	ug/L	0.11 U	0.1 UJ	0.062 J	0.1 U		0.11 U	0.1 U	0.1 U	
Endosulfan II	ug/L	0.11 U	0.1 UJ	0.11 U	0.1 U		0.11 U	0.1 U	0.1 U	
4,4'-DDD	ug/L	0.11 U	0.1 UJ	0.11 U	0.1 U		0.11 U	0.1 U	0.1 U	
Endosulfan sulfate	ug/L	0.11 U	0.1 UJ	0.11 U	0.1 U		0.11 U	0.1 U	0.1 U	
4,4'-DDT	ug/L	0.11 U	0.1 UJ	0.1 J	0.1 U		0.11 U	0.1 U	0.1 U	
Methoxychlor	ug/L	0.54 U	0.52 UJ	0.54 U	0.52 U		0.53 U	0.52 U	0.52 U	
Endrin ketone	ug/L	0.11 U	0.1 UJ	0.11 U	0.1 U		0.11 U	0.1 U	0.1 U	
Endrin aldehyde	ug/L	0.11 U	0.1 UJ	0.11 U	0.1 U		0.11 U	0.1 U	0.1 U	
alpha-Chlordane	ug/L	0.054 U	0.052 UJ	0.054 U	0.052 U		0.053 U	0.035 U	0.052 U	
gamma-Chlordane	ug/L	0.054 U	0.052 UJ	0.054 U	0.052 U		0.053 U	0.052 U	0.052 U	
Toxaphene	ug/L	5.4 U	5.2 UJ	5.4 U	5.2 U		5.3 U	5.2 U	5.2 U	
Aroclor-1016	ug/L	1.1 U	1 UJ	1.1 U	1 U		1.1 U	1 U	1 U	
Aroclor-1221	ug/L	2.1 U	2.1 UJ	2.1 U	2.1 U		2.1 U	2.1 U	2.1 U	
Aroclor-1232	ug/L	1.1 U	1 UJ	1.1 U	1 U		1.1 U	1 U	1 U	
Aroclor-1242	ug/L	1.1 U	1 UJ	1.1 U	1 U		1.1 U	1 U	1 U	
Aroclor-1248	ug/L	1.1 U	1 UJ	1.1 U	1 U		1.1 U	1 U	1 U	
Aroclor-1254	ug/L	1.1 U	1 UJ	1.1 U	1 U		1.1 U	1 U	1 U	
Aroclor-1260	ug/L	1.1 U	1 UJ	1.1 U	1 U		1.1 U	1 U	1 U	
<b>METALS</b>										
Aluminum	ug/L	12.8 U	14 J	12.3 J	17.1 J		15.5 J	23 J	12.8 U	
Antimony	ug/L	0.99 U	1.3 UJ	1.3 UJ	0.99 U		1.3 U	1 U	1 U	
Arsenic	ug/L	1.5 U	2 UJ	2 UJ	1.5 U		2 U	1.5 U	1.5 U	
Barium	ug/L	2.2 U	2 UJ	2 UJ	2.2 U		2 U	2.2 U	2.2 U	
Beryllium	ug/L	0.06 U	0.1 UJ	0.1 UJ	0.06 U		0.1 U	0.06 U	0.06 U	
Cadmium	ug/L	0.1 U	0.2 UJ	0.2 UJ	0.1 U		0.2 U	0.1 U	0.1 U	
Calcium	ug/L	41 U	40.7 UJ	45.3 J	41 U		109 J	41.3 U	41.1 U	
Chromium	ug/L	0.4 U	0.4 UJ	0.4 UJ	0.4 U		0.4 U	0.55 J	0.4 U	
Cobalt	ug/L	0.8 U	0.5 UJ	0.5 UJ	0.8 U		0.5 U	0.8 U	0.8 U	
Copper	ug/L	1.7 J	1.2 J	1.2 J	1.1 J		1.4 J	1.6 J	1.1 J	
Iron	ug/L	9.8 U	20.7 J	16.1 J	15.5 J		11.8 U	10.6 J	9.7 U	
Lead	ug/L	0.79 U	0.9 UJ	0.9 UJ	0.79 U		0.9 U	0.8 U	0.8 U	
Magnesium	ug/L	31.2 U	34.6 UJ	34.5 UJ	31.2 U		34.4 U	31.4 U	31.3 U	
Manganese	ug/L	0.5 U	0.2 UJ	0.21 J	0.5 U		0.5 U	0.5 U	0.5 U	
Mercury	ug/L	0.03 U	0.04 UJ	0.04 UJ	0.03 U		0.04 U	0.03 U	0.04 U	
Nickel	ug/L	0.73 J	0.73 J	0.86 J	1.9 J		4.1 J	0.66 J	0.6 U	
Potassium	ug/L	43.3 U	47.5 UJ	47.4 UJ	43.3 U		47.3 U	43.6 U	43.4 U	
Selenium	ug/L	1.7 U	2.7 UJ	2.7 UJ	1.7 U		2.7 U	1.7 U	1.1 U	
Silver	ug/L	0.69 U	0.5 UJ	0.5 UJ	0.69 U		0.5 U	0.7 U	0.7 U	
Sodium	ug/L	1510 J	461 J	465 J	1580 J		1120 J	1650 J	1440 J	
Thallium	ug/L	1.6 U	2.2 J	2.6 J	1.8 U		2.3 J	2 J	1.2 U	
Vanadium	ug/L	0.69 U	0.5 UJ	0.5 UJ	0.69 U		0.5 U	0.7 U	0.7 U	
Zinc	ug/L	2.8 J	2.2 UJ	3.2 J	3 J		11.4 J	19.7 J	2.3 J	
Cyanide	ug/L	5 U	5 U	5 U	5 U		5 U	5 U	5 U	
<b>OTHER ANALYSES</b>										
Nitrate/Nitrite-Nitrogen	mg/L							0.15	0.02	
Total Petroleum Hydrocarbons	mg/L	0.41 U							0.36 U	

SENECA ARMY DEPOT  
ENVIRONMENTAL SITE INSPECTIONS AT 15 SWMUS  
QUALITY ASSURANCE / QUALITY CONTROL ANALYSIS RESULTS

MATRIX LOCATION	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DATE	02/17/94	02/20/94	02/28/94	03/28/94	03/29/94	03/30/94	04/11/94	04/13/94	04/15/94	04/16/94	04/16/94
ES ID	TB2-17	TB2-20	TB2-28	TB3-28	TB3-29	TB3-30	TB4-12	TB4-13	TB4-15	TB4-16	TB4-16
LAB ID	211729	212038	212887	215559	215840	216052	217075	217692	217773	217868	217868
SDG NUMBER	42460	42494	42510	43179	43179	43179	43257	43535	43549	43549	43549
UNITS	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK
COMPOUND											
VOLATILE ORGANICS											
Chloromethane	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	7 J	10 U	30 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	10 U	20 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane (total)	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	ug/L	10 U	10 UJ	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethane	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethane	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

SENECA ARMY DEPOT  
 ENVIRONMENTAL SITE INSPECTIONS AT 15 SWMUS  
 QUALITY ASSURANCE / QUALITY CONTROL ANALYSIS RESULTS

MATRIX LOCATION	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DATE	04/17/94	04/20/94	04/26/94	04/27/94	04/27/94	05/17/94	05/26/94	05/27/94	06/07/94	06/10/94	
ES ID	TB4-17	TB4-20	TB4-26	TB4-27	TB4-26	TB5-17	TB5-26	TB5-27	TB6-7	TB6-10	
LAB ID	218096	218494	219468	219469	219532	221358	222476	222477	223343	223917	
SDG NUMBER	43549	43663	43810	43810	43626	44090	44410	44410	44665	44748	
COMPOUND UNITS	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	
VOLATILE ORGANICS											
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	4 J	10 U	10 U	5 J	2 J	8 J	4 J	10 U	10 U
Carbon Disulfide	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromochloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

SENECA ARMY DEPOT  
 ENVIRONMENTAL SITE INSPECTIONS AT 15 SWMUS  
 QUALITY ASSURANCE / QUALITY CONTROL ANALYSIS RESULTS

MATRIX LOCATION	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DATE	08/11/94	08/12/94	08/13/94	08/14/94	08/22/94	08/24/94	08/25/94	08/27/94	08/28/94	07/07/94	
ES ID	TB6-11	TB6-12	TB6-13	TB6-14	TB6-22	TB6-24	TB6-25	TB6-27	TB6-28	TB7-7	
LAB ID	223900	224125	224126	224181	225193	225500	225554	225585	225799	226312	
SDG NUMBER	44745	44745	44745	44745	44745	45048	45058	45058	45062	45257	
COMPOUND	UNITS	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	
VOLATILE ORGANICS											
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	6 J	10 U	10 U
Carbon Disulfide	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

BENECA ARMY DEPOT  
 ENVIRONMENTAL SITE INSPECTIONS AT 15 SWMUS  
 QUALITY ASSURANCE / QUALITY CONTROL ANALYSIS RESULTS

MATRIX LOCATION	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DATE	07/08/94	07/09/94	07/10/94	07/11/94	07/12/94	07/13/94	07/18/94	07/19/94	07/20/94	07/21/94	
ES ID	TB7-8	TB7-9	TB7-10	TB7-11	TB7-12	TB7-13	TB7-18	TB7-19	TB7-20	TB7-21	
LAB ID	226391	226394	226489	226669	226798	226797	227270	227450	227612	227736	
SDG NUMBER	45257	45257	45282	45282	45332	45332	45332	45332	45448	45448	
COMPOUND	UNITS	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK
VOLATILE ORGANICS											
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	10 U	7 J	10 U	10 U	10 U	10 U	10 U	10
Carbon Disulfide	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromochloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

**SENECA ARMY DEPOT  
EXPANDED SITE INSPECTIONS AT 15 SWMUs  
QUALITY ASSURANCE\QUALITY CONTROL RADIOACTIVITY ANALYSIS RESULTS**

	MEDIA SWMU DATE SAMPLED	WATER SEAD-12 6/22/94 ES ID SD12A-1R LAB ID 255655 UNITS RINSATE	WATER SEAD-12 7/19/94 MW12B-1R 227879 RINSATE	WATER SEAD-12 6/13/94 MW12B-1.03R 224305 RINSATE	WATER SEAD-12 6/25/94 TP12B-3R 225668 RINSATE	WATER SEAD-63 6/27/94 TP63-7R 225679 RINSATE	WATER SEAD-63 6/28/94 TP63-11R 225623 RINSATE	WATER SEAD-64 6/24/94 SB64D-3R 225627 RINSATE
Gross Alpha	pCi/L	1 ± 1	0 ± 1	1 ± 1	1 ± 1	0 ± 1	0 ± 1	1 ± 1
Gross Beta	pCi/L	2 ± 1	1 ± 1	2 ± 1	2 ± 1	7 ± 1	1 ± 1	23 ± 2
Tritium (Oxide)	pCi/mL	NA	-0.04 ± 0.21	NA	NA	NA	NA	NA
Gamma Spectral								
Lead-210 @ 46KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Thorium-234 @ 63.3 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Thorium-234 @ 92.6 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Radium-226 @ 186 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Lead-214 @ 295.2 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Lead-214 @ 352 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Bismuth-214 @ 609.4 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Bismuth-214 @ 1120.4 Ke	pCi/L	ND	ND	ND	ND	ND	ND	ND
Bismuth-214 @ 1764.7 Ke	pCi/L	ND	ND	ND	ND	ND	ND	ND
Actinium-228 @ 338 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Actinium-228 @ 911 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Actinium-228 @ 968 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Lead-212 @ 238 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Bismuth-212 @ 727 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Thallium-208 @ 583 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Thallium-208 @ 860 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Uranium-235 @ 143.8 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Cesium-137 @ 661 KeV	pCi/L	ND	ND	ND	ND	ND	ND	ND
Potassium-40 @ 1460 KeV	pCi/L	-47 ± 56	ND	-1 ± 70	-3 ± 70	-22 ± 57	9 ± 75	-35 ± 68
Radon-226 @ 186 KeV	pCi/L	ND	ND	ND	ND	NA	NA	NA

**APPENDIX F**  
**TENTATIVELY IDENTIFIED COMPOUNDS**



## SEAD-5

SDG FILE: 1E42494                      DATE:                      MATRIX:  
 ES: TP5-1  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP51	624-92-	DISULFIDE, DIMETHYL-	7	BJ
TP51	556-67-	CYCLOTETRASILOXANE, OCTAMETH	7	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			14	

SDG FILE: 1F42494                      DATE:                      MATRIX:  
 ES: TP5-1  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP51	123-42-2	2-Pentanone, 4-hydroxy-4-met	17000	AB
TP51	832-71-3	Phenanthrene, 3-methyl-	380	NJ
TP51	2531-84-2	Phenanthrene, 2-methyl-	510	NJ
TP51	203-64-5	4H-Cyclopenta[def]phenanthre	560	NJ
TP51	84-65-1	9,10-Anthracenedione	770	NJ
TP51	238-84-6	11H-Benzo[a]fluorene	1100	NJ
TP51	239-35-0	Benzo[b]naphtho[2,1-d]thioph	730	ZN
TP51	192-97-2	Benzo[e]pyrene	2800	NJ
TP51	198-55-0	Perylene	1000	NJ
TOTAL UNKNOWN TICS:			7170	
TOTAL TICS			32020	

SDG FILE: 1F42494                      DATE:                      MATRIX:  
 ES: TP5-1RRE  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP51RRE	123-42-2	2-Pentanone, 4-hydroxy-4-met	9	AB
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			9	

SDG FILE: 1E42460                      DATE:                      MATRIX:  
 ES: TP5-2  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP52	121-43-7	Boric acid, trimethyl ester	6	NJ
TP52	556-67-2	Cyclotetrasiloxane, octameth	10	NJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			16	

SDG FILE: 1E42460  
ES: TP5-2RE  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP52RE	121-43-7	Boric acid, trimethyl ester	16	NJ
TP52RE	556-67-2	Cyclotetrasiloxane, octameth	9	NJ

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 25

SDG FILE: 1F42460  
ES: TP5-2  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP52	123-42-2	2-Pentanone, 4-hydroxy-4-met	2400	NJ
TP52	57-10-3	Hexadecanoic acid	540	NJ
TP52	57-11-4	Octadecanoic acid	600	NJ

TOTAL UNKNOWN TICS: 22160  
TOTAL TICS 25700

SDG FILE: 1E42460  
ES: TP5-3  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP53	121-43-7	Boric acid, trimethyl ester	17	NJ

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 17

SDG FILE: 1F42460  
ES: TP5-3

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP53	123-42-2	2-Pentanone, 4-hydroxy-4-met	3500	NJ
TP53	112-53-8	1-Dodecanol	230	NJ
TP53	2531-84-2	Phenanthrene, 2-methyl-	170	NJ
TP53	57-10-3	Hexadecanoic acid	460	NJ
TP53	238-84-6	11H-Benzo[a]fluorene	300	NJ
TP53	203-12-3	Benzo[ghi]fluoranthene w/Ben	190	NJ
TP53	593-49-7	Heptacosane	160	NJ
TP53	630-03-5	Nonacosane w/aromatic compou	880	NJ
TP53	192-97-2	Benzo[e]pyrene	890	NJ
TP53	198-55-0	Perylene	420	NJ
TP53	630-04-6	Hentriacontane	890	NJ
TP53	630-05-7	Trtriacontane w/C22H14 PAH	360	NJ

TOTAL UNKNOWN TICS: 2260  
TOTAL TICS 10710

SDG FILE: 1E42460  
ES: TP5-4  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP54	121-43-7	Boric acid, trimethyl ester	17	NJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			17	

SDG FILE: 1F42460  
ES: TP5-4  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP54	112-53-8	1-Dodecanol	210	NJ
TP54	57-10-3	Hexadecanoic acid	140	NJ
TP54	57-11-4	Octadecanoic acid	86	NJ
TP54	506-51-4	1-Tetracosanol w/Heptacosane	160	NJ
TP54	630-02-4	Octacosane	88	NJ
TP54	630-03-5	Nonacosane	350	NJ
TP54	630-04-6	Hentriacontane	340	NJ
TP54	630-05-7	Tritriacontane	80	NJ
TOTAL UNKNOWN TICS:			1033	
TOTAL TICS			2487	

SDG FILE: 1E42460  
ES: TP5-5  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP55	121-43-7	Boric acid, trimethyl ester	18	NJ
TP55	556-67-2	Cyclotetrasiloxane, octameth	11	NJ
TOTAL UNKNOWN TICS:			81	
TOTAL TICS			110	

SDG FILE: 1F42460  
ES: TP5-5  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP55	1921-70-6	Pentadecane, 2,6,10,14-tetra	2200	NJ
TOTAL UNKNOWN TICS:			103200	
TOTAL TICS			105400	

SDG FILE: 1E42494  
ES: TP5-6  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP56	624-92-	DISULFIDE, DIMETHYL-	10	BJ
TP56	556-67-	CYCLOTETRASILOXANE, OCTAMETH	8	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			18	

SDG FILE: 1F42494  
ES: TP5-6

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP56	123-42-2	2-Pentanone, 4-hydroxy-4-met	18000	AB
TP56	2531-84-2	Phenanthrene, 2-methyl-	460	NJ
TP56	203-64-5	4H-Cyclopenta[def]phenanthre	530	NJ
TP56	84-65-1	9,10-Anthracenedione	710	NJ
TP56	238-84-6	11H-Benzo[a]fluorene	1100	NJ
TP56	2381-21-7	Pyrene, 1-methyl-	420	NJ
TP56	239-35-0	Benzonaphtho[2,1-d]thiophene	720	ZN
TP56	192-97-2	Benzo[e]pyrene	3100	NJ
TP56	198-55-0	Perylene	1100	NJ
TOTAL UNKNOWN TICS:			8030	
TOTAL TICS			34170	

SDG FILE: 1F45282  
ES: MW5-1  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW51	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	31	BJ
MW51	593-45-	OCTADECANE	2	JX
MW51	629-92-	NONADECANE	2	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			35	

SDG FILE: 1F43179  
ES: MW5-2  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW52	629-59-4	Tetradecane	5	NJ
MW52	629-62-9	Pentadecane	10	NJ
MW52	544-76-3	Hexadecane	15	NJ
MW52	629-78-7	Heptadecane	13	NJ
MW52	1921-70-6	Pentadecane, 2,6,10,14-tetra	11	NJ
MW52	593-45-3	Octadecane	13	NJ
MW52	629-92-5	Nonadecane	13	NJ
MW52	112-95-8	Eicosane	7	NJ

TOTAL UNKNOWN TICS: 106  
TOTAL TICS 193

SDG FILE: 1E45282  
ES: MW5-3  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW53	1634-04-	PROPANE, 2-METHOXY-2-METHYL-	5	JX

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 5

SDG FILE: 1F45282  
ES: MW5-3  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW53	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	28	BJ

TOTAL UNKNOWN TICS: 11  
TOTAL TICS 39

## SEAD-9

SDG FILE: 1E44345  
 ES: SB9-100  
 LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SB9100	556-67-	CYCLOTETRASILOXANE, OCTAMETH	8	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			8	

SDG FILE: 1F44345  
 ES: SB9-100  
 LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SB9100	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	1900	BJ
SB9100	629-78-	HEPTADECANE	340	JX
SB9100	593-45-	OCTADECANE	350	JX
SB9100	238-84-	11H-BENZO [A] FLUORENE	520	JX
SB9100	203-12-	BENZO [GHI] FLUOROANTHENE W/BE	300	JX
SB9100	593-49-	HEPTACOSANE	310	JX
SB9100	630-02-	OCTACOSANE W/UNKNOWN	390	JX
SB9100	630-03-	NONACOSANE	1200	JX
SB9100	192-97-	BENZO [E] PYRENE	660	JX
SB9100	630-04-	HENTRIACONTANE	1300	JX
SB9100	630-05-	TRITRIACONTANE	470	JX
SB9100	1058-61-	STIGMAST-4-EN-3-ONE	1100	JX
TOTAL UNKNOWN TICS:			4060	
TOTAL TICS			12900	

SDG FILE: 1E44345  
 ES: SB9-103  
 LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TOTAL UNKNOWN TICS:			9	
TOTAL TICS			9	

SDG FILE: 1F44345  
ES: SB9-103  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SB9103	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	4200	BJ
SB9103	832-71-	PHENANTHRENE, 3-METHYL-	670	JX
SB9103	2531-84-	PHENANTHRENE, 2-METHYL-	880	JX
SB9103	203-64-	4H-CYCLOPENTA [DEF] PHENANTHRE	1300	JX
SB9103	84-65-	9,10-ANTHRACENEDIONE	630	JX
SB9103	243-42-	BENZO [B] NAPTHO [2,3-D] FURAN	610	JX
SB9103	238-84-	11H-BENZO [A] FLUORENE	1500	JX
SB9103	243-17-	11H-BENZO [B] FLUORENE	950	JX
SB9103	203-12-	BENZO [GHI] FLUOROANTHENE W/BE	890	JX
SB9103	192-97-	BENZO [E] PYRENE	1700	JX
SB9103	198-55-	PERYLENE	790	JX

TOTAL UNKNOWN TICS: 10870  
TOTAL TICS 24990

SDG FILE: 1F44345  
ES: SB9-105  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SB9105	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2800	BJ
SB9105	112-53-	1-DODECANOL	160	JX
SB9105	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	93	JX

TOTAL UNKNOWN TICS: 2507  
TOTAL TICS 5560

SDG FILE: 1E44345  
ES: SB9-200  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SB9200	541-05-	CYCLOTTRISILOXANE, HEXAMETHYL	9	JX
SB9200	556-67-	CYCLOTETRAISILOXANE, OCTAMETH	11	JX

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 20

SDG FILE: 1F44345  
ES: SB9-200  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SB9200	123-42-	2-PENTANONE, 4-HDYROXY-4-MET	2800	BJ
SB9200	629-78-	HEPTADECANE	450	JX
SB9200	203-64-	4H-CYCLOPENTA [DEF] PHENANTHRE	490	JX
SB9200	238-84-	11H-BENZO [A] FLUORENE	760	JX
SB9200	243-17-	11H-BENZO [B] FLUORENE	400	JX
SB9200	203-12-	BENZO [GHI] FLUOROANTHENE W/ B	470	JN
SB9200	630-03-	NONACOSANE	1000	JX
SB9200	192-97-	BENZO [E] PYRENE	960	JX
SB9200	198-55-	PERYLENE	380	JX
SB9200	630-04-	HENTRIACONTANE	1100	JX
SB9200	630-05-	TRITRIACONTANE	570	JX
SB9200	1058-61-	STIGMAST-4-EN-3-ONE	680	JX
TOTAL UNKNOWN TICS:			5700	
TOTAL TICS			15760	

SDG FILE: 1E44345  
ES: SB9-203  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SB9203	541-02-	CYCLOPENTASILOXANE, DECAMETH	11	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			11	

SDG FILE: 1F44345  
ES: SB9-203

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SB9203	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2600	BJ
TOTAL UNKNOWN TICS:			42000	
TOTAL TICS			44600	

SDG FILE: 1E44345  
ES: SB9-205

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SB9205	541-02-	CYCLOPENTASILOXANE, DECAMETH	8	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			8	



SDG FILE: 1F44345  
ES: SB9-205  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SB9205	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2000	BJ
TOTAL UNKNOWN TICS:			20750	
TOTAL TICS			22750	

SDG FILE: 1E44345  
ES: SB9-300  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SB9300	556-67-	CYCLOTETRASIOXANE, OCTAMETH	9	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			9	

SDG FILE: 1F44345  
ES: SB9-300  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SB9300	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2400	BJ
SB9300	57-10-	HEXADECANOIC ACID	650	JX
SB9300	593-49-	HEPTACOSANE	780	JX
SB9300	630-02-	OCTACOSANE	800	JX
SB9300	630-03-	NONACOSANE	3200	JX
SB9300	192-97-	BENZO [E] PYRENE	1000	JX
SB9300	198-55-	PERYLENE	710	JX
SB9300	630-04-	HENTRIACONTANE	4200	JX
SB9300	630-05-	TRITRIACONTANE	1400	JX
SB9300	1058-61-	STIGMAST-4-EN-3-ONE	1600	JX
TOTAL UNKNOWN TICS:			10190	
TOTAL TICS			26930	

SDG FILE: 1E44345  
ES: SB9-303

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SB9303	556-67-	CYCLOTETRASIOXANE, OCTAMETH	13	JX
SB9303	541-02-	CYCLOPENTASIOXANE, DECAMETH	9	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			22	

SDG FILE: 1F44345  
ES: SB9-303  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SB9303	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2100	BJ
SB9303	112-53-	1-DODECANOL	150	JX
SB9303	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	200	JX
SB9303	57-10-	HEXADECANOIC ACID	150	JX
SB9303	630-03-	NONACOSANE	1200	JX
SB9303	630-04-	HENTRIACONTANE	1300	JX
TOTAL UNKNOWN TICS:			10970	
TOTAL TICS			16070	

SDG FILE: 1F44345  
ES: SB9-304  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SB9304	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2100	BJ
SB9304	112-53-	1-DODECANOL	110	JX
SB9304	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	230	JX
TOTAL UNKNOWN TICS:			1400	
TOTAL TICS			3840	

SDG FILE: 1F43179  
ES: MW9-2  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW92	629-62-9	Pentadecane	3	NJ
MW92	629-78-7	Heptadecane	3	NJ
MW92	1921-70-6	Pentadecane, 2,6,10,14-tetra	5	NJ
MW92	593-45-3	Octadecane	2	NJ
MW92	629-92-5	Nonadecane	2	NJ
TOTAL UNKNOWN TICS:			6	
TOTAL TICS			21	

## SEAD-12A

SDG FILE: 1F44725  
 ES: MW12A100  
 LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
12A100	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	16000	BJ
12A100	112-53-	1-DODECANOL	220	BJ
12A100	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	320	BJ
12A100	544-63-	TETRADECANOIC ACID	180	JX
12A100	57-10-	HEXADECANOIC ACID	410	JX
12A100	638-67-	TRICOSANE	260	JX
12A100	629-99-	PENTACOSANE	280	JX
12A100	593-49-	HEPTACOSANE	410	JN
12A100	630-02-	OCTACOSANE	150	JX
12A100	630-03-	NONACOSANE	1600	JX
12A100	630-04-	HENTRIACONTANE	1800	JX
12A100	630-05-	TRITRIACONTANE	710	JX

TOTAL UNKNOWN TICS: 1870  
 TOTAL TICS 24210

SDG FILE: 1F44725  
 ES: MW12A103  
 LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
12A103	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2100	BJ
12A103	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	100	BJ
12A103	630-03-	NONACOSANE	81	BJ
12A103	630-04-	HENTRIACONTANE	81	BJ

TOTAL UNKNOWN TICS: 0  
 TOTAL TICS 2362

SDG FILE: 1F44725  
 ES: MW12A105  
 LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
12A105	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	1800	BJ
12A105	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	93	BJ

TOTAL UNKNOWN TICS: 0  
 TOTAL TICS 1893

SDG FILE: 1F45048  
ES: TP12A11  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
P12A11	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2300	BJ
P12A11	112-53-	1-DODECANOL	130	JX
P12A11	134-62-	BENZAMIDE, N,N-DIETHYL-3-MET	160	JX
P12A11	57-10-	HEXADECANOIC ACID	270	JN
P12A11	57-11-	OCTADECANOIC ACID	130	JX
P12A11	629-99-	PENTACOSANE W/BENZENE DERIVA	140	JX
P12A11	661-19-	1-DOCOSANOL	110	JN
P12A11	630-01-	HEXACOSANE W/AROMATIC COMPOU	98	JN
P12A11	593-49-	HEPTACOSANE	150	JX
P12A11	506-51-	1-TETRACOSANOL	150	JX
P12A11	630-03-	NONACOSANE W/BENZO [K] FLUORAN	610	JX
P12A11	506-52-	1-HEXACOSANOL	460	JN
P12A11	630-04-	HENTRIACONTANE	570	JX
P12A11	630-05-	TRITRIACONTANE	130	JX

TOTAL UNKNOWN TICS: 1473  
TOTAL TICS 6881

SDG FILE: 1F45048  
ES: TP12A12  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
P12A12	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2000	BJ
P12A12	108-94-	CYCLOHEXANONE	1600	JX
P12A12	629-78-	HEPTADECANE	340	JN
P12A12	593-45-	OCTADECANE W/DIBENZOTHIOPHEN	280	JN
P12A12	629-92-	NONADECANE	270	JN
P12A12	57-10-	HEXADECANOIC ACID	360	JX
P12A12	57-11-	OCTADECANOIC ACID	290	JX
P12A12	78-51-	ETHANOL, 2-BUTOXY-, PHOSPHAT	770	JX
P12A12	630-03-	NONACOSANE W/BENZO [K] FLUORAN	520	JX
P12A12	192-97-	BENZO [E] PYRENE	240	JX
P12A12	630-04-	HENTRIACONTANE	300	JN

TOTAL UNKNOWN TICS: 2870  
TOTAL TICS 9840

SDG FILE: 1E44799  
ES: TP12A21

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
P12A21	556-67-	CYCLOTETRASIOXANE, OCTAMETH	39	BJ
P12A21	541-02-	CYCLOPENTASIOXANE, DECAMETH	120	BJ

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 159

SDG FILE: 1F44799 DATE: MATRIX:  
ES: TP12A21  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
P12A21	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	63000	BJ
P12A21	78-42-	PHOSPHORIC ACID, TRIS(2-ETHY	21000	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			84000	

SDG FILE: 1E44799 DATE: MATRIX:  
ES: TP12A22  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
P12A22	556-67-	CYCLOTETRASILOXANE, OCTAMETH	50	BJ
P12A22	541-02-	CYCLOPENTASILOXANE, DECAMETH	120	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			170	

SDG FILE: 1F44799 DATE: MATRIX:  
ES: TP12A22  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
P12A22	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	12000	BJ
P12A22	112-53-	1-DODECANOL	140	BJ
P12A22	78-51-	ETHANOL, 2-BUTOXY-, PHOSPHAT	120	JX
P12A22	78-42-	PHOSPHORIC ACID, TRIS(2-ETHY	140	JX
TOTAL UNKNOWN TICS:			1540	
TOTAL TICS			13940	

SDG FILE: 1E44799 DATE: MATRIX:  
ES: TP12A31  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
P12A31	556-67-	CYCLOTETRASILOXANE, OCTAMETH	30	BJ
P12A31	541-02-	CYCLOPENTASILOXANE, DECAMETH	120	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			150	

SDG FILE: 1F44799  
ES: TP12A31

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
P12A31	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	12000	BJ
P12A31	112-53-	1-DODECANOL	180	BJ
P12A31	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	92	JX
P12A31	57-10-	HEXADECANOIC ACID	140	JX
P12A31	506-51-	1-TETRACOSANOL	110	JX
P12A31	630-03-	NONACOSANE	130	JX
P12A31	506-52-	1-HEXACOSANOL	110	JX
P12A31	630-04-	HENTRIACONTANE	180	JX

TOTAL UNKNOWN TICS: 2330  
TOTAL TICS 15272

SDG FILE: 1E44799  
ES: TP12A32

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
P12A32	556-67-	CYCLOTETRAILOXANE, OCTAMETH	48	BJ
P12A32	541-02-	CYCLOPENTASILOXANE, DECAMETH	140	BJ

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 188

SDG FILE: 1F44799  
ES: TP12A32

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
P12A32	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	6600	BJ
P12A32	112-53-	1-DODECANOL	160	BJ
P12A32	57-10-	HEXADECANOIC ACID	200	JX
P12A32	630-04-	HENTRIACONTANE	90	JX

TOTAL UNKNOWN TICS: 1980  
TOTAL TICS 9030

SDG FILE: 1F44799  
ES: TP12A41  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
12A41	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2300	BJ
12A41	112-53-	1-DODECANOL	110	BJ

TOTAL UNKNOWN TICS: 850  
TOTAL TICS 3260

SDG FILE: 1F44799  
ES: TP12A42  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
12A42	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	1700	BJ
12A42	112-53-	1-DODECANOL	92	BJ
12A42	78-51-	ETHANOL, 2-BUTOXY-, PHOSPHAT	130	JX
TOTAL UNKNOWN TICS:			2302	
TOTAL TICS			4224	

SDG FILE: 1F45048  
ES: TP12A51  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
P12A51	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	3400	BJ
P12A51	112-53-	1-DODECANOL	82	JN
P12A51	57-10-	HEXADECANOIC ACID	100	JN
TOTAL UNKNOWN TICS:			750	
TOTAL TICS			4332	

SDG FILE: 1F45048  
ES: TP12A61

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
P12A61	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2000	BJ
P12A61	112-53-	1-DODECANOL	150	JX
P12A61	57-10-	HEXADECANOIC ACID	370	JX
P12A61	629-99-	PENTACOSANE	140	JX
P12A61	661-19-	1-DOCOSANOL	240	JX
P12A61	593-49-	HEPTACOSANE	340	JX
P12A61	506-51-	1-TETRACOSANOL	320	JX
P12A61	630-02-	OCTACOSANE W/ALIPHATIC AMIDE	190	JX
P12A61	630-03-	NONACOSANE	1700	JX
P12A61	506-52-	1-HEXACOSANOL	550	JX
P12A61	638-68-	TRIACONTANE	130	JX
P12A61	630-04-	HENTRIACONTANE	1500	JX
P12A61	57-88-	CHOLESTEROL W/UNKNOWN	130	JX
P12A61	630-05-	TRITRIACONTANE	470	JX
TOTAL UNKNOWN TICS:			1890	
TOTAL TICS			10120	

SDG FILE: 1F45048  
ES: TP12A62

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
P12A62	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2700	BJ

TOTAL UNKNOWN TICS: 664  
TOTAL TICS 3364

SDG FILE: 1F45048  
ES: TP12A71

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
P12A71	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	4600	BJ
P12A71	57-10-	HEXADECANOIC ACID	1300	JX
P12A71	661-19-	1-DOCOSANOL W/PENTACOSANE	930	JX
P12A71	593-49-	HEPTACOSANE	1000	JX
P12A71	506-51-	1-TETRACOSANOL	630	JX
P12A71	630-02-	OCTACOSANE	550	JN
P12A71	630-03-	NONACOSANE	3200	JX
P12A71	506-52-	1-HEXACOSANOL	1600	JN
P12A71	630-04-	HENTRIACONTANE	4900	JX
P12A71	630-05-	TRITRIACONTANE	1300	JX
P12A71	1058-61-	STIGMAST-4-EN-3-ONE	550	JX

TOTAL UNKNOWN TICS: 7420  
TOTAL TICS 27980

SDG FILE: 1F45048  
ES: TP12A81  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
P12A81	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	1900	BJ

TOTAL UNKNOWN TICS: 710  
TOTAL TICS 2610

SDG FILE: 1F45448  
ES: MW12A1  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW12A1	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	56	BJ
MW12A1	112-05-	NONANOIC ACID	2	JX
MW12A1	74367-33-	PROPANOIC ACID, 2-METHYL-, 2	8	BJ
MW12A1	74367-34-	PROPANOIC ACID, 2-METHYL-, 3	18	BJ
MW12A1	57-10-	HEXADECANOIC ACID	4	BJ

TOTAL UNKNOWN TICS: 11  
TOTAL TICS 99



SDG FILE: 1F45448  
ES: MW12A2  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW12A2	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	40	BJ
MW12A2	74367-33-	PROPANOIC ACID, 2-METHYL-, 2	7	BJ
MW12A2	74367-34-	PROPANOIC ACID, 2-METHYL-, 3	16	BJ
MW12A2	57-10-	HEXADECANOIC ACID	2	BJ
TOTAL UNKNOWN TICS:			9	
TOTAL TICS			74	

SDG FILE: 1E45448  
ES: MW12A3  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW12A3	116-15-	1-PROPENE, 1,1,2,3,3,3-HEXAF	5	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			5	

SDG FILE: 1F45448  
ES: MW12A3  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW12A3	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	40	BJ
MW12A3	74367-33-	PROPANOIC ACID, 2-METHYL-, 2	7	BJ
MW12A3	74367-34-	PROPANOIC ACID, 2-METHYL-, 3	18	BJ
MW12A3	57-10-	HEXADECANOIC ACID	4	BJ
TOTAL UNKNOWN TICS:			41	
TOTAL TICS			110	

SDG FILE: 1F44745  
ES: SW12A1  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW12A1	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	12	BJ
TOTAL UNKNOWN TICS:			16	
TOTAL TICS			28	

SDG FILE: 1F44745 DATE: MATRIX:  
ES: SW12A2  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW12A2	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	48	BJ
SW12A2	57-10-	HEXADECANOIC ACID	6	JX
TOTAL UNKNOWN TICS:			12	
TOTAL TICS			66	

SDG FILE: 1F44745 DATE: MATRIX:  
ES: SW12A3  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW12A3	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	41	BJ
SW12A3	57-10-	HEXADECANOIC ACID	2	JX
TOTAL UNKNOWN TICS:			8	
TOTAL TICS			51	

SDG FILE: 1F44745 DATE: MATRIX:  
ES: SW12A20  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
W12A20	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	11	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			11	

SDG FILE: 1F44745 DATE: MATRIX:  
ES: SW12A20-A  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
W12A20-A	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	14	BJ
TOTAL UNKNOWN TICS:			7	
TOTAL TICS			21	

SDG FILE: 1E44799 DATE: MATRIX:  
ES: SD12A1  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD12A1	556-67-	CYCLOTETRAILOXANE, OCTAMETH	71	BJ
SD12A1	541-02-	CYCLOPENTASIOLOXANE, DECAMETH	180	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			251	

SDG FILE: 1F44799  
ES: SD12A1  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD12A1	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	7900	BJ
SD12A1	57-10-	HEXADECANOIC ACID	1100	JX
SD12A1	661-19-	1-DOCOSANOL	380	JN
SD12A1	506-51-	1-TETRACOSANOL	1100	JX
SD12A1	630-03-	NONACOSANE	460	JX
SD12A1	506-52-	1-HEXACOSANOL W/PHTHALATE	410	JN
SD12A1	630-04-	HENTRIACONTANE	580	JX

TOTAL UNKNOWN TICS: 8040  
TOTAL TICS 19970

SDG FILE: 1F44748  
ES: SD12A2  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD12A2	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	5600	BJ
SD12A2	57-10-	HEXADECANOIC ACID	710	JX
SD12A2	661-19-	1-DOCOSANOL	880	JX
SD12A2	112-85-	DOCOSANOIC ACID	250	JX
SD12A2	593-49-	HEPTACOSANE	840	JN
SD12A2	506-51-	1-TETRACOSANOL	1600	JX
SD12A2	630-02-	OCTACOSANE	230	JX
SD12A2	630-03-	NONACOSANE	2100	JX
SD12A2	506-52-	1-HEXACOSANOL	7400	JX
SD12A2	630-04-	HENTRIACONTANE	3100	JX
SD12A2	57-88-	CHOLESTEROL	430	JX
SD12A2	630-05-	TRITRIACONTANE	860	JX
SD12A2	83-48-	STIGMASTEROL	510	JX

TOTAL UNKNOWN TICS: 7200  
TOTAL TICS 31710

SDG FILE: 1F44748  
ES: SD12A3  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD12A3	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	3300	BJ
SD12A3	57-10-	HEXADECANOIC ACID	400	JX
SD12A3	661-19-	1-DOCOSANOL W/PENTACOSANE	810	JX
SD12A3	593-49-	HEPTACOSANE	530	JX
SD12A3	506-51-	1-TETRACOSANOL	910	JX
SD12A3	630-02-	OCTACOSANE	210	JX
SD12A3	630-03-	NONACOSANE	1600	JX
SD12A3	506-52-	1-HEXACOSANOL	1400	JX
SD12A3	630-04-	HENTRIACONTANE	1700	JX
SD12A3	57-88-	CHOLESTEROL	240	JX
SD12A3	630-05-	TRITRIACONTANE	500	JX
SD12A3	83-48-	STIGMASTEROL	320	JX

TOTAL UNKNOWN TICS: 4190  
TOTAL TICS 16110

SDG FILE: 1F44748  
ES: SD12A4  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD12A4	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2200	BJ
SD12A4	112-53-	1-DODECANOL	130	BJ
SD12A4	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	130	JX
SD12A4	57-10-	HEXADECANOIC ACID	120	JX
SD12A4	506-51-	1-TETRACOSANOL	88	JX
SD12A4	593-49-	HEPTACOSANE	130	JX
SD12A4	506-52-	1-HEXACOSANOL	160	JX
SD12A4	630-03-	NONACOSANE	390	JX
SD12A4	630-04-	HENTRIACONTANE	510	JX
SD12A4	630-05-	TRITRIACONTANE	160	JX

TOTAL UNKNOWN TICS: 884  
TOTAL TICS 4902

SDG FILE: 1E44799  
ES: SD12A20  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
D12A20	556-67-	CYCLOTETRASIOXANE, OCTAMETH	65	BJ
D12A20	541-02-	CYCLOPENTASIOXANE, DECAMETH	150	BJ

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 215

SDG FILE: 1F44799  
ES: SD12A20  
LAB:

DATE:

MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
D12A20	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	8200	BJ
D12A20	1002-84-	PENTADECANOIC ACID	290	JX
D12A20	57-10-	HEXADECANOIC ACID	910	JX
D12A20	661-19-	1-DOCOSANOL	480	JX
D12A20	506-51-	1-TETRACOSANOL	1400	JX
D12A20	630-03-	NONACOSANE	490	JX
D12A20	506-52-	1-HEXACOSANOL	410	JX
D12A20	630-04-	HENTRIACONTANE	670	JX

TOTAL UNKNOWN TICS: 6310  
TOTAL TICS 19160

## SEAD-12B

SDG FILE: 1F45062                      DATE:                      MATRIX:  
 ES: SB12B1  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SB12B1	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2400	BJ
SB12B1	112-53-	1-DODECANOL	130	JX
SB12B1	629-94-	HENEICOSANE	100	JX
SB12B1	629-99-	PENTACOSANE	110	JX
SB12B1	630-03-	NONACOSANE	110	JX

TOTAL UNKNOWN TICS: 26550  
 TOTAL TICS 29400

SDG FILE: 1E44799                      DATE:                      MATRIX:  
 ES: MW12B100  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
12B100	556-67-	CYCLOTETRAILOXANE, OCTAMETH	12	JX

TOTAL UNKNOWN TICS: 0  
 TOTAL TICS 12

SDG FILE: 1F44799                      DATE:                      MATRIX:  
 ES: MW12B100

ESID	CAS NO	COMPOUND	RESULT	QUAL.
12B100	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	13000	BJ
12B100	57-10-	HEXADECANOIC ACID	620	JN
12B100	593-49-	HEPTACOSANE	250	JX
12B100	630-03-	NONACOSANE	660	JN
12B100	630-04-	HENTRIACONTANE	1800	JX
12B100	630-05-	TRITRIACONTANE	330	JX

TOTAL UNKNOWN TICS: 11950  
 TOTAL TICS 28610

SDG FILE: 1E44799                      DATE:                      MATRIX:  
 ES: MW12B103

ESID	CAS NO	COMPOUND	RESULT	QUAL.
12B103	541-02-	CYCLOPENTASILOXANE, DECAMETH	8	JX

TOTAL UNKNOWN TICS: 0  
 TOTAL TICS 8

SDG FILE: 1F44799 DATE: MATRIX:  
ES: MW12B103  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
12B103	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	11000	BJ
12B103	112-53-	1-DODECANOL	170	BJ
TOTAL UNKNOWN TICS:			4300	
TOTAL TICS			15470	

SDG FILE: 1F44799 DATE: MATRIX:  
ES: MW12B107

ESID	CAS NO	COMPOUND	RESULT	QUAL.
12B107	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	6700	BJ
12B107	112-53-	1-DODECANOL	130	BJ
12B107	629-78-	HEPTADECANE	92	JN
TOTAL UNKNOWN TICS:			2810	
TOTAL TICS			9732	

SDG FILE: 1F44799 DATE: MATRIX:  
ES: MW12B120

ESID	CAS NO	COMPOUND	RESULT	QUAL.
12B120	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	6400	BJ
12B120	112-53-	1-DODECANOL	180	BJ
12B120	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	260	JX
12B120	57-10-	HEXADECANOIC ACID	80	JX
TOTAL UNKNOWN TICS:			5787	
TOTAL TICS			12707	

SDG FILE: 1F45058 DATE: MATRIX:  
ES: TP12B1

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP12B1	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2900	BJ
TP12B1	112-53-	1-DODECANOL	160	BJ
TP12B1	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	180	JX
TP12B1	629-92-	NONADECANE	81	JX
TP12B1	112-95-	EICOSANE W/UNKNOWN	95	JX
TP12B1	629-94-	HENEICOSANE W/UNKNOWN	120	JX
TP12B1	629-97-	DOCOSANE	110	JN
TOTAL UNKNOWN TICS:			5445	
TOTAL TICS			9091	

SDG FILE: 1F45058 DATE: MATRIX:  
ES: TP12B21  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
P12B21	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	6400	BJ
P12B21	123-28-	PROPANOIC ACID, 3,3'-THIOBIS	1400	BJ
TOTAL UNKNOWN TICS:			180	
TOTAL TICS			7980	

SDG FILE: 1E45058 DATE: MATRIX:  
ES: TP12B3  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP12B3	541-02-	CYCLOPENTASILOXANE, DECAMETH	9	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			9	

SDG FILE: 1F45058 DATE: MATRIX:  
ES: TP12B3  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP12B3	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	5300	BJ
TP12B3	57-10-	HEXADECANOIC ACID	82	JX
TP12B3	123-28-	PROPANOIC ACID, 3,3'-THIOBIS	1300	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			6682	

SDG FILE: 1F45058 DATE: MATRIX:  
ES: TP12B53  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
P12B53	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	5200	BJ
P12B53	112-53-	1-DODECANOL	97	JX
P12B53	57-10-	HEXADECANOIC ACID	100	JX
P12B53	123-28-	PROPANOIC ACID, 3,3'-THIOBIS	1000	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			6397	



## SEADS-43, -56, AND -69

SDG FILE: 1F44725                      DATE:                      MATRIX:  
 ES: SB43100  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B43100	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	17000	BJ
B43100	57-10-	HEXADECANOIC ACID	620	JX
B43100	629-99-	PENTACOSANE	300	JX
B43100	593-49-	HEPTACOSANE	520	JX
B43100	630-03-	NONACOSANE	3300	JX
B43100	630-04-	HENTRIACONTANE	5700	JX
B43100	630-05-	TRITRIACONTANE	1200	JX

TOTAL UNKNOWN TICS: 7530  
 TOTAL TICS 36170

SDG FILE: 1F44725                      DATE:                      MATRIX:  
 ES: SB43103  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B43103	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	1600	BJ
B43103	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	100	BJ
B43103	630-04-	HENTRIACONTANE	74	BJ

TOTAL UNKNOWN TICS: 0  
 TOTAL TICS 1774

SDG FILE: 1E44725                      DATE:                      MATRIX:  
 ES: SB43108RE  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B43108RE	541-05-	CYCLOTTRISILOXANE, HEXAMETHYL	5	JX
B43108RE	556-67-	CYCLOTETRASILOXANE, OCTAMETH	6	JX
B43108RE	541-02-	CYCLOPENTASILOXANE, DECAMETH	80	BJ

TOTAL UNKNOWN TICS: 51  
 TOTAL TICS 142

SDG FILE: 1F44725                      DATE:                      MATRIX:  
 ES: SB43108  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B43108	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	1400	BJ
B43108	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	92	BJ

TOTAL UNKNOWN TICS: 251  
 TOTAL TICS 1743

SDG FILE: 1F44725  
ES: SB43120  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B43120	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	7800	BJ
B43120	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	340	BJ
B43120	1002-84-	PENTADECANOIC ACID	330	JX
B43120	57-10-	HEXADECANOIC ACID	650	JX
B43120	629-99-	PENTACOSANE	350	JX
B43120	593-49-	HEPTACOSANE	670	JX
B43120	630-03-	NONACOSANE	5100	JX
B43120	638-68-	TRIACONTANE	370	JX
B43120	630-04-	HENTRIACONTANE	8200	JX
B43120	630-05-	TRITRIACONTANE	1600	JX

TOTAL UNKNOWN TICS: 4090  
TOTAL TICS 29500

SDG FILE: 1F44694  
ES: SB43200  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B43200	57-10-3	Hexadecanoic acid	1100	NJ
B43200	593-49-7	Heptacosane	760	NJ
B43200	630-03-5	Nonacosane	3100	NJ
B43200	630-04-6	Hentriacontane	4200	NJ
B43200	630-05-7	Tritriacontane	1800	NJ
B43200	545-47-1	Lupeol	1400	NJ
B43200	1058-61-3	Stigmast-4-en-3-one	840	NJ

TOTAL UNKNOWN TICS: 14680  
TOTAL TICS 27880

SDG FILE: 1F44694  
ES: SB43203  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B43203	630-03-5	Nonacosane	81	NJ
B43203	630-04-6	Hentriacontane	76	NJ

TOTAL UNKNOWN TICS: 2215  
TOTAL TICS 2372

SDG FILE: 1F44694  
ES: SB43206  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B43206	57-10-3	Hexadecanoic acid	120	NJ
TOTAL UNKNOWN TICS:			1784	
TOTAL TICS			1904	

SDG FILE: 1F44694  
ES: SB43300  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B43300	629-62-9	Pentadecane	660	NJ
B43300	544-76-3	Hexadecane	810	NJ
B43300	629-78-7	Heptadecane	570	NJ
B43300	1921-70-6	Pentadecane, 2,6,10,14-tetra	840	NJ
B43300	593-45-3	Octadecane	550	NJ
B43300	629-92-5	Nonadecane	510	NJ
B43300	593-49-7	Heptacosane	410	NJ
B43300	630-03-5	Nonacosane	1300	NJ
B43300	630-04-6	Hentriacontane	1600	NJ
B43300	4651-51-8	Ergost-5-en-3-ol, (3.beta.)-	590	NJ
B43300	630-05-7	Tritriacontane	550	NJ
B43300	1058-61-3	Stigmast-4-en-3-one	730	NJ
TOTAL UNKNOWN TICS:			6130	
TOTAL TICS			15250	

SDG FILE: 1F44694  
ES: SB43302

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B43302	57-10-3	Hexadecanoic acid	94	NJ
B43302	630-03-5	Nonacosane	190	NJ
B43302	630-04-6	Hentriacontane	160	NJ
TOTAL UNKNOWN TICS:			2425	
TOTAL TICS			2869	

SDG FILE: 1F44694  
ES: SB43303

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B43303	57-10-3	Hexadecanoic acid	120	NJ
B43303	630-03-5	Nonacosane	120	NJ
B43303	630-04-6	Hentriacontane	130	NJ
TOTAL UNKNOWN TICS:			1460	
TOTAL TICS			1830	

SDG FILE: 1E42460  
ES: SB43401  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B43401	64-17-5	Ethanol	16	NJ

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 16

SDG FILE: 1F42460  
ES: SB43401

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B43401	123-42-2	2-Pentanone, 4-hydroxy-4-met	5800	NJ
B43401	112-53-8	1-Dodecanol	290	NJ
B43401	74381-40-1	Propanoic acid, 2-methyl-, 1	270	NJ
B43401	832-71-3	Phenanthrene, 3-methyl-	220	NJ
B43401	2531-84-2	Phenanthrene, 2-methyl-	300	NJ
B43401	203-64-5	4H-Cyclopenta[def]phenanthre	590	NJ
B43401	35465-71-5	2-Phenylnaphthalene	190	NJ
B43401	243-42-5	Benzo[b]naphtho[2,3-d]furan	200	NJ
B43401	238-84-6	11H-Benzo[a]fluorene	530	NJ
B43401	243-17-4	11H-Benzo[b]fluorene	330	NJ
B43401	239-35-0	Benzo[b]naphtho[2,1-d]thioph	170	NJ
B43401	203-12-3	Benzo[ghi]fluoranthene w/Ben	280	NJ
B43401	192-97-2	Benzo[e]pyrene	1200	NJ
B43401	198-55-0	Perylene	570	NJ

TOTAL UNKNOWN TICS: 2110  
TOTAL TICS 13050

SDG FILE: 1F42460  
ES: SB43402

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B43402	132-65-0	Dibenzothiophene	370	NJ
B43402	832-71-3	Phenanthrene, 3-methyl-	490	NJ
B43402	2531-84-2	Phenanthrene, 2-methyl-	700	NJ
B43402	203-64-5	4H-Cyclopenta[def]phenanthre	1200	NJ
B43402	832-69-9	Phenanthrene, 1-methyl-	320	NJ
B43402	35465-71-5	2-Phenylnaphthalene	490	NJ
B43402	243-42-5	Benzo[b]naphtho[2,3-d]furan	290	NJ
B43402	238-84-6	11H-Benzo[a]fluorene	990	NJ
B43402	243-17-4	11H-Benzo[b]fluorene	580	NJ
B43402	239-35-0	Benzo[b]naphtho[2,1-d]thioph	310	NJ
B43402	203-12-3	Benzo[ghi]fluoranthene w/Ben	480	NJ
B43402	192-97-2	Benzo[e]pyrene	2500	NJ
B43402	198-55-0	Perylene	1100	NJ

TOTAL UNKNOWN TICS: 3880  
TOTAL TICS 13700

SDG FILE: 1E42460  
ES: SB43407  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B43407	78-78-4	Butane, 2-methyl-	12	NJ
B43407	109-66-0	Pentane	12	NJ
B43407	107-83-5	Pentane, 2-methyl-	8	NJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			32	

SDG FILE: 1E42460  
ES: SB43407RE  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B43407RE	121-43-7	Boric acid, trimethyl ester	28	NJ
B43407RE	109-66-0	Pentane	18	NJ
B43407RE	107-83-5	Pentane, 2-methyl-	16	NJ
B43407RE	96-14-0	Pentane, 3-methyl-	7	NJ
B43407RE	110-54-3	Hexane	12	NJ
B43407RE	591-76-4	Hexane, 2-methyl-	8	NJ
B43407RE	589-34-4	Hexane, 3-methyl-	8	NJ
B43407RE	108-87-2	Cyclohexane, methyl-	8	NJ
B43407RE	556-67-2	Cyclotetrasiloxane, octameth	23	NJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			128	

SDG FILE: 1F42460  
ES: SB43407  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B43407	123-42-2	2-Pentanone, 4-hydroxy-4-met	3800	NJ
B43407	112-53-8	1-Dodecanol	140	NJ
B43407	74381-40-1	Propanoic acid, 2-methyl-, 1	160	NJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			4100	

SDG FILE: 1F42460  
ES: SB43420  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B43420	123-42-2	2-Pentanone, 4-hydroxy-4-met	4000	NJ
B43420	112-53-8	1-Dodecanol	200	NJ
B43420	74381-40-1	Propanoic acid, 2-methyl-, 1	310	NJ
B43420	661-19-8	1-Docosanol	91	NJ
B43420	506-51-4	1-Tetracosanol w/Heptacosane	200	NJ
B43420	630-03-5	Nonacosane	200	NJ
B43420	630-04-6	Hentriacontane	200	NJ

TOTAL UNKNOWN TICS: 698  
TOTAL TICS 5899

SDG FILE: 1E45332  
ES: MW431

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW431	116-15-4	Propene, hexafluoro-	41	NJ

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 41

SDG FILE: 1F43179  
ES: MW433

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW433	544-76-3	Hexadecane	2	NJ
MW433	629-78-7	Heptadecane	3	NJ
MW433	638-67-5	Tricosane	3	NJ

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 8

SDG FILE: 1F43179  
ES: MW435

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW435	544-76-3	Hexadecane	5	NJ
MW435	629-78-7	Heptadecane	6	NJ
MW435	593-45-3	Octadecane	5	NJ
MW435	629-92-5	Nonadecane	4	NJ
MW435	112-95-8	Eicosane	2	NJ

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 22

SDG FILE: 1F43549 DATE: MATRIX:  
ES: SW431  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW431	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	23	BJ
SW431	646-13-	OCTADECANOIC ACID, 2-METHYLP	45	JX
SW431	646-31-	TETRACOSANE	13	JX
SW431	629-99-	PENTACOSANE	18	JX
SW431	630-01-	HEXACOSANE	20	JX
SW431	593-49-	HEPTACOSANE	18	JX
SW431	630-02-	OCTACOSANE	15	JX
SW431	630-03-	NONACOSANE	11	JX

TOTAL UNKNOWN TICS: 417  
TOTAL TICS 580

SDG FILE: 1F43549 DATE: MATRIX:  
ES: SW432  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW432	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	11	BJ
SW432	501-52-	BENZENEPROPANOIC ACID	5	JX
SW432	57-10-	HEXADECANOIC ACID	3	JX

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 19

SDG FILE: 1F43549 DATE: MATRIX:  
ES: SW433  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW433	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	23	BJ

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 23

SDG FILE: 1F43549 DATE: MATRIX:  
ES: SW434  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW434	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	10	BJ

TOTAL UNKNOWN TICS: 8  
TOTAL TICS 18

SDG FILE: 1F43549  
ES: SW435  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW435	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	11	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			11	

SDG FILE: 1F43549  
ES: SW4320  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW4320	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	12	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			12	

SDG FILE: 1E43543  
ES: SD431  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD431	106-68-	3-OCTANONE W/BENZALDEHYDE	13	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			13	

SDG FILE: 1F43543  
ES: SD431  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD431	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	3200	BJ
SD431	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	270	JX
SD431	57-10-	HEXADECANOIC ACID	740	JX
SD431	629-99-	PENTACOSANE W/1-DOCOSANOL	340	JX
SD431	593-49-	HEPTACOSANE	290	JX
SD431	506-51-	1-TETRACOSANOL	310	JX
SD431	630-03-	NONACOSANE	830	JX
SD431	506-52-	1-HEXACOSANOL	850	JX
SD431	630-04-	HENTRIACONTANE	1200	JX
SD431	630-05-	TRITRIACONTANE	350	JX
TOTAL UNKNOWN TICS:			6240	
TOTAL TICS			14620	



SDG FILE: 1F43543  
ES: SD432  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD432	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	3500	BJ
SD432	57-10-	HEXADECANOIC ACID	1500	JX
SD432	593-49-	HEPTACOSANE	460	JX
SD432	630-03-	NONACOSANE	1800	JX
SD432	506-52-	1-HEXACOSANOL	2100	JX
SD432	630-04-	HENTRIACONTANE	2600	JX
SD432	630-05-	TRITRIACONTANE	530	JX
SD432	1058-61-	STIGMAST-4-EN-3-ONE	750	JX

TOTAL UNKNOWN TICS: 12620  
TOTAL TICS 25860

SDG FILE: 1E43543  
ES: SD433  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD433	101-84-	BENZENE, 1,1'-OXYBIS- W/OCTA	13	BJ
SD433	124-19-	NONANAL	13	JX

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 26

SDG FILE: 1F43543  
ES: SD433  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD433	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	4000	BJ
SD433	57-10-	HEXADECANOIC ACID	1900	JX
SD433	10544-50-	SULFUR, MOL. (S8)	3500	JX
SD433	629-99-	PENTACOSANE	630	JX
SD433	593-49-	HEPTACOSANE	2200	JX
SD433	630-03-	NONACOSANE	5800	JX
SD433	506-52-	HEXACOSANOL	1500	JX
SD433	630-04-	HENTRIACONTANE	5000	JX
SD433	57-88-	CHOLESTEROL	690	JX
SD433	630-05-	TRITRIACONTANE	1400	JX

TOTAL UNKNOWN TICS: 15140  
TOTAL TICS 41760

SDG FILE: 1F43543  
ES: SD434

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD434	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	3300	BJ
SD434	112-53-	1-DODECANOL	100	JX
SD434	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	580	JX
SD434	57-10-	HEXADECANOIC ACID	150	JX
SD434	630-03-	NONACOSANE	200	JX
SD434	506-52-	1-HEXACOSANOL	180	JX
SD434	630-04-	HENTRIACONTANE	240	JX
TOTAL UNKNOWN TICS:			2810	
TOTAL TICS			7560	

SDG FILE: 1F43543  
ES: SD435

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD435	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	3400	BJ
SD435	57-10-	HEXADECANOIC ACID	990	JX
SD435	10544-50-	SULFUR, MOL. (S8)	1800	JX
SD435	57-11-	OCTADECANOIC ACID	280	JX
SD435	629-99-	PENTACOSANE	670	JX
SD435	593-49-	HEPTACOSANE	660	JX
SD435	630-03-	NONACOSANE	760	JX
SD435	506-52-	1-HEXACOSANOL	300	JX
SD435	630-04-	HENTRIACONTANE	1200	JX
SD435	57-88-	CHOLESTEROL	260	JX
SD435	630-05-	TRITRIACONTANE	290	JX
TOTAL UNKNOWN TICS:			4520	
TOTAL TICS			15130	

SDG FILE: 1F43543  
ES: SD4320

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD4320	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	5400	BJ
SD4320	1002-84-	PENTADECANOIC ACID	450	JX
SD4320	57-10-	HEXADECANOIC ACID	1500	JX
SD4320	57-11-	OCTADECANOIC ACID	440	JX
SD4320	629-99-	PENTACOSANE	510	JX
SD4320	593-49-	HEPTACOSANE	1300	JX
SD4320	630-02-	OCTACOSANE	450	JX
SD4320	630-03-	NONACOSANE	5100	JX
SD4320	506-52-	1-HEXACOSANOL	690	JX
SD4320	630-04-	HENTRIACONTANE	5100	JX
SD4320	630-05-	TRITRIACONTANE	1600	JX
TOTAL UNKNOWN TICS:			13870	
TOTAL TICS			36410	

SDG FILE: 1E44090  
ES: SB56100  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
		TOTAL UNKNOWN TICS:		8
		TOTAL TICS		8

SDG FILE: 1F44090  
ES: SB56100  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56100	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	3100	BJ
B56100	57-10-	HEXADECANOIC ACID	770	JX
B56100	629-99-	PENTACOSANE	380	JX
B56100	593-49-	HEPTACOSANE	900	JX
B56100	630-02-	OCTACOSANE	730	JX
B56100	630-03-	NONACOSANE	2700	JX
B56100	638-68-	TRIACONTANE	290	JX
B56100	630-04-	HENTRIACONTANE	3200	JX
B56100	630-05-	TRITRIACONTANE	1200	JX
B56100	1058-61-	STIGMAST-4-EN-3-ONE	1500	JX
		TOTAL UNKNOWN TICS:	6240	
		TOTAL TICS	21010	

SDG FILE: 1F44090  
ES: SB56103  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56103	123-42-	2-PENTANONE, 4-HYDROXY-4-MEH	2000	BJ
B56103	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	240	JX
		TOTAL UNKNOWN TICS:	1180	
		TOTAL TICS	3420	

SDG FILE: 1E44090  
ES: SB56107  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56107	624-92-0	Disulfide, dimethyl	9	NJ
B56107	541-05-9	Cyclotrisiloxane, hexamethyl	8	NJ
B56107	556-67-2	Cyclotetrasiloxane, octameth	7	NJ
		TOTAL UNKNOWN TICS:	0	
		TOTAL TICS	24	

SDG FILE: 1E44090 DATE: MATRIX:  
ES: SB56107RE  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56107RE	541-05-9	Cyclotrisiloxane, hexamethyl	7	NJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			7	

SDG FILE: 1F44090 DATE: MATRIX:  
ES: SB56107  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56107	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2100	BJ
B56107	124-18-	DECANE	71	JX
TOTAL UNKNOWN TICS:			858	
TOTAL TICS			3029	

SDG FILE: 1F44090 DATE: MATRIX:  
ES: SB56200

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56200	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2200	BJ
B56200	57-10-	HEXADECANOIC ACID	350	JX
B56200	593-49-	HEPTACOSANE	370	JX
B56200	630-02-	OCTACOSANE	350	JX
B56200	630-03-	NONACOSANE	970	JX
B56200	630-04-	HENTRIACONTANE	1200	JX
B56200	630-05-	TRITRIACONTANE	450	JX
B56200	1058-61-	STIGMAST-4-EN-3-ONE	680	JX
TOTAL UNKNOWN TICS:			8530	
TOTAL TICS			15100	

SDG FILE: 1F44090 DATE: MATRIX:  
ES: SB56200

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56200	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2200	BJ
B56200	57-10-	HEXADECANOIC ACID	350	JX
B56200	593-49-	HEPTACOSANE	370	JX
B56200	630-02-	OCTACOSANE	350	JX
B56200	630-03-	NONACOSANE	970	JX
B56200	630-04-	HENTRIACONTANE	1200	JX
B56200	630-05-	TRITRIACONTANE	450	JX
B56200	1058-61-	STIGMAST-4-EN-3-ONE	680	JX
TOTAL UNKNOWN TICS:			8530	
TOTAL TICS			15100	

SDG FILE: 1F44345  
ES: SB56203  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56203	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	3100	BJ
B56203	112-53-	1-DODECANOL	120	BJ
B56203	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	81	JX
B56203	57-10-	HEXADECANOIC ACID	85	JX
TOTAL UNKNOWN TICS:			1418	
TOTAL TICS			4804	

SDG FILE: 1F44345  
ES: SB56203  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56203	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	3100	BJ
B56203	112-53-	1-DODECANOL	120	BJ
B56203	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	81	JX
B56203	57-10-	HEXADECANOIC ACID	85	JX
TOTAL UNKNOWN TICS:			1418	
TOTAL TICS			4804	

SDG FILE: 1F44345  
ES: SB56205  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56205	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2500	BJ
B56205	112-53-	1-DODECANOL	110	BJ
TOTAL UNKNOWN TICS:			479	
TOTAL TICS			3089	

SDG FILE: 1F44345  
ES: SB56205  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56205	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2500	BJ
B56205	112-53-	1-DODECANOL	110	BJ
TOTAL UNKNOWN TICS:			479	
TOTAL TICS			3089	

SDG FILE: 1E44090  
ES: SB56300  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56300	79-92-5	Camphene	17	NJ
TOTAL UNKNOWN TICS:			110	
TOTAL TICS			127	

SDG FILE: 1F44090  
ES: SB56300  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56300	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2600	BJ
B56300	13466-78-	3-CARENE	270	JX
B56300	57-10-	HEXADECANOIC ACID	540	JX
B56300	593-49-	HEPTACOSANE	380	JX
B56300	630-03-	NONACOSANE	670	JX
B56300	630-04-	HENTRIACONTANE	650	JX
B56300	1058-61-	STIGMAST-4-EN-3-ONE	340	JX
TOTAL UNKNOWN TICS:			9640	
TOTAL TICS			15090	

SDG FILE: 1E44090  
ES: SB56300  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56300	79-92-5	Camphene	17	NJ
TOTAL UNKNOWN TICS:			110	
TOTAL TICS			127	

SDG FILE: 1F44090  
ES: SB56300  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56300	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2600	BJ
B56300	13466-78-	3-CARENE	270	JX
B56300	57-10-	HEXADECANOIC ACID	540	JX
B56300	593-49-	HEPTACOSANE	380	JX
B56300	630-03-	NONACOSANE	670	JX
B56300	630-04-	HENTRIACONTANE	650	JX
B56300	1058-61-	STIGMAST-4-EN-3-ONE	340	JX
TOTAL UNKNOWN TICS:			9640	
TOTAL TICS			15090	

SDG FILE: 1F44090  
ES: SB56304  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56304	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2000	BJ
B56304	112-53-	1-DODECANOL	88	JX
B56304	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	240	JX
B56304	57-10-	HEXADECANOIC ACID W/UNKNOWN	100	JX
TOTAL UNKNOWN TICS:			1128	
TOTAL TICS			3556	

SDG FILE: 1F44090  
ES: SB56304  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56304	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2000	BJ
B56304	112-53-	1-DODECANOL	88	JX
B56304	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	240	JX
B56304	57-10-	HEXADECANOIC ACID W/UNKNOWN	100	JX
TOTAL UNKNOWN TICS:			1128	
TOTAL TICS			3556	

SDG FILE: 1E44090  
ES: SB56308  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56308	121-43-7	Boric acid, trimethyl ester	5	NJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			5	

SDG FILE: 1F44090  
ES: SB56308  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56308	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2500	BJ
B56308	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	150	JX
TOTAL UNKNOWN TICS:			1529	
TOTAL TICS			4179	

SDG FILE: 1E44090  
ES: SB56308  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56308	121-43-7	Boric acid, trimethyl ester	5	NJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			5	

SDG FILE: 1F44090  
ES: SB56308

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B56308	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2500	BJ
B56308	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	150	JX
TOTAL UNKNOWN TICS:			1529	
TOTAL TICS			4179	

SDG FILE: 1E44090  
ES: SB69100

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B69100	121-43-7	Boric acid, trimethyl ester	8	NJ
TOTAL UNKNOWN TICS:			27	
TOTAL TICS			35	

SDG FILE: 1F44090  
ES: SB69100

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B69100	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	3200	BJ
B69100	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	340	BJ
B69100	1002-84-	PENTADECANOIC ACID W/ UNKNOW	370	JX
B69100	57-10-	HEXADECANOIC ACID	780	JX
B69100	661-19-	1-DOCOSANOL	270	JX
B69100	593-49-	HEPTACOSANE	510	JX
B69100	630-03-	NONACOSANE	2200	JX
B69100	638-68-	TRIACONTANE	240	JX
B69100	630-04-	HENTRIACONTANE	2600	JX
B69100	57-88-	CHOLESTEROL	320	JX
B69100	630-05-	TRITRIACONTANE	710	JX
B69100	1058-61-	STIGMAST-4-EN-3-ONE	980	JX
TOTAL UNKNOWN TICS:			4490	
TOTAL TICS			17010	



SDG FILE: 1E44090  
ES: SB69105  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B69105	121-43-7	Boric acid, trimethyl ester	6	NJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			6	

SDG FILE: 1F44090  
ES: SB69105

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B69105	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2200	BJ
B69105	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	120	JX
TOTAL UNKNOWN TICS:			110	
TOTAL TICS			2430	

SDG FILE: 1E44090  
ES: SB69106

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B69106	121-43-7	Boric acid, trimethyl ester	7	NJ
TOTAL UNKNOWN TICS:			7	
TOTAL TICS			14	

SDG FILE: 1E44090  
ES: SB69106RE

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B69106RE	121-43-7	Boric acid, trimethyl ester	7	NJ
TOTAL UNKNOWN TICS:			6	
TOTAL TICS			13	

SDG FILE: 1F44090  
ES: SB69106

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B69106	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2700	BJ
B69106	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	210	JX
B69106	57-10-	HEXADECANOIC ACID	130	JX
TOTAL UNKNOWN TICS:			643	
TOTAL TICS			3683	

SDG FILE: 1F44090  
ES: SB69120  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B69120	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	4000	BJ
B69120	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	410	BJ
B69120	1002-84-	PENTADECANOIC ACID W/ UNKNOW	350	JX
B69120	57-10-	HEXADECANOIC ACID	740	JX
B69120	661-19-	1-DOCOSANOL	310	JX
B69120	593-49-	HEPTACOSANE	620	JX
B69120	630-03-	NONACOSANE	1900	JX
B69120	630-04-	HENTRIACONTANE	2300	JX
B69120	57-88-	CHOLESTEROL	320	JX
B69120	630-05-	TRITRIACONTANE	600	JX
B69120	1058-61-	STIGMAST-4-EN-3-ONE	860	JX
TOTAL UNKNOWN TICS:			5630	
TOTAL TICS			18040	

SDG FILE: 1E42460  
ES: SB69201  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B69201	121-43-7	Boric acid, trimethyl ester	31	NJ
B69201	64-17-5	Ethanol	14	NJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			45	

SDG FILE: 1F42460  
ES: SB69201  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B69201	57-10-3	Hexadecanoic acid	2700	NJ
B69201	506-51-4	1-Tetracosanol w/Heptacosane	860	NJ
B69201	630-03-5	Nonacosane	1200	NJ
B69201	506-52-5	1-Hexacosanol	3600	NJ
B69201	630-04-6	Hentriacontane	2400	NJ
B69201	630-05-7	Tritriacontane	920	NJ
TOTAL UNKNOWN TICS:			23240	
TOTAL TICS			34920	

SDG FILE: 1F44090  
ES: SB69204  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B69204	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2400	BJ
B69204	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	380	BJ

TOTAL UNKNOWN TICS: 238  
TOTAL TICS 3018

SDG FILE: 1E44090  
ES: SB69207  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B69207	121-43-7	Boric acid, trimethyl ester	9	NJ
B69207	556-67-2	Cyclotetrasiloxane, octameth	24	NJ

TOTAL UNKNOWN TICS: 33  
TOTAL TICS 66

SDG FILE: 1E44090  
ES: SB69207RE  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B69207RE	121-43-7	Boric acid, trimethyl ester	7	NJ
B69207RE	556-67-2	Cyclotetrasiloxane, octameth	150	NJ

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 157

SDG FILE: 1F44090  
ES: SB69207  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B69207	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2200	BJ
B69207	112-53-	1-DODECANOL	140	JX
B69207	74381-40-	PROPANOIC ACID, 2-METHYL-	410	JX
B69207	57-10-	HEXADECANOIC ACID	230	JN

TOTAL UNKNOWN TICS: 3202  
TOTAL TICS 6182

SDG FILE: 1E42493 DATE: MATRIX:  
ES: SB69301  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
69301	75-18-	METHANE, THIOBIS-	17	JX
TOTAL UNKNOWN TICS:			649	
TOTAL TICS			666	

SDG FILE: 1F42493 DATE: MATRIX:  
ES: SB69301  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
69301	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	7900	BJ
69301	57-10-	HEXADECANOIC ACID	1300	JX
69301	593-49-	HEPTACOSANE	630	JN
69301	630-03-	NONACOSANE	3400	JX
69301	506-52-	1-HEXACOSANOL	950	JX
69301	630-04-	HENTRIACONTANE	4700	JX
69301	630-05-	TRITRIACONTANE	1600	JX
TOTAL UNKNOWN TICS:			11160	
TOTAL TICS			31640	

SDG FILE: 1F42493 DATE: MATRIX:  
ES: SB69304  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
69304	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2500	BJ
69304	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	150	JX
TOTAL UNKNOWN TICS:			2751	
TOTAL TICS			5401	

SDG FILE: 1E42493 DATE: MATRIX:  
ES: SB69306  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
69306	75-71-	METHANE, DICHLORODIFLUORO-	9	JX
69306	31097-80-	CYCLOTROSILOXANE, HEXAMETHYL	6	JX
TOTAL UNKNOWN TICS:			25	
TOTAL TICS			40	

SDG FILE: 1F42493  
ES: SB69306  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
69306	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2300	BJ
69306	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	140	JX

TOTAL UNKNOWN TICS: 572  
TOTAL TICS 3012

SEAD-44A

SDG FILE: 1E43535  
ES: SS44A1  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS44A1	79-92-5	Camphene	320	NJ

TOTAL UNKNOWN TICS: 646  
TOTAL TICS 966

SDG FILE: 1F43535  
ES: SS44A1  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS44A1	138-86-3	Limonene	280	NJ
SS44A1	88-19-7	Benzenesulfonamide, 2-methyl	670	NJ
SS44A1	70-55-3	Benzenesulfonamide, 4-methyl	1500	NJ
SS44A1	57-10-3	Hexadecanoic acid	620	NJ
SS44A1	593-49-7	Heptacosane w/unknown	310	NJ
SS44A1	630-03-5	Nonacosane	640	NJ
SS44A1	630-04-6	Hentriacontane	790	NJ

TOTAL UNKNOWN TICS: 4470  
TOTAL TICS 9280

SDG FILE: 1F43535  
ES: SS44A2  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS44A2	88-19-7	Benzenesulfonamide, 2-methyl	1100	NJ
SS44A2	70-55-3	Benzenesulfonamide, 4-methyl	1700	NJ
SS44A2	57-10-3	Hexadecanoic acid	400	NJ
SS44A2	593-49-7	Heptacosane	120	NJ
SS44A2	630-03-5	Nonacosane	240	NJ
SS44A2	630-04-6	Hentriacontane	200	NJ

TOTAL UNKNOWN TICS: 1220  
TOTAL TICS 4980

SDG FILE: 1E43535                      DATE:                      MATRIX:  
ES: SS44A3  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS44A3	80-56-8	.alpha.-Pinene	31	NJ
SS44A3	79-92-5	Camphene	12	NJ
SS44A3	127-91-3	.beta.-Pinene	21	NJ
SS44A3	5989-27-5	D-Limonene	260	NJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			324	

SDG FILE: 1F43535                      DATE:                      MATRIX:  
ES: SS44A3  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS44A3	138-86-3	Limonene	740	NJ
SS44A3	103-82-2	Benzeneacetic acid	290	NJ
SS44A3	57-10-3	Hexadecanoic acid	800	NJ
SS44A3	593-49-7	Heptacosane	400	NJ
SS44A3	630-03-5	Nonacosane	1600	NJ
SS44A3	630-04-6	Hentriacontane	2100	NJ
SS44A3	57-88-5	Cholesterol	780	NJ
SS44A3	630-05-7	Trtriacontane	330	NJ
TOTAL UNKNOWN TICS:			5220	
TOTAL TICS			12260	

SDG FILE: 1E43535                      DATE:                      MATRIX:  
ES: SS44A4  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS44A4	5989-27-5	D-Limonene	45	NJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			45	

SDG FILE: 1F43535                      DATE:                      MATRIX:  
ES: SS44A4

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS44A4	138-86-3	Limonene	390	NJ
SS44A4	57-10-3	Hexadecanoic acid	800	NJ
SS44A4	593-49-7	Heptacosane	480	NJ
SS44A4	630-03-5	Nonacosane	1400	NJ
SS44A4	630-04-6	Hentriacontane	2300	NJ
TOTAL UNKNOWN TICS:			7970	
TOTAL TICS			13340	

SDG FILE: 1E43535  
ES: SS44A5  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS44A5	75-18-3	Dimethyl sulfide	33	NJ
SS44A5	80-56-8	.alpha.-Pinene	160	NJ
SS44A5	79-92-5	Camphene	35	NJ
SS44A5	127-91-3	.beta.-Pinene	42	NJ
SS44A5	99-83-2	.alpha.-Phellandrene	29	NJ
SS44A5	5989-27-5	D-Limonene	1500	NJ
SS44A5	1120-21-4	Undecane	30	NJ

TOTAL UNKNOWN TICS: 118  
TOTAL TICS 1947

SDG FILE: 1F43535  
ES: SS44A5  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS44A5	138-86-3	Limonene	2800	NJ
SS44A5	57-10-3	Hexadecanoic acid	770	NJ
SS44A5	629-99-2	Pentacosane	400	NJ
SS44A5	593-49-7	Heptacosane	740	NJ
SS44A5	630-03-5	Nonacosane	2300	NJ
SS44A5	630-04-6	Hentriacontane	2400	NJ

TOTAL UNKNOWN TICS: 11460  
TOTAL TICS 20870

SDG FILE: 1E43535  
ES: SS44A6  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
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TOTAL UNKNOWN TICS: 40  
TOTAL TICS 40



SDG FILE: 1F43535  
ES: SS44A6  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS44A6	138-86-3	Limonene	310	NJ
SS44A6	57-10-3	Hexadecanoic acid	680	NJ
SS44A6	629-99-2	Pentacosane	500	NJ
SS44A6	593-49-7	Heptacosane	910	NJ
SS44A6	630-03-5	Nonacosane	2400	NJ
SS44A6	630-04-6	Hentriacontane	1400	NJ
SS44A6	57-88-5	Cholesterol	260	NJ
SS44A6	630-05-7	Tritriacontane w/unknown	570	NJ
SS44A6	1058-61-3	Stigmast-4-en-3-one	310	NJ

TOTAL UNKNOWN TICS: 5520  
TOTAL TICS 12860

SDG FILE: 1E43535  
ES: SS44A20  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS44A20	79-92-5	Camphene	46	NJ

TOTAL UNKNOWN TICS: 66  
TOTAL TICS 112

SDG FILE: 1F43535  
ES: SS44A20  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS44A20	5989-27-5	D-Limonene	310	NJ
SS44A20	88-19-7	Benzenesulfonamide, 2-methyl	510	NJ
SS44A20	70-55-3	Benzenesulfonamide, 4-methyl	840	NJ
SS44A20	1002-84-2	Pentadecanoic acid	310	NJ
SS44A20	57-10-3	Hexadecanoic acid	680	NJ
SS44A20	593-49-7	Heptacosane	600	NJ
SS44A20	630-03-5	Nonacosane	1100	NJ
SS44A20	630-04-6	Hentriacontane	1300	NJ
SS44A20	630-05-7	Tritriacontane	690	NJ

TOTAL UNKNOWN TICS: 4290  
TOTAL TICS 10630

SDG FILE: 1F42493  
ES: TP44A1  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP44A1	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	4800	BJ
TP44A1	832-71-	PHENANTHRENE, 3-METHYL-	350	JX
TP44A1	2531-84-	PHENANTHRENE, 2-METHYL-	480	JX
TP44A1	613-12-	ANTHRACENE, 2-METHYL-	310	JX
TP44A1	203-64-	4H-CYCLOPENTA (DEF) PHENANTHRE	670	JN
TP44A1	832-69-	PHENANTHRENE, 1-METHYL- W/HE	360	JX
TP44A1	238-84-	11H-BENZO [A] FLUORENE	640	JX
TP44A1	243-17-	11H-BENZO [B] FLUORENE	350	JX
TP44A1	661-19-	1-DOCOSANOL W/PENTACOSANE	300	JX
TP44A1	593-49-	HEPTACOSANE	290	JX
TP44A1	630-03-	NONACOSANE	980	JX
TP44A1	506-52-	1-HEXACOSANOL W/AROMATIC	360	JX
TP44A1	192-97-	BENZO [E] PYRENE	610	JX
TP44A1	198-55-	PERYLENE	290	JX
TP44A1	630-04-	HENTRIACONTANE	1300	JX
TP44A1	630-05-	TRITRIACONTANE	430	JX

TOTAL UNKNOWN TICS: 2000  
TOTAL TICS 14520

SDG FILE: 1E42460  
ES: TP44A2  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP44A2	121-43-7	Boric acid, trimethyl ester	23	NJ

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 23

SDG FILE: 1F42460  
ES: TP44A2

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP44A2	112-53-8	1-Dodecanol	280	NJ
TP44A2	74381-40-1	Propanoic acid, 2-methyl-, 1	220	NJ
TP44A2	1002-84-2	Pentadecanoic acid	150	NJ
TP44A2	57-10-3	Hexadecanoic acid	400	NJ
TP44A2	661-19-8	1-Docosanol	230	NJ
TP44A2	506-51-4	1-Tetracosanol w/Heptacosane	430	NJ
TP44A2	630-03-5	Nonacosane	990	NJ
TP44A2	506-52-5	1-Hexacosanol	430	NJ
TP44A2	630-04-6	Hentriacontane	1000	NJ
TP44A2	630-05-7	Tritriacontane	250	NJ

TOTAL UNKNOWN TICS: 2770  
TOTAL TICS 7150

SDG FILE: 1E42460  
ES: TP44A3  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP44A3	121-43-7	Boric acid, trimethyl ester	20	NJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			20	

SDG FILE: 1F42460  
ES: TP44A3  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP44A3	123-42-2	2-Pentanone, 4-hydroxy-4-met	4300	NJ
TP44A3	112-53-8	1-Dodecanol	220	NJ
TP44A3	57-10-3	Hexadecanoic acid	380	NJ
TP44A3	661-19-8	1-Docosanol	360	NJ
TP44A3	506-51-4	1-Tetracosanol w/Heptacosane	500	NJ
TP44A3	630-03-5	Nonacosane	1100	NJ
TP44A3	506-52-5	1-Hexacosanol	520	NJ
TP44A3	192-97-2	Benzo[e]pyrene	210	NJ
TP44A3	630-04-6	Hentriacontane	1000	NJ
TP44A3	630-05-7	Trtriacontane	330	NJ
TOTAL UNKNOWN TICS:			4900	
TOTAL TICS			13820	

SDG FILE: 1F42493  
ES: TP44A4  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP44A4	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	4200	BJ
TP44A4	112-53-	1-DODECANOL	94	JN
TP44A4	593-49-	HEPTACOSANE	130	JN
TP44A4	630-03-	NONACOSANE	350	JN
TP44A4	192-97-	BENZO [E] PYRENE	86	JN
TP44A4	630-04-	HENTRIACONTANE	420	JN
TP44A4	630-05-	TRITRIACONTANE	110	JN
TOTAL UNKNOWN TICS:			560	
TOTAL TICS			5950	

SDG FILE: 1F42493  
ES: TP44A5  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP44A5	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	3200	BJ
TP44A5	112-53-	1-DODECANOL	160	JN
TP44A5	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	220	JX
TP44A5	57-10-	HEXADECANOIC ACID W/PHENANTH	230	JX
TP44A5	238-84-	BENZO[A] FLUORENE	100	JX
TP44A5	638-67-	TRICOSANE	160	JX
TP44A5	661-19-	1-DOCOSANOL W/PENTACOSANE	270	JX
TP44A5	593-49-	HEPTACOSANE	210	JX
TP44A5	630-03-	NONACOSANE	770	JX
TP44A5	506-52-	1-HEXACOSANOL	190	JX
TP44A5	192-97-	BENZO[E] PYRENE	210	JN
TP44A5	630-04-	HENTRIACONTANE	880	JX
TP44A5	630-05-	TRITRIACONTANE	280	JX
TOTAL UNKNOWN TICS:			2530	
TOTAL TICS			9410	

SDG FILE: 1F42493  
ES: TP44A6  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP44A6	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2900	BJ
TP44A6	112-53-	1-DODECANOL	190	JN
TP44A6	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	140	BJ
TP44A6	1002-84-	PENTADECANOIC ACID	99	JN
TP44A6	57-10-	HEXADECANOIC ACID	230	JX
TP44A6	629-99-	PENTACOSANE	220	JX
TP44A6	593-49-	HEPTACOSANE	330	JX
TP44A6	506-51-	1-TETRACOSANOL	99	JX
TP44A6	630-02-	OCTACOSANE	130	JX
TP44A6	630-03-	NONACOSANE	1300	JX
TP44A6	506-52-	1-HEXACOSANOL	330	JX
TP44A6	192-97-	BENZO[E] PYRENE	110	JN
TP44A6	638-68-	TRIACONTANE	140	JN
TP44A6	630-04-	HENTRIACONTANE	1600	JX
TP44A6	630-05-	TRITRIACONTANE	550	JX
TOTAL UNKNOWN TICS:			1260	
TOTAL TICS			9628	

SDG FILE: 1E42494  
ES: TP44A7  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP44A7	624-92-	DISULFIDE, DIMETHYL-	14	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			14	

SDG FILE: 1F42494  
ES: TP44A7  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP44A7	123-42-2	2-Pentanone, 4-hydroxy-4-met	12000	NJ
TP44A7	544-63-8	Tetradecanoic acid	220	NJ
TP44A7	832-71-3	Phenanthrene, 3-methyl-	240	NJ
TP44A7	2531-84-2	Phenanthrene, 2-methyl-	300	NJ
TP44A7	203-64-5	4H-Cyclopenta[def]phenanthre	260	NJ
TP44A7	610-48-0	Anthracene, 1-methyl- w/alip	300	NJ
TP44A7	84-65-1	9,10-Anthracenedione	410	NJ
TP44A7	238-84-6	11H-Benzo[a]fluorene	630	NJ
TP44A7	243-17-4	11H-Benzo[b]fluorene w/unkno	220	NJ
TP44A7	2381-21-7	Pyrene, 1-methyl-	240	NJ
TP44A7	239-35-0	Benzo[b]naphtho[2,1-d]thioph	310	NJ
TP44A7	630-03-5	Nonacosane	1700	NJ
TP44A7	192-97-2	Benzo[e]pyrene	1200	NJ
TP44A7	630-04-6	Hentriacontane	1600	NJ
TOTAL UNKNOWN TICS:			2460	
TOTAL TICS			22090	

SDG FILE: 1E42494  
ES: TP44A8  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP44A8	624-92-	DISULFIDE, DIMETHYL-	7	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			7	

SDG FILE: 1F42494  
ES: TP44A8

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP44A8	123-42-2	2-Pentanone, 4-hydroxy-4-met	12000	AB
TP44A8	57-10-3	Hexadecanoic acid	300	NJ
TP44A8	2531-84-2	Phenanthrene, 2-methyl-	160	NJ
TP44A8	84-65-1	9,10-Anthracenedione	220	NJ
TP44A8	238-84-6	11H-Benzo[a]fluorene	340	NJ
TP44A8	2381-21-7	Pyrene, 1-methyl-	170	NJ
TP44A8	629-99-2	Pentacosane	150	NJ
TP44A8	243-46-9	Benzo[b]naphtho[2,3-d]thioph	220	ZN
TP44A8	593-49-7	Heptacosane	210	NJ
TP44A8	630-03-5	Nonacosane	1600	NJ
TP44A8	192-97-2	Benzo[e]pyrene	630	NJ
TP44A8	630-04-6	Hentriacontane	1700	NJ
TP44A8	630-05-7	Tritriacontane	430	NJ

TOTAL UNKNOWN TICS: 2250  
TOTAL TICS 20380

SDG FILE: 1E42494  
ES: TP44A9

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP44A9	624-92-	DISULFIDE, DIMETHYL-	9	BJ

TOTAL UNKNOWN TICS: 35  
TOTAL TICS 44

SDG FILE: 1F42494  
ES: TP44A9

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP44A9	123-42-2	2-Pentanone, 4-hydroxy-4-met	12000	NJ
TP44A9	544-63-8	Tetradecanoic acid	160	NJ
TP44A9	57-10-3	Hexadecanoic acid	180	NJ
TP44A9	203-64-5	4H-Cyclopenta[def]phenanthre	160	NJ
TP44A9	610-48-0	Anthracene, 1-methyl- w/unkn	220	NJ
TP44A9	84-65-1	9,10-Anthracenedione	220	NJ
TP44A9	238-84-6	11H-Benzo[a]fluorene	350	NJ
TP44A9	2381-21-7	Pyrene, 1-methyl-	150	NJ
TP44A9	239-35-0	Benzo[b]naphtho[2,1-d]thioph	220	NJ
TP44A9	630-03-5	Nonacosane	1000	NJ
TP44A9	192-97-2	Benzo[e]pyrene	800	NJ
TP44A9	630-04-6	Hentriacontane	1000	NJ

TOTAL UNKNOWN TICS: 1900  
TOTAL TICS 18360

SDG FILE: 1F45282  
ES: MW44A1  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW44A1	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	13	BJ
MW44A1	629-62-	PENTADECANE	6	JX
MW44A1	544-76-	HEXADECANE	15	JX
MW44A1	629-78-	HEPTADECANE	25	JX
MW44A1	1921-70-	PENTADECANE, 2,6,10,14-TETRA	9	JX
MW44A1	593-45-	OCTADECANE	22	JX
MW44A1	638-36-	HEXADECANE, 2,6,10,14-TETRAM	7	JX
MW44A1	629-92-	NONADECANE	20	JX
MW44A1	112-95-	EICOSANE	10	JX
MW44A1	629-94-	HENEICOSANE	2	JX
MW44A1	629-97-	DOCOSANE	6	JX
MW44A1	638-67-	TRICOSANE	5	JX
MW44A1	646-31-	TETRACOSANE	4	JX
MW44A1	629-99-	PENTACOSANE	3	JX

TOTAL UNKNOWN TICS: 12  
TOTAL TICS 159

SDG FILE: 1E45282  
ES: MW44A2  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW44A2	541-02-	CYCLOPENTASILOXANE, DECAMETH	6	JX

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 6

SDG FILE: 1F45282  
ES: MW44A2  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW44A2	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	15	BJ
MW44A2	544-76-	HEXADECANE	4	JX
MW44A2	629-78-	HEPTADECANE	5	JX
MW44A2	1921-70-	PENTADECANE, 2,6,10,14-TETRA	2	JX
MW44A2	593-45-	OCTADECANE	4	JX
MW44A2	629-92-	NONADECANE	4	JX
MW44A2	112-95-	EICOSANE	2	JX

TOTAL UNKNOWN TICS: 2  
TOTAL TICS 38

SDG FILE: 1F45282  
ES: MW44A3  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW44A3	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	58	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			58	

SDG FILE: 1E45332  
ES: MW44A5  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW44A5	116-15-4	Propene, hexafluoro-	52	NJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			52	

SDG FILE: 1F43549  
ES: SW44A1  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW44A1	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	6	BJ
TOTAL UNKNOWN TICS:			3	
TOTAL TICS			9	

SDG FILE: 1F43549  
ES: SW44A2  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW44A2	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	19	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			19	

SDG FILE: 1F43549  
ES: SW44A3

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW44A3	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	15	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			15	



SDG FILE: 1E43543  
ES: SD44A1  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD44A1	101-84-	BENZENE, 1,1'-OXYBIS-	9	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			9	

SDG FILE: 1F43543  
ES: SD44A1  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD44A1	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	4100	BJ
SD44A1	112-53-	1-DODECANOL	230	BJ
SD44A1	74381-40-	PROPANOIC ACID, 2-METHLY-, 1	180	BJ
SD44A1	57-10-	HEXADECANOIC ACID	260	JX
SD44A1	630-03-	NONACOSANE	280	JX
SD44A1	630-04-	HENTRIACONTANE	320	JX
TOTAL UNKNOWN TICS:			990	
TOTAL TICS			6360	

SDG FILE: 1F43543  
ES: SD44A2  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD44A2	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	3200	BJ
SD44A2	89-48-	MENTHYL ACETATE	210	JX
SD44A2	91-64-	2H-1-BENZOPYRAN-2-ONE	170	JX
SD44A2	112-53-	1-DODECANOL	140	BJ
SD44A2	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	170	BJ
SD44A2	57-10-	HEXADECANOIC ACID	470	JX
SD44A2	593-49-	HEPTACOSANE	120	JX
SD44A2	630-03-	NONACOSANE	400	JX
SD44A2	506-52-	1-HEXACOSANOL	130	JX
SD44A2	630-04-	HENTRIACONTANE	470	JX
SD44A2	630-05-	TRITRIACONTANE	170	JX
TOTAL UNKNOWN TICS:			1350	
TOTAL TICS			7000	

SDG FILE: 1F43543  
ES: SD44A3  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD44A3	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	5400	BJ
SD44A3	112-53-	1-DODECANOL	260	BJ
SD44A3	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	170	BJ
SD44A3	57-10-	HEXADECANOIC ACID	750	JX
SD44A3	629-99-	PENTACOSANE	160	JX
SD44A3	593-49-	HEPTACOSANE	210	JX
SD44A3	630-03-	NONACOSANE	920	JX
SD44A3	506-52-	1-HEXACOSANOL	260	JX
SD44A3	630-04-	HENTRIACONTANE	880	JX

TOTAL UNKNOWN TICS: 4540  
TOTAL TICS 13550

SDG FILE: 1F43663  
ES: SD44A4  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD44A4	57-10-3	Hexadecanoic acid	240	NJ

TOTAL UNKNOWN TICS: 960  
TOTAL TICS 1200

SEAD-44B

SDG FILE: 1E43535                      DATE:                      MATRIX:  
 ES: SS44B1  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS44B1	1120-21-4	Undecane	8	NJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			8	

SDG FILE: 1E43535                      DATE:                      MATRIX:  
 ES: SS44B1RE  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS44B1RE	1120-21-4	Undecane	8	NJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			8	

SDG FILE: 1F43535                      DATE:                      MATRIX:  
 ES: SS44B1  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS44B1	57-10-3	Hexadecanoic acid	410	NJ
SS44B1	593-49-7	Heptacosane	260	NJ
SS44B1	630-02-4	Octacosane	210	NJ
SS44B1	630-03-5	Nonacosane	1000	NJ
SS44B1	630-05-7	Hentriacontane	690	NJ
SS44B1	57-88-5	Cholesterol	150	NJ
SS44B1	630-05-7	Tritriacontane	170	NJ
SS44B1	1058-61-3	Stigmast-4-en-3-one	290	NJ
TOTAL UNKNOWN TICS:			3910	
TOTAL TICS			7090	

SDG FILE: 1E43535                      DATE:                      MATRIX:  
 ES: SS44B2  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TOTAL UNKNOWN TICS:			30	
TOTAL TICS			30	

SDG FILE: 1F43535                      DATE:                      MATRIX:  
ES: SS44B2  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS44B2	57-10-3	Hexadecanoic acid	1100	NJ
SS44B2	593-49-7	Heptacosane	530	NJ
SS44B2	630-03-5	Nonacosane	1600	NJ
SS44B2	630-04-6	Hentriacontane	1800	NJ
SS44B2	630-05-7	Trtriacontane	360	NJ
TOTAL UNKNOWN TICS:			10130	
TOTAL TICS			15520	

SDG FILE: 1E43535                      DATE:                      MATRIX:  
ES: SS44B3  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS44B3	80-56-8	.alpha.-Pinene	9	NJ
SS44B3	5989-27-5	D-Limonene	49	NJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			58	

SDG FILE: 1F43535                      DATE:                      MATRIX:  
ES: SS44B3  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS44B3	127-91-3	.beta.-Pinene	820	NJ
SS44B3	138-86-3	Limonene	4100	NJ
SS44B3	57-10-3	Hexadecanoic acid	620	NJ
SS44B3	630-03-5	Nonacosane	1000	NJ
SS44B3	630-04-6	Hentriacontane	1200	NJ
TOTAL UNKNOWN TICS:			10350	
TOTAL TICS			18090	

SDG FILE: 1E45332                      DATE:                      MATRIX:  
ES: MW44B3  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW44B3	116-15-4	Propene, hexafluoro-	32	NJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			32	

SDG FILE: 1F43549 DATE: MATRIX:  
ES: SW44B1  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW44B1	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	13	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			13	

SDG FILE: 1F43549 DATE: MATRIX:  
ES: SW44B2  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW44B2	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	15	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			15	

SDG FILE: 1F43543 DATE: MATRIX:  
ES: SD44B1  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD44B1	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	4600	BJ
SD44B1	118-93-	ETHANONE, 1-(2-HYDROXYPHENYL	620	JX
SD44B1	112-53-	1-DODECANOL	220	BJ
SD44B1	57-10-	HEXADECANOIC ACID	550	JX
SD44B1	629-99-	PENTACOSANE	180	JX
SD44B1	593-49-	HEPTACOSANE	230	JX
SD44B1	630-03-	NONACOSANE	850	JX
SD44B1	506-52-	1-HEXACOSANOL	310	JX
SD44B1	630-04-	HENTRIACONTANE	1600	JX
SD44B1	630-05-	TRITRIACONTANE	440	JX
TOTAL UNKNOWN TICS:			4220	
TOTAL TICS			13820	

SDG FILE: 1E43543 DATE: MATRIX:  
ES: SD44B2  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TOTAL UNKNOWN TICS:			30	
TOTAL TICS			30	

SDG FILE: 1F43543  
ES: SD44B2  
LAB:

DATE:

MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD44B2	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	3300	BJ
SD44B2	112-53-	1-DODECANOL	260	BJ
SD44B2	57-10-	HEXADECANOIC ACID	800	JX
SD44B2	629-99-	PENTACOSANE W/1-DOCOSANOL	340	JX
SD44B2	593-49-	HEPTACOSANE	330	JX
SD44B2	506-51-	1-TETRACOSANOL	270	JX
SD44B2	630-03-	NONACOSANE	920	JX
SD44B2	506-52-	1-HEXACOSANOL	1200	JX
SD44B2	630-04-	HENTRIACONTANE	1500	JX
SD44B2	630-05-	TRITRIACONTANE	420	JX
TOTAL UNKNOWN TICS:			4850	
TOTAL TICS			14190	

## SEAD-50

SDG FILE: 1F42493                      DATE:                      MATRIX:  
 ES: SS501  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS501	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	4100	BJ
SS501	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	270	JX
SS501	57-10-	HEXADECANOIC ACID	950	JX
SS501	629-99-	PENTACOSANE	260	JX
SS501	593-49-	HEPTACOSANE	610	JX
SS501	630-03-	NONACOSANE	2400	JX
SS501	506-52-	1-HEXACOSANOL	320	JX
SS501	630-04-	HENTRIACONTANE	2700	JX
SS501	630-05-	TRITRIACONTANE	1200	JX

TOTAL UNKNOWN TICS: 5010  
 TOTAL TICS 17820

SDG FILE: 1E42493                      DATE:                      MATRIX:  
 ES: SS502  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS502	75-18-	METHANE, THIOBIS-	16	JX
SS502	110-54-	HEXANE	24	JX

TOTAL UNKNOWN TICS: 350  
 TOTAL TICS 390

SDG FILE: 1F42493                      DATE:                      MATRIX:  
 ES: SS502  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS502	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	5300	BJ
SS502	57-10-	HEXADECANOIC ACID	1900	JX
SS502	593-49-	HEPTACOSANE	790	JN
SS502	630-03-	NONACOSANE	2500	JX
SS502	506-52-	1-HEXACOSANOL	1500	JX
SS502	630-04-	HENTRIACONTANE	6500	JX
SS502	630-05-	TRITRIACONTANE	3300	JX

TOTAL UNKNOWN TICS: 16560  
 TOTAL TICS 38350

SDG FILE: 1F42493  
ES: SS503  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS503	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	3600	BJ
SS503	112-53-	1-DODECANOL	300	JN
SS503	57-10-	HEXADECANOIC ACID	570	JX
SS503	629-99-	PENTACOSANE	160	JX
SS503	593-49-	HEPTACOSANE	210	JX
SS503	630-03-	NONACOSANE	710	JX
SS503	630-04-	HENTRIACONTANE	800	JX
SS503	630-05-	TRITRIACONTANE	370	JX

TOTAL UNKNOWN TICS: 4110  
TOTAL TICS 10830

SDG FILE: 1F42460  
ES: SS504  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS504	112-53-8	1-Dodecanol	190	NJ
SS504	74381-40-1	Propanoic acid, 2-methyl-, 1	160	NJ
SS504	57-10-3	Hexadecanoic acid	320	NJ
SS504	661-19-8	1-Docosanol	240	NJ
SS504	506-51-4	1-Tetracosanol w/Heptacosane	250	NJ
SS504	630-03-5	Nonacosane	880	NJ
SS504	630-04-6	Hentriacontane	1200	NJ
SS504	630-05-7	Tritriacontane	210	NJ

TOTAL UNKNOWN TICS: 4320  
TOTAL TICS 7770

SDG FILE: 1E42493  
ES: SS505  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS505	75-18-	METHANE, THIOBIS-	9	JX

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 9



SDG FILE: 1F42493  
ES: SS505  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS505	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	4600	BJ
SS505	112-53-	1-DODECANOL	320	JN
SS505	57-10-	HEXADECANOIC ACID	1500	JX
SS505	629-99-	PENTACOSANE	350	JX
SS505	593-49-	HEPTACOSANE	590	JX
SS505	630-03-	NONACOSANE	1600	JX
SS505	506-52-	1-HEXACOSANOL	980	JX
SS505	630-04-	HENTRIACONTANE	2900	JX
SS505	630-05-	TRITRIACONTANE	1800	JX

TOTAL UNKNOWN TICS: 8580  
TOTAL TICS 23220

SDG FILE: 1E42493  
ES: SS506  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS506	75-18-	METHANE, THIOBIS-	18	JX
SS506	110-54-	HEXANE	20	JX

TOTAL UNKNOWN TICS: 334  
TOTAL TICS 372

SDG FILE: 1F42493  
ES: SS506

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS506	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	8200	BJ
SS506	501-52-	BENZENEPROPANOIC ACID	620	JN
SS506	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	670	BJ
SS506	57-10-	HEXADECANOIC ACID	3300	JN
SS506	57-11-	OCTADECANOIC ACID	520	JX
SS506	629-99-	PENTACOSANE	650	JN
SS506	593-49-	HEPTACOSANE	1100	JX
SS506	630-03-	NONACOSANE	2100	JX
SS506	506-52-	1-HEXACOSANOL	1800	JX
SS506	630-04-	HENTRIACONTANE	5400	JX
SS506	541-01-	HEPTASILOXANE, HEXADECAMETHY	550	JX
SS506	630-05-	TRITRIACONTANE	3100	JX

TOTAL UNKNOWN TICS: 10560  
TOTAL TICS 38570

SDG FILE: 1E42493                      DATE:                      MATRIX:  
 ES: SS507  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
		TOTAL UNKNOWN TICS:	27	
		TOTAL TICS	27	

SDG FILE: 1F42493                      DATE:                      MATRIX:  
 ES: SS507  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS507	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	5400	BJ
SS507	112-53-	1-DODECANOL	150	JN
SS507	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	210	JX
SS507	57-10-	HEXADECANOIC ACID	410	JX
SS507	629-99-	PENTACOSANE	210	JX
SS507	593-49-	HEPTACOSANE	320	JX
SS507	630-02-	OCTACOSANE	200	JN
SS507	630-03-	NONACOSANE	500	JX
SS507	630-04-	HENTRIACONTANE	470	JX
SS507	630-05-	TRITRIACONTANE	180	JX
		TOTAL UNKNOWN TICS:	2870	
		TOTAL TICS	10920	

SDG FILE: 1F42493                      DATE:                      MATRIX:  
 ES: SS508

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS508	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2400	BJ
SS508	112-53-	1-DODECANOL	140	JN
SS508	57-10-	HEXADECANOIC ACID	140	JX
SS508	629-99-	PENTACOSANE	130	JX
SS508	593-49-	HEPTACOSANE	150	JX
SS508	630-03-	NONACOSANE	580	JX
SS508	630-04-	HENTRIACONTANE	750	JX
SS508	630-05-	TRITRIACONTANE	230	JX
		TOTAL UNKNOWN TICS:	3488	
		TOTAL TICS	8008	

SDG FILE: 1E42493                      DATE:                      MATRIX:  
 ES: SS509

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS509	75-18-	METHANE, THIOBIS-	11	JX
		TOTAL UNKNOWN TICS:	0	
		TOTAL TICS	11	

SDG FILE: 1F42493  
ES: SS509  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS509	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	4000	BJ
SS509	112-53-	1-DODECANOL	160	JN
SS509	57-10-	HEXADECANOIC ACID	710	JN
SS509	629-99-	PENTACOSANE	240	JN
SS509	593-49-	HEPTACOSANE	370	JX
SS509	630-02-	OCTACOSANE	210	JX
SS509	630-03-	NONACOSANE	1500	JX
SS509	506-52-	1-HEXACOSANOL	560	JX
SS509	630-04-	HENTRIACONTANE	2000	JX
SS509	630-05-	TRITRIACONTANE	870	JX
TOTAL UNKNOWN TICS:			3350	
TOTAL TICS			13970	

SDG FILE: 1E42493  
ES: SS5010  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS5010	75-18-	METHANE, THIOBIS-	7	JX
TOTAL UNKNOWN TICS:			28	
TOTAL TICS			35	

SDG FILE: 1F42493  
ES: SS5010  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS5010	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	3000	BJ
SS5010	112-53-	1-DODECANOL	190	JN
SS5010	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	320	JX
SS5010	57-10-	HEXADECANOIC ACID	270	JN
SS5010	629-99-	PENTACOSANE	150	JN
SS5010	593-49-	HEPTACOSANE	230	JX
SS5010	630-02-	OCTACOSANE	150	JX
SS5010	630-03-	NONACOSANE	680	JX
SS5010	506-52-	1-HEXACOSANOL	260	JX
SS5010	630-04-	HENTRIACONTANE	1200	JX
SS5010	630-05-	TRITRIACONTANE	400	JX
TOTAL UNKNOWN TICS:			2620	
TOTAL TICS			9470	

SDG FILE: 1E42460  
ES: SS5011  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS5011	121-43-7	Boric acid, trimethyl ester	15	NJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			15	

SDG FILE: 1F42460  
ES: SS5011

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS5011	2531-84-2	Phenanthrene, 2-methyl-	950	NJ
SS5011	203-64-5	4H-Cyclopenta[def]phenanthre	2200	NJ
SS5011	612-94-2	Naphthalene, 2-phenyl-	900	NJ
SS5011	84-65-1	9,10-Anthracenedione	1100	NJ
SS5011	238-84-6	11H-Benzo[a]fluorene	1600	NJ
SS5011	243-17-4	11H-Benzo[b]fluorene	880	NJ
SS5011	239-35-0	Benzo[b]naphtho[2,1-d]thioph	980	NJ
SS5011	203-12-3	Benzo[ghi]fluoranthene w/Ben	1200	NJ
SS5011	630-03-5	Nonacosane w/aromatic compou	4300	NJ
SS5011	506-52-5	1-Hexacosanol	2100	NJ
SS5011	192-97-2	Benzo[e]pyrene	5200	NJ
SS5011	198-55-0	Perylene	2100	NJ
SS5011	630-04-6	Hentriacontane	6400	NJ
SS5011	630-05-7	Tritriacontane	1300	NJ
TOTAL UNKNOWN TICS:			9170	
TOTAL TICS			40380	

SDG FILE: 1E42493  
ES: SS5013

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TOTAL UNKNOWN TICS:			8	
TOTAL TICS			8	

SDG FILE: 1F42493

DATE:

MATRIX:

ES: SS5013

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS5013	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	4800	BJ
SS5013	99-93-	ETHANONE, 1-(4-HYDROXYPHENYL	940	JX
SS5013	112-53-	1-DODECANOL	240	JN
SS5013	498-02-	ETHANONE, 1-(4-HYDROXY-3-MET	510	JX
SS5013	1002-84-	PENTADECANOIC ACID	290	JN
SS5013	57-10-	HEXADECANOIC ACID	710	JN
SS5013	629-99-	PENTACOSANE	270	JN
SS5013	593-49-	HEPTACOSANE	480	JX
SS5013	630-03-	NONACOSANE	1200	JX
SS5013	506-52-	1-HEXACOSANOL	870	JX
SS5013	630-04-	HENTRIACONTANE	2700	JX
SS5013	630-05-	TRITRIACONTANE	1100	JX

TOTAL UNKNOWN TICS: 3740  
TOTAL TICS 17850

SDG FILE: 1F42493

DATE:

MATRIX:

ES: SS5012

LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS5012	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	3100	BJ
SS5012	112-53-	1-DODECANOL	180	JN
SS5012	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	110	JX
SS5012	1002-84-	PENTADECANOIC ACID	130	JN
SS5012	57-10-	HEXADECANOIC ACID	540	JN
SS5012	593-49-	HEPTACOSANE	270	JX
SS5012	630-02-	OCTACOSANE	170	JX
SS5012	630-03-	NONACOSANE	1000	JX
SS5012	506-52-	1-HEXACOSANOL	120	JX
SS5012	638-68-	TRIACONTANE	120	JX
SS5012	630-04-	HENTRIACONTANE	1500	JX
SS5012	630-05-	TRITRIACONTANE	550	JX

TOTAL UNKNOWN TICS: 1540  
TOTAL TICS 9330

SDG FILE: 1F42493  
ES: SS5014  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS5014	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	5400	BJ
SS5014	112-53-	1-DODECANOL	190	JX
SS5014	203-64-	4H-CYCLOPENTA (DEF) PHENANTHRE	230	JN
SS5014	57-10-	HEXADECANOIC ACID	300	JN
SS5014	238-84-	11H-BENZO [A] FLUORENE	340	JX
SS5014	630-03-	NONACOSANE	500	JX
SS5014	192-97-	BENZO [E] PYRENE	760	JX
SS5014	198-55-	PERYLENE	250	JX
SS5014	630-04-	HENTRIACONTANE	870	JX
SS5014	630-05-	TRITRIACONTANE	330	JX

TOTAL UNKNOWN TICS: 3910  
TOTAL TICS 13080

SDG FILE: 1F42493  
ES: SS5015  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS5015	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	3900	BJ
SS5015	112-53-	1-DODECANOL	260	JN
SS5015	57-10-	HEXADECANOIC ACID	1200	JX
SS5015	238-84-	11H-BENZO [A] FLUORENE	270	JX
SS5015	629-99-	PENTACOSANE	390	JN
SS5015	593-49-	HEPTACOSANE	570	JN
SS5015	630-03-	NONACOSANE	1200	JX
SS5015	506-52-	1-HEXACOSANOL	2600	JX
SS5015	192-97-	BENZO [E] PYRENE	630	JN
SS5015	630-04-	HENTRIACONTANE	4100	JX
SS5015	630-05-	TRITRIACONTANE	3700	JX

TOTAL UNKNOWN TICS: 5910  
TOTAL TICS 24730

SDG FILE: 1E45332  
ES: MW501  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW501	115-07-1	Propene	5	NJ

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 5

SDG FILE: 1F43626  
ES: SW501

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW501	630-04-6	Hentriacontane	2	NJ
TOTAL UNKNOWN TICS:			14	
TOTAL TICS			16	

SDG FILE: 1F43663  
ES: SD501

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD501	1002-84-2	Pentadecanoic acid	700	NJ
SD501	57-10-3	Hexadecanoic acid	4100	NJ
SD501	84-65-1	9,10-Anthracenedione w/ alip	900	NJ
SD501	238-84-6	11H-Benzo[a]fluorene	710	NJ
SD501	593-49-7	Heptacosane	900	NJ
SD501	630-03-5	Nonacosane	3800	NJ
SD501	192-97-2	Benzo[e]pyrene	1000	NJ
SD501	630-04-6	Hentriacontane	4000	NJ
TOTAL UNKNOWN TICS:			14210	
TOTAL TICS			30320	

SDG FILE: 1F43663  
ES: SD502

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD502	1002-84-2	Pentadecanoic acid	500	NJ
SD502	57-10-3	Hexadecanoic acid	2200	NJ
SD502	10544-50-0	Sulfur, mol. (S8)	1400	NJ
SD502	629-99-2	Pentacosane	520	NJ
SD502	593-49-7	Heptacosane	920	NJ
SD502	630-03-5	Nonacosane	2000	NJ
SD502	630-04-6	Hentriacontane	3600	NJ
SD502	57-88-5	Cholesterol	800	NJ
TOTAL UNKNOWN TICS:			17670	
TOTAL TICS			29610	

SDG FILE: 1F43663  
ES: SD503

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD503	57-10-3	Hexadecanoic acid	100	NJ
SD503	10544-50-0	Sulfur, mol. (S8)	260	NJ
SD503	630-03-5	Nonacosane	100	NJ
SD503	630-04-6	Hentriacontane	120	NJ
TOTAL UNKNOWN TICS:			1162	
TOTAL TICS			1742	

## SEAD-58

SDG FILE: 1F43535  
 ES: SS581  
 LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS581	1002-84-2	Pentadecanoic acid	93	NJ
SS581	57-10-3	Hexadecanoic acid	220	NJ
SS581	630-03-5	Nonacosane	220	NJ
SS581	630-04-6	Hentriacontane	350	NJ
SS581	630-05-7	Tritriacontane	91	NJ

TOTAL UNKNOWN TICS: 2175  
 TOTAL TICS 3149

SDG FILE: 1F43535  
 ES: SS582  
 LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS582	593-49-7	Heptacosane	94	NJ
SS582	630-03-5	Nonacosane	210	NJ
SS582	630-04-6	Hentriacontane	220	NJ

TOTAL UNKNOWN TICS: 2300  
 TOTAL TICS 2824

SDG FILE: 1F43535  
 ES: SS583  
 LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SS583	57-10-3	Hexadecanoic acid	150	NJ
SS583	630-03-5	Nonacosane	240	NJ
SS583	630-04-6	Hentriacontane	330	NJ
SS583	630-05-7	Tritriacontane	110	NJ

TOTAL UNKNOWN TICS: 5857  
 TOTAL TICS 6687



SDG FILE: 1F44694  
ES: SB58100  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B58100	57-10-3	Hexadecanoic acid	360	NJ
B58100	10544-50-0	Sulfur, mol. (S8)	530	NJ
B58100	593-49-7	Heptacosane	220	NJ
B58100	630-03-5	Nonacosane	400	NJ
B58100	630-04-6	Hentriacontane	670	NJ
B58100	4651-51-8	Ergost-5-en-3-ol, (3.beta.)-	280	NJ
B58100	630-05-7	Tritriacontane	180	NJ

TOTAL UNKNOWN TICS: 3360  
TOTAL TICS 6000

SDG FILE: 1F44694  
ES: SB58102  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B58102	630-03-5	Nonacosane	74	NJ

TOTAL UNKNOWN TICS: 846  
TOTAL TICS 920

SDG FILE: 1F44694  
ES: SB58103  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B58103	10544-50-0	Sulfur, mol. (S8)	81	NJ

TOTAL UNKNOWN TICS: 821  
TOTAL TICS 902

SDG FILE: 1F44694  
ES: SB58200

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B58200	57-10-3	Hexadecanoic acid	500	NJ
B58200	630-03-5	Nonacosane	650	NJ
B58200	630-04-6	Hentriacontane	880	NJ
B58200	4651-51-8	Ergost-5-en-3-ol, (3.beta.)-	340	NJ
B58200	630-05-7	Tritriacontane	250	NJ

TOTAL UNKNOWN TICS: 4510  
TOTAL TICS 7130

SDG FILE: 1F44694 DATE: MATRIX:  
 ES: SB58202  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TOTAL UNKNOWN TICS:			1058	
TOTAL TICS			1058	

SDG FILE: 1F44694 DATE: MATRIX:  
 ES: SB58204  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TOTAL UNKNOWN TICS:			692	
TOTAL TICS			692	

SDG FILE: 1F44694 DATE: MATRIX:  
 ES: SB58300  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B58300	57-10-3	Hexadecanoic acid	2100	NJ
B58300	593-49-7	Heptacosane	840	NJ
B58300	630-03-5	Nonacosane	2200	NJ
B58300	630-04-6	Hentriacontane	2800	NJ
B58300	4651-51-8	Ergost-5-en-3-ol, (3.beta.)-	1100	NJ
B58300	630-05-7	Tritriacontane	1500	NJ
B58300	545-47-1	Lupeol	960	NJ
B58300	1058-61-3	Stigmast-4-en-3-one	1600	NJ
TOTAL UNKNOWN TICS:			18620	
TOTAL TICS			31720	

SDG FILE: 1F44725 DATE: MATRIX:  
 ES: SB58301  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B58301	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	14000	BJ
B58301	112-53-	1-DODECANOL	140	BJ
B58301	630-03-	NONACOSANE	100	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			14240	

SDG FILE: 1E44725  
ES: SB58302RE  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B58302RE	541-05-	CYCLOTRISILOXANE, HEXAMETHYL	18	JX
B58302RE	556-67-	CYCLOTETRASILOXANE, OCTAMETH	36	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			54	

SDG FILE: 1F44725  
ES: SB58302  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B58302	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	12000	BJ
B58302	112-53-	1-DODECANOL	140	BJ
B58302	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	76	JX
TOTAL UNKNOWN TICS:			231	
TOTAL TICS			12447	

SDG FILE: 1F44748  
ES: TP5811  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP5811	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2800	BJ
TP5811	112-53-	1-DODECANOL	130	BJ
TP5811	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	150	JX
TP5811	57-10-	HEXADECANOIC ACID	77	JX
TP5811	630-04-	HENTRIACONTANE	84	JX
TOTAL UNKNOWN TICS:			308	
TOTAL TICS			3549	

SDG FILE: 1F44748  
ES: TP5821

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP5821	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	1900	BJ
TP5821	112-53-	1-DODECANOL	110	BJ
TP5821	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	200	JX
TP5821	123-28-	PROPANOIC ACID, 3,3'-THIOBIS	140	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			2350	

SDG FILE: 1F44748  
ES: TP5831  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP5831	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2500	BJ
TP5831	112-53-	1-DODECANOL	110	BJ
TP5831	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	200	JX
TP5831	123-28-	PROPANOIC ACID, 3,3'-THIOBIS	93	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			2903	

SDG FILE: 1F44748  
ES: TP584  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP584	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2200	BJ
TP584	112-53-	1-DODECANOL	92	BJ
TP584	134-62-	BENZAMIDE, N,N-DIETHYL-3-MET	200	JX
TP584	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	160	JX
TP584	123-28-	PROPANOIC ACID, 3,3'-THIOBIS	88	JX
TP584	630-03-	NONACOSANE	100	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			2840	

SDG FILE: 1F44748  
ES: TP5851  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP5851	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	3200	BJ
TP5851	112-53-	1-DODECANOL	130	BJ
TP5851	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	240	JX
TP5851	123-28-	PROPANOIC ACID, 3,3'-THIOBIS	90	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			3660	

SDG FILE: 1E44748  
ES: TP5861

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TOTAL UNKNOWN TICS:			7	
TOTAL TICS			7	

SDG FILE: 1F44748  
ES: TP5861  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP5861	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2400	BJ
TP5861	112-53-	1-DODECANOL	88	BJ
TP5861	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	180	JX
TP5861	123-28-	PROPANOIC ACID, 3,3'-THIOBIS	150	JX
TOTAL UNKNOWN TICS:			470	
TOTAL TICS			3288	

SDG FILE: 1F45282  
ES: MW581  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW581	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	20	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			20	

SDG FILE: 1F45282  
ES: MW582  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW582	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	28	BJ
MW582	544-76-	HEXADECANE	3	JX
MW582	629-78-	HEPTADECANE	4	JX
MW582	1921-70-	PENTADECANE, 2,6,10,14-TETRA	2	JX
MW582	593-45-	OCTADECANE	4	JX
MW582	629-92-	NONADECANE	3	JX
MW582	131-57-	METHANONE, (2-HYDROXY-4-METH	18	JX
TOTAL UNKNOWN TICS:			2	
TOTAL TICS			64	

SDG FILE: 1F45282  
ES: MW584  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW584	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	28	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			28	

SDG FILE: 1F43549 DATE: MATRIX:  
ES: SW581  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW581	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	9	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			9	

SDG FILE: 1F43549 DATE: MATRIX:  
ES: SW582  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW582	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	14	BJ
SW582	556-67-	CYCLOTETRASILOXANE, OCTAMETH	230	JX
SW582	541-02-	CYCLOPENTASILOXANE, DECAMETH	57	JX
SW582	540-97-	CYCLOHEXASILOXANE, DODECAMET	19	JX
TOTAL UNKNOWN TICS:			1059	
TOTAL TICS			1379	

SDG FILE: 1F43549 DATE: MATRIX:  
ES: SW583  
LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW583	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	13	BJ
SW583	556-67-	CYCLOTETRASILOXANE, OCTAMETH	5	JX
SW583	57-10-	HEXADECANOIC ACID	3	JX
SW583	629-99-	PENTACOSANE	2	JX
SW583	630-01-	HEXACOSANE	3	JX
TOTAL UNKNOWN TICS:			32	
TOTAL TICS			58	

SDG FILE: 1F43549 DATE: MATRIX:  
ES: SW584

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW584	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	13	BJ
SW584	791-28-	PHOSPHINE OXIDE, TRIPHENYL-	10	JX
SW584	630-03-	NONACOSANE	4	JX
SW584	630-04-	HENTRIACONTANE	3	JX
TOTAL UNKNOWN TICS:			10	
TOTAL TICS			40	

SDG FILE: 1F43549  
ES: SW585  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW585	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	15	BJ
SW585	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	5	JX
SW585	630-03-	NONACOSANE	7	JX
SW585	630-04-	HENTRIACONTANE	4	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			31	

SDG FILE: 1F43549  
ES: SW586  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SW586	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	17	BJ
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			17	

SDG FILE: 1F43543  
ES: SD581  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD581	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	4000	BJ
SD581	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	290	BJ
SD581	1002-84-	PENTADECANOIC ACID	580	JX
SD581	57-10-	HEXADECANOIC ACID	1300	JX
SD581	638-67-	TRICOSANE	290	JX
SD581	629-99-	PENTACOSANE W/1-DOCOSANOL	710	JX
SD581	593-49-	HEPTACOSANE	600	JX
SD581	506-51-	1-TETRACOSANOL	710	JX
SD581	630-03-	NONACOSANE	2600	JX
SD581	506-52-	1-HEXACOSANOL	1100	JX
SD581	630-04-	HENTRIACONTANE	3800	JX
SD581	630-05-	TRITRIACONTANE	920	JX
TOTAL UNKNOWN TICS:			4890	
TOTAL TICS			21790	

SDG FILE: 1F43543  
ES: SD582

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD582	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	6900	BJ
SD582	57-10-	HEXADECANOIC ACID	2400	JX
SD582	629-99-	PENTACOSANE W/1-DOCOSANOL	1600	JX
SD582	593-49-	HEPTACOSANE	2600	JX
SD582	506-51-	1-TETRACOSANOL	1200	JX
SD582	630-03-	NONACOSANE	6500	JX
SD582	506-52-	1-HEXACOSANOL	5700	JX
SD582	630-04-	HENTRIACONTANE	8000	JX
SD582	630-05-	TRITRIACONTANE	2000	JX
SD582	1058-61-	STIGMAST-4-EN-3-ONE	2600	JX

TOTAL UNKNOWN TICS: 29390  
TOTAL TICS 68890

SDG FILE: 1F43543  
ES: SD583

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD583	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	4200	BJ
SD583	57-10-	HEXADECANOIC ACID	1900	JX
SD583	629-99-	PENTACOSANE	590	JX
SD583	593-49-	HEPTACOSANE	990	JX
SD583	630-03-	NONACOSANE	2400	JX
SD583	506-52-	1-HEXACOSANOL	1400	JX
SD583	630-04-	HENTRIACONTANE	2400	JX
SD583	630-05-	TRITRIACONTANE	670	JX

TOTAL UNKNOWN TICS: 15690  
TOTAL TICS 30240

SDG FILE: 1F43543  
ES: SD584

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD584	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	4200	BJ
SD584	1002-84-	PENTADECANOIC ACID	550	JX
SD584	57-10-	HEXADECANOIC ACID	1500	JX
SD584	629-99-	PENTACOSANE W/1-DOCOSANOL	800	JX
SD584	593-49-	HEPTACOSANE	920	JX
SD584	506-51-	1-TETRACOSANOL	890	JX
SD584	630-03-	NONACOSANE	4600	JX
SD584	506-52-	1-HEXACOSANOL	1400	JX
SD584	630-04-	HENTRIACONTANE	7300	JX
SD584	630-05-	TRITRIACONTANE	1700	JX
SD584	1058-61-	STIGMAST-4-EN-3-ONE	1600	JX

TOTAL UNKNOWN TICS: 9970  
TOTAL TICS 35430



SDG FILE: 1F43543  
ES: SD585  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD585	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	8500	BJ
SD585	57-10-	HEXADECANOIC ACID	1200	JX
SD585	57-11-	OCTADECANOIC ACID	830	JX
SD585	506-30-	EICOSANOIC ACID	810	JX
SD585	629-99-	PENTACOSANE	960	JX
SD585	112-85-	DOCOSANOIC ACID	800	JX
SD585	593-49-	HEPTACOSANE W/1-TETRACOSANOL	3000	JN
SD585	630-03-	NONACOSANE	4600	JX
SD585	506-52-	1-HEXACOSANOL	2500	JX
SD585	630-04-	HENTRIACONTANE	8400	JX
SD585	630-05-	TRITRIACONTANE	3200	JX
TOTAL UNKNOWN TICS:			16760	
TOTAL TICS			51560	

SDG FILE: 1F43543  
ES: SD586  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
SD586	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	4700	BJ
SD586	1002-84-	PENTADECANOIC ACID	880	JX
SD586	57-10-	HEXADECANOIC ACID W/DI-N-BUT	2000	JX
SD586	57-11-	OCTADECANOIC ACID	910	JX
SD586	661-19-	1-DOCOSANOL W/PENTACOSANE	1500	JX
SD586	112-85-	DOCOSANOIC ACID	820	JX
SD586	593-49-	HEPTACOSANE W/1-TETRACOSANOL	2600	JX
SD586	630-03-	NONACOSANE	6900	JX
SD586	506-52-	1-HEXACOSANOL	1200	JX
SD586	630-04-	HENTRIACONTANE	6100	JX
SD586	630-05-	TRITRIACONTANE	1500	JX
TOTAL UNKNOWN TICS:			18520	
TOTAL TICS			47630	

SEAD-59

SDG FILE: 1F42494  
 ES: SB59101  
 LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59101	123-42-2	2-Pentanone, 4-hydroxy-4-met	22000	AB
B59101	832-71-3	Phenanthrene, 3-methyl-	1200	NJ
B59101	2531-84-2	Phenanthrene, 2-methyl-	1500	NJ
B59101	203-64-5	4H-Cyclopenta[def]phenanthre	1600	NJ
B59101	84-65-1	9,10-Anthracenedione	760	NJ
B59101	238-84-6	11H-Benzo[a]fluorene	3300	NJ
B59101	243-17-4	11H-Benzo[b]fluorene	1000	NJ
B59101	2381-21-7	Pyrene, 1-methyl-	1500	NJ
B59101	239-35-0	Benzo[b]naphtho[2,1-d]thioph	1200	ZN
B59101	192-97-2	Benzo[e]pyrene	6800	NJ

TOTAL UNKNOWN TICS: 12880  
 TOTAL TICS 53740

SDG FILE: 1F42494  
 ES: SB59101RE  
 LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59101RE	123-42-2	2-Pentanone, 4-hydroxy-4-met	24000	AB
B59101RE	832-71-3	Phenanthrene, 3-methyl-	1200	NJ
B59101RE	2531-84-2	Phenanthrene, 2-methyl-	1500	NJ
B59101RE	203-64-5	4H-Cyclopenta[def]phenanthre	1600	NJ
B59101RE	238-84-6	11H-Benzo[a]fluorene	3400	NJ
B59101RE	243-17-4	11H-Benzo[b]fluorene	1200	NJ
B59101RE	2381-21-7	Pyrene, 1-methyl-	1600	NJ
B59101RE	239-35-0	Benzo[b]naphtho[2,1-d]thioph	1300	ZN
B59101RE	207-08-9	Benzo[k]fluoranthene	8000	NJ

TOTAL UNKNOWN TICS: 16070  
 TOTAL TICS 59870

SDG FILE: 1E42494  
 ES: SB59104  
 LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TOTAL UNKNOWN TICS:			7	
TOTAL TICS			7	

SDG FILE: 1F42494  
ES: SB59104  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59104	123-42-2	2-Pentanone, 4-hydroxy-4-met	18000	AB
B59104	57-10-3	Hexadecanoic acid	280	NJ
B59104	832-71-3	Phenanthrene, 3-methyl-	240	NJ
B59104	2531-84-2	Phenanthrene, 2-methyl-	320	NJ
B59104	203-64-5	4H-Cyclopenta[def]phenanthre	320	NJ
B59104	238-84-6	11H-Benzo[a]fluorene	560	NJ
B59104	72-54-8	1,1-Dichloro-2,2-bis(p-chlor	350	NJ
B59104	2381-21-7	Pyrene, 1-methyl-	370	NJ
B59104	239-35-0	Benzo[b]naphtho[2,1-d]thioph	260	NJ
B59104	630-03-5	Nonacosane	1600	NJ
B59104	192-97-2	Benzo[e]pyrene	1000	NJ
B59104	630-04-6	Hentriacontane	1500	NJ

TOTAL UNKNOWN TICS: 15140  
TOTAL TICS 39940

SDG FILE: 1E42494  
ES: SB59106  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59106	624-92-	DISULFIDE, DIMETHYL-	9	BJ

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 9

SDG FILE: 1F42494  
ES: SB59106  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59106	123-42-2	2-Pentanone, 4-hydroxy-4-met	16000	NJ
B59106	57-10-3	Hexadecanoic acid	550	NJ
B59106	832-71-3	Phenanthrene, 3-methyl-	440	NJ
B59106	2531-84-2	Phenanthrene, 2-methyl-	520	NJ
B59106	203-64-5	4H-Cyclopenta[def]phenanthre	560	NJ
B59106	238-84-6	11H-Benzo[a]fluorene	830	NJ
B59106	2381-21-7	Pyrene, 1-methyl-	330	NJ
B59106	192-97-2	Benzo[e]pyrene	1200	NJ

TOTAL UNKNOWN TICS: 27480  
TOTAL TICS 47910

SDG FILE: 1F44410  
ES: SB59200  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59200	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2500	JX
B59200	2531-84-	PHENANTHRENE, 2-METHYL-	370	JX
B59200	203-64-	4H-CYCLOPENTA [DEF] PHENANTHRE	550	JX
B59200	832-69-	PHENANTHRENE, 1-METHYL-	370	JX
B59200	57-10-	HEXADECANOIC ACID	340	JX
B59200	612-94-	NAPHTHALENE, 2-PHENYL-	390	JX
B59200	238-84-	11H-BENZO [A] FLUORENE	1100	JX
B59200	243-17-	11H-BENZO [B] FLUORENE	300	JX
B59200	2381-21-	PYRENE, 1-METHYL-	520	JX
B59200	203-12-	BENZO [GHI] FLUORANTHENE W/BEN	580	JX
B59200	630-03-	NONACOSANE	350	JX
B59200	192-97-	BENZO [E] PYRENE	1200	JX
B59200	198-55-	PERYLENE	600	JX
B59200	630-04-	HENTRIACONTANE	410	JX

TOTAL UNKNOWN TICS: 3220  
TOTAL TICS 12800

SDG FILE: 1F44410  
ES: SB59202  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59202	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2600	JX
B59202	2531-84-	PHENANTHRENE, 2-METHYL-	530	JX
B59202	203-64-	4H-CYCLOPENTA [DEF] PHENANTHRE	680	JX
B59202	238-84-	11H-BENZO [A] FLUORENE	980	JX
B59202	243-17-	11H-BENZO [B] FLUORENE	500	JX
B59202	203-12-	BENZO [GHI] FLUORANTHENE W/PAH	530	JX
B59202	593-49-	HEPTACOSANE	660	JX
B59202	630-02-	OCTACOSANE	530	JX
B59202	630-03-	NONACOSANE	3100	JX
B59202	506-52-	1-HEXACOSANOL	590	JX
B59202	192-97-	BENZO [E] PYRENE	1100	JX
B59202	198-55-	PERYLENE	510	JX
B59202	630-04-	HENTRIACONTANE	3100	JX
B59202	630-05-	TRITRIACONTANE	710	JX

TOTAL UNKNOWN TICS: 7430  
TOTAL TICS 23550

SDG FILE: 1F44410  
ES: SB59204  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59204	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	1100	JX
B59204	90-12-	NAPHTHALENE, 1-METHYL-	110	JX
B59204	112-53-	1-DODECANOL	200	JX
B59204	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	120	JX
B59204	832-71-	PHENANTHRENE, 3-METHYL-	110	JX
B59204	2531-84-	PHENANTHRENE, 2-METHYL-	150	JN
B59204	203-64-	4H-CYCLOPENTA [DEF] PHENANTHRE	190	JX
B59204	57-10-	HEXADECANOIC ACID	120	JX
B59204	238-84-	11H-BENZO [A] FLUORENE	200	JX
B59204	203-12-	BENZO [GHI] FLUORANTHENE W/BEN	110	JX
B59204	630-03-	NONACOSANE	280	JX
B59204	506-52-	1-HEXACOSANOL	160	JX
B59204	192-97-	BENZO [E] PYRENE	200	JX
B59204	630-04-	HENTRIACONTANE	330	JX
B59204	630-05-	TRITRIACONTANE	120	JX

TOTAL UNKNOWN TICS: 1160  
TOTAL TICS 4660

SDG FILE: 1F44410  
ES: SB59220  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59220	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	2000	JX
B59220	832-71-	PHENANTHRENE, 3-METHYL-	550	JX
B59220	2531-84-	PHENANTHRENE, 2-METHYL-	760	JX
B59220	203-64-	4H-CYCLOPENTA [DEF] PHENANTHRE	1100	JX
B59220	612-94-	NAPHTHALENE, 2-PHENYL-	640	JX
B59220	243-42-	BENZO [B] NAPHTHO [2,3-D] FURAN	540	JX
B59220	238-84-	11H-BENZO [A] FLUORENE	1600	JX
B59220	243-17-	11H-BENZO [B] FLUORENE	610	JX
B59220	2381-21-	PYRENE, 1-METHYL-	720	JX
B59220	239-35-	BENZO [B] NAPHTHO [2,1-D] THIOPH	560	JX
B59220	203-12-	BENZO [GHI] FLUORANTHENE W/BEN	970	JX
B59220	192-97-	BENZO [E] PYRENE	1500	JX
B59220	198-55-	PERYLENE	940	JX

TOTAL UNKNOWN TICS: 6590  
TOTAL TICS 19080

SDG FILE: 1E44345  
ES: SB59300  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
		TOTAL UNKNOWN TICS:	22	
		TOTAL TICS	22	

SDG FILE: 1F44345  
ES: SB59300  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59300	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	11000	BJ
B59300	57-10-	HEXADECANOIC ACID	880	JX
B59300	203-64-	4H-CYCLOPENTA [DEF] PHENANTHRE	380	JX
B59300	84-65-	9,10-ANTHRACENEDIONE W/ALIPH	390	JX
B59300	238-84-	11H-BENZO [A] FLUORENE	620	JX
B59300	243-17-	11H-BENZO [B] FLUORENE W/TRICO	420	JX
B59300	593-49-	HEPTACOSANE W/C20H14 PAH	450	JX
B59300	630-03-	NONACOSANE	880	JX
B59300	506-52-	1-HEXACOSANOL	390	JX
B59300	630-04-	HENTRIACONTANE	1200	JX
B59300	630-05-	TRITRIACONTANE	560	JX
B59300	1058-61-	STIGMAST-4-EN-3-ONE	550	JX
		TOTAL UNKNOWN TICS:	6600	
		TOTAL TICS	24320	

SDG FILE: 1F44345  
ES: SB59302

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59302	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	14000	BJ
B59302	112-53-	1-DODECANOL	150	JX
B59302	630-03-	NONACOSANE	110	JX
B59302	630-04-	HENTRIACONTANE	120	JX
		TOTAL UNKNOWN TICS:	5990	
		TOTAL TICS	20370	

SDG FILE: 1F44345  
ES: SB59304

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59304	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	21000	BJ
B59304	112-53-	1-DODECANOL	160	JX
B59304	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	150	JX
		TOTAL UNKNOWN TICS:	2935	
		TOTAL TICS	24245	

SDG FILE: 1F44345  
ES: SB59400  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59400	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	15000	BJ
B59400	2531-84-	PHENANTHRENE, 2-METHYL-	520	JX
B59400	57-10-	HEXADECANOIC ACID	400	JX
B59400	238-84-	11H-BENZO [A] FLUORENE	850	JX
B59400	243-17-	11H-BENZO [B] FLUORENE	400	JN
B59400	195-19-	BENZO [C] PHENANTHRENE	420	JX
TOTAL UNKNOWN TICS:			7820	
TOTAL TICS			25410	

SDG FILE: 1E44345  
ES: SB59405  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59405	556-67-	CYCLOTETRASIOXANE, OCTAMETH	10	JN
TOTAL UNKNOWN TICS:			22	
TOTAL TICS			32	

SDG FILE: 1F44345  
ES: SB59405  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59405	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	16000	BJ
B59405	57-10-	HEXADECANOIC ACID	650	JX
B59405	84-65-	9,10-ANTHRACENEDIONE W/ALIPH	410	JX
B59405	629-94-	HENEICOSANE	590	JX
B59405	629-97-	DOCOSANE	590	JX
B59405	638-67-	TRICOSANE W/11H-BENZO [B] FLUO	940	JX
B59405	646-31-	TETRACOSANE	1000	JX
B59405	629-99-	PENTACOSANE	1500	JX
B59405	630-01-	HEXACOSANE	1300	JX
B59405	593-49-	HEPTACOSANE	1700	JX
B59405	630-02-	OCTACOSANE	1700	JX
B59405	630-03-	NONACOSANE	2000	JX
B59405	506-52-	1-HEXACOSANOL	560	JX
B59405	638-68-	TRIACONTANE	1100	JX
B59405	630-04-	HENTRIACONTANE	2200	JX
B59405	544-85-	DOTRIACONTANE	560	JX
B59405	630-05-	TRITRIACONTANE	740	JX
TOTAL UNKNOWN TICS:			2930	
TOTAL TICS			36470	

SDG FILE: 1E44345  
ES: SB59410  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59410	556-67-	CYCLOTETRASIOXANE, OCTAMETH	8	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			8	

SDG FILE: 1F44345  
ES: SB59410  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59410	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	12000	BJ
B59410	112-53-	1-DODECANOL	150	JX
TOTAL UNKNOWN TICS:			330	
TOTAL TICS			12480	

SDG FILE: 1E44345  
ES: SB59500  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59500	556-67-	CYCLOTETRASIOXANE, OCTAMETH	8	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			8	

SDG FILE: 1F44345  
ES: SB59500  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59500	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	38000	BJ
B59500	2531-84-	PHENANTHRENE, 2-METHYL-	1000	JX
B59500	203-64-	4H-CYCLOPENTA [DEF] PHENANTHRE	2300	JX
B59500	605-02-	NAPHTHALENE, 1-PHENYL-	1200	JX
B59500	238-84-	11H-BENZO [A] FLUORENE	2100	JX
B59500	243-17-	11H-BENZO [B] FLUORENE	1100	JX
B59500	239-35-	BENZO [B] NAPHTHO [2,1-D] THIOPH	980	JX
B59500	195-19-	BENZO [C] PHENANTHRENE	1200	JX
B59500	27208-37-	CYCLOPENTA [CD] PYRENE	1300	JX
B59500	192-97-	BENZO [E] PYRENE	4400	JX
B59500	198-55-	PERYLENE	1500	JX
TOTAL UNKNOWN TICS:			13900	
TOTAL TICS			68980	



SDG FILE: 1E44345  
ES: SB59503  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59503	541-02-	CYCLOPENTASILOXANE, DECAMETH	6	JX
TOTAL UNKNOWN TICS:			0	
TOTAL TICS			6	

SDG FILE: 1F44345  
ES: SB59503

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59503	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	20000	BJ
B59503	629-59-	TETRADECANE	840	JX
B59503	629-62-	PENTADECANE	1600	JX
B59503	544-76-	HEXADECANE	2200	JX
B59503	629-78-	HEPTADECANE	3200	JX
B59503	1921-70-	PENTADECANE, 2,6,10,14-TETRA	5000	JX
B59503	593-45-	OCTADECANE	3300	JX
B59503	638-36-	HEXADECANE, 2,6,10,14-TETRAM	3600	JX
B59503	629-92-	NONADECANE	3600	JX
B59503	832-71-	PHENANTHRENE, 3-METHYL-	870	JX
B59503	2531-84-	PHENANTHRENE, 2-METHYL-	1100	JX
B59503	832-69-	PHENANTHRENE, 1-METHYL-	780	JX
B59503	112-95-	EICOSANE	2900	JX
B59503	629-94-	HENEICOSANE	2500	JX
B59503	629-97-	DOCOSANE	1700	JX
B59503	238-84-	11H-BENZO [A] FLUORENE	1000	JX
B59503	638-67-	TRICOSANE W/11H-BENZO [B] FLUO	1300	JX
B59503	192-97-	BENZO [E] PYRENE	1200	JX
TOTAL UNKNOWN TICS:			3800	
TOTAL TICS			60490	

SDG FILE: 1F44345                      DATE:                      MATRIX:  
 ES: SB59503RE  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59503RE	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	12000	BJ
B59503RE	629-59-	TETRADECANE	970	JX
B59503RE	629-62-	PENTADECANE	1900	JX
B59503RE	544-76-	HEXADECANE	2500	JX
B59503RE	629-78-	HEPTADECANE	3700	JX
B59503RE	1921-70-	PENTADECANE, 2,6,10,14-TETRA	6000	JX
B59503RE	593-45-	OCTADECENE	3800	JX
B59503RE	638-36-	HEXADECANE, 2,6,10,14-TETRAM	4300	JX
B59503RE	629-92-	NONADECANE	4300	JX
B59503RE	832-71-	PHENANTHRENE, 3-METHYL-	1100	JX
B59503RE	2531-84-	PHENANTHRENE, 2-METHYL-	1300	JX
B59503RE	112-95-	EICOSANE	3500	JX
B59503RE	629-94-	HENEICOSANE	2900	JX
B59503RE	629-97-	DOCOSANE	2100	JX
B59503RE	238-84-	11H-BENZO [A] FLUORENE	1300	JX
B59503RE	638-67-	TRICOSANE W/11H-BENZO [B] FLUO	1700	JX
B59503RE	192-97-	BENZO [E] PYRENE	1400	JX

TOTAL UNKNOWN TICS: 5440  
 TOTAL TICS 60210

SDG FILE: 1E44345                      DATE:                      MATRIX:  
 ES: SB59506  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59506	541-02-	CYCLOPENTASILOXANE, DECAMETH	12	JX

TOTAL UNKNOWN TICS: 0  
 TOTAL TICS 12

SDG FILE: 1F44345                      DATE:                      MATRIX:  
 ES: SB59506  
 LAB:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
B59506	123-42-	2-PENTANONE, 4-HDYROXY-4-MET	16000	BJ
B59506	112-53-	1-DODECANOL	120	JX
B59506	74381-40-	PROPANOIC ACID, 2-METHYL-, 1	110	JX

TOTAL UNKNOWN TICS: 380  
 TOTAL TICS 16610

SDG FILE: 1F44694  
ES: TP591  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP591	111-84-2	Nonane	30000	NJ
TP591	124-18-5	Decane	0	NJ
TP591	1120-21-4	Undecane	80000	NJ
TP591	112-39-0	Hexadecanoic acid, methyl es	59000	NJ
TP591	57-10-3	Hexadecanoic acid	53000	NJ
TP591	2566-97-4	9,12-Octadecadienoic acid, m	40000	NJ
TP591	56554-48-4	14-Octadecenoic acid, methyl	10000	NJ
TP591	60-33-3	9,12-Octadecadienoic acid (Z	89000	NJ

TOTAL UNKNOWN TICS: 633000  
TOTAL TICS 994000

SDG FILE: 1F42494  
ES: TP592  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP592	123-42-2	2-Pentanone, 4-hydroxy-4-met	22000	AB
TP592	629-78-7	Heptadecane	1500	NJ
TP592	1921-70-6	Pentadecane, 2,6,10,14-tetra	4200	NJ
TP592	638-36-8	Hexadecane, 2,6,10,14-tetram	2700	NJ
TP592	832-71-3	Phenanthrene, 3-methyl-	1700	NJ
TP592	2531-84-2	Phenanthrene, 2-methyl-	2200	NJ
TP592	203-64-5	4H-Cyclopenta[def]phenanthre	2200	NJ
TP592	238-84-6	11H-Benzo[a]fluorene	3900	NJ
TP592	2381-21-7	Pyrene, 1-methyl-	1900	NJ

TOTAL UNKNOWN TICS: 21600  
TOTAL TICS 63900

SDG FILE: 1F42494  
ES: TP592RE

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP592RE	123-42-2	2-Pentanone, 4-hydroxy-4-met	28000	AB
TP592RE	544-76-3	Hexadecane	1500	NJ
TP592RE	629-78-7	Heptadecane	1500	NJ
TP592RE	1921-70-6	Pentadecane, 2,6,10,14-tetra	4600	NJ
TP592RE	638-36-8	Hexadecane, 2,6,10,14-tetram	2900	NJ
TP592RE	832-71-3	Phenanthrene, 3-methyl-	1900	NJ
TP592RE	2531-84-2	Phenanthrene, 2-methyl-	2300	NJ
TP592RE	203-64-5	4H-Cyclopenta[def]phenanthre	2400	NJ
TP592RE	238-84-6	11H-Benzo[a]fluorene	5000	NJ
TP592RE	2381-21-7	Pyrene, 1-methyl-	2400	NJ

TOTAL UNKNOWN TICS: 24600  
TOTAL TICS 77100

SDG FILE: 1F44694  
ES: TP593  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP593	192-97-2	Benzo[e]pyrene	870	NJ
TOTAL UNKNOWN TICS:			9130	
TOTAL TICS			10000	

SDG FILE: 1F44694  
ES: TP594  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP594	629-50-5	Tridecane w/naphthalene deri	92000	NJ
TP594	575-41-7	Naphthalene, 1,3-dimethyl-	20000	NJ
TP594	1921-70-6	Pentadecane, 2,6,10,14-tetra	40000	NJ
TOTAL UNKNOWN TICS:			1176000	
TOTAL TICS			1328000	

SDG FILE: 1F44694  
ES: TP595  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
TP595	630-03-5	Nonacosane	100	NJ
TP595	630-04-6	Hentriacontane	100	NJ
TOTAL UNKNOWN TICS:			747	
TOTAL TICS			947	

SDG FILE: 1F43179  
ES: MW591  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW591	533-60-8	Cyclohexanone, 2-hydroxy-	6	NJ
MW591	931-17-9	1,2-Cyclohexanediol	10	NJ
MW591	98-89-5	Cyclohexanecarboxylic acid	2	NJ
MW591	65-85-0	Benzoic Acid	5	NJ
MW591	629-62-9	Pentadecane	3	NJ
MW591	544-76-3	Hexadecane	5	NJ
MW591	629-78-7	Heptadecane	7	NJ
MW591	1921-70-6	Pentadecane, 2,6,10,14-tetra	3	NJ
MW591	593-45-3	Octadecane	6	NJ
MW591	629-92-5	Nonadecane	5	NJ
MW591	112-95-8	Eicosane	3	NJ
TOTAL UNKNOWN TICS:			9	
TOTAL TICS			64	

SDG FILE: 1F45448  
ES: MW592  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW592	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	21	BJ
MW592	74367-33-	PROPANOIC ACID, 2-METHYL-, 2	13	JX
MW592	74367-34-	PROPANOIC ACID, 2-METHYL-, 3	30	JX
MW592	544-76-	HEXADECANE	2	JX
MW592	629-78-	HEPTADECANE	3	JX
MW592	593-45-	OCTADECANE	3	JX
MW592	629-92-	NONADECANE	3	JX
MW592	57-10-	HEXADECANOIC ACID	3	BJ

TOTAL UNKNOWN TICS: 7  
TOTAL TICS 85

SDG FILE: 1F45448  
ES: MW593  
LAB:

DATE: MATRIX:

ESID	CAS NO	COMPOUND	RESULT	QUAL.
MW593	123-42-	2-PENTANONE, 4-HYDROXY-4-MET	39	BJ

TOTAL UNKNOWN TICS: 0  
TOTAL TICS 39

## **APPENDIX G**

### **CONTRACT REQUIRED QUANTITATION LIMITS**

**These tables present quantitation limits that were used for the analysis of the samples in this report. The version of these tables in the 15 SWMU Work Plan contain quantitation limits that were updated subsequent to the time the 15 SWMU Work Plan was issued.**

**TABLE C-2  
PARAMETER LIST FOR INORGANIC AND ORGANIC ANALYSES**

I. Soil and Sediment Analyses	<u>Preparation Method</u>	<u>Analytical Method</u>	<u>Reporting Limits (ug/Kg)</u>
<b>A. Inorganics (TAL)</b>			
i. Aluminum	NYSDEC CLP	NYSDEC CLP	20,000
ii. Antimony	NYSDEC CLP	NYSDEC CLP	6,000
iii. Arsenic	NYSDEC CLP	NYSDEC CLP	1,000
iv. Barium	NYSDEC CLP	NYSDEC CLP	20,000
v. Beryllium	NYSDEC CLP	NYSDEC CLP	500
vi. Cadmium	NYSDEC CLP	NYSDEC CLP	500
vii. Calcium	NYSDEC CLP	NYSDEC CLP	500,000
viii. Chromium	NYSDEC CLP	NYSDEC CLP	1,000
ix. Cobalt	NYSDEC CLP	NYSDEC CLP	5,000
x. Copper	NYSDEC CLP	NYSDEC CLP	2,500
xi. Iron	NYSDEC CLP	NYSDEC CLP	10,000
xii. Lead	NYSDEC CLP	NYSDEC CLP	300
xiii. Magnesium	NYSDEC CLP	NYSDEC CLP	500,000
xiv. Manganese	NYSDEC CLP	NYSDEC CLP	1,500
xv. Mercury	NYSDEC CLP	NYSDEC CLP	20
xvi. Nickel	NYSDEC CLP	NYSDEC CLP	4,000
xvii. Potassium	NYSDEC CLP	NYSDEC CLP	500,000
xviii. Selenium	NYSDEC CLP	NYSDEC CLP	500
xix. Silver	NYSDEC CLP	NYSDEC CLP	1,000
xx. Sodium	NYSDEC CLP	NYSDEC CLP	500,000
xxi. Thallium	NYSDEC CLP	NYSDEC CLP	1,000
xxii. Vanadium	NYSDEC CLP	NYSDEC CLP	5,000
xxiii. Zinc	NYSDEC CLP	NYSDEC CLP	2,000
xxiv. Cyanide, total	NYSDEC CLP	NYSDEC CLP	1,000
<b>B. Organics</b>			
i. TCL Volatile Organics	NYSDEC CLP	NYSDEC CLP	Table C-3
ii. TCL Semivolatile Organics	NYSDEC CLP	NYSDEC CLP	Table C-4
iii. TCL Pesticide/PCBs	NYSDEC CLP	NYSDEC CLP	Table C-5
iv. Explosives	8330	8330	Table C-6
v. Herbicides	8150	8150	Table C-7
vi. Volatile Organics	-	524.2	Table C-8
<b>C. Other Analytes</b>			
i. Fluoride	Extract <sup>1</sup>	340.2	500 µg/kg
ii. Nitrate	Extract <sup>1</sup>	353.2	100 µg/kg
iii. Total Petroleum Hydrocarbons	418.1	418.1	25 mg/kg

**TABLE C-2 (Continued)**  
**PARAMETER LIST FOR INORGANIC AND ORGANIC ANALYSES**

	<u>Preparation Method</u>	<u>Analytical Method</u>	<u>Reporting Limits</u>
II. Groundwater and Surface Water Analyses			
A. Inorganics (TAL)			
1. Aluminum	NYSDEC CLP	NYSDEC CLP	200
2. Antimony	NYSDEC CLP	NYSDEC CLP	60
3. Arsenic	NYSDEC CLP	NYSDEC CLP	10
4. Barium	NYSDEC CLP	NYSDEC CLP	200
5. Beryllium	NYSDEC CLP	NYSDEC CLP	5
6. Cadmium	NYSDEC CLP	NYSDEC CLP	5
7. Calcium	NYSDEC CLP	NYSDEC CLP	5,000
8. Chromium	NYSDEC CLP	NYSDEC CLP	10
9. Cobalt	NYSDEC CLP	NYSDEC CLP	50
10. Copper	NYSDEC CLP	NYSDEC CLP	25
11. Iron	NYSDEC CLP	NYSDEC CLP	100
12. Lead	NYSDEC CLP	NYSDEC CLP	3
13. Magnesium	NYSDEC CLP	NYSDEC CLP	5,000
14. Manganese	NYSDEC CLP	NYSDEC CLP	15
15. Mercury	NYSDEC CLP	NYSDEC CLP	0.2
16. Nickel	NYSDEC CLP	NYSDEC CLP	40
17. Potassium	NYSDEC CLP	NYSDEC CLP	5,000
18. Selenium	NYSDEC CLP	NYSDEC CLP	5
19. Silver	NYSDEC CLP	NYSDEC CLP	10
20. Sodium	NYSDEC CLP	NYSDEC CLP	5,000
21. Thallium	NYSDEC CLP	NYSDEC CLP	10
22. Vanadium	NYSDEC CLP	NYSDEC CLP	50
23. Zinc	NYSDEC CLP	NYSDEC CLP	20
24. Cyanide, total	NYSDEC CLP	NYSDEC CLP	10
B. Organics			
1. TCL Volatile Organics	NYSDEC CLP	NYSDEC CLP	Table C-3
2. TCL Semivolatile Organics	NYSDEC CLP	NYSDEC CLP	Table C-4
3. TCL Pesticide/PCBs	NYSDEC CLP	NYSDEC CLP	Table C-5
4. Explosives	8330	8330	Table C-6
5. Herbicides	8150	8150	Table C-7
6. Volatile Organics	-	524.2	Table C-8
C. Other Analytes			
1. Nitrate	-	353.2	10
2. Fluoride	-	340.2	100
3. Total Petroleum Hydrocarbons	418.1	418.1	500
III. Oil Analyses			
1. Oil Fingerprint Identification	NYSDOH Method 310-14	NYSDOH Method 310-14	Not Applicable
2. PCBs	8080	8080	1 ug/kg <sup>3</sup>
3. Herbicides	8150	8150	Table C-7
IV. Asbestos		PLM <sub>2</sub>	

- 
- Mix a known quantity of soil in known volume of water, stir, then filter to form aqueous extract.
  - Polarized light microscopy in EPA 600/M4-82-020.
  - Detection limit is 1 ug PCB per Kg oil for each of the following Aroclors: 1016, 1221, 1232, 1242, 1248, 1254, and 1260.



**TABLE C-3**  
**CONTRACT REQUIRED QUANTITATION LIMITS\***  
**FOR VOLATILE ORGANIC COMPOUNDS (VOCs)**

VOCs	Quantitation Limits**	
	Water (ug/L)	Low Soil/Sediment <sup>†</sup> (ug/Kg)
1. Chloromethane	10	10
2. Bromomethane	10	10
3. Vinyl Chloride	10	10
4. Chloroethane	10	10
5. Methylene Chloride	10	10
6. Acetone	10	10
7. Carbon Disulfide	10	10
8. 1,1-Dichloroethene	10	10
9. 1,1-Dichloroethane	10	10
10. 1,2-Dichloroethene (total)	10	10
11. Chloroform	10	10
12. 1,2-Dichloroethane	10	10
13. 2-Butanone	10	10
14. 1,1,1-Trichloroethane	10	10
15. Carbon Tetrachloride	10	10
16. Bromodichloromethane	10	10
17. 1,2-Dichloropropane	10	10
18. cis-1,3-Dichloropropene	10	10
19. Trichloroethene	10	10
20. Dibromochloromethane	10	10
21. 1,1,2-Trichloroethane	10	10
22. Benzene	10	10
23. trans-1,3-Dichloropropene	10	10
24. Bromoform	10	10
25. 4-Methyl-2-pentanone	10	10
26. 2-Hexanone	10	10
27. Tetrachloroethene	10	10
28. Toluene	10	10
29. 1,1,2,2-Tetrachloroethane	10	10
30. Chlorobenzene	10	10
31. Ethyl Benzene	10	10
32. Styrene	10	10
33. Xylenes (Total)	10	10
Methyl Tert-Butyl Ether	10	10

\* Medium Soil/Sediment Contract Required Quantitation Limits (CRQL) for volatile TCL Compounds are 125 times the individual Low Soil/Sediment CRQL.

† Specific quantitation limits are highly matrix dependent. The quantitation limits listed herein are provided for guidance and may not always be achievable.

\*\* Quantitation limits listed for soil/sediment are based on wet weight. The quantitation limits calculated by the laboratory for soil/sediment, calculated on dry weight based as required by the contract, will be higher.

TABLE C-4

**CONTRACT REQUIRED QUANTITATION LIMITS\*  
FOR SEMIVOLATILE COMPOUNDS (SVOs)**

SVOs	Quantitation Limits**	
	Water (ug/L)	Low Soil/Sediment* (ug/Kg)
34. Phenol	10	330
35. bis (2-Chloroethyl) ether	10	330
36. 2-Chlorophenol	10	330
37. 1,3-Dichlorobenzene	10	330
38. 1,4-Dichlorobenzene	10	330
39. 1,2-Dichlorobenzene	10	330
40. 2-Methylphenol	10	330
41. 2,2'-oxybis(1-Chloropropane)	10	330
42. 4-Methylphenol	10	330
43. N-Nitroso-di-n-dipropylamine	10	330
44. Hexachloroethane	10	330
45. Nitrobenzene	10	330
46. Isophorone	10	330
47. 2-Nitrophenol	10	330
48. 2,4-Dimethylphenol	10	330
49. bis (2-Chloroethoxy) methane	10	330
50. 2,4-Dichlorophenol	10	330
51. 1,2,4-Trichlorobenzene	10	330
52. Naphthalene	10	330
53. 4-Chloroaniline	10	330
54. Hexachlorobutadiene	10	330
55. 4-Chloro-3-methylphenol	10	330
56. 2-Methylnaphthalene	10	330
57. Hexachlorocyclopentadiene	10	330
58. 2,4,6-Trichlorophenol	10	330
59. 2,4,5-Trichlorophenol	25	800
60. 2-Chloronaphthalene	10	330
61. 2-Nitroaniline	25	800
62. Dimethylphthalate	10	330
63. Acenaphthylene	10	330
64. 2,6-Dinitrotoluene	10	330
65. 3-Nitroaniline	25	800
66. Acenaphthene	10	330
67. 2,4-Dinitrophenol	25	800
68. 4-Nitrophenol	25	800
69. Dibenzofuran	10	330

TABLE C-4 (cont.)

**CONTRACT REQUIRED QUANTITATION LIMITS\*  
FOR SEMIVOLATILE COMPOUNDS (SVOs)**

SVOs	Quantitation Limits**	
	Water (ug/L)	Low Soil/Sediment <sup>a</sup> (ug/Kg)
70. 2,4-Dinitrotoluene	10	330
71. Diethylphthalate	10	330
72. 4-Chlorophenyl-phenyl ether	10	330
73. Fluorene	10	330
74. 4-Nitroaniline	25	800
75. 4,6-Dinitro-2-methylphenol	25	800
76. N-nitrosodiphenylamine	10	330
77. 4-Bromophenyl-phenyl ether	10	330
78. Hexachlorobenzene	10	330
79. Pentachlorophenol	25	800
80. Phenanthrene	10	330
81. Anthracene	10	330
82. Carbazole	10	330
83. Di-n-butylphthalate	10	330
84. Fluoranthene	10	330
85. Pyrene	10	330
86. Butyl benzyl phthalate	10	330
87. 3,3-Dichlorobenzidine	10	330
88. Benz(a)anthracene	10	330
89. Chrysene	10	330
90. bis(2-Ethylhexyl)phthalate	10	330
91. Di-n-octylphthalate	10	330
92. Benzo(b)fluoranthene	10	330
93. Benzo(k)fluoranthene	10	330
94. Benzo(a)pyrene	10	330
95. Indeno(1,2,3-cd)pyrene	10	330
96. Dibenz(a,h)anthracene	10	330
97. Benzo(g,h,i)perylene	10	330

\* Medium Soil/Sediment Contract Required Quantitation Limits (CRQL) for semivolatile TCL Compounds are 60 times the individual Low Soil/Sediment CRQL.

\*\* Specific quantitation limits are highly matrix dependent. The quantitation limits listed herein are provided for guidance and may not always be achievable.

\*\*\* Quantitation limits listed for soil/sediment are based on wet weight. The quantitation limits calculated by the laboratory for soil/sediment, calculated on dry weight based as required by the contract, will be higher.

TABLE C-5

**CONTRACT REQUIRED QUANTITATION LIMITS\*  
FOR PESTICIDES AND POLYCHLORINATED BIPHENYLS (PCBs)**

Pesticides/PCBs	Quantitation Limits**	
	Water (ug/L)	Low Soil/Sediment <sup>†</sup> (ug/Kg)
alpha-BHC	0.05	1.7
beta-BHC	0.05	1.7
delta-BHC	0.05	1.7
gamma-BHC (Lindane)	0.05	1.7
Heptachlor	0.05	1.7
Aldrin	0.05	1.7
Heptachlor epoxide	0.05	1.7
Endosulfan I	0.05	1.7
Dieldrin	0.10	3.3
4,4-DDE	0.10	3.3
Endrin	0.10	3.3
Endosulfan II	0.10	3.3
4,4-DDD	0.10	3.3
Endosulfan sulfate	0.10	3.3
4,4-DDT	0.10	3.3
Methoxychlor	0.5	17
Endrin Ketone	0.10	3.3
Endrin aldehyde	0.10	3.3
alpha-Chlordane	0.05	1.7
gamma-Chlordane	0.05	1.7
Toxaphene	5.0	170
Aroclor-1016	1.0	33
Aroclor-1221	2.0	67
Aroclor-1232	1.0	33
Aroclor-1242	1.0	33
Aroclor-1248	1.0	33
Aroclor-1254	1.0	33
Aroclor-1260	1.0	33

- \* Medium Soil/Sediment Contract Required Quantitation Limits (CRQL) for pesticide/PCB TCL Compounds are 15 times the individual Low Soil/Sediment CRQL.
- † Specific quantitation limits are highly matrix dependent. The quantitation limits listed herein are provided for guidance and may not always be achievable.
- \*\* Quantitation limits listed for soil/sediment are based on wet weight. The quantitation limits calculated by the laboratory for soil/sediment, calculated on dry weight based as required by the contract, will be higher.

**TABLE C-6  
METHOD 8330 QUANTITATION LIMITS  
FOR EXPLOSIVES**

<u>Compound</u>	<u>Quantitation Limits**</u>	
	Water (ug/L)	Soil/Sediment <sup>a</sup> (ug/Kg)
HMX	0.13	130
RDX	0.13	130
1,3,5-TNB	0.13	130
1,3-DNB	0.13	130
Tetryl	0.13	130
2,4,6-TNT	0.13	130
4-AM-DNT*	0.13	130
2-AM-DNT*	0.13	130
2,6-DNT	0.13	130
2,4-DNT	0.13	130

<sup>a</sup> See Table C-3 for a discussion of Quantitation Limits

\*\* See Table C-3 for a discussion of Soil Quantitation Limits

\* Breakdown Degradation Products

**TABLE C-7**  
**METHOD 8150 QUANTITATION LIMITS**  
**FOR HERBICIDES**

Parameter	<u>Quantitation Limits</u>	
	Water (ug/L)	Soil/Sediment (ug/Kg)
2,4-D	0.94	47
2,4-DB	0.95	48
2,4,5-T	0.095	4.8
2,4,5-TP/Silvex + der.	0.095	4.8
Dicamba (banvel)	0.094	4.7
Dalapon	2.3	120
Dichlorprop	0.94	47
Dinoseb	0.47	24
MCPA	93	4700
MCPD	94	4700

**TABLE C-8**  
**METHOD 524.2 QUANTITATION LIMITS**  
**FOR VOLATILE ORGANIC COMPOUNDS (VOCs) IN GROUNDWATER**

VOCs	Quantitation Limits ug/l
Benzene	0.5
Bromobenzene	0.5
Bromochloromethane	0.5
Bromodichloromethane	0.5
Bromoform	0.5
Bromomethane	0.5
n-Butylbenzene	0.5
sec-Butylbenzene	0.5
tert-Butylbenzene	0.5
Carbon tetrachloride	0.5
Chlorobenzene	0.5
Carbon tetrachloride	0.5
Chlorobenzene	0.5
Chloroethane	0.5
Chloroform	0.5
Chloromethane	0.5
2-Chlorotoluene	0.5
4-Chlorotoluene	0.5
Dibromochloromethane	0.5
1,2-Dibromo-3-chloropropane	0.5
1,2-Dibromoethane	0.5
Dibromomethane	0.5
1,2-Dichlorobenzene	0.5
1,3-Dichlorobenzene	0.5
1,4-Dichlorobenzene	0.5
Dichlorodifluoromethane	0.5
1,1-Dichloroethane	0.5
1,2-Dichloroethane	0.5
1,1-Dichloroethene	0.5
cis-1,2 Dichloroethene	0.5
trans-1,2-Dichloroethene	0.5
1,2-Dichloropropane	0.5
1,3-Dichloropropane	0.5
2,2-Dichloropropane	0.5
1,1-Dichloropropene	0.5
cis-1,2-Dichloropropene	0.5

TABLE C-8 (cont.)

VOCs	Quantitation Limits ug/l
trans-1,2-Dichloropropene	0.5
Ethylbenzene	0.5
Hexachlorobutadiene	0.5
Isopropylbenzene	0.5
4-Isopropyltoluene	0.5
Methylene chloride	0.5
Naphthalene	0.5
n-Propylbenzene	0.5
Styrene	0.5
1,1,1,2-Tetrachloroethane	0.5
1,1,2,2-Tetrachloroethane	0.5
Tetrachloroethene	0.5
Toluene	0.5
1,2,3-Trichlorobenzene	0.5
1,2,4-Trichlorobenzene	0.5
1,1,1-Trichloroethane	0.5
1,1,2-trichloroethane	0.5
Trichloroethene	0.5
Trichlorofluoromethane	0.5
1,2,3-Trichloropropane	0.5
1,2,4-Trimethylbenzene	0.5
1,3,5-Trimethylbenzene	0.5
Vinyl chloride	0.5
o-Xylene	0.5
m-Xylene	0.5
p-Xylene	0.5



**APPENDIX H**

**RADIOLOGICAL DOSE CALCULATION PARAMETERS**

**MODELLING OF EQUIVALENT DOSE DUE TO  
BETA RADIATION FROM POTASSIUM 40 IN GROUNDWATER**

### Modelling of Beta Radiation Dose from the Ingestion of K-40 in Water

The formula for calculating the annual dose from K-40 in the body is presented below:

$$DR = 51CEt$$

DR = Dose Rate (rad/day)

E = Beta energy released (in MeV) per disintegration of the radionuclide

t = Time period for dose calculation (in days)

C = Concentration of radionuclide (in  $\mu\text{Ci}$ ) per gram of tissue

For comparisons to the state and federal criteria (expressed as dose per year), the time period (t) for the dose calculation was set at one year. The average energy released per disintegration of K-40 is 0.556 MeV.

The human body maintains potassium at a level of approximately 140g in an adult of 70 Kg (70,000 grams). The concentration of K-40 in the body from the ingestion of water was determined by multiplying the reported concentration (in pCi/Liter) by two (to account for a daily consumption of 2 liters of water). The body absorbs approximately 100% of all potassium ingested and fractional uptake of 1.0 was assumed.

Therefore, the concentration, C, calculated for the human body is:

$$C = \frac{\text{intake } \frac{\mu\text{Ci}}{L} \cdot 2L}{70,000 \text{ grams}}$$

To convert the dose in millirad to millirem, a quality factor of 1 is multiplied to the dose in millirads to yield a dose in millirems:

$$D_{\text{mrem}} = D_{\text{mrad}} \cdot Q$$

Q = 1 for beta radiation

**MODELLING OF EQUIVALENT DOSE DUE TO  
BETA RADIATION FROM RADIUM-226 IN GROUNDWATER**

The formula for calculating the annual dose to a specific tissue from the disintegrations of radionuclides is presented below:

$$D = 73.8 \frac{\text{dis}\cdot\text{g}\cdot\text{rad}}{\text{day}\cdot\mu\text{Ci}\cdot\text{MeV}} \cdot C E_{\beta} T_e^h (1-f) t$$

- D = dose in rads
- C = concentration of radionuclide per gram of tissue
- $E_{\beta}$  = average beta energy per disintegration in MeV
- $T_e^h$  = effective half-life (in days)
- t = time period of exposure (in days)
- f = fraction of radionuclide remaining at end of time period

A background concentration of 39 pCi/L of  $\beta$  radiation was assumed based on the total gross  $\beta$  radiation detected at the background location (MW12A-1). All gross  $\beta$  radiation above 39 pCi/L was assumed to originate from the decay of Radium-226 decay products.

Radium 226 is a bone surface seeker and therefore the dose calculations were performed for a retention of Ra-226 in bone. The long-term retention of Ra-226 in bone, following unit uptake to blood, is given by the equation

$$R_s(t) = 0.54e^{-0.693t/0.4} + 0.29e^{-0.693t/5} + 0.11e^{-0.693t/60} + 0.04e^{-0.693t/700} + 0.02e^{-0.693t/5000}$$

The first term indicates that 54% is retained with an effective half-life of 0.4 days, 29% with an effective half-life 5 days, 11% with an effective half-life of 60 days, 4% with an effective half-life of 700 days and 2% with an effective half-life of 5000 days.

Therefore, the concentration in bone is given as:

$$C = \text{Concentration ingested} \frac{\mu\text{Ci}}{L} \cdot 2 \frac{L}{\text{day}} \cdot U \cdot r_{\beta}^x \cdot R_s(T_e^h) / 7000g$$

- U = Fractional uptake to blood following ingestion and is equal to 0.2 for Ra-226
- $r_{\beta}^x$  = retention factor of Rn-222 and associated radionuclides in bone.
- $R_s(T_e^h)$  = Percent of Ra-226 retained in bone during the effective half-life  $T_e^h$ .

7000g = Mass of bone in a 70Kg human.

The average energy from the beta emissions in the decay series of Ra-226 is 0.98 MeV. The retention factor ( $r_\beta$ ) for Rn-222 and associated radionuclides is 0.3. The total dose (in rads) from the continuous ingestion of Ra-226 is determined by summing the dose calculated for each effective half-life period. The factors for (1-f) are given as:

1	for the effective half-life periods of 0.4 day and 5 days,
.985	for 60 days
.303	for 700 days
.0494	for 5000 days

To convert the dose from rads to rems, a quality factor of 1 is multiplied to the dose calculated in rads.

The total annual dose from the ingestion of 2 liters per day is calculated as the sum of the dose from Ra-226 and the dose from 39 pCi/L of K-40. The latter value is constant and was calculated as 0.011 mrem/year.

**MODELLING OF EQUIVALENT DOSE DUE TO THE GAMMA  
RADIATION FROM THE TRANSURANIC RADIONUCLIDES IN THE  
SOILS AND SEDIMENTS AT SEAD-63**

The following information contains the input parameters which were used in modelling the annual dose (in mrem) from the exposure to the transuranic radionuclides detected in the soils at SEAD-12. RESRAD version 5.19 was the computer modelling program which was used to calculate the annual dose. For each media considered (soils and sediments), a unique contaminated zone and land usage scenario was modelled. Only the beginning soil or sediment concentrations were changed (for each run of the program) to reflect the concentrations of the radionuclides detected in each sample. The major differences in the two models were the volume of contaminated media and the thickness of cover material. For all other input values, site specific data were used when available. In the absence of such information, average default values, consistent with the knowledge of existing SEDA conditions, were used. The model parameters which were used in the dose calculations are presented in the following pages.



## DOSE CONVERSIONS FACTORS

Dose Conversion Factor (and Related) Parameter Summary  
 File: DOSFAC.BIN

Menu	Parameter	Current Value
A-1	Ground external gamma, volume DCF's, (mrem/yr)/(pCi/cm**3):	
A-1	Ac-227+D , soil density = 1.0 g/cm**3	2.760E+00
A-1	Ac-227+D , soil density = 1.8 g/cm**3	1.520E+00
A-1	Pa-231 , soil density = 1.0 g/cm**3	2.210E-01
A-1	Pa-231 , soil density = 1.8 g/cm**3	1.210E-01
A-1	Pb-210+D , soil density = 1.0 g/cm**3	4.870E-03
A-1	Pb-210+D , soil density = 1.8 g/cm**3	2.310E-03
A-1	Ra-226+D , soil density = 1.0 g/cm**3	1.550E+01
A-1	Ra-226+D , soil density = 1.8 g/cm**3	8.560E+00
A-1	Ra-228+D , soil density = 1.0 g/cm**3	8.180E+00
A-1	Ra-228+D , soil density = 1.8 g/cm**3	4.510E+00
A-1	Th-228+D , soil density = 1.0 g/cm**3	1.330E+01
A-1	Th-228+D , soil density = 1.8 g/cm**3	7.360E+00
A-1	Th-230 , soil density = 1.0 g/cm**3	2.110E-03
A-1	Th-230 , soil density = 1.8 g/cm**3	1.030E-03
A-1	U-234 , soil density = 1.0 g/cm**3	1.580E-03
A-1	U-234 , soil density = 1.8 g/cm**3	6.970E-04
A-1	U-235+D , soil density = 1.0 g/cm**3	8.940E-01
A-1	U-235+D , soil density = 1.8 g/cm**3	4.900E-01
A-1	U-238+D , soil density = 1.0 g/cm**3	1.270E-01
A-1	U-238+D , soil density = 1.8 g/cm**3	6.970E-02
A-3	Depth factors, ground external gamma, dimensionless:	
A-3	Ac-227+D , soil density = 1.0 g/cm**3, thickness = .15 m	7.900E-01
A-3	Ac-227+D , soil density = 1.0 g/cm**3, thickness = 0.5 m	9.700E-01
A-3	Ac-227+D , soil density = 1.0 g/cm**3, thickness = 1.0 m	1.000E+00
A-3	Ac-227+D , soil density = 1.8 g/cm**3, thickness = .15 m	9.100E-01
A-3	Ac-227+D , soil density = 1.8 g/cm**3, thickness = 0.5 m	1.000E+00
A-3	Ac-227+D , soil density = 1.8 g/cm**3, thickness = 1.0 m	1.000E+00
A-3	Pa-231 , soil density = 1.0 g/cm**3, thickness = .15 m	7.900E-01
A-3	Pa-231 , soil density = 1.0 g/cm**3, thickness = 0.5 m	1.000E+00
A-3	Pa-231 , soil density = 1.0 g/cm**3, thickness = 1.0 m	1.000E+00
A-3	Pa-231 , soil density = 1.8 g/cm**3, thickness = .15 m	9.200E-01
A-3	Pa-231 , soil density = 1.8 g/cm**3, thickness = 0.5 m	1.000E+00
A-3	Pa-231 , soil density = 1.8 g/cm**3, thickness = 1.0 m	1.000E+00

Dose Conversion Factor (and Related) Parameter Summary (cont  
File: DOSFAC.BIN

Menu	Parameter	Current Value
A-3	Pb-210+D , soil density = 1.0 g/cm**3, thickness = .15 m	8.800E-01
A-3	Pb-210+D , soil density = 1.0 g/cm**3, thickness = 0.5 m	1.000E+00
A-3	Pb-210+D , soil density = 1.0 g/cm**3, thickness = 1.0 m	1.000E+00
A-3	Pb-210+D , soil density = 1.8 g/cm**3, thickness = .15 m	9.700E-01
A-3	Pb-210+D , soil density = 1.8 g/cm**3, thickness = 0.5 m	1.000E+00
A-3	Pb-210+D , soil density = 1.8 g/cm**3, thickness = 1.0 m	1.000E+00
A-3		
A-3	Ra-226+D , soil density = 1.0 g/cm**3, thickness = .15 m	6.300E-01
A-3	Ra-226+D , soil density = 1.0 g/cm**3, thickness = 0.5 m	9.200E-01
A-3	Ra-226+D , soil density = 1.0 g/cm**3, thickness = 1.0 m	1.000E+00
A-3	Ra-226+D , soil density = 1.8 g/cm**3, thickness = .15 m	8.500E-01
A-3	Ra-226+D , soil density = 1.8 g/cm**3, thickness = 0.5 m	1.000E+00
A-3	Ra-226+D , soil density = 1.8 g/cm**3, thickness = 1.0 m	1.000E+00
A-3		
A-3	Ra-228+D , soil density = 1.0 g/cm**3, thickness = .15 m	6.800E-01
A-3	Ra-228+D , soil density = 1.0 g/cm**3, thickness = 0.5 m	9.700E-01
A-3	Ra-228+D , soil density = 1.0 g/cm**3, thickness = 1.0 m	1.000E+00
A-3	Ra-228+D , soil density = 1.8 g/cm**3, thickness = .15 m	8.500E-01
A-3	Ra-228+D , soil density = 1.8 g/cm**3, thickness = 0.5 m	1.000E+00
A-3	Ra-228+D , soil density = 1.8 g/cm**3, thickness = 1.0 m	1.000E+00
A-3		
A-3	Th-228+D , soil density = 1.0 g/cm**3, thickness = .15 m	6.100E-01
A-3	Th-228+D , soil density = 1.0 g/cm**3, thickness = 0.5 m	9.400E-01
A-3	Th-228+D , soil density = 1.0 g/cm**3, thickness = 1.0 m	1.000E+00
A-3	Th-228+D , soil density = 1.8 g/cm**3, thickness = .15 m	7.500E-01
A-3	Th-228+D , soil density = 1.8 g/cm**3, thickness = 0.5 m	1.000E+00
A-3	Th-228+D , soil density = 1.8 g/cm**3, thickness = 1.0 m	1.000E+00
A-3		
A-3	Th-230 , soil density = 1.0 g/cm**3, thickness = .15 m	9.300E-01
A-3	Th-230 , soil density = 1.0 g/cm**3, thickness = 0.5 m	1.000E+00
A-3	Th-230 , soil density = 1.0 g/cm**3, thickness = 1.0 m	1.000E+00
A-3	Th-230 , soil density = 1.8 g/cm**3, thickness = .15 m	1.000E+00
A-3	Th-230 , soil density = 1.8 g/cm**3, thickness = 0.5 m	1.000E+00
A-3	Th-230 , soil density = 1.8 g/cm**3, thickness = 1.0 m	1.000E+00
A-3		
A-3	U-234 , soil density = 1.0 g/cm**3, thickness = .15 m	9.000E-01
A-3	U-234 , soil density = 1.0 g/cm**3, thickness = 0.5 m	1.000E+00
A-3	U-234 , soil density = 1.0 g/cm**3, thickness = 1.0 m	1.000E+00
A-3	U-234 , soil density = 1.8 g/cm**3, thickness = .15 m	1.000E+00
A-3	U-234 , soil density = 1.8 g/cm**3, thickness = 0.5 m	1.000E+00
A-3	U-234 , soil density = 1.8 g/cm**3, thickness = 1.0 m	1.000E+00
A-3		
A-3	U-235+D , soil density = 1.0 g/cm**3, thickness = .15 m	8.700E-01
A-3	U-235+D , soil density = 1.0 g/cm**3, thickness = 0.5 m	1.000E+00
A-3	U-235+D , soil density = 1.0 g/cm**3, thickness = 1.0 m	1.000E+00
A-3	U-235+D , soil density = 1.8 g/cm**3, thickness = .15 m	1.000E+00
A-3	U-235+D , soil density = 1.8 g/cm**3, thickness = 0.5 m	1.000E+00
A-3	U-235+D , soil density = 1.8 g/cm**3, thickness = 1.0 m	1.000E+00

Dose Conversion Factor (and Related) Parameter Summary (cont  
File: DOSFAC.BIN

Menu	Parameter	Current Value
A-3	U-238+D , soil density = 1.0 g/cm**3, thickness = .15 m	7.800E-01
A-3	U-238+D , soil density = 1.0 g/cm**3, thickness = 0.5 m	1.000E+00
A-3	U-238+D , soil density = 1.0 g/cm**3, thickness = 1.0 m	1.000E+00
A-3	U-238+D , soil density = 1.8 g/cm**3, thickness = .15 m	8.800E-01
A-3	U-238+D , soil density = 1.8 g/cm**3, thickness = 0.5 m	1.000E+00
A-3	U-238+D , soil density = 1.8 g/cm**3, thickness = 1.0 m	1.000E+00
B-1	Dose conversion factors for inhalation, mrem/pCi:	
B-1	Ac-227+D	6.700E+00
B-1	Pa-231	1.300E+00
B-1	Pb-210+D	2.100E-02
B-1	Ra-226+D	7.900E-03
B-1	Ra-228+D	4.500E-03
B-1	Th-228+D	3.100E-01
B-1	Th-230	3.200E-01
B-1	U-234	1.300E-01
B-1	U-235+D	1.200E-01
B-1	U-238+D	1.200E-01
D-1	Dose conversion factors for ingestion, mrem/pCi:	
D-1	Ac-227+D	1.500E-02
D-1	Pa-231	1.100E-02
D-1	Pb-210+D	6.700E-03
D-1	Ra-226+D	1.100E-03
D-1	Ra-228+D	1.200E-03
D-1	Th-228+D	7.500E-04
D-1	Th-230	5.300E-04
D-1	U-234	2.600E-04
D-1	U-235+D	2.500E-04
D-1	U-238+D	2.500E-04
D-34	Food transfer factors:	
D-34	Ac-227+D , plant/soil concentration ratio, dimensionless	2.500E-03
D-34	Ac-227+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-05
D-34	Ac-227+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-05
D-34	Pa-231 , plant/soil concentration ratio, dimensionless	1.000E-02
D-34	Pa-231 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03
D-34	Pa-231 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06
D-34	Pb-210+D , plant/soil concentration ratio, dimensionless	1.000E-02
D-34	Pb-210+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	8.000E-04
D-34	Pb-210+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.000E-04
D-34	Ra-226+D , plant/soil concentration ratio, dimensionless	4.000E-02
D-34	Ra-226+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03
D-34	Ra-226+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03
D-34	Ra-228+D , plant/soil concentration ratio, dimensionless	4.000E-02
D-34	Ra-228+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03
D-34	Ra-228+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03

Dose Conversion Factor (and Related) Parameter Summary (cont)  
 File: DOSFAC.BIN

Menu	Parameter	Current Value
D-34	Th-228+D , plant/soil concentration ratio, dimensionless	1.000E-03
D-34	Th-228+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04
D-34	Th-228+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06
D-34	Th-230 , plant/soil concentration ratio, dimensionless	1.000E-03
D-34	Th-230 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04
D-34	Th-230 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06
D-34	U-234 , plant/soil concentration ratio, dimensionless	2.500E-03
D-34	U-234 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04
D-34	U-234 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04
D-34	U-235+D , plant/soil concentration ratio, dimensionless	2.500E-03
D-34	U-235+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04
D-34	U-235+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04
D-34	U-238+D , plant/soil concentration ratio, dimensionless	2.500E-03
D-34	U-238+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04
D-34	U-238+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04
5	Bioaccumulation factors, fresh water, L/kg:	
D-5	Ac-227+D , fish	1.500E+01
D-5	Ac-227+D , crustacea and mollusks	1.000E+03
D-5	Pa-231 , fish	1.000E+01
D-5	Pa-231 , crustacea and mollusks	1.100E+02
D-5	Pb-210+D , fish	3.000E+02
D-5	Pb-210+D , crustacea and mollusks	1.000E+02
D-5	Ra-226+D , fish	5.000E+01
D-5	Ra-226+D , crustacea and mollusks	2.500E+02
D-5	Ra-228+D , fish	5.000E+01
D-5	Ra-228+D , crustacea and mollusks	2.500E+02
D-5	Th-228+D , fish	1.000E+02
D-5	Th-228+D , crustacea and mollusks	5.000E+02
D-5	Th-230 , fish	1.000E+02
D-5	Th-230 , crustacea and mollusks	5.000E+02
D-5	U-234 , fish	1.000E+01
D-5	U-234 , crustacea and mollusks	6.000E+01
D-5	U-235+D , fish	1.000E+01
D-5	U-235+D , crustacea and mollusks	6.000E+01
D-5	U-238+D , fish	1.000E+01
D-5	U-238+D , crustacea and mollusks	6.000E+01

**SITE-SPECIFIC PARAMETER SUMMARY  
FOR THE BACKGROUND AND SEAD-12A SOIL  
DOSE CALCULATIONS**

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default
R011	Area of contaminated zone (m**2)	3.500E+03	1.000E+04
R011	Thickness of contaminated zone (m)	1.000E+00	2.000E+00
R011	Length parallel to aquifer flow (m)	7.000E+01	1.000E+02
R011	Basic radiation dose limit (mrem/yr)	1.000E+02	3.000E+01
R011	Time since placement of material (yr)	3.000E+01	0.000E+00
R011	Times for calculations (yr)	1.000E+00	1.000E+00
R011	Times for calculations (yr)	3.000E+00	3.000E+00
R011	Times for calculations (yr)	1.000E+01	1.000E+01
R011	Times for calculations (yr)	3.000E+01	3.000E+01
R011	Times for calculations (yr)	1.000E+02	1.000E+02
R011	Times for calculations (yr)	3.000E+02	3.000E+02
R011	Times for calculations (yr)	1.000E+03	1.000E+03
R011	Times for calculations (yr)	3.000E+03	3.000E+03
R011	Times for calculations (yr)	1.000E+04	1.000E+04
R012	Initial principal radionuclide (pCi/g): Pb-210	3.500E+00	0.000E+00
R012	Initial principal radionuclide (pCi/g): Ra-226	1.100E+00	0.000E+00
R012	Initial principal radionuclide (pCi/g): Ra-228	1.120E+00	0.000E+00
R012	Initial principal radionuclide (pCi/g): Th-228	1.500E+00	0.000E+00
R012	Initial principal radionuclide (pCi/g): U-235	1.200E-01	0.000E+00
R012	Initial principal radionuclide (pCi/g): U-238	1.160E+00	0.000E+00
R012	Concentration in groundwater (pCi/L): Pb-210	not used	0.000E+00
R012	Concentration in groundwater (pCi/L): Ra-226	not used	0.000E+00
R012	Concentration in groundwater (pCi/L): Ra-228	not used	0.000E+00
R012	Concentration in groundwater (pCi/L): Th-228	not used	0.000E+00
R012	Concentration in groundwater (pCi/L): U-235	not used	0.000E+00
R012	Concentration in groundwater (pCi/L): U-238	not used	0.000E+00
R013	Cover depth (m)	4.000E-01	0.000E+00
R013	Density of cover material (g/cm**3)	1.500E+00	1.500E+00
R013	Cover depth erosion rate (m/yr)	1.000E-04	1.000E-03
R013	Density of contaminated zone (g/cm**3)	1.500E+00	1.500E+00
R013	Contaminated zone erosion rate (m/yr)	1.000E-05	1.000E-03
R013	Contaminated zone total porosity	3.700E-01	4.000E-01
R013	Contaminated zone effective porosity	1.500E-01	2.000E-01
R013	Contaminated zone hydraulic conductivity (m/yr)	2.365E+01	1.000E+01
R013	Contaminated zone b parameter	1.040E+01	5.300E+00
R013	Humidity in air (g/cm**3)	not used	8.000E+00
R013	Evapotranspiration coefficient	7.400E-01	5.000E-01
R013	Precipitation (m/yr)	9.000E-01	1.000E+00
R013	Irrigation (m/yr)	2.000E-01	2.000E-01
R013	Irrigation mode	overhead	overhead
R013	Runoff coefficient	2.000E-01	2.000E-01
R013	Watershed area for nearby stream or pond (m**2)	1.000E+06	1.000E+06
R013	Accuracy for water/soil computations	1.000E-03	1.000E-03
R014	Density of saturated zone (g/cm**3)	1.500E+00	1.500E+00
R014	Saturated zone total porosity	3.700E-01	4.000E-01
R014	Saturated zone effective porosity	1.500E-01	2.000E-01
R014	Saturated zone hydraulic conductivity (m/yr)	2.365E+01	1.000E+02
R014	Saturated zone hydraulic gradient	1.000E-02	2.000E-02

Site-Specific Parameter Summary (conti

Menu	Parameter	User Input	Default
R014	Saturated zone b parameter	5.300E+00	5.300E+00
R014	Water table drop rate (m/yr)	0.000E+00	1.000E-03
R014	Well pump intake depth (m below water table)	1.000E+01	1.000E+01
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	ND	ND
R014	Well pumping rate (m**3/yr)	2.500E+02	2.500E+02
R015	Number of unsaturated zone strata	1	1
R015	Unsat. zone 1, thickness (m)	4.500E-01	4.000E+00
R015	Unsat. zone 1, soil density (g/cm**3)	1.780E+00	1.500E+00
R015	Unsat. zone 1, total porosity	3.500E-01	4.000E-01
R015	Unsat. zone 1, effective porosity	1.500E-01	2.000E-01
R015	Unsat. zone 1, soil-specific b parameter	1.040E+01	5.300E+00
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	2.365E+01	1.000E+01
R016	Distribution coefficients for Pb-210		
R016	Contaminated zone (cm**3/g)	1.000E+02	1.000E+02
R016	Unsat. zone 1 (cm**3/g)	1.000E+02	1.000E+02
R016	Saturated zone (cm**3/g)	1.000E+02	1.000E+02
R016	Leach rate (/yr)	0.000E+00	0.000E+00
R016	Solubility constant	0.000E+00	0.000E+00
16	Distribution coefficients for Ra-226		
R016	Contaminated zone (cm**3/g)	7.000E+01	7.000E+01
R016	Unsat. zone 1 (cm**3/g)	7.000E+01	7.000E+01
R016	Saturated zone (cm**3/g)	7.000E+01	7.000E+01
R016	Leach rate (/yr)	0.000E+00	0.000E+00
R016	Solubility constant	0.000E+00	0.000E+00
R016	Distribution coefficients for Ra-228		
R016	Contaminated zone (cm**3/g)	7.000E+01	7.000E+01
R016	Unsat. zone 1 (cm**3/g)	7.000E+01	7.000E+01
R016	Saturated zone (cm**3/g)	7.000E+01	7.000E+01
R016	Leach rate (/yr)	0.000E+00	0.000E+00
R016	Solubility constant	0.000E+00	0.000E+00
R016	Distribution coefficients for Th-228		
R016	Contaminated zone (cm**3/g)	1.000E+04	6.000E+04
R016	Unsat. zone 1 (cm**3/g)	1.000E+04	6.000E+04
R016	Saturated zone (cm**3/g)	1.000E+04	6.000E+04
R016	Leach rate (/yr)	0.000E+00	0.000E+00
R016	Solubility constant	0.000E+00	0.000E+00
R016	Distribution coefficients for U-235		
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01
R016	Unsat. zone 1 (cm**3/g)	5.000E+01	5.000E+01
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01
R016	Leach rate (/yr)	0.000E+00	0.000E+00
16	Solubility constant	0.000E+00	0.000E+00



Site-Specific Parameter Summary (conti

Menu	Parameter	User Input	Default
R016	Distribution coefficients for U-238		
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01
R016	Leach rate (/yr)	0.000E+00	0.000E+00
R016	Solubility constant	0.000E+00	0.000E+00
R016	Distribution coefficients for daughter Ac-227		
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01
R016	Unsaturated zone 1 (cm**3/g)	2.000E+01	2.000E+01
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01
R016	Leach rate (/yr)	0.000E+00	0.000E+00
R016	Solubility constant	0.000E+00	0.000E+00
R016	Distribution coefficients for daughter Pa-231		
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01
R016	Leach rate (/yr)	0.000E+00	0.000E+00
R016	Solubility constant	0.000E+00	0.000E+00
6	Distribution coefficients for daughter Th-230		
R016	Contaminated zone (cm**3/g)	1.000E+04	6.000E+04
R016	Unsaturated zone 1 (cm**3/g)	1.000E+04	6.000E+04
R016	Saturated zone (cm**3/g)	1.000E+04	6.000E+04
R016	Leach rate (/yr)	0.000E+00	0.000E+00
R016	Solubility constant	0.000E+00	0.000E+00
R016	Distribution coefficients for daughter U-234		
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01
R016	Leach rate (/yr)	0.000E+00	0.000E+00
R016	Solubility constant	0.000E+00	0.000E+00
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03
R017	Mass loading for inhalation (g/m**3)	2.000E-04	2.000E-04
R017	Dilution length for airborne dust, inhalation (m)	3.000E+00	3.000E+00
R017	Exposure duration	5.000E+01	3.000E+01
R017	Shielding factor, inhalation	4.000E-01	4.000E-01
R017	Shielding factor, external gamma	7.000E-01	7.000E-01
R017	Fraction of time spent indoors	5.000E-01	5.000E-01
R017	Fraction of time spent outdoors (on site)	2.500E-01	2.500E-01
R017	Shape factor, external gamma	1.000E+00	1.000E+00

Site-Specific Parameter Summary (conti

Menu	Parameter	User Input	Default
R017	Fractions of annular areas within AREA:		
R017	Outer annular radius (m) = $\ll(1/\text{D})$	not used	1.000E+00
R017	Outer annular radius (m) = $\ll(10/\text{D})$	not used	1.000E+00
R017	Outer annular radius (m) = $\ll(20/\text{D})$	not used	1.000E+00
R017	Outer annular radius (m) = $\ll(50/\text{D})$	not used	1.000E+00
R017	Outer annular radius (m) = $\ll(100/\text{D})$	not used	1.000E+00
R017	Outer annular radius (m) = $\ll(200/\text{D})$	not used	1.000E+00
R017	Outer annular radius (m) = $\ll(500/\text{D})$	not used	1.000E+00
R017	Outer annular radius (m) = $\ll(1000/\text{D})$	not used	1.000E+00
R017	Outer annular radius (m) = $\ll(5000/\text{D})$	not used	1.000E+00
R017	Outer annular radius (m) = $\ll(1.E+04/\text{D})$	not used	1.000E+00
R017	Outer annular radius (m) = $\ll(1.E+05/\text{D})$	not used	0.000E+00
R017	Outer annular radius (m) = $\ll(1.E+06/\text{D})$	not used	0.000E+00
R018	Fruits, vegetables and grain consumption (kg/yr)	1.600E+02	1.600E+02
R018	Leafy vegetable consumption (kg/yr)	1.400E+01	1.400E+01
R018	Milk consumption (L/yr)	9.200E+01	9.200E+01
R018	Meat and poultry consumption (kg/yr)	6.300E+01	6.300E+01
R018	Fish consumption (kg/yr)	5.400E+00	5.400E+00
R018	Other seafood consumption (kg/yr)	9.000E-01	9.000E-01
R018	Soil ingestion rate (g/yr)	3.650E+01	3.650E+01
R018	Drinking water intake (L/yr)	5.100E+02	5.100E+02
R018	Contamination fraction of drinking water	1.000E+00	1.000E+00
R018	Contamination fraction of household water	1.000E+00	1.000E+00
R018	Contamination fraction of livestock water	1.000E+00	1.000E+00
R018	Contamination fraction of irrigation water	1.000E+00	1.000E+00
R018	Contamination fraction of aquatic food	0.000E+00	5.000E-01
R018	Contamination fraction of plant food	-1	-1
R018	Contamination fraction of meat	-1	-1
R018	Contamination fraction of milk	-1	-1
R019	Livestock fodder intake for meat (kg/day)	6.800E+01	6.800E+01
R019	Livestock fodder intake for milk (kg/day)	5.500E+01	5.500E+01
R019	Livestock water intake for meat (L/day)	5.000E+01	5.000E+01
R019	Livestock water intake for milk (L/day)	1.600E+02	1.600E+02
R019	Livestock soil intake (kg/day)	5.000E-01	5.000E-01
R019	Mass loading for foliar deposition (g/m**3)	1.000E-04	1.000E-04
R019	Depth of soil mixing layer (m)	3.000E-01	1.500E-01
R019	Depth of roots (m)	5.000E-01	9.000E-01
R019	Drinking water fraction from ground water	1.000E+00	1.000E+00
R019	Household water fraction from ground water	1.000E+00	1.000E+00
R019	Livestock water fraction from ground water	1.000E+00	1.000E+00
R019	Irrigation fraction from ground water	1.000E+00	1.000E+00
C14	C-12 concentration in water (g/cm**3)	not used	2.000E-05
C14	C-12 concentration in contaminated soil (g/g)	not used	3.000E-02
C14	Fraction of vegetation carbon from soil	not used	2.000E-02
C14	Fraction of vegetation carbon from air	not used	9.800E-01
C14	C-14 evasion layer thickness in soil (m)	not used	3.000E-01
C14	C-14 evasion flux rate from soil (1/sec)	not used	7.000E-07
C14	C-12 evasion flux rate from soil (1/sec)	not used	1.000E-10

Site-Specific Parameter Summary (conti

Menu	Parameter	User Input	Default
C14	Fraction of grain in beef cattle feed	not used	8.000E-01
C14	Fraction of grain in milk cow feed	not used	2.000E-01
STOR	Storage times of contaminated foodstuffs (days):		
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01
STOR	Leafy vegetables	1.000E+00	1.000E+00
STOR	Milk	3.000E+00	1.000E+00
STOR	Meat and poultry	2.000E+01	2.000E+01
STOR	Fish	0.000E+00	7.000E+00
STOR	Crustacea and mollusks	0.000E+00	7.000E+00
STOR	Well water	1.000E+00	1.000E+00
STOR	Surface water	1.000E+00	1.000E+00
STOR	Livestock fodder	4.500E+01	4.500E+01
R021	Thickness of building foundation (m)	1.500E-01	1.500E-01
R021	Bulk density of building foundation (g/cm**3)	2.400E+00	2.400E+00
R021	Total porosity of the cover material	4.000E-01	4.000E-01
R021	Total porosity of the building foundation	1.000E-01	1.000E-01
R021	Volumetric water content of the cover material	5.000E-02	5.000E-02
R021	Volumetric water content of the foundation	3.000E-02	3.000E-02
R021	Diffusion coefficient for radon gas (m/sec):		
?1	in cover material	2.000E-06	2.000E-06
. .21	in foundation material	3.000E-07	3.000E-07
R021	in contaminated zone soil	2.000E-06	2.000E-06
R021	Radon vertical dimension of mixing (m)	2.000E+00	2.000E+00
R021	Average annual wind speed (m/sec)	2.000E+00	2.000E+00
R021	Average building air exchange rate (1/hr)	5.000E-01	5.000E-01
R021	Height of the building (room) (m)	2.500E+00	2.500E+00
R021	Building interior area factor	0.000E+00	0.000E+00
R021	Building depth below ground surface (m)	1.000E+00	1.000E+00
R021	Emanating power of Rn-222 gas	2.500E-01	2.500E-01
R021	Emanating power of Rn-220 gas	1.500E-01	1.500E-01

Summary of Pathway Selections

Pathway	User Selection
1 -- external gamma	active
2 -- inhalation (w/o radon)	active
3 -- plant ingestion	active
4 -- meat ingestion	active
5 -- milk ingestion	active
6 -- aquatic foods	active
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	active

Contaminated Zone Dimensions

Area: 3500.00 square meters  
Thickness: 1.00 meters  
Cover Depth: 0.40 meters

Initial Soil Concentrations, pCi/g

Pb-210 3.500E+00  
Ra-226 1.100E+00  
Ra-228 1.120E+00  
Th-228 1.500E+00  
U-235 1.200E-01  
U-238 1.160E+00

Total Dose TDOSE(t), mrem/yr

Basic Radiation Dose Limit = 100 mrem/y

Total Mixture Sum M(t) = Fraction of Basic Dose Limit Re

t (years)	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02
TDOSE(t)	6.658E+01	6.618E+01	6.538E+01	6.308E+01	5.848E+01	4.790E+01
M(t)	6.658E-01	6.618E-01	6.538E-01	6.308E-01	5.848E-01	4.790E-01

Maximum TDOSE(t): 6.658E+01 mrem/yr at t = 0.000E+00 years

**SITE-SPECIFIC PARAMETER SUMMARY  
FOR THE SEAD-12A SEDIMENT DOSE CALCULATIONS**

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	3.000E+03	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	1.500E-01	2.000E+00	---	THICKO
R011	Length parallel to aquifer flow (m)	1.500E+03	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	1.000E+02	3.000E+01	---	BRDL
R011	Time since placement of material (yr)	3.000E+01	0.000E+00	---	TI
R011	Times for calculations (yr)	1.000E+00	1.000E+00	---	T( 2)
R011	Times for calculations (yr)	3.000E+00	3.000E+00	---	T( 3)
R011	Times for calculations (yr)	1.000E+01	1.000E+01	---	T( 4)
R011	Times for calculations (yr)	3.000E+01	3.000E+01	---	T( 5)
R011	Times for calculations (yr)	1.000E+02	1.000E+02	---	T( 6)
R011	Times for calculations (yr)	3.000E+02	3.000E+02	---	T( 7)
R011	Times for calculations (yr)	1.000E+03	1.000E+03	---	T( 8)
R011	Times for calculations (yr)	3.000E+03	3.000E+03	---	T( 9)
R011	Times for calculations (yr)	1.000E+04	1.000E+04	---	T(10)
R012	Initial principal radionuclide (pCi/g): Pb-210	2.200E+00	0.000E+00	---	S1( 3)
R012	Initial principal radionuclide (pCi/g): Ra-226	2.300E+00	0.000E+00	---	S1( 4)
R012	Initial principal radionuclide (pCi/g): Ra-228	1.300E+00	0.000E+00	---	S1( 5)
R012	Initial principal radionuclide (pCi/g): Th-228	1.700E+00	0.000E+00	---	S1( 6)
R012	Initial principal radionuclide (pCi/g): U-235	3.100E-01	0.000E+00	---	S1( 9)
R012	Initial principal radionuclide (pCi/g): U-238	9.500E-01	0.000E+00	---	S1(10)
R012	Concentration in groundwater (pCi/L): Pb-210	not used	0.000E+00	---	W1( 3)
R012	Concentration in groundwater (pCi/L): Ra-226	not used	0.000E+00	---	W1( 4)
R012	Concentration in groundwater (pCi/L): Ra-228	not used	0.000E+00	---	W1( 5)
R012	Concentration in groundwater (pCi/L): Th-228	not used	0.000E+00	---	W1( 6)
R012	Concentration in groundwater (pCi/L): U-235	not used	0.000E+00	---	W1( 9)
R012	Concentration in groundwater (pCi/L): U-238	not used	0.000E+00	---	W1(10)
R013	Cover depth (m)	0.000E+00	0.000E+00	---	COVERO
R013	Density of cover material (g/cm**3)	not used	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	not used	1.000E-03	---	VCV
R013	Density of contaminated zone (g/cm**3)	1.500E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	1.000E-05	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	3.700E-01	4.000E-01	---	TPCZ
R013	Contaminated zone effective porosity	1.500E-01	2.000E-01	---	EPCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	2.365E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	1.040E+01	5.300E+00	---	BCZ
R013	Humidity in air (g/cm**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	7.400E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	9.000E-01	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+06	1.000E+06	---	WAREA
R013	Accuracy for water/soil computations	1.000E-03	1.000E-03	---	EPS
R014	Density of saturated zone (g/cm**3)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	3.700E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	1.500E-01	2.000E-01	---	EPSZ
R014	Saturated zone hydraulic conductivity (m/yr)	2.365E+01	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	1.000E-02	2.000E-02	---	HGWT



Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Saturated zone b parameter	5.300E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	0.000E+00	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	1.000E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	ND	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	2.500E+02	2.500E+02	---	UW
R015	Number of unsaturated zone strata	1	1	---	NS
R015	Unsat. zone 1, thickness (m)	7.000E-01	4.000E+00	---	H(1)
R015	Unsat. zone 1, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(1)
R015	Unsat. zone 1, total porosity	3.500E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	1.500E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	1.040E+01	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	2.365E+01	1.000E+01	---	HCUZ(1)
R016	Distribution coefficients for Pb-210				
R016	Contaminated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCC( 3)
R016	Unsat. zone 1 (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCU( 3,1)
R016	Saturated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCS( 3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.061E-02	ALEACH( 3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 3)
R016	Distribution coefficients for Ra-226				
R016	Contaminated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCC( 4)
R016	Unsat. zone 1 (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCU( 4,1)
R016	Saturated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCS( 4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.514E-02	ALEACH( 4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 4)
R016	Distribution coefficients for Ra-228				
R016	Contaminated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCC( 5)
R016	Unsat. zone 1 (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCU( 5,1)
R016	Saturated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCS( 5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.514E-02	ALEACH( 5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 5)
R016	Distribution coefficients for Th-228				
R016	Contaminated zone (cm**3/g)	1.000E+04	6.000E+04	---	DCNUCC( 6)
R016	Unsat. zone 1 (cm**3/g)	1.000E+04	6.000E+04	---	DCNUCU( 6,1)
R016	Saturated zone (cm**3/g)	1.000E+04	6.000E+04	---	DCNUCS( 6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.063E-04	ALEACH( 6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 6)
R016	Distribution coefficients for U-235				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC( 9)
R016	Unsat. zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU( 9,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS( 9)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.118E-02	ALEACH( 9)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 9)



Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for U-238				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC(10)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU(10,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS(10)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.118E-02	ALEACH(10)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(10)
R016	Distribution coefficients for daughter Ac-227				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC( 1)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU( 1,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS( 1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.262E-02	ALEACH( 1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 1)
R016	Distribution coefficients for daughter Pa-231				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC( 2)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU( 2,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS( 2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.118E-02	ALEACH( 2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 2)
R016	Distribution coefficients for daughter Th-230				
R016	Contaminated zone (cm**3/g)	1.000E+04	6.000E+04	---	DCNUCC( 7)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+04	6.000E+04	---	DCNUCU( 7,1)
R016	Saturated zone (cm**3/g)	1.000E+04	6.000E+04	---	DCNUCS( 7)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.063E-04	ALEACH( 7)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 7)
R016	Distribution coefficients for daughter U-234				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC( 8)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU( 8,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS( 8)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.118E-02	ALEACH( 8)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 8)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	2.000E-04	2.000E-04	---	MLINH
R017	Dilution length for airborne dust, inhalation (m)	3.000E+00	3.000E+00	---	LM
R017	Exposure duration	5.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	7.000E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	5.000E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	2.500E-01	2.500E-01	---	FOTD
R017	Shape factor, external gamma	1.000E+00	1.000E+00	---	FS1

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
°					
R017	Fractions of annular areas within AREA:	°	°	°	°
R017	Outer annular radius (m) = «(1/D)	° not used	° 1.000E+00	° ---	° FRACA ( 1)
R017	Outer annular radius (m) = «(10/D)	° not used	° 1.000E+00	° ---	° FRACA ( 2)
R017	Outer annular radius (m) = «(20/D)	° not used	° 1.000E+00	° ---	° FRACA ( 3)
R017	Outer annular radius (m) = «(50/D)	° not used	° 1.000E+00	° ---	° FRACA ( 4)
R017	Outer annular radius (m) = «(100/D)	° not used	° 1.000E+00	° ---	° FRACA ( 5)
R017	Outer annular radius (m) = «(200/D)	° not used	° 1.000E+00	° ---	° FRACA ( 6)
R017	Outer annular radius (m) = «(500/D)	° not used	° 1.000E+00	° ---	° FRACA ( 7)
R017	Outer annular radius (m) = «(1000/D)	° not used	° 1.000E+00	° ---	° FRACA ( 8)
R017	Outer annular radius (m) = «(5000/D)	° not used	° 1.000E+00	° ---	° FRACA ( 9)
R017	Outer annular radius (m) = «(1.E+04/D)	° not used	° 1.000E+00	° ---	° FRACA(10)
R017	Outer annular radius (m) = «(1.E+05/D)	° not used	° 0.000E+00	° ---	° FRACA(11)
R017	Outer annular radius (m) = «(1.E+06/D)	° not used	° 0.000E+00	° ---	° FRACA(12)
°					
R018	Fruits, vegetables and grain consumption (kg/yr)	° 1.600E+02	° 1.600E+02	° ---	° DIET(1)
R018	Leafy vegetable consumption (kg/yr)	° 1.400E+01	° 1.400E+01	° ---	° DIET(2)
R018	Milk consumption (L/yr)	° 9.200E+01	° 9.200E+01	° ---	° DIET(3)
R018	Meat and poultry consumption (kg/yr)	° 6.300E+01	° 6.300E+01	° ---	° DIET(4)
R018	Fish consumption (kg/yr)	° 5.400E+00	° 5.400E+00	° ---	° DIET(5)
R018	Other seafood consumption (kg/yr)	° 9.000E-01	° 9.000E-01	° ---	° DIET(6)
R018	Soil ingestion rate (g/yr)	° 3.650E+01	° 3.650E+01	° ---	° SOIL
R018	Drinking water intake (L/yr)	° 5.100E+02	° 5.100E+02	° ---	° DWI
	Contamination fraction of drinking water	° 1.000E+00	° 1.000E+00	° ---	° FDW
R018	Contamination fraction of household water	° 1.000E+00	° 1.000E+00	° ---	° FHHW
R018	Contamination fraction of livestock water	° 1.000E+00	° 1.000E+00	° ---	° FLW
R018	Contamination fraction of irrigation water	° 1.000E+00	° 1.000E+00	° ---	° FIRW
R018	Contamination fraction of aquatic food	° 0.000E+00	° 5.000E-01	° ---	° FR9
R018	Contamination fraction of plant food	° -1	° -1	° 0.500E+00	° FPLANT
R018	Contamination fraction of meat	° -1	° -1	° 0.150E+00	° FMEAT
R018	Contamination fraction of milk	° -1	° -1	° 0.150E+00	° FMILK
°					
R019	Livestock fodder intake for meat (kg/day)	° 6.800E+01	° 6.800E+01	° ---	° LFI5
R019	Livestock fodder intake for milk (kg/day)	° 5.500E+01	° 5.500E+01	° ---	° LFI6
R019	Livestock water intake for meat (L/day)	° 5.000E+01	° 5.000E+01	° ---	° LWI5
R019	Livestock water intake for milk (L/day)	° 1.600E+02	° 1.600E+02	° ---	° LWI6
R019	Livestock soil intake (kg/day)	° 5.000E-01	° 5.000E-01	° ---	° LSI
R019	Mass loading for foliar deposition (g/m**3)	° 1.000E-04	° 1.000E-04	° ---	° MLFD
R019	Depth of soil mixing layer (m)	° 3.000E-01	° 1.500E-01	° ---	° DM
R019	Depth of roots (m)	° 5.000E-01	° 9.000E-01	° ---	° DROOT
R019	Drinking water fraction from ground water	° 1.000E+00	° 1.000E+00	° ---	° FGWDW
R019	Household water fraction from ground water	° 1.000E+00	° 1.000E+00	° ---	° FGWHH
R019	Livestock water fraction from ground water	° 1.000E+00	° 1.000E+00	° ---	° FGWLW
R019	Irrigation fraction from ground water	° 1.000E+00	° 1.000E+00	° ---	° FGWIR
°					
C14	C-12 concentration in water (g/cm**3)	° not used	° 2.000E-05	° ---	° C12WTR
C14	C-12 concentration in contaminated soil (g/g)	° not used	° 3.000E-02	° ---	° C12CZ
C14	Fraction of vegetation carbon from soil	° not used	° 2.000E-02	° ---	° CSOIL
C14	Fraction of vegetation carbon from air	° not used	° 9.800E-01	° ---	° CAIR
C14	C-14 evasion layer thickness in soil (m)	° not used	° 3.000E-01	° ---	° DMC
C14	C-14 evasion flux rate from soil (1/sec)	° not used	° 7.000E-07	° ---	° EVSN
C14	C-12 evasion flux rate from soil (1/sec)	° not used	° 1.000E-10	° ---	° REVSN

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
C14	Fraction of grain in beef cattle feed	not used	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	not used	2.000E-01	---	AVFG5
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	3.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	0.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	0.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	1.500E-01	1.500E-01	---	FLOOR
R021	Bulk density of building foundation (g/cm**3)	2.400E+00	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV
R021	Total porosity of the building foundation	1.000E-01	1.000E-01	---	TPFL
R021	Volumetric water content of the cover material	not used	5.000E-02	---	PH2OCV
R021	Volumetric water content of the foundation	3.000E-02	3.000E-02	---	PH2OFL
R021	Diffusion coefficient for radon gas (m/sec):				
R021	in cover material	not used	2.000E-06	---	DIFCV
R021	in foundation material	3.000E-07	3.000E-07	---	DIFFL
R021	in contaminated zone soil	2.000E-06	2.000E-06	---	DIFCZ
R021	Radon vertical dimension of mixing (m)	2.000E+00	2.000E+00	---	HMIX
R021	Average annual wind speed (m/sec)	2.000E+00	2.000E+00	---	WIND
R021	Average building air exchange rate (1/hr)	5.000E-01	5.000E-01	---	REXG
R021	Height of the building (room) (m)	2.500E+00	2.500E+00	---	HRM
R021	Building interior area factor	0.000E+00	0.000E+00	code computed (time dependent)	FAI
R021	Building depth below ground surface (m)	1.000E+00	1.000E+00	---	DMFL
R021	Emanating power of Rn-222 gas	2.500E-01	2.500E-01	---	EMANA(1)
R021	Emanating power of Rn-220 gas	1.500E-01	1.500E-01	---	EMANA(2)

Summary of Pathway Selections

Pathway	User Selection
1 -- external gamma	active
2 -- inhalation (w/o radon)	active
3 -- plant ingestion	active
4 -- meat ingestion	active
5 -- milk ingestion	active
6 -- aquatic foods	active
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	active



**SITE-SPECIFIC PARAMETER SUMMARY  
FOR THE SEAD-12B SOIL DOSE CALCULATIONS**

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	4.500E+04	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	1.000E+00	2.000E+00	---	THICKO
R011	Length parallel to aquifer flow (m)	3.000E+02	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	1.000E+02	3.000E+01	---	BRDL
R011	Time since placement of material (yr)	3.000E+01	0.000E+00	---	TI
R011	Times for calculations (yr)	1.000E+00	1.000E+00	---	T( 2)
R011	Times for calculations (yr)	3.000E+00	3.000E+00	---	T( 3)
R011	Times for calculations (yr)	1.000E+01	1.000E+01	---	T( 4)
R011	Times for calculations (yr)	3.000E+01	3.000E+01	---	T( 5)
R011	Times for calculations (yr)	1.000E+02	1.000E+02	---	T( 6)
R011	Times for calculations (yr)	3.000E+02	3.000E+02	---	T( 7)
R011	Times for calculations (yr)	1.000E+03	1.000E+03	---	T( 8)
R011	Times for calculations (yr)	3.000E+03	3.000E+03	---	T( 9)
R011	Times for calculations (yr)	1.000E+04	1.000E+04	---	T(10)
R012	Initial principal radionuclide (pCi/g): Pb-210	1.800E+00	0.000E+00	---	S1( 3)
R012	Initial principal radionuclide (pCi/g): Ra-226	1.280E+00	0.000E+00	---	S1( 4)
R012	Initial principal radionuclide (pCi/g): Ra-228	9.500E-01	0.000E+00	---	S1( 5)
R012	Initial principal radionuclide (pCi/g): Th-228	1.250E+00	0.000E+00	---	S1( 6)
R012	Initial principal radionuclide (pCi/g): U-235	7.000E-02	0.000E+00	---	S1( 9)
R012	Initial principal radionuclide (pCi/g): U-238	6.000E-01	0.000E+00	---	S1(10)
R012	Concentration in groundwater (pCi/L): Pb-210	not used	0.000E+00	---	W1( 3)
R012	Concentration in groundwater (pCi/L): Ra-226	not used	0.000E+00	---	W1( 4)
R012	Concentration in groundwater (pCi/L): Ra-228	not used	0.000E+00	---	W1( 5)
R012	Concentration in groundwater (pCi/L): Th-228	not used	0.000E+00	---	W1( 6)
R012	Concentration in groundwater (pCi/L): U-235	not used	0.000E+00	---	W1( 9)
R012	Concentration in groundwater (pCi/L): U-238	not used	0.000E+00	---	W1(10)
R013	Cover depth (m)	3.500E-01	0.000E+00	---	COVERO
R013	Density of cover material (g/cm**3)	1.500E+00	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	1.000E-04	1.000E-03	---	VCV
R013	Density of contaminated zone (g/cm**3)	1.500E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	1.000E-05	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	3.700E-01	4.000E-01	---	TPCZ
R013	Contaminated zone effective porosity	1.500E-01	2.000E-01	---	EPCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	2.365E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	1.040E+01	5.300E+00	---	BCZ
R013	Humidity in air (g/cm**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	7.400E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	9.000E-01	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+06	1.000E+06	---	WAREA
R013	Accuracy for water/soil computations	1.000E-03	1.000E-03	---	EPS
R014	Density of saturated zone (g/cm**3)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	3.700E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	1.500E-01	2.000E-01	---	EPSZ
R014	Saturated zone hydraulic conductivity (m/yr)	2.365E+01	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	1.000E-02	2.000E-02	---	HGWT

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Saturated zone b parameter	5.300E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	0.000E+00	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	1.000E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	ND	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	2.500E+02	2.500E+02	---	UW
R015	Number of unsaturated zone strata	1	1	---	NS
R015	Unsat. zone 1, thickness (m)	1.000E+00	4.000E+00	---	H(1)
R015	Unsat. zone 1, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(1)
R015	Unsat. zone 1, total porosity	3.500E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	1.500E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	1.040E+01	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	2.365E+01	1.000E+01	---	HCUZ(1)
R016	Distribution coefficients for Pb-210				
R016	Contaminated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCC(3)
R016	Unsat. zone 1 (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCU(3,1)
R016	Saturated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCS(3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.591E-03	ALEACH(3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(3)
R016	Distribution coefficients for Ra-226				
R016	Contaminated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCC(4)
R016	Unsat. zone 1 (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCU(4,1)
R016	Saturated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCS(4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.271E-03	ALEACH(4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(4)
R016	Distribution coefficients for Ra-228				
R016	Contaminated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCC(5)
R016	Unsat. zone 1 (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCU(5,1)
R016	Saturated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCS(5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.271E-03	ALEACH(5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(5)
R016	Distribution coefficients for Th-228				
R016	Contaminated zone (cm**3/g)	1.000E+04	6.000E+04	---	DCNUCC(6)
R016	Unsat. zone 1 (cm**3/g)	1.000E+04	6.000E+04	---	DCNUCU(6,1)
R016	Saturated zone (cm**3/g)	1.000E+04	6.000E+04	---	DCNUCS(6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.595E-05	ALEACH(6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(6)
R016	Distribution coefficients for U-235				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC(9)
R016	Unsat. zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU(9,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS(9)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.176E-03	ALEACH(9)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(9)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for U-238				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (10)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (10,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (10)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.176E-03	ALEACH (10)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (10)
R016	Distribution coefficients for daughter Ac-227				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC ( 1)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU ( 1,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS ( 1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	7.893E-03	ALEACH ( 1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK ( 1)
R016	Distribution coefficients for daughter Pa-231				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC ( 2)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU ( 2,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS ( 2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.176E-03	ALEACH ( 2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK ( 2)
R016	Distribution coefficients for daughter Th-230				
R016	Contaminated zone (cm**3/g)	1.000E+04	6.000E+04	---	DCNUCC ( 7)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+04	6.000E+04	---	DCNUCU ( 7,1)
R016	Saturated zone (cm**3/g)	1.000E+04	6.000E+04	---	DCNUCS ( 7)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.595E-05	ALEACH ( 7)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK ( 7)
R016	Distribution coefficients for daughter U-234				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC ( 8)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU ( 8,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS ( 8)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.176E-03	ALEACH ( 8)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK ( 8)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	2.000E-04	2.000E-04	---	MLINH
R017	Dilution length for airborne dust, inhalation (m)	3.000E+00	3.000E+00	---	LM
R017	Exposure duration	5.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	7.000E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	5.000E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	2.500E-01	2.500E-01	---	FOTD
R017	Shape factor, external gamma	1.000E+00	1.000E+00	---	FS1



## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R017	Fractions of annular areas within AREA:				
R017	Outer annular radius (m) = $\ll(1/D)$	not used	1.000E+00	---	FRACA( 1)
R017	Outer annular radius (m) = $\ll(10/D)$	not used	1.000E+00	---	FRACA( 2)
R017	Outer annular radius (m) = $\ll(20/D)$	not used	1.000E+00	---	FRACA( 3)
R017	Outer annular radius (m) = $\ll(50/D)$	not used	1.000E+00	---	FRACA( 4)
R017	Outer annular radius (m) = $\ll(100/D)$	not used	1.000E+00	---	FRACA( 5)
R017	Outer annular radius (m) = $\ll(200/D)$	not used	1.000E+00	---	FRACA( 6)
R017	Outer annular radius (m) = $\ll(500/D)$	not used	1.000E+00	---	FRACA( 7)
R017	Outer annular radius (m) = $\ll(1000/D)$	not used	1.000E+00	---	FRACA( 8)
R017	Outer annular radius (m) = $\ll(5000/D)$	not used	1.000E+00	---	FRACA( 9)
R017	Outer annular radius (m) = $\ll(1.E+04/D)$	not used	1.000E+00	---	FRACA(10)
R017	Outer annular radius (m) = $\ll(1.E+05/D)$	not used	0.000E+00	---	FRACA(11)
R017	Outer annular radius (m) = $\ll(1.E+06/D)$	not used	0.000E+00	---	FRACA(12)
R018	Fruits, vegetables and grain consumption (kg/yr)	1.600E+02	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	1.400E+01	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	9.200E+01	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	6.300E+01	6.300E+01	---	DIET(4)
R018	Fish consumption (kg/yr)	5.400E+00	5.400E+00	---	DIET(5)
R018	Other seafood consumption (kg/yr)	9.000E-01	9.000E-01	---	DIET(6)
R018	Soil ingestion rate (g/yr)	3.650E+01	3.650E+01	---	SOIL
	Drinking water intake (L/yr)	5.100E+02	5.100E+02	---	DWI
	Contamination fraction of drinking water	1.000E+00	1.000E+00	---	FDW
R018	Contamination fraction of household water	1.000E+00	1.000E+00	---	FHHW
R018	Contamination fraction of livestock water	1.000E+00	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	1.000E+00	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	0.000E+00	5.000E-01	---	FR9
R018	Contamination fraction of plant food	-1	-1	0.500E+00	FPLANT
R018	Contamination fraction of meat	-1	-1	0.100E+01	FMEAT
R018	Contamination fraction of milk	-1	-1	0.100E+01	FMILK
R019	Livestock fodder intake for meat (kg/day)	6.800E+01	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	5.500E+01	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	5.000E+01	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	1.600E+02	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	5.000E-01	5.000E-01	---	LSI
R019	Mass loading for foliar deposition (g/m**3)	1.000E-04	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	3.000E-01	1.500E-01	---	DM
R019	Depth of roots (m)	5.000E-01	9.000E-01	---	DROOT
R019	Drinking water fraction from ground water	1.000E+00	1.000E+00	---	FGWDW
R019	Household water fraction from ground water	1.000E+00	1.000E+00	---	FGWHH
R019	Livestock water fraction from ground water	1.000E+00	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	1.000E+00	1.000E+00	---	FGWIR
C14	C-12 concentration in water (g/cm**3)	not used	2.000E-05	---	C12WTR
C14	C-12 concentration in contaminated soil (g/g)	not used	3.000E-02	---	C12CZ
C14	Fraction of vegetation carbon from soil	not used	2.000E-02	---	CSOIL
	Fraction of vegetation carbon from air	not used	9.800E-01	---	CAIR
C14	C-14 evasion layer thickness in soil (m)	not used	3.000E-01	---	DMC
C14	C-14 evasion flux rate from soil (1/sec)	not used	7.000E-07	---	EVSN
C14	C-12 evasion flux rate from soil (1/sec)	not used	1.000E-10	---	REVSN

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
C14	Fraction of grain in beef cattle feed	not used	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	not used	2.000E-01	---	AVFG5
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	3.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	0.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	0.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	1.500E-01	1.500E-01	---	FLOOR
R021	Bulk density of building foundation (g/cm**3)	2.400E+00	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	4.000E-01	4.000E-01	---	TPCV
R021	Total porosity of the building foundation	1.000E-01	1.000E-01	---	TPFL
R021	Volumetric water content of the cover material	5.000E-02	5.000E-02	---	PH2OCV
R021	Volumetric water content of the foundation	3.000E-02	3.000E-02	---	PH2OFL
R021	Diffusion coefficient for radon gas (m/sec):				
	in cover material	2.000E-06	2.000E-06	---	DIFCV
	in foundation material	3.000E-07	3.000E-07	---	DIFFL
	in contaminated zone soil	2.000E-06	2.000E-06	---	DIFCZ
R021	Radon vertical dimension of mixing (m)	2.000E+00	2.000E+00	---	HMIX
R021	Average annual wind speed (m/sec)	2.000E+00	2.000E+00	---	WIND
R021	Average building air exchange rate (1/hr)	5.000E-01	5.000E-01	---	REXG
R021	Height of the building (room) (m)	2.500E+00	2.500E+00	---	HRM
R021	Building interior area factor	0.000E+00	0.000E+00	code computed (time dependent)	FAI
R021	Building depth below ground surface (m)	1.000E+00	1.000E+00	---	DMFL
R021	Emanating power of Rn-222 gas	2.500E-01	2.500E-01	---	EMANA(1)
R021	Emanating power of Rn-220 gas	1.500E-01	1.500E-01	---	EMANA(2)

Summary of Pathway Selections

Pathway	User Selection
1 -- external gamma	active
2 -- inhalation (w/o radon)	active
3 -- plant ingestion	active
4 -- meat ingestion	active
5 -- milk ingestion	active
6 -- aquatic foods	active
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	active



COMMENTS AND RECOMMENDATIONS  
BY  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
FOR  
DRAFT EXPANDED SITE INVESTIGATION OF  
EIGHT MODERATELY-LOW PRIORITY AOCs  
SEADs 5, 9, 12(A and B), (43, 56, 69), 44(A and B), 50, 58, and 59  
290 BROADWAY  
NEW YORK, NY 10007-1866

GENERAL COMMENTS

**Comment #1**            Hydrogeology:

The groundwater elevation maps presented in the report are generally oversimplified and appear to have been prepared without regard to topography and other site features. For example, many of the groundwater elevation maps depict broad areas where the water-table surface is above the land surface. This is not restricted to depressions or drainage ditches (which may be appropriate), but over large areas.

**Response #1**

As part of the ESI conducted at SEAD-11, Parsons ES drew groundwater contours using the measured elevations at monitoring wells and as modified by surface topography. The USEPA responded in Comment #3 of their Comments on the Draft ESI Report (May 8, 1995) that Parsons ES needed to provide more clarification as to how the surface elevation mound would result in an associated groundwater mound. Parsons ES responded by drawing the contours using a straight line interpolation procedure. Now, based upon Comment #1 for the Eight Moderately Low Priority AOCs, USEPA wants Parsons ES to redraw groundwater contour maps with regard to topography and other site features. A consistency in the USEPA commenting would be appreciated.

After further review of the groundwater elevation maps, Parsons ES has made minor changes to these maps. We were unable to identify maps where EPA noted "many of the groundwater elevation maps depict broad areas where the water table surface is above the land surface".

**Comment #2**            Geology:

a) Discussions of the lithology at SEDA are confusing and reflect an incomplete understanding of the site geology. The confusion is due, in part, to the absence of a discussion of the lithology at SEDA in Section 1.1.1.4. Based on the discussions of the lithology observed at individual SEADS, it appears the author divides the lithology into four geologic units: fill, till, weathered shale, and competent shale. The description of the weathered shale unit is confusing. Sometimes this unit is described as composed of "...till

and weathered shale..." (p. 3-13) and other times it is stated that "...interbedded till and weathered shale..." and "...the top of the weathered shale unit..." (p. 3-5). Still other times it is implied that the weathered shale is comprised solely of weathered shale (p. 3-5).

Our review of data presented in the report suggests that the "interbedded till and weathered shale" is till that contains weathered shale boulders near its base. The term "weathered shale" should be used to describe the softer, weathered portion of the bedrock, not the portion of the till that contains the weathered shale boulders. It would be appropriate to consider it "bouldery till" and the weathered shale together as one hydrogeologic unit if it can be demonstrated that both have similar water-transmitting characteristics, and that these characteristics are significantly different from those of the "nonbouldery" till and competent shale; however, no evidence of this is presented in the report.

b) The depth to competent bedrock cannot be conclusively determined by auger or split-spoon refusals, as is inferred throughout the report. Such refusals can occur on boulders contained in the till. Drilling or coring at least five feet of rock after auger refusal is generally considered sufficient evidence that bedrock is encountered; however, bedrock drilling of this type was not performed.

## **Response #2**

a) Agreed. The descriptions of the lithology are not consistent in defining the till and weathered shale units. The sections of text, which describe the lithology at each site including those sections on pages 3-13 and 3-5, have been revised to more clearly describe these units as discussed below.

It should be noted that Section 1.1.1.4, which is a discussion of the local hydrology and hydrogeology, was incorrectly referenced in this comment. Section 1.1.1.3, Local Geology, provides a detailed discussion of the lithology at SEDA. The site geology is very well understood based on extensive field investigations carried out for RI/FS studies at the Ash Landfill site and at the Open Burning grounds at SEDA, and for ESI studies at 10 AOCs at SEDA.

Section 1.1.1.3 describes the four geologic units, which are fill, till, weathered shale, and competent shale. The till is generally characterized by brown to gray-brown silt, clay, and fine sand with few fine to coarse gravel-sized inclusions of weathered shale. Larger diameter weathered shale clasts are more prevalent in basal portions of the till and are probably ripped-up clasts removed by the active glacier. The weathered shale is of variable thickness and is present below the till in almost all locations at SEDA. This zone is characterized by fissile shale with a large amount of brown interstitial silt and clay.

According to Section 1.1.1.2, Regional Hydrogeologic Setting, a study by Mozola showed the existence of a regional overburden aquifer which provides water for domestic and agricultural uses. A groundwater investigation, which

was part of a RI for the OB grounds at SEDA, was conducted to evaluate certain hydrologic characteristics including the possibility that the till and the weathered shale are separate aquifers. Ten overburden monitoring wells (screened within the till) and 12 weathered shale monitoring wells were installed. The groundwater measurements from these 22 wells indicated that the horizontal gradient for the till unit (0.011 ft/ft) was quite similar to the horizontal gradient for the weathered shale unit (0.013 ft/ft). These data support the presence of only one overburden aquifer, the till/weathered shale aquifer. A paragraph has been added to Section 1.1.1.4 to discuss this study.

b) As per the specifications within the EPA approved Workplan, the depth to competent bedrock has been determined by auger refusal depths.

**Comment #3**

Radiology:

The discussions of the radiological data are confusing and at times, incorrect terminology is used. Additionally, there are several serious problems with some assumptions that were made to calculate radiation doses. For example, the beta radiation dose from ingestion of groundwater is based on <sup>226</sup>Ra. Firstly, <sup>226</sup>Ra does not emit beta radiation, rather it emits alpha and gamma radiation, so its use in this context is incorrect. Secondly, the formula presented in Appendix H to calculate the <sup>40</sup>K concentration in tissue does not appear to be consistent with RAGs and neither accounts for a steady body burden nor considers excretion; rather, it bases the concentration solely on the annual 40K intake (i.e., a person ingesting the "affected" groundwater for ten years will have ten times the amount of <sup>40</sup>K in their body than a person who ingests the water for one year). This is biokinetically impossible.

**Response #3**

1) Exception. This ESI investigation is intended to determine whether a release of potential constituents of concern has occurred, and to do so based upon a limited number of investigatory samples. Speciation of beta radiations was not proposed in the EPA approved workplan nor was it performed as part of the ESI. Since the presence of radium 226 was detected in two soil samples at elevated concentrations, and since no other radionuclides outside of the Ra-226 decay chain were detected at elevated concentrations, a dose model for the beta radiations from the Ra-226 decay chain was developed. The model uses the beta energies from the disintegration of lead-214, bismuth-214, lead-210, and bismuth-210 to calculate an absorbed dose. These four radionuclides are decay products of Ra-226 and account for approximately 98 percent of the beta radiations generated in the Ra-226 decay chain. The model accounts for the fractional uptake of Ra-226 in the gastrointestinal tract, the retention of Rn-222 gas, and the long-term retention of Ra-226 in bone following unit uptake to the blood. Parsons ES believes that this model is adequate for the purposes of this ESI.

2) Acknowledged. The formula in Appendix H is modified for a calculation of dose rate due to a constant rate of K-40 beta radiations. For the purposes of this ESI, the fractional uptake of potassium is assumed to be equal to 1

and the amount of potassium maintained in the body is assumed to be constant (and therefore is voided by the body at a rate that is equal to the rate of uptake). Using these assumptions, and using the ingestion of 2 liters of water per day to establish the amount of K-40 activity in the body from water ingestion, the dose rate is calculated by determining the energy imparted to the body from the disintegrations of K-40 from ingested water.

**Comment #4**

Seismic Surveys:

There are several problems with the discussions of the seismic work performed at the SEADS:

- The data collected from the seismic surveys are not presented; therefore the reader must assume that the interpretations made by the authors are correct.
- The location of Geophone #1 must be shown on each profile in order for the reader to evaluate the seismic data tabulated for each SEAD.
- The validity, and hence usefulness, of the surveys is questionable. There is little agreement between the depths to bedrock and water table determined by the seismic surveys and the actual depths determined by the drilling and monitoring well installation activities conducted at each SEAD. Most of the surveys failed to detect a saturated zone. The reason provided by the authors was that a saturated thickness in the overburden of less than two feet would not be resolved by the seismic surveys; however, in almost every instance the saturated thickness was greater than two feet as demonstrated by the monitoring wells.

**Response #4**

1) Agreed. The seismic data was interpreted and closely examined by experienced geophysicists. The reader can assume that the interpretations made are correct.

2) Agreed. The location of geophones 1 and 24 are now shown on each profile.

3) Disagree. The intended objective of the seismic surveys was to determine the direction of groundwater flow at each site, based upon definition of the bedrock surface, in order to permit an accurate placement of upgradient and downgradient monitoring wells. This objective was approved by the EPA in the 15 SWMU Workplan. Also, this objective was achieved at all but one of the 25 SWMUs investigated at SEDA. Concerning the portion of the comment that discusses the detection of a saturated zone by the seismic refraction surveys, the comment's author is referred to the sections of the text that show the detected till velocities. The seismic velocities of the till are in the range of 1,000 to 2,000 feet per second. These velocities do not indicate a saturated till, saturated till typically has velocities in the range of 5,000 feet per second. Furthermore, Parsons ES has always maintained that a saturated layer at SEDA would not be resolved by seismic refraction

methods. Our intent was to map the surface of the bedrock, because the bedrock is acting as an aquaclude for the till aquifer. It was in response to EPA comments on the SEDA ESI workplans that any mention of saturated zone detection be included in the ESI workplans, and therefore, in this report.

**Comment #5**

EM Surveys:

There are several problems with the discussions of the EM surveys work performed at the SEADS:

- When more than one anomaly is referred to in the text, the locations of the anomalies should be clearly marked on the figure presenting the results. In some cases it is impossible for the reader to determine the location of the anomaly being discussed in the text.
- There is no discussion of background conductivity of the subsurface at the SEADS. Determining what constitutes background is essential in determining anomalous readings. Also, the report indicates that a "calibration area" was established at each SEAD. The locations of the calibration areas and the reading obtained should be presented in the report.
- Regarding the interpretation of conductivity survey results, there are several cases where an "anomaly" is identified in the text because readings in one area are only a few mS/m different from the surrounding readings. Background readings at SEDA, however, would be expected to vary slightly, due to the variability in the composition of the till, the depth to bedrock, and the depth to groundwater; therefore, a difference of several mS/m should be considered insignificant, unless it can be demonstrated otherwise.
- The presence of buried metal using the in-phase response of the EM-31 instrument is identified by a large meter deflection, not simply by "high" or "low" readings. This distinction does not appear to be understood by the author. For example, "two negative in-phase anomalies" are referred to on Figure 3.4-2. Although these appear on the figure to be anomalous (bluecolored rather than green), the difference between the "anomalies" and apparent background (green) is only -0.3, there is no large meter deflection; therefore, these are probably not anomalies.
- All of the figures that present EM results have a key showing the value of each color in either mS/m or ppt. The bottom color (very dark blue or black) has no value assigned to it, yet it appears in the contoured results of almost every plot. What does this color signify? Additionally, there is little or no observable difference in color between several of the green and red intervals on the key, making interpretation of the results difficult and potentially misleading. In Figure 3.9-1, for example, what is the value of the green color shown in the results? 12.4, 12.9, 13.4, and 13.9. These figures should be modified so that the results are distinguishable.



**Response #5**

1) Agreed. Anomaly identifiers are added to the EM maps.

2) Disagree. This comment reflects a lack of technical knowledge in EM interpretation. The determination of background ground conductivity is not essential for interpreting anomalous EM readings. As stated in Section 2.2.1 of the report, EM-31 data were collected at each AOC to evaluate relative variations in subsurface conductivities. The EM response measurements recorded at the start of each day at each AOC are now included in Appendix A, EM-31 Data.

3) Disagree. This is an inappropriate comment and the author of the comment fails to present a valid reason for disqualifying small localized EM anomalies. EM-31 interpretation involves the correlation of apparent ground conductivity anomalies with all known information. Apparent ground conductivity anomalies are not evaluated solely on signal amplitude, but are also correlated with surface features, anomalies observed from other surveys (such as GPR), and more importantly, anomalies observed in the in-phase response. The causes of the slight variations in ground conductivity referred to in the comment would have no effect on the in-phase response measurements. Additionally, this comment seems to indicate that the EPA would have small localized anomalies, such as those where buried metal objects were found during the test pit excavations, considered insignificant based solely on their amplitude.

4) Disagree. This comment reflects a lack of technical knowledge and demonstrates that the author of the comment does not appear to understand electromagnetic theory. Simply put, the degree of meter deflection is a function of distance of the instrument from the object causing the deflection and/or the size of the object causing the deflection.. The eastern anomaly referred to in the comment was excavated and a small disposal pit (containing metal signs) was found. The western anomaly referred to in the comment was caused by a small metal sign.

5) Acknowledged. The dark blue color represents the minimum contour value; all measured values less than the bottom-most posted number in the key are represented by this color. A less-than symbol (<) has been placed next to each of the numbers referred to in the comment. The color schemes used on each plot were chosen to best present the findings of the interpreted data, and not to mislead the reader. Low gradient areas in any of the plots may result in large areas having a similar color representation. All of the color figures have been reviewed and all discernible anomalies are visible on each figure.

**Comment #6**

Well Sampling:

The report should present the results of the duplicate samples in the summary tables for each SEAD so that the reproducibility of the analytical procedures may be evaluated. Tentatively identified compounds (TICS) reported by the

laboratory are not discussed in the text of the report. A discussion of the TICs for each site should be included since they may indicate potential contaminants.

**Response #6**

Agreed. Discussions about the tentatively identified compounds have been included in Section 4 for each site. The data have already been presented in Appendix F.

The results of all duplicate samples are presented in the complete tables of analytical results in Appendix E. In order to present a concise table of information for each site, the summary tables presented in Section 4 list data for only those analytes which have been detected, and do not include duplicate sample results.

**Comment #7**

a) Nature and Extent of Contamination:

Determining the extent of contamination is beyond the intended scope the Expanded Site Inspections. An appropriate title for this report section would be "Summary of Analytical Results".

b) Groundwater Analysis Results Tables:

All these tables should be revised to include Federal MCLs and action levels. The Groundwater Radioactivity Analysis Results Tables should also be updated (MCL for Radium-226 is 20 pCi/L not 300 pCi/L). Any "Number Above Criteria" and corresponding text discussions should then be corrected.

c) Surface Water Analysis Results Tables:

The tables list NYS guidelines for Class D, but the classification has recently changed to Class C. The tables should be updated to include the most current values. The Federal Register lists Surface Water Quality Criteria which should also be included on these tables.

d) Sediment Analysis Results Tables:

NYSDEC Sediment Criteria from 1989 are listed on these tables. These are not the most up-to-date values. The tables should be revised to include the most current sediment criteria.

**Response # 7**

a) Disagree. According to the USEPA Expanded Site Inspection (ESI) Transitional Guidance (1987), one objective of the ESI is to develop a conceptual model. Elements of the conceptual model include contaminant source investigation and determination of the depth and extent of contamination. Chemical analysis data for each media (soil, groundwater, surface water, and sediment) are compared to background concentrations and available state and federal standards to quantitatively assess if a release has occurred to groundwater, soil, or air, and to determine the general spatial

distribution of contaminants. The title for Section 4 will remain unchanged.

b) Agreed. Federal MCLs and action levels have been added to the groundwater analysis results tables. The MCL for Radium-226 has been corrected in Table 4.4-4. In addition, the "number above criteria" and corresponding text discussions have been revised as necessary.

c) According to the Federal Register, the listed water quality criteria may form the basis for enforceable standards. A water quality criteria has regulatory impact if it has been adopted in a State Water Quality Standard. For each standard, a state may adopt the national criteria, if one exists, or if adequately justified, a site specific criteria. Therefore, the NYSDEC AWQ Standards for surface water have been used as the criteria for surface water at SEDA and have been revised for Class C surface water.

d) NYSDEC Sediment Criteria have been updated to the 1994 version.

**Comment #8**

References:

Many references are made in the report to other authors' work; however, there is no reference list. A list of references should be included in the report.

**Response #8**

Agreed. References have been added to the end of the Table of Contents.

**SECTION AND PAGE-SPECIFIC COMMENTS**

**Comment #1**

**Page 1-13, p6:**

The source of the data on well use, average withdrawal, and average yield of wells in the county should be provided. The locations of the public water supply wells for the villages of Ovid and Interlaken should be shown on a map along with the Seneca Army Depot property. Alternatively, their distance from SEDA should be stated.

**Response #1**

Agreed. The data on well use, average withdrawal, and average yield of wells in the county were compiled by A.J. Mozola in the paper, "The Groundwater Resources of Seneca County, New York" (1951). This source has been referenced in the text on page 1-13.

Regarding the locations of public water supply wells in Ovid and Interlaken, the following text has been added to the text on page 1-18:

The village of Ovid obtains its water from two wells located approximately 1,000 feet south of the village center. Ovid is located approximately 5 miles south of SEDA. Interlaken obtains its water from one well located 1-1/2 miles northeast of the village. Two wells, which are used for a backup water supply only, are located

approximately 1-1/2 miles southwest of the village. Interlaken is located approximately 11 miles south of SEDA.

**Comment #2**                    **Page 1-28, p1:**

The text indicates three inches of "rainfall" per month but probably means "precipitation". Also, this paragraph suggests that since the precipitation is relatively constant throughout the year, "...evapotranspiration is the likely reason for the large fluctuations in the saturated thickness of the overburden aquifer". The authors neglect the effect of the winter months on the aquifer saturated thickness. During the winter, precipitation falls in the form of snow, and therefore does not recharge the aquifer, hence the saturated thickness declines. In the spring, the aquifer is recharged by precipitation falling as rain and by melting snow, resulting in an increase in saturated thickness.

**Response #2**                    Agreed. The correct terminology should be precipitation and the text has been revised. However, as discussed in the paragraph, historical data from the Ash Landfill, which is located at SEDA, indicate that the saturated thickness of the overburden aquifer actually increases in the winter months. The aquifer is thinnest during the late summer and early fall, and rises in the following months to a relatively sustained high water table in the late fall and winter. This is contrary to the expected cycle of a declining saturated thickness during the winter months because precipitation would be in the form of snow, which does not recharge the aquifer until it melts in the spring. Therefore, evapotranspiration was proposed as a reason for the fluctuations in the saturated thickness of the overburden aquifer.

**Comment #3**                    **Page 1-28, p2:**

A source should be provided for the "...typical range of hydraulic conductivities for glacial tills..."referenced.

**Response #3**                    Agreed. The reference for the typical range of hydraulic conductivities for glacial till is Freeze and Cherry (1979). This reference has been added to the text and included in a reference list following the Table of Contents.

**Comment #4**                    **Page 1-43, p2:**

The locations, even if only approximate, of the burial pits or burial vessels should be shown on the site plan for the SEAD.

**Response #4**                    Agreed. The approximate locations of the burial pits and buried vessels have been added to the site plan.

**Comment #5**                    **Section 2:**

The text describes the groundwater at various SEADs as having been classified as GA, that it is "suitable for human consumption". This statement

is misleading and should be revised. According to NYSDEC Water Quality Criteria, waters classed GA are "Protected for a Source of Drinking Water".

**Response #5** Agreed. The appropriate text in Section 2 has been revised to describe Class GA groundwater as "protected for a source of drinking water".

**Comment #6** **Page 2-10, p1:**

The source of the seismic velocities presented should be referenced.

**Response #6** Agreed. The text of Section 2.2.1, Seismic Refraction clearly explains what information is used by the SIPT software to calculate the layer velocities.

**Comment #7** **Page 2-11, p5:**

What did the "secondary field calibration" consist of.? Where are the data collected during this calibration?

**Response #7** Agreed. The secondary field calibration consisted of verifying the instrument's phase compensation and its sensitivity following the instructions in the instrument's operation manual. This information is now included in Appendix A.

**Comment #8** **Page 2-14, p6:**

When was it appropriate to take photographs? Including the photographs with the report would be useful.

**Response #8** Photographs were taken of any anomalies which were encountered in the test pits excavated at the sites. However, these photographs have not been approved for distribution by the Army.

**Comment #9** **Page 2-16, p1:**

The water table in two-thirds of the wells installed was above the top of the well screen at the time of sampling. Floating product, if present, might not have been detected even with well purging in these wells.

**Response #9** Agreed. Although our goal was to construct monitoring wells which were screened over the entire thickness of the aquifer, as you are aware, there are limitations involved in the well construction at this site which would restrict screen length. These limitations include the required bentonite seal and sand pack above the screen, and the grout near the ground surface. In addition, groundwater studies at the Ash Landfill and OB Grounds show that the water table at SEDA fluctuates up to 6 feet due to seasonal variations. Finally, we would be able to detect any product from the split spoon samples which were examined and sampled at the time of well installation, and we did not detect any product in the soil at the eight sites.

- Comment #10**      **Page 2-30, p1:**
- The following sentence is unclear, "A grid of electromagnetic data was laid out and surveyed across the site".
- Response #10**      Agreed. The sentence is unclear and has been removed. The text has been revised to state that EM-31 data were collected on profiles spaced at 20-foot intervals across the site. The EM-31 measurements were made at 10-foot intervals along each profile.
- Comment #11**      **Figure 2.5-1, Page 1 of 2:**
- The locations of the geophysical surveys are very hard to discern, particularly the GPR transects, and the seismic profiles are not labelled or are very difficult to see. Since the seismic and GPR transects are shown on Page 2 of 2, they should be removed from Page 1 of 2.
- Response #11**      Agreed. The seismic and GPR transects have been removed from Figure 2.5-1 (page 1 of 2). These transects are shown on Figure 2.5-1 (page 2 of 2).
- Comment #12**      **Page 2-38, p3:**
- No monitoring wells are located downgradient of the "Area 4" anomaly described in Section 3.3.2.2.
- Response #12**      Agreed. However, monitoring well MW12A-2 was located downgradient of Area 2, and monitoring well MW12A-3 was located downgradient of Area 3.
- Comment #13**      **Page 2-47, p4:**
- The phrase "...to identify metallic anomalies of metallic origin..." is unclear.
- Response #13**      Agreed. The phrase should be "to identify anomalies of metallic origin". The text has been revised.
- Comment #14**      **Page 2-60, p4:**
- What is "...the area influenced by SEAD-50" and how was this area defined?
- Response #14**      The sentence has been revised to state that the nearest drinking water wells are located approximately 2500 feet east of the site.
- Comment #15**      **Page 3-5, p1:**
- The meaning of the following sentence is unclear: "The distribution of groundwater in the overburden aquifer was characterized by wet to saturated soil within the till directly overlying the weathered and competent shale, as well as the interbedded till and weathered shale that makes up the top of the

weathered shale unit..."

**Response #15** Agreed. The sentence was unclear and has been revised as follows: The distribution of groundwater in the overburden aquifer was characterized by wet to saturated soil within the till and saturated weathered shale.

**Comment #16** **Figures 3.2-1 and 3.2-2:**

The EM survey lines do not extend sufficiently far off the supposed anomalous region (debris pile) to permit establishment of background values of terrain conductivity.

**Response #16** Disagree. The boundary of anomalous EM measurements caused by the debris pile are established around the entire site. The reader must take into account that a fence borders the southern and western perimeter of the site and that a marsh area is located in the southwestern portion of the EM grid.

**Comment #17** **Page 3-24, p2:**

What evidence is there that perched water was present in the fill? The depths to the water table in the wells, which ranged from 2 to 5.5 feet below grade, suggest that the water encountered in the test pits was not perched.

**Response #17** Agreed. The reference to a perched water table in the sentence has been removed.

**Comment #18** **Page 3-25, p2:**

The sentence describing the distribution of groundwater in the aquifer is unclear. As described above, site data show all but the upper 2 to 5.5 feet of the "aquifer" is saturated. The text implies that the zone of saturation is much thinner i.e.....saturated till directly overlying the weathered shale.....

**Response #18** Agreed. The referenced sentence is unclear and has been revised to state that the distribution of groundwater in the aquifer was characterized by wet to saturated till and saturated weathered shale.

**Comment #19** **Figure 3.3-4:**

There are areas on the figure where the water-table surface is above the land surface, not just in depressions or drainage ditches (which may be appropriate), but across the area in general. There is no mention whether the drainages shown were flowing on the date that water levels were measured. Such observations are important since it is possible that, if flowing, these drainages represent the water table surface and could be used in conjunction with the water table data collected from wells to more-accurately depict the water-table surface. Furthermore, a portion of SEAD-12B falls on this figure, including well MW12B-1. Water-level data from this area should be used

when constructing this map. Also, what is the basis for constructing the 652 contour, was well MW12B-1 data used?

**Response #19**

Agreed. The groundwater contour lines on Figure 3.3-4 have been revised. As part of the revision, the 652-foot contour was removed. The groundwater elevation data from SEAD-12A and SEAD-12B indicate that the groundwater flow direction is to the west in the area of SEAD-12A and to the south in the area of SEAD-12B. Therefore, the groundwater elevation data from MW12B-1 was not used in the groundwater contour map for SEAD-12A.

We acknowledge that the data from drainage ditches could be used in conjunction with the water table data. This data will be obtained during any future RI field work.

**Comment #20**

**Page 3-28, p2:**

The first sentence is unclear, in particular "...thebottom of the saturated zone had been reached". Should this read "the bottom of the saturated overburden weathered bedrock zone"?

**Response #20**

Agreed. The text has been revised to reference the bottom of the "saturated overburden/weathered shale zone".

**Comment #21**

**Page 3-28, p3:**

This paragraph states that the seismic data showed that the bedrock sloped to the west in SEAD-12B and that groundwater flow was also expected to flow west, following the bedrock surface. Monitoring well data (collected after the seismic survey) show that bedrock slopes to the east (based on depths to bedrock/ refusal in the wells) and that groundwater flow is toward the south (Figure 3.4-3). The usefulness of the seismic data appears questionable. In addition the monitoring wells do not appear to adequately monitor upgradient or downgradient of the potential source areas.

**Response #21**

Agreed. Monitoring well MW12B-1 was located to the west of any EM anomaly at SEAD-12B. However, monitoring well MW12B-2 is located downgradient of anomaly 12B-1, which corresponds to the UST. Monitoring well MW12B-1, the upgradient well, was placed near the center of the eastern boundary which was clear of any anomalies.

The objective of the seismic survey was to determine the direction of groundwater flow at the sites in order to facilitate an accurate placement of upgradient and downgradient monitoring wells. This objective was achieved at 24 out of the 25 ESI sites investigated at SEDA. The gradient of the groundwater within the area of SEAD-12B varies by only 0.15 feet (1.8 inches). This is not indicative of a definite groundwater flow direction. Further field investigations will be conducted during the RI at SEAD-12 and will provide additional data about the groundwater flow direction.



**Comment #22**

**Page 3-29, pl:**

The location of the south-central anomaly is uncertain. Also, it is suggested that the increase of ground conductivity in the western portion of the SEAD may be caused by "...a higher concentration of dissolved solids in the groundwater.....If this is the case, a groundwater contaminant plume may be present in this area since many groundwater contaminant plumes are characterized by an increase dissolved solids content.

The statement that the top of the alleged UST was reported to be 18 feet below grade is alarming because:

- No investigations were conducted below this depth; therefore, releases from the tank would not be identified
- Bedrock data (auger refusal in borings) suggest that the tank may have been installed in bedrock, and bedrock was not investigated as part of the work at this SEAD.

Also if this information was available prior to the investigation, alternative EM equipment could have been used to investigate the tank location, i.e., an EM 34.

**Response #22**

1) Agreed. The south-central anomaly is now identified as anomaly 12B-1 on Figure 3.4-1. The information describing the location of the tank was received prior to performing the soil boring explorations. All other work, including the geophysical investigations and monitoring well installations, had already been performed at this site.

Response to the first bullet item of this comment. Disagree. One soil sample was collected approximately 20 feet below grade in the immediate vicinity of this tank.

**Comment #23**

**Page 3-29, p2:**

The "two localized and negative in-phase anomalies..." discussed in this paragraph are not anomalies. In-phase anomalies are characterized by large meter deflections, not slight differences in instrument response as indicated by the data presented.

**Response #23**

Disagree. This comment demonstrates a complete lack of understanding of EM interpretation and electromagnetic theory by the comment's author. This comment is addressed in the response to general comment no. 5, fourth bullet.

**Comment #24**

**Page 3-33, pl:**

The locations of the six referenced borings, and the historical location of the

UST are not presented on any map.

It is not stated which boring penetrated the "sand and gravel", or whether this material was sampled. There is no discussion regarding the significance of this sand and gravel.

**Response #24**

Agreed. The approximate location of the UST has been added to Figures 1.1-17 and 2.6-2. The location of the six borings can be identified by the location of soil boring SB12B-1, which was one of the six borings. This boring is shown in Figure 2.6-2. The text has been revised to reference this soil boring.

Competent shale was encountered at the bottom of all six soil borings, indicating that the borings had not been placed over the UST. Sand and gravel from the 18 to 20-foot depth interval were collected for chemical analysis from soil boring SB12B-1, which was located between the center of the in-phase response anomaly associated with the UST and the location of the UST shown on the historical drawings for SEAD-12B. The paragraph has been revised to provide a more detailed discussion of the six exploratory borings which were advanced in an attempt to sample the contents of the tank.

**Comment #25**

**Figure 3.4-3:**

The contouring on this figure when combined with that shown for SEAD-12A (Figure 3.3-4) does not make hydrologic sense. Groundwater flow at the two SEAD's is at ninety degrees to each other.

**Response #25**

Agreed. The groundwater flow direction is primarily to the west in the area of SEAD-12A and to the south in the area of SEAD-12B. At SEAD-12B, the groundwater elevations in the three wells differ by at most 0.15 feet (1.8 inches). Although groundwater contours were drawn for SEAD-12B based on these very similar groundwater elevations, these data do not indicate a definitive groundwater flow direction. A more refined groundwater contour map will be developed during the RI for these sites.

**Comment #26**

**Page 3-37:**

The column heading "Depth to Bedrock" of the data tabulated on this page should be qualified, since auger refusal does not **confirm** the depth to bedrock. "Estimated Depth to Bedrock" would be a more appropriate heading.

**Response #26**

Agreed. The column heading has been changed to Estimated Depth to Bedrock.

**Comment #27**

**Page 3-37, p1:**

The discussion of the seismic survey results is misleading and, when compared to boring data, demonstrates the inappropriateness of using seismic methods

at the hydrogeologic setting of SEDA. The depths to bedrock "indicated" by the survey are about half the actual depth determined by the 14 borings advanced in the SEAD. The text should be clarified as to which portion of the bedrock is being discussed i.e., weathered bedrock or competent bedrock. Similarly, the discussion suggests that there is less than two feet of saturated overburden at the SEAD, while monitoring well data show that about eight feet of overburden is saturated. Lastly, the discussion says that the survey "indicated" a weathered bedrock zone with a thickness of 20 feet or more. No borings were advanced along the seismic line that indicated this; however, given the demonstrated unreliability of other interpretations made from these data, it is questionable if such an interval exists. If such an interval did exist it would be significant because the weathered bedrock is shown to be a significant water-bearing zone in other areas of SEDA and may act as a preferential pathway for contaminant migration.

**Response #27**

Disagree. This comment is misleading and inappropriate. The author of the comment first states that the text should be clarified as to whether competent bedrock or weathered bedrock is being discussed. Later, the comment states that "the discussion says that the survey "indicated" a weathered bedrock zone with a thickness of 20 feet or more" These statements are not consistent. The text clearly states that low bedrock velocities were detected beneath two profiles and that these low velocities are indicative of a weathered bedrock layer. Furthermore, the existence of a thick weathered shale interval is corroborated by the boring specific information presented in section 3.5.1, Site Geology, and the statement in this comment that "it is questionable if such an interval exists" is completely without merit. In response to the portion of the comment discussing the detection of a saturated layer, the comment's author is referred to the response to general comment no. 4, third bullet. In addition, the seismic results and the groundwater elevation measurements from this site show very good agreement in the interpreted groundwater flow direction. These findings do not demonstrate an unreliability of the seismic interpretations. No borings were advanced along these profiles because none were proposed in the EPA approved 15 SWMU ESI workplan, and soil borings in this area had already confirmed the presence of a thick weathered bedrock layer. Drilling additional borings along the seismic profiles would provide no additional information on the current understanding of the geologic setting of the site and would be a waste of time and money.

**Comment #28**

**Section 3.5.2.2:**

It is difficult to correlate the anomalies discussed in the text with the map presenting the results (Figure 3.5-1). Also, since one of the possible reasons for elevated readings at the "three localized anomalies" is "...an increase in the dissolved solids content of the groundwater or soil moisture.....this may indicate the presence of contamination and should have been investigated further.

- Response #28** 1) Response to first sentence of comment. Agreed. the anomalies discussed in the text are now identified on the figures.
- 2) Response to remainder of comment. Disagree. This comment is inappropriate and it is misleading. The report states that the three localized anomalies were related to cultural effects, and not "an increase in the dissolved solids content of the groundwater or soil moisture" as stated in the comment. Comments of this nature serve no purpose and result only in the waste of time and money.
- Comment #29** **Page 3-42, p5:**
- There is no evidence of a perched water layer at a depth of three feet. Water-level measurements taken in the monitoring wells show that the water table is within a few feet of the land surface across the SEAD.
- Response #29** Agreed. The reference to a perched water table in the sentence has been removed.
- Comment #30** **Page 3-43, p3:**
- The statement that "there are no sustained surface water bodies on-site" is contradicted by Figure 3.5-3, which depicts most of the drainages on the map to be flowing (groundwater equipotential contours greater than the bottom of the drainages). Since the map was prepared with data collected during a typically "dry" season (July), it is likely that, if the ditches were flowing at this time, they could sustain flow year-round. Such ditches would then constitute surface water and should be sampled (including sediment) to provide a better characterization of the SEAD. If the figure is incorrect, it should be corrected.
- Response #30** Agreed. The groundwater contour lines have been revised so that they do not cross the bottom of drainage ditches.
- Comment #31** **Figure 3.5-3:**
- The data presented for well MW43-3 is incorrect when compared to Table 3-5.2. In addition there is no apparent basis for the 764 and 756 foot contours. Based on the well locations shown on this figure, the usefulness of the four wells drilled in what is essentially a straight line, for constructing a groundwater elevation map is questionable. In addition, the flow direction presented indicates that most of the wells do not monitor groundwater downgradient of the SEADS.
- Response #31** Agreed. The groundwater elevation for MW43-3 on Figure 3.5-3 should be 758.56, as presented in Table 3.5-2. The data has been corrected on the figure. The 756 and 764 groundwater contours have been removed.

The primary purpose of locating the wells as shown on the figure is to sample groundwater from locations downgradient of each SEAD; construction of a groundwater contour map is a secondary purpose. Monitoring well MW43-2 is located downgradient of SEAD-69, MW43-3 is downgradient of SEAD-43, and MW43-3 is downgradient of SEAD-56.

**Comment #32**

**Page 3-46, p2:**

The term "...lodgement division of the till unit..." is unclear. The report does not contain a discussion of the till unit, nor an explanation of a "lodgement division".

**Response #32**

Agreed. The text on page 3-46 has been expanded to describe the stratigraphic division in the till which is defined by a change in density. The density change may be explained by a difference in mode of deposition for the two till units, or by weathering in the upper portion of the till.

**Comment #33**

**Page 3-46, p4:**

The rationale presented in this paragraph for the unusual till thickness penetrated at MW44A-2 is unsubstantiated. MW44A-2 is 400 to 500 feet from the other monitoring wells at the SEAD; the difference in bedrock elevations is not remarkable. There is no reason to believe that abundant shale fragments in the till "...suggest that it [MW44A-2] was located directly on a fracture zone in bedrock", or that "local bedrock lows usually result from fractures..." Furthermore, the sentence that states that a "fault gouge" is "created during a fracture event" makes no sense.

**Response #33**

Agreed. The depths to bedrock appear to reflect simple erosional changes. The paragraph has been removed.

**Comment #34**

**Page 3-47, p2:**

The explanation for the "anomalous low in the water table" at MW44A-2 (that the material screened by the well is "relatively impermeable" and that the water level measured in the well was "...not in equilibrium with the local water table...") is not supported by data collected at the well. Water levels were measured at three occasions over a one-month period and were consistent, about 15 feet below grade. Assuming the well was purged to dryness when sampled, the water level recovered 15 feet, back to its presampling level, in 12 days. The period of time between the first two water level measurements was 22 days, yet the well failed to recover any further. Furthermore, the fact that more well volumes were evacuated at MW44A-2 than at 80 percent of the other 31 wells installed during this investigation suggests that the material screened is not "relatively impermeable".

**Response #34**

Agreed. The explanation for the anomalous low water table at monitoring well MW44A-2 has been removed.

**Comment #35**

**Figure 3.6-1:**

There is no evidence that groundwater flow is converging to the west, as is depicted on this figure. The data presented for well MW44A-3 is incorrect as shown on this figure. There is no basis for the 754 foot contour presented on this figure.

**Response #35**

Agreed. The data presented for MW44A-3 is incorrect and has been corrected. In addition, the 745-foot contour has been removed from the figure. The contours have been revised based on additional groundwater data from the adjacent site, SEAD-64C.

**Comment #36**

**Figure 3-8.1:**

There is no basis for the 758 foot- contour.

**Response #36**

Agreed. The 758-foot groundwater contour has been removed from the figure.

**Comment #37**

**Page 3-60, p2:**

This sentence is unclear, "In each of the borings where competent shale was not observed in any of the 6 borings, but was inferred by the point of auger or spoon refusal."

**Response #37**

Agreed. The sentence should read that competent shale was inferred by the point of auger or split spoon refusal.

**Comment #38**

**Page 3-61, p1:**

Regarding the "slight bedrock depression" discussed in the text:

- The only evidence presented for a bedrock depression is the interpretation of seismic data. Comparison of seismic data at other SEADs with subsequent boring data has demonstrated that there is little correlation between the two.
- Boring data show no evidence of such a depression. The difference in bedrock elevations between the three wells is about 1.5 feet. If this constitutes a bedrock depression that merits special investigation, then such a depression exists at nearly every SEAD investigated.
- The monitoring well supposedly located in the depression should be identified.
- It is unclear what evidence supports that the "depression" is oriented north-south as is suggested.

- It is stated that groundwater was expected to flow to the west northwest, at the beginning of this paragraph; however at the end it is stated that the well was located in the "bedrock depression" to identify potential contaminants in the groundwater "...which may have been flowing north.....This contradiction requires explanation.

**Response #38**            Agreed. Although the interpretation of the seismic data indicates a depression in the bedrock at the northern portion of the site, the boring data does not support that assumption. The discussion of a bedrock depression at SEAD-58 has been removed from Section 3.9.2.1.

**Comment #39**            **Page 3-61, p2:**

There is no evidence that "...an area of low conductivity..."exists in the center of the SEAD. Although there is sharp contrast between colors plotted in this area, the difference in conductivity could be as little as 1 mS/m (the green colors shown on the key are impossible to distinguish on Figure 3.9-1) and cannot be more than 3 mS/m. Background readings should be expected to vary slightly, due to the variability in the composition of the till, the depth to bedrock, and the depth to groundwater; therefore, a difference of several mS/m are likely insignificant, unless it can be demonstrated otherwise.

**Response #39**            Disagree. This is an inappropriate comment and it is misleading. The comment presents three possible causes for this anomaly, yet the author of the comment does not acknowledge that 2 of the 3 were already presented in the report. Moreover, this comment seems to indicate that the EPA would consider this apparent ground conductivity anomaly, the center of which roughly coincides with the area of stressed vegetation being investigated, as insignificant based solely upon its amplitude.

**Comment #40**            **Figure 3.9-3:**

This groundwater elevation map does not consider the effects of the "sustained stream" referred to in the text, suggesting that the water in the stream is not related to the groundwater system. The effect of the stream on local groundwater flow patterns could be profound and should be considered, or the reason why the stream was not considered should be presented. There is also no basis for the 616 or the 609 foot contours presented on this figure. The site topography should be reviewed in conjunction with the potentiometric contours, since in the northern portion of the site the 615 and 616 foot potentiometric contours are above the ground surface, indicating the presence of standing water.

**Response #40**            The groundwater elevations at monitoring wells MW58-1 and MW58-3 are 615.90 and 609.13, respectively. Because these elevations are so close to the groundwater contours, 616 and 609, these contours were presented on this figure. The 615 and 616 contours have been revised accordingly.

- Comment #41**            **Page 3-69, p2:**
- What is the basis for assuming that the weathered shale was present in borings MW59-1 and SB59-1 even though it was not observed?
- Response #41**            In soil boring SB59-1, the existence of a weathered shale layer cannot be shown to exist based on the boring log. The table and text have been revised. At MW59-1, the bottom of the till layer has fractured gray shale and shale fragments. This is indicative of the weathered shale layer, which has been encountered in other soil borings at SEDA.
- Comment #42**            **Page 3-70, p4:**
- The discussion regarding "zones" of "anomalies" is confusing and requires clarification, including identifying such zones on Figure 3.10-1.
- Response #42**            Agreed. The zones of anomalies have identified in the text as 59-1, 59-2, and 59-3. These anomalies have been identified in Figure 3.10-1.
- Comment #43**            **Figure 3-10-5:**
- There is no apparent basis for the 730 foot potentiometric contour.
- Response #43**            Agreed. The 730-foot groundwater contour has been removed from the figure.
- Comment #44**            **Page 4-1, p2:**
- There is an updated TAGM (HWR-94-4046) dated January 24, 1994 this should be used in place of the HWR-92-4046 document.
- Response #44**            Agreed. The text has been revised and the tables revised as needed.
- Comment #45**            **Page 4-1, p3:**
- Site background levels should be used for the listed metals instead of the TAGM Guidelines, since background numbers are available and are presented earlier in the document.
- Response #45**            Disagree. We have used the higher of the two values (site background or NY State background) presented in the TAGM Guideline. The NYSDEC project manager for this ESI has not indicated otherwise.
- Comment #46**            **Page 4-1, p4:**
- The TAGM guidelines used in this report for specific volatile organic and semi-volatile organic compounds may not be correct. The guidelines assume a soil organic carbon content of 1 percent. Since the actual organic carbon



content of the soil at SEDA is unknown, it would be appropriate to analyze selected samples for organic carbon and correct the guidelines accordingly. Additionally, many of the samples analyzed were collected very close (less than three to five feet) to the water table. In these cases, the correction factor of 100 used by the TAGM to calculate the guidelines may be inappropriate. The TAGM states that "...extreme caution should be exercised when using the correction factor of 100 as this may not give conservative cleanup objectives".

**Response #46**

Agreed. TOC data were not collected as part of this ESI because it was not specified in the EPA approved workplan. Should further investigation or remedial activities be conducted at SEDA, TOC data will be collected as part of the scope of work.

NYSDEC has already determined that the TAGM values as presented in TAGM HWR-94-4046 are appropriate for this project. Further inquires concerning site specific modifications to the soil cleanup objectives presented in this TAGM should be discussed with the NYSDEC Project Manager for this ESI.

**Comment #47**

**Section 4.1.3.5:**

The effect of sample turbidity on inorganic analyses should be discussed in addition to the reasons for acquisition of turbid samples (were there problems with well development or purging, etc.). The sample with the highest concentrations of inorganics (MW5-3) also had the highest turbidity. The elevated results are likely sampling artifacts caused -by the excess turbidity in the sample(s).

Table 4.1-2 indicates the sample from MW5-2 had a manganese concentration of 62.5  $\mu\text{g/l}$ , not MW5-5.

**Response #47**

Agreed. Although NTUs of less than 50 were obtained during well development, the groundwater sample for metals had greater than 100 NTUs. During the RI, these monitoring wells will be re-sampled using the USEPA Low Flow Sampling Method. This method should produce groundwater samples with lower turbidities. A sentence has been added to the text stating that the groundwater sample from MW5-3 had a high turbidity, which may influence the metals concentrations.

The typographical error referencing MW5-5 has been corrected in the text.

**Comment #48**

**Section 4.2.3.5:**

TPH concentrations in groundwater samples at SEAD-9 were detected up to 3.0 mg/L, but no VOCs or SVOCs were found. An explanation should be provided in the text.

**Response #48**

Agreed. An explanation for the absence of VOCs and SVOCs in the groundwater samples at SEAD-9 has been added to Section 7.3, which provides a discussion of the analytical results. SVOCs tend to adsorb to soil particles, and do not have a tendency to mobilize to the groundwater.

**Comment #49**

**Section 4.3.1:**

- 1) The term "radiolochemical" should be corrected to "radiochemical" or "radiological".
- 2) Concentrations are reported in picocuries per liter (water) or per gram (soil), not "radionuclides".
- 3) The approach used to calculate the radiation dose due to exposure assesses large doses based on soil concentrations of naturally-occurring radionuclides that fall within the natural-background range. The predominant exposure pathway would be from external radiation (i.e., gamma); therefore, a dose estimate for the area should be based on the population of exposure rate data and/or on the entire set of radionuclide data. Calculating annual doses on a per-sample basis as was done is incorrect.
- 4) The term "associated radionuclides" is not adequately defined. Discussions using this term require clarification.
- 5) <sup>226</sup>Ra does not emit beta particles; therefore, it is inappropriate - to use it to calculate the beta radiation dose.
- 6) Page 4-20: <sup>226</sup>Ra is described as a "surface seeker", but a more appropriate term would be "bone surface seeker".
- 7) The model description presented in Appendix H is for SEAD-63, which was not investigated in this report.

**Response #49**

- 1) Agreed. The typographical error is corrected.
- 2) Agreed. The concentrations are reported in picocuries per gram (soil) or liter (water).
- 3) Disagree. The purpose of this ESI, as stated in the EPA approved workplan, is to identify any hazardous constituents or wastes that have been released to the environment. The approach chosen to assess radiation dose provides a means of identifying if any hazardous constituents or wastes have been released to the environment using the small population of samples collected.

Response to portion of comment on calculating dose on a per-sample basis: Agreed. Dose calculations for radiation risk assessments are calculated using a statistically representative value for the source term in a given area or

medium. However, such calculations are not possible with the data that are available because the source term is, as yet, undefined. Also, the objective of the ESI does not include performing a radiation risk assessment. Parsons ES feels that the selected methods of dose calculations provide a reasonable representation of the data in a data-set that has a low population.

4) Disagree. Two sentences in the text clearly describe the use of the term "associated radionuclides".

5) Disagree. The groundwater results tables and Appendix H state that the beta dose from the ingestion of Ra-226 in water considered only the beta radiations from four radionuclides of the Ra-226 decay chain. These radionuclides are lead-214, bismuth-214, lead-210, and bismuth-210. This information is now included in the discussions of Sections 4.3.1 and 4.4.1.

6) Agreed. The term is used.

7) Disagree. The data listed in Appendix H is for SEAD-12 models. The "SEAD-63" typographical error is corrected.

**Comment #50**

**Section 4.3.2.5:**

See previous comments on dose calculations and use of the term "associated radionuclides".

**Response #50**

Disagree. See responses to general comment no.3 and the section specific comment Number 49 above.

**Comment #51**

**Table 4.3-2:**

The "background dose" referred to in note #1 is not identified on the table.

**Response #51**

Agreed. The background dose is identified in note #1.

**Comment #52**

**Table 4.3-4:**

The value for gross beta radiation presented in Notes #1 through #5 (30 pCi/l) does not agree with the tabulated value for MW12A-1 of 39 pCi/l.

**Response #52**

Agreed. The value is changed.

**Comment #53**

**Section 4.3.3.5:**

See previous comments on dose calculations.

**Response #53**

Disagree. See responses to general comment no.3 and the section specific comment Number 49 above.

- Comment #54**                    **Section 4.3.5.4:**
- It should be noted that the concentrations of cadmium and manganese in the upgradient sediment sample are above the criteria.
- Response #54**                    Agreed. A sentence has been added to the text stating that concentrations of cadmium and manganese were detected in the upgradient sediment sample, SD12A-1, that were above the criteria.
- Comment #55**                    **Section 4.3.5.5:**
- See previous comments on dose calculations and use of the term "associated radionuclides".
- Response #55**                    Disagree. See responses to general comment no.3 and the section specific comment Number 49 above.
- Comment #56**                    **Section 4.4.1:**
- See previous comments for Section 4.3.1.
- Response #56**                    Disagree. See responses to general comment no.3 and the section specific comment Number 49 above.
- Comment #57**                    **Sections 4.4.2.5 and 4.4.3.5:**
- See previous comments on dose calculations and use of the term "associated radionuclides". Also, for Section 4.4.3.5 (groundwater), the samples were extremely turbid (all > 1000 NTU). The reasons for acquisition of turbid samples should be provided in the text (were there problems with well development or purging, etc.). If samples for radiological analysis are unfiltered, the results will include any radionuclides sorbed to suspended sediment in the sample and therefore may not be representative of the concentration of radionuclides that are actually moving with the groundwater.
- Response #57**                    1) Response to first sentence of comment. Disagree. See responses to general comment no.3 and the section specific comment Number 49 above.
- 2) Response to remainder of comment. Agreed. However, in the early stages of the CERCLA investigations at SEDA, it was established by the NYSDEC that the use of filtered groundwater samples would not be approved and that their results would not be accepted. The EPA, the NYSDEC, and the army therefor agreed that filtered samples would not be collected at SEDA. Collecting low-turbidity samples with the EPA approved method of using bailers has been a difficult task at SEDA. The revised groundwater sampling methods now being used at SEDA, which use low-flow submersible pumps, are providing samples with low turbidities from wells that historically have yielded turbid groundwater when sampled with a bailer.

- Comment #58**            **Section 4.4.3.5:**
- Tritium is a beta emitter, therefore its MCL is 4 mrem/yr.
- Response #58**            Acknowledged. The beta radiations from tritium would contribute to the gross beta radiations measured in the gross beta analyses. All of the detected concentrations of tritium were between 0.06 pCi/L and .9 pCi/L and all of the gross beta concentrations ranged from 76 pCi/L to 130 pCi/L. For the purposes of dose calculations for this ESI, the dose due to tritium was considered insignificant because of its low beta energy and its low concentrations in the groundwater. Therefore, a model for the calculation of dose due to tritium was not developed.
- Comment #59**            **Section 4.6.2.3:**
- The use of "frequency of detection" percentages in the discussion could be misleading, since the sample population is small (15).
- Response #59**            Agreed. Reference to frequency of detection in this section has been removed.
- Comment #60**            **Section 4.6.3.1:**
- There is a Class GA standard for acetone: 50 ug/l.
- Response #60**            Agreed. The text has been revised.
- Comment #61**            **Section 4.8.2.4:**
- The TAGM value used for lead (30 mg/kg) has been changed to "site background" in the most recent version of the TAGM (HVM94-4046).
- Response #61**            Agreed. The site background value of 21.9 mg/Kg has been used instead of the 30 mg/Kg.
- Comment #62**            **Section 4.9.5.2:**
- It should be noted that all of the values discussed in this section were reported as "estimated" values by the laboratory.
- Response #62**            Agreed. In the text, the qualifier J has been added to values which were estimated.
- Comment #63**            **Section 4.9.5.5:**
- The last sentence of this section is incomplete and seems out of place.
- Response #63**            Agreed. The sentence has been revised to state that five or more of the

metals discussed in the previous sentence were found in each sediment sample at concentrations above the associated criteria.

**Comment #64**

**Section 4.10.3.5:**

TPH concentrations in groundwater samples at SEAD-59 were detected up to 2.6 mg/L, but no VOCs and only one SVOC was found. An explanation should be provided in the text.

**Response #64**

Agreed. An explanation for the absence of VOCs and SVOCs in the groundwater samples at SEAD-9 has been added to Section 7.9, which provides a discussion of the analytical results. SVOCs tend to adsorb to soil particles, and do not have a tendency to mobilize to the groundwater.

**SECTION 5.0**

**General Comment:**

a) While a qualitative exposure pathway analysis is a necessary complement to the evaluation of environmental sampling results in recommending appropriate future actions, many of the exposure route/receptor analyses conducted in Section 5.0 are inappropriate and in some cases too general to support the SEAD-specific recommendations for future action.

b) Comparison of analytical results to respective TAGMs is an inappropriate basis for eliminating chemicals from consideration as chemicals of potential concern. A more rational basis, consistent with the USEPA's Risk Assessment Guidance for Superfund (RAGS), should be provided for selecting or dismissing chemicals as chemicals of potential concern. Comparison to the USEPA, Region III risk-based concentrations (RBCs), and for the inorganic chemicals, to site background concentrations and essential nutrient levels, would be a more appropriate basis for eliminating chemicals from consideration.

c) Consideration should be given to the potential for human exposure to chemical contaminants in subsurface soil. Such exposure may be possible for utility or construction workers that may have to open shallow trenches in the course of their activities.

d) The source/release mechanism/pathway analyses for each SEAD provided in the text and the Exposure Pathway Summary figures should be reviewed and revised, as appropriate. Specifically,

- There appears to be little likelihood of human exposure to "surface water" via ingestion.

**Response:**

a) Exception. The objective of this ESI was to determine whether or not a threat existed at the individual AOCs. If it was determined that a threat existed at an individual site, an appropriate remedial action for that site would be recommended based upon the concentrations of hazardous constituents

present and an analysis of their potential route/receptor pathways. A review of the exposure route/receptor analyses conducted in Section 5.0, Health and Environmental Concerns, indicated that the constituents identified at elevated concentrations in four AOCs posed threats to human health and/or the environment. The pathway analyses performed for SEADs 5, 12A, 12B, and 59 contributed to the decision to recommend that a remedial investigation be performed at each of these sites.

b) Analytical results from the ESI sampling program were compared to NYSDEC TAGM values and appropriate Federal standards as discussed in Section 4.0. This method for determining whether a threat exists at these sites was agreed upon by the USEPA, NYSDEC, and the Army prior to beginning the field work for this ESI. NYSDEC TAGM values tend to be conservative because they are derived based on exposure factors for residential use.

c) Exception. A pathway analysis such as human exposure with chemical contaminants in subsurface soils is beyond the scope of this ESI. Complete pathway analyses will be performed as part of the RIs being recommended for SEADs 5, 12A, 12B, and 59.

d) Agreed. The text and Exposure Pathway Summary for each site have been reviewed and revised. The exposure to surface water via ingestion has been listed as posing an unlikely risk on the Exposure Pathway Summaries.

**General Comment:**

**Comment #1**

**Page 5-1, p3:**

States "At this time, the Army has no plans to change the use of this facility or to transfer the ownership." The 1995 Base Closure list, which includes SEDA, has become final. Therefore, the future use of SEDA will definitely change. The text in this document should be brought up to date.

**Response #1**

Agreed. The paragraph in Section 5.0 has been updated to include a discussion of BRAC regulations as they apply to SEDA.

**Comment #2**

**Page 5-4, Figure 5.2-1:**

Ingestion of soil by current site workers should be included as a potential exposure pathway.

**Response #2**

Agreed. Ingestion of soil by current site workers has been added as a potential exposure pathway.

**Comment #3**

**Page 5-5, p1:**

An explanation should be provided as to why soil ingestion "is considered to pose an unlikely risk of exposure to visitors to the site". As indicated in the previous comment, ingestion of soil by current site workers should be included as a potential exposure pathway. Exclusion of this pathway is inconsistent with the evaluations for the other SEADS. For instance on Page 5-20, this exposure pathway is indicated for SEAD-9 even though it is stated that the site "is not an active site" and "these receptors are periodic".

**Response #3** Agreed. Exclusion of this pathway is inconsistent with the evaluations of the other sites. Soil ingestion by current site workers and visitors has been added as a potential exposure pathway.

**Comment #4** Page 5-8, p2:

Per the text on Page 5-11, off-site residents should be added to the list of receptor populations.

**Response #4** Agreed. Off-site residents have been added to the list of receptor populations and to the receptor population in Figure 5.3-1, Exposure Pathway Summary.

**Comment #5** Page 5-9, Figure 5.3-1:

Per the text on Page 5-11, off-site residents should be included as a receptor population.

**Response #5** Agreed. Off-site receptors have been added to the receptor population.

**Comment #6** Page 5-14, Figure 5.4-1:

For consistency with the accompanying text, ingestion of surface water and sediment should be corrected to "pose unlikely risk".

**Response #6** Agreed. Ingestion of surface water and sediment has been removed as an exposure route for current site workers.

**Comment #7** Page 5-16, Section 5.4.2.4:

"Animal boroughs" should read "animal burrows".

**Response #7** Agreed. The typographical error has been corrected.

**Comment #8** Page 5-16, Section 5.4.2.4 and Page 5-21, Section 5.5.2.4:

The majority of soil samples collected from SEAD-12A had Ra-226 concentrations which were less than 2 pCi/g; the maximum concentration reported was 24 pCi/g. SEAD-12B soils had 1.5-2.7pCi/g Ra-226. These concentrations of radium will not pose either dermal contact or outdoor



radon/particulate radium inhalation hazards, as stated in the text. Further, radon is an inert gas and poses no risk of exposure via dermal contact.

**Response #8** Disagree. The text states that these constituents are considered to pose a potential risk in areas of sparse vegetation. This ESI investigation only identifies the presence of potential constituents of concern. A complete understanding of their concentrations and distributions within the site's media is not known, and therefore, unsubstantiated statements that these constituents would pose no hazard were not made. Additional data will be collected and a full evaluation of the risk due to the constituents identified will be performed as part of the RI/FS being planned at this site. The statements referring to 'dermal contact with radon gas' are revised to 'submersion in radon gas'.

**Comment #9** **Page 5-16, Section 5.4.3, Soils:**

The entire exercise of dose assessment is flawed. Foremost is the fact that a dose assessment based on one sample is meaningless; doses should be based on a population of data under a defined scenario. Background contributions of naturally occurring radionuclides must be established and subtracted prior to assessing any dose to a radioactive II contaminant. "

**Response #9** Disagree. The model used to calculate the radiation dose is considered to be one of the most complete models available. Since a representative population of data is not available, the use of individual sample results was considered appropriate for the purposes of this ESI. Also, since a statistical background concentration could not be derived from the available data, background contributions could not be subtracted prior to assessing dose. Such subtractions will be performed on the dose assessments performed as part of the RI/FS being planned at this site.

**Comment #10** **Page 5-17, Section 5.4.3, Groundwater:**

The gross beta dosimetry model utilized by the authors is flawed. The gross beta concentrations reported may all be due to members of the thorium, uranium and actinium decay series. Attributing beta dose to the skeleton, based on Ra-226 decay products only, indicates a lack of understanding of the differences in distribution in the body of radium decay products.

**Response #10** Acknowledged. Members of the thorium, uranium, and actinium decay series are likely contributing to the gross beta radiations, however, the available data does not provide sufficient information to determine that equilibrium exists for all the radionuclides in these decay series. The data collected as part of this ESI was intended to identify whether a release had occurred and not to perform a radiation risk assessment that considers doses from all beta-emitting radionuclides that may be on-site. A gross beta dosimetry model will be developed as part of the RI/FS being planned for this site and the model will address all of the beta emitting constituents of concern that are detected on-

site.

**Comment #11**      **Page 5-18, Section 5.4.3, Sediment:**

The criteria used to conclude that "cadmium and manganese were the only constituents which were found at elevated concentrations" should be identified in the text. There are no applicable criteria for radionuclide concentrations in sediment.

**Response #11**

Agreed. Based on the NYSDEC Guidance document for Screening Contaminated Sediments (1994), the three metals, iron, manganese, and nickel, were found at concentrations exceeding both the lowest effect level and the severe effect level. These metals are now discussed in Section 5.4.3 with reference to these sediment criteria.

The text has also been revised to state that the reported concentrations of the radionuclides in sediment were detected at calculated annual doses which were below the proposed 10CFR 834 criteria.

**Comment #12**      **Page 5-19, p1:**

The flow characteristics of the ditches (e.g., ephemeral) should be included in the text, as appropriate.

**Response #12**

Agreed. Both drainage ditches adjacent to the site are ephemeral. This has been added to the text.

**Comment #13**      **Page 5-20, Figure 5.5-1:**

For consistency with the text, leaking USTs should be included as a "primary source".

**Response #13**

Agreed. The UST has been added to Figure 5.5-1 as a primary source.

**Comment #14**      **Page 5-21, Section 5.5.3:**

Many of the earlier comments on Section 5.4.3 apply here as well. The dosimetry methods utilized for evaluation of soils and groundwater data are flawed.

**Response #14**

See responses to Section 5 comments numbers 9 and 10.

**Comment #15**      **Page 5-24, Figure 5.6-1:**

For consistency with the text, the septic system should be included as a "primary source".

**Response #15**

Agreed. The septic system has been added to the figure as a primary source.

**Comment #16**

**Page 5-28, Section 5.7.2:**

An apparent contradiction regarding surface water at SEAD-44A needs clarification or correction. In Section 5.7.2, 3rd Paragraph a statement is made that "there are no ponds or streams on or near the site ", while in Section 5.7.2.1, 1st Paragraph a statement is made that "a small stream flows east to west in the southern portion of the site". In this context, the exclusion of aquatic biota as potential receptors in the text and in Figure 5.7-1 should be reevaluated.

**Response #16**

Agreed. The statement in Section 5.7.2 regarding the absence of ponds or streams has been removed. Aquatic biota have been added as a potential receptor in Figure 5.7-1. The text in Section 5.7.2.1 already discusses the biota of the drainage ditches as potential environmental receptors.

**Comment #17**

**Page 5-38, Figure 5.9-1:**

Per the text on Page 5-39, off-site "recreators" should be included as a receptor population. Per the text on Page 5-40, aquatic biota should be included as receptor populations.

**Response #17**

Agreed. Off-site recreators and aquatic biota have been added as a potential receptor in Figure 5.9-1.

**Comment #18**

**Page 5-39, p2:**

The text should be clarified as "off-site recreators" are considered a potentially exposed population to surface water and sediment in Hicks Gully and not "off-site residents" per se.

**Response #18**

Agreed. The term has been changed from off-site residents to off-site recreators.

**Comment #19**

**Page 5-41, pl:**

This paragraph appears misplaced and should be moved to Section 5.9.2.3 which discusses groundwater.

**Response #19**

Agreed. The paragraph has been moved to Section 5.9.2.3.

**Comment #20**

**Page 5-43, Figure 5.10-1:**

Per the text on Page 5-45, off-site "recreators" and aquatic biota should be included as receptor populations.

**Response #20**

Agreed. Off-site recreators and aquatic biota have been added to Figure 5.10-1 as potential receptor populations.

**Comment #21**

**Page 5-44, p1:**

Per the text on Page 5-45, off-site recreators should be added to the list of receptor populations.

**Response #22**

Agreed. Off-site recreators have been added to the list of receptor populations.

**Comment #22**

**Page 5-49, pl:**

The flow characteristics of the ditches (e.g.,ephemeral) should be included in the text, as appropriate.

**Response #22**

Agreed. The ditches are ephemeral and flow during periods of precipitation and spring snow melt. This has been added to the text.

## **SECTION 7.0**

**General Comment:**

A brief explanation of "mini-risk assessment" should be provided. The Army Corps has guidance for conducting "screening risk assessments" and uses the results as the bases for no-action Decision Documents. In the screening risk assessment, the human health evaluation is comprised of simple comparisons between the maximum detected concentration of each chemical in each impacted medium with the Risk-Based Concentrations developed by USEPA, Region III while the environmental evaluation is limited to a qualitative discussion.

**Response**

According to the IAG [commonly referred to as the Federal Facilities Agreement (FFA)] between the EPA Region II and NYSDEC, if the conclusion of this report is that an AOC poses a threat to human health, welfare, or the environment, the Army can perform a removal action to eliminate the threat or conduct a CERCLA RI. The determination of whether a threat exists at an AOC will be based on comparison with State and Federal standards, guidelines, and criteria that are available. Exceedances of an appropriate standard, guideline, or criteria will be used as the indication that a threat may exist. For the eight sites reference in the comment, the media investigated have not been significantly impacted by the constituents analyzed during the ESI. Parsons ES suggested that in addition to a comparison to standards, guidelines, or criteria, that a mini risk assessment could be performed to determine whether a risk actually does exist. This risk assessment would follow the same procedures that would be performed during the RI but would not include such items as toxicity profiles or screening of constituents. Instead only the quantitative analysis of risk would be provided.

More specifically, a mini risk assessment will include conducting a numerical risk assessment for all reasonable exposure scenarios. The analysis will be based on data from the ESI, which will be worse case conditions because data

was collected from locations that had the greatest potential to be sources of contamination based on historical use and visual observations. The results, including both carcinogenic and non-carcinogenic risks, will be presented in table format. This assessment will not include a complete writeup with full description of the toxicology profile of the chemicals involved. No uncertainty analysis or ecological risk assessment will be conducted. The level of effort required to conduct this risk assessment will be relatively low. Currently, protocols are being prepared and will be sent to the Army, EPA and NYSDEC for review and approval. Text which describes the contents of a mini-risk assessment has been added to Section 7.0.

**General Comment:**

**Comment #1**                    **Page 7-4, p3:**

The authors state that a significant release has occurred and that the results suggest that, among other things, ingestion of radon gas could pose a significant risk. This is a physical impossibility as one cannot ingest an inert gas.

**Response #1**                    Agreed. The text has been revised to state that the "inhalation of" radon gas could pose a significant risk.

**Comment #2**                    **Page 7-9, Top of Page:**

A statement should be added, as appropriate, regarding the apparent upgradient source of sediment contamination in the stream (i.e., whether this source will be identified and evaluated in the context of another SEAD).

**Response #2**                    A review of the SEDA site map does not indicate a potential source of the sediment contamination at the upgradient location of the stream which flows along the southern boundary of SEAD-58. This stream collects runoff from nearby drainage ditches and surrounding areas. Potential sources of the PAHs within the sediment may include runoff from roadways, fugitive dust emissions, and stack emissions from boilers and the deactivation furnaces at SEDA.

**Comment #3**                    **SEAD-5:**

EPA is still in the process of reviewing SEDA's recommendations for future actions at SEAD-5 and will provide our comments at a later date.

**Response #3**                    Based on the recommendations of this ESI report and the decision by the Army, a RI/FS Project Scoping Plan is currently being prepared for this site.

- Comment #4**                    **SEAD-9:**
- EPA is still in the process of reviewing SEDA's recommendations for future actions at SEAD-9 and will provide our comments at a later date.
- Response #4**                Based on the data presented in the ESI report, the Army has decided to perform a mini-risk assessment, Completion Report, and Record of Decision at SEAD-9.
- Comment #5**                    **SEADs-12A & 12B:**
- ES recommends that an RI/FS be conducted at these SEADS. We concur with this recommendation.
- Response #5**                Acknowledged. An RI/FS Project Scoping Plan is currently being prepared for this site.
- Comment #6**                    **SEADs-43, 56, & 69:**
- EPA is still in the process of reviewing SEDA's recommendations for future actions at SEADs-43, 56 & 69 and will provide our comments at a later date. We would appreciate receiving the revised Tables 4.5-3 and 4.5-4 as soon as they become available.
- Response #6**                Revised Tables 4.5-3 and 4.5.4 will be included with the Draft Final ESI Report.
- Comment #7**                    **SEADs-44A & 44B:**
- The document states that no significant impacts have occurred to these sites and ES recommends that a mini-risk assessment be conducted at these SEADS to support a Completion Report and Record of Decision (ROD). The site history describes SEAD 44A as a quality assurance testing site for grenades, fire devices and pyrotechnics. Section 1.1.2.6 states that the berms at SEAD 44A potentially contain unexploded ordinances (UXO). This SI report makes no mention of any UXO survey or clearance conducted. The Seneca Army Depot Activity is now a Base Closure site. How could a ROD be signed and later this property be transferred when there is the potential that UXO exist in the berms?
- A review of the monitoring well locations indicates that groundwater downgradient of these SEADS is not effectively monitored, therefore, it is recommended that additional investigations be conducted to determine if groundwater has been affected by these SEADS. We would appreciate receiving the revised Tables 4.6-3, 4.6-4, 4.7-3 and 4.7-4 as soon as they become available.

**Response #7**

The purpose of the ESI at these sites was to determine if a potential risk to human health and/or the environment exists from chemical contamination by sources at the sites. Determination of the risk from UXO contamination is not only unquantifiable, but also beyond the scope of this ESI. In addition, a Record of Decision (ROD) does not state that the sites have been determined to be without risk and clear of any contamination. Rather, a ROD may outline the tasks which must be carried out in order to clear the sites of any contamination for future property transfer. UXO clearance may be included as part of the ROD because Army policy is to conduct UXO clearance before transferring their properties.

Both monitoring wells, MW44A-2 and MW44A-3, were located downgradient of berms which were considered potential sources of contamination at SEAD-44A. The groundwater data from these wells identified iron as exceeding applicable groundwater criteria. Since iron is a non-toxic metal and probably an artifact of turbidity in the well, the impact on groundwater is minimal. However, the bermed soils contained PAH compounds and metals. Because the groundwater did not contain these constituents, it is reasonable to suggest that these materials are not leaching into the groundwater. Instead, our focus is to eliminate the berms, as part of a future removal action. During the removal action, additional monitoring of the groundwater will be conducted but future investigations, i.e., a RI followed by a FS appear unwarranted and would delay the elimination of an obvious potential threat.

This study was not intended to be a RI, rather this ESI was a preliminary assessment of the sites to determine if a threat exists. Since the precise activities of SEAD-44B are not known, the purpose of locating the downgradient wells was to investigate whether any discharge occurred from areas of former activities at the site. Monitoring well MW44B-2 was located directly downgradient of the dilapidated metal shed and concrete foundation, both probable areas of former activity. Monitoring well MW44B-3 was also located at a downgradient position within SEAD-44B. The groundwater data from the three wells at the site identified the metals iron and thallium exceeding the associated criteria. Groundwater from the monitoring wells MW44B-1 and MW44B-2 contained iron in concentrations exceeding the NYSDEC TAGM. Groundwater from the upgradient monitoring well, MW44B-1, had a concentration of iron of 666 ug/L indicating that the groundwater in the area of SEDA has a higher concentration of iron and that the detections of iron in groundwater do not necessarily indicate a release from site activities. Thallium was detected in the upgradient monitoring well also. This indicates that the sources of TAGM exceedences are not the result of sources at the site.

**Comment #8****SEAD-50:**

EPA is still in the process of reviewing SEDA's recommendations for future actions at SEAD-50 and will provide our comments at a later date. We would appreciate receiving the revised Tables 4.8-4, 4.8-5, as soon as they become

available.

**Response #8** Revised Tables 4.8-4 and 4.8-5 will be included in the Draft Final ESI report.

**Comment #9** **SEAD-58:**

A mini-risk assessment may be appropriate, based on the scope of the "mini-risk assessment", for this SEAD. However, the source of the upgradient sediment contamination should be investigated. We would appreciate receiving the revised Tables 4.9-3,4.9-4,assoon as they become available.

**Response #9** Tables 4.9-3 and 4.9-4 will be included in the Draft-Final ESI report. Based on the data presented in this ESI report, the Army has decided to conduct a mini-risk assessment, Completion Report, and Record of Decision at SEAD-58. Refer to Section 7, Response #2 which discusses sources of upgradient sediment contamination.

**Comment #10** **SEAD-59:**

We agree with the conclusion that the site will require additional investigation through the RI/FS process.

**Response #10** Acknowledged. An RI/FS Project Scoping Plan is currently being prepared for this site.



**COMMENTS AND RECOMMENDATIONS  
BY  
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
FOR  
DRAFT EXPANDED SITE INVESTIGATION OF  
EIGHT MODERATELY-LOW PRIORITY AOCs  
SEADs 5, 9, 12(A and B), 43, 56, 69), 44(A and B), 50, 58, and 59**

General Comments

- Comment #1** Throughout the text of this document it is stated that the Army has no plans to change the use of this facility or to transfer ownership. However, the inclusion of the Seneca Army Depot on the 1995 Base Closure List seems to indicate otherwise. The text should state and address the potential scenarios arising from closure of the Seneca Army Depot. A possible scenario of concern is the inevitable reduction of current security that will result from closure. The Army must be prepared to secure the many contaminated areas within the Depot against public entry.
- Response #1** Agreed. The text has been updated, particularly in Section 5.0, to include a discussion of BRAC regulations as they apply to SEDA. In Section 5.0, the text already discusses the potential future use scenarios for this area, which include light industrial to residential uses. A residential future use scenario is included as a conservative criteria, however, this does not suggest that the Army intends to remediate to such standards. Actual degrees of remediation will be proposed on a site-by-site basis and the future plans for the site will be taken into account.
- Comment #2** For proper comprehension, this document should include the name as well as the numerical designation of each AOC in the title of each section of text dealing with the individual AOCs.
- Response #2** Agreed. The name of the AOC has been added to the numerical designation of each AOC in the titles.
- Comment #3** The tables listing the results of the seismic refraction surveys do not include any data under the column labeled "Water Table". Is this an error or is there a reason for the exclusion of water table depths and elevations?
- Response #3** Water table depths were not determined at those sites for which the table has no data. This column has been removed from the appropriate tables.
- Comment #4** Site maps in this document should indicate the directions of flow in drainage ditches.
- Response #4** Agreed. Flow direction in the drainage ditches has been added to the site maps.
- Comment #5** The monitoring wells at several AOCs were not sampled on the same date. All wells for a particular AOC should be sampled at the same time. At SEADs-5, 9, 43 and 59, well

were sampled almost four months apart. Sampling wells four months apart (in March and July offers no comparability of samples and does not provide an accurate “snap shot” of the area’s groundwater quality.

**Response #5** Agreed. The monitoring wells at the four sites were sampled in March and July. This was done in order to accomodate the EPA contractor (TRC) whose contract was ending in April 1994. As a result, these wells were installed and sampled before all the monitoring wells were installed at all sites.

#### Page-Specific Comments

**Comment #1** **1.1 Site Background: page 1-6, second paragraph.** The SWMU Classification Report has classified 24 No Action SWMUs and 48 Areas of Concern. Please correct the third sentence of this paragraph.

**Response #1** Agreed. The number of No Action SWMUs and AOCs has been corrected.

**Comment #2** **1.1.2.1.1 Physical Site Setting.** Details of physical site setting given in this section do not correlate with the features shown of Figure 1.1-14. Please show building 310, drainage swale between building 310 and the sewage sludge and railroad tracks originating from building 310.

**Response #2** Agreed. The physical site setting for SEAD-5 has been rewritten. The buildings have been correctly referenced and added to figure.

**Comment #3** **1.1.2.5.1 Physical Setting** Please show the structure and its details , which is located Southwest of building 606 on figure 1.1-18.

**Response #3** Agreed. The septic system mound has been shown on the figure. The details are too small to show on the figure.

**Comment #4** **Section 1.1.2.5.2** The text in this section describes the pesticide rinse building as being located to the east of building 606, however, the map of this area (Figure 1.1-18) shows the pesticide rinse building to the west of building 606. Please make the appropriate correction.

**Response #4** Agreed. The text has been revised to state that the pesticide rinse building is located to the west of building 606.

**Comment #5** **1.1.2.6.1 Physical Setting** Please show all the details described in this section on figure 1.1-19.

**Response #5** Agreed. The details have been added to the figure.

**Comment #6** **1.1.2.8.1 Physical Site Setting** The text and/or the figures associated with SEAD-50 (tank farm) should identify the individual tanks and their contents, in particular the asbestos containing tank. Additionally, the type of asbestos in the tank should be specified.

**Response #6** Agreed. Information about the tanks at SEAD-50 has been added to the text. Of the four tanks at the site, only one tank contains materials (asbestos). This tank has been identified on the site plans as Tank #88.

**Comment #7** **2.2.6 Groundwater Sampling** A review of Table 2.2-2 and 2.2-3 indicate that the turbidity readings after well development are much lower than the turbidity readings at the time of sampling. Please provide an explanation for such high turbidity readings at the time of sampling.

**Response #7** As per the 15 SWMU ESI Workplan, the monitoring wells were developed and purged for sampling using a peristaltic pump. Groundwater sampling was conducted using a teflon bailer. The turbidity readings were collected at the time of groundwater collection for metals. At that point, the bailer had been inserted into the wells approximately 2 to 3 times and any silt in the wells had been stirred up by this action. The EPA low flow groundwater sampling method, which involves the use of submersible pumps, will be used for groundwater sampling for future RI work at SEAD. and should provide groundwater samples with low turbidity readings.

**Comment #8** **Table 2.10-1** The footnote for this table states that soil samples from SEAD-50 were “chemically analyzed” for asbestos. Asbestos is analyzed based on its optical properties, not its chemical properties. Asbestos is typically identified in bulk samples using polarized light microscopy or transmission electron microscopy. What method was used to analyze the soil samples at SEAD-50 for asbestos?

**Response #8** Agreed. The footnote has been corrected to state that asbestos was analyzed by polarized light microscopy.

**Comment #9** **Figure 3.5.-3** Please correct water elevation of well MW43-3. It should be 758.56.

**Response #9** Agreed. The groundwater elevation for MW43-3 on Figure 3.5-3 has been corrected to 758.56.

**Comment #10** **Figure 3.6-1** Please correct water elevation of well MW44A-3. It should be 745.35.

**Response #10** Agreed. The groundwater elevation for MW44A-3 has been corrected.

**Comment #11** **3.6.3 Site Hydrology and Hydrogeology** It is stated that water elevations from one well from SEAD-64C and one well from SEAD-62 were used in plotting the groundwater flow direction at SEAD-44. Please show the wells from SEAD-64C and SEAD-62 with elevations on Figure 3.6-1.

**Response #11** Agreed. Water elevations from one well at SEAD-64C was used as an additional data point to plot the groundwater contours at SEAD-44A. This monitoring well, MW64C-6, has been added to Figure 3.6-1. The text has also been revised.

**Comment #12** **3.10.2.4 Test Pitting Program** This section states that three 55 gallon drums were unearthed during the investigation of SEAD-59 and that the “existence of additional

drums at greater depths remained unknown”. What measures will be taken to investigate the possibility of additional drums?

**Response #12** According to the RI/FS Project Scoping Plan for SEAD-59, additional EM-31 surveys will be performed to identify locations where metallic objects may be buried within the two areas in the northeastern corner of the site, and to investigate an area adjacent to the south and east of the site. Based on these geophysical data and the geophysical data collected during the ESI, nine test pits will be excavated in areas of geophysical anomalies.

**Comment #13 4.8.5.2 Semi-Volatile Organic Compounds** This section of text states that total PAH concentrations in the surface soils at SEAD-50 are shown in figure 4.6-1. However, figure 4.6-1 is a map of SEAD-44A. Please make the appropriate correction.

**Response #13** Agreed. The referenced figure should be figure 4.8-1. The text has been corrected.

**Comment #14 5.4.3 Summary of Affected Media** This section states that “groundwater at the site has not been significantly impacted by any of the constituents analyzed for during the investigations”. The calculated annual dose of beta radiation in sample MW12A-2 was 244.3 mrem/year, the New York State Maximum Contaminant Level (MCL) and the federal health advisory values for a calculated annual dose of gross beta radiation is 4 mrem/year. A 60 fold exceedence of the MCL and the federal health advisory value would appear to be a significant impact. This section also states, incorrectly, that a calculated dose of 4 mrem/year of beta radiation is a proposed MCL when in fact it is an existing standard. A clarification is needed.

**Response #14** Agreed. A review of the model presented in Appendix H showed that the dose calculations in the draft document did not factor the conversion of the reported concentrations units, which were in picocuries per liter, to the units presented in the formula, which were in microcurries per liter. The revised beta doses now show that all samples are well below the 4 mrem/year MCL.

Response to portion of comment concerning the use of proposed MCLs for the 4 mrem gross beta MCL. Agreed. However, the groundwater at SEDA is classed as GA and the Class GA groundwater standard for gross beta radiation is 1,000 pCi/L. The federal proposed MCL criteria was included in the groundwater results tables in response to comments by the EPA that federal MCL values be included in these tables. Therefore, the gross beta MCL standard that is referenced in the text will remain as the proposed federal MCL standard.

**Comment #15 7.2 SEAD-5. Sewage Sludge Waste Pile** We agree that PAH and metal contamination in the sewage sludge piles may pose significant risk to receptors via ingestion of soil and/or dust mechanisms, but we do not agree with the recommendation that a remedial investigation/feasibility study be initiated to fully define the extent of the impacted media. The sewage sludge piles are above ground and are well defined. We recommend a removal action with a completion report, because it would be cost effective.

**Response #15** Agreed. The point made by NYSDEC is well taken , and we will take the comment under advisement. Currently, we have been tasked by the Army to complete a RI/FS Project Scoping Plan for SEAD-5. The decision to conduct the RI/FS may be modified by the Army. This more cost effective proposal for SEAD-5 should be discussed at the next project managers' meeting for SEDA.

**Comment #16 7.8 SEAD-58. Debris Area Near Booster Station 2131** It is stated that PAH concentrations were 5 to 10 times higher than the NYSDEC sediment criteria for human health. While these contaminants may not have originated at SEAD-58 (the upgradient sample had the highest concentrations), an attempt should be made to locate a possible upstream source. Perhaps some limited sampling should be conducted before preparing a risk assessment and completion report.

**Response #16** Agreed. The point made by NYSDEC is well taken. Any decision to perform limited sampling prior to preparation of a risk assessment and a Completion Report will be made by the Army. This limited sampling program for SEAD-58 should be discussed at the next project managers' meeting for SEDA.

**Comment #17 7.9 SEAD-59. Fill Area West of Building 135** Although we agree with the recommended remedial investigation and feasibility study program for this site, removal action for buried drum and paint containers should also be initiated as soon as possible. This will minimize the continued of soils and possibly groundwater during the course of the RI/FS.

**Response #17** Agreed. The point made by NYSDEC is well taken, and we will take the comment under advisement. Currently, we have been tasked by the Army to complete a RI/FS Project Scoping Plan for SEAD-59. The decision to perform a removal action before the RI/FS is conducted will be made by the Army. This reomoval action should be discussed at the project managers' meeting for SEDA.

#### SEAD-12 (A and B): Comments and Recommendations

##### **Comment #1 Concentrations Reported**

Only the uranium chain (from Ra226 and Pb210) has been observed in concentrations above background levels. It is interesting to note that Pb214 and Bi214 were not listed. Both have short half lives, so it should follow that both would be found in concentrations similar to the parent -- Ra226, particularly since they are easier to see in a gamma spectrum that is Ra226. Also, separation of Ra226 and U234 in the gamma spectrum is rather difficult, and it was not explained how this was done for these analyses. The laboratory protocols for radiological analyses should be presented to DEC.

For most measurements, the concentrations reported were only a few pCi/g with the highest report value = 24 pCi/g. These values are not extremely high. However, it will be necessary to address concentrations that are significantly greater than background, once background concentrations have been determined and agreed to by the DEC. Before 1) the fate of this necessary to determine if the radionuclides are dispersed in the soil (as these measurements would suggest), or if some of the radioactive material is in discrete pieces.

**Response #1** Comment #1, first paragraph. Agreed. The radiological analyses were performed by a U.S.A.C.O.E. Missouri River Division certified laboratory. Appendix E, Analytical Results, presents the results for all of the gamma spectral analyses. Five of the radium-226 decay products were detected in each sample at very similar concentrations to those reported for radium-226. None of the uranium-235 decay products were detected, and therefore, the gamma energies at 0.186 MeV were interpreted as radium-226 radiations and not the 0.1857 MeV uranium-235 radiations.

Comment #1, second paragraph. Agreed. The RI/FS currently being prepared for this site will include investigations to better characterize the type and distribution of the radionuclides in the media at this site.

**Comment #2 Dose Calculations Hot Spot Criteria**

When New York State applies its 10mrem/y over background, it uses plausible scenarios. The reported doses associated with these measured concentrations would be from a large-volume source at these concentrations and would result primarily from radon. If the Ra226 is located in a few discrete areas within each disposal site, it is not likely that a large-volume source is the proper source term for modeling exposures from these sites. When the characterization is completed, it will be possible to create a more plausible/realistic scenario for modeling resulting exposures to individuals from future land uses.

It is unlikely that the disposed radioactive material is uniformly distributed in the soil. The site characterization work will help in determining the dispersion of the radioactive materials throughout the soil. This information is important when trying to develop “hot spot” criteria for any residual activity that might be left on any of the disposal sites. The degree of remediation needed in each area will depend on the activity, its physical form, and its spatial distribution within the disposal volume. All of these parameters will effect potential doses and will need to be determined.

**Response #2** Agreed. The RI/FS being planned for this site will include test pit physical form, the spatial distribution, and the total activity of the radionuclides that are detected in the site’s media.

**Comment #3 Recommendations**

The recommendation in the report for these contaminated areas is:

“that a remedial investigation and feasibility study program be initiated to fully delineate the extent of impacted media...”

We agree. the work, to date, has served the purpose for which it was intended. It established that radioactive materials were disposed of in these two areas. The next steps in a proper characterization of each of these areas will be:

- to determine vertical and horizontal concentration profiles of the radioactive materials,
- to identify the radioactive material physical form -- is it dispersed or discrete or both?, and
- to review the laboratory protocols for applicability to these radio nuclides and their progeny in these sites.

**Response #3** Agreed. See responses to comments #1 and #2 above. Also, when a radiological analysis laboratory is chosen to perform the radiological analyses for the RI/FS being planned at this site, that laboratory's protocols will be submitted to the DEC for their review.

D#14

**DETAILED COMMENTS AND RECOMMENDATIONS  
DRAFT EXPANDED SITE INVESTIGATION  
EIGHT MODERATELY LOW PRIORITY SOLID WASTE MANAGEMENT UNITS  
SENECA ARMY DEPOT, ROMULUS, NEW YORK  
DECEMBER 1994**

**COMMENTS OF A. CHRISTMAN, K. RUSSELL, K. HODDINOTT, AND K. BUTORYAK**

**Comment #1**                   Section 1, A. Christman - Introduction

Many of the figures referenced in this section are incorrect.

Recommendation:   Please correct the discrepancies.

**Response #1**                Agreed. The discrepancies have been corrected in the text and figures.

**Comment #2**                Page 1-40, Section 1.1.2.3.2, K. Russell - Site History.

The fifth sentence reads "The waste was burned in our concrete pipes and one..."

Recommendation:   Clarify the sentence.

**Response #2**                Agreed. The sentence on page 1-40 has been revised to indicate that the pipes were utilized to store wastes materials.

**Comment #3**                Page 2-12, Section 2.2.2, A. Christman - Soil Sampling Programs - Soil Borings.

The text references a "Dosimeter Mini Con Rad Detector" used to screen soil samples, but gives no particulars on the instrument. Also this instrumentation does not agree with the instrumentation referenced in the later sections of the text, 3.3.2.4 and 3.4.2.4.

Recommendation:   Please qualify who the manufacturer is and any other pertinent operating information on this instrument.

**Response #3**                Agreed. Reference to the Dosimeter Mini Con Rad Detector on page 2-12, Section 2.2.2, is incorrect. The Dosimeter Detector was not the instrument used to screen for radiation in soil samples. The Victoreen Model 190 Radiation Monitor, which is a Geiger-Mueller pancake type radiation detector, was used at all sites in this investigation. The Victoreen is a rate meter which screens for alpha, beta, and gamma radiation within an operating range of 1uR/hr to 1 R/hr or 1 CPM to 1,000 CPM. The Victoreen Monitor is an instrument which is easy to utilize under field conditions since the instrument provides an easy to read digital display of data. The text in Sections 3.3.2.4 and 3.4.2.4 correctly references the Victoreen Monitor, and the text on page 2-12 has been revised to indicate that the Victoreen was used to screen soil samples.



**Comment #4** Page 2-1, Table 2.1-2, K. Russell - SWMU Specific EPA Analytical methods and Selection Rationale.

The AOC SEAD 58 does not include herbicide analysis even though the vegetation is stressed and the site was rumored to be a disposal site for pesticides. Most people who don't have a specific education in the subject would group herbicides with pesticides. So herbicides are just as likely to be found as pesticides. Also on Page 2-51, Section 2.11, SEAD 58, the paragraph states "...suggested a possible contamination from compounds such as herbicides..."

Recommendation: Provide rationale or add herbicides sampling.

**Response #4** Agreed. The presence of stressed vegetation at the site may be caused by factors other than herbicides. Poor quality top soil which does not promote vegetative growth and vehicular traffic over an area may also result in stressed vegetation. For this reason, reference to herbicides as the cause of stressed vegetation has been removed from the text on page 2-51. If the site undergoes an RI/FS, herbicides will be included in the list of analytes. However, the recommendation of this report is to conduct a mini risk assessment of the site.

**Comment #5** Page 2-34, Section 2.6.2, A. Christman - Media Investigated.

Figure 2.5-1 referenced in the text should be 2.6-1.

Recommendation: Please correct the discrepancy.

**Response #5** Agreed. The discrepancy has been corrected.

**Comment #6** Pages 4-14 & 4-39, Sections 4.3.1 & 4.4.1, A. Christman - Introduction.

The text discusses a dose model for transuranic radionuclides. Delete the term transuranic from the sentence. There were no transuranics detected, see Sections 4.3.2.5 and 4.4.2.5.

Recommendation: Please delete the term.

**Response #6** Agreed. The term transuranic has been deleted from the sentences on pages 4-14 and 4-39.

**Comment #7** Pages 4-15 & 4-39, Sections 4.3.1 & 4.4.1, A. Christman - Introduction.

The text cites the assumption of secular equilibrium for each decay series. Please define the decay series of interest, see Comment #7.

Recommendation: Please clarify.

**Response #7** Agreed. The text has been revised to indicate which decay chains were

assumed to be in secular equilibrium.

**Comment #8**

Pages 4-15 & 4-39, Sections 4.3.1 & 4.4.1,A. Christman - Introduction.

The text touches upon the activity calculation for radionuclides in a series. This subject needs to be discussed in greater detail for clarification.

Recommendation: Please elaborate.

**Response #8**

Agreed. The text has been revised to more clearly indicate how principal radionuclide concentrations were derived for the purposes of the dose calculations.

**Comment #9**

Pages 4-23, 4-37, 4-43 & 4-48, Sections 4.3.2.5,4.3.5.5,4.4.2.5 & 4.4.3.5,A. Christman - Radioactivity.

The text discusses six transuranic decay series. Transuranic elements are those which have atomic numbers higher than that of uranium. There were no transuranic radionuclides discussed in these sections of the text. Also it should be the nuclides from three natural radioactive decay series: the thorium series, the uranium series, and the actinium series.

Recommendation: Please correct terminology used.

**Response #9**

Agreed. The text has been revised to the correct terminology on pages 4-23, 4-37, 4-43, and 4-48, Sections 4.3.2.5,4.3.5.5,4.4.2.5,4.4.3.5.

**Comment #10**

Page 4-23, Section 4.3.2.5,A. Christman - Radioactivity.

The text states elevated doses were attributed to radium-226 activity detected in the samples. In Section 2, gamma spectral analysis is listed as a test method but no specific isotopic analyses are referenced. Radium-226 has a 186keV energy peak at approximately 3% abundance and all its other peaks are less than 1% abundant. Also there can be interference from the 186keV energy peak of uranium-235. Were these factors taken into account when performing the gamma analyses? Were the proper background values subtracted out?

Recommendation: Please clarify.

**Response #10**

Agreed. a) Individual isotope analyses were not performed on the samples collected from SEADs 12a and 12b since this analysis is expensive and inappropriate if there is no previous indication of the isotopes that are present. The primary goal of the radiological analyses performed on the samples collected from SEADs 12a and 12b was to determine which radionuclides, if any, were present at these sites, therefore, gamma spectral analyses were performed.

b) Although it is true that interference between the radium-226 186 KeV peak and the uranium-235 185 KeV peak exists, this would only present a

problem if radium-226 and uranium-235 were present at similar concentrations. Uranium-235 at 143.8 KeV was detected at low concentrations, typically 0.1 pCi/g, which is an order of magnitude below the reported concentrations of radium-226 and its associated radionuclides which range between 1 and 20 pCi/g. Based upon the concept of secular equilibrium, we would expect to see similar concentrations of U-235 daughter products. No U-235 daughter products were detected in any of the samples collected at SEAD 12a or SEAD 12b. Instead, the reported concentrations of Ra-226 (at 186 KeV) were approximately equal to the reported concentrations of its associated radionuclides (Pb-214 at 295 and 352 KeV, Bi-214 at 609, 1120.4, and 1764.7 KeV, and Pb-210 at 46 KeV). These results support our current findings that radium-226 was in secular equilibrium with its associated radionuclides and therefore radium, not uranium, was the source of the radioactivity.

Background concentrations were not subtracted from the radiochemical analyses results. The number of background radiochemical analysis results did not present a large enough population to allow for a representative statistical calculation of background radionuclide concentrations.

**Comment #11** Pages 4-23 & 4-48, Sections 4.3.2.5 & 4.4.3.5,A. Christman - Radioactivity.

The text states that elevated gross alpha and gross beta activities were detected. How much of these activities can be attributed to the specific isotopes identified by the gamma spectral analysis?

Recommendation: Please clarify.

**Response #11** Agreed. Since many of the specific isotopes identified in the gamma spectral analyses are known to emit alpha and beta radiation, it is reasonable to assume that some, or all of the detected alpha and beta radiation can be attributed to these isotopes. It is also reasonable to assume that alpha and beta radiation were produced from isotopes which were undetected in the gamma spectral analyses but are associated with the decay chains of those isotopes which were detected.

**Comment #12** Pages 4-32, & 4-34, Sections 4.3.4.3 & 4.3.4.4,A. Christman - Pesticides and PCBs & Metals.

The text discusses samples collected at SEAD-50. It should be SEAD-12A.

Recommendation: Please correct the discrepancy.

**Response #12** Agreed. The discrepancy has been corrected.

**Comment #13** Page 4-48, Section 4.4.3.5,A. Christman - Radioactivity.

The text discusses the lead-210 decay series. Lead-210 is in the uranium decay series.

Recommendation: Please correct terminology used.

**Response #13** Agree. The text on page 4-48 has been corrected.

**Comment #14** Pages 4-49 to 4-109, Section 4, A. Christman - Nature and Extent of Contamination.

Many of the figures and tables referenced in these pages are incorrect.

Recommendation: Please correct discrepancies.

**Response #14** Agreed. The discrepancies have been corrected.

**Comment #15** Page 5-9, Section 5.3.2.2,K. Hoddinott - Soil Ingestion and Dermal Contact.

The reasoning that "adults do not normally eat soil" is not sufficient to discount the soil ingestion pathway. The soil ingestion pathway is calculated for incidental soil ingestion, not for people eating soil.

Recommendation: Rewrite this section to find another reason for discounting this pathway or add the pathway to the analysis. This comment also applies in principle to Sections 5.4.2.2, 5.6.2.2, 5.7.2.2, 5.8.2.2, 5.9.2.2, 5.10.2.2, and 5.11.2.2.

**Response #15** Agreed. Any reference to adults eating soil as a basis for eliminating a soil exposure pathway has been deleted. Incidental soil ingestion has been added as pathway for current site workers and visitors in the sections referenced above. The Exposure Pathway Summary figures have also been revised to include this pathway.

**Comment #16** Page 5-20, Section 5.5.3,A. Christman - Summary of Affected Media - Soils.

The text discusses principal and/or associated radionuclides of multiple decay series. These are nuclides from three natural radioactive decay series: the thorium series, the uranium series, and the actinium series.

Recommendation: Please correct terminology used.

**Response #16** Agreed. The text on page 5-20 has been corrected.

**Comment #17** Page 5-20, Section 5.5.3, A. Christman - Summary of Affected Media - Groundwater.

The text discusses the lead-210 decay series. Lead-210 and radium-226 are both in the uranium decay series.

Recommendation: Please correct terminology used.

**Response #17** Agreed. The text on page 5-20 has been corrected.

**Comment #18**

Page 7-1, Section 7, K. Hoddinott - Recommended Actions.

It is not clear what a mini risk assessment is and how much effort one entails. Clearly some of the areas where the mini risk assessment is suggested, contain contaminated media, but others are not impacted. In the areas which contain little contamination, it seems that enough information already exists to push for a decision document without any further study.

Recommendation: Explain what a mini risk assessment is and how it is being used to remediate these sites more expediently. Questionable sites consists of SEAD-9, SEAD-43, SEAD-56, SEAD-69, SEAD-44B, SEAD-44A, and SEAD-58.

**Response #18**

Agreed. According to the Federal Facilities Agreement (FFA) [commonly referred to as the Interagency Agreement (IAG)] between the EPA Region II and NYSDEC, if the conclusion of this report is that a threat to human health, welfare, or the environment exists, the Army can perform a removal action to eliminate the threat or the Army can conduct a CERCLA RI. The determination of whether a threat exists at an AOC will be based on comparisons with state and federal standards, guidelines, and criteria that are available. Exceedances of an appropriate standard, guideline, or criteria will be used as the indication that a threat may exist. For the seven sites referenced in the comment, the media investigated have not been significantly impacted by the constituents analyzed during the ESI. Parsons ES has suggested that in addition to a comparison to standards, guidelines or criteria, that a mini risk assessment could be performed to determine whether a risk actually does exist. This risk assessment would follow the same procedures that would be performed during the RI but would not include such items as toxicity profiles or screening of constituents. Instead only the quantitative calculation of risk would be provided.

The mini risk assessment will include conducting a numerical risk assessment for all reasonable exposure scenarios. The analysis will be based on data from the ESI, which is representative of worse case conditions, since biased data was collected from locations that were sources of contamination based on historical use and visual observations. No uncertainty analysis or ecological risk assessment will be conducted. The level of effort required to conduct this risk assessment will be relatively low. Currently, protocols are being prepared and will be sent to the Army, EPA and NYSDEC for review and approval. The text was unchanged since this approach has not been approved by the Army and the regulators.

**Comment #19**

Page 7-3, Section 7-3, K. Butoryak - SEAD-9: Old Scrap Wood Site.

The report states that infiltration of precipitation is a primary release mechanism to groundwater. However, this site was reported to have been used for fire training exercises. Because fuel products, solvents, etc. were poured on the ground, ignited, and subsequently flushed with a large amount of water, these areas are subject to accelerated movement of contaminants into the groundwater. No indication is given of how long ago these exercises

occurred, or if the potential exists for a contaminant plume to have migrated downgradient of the area of investigation.

Recommendation: Install one or more additional monitor wells downgradient of this site to investigate potential migration of a contaminant plume downgradient of MW9-2.

**Response #19**

Agreed. Additional monitoring wells would be beneficial to define the extent of migration of TPH impacts at this site. The ESI has determined that groundwater at the site was impacted by TPH in concentrations of 0.59 mg/L and 3 mg/L in wells MW9-2 and MW9-3, respectively. However, no BTEX or chlorinated solvent compounds were detected in the groundwater samples. Soil samples from SB9-2, located upgradient of monitoring well MW9-2, contained concentrations of TPH compounds from 580 mg/Kg to 15,900 mg/Kg, which is most likely the source of TPH in the groundwater sample from MW9-2. SB9-3, located upgradient of MW9-3, contained TPH ranging from 1520 mg/Kg to 33 mg/Kg.

As part of the November 1994 Project Manager's Meeting at Seneca Army Depot Activity, Dr. Kathleen Buchi (AEC), Mr. Randall Battaglia (SEDA), Mr. Kevin Healy (CEHND), Mr. Michael Duchesneau and Mr. James Chaplick (Parsons ES) discussed reasonable recommendations for Section 7 of the 8 Moderately Low Expanded Site Investigation report. SEAD-9, based on the current understanding of current site conditions, was classified as a site that would be evaluated with a mini risk assessment, a Completion Report, and a ROD. This and other recommendations presented in Section 7 reflect the final decisions that were agreed upon at the time by all parties involved in the meeting. Reclassification of the site would require further discussions with the Army. No change to the text was made.

**COMMENTS OF SCOTT BRADLEY**

**Comment #1** Site Maps Section 1.

Please shade or otherwise delineate site locations on figures 1.1-14 through 1.1-23.

**Response #1** Agreed. SWMU boundaries have been added to figures 1.1-14 through 1.1-23.

**Comment #2** Seismic Refraction Tables.

Include a note at bottom of tables explaining inability to identify less than two feet of saturation above bedrock.

**Response #2** Agreed. The footnote has been added to the seismic refraction tables in Section 3.

**Comment #3** Analytical Results Tables.

Please shade or otherwise delineate TAGM exceedances.

**Response #3** Exception. Shading or delineating the TAGM exceedances on the analytical results tables was initially attempted, but only resulted in making the tables confusing and the data difficult to read. No change was made to the analytical results tables.

**Comment #4** Section 5.2 through 5.8.

Include discussion of potential off-site receptors (qualitatively).

**Response #4** Agreed. A discussion of potential off-site receptors has been included in Sections 5.2 through 5.8 and Section 5.0.

**Comment #5** Section 5.11.3.

Provide a list of sites and media which may present a health risk based hazard.

**Response #5** Agreed. A list of sites and media which may present a threat to health or the environment has been added to a new section, Section 5.12 (page 5-49), "Summary of Health and Environmental Concerns".

Section 5 of the ESI report identified any threats that may exist at each area of concern (AOC). This process was not a risk assessment as is defined in RAGS but involved the determination of threats by comparing detected concentrations of constituents with their respective TAGM values or environmental standards. Following this identification that a threat exists and an RI/FS is required, a risk assessment would be performed in accordance with RAGS to quantify the risk produced by the identified threat. The list added to Section 5 presents sites and media which may present a threat to health and the environment.

**Comment #6** Section 5

Include a discussion of uncertainties in the applied risk assessment process.

**Response #6** Agreed. A discussion of the uncertainty associated with the threat identification process conducted for this ESI has been added to Section 5.0.

As discussed in Response #5, the purpose of Section 5 is not a risk assessment, but an identification of threats that may exist at each AOC. The discussion of uncertainty presented in the ESI relates to the use of TAGM values as criteria for comparison in the identification of threats.

- Comment #7** Section 5, General.
- Consider more clearly distinguishing between current and future risks so as to more easily facilitate an appreciation of risks in industrial type environment vs. risks in a residential environment.
- Response #7** Agreed. A discussion of current land uses and potential future land uses in the SEDA area has been added to Section 5.0.
- Comment #8** Section 6.2.
- Correct typo in title: data quality objectives. Include a discussion of lab data qualifiers applied and impact on data quality.
- Response #8** Agreed. The title of Section 6.2, "Data Quantity Objectives" was not a typographical error, but was intended to provide an analysis of the quantity of data collected from the sites to assure that sufficient data points have been collected. This analysis is considered pertinent to an overall discussion of the data quality. In response to the comment, the title has been changed to "Data Quality Objectives".
- A description of the data qualifiers and how they impact the data quality are described in Section 6.1.

#### **COMMENTS OF KEVIN HEALY**

- Comment #1** Section 1.1, Page 1-6.
- In the first full paragraph on this page, please correct "includes 25 No Action ...as AOCs." There are only 72 SWMUs under consideration at SEDA.
- Response #1** Agreed. The number of No Action SWMUs and sites has been corrected on page 1-6.
- Comment #2** Section 3.4.1, Page 3-28.
- In the second paragraph, well MW12B-3 is referenced twice and MW12B-2, not at all. Please correct.
- Response #2** Agreed. The reference has been corrected.
- Comment #3** Section 4, Figure 4,1-1.
- For enhanced perspective, would recommend adding an indication of groundwater flow direction to this and all such figures in Section 4.
- Response #3** Agreed. The groundwater contour lines have been added to the figures in Section 4.



**Comment #4**

Page 4-112.

Please remove one of the two copies of this page.

**Response #4**

Agreed. The page has been removed.

**Comment #5**

Page 4-139.

The reference to "SEAD-50" in Section 4.10.3.3 should read "SEAD-59".

**Response #5**

Agreed. The typographical error has been corrected.

**Comment #6**

Section 5, Page 5-1.

Considering the current disagreement (regulators vs. Army) concerning residential use scenarios for risk assessments, recommend altering this discussion as follows. This is in order to avoid suggesting that the Army is espousing the future residential use scenario.

a. Delete "The Army has...transfer the ownership" from paragraph 2.

b. Add the following paragraph as the new paragraph 3. "In preparing this document, residential future use is considered as a conservative criterion for eliminating an AOC from future investigation. This does not suggest, however, that the Army intends to remediate any site to such standards. Actual degrees of remediation will be proposed on a site-by-site basis and the future plans for the site will be taken into account. At this time, the Army has no plans to change the use of this facility or to transfer the ownership."

**Response #6**

Agreed. The changes have been made to the text in Section 5.

**Comment # 7**

Section 7.2

The discussion of SEAD-5 presents little indication of contamination in any media other than the sludge piles themselves. Consequently, would disagree with the RI/FS recommendation. Instead, a removal action with verification sampling (as has been pursued by SEDA in the past) would be more appropriate. At most, a mini-risk assessment, followed by a ROD/Closeout Report would be appropriate.

**Response # 7**

Agreed. Parsons ES recommended that a removal action be performed at SEAD-5, however, SEDA classified this site as part of the OU-10, which also includes SEAD-59 (Fill Area) and SEAD-71 (Alleged Paint Disposal Area). OU-10 is recommended for RI/FS. If the Army believes that SEAD-5 should be classified as a removal action site, the issue needs to be discussed between Huntsville and SEDA.

**Comment #8**

Section 7.8, Page 7-8.

- Comment #7** Section 5, General.
- Consider more clearly distinguishing between current and future risks so as to more easily facilitate an appreciation of risks in industrial type environment vs. risks in a residential environment.
- Response #7** Agreed. A discussion of current land uses and potential future land uses in the SEDA area has been added to Section 5.0.
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- Response #8** Agreed. The title of Section 6.2, "Data Quantity Objectives" was not a typographical error, but was intended to provide an analysis of the quantity of data collected from the sites to assure that sufficient data points have been collected. This analysis is considered pertinent to an overall discussion of the data quality. In response to the comment, the title has been changed to "Data Quality Objectives".
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- Response #3** Agreed. The groundwater contour lines have been added to the figures in Section 4.

In the third line from the bottom of this page, change "SEAD-50" to "SEAD-58".

**Response #8**

Agreed. The typographical error has been corrected.