PHASE II REMEDIAL INVESTIGATION

Sunnyside Yard
Queens, New York

Volume II of V

February 15, 1995

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APPENDIX A

Phase I RI Analytical Data Summary Tables

Table A-1. Summary of Soil-Quality Sampling, Sunnyside Yard, Queens, New York.

Task Number and Sampling Location	Soil Boring/ Well Borehole Number	Sample Depth Interval (ft below land surface)	Analytes
Task II - Area 1	S-1	0-2	PHC, TCL-PCB
	S-1	2-3	PHC, TCL-PCB
	S-2	0-2	PHC, TCL-PCB, TCL-Pb
	S-3	0-2	PHC, TCL-PCB
	S-3	3-5	TCL-PCB
	S-4	0-2	PHC, TCL-PCB
	S-5	0-2	PHC, TCL-PCB
	S-7	0-2	PHC, TCL-PCB
	S-8	0-2	PHC, TCL-PCB
	S-9	0-2	PHC, TCL-PCB
	S-9	3-4.5	TCL-PCB
	S-10	0-2	PHC, TCL-PCB, TCL-Pb
	S-76	0-0.7	PHC, TCL-PCB
	MW-13	0-2	PHC, TCL-PCB
	MW-16	0-2	PHC, TCL-PCB
	MW-16	6-8	TOC
	MW-16	10-12	TCL-PCB
	MW-17	0-2	PHC, TCL-PCB
	MW-19	0-2	PHC, TCL-PCB, TCL-Pb
	MW-20	0-2	PHC, TCL-PCB, TCL-Pb
	MW-21	0-2	PHC, TCL-PCB, TCL-Pb
	MW-22	0-2	PHC, TCL-PCB
	MW-23D	9-11	PHC
Task II - Facility Wide	S-16	0-2	PHC, TCL-PCB
	S-16	10-12	PHC
	S-17	0-2	PHC, TCL
	S-19	0-2	PHC
	S-19	9-11	PHC
	S-20	0-2	PHC
	S-21	0-2	PHC
	S-21	6-8	PHC
	S-22	0-2	PHC, TCL
	S-23	0-2	PHC
	S-23	8-10	PHC

Table A-1. Summary of Soil-Quality Sampling, Sunnyside Yard, Queens, New York.

Task Number and Sampling Location	Soil Boring/ Well Borehole Number	Sample Depth Interval (ft below land surface)	Analytes
Task II - Facility Wide	S-24	0-2	PHC
	S-24	9-11	PHC
	S-25	0-2	PHC
	S-25	12-14	PHC
	S-25	19-21	PHC
	S-26	0-2	PHC, TCL-PCB, TCL-Pb
	S-26	4-6	PHC
	S-27	0.5-2.5	PHC
	S-28	0-2	PHC
	S-29	0-2	PHC
	S-30	0-2	PHC, TCL
	S-30	4-6	PHC
	S-31	0-2	PHC, TCL-PCB
	S-32	0-2	PHC, TCL-PCB, TCL-Pb
	S-33	0-2	PHC
	S-33	4-6	TCL
	S-34	0-2	PHC, TCL-PCB, TCL-Pb
	S-35	0-2	PHC
	S-35	8-10	TCL
	S-36	0-2	PHC, TCL-PCB, TCL-Pb
	S-36	6-8	PHC
	S-37	0-2	PHC
	S-37	4-6	TCL
	S-37	8-10	PHC
	S-37	14-16	PHC
	S-38	0-2	PHC
	S-38	2-4	TCL
	S-38	10-12	PHC
	S-38	12-14	PHC
	S-39	0-2	PHC
	S-39	2-4	TCL
	S-39	8-10	PHC
	S-40	0-2	PHC
	MW-24	0-2	PHC
	MW-24	15-17	PHC
	MW-25	0-2	PHC

Table A-1. Summary of Soil-Quality Sampling, Sunnyside Yard, Queens, New York.

Task Number and Sampling Location	Soil Boring/ Well Borehole Number	Sample Depth Interval (ft below land surface)	Analytes
Task II - Facility Wide	MW-25	4-6	TCL
	MW-25	6-8	PHC
	MW-26	0-2	PHC
	MW-26	9-11	TCL
	MW-26	12-14	PHC
	MW-27	0-2	PHC
	MW-27	7-9	PHC
	MW-27	14-16	PHC
	MW-28	0-2	PHC
	MW-28	6-8	PHC
	MW-29	0-2	PHC
	MW-30	0-2	PHC, TCL-PCB
	MW-30	6-8	PHC
	MW-30	11-13	PHC
	MW-31	0-2	PHC, TCL-PCB, TCL-Pb
	MW-31	10-12	PHC
	MW-32	0-2	PHC
	MW-34	0-2	PHC, TCL
	MW-34	10-12	PHC
Task III - Areas of Concern			
Area A-2	S-41	0-2	PHC
	S-41	2-4	PHC
	S-41A	3.5-5.5	TCL
	S-42	0-2	PHC
	S-43	0-2	PHC, TCL
	S-44	0-2	PHC
	S-44	4-6	PHC
Area A-3	S-45	0-2	PHC
	S-45	2-4	PHC
	S-46	0-2	PHC
	S-46	7-9	PHC
Area A-4	S-47	0-2	PHC
	S-47	2-4	TCL
	S-47	7-9	PHC
	S-47	11-13	PHC

Table A-1. Summary of Soil-Quality Sampling, Sunnyside Yard, Queens, New York.

Task Number and Sampling Location	Soil Boring/ Well Borehole Number	Sample Depth Interval (ft below land surface)	Analytes
Task III - Areas of Concern			
Area A-4	S-48	0-2	PHC
	S-48	2-4	PHC
	S-48	11-13	PHC
	S-49	0-2	PHC
	S-49	2-4	TCL
	S-49	4-6	PHC
	S-49	8-10	PHC
Area A-5	S-50	0-2	PHC, TCL-PCB
	S-51	0-2	PHC, TCL-PCB
	S-51	12-14	PHC
Area A-6	S-61	0-1.1	PHC
	S-61	5-7	TCL
	S-62	0-2	PHC, TCL
	S-63	0-2	PHC, TCL-PCB
	S-64	0-2	PHC
	S-64	2-3	TCL
	S-65	0-2	PHC
Area A-7	S-66	0-2	PHC
	S-66	3-5	TCL-PCB
	S-67	0-2	PHC, TCL-PCB
	S-68	0-2	PHC, TCL-PCB
	S-69	0-2	PHC
Area A-8	S-6	0-2	PHC, TCL-PCB
	S-6	8-9	PHC
	S-52	0-2	PHC, TCL-PCB
	S-52	10-12	PHC
	S-53	0-2	PHC, TCL-PCB
	S-53	3.5-5.5	TCL-PCB
	S-53	5-7	TCL
	S-53	8-10	PHC
Area A-9	S-54	0-2	PHC
	S-54	7-9	PHC
	S-55	0-2	PHC
	S-55	7-9	PHC
	S-56	0-2	PHC
	S-56	7-9	PHC

Table A-1. Summary of Soil-Quality Sampling, Sunnyside Yard, Queens, New York.

Task Number and Sampling Location	Soil Boring/ Well Borehole Number	Sample Depth Interval (ft below land surface)	Analytes
Task III - Areas of Concern			
Area A-9	S-58	0-2	PHC
	S-59	0-2	PHC, TCL-PCB
Area A-10	S-83	0-2	PHC, TCL-PCB
	S-84	0-2	PHC, TCL-PCB
Area A-11	S-70	0-2	PHC
	S-70	6-8	PHC
	S-71	0-2	PHC
	S-71	6-8	PHC
	S-72	0-2	PHC
	S-72	6-8	PHC
	S-73	0-2	PHC
Area A-12	S-93	0-2	PHC
	S-93	18-20	PHC
	S-94	0-2	PHC
	S-94	2-3	TCL-PCB
	S-95	0-2	PHC
Area A-13	S-74	0-2	PHC, TCL-PCB
	S-74	6-8	PHC
	S-74	12-14	PHC
	S-75	0-2	PHC, TCL-PCB
	S-77	0-2	PHC, TCL-PCB
	S-77	13-15	PHC
Area A-14	S-79	0-2	PHC
	S-80	0-2	PHC
	S-80	2-4	TCL
Area A-15	S-81	0-2	PHC
	S-82	0-2	PHC, TCL
	S-82	6-8	PHC
Area A-16	S-85	1-3	PHC
	S-86	0.5-2.5	PHC
	S-87	0.5-2.5	PHC
	S-88	5-7	PHC
	S-89	1-3	PHC
	S-90	1-3	PHC, TCL
	S-91	5-7	PHC
	S-92	3-5	PHC

Table A-1. Summary of Soil-Quality Sampling, Sunnyside Yard, Queens, New York.

Task Number and Sampling Location	Soil Boring/ Well Borehole Number	Sample Depth Interval (ft below land surface)	Analytes
Additional Areas	S-57	0-2	PHC
	S-60	0-2	PHC
	S-60	4-6	TCL
	S-78	0-2	PHC, TCL-PCB
	S-78	8-9	TCL-PCB

NOTES:

PHC - Total Petroleum Hydrocarbons.
TCL - Target Compound List, complete analysis consists of Volatile Organic Compounds, Semivolatile Organic Compounds, Pesticides, PCBs, and Metals.
TCL-PCB - Polychlorinated Biphenyls.
TCL-Pb - TCL Lead.
TOC - Total Organic Carbon.

Table A-2. Summary of Ground-Water Quality Sampling, Sunnyside Yard, Queens, New York.

Monitoring Well Number	PHC	TCL PCB	Complete TCL	TCL Pb	TCL PCB SG/KV
Area-1*					
MW-1	X	--	X	--	NA
MW-3	X	X	NA	NA	NA
MW-5	NA	NA	NA	NA	X
MW-7	NA	NA	NA	NA	X
MW-9	X	--	X	--	NA
MW-13	X	--	X	--	NA
MW-16	NA	NA	NA	NA	X
MW-17	NA	NA	NA	NA	X
MW-19	X	--	X	--	NA
MW-20	NA	NA	NA	NA	X
MW-21	X	X	NA	NA	NA
MW-22	X	X	NA	NA	NA
MW-23D	X	--	X	--	NA
Facility Wide					
MW-24	X	X	NA	NA	NA
MW-25	X	--	X	--	NA
MW-26	X	--	X	--	NA
MW-27	X	X	NA	NA	NA
MW-28	X	--	X	--	NA
MW-29	X	--	X	--	NA
MW-30	X	X	NA	NA	NA
MW-31	X	X	NA	NA	NA
MW-32	X	--	X	--	NA
MW-33	X	--	X	--	NA
MW-34	X	X	NA	NA	NA

NOTES:

PHC - Total Petroleum Hydrocarbons.
PCB - Polychlorinated Biphenyls.
TCL - TCL - Target Compound List.
Complete TCL - Complete TCL - Consists of Volatile Organic Compounds, Semi-Volatile Organic Compounds, Pesticides, PCBs, and Metals Analysis.
Pb - Lead.
PCB/SG/KV - Polychlorinated Biphenyls/Specific Gravity/Kinematic Viscosity. Analyses were performed only on separate phase petroleum samples collected in Area 1.
* - TCL samples in Area 1 included VOC and Semivolatile +15 additional peak library searches.
X - Analysis performed.
-- - Analysis included in Complete TCL.
NA - Not analyzed.

Table A-3. Summary of Volatile Organic Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-17	S-22	S-30	S-33	S-35	S-37	S-38
Sample Depth (ft):	0-2	0-2	0-2	4-6	8-10	4-6	2-4
Sample Date:	10/19/90	10/17/90	10/16/90	12/13/90	11/30/90	12/1/90	11/29/90
Volatile Organic Compounds (Concentrations in ug/kg)							
Acetone	35	12 U	33	49	15	16	12 U
Benzene	7 U	6 U	6 U	5 U	6 U	5 U	6 U
Bromodichloromethane	7 U	6 U	6 U	5 U	6 U	5 U	6 U
Bromoform	7 U	6 U	6 U	5 U	6 U	5 U	6 U
Bromomethane	14 U	12 U	11 U	11 U	11 U	11 U	12 U
2-Butanone	14 U	12 U	11 U	11 U	11 U	11 U	12 U
Carbon Disulfide	7 U	7.7	6 U	5 U	6 U	5 U	6 U
Carbon Tetrachloride	7 U	6 U	6 U	5 U	6 U	5 U	6 U
Chlorobenzene	7 U	6 U	6 U	5 U	6 U	5 U	6 U
Chloroethane	14 U	12 U	11 U	11 U	11 U	11 U	12 U
2-Chloroethylvinylether	14 U	12 U	11 U	11 U	11 U	11 U	12 U
Chloroform	7 U	6 U	6 U	5 U	6 U	5 U	6 U
Chloromethane	14 U	12 U	11 U	11 U	11 U	11 U	12 U
Dibromochloromethane	7 U	6 U	6 U	5 U	6 U	5 U	6 U
1,3-Dichlorobenzene	7 U	6 U	6 U	5 U	6 U	5 U	6 U
1,2-Dichlorobenzene	7 U	6 U	6 U	5 U	6 U	5 U	6 U
1,4-Dichlorobenzene	7 U	6 U	6 U	5 U	6 U	5 U	6 U
1,2-Dichloroethane	7 U	6 U	6 U	5 U	6 U	5 U	6 U
1,1-Dichloroethane	7 U	6 U	6 U	5 U	6 U	5 U	6 U
1,1-Dichloroethene	7 U	6 U	6 U	5 U	6 U	5 U	6 U
1,2-Dichloroethene (total)	7 U	6 U	6 U	5 U	6 U	5 U	6 U
1,2-Dichloropropane	7 U	6 U	6 U	5 U	6 U	5 U	6 U
cis-1,3-Dichloropropene	7 U	6 U	6 U	5 U	6 U	5 U	6 U
Ethylbenzene	7 U	6 U	6 U	5 U	6 U	5 U	6 U
2-Hexanone	14 U	12 U	11 U	11 U	11 U	11 U	12 U
4-Methyl-2-Pentanone	14 U	12 U	11 U	11 U	11 U	11 U	12 U
Methylene Chloride	7 U	32	6 U	77	6 U	5 U	6 U
Styrene	7 U	6 U	6 U	5 U	6 U	5 U	6 U
1,1,2,2-Tetrachloroethane	7 U	6 U	6 U	5 U	6 U	5 U	6 U
Tetrachloroethene	7 U	6 U	6 U	5 U	6 U	5 U	6 U
Toluene	7 U	4.8 J	6 U	5 U	6 U	5 U	6 U
Trans-1,3-Dichloropropene	7 U	6 U	6 U	5 U	6 U	5 U	6 U
1,1,1-Trichloroethane	7 U	6 U	6 U	5 U	6 U	5 U	6 U
1,1,2-Trichloroethane	7 U	6 U	6 U	5 U	6 U	5 U	6 U
Trichloroethene	7 U	6 U	6 U	5 U	6 U	5 U	6 U
Trichlorofluoromethane	7 U	6 U	6 U	5 U	6 U	5 U	6 U
Vinyl Acetate	14 U	12 U	11 U	11 U	11 U	11 U	12 U
Vinyl Chloride	14 U	12 U	11 U	11 U	11 U	11 U	12 U
Xylenes (total)	7 U	6 U	6 U	5 U	6 U	5 U	6 U

Table A-3. Summary of Volatile Organic Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-39	S-41A	S-43	S-47	S-49	S-53	S-60
Sample Depth (ft):	2-4	3.5-5.5	0-2	2-4	2-4	5-7	4-6
Sample Date:	11/29/90	11/7/90	11/5/90	10/19/90	10/19/90	11/18/90	12/12/90
Volatile Organic Compounds (Concentrations in ug/kg)							
Acetone	11 U	293	11 U	11 U	20	38	20
Benzene	5 U	29 U	6 U	5 U	5 U	5 U	5 U
Bromodichloromethane	5 U	29 U	6 U	5 U	5 U	5 U	5 U
Bromoform	5 U	29 U	6 U	5 U	5 U	5 U	5 U
Bromomethane	11 U	58 U	11 U	11 U	11 U	10 U	10 U
2-Butanone	11 U	58 U	11 U	11 U	11 U	10 U	10 U
Carbon Disulfide	5 U	29 U	6 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	29 U	6 U	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	29 U	6 U	5 U	5 U	5 U	5 U
Chloroethane	11 U	58 U	11 U	11 U	11 U	10 U	10 U
2-Chloroethylvinylether	11 U	58 U	11 U	11 U	11 U	10 U	10 U
Chloroform	5 U	29 U	3.8 J	5 U	5 U	5 U	5 U
Chloromethane	11 U	58 U	11 U	11 U	11 U	10 U	10 U
Dibromochloromethane	5 U	29 U	6 U	5 U	5 U	5 U	5 U
1,3-Dichlorobenzene	5 U	29 U	6 U	5 U	5 U	5 U	5 U
1,2-Dichlorobenzene	5 U	29 U	6 U	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	5 U	29 U	6 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	29 U	6 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	29 U	6 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	29 U	6 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	5 U	29 U	6 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	29 U	6 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	29 U	6 U	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	67	6 U	5 U	5 U	5 U	5 U
2-Hexanone	11 U	58 U	11 U	11 U	11 U	10 U	10 U
4-Methyl-2-Pentanone	11 U	58 U	11 U	11 U	11 U	10 U	10 U
Methylene Chloride	5 U	29 U	6 U	5 U	3.6 J	4.3 J	29
Styrene	5 U	29 U	6 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	29 U	6 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5 U	29 U	6 U	5 U	5 U	5 U	5 U
Toluene	5 U	29 U	6 U	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	29 U	6 U	5 U	5 U	5 U	5 U
1,1,1-Trichloroethane	5 U	29 U	6 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	29 U	6 U	5 U	5 U	5 U	5 U
Trichloroethene	5 U	29 U	6 U	5 U	5 U	5 U	5 U
Trichlorofluoromethane	5 U	29 U	6 U	5 U	5 U	5 U	5 U
Vinyl Acetate	11 U	58 U	11 U	11 U	11 U	10 U	10 U
Vinyl Chloride	11 U	58 U	11 U	11 U	11 U	10 U	10 U
Xylenes (total)	5 U	137	4.4 J	5 U	5 U	5 U	5 U

Table A-3. Summary of Volatile Organic Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-61	S-62	S-64	S-80	S-80+	S-82	S-82+
Sample Depth (ft):	5-7	0-2	2-3	2-4	2-4	0-2	0-2
Sample Date:	10/24/90	10/24/90	10/18/90	10/3/90	10/3/90	10/16/90	10/16/90
Volatile Organic Compounds (Concentrations in ug/kg)							
Acetone	53	24	15	229	308	29	20
Benzene	6 U	6 U	6 U	10 U	10 U	6 U	6 U
Bromodichloromethane	6 U	6 U	6 U	10 U	10 U	6 U	6 U
Bromoform	6 U	6 U	6 U	10 U	10 U	6 U	6 U
Bromomethane	11 U	11 U	12 U	21 U	21 U	11 U	11 U
2-Butanone	11 U	11 U	12 U	21 U	21 U	11 U	11 U
Carbon Disulfide	10	11	6 U	19	17	7.1	4.4 J
Carbon Tetrachloride	6 U	6 U	6 U	10 U	10 U	6 U	6 U
Chlorobenzene	6 U	6 U	6 U	10 U	10 U	6 U	6 U
Chloroethane	11 U	11 U	12 U	21 U	21 U	11 U	11 U
2-Chloroethylvinylether	11 U	11 U	12 U	21 U	21 U	11 U	11 U
Chloroform	6 U	6 U	6 U	10 U	10 U	6 U	6 U
Chloromethane	11 U	11 U	12 U	21 U	21 U	11 U	11 U
Dibromochloromethane	6 U	6 U	6 U	10 U	10 U	6 U	6 U
1,3-Dichlorobenzene	6 U	6 U	6 U	10 U	10 U	6 U	6 U
1,2-Dichlorobenzene	6 U	6 U	6 U	10 U	10 U	6 U	6 U
1,4-Dichlorobenzene	6 U	6 U	6 U	10 U	10 U	6 U	6 U
1,2-Dichloroethane	6 U	6 U	6 U	10 U	10 U	6 U	6 U
1,1-Dichloroethane	6 U	6 U	6 U	10 U	10 U	6 U	6 U
1,1-Dichloroethene	6 U	6 U	6 U	10 U	10 U	6 U	6 U
1,2-Dichloroethene (total)	6 U	6 U	6 U	10 U	10 U	6 U	6 U
1,2-Dichloropropane	6 U	6 U	6 U	10 U	10 U	6 U	6 U
cis-1,3-Dichloropropene	6 U	6 U	6 U	10 U	10 U	6 U	6 U
Ethylbenzene	6 U	6 U	6 U	10 U	10 U	6 U	6 U
2-Hexanone	11 U	11 U	12 U	21 U	21 U	11 U	11 U
4-Methyl-2-Pentanone	11 U	11 U	12 U	21 U	21 U	11 U	11 U
Methylene Chloride	14	14	6 U	302	258	26	21
Styrene	6 U	6 U	6 U	10 U	10 U	6 U	6 U
1,1,2,2-Tetrachloroethane	6 U	6 U	6 U	10 U	10 U	6 U	6 U
Tetrachloroethene	6 U	6 U	6 U	10 U	10 U	6 U	6 U
Toluene	7.6	11	6 U	30 J	31	4.8 J	6 U
Trans-1,3-Dichloropropene	6 U	6 U	6 U	10 U	10 U	6 U	6 U
1,1,1-Trichloroethane	6 U	6 U	6 U	10 U	10 U	6 U	6 U
1,1,2-Trichloroethane	6 U	6 U	6 U	10 U	10 U	6 U	6 U
Trichloroethene	6 U	6 U	6 U	10 U	10 U	6 U	6 U
Trichlorofluoromethane	6 U	6 U	6 U	10 U	10 U	6 U	6 U
Vinyl Acetate	11 U	11 U	12 U	21 U	21 U	11 U	11 U
Vinyl Chloride	11 U	11 U	12 U	21 U	21 U	11 U	11 U
Xylenes (total)	6 U	6 U	6 U	10 U	10 U	6 U	6 U

Table A-3. Summary of Volatile Organic Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-90	MW-25	MW-26	MW-34
Sample Depth (ft):	1-3	4-6	9-11	0-2
Sample Date:	10/1/90	11/17/90	12/5/90	11/29/90
Volatile Organic Compounds (Concentrations in ug/kg)				
Acetone	80	18	11	11 U
Benzene	5 U	5 U	5 U	5 U
Bromodichloromethane	5 U	5 U	5 U	5 U
Bromoform	5 U	5 U	5 U	5 U
Bromomethane	11 U	11 U	10 U	11 U
2-Butanone	11 U	11 U	10 U	11 U
Carbon Disulfide	5.1 J	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Chloroethane	11 U	11 U	10 U	11 U
2-Chloroethylvinylether	11 U	11 U	10 U	11 U
Chloroform	5 U	5 U	5 U	5 U
Chloromethane	11 U	11 U	10 U	11 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,3-Dichlorobenzene	5 U	5 U	5 U	5 U
1,2-Dichlorobenzene	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
2-Hexanone	11 U	11 U	10 U	11 U
4-Methyl-2-Pentanone	11 U	11 U	10 U	11 U
Methylene Chloride	26	5 U	5 U	5 U
Styrene	5 U	3.4 J	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Tetrachloroethene	5 U	5 U	5 U	5 U
Toluene	13 J	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Trichlorofluoromethane	5 U	5 U	5 U	5 U
Vinyl Acetate	11 U	11 U	10 U	11 U
Vinyl Chloride	11 U	11 U	10 U	11 U
Xylenes (total)	5 U	5 U	5 U	5 U

B - Detected in laboratory blank.
U - Below reported quantitation level.
J - Estimated level.
NA - Not analyzed.
+ - Reanalyzed.
ug/kg - Micrograms per kilogram.

Table A-4. Summary of Semivolatile Organic Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-17	S-17+	S-22	S-22+	S-30	S-33	S-35
Sample Depth (ft):	0-2	0-2	0-2	0-2	0-2	4-6	8-10
Sample Date:	10/19/90	10/19/90	10/17/90	10/17/90	10/16/90	12/13/90	11/30/90
Semi-Volatile Organic Compounds (Concentrations in ug/kg)							
Acenaphthene	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Acenaphthylene	480 U	2390 U	337 J	2010 U	370 U	355 U	380 U
Anthracene	480 U	2390 U	307 J	2010 U	370 U	355 U	380 U
Benzidine	870 U	4350 U	730 U	3660 U	670 U	645 U	690 U
Benzo (a) Anthracene	480 U	2390 U	404 JV	2010 U	370 U	355 U	380 U
Benzo (a) Pyrene	480 U	2390 U	699 JV	2010 U	370 U	355 U	380 U
Benzo (b+k) fluoranthenes	416 J	2390 U	2427 JV	5617 JV	370 U	355 U	380 U
Benzo (g,h,i) Perylene	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Benzoic Acid	2320 U	11600 U	1950 U	9760 U	1780 U	1720 U	1840 U
Benzyl Alcohol	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
4-Bromophenyl-phenylether	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Butylbenzyl phthalate	480 U	2390 U	234 J	2010 U	370 U	355 U	380 U
4-Chloro-3-Methylphenol	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
4-Chloroaniline	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Bis (2-Chloroethoxy) Methane	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Bis (2-Chloroethyl) Ether	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Bis (2-Chloroisopropyl) Ether	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
2-Chloronaphthalene	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
2-Chlorophenol	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
4-Chlorophenyl-phenylether	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Chrysene	342 J	2390 U	913 JV	2010 U	370 U	355 U	380 U
Di-n-Butylphthalate	462 J	2390 U	898 JV	2010 U	555	355 U	380 U
Di-n-Octyl Phthalate	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Dibenzo (a,h) Anthracene	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Dibenzofuran	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
1,2-Dichlorobenzene	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
1,3-Dichlorobenzene	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
1,4-Dichlorobenzene	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
3,3'-Dichlorobenzidine	960 U	4780 U	805 U	4020 U	730 U	710 U	760 U
2,4-Dichlorophenol	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Diethylphthalate	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Dimethyl Phthalate	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
2,4-Dimethylphenol	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
4,6-Dinitro-2-Methylphenol	2320 U	11600 U	1950 U	9760 U	1780 U	1720 U	1840 U
2,4-Dinitrophenol	2320 U	11600 U	1950 U	9760 U	1780 U	1720 U	1840 U
2,4-Dinitrotoluene	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
2,6-Dinitrotoluene	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Bis (2-Ethylhexyl) Phthalate	810 JV	1340 J	1048 JV	1500 BJ	407	355 U	203 BJ
Fluoranthene	628 JV	2390 U	1878 JV	2585 JV	370 U	355 U	380 U
Fluorene	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Hexachlorobenzene	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Hexachlorobutadiene	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Hexachlorocyclopentadiene	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Hexachloroethane	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Indeno (1,2,3-cd) pyrene	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Isophorone	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
2-Methylnaphthalene	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
4-Methylphenol	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
2-Methylphenol	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
N-Nitroso-Di-n-Propylamine	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
N-Nitrosodimethylamine	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
N-Nitrosodiphenylamine (1)	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Naphthalene	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
2-Nitroaniline	2320 U	11600 U	1950 U	9760 U	1780 U	1720 U	1840 U
4-Nitroaniline	2320 U	11600 U	1950 U	9760 U	1780 U	1720 U	1840 U
3-Nitroaniline	2320 U	11600 U	1950 U	9760 U	1780 U	1720 U	1840 U
Nitrobenzene	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
4-Nitrophenol	2320 U	11600 U	1950 U	9760 U	1780 U	1720 U	1840 U
2-Nitrophenol	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Pentachlorophenol	2320 U	11600 U	1950 U	9760 U	1780 U	1720 U	1840 U
Phenanthrene	480 U	2390 U	406 JV	2010 U	370 U	355 U	380 U
Phenol	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
Pyrene	329 J	2390 U	1011 JV	1270 J	370 U	355 U	380 U
1,2,4-Trichlorobenzene	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U
2,4,5-Trichlorophenol	2320 U	11600 U	1950 U	9760 U	1780 U	1720 U	1840 U
2,4,6-Trichlorophenol	480 U	2390 U	400 U	2010 U	370 U	355 U	380 U

Table A-4. Summary of Semivolatile Organic Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-37	S-38	S-39	S-41A	S-43	S-47	S-47+
Sample Depth (ft):	4-6	2-4	2-4	3.5-5.5	0-2	2-4	2-4
Sample Date:	12/1/90	11/29/90	11/29/90	11/7/90	11/5/90	10/19/90	10/19/90
Semi-Volatile Organic Compounds (Concentrations in ug/kg)							
Acenaphthene	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
Acenaphthylene	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
Anthracene	350 U	390 U	350 U	3840 U	1966 J	355 U	3550 U
Benzidine	640 U	705 U	630 U	6980 U	6749 U	645 U	6450 U
Benzo (a) Anthracene	350 U	390 U	350 U	3840 U	12600	355 U	3550 U
Benzo (a) Pyrene	350 U	390 U	350 U	3840 U	5760	355 U	3550 U
Benzo (b+k) fluoranthenes	350 U	390 U	350 U	3840 U	7400	257 J	3550 U
Benzo (g,h,i) Perylene	350 U	390 U	350 U	3840 U	5800	355 U	3550 U
Benzoic Acid	1700 U	1880 U	1680 U	18600 U	18000 U	1720 U	17200 U
Benzyl Alcohol	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
4-Bromophenyl-phenylether	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
Butylbenzyl phthalate	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
4-Chloro-3-Methylphenol	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
4-Chloroaniline	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
Bis (2-Chloroethoxy) Methane	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
Bis (2-Chloroethyl) Ether	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
Bis (2-Chloroisopropyl) Ether	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
2-Chloronaphthalene	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
2-Chlorophenol	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
4-Chlorophenyl-phenylether	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
Chrysene	350 U	390 U	350 U	3840 U	10100	355 U	3550 U
Di-n-Butylphthalate	350 U	390 U	350 U	3840 U	3710 U	263 J	3550 U
Di-n-Octyl Phthalate	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
Dibenzo (a,h) Anthracene	350 U	390 U	350 U	3840 U	2090 J	355 U	3550 U
Dibenzofuran	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
1,2-Dichlorobenzene	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
1,3-Dichlorobenzene	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
1,4-Dichlorobenzene	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
3,3'-Dichlorobenzidine	700 U	780 U	695 U	7670 U	7420 U	710 U	7100 U
2,4-Dichlorophenol	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
Diethylphthalate	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
Dimethyl Phthalate	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
2,4-Dimethylphenol	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
4,6-Dinitro-2-Methylphenol	1700 U	1880 U	1680 U	18600 U	18000 U	1720 U	17200 U
2,4-Dinitrophenol	1700 U	1880 U	1680 U	18600 U	18000 U	1720 U	17200 U
2,4-Dinitrotoluene	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
2,6-Dinitrotoluene	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
Bis (2-Ethylhexyl) Phthalate	217 BJ	390 U	197 BJ	3840 U	3710 U	284 J	3550 U
Fluoranthene	350 U	390 U	350 U	3840 U	19700	394 JV	3550 U
Fluorene	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
Hexachlorobenzene	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
Hexachlorobutadiene	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
Hexachlorocyclopentadiene	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
Hexachloroethane	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
Indeno (1,2,3-cd) pyrene	350 U	390 U	350 U	3840 U	4640	355 U	3550 U
Isophorone	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
2-Methylnaphthalene	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
4-Methylphenol	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
2-Methylphenol	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
N-Nitroso-Di-n-Propylamine	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
N-Nitrosodimethylamine	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
N-Nitrosodiphenylamine (1)	350 U	390 U	350 U	3840 U	3710 UV	355 U	3550 U
Naphthalene	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
2-Nitroaniline	1700 U	1880 U	1680 U	18600 U	18000 U	1720 U	17200 U
4-Nitroaniline	1700 U	1880 U	1680 U	18600 U	18000 U	1720 U	17200 U
3-Nitroaniline	1700 U	1880 U	1680 U	18600 U	18000 U	1720 U	17200 U
Nitrobenzene	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
4-Nitrophenol	1700 U	1880 U	1680 U	18600 U	18000 U	1720 U	17200 U
2-Nitrophenol	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
Pentachlorophenol	1700 U	1880 U	1680 U	18600 U	18000 U	1720 U	17200 U
Phenanthrene	350 U	390 U	350 U	3840 U	11900	271 J	3550 U
Phenol	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
Pyrene	350 U	390 U	350 U	3840 U	16500	296 J	3550 U
1,2,4-Trichlorobenzene	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U
2,4,5-Trichlorophenol	1700 U	1880 U	1680 U	18600 U	18000 U	1720 U	17200 U
2,4,6-Trichlorophenol	350 U	390 U	350 U	3840 U	3710 U	355 U	3550 U

Table A-4. Summary of Semivolatile Organic Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-49	S-49+	S-53	S-60	S-61	S-62	S-64
Sample Depth (ft):	2-4	2-4	5-7	4-6	5-7	0-2	2-3
Sample Date:	10/19/90	10/19/90	11/18/90	12/12/90	10/24/90	10/24/90	10/18/90
Semi-Volatile Organic Compounds (Concentrations in ug/kg)							
Acenaphthene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Acenaphthylene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Anthracene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Benzidine	640 U	640 U	625 U	620 U	6829 U	6670 U	7140 U
Benzo (a) Anthracene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Benzo (a) Pyrene	415 JV	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Benzo (b+k) fluoranthenes	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Benzo (g,h,i) Perylene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Benzoic Acid	1700 U	17000 U	1670 U	1650 U	18200 U	17800 U	19000 U
Benzyl Alcohol	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
4-Bromophenyl-phenylether	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Butylbenzyl phthalate	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
4-Chloro-3-Methylphenol	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
4-Chloroaniline	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Bis (2-Chloroethoxy) Methane	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Bis (2-Chloroethyl) Ether	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Bis (2-Chloroisopropyl) Ether	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
2-Chloronaphthalene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
2-Chlorophenol	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
4-Chlorophenyl-phenylether	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Chrysene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Di-n-Butylphthalate	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Di-n-Octyl Phthalate	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Dibenzo (a,h) Anthracene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Dibenzofuran	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
1,2-Dichlorobenzene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
1,3-Dichlorobenzene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
1,4-Dichlorobenzene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
3,3'-Dichlorobenzidine	700 U	7020 U	690 U	680 U	6500 U	7330 U	7860 U
2,4-Dichlorophenol	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Diethylphthalate	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Dimethyl Phthalate	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
2,4-Dimethylphenol	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
4,6-Dinitro-2-Methylphenol	1700 U	17000 U	1670 U	1650 U	18200 U	17800 U	19000 U
2,4-Dinitrophenol	1700 U	17000 U	1670 U	1650 U	18200 U	17800 U	19000 U
2,4-Dinitrotoluene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
2,6-Dinitrotoluene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Bis (2-Ethylhexyl) Phthalate	485 JV	3510 U	461 B	340 U	3750 U	3670 U	3930 U
Fluoranthene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Fluorene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Hexachlorobenzene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Hexachlorobutadiene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Hexachlorocyclopentadiene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Hexachloroethane	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Indeno (1,2,3-cd) pyrene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Isophorone	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
2-Methylnaphthalene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
4-Methylphenol	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
2-Methylphenol	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
N-Nitroso-Di-n-Propylamine	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
N-Nitrosodimethylamine	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
N-Nitrosodiphenylamine (1)	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Naphthalene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
2-Nitroaniline	1700 U	17000 U	1670 U	1650 U	18200 U	17800 U	19000 U
4-Nitroaniline	1700 U	17000 U	1670 U	1650 U	18200 U	17800 U	19000 U
3-Nitroaniline	1700 U	17000 U	1670 U	1650 U	18200 U	17800 U	19000 U
Nitrobenzene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
4-Nitrophenol	1700 U	17000 U	1670 U	1650 U	18200 U	17800 U	19000 U
2-Nitrophenol	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Pentachlorophenol	1700 U	17000 U	1670 U	1650 U	18200 U	17800 U	19000 U
Phenanthrene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Phenol	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
Pyrene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
1,2,4-Trichlorobenzene	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U
2,4,5-Trichlorophenol	1700 U	17000 U	1670 U	1650 U	18200 U	17800 U	19000 U
2,4,6-Trichlorophenol	350 U	3510 U	340 U	340 U	3750 U	3670 U	3930 U

Table A-4. Summary of Semivolatile Organic Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-80	S-82	S-90	MW-25	MW-26	MW-26+	MW-34
Sample Depth (ft):	2-4	0-2	1-3	4-6	9-11	9-11	0-2
Sample Date:	10/3/90	10/16/90	10/1/90	11/17/90	12/5/90	12/5/90	11/29/90
Semi-Volatile Organic Compounds (Concentrations in ug/kg)							
Acenaphthene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Acenaphthylene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Anthracene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Benzidine	3130 U	3330 U	3230 UJV	650 U	625 UR	625 UR	645 U
Benzo (a) Anthracene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	441
Benzo (a) Pyrene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	292 J
Benzo (b+k) fluoranthenes	1720 U	1233 J	1770 UJV	360 U	340 UR	340 UR	1000
Benzo (g,h,i) Perylene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	272 J
Benzoic Acid	8330 U	8890 U	8600 UJV	1740 U	1670 UR	1670 UR	1720 U
Benzyl Alcohol	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
4-Bromophenyl-phenylether	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Butylbenzyl phthalate	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
4-Chloro-3-Methylphenol	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
4-Chloroaniline	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Bis (2-Chloroethoxy) Methane	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Bis (2-Chloroethyl) Ether	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Bis (2-Chloroisopropyl) Ether	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
2-Chloronaphthalene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
2-Chlorophenol	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
4-Chlorophenyl-phenylether	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Chrysene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	538
Di-n-Butylphthalate	875 BJ	1830 U	1770 UJV	360 U	340 UR	340 UR	198 J
Di-n-Octyl Phthalate	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Dibenzo (a,h) Anthracene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Dibenzofuran	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
1,2-Dichlorobenzene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
1,3-Dichlorobenzene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
1,4-Dichlorobenzene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
3,3'-Dichlorobenzidine	3440 U	3670 U	3550 UJV	720 U	690 UR	690 UR	710 U
2,4-Dichlorophenol	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Diethylphthalate	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Dimethyl Phthalate	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
2,4-Dimethylphenol	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
4,6-Dinitro-2-Methylphenol	8330 U	8890 U	8600 UJV	1740 U	1670 UR	1670 UR	1720 U
2,4-Dinitrophenol	8330 U	8890 U	8600 UJV	1740 U	1670 UR	1670 UR	1720 U
2,4-Dinitrotoluene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
2,6-Dinitrotoluene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Bis (2-Ethylhexyl) Phthalate	1720 U	1830 U	1770 UJV	680 B	306 BJR	829 BR	404 B
Fluoranthene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	716
Fluorene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Hexachlorobenzene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Hexachlorobutadiene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Hexachlorocyclopentadiene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Hexachloroethane	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Indeno (1,2,3-cd) pyrene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	227 J
Isophorone	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
2-Methylnaphthalene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
4-Methylphenol	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
2-Methylphenol	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
N-Nitroso-Di-n-Propylamine	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
N-Nitrosodimethylamine	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
N-Nitrosodiphenylamine (1)	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Naphthalene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
2-Nitroaniline	8330 U	8890 U	8600 UJV	1740 U	1670 UR	1670 UR	1720 U
4-Nitroaniline	8330 U	8890 U	8600 UJV	1740 U	1670 UR	1670 UR	1720 U
3-Nitroaniline	8330 U	8890 U	8600 UJV	1740 U	1670 UR	1670 UR	1720 U
Nitrobenzene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
4-Nitrophenol	8330 U	8890 U	8600 UJV	1740 U	1670 UR	1670 UR	1720 U
2-Nitrophenol	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Pentachlorophenol	8330 U	8890 U	8600 UJV	1740 U	1670 UR	1670 UR	1720 U
Phenanthrene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	234 J
Phenol	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
Pyrene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	523
1,2,4-Trichlorobenzene	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U
2,4,5-Trichlorophenol	8330 U	8890 U	8600 UJV	1740 U	1670 UR	1670 UR	1720 U
2,4,6-Trichlorophenol	1720 U	1830 U	1770 UJV	360 U	340 UR	340 UR	355 U

Table A-4. Summary of Semivolatile Organic Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

B - Detected in laboratory blank.
U - Below reported quantitation level.
V - Qualifier added and/or altered during data validation.
J - Estimated level.
+ - Reanalyzed.
R - Declared unusable during data validation.
ug/kg - Micrograms per kilogram.

Table A-5. Summary of Pesticide and Polychlorinated Biphenyl (PCB) Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-1	S-1	S-2	S-3	S-3	S-4	S-5	S-6
Sample Depth (ft):	0-2	2-3	0-2	0-2	3-5	0-2	0-2	0-2
Sample Date:	10/26/90	10/26/90	10/24/90	10/10/90	10/10/90	10/10/90	10/26/90	11/11/90
Pesticide and Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)								
Pesticides								
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfate	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA
alpha-chlordane	NA	NA	NA	NA	NA	NA	NA	NA
gamma-chlordane	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA
PCBs								
Aroclor-1016	1000 UR	100 UR	910 U	900 U	1700 U	870 U	880 UR	930 U
Aroclor-1221	1000 UR	100 UR	910 U	900 U	1700 U	870 U	880 UR	930 U
Aroclor-1232	1000 UR	100 UR	910 U	900 U	1700 U	870 U	880 UR	930 U
Aroclor-1242	1000 UR	100 UR	910 U	900 U	1700 U	870 U	880 UR	930 U
Aroclor-1248	1000 UR	100 UR	910 U	900 U	1700 U	870 U	880 UR	930 U
Aroclor-1254	1000 UR	100 UR	910 U	900 U	1700 U	870 U	880 UR	930 U
Aroclor-1260	3010 RB	590 JBR	7877 JV	9324 JV	1700 U	2541 JV	8150 BR	1810 JV

Table A-5. Summary of Pesticide and Polychlorinated Biphenyl (PCB) Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-7	S-8	S-9	S-9	S-10	S-16	S-17	S-22
Sample Depth (ft):	0-2	0-2	0-2	3-4.5	0-2	0-2	0-2	0-2
Sample Date:	10/25/90	10/25/90	10/10/90	10/10/90	10/16/90	11/11/90	10/19/90	10/17/90
Pesticide and Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)								
Pesticides								
alpha-BHC	NA	NA	NA	NA	NA	NA	12 U	10 U
beta-BHC	NA	NA	NA	NA	NA	NA	12 U	10 U
delta-BHC	NA	NA	NA	NA	NA	NA	12 U	10 U
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	12 U	10 U
Heptachlor	NA	NA	NA	NA	NA	NA	12 U	10 U
Aldrin	NA	NA	NA	NA	NA	NA	12 U	10 U
Heptachlor epoxide	NA	NA	NA	NA	NA	NA	12 U	10 U
Endosulfan I	NA	NA	NA	NA	NA	NA	12 U	10 U
Dieldrin	NA	NA	NA	NA	NA	NA	23 U	20 U
4,4'-DDE	NA	NA	NA	NA	NA	NA	23 UIV	20 UIV
Endrin	NA	NA	NA	NA	NA	NA	23 U	20 U
Endosulfan II	NA	NA	NA	NA	NA	NA	23 U	20 U
4,4'-DDD	NA	NA	NA	NA	NA	NA	23 U	20 U
Endosulfate	NA	NA	NA	NA	NA	NA	23 U	20 U
4,4'-DDT	NA	NA	NA	NA	NA	NA	23 UIV	20 UIV
Endrin ketone	NA	NA	NA	NA	NA	NA	23 U	20 U
Methoxychlor	NA	NA	NA	NA	NA	NA	115 U	100 U
alpha-chlordane	NA	NA	NA	NA	NA	NA	12 U	10 U
gamma-chlordane	NA	NA	NA	NA	NA	NA	12 U	10 U
Toxaphene	NA	NA	NA	NA	NA	NA	230 U	200 U
PCBs								
Aroclor-1016	90 U	90 U	860 U	950 U	80 U	90 U	115 U	100 U
Aroclor-1221	90 U	90 U	860 U	950 U	80 U	90 U	115 U	100 U
Aroclor-1232	90 U	90 U	860 U	950 U	80 U	90 U	115 U	100 U
Aroclor-1242	90 U	90 U	860 U	950 U	80 U	90 U	115 U	100 U
Aroclor-1248	90 U	90 U	860 U	950 U	80 U	90 U	115 U	100 U
Aroclor-1254	90 U	90 U	860 U	950 U	80 U	90 U	115 U	100 U
Aroclor-1260	955 JV	1089 JV	1724 JV	935 JV	96 JV	150 JV	604 JV	435 JV

Table A-5. Summary of Pesticide and Polychlorinated Biphenyl (PCB) Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-26	S-30	S-31	S-32	S-33	S-34	S-35	S-36
Sample Depth (ft):	0-2	0-2	0-2	0-2	4-6	0-2	8-10	0-2
Sample Date:	11/17/90	10/16/90	10/17/90	12/1/90	12/13/90	11/17/90	11/30/90	12/1/90
Pesticide and Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)								
Pesticides								
alpha-BHC	NA	9 U	NA	NA	9 U	NA	9 U	NA
beta-BHC	NA	9 U	NA	NA	9 U	NA	9 U	NA
delta-BHC	NA	9 U	NA	NA	9 U	NA	9 U	NA
gamma-BHC (Lindane)	NA	9 U	NA	NA	9 U	NA	9 U	NA
Heptachlor	NA	9 U	NA	NA	9 U	NA	9 U	NA
Aldrin	NA	9 U	NA	NA	9 U	NA	9 U	NA
Heptachlor epoxide	NA	9 U	NA	NA	9 U	NA	9 U	NA
Endosulfan I	NA	9 U	NA	NA	9 U	NA	9 U	NA
Dieldrin	NA	18 U	NA	NA	17 U	NA	18 U	NA
4,4'-DDE	NA	18 U	NA	NA	17 U	NA	18 U	NA
Endrin	NA	18 U	NA	NA	17 U	NA	18 U	NA
Endosulfan II	NA	18 U	NA	NA	17 U	NA	18 U	NA
4,4'-DDD	NA	18 U	NA	NA	17 U	NA	18 U	NA
Endosulfate	NA	18 U	NA	NA	17 U	NA	18 U	NA
4,4'-DDT	NA	18 U	NA	NA	17 U	NA	18 U	NA
Endrin ketone	NA	18 U	NA	NA	17 U	NA	18 U	NA
Methoxychlor	NA	90 U	NA	NA	85 U	NA	90 U	NA
alpha-chlordane	NA	9 U	NA	NA	9 U	NA	9 U	NA
gamma-chlordane	NA	9 U	NA	NA	9 U	NA	9 U	NA
Toxaphene	NA	180 U	NA	NA	170 U	NA	185 U	NA
PCBs								
Aroclor-1016	90 U	90 U	85 U	100 U	85 U	940 U	90 U	90 U
Aroclor-1221	90 U	90 U	85 U	100 U	85 U	940 U	90 U	90 U
Aroclor-1232	90 U	90 U	85 U	100 U	85 U	940 U	90 U	90 U
Aroclor-1242	90 U	90 U	85 U	100 U	85 U	940 U	90 U	90 U
Aroclor-1248	90 U	90 U	85 U	100 U	85 U	940 U	90 U	90 U
Aroclor-1254	90 U	90 U	85 U	100 U	85 U	940 U	90 U	90 U
Aroclor-1260	90 U	90 U	570 JV	592 JV	85 U	4449 JV	90 U	120 JV

Table A-5. Summary of Pesticide and Polychlorinated Biphenyl (PCB) Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-37	S-38	S-39	S-41A	S-43	S-47	S-49	S-50
Sample Depth (ft):	4-6	2-4	2-4	3.5-5.5	0-2	2-4	2-4	0-2
Sample Date:	12/1/90	11/29/90	11/29/90	11/7/90	11/5/90	10/19/90	10/19/90	11/10/90
Pesticide and Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)								
Pesticides								
alpha-BHC	9 U	9 U	8 U	95 U	90 U	85 U	9 U	NA
beta-BHC	9 U	9 U	8 U	95 U	90 U	85 U	9 U	NA
delta-BHC	9 U	9 U	8 U	95 U	90 U	85 U	9 U	NA
gamma-BHC (Lindane)	9 U	9 U	8 U	95 U	90 U	85 U	9 U	NA
Heptachlor	9 U	9 U	8 U	95 U	90 U	85 U	9 U	NA
Aldrin	9 U	9 U	8 U	95 U	90 U	85 U	9 U	NA
Heptachlor epoxide	9 U	9 U	8 U	95 U	90 U	85 U	9 U	NA
Endosulfan I	9 U	9 U	8 U	95 U	90 U	85 U	9 U	NA
Dieldrin	17 U	19 UIV	17 U	190 U	180 U	170 U	17 U	NA
4,4'-DDE	17 U	19 U	17 U	190 U	180 U	170 UIV	17 UIV	NA
Endrin	17 U	19 U	17 U	190 U	180 U	170 U	17 U	NA
Endosulfan II	17 U	19 U	17 U	190 U	180 U	170 U	17 U	NA
4,4'-DDD	17 U	19 U	17 U	190 U	180 U	170 U	17 U	NA
Endosulfate	17 U	19 UIV	17 U	190 U	180 U	170 UIV	17 UIV	NA
4,4'-DDT	17 U	19 U	17 U	190 U	180 U	170 U	17 U	NA
Endrin ketone	17 U	19 U	17 U	190 U	180 U	170 U	17 U	NA
Methoxychlor	85 U	95 U	85 U	930 U	900 U	860 U	85 U	NA
alpha-chlordane	9 U	9 U	8 U	95 U	90 U	85 U	9 U	NA
gamma-chlordane	9 U	9 U	8 U	95 U	90 U	85 U	9 U	NA
Toxaphene	170 U	190 U	170 U	1860 U	1800 U	1720 U	170 U	NA
PCBs								
Aroclor-1016	85 U	95 U	85 U	930 U	900 U	860 U	85 U	90 U
Aroclor-1221	85 U	95 U	85 U	930 U	900 U	860 U	85 U	90 U
Aroclor-1232	85 U	95 U	85 U	930 U	900 U	860 U	85 U	90 U
Aroclor-1242	85 U	95 U	85 U	930 U	900 U	860 U	85 U	90 U
Aroclor-1248	85 U	95 U	85 U	930 U	900 U	860 U	85 U	90 U
Aroclor-1254	85 U	95 U	85 U	930 U	900 U	860 U	85 U	90 U
Aroclor-1260	85 U	108 JV	85 U	930 U	900 U	934 JV	710 JV	470 JV

Table A-5. Summary of Pesticide and Polychlorinated Biphenyl (PCB) Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-51	S-52	S-53	S-53	S-53	S-59	S-60	S-61
Sample Depth (ft):	0-2	0-2	0-2	3.5-5.5	5-7	0-2	4-6	5-7
Sample Date:	11/10/90	11/10/90	11/18/90	11/18/90	11/18/90	10/17/90	12/12/90	10/24/90
Pesticide and Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)								
Pesticides								
alpha-BHC	NA	NA	NA	NA	8 U	NA	8 U	9 U
beta-BHC	NA	NA	NA	NA	8 U	NA	8 U	9 U
delta-BHC	NA	NA	NA	NA	8 U	NA	8 U	9 U
gamma-BHC (Lindane)	NA	NA	NA	NA	8 U	NA	8 U	9 U
Heptachlor	NA	NA	NA	NA	8 U	NA	8 U	9 U
Aldrin	NA	NA	NA	NA	8 U	NA	8 U	9 U
Heptachlor epoxide	NA	NA	NA	NA	8 U	NA	8 U	9 U
Endosulfan I	NA	NA	NA	NA	8 U	NA	8 U	9 U
Dieldrin	NA	NA	NA	NA	17 U	NA	16 U	18 U
4,4'-DDE	NA	NA	NA	NA	17 UIV	NA	16 U	18 U
Endrin	NA	NA	NA	NA	17 U	NA	16 U	18 U
Endosulfan II	NA	NA	NA	NA	17 U	NA	16 U	18 U
4,4'-DDD	NA	NA	NA	NA	17 U	NA	16 U	18 U
Endosulfate	NA	NA	NA	NA	17 U	NA	16 U	18 U
4,4'-DDT	NA	NA	NA	NA	17 UIV	NA	16 U	18 U
Endrin ketone	NA	NA	NA	NA	17 U	NA	16 U	18 U
Methoxychlor	NA	NA	NA	NA	85 U	NA	80 U	90 U
alpha-chlordane	NA	NA	NA	NA	8 U	NA	8 U	9 U
gamma-chlordane	NA	NA	NA	NA	8 U	NA	8 U	9 U
Toxaphene	NA	NA	NA	NA	165 U	NA	165 U	180 U
PCBs								
Aroclor-1016	90 U	800 U	4350 U	80 U	85 U	85 U	80 U	90 U
Aroclor-1221	90 U	800 U	4350 U	80 U	85 U	85 U	80 U	90 U
Aroclor-1232	90 U	800 U	4350 U	80 U	85 U	85 U	80 U	90 U
Aroclor-1242	90 U	800 U	4350 U	80 U	85 U	85 U	80 U	90 U
Aroclor-1248	90 U	800 U	4350 U	80 U	85 U	85 U	80 U	90 U
Aroclor-1254	90 U	800 U	4350 U	80 U	85 U	85 U	80 U	90 U
Aroclor-1260	191 JV	1040 JV	71160 JV	410 JV	161 JV	85 U	80 U	90 U

Table A-5. Summary of Pesticide and Polychlorinated Biphenyl (PCB) Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-62	S-63	S-64	S-66	S-67	S-68	S-74	S-75
Sample Depth (ft):	0-2	0-2	2-3	3-5	0-2	0-2	0-2	0-2
Sample Date:	10/24/90	10/25/90	10/18/90	10/10/90	10/27/90	10/27/90	10/8/90	10/8/90
Pesticide and Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)								
Pesticides								
alpha-BHC	9 U	NA	10 U	NA	NA	NA	NA	NA
beta-BHC	9 U	NA	10 U	NA	NA	NA	NA	NA
delta-BHC	9 U	NA	10 U	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	9 U	NA	10 U	NA	NA	NA	NA	NA
Heptachlor	9 U	NA	10 U	NA	NA	NA	NA	NA
Aldrin	9 U	NA	10 U	NA	NA	NA	NA	NA
Heptachlor epoxide	9 U	NA	10 U	NA	NA	NA	NA	NA
Endosulfan I	9 U	NA	10 U	NA	NA	NA	NA	NA
Dieldrin	18 U	NA	19 U	NA	NA	NA	NA	NA
4,4'-DDE	18 U	NA	19 UIV	NA	NA	NA	NA	NA
Endrin	18 U	NA	19 U	NA	NA	NA	NA	NA
Endosulfan II	18 U	NA	19 U	NA	NA	NA	NA	NA
4,4'-DDD	18 U	NA	19 U	NA	NA	NA	NA	NA
Endosulfate	18 U	NA	19 U	NA	NA	NA	NA	NA
4,4'-DDT	18 U	NA	19 UIV	NA	NA	NA	NA	NA
Endrin ketone	18 U	NA	19 U	NA	NA	NA	NA	NA
Methoxychlor	90 U	NA	95 U	NA	NA	NA	NA	NA
alpha-chlordane	9 U	NA	10 U	NA	NA	NA	NA	NA
gamma-chlordane	9 U	NA	10 U	NA	NA	NA	NA	NA
Toxaphene	180 U	NA	190 U	NA	NA	NA	NA	NA
PCBs								
Aroclor-1016	90 U	95 U	95 U	90 U	90 UR	90 UR	910 U	900 U
Aroclor-1221	90 U	95 U	95 U	90 U	90 UR	90 UR	910 U	900 U
Aroclor-1232	90 U	95 U	95 U	90 U	90 UR	90 UR	910 U	900 U
Aroclor-1242	90 U	95 U	95 U	90 U	90 UR	90 UR	910 U	900 U
Aroclor-1248	90 U	95 U	95 U	90 U	90 UR	90 UR	910 U	900 U
Aroclor-1254	90 U	95 U	95 U	90 U	90 UR	90 UR	910 U	900 U
Aroclor-1260	90 U	1489 JV	979 JV	90 U	290 R	270 R	4442 JV	2785 JV

Table A-5. Summary of Pesticide and Polychlorinated Biphenyl (PCB) Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-76	S-77	S-78	S-78	S-80	S-82	S-83	S-84
Sample Depth (ft):	0-0.7	0-2	0-2	8-9	2-4	0-2	0-2	0-2
Sample Date:	10/25/90	10/8/90	11/26/90	12/12/90	10/3/90	10/16/90	10/17/90	10/17/90
Pesticide and Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)								
Pesticides								
alpha-BHC	NA	NA	NA	NA	8 U	9 U	NA	NA
beta-BHC	NA	NA	NA	NA	8 U	9 U	NA	NA
delta-BHC	NA	NA	NA	NA	8 U	9 U	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	8 U	9 U	NA	NA
Heptachlor	NA	NA	NA	NA	8 U	9 U	NA	NA
Aldrin	NA	NA	NA	NA	8 U	9 U	NA	NA
Heptachlor epoxide	NA	NA	NA	NA	8 U	9 U	NA	NA
Endosulfan I	NA	NA	NA	NA	8 U	9 U	NA	NA
Dieldrin	NA	NA	NA	NA	17 U	18 U	NA	NA
4,4'-DDE	NA	NA	NA	NA	17 U	18 U	NA	NA
Endrin	NA	NA	NA	NA	17 U	18 UIV	NA	NA
Endosulfan II	NA	NA	NA	NA	17 U	18 U	NA	NA
4,4'-DDD	NA	NA	NA	NA	17 U	18 U	NA	NA
Endosulfate	NA	NA	NA	NA	17 U	18 U	NA	NA
4,4'-DDT	NA	NA	NA	NA	17 U	18 U	NA	NA
Endrin ketone	NA	NA	NA	NA	17 U	18 UIV	NA	NA
Methoxychlor	NA	NA	NA	NA	85 U	90 U	NA	NA
alpha-chlordane	NA	NA	NA	NA	8 U	9 U	NA	NA
gamma-chlordane	NA	NA	NA	NA	8 U	9 U	NA	NA
Toxaphene	NA	NA	NA	NA	170 U	180 U	NA	NA
PCBs								
Aroclor-1016	900 U	80 U	95 U	85 U	85 U	90 U	100 U	90 U
Aroclor-1221	900 U	80 U	95 U	85 U	85 U	90 U	100 U	90 U
Aroclor-1232	900 U	80 U	95 U	85 U	85 U	90 U	100 U	90 U
Aroclor-1242	900 U	80 U	95 U	85 U	85 U	90 U	100 U	90 U
Aroclor-1248	900 U	80 U	95 U	85 U	85 U	90 U	100 U	90 U
Aroclor-1254	900 U	80 U	95 U	85 U	85 U	90 U	100 U	90 UI
Aroclor-1260	13652 JV	85 JV	1910 JV	85 U	85 U	851 JV	87 JV	90 U

Table A-5. Summary of Pesticide and Polychlorinated Biphenyl (PCB) Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-90	S-94	MW-13	MW-16	MW-16	MW-17	MW-19	MW-20
Sample Depth (ft):	1-3	2-3	0-2	0-2	10-12	0-2	0-2	0-2
Sample Date:	10/1/90	10/18/90	10/20/90	11/7/90	11/7/90	10/26/90	12/7/90	12/11/90
Pesticide and Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)								
Pesticides								
alpha-BHC	9 U	NA	NA	NA	NA	NA	NA	NA
beta-BHC	9 U	NA	NA	NA	NA	NA	NA	NA
delta-BHC	9 U	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	9 U	NA	NA	NA	NA	NA	NA	NA
Heptachlor	485	NA	NA	NA	NA	NA	NA	NA
Aldrin	9 U	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	9 U	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	9 U	NA	NA	NA	NA	NA	NA	NA
Dieldrin	1521	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	17 UIV	NA	NA	NA	NA	NA	NA	NA
Endrin	1422	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	17 U	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	17 U	NA	NA	NA	NA	NA	NA	NA
Endosulfate	17 U	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	17 UIV	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	17 U	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	85 U	NA	NA	NA	NA	NA	NA	NA
alpha-chlordane	9 U	NA	NA	NA	NA	NA	NA	NA
gamma-chlordane	9 U	NA	NA	NA	NA	NA	NA	NA
Toxaphene	170 U	NA	NA	NA	NA	NA	NA	NA
PCBs								
Aroclor-1016	85 U	90 U	930 U	980 U	930 U	90 UR	110 U	100 U
Aroclor-1221	85 U	90 U	930 U	980 U	930 U	90 UR	110 U	100 U
Aroclor-1232	85 U	90 U	930 U	980 U	930 U	90 UR	110 U	100 U
Aroclor-1242	85 U	90 U	930 U	980 U	930 U	90 UR	110 U	100 U
Aroclor-1248	85 U	90 U	930 U	980 U	930 U	90 UR	110 U	100 U
Aroclor-1254	85 U	90 U	930 U	980 U	930 U	90 UR	110 U	100 U
Aroclor-1260	151 JV	230 JV	4350 JV	1210 JV	3655 JV	670 BR	52 JV	60 JV

Table A-5. Summary of Pesticide and Polychlorinated Biphenyl (PCB) Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	MW-21	MW-22	MW-25	MW-26	MW-30	MW-31	MW-34
Sample Depth (ft):	0-2	0-2	4-6	9-11	0-2	0-2	0-2
Sample Date:	12/6/90	10/20/90	11/17/90	12/5/90	11/30/90	11/8/90	11/29/90
Pesticide and Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)							
Pesticides							
alpha-BHC	NA	NA	9 U	8 U	NA	NA	9 U
beta-BHC	NA	NA	9 U	8 U	NA	NA	9 U
delta-BHC	NA	NA	9 U	8 U	NA	NA	9 U
gamma-BHC (Lindane)	NA	NA	9 U	8 U	NA	NA	9 U
Heptachlor	NA	NA	9 U	8 U	NA	NA	9 U
Aldrin	NA	NA	9 U	8 U	NA	NA	9 U
Heptachlor epoxide	NA	NA	9 U	8 U	NA	NA	9 U
Endosulfan I	NA	NA	9 U	8 U	NA	NA	9 U
Dieldrin	NA	NA	17 U	17 U	NA	NA	17 U
4,4'-DDE	NA	NA	17 UIV	17 U	NA	NA	17 UIV
Endrin	NA	NA	17 U	17 U	NA	NA	17 U
Endosulfan II	NA	NA	17 U	17 U	NA	NA	17 U
4,4'-DDD	NA	NA	17 U	17 U	NA	NA	17 U
Endosulfate	NA	NA	17 U	17 U	NA	NA	17 U
4,4'-DDT	NA	NA	17 UIV	17 U	NA	NA	17 UIV
Endrin ketone	NA	NA	17 U	17 U	NA	NA	17 U
Methoxychlor	NA	NA	85 U	85 U	NA	NA	85 U
alpha-chlordane	NA	NA	9 U	8 U	NA	NA	9 U
gamma-chlordane	NA	NA	9 U	8 U	NA	NA	9 U
Toxaphene	NA	NA	175 U	170 U	NA	NA	170 U
PCBs							
Aroclor-1016	90 U	1010 U	85 U	85 U	90 U	1030 U	85 U
Aroclor-1221	90 U	1010 U	85 U	85 U	90 U	1030 U	85 U
Aroclor-1232	90 U	1010 U	85 U	85 U	90 U	1030 U	85 U
Aroclor-1242	90 U	1010 U	85 U	85 U	90 U	1030 U	85 U
Aroclor-1248	90 U	1010 U	85 U	85 U	90 U	1030 U	85 U
Aroclor-1254	90 U	1010 U	85 U	85 U	90 U	1030 U	85 U
Aroclor-1260	320 JV	790 JV	443 JV	85 U	290 JV	7540 JV	643 JV

B - Detected in laboratory blank.
U - Below reported quantitation level.
V - Qualifier added and/or value altered during data validation.
I - Result declared inconclusive during data validation.
J - Estimated level.
NA - Not analyzed.
R - Result declared unusable during data validation.
ug/kg - Micrograms per kilogram.

Table A-6. Summary of Total Petroleum Hydrocarbon Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation	Sample Depth (in feet)	Sample Date	Total Petroleum Hydrocarbons (mg/kg)
S-1	0-2	10/27/90	32,750
S-1	2-3	10/26/90	5,570
S-2	0-2	10/24/90	44,110
S-3	0-2	10/10/90	4,210
S-4	0-2	10/10/90	12,120
S-5	0-2	10/26/90	9,710
S-6	0-2	11/11/90	1,565
S-6	8-9	11/11/90	<12
S-7	0-2	10/25/90	2,962
S-8	0-2	10/25/90	1,015
S-9	0-2	10/10/90	31,630
S-10	0-2	10/16/90	510
S-16	0-2	11/11/90	960
S-16	10-12	11/11/90	<11
S-17	0-2	10/19/90	210
S-19	0-2	12/4/90	444
S-19	9-11	12/4/90	<10
S-20	0-2	11/11/90	2,574
S-21	0-2	10/5/90	410
S-21	6-8	10/5/90	142
S-22	0-2	10/17/90	1,145
S-23	0-2	10/5/90	1,395
S-23	8-10	10/5/90	<11
S-24	0-2	10/8/90	2,120
S-24	9-11	10/8/90	238

Table A-6. Summary of Total Petroleum Hydrocarbon Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation	Sample Depth (in feet)	Sample Date	Total Petroleum Hydrocarbons (mg/kg)
S-25	0-2	12/5/90	<11
S-25	12-14	12/5/90	<10
S-25	19-21	12/5/90	<11
S-26	0-2	11/17/90	1,335
S-26	4-6	11/17/90	22
S-27	0.5-2.5	10/2/90	62
S-28	0-2	10/9/90	102
S-29	0-2	10/3/90	9,470
S-30	0-2	10/16/90	88
S-30	4-6	10/16/90	<11
S-31	0-2	10/17/90	7,730
S-32	0-2	12/4/90	<12
S-33	0-2	12/13/90	<11
S-34	0-2	11/17/90	<12
S-35	0-2	12/1/90	28
S-36	0-2	12/1/90	61
S-36	6-8	12/1/90	35
S-37	0-2	12/1/90	682
S-37	8-10	12/1/90	<11
S-37	14-16	12/1/90	<12
S-38	0-2	11/29/90	112
S-38	10-12	11/29/90	41
S-38	12-14	11/29/90	377
S-39	0-2	11/29/90	218
S-39	8-10	11/29/90	198
S-40	0-2	10/17/90	562
S-41	0-2	11/5/90	144
S-41	2-4	11/5/90	216V

Table A-6. Summary of Total Petroleum Hydrocarbon Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation	Sample Depth (in feet)	Sample Date	Total Petroleum Hydrocarbons (mg/kg)
S-42	0-2	11/5/90	384V
S-43	0-2	11/5/90	837
S-44	0-2	11/5/90	650
S-44	4-6	11/5/90	10,140
S-45	0-2	10/27/90	1,278
S-45	2-4	10/27/90	72V
S-46	0-2	11/8/90	658
S-46	7-9	11/8/90	90
S-47	0-2	10/19/90	28,510
S-47	7-9	10/19/90	<11
S-47	11-13	10/19/90	<12
S-48	0-2	10/19/90	2,996
S-48	2-4	10/19/90	3,170
S-48	11-13	10/19/90	6,700
S-49	0-2	10/19/90	4,460
S-49	4-6	10/19/90	9,465
S-49	8-10	10/19/90	5,644
S-50	0-2	11/10/90	<11
S-51	0-2	11/10/90	178
S-51	12-14	11/10/90	320
S-52	0-2	11/10/90	2,482
S-52	10-12	11/10/90	354
S-53	0-2	11/18/90	216
S-53	8-10	11/18/90	12
S-54	0-2	10/12/90	4,350
S-54	7-9	10/12/90	120
S-55	0-2	10/12/90	162,860
S-55	7-9	10/12/90	554
S-56	0-2	10/12/90	3,890
S-56	7-9	10/12/90	43

Table A-6. Summary of Total Petroleum Hydrocarbon Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation	Sample Depth (in feet)	Sample Date	Total Petroleum Hydrocarbons (mg/kg)
S-57	0-2	11/26/90	2,362
S-58	0-2	10/17/90	360
S-59	0-2	10/17/90	<11
S-60	0-2	11/26/90	4,456
S-61	0-1.1	10/24/90	13,690
S-62	0-2	10/24/90	4,820
S-63	0-2	10/25/90	7,520
S-64	0-2	10/18/90	3,230V
S-65	0-2	10/24/90	4,940V
S-66	0-2	10/10/90	141
S-67	0-2	10/27/90	124
S-68	0-2	10/27/90	442
S-69	0-2	10/10/90	118
S-70	0-2	10/4/90	3,745
S-70	6-8	10/4/90	280
S-71	0-2	10/4/90	3,395
S-71	6-8	10/4/90	220
S-72	0-2	10/4/90	1,715
S-72	6-8	10/4/90	360
S-73	0-2	10/4/90	2,390
S-74	0-2	10/8/90	2,280
S-74	6-8	10/8/90	296
S-74	12-14	10/8/90	<10
S-75	0-2	10/8/90	3,090
S-76	0-0.7	10/25/90	25,940

Table A-6. Summary of Total Petroleum Hydrocarbon Compound Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation	Sample Depth (in feet)	Sample Date	Total Petroleum Hydrocarbons (mg/kg)
MW-17	0-2	10/26/90	2,138
MW-19	0-2	12/7/90	8,612
MW-20	0-2	12/11/90	1,158
MW-21	0-2	12/6/90	93
MW-22	0-2	10/20/90	18,220
MW-23D	9-11	11/16/90	48,290
MW-24	0-2	11/27/90	178
MW-24	15-17	11/28/90	179
MW-25	0-2	11/17/90	331
MW-25	6-8	11/17/90	12
MW-26	0-2	12/5/90	<12
MW-26	12-14	12/5/90	<11
MW-27	0-2	12/1/90	1,244
MW-27	7-9	12/1/90	<11
MW-27	14-16	12/1/90	<12
MW-28	0-2	11/9/90	<11
MW-28	6-8	11/9/90	<11
MW-29	0-2	11/17/90	183
MW-30	0-2	11/30/90	970
MW-30	6-8	11/30/90	96
MW-30	11-13	11/30/90	91
MW-31	0-2	11/8/90	16,270
MW-31	10-12	11/8/90	233
MW-32	0-2	10/4/90	436
MW-34	0-2	11/29/90	91
MW-34	10-12	11/29/90	11

mg/kg - Milligrams per kilogram.
V - Value altered during data validation.

Table A-7. Summary of Metal Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-2	S-10	S-17	S-22	S-26	S-30
Sample Depth (ft):	0-2	0-2	0-2	0-2	0-2	0-2
Sample Date:	10/26/90	10/18/90	10/20/90	10/18/90	11/19/90	10/18/90
Metals (Concentrations in mg/kg)						
Aluminum	NA	NA	4430 N	2220 N	NA	3950 N
Antimony	NA	NA	<2.2 N	3.5 BN	NA	2.4 BN
Arsenic	NA	NA	20	26	NA	<1.2
Barium	NA	NA	85 *	81 *	NA	23 B*
Beryllium	NA	NA	0.57 B	<0.37	NA	<0.36
Cadmium	NA	NA	<0.94 *	<0.77 *	NA	<0.73 *
Calcium	NA	NA	1030 B	468 B	NA	6850
Chromium	NA	NA	36 N*	17 N*	NA	13 N*
Cobalt	NA	NA	<2.0	2.3 B	NA	3.1 B
Copper	NA	NA	244	349	NA	7.8
Iron	NA	NA	28600	27000	NA	5610
Lead	332 N*	149 N*	120 N*	162 N*	201 S	8.8 N*
Magnesium	NA	NA	1330 B	610 B	NA	1510
Manganese	NA	NA	175 *	142 *	NA	165 *
Mercury	NA	NA	0.9 N	0.38 N	NA	<0.11 N
Nickel	NA	NA	17	17	NA	5.6 B
Potassium	NA	NA	391 B	350 B	NA	567 B
Selenium	NA	NA	<0.74 N	<0.61 NW	NA	<0.58 NW
Silver	NA	NA	<0.66 W	0.56 B	NA	<0.51
Sodium	NA	NA	394 B	301 B	NA	231 B
Thallium	NA	NA	<0.8	<0.65	NA	<0.62
Vanadium	NA	NA	97	75	NA	11 B
Zinc	NA	NA	95	61	NA	22

Table A-7. Summary of Metal Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-32	S-33	S-34	S-35	S-36	S-37
Sample Depth (ft):	0-2	4-6	0-2	8-10	0-2	4-6
Sample Date:	12/6/90	12/14/90	11/19/90	12/1/90	12/3/90	12/3/90
Metals (Concentrations in mg/kg)						
Aluminum	NA	4580 J	NA	4770	NA	3330
Antimony	NA	<1.6 JN	NA	<1.7 N	NA	<1.7 N
Arsenic	NA	0.73 BJ	NA	<0.68 W	NA	<0.66
Barium	NA	14 BJ	NA	32 B	NA	33 B
Beryllium	NA	<0.34	NA	<0.36	NA	<0.35
Cadmium	NA	<1.1	NA	<1.1	NA	<1.1
Calcium	NA	4920 J	NA	1400	NA	4170
Chromium	NA	7.5 JN	NA	8.2 N	NA	8.0 N
Cobalt	NA	3.2 BJ	NA	3.0 B	NA	5.0 B
Copper	NA	10 J	NA	12	NA	12
Iron	NA	8190 J	NA	11200	NA	8440
Lead	339	4.0 J	177 S	3.5	80 S	3.3
Magnesium	NA	4260 J	NA	2510	NA	3470
Manganese	NA	199 J	NA	224	NA	181
Mercury	NA	<0.1	NA	<0.11	NA	<0.1
Nickel	NA	4.7 BJ	NA	11	NA	9
Potassium	NA	636 BJ	NA	861 B	NA	1060 B
Selenium	NA	<0.56 N	NA	<0.59 NW	NA	<0.57 NW
Silver	NA	<0.54 J	NA	<0.57	NA	<0.55
Sodium	NA	88 BJ	NA	456 B	NA	188 B
Thallium	NA	<0.75 J	NA	<0.8	NA	<0.76
Vanadium	NA	13 J	NA	13	NA	14
Zinc	NA	18 J	NA	20	NA	18

Table A-7. Summary of Metal Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-38	S-39	S-41A	S-43	S-47	S-49
Sample Depth (ft):	2-4	2-4	3.5-5.5	0-2	2-4	2-4
Sample Date:	11/30/90	11/30/90	11/9/90	11/5/90	10/20/90	10/20/90
Metals (Concentrations in mg/kg)						
Aluminum	11100	2840	4740 N	6170 N	4470 N	4620 N
Antimony	<1.8 N	<1.6 N	<1.7 N	3.5 BN	<1.6 N	<1.6 N
Arsenic	1.1 BW	1.6 B	2.6	7.1	11	2.7
Barium	44 B	31 B	37 B*	444 *	70 *	31 B*
Beryllium	<0.38	<0.34	<0.37	0.44 B	0.43 B	<0.34
Cadmium	<1.2	<1.1	<1.1 *	<1.1 *	<0.71 *	<0.71 *
Calcium	442 B	1250	1040 B	6260	18100	2170
Chromium	1.6 R	6.4 SN	18 N*	42 N*	9.4 N*	9.6 N*
Cobalt	11 B	3.4 B	4.4 B	13	4.7 B	5.4 B
Copper	54	42	22	377	41	27
Iron	18900	7320	7400 N	58500 N	11200	9570
Lead	20 S	9.9	52 *	605 *	129 S*N	52 S*N
Magnesium	2570	1820	1660	3810	4280	2170
Manganese	342	249	93 *	471 *	241 *	274 *
Mercury	<0.11	<0.1	<0.11 N	<0.11 N	0.49 N	0.22 N
Nickel	15	8.3 B	7.3 B	54	10	12
Potassium	760 B	566 B	711 B	843 B	802 B	762 B
Selenium	<0.61 NW	<0.56 NW	<0.60 WN	<0.57 WN	<0.56 N	<0.56 N
Silver	<0.59 W	<0.53 W	<0.57 W	<0.60 BW	<0.5 W	<0.49 W
Sodium	324 B	184 B	229 B	1770	448 B	319 B
Thallium	<0.82	<0.75	<0.80	<0.77	<0.6	<0.6
Vanadium	25	12	14 M	28	20	13
Zinc	39	40	144	565	65	94

Table A-7. Summary of Metal Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-53	S-60	S-61	S-62	S-64	S-80
Sample Depth (ft):	5-7	4-6	5-7	0-2	2-3	2-4
Sample Date:	11/21/90	12/13/90	10/26/90	10/26/90	10/19/90	10/5/90
Metals (Concentrations in mg/kg)						
Aluminum	6490	4580 J	4970 N	4090 N	3000 N	5300 N
Antimony	<1.5 N	<1.6 JN	<1.7 N	<1.7 N	4.8 BN	<1.6 N
Arsenic	<0.6	<0.62 J	2.6	3.1	8.1	2.7
Barium	16 B	28 BJ	418 *	43 B*	97 *	41 B*
Beryllium	<0.32	<0.33	0.46 B	<0.36	<0.38	<0.33
Cadmium	<1.0	1.2 BJ	<0.76 *	<0.74 *	2.1 *	<0.68 *
Calcium	2660	1590 J	772 B	751 B	1610	1200
Chromium	5.6 N	53 JN	10 N*S	14 N*	19 N*	15 N*
Cobalt	2.6 B	5.4 BJ	6.4 B	2.5 B	3.1 B	5.8 B
Copper	4.8 B	53 J	96	76	279	40
Iron	5680	7820 J	13000	10100	38700	11300
Lead	1.4	4.6 J	44 S*N	1080 NS*	212 N*	45 NS*
Magnesium	2430	2260 J	2150	1630	1420	3040
Manganese	151	333 J	82 *	314 *	445 *	251 *
Mercury	<0.1 R	0.31	0.17 N	0.31 N	0.29 N	<0.1 N
Nickel	6.0 B	<4.6	14	10	23	9.8
Potassium	318 B	674 BJ	832 B	466 B	412 B	710 B
Selenium	<0.52 NW	<0.54 N	<0.6 N	<0.58	<0.62 NW	<0.54 NW
Silver	<0.5	<0.52 J	<0.53	<0.52 W	0.79 BW	<0.48
Sodium	88 B	210 BJ	328 B	607 B	433 B	336 B
Thallium	<0.7	<0.73 J	<0.64	<0.63	<0.67	<0.58
Vanadium	5.2 B	13 J	32	13	37	20
Zinc	27	22 J	100	58	303	34

Table A-7. Summary of Metal Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	S-82	S-90	MW-19	MW-20	MW-21	MW-25
Sample Depth (ft):	0-2	1-3	0-2	0-2	0-2	4-6
Sample Date:	10/18/90	10/3/90	12/8/90	12/13/90	12/8/90	11/19/90
Metals (Concentrations in mg/kg)						
Aluminum	3410 N	4530 N	NA	NA	NA	3140 N
Antimony	<1.7 N	<1.7 N	NA	NA	NA	<1.6
Arsenic	6.9	3.3	NA	NA	NA	<0.63
Barium	47 *	296 *	NA	NA	NA	21 B*
Beryllium	<0.35	<0.35	NA	NA	NA	<0.34
Cadmium	<0.73 *	1.3 *M	NA	NA	NA	<1.1 *
Calcium	954 B	1890	NA	NA	NA	425 B
Chromium	16 N*	12 N*	NA	NA	NA	10 N*
Cobalt	4.0 B	4.8 B	NA	NA	NA	4.4 B
Copper	73	57	NA	NA	NA	25
Iron	17800	10600	NA	NA	NA	8680 N
Lead	73 N*	372 NS*	498 J	415 J	<0.4	3.7 S*
Magnesium	1500	1670	NA	NA	NA	1550
Manganese	198 *	276 *	NA	NA	NA	131 *
Mercury	0.23 N	0.98 N	NA	NA	NA	<0.1 N
Nickel	12	11	NA	NA	NA	5.3 B
Potassium	476 B	604 B	NA	NA	NA	474 B
Selenium	<0.58 NW	<0.57 WN	NA	NA	NA	<0.55 WN
Silver	<0.51	0.59	NA	NA	NA	<0.53 W
Sodium	270 B	306 B	NA	NA	NA	235 B
Thallium	<0.62	<0.61	NA	NA	NA	<0.74
Vanadium	15	14	NA	NA	NA	9.7 B
Zinc	37	270	NA	NA	NA	27

Table A-7. Summary of Metal Concentrations Detected in Soil Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	MW-26	MW-31	MW-34
Sample Depth (ft):	9-11	0-2	0-2
Sample Date:	12/6/90	11/9/90	11/30/90
Metals (Concentrations in mg/kg)			
Aluminum	3010	NA	2990
Antimony	<1.6 N	NA	1.9 BN
Arsenic	<0.6	NA	7.7 S
Barium	16 B	NA	43
Beryllium	<0.34	NA	<0.34
Cadmium	<1.1	NA	1.3
Calcium	772 B	NA	702 B
Chromium	6.5 SN	NA	14 N
Cobalt	1.9 B	NA	5.8 B
Copper	8.2	NA	140
Iron	5990	NA	14100
Lead	2.3	1290 S	137
Magnesium	1360	NA	1280
Manganese	148	NA	130
Mercury	<0.1	NA	<0.1
Nickel	6.7 B	NA	8.1 B
Potassium	416 B	NA	448 B
Selenium	<0.55 NW	NA	<0.55 NW
Silver	<0.53	NA	<0.53 W
Sodium	113 B	NA	258 B
Thallium	<0.74	NA	<0.75
Vanadium	7.6 B	NA	47
Zinc	16	NA	149

B - Value >IDL but <CRDL.
< or U - Value < IDL.
NA - Not analyzed.
S - Value determined by method of standard addition.
* - Duplicate RPD out of control.
N - Matrix spike outside of recovery limits.
W - Post digest spike recovery out of range.
R - Declared unusable during data validation.
J - Estimated value or detection limit due to non-compliance with protocol.
M - Duplicate injection precision not met.
mg/kg - Milligrams per kilogram.
ppm - Parts per million

Table A-8. Soil Gas Survey Results, Sunnyside Yard, Queens, New York.

Grid Location	Depth (ft below land surface)	PID Reading Peak/Average (ppm)	Date	Time
A-2	1.5	15.7 / 11.1	12/17/90	1015
A-3	1.0		12/17/90	1030
A-4	1.0		12/17/90	1040
B-1	2.0		12/17/90	1055
B-2	1.5	22.5 / 13.3	12/17/90	1105
B-5	1.5	33.6 / 32.0	12/17/90	1120
B-5.5	1.5	13.1 / 12.8	12/19/90	1420
B-6	1.5		12/17/90	1135
B.5-5.5	2.0	23.1 / 23.0	12/19/90	1430
C-W1	2.0	2.5 / 1.7	12/20/90	1740
C-W.5	2.0	4.4 / 2.0	12/20/90	1410
C-1	2.5		12/17/90	1240
C-2	2.0		12/17/90	1230
C-3	2.0	15.3 / 14.9	12/17/90	1205
C-5.5	2.0	7.6 / 7.2	12/17/90	1440
C-6	2.0	32.6 / 30.5	12/17/90	1150
C-6.5	2.0	5.5 / 4.0	12/17/90	1210
C-7	3.0		12/17/90	1145
C.5-W1	2.0	5.1 / 3.8	12/20/90	1700
C.5-W.5	2.0	1.9 / 1.7	12/20/90	1422
C.5-0	1.5		12/19/90	0945
C.5-.5	0.5	9.5 / 9.2	12/19/90	0935
C.5-1	0.5	10 / 9.4	12/19/90	1505
C.5-2	0.5	14.9 / 14.0	12/19/90	1455
C.5-6	2.5		12/19/90	1150
D-W1	2.0	13.8 / 9.0	12/20/90	1640
D-W.5	2.0	65.4 / 62.5	12/19/90	1025
D-0	2.3	24.5 / 23.0	12/19/90	1010
D-.5	2.5	15.5 / 13.0	12/19/90	1000
D-1	3.0	10.3 / 6.1	12/17/90	1300
D-2	3.0	24.1 / 13.2	12/17/90	1315
D-5	3.0	8.3 / 8.3	12/17/90	1330
D-5.5	2.5		12/19/90	1135
D-6	3.0		12/17/90	1340
E-1	3.0	2.0 / 1.9	12/17/90	1415
E-2	3.0	19.1 / 17.0	12/17/90	1400
E-3	2.5	125 / 122	12/19/90	1110

PID - Photoionization detector (Photovac Microtip 100).

Table A-9. Summary of Polychlorinated Biphenyl (PCB) Compound Concentrations, Specific Gravity and Kinematic Viscosity Detected in Separate Phase Petroleum Samples, Sunnyside Yard, Queens, New York.

Sample Designation:	MW-5	MW-7	MW-16	MW-17	MW-20
Sample Date:	1/7/91	1/7/91	1/7/91	1/7/91	1/7/91
Parameter					
PCBs (Concentrations in ug/L)					
Aroclor-1016	1600 UV	16000 UV	16000 UV	1600 UV	1600 UV
Aroclor-1221	1600 UV	16000 UV	16000 UV	1600 UV	1600 UV
Aroclor-1232	1600 UV	16000 UV	16000 UV	1600 UV	1600 UV
Aroclor-1242	1600 UV	16000 UV	16000 UV	1600 UV	1600 UV
Aroclor-1248	1600 UV	16000 UV	16000 UV	1600 UV	1600 UV
Aroclor-1254	1600 UV	16000 UV	16000 UV	1600 UV	1600 UV
Aroclor-1260	3600 JV	65000 JV	122763 JV	6716 JV	7624 JV
Specific Gravity (no units)	0.8390	0.8238	0.8386	0.8230	0.8377
Kinematic Viscosity (Concentrations in centistokes at 100 degrees C)	1.45	1.33	1.65	1.35	1.33

U - Below reported quantitation level.
V - Qualifier added and/or value altered during data validation.
J - Estimated level.
ug/L - Micrograms per liter.

Table A-10. Summary of Volatile Organic Compound Concentrations Detected in Ground-Water Samples, Sunnyside Yard, Queens, New York.

Sample Designation:		MW-1	MW-9	MW-13	MW-13+	MW-19	MW-23D	MW-25
Sample Date:		1/7/91	1/7/91	1/7/91	1/7/91	1/4/91	1/7/91	1/4/91
Volatile Organic Compounds (Concentrations in ug/L)	NYS Standard 1)							
Acetone	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Benzene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2-Butanone	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Carbon Disulfide	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Tetrachloride	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Chloroform	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Dibromochloromethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethene (total)	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	8.8	5.0 U
2-Hexanone	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
4-Methyl-2-pentanone	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Methylene Chloride	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	2.9 J	5.0 U	5.0 U
Toluene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trans-1,3-Dichloropropene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	2.0 J	5.0 U	5.0 U
Vinyl Acetate	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Vinyl Chloride	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Xylenes (total)	15	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	18	5.0 U

Table A-10. Summary of Volatile Organic Compound Concentrations Detected in Ground-Water Samples, Sunnyside Yard, Queens, New York.

Sample Designation:		MW-26	MW-28	MW-29	MW-32	MW-33	MW-33*	FB-1
Sample Date:		1/3/91	1/3/91	1/3/91	1/3/91	1/4/91	1/4/91	1/3/91
Volatile Organic Compounds (Concentrations in ug/L)	NYS Standard 1)							
Acetone	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Benzene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2-Butanone	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Carbon Disulfide	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Tetrachloride	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Chloroform	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Dibromochloromethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethene (total)	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
4-Methyl-2-pentanone	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Methylene Chloride	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	5.0 U	5.0 U	5.0 U	2.3 J	5.0 U	5.0 U	5.0 U
Toluene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trans-1,3-Dichloropropene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Acetate	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Vinyl Chloride	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Xylenes (total)	15	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table A-10. Summary of Volatile Organic Compound Concentrations Detected in Ground-Water Samples, Sunnyside Yard, Queens, New York.

Sample Designation:		FB-2	FB-3	TB-1	TB-2	TB-3
Sample Date:		1/4/91	1/7/91	1/3/91	1/4/91	1/7/91
Volatile Organic Compounds (Concentrations in ug/L)	NYS Standard 1)					
Acetone	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Benzene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2-Butanone	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Carbon Disulfide	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Tetrachloride	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Chloroform	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Dibromochloromethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethene (total)	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
4-Methyl-2-pentanone	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Methylene Chloride	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trans-1,3-Dichloropropene	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Acetate	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Vinyl Chloride	--	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Xylenes (total)	15	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

B - Detected in laboratory blank.
U - Below reported quantitation level.
J - Estimated level.
* - Replicate sample.
ug/L - Micrograms per liter.
FB - Field blank.
TB - Trip blank.
-- - Compound not detected, standard not listed.
+ - Reanalyzed.

1) Standards listed are the most stringent of the standards found in either the New York State Official Compilation of Codes, Rules and Regulations (10 NYCRR Subpart 5.1 MCL or 6NYCRR 703 Standard) or in the New York State Department of Environmental Concervation Division of Water Technical and Operational Guidance Series (1.1.1.), Ambient Water Quality Standards and Guidance Values. Standards are only provided for those compounds for which concentrations were detected.

Table A-11. Summary of Semivolatile Organic Compound Concentrations Detected in Ground-Water Samples, Sunnyside Yard, Queens, New York.

Semi-Volatile Organic Compound (Concentrations in ug/L)	NYS Standard 1)	Sample Designation: MW-1 Sample Date: 1/7/91	MW-9 1/7/91	MW-9+ 1/7/91	MW-13 1/7/91	MW-19 1/4/91	MW-23D 1/7/91
Acenaphthene	50	10 U	10 UR	10 UJV	9.8 J	10 U	10 U
Acenaphthylene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Anthracene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Benzidine	--	50 U	50 UR	50 UJV	50 U	50 U	50 U
Benzo (a) Anthracene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Benzo (a) Pyrene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Benzo (b+k) Fluoranthenes	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Benzo (g,h,i) Perylene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Benzoic Acid	--	50 U	50 UR	50 UJV	50 U	50 U	50 UIV
Benzyl Alcohol	--	10 U	10 UR	10 UJV	10 U	10 U	10 UIV
4-Bromophenyl-phenylether	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Butylbenzyl phthalate	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
4-Chloro-3-Methylphenol	--	10 U	10 UR	10 UJV	10 U	10 U	10 UIV
4-Chloroaniline	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Bis (2-Chloroethoxy) Methane	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Bis (2-Chloroethyl) Ether	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Bis (2-Chloroisopropyl) Ether	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
2-Chloronaphthalene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
2-Chlorophenol	--	10 U	10 UR	10 UJV	10 U	10 U	10 UIV
4-Chlorophenyl-phenylether	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Chrysene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Di-n-Butylphthalate	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Di-n-Octyl Phthalate	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Dibenz (a,h) Anthracene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Dibenzofuran	50	10 U	10 UR	10 UJV	13	10 U	10 U
1,2-Dichlorobenzene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
1,3-Dichlorobenzene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
1,4-Dichlorobenzene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
3,3'-Dichlorobenzidine	--	20 U	20 UR	20 UJV	20 U	20 U	20 U
2,4-Dichlorophenol	--	10 U	10 UR	10 UJV	10 U	10 U	10 UIV
Diethylphthalate	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Dimethyl phthalate	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
2,4-Dimethylphenol	--	10 U	10 UR	10 UJV	10 U	10 U	10 UIV
4,6-Dinitro-2-Methylphenol	--	50 U	50 UR	50 UJV	50 U	50 U	50 UIV
2,4-Dinitrophenol	--	50 U	50 UR	50 UJV	50 U	50 U	50 UIV
2,4-Dinitrotoluene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
2,6-Dinitrotoluene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Bis (2-Ethylhexyl) Phthalate	50	10 U	10 UR	10 UJV	12	10 U	32
Fluoranthene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Fluorene	50	10 U	10 UR	10 UJV	14	10 U	9.4 J
Hexachlorobenzene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Hexachlorobutadiene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Hexachlorocyclopentadiene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Hexachloroethane	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Indeno (1,2,3-cd) Pyrene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Isophorone	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
2-Methylnaphthalene	50	10 U	10 UR	10 UJV	66	10 U	96
4-Methylphenol	--	10 U	10 UR	10 UJV	10 U	10 U	10 UIV
2-Methylphenol	--	10 U	10 UR	10 UJV	10 U	10 U	10 UIV
N-Nitroso-Di-n-Propylamine	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
N-Nitrosodimethylamine	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
N-Nitrosodiphenylamine (1)	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
Naphthalene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
2-Nitroaniline	--	50 U	50 UR	50 UJV	50 U	50 U	50 U
4-Nitroaniline	--	50 U	50 UR	50 UJV	50 U	50 U	50 U
3-Nitroaniline	--	50 U	50 UR	50 UJV	50 U	50 U	50 U
Nitrobenzene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
4-Nitrophenol	--	50 U	50 UR	50 UJV	50 U	50 U	50 UIV
2-Nitrophenol	--	10 U	10 UR	10 UJV	10 U	10 U	10 UIV
Pentachlorophenol	--	50 U	50 UR	50 UJV	50 U	50 U	50 UIV
Phenanthrene	50	10 U	10 UR	10 UJV	11	10 U	10 U
Phenol	--	10 U	10 UR	10 UJV	10 U	10 U	10 UIV
Pyrene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
1,2,4-Trichlorobenzene	--	10 U	10 UR	10 UJV	10 U	10 U	10 U
2,4,5-Trichlorophenol	--	50 U	50 UR	50 UJV	50 U	50 U	50 UIV
2,4,6-Trichlorophenol	--	10 U	10 UR	10 UJV	10 U	10 U	10 UIV

Table A-11. Summary of Semivolatile Organic Compound Concentrations Detected in Ground-Water Samples, Sunnyside Yard, Queens, New York.

Semi-Volatile Organic Compound (Concentrations in ug/L)	NYS Standard 1)	Sample Designation: MW-23D+ Sample Date: 1/7/91	MW-25 1/4/91	MW-26 1/3/91	MW-26+ 1/3/91	MW-28 1/3/91	MW-29 1/3/91
Acenaphthene	50	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Acenaphthylene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Anthracene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Benzidine	--	50 UJV	50 U	50 UR	50 UJV	50 U	50 UR
Benzo (a) Anthracene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Benzo (a) Pyrene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Benzo (b+k) Fluoranthenes	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Benzo (g,h,i) Perylene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Benzoic Acid	--	50 UIV	50 U	50 UR	50 UJV	50 U	50 UR
Benzyl Alcohol	--	10 UIV	10 U	10 UR	10 UJV	10 U	10 UR
4-Bromophenyl-phenylether	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Butylbenzyl phthalate	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
4-Chloro-3-Methylphenol	--	10 UIV	10 U	10 UR	10 UJV	10 U	10 UR
4-Chloroaniline	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Bis (2-Chloroethoxy) Methane	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Bis (2-Chloroethyl) Ether	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Bis (2-Chloroisopropyl) Ether	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
2-Chloronaphthalene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
2-Chlorophenol	--	10 UIV	10 U	10 UR	10 UJV	10 U	10 UR
4-Chlorophenyl-phenylether	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Chrysene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Di-n-Butylphthalate	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Di-n-Octyl Phthalate	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Dibenz (a,h) Anthracene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Dibenzofuran	50	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
1,2-Dichlorobenzene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
1,3-Dichlorobenzene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
1,4-Dichlorobenzene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
3,3'-Dichlorobenzidine	--	20 UJV	20 U	20 UR	20 UJV	20 U	20 UR
2,4-Dichlorophenol	--	10 UIV	10 U	10 UR	10 UJV	10 U	10 UR
Diethylphthalate	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Dimethyl phthalate	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
2,4-Dimethylphenol	--	10 UIV	10 U	10 UR	10 UJV	10 U	10 UR
4,6-Dinitro-2-Methylphenol	--	50 UIV	50 U	50 UR	50 UJV	50 U	50 UR
2,4-Dinitrophenol	--	50 UIV	50 U	50 UR	50 UJV	50 U	50 UR
2,4-Dinitrotoluene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
2,6-Dinitrotoluene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Bis (2-Ethylhexyl) Phthalate	50	9.3 UJV	10 B	10 UR	10 UJV	19 B	9.7 BJR
Fluoranthene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Fluorene	50	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Hexachlorobenzene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Hexachlorobutadiene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Hexachlorocyclopentadiene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Hexachloroethane	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Indeno (1,2,3-cd) Pyrene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Isophorone	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
2-Methylnaphthalene	50	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
4-Methylphenol	--	10 UIV	10 U	10 UR	10 UJV	10 U	10 UR
2-Methylphenol	--	10 UIV	10 U	10 UR	10 UJV	10 U	10 UR
N-Nitroso-Di-n-Propylamine	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
N-Nitrosodimethylamine	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
N-Nitrosodiphenylamine (1)	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Naphthalene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
2-Nitroaniline	--	50 UJV	50 U	50 UR	50 UJV	50 U	50 UR
4-Nitroaniline	--	50 UJV	50 U	50 UR	50 UJV	50 U	50 UR
3-Nitroaniline	--	50 UJV	50 U	50 UR	50 UJV	50 U	50 UR
Nitrobenzene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
4-Nitrophenol	--	50 UIV	50 U	50 UR	50 UJV	50 U	50 UR
2-Nitrophenol	--	10 UIV	10 U	10 UR	10 UJV	10 U	10 UR
Pentachlorophenol	--	50 UIV	50 U	50 UR	50 UJV	50 U	50 UR
Phenanthrene	50	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
Phenol	--	10 UIV	10 U	10 UR	10 UJV	10 U	10 UR
Pyrene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
1,2,4-Trichlorobenzene	--	10 UJV	10 U	10 UR	10 UJV	10 U	10 UR
2,4,5-Trichlorophenol	--	50 UIV	50 U	50 UR	50 UJV	50 U	50 UR
2,4,6-Trichlorophenol	--	10 UIV	10 U	10 UR	10 UJV	10 U	10 UR

Table A-11. Summary of Semivolatile Organic Compound Concentrations Detected in Ground-Water Samples, Sunnyside Yard, Queens, New York.

Sample Designation:		MW-29+	MW-32	MW-33	MW-33*	FB-1	FB-2
Sample Date:		1/3/91	1/3/91	1/4/91	1/4/91	1/3/91	1/4/91
Semi-Volatile Organic Compound (Concentrations in ug/L)	NYS Standard 1)						
Acenaphthene	50	10 UJV	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Anthracene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Benzidine	--	50 UJV	50 U	50 U	50 U	50 U	50 U
Benzo (a) Anthracene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Benzo (a) Pyrene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Benzo (b+k) Fluoranthenes	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Benzo (g,h,i) Perylene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Benzoic Acid	--	50 UJV	50 U	50 U	50 U	50 U	50 U
Benzyl Alcohol	--	10 UJV	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Butylbenzyl phthalate	--	10 UJV	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	--	10 UJV	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Bis (2-Chloroethoxy) Methane	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Bis (2-Chloroethyl) Ether	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Bis (2-Chloroisopropyl) Ether	--	10 UJV	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	--	10 UJV	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Chrysene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Di-n-Butylphthalate	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Di-n-Octyl Phthalate	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Dibenz (a,h) Anthracene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	50	10 UJV	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	--	20 UJV	20 U	20 U	20 U	20 U	20 U
2,4-Dichlorophenol	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Dimethyl phthalate	--	10 UJV	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	--	10 UJV	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	--	50 UJV	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrophenol	--	50 UJV	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Bis (2-Ethylhexyl) Phthalate	50	10 UJV	15 B	10 U	10 U	10 U	10 U
Fluoranthene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Fluorene	50	10 UJV	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Indeno (1,2,3-cd) Pyrene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Isophorone	--	10 UJV	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	50	10 UJV	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	--	10 UJV	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	--	10 UJV	10 U	10 U	10 U	10 U	10 U
N-Nitroso-Di-n-Propylamine	--	10 UJV	10 U	10 U	10 U	10 U	10 U
N-Nitrosodimethylamine	--	10 UJV	10 U	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine (1)	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Naphthalene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	--	50 UJV	50 U	50 U	50 U	50 U	50 U
4-Nitroaniline	--	50 UJV	50 U	50 U	50 U	50 U	50 U
3-Nitroaniline	--	50 UJV	50 U	50 U	50 U	50 U	50 U
Nitrobenzene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	--	50 UJV	50 U	50 U	50 U	50 U	50 U
2-Nitrophenol	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	--	50 UJV	50 U	50 U	50 U	50 U	50 U
Phenanthrene	50	10 UJV	10 U	10 U	10 U	10 U	10 U
Phenol	--	10 UJV	10 U	10 U	10 U	10 U	10 U
Pyrene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	--	10 UJV	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	--	50 UJV	50 U	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	--	10 UJV	10 U	10 U	10 U	10 U	10 U

Table A-11. Summary of Semivolatile Organic Compound Concentrations Detected in Ground-Water Samples, Sunnyside Yard, Queens, New York.

Sample Designation:		FB-3	FB-3+	TB-1	TB-2	TB-3
Sample Date:		1/7/91	1/7/91	1/3/91	1/4/91	1/7/91
Semi-Volatile Organic Compound (Concentrations in ug/L)	NYS Standard 1)					
Acenaphthene	50	10 UR	10 UJV	10 U	10 U	10 U
Acenaphthylene	--	10 UR	10 UJV	10 U	10 U	10 U
Anthracene	--	10 UR	10 UJV	10 U	10 U	10 U
Benzidine	--	50 UR	50 UJV	50 U	50 U	50 U
Benzo (a) Anthracene	--	10 UR	10 UJV	10 U	10 U	10 U
Benzo (a) Pyrene	--	10 UR	10 UJV	10 U	10 U	10 U
Benzo (b+k) Fluoranthenes	--	10 UR	10 UJV	10 U	10 U	10 U
Benzo (g,h,i) Perylene	--	10 UR	10 UJV	10 U	10 U	10 U
Benzoic Acid	--	50 UR	50 UJV	50 U	50 U	50 U
Benzyl Alcohol	--	10 UR	10 UJV	10 U	10 U	10 U
4-Bromophenyl-phenylether	--	10 UR	10 UJV	10 U	10 U	10 U
Butylbenzyl phthalate	--	10 UR	10 UJV	10 U	10 U	10 U
4-Chloro-3-Methylphenol	--	10 UR	10 UJV	10 U	10 U	10 U
4-Chloroaniline	--	10 UR	10 UJV	10 U	10 U	10 U
Bis (2-Chloroethoxy) Methane	--	10 UR	10 UJV	10 U	10 U	10 U
Bis (2-Chloroethyl) Ether	--	10 UR	10 UJV	10 U	10 U	10 U
Bis (2-Chloroisopropyl) Ether	--	10 UR	10 UJV	10 U	10 U	10 U
2-Chloronaphthalene	--	10 UR	10 UJV	10 U	10 U	10 U
2-Chlorophenol	--	10 UR	10 UJV	10 U	10 U	10 U
4-Chlorophenyl-phenylether	--	10 UR	10 UJV	10 U	10 U	10 U
Chrysene	--	10 UR	10 UJV	10 U	10 U	10 U
Di-n-Butylphthalate	--	10 UR	10 UJV	10 U	10 U	10 U
Di-n-Octyl Phthalate	--	10 UR	10 UJV	10 U	10 U	10 U
Dibenz (a,h) Anthracene	--	10 UR	10 UJV	10 U	10 U	10 U
Dibenzofuran	50	10 UR	10 UJV	10 U	10 U	10 U
1,2-Dichlorobenzene	--	10 UR	10 UJV	10 U	10 U	10 U
1,3-Dichlorobenzene	--	10 UR	10 UJV	10 U	10 U	10 U
1,4-Dichlorobenzene	--	10 UR	10 UJV	10 U	10 U	10 U
3,3'-Dichlorobenzidine	--	20 UR	20 UJV	20 U	20 U	20 U
2,4-Dichlorophenol	--	10 UR	10 UJV	10 U	10 U	10 U
Diethylphthalate	--	10 UR	10 UJV	10 U	10 U	10 U
Dimethyl phthalate	--	10 UR	10 UJV	10 U	10 U	10 U
2,4-Dimethylphenol	--	10 UR	10 UJV	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	--	50 UR	50 UJV	50 U	50 U	50 U
2,4-Dinitrophenol	--	50 UR	50 UJV	50 U	50 U	50 U
2,4-Dinitrotoluene	--	10 UR	10 UJV	10 U	10 U	10 U
2,6-Dinitrotoluene	--	10 UR	10 UJV	10 U	10 U	10 U
Bis (2-Ethylhexyl) Phthalate	50	10 UR	10 UJV	8.8 BJ	8.8 BJ	10 U
Fluoranthene	--	10 UR	10 UJV	10 U	10 U	10 U
Fluorene	50	10 UR	10 UJV	10 U	10 U	10 U
Hexachlorobenzene	--	10 UR	10 UJV	10 U	10 U	10 U
Hexachlorobutadiene	--	10 UR	10 UJV	10 U	10 U	10 U
Hexachlorocyclopentadiene	--	10 UR	10 UJV	10 U	10 U	10 U
Hexachloroethane	--	10 UR	10 UJV	10 U	10 U	10 U
Indeno (1,2,3-cd) Pyrene	--	10 UR	10 UJV	10 U	10 U	10 U
Isophorone	--	10 UR	10 UJV	10 U	10 U	10 U
2-Methylnaphthalene	50	10 UR	10 UJV	10 U	10 U	10 U
4-Methylphenol	--	10 UR	10 UJV	10 U	10 U	10 U
2-Methylphenol	--	10 UR	10 UJV	10 U	10 U	10 U
N-Nitroso-Di-n-Propylamine	--	10 UR	10 UJV	10 U	10 U	10 U
N-Nitrosodimethylamine	--	10 UR	10 UJV	10 U	10 U	10 U
N-Nitrosodiphenylamine (1)	--	10 UR	10 UJV	10 U	10 U	10 U
Naphthalene	--	10 UR	10 UJV	10 U	10 U	10 U
2-Nitroaniline	--	50 UR	50 UJV	50 U	50 U	50 U
4-Nitroaniline	--	50 UR	50 UJV	50 U	50 U	50 U
3-Nitroaniline	--	50 UR	50 UJV	50 U	50 U	50 U
Nitrobenzene	--	10 UR	10 UJV	10 U	10 U	10 U
4-Nitrophenol	--	50 UR	50 UJV	50 U	50 U	50 U
2-Nitrophenol	--	10 UR	10 UJV	10 U	10 U	10 U
Pentachlorophenol	--	50 UR	50 UJV	50 U	50 U	50 U
Phenanthrene	50	10 UR	10 UJV	10 U	10 U	10 U
Phenol	--	10 UR	10 UJV	10 U	10 U	10 U
Pyrene	--	10 UR	10 UJV	10 U	10 U	10 U
1,2,4-Trichlorobenzene	--	10 UR	10 UJV	10 U	10 U	10 U
2,4,5-Trichlorophenol	--	50 UR	50 UJV	50 U	50 U	50 U
2,4,6-Trichlorophenol	--	10 UR	10 UJV	10 U	10 U	10 U

Table A-11. Summary of Semivolatile Organic Compound Concentrations Detected in Ground-Water Samples, Sunnyside Yard, Queens, New York.

B - Detected in laboratory blank.
U - Below reported quantitation level.
V - Qualifier added and/or value altered during data validation.
I - Result declared inconclusive during data validation.
J - Estimated level.
R - Result declared unusable during data validation.
FB - Field blank.
TB - Trip blank.
* - Replicate sample.
ug/L - Micrograms per liter.
-- - Compound not detected, standard not listed.
+ - Reanalyzed.

1) Standards listed are the most stringent of the standards found in either the New York State Official Compilation of Codes, Rules and Regulations (10 NYCRR Subpart 5.1 MCL or 6NYCRR 703 Standard) or in the New York State Department of Environmental Concervation Division of Water Technical and Operational Guidance Series (1.1.1.), Ambient Water Quality Standards and Guidance Values. Standards are only provided for those compounds for which concentrations were detected.

Table A-12. Summary of Pesticide and Polychlorinated Biphenyl (PCB) Compound Concentrations Detected in Ground-Water Samples, Sunnyside Yard, Queens, New York.

Sample Designation:		MW-1	MW-3	MW-9	MW-13	MW-19	MW-21	MW-21*
Sample Date:		1/7/91	2/21/91	1/7/91	1/7/91	1/4/91	1/4/91	1/4/91
Pesticide and Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/L)	NYS Standard 1)							
Pesticides								
alpha-BHC	--	0.05 U	NA	0.05 U	0.05 U	0.05 U	NA	NA
beta-BHC	--	0.05 U	NA	0.05 U	0.05 U	0.05 U	NA	NA
delta-BHC	--	0.05 U	NA	0.05 U	0.05 U	0.05 U	NA	NA
gamma-BHC (Lindane)	--	0.05 U	NA	0.05 U	0.05 U	0.05 U	NA	NA
Heptachlor	--	0.05 U	NA	0.05 U	0.05 U	0.05 U	NA	NA
Aldrin	--	0.05 U	NA	0.05 U	0.05 U	0.05 U	NA	NA
Heptachlor Epoxide	--	0.05 U	NA	0.05 U	0.05 U	0.05 U	NA	NA
Endosulfan I	--	0.05 U	NA	0.05 U	0.05 U	0.05 U	NA	NA
Dieldrin	--	0.10 U	NA	0.10 U	0.10 U	0.10 U	NA	NA
4,4'-DDE	--	0.10 U	NA	0.10 U	0.10 UIV	0.10 U	NA	NA
Endrin	--	0.10 U	NA	0.10 U	0.10 U	0.10 U	NA	NA
Endosulfan II	--	0.10 U	NA	0.10 U	0.10 U	0.10 U	NA	NA
4,4'-DDD	--	0.10 U	NA	0.10 U	0.10 U	0.10 U	NA	NA
Endosulfate	--	0.10 U	NA	0.10 U	0.10 U	0.10 U	NA	NA
4,4'-DDT	--	0.10 U	NA	0.10 U	0.10 UIV	0.10 U	NA	NA
Endrin Ketone	--	0.10 U	NA	0.10 U	0.10 U	0.10 U	NA	NA
Methoxychlor	--	0.50 U	NA	0.50 U	0.50 U	0.50 U	NA	NA
alpha-chlordane	--	0.50 U	NA	0.50 U	0.50 U	0.50 U	NA	NA
gamma-chlordane	--	0.50 U	NA	0.50 U	0.50 U	0.50 U	NA	NA
Toxaphene	--	1.00 U	NA	1.00 U	1.00 U	1.00 U	NA	NA
PCBs								
Aroclor-1016	--	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1221	--	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1232	--	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1242	--	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1248	--	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1254	0.1	1.00 U	1.0 U	1.00 U	5.70 JV	1.00 U	1.00 U	1.00 U
Aroclor-1260	0.1	1.00 U	1.0 U	1.00 U	3.20 JV	1.00 U	1.00 U	1.00 U

Table A-12. Summary of Pesticide and Polychlorinated Biphenyl (PCB) Compound Concentrations Detected in Ground-Water Samples, Sunnyside Yard, Queens, New York.

Sample Designation:		MW-22	MW-23D	MW-23D*	MW-24	MW-25	MW-26	MW-27
Sample Date:		1/7/91	1/7/91	1/7/91	1/3/91	1/4/91	1/3/91	1/4/91
Pesticide and Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/L)	NYS Standard 1)							
Pesticides								
alpha-BHC	--	NA	0.05 U	NA	NA	0.05 U	0.05 U	NA
beta-BHC	--	NA	0.05 U	NA	NA	0.05 U	0.05 U	NA
delta-BHC	--	NA	0.05 U	NA	NA	0.05 U	0.05 U	NA
gamma-BHC (Lindane)	--	NA	0.05 U	NA	NA	0.05 U	0.05 U	NA
Heptachlor	--	NA	0.05 U	NA	NA	0.05 U	0.05 U	NA
Aldrin	--	NA	0.05 U	NA	NA	0.05 U	0.05 U	NA
Heptachlor Epoxide	--	NA	0.05 U	NA	NA	0.05 U	0.05 U	NA
Endosulfan I	--	NA	0.05 U	NA	NA	0.05 U	0.05 U	NA
Dieldrin	--	NA	0.10 U	NA	NA	0.10 U	0.10 U	NA
4,4'-DDE	--	NA	0.10 U	NA	NA	0.10 UIV	0.10 U	NA
Endrin	--	NA	0.10 U	NA	NA	0.10 U	0.10 U	NA
Endosulfan II	--	NA	0.10 U	NA	NA	0.10 U	0.10 U	NA
4,4'-DDD	--	NA	0.10 U	NA	NA	0.10 U	0.10 U	NA
Endosulfate	--	NA	0.10 U	NA	NA	0.10 U	0.10 U	NA
4,4'-DDT	--	NA	0.10 U	NA	NA	0.10 UIV	0.10 U	NA
Endrin Ketone	--	NA	0.10 U	NA	NA	0.10 U	0.10 U	NA
Methoxychlor	--	NA	0.50 U	NA	NA	0.50 U	0.50 U	NA
alpha-chlordane	--	NA	0.50 U	NA	NA	0.50 U	0.50 U	NA
gamma-chlordane	--	NA	0.50 U	NA	NA	0.50 U	0.50 U	NA
Toxaphene	--	NA	1.00 U	NA	NA	1.00 U	1.00 U	NA
PCBs								
Aroclor-1016	--	80 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1221	--	80 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1232	--	80 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1242	--	80 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1248	--	80 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1254	0.1	2.10 JV	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Aroclor-1260	0.1	5.40 JV	1.00 U	1.00 U	1.00 U	2.85 JV	1.00 U	1.00 U

Table A-12. Summary of Pesticide and Polychlorinated Biphenyl (PCB) Compound Concentrations Detected in Ground-Water Samples, Sunnyside Yard, Queens, New York.

Sample Designation:		MW-27*	MW-28	MW-29	MW-30	MW-31	MW-32	MW-33
Sample Date:		1/4/91	1/3/91	1/3/91	1/3/91	1/4/91	1/3/91	1/4/91
Pesticide and Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/L)	NYS Standard 1)							
Pesticides								
alpha-BHC	--	NA	0.05 U	0.05 U	NA	NA	0.05 U	0.05 U
beta-BHC	--	NA	0.05 U	0.05 U	NA	NA	0.05 U	0.05 U
delta-BHC	--	NA	0.05 U	0.05 U	NA	NA	0.05 U	0.05 U
gamma-BHC (Lindane)	--	NA	0.05 U	0.05 U	NA	NA	0.05 U	0.05 U
Heptachlor	--	NA	0.05 U	0.05 U	NA	NA	0.05 U	0.05 U
Aldrin	--	NA	0.05 U	0.05 U	NA	NA	0.05 U	0.05 U
Heptachlor Epoxide	--	NA	0.05 U	0.05 U	NA	NA	0.05 U	0.05 U
Endosulfan I	--	NA	0.05 U	0.05 U	NA	NA	0.05 U	0.05 U
Dieldrin	--	NA	0.10 U	0.10 U	NA	NA	0.10 U	0.10 U
4,4'-DDE	--	NA	0.10 U	0.10 U	NA	NA	0.10 U	0.10 U
Endrin	--	NA	0.10 U	0.10 U	NA	NA	0.10 U	0.10 U
Endosulfan II	--	NA	0.10 U	0.10 U	NA	NA	0.10 U	0.10 U
4,4'-DDD	--	NA	0.10 U	0.10 U	NA	NA	0.10 U	0.10 U
Endosulfate	--	NA	0.10 U	0.10 U	NA	NA	0.10 U	0.10 U
4,4'-DDT	--	NA	0.10 U	0.10 U	NA	NA	0.10 U	0.10 U
Endrin Ketone	--	NA	0.10 U	0.10 U	NA	NA	0.10 U	0.10 U
Methoxychlor	--	NA	0.50 U	0.50 U	NA	NA	0.50 U	0.50 U
alpha-chlordane	--	NA	0.50 U	0.50 U	NA	NA	0.50 U	0.50 U
gamma-chlordane	--	NA	0.50 U	0.50 U	NA	NA	0.50 U	0.50 U
Toxaphene	--	NA	1.00 U	1.00 U	NA	NA	1.00 U	1.00 U
PCBs								
Aroclor-1016	--	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1221	--	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1232	--	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1242	--	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1248	--	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1254	0.1	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Aroclor-1260	0.1	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U

Table A-12. Summary of Pesticide and Polychlorinated Biphenyl (PCB) Compound Concentrations Detected in Ground-Water Samples, Sunnyside Yard, Queens, New York.

Sample Designation:		MW-33*	MW-34	FB-1	FB-2	FB-3	TB-1	TB-2
Sample Date:		1/4/91	1/3/91	1/3/91	1/4/91	1/7/91	1/3/91	1/4/91
Pesticide and Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/L)	NYS Standard 1)							
Pesticides								
alpha-BHC	--	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
beta-BHC	--	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
delta-BHC	--	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
gamma-BHC (Lindane)	--	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	--	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Aldrin	--	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor Epoxide	--	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I	--	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	--	0.10 U	NA	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4,4'-DDE	--	0.10 U	NA	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Endrin	--	0.10 U	NA	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Endosulfan II	--	0.10 U	NA	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4,4'-DDD	--	0.10 U	NA	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Endosulfate	--	0.10 U	NA	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4,4'-DDT	--	0.10 U	NA	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Endrin Ketone	--	0.10 U	NA	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Methoxychlor	--	0.50 U	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
alpha-chlordane	--	0.50 U	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
gamma-chlordane	--	0.50 U	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Toxaphene	--	1.00 U	NA	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
PCBs								
Aroclor-1016	--	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1221	--	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1232	--	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1242	--	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1248	--	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1254	0.1	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Aroclor-1260	0.1	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U

Table A-12. Summary of Pesticide and Polychlorinated Biphenyl (PCB) Compound Concentrations Detected in Ground-Water Samples, Sunnyside Yard, Queens, New York.

	Sample Designation:	TB-3
	Sample Date:	1/7/91
Pesticide and Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/L)	NYS Standard 1)	
Pesticides		
alpha-BHC	--	0.05 U
beta-BHC	--	0.05 U
delta-BHC	--	0.05 U
gamma-BHC (Lindane)	--	0.05 U
Heptachlor	--	0.05 U
Aldrin	--	0.05 U
Heptachlor Epoxide	--	0.05 U
Endosulfan I	--	0.05 U
Dieldrin	--	0.10 U
4,4'-DDE	--	0.10 U
Endrin	--	0.10 U
Endosulfan II	--	0.10 U
4,4'-DDD	--	0.10 U
Endosulfate	--	0.10 U
4,4'-DDT	--	0.10 U
Endrin Ketone	--	0.10 U
Methoxychlor	--	0.50 U
alpha-chlordane	--	0.50 U
gamma-chlordane	--	0.50 U
Toxaphene	--	1.00 U
PCBs		
Aroclor-1016	--	0.50 U
Aroclor-1221	--	0.50 U
Aroclor-1232	--	0.50 U
Aroclor-1242	--	0.50 U
Aroclor-1248	--	0.50 U
Aroclor-1254	0.1	1.00 U
Aroclor-1260	0.1	1.00 U

B - Detected in laboratory blank.
U - Below reported quantitation level.
V - Qualifier added and/or value altered during data validation.
I - Result declared inconclusive during data validation.
J - Estimated level.
NA - Not analyzed.
FB - Field blank.
TB - Trip blank.
* - Replicate sample.
ug/L - Micrograms per liter.
-- - Compound not detected, standard not listed.

1) Standards listed are the most stringent of the standards found in either the New York State Official Compilation of Codes, Rules and Regulations (10 NYCRR Subpart 5.1 MCL or 6NYCRR 703 Standard) or in the New York State Department of Environmental Concervation Division of Water Technical and Operational Guidance Series (1.1.1.), Ambient Water Quality Standards and Guidance Values. Standards are only provided for those compounds for which concentrations were detected.

Table A-13. Summary of Total Petroleum Hydrocarbon Compound Concentrations Detected in Ground-Water Samples, Sunnyside Yard, Queens, New York.

Sample Designation	Sample Date	Total Petroleum Hydrocarbons (mg/L)
MW-1	1/7/91	<0.9
MW-3	2/21/91	11.5
MW-9	1/7/91	<0.9
MW-13	1/7/91	14.1
MW-19	1/4/91	<0.9
MW-21	1/4/91	11.0
MW-21*	1/4/91	12.3
MW-22	1/7/91	8.0
MW-23D	1/7/91	6.1
MW-23D*	1/7/91	4.5
MW-24	1/3/91	<0.9
MW-25	1/4/91	1.2
MW-26	1/3/91	<0.9
MW-27	1/4/91	<0.9
MW-27*	1/4/91	2.2
MW-28	1/3/91	13.1
MW-29	1/3/91	<0.9
MW-30	1/3/91	<0.9
MW-31	1/4/91	<0.9
MW-32	1/3/91	<0.9
MW-33	1/4/91	15.0
MW-34	1/3/91	<0.9
FB-1	1/3/91	<0.9
FB-2	1/4/91	<0.9
FB-3	1/7/91	<0.9
TB-1	1/3/91	<0.9
TB-2	1/4/91	<0.9
TB-3	1/7/91	<0.9

* - Indicates replicate sample.
mg/L - Milligrams per liter.

Table A-14. Summary of Metal Concentrations Detected in Ground-Water Samples, Sunnyside Yard, Queens, New York.

Sample Designation:		MW-1	MW-9	MW-13	MW-19	MW-23D	MW-25
Sample Date:		1/8/91	1/8/91	1/8/91	1/5/91	1/8/91	1/5/91
Metals (Concentrations in ug/L)	NYS Standard 1)						
Aluminum	NS	3320 N*V	1800 N*V	14200 N*V	1710 N*V	887 N*V	22600 N*V
Antimony	NS	<7.6	<7.6	<7.6 WV	<7.6	<7.6	<7.6
Arsenic	25	<3.0	8.4 B	5.0 B	<3.0	<3.0	<3.0
Barium	1,000	107 B	160 B	132 B	89 B	532	247
Beryllium	3	<1.6	<1.6	<1.6	<1.6	<1.6	2.0 B
Cadmium	10	<5.0	<5.0	<5.0	<5.0	<5.0	7.0
Calcium	NS	72200	33100	12900	49300	70300 V	16500
Chromium	50	19	21	27	6.7 BWV	9.0 B	81
Cobalt	NS	<8.7	<8.7	<8.7	<8.7	<8.7	35 B
Copper	200	24 B	99	61	17 B	31	101
Iron	300	7120	6820	24100	2710	14000	63000
Lead	25	47 N*V	95 N*V	89 N*V	50 N*V	31 N*V	93 N*V
Magnesium	35,000	26800	9510	5780	6290	15900	11300
Manganese	300	557 NV	803 N	1060 NV	2340 NV	2940 NV	3490 NV
Mercury	2	<0.2	<0.2	0.5	0.5	0.7	<0.2
Nickel	NS	<22	32 B	26 B	<22	<22	71
Potassium	NS	3240 B	5840	3830	5820	5460	5370
Selenium	10	<3.3 N*WV	<3.3 N*WV	<3.3 N*WV	<3.3 N*V	<3.3 N*V	<3.3 N*WV
Silver	50	<2.5 WV	<2.5 WV	<2.5	<2.8	<2.5	<2.8
Sodium	20,000	6460	24900	90000	40700	209000	4470
Thallium	4	<3.5 WNV	<3.5 WNV	<3.5 WNV	<3.5 WNV	<3.5 WNV	<3.5 NV
Vanadium	NS	22 B	18 B	32 B	<9.2	<9.2	79
Zinc	300	36	505	98	32	28	228

Table A-14. Summary of Metal Concentrations Detected in Ground-Water Samples, Sunnyside Yard, Queens, New York.

Metals (Concentrations in ug/L)	NYS Standard 1)	Sample Designation: MW-26 Sample Date: 1/4/91	Sample Designation: MW-28 Sample Date: 1/8/91	Sample Designation: MW-29 Sample Date: 1/4/91	Sample Designation: MW-32 Sample Date: 1/4/91	Sample Designation: MW-33 Sample Date: 1/5/91	Sample Designation: MW-33+ Sample Date: 1/5/91
Aluminum	NS	15300 N*V	1760 N*V	294 N*V	869 N*V	4460 N*	3150 N*V
Antimony	NS	<7.6	<7.6	<7.6	<7.6	<7.6	<7.6
Arsenic	25	3.3 B	<3.0	5.9 B	<3.0	<3.0	<3.0
Barium	1,000	318	47 B	152 B	28 B	95 B	105
Beryllium	3	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
Cadmium	10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Calcium	NS	75200	24200	64500	31900	28700	30400
Chromium	50	43	5.2 B	<2.2	5.5 B	15	13
Cobalt	NS	23 B	<8.7	<8.7	<8.7	12 B	19
Copper	200	62	<11	<11	18 B	<11	12
Iron	300	28700	1790	21400	1430	7450	4940
Lead	25	67 N*V	40 N*V	38 N*V	49 N*V	17 N*	53 N*V
Magnesium	35,000	23400	4260 B	21200	11500	8860	8250
Manganese	300	3720 NV	1090 N	2750 NV	229 NV	484 N	442 NV
Mercury	2	0.2	0.5	0.2	0.2	<0.2	<0.2
Nickel	NS	38 B	26	<22	<22	27 B	<22
Potassium	NS	5800	5020	7070	3640 B	4470 B	4180
Selenium	10	<3.3 N*WV	<3.3 N*WV	<3.3 N*WV	<3.3 N*V	10.1 R	<3.3 N*WV
Silver	50	<2.8	<2.8	<2.8 WV	<2.8	<2.8	<2.8 WV
Sodium	20,000	12700	134000	169000	93400	43900	44800
Thallium	4	<3.5 WNV	<3.5 WNV	<3.5 WNV	<3.5 NV	<3.5 WNV	<3.5 WNV
Vanadium	NS	30 B	<9.2	<9.2	<9.2	<9.2	<9.2
Zinc	300	73	20	13 B	31	92	71

Table A-14. Summary of Metal Concentrations Detected in Ground-Water Samples, Sunnyside Yard, Queens, New York.

Sample Designation:		FB-1	FB-2	FB-3	TB-1	TB-2	TB-3
Sample Date:		1/4/91	1/5/91	1/8/91	1/4/91	1/5/91	1/8/91
Metals (Concentrations in ug/L)	NYS Standard 1)						
Aluminum	NS	<97 N*V	100 BN*V	168 BN*V	<97 N*V	<97 N*V	119 BN*V
Antimony	NS	<7.6	<7.6	<7.6	<7.6	<7.6	<7.6
Arsenic	25	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Barium	1,000	<3.2	<3.2	<3.2	<3.2	<3.2	<3.2
Beryllium	3	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
Cadmium	10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Calcium	NS	403 B	568 B	381 B	523 B	210 B	496 B
Chromium	50	2.7 B	<2.2	7.4 B	<2.2 WV	<2.2	8.2 B
Cobalt	NS	<8.7	<8.7	<8.7	<8.7	<8.7	<8.7
Copper	200	<11	<11	12 B	<11	<11	<11
Iron	300	69 B	140	81 B	71	79 B	64 B
Lead	25	41 N*V	12 N*V	9.1 WN*V	11 N*V	9.2 N*V	43 N*V
Magnesium	35,000	<71	80 B	176 B	<71	<71	144 B
Manganese	300	<3.4 N	<3.4 N	<3.4 N	<3.2 NV	<3.4 NV	<3.4 NV
Mercury	2	0.7	0.3	0.2	<0.2	<0.2	0.6
Nickel	NS	<22	<22	<22	<22	<22	<22
Potassium	NS	<34	<34	140 B	<34	<34	250 B
Selenium	10	<3.3 N*V	<3.3 N*WV	<3.3 N*WV	<3.3 N*V	<3.3 N*V	<3.3 N*WV
Silver	50	<2.8 WV	<2.8	<2.5 W	<2.8	<2.8	<2.5
Sodium	20,000	720 B	800 B	230 B	660 B	530 B	480 B
Thallium	4	<3.5 NV	<3.5 NV	<3.5 N	<3.5 NV	<3.5 N	<3.5 N
Vanadium	NS	<9.2	<9.2	16 B	<9.2	<9.2	12 B
Zinc	300	11 B	28	9.0 B	13 B	8.0 B	6.0 B

B - Value >IDL but <CRDL.
N - Matrix spike outside of recovery limits.
< or U - Value < IDL.
* - Duplicate RPD out of control.
W - Post digest spike recovery out of range.
V - Qualifier added and/or value altered during data validation.
R - Declared unusable during data validation.
+ - Replicate sample.
ug/L - Micrograms per liter.
FB - Field blank.
TB - Trip blank.

1) Standards listed are the most stringent of the standards found in either the New York State Official Compilation of Codes, Rules and Regulations (10 NYCRR Subpart 5.1 MCL or 6NYCRR 703 Standard) or in the New York State Department of Environmental Concervation Division of Water Technical and Operational Guidance Series (1.1.1.), Ambient Water Quality Standards and Guidance Values. Standards are only provided for those compounds for which concentrations were detected.

APPENDIX B

Supplemental Analytical Data Summary Tables

Table B-1. Supplemental Manhole Analytical Data for Off-Site Delineation of Separate-Phase Petroleum Accumulation, Sunnyside Yard, Queens, New York.

Sample Designation:	MH-3	MH-5
Sample Date:	10/23/91	10/23/91
Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/L)		
Aroclor-1016	0.5 U	0.5 U
Aroclor-1221	0.5 U	0.5 U
Aroclor-1232	0.5 U	0.5 U
Aroclor-1242	0.5 U	0.5 U
Aroclor-1248	0.5 U	0.5 U
Aroclor-1254	1.0 U	1.0 U
Aroclor-1260	1.0 U	1.0 U
Total Aroclors	--	--
Petroleum Hydrocarbons	1,000 U	1,000 U

ug/L - Micrograms per liter
U - Indicates that the compound was analyzed for but not detected.
NOTE: Total aroclors represents the sum of the total of all aroclors detected above the listed practical quantitation limits (PQL). NYS Standard listed applies to the sum of these substances.

Table B-2. Supplemental Groundwater Analytical Data for Underground Storage Tank Investigation, Area 2, Sunnyside Yard, Queens, New York.

Sample Designation: MW-41
Sample Date: 11/6/91

Volatile Organic Compounds
(Concentrations in ug/L)

Chloromethane	10 U
Bromomethane	10 U
Vinyl Chloride	10 U
Chloroethane	10 U
Methylene Chloride	5 U
Acrolein	20 U
Acrylonitrile	20 U
Acetone	10 U
Trichlorofluoromethane	5 U
1,1-Dichloroethene	5 U
1,1-Dichloroethane	5 U
1,2-Dichloroethene (total)	5 U
Chloroform	5 U
1,2-Dichloroethane	5 U
2-Butanone	10 U
1,1,1-Trichloroethane	5 U
Carbon Tetrachloride	5 U
Bromodichloromethane	5 U
1,2-Dichloropropane	5 U
cis-1,3-Dichloropropene	5 U
Trichloroethene	5 U
Dibromochloromethane	5 U
1,1,2-Trichloroethane	5 U
Benzene	5 U
trans-1,3-Dichloropropene	5 U
2-Chloroethylvinylether	10 U
Bromoform	5 U
Tetrachloroethene	5 U
1,1,2,2-Tetrachloroethane	5 U
Toluene	5 U
Chlorobenzene	5 U
Ethylbenzene	5 U
m&p-Xylenes	10 U
o-Xylenes	5 U

ug/L - Micrograms per liter
U - Indicates that the compound was analyzed for but not detected.

Table B-3. Supplemental Soil Analytical Data for Underground Storage Tank Investigation, Area 2, Sunnyside Yard, Queens, New York.

Sample Designation:	S-97	S-97	S-98
Sample Depth (ft):	4-6	6-8	4-6
Sample Date:	10/30/91	10/30/91	10/30/91
Volatile Organic Compounds (Concentrations in ug/kg)			
Chloromethane	11 U	57000 U	1400 U
Bromomethane	11 U	57000 U	1400 U
Vinyl Chloride	11 U	57000 U	1400 U
Chloroethane	11 U	57000 U	1400 U
Methylene Chloride	2 J	29000 U	690 U
Acrolein	22 U	110000 U	2700 U
Acrylonitrile	22 U	110000 U	2700 U
Acetone	11 U	57000 U	1400 U
Trichlorofluoromethane	6 U	29000 U	690 U
1,1-Dichloroethene	6 U	29000 U	690 U
1,1-Dichloroethane	6 U	29000 U	690 U
1,2-Dichloroethene (total)	6 U	29000 U	690 U
Chloroform	6 U	6500 J	690 U
1,2-Dichloroethane	6 U	29000 U	690 U
2-Butanone	11 U	57000 U	1400 U
1,1,1-Trichloroethane	6 U	29000 U	690 U
Carbon Tetrachloride	6 U	29000 U	690 U
Bromodichloromethane	6 U	29000 U	690 U
1,2-Dichloropropane	6 U	29000 U	690 U
cis-1,3-Dichloropropene	6 U	29000 U	690 U
Trichloroethene	6 U	29000 U	690 U
Dibromochloromethane	6 U	29000 U	690 U
1,1,2-Trichloroethane	6 U	29000 U	690 U
Benzene	6 U	29000 U	690 U
trans-1,3-Dichloropropene	6 U	29000 U	690 U
2-Chloroethylvinylether	11 U	57000 U	1400 U
Bromoform	6 U	29000 U	690 U
Tetrachloroethene	6 U	29000 U	690 U
1,1,2,2-Tetrachloroethane	6 U	29000 U	690 U
Toluene	6 U	29000 U	690 U
Chlorobenzene	6 U	29000 U	690 U
Ethylbenzene	6 U	27000 J	690 U
m&p-Xylenes	11 U	220000	1400 U
o-Xylenes	6 U	29000	690 U

ug/kg - Micrograms per kilogram.
U - Indicates that the compound was analyzed for but not detected.
J - Estimated value

APPENDIX C

Geologic Logs

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05511Y Date 10/30/91
Project Sunnyside Yard UST
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. S-96
Location Area 2
M.P. Elevation
Drilling Started 08:30 Ended 09:20
Driller Land, Air, Water
Type of Rig B-61 Mobile

WELL DATA
Hole Diam. (in.) 6
Final Depth (ft.) 12
Casing Diam. (in.)
Casing Length (ft.)
Screen Setting (ft.)
Screen Slot & Type
Well Status

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type Split spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION
1 ppm			0 - 4'	Grab Sample	Sand and Gravel	0	Brown medium to coarse SAND, trace fine to coarse Gravel with fractured cobbles.
						2	
0 ppm		0.6	4 - 6'	7,5,3,2		4	Same as above except no fractured rock.
0 ppm		0.5	6 - 8'	4,2,2,1		6	Brown fine, medium and coarse, SAND, trace Gravel. Wet at 6.0 ft bls.
0 ppm		1.2	8 - 10'	6,2,2,3		8	Brown fine, medium and coarse, SAND, trace Gravel.
0 ppm		0.9	10 - 12'	4,2,3,4		10	Brown fine, medium and coarse SAND, trace Gravel.
					----------	12	Bottom of boring 12 ft bls.
					Bottom of Boring	14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05511Y Date 10/30/91
Project Sunnyside Yard UST
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. S-97
Location Area 2
M.P. Elevation
Drilling Started 12:00 Ended 13:00
Driller Land, Air, Water
Type of Rig B-61 Mobile

WELL DATA
Hole Diam. (in.) 6
Final Depth (ft.) 12
Casing Diam. (in.)
Casing Length (ft.)
Screen Setting (ft.)
Screen Slot & Type
Well Status

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type Split spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION
54.1 ppm			0 - 2'	Grab Sample		0	Dark brown medium to coarse SAND and Gravel.
			2 - 4'	Grab Sample	Sand and Gravel	2	Orange brown medium to coarse SAND, some Gravel, trace cobbles.
54.7 ppm		0.4	4 - 6'	3,3,2,3		4	Orange brown fine, medium and coarse SAND, trace Gravel; Petroleum odor.
12.95		1.0	6 - 8'	2,5,6,4		6	Grey-black stained medium to coarse SAND, trace Gravel; Odor; Sheen. Wet at 6.4 ft bls.
651		1.6	8 - 10'	2,3,5,7		8	Grey-black stained medium to coarse SAND, trace Gravel; Odor; Sheen.
613		1.8	10 - 12'	2,3,3,6		10	Grey-black stained medium to coarse SAND, trace Gravel; Odor; Sheen.
					---------- - Bottom of Boring	12	Bottom of boring 12 ft bls.
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05511Y Date 10/30/91
Project Sunnyside Yard UST
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. S-98
Location Area 2
M.P. Elevation
Drilling Started 10:10 Ended 10:45
Driller Land, Air, Water
Type of Rig B-61 Mobile

WELL DATA
Hole Diam. (in.) 6
Final Depth (ft.) 12
Casing Diam. (in.)
Casing Length (ft.)
Screen Setting (ft.)
Screen Slot & Type
Well Status

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type Split spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION
52.0 ppm			0 - 4'	Grab Sample	Railroad Fill	0	Dark brown fine to coarse SAND with railroad bed fill.
					Sand and Gravel	2	Brown medium to coarse SAND, trace fine Gravel.
225 ppm		0.5	4 - 6'	3,6,12,15		4	Brown to grey - black stained medium and to coarse SAND, trace Gravel; Petroleum odor; Smear zone from 5.5 to 6.5 ft bls.
191 ppm		0.3	6 - 8'	10,11,14,16		6	Grey-black stained fine medium and coarse SAND trace fine Gravel; Odor. Wet at 6.5 ft bls.
1017 ppm		0.6	8 - 10'	4,5,7,5		8	Grey-black stained fine, medium and coarse SAND, trace fine Gravel; Odor; Sheen.
						10	
					---------- - Bottom of Boring	12	Bottom of boring 12 ft bls.
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 1/18/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By Chris Clark
Well/Boring No. S-99
Location
M.P. Elevation
Drilling Started 17:10 Ended 17:20
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 2
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type Posthole Digger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-2'	Posthole	Sand, railroad fill	0	Dark brown fine to medium SAND; Railroad ballast.
					---------- Bottom of Boring	2	Bottom of boring 2 ft bls.
						4	
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 1/18/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By Chris Clark
Well/Boring No. S-100
Location
M.P. Elevation
Drilling Started 15:10 Ended 15:20
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 2
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type Posthole Digger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
0			0-2'	Posthole	Sand, railroad fill	0	Brown fine to medium SAND; Railroad ballast.
					---------- Bottom of Boring	2	Bottom of boring 2 ft bls.
						4	
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 1/18/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By Chris Clark
Well/Boring No. S-102
Location
M.P. Elevation
Drilling Started Ended
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 2
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type Posthole Digger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-2'	Posthole	Railroad Fill	0	Dark brown fine to medium SAND mixed with railroad ballast.
					---------- Bottom of Boring	2	Bottom of boring 2 ft bls.
						4	
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 1/19/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By Chris Clark
Well/Boring No. S-103
Location
M.P. Elevation
Drilling Started 13:15 Ended 13:25
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 2
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Posthole Digger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-2'	Posthole	Sand, railroad fill	0	Dark brown fine to medium SAND; Railroad ballast.
					---------- Bottom of Boring	2	Bottom of boring 2 ft bls.
						4	
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 1/25/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By Dan Keohane
Well/Boring No. S-104
Location
M.P. Elevation
Drilling Started 09:25 Ended 09:40
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 2
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Posthole Digger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-2'	Posthole	Sand, railroad fill	0	Dark brown fine to medium SAND; Railroad ballast.
					---------- Bottom of Boring	2	Bottom of boring 2 ft bls.
						4	
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 1/25/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By Chris Clark
Well/Boring No. S-105
Location
M.P. Elevation
Drilling Started 09:25 Ended 09:40
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 2
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Posthole Digger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-2'	Posthole	Sand, railroad fill	0	Dark brown fine to medium SAND; Railroad ballast.
					---------- Bottom of Boring	2	Bottom of boring 2 ft bls.
						4	
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 1/25/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By Dan Keohane
Well/Boring No. S-106
Location
M.P. Elevation
Drilling Started 09:40 Ended 09:50
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 2
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Posthole Digger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-2'	Posthole	Sand, railroad fill	0	Dark brown fine to medium SAND; Railroad ballast.
					---------- Bottom of Boring	2	Bottom of boring 2 ft bls.
						4	
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 1/25/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By Dan Keohane
Well/Boring No. S-107
Location
M.P. Elevation
Drilling Started 08:40 Ended 09:00
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 2
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type Posthole Digger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-2'	Posthole	Sand, railroad fill	0	Dark brown fine to medium SAND; Railroad ballast.
					---------- Bottom of Boring	2	Bottom of boring 2 ft bls.
						4	
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 1/25/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By Chris Clark
Well/Boring No. S-108
Location
M.P. Elevation
Drilling Started 09:00 Ended 09:15
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 2
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Posthole Digger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	SAMPLE Rec.	SAMPLE Depth	SAMPLE Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-2'	Posthole	Sand, railroad fill	0	Dark brown fine to medium SAND; Railroad ballast.
					---------- Bottom of Boring	2	Bottom of boring 2 ft bls.
						4	
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 1/20/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By Chris Clark
Well/Boring No. S-111
Location
M.P. Elevation
Drilling Started 12:05 Ended 12:20
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 2
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type Posthole Digger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-2'	Posthole	Sand, railroad fill	0	Dark brown fine to medium SAND; Railroad ballast.
					---------- Bottom of Boring	2	Bottom of boring 2 ft bls.
						4	
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 1/20/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By Chris Clark
Well/Boring No. S-112
Location
M.P. Elevation
Drilling Started 14:25 Ended 14:50
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 2
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Posthole Digger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-2'	Posthole	Sand, railroad fill	0	Dark brown fine to medium SAND; Railroad ballast.
					---------- Bottom of Boring	2	Bottom of boring 2 ft bls.
						4	
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 1/20/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By Chris Clark
Well/Boring No. S-113
Location
M.P. Elevation
Drilling Started 11:48 Ended 12:00
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 2
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Posthole Digger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-2'	Posthole	Sand, railroad fill	0	Dark brown fine to medium SAND; Railroad ballast.
					---------- Bottom of Boring	2	Bottom of boring 2 ft bls.
						4	
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 1/20/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By Chris Clark
Well/Boring No. S-114
Location
M.P. Elevation
Drilling Started 14:00 Ended 14:10
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 2
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Posthole Digger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-2'	Posthole	Sand, railroad fill	0	Dark brown fine to medium SAND; Railroad ballast.
					---------- Bottom of Boring	2	Bottom of boring 2 ft bls.
						4	
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 1/20/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By Chris Clark
Well/Boring No. S-115
Location
M.P. Elevation
Drilling Started 11:35 Ended 11:45
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 2
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type Posthole Digger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-2'	Posthole	Sand, railroad fill	0	Dark brown fine to medium SAND; Railroad ballast.
					---------- Bottom of Boring	2	Bottom of boring 2 ft bls.
						4	
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 11/29/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By Harry Gregory
Well/Boring No. S-118
Location
M.P. Elevation
Drilling Started 1410 Ended 1430
Driller A.D.T.
Type of Rig Hollow-Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 5
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2-foot Split-Spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
0			0-2'	Posthole	Railroad Fill	0	Railroad ballast
0			2-3'		Sand	2	Brown fine to coarse SAND.
0			3-5'	Split Spoon			Orange-brown fine to medium SAND.
						4	Tan fine SAND and Silt, trace Clay. Wet at 4.6 ft bls.
					----------		Bottom of boring 5 ft bls.
					Bottom of Boring	6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 11/29/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. S-119
Location
M.P. Elevation
Drilling Started 1430 Ended 1445
Driller A.D.T.
Type of Rig Hollow-Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 5
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2-Foot Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 3'	Posthole to 3'	Railroad Fill	0	Railroad ballast.
					Sand	2	Brown fine to coarse SAND.
0			3 - 5'	Split spoon	Sand and gravel	4	Tan-brown fine to coarse SAND, trace gravel; No odor; No sheen.
					---------- Bottom of Boring	6	Bottom of boring 5 ft bls.
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 11/29/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. S-120
Location
M.P. Elevation
Drilling Started 1450 Ended 1515
Driller A.D.T.
Type of Rig Hollow-Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 11
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2-Foot Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 3'	Posthole to 3'	Sand, orgaincs	0	Brown fine to coarse SAND and Silt; Organic matter.
						2	
						4	
						6	
						8	Wet at 8 ft bls.
84.4	1	2	9 - 11'	Split spoon			Grey stained fine to medium(+) to coarse SAND.
						10	Petroleum hydrocarbon odor - separate phase noted in spoon(bottom 0.5').
					---------- Bottom of Boring		Bottom of Boring 11 ft bls.
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 11/29/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. S-121
Location
M.P. Elevation
Drilling Started 1515 Ended 1605
Driller A.D.T.
Type of Rig Hollow-Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 11
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2-Foot Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 3'	Posthole to 3'	Sand, silt and organics	0	Brown fine to coarse SAND and Silt; Organic matter.
39.4	1	2	9-11'	Split spoon	Sand	10	Grey stained medium to coarse SAND; Petroleum hydrocarbon odor. Wet at 9 ft bls.
					---------- Bottom of Boring	12	Bottom of boring at 11 ft bls.

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 4/9/94
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By John Gerlach
Well/Boring No. S-122
Location
M.P. Elevation
Drilling Started 1145 Ended 1235
Driller Roux Associates, Inc.
Type of Rig Backhoe

WELL DATA
Hole Diam. (in.) 36
Final Depth (ft.) 8.5
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type Hand Auger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
0			0-2'	Backhoe	Sand and railroad fill	0	Dark gray-brown SAND and Silt; mixed with railroad ballast; damp
					Cinders	2	Black fly ash and cinders
0			2.5-8.5'		Sand, silt and gravel		Brown fine to coarse SAND, trace Silt, Gravel and Boulders to several feet in diameter
						4	
						6	
						8	Wet at 8 ft bls.
					---------- Bottom of Boring		Bottom of boring 8.5 ft bls.
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 4/9/94
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By John Gerlach
Well/Boring No. S-123
Location
M.P. Elevation
Drilling Started 09:50 Ended 10:50
Driller Roux Associates, Inc.
Type of Rig Backhoe

WELL DATA

Hole Diam. (in.) 36
Final Depth (ft.) 8
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Hand Auger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
0			0-2'	Backhoe	Sand and railroad fill	0	Dark gray-brown SAND and Silt; Mixed with railroad ballast; damp.
0			2-8'		Sand, silt and boulders	2	Brown fine to medium SAND, some Silt and Boulders; Boulders to several feet in diameter.
						4	
						6	
							Wet at 7.5 ft bls.
					---------- Bottom of Boring	8	Bottom of boring 8 ft bls.
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 4/9/94
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By John Gerlach
Well/Boring No. S-124
Location
M.P. Elevation
Drilling Started 10:55 Ended 11:35
Driller Roux Associates, Inc.
Type of Rig Backhoe

WELL DATA

Hole Diam. (in.) 36
Final Depth (ft.) 8.5
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Hand Auger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
0			0-2'	Backhoe	Sand and railroad fill	0	Dark gray-brown SAND and Silt; Mixed with railroad ballast; Damp.
0			2.5-8.5'		Sand, silt and boulders	2	Brown fine to medium SAND, some Silt and Boulders; Boulders to 1.5' feet in diameter.
						4	
						6	
						8	Wet at 8 ft bls.
					---------- Bottom of Boring		Bottom of boring at 8.5 ft bls.
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 11/29/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By Harry Gregory
Well/Boring No. S-129
Location
M.P. Elevation
Drilling Started 1345 Ended 1410
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 5
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Posthole Digger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
0			0-1.5'	Posthole	Railroad fill	0	Railroad ballast.
			1.5-3'		Sand and gravel	2	Brown fine to coarse SAND, trace Gravel.
			3-5'		Sand, silt and clay	4	Tan fine SAND and Silt, trace Clay; Hydrocarbon odor; Sheen. Sampled for analysis. Wet at 3.5 ft bls.
					---------- Bottom of Boring	6	Bottom of boring at 5 ft bls.
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 11/8/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By John Gerlach
Well/Boring No. S-130
Location
M.P. Elevation
Drilling Started 1200 Ended 1240
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 2
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Posthole Digger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
0			0-2'	Posthole	Sand, silt, clay and gravel	0	Brown medium to coarse SAND, some Silt and Clay, trace Gravel; Dark staining.
					---------- Bottom of Boring	2	Wet at 2 ft bls.
							Bottom of boring 2 ft bls.
						4	
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 11/8/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By John Gerlach
Well/Boring No. S-131
Location
M.P. Elevation
Drilling Started 1010 Ended 1050
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 4
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Posthole Digger / 2-Foot, S.S.
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
0			0-2'	Posthole	Sand,silt and gravel	0	Dark brown to black fine to coarse SAND, some Silt, trace Gravel; Dark staining.
			2-4'	Split-Spoon		2	
					---------- Bottom of Boring	4	Bottom of boring 4 ft bls.
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 11/8/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By John Gerlach
Well/Boring No. S-132
Location
M.P. Elevation
Drilling Started 1030 Ended 1130
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 4
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Posthole Digger / 2-Foot, S.S.
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-2'	Posthole	Sand and gravel	0	Brown medium to coarse SAND, some coarse Gravel, trace large cobbles; Dark staining to 1 foot below grade.
			2-4'	Split-Spoon		2	Wet at 2.3 ft bls.
					---------- Bottom of Boring	4	Bottom of boring 4 ft bls.
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 11/8/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By John Gerlach
Well/Boring No. S-133
Location
M.P. Elevation
Drilling Started 1250 Ended 1330
Driller Roux Associates, Inc.
Type of Rig Posthole

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 3
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type Posthole digger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
0			0-3'	Posthole	Sand, silt, clay and rock fragments	0	Dark brown medium to coarse SAND, some Silt, Clay and Rock fragments; Petroleum odor and staining.
						2	Wet at 3 ft bls.
					---------- Bottom of Boring	4	Bottom of boring 3 ft bls.
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 11/8/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By John Gerlach
Well/Boring No. S-134
Location
M.P. Elevation
Drilling Started 0850 Ended 1145
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 2
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Posthole Digger / 2-Foot, S.S.
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
0			0-2'	Posthole	Railroad Fill	0	Railroad ballast mixed with dark brown Silt and Clay, some Sand; Petroleum odor.
					---------- Bottom of Boring	2	Bottom of boring at 2 ft bls.
						4	
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 12/7/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By Greg Murphy
Well/Boring No. S-135
Location
M.P. Elevation
Drilling Started 0910 Ended 0930
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 3
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Posthole Digger / Hand Auger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
0			0-3'	Posthole	Sand and gravel	0	Brown fine to coarse SAND, trace Gravel; Hydrocarbon staining to 0.5 ft bls.
						2	
					---------- Bottom of Boring		Bottom of boring 3 ft bls.
						4	
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 12/7/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By Greg Murphy
Well/Boring No. S-136
Location
M.P. Elevation
Drilling Started 0950 Ended 1010
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 3.5
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type Posthole Digger / Hand Auger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
0			0-3.5'	Posthole	Sand and gravel	0	Brown fine to coarse SAND, trace Gravel; Hydrocarbon staining to 0.5 ft bls.
						2	
					---------- Bottom of Boring	4	Bottom of boring 3.5 ft bls.
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 12/7/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By Greg Murphy
Well/Boring No. S-137
Location
M.P. Elevation
Drilling Started 1025 Ended 1045
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 3
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type Posthole Digger / Hand Auger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
5.4			0-3'	Posthole	Sand and gravel	0	Brown fine to coarse SAND, trace Gravel; Hydrocarbon staining.
						2	
0			3-5'		Clay and silt	4	Blueish-green Clayey SILT and Silty Clay; Soft; Moist; Odor.
					---------- Bottom of Boring	6	Wet at 5 ft bls. Bottom of boring 5 ft bls.
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 12/16/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By G. Murphy / H. Gregory
Well/Boring No. S-138
Location
M.P. Elevation
Drilling Started 1110 12/7 Ended 1335 12/16
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 4
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Posthole Digger / Hand Auger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
0			0-3'	Posthole	Sand and gravel	0	Brown fine to coarse SAND, trace Gravel; hydrocarbon staining
						2	
0			3-4'				Wet at 3.8 ft bls.
					---------- Bottom of Boring	4	Bottom of boring 4 ft bls.
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 12/7/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By Greg Murphy
Well/Boring No. S-139
Location
M.P. Elevation
Drilling Started 0930 Ended 0950
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 3
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type Posthole Digger / Hand Auger
Hammer NA lb.
Fall NA in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
0			0-3'	Posthole	Sand and gravel	0	Brown fine to coarse SAND, trace Gravel; hydrocarbon staining.
						2	
					---------- Bottom of Boring	4	Bottom of boring 3 ft bls.
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 12/27/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By J. Gerlach
Well/Boring No. S-140
Location
M.P. Elevation
Drilling Started 13:10 Ended 13:15
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.)
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type Posthole Digger
Hammer lb.
Fall in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 4'	Posthole	Railroad Fill and sand	0	Brown SAND and railroad ballast.
					Sand	2	Brown fine to coarse SAND; No odor; No sheen. Wet at 3 ft bls.
					---------- Bottom of Boring	4	Bottom of boring 4 ft bls.
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 12/27/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By J. Gerlach
Well/Boring No. S-141
Location
M.P. Elevation
Drilling Started 12:45 Ended 13:00
Driller Roux Associates
Type of Rig Posthole Digger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 4.5
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Posthole Digger
Hammer ____ lb.
Fall ____ in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-4.5'	Posthole	Sand	0	Brown fine to coarse SAND
						2	Grey stained fine to coarse SAND; Petroleum hydrocarbon odor strong; Wet at 3.5 ft bls.
						4	Bottom of boring at 4.5 feet below land surface
					---------- Bottom of Boring	6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 12/27/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By J. Gerlach
Well/Boring No. S-142
Location
M.P. Elevation
Drilling Started 1220 Ended 1315
Driller Roux Associates, Inc. / A.D.T.
Type of Rig Posthole Digger / Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 10
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type Posthole Digger
Hammer ____ lb.
Fall ____ in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 3'	Posthole	Sand, silt and organics	0	Brown fine to coarse SAND and silt; Organic matter; Wet at 1 ft bls.
					Sand	2	Grey stained fine to coarse SAND; Petroleum hydrocarbon odor.
				Cuttings		4	
						6	
						8	Grey Stained fine to coarse SAND; Petroleum hydrocarbon odor.
					---------- Bottom of Boring	10	Bottom of Boring 10 ft bls.
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 12/27/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By J. Gerlach
Well/Boring No. S-143
Location
M.P. Elevation
Drilling Started 1415 Ended 1435
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 4
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Posthole Digger
Hammer ____ lb.
Fall ____ in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 4'	Posthole	Sand and gravel	0	Black stained medium to coarse SAND and Gravel.
							Brown medium to coarse SAND and Gravel, trace cobbles.
						2	
							Wet at 3 ft bls. Sheen on water. Petroleum hydrocarbon odor at 3 ft bls.
					----------	4	Bottom of Boring 4 ft bls.
					Bottom of Boring		
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 12/27/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By J. Gerlach
Well/Boring No. S-144
Location
M.P. Elevation
Drilling Started 1345 Ended 1410
Driller Roux Associates, Inc.
Type of Rig Posthole Digger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 4
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Posthole Digger
Hammer ____ lb.
Fall ____ in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 4'	Posthole	Sand and gravel	0	Black stained medium to coarse SAND and Gravel.
						2	Brown medium to coarse SAND and Gravel, trace cobbles. Wet at 3.3 ft bls. Separate phase on water at 3.3 ft bls. Strong petroleum hydrocarbon odor.
					---------- Bottom of Boring	4	Bottom of Boring 4 ft bls.
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 12/27/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By J. Gerlach
Well/Boring No. S-145
Location
M.P. Elevation
Drilling Started 1440 Ended 1450
Driller Roux Associates
Type of Rig Posthole Digger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 3.5
Casing Diam. (in.) NA
Casing Length (ft.) NA
Screen Setting (ft.) NA
Screen Slot & Type NA
Well Status Soil Boring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type Posthole Digger
Hammer ____ lb.
Fall ____ in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 3.5'	Posthole	Sand	0	Orange brown SAND.
						2	Wet at 3 ft bls. No sheen or petroleum odor.
					---------- Bottom of Boring	4	Bottom of boring 3.5 ft bls.
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05509Y Date 10/16/91
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. HB-1
Location
M.P. Elevation
Drilling Started Ended
Driller
Type of Rig Hand boring

WELL DATA

Hole Diam. (in.)
Final Depth (ft.) 4.0
Casing Diam. (in.)
Casing Length (ft.)
Screen Setting (ft.)
Screen Slot & Type
Well Status

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type
Hammer lb.
Fall in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 2'	Cuttings	Sand and silt, cinders	0	Dark brown, fine to medium SAND and Silt, cinders.
			2 - 3.5'	Cuttings		2	Brown to black, fine to medium SAND and Silt with ash and cinders; Odor.
							Wet at approximately 3.5 ft bls; Sheen on water.
					----------	4	Bottom of boring 4.0 ft bls.
					Bottom of Boring		
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05509Y Date 10/16/91
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. HB-2
Location
M.P. Elevation
Drilling Started Ended
Driller
Type of Rig Hand boring

WELL DATA
Hole Diam. (in.)
Final Depth (ft.) 3.5
Casing Diam. (in.)
Casing Length (ft.)
Screen Setting (ft.)
Screen Slot & Type
Well Status

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type
Hammer lb.
Fall in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 2'	Cuttings	Sand and silt cinders	0	Dark brown, fine to medium SAND and Silt with cinders and ash.
			2 - 3'	Cuttings		2	Orange-brown, fine to medium SAND and Silt; Some grey staining; Odor. Wet at 2.8 ft bls; Slight sheen.
					----------		Bottom of Boring 3.5 ft bls.
					-	4	
					Bottom of Boring		
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05509Y Date 10/16/91
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. HB-3
Location
M.P. Elevation
Drilling Started Ended
Driller Land, Air, Water
Type of Rig Hand boring

WELL DATA

Hole Diam. (in.)
Final Depth (ft.) 4.0
Casing Diam. (in.)
Casing Length (ft.)
Screen Setting (ft.)
Screen Slot & Type
Well Status

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type
Hammer lb.
Fall in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 3.5'	Cuttings	Sand and silt, cinders	0	Dark brown fine to medium SAND and Silt, trace Gravel.
			3.5-4.0'	Cuttings		2	Same as above, with large cinders; Staining; Odor.
					Bottom of Boring	4	Wet at 3.5 ft bls; Floating product. Bottom of Boring 4.0 ft bls.
						6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) sample description logged from drill cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05509Y Date 10/16/91
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. HB-4
Location
M.P. Elevation
Drilling Started Ended
Driller Land, Air, Water
Type of Rig Hand boring

WELL DATA

Hole Diam. (in.)
Final Depth (ft.) 4.0
Casing Diam. (in.)
Casing Length (ft.)
Screen Setting (ft.)
Screen Slot & Type
Well Status

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type
Hammer lb.
Fall in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 3.5'	Cuttings	Sand and Silt	0	Dark-brown, fine to medium SAND and Silt, trace Gravel.
			3.5 - 4.0'	Cuttings	---------- Bottom of Boring	4	Same as above, with large cinders; Staining; Odor. Wet at 3.5 ft bls; Floating product. Bottom of Boring at 4 ft bls.

2 4 6 8 10 12 14 16 18

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) sample descriptions logged from drill cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05509Y Date 10/16/91
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. HB-5
Location
M.P. Elevation
Drilling Started Ended
Driller Land, Air, Water
Type of Rig Hand boring

WELL DATA

Hole Diam. (in.)
Final Depth (ft.) 4.0
Casing Diam. (in.)
Casing Length (ft.)
Screen Setting (ft.)
Screen Slot & Type
Well Status

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type
Hammer lb.
Fall in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 3.5'	Cuttings	Sand and Silt	0	Dark-brown, fine to medium SAND and Silt, trace Gravel.
			3.5-4.0'	Cuttings		4	Same as above, with large cinders; Staining; Odor. Wet at 3.5 ft bls; Floating product.
					Bottom of Boring		Bottom of boring 4.0 ft bls.

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) sample descriptions logged from drill cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05509Y Date 10/16/91
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. HB-6
Location
M.P. Elevation
Drilling Started Ended
Driller
Type of Rig Hand boring

WELL DATA
Hole Diam. (in.)
Final Depth (ft.) 4.5
Casing Diam. (in.)
Casing Length (ft.)
Screen Setting (ft.)
Screen Slot & Type
Well Status

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type
Hammer lb.
Fall in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 2'	Cuttings	Sand and silt, cinders	0	Dark brown, fine to medium SAND and Silt.
			2 - 3'	Cuttings		2	Same as above, with cinders.
			3.0-3.5'	Cuttings			Orange-brown, fine silty SAND.
			3.5-4.0'	Cuttings			Grey, fine silty SAND; Odor.
						4	Wet at approximately 4.0 ft bls; Floating product.
					----------		Bottom of Boring 4.5 ft bls.
					Bottom of Boring	6	
						8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) sample description logged from drill cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05509Y Date 10/16/91
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. HB-7
Location
M.P. Elevation
Drilling Started Ended
Driller
Type of Rig Hand boring

WELL DATA
Hole Diam. (in.)
Final Depth (ft.) 6.5
Casing Diam. (in.)
Casing Length (ft.)
Screen Setting (ft.)
Screen Slot & Type
Well Status

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type
Hammer lb.
Fall in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 1'	Cuttings	Cuttings	0	Dark brown fine to medium SAND and Silt.
			1 - 5'	Cuttings	Sand and silt, cinders		Same as above, cinders.
						2	
						4	
			5 - 6'	Cuttings			Orange-brown, fine silty SAND, trace Clay; Very tight; No odor.
						6	Wet at approximately 6.0 ft bls; Clean.
					----------		Bottom of Boring 6.5 ft bls.
					Bottom of Boring	8	
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) sample descriptions logged from drill cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05509Y Date 10/16/91
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. HB-8
Location
M.P. Elevation
Drilling Started Ended
Driller
Type of Rig Hand boring

WELL DATA
Hole Diam. (in.)
Final Depth (ft.) 6.5
Casing Diam. (in.)
Casing Length (ft.)
Screen Setting (ft.)
Screen Slot & Type
Well Status

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type
Hammer lb.
Fall in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 5'	Cuttings	Sand and silt, cinders	0	Light brown to black, fine to medium SAND and Silt, cinders.
			5 - 6'	Cuttings		6	Orange-brown, fine silty SAND, trace Clay; Very tight; No odor. Wet at approximately 6.0 ft bls; Clean. Bottom of Boring 6.5 ft bls.
					Bottom of Boring		

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) sample description logged from drill cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 01/06/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By C. Clark
Well/Boring No. MW-25A
Location
M.P. Elevation
Drilling Started 12:00 Ended 12:45
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 15.5
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 14' to 4'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type Cuttings
Hammer ____ lb.
Fall ____ in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
				Cuttings	Sand, gravel, cobbles	0	Dark brown to black fine to coarse(+) SAND, little fine to coarse Gravel.
						2	Brown medium to coarse(+) SAND, little coarse Gravel; Moist; (fill). Large Cobble at 2 ft bls. Brown medium to coarse SAND, trace fine to coarse Gravel.
						4	
					Sand		Brown medium to coarse SAND.
						6	
						8	
					Sand, gravel	10	Brownish gray medium to coarse SAND, trace fine Gravel. Wet at 10 ft bls.
						12	
						14	
					----------		Bottom of boring 15.5 ft bls.
					Bottom of Boring	16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05509Y Date 10/15/91
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. MW-35
Location North of sewer line
M.P. Elevation
Drilling Started 10:45 Ended 11:15
Driller Land, Air, Water, Inc.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 14
Casing Diam. (in.) 4
Casing Length (ft.) 3 ft to grade
Screen Setting (ft.) 3-13
Screen Slot & Type PVC .020 slot
Well Status Monitoring

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type cuttings
Hammer ____ lb.
Fall ____ in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-5 ft	Cuttings	Sand, silt and gravel, fill	0	Orange-brown to brown, fine to medium SAND, and Silt, cinders and building debris.
						2	
					Sand, silt and gravel	4	Wet at 4.5 ft bls.
			5-10 ft	Cuttings			Gray-brown fine to medium SAND and Silt, some Gravel.
						6	
						8	
			10-14 ft	Cuttings		10	Gray-brown fine to medium SAND and Silt, some Gravel.
						12	
					---------- Bottom of Boring	14	Bottom of boring 14 ft bls.
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) sample description logged from drill cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05509Y Date 10/15/91
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. MW-36
Location South of sewer line
M.P. Elevation
Drilling Started 14:45 Ended 15:40
Driller Land, Air, Water, Inc.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 15
Casing Diam. (in.)
Casing Length (ft.)
Screen Setting (ft.)
Screen Slot & Type
Well Status

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type cuttings
Hammer lb.
Fall in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-4 ft	Cuttings	Sand, silt and gravel, fill	0	Brown fine to medium SAND and Silt, bricks and debris.
			4-7 ft	Cuttings		4	Brown fine to medium SAND and Silt, bricks and debris; Petroleum odor. Wet at 4.5 - 5 ft bls.
			7-9 ft	Cuttings		8	Gray-brown, fine to medium SAND and Silt, some RR bed cinders; Strong petroleum odor.
			9-13 ft	Cuttings	Sand, silt and gravel	10	Gray-brown, fine to medium SAND and Silt, some Gravel.
			13-15 ft	Cuttings		12	Gray-brown fine to coarse SAND, some Gravel.
						14	Bottom of boring 15 ft bls.
					Bottom of Boring	16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) sample description logged from drill cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 12/14/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. MW-37
Location
M.P. Elevation
Drilling Started 11:30 Ended 14:20
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 14
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 11.5' to 1.5'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 3'	Posthole	Sand	0	Brown fine to medium SAND.
0	1	2	3-4'		Sand, gravel, cinders, railroad fill	4	Grey brown to black stained fine to medium SAND, trace Gravel and Cinders; Railroad ballast. Wet at 3 ft bls.
			4-6'		Sand, gravel		Brown fine to medium SAND, trace Gravel; No odor; No sheen.
0	2	1.9	9 - 11'		Sand, silt		Tan fine SAND, trace Silt.
					---------- Bottom of Boring	14	Bottom of Boring 14 ft bls.

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 12/10-13/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 2
Logged By H. Gregory
Well/Boring No. MW-38D
Location
M.P. Elevation
Drilling Started 10:00 Ended 13:00
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 44
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 39.5' to 29.5'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-4'	Posthole	Railroad Fill, sand	0	Brown-black stained fine to medium SAND; Railroad ballast.
					Sand	2	Orange-brown fine to medium SAND.
0	1	1.2	4-6'			4	Grey/brown medium to coarse SAND.
0	2	2	6-8'		Sand, gravel, brick	6	Grey-brown fine to coarse SAND, trace Gravel, trace of red brick (fill).
						8	
0	3	1	9-11'	10,5,6,6	Sand, cinders		Grey-brown medium to coarse SAND; Cinders (fill).
						10	
						12	
0	4	1	14-16'	24,16,14,15	Sand, gravel	14	Grey-brown fine to coarse SAND, trace Gravel.
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 12/13/93
Project Sunnyside Yard
Client AMTRAK
Page 2 of 2
Logged By H. Gregory
Well/Boring No. MW-38D
Location
M.P. Elevation
Drilling Started 10:00 Ended 13:00
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 44
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 39.5' to 29.5'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
						40	
						42	
					---------- Bottom of Boring	44	Bottom of boring 44 ft bls.
						46	
						48	
						50	
						52	
						54	
						56	
						58	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 12/15-16/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 3
Logged By H. Gregory and J. Gerlach
Well/Boring No. MW-39D
Location
M.P. Elevation
Drilling Started 14:15 Ended 13:00
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 43.5
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 40.5' to 30.5'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
30			0-2'	Grab Sample	Sand, railroad fill	0	0 - 19' based on log MW-19(Project #05509Y). Dark brown fine to medium SAND; Gravel; Cinders; Railroad bed fill.
70/23			2-4'	Grab Sample		2	Dark brown fine to medium SAND; Gravel; Cinders; Railroad bed fill.
					Sand, silt		Brown fine to coarse SAND, trace Silt.
18			4-6'	1,3,4,10		4	Brown to gray-brown fine SAND, trace Silt; Iron staining; gray fine sand with wet clayey silt in tip.
							Wet at 5.5 ft bls.
3.9			6-8'	4,5,5,6		6	Gray-brown fine SAND, trace clayey Silt.
					Sand		Brown fine to medium SAND.
						8	
						10	
60			12-14'	18,21,29,30	Sand, silt	12	Brown fine to coarse SAND, trace Silt.
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 12/15-16/93
Project Sunnyside Yard
Client AMTRAK
Page 2 of 3
Logged By H. Gregory and J. Gerlach
Well/Boring No. MW-39D
Location
M.P. Elevation
Drilling Started 14:15 Ended 13:00
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 43.5
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 40.5' to 30.5'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
0	1	2	19-21'		Sand, silt	20	Tan fine to medium SAND. Grey-brown fine to medium SAND, trace Silt.
						22	
						24	No sample, unable to wash out over 5 ft of sand in augers.
						26	
						28	
						30	
						32	
						34	
						36	
						38	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 12/15-16/93
Project Sunnyside Yard
Client AMTRAK
Page 3 of 3
Logged By H. Gregory and J. Gerlach
Well/Boring No. MW-39D
Location
M.P. Elevation
Drilling Started 14:15 Ended 13:00
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 43.5
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 40.5' to 30.5'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
					---------- Bottom of Boring	40 42 44 46 48 50 52 54 56 58	Bottom of Boring 43.5 ft bls.

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 11/09/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 3
Logged By H. Gregory and J. Gerlach
Well/Boring No. MW-40D
Location
M.P. Elevation
Drilling Started 10:00 Ended 19:30
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 42
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 39' to 29'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 3'	Posthole	Railroad Fill	0	Black stained SAND and Gravel; Railroad ballast.
10.0	1	1.5	3 - 5'	9,10,9,11	Sand, gravel	2	Brown fine to coarse(+) SAND, trace Gravel; Moderate sewer odor.
14.5	2	1.5	5 - 7'	25,18,15,19		4	Dark brown fine to coarse SAND, trace Gravel; Finer grained at tip of spoon; Mild sewer odor. Wet at 5 ft bls.
12.0	3	1	10 - 12'	1,13,16,19		6 8 10	Brown medium to coarse(+) SAND, trace Gravel; No odor.
7.0	4	0.7	15 - 17'	27,22,10,9		12 14 16	Brown medium to coarse(+) SAND, trace Gravel; No odor.
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 11/09/93
Project Sunnyside Yard
Client AMTRAK
Page 2 of 3
Logged By H. Gregory and J. Gerlach
Well/Boring No. MW-40D
Location
M.P. Elevation
Drilling Started 10:00 Ended 19:30
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 42
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 39' to 29'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
5.0	5	2	20 - 22'	31,25,23,23	Sand, gravel	20	Brown medium to coarse(+) SAND, trace Gravel; No odor.
					Sand, silt	22	Grey-brown fine to medium(+) to coarse SAND, trace Silt.
						24	
3.5	6	1.7	25 - 27'	18,30,54,58	Sand, gravel		Medium to coarse SAND, trace Gravel; (appears to be auger wash)
						26	
			28 - 32'	Cuttings	Cobble layer	28	Cobble zone.
						30	
				Cuttings	Sand, gravel, cobbles	32	Fine to coarse SAND, trace Gravel; Cobbles; Drilled like Sand.
						34	
						36	
						38	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 11/09/93
Project Sunnyside Yard
Client AMTRAK
Page 3 of 3
Logged By H. Gregory and J. Gerlach
Well/Boring No. MW-40D
Location
M.P. Elevation
Drilling Started 10:00 Ended 19:30
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 42
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 39' to 29'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
				Cuttings	Sand, gravel, cobbles	40	Fine to coarse SAND, trace Gravel, trace Cobbles; Drilled like Sand
					---------- Bottom of Boring	42	Bottom of Boring 42 ft bls
						44	
						46	
						48	
						50	
						52	
						54	
						56	
						58	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05511Y Date 10/30/91
Project Sunnyside Yard UST
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. MW-41
Location Area 2
M.P. Elevation
Drilling Started 13:40 Ended 14:15
Driller Land, Air, Water
Type of Rig B-61 Mobile

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 14
Casing Diam. (in.) 4
Casing Length (ft.) 1
Screen Setting (ft.) 13.4
Screen Slot & Type 10 Slot - SS
Well Status

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type Split spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	SAMPLE Rec.	SAMPLE Depth	SAMPLE Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION
159 ppm			0 - 2'	Grab Sample	Railroad Fill	0	Dark brown fine to coarse SAND with railroad bed fill.
			2 - 4'	Grab Sample	Sand and Gravel	2	Brown to orange brown medium to coarse SAND, trace gravel. Petroleum odor.
151 ppm	0.9		4 - 6'	4,7,12,18		4	Orange brown medium to coarse SAND trace gravel. Slight staining, moist, odor.
54.8	0.5		6 - 8'	8,7,16,19		6	Brown medium to coarse SAND/trace gravel. Odor, wet, water table at 6.4 ft.
40.1	0.6		8 - 10'	25,17,9,8		8	Grey to black medium to coarse SAND, trace gravel. Odor, staining.
38.2	1.1		10 - 12'	8,7,10,11		10	Grey medium to coarse SAND, trace gravel. Slight odor.
						12	
					---------- Bottom of Boring	14	Bottom of boring 14 ft bls.
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 01/18/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By D. Keohane
Well/Boring No. MW-42
Location
M.P. Elevation
Drilling Started 13:45 Ended 14:40
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 13.5
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 12' - 2'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
				Posthole	Sand, railroad fill	0	Dark brown medium to coarse SAND, trace Cobble; Railroad ballast.
						2	Dark brown to black coarse SAND, some coarse gravel; Coal; Cinder fragments.
0.3		2.0	3-5'	15,20,20,18	Sand, gravel	4	Reddish-brown medium to coarse SAND, little fine to coarse Gravel.
							Wet at 5 ft bls.
				Cuttings	Sand	6	Reddish-brown medium to coarse SAND.
						8	
0.0		2.0	10-12'	10,14,26,36	Sand, silt	10	Reddish-brown fine SAND, little Silt; Tight.
						12	
					---------- Bottom of Boring	14	Bottom of boring 13.5 ft bls.
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 01/29/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By C. Clark
Well/Boring No. MW-43
Location
M.P. Elevation
Drilling Started 12:20 Ended
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 14'
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 12.5' ro 1.5'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-3'	Posthole	Sand, railroad fill	0	0-9' based on Log MW-44 Dark brown coarse SAND; Railroad ballast.
					Sand, gravel, cobbles	2	Light brown medium to coarse(+) SAND, little fine to coarse(+) Gravel, trace Cobbles.
						4	
						6	
						8	
		1.5	9-11'	6,7,6,7	Sand, silt, gravel		Gray fine SAND and Silt, trace coarse Gravel; Tight. Wet at 9 ft bls.
					Silt, clay	10	Mottled gray and reddish-brown SILT and Clay.
						12	
					---------- Bottom of Boring	14	Bottom of boring 14 ft bls.
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date
Project Sunnyside Yard
Client AMTRAK
Page 1 of 3
Logged By C. Clark
Well/Boring No. MW-44
Location
M.P. Elevation
Drilling Started Ended
Driller A.D.T.
Type of Rig B-57 ATV

WELL DATA

Hole Diam. (in.) 11
Final Depth (ft.) 41
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 39.7 to 28.7 ft bls
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
				Posthole	Sand, railroad fill	0	Dark brown stained coarse SAND; Railroad ballast.
					Sand, gravel, cobbles	2	Light brown medium to coarse (+) SAND, little fine to coarse Gravel, trace Cobbles.
		0	4-6'	5,3,5,4		4	No recovery. Wet at 4 ft bls.
						6	
						8	
		1.5	9-11'	6,7,6,7	Sand, silt, gravel		Grey fine SAND and Silt, trace coarse Gravel.
					Silt, clay	10	Grey to reddish-brown mottled fine SILT and Clay; Tight.
						12	
		0	14-16'	20,20,20,22		14	No Recovery.
						16	
					Cobbles		Cobble zone.
					Sand		Grey medium to coarse (+) SAND
						18	
		2	19-21'	7,3,2,2	Sand, silt, clay		Brown medium to fine SAND, some Silt, trace Clay; Tight.

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 01/13/93
Project Sunnyside Yard
Client AMTRAK
Page 2 of 3
Logged By C. Clark
Well/Boring No. MW-44
Location
M.P. Elevation
Drilling Started 12:55 Ended
Driller A.D.T.
Type of Rig B-57 ATV

WELL DATA
Hole Diam. (in.) 11
Final Depth (ft.) 41
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 39.7' to 29.7'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
					Sand, silt, clay	20	
						22	
		2	24-26'	26,14,6,14	Sand, silt	24	Tan, fine(+) to medium SAND, trace Silt; Tight.
						26	
						28	
		1.3	29-31'	14,15,16,24		30	Tan medium to fine(+) SAND, trace Silt; Tight.
						32	
					Cobbles		Cobble zone.
		0.25	34-36'	64, 50/3"	Cobbles, sand	34	Fractured cobbles. Red-brown medium SAND.
						36	
						38	
							Cobbles.

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 01/13/93
Project Sunnyside Yard
Client AMTRAK
Page 3 of 3
Logged By C. Clark
Well/Boring No. MW-44
Location
M.P. Elevation
Drilling Started 12:55 Ended
Driller A.D.T.
Type of Rig B-57 ATV

WELL DATA
Hole Diam. (in.) 11
Final Depth (ft.) 41
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 39.7' to 29.7'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
					Cobbles	40	
					----------		Bottom of boring 41 ft bls.
					Bottom of Boring	42	
						44	
						46	
						48	
						50	
						52	
						54	
						56	
						58	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 01/11/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By D. Keohane
Well/Boring No. MW-45
Location
M.P. Elevation
Drilling Started 09:00 Ended 10:25
Driller A.D.T.
Type of Rig B-57 ATV

WELL DATA

Hole Diam. (in.) 11
Final Depth (ft.) 20
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 17 to 7 ft bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
				Posthole	Sand, gravel, cobbles	0	Dark brown to black fine to coarse SAND, little coarse Gravel, trace Cobble. Tan-brown medium to coarse SAND, little fine to coarse Gravel, trace Cobble; Moist.
						2	
				Cuttings			Red-brown medium to coarse SAND, little fine to coarse gravel, trace cobble, moist.
						4	
							Red-brown medium to coarse SAND, little fine to coarse gravel, trace cobble.
						6	
						8	
					Sand, gravel	10	Brown medium to coarse SAND little fine to coarse(+) Gravel.
						12	Wet at 12 ft bls.
						14	
						16	
						18	
					---------- Bottom of Boring		Bottom of Boring 20 ft bls.

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 01/11/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By D. Keohane
Well/Boring No. MW-46
Location
M.P. Elevation
Drilling Started 12:50 Ended 15:45
Driller A.D.T.
Type of Rig B-57 ATV

WELL DATA

Hole Diam. (in.) 11
Final Depth (ft.) 19
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 16.7 to 6.7 ft bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
				Posthole	Sand, gravel	0	Dark brown to black stained, medium to coarse SAND, little fine to coarse(+) Gravel, trace Cobble; Moist.
						2	Dark brown fine to medium SAND, trace coarse Gravel.
		1.2'	4 - 6'	3,3,4,11		4	Dark brown fine to medium SAND, trace coarse Gravel; Coal fragments.
5.3		1.5'	6 - 8'	16,11,11,17		6	Light brown medium to coarse SAND, little fine to coarse Gravel. Cobble fragments.
4.7		1.2'	8 - 10'	5,20,25,34		8	Light brown medium to coarse SAND, trace fine Gravel. Light brown medium to coarse SAND, little fine grey Gravel.
						10	Light brown medium to coarse SAND, little fine to coarse(+) Gravel. Wet at 9 ft bls.
						12	
5.5		2.0	13 - 15'	17,23,42,39		14	Brown fine to medium SAND, trace coarse Gravel; Cinders, piece of plastic (fill).
						16	No split spoon below 15 feet
						18	
					---------- Bottom of boring		Bottom of boring 19.0 ft bls.

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 01/05/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By D. Keohane
Well/Boring No. MW-47
Location
M.P. Elevation
Drilling Started 12:10 Ended 16:45
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 11
Final Depth (ft.) 14.5
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 13' to 3'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-2'	Posthole	Concrete	0	Concrete pavement.
					Sand, silt		Brown, medium to coarse SAND.
							Gray fine to coarse SAND, little silt, moist.
0.0		1.0	2-4'	7,6,5,11		2	Gray fine to coarse SAND.
					Sand, silt, mica		Gray fine SAND and Silt; Mica flakes; Moist.
0.0		0.0	4-6'	7,6,3,4		4	
						6	
0.0		1.0	6-8'	7,2,2,4	Sand, gravel		Gray fine to coarse SAND, trace fine Gravel.
					Sand		Brown medium to coarse SAND. Wet at 6.5 ft bls.
0.0		2.0	8-10'	7,6,4,4		8	Brown medium to coarse SAND.
					Sand, gravel		Brown medium to coarse SAND, trace fine Gravel.
		0.0	10-12'	14,12,14,9		10	
						12	
0.0		1.2	12-14'	15,20,16,17			Brown medium to coarse SAND, some fine(+) to coarse Gravel; Loose.
						14	
					----------		Bottom of boring 14.5 ft bls.
					Bottom of Boring	16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 02/01/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 3
Logged By H. Gregory, D. Keohane and C. Clark
Well/Boring No. MW-48
Location
M.P. Elevation
Drilling Started Ended
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 11
Final Depth (ft.) 42.0
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 30 to 40 ft bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3) Lithology to 14 ft bls based on log for MW-47
			0-2'	Posthole	Concrete	0	Concrete pavement.
					Sand, silt		Brown, medium to coarse SAND.
							Gray fine to coarse SAND, little silt, moist.
0.0		1.0	2-4'	7,6,5,11		2	Gray fine to coarse SAND.
					Sand, silt, mica		Gray fine SAND and Silt; Mica flakes; Moist.
0.0		0.0	4-6'	7,6,3,4		4	
0.0		1.0	6-8'	7,2,2,4	Sand, gravel	6	Gray fine to coarse SAND, trace fine Gravel.
					Sand		Brown medium to coarse SAND.
							Wet at 6.5 ft bls.
0.0		2.0	8-10'	7,6,4,4		8	Brown medium to coarse SAND.
					Sand, gravel		Brown medium to coarse SAND, trace fine Gravel.
		0.0	10-12'	14,12,14,9		10	
0.0		1.2	12-14'	15,20,16,17		12	Brown medium to coarse SAND, some fine(+) to coarse Gravel; Loose.
2.1		2.0	14-16'	11,7,5,6		14	Brown medium to coarse SAND, trace fine to coarse Gravel; Loose.
		0.0	16-18'	15,11,14,17		16	No recovery.
		1.5	18-20'	12,11,13		18	Brown medium(+) to coarse SAND.

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 02/01/93
Project Sunnyside Yard
Client AMTRAK
Page 2 of 3
Logged By H. Gregory, D. Keohane & C. Clark
Well/Boring No. MW-48
Location
M.P. Elevation
Drilling Started Ended
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 42
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.)
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
					Sand	20	
						22	
						24	
2.2		2.0	25-27'	54,40,55/5	Cobble zone		Cobble Zone
							Brown fine SAND.
						26	Brown fine SAND and Silt.
							Brown medium to coarse SAND and fine Gravel; Narrow band of green staining.
					Sand, silt, gravel		Grey fine SAND and Silt, little coarse Gravel.
						28	
						30	
							Drilling advances easily to 41.5 ft bls.
						32	
						34	
						36	
						38	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05526Y Date 02/01/93
Project Sunnyside Yard
Client AMTRAK
Page 3 of 3
Logged By H. Gregory,D. Keohane&C. Clark
Well/Boring No. MW-48
Location
M.P. Elevation
Drilling Started Ended
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 41.5
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.)
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
					---------- Bottom of Boring	40 42 44 46 48 50 52 54 56 58	Bottom of Boring 41.5 ft bls.

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 12/13/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. MW-49
Location
M.P. Elevation
Drilling Started 13:15 Ended 15:45
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 14
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 11.7 to 1.7'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 4'	Posthole	Railroad Fill, sand	0	Brown-black stained fine to medium SAND; Railroad ballast.
					Sand	2	Orange-brown fine to medium SAND.
							Wet at 3.2 ft bls.
0	1	1.2	4 - 6'			4	Orange-brown fine to medium SAND.
							Grey-brown medium to coarse SAND.
0	2	2	6 - 8'		Sand, gravel, brick	6	Grey-brown fine to coarse SAND, trace Gravel, trace Red Brick (fill).
						8	
0	3	1	9 - 11'	10,5,6,6	Sand, cinders		Grey-brown medium to coarse SAND; Cinders (fill).
						10	
					Sand, silt, clay		Grey-brown fine SAND and Silt, trace Clay in spoon tip.
						12	
					---------- Bottom of Boring	14	Bottom of Boring at 14' below land surface.
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 12/17/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. MW-50
Location.
M.P. Elevation
Drilling Started 11:15 Ended 13:00
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 15
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 12 - 2'
Screen Slot & Type 20 Slot - S/S
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 5'	Posthole	Railroad Fill, sand	0	Brown fine to medium SAND; Railroad ballast.
						2	
					Sand, silt, clay		Green-grey fine SAND and Silt, trace Clay.
13.5						4	Green-grey fine SAND and Silt, trace Clay; Stained grey; Moist; Petroleum hydrocarbon odor.
						6	
						8	
50.4	1	2	9 - 11'		Sand, silt		Grey stained fine to medium SAND, trace Silt.
						10	
						12	
20.1	2	1	13 - 15'		Sand		Grey-brown fine to medium SAND.
						14	
					----------		Bottom of Boring 15 ft bls.
					Bottom of Boring	16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 12/15/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. MW-51
Location
M.P. Elevation
Drilling Started 9:30 Ended 13:30
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 14
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 11.5' to 1.5'bls.
Screen Slot & Type 20 Slot - S/S
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 3'	Posthole	Railroad Fill, sand	0	Brown fine to coarse SAND, trace Gravel; Railroad ballast.
					Sand	2	Grey stained fine to coarse SAND; Petroleum hydrocarbon odor; Separate phase noted. Wet at 2 ft bls.
50.1	1	1.5	3 - 5'			4	Grey stained fine to coarse SAND; Petroleum hydrocarbon odor.
						6	
						8	
32.7	2	2	9 - 11'			10	Grey stained fine to coarse SAND; Petroleum hydrocarbon odor.
						12	
					---------- Bottom of Boring	14	Bottom of Boring 14 ft bls.
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 12/09/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By G. Murphy
Well/Boring No. MW-52
Location
M.P. Elevation
Drilling Started 08:30 Ended 11:25
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 14
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 11.7' to 1.7'bls.
Screen Slot & Type 20 Slot - S/S
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
8.6			0-0.5'		Concrete Sand	0 2	Concrete. Brown fine to coarse SAND and silt.
3.2	1		4-6'	13,10,4,6	Sand, silt, clay	4 6	Brown medium SAND; Petroleum hydrocarbon odor. Wet at 4 ft bls. Brown fine SAND and Silt, trace Clay.
						8 10 12	
					---------- Bottom of Boring	14 16 18	Bottom of Boring 14 ft bls.

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 12/07/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By G. Murphy
Well/Boring No. MW-53
Location
M.P. Elevation
Drilling Started 13:00 Ended 16:00
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 14
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 11.5 to 1.5bls.
Screen Slot & Type 20 Slot - S/S
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type
Hammer lb.
Fall in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 3.5'	Posthole	Sand	0	Stained fill - SAND.
						2	
				Cuttings		4	Grey stained fine to coarse SAND. Wet at 3.5 ft bls.
						6	
						8	
						10	
						12	
					---------- Bottom of Boring	14	Bottom of Boring 14 ft bls.
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 11/29/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. MW-54
Location
M.P. Elevation
Drilling Started 10:45 Ended 13:35
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 14
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 11.3' to 1.3'bls.
Screen Slot & Type 20 Slot - S/S
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 3'	Posthole	Railroad Fill	0	Railroad ballast; Fill.
					Sand	2	Tan medium to coarse SAND.
20.1	1	2	3 - 5'		Sand, gravel	4	Grey stained fine to coarse SAND, trace Gravel; Hydrocarbon odor. Wet at 3 ft bls. Brown to black separate phase on water table, sample collected for analysis.
						6	
						8	
45.8	2	2	9 - 11'			10	Grey stained fine to medium(+) to coarse SAND, trace Gravel.
						12	
					---------- Bottom of Boring	14	Bottom of Boring 14 ft bls.
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 11/17/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By G. Murphy
Well/Boring No. MW-55
Location
M.P. Elevation
Drilling Started 13:30 Ended 16:30
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 14
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 11.5' to 1.5'bls.
Screen Slot & Type 20 Slot - S/S
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 3'	Posthole	Sand, silt, cobbles	0	Brown fine to medium SAND, trace Silt, trace Cobbles.
	1	1	4 - 6'	12,7,6,5	Sand	4	Grey stained fine to medium to coarse SAND; Hydrocarbon odor. Wet at 4 ft bls.
	2	2	9 - 11'	12,13,25,30	Sand, gravel	10	Grey stained fine to medium(+) to coarse SAND, trace Gravel; Hydrocarbon odor.
					---------- Bottom of Boring	14	Bottom of Boring 14 ft bls.

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 11/17/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By G. Murphy
Well/Boring No. MW-56
Location.
M.P. Elevation
Drilling Started 09:15 Ended 12:00
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 13
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 12 - 2'bls.
Screen Slot & Type 20 Slot - S/S
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 4'	Posthole	Railroad Fill	0	Railroad ballast; Fill.
	1	1.3	4 - 6'	12,7,10,11	Sand, silt	4	Brown fine to coarse SAND, trace Gravel, trace Silt. Wet at 4 ft bls. Grey stained fine SAND; Hydrocarbon odor.
	2	1.2	9 - 11'	32,39,12,27	Sand, gravel	8	Grey stained medium to coarse SAND, trace Gravel; Hydrocarbon odor.
					---------- Bottom of Boring	12	Bottom of Boring 13 ft bls.
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
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GEOLOGIC LOG

Study No. 05545Y Date 11/10/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By J. Gerlach
Well/Boring No. MW-57
Location
M.P. Elevation
Drilling Started 08:15 Ended 10:30
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 14.5'
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 13' to 3'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-3'	Posthole	Railroad Fill	0	Black stained SAND and Gravel; Railroad ballast.
10.0	1	1.5	3-5'	9,10,9,11	Sand, gravel	2	Brown fine to coarse(+) SAND, trace Gravel; Moderate sewer odor.
14.5	2	1.5	5-7'	25,18,15,19		4	Brown fine to coarse(+) SAND, trace Gravel; Moderate sewer odor; finer grained at tip of spoon. Wet at 5 ft bls.
12.0	3	1	10-12'	1,13,16,19		6	Brown medium to coarse(+)SAND, trace gravel.
					---------- Bottom of Boring	8	Bottom of Boring 14.5 ft bls.
						10	
						12	
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
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GEOLOGIC LOG

Study No. 05545Y Date 12/08/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By G. Murphy
Well/Boring No. MW-58
Location
M.P. Elevation
Drilling Started 09:20 Ended 14:30
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 14
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 11.3 to 1.3'bls.
Screen Slot & Type 20 Slot - S/S
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type
Hammer lb.
Fall in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0-3'	Posthole	Railroad Fill	0	Black stained SAND; Railroad ballast.
							Wet at 2 ft bls.
						2	
30.4			3 - 5'	Cuttings	Sand		Grey stained fine to coarse SAND; Hydrocarbon odor.
						4	
						6	
						8	
						10	Grey stained fine to coarse SAND; Hydrocarbon odor.
						12	
					---------- Bottom of Boring	14	Bottom of Boring 14 ft bls.
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 12/03/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. MW-59
Location
M.P. Elevation
Drilling Started 13:00 Ended 16:45
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 12.5
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 11.5' to 1.5'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 0.7'	Posthole	Concrete	0	Concrete.
			0.7 - 3'		Sand		Tan fine to coarse SAND.
						2	
			3 - 9'	From cuttings	Sand, gravel		Tan fine to coarse SAND, trace Gravel.
						4	
						6	
						8	
0	1	2	9 - 11'	10,6,9,12			Tan-brown medium to coarse SAND, trace Gravel; No odor. Wet at 9 ft bls.
						10	
						12	
					----------		Bottom of Boring 12.5 ft bls.
					Bottom of Boring		
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 12/28/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By J. Gerlach
Well/Boring No. MW-60
Location
M.P. Elevation
Drilling Started 08:45 Ended 10:30
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 18
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 14.5 to 4.5'bls.
Screen Slot & Type 20 Slot - S/S
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type
Hammer lb.
Fall in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 3'	Posthole	Sand	0	Tan SAND.
			3 - 5'	Cuttings		2	Black SAND.
			7 - 18'	Cuttings		4	Black SAND; Petroleum odor and staining.
						6	
						8	
						10	
						12	
						14	
						16	
					---------- Bottom of Boring	18	Bottom of Boring 18 ft bls.

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 11/12/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 2
Logged By J. Gerlach and H. Gregory
Well/Boring No. MW-61
Location
M.P. Elevation
Drilling Started Ended
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 24
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 22' to 12'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
0ppm					Sand, silt, organics	0	Brown fine to medium SAND, trace Silt; Organic material.
	1	0	3-5'	22,24,20,14	Sand, gravel	2	Brown fine to medium SAND, trace cobbles (from cutings).
	2	1	5-7'	8,31,50		4	Light brown fine to coarse SAND, trace Gravel; Rounded quartz pebble blocking tip of spoon.
	3	1	7-9'	26,58,46,50	Sand, cobble layer, gravel	6	Light brown fine to medium SAND, trace Gravel, Cobbles.
	4	0	9-11'	62,70/3"		8	Light brown medium to coarse SAND, trace Gravel; Moist.
5ppm	5	0.5	11-13'	88,100/5"		10	Brown fine to medium(+) to coarse SAND, trace Gravel. Wet at 11 ft bls.
4ppm	6	1.5	13-15'	8,18,22,28		12	Brown fine to medium(+) to coarse SAND, trace Gravel.
						14	
						16	
						18	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 11/12/93
Project Sunnyside Yard
Client AMTRAK
Page 2 of 2
Logged By J. Gerlach and H. Gregory
Well/Boring No. MW-61
Location
M.P. Elevation
Drilling Started Ended
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 24
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 22' - 12'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
					Sand, gravel	20	Brown fine to medium SAND, trace coarse Sand and Gravel.
						22	
					---------- Bottom of Boring	24	Bottom of Boring 24 ft bls.
						26	
						28	
						30	
						32	
						34	
						36	
						38	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 11/16/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 3
Logged By H. Gregory and G. Murphy
Well/Boring No. MW-62D
Location
M.P. Elevation
Drilling Started Ended
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 52
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 49' to 39'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
ppm					Sand, silt, organics	0	Brown fine to medium SAND, trace Silt; Organic material.
	1	0	3-5'	22,24,20,14	Sand, gravel	2	Brown fine to medium SAND, trace cobbles (from cutings).
	2	1	5-7'	8,31,50		4	Light brown fine to coarse SAND, trace Gravel; Rounded quartz pebble blocking tip of spoon.
	3	1	7-9'	26,58,46,50	Sand, cobble, gravel	6	Light brown fine to medium SAND, trace Gravel, Cobbles.
	4	0	9-11'	62,70/3"		8	Light brown medium to coarse SAND, trace Gravel; Moist.
5	5	0.5	11-13'	88,100/5"		10	Brown fine to medium(+) to coarse SAND, trace Gravel. Wet at 11 ft bls.
	6	1.5	13-15'	8,18,22,28		12	Brown fine to medium(+) to coarse SAND, trace Gravel.
						14	
						16	
						18	
0	1	1.2	19-21'	13,15,12,10	Sand, gravel		Tan fine to coarse SAND, trace Gravel.

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 11/16/93
Project Sunnyside Yard
Client AMTRAK
Page 2 of 3
Logged By H. Gregory and G. Murphy
Well/Boring No. MW-62D
Location
M.P. Elevation
Drilling Started Ended
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 52
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 49' to 39'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
					Sand, gravel	20	
						22	
0	2	2'	24-26'	18,20,11,20		24	Tan fine to medium(+) to coarse SAND, trace Gravel.
						26	
0	3	2'	29-31'	27,14,12,16		28	Tan fine to medium(+) to coarse SAND, trace Gravel.
						30	
						32	
0	4	2'	34-36'	24,33,30,38		34	Tan fine to coarse SAND, trace Gravel, trace Silt.
						36	
						38	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 11/16/93
Project Sunnyside Yard
Client AMTRAK
Page 3 of 3
Logged By H. Gregory and G. Murphy
Well/Boring No. MW-62D
Location
M.P. Elevation
Drilling Started Ended
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA
Hole Diam. (in.) 10
Final Depth (ft.) 52
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 49' to 39'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER
Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
						40	
						42	
0	1	1.5'	44 - 46'	20,30,27,38		44	Tan fine to coarse SAND, trace Gravel.
						46	
						48	
						50	
					---------- Bottom of Boring	52	Bottom of Boring 52 ft bls.
						54	
						56	
						58	

REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES, INC.

GEOLOGIC LOG

Study No. 05545Y Date 12/14/93
Project Sunnyside Yard
Client AMTRAK
Page 1 of 1
Logged By H. Gregory
Well/Boring No. MW-63
Location
M.P. Elevation
Drilling Started 8:45 Ended 10:45
Driller A.D.T.
Type of Rig Hollow Stem Auger

WELL DATA

Hole Diam. (in.) 10
Final Depth (ft.) 14
Casing Diam. (in.) 4
Casing Length (ft.)
Screen Setting (ft.) 12.5' to 2.5'bls.
Screen Slot & Type 10 Slot - PVC
Well Status Monitoring Well

G-W READINGS (1)

Date	DTW MP (2)	Elev. W.S

SAMPLER

Type 2" Split-spoon
Hammer 140 lb.
Fall 30 in.

DEVELOPMENT

PID (ppm)	SAMPLE No.	Rec.	Depth	Blows 6	Strata Change & Gen. Desc.	Depth (ft)	SAMPLE DESCRIPTION(3)
			0 - 3'	Posthole	Sand, gravel, railroad fill	0	Brown fine to medium SAND, trace gravel; Railroad ballast, cinders.
						2	
0	1	1.9	3 - 5'		Sand, silt, clay		Tan fine SAND and Silt, trace Clay. Wet at 4 ft bls.
						4	
						6	
						8	
0	2	2	9-11'		Sand, silt, clay, gravel		Tan fine SAND and Silt, trace Clay, trace Gravel.
						10	
						12	
					---------- Bottom of Boring	14	Bottom of Boring 14 ft bls.
						16	
						18	

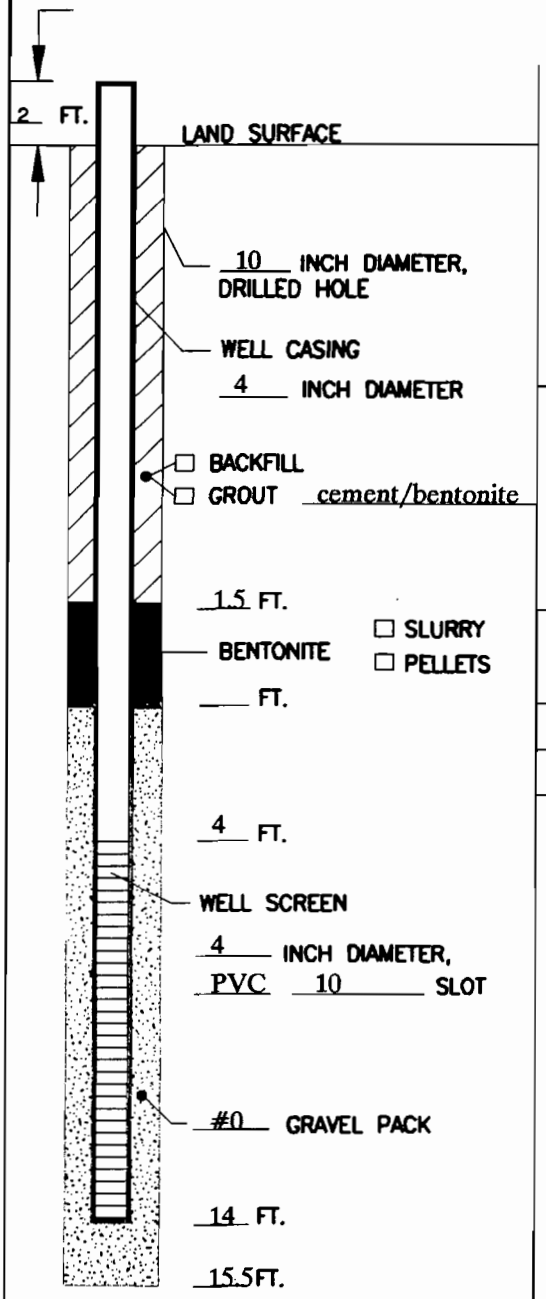
REMARKS (1) in feet relative to a common datum
(2) from top of PVC casing
(3) logged cuttings

APPENDIX D

Monitoring Well Construction Logs

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05526Y

WELL NO. MW-25A PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 01/06/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID None

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge - Submersible Pump.

FLUID LOSS DURING DRILLING None GALLONS

WATER REMOVED DURING DEVELOPMENT 140 GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION 1 HOURS

YIELD 3 GPM _____ DATE 01/07/93

SPECIFIC CAPACITY _____ GPM/FT.

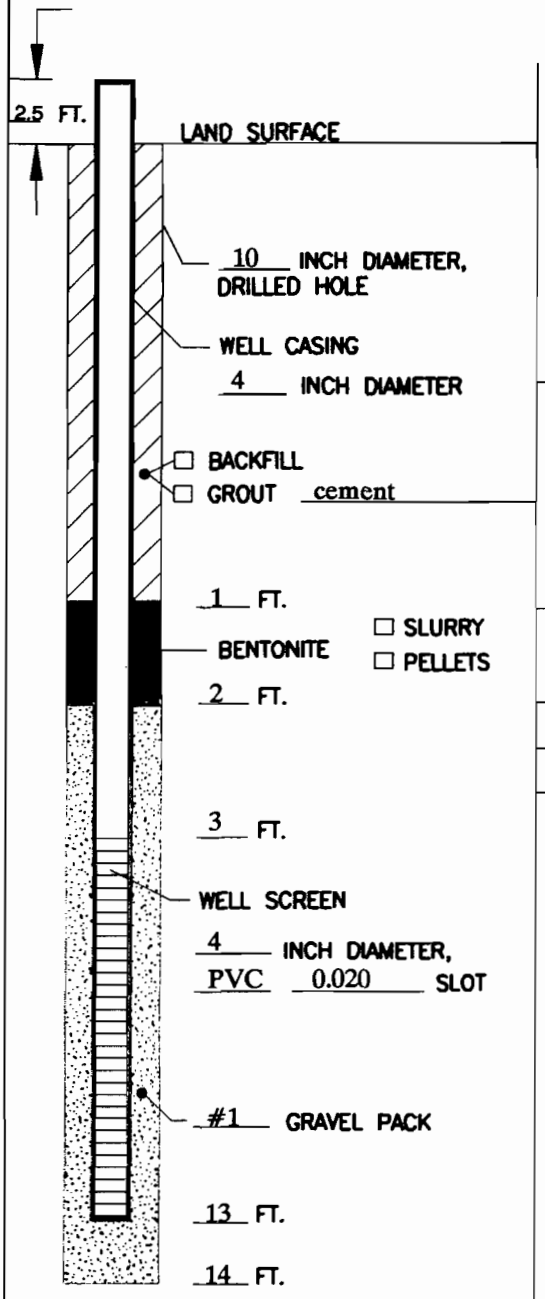
WELL PURPOSE Monitoring well

REMARKS Pump at end of screen extends from 14' to 14.5'bls.

HYDROGEOLOGIST C. Clark

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05526Y

WELL NO. MW-35 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 10/15/91

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID None

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge, 10/15/91

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT 100 GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

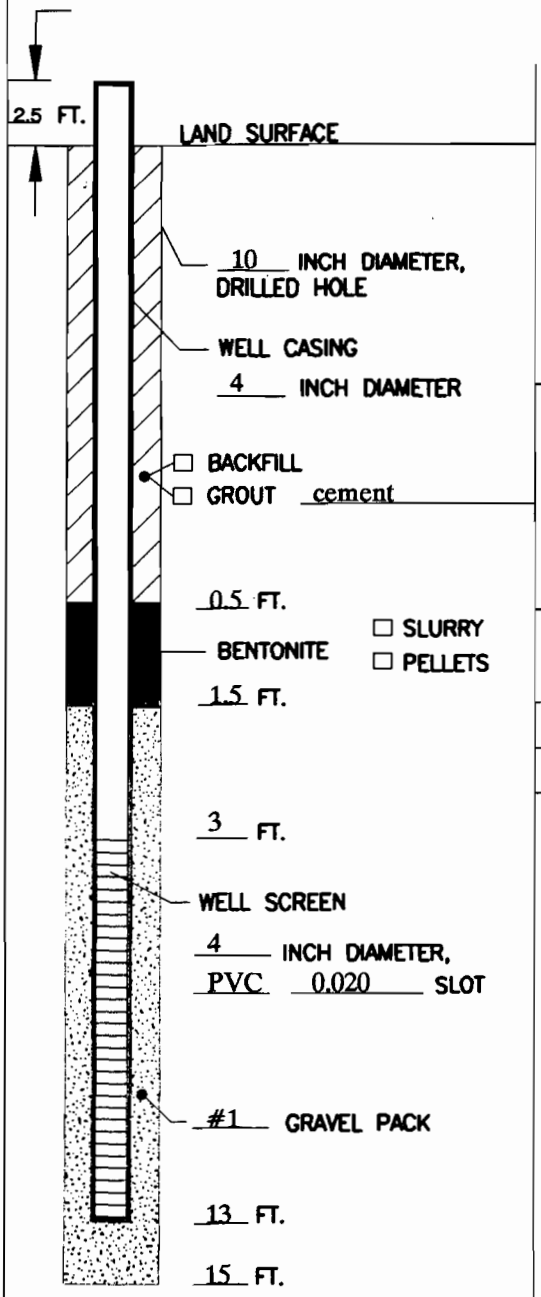
WELL PURPOSE Monitoring well

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05526Y

WELL NO. MW-36 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET
☐ SURVEYED
☐ ESTIMATED

INSTALLATION DATE(S) 10/15/91

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID None

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge, 10/15/91

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT ~50 GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

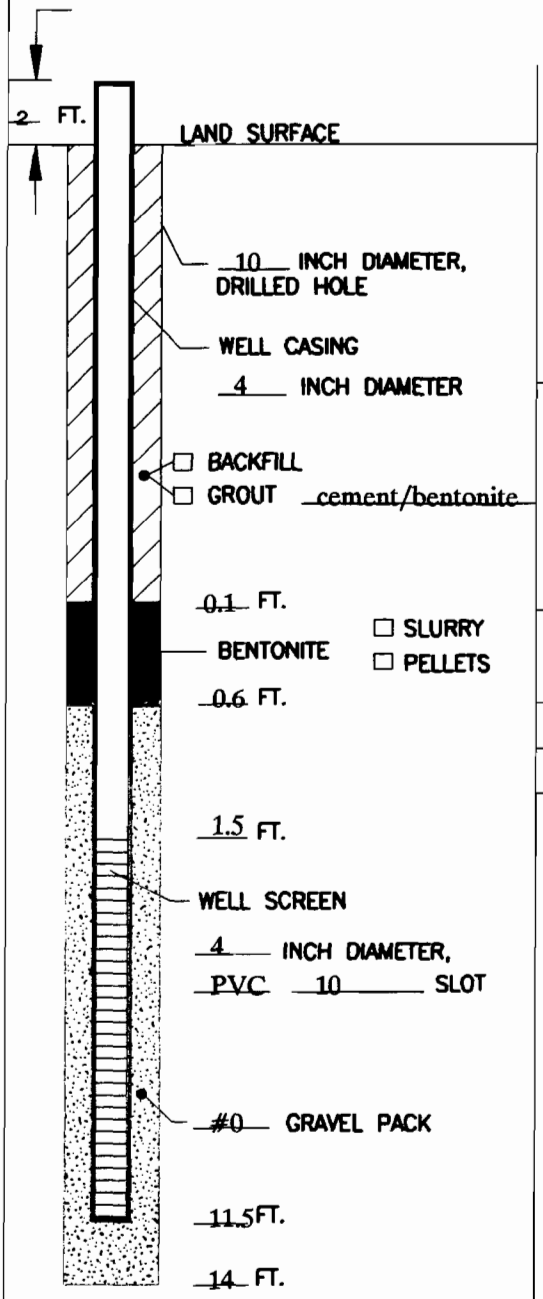
WELL PURPOSE Monitoring well

REMARKS Product observed, development water drummed.

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05526Y

WELL NO. MW-37 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 12/14/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

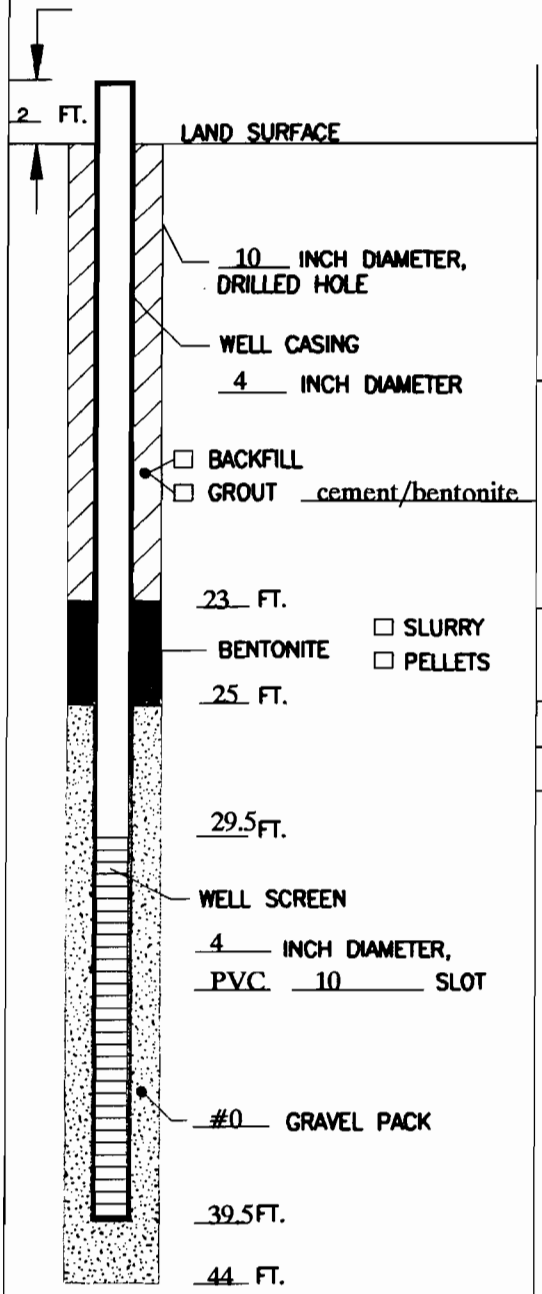
WELL PURPOSE Monitoring well

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05526Y

WELL NO. MW-38D PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 12/10 - 11/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

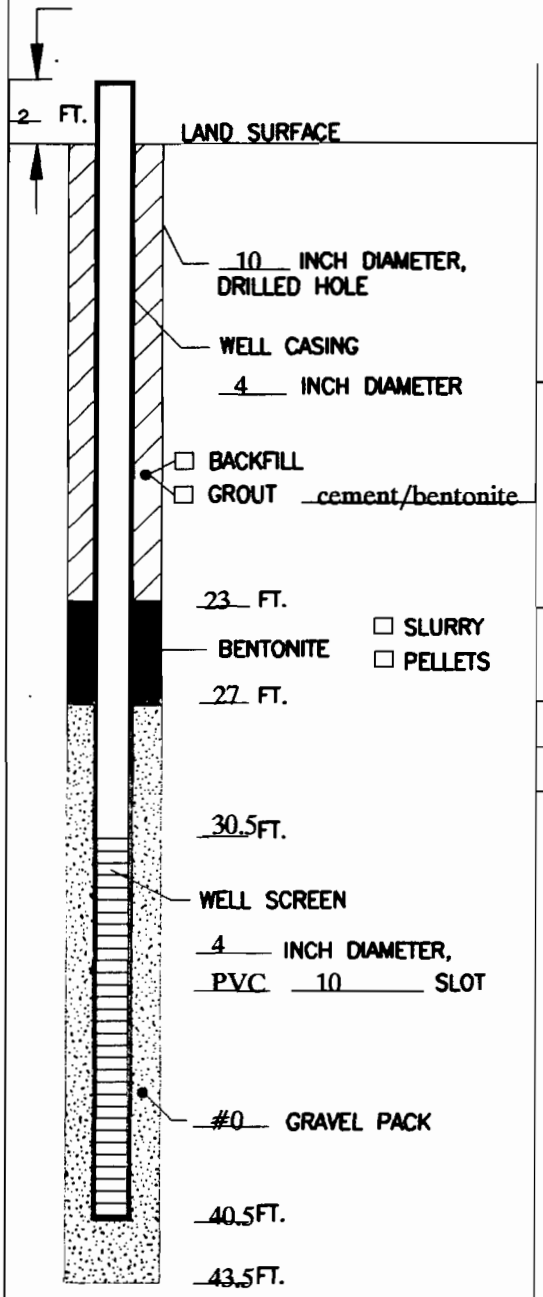
WELL PURPOSE Monitoring well

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05526Y

WELL NO. MW-39D PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET
☐ SURVEYED
☐ ESTIMATED

INSTALLATION DATE(S) 12/15 - 16/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

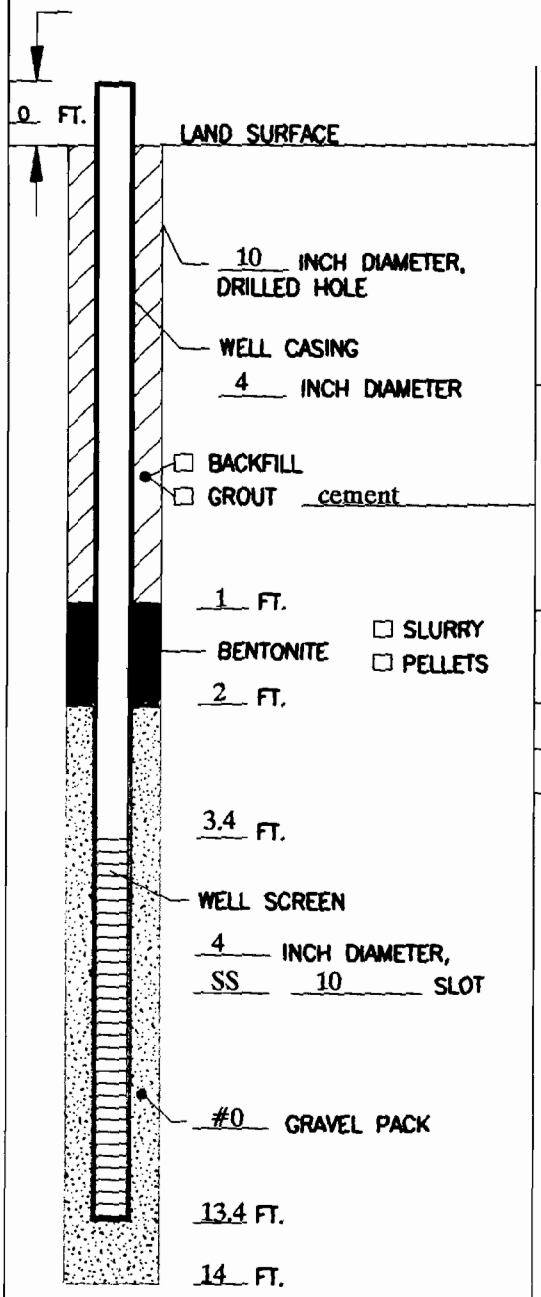
WELL PURPOSE Monitoring well

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05511Y

WELL NO. MW-41 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 10/30/91

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR Land, Air, Water

DRILLING FLUID None

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge - Centrifugal Pump, 10/30/91

FLUID LOSS DURING DRILLING None GALLONS

WATER REMOVED DURING DEVELOPMENT ~500 GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION 2 HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

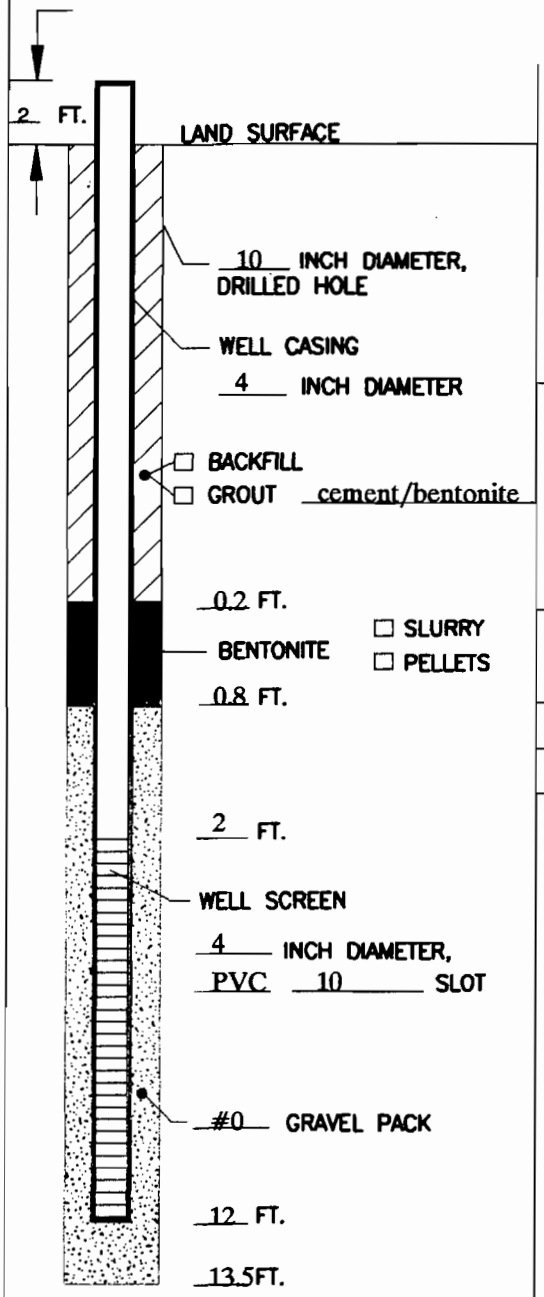
WELL PURPOSE Monitoring well

REMARKS Flush mount to grade.

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05526Y

WELL NO. MW-42 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 01/18/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID None

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge

FLUID LOSS DURING DRILLING None GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

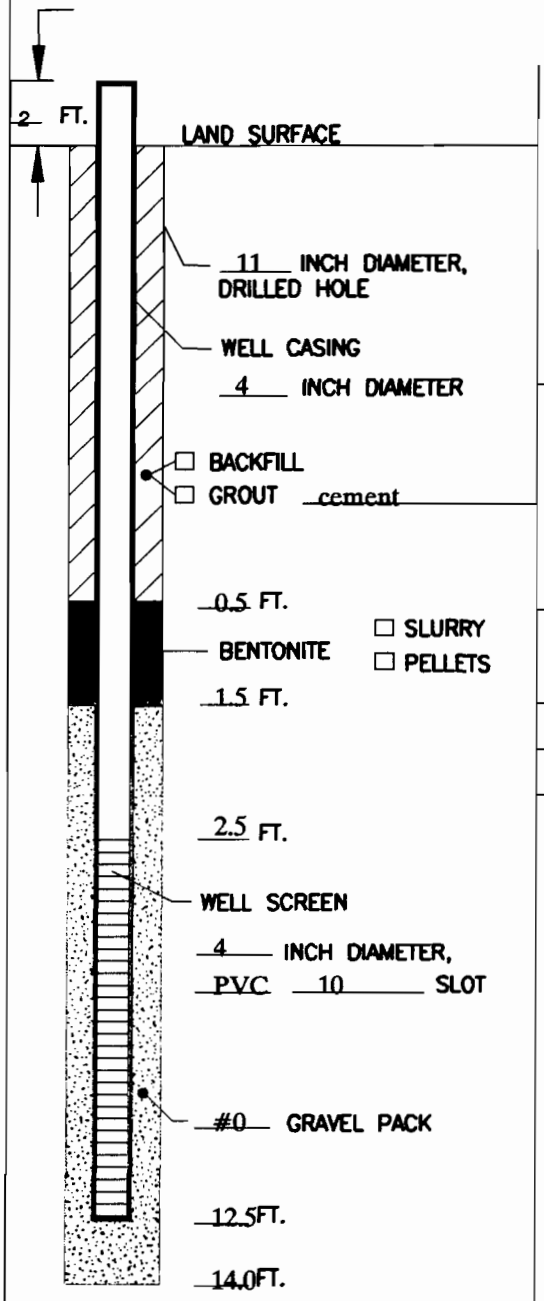
WELL PURPOSE Monitoring well

REMARKS Pump at end of screen extends form 12' to 12.5'bls

HYDROGEOLOGIST D. Keohane

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05526Y

WELL NO. MW-43 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 01/29/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID None

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge - Submersible Pump.

FLUID LOSS DURING DRILLING None GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION 6 HOURS

YIELD 230 GPM 0.5 DATE 02/01/93

SPECIFIC CAPACITY _____ GPM/FT.

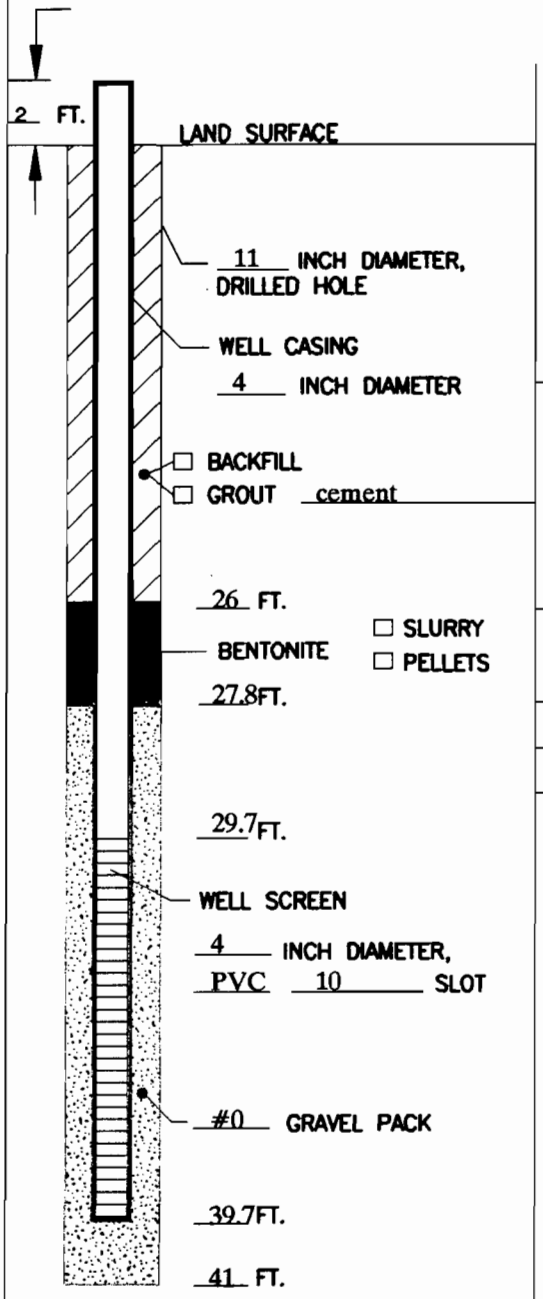
WELL PURPOSE Monitoring well

REMARKS Sump at end of screen extends from 12.5' to 13.0'bls.
-Well pumped sporadically(approx. 7.5gpm for <1 minute before running dry).
-Well as originally installed on 1-14-93 but was damaged and abandoned.

HYDROGEOLOGIST C. Clark

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05526Y

WELL NO. MW-44 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 01/19/93 - 01/20/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID None

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge - Submersible Pump.

FLUID LOSS DURING DRILLING None GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE 01/27/93

SPECIFIC CAPACITY _____ GPM/FT.

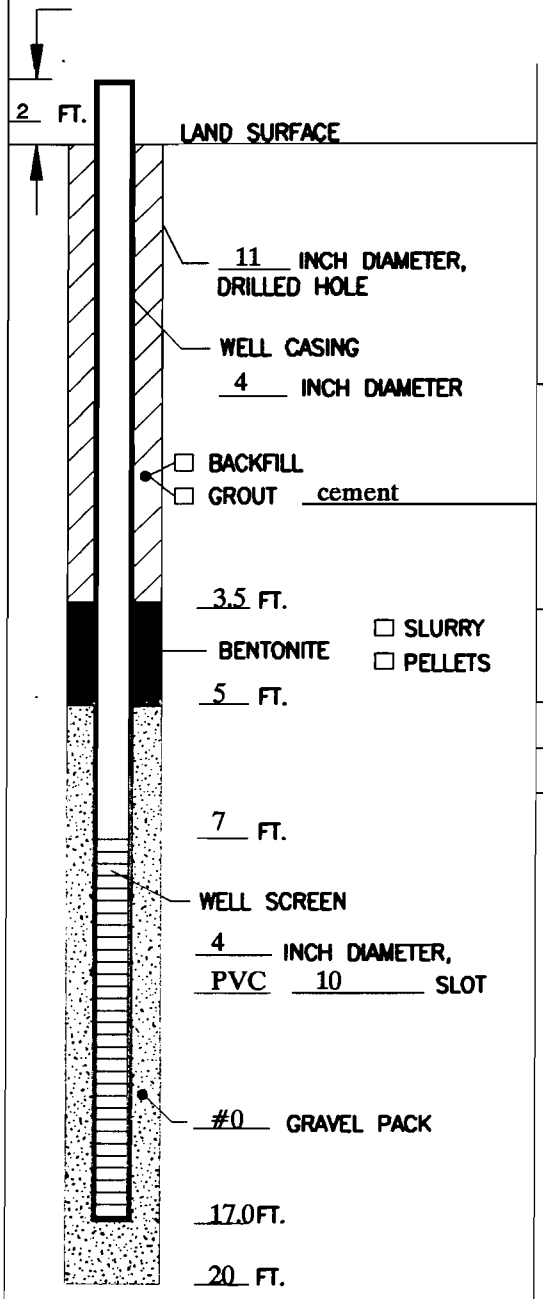
WELL PURPOSE Monitoring well

REMARKS Sump at end of screen extenda from 39.7 tp 40.2'bls.
-Well was originally on 01/13/93 but was damaged & had to be abandoned.

HYDROGEOLOGIST C. Clark

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05526Y

WELL NO. MW-45 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 01/11/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID None

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge - Submersible Pump

FLUID LOSS DURING DRILLING None GALLONS

WATER REMOVED DURING DEVELOPMENT 560 GALLONS

STATIC DEPTH TO WATER 10.6 FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD 8 GPM _____ DATE 01/12/93

SPECIFIC CAPACITY _____ GPM/FT.

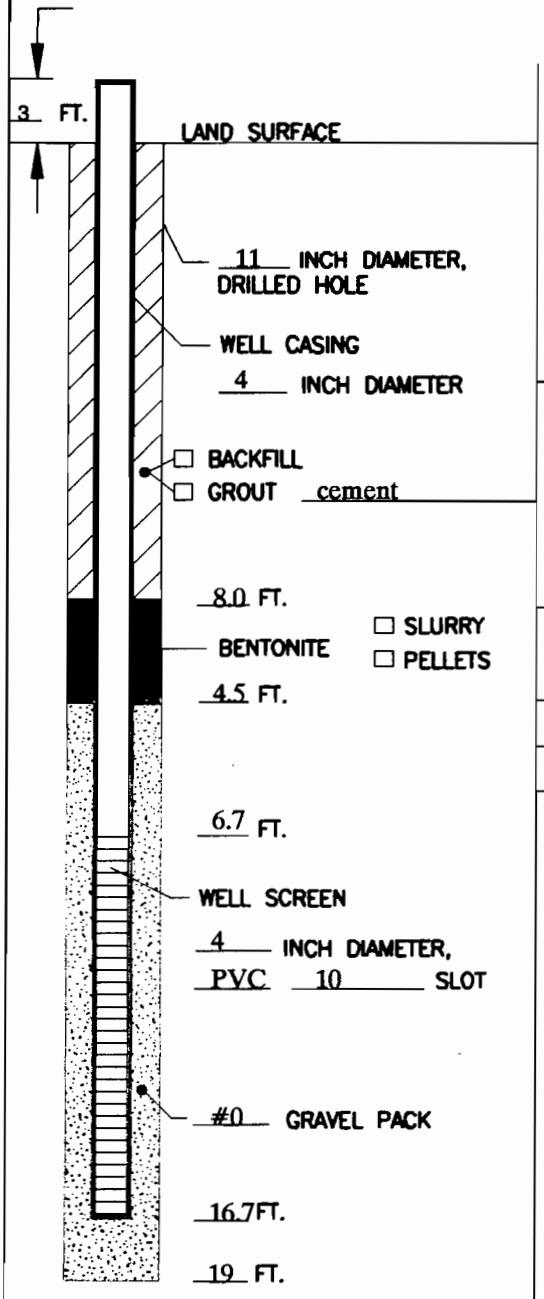
WELL PURPOSE Monitoring well

REMARKS Sump at end of screen extends from 17' to 17.5'bls.

HYDROGEOLOGIST D. Keohane

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05526Y

WELL NO. MW-46 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 01/11/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID None

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge - Submersible Pump.

FLUID LOSS DURING DRILLING None GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE 01/12/93

SPECIFIC CAPACITY _____ GPM/FT.

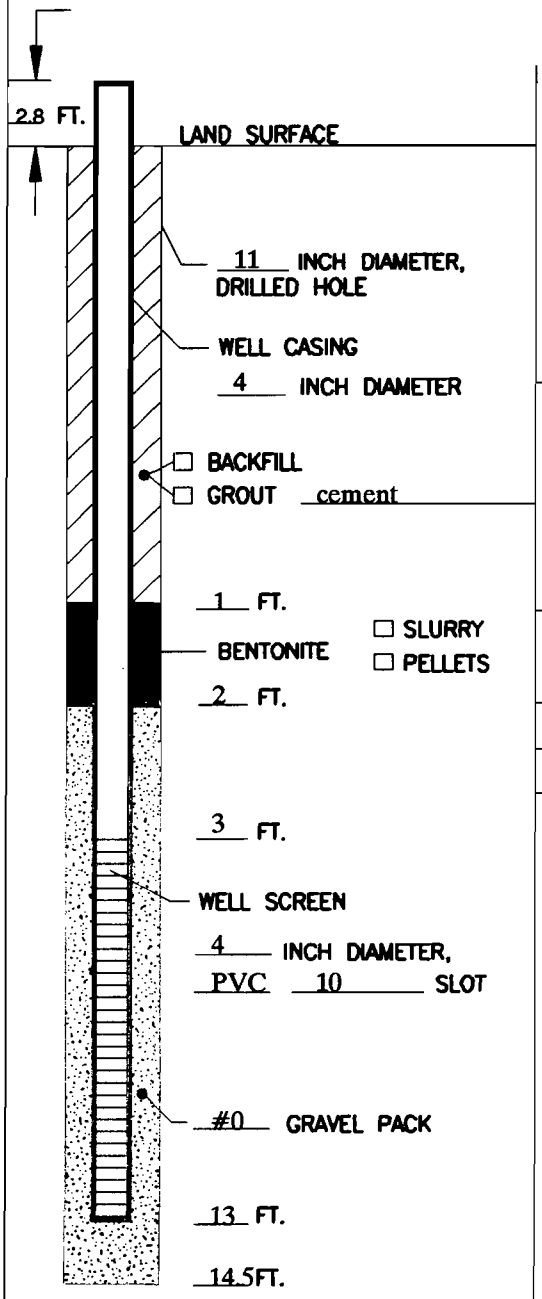
WELL PURPOSE Monitoring well

REMARKS Sump at end of screen extends from 16.7' to 17.2'bls.

HYDROGEOLOGIST D. Keohane

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05526Y

WELL NO. MW-47 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 01/05/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID None

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge - Submersible Pump.

FLUID LOSS DURING DRILLING None GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE 01/7-8/93

SPECIFIC CAPACITY _____ GPM/FT.

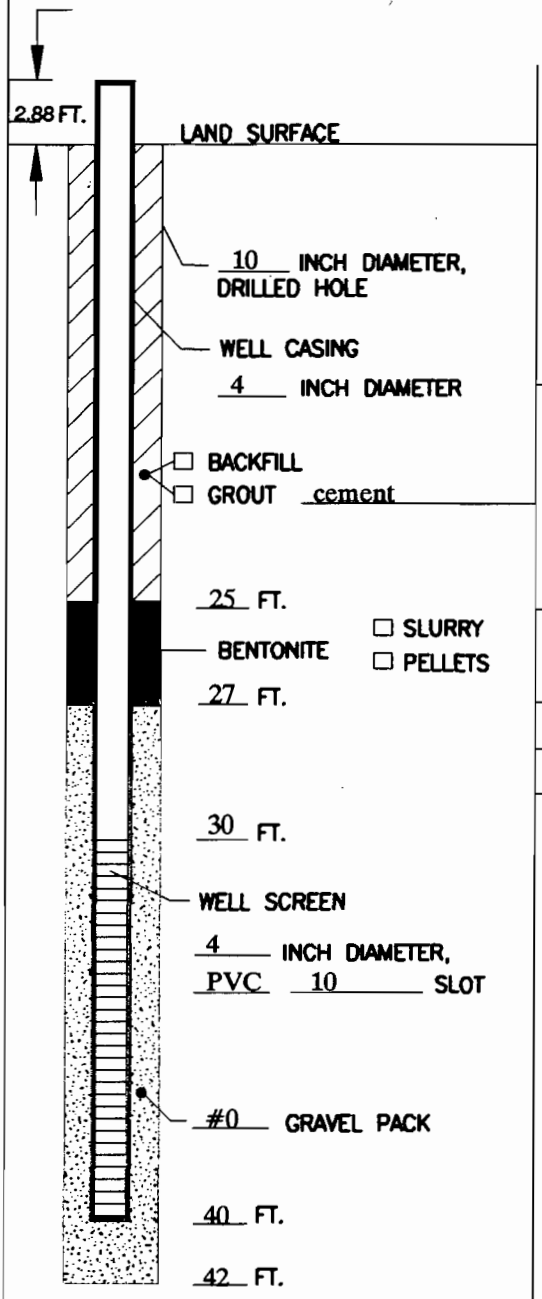
WELL PURPOSE Monitoring well

REMARKS Sump at end of screen extends from 13' to 13.5'bls.

HYDROGEOLOGIST D. Keohane

ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05526Y

WELL NO. MW-48 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION AND DATUM 28.29 FEET

☐ SURVEYED

☐ ESTIMATED

INSTALLATION DATE(S) 2/1/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID None

DEVELOPMENT TECHNIQUE(S) AND DATE(S)

Pump and Surge - Submersible Pump

FLUID LOSS DURING DRILLING None GALLONS

WATER REMOVED DURING DEVELOPMENT 950 GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION 7.5 HOURS

YIELD _____ GPM _____ DATE 2/2/93

SPECIFIC CAPACITY _____ GPM/FT.

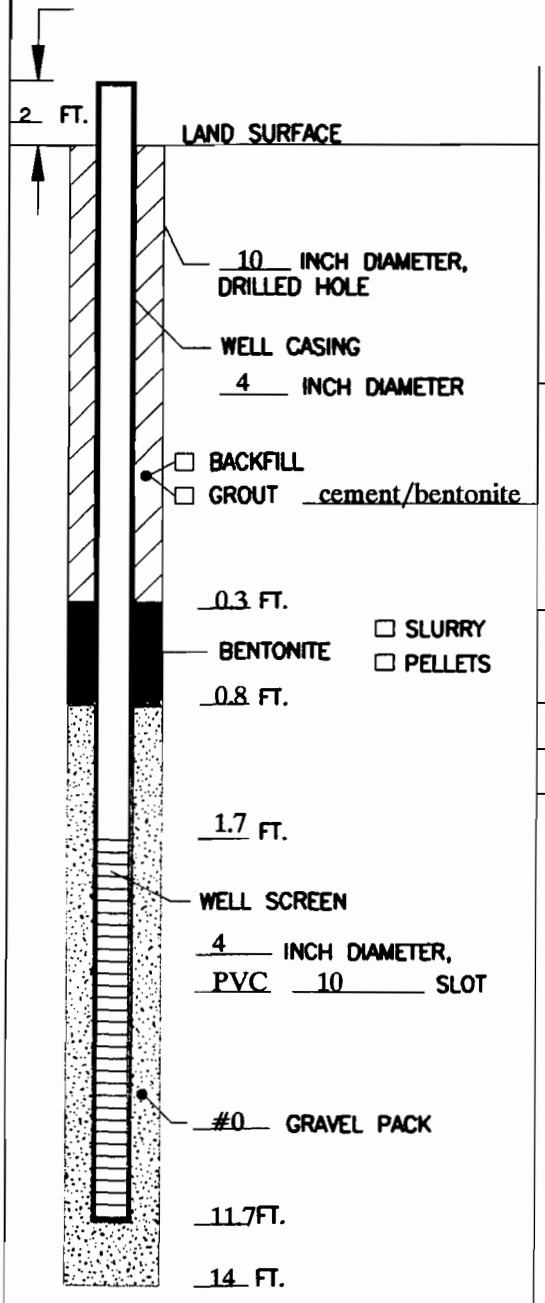
WELL PURPOSE Monitoring well

REMARKS Sump at end of screen extends from 40 ft bls to 40.4 ft bls. Well pumped sporadically, approximately 10 gpm for two minutes before running dry.

HYDROGEOLOGIST H. Gregory, D. Keohane

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05545Y

WELL NO. MW-49 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET
☐ SURVEYED
☐ ESTIMATED

INSTALLATION DATE(S) 12/13/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

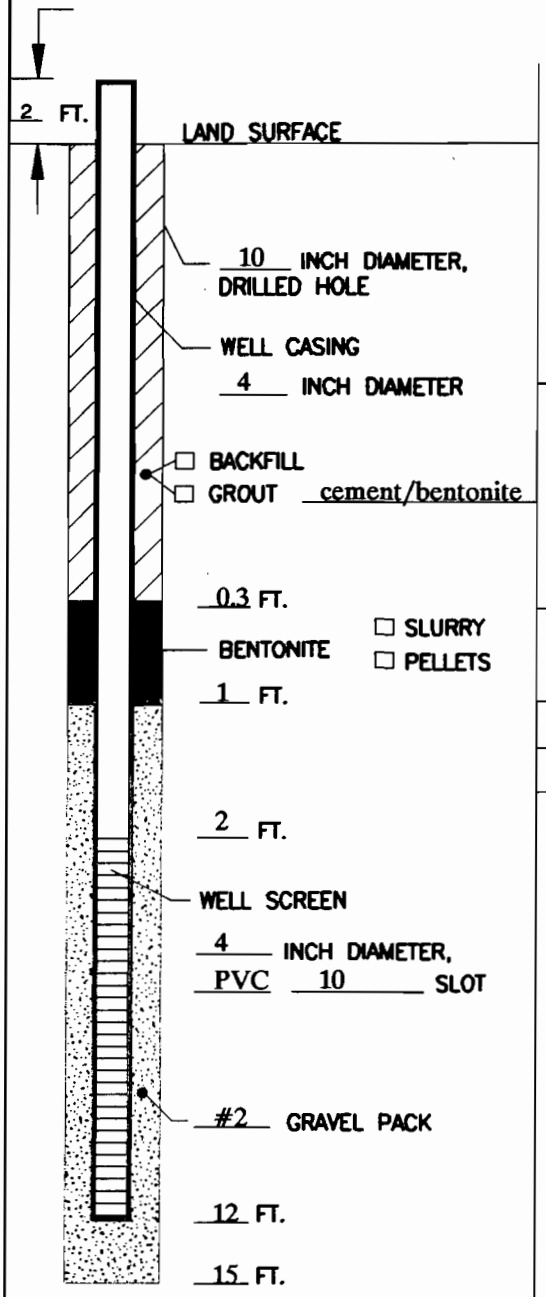
WELL PURPOSE Monitoring well

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05545Y

WELL NO. MW-50 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 12/17/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

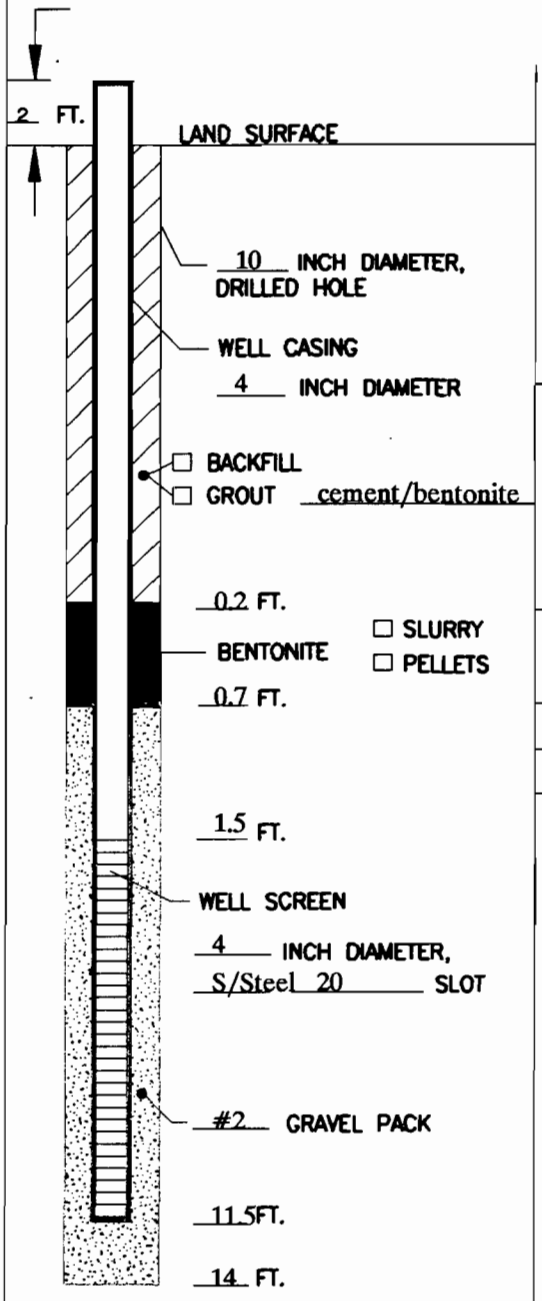
WELL PURPOSE Monitoring well

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05545Y

WELL NO. MW-51 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 12/15/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

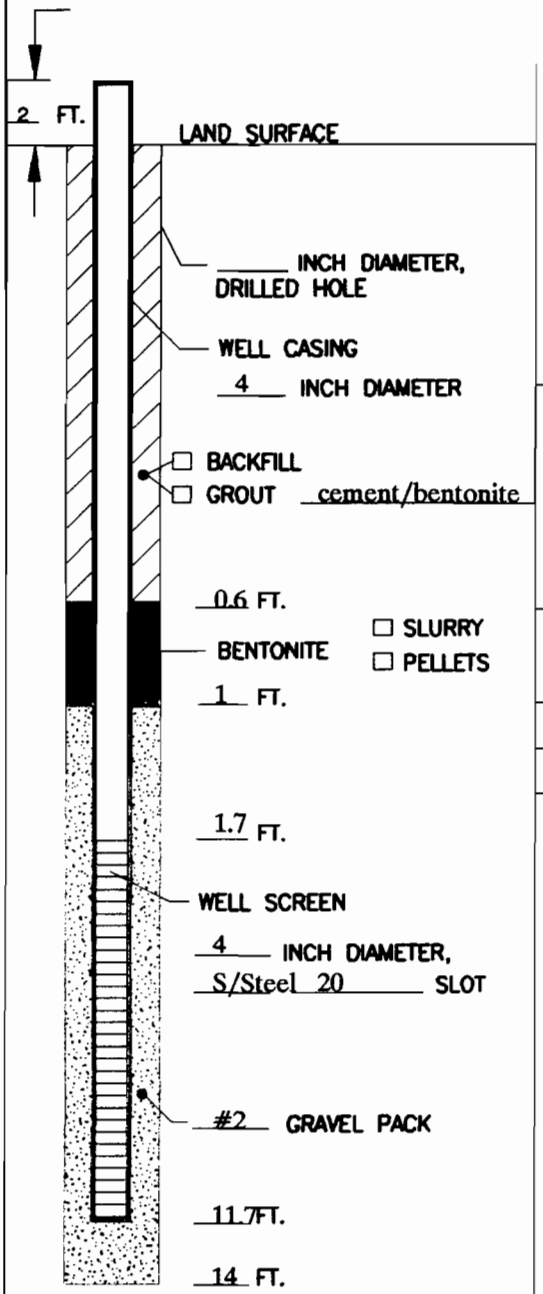
WELL PURPOSE Monitoring well

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05545Y

WELL NO. MW-52 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET
☐ SURVEYED
☐ ESTIMATED

INSTALLATION DATE(S) 12/09/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

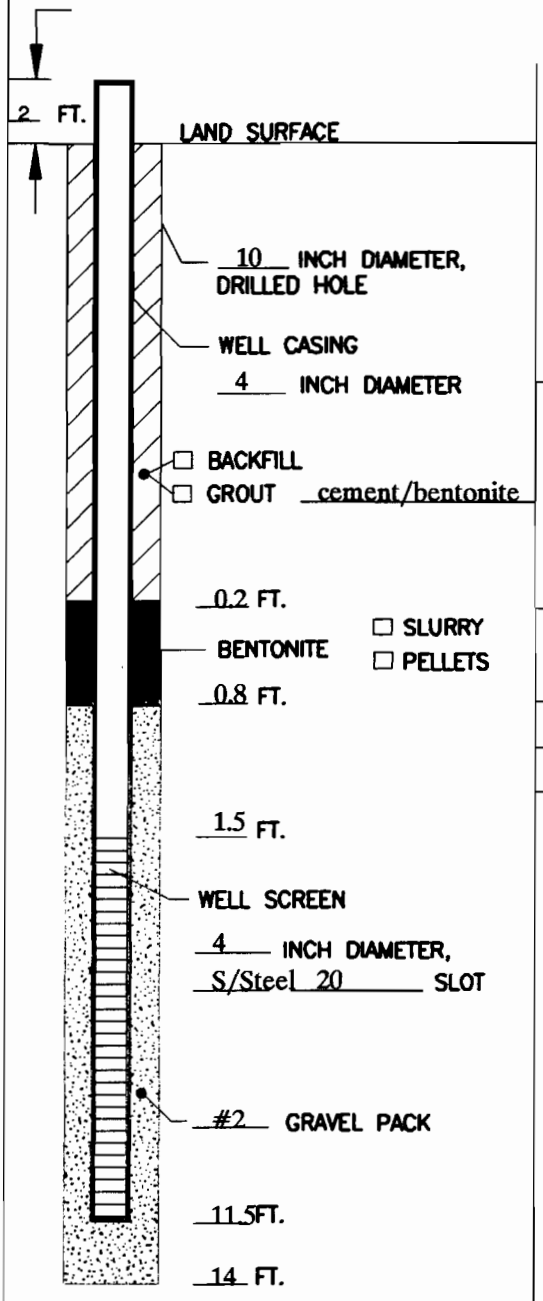
WELL PURPOSE Monitoring well

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05545Y

WELL NO. MW-53 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET
☐ SURVEYED
☐ ESTIMATED

INSTALLATION DATE(S) 12/07/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

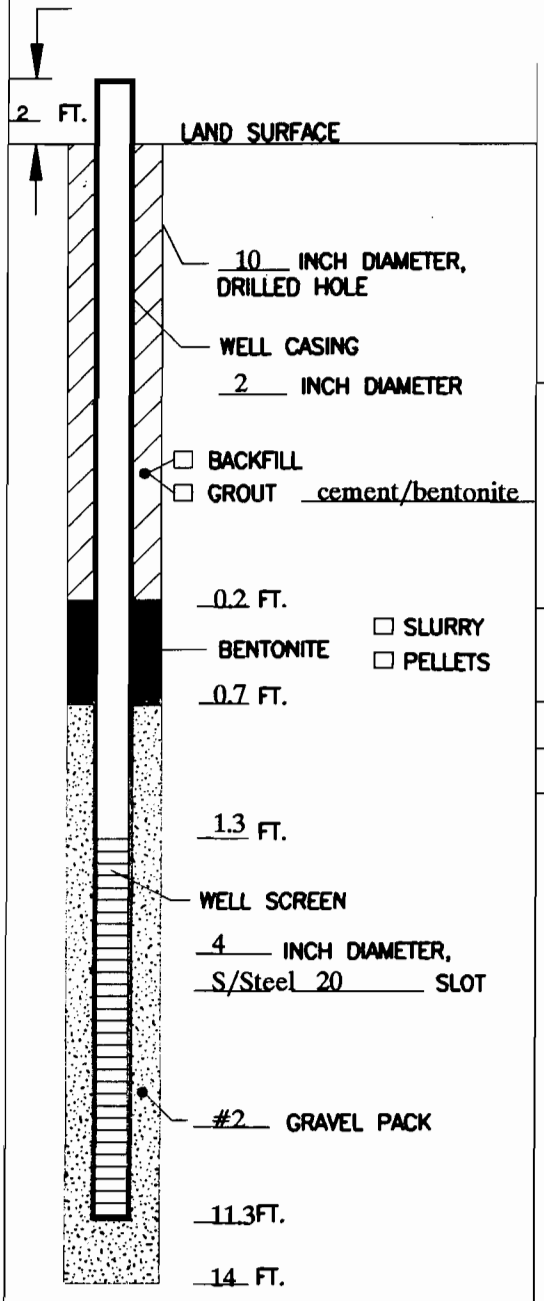
WELL PURPOSE Monitoring well

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05545Y

WELL NO. MW-54 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 11/29/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

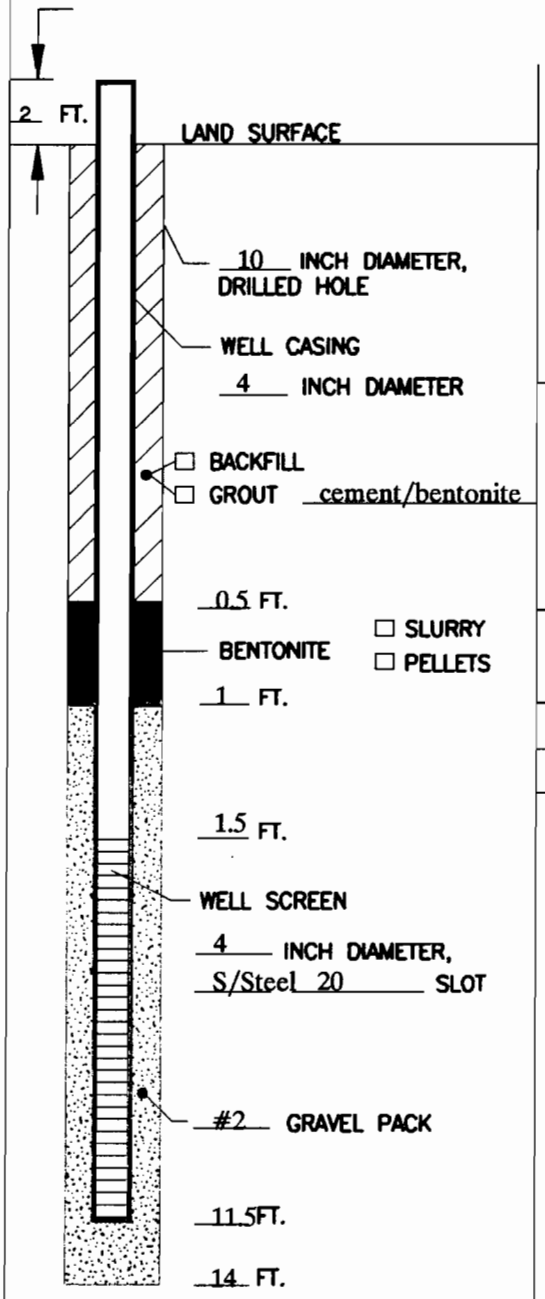
WELL PURPOSE Monitoring well

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05545Y

WELL NO. MW-55 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 11/17/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

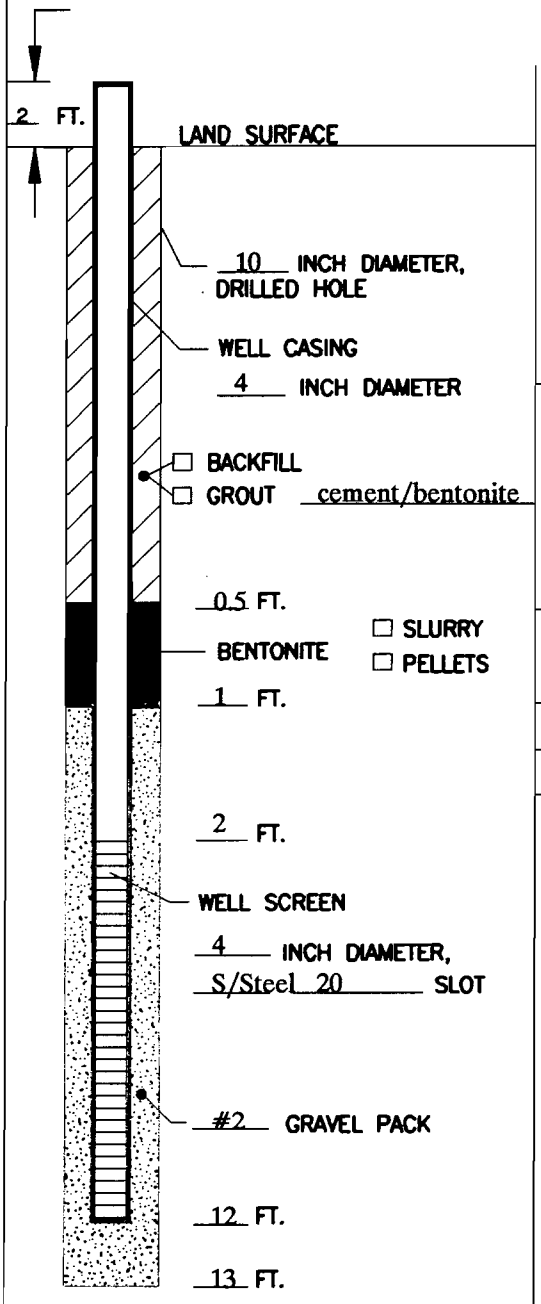
WELL PURPOSE Monitoring well

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05545Y

WELL NO. MW-56 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 11/17/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

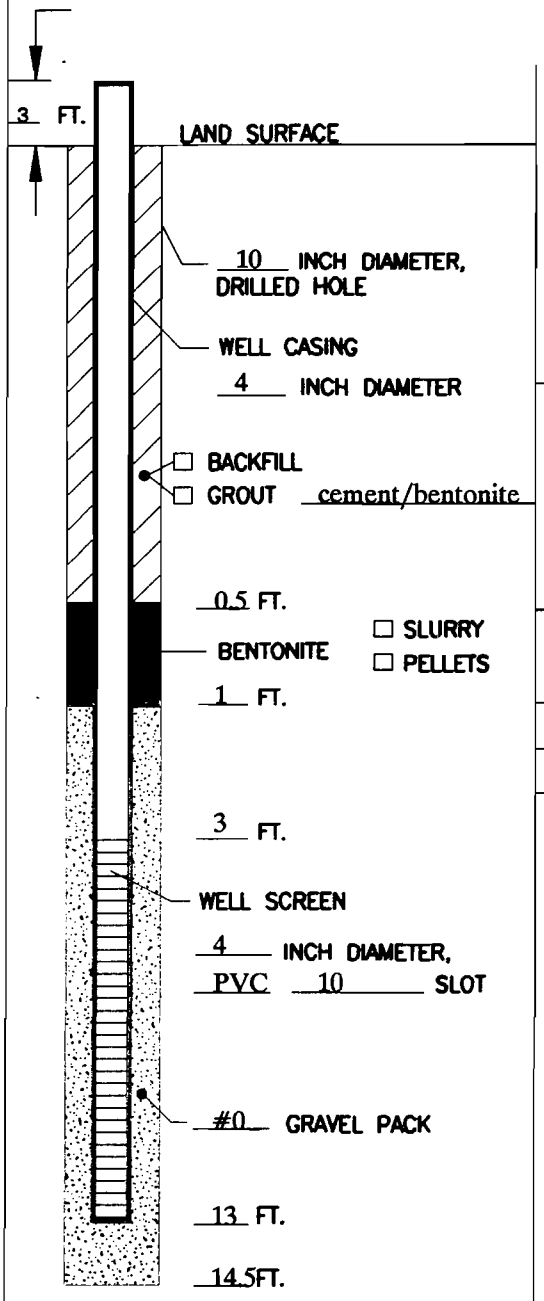
WELL PURPOSE Monitoring well

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05545Y

WELL NO. MW-57 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 11/10/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

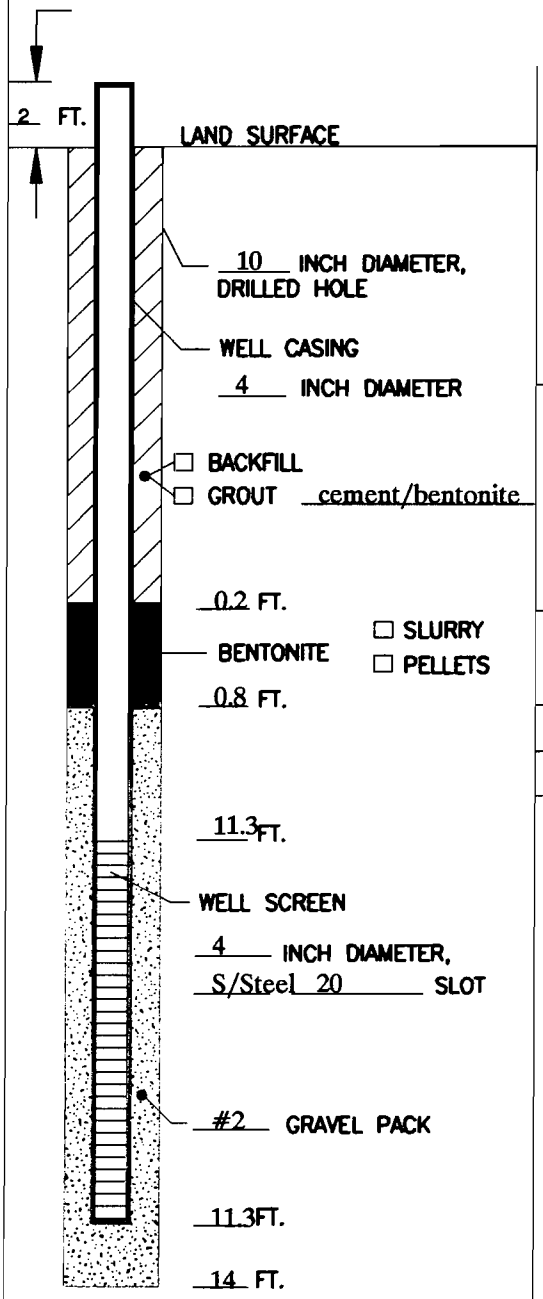
WELL PURPOSE Monitoring well

REMARKS

HYDROGEOLOGIST J. Gerlach & H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05545Y

WELL NO. MW-58 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 12/08/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

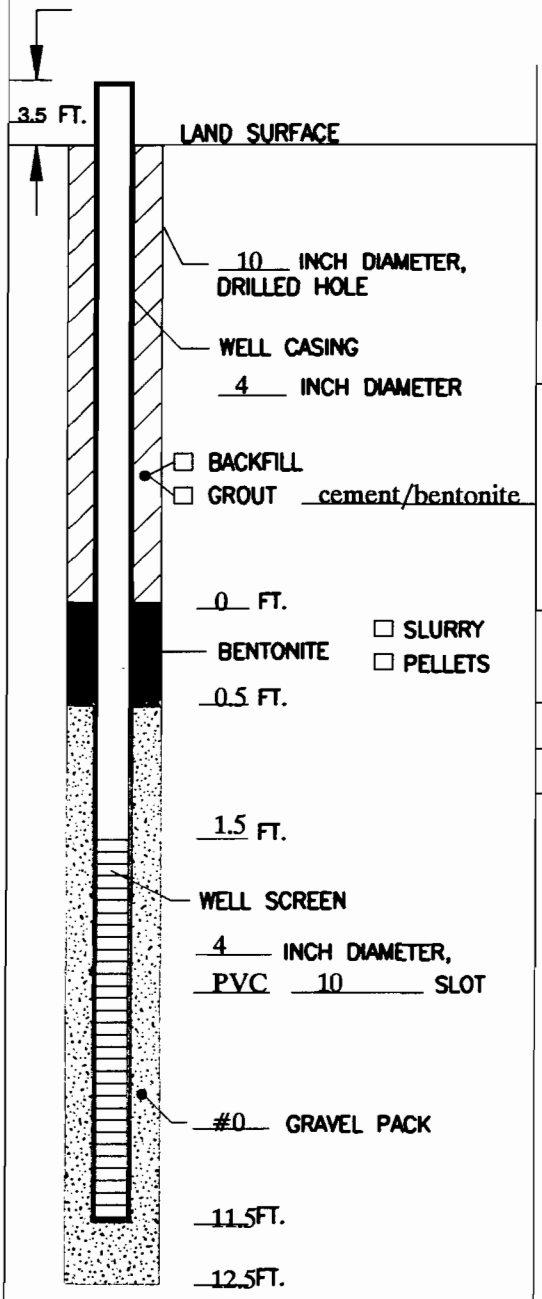
WELL PURPOSE Monitoring well

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05545Y

WELL NO. MW-59 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 12/03/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

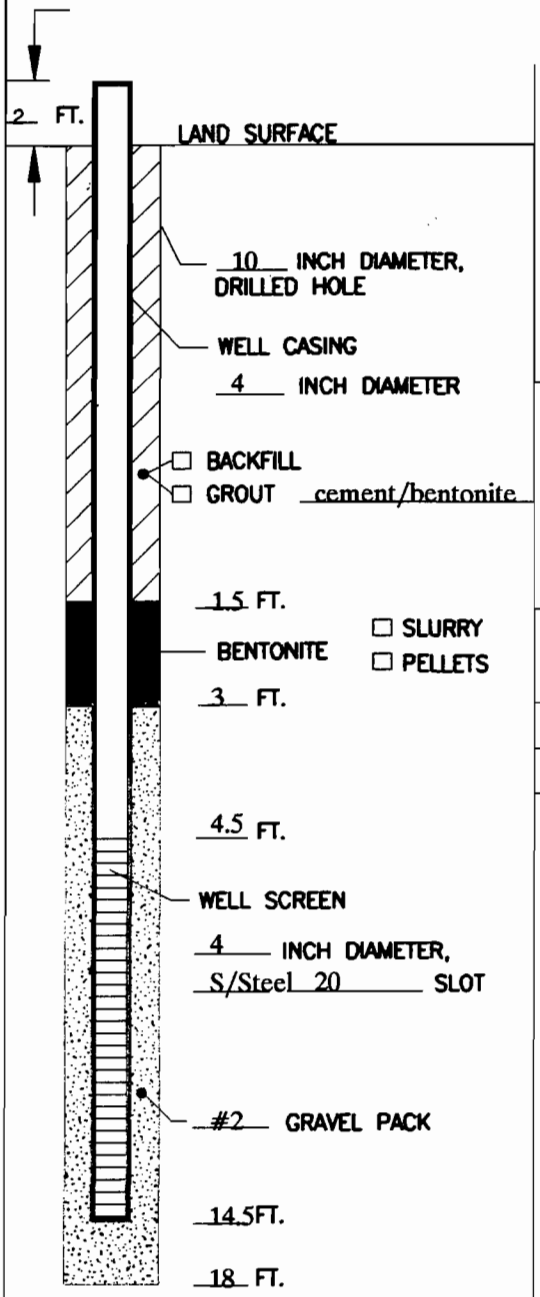
WELL PURPOSE Monitoring well

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05545Y

WELL NO. MW-60 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 12/28/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

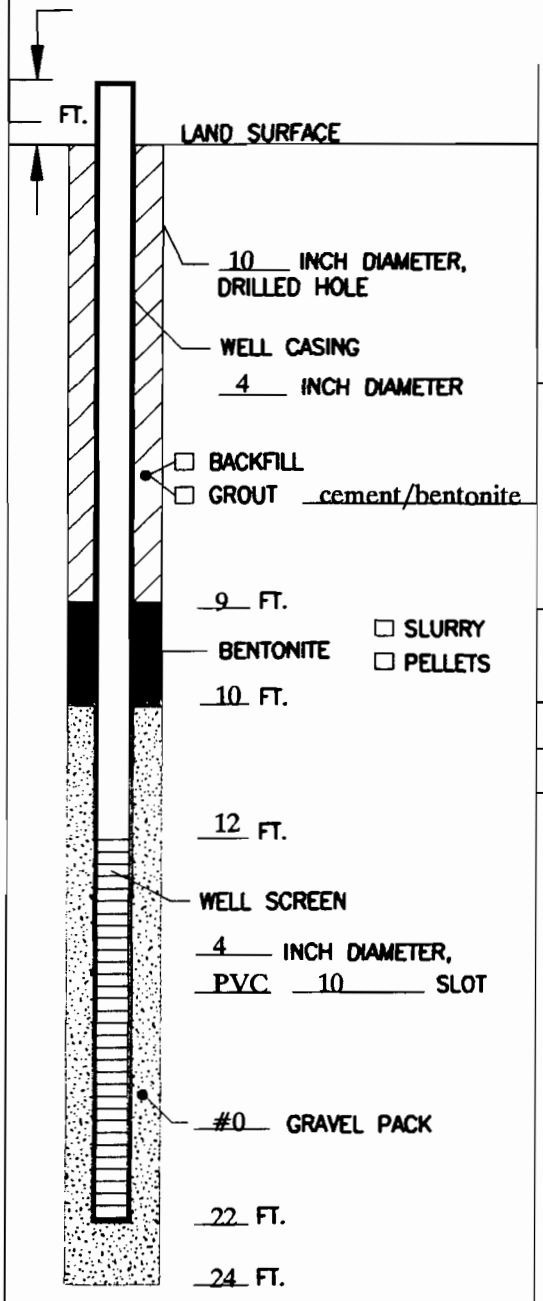
WELL PURPOSE Monitoring well

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05545Y

WELL NO. MW-61 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET
☐ SURVEYED
☐ ESTIMATED

INSTALLATION DATE(S) 11/12-13/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

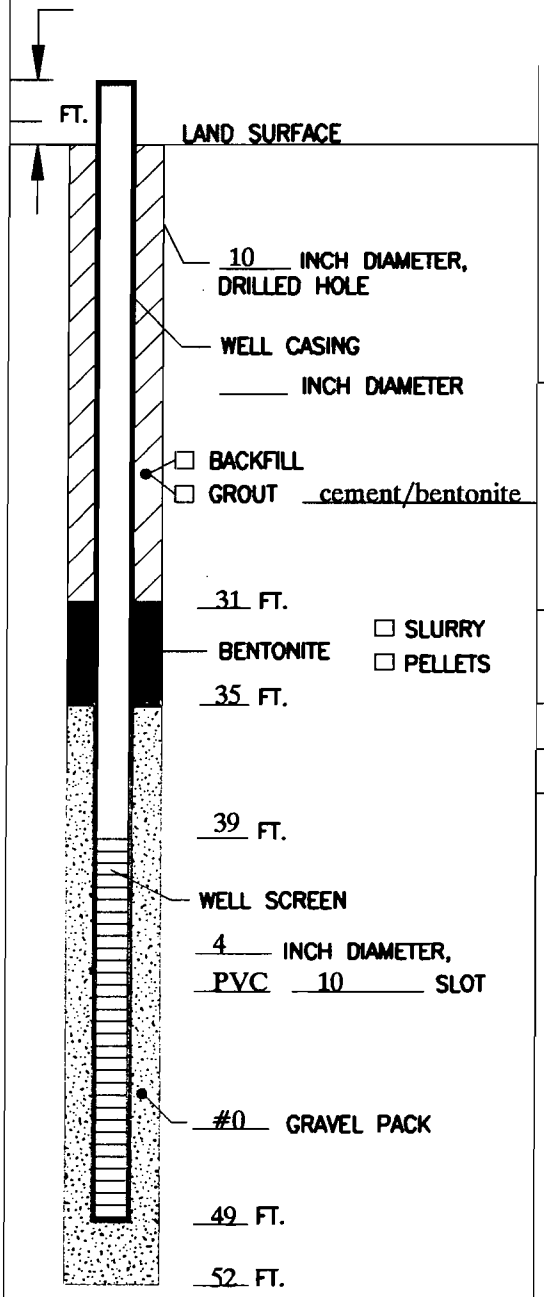
WELL PURPOSE Monitoring well

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05545Y

WELL NO. MW-62D PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 12/01/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

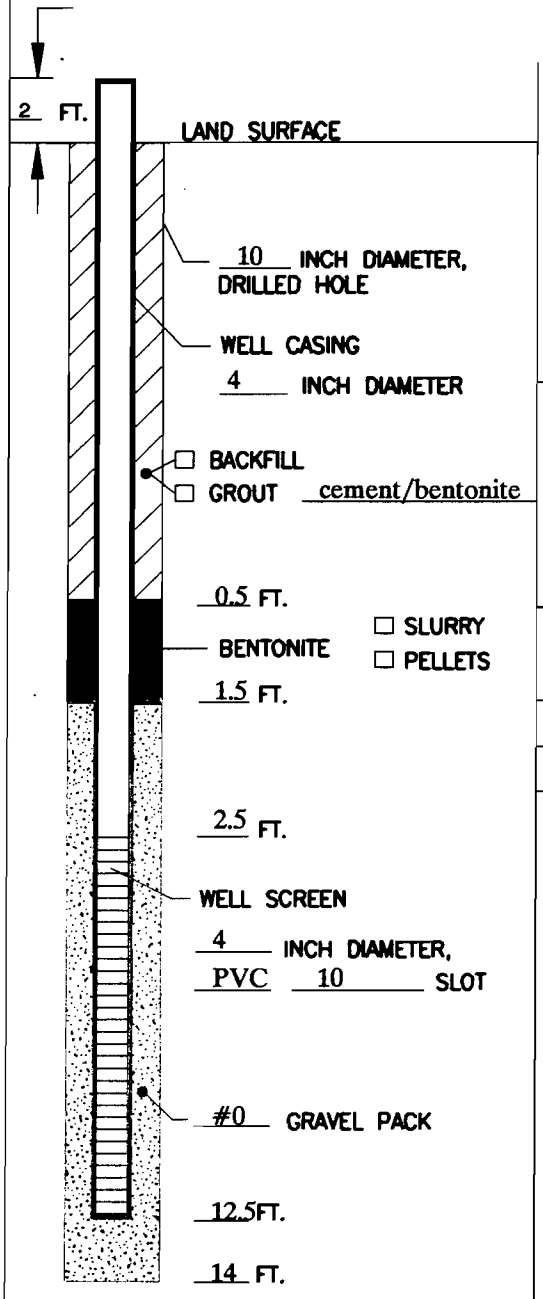
WELL PURPOSE Monitoring well

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05545Y

WELL NO. MW-63 PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET
☐ SURVEYED
☐ ESTIMATED

INSTALLATION DATE(S) 12/14/93

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR A.D.T.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pump and Surge

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

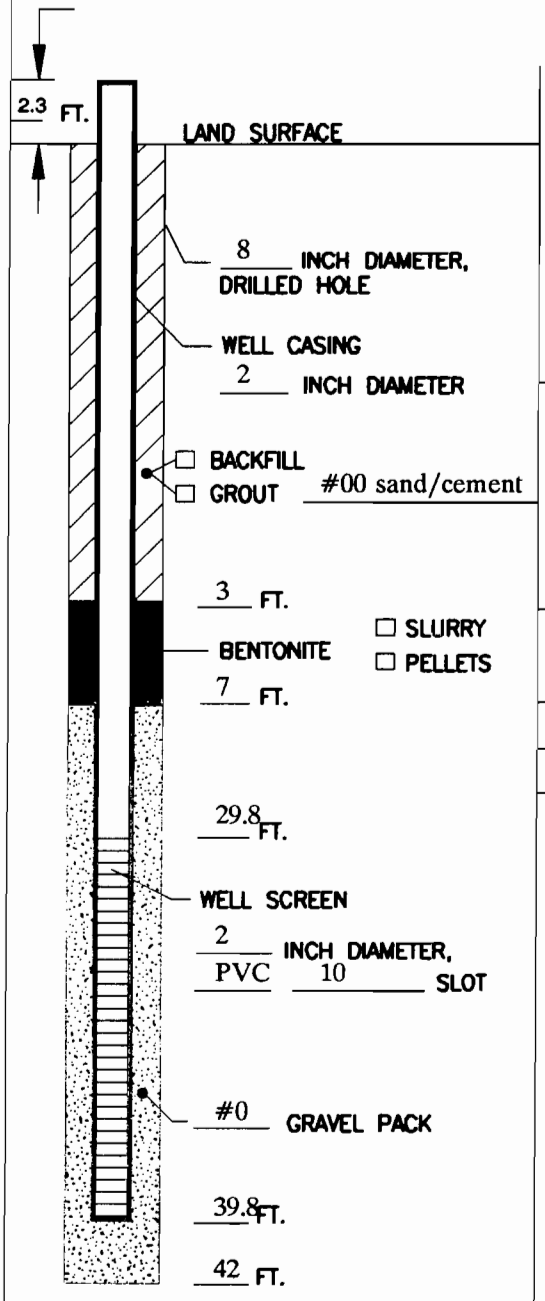
WELL PURPOSE Monitoring well

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05525Y02

WELL NO. P-1D PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 07/08/94

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR Land, Air, Water Environmental Services, Inc.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pumping and Surging

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

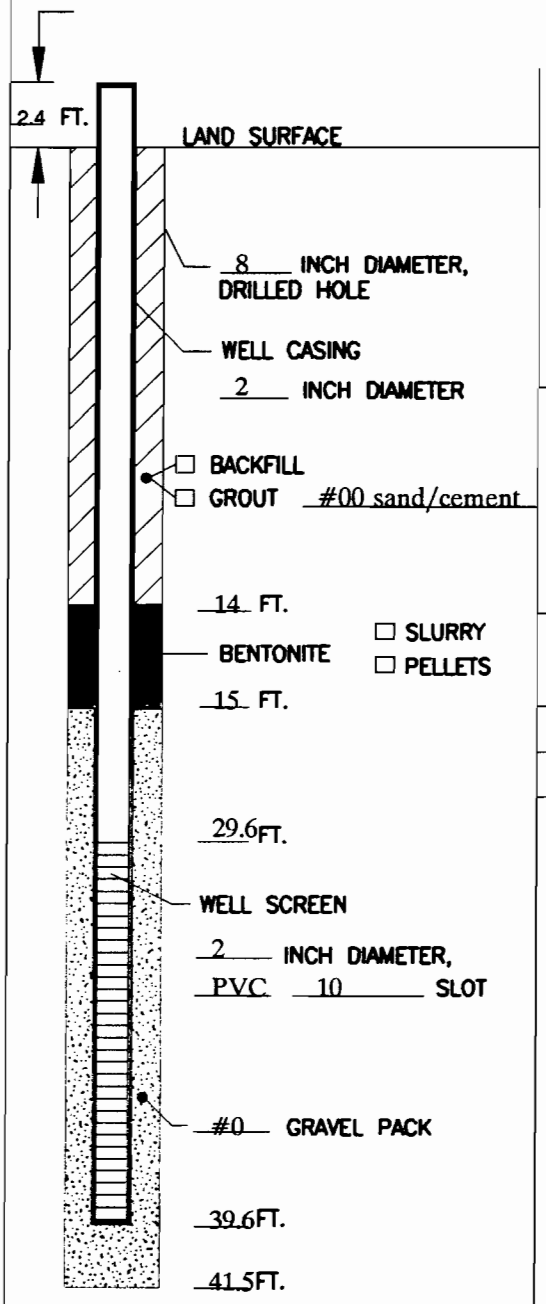
WELL PURPOSE Piezometer

REMARKS #00 Sand from 7' to 27'bls.

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05525Y02

WELL NO. P-2D PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET
☐ SURVEYED
☐ ESTIMATED

INSTALLATION DATE(S) 07/06/94

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR Land, Air, Water Environmental Services, Inc.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pumping and Surging

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

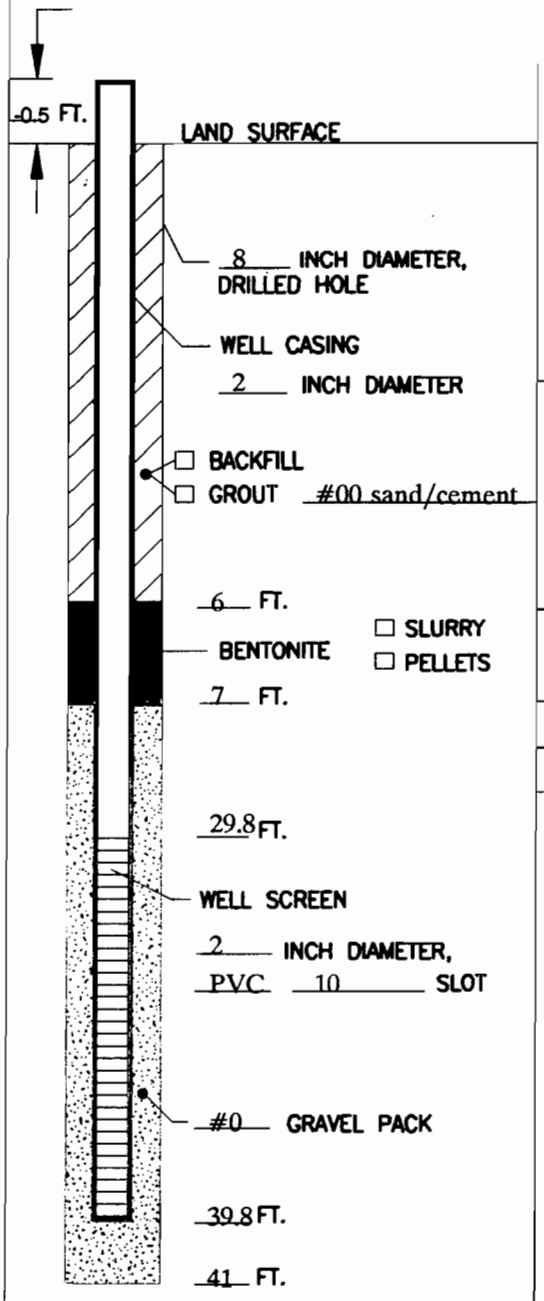
WELL PURPOSE Piezometer

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05525Y02

WELL NO. P-3D PERMIT NO.

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION AND DATUM ____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 07/07/94

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR Land, Air, Water Environmental Services, Inc.

DRILLING FLUID

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pumping and Surging

FLUID LOSS DURING DRILLING ____ GALLONS

WATER REMOVED DURING DEVELOPMENT ____ GALLONS

STATIC DEPTH TO WATER ____ FEET BELOW M.P.

PUMPING DEPTH TO WATER ____ FEET BELOW M.P.

PUMPING DURATION ____ HOURS

YIELD ____ GPM ____ DATE ____

SPECIFIC CAPACITY ____ GPM/FT.

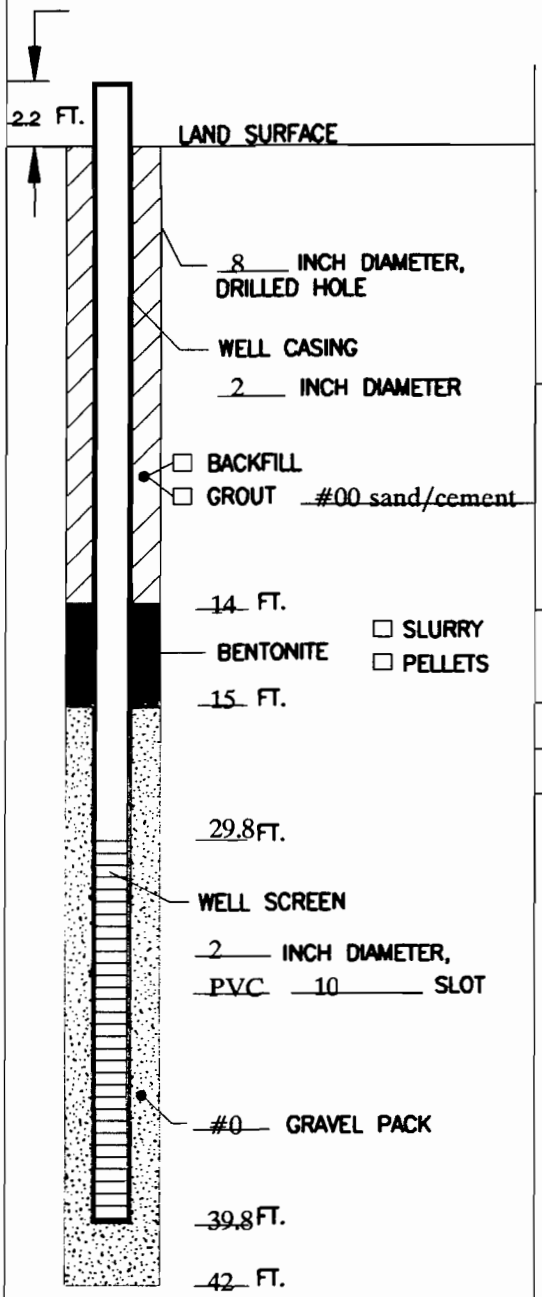
WELL PURPOSE Piezometer

REMARKS #00 Sand from 7' to 27'bls.

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05525Y02

WELL NO. P-4D PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 07/06/94

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR Land, Air, Water Environmental Services, Inc.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pumping and Surging

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

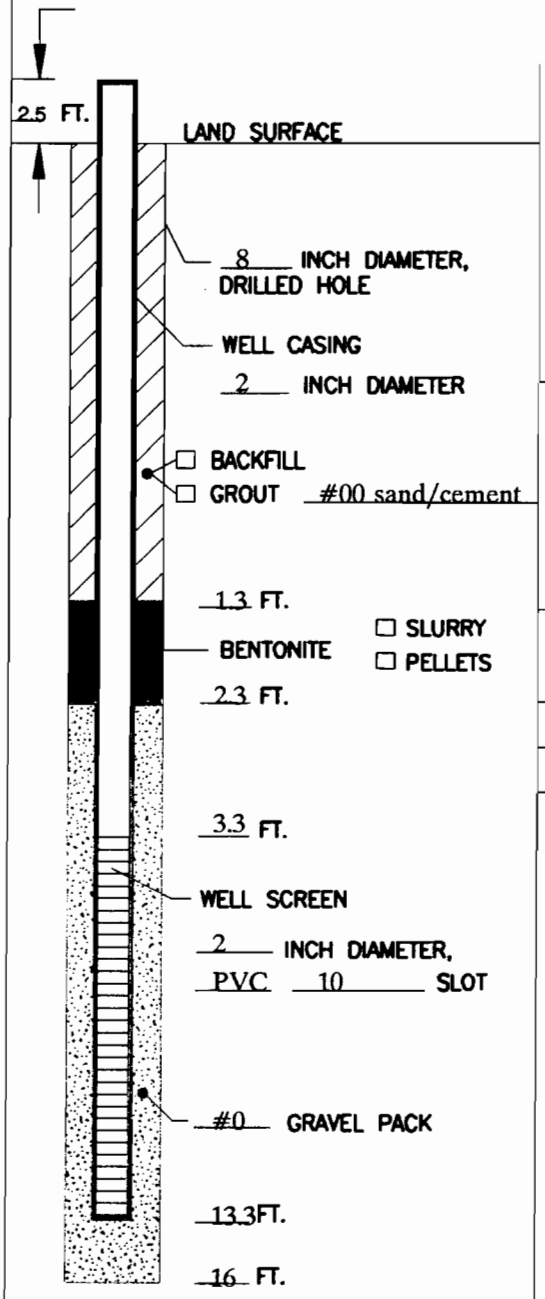
WELL PURPOSE Piezometer

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05525Y02

WELL NO. P-5S PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 07/06/94

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR Land, Air, Water Environmental Services, Inc.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pumping and Surging

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

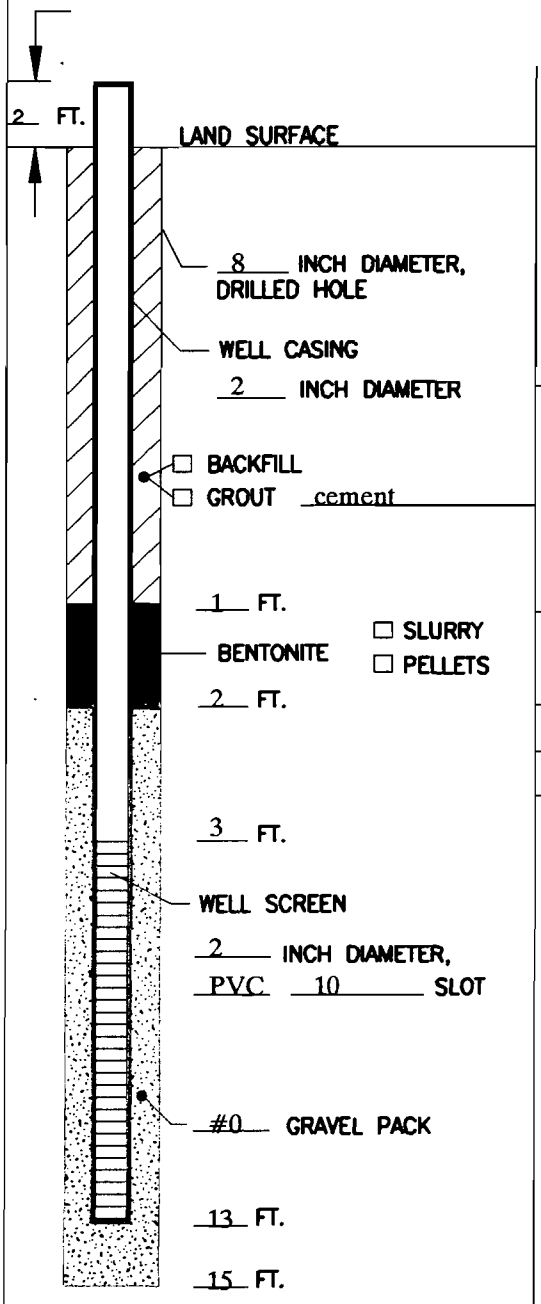
WELL PURPOSE Piezometer

REMARKS

HYDROGEOLOGIST H. Gregory

ROUX
ROUX ASSOCIATES INC
Environmental Consulting & Management

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME AMTRAK NUMBER 05525Y02

WELL NO. P-6S PERMIT NO. _____

TOWN/CITY Long Island City

COUNTY Queens STATE New York

LAND SURFACE ELEVATION
AND DATUM _____ FEET ☐ SURVEYED ☐ ESTIMATED

INSTALLATION DATE(S) 07/08/94

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR Land, Air, Water Environmental Services, Inc.

DRILLING FLUID _____

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pumping and Surging

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT _____ GALLONS

STATIC DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION _____ HOURS

YIELD _____ GPM _____ DATE _____

SPECIFIC CAPACITY _____ GPM/FT.

WELL PURPOSE Piezometer

REMARKS

HYDROGEOLOGIST H. Gregory

APPENDIX E

Comparison of Phase I RI and
Confirmatory Analytical Data

Soil samples were collected for confirmatory PCB analyses from eight areas of concern and additional facility-wide locations. Results are discussed below by area. A comparison of the Phase I RI and confirmatory sampling results is included below.

In January and February 1993, during performance of the Phase II RI, Roux Associates collected the confirmatory soil and ground-water samples in accordance with Task IV as modified in the correspondence to the NYSDEC dated September 10, 1992 (Roux Associates, Inc., 1992c). The confirmatory and all Phase II samples were analyzed by IEA laboratory, and results were validated by Data Validation Services. These results were submitted to the NYSDEC in a letter report dated May 24, 1993 (Roux Associates, Inc., 1993i), as summarized below. The results from all confirmatory ground-water samples indicated very good replication of the Phase I RI data. In soils, 42 percent of the PCB confirmation samples correlated well with Phase I RI results, 42 percent were within one order of magnitude, and 16 percent represented substantial differences.

Ground Water:

- VOCs and SVOCs
  Ground water in Monitoring Well MW-23D was resampled for TCL VOC and TCL SVOC analyses and the data are shown in Table E-1. The results of these samples indicated a very close correlation to the Phase I RI data.

- Metals
  Ground water in Monitoring Wells MW-1, MW-25, and MW-29 was resampled for TAL metals analyses because the field and trip blanks (prepared with laboratory-supplied water) associated with some of the Phase I RI samples were contaminated with lead and chromium. Although the levels of background metals varied, the levels of lead and chromium were within the same order of magnitude as the Phase I RI results (Table E-2).

- PCBs
  Ground water in Monitoring Wells MW-1, MW-23, and MW-27 was resampled for PCB analyses. The confirmatory sample results were identical to the Phase I RI sample results with the exception of Aroclor-1260 in MW-1 (Table E-3). Although the initial result was non-detected at a detection limit of 1.0 μg/L, the detection limit for the confirmatory sample was lower, therefore the result for Aroclor-1260 is 0.29 μg/L, rather than non-detected as previously reported.

Soil:

- Metals
  One confirmatory sample (CS-43) was analyzed for mercury in soil. This sample result indicated a two order of magnitude increase from the Phase I RI data.

- PCBs
  Twelve confirmatory soil samples were analyzed for PCBs (Table E-4). Forty-two percent of the confirmatory samples reflected results within the same order of magnitude (CS-1, CS-50, CS-53, CS-75 and CS-76), forty-two percent represented values within one order of magnitude (CS-6, CS-43, MW-31, CS-51, CS-64), and sixteen percent represented values within two orders of magnitude (CS-49, CS-83). With the exception of CS-50, all confirmatory sample results were higher than the Phase I RI data.

Therefore, as discussed in Section 2.1.2 of the Phase II RI report, results for TCL VOCs, TCL SVOCs and TAL metals in soil and ground water, with few exceptions, were generated in compliance with the specified analytical protocols and the confirmatory samples verified the original results. Therefore, these data can be used quantitatively to define the nature and extent of contamination.

The detection of mercury in CS-43 appears to be an isolated incidence. This sampling location is situated adjacent to the former paint shop operation, and the shipping and receiving area. After a review of Phase I RI and Phase II RI analytical results, all samples analyzed for mercury were one to two orders of magnitude lower than CS-43. Based on the location and previous analytical results, it appears that this result is not indicative of a widespread condition, so no further sampling is recommended.

Phase I RI PCB analyses were neither performed, nor documented, according to protocol requirements. The confirmatory sample results were generally higher than the Phase I RI data, and were acceptable for screening. This was confirmed by Ms. Betty Seeley of the NYSDEC Quality Assurance Section, who stated that the Envirosystems' data could be used to locate areas of suspected contamination.

Based on these results, Roux Associates proposed supplemental PCB confirmatory samples to provide additional quantitative data. The locations and justifications for these samples was provided in the May 24, 1993 correspondence and Section 2.2.5.6 of the Phase II RI report.

In November and December 1993, 16 supplemental confirmatory soil samples were collected by Roux Associates during performance of the Phase II RI Addendum. The results of these samples were presented in a letter to the NYSDEC dated March 3, 1994 (Roux Associates, Inc., 1994a), as summarized below.

One noted difference between the Phase I RI and confirmatory results is that results for Aroclor-1254 are identified in IEA's analyses, but were not identified by Envirosystems. The detection of Aroclor-1254 by IEA but not by Envirosystems may be attributed to several factors, including:

- the complexity of PCB mixtures (i.e., congeners) which make it difficult to resolve the exact nature and proportion of the Aroclor species (i.e., 1254 versus 1260);
- degradation and weathering of PCBs in the field, hence masking the types of species;
- the new, more refined analytical methods utilized by IEA, which better define the species (i.e., 1254 versus 1260); and
- the heterogeneity of the shallow soil (mostly fill) at the Yard.

Aroclor-1254 was detected in 12 of the 16 supplemental confirmation samples, six of the 12 sample results had detections of PCBs at concentrations lower than the detection levels presented in the original data for those six samples. Seventeen supplemental samples were proposed, but only 16 were collected because the location of soil boring S-30 was altered during installation of Monitoring Wells MW-47 and MW-48D and as a result, the present conditions were not representative of the initial conditions. The results are presented below.

- Area 1
  Five supplemental confirmation samples (CS-3, CS-5, CS-10, CMW-20, CMW-22) were analyzed from Area 1. There was a good correlation between confirmation and original sampling (Envirosystems) results. As shown in Table E-5, two samples (CS-3, CS-5) had lower concentrations, while three samples were higher, however the degree of difference was small (i.e., less than one order of magnitude).

- Area 2
  One supplemental confirmation sample (CS-41) was analyzed. This sample result was less than the detection limit provided in the original data due to the lower detection limit used in this analysis.

- Area 4
  One supplemental confirmation sample (CS-47) was analyzed. This sample was diluted (1:50) due to concentrations of Aroclor-1254 (29,000 μg/kg [29 ppm]) and Aroclor-1260 (20,000 μg/kg [20 ppm]). The supplemental sample result is more than one order of magnitude greater than the original result.

- Area 6
  One supplemental confirmation sample (CS-61) was analyzed. Although the supplemental analyses detection limits are higher than the original detection limits, the sample result for Aroclor-1254 is non-detect. For Aroclor-1260 the result is estimated as lower than the detection level.

- Area 7
  One supplemental confirmation sample (CS-67) was analyzed. Although the previous result was qualified as unusable, the concentration detected in CS-67 (430 μg/kg [0.430 ppm]) correlated well with the original data (290 μg/kg [0.29 ppm]).

- Area 9
  One supplemental confirmation sample (CS-59) was analyzed. The results of CS-59 (200 μg/kg [0.2 ppm]) confirmed the low (i.e., less than 1 ppm) concentrations from the original data (85 μg/kg [0.085 ppm]).

- Area 13
  One supplemental confirmation sample (CS-77) was analyzed. The sample results generally confirm the results of the original data (S-77) with the CS-77 exhibiting higher levels but within the same order of magnitude (85 versus 550).

- Area 15
  One supplemental confirmation sample (CS-82) was analyzed. CS-82 results indicate higher concentrations of both Aroclor-1254 (greater than one order of magnitude) and Aroclor-1260 (less than one order of magnitude).

- Facility Wide
  Four supplemental confirmation samples (CS-16, CS-22, CMW-30, CMW-34) were analyzed. Three samples (CS-22, CMW-30, CMW-34) confirmed the concentrations from the original data, while the concentration in CS-16 was greater than an order of magnitude higher (150 versus 1,600).

The 16 supplemental samples collected in November/December 1993 were proposed to provide quantitative data to supplement the 12 previous results. Of these 16 samples, only four samples (CS-5, CS-16, CS-47, CS-82) represented differences greater than one order

of magnitude. The remaining 12 samples (i.e., CS-3, CS-10, CS-22, CS-41, CS-59, CS-61, CS-67, CS-77, CMW-20, CMW-22, CMW-30 and CMW-34) represent a close correlation with the original data. These results indicate that the original data, which was confirmed by these supplemental confirmatory samples, may be used in the RA and the FS. This possibility may be further supported by the sampling results obtained during the proposed additional delineation of Areas 8, 9, and 17.

Based on these results, Roux Associates has proposed to use the Envirosystems' data confirmed by the supplemental confirmatory samples to support the RA and FS and no additional confirmatory sampling was proposed.

Table E-1. Comparison of Phase I Results to Phase II Confirmatory Ground-Water Sampling Results for Volatile Organic Compounds and Semivolatile Organic Compounds, Sunnyside Yard, Queens, New York.

Sample Designation:	MW-23	MW-23
Sample Date:	1/7/91	2/9/93
Volatile Organic Compounds (Concentrations in ug/L)		
Acetone	10.0 U	10 UV
Benzene	5.0 U	10 U
Bromodichloromethane	5.0 U	10 U
Bromoform	5.0 U	10 U
Bromomethane	10.0 U	10 U
2-Butanone	10.0 U	10 U
Carbon Disulfide	5.0 U	10 U
Carbon Tetrachloride	5.0 U	10 U
Chlorobenzene	5.0 U	10 U
Chloroethane	10.0 U	10 U
Chloroform	5.0 U	10 U
Chloromethane	10.0 U	10 U
Dibromochloromethane	5.0 U	10 U
1,2-Dichloroethane	5.0 U	10 U
1,1-Dichloroethane	5.0 U	2 J
1,1-Dichloroethene	5.0 U	10 U
1,2-Dichloroethene (total)	5.0 U	10 U
1,2-Dichloropropane	5.0 U	10 U
cis-1,3-Dichloropropene	5.0 U	10 U
Ethylbenzene	8.8	10 U
2-Hexanone	10.0 U	10 U
4-Methyl-2-pentanone	10.0 U	10 U
Methylene Chloride	5.0 U	10 U
Styrene	5.0 U	10 U
1,1,2,2-Tetrachloroethane	5.0 U	10 U
Tetrachloroethene	5.0 U	10 U
Toluene	5.0 U	10 U
Trans-1,3-Dichloropropene	5.0 U	10 U
1,1,1-Trichloroethane	5.0 U	10 U
1,1,2-Trichloroethane	5.0 U	10 U
Trichloroethene	5.0 U	10 U
Vinyl Acetate	10.0 U	NA
Vinyl Chloride	10.0 U	10 U
Xylenes (total)	18	1 J

Table E-1. Comparison of Phase I Results to Phase II Confirmatory Ground-Water Sampling Results for Volatile Organic Compounds and Semivolatile Organic Compounds, Sunnyside Yard, Queens, New York.

Sample Designation:	MW-23	MW-23+	MW-23
Sample Date:	1/7/91	1/7/91	2/9/93
Semivolatile Organic Compounds (Concentrations in ug/L)			
Acenaphthene	10 U	10 UJV	4 J
Acenaphthylene	10 U	10 UJV	10 U
Anthracene	10 U	10 UJV	10 U
Benzidine	50 U	50 UJV	NA
Benzo (a) Anthracene	10 U	10 UJV	10 U
Benzo (a) Pyrene	10 U	10 UJV	10 U
Benzo (b+k) Fluoranthenes	10 U	10 UJV	10 U
Benzo (g,h,i) Perylene	10 U	10 UJV	10 U
Benzoic Acid	50 UIV	50 UIV	NA
Benzyl Alcohol	10 UIV	10 UIV	NA
4-Bromophenyl-phenylether	10 U	10 UJV	10 U
Butylbenzyl phthalate	10 U	10 UJV	10 U
Carbazole	NA	NA	6 J
4-Chloro-3-Methylphenol	10 UIV	10 UIV	10 U
4-Chloroaniline	10 U	10 UJV	10 U
Bis (2-Chloroethoxy) Methane	10 U	10 UJV	10 U
Bis (2-Chloroethyl) Ether	10 U	10 UJV	10 U
Bis (2-Chloroisopropyl) Ether	10 U	10 UJV	NA
2-Chloronaphthalene	10 U	10 UJV	10 U
2-Chlorophenol	10 UIV	10 UIV	10 U
4-Chlorophenyl-phenylether	10 U	10 UJV	10 U
Chrysene	10 U	10 UJV	10 U
Di-n-Butylphthalate	10 U	10 UJV	10 U
Di-n-Octyl Phthalate	10 U	10 UJV	10 U
Dibenzo (a,h) Anthracene	10 U	10 UJV	10 U
Dibenzofuran	10 U	10 UJV	4 J
1,2-Dichlorobenzene	10 U	10 UJV	10 U
1,3-Dichlorobenzene	10 U	10 UJV	10 U
1,4-Dichlorobenzene	10 U	10 UJV	10 U
3,3'-Dichlorobenzidine	20 U	20 UJV	10 U
2,4-Dichlorophenol	10 UIV	10 UIV	10 U
Diethylphthalate	10 U	10 UJV	10 U
Dimethyl phthalate	10 U	10 UJV	10 U
2,4-Dimethylphenol	10 UIV	10 UIV	10 U
4,6-Dinitro-2-Methylphenol	50 UIV	50 UIV	25 U
2,4-Dinitrophenol	50 UIV	50 UIV	25 U
2,4-Dinitrotoluene	10 U	10 UJV	10 U
2,6-Dinitrotoluene	10 U	10 UJV	10 U
Bis (2-Ethylhexyl) Phthalate	32	9.3 UJV	10 UV
Fluoranthene	10 U	10 UJV	10 U
Fluorene	9.4 J	10 UJV	10 U
Hexachlorobenzene	10 U	10 UJV	10 U
Hexachlorobutadiene	10 U	10 UJV	10 U
Hexachlorocyclopentadiene	10 U	10 UJV	10 U
Hexachloroethane	10 U	10 UJV	10 U
Indeno (1,2,3-cd) Pyrene	10 U	10 UJV	10 U
Isophorone	10 U	10 UJV	10 U
2-Methylnaphthalene	96	10 UJV	23
4-Methylphenol	10 UIV	10 UIV	10 U
2-Methylphenol	10 UIV	10 UIV	10 U
N-Nitroso-Di-n-Propylamine	10 U	10 UJV	10 U
N-Nitrosodimethylamine	10 U	10 UJV	NA
N-Nitrosodiphenylamine (1)	10 U	10 UJV	10 U
Naphthalene	10 U	10 UJV	10 U
2-Nitroaniline	50 U	50 UJV	25 U
4-Nitroaniline	50 U	50 UJV	25 U
3-Nitroaniline	50 U	50 UJV	25 U
Nitrobenzene	10 U	10 UJV	10 U
4-Nitrophenol	50 UIV	50 UIV	25 U
2-Nitrophenol	10 UIV	10 UIV	10 U
2,2'-oxybis(1-Chloropropane)	NA	NA	10 U
Pentachlorophenol	50 UIV	50 UIV	25 U
Phenanthrene	10 U	10 UJV	2 J
Phenol	10 UIV	10 UIV	10 U
Pyrene	10 U	10 UJV	10 U
1,2,4-Trichlorobenzene	10 U	10 UJV	10 U
2,4,5-Trichlorophenol	50 UIV	50 UIV	25 U
2,4,6-Trichlorophenol	10 UIV	10 UIV	10 U

Table E-1. Comparison of Phase I Results to Phase II Confirmatory Ground-Water Sampling Results for Volatile Organic Compounds and Semivolatile Organic Compounds, Sunnyside Yard, Queens, New York.

ug/L - Micrograms per liter
+ - MW-23 was reanalyzed
U - Indicates that the compound was analyzed for but not detected.
V - Qualifier added and/or value altered during data validation
I - Result declared inconclusive during data validation.
J - Indicates the compound was analyzed for and determined to be present in the sample. The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.
NA - Not analyzed

Table E-2. Comparison of Phase I Results to Phase II Confirmatory Ground-Water Sampling Results for Metals, Sunnyside Yard, Queens, New York.

Sample Designation:	MW-1	MW-1	MW-25	MW-25	MW-29	MW-29
Sample Date:	1/7/91	2/9/93	1/4/91	1/24/93	1/3/91	2/9/93
Metals (Concentrations in ug/L)						
Aluminum	3,320 N*V	12,100	22,600 N*V	18,000	294 N*V	5,800
Antimony	7.6 U	21.0 U	7.6 U	21.0 U	7.6 U	21.0 U
Arsenic	3.0 U	2.7 B	3.0 U	1.0 U	5.9 B	5.4 B
Barium	107 B	246	247	191 B	152 B	168 B
Beryllium	1.6 U	1.0 U	2.0 B	1.1 B	1.6 U	1.0 U
Cadmium	5.0 U	2.0 U	7.0	2.0 U	5.0 U	2.0 U
Calcium	72,200	127,000	16,500	28,100	64,500	63,600
Chromium	19	18.5	81	42	2.2 U	4.9 B
Cobalt	8.7 U	11.1 B	35 B	26.1 B	8.7 U	4.3 B
Copper	24 B	63.0	101	98.1	11 U	40.3
Iron	7,120	22,900	63,000	50,000	21,400	32,600
Lead	47 N*V	17.2	93 N*V	37.8	38 N*V	43.7
Magnesium	26,800	51,900	11,300	13,400	21,200	21,700
Manganese	557 NV	914	3,490 NV	2,550	2,750 NV	2,380
Mercury	0.2 U	0.20 U	0.2 U	0.20 U	0.2	0.2 U
Nickel	22 U	38.6 B	71	56.3	22 U	21.0 U
Potassium	3,240 B	8,060	5,370	4,870 B	7,070	7,030
Selenium	3.3 UN*WV	2.0 U	3.3 UN*WV	1.0 U	3.3 UN*WV	2.0 U
Silver	2.5 UWV	3.0 U	2.8 U	3.0 U	2.8 UWV	3.0 U
Sodium	6,460	6,680	4,470	16,700	169,000	132,000
Thallium	3.5 UWNV	2.0 U	3.5 UNV	2.0 U	3.5 UWNV	2.0 U
Vanadium	22 B	28.5 B	79	61.6	9.2 U	24.8 B
Zinc	36	98.0	228	234	13 B	35.8

ug/L - Micrograms per liter.
U - Indicates analyte result less than the instrument detection limit (IDL) for 1991 data; indicates analyte result less than method detection limit (MDL) for 1993 data.
V - Qualifier added and/or value altered during data validation
B - Indicates analyte result between IDL and contract required detection limit (CRDL) for 1991 data; indicates analyte result between MDL and practical quantitation limit (PQL) for 1993 data.
N - Spiked sample recovery not within control limits.
* - Duplicate RPD out of control
W - Post digest spike recovery out of range

Table E-3. Comparison of Phase I Results to Phase II Confirmatory Ground-Water Sampling Results for Polychlorinated Biphenyl Compounds, Sunnyside Yard, Queens, New York.

Sample Designation:	MW-1	MW-1	MW-23+	MW-23	MW-27	MW-27
Sample Date:	1/7/91	2/9/93	1/7/91	2/9/93	1/4/91	2/9/93
Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/L)						
Aroclor-1016	0.50 U	0.067 U	0.50 U	0.066 U	0.50 U	0.067 U
Aroclor-1221	0.50 U	0.067 U	0.50 U	0.066 U	0.50 U	0.067 U
Aroclor-1232	0.50 U	0.067 U	0.50 U	0.066 U	0.50 U	0.067 U
Aroclor-1242	0.50 U	0.067 U	0.50 U	0.066 U	0.50 U	0.067 U
Aroclor-1248	0.50 U	0.067 U	0.50 U	0.066 U	0.50 U	0.067 U
Aroclor-1254	1.00 U	0.067 U	1.00 U	0.066 U	1.00 U	0.067 U
Aroclor-1260	1.00 U	0.29	1.00 U	0.066 U	1.00 U	0.067 U

ug/L - Micrograms per liter
U - Indicates that the compound was analyzed for but not detected.
+ - MW-23 was reanalyzed

Table E-4. Comparison of Phase I Results to Phase II Confirmatory Soil Sampling Results for Polychlorinated Biphenyl Compounds, Sunnyside Yard, Queens, New York.

Sample Designation:	S-1	CS-1a	CS-1DL	S-6	CS-6DL
Sample Depth (ft):	0-2	0-2	0-2	0-2	0-2
Sample Date:	10/26/90	1/26/93	1/26/93	11/11/90	1/25/93
Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)					
Aroclor-1016	1,000 UR	390 U	3,900 U	930 U	40,000 U
Aroclor-1221	1,000 UR	790 U	7,900 U	930 U	81,000 U
Aroclor-1232	1,000 UR	390 U	3,900 U	930 U	40,000 U
Aroclor-1242	1,000 UR	390 U	3,900 U	930 U	40,000 U
Aroclor-1248	1,000 UR	700	3,900 U	930 U	40,000 U
Aroclor-1254	1,000 UR	390 U	3,900 U	930 U	40,000 U
Aroclor-1260	3,010 RB	7,400	8,600	1,810 JV	62,000

Sample Designation:	S-43	CS-43	S-49	CS-49DL
Sample Depth (ft):	0-2	0-2	2-4	2-4
Sample Date:	11/5/90	1/18/93	10/19/90	2/1/93
Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)				
Aroclor-1016	900 U	400 U	85 U	3,800 U
Aroclor-1221	900 U	820 U	85 U	7,600 U
Aroclor-1232	900 U	400 U	85 U	3,800 U
Aroclor-1242	900 U	400 U	85 U	3,800 U
Aroclor-1248	900 U	400 U	85 U	3,800 U
Aroclor-1254	900 U	400 U	85 U	3,800 U
Aroclor-1260	900 U	1,400	710 JV	17,000

Sample Designation:	S-50	CS-50DL	S-51	CS-51DL
Sample Depth (ft):	0-2	0-2	0-2	0-2
Sample Date:	11/10/90	1/20/93	11/10/90	1/20/93
Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)				
Aroclor-1016	90 U	380 U	90 U	380 U
Aroclor-1221	90 U	770 U	90 U	770 U
Aroclor-1232	90 U	380 U	90 U	380 U
Aroclor-1242	90 U	380 U	90 U	380 U
Aroclor-1248	90 U	380 U	90 U	380 U
Aroclor-1254	90 U	380 U	90 U	380 U
Aroclor-1260	470 JV	270 J	191 JV	1,100 J

Table E-4. Comparison of Phase I Results to Phase II Confirmatory Soil Sampling Results for Polychlorinated Biphenyl Compounds, Sunnyside Yard, Queens, New York.

Sample Designation:	S-53	CS-53DL	S-64	CS-64
Sample Depth (ft):	0-2	0-2	2-3	2-3
Sample Date:	11/18/90	2/1/93	10/18/90	2/1/93
Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)				
Aroclor-1016	4,350 U	38,000 U	95 U	400 U
Aroclor-1221	4,350 U	76,000 U	95 U	820 U
Aroclor-1232	4,350 U	38,000 U	95 U	400 U
Aroclor-1242	4,350 U	38,000 U	95 U	400 U
Aroclor-1248	4,350 U	38,000 U	95 U	400 U
Aroclor-1254	4,350 U	38,000 U	95 U	400 U
Aroclor-1260	71,160 JV	88,000	979 JV	1,500 J

Sample Designation:	S-75	CS-75DL	S-76	CS-76a	CS-76DL
Sample Depth (ft):	0-2	0-2	0-0.7	0-0.5	0-0.5
Sample Date:	10/8/90	1/19/93	10/25/90	1/26/93	1/26/93
Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)					
Aroclor-1016	900 U	3,700 U	900 U	3,800 U	38,000 U
Aroclor-1221	900 U	7,400 U	900 U	7,600 U	76,000 U
Aroclor-1232	900 U	3,700 U	900 U	3,800 U	38,000 U
Aroclor-1242	900 U	3,700 U	900 U	3,800 U	38,000 U
Aroclor-1248	900 U	3,700 U	900 U	2,900 J	38,000 U
Aroclor-1254	900 U	3,700 U	900 U	3,800 U	38,000 U
Aroclor-1260	2,785 JV	6,900	13,652 JV	36,000	73,000

Sample Designation:	S-83	CS-83DL	MW-31	CMW-31DL
Sample Depth (ft):	0-2	0-2	0-2	0-2
Sample Date:	10/17/90	1/25/93	11/8/90	2/1/93
Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)				
Aroclor-1016	100 U	3,600 U	1,030 U	4,000 U
Aroclor-1221	100 U	7,300 U	1,030 U	8,200 U
Aroclor-1232	100 U	3,600 U	1,030 U	4,000 U
Aroclor-1242	100 U	3,600 U	1,030 U	4,000 U
Aroclor-1248	100 U	3,600 U	1,030 U	4,000 U
Aroclor-1254	100 U	3,600 U	1,030 U	4,000 U
Aroclor-1260	87 JV	4,400	7,540 JV	10,000

NOTES: Some samples were analyzed at a secondary (higher) dilution and are designated DL. Based upon data validation, either the primary or secondary results of some Aroclor species are considered to be more representative of actual conditions.

ug/kg - Micrograms per kilogram
(1) - S-58 was ND, therefore, CS-58 was replaced by CS-64.
(2) - Proposed confirmatory sample CS-84 was replaced with CS-83.
U - Indicates that the compound was analyzed for but not detected.
V - Qualifier added and/or value altered during data validation of Phase I RI results.
J - Indicates the compound was analyzed for and determined to be present in the sample. The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.
R - Result declared unusable during data validation
a - Aroclor-1248 is considered more representative at the primary dilution.

Table E-5. Comparison of Phase I Results to Phase II Supplemental Confirmatory Soil Sampling Results for Polychlorinated Biphenyl Compounds, Sunnyside Yard, Queens, New York.

Sample Designation:	S-1	CS-1a	CS-1DL	S-3	CS-3
Sample Depth (ft):	0-2	0-2	0-2	3-5	3-5
Sample Date:	10/26/90	1/26/93	1/26/93	10/10/90	11/8/93
Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)					
Aroclor-1016	1,000 UR	390 U	3,900 U	1,700 U	210 U
Aroclor-1221	1,000 UR	790 U	7,900 U	1,700 U	210 U
Aroclor-1232	1,000 UR	390 U	3,900 U	1,700 U	210 U
Aroclor-1242	1,000 UR	390 U	3,900 U	1,700 U	210 U
Aroclor-1248	1,000 UR	700	3,900 U	1,700 U	210 U
Aroclor-1254	1,000 UR	390 U	3,900 U	1,700 U	850
Aroclor-1260	3,010 RV	7,400	8,600	1,700 U	1,400

Sample Designation:	S-5	CS-5	S-6	CS-6DL
Sample Depth (ft):	0-2	0-2	0-2	0-2
Sample Date:	10/26/90	11/8/93	11/11/90	1/25/93
Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)				
Aroclor-1016	880 UR	190 U	930 U	40,000 U
Aroclor-1221	880 UR	190 U	930 U	81,000 U
Aroclor-1232	880 UR	190 U	930 U	40,000 U
Aroclor-1242	880 UR	190 U	930 U	40,000 U
Aroclor-1248	880 UR	190 U	930 U	40,000 U
Aroclor-1254	880 UR	440	930 U	40,000 U
Aroclor-1260	8,150 R	1,700	1,810 JV	62,000

Sample Designation:	S-10	CS-10	S-16	CS-16
Sample Depth (ft):	0-2	0-2	0-2	0-2
Sample Date:	10/16/90	11/8/93	11/11/90	12/16/93
Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)				
Aroclor-1016	80 U	180 U	90 U	210 U
Aroclor-1221	80 U	180 U	90 U	210 U
Aroclor-1232	80 U	180 U	90 U	210 U
Aroclor-1242	80 U	180 U	90 U	210 U
Aroclor-1248	80 U	180 U	90 U	210 U
Aroclor-1254	80 U	360 U	90 U	790
Aroclor-1260	96 JV	370	150 JV	1,600

Table E-5. Comparison of Phase I Results to Phase II Supplemental Confirmatory Soil Sampling Results for Polychlorinated Biphenyl Compounds, Sunnyside Yard, Queens, New York.

Sample Designation:	S-22	CS-22	S-41A	CS-41A
Sample Depth (ft):	0-2	0-2	3.5-5.5	3.5-5.5
Sample Date:	10/17/90	12/15/93	11/7/90	12/15/93
Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)				
Aroclor-1016	100 U	170 U	930 U	170 U
Aroclor-1221	100 U	170 U	930 U	170 U
Aroclor-1232	100 U	170 U	930 U	170 U
Aroclor-1242	100 U	170 U	930 U	170 U
Aroclor-1248	100 U	170 U	930 U	170 U
Aroclor-1254	100 U	7.3 J	930 U	340 U
Aroclor-1260	435 JV	16 J	930 U	42 J

Sample Designation:	S-43	CS-43	S-47	CS-47
Sample Depth (ft):	0-2	0-2	2-4	2-4
Sample Date:	11/5/90	1/18/93	10/19/90	12/15/93
Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)				
Aroclor-1016	900 U	400 U	860 U	8600 U
Aroclor-1221	900 U	820 U	860 U	8600 U
Aroclor-1232	900 U	400 U	860 U	8600 U
Aroclor-1242	900 U	400 U	860 U	8600 U
Aroclor-1248	900 U	400 U	860 U	8600 U
Aroclor-1254	900 U	400 U	860 U	29,000
Aroclor-1260	900 U	1,400	934 JV	20,000

Sample Designation:	S-49	CS-49	S-50	CS-50
Sample Depth (ft):	2-4	2-4	0-2	0-2
Sample Date:	10/19/90	2/1/93	11/10/90	1/20/93
Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)				
Aroclor-1016	85 U	3,800 U	90 U	380 U
Aroclor-1221	85 U	7,600 U	90 U	770 U
Aroclor-1232	85 U	3,800 U	90 U	380 U
Aroclor-1242	85 U	3,800 U	90 U	380 U
Aroclor-1248	85 U	3,800 U	90 U	380 U
Aroclor-1254	85 U	3,800 U	90 U	380 U
Aroclor-1260	710 JV	17,000	470 JV	270 J

Table E-5. Comparison of Phase I Results to Phase II Supplemental Confirmatory Soil Sampling Results for Polychlorinated Biphenyl Compounds, Sunnyside Yard, Queens, New York.

Sample Designation:	S-51	CS-51DL	S-53	CS-53
Sample Depth (ft):	0-2	0-2	0-2	0-2
Sample Date:	11/10/90	1/20/93	11/18/90	2/1/93
Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)				
Aroclor-1016	90 U	380 U	4,350 U	38,000 U
Aroclor-1221	90 U	770 U	4,350 U	76,000 U
Aroclor-1232	90 U	380 U	4,350 U	38,000 U
Aroclor-1242	90 U	380 U	4,350 U	38,000 U
Aroclor-1248	90 U	380 U	4,350 U	38,000 U
Aroclor-1254	90 U	380 U	4,350 U	38,000 U
Aroclor-1260	191 JV	1,100	71,160 JV	88,000

Sample Designation:	S-59	CS-59	S-61	CS-61
Sample Depth (ft):	0-2	0-2	5-7	5-7
Sample Date:	10/17/90	11/9/93	10/24/90	11/8/93
Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)				
Aroclor-1016	85 U	170 U	90 U	200 U
Aroclor-1221	85 U	170 U	90 U	200 U
Aroclor-1232	85 U	170 U	90 U	200 U
Aroclor-1242	85 U	170 U	90 U	200 U
Aroclor-1248	85 U	170 U	90 U	200 U
Aroclor-1254	85 U	35 J	90 U	400 U
Aroclor-1260	85 U	200 J	90 U	97 J

Sample Designation:	S-64	CS-64	S-67	CS-67
Sample Depth (ft):	2-3	2-3	0-2	0-2
Sample Date:	10/18/90	2/1/93	10/27/90	11/8/93
Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)				
Aroclor-1016	95 U	400 U	90 UR	190 U
Aroclor-1221	95 U	820 U	90 UR	190 U
Aroclor-1232	95 U	400 U	90 UR	190 U
Aroclor-1242	95 U	400 U	90 UR	190 U
Aroclor-1248	95 U	400 U	90 UR	190 U
Aroclor-1254	95 U	400 U	90 UR	380 U
Aroclor-1260	979 JV	1,500 JD	290 R	430

Table E-5. Comparison of Phase I Results to Phase II Supplemental Confirmatory Soil Sampling Results for Polychlorinated Biphenyl Compounds, Sunnyside Yard, Queens, New York.

Sample Designation:	S-75	CS-75DL	S-76	CS-76a	CS-76DL
Sample Depth (ft):	0-2	0-2	0-0.7	0-0.5	0-0.5
Sample Date:	10/8/90	1/19/93	10/25/90	1/26/93	1/26/93
Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)					
Aroclor-1016	900 U	3,700 U	900 U	3,800 U	38,000 U
Aroclor-1221	900 U	7,400 U	900 U	7,600 U	76,000 U
Aroclor-1232	900 U	3,700 U	900 U	3,800 U	38,000 U
Aroclor-1242	900 U	3,700 U	900 U	3,800 U	38,000 U
Aroclor-1248	900 U	3,700 U	900 U	2,900 J	38,000 U
Aroclor-1254	900 U	3,700 U	900 U	3,800 U	38,000 U
Aroclor-1260	2,785 JV	6,900	13,652 JV	36,000	73,000

Sample Designation:	S-77	CS-77	S-82	CS-82
Sample Depth (ft):	0-2	0-2	0-2	0-2
Sample Date:	10/8/90	11/9/93	10/16/90	11/9/93
Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)				
Aroclor-1016	80 U	180 U	90 U	920 U
Aroclor-1221	80 U	180 U	90 U	920 U
Aroclor-1232	80 U	180 U	90 U	920 U
Aroclor-1242	80 U	180 U	90 U	920 U
Aroclor-1248	80 U	180 U	90 U	920 U
Aroclor-1254	80 U	370	90 U	4,100
Aroclor-1260	85 JV	550	851 JV	4,600

Sample Designation:	S-83	CS-83DL	MW-20	CMW-20
Sample Depth (ft):	0-2	0-2	0-2	0-2
Sample Date:	10/17/90	1/25/93	12/11/90	11/8/93
Polychlorinated Biphenyl (PCB) Compounds (Concentrations in ug/kg)				
Aroclor-1016	100 U	3,600 U	100 U	200 U
Aroclor-1221	100 U	7,300 U	100 U	200 U
Aroclor-1232	100 U	3,600 U	100 U	200 U
Aroclor-1242	100 U	3,600 U	100 U	200 U
Aroclor-1248	100 U	3,600 U	100 U	200 U
Aroclor-1254	100 U	3,600 U	100 U	190 J
Aroclor-1260	87 JV	4,400	60 JV	360 J