Table 1 - Field Screening Measurements

Sample Location	Sample Depth (m)	PID Reading (ppm)	Hex Reading (ppm)
MW1/22	0.00 - 1.52	0	0
MW1/22	1.52 - 1.68	0	0
BH2-22	0.00 - 1.22	0	0
BH2-22	1.22 - 2.44	0	0
BH2-22	2.44 - 3.23	0	0
MW3/22	0.00 - 1.52	0	0
MW3/22	1.52 - 1.68	0	0
BH4-22	0.61 - 1.22	0	0
BH4-22	1.22 - 1.52	0	0
BH4-22	1.52 - 2.34	0	0
MW6/22	0.30 - 1.52	0	0
MW6/22	1.52 - 1.68	0	0
MW8/22	0.00 - 1.52	0	0
MW8/22	1.52 - 2.74	0	0
MW9/22	0.91 - 1.52	0	0
MW9/22	1.52 - 2.13	0	0
MW9/22	2.13 - 2.90	0	0

Samples measured using a RKI Eagle II Gas Meter equipped with a photoionization detector (PID) and a catalytic sensor

Table 2 Monitoring Well Construction and Water Level Measurements

Monitoring Well	Installation Date (dd/mm/yyyy)	Well Depth From Ground Level (m)	Length of Screen (m)	Well Ground Elevation (m asl)	Groundwater Elevation - March 2022 (m)
MW1/22	16/03/2022	4.57	2.44	68.05	64.86
MW3/22	16/03/2022	4.57	2.4	68.22	65.06
MW6/22	16/03/2022	4.57	2.1	67.87	64.85
MW8/22	16/03/2022	5.18	3.1	68.03	64.98
MW9/22	15/03/2022	3.66	2.4	67.84	64.82

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Table 3 - Soil Grain Size

Location			MW1/22	MW3/22	MW6/22	MW8/22
Sample ID			B1976	B1977	B1975	B1978
Report Number			2212310	2212310	2212310	2212310
Sample Date			2022-03-16	2022-03-16	2022-03-16	2022-03-16
Sample Time			11:05:00 AM	1:00:00 PM	9:45:00 AM	2:43:00 PM
Depth (m)		From	0.61	0.61	0.61	1.52
		To	1.52	1.52	1.52	2.44
Chemicals	Units	RDL	Results	Results	Results	Results
Analysis Date			2022-03-18	2022-03-18	2022-03-18	2022-03-18
Sieve - #200 (<0.075mm)	%	0.1	54.0	64.3	55.1	76.2
Sieve - #200 (>0.075mm)	%	0.1	46.0	35.7	44.9	23.8
Texture	-	-	Med/Fine	Med/Fine	Med/Fine	Med/Fine

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Table 4 - BTEX and PHCs in Soil

Location			MW1/22	BH2-22		MW3/22	BH4-22	MW6/22	MW8/22	MW9/22			MECP Table 3 Industrial Fine
Sample ID			B1976	B1896	B1897	B1977	B1898	B1974	B1978	B1971	B1972	B1973 DUP of B1972	
Report Number			2212310	2205578	2205578	2212310	2205578	2212310	2212310	2212310	2212310	2212310	
Sample Date			2022-03-16	2022-01-27	2022-01-27	2022-03-16	2022-01-27	2022-03-16	2022-03-16	2022-03-15	2022-03-15	2022-03-15	
Sample Time			11:05:00 AM	10:00:00 AM	10:30:00 AM	1:00:00 PM	11:55:00 AM	9:45:00 AM	2:43:00 PM	1:45:00 PM	2:05:00 PM	2:05:00 PM	
Depth (m)		From	0.61	1.22	2.44	0.61	1.22	0.61	1.52	0.91	2.13	2.13	
		To	1.52	1.83	3.05	1.52	1.83	1.52	2.44	1.52	2.90	2.90	
Chemicals	Units	RDL	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	
Analysis Date			2022-03-17	2022-02-03	2022-02-03	2022-03-17	2022-02-03	2022-03-17	2022-03-17	2022-03-17	2022-03-17	2022-03-17	
Benzene	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.4
Ethylbenzene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	19
Toluene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	78
o-Xylene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	30
p+m-Xylene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Xylene (Total)	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
F1 (C6-C10)	µg/g	7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	65
Analysis Date			2022-03-18	2022-02-03	2022-02-03	2022-03-18	2022-02-03	2022-03-18	2022-03-18	2022-03-18	2022-03-18	2022-03-18	
F2 (C10-C16 Hydrocarbons)	µg/g	4	11	12	<4	<4	<4	<4	<4	<4	11	16	250
F3 (C16-C34 Hydrocarbons)	µg/g	8	15	23	15	<8	37	19	<8	<8	10	14	2500
F4 (C34-C50 Hydrocarbons)	µg/g	6	<6	<6	<6	<6	82	27	<6	<6	<6	<6	6600

BTEX - Benzene, Toluene, Ethylbenzene, Xylenes

PHC - Petroleum Hydrocarbons

RDL - Result Detection Limit

MECP Table 3 - Ministry of Environment, Conservation and Parks, Soil, Ground Water And Sediment Standards For Use Under Part XV.1 of the Environmental Protection Act, Table 3 Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, 2011

Results above Table 3 criteria

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Table 5 - VOCs In Soil

Location			MW1/22	BH2-22		MW3/22	BH4-22	MECP Table 3 Industrial Fine
Sample ID			B1976	B1896	B1897	B1977	B1898	
Report Number			2212310	2205578	2205578	2212310	2205578	
Sample Date			2022-03-16	2022-01-27	2022-01-27	2022-03-16	2022-01-27	
Sample Time			11:05:00 AM	10:00:00 AM	10:30:00 AM	1:00:00 PM	11:55:00 AM	
Depth (m)		From	0.61	1.22	2.44	0.61	1.22	
		To	1.52	1.83	3.05	1.52	1.83	
Chemicals	Units	RDL	Results	Results	Results	Results	Results	
Analysis Date			2022-03-17	2022-02-03	2022-02-03	2022-03-17	2022-02-03	
Acetone	µg/g	0.50	<0.50	-	-	-	-	28
Benzene	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.4
Bromodichloromethane	µg/g	0.05	<0.05	-	-	-	-	18
Bromoform	µg/g	0.05	<0.05	-	-	-	-	1.7
Bromomethane	µg/g	0.05	<0.05	-	-	-	-	0.05
Carbon Tetrachloride	µg/g	0.05	<0.05	-	-	-	-	1.5
Chlorobenzene	µg/g	0.05	<0.05	-	-	-	-	2.7
Chloroform	µg/g	0.05	<0.05	-	-	-	-	0.18
Dibromochloromethane	µg/g	0.05	<0.05	-	-	-	-	13
Dichlorodifluoromethane	µg/g	0.05	<0.05	-	-	-	-	8.5
1,2-Dichlorobenzene	µg/g	0.05	<0.05	-	-	-	-	12
1,3-Dichlorobenzene	µg/g	0.05	<0.05	-	-	-	-	0.84
1,4-Dichlorobenzene	µg/g	0.05	<0.05	-	-	-	-	25
1,1-Dichloroethane	µg/g	0.05	<0.05	-	-	-	-	21
1,2-Dichloroethane	µg/g	0.05	<0.05	-	-	-	-	0.05
1,1-Dichloroethylene	µg/g	0.05	<0.05	-	-	-	-	0.48
cis-1,2-Dichloroethylene	µg/g	0.05	<0.05	-	-	-	-	37
trans-1,2-Dichloroethylene	µg/g	0.05	<0.05	-	-	-	-	9.3
1,2-Dichloropropane	µg/g	0.05	<0.05	-	-	-	-	0.68
cis-1,3-Dichloropropylene	µg/g	0.05	<0.05	-	-	-	-	0.21
trans-1,3-Dichloropropylene	µg/g	0.05	<0.05	-	-	-	-	
1,3-Dichloropropene, total	µg/g	0.05	<0.05	-	-	-	-	
Ethylbenzene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	19
Ethylene dibromide (dibromoethane, 1,2-)	µg/g	0.05	<0.05	-	-	-	-	0.05
Hexane	µg/g	0.05	<0.05	-	-	-	-	88
Methyl Ethyl Ketone (2-Butanone)	µg/g	0.50	<0.50	-	-	-	-	88
Methyl Isobutyl Ketone	µg/g	0.50	<0.50	-	-	-	-	210
Methyl tert-butyl ether	µg/g	0.05	<0.05	-	-	-	-	3.2
Methylene Chloride	µg/g	0.05	<0.05	-	-	-	-	2
Styrene	µg/g	0.05	<0.05	-	-	-	-	43
1,1,1,2-Tetrachloroethane	µg/g	0.05	<0.05	-	-	-	-	0.11
1,1,2,2-Tetrachloroethane	µg/g	0.05	<0.05	-	-	-	-	0.094
Tetrachloroethylene	µg/g	0.05	<0.05	-	-	-	-	21
Toluene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	78
1,1,1-Trichloroethane	µg/g	0.05	<0.05	-	-	-	-	12
1,1,2-Trichloroethane	µg/g	0.05	<0.05	-	-	-	-	0.11
Trichloroethylene	µg/g	0.05	<0.05	-	-	-	-	0.61
Trichlorofluoromethane	µg/g	0.05	<0.05	-	-	-	-	5.8
Vinyl Chloride	µg/g	0.02	<0.02	-	-	-	-	0.25
m/p-Xylene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	30
o-Xylene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Xylenes, total	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	

VOC - Volatile Organic Compounds

RDL - Result Detection Limit

MECP Table 3 - Ministry of Environment, Conservation and Parks, Soil, Ground Water And Sediment Standards For Use Under Part XV.1 of the Environmental Protection Act, Table 3 Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, 2011

Results above Table 3 criteria

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Table 5 - VOCs In Soil, cont

Location			MW6/22	MW8/22	MW9/22			MECP Table 3 Industrial Coarse
Sample ID			B1974	B1978	B1971	B1972	B1973 DUP of B1972	
Report Number			2212310	2212310	2212310	2212310	2212310	
Sample Date			2022-03-16	2022-03-16	2022-03-15	2022-03-15	2022-03-15	
Sample Time			9:45:00 AM	2:43:00 PM	1:45:00 PM	2:05:00 PM	2:05:00 PM	
Depth (m)		From	0.61	1.52	0.91	2.13	2.13	
		To	1.52	2.44	1.52	2.90	2.90	
Chemicals	Units	RDL	Results	Results	Results	Results	Results	
Analysis Date			2022-03-17	2022-03-17	2022-03-17	2022-03-17	2022-03-17	
Acetone	µg/g	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	16
Benzene	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.32
Bromodichloromethane	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	18
Bromoform	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.61
Bromomethane	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05
Carbon Tetrachloride	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.21
Chlorobenzene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	2.4
Chloroform	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.47
Dibromochloromethane	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	13
Dichlorodifluoromethane	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	6.8
1,2-Dichlorobenzene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	9.6
1,3-Dichlorobenzene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.2
1,4-Dichlorobenzene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	16
1,1-Dichloroethane	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	17
1,2-Dichloroethane	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05
1,1-Dichloroethylene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.064
cis-1,2-Dichloroethylene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	55
trans-1,2-Dichloroethylene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.3
1,2-Dichloropropane	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.16
cis-1,3-Dichloropropylene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.18
trans-1,3-Dichloropropylene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
1,3-Dichloropropene, total	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Ethylbenzene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	9.5
Ethylene dibromide (dibromoethane, 1,2-)	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05
Hexane	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	46
Methyl Ethyl Ketone (2-Butanone)	µg/g	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	70
Methyl Isobutyl Ketone	µg/g	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	31
Methyl tert-butyl ether	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	11
Methylene Chloride	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.6
Styrene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	34
1,1,1,2-Tetrachloroethane	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.087
1,1,2,2-Tetrachloroethane	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05
Tetrachloroethylene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	4.5
Toluene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	68
1,1,1-Trichloroethane	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	6.1
1,1,2-Trichloroethane	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05
Trichloroethylene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.91
Trichlorofluoromethane	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	4
Vinyl Chloride	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.032
m/p-Xylene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	26
o-Xylene	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Xylenes, total	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	

VOC - Volatile Organic Compounds

RDL - Result Detection Limit

MECP Table 3 - Ministry of Environment, Conservation and Parks, Soil, Ground Water And Sediment Standards For Use Under Part XV.1 of the Environmental Protection Act, Table 3 Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, 2011

Results above Table 3 criteria

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Table 6 - Metals and Inorganics in Soil

Location			MW1/22	MW6/22	MW8/22	MW9/22			MECP Table 3 Industrial Fine
Sample ID			B1976	B1974	B1978	B1971	B1972	B1973 DUP of B1972	
Report Number			2212310	2212310	2212310	2212310	2212310	2212310	
Sample Date			2022-03-16	2022-03-16	2022-03-16	2022-03-15	2022-03-15	2022-03-15	
Sample Time			11:05:00 AM	9:45:00 AM	2:43:00 PM	1:45:00 PM	2:05:00 PM	2:05:00 PM	
Depth (m)		From	0.61	0.61	1.52	0.91	2.13	2.13	
		To	1.52	1.52	2.44	1.52	2.90	2.90	
Chemicals	Units	RDL	Results	Results	Results	Results	Results	Results	
Analysis Date			2022-03-18	2022-03-18	2022-03-18	2022-03-18	2022-03-18	2022-03-18	
Antimony	µg/g	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	50
Arsenic	µg/g	1.0	6.3	6.7	3.9	2.1	3.4	3.8	18
Barium	µg/g	1.0	146	140	102	99.7	111	112	670
Beryllium	µg/g	0.5	0.7	0.9	0.6	<0.5	0.6	0.5	10
Boron	µg/g	5.0	7.8	6.6	5.5	<5.0	6.1	6.1	120
Cadmium	µg/g	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.9
Chromium	µg/g	5.0	29.2	29.4	27.9	31.8	22.7	23.9	160
Cobalt	µg/g	1.0	11.1	12.5	11.1	8.5	8.7	8.8	100
Copper	µg/g	5.0	29.0	26.5	25.4	8.7	20.0	21.0	300
Lead	µg/g	1.0	8.6	5.5	8.1	5.0	6.3	6.0	120
Molybdenum	µg/g	1.0	4.1	1.0	1.0	<1.0	1.3	1.5	40
Nickel	µg/g	5.0	28.9	28.2	28.1	19.1	21.1	21.4	340
Selenium	µg/g	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.5
Silver	µg/g	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	50
Thallium	µg/g	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.3
Uranium	µg/g	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	33
Vanadium	µg/g	10.0	27.6	34.7	36.3	33.2	32.8	33.4	86
Zinc	µg/g	20.0	49.4	52.5	55.3	43.3	40.7	41.8	340
Analysis Date			2022-03-18	2022-03-18	2022-03-18	2022-03-18	2022-03-18	2022-03-18	
Hot Water Ext. Boron (B)	µg/g	0.500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2
Analysis Date			2022-03-18	2022-03-18	2022-03-18	2022-03-18	2022-03-18	2022-03-18	
Sodium Adsorption Ratio	-	0.01	3.98	11.6	0.58	1.08	0.26	0.29	12
Analysis Date			2022-03-21	2022-03-21	2022-03-21	2022-03-21	2022-03-21	2022-03-21	
Free Cyanide	µg/g	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.051
Analysis Date			2022-03-18	2022-03-18	2022-03-18	2022-03-18	2022-03-18	2022-03-18	
Conductivity	µS/cm	5	695	1700	215	397	384	300	1400
Analysis Date			2022-03-21	2022-03-21	2022-03-21	2022-03-21	2022-03-21	2022-03-21	
Chromium (VI)	µg/g	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	10
Analysis Date			2022-03-21	2022-03-21	2022-03-21	2022-03-21	2022-03-21	2022-03-21	
Mercury	µg/g	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	3.9
Analysis Date			2022-03-18	2022-03-18	2022-03-18	2022-03-18	2022-03-18	2022-03-18	
Available (CaCl2) pH	s.u.	0.05	7.74	7.76	7.38	7.05	7.57	7.46	5 to 9

RDL - Result Detection Limit

MECP Table 3 - Ministry of Environment, Conservation and Parks, Soil, Ground Water And Sediment Standards For Use Under Part XV.1 of the Environmental Protection Act, Table 3 Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, 2011

Results above Table 3 criteria

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Table 7 - PAHs In Soils

Location			MW1/22	MW3/22	BH4-22	MW6/22	MW8/22	MW9/22			MECP Table 3 Industrial Fine
Sample ID			B1976	B1977	B1898	B1974	B1978	B1971	B1972	B1973 DUP of B1972	
Report Number			2212310	2212310	2205578	2212310	2212310	2212310	2212310	2212310	
Sample Date			2022-03-16	2022-03-16	2022-01-27	2022-03-16	2022-03-16	2022-03-15	2022-03-15	2022-03-15	
Sample Time			11:05:00 AM	1:00:00 PM	11:55:00 AM	9:45:00 AM	2:43:00 PM	1:45:00 PM	2:05:00 PM	2:05:00 PM	
Depth (m)		From	0.61	0.61	1.22	0.61	1.52	0.91	2.13	2.13	
		To	1.52	1.52	1.83	1.52	2.44	1.52	2.90	2.90	
Chemicals	Units	RDL	Results	Results	Results	Results	Results	Results	Results	Results	
Analysis Date			2022-03-17	2022-03-17	2022-02-03	2022-03-17	2022-03-17	2022-03-17	2022-03-17	2022-03-17	
Acenaphthene	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	96
Acenaphthylene	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.17
Anthracene	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.74
Benzo(a)anthracene	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.96
Benzo(a)pyrene	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.3
Benzo(b/j)fluoranthene	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.96
Benzo(g,h,i)perylene	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	9.6
Benzo(k)fluoranthene	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.96
Chrysene	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	9.6
Dibenz(a,h)anthracene	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.1
Fluoranthene	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	9.6
Fluorene	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	69
Indeno(1,2,3-cd)pyrene	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.95
1-Methylnaphthalene	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	85
2-Methylnaphthalene	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
Methylnaphthalene, 2-(1-)	µg/g	0.04	<0.04	<0.04	<0.03	<0.04	<0.04	<0.04	<0.04	<0.04	
Naphthalene	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	28
Phenanthrene	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	16
Pyrene	µg/g	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	96

PAH - Polycyclic Aromatic Hydrocarbons

RDL - Result Detection Limit

MECP Table 3 - Ministry of Environment, Conservation and Parks, Soil, Ground Water And Sediment Standards For Use Under Part XV.1 of the Environmental Protection Act, Table 3 Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, 2011

Results above Table 3 criteria

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Table 8 - PCBs in Soil

Location			MW1/22	MECP Table 3 Industrial Fine
Sample ID			B1976	
Report Number			2212310	
Sample Date			2022-03-16	
Sample Time			11:05:00 AM	
Depth (m)		From	0.61	
		To	1.52	
Chemicals	Units	RDL	Results	
Analysis Date			2022-03-18	
Total PCB	µg/g	0.05	<0.05	1.1

OC - Organochlorinated

RDL - Result Detection Limit

MECP Table 3 - Ministry of Environment, Conservation and Parks, Soil, Ground Water And Sediment Standards For Use Under Part XV.1 of the Environmental Protection Act, Table 3 Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, 2011

Results above Table 3 criteria

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Table 9 - BTEX and PHCs in Groundwater

Location			MW1/22	MW3/22	MW6/22		MW8/22	MW9/22	MECP Table 3 Fine
Sample ID			B1982	B1983	B1980	B1981 DUP of B1980	B1985	B1984	
Report Number			2212494	2212494	2212494	2212494	2212494	2212494	
Sample Date			2022-03-17	2022-03-17	2022-03-17	2022-03-17	2022-03-18	2022-03-17	
Sample Time			1:30:00 PM	3:58:00 PM	11:35:00 AM	11:35:00 AM	10:10:00 AM	4:20:00 PM	
Depth (m)		From	2.13	2.13	2.44	2.44	2.13	1.22	
		To	4.57	4.57	4.57	4.57	5.18	3.66	
Chemicals	Units	RDL	Results	Results	Results	Results	Results	Results	
Analysis Date			2022-03-19	2022-03-19	2022-03-19	2022-03-19	2022-03-19	2022-03-19	
Benzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	430
Ethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2300
Toluene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	18000
o-Xylene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	4200
p+m-Xylene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Xylene (Total)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
F1 (C6-C10)	µg/L	25	<25	<25	<25	<25	<25	<25	750
Analysis Date			2022-03-23	2022-03-23	2022-03-23	2022-03-23	2022-03-23	2022-03-23	
F2 (C10-C16 Hydrocarbons)	µg/L	100	<100	<100	<100	<100	<100	<100	150
F3 (C16-C34 Hydrocarbons)	µg/L	100	<100	<100	<100	<100	<100	<100	500
F4 (C34-C50 Hydrocarbons)	µg/L	100	<100	<100	<100	<100	<100	<100	500

BTEX - Benzene, Toluene, Ethylbenzene, Xylenes

PHC - Petroleum Hydrocarbons

RDL - Result Detection Limit

MECP Table 3 - Ministry of Environment, Conservation and Parks, Soil, Ground Water And Sediment Standards For Use Under Part XV.1 of the Environmental Protection Act, Table 3 Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, 2011

Results above Table 3 criteria

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Table 10 - VOCs In Groundwater

Location			MW1/22	MW3/22	MW6/22		MW8/22	MW9/22	MECP Table 3 Fine
Sample ID			B1982	B1983	B1980	B1981 DUP of B1980	B1985	B1984	
Report Number			2212494	2212494	2212494	2212494	2212494	2212494	
Sample Date			2022-03-17	2022-03-17	2022-03-17	2022-03-17	2022-03-18	2022-03-17	
Sample Time			1:30:00 PM	3:58:00 PM	11:35:00 AM	11:35:00 AM	10:10:00 AM	4:20:00 PM	
Depth (m		From	2.13	2.13	2.44	2.44	2.13	1.22	
		To	4.57	4.57	4.57	4.57	5.18	3.66	
Chemicals	Units	RDL	Results	Results	Results	Results	Results	Results	
Analysis Date			2022-03-19	2022-03-19	2022-03-19	2022-03-19	2022-03-19	2022-03-19	
Acetone	µg/L	5.0	<5.0	-	<5.0	<5.0	<5.0	<5.0	130000
Benzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	430
Bromodichloromethane	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	85000
Bromoform	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	770
Bromomethane	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	56
Carbon Tetrachloride	µg/L	0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	8.4
Chlorobenzene	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	630
Chloroform	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	22
Dibromochloromethane	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	82000
Dichlorodifluoromethane	µg/L	1.0	<1.0	-	<1.0	<1.0	<1.0	<1.0	9600
1,2-Dichlorobenzene	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	9600
1,3-Dichlorobenzene	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	67
1,4-Dichlorobenzene	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	4400
1,1-Dichloroethane	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	3100
1,2-Dichloroethane	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	12
1,1-Dichloroethylene	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	17
cis-1,2-Dichloroethylene	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	17
trans-1,2-Dichloroethylene	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	17
1,2-Dichloropropane	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	140
cis-1,3-Dichloropropylene	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	45
trans-1,3-Dichloropropylene	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	
1,3-Dichloropropene, total	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2300
Ethylene dibromide (dibromoethane, 1,2-)	µg/L	0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	0.83
Hexane	µg/L	1.0	<1.0	-	<1.0	<1.0	<1.0	<1.0	520
Methyl Ethyl Ketone (2-Butanone	µg/L	5.0	<5.0	-	<5.0	<5.0	<5.0	<5.0	1500000
Methyl Isobutyl Ketone	µg/L	5.0	<5.0	-	<5.0	<5.0	<5.0	<5.0	580000
Methyl tert-butyl ether	µg/L	2.0	<2.0	-	<2.0	<2.0	<2.0	<2.0	1400
Methylene Chloride	µg/L	5.0	<5.0	-	<5.0	<5.0	<5.0	<5.0	5500
Styrene	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	9100
1,1,1,2-Tetrachloroethane	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	28
1,1,2,2-Tetrachloroethane	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	15
Tetrachloroethylene	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	17
Toluene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	18000
1,1,1-Trichloroethane	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	6700
1,1,2-Trichloroethane	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	30
Trichloroethylene	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	17
Trichlorofluoromethane	µg/L	1.0	<1.0	-	<1.0	<1.0	<1.0	<1.0	2500
Vinyl Chloride	µg/L	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	1.7
m/p-Xylene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	4200
o-Xylene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Xylenes, total	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	

VOC - Volatile Organic Compounds

RDL - Result Detection Limit

MECP Table 3 - Ministry of Environment, Conservation and Parks, Soil, Ground Water And Sediment Standards For Use Under Part XV.1 of the Environmental Protection Act, Table 3 Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, 2011

Results above Table 3 criteria

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Table 11 - Metals and Inorganics In Groundwater

Location			MW1/22	MW6/22		MW8/22	MW9/22	MECP Table 3 Fine
Sample ID			B1982	B1980	B1981 DUP of B1980	B1985	B1984	
Report Number			2212494	2212494	2212494	2212494	2212494	
Sample Date			2022-03-17	2022-03-17	2022-03-17	2022-03-18	2022-03-17	
Sample Time			1:30:00 PM	11:35:00 AM	11:35:00 AM	10:10:00 AM	4:20:00 PM	
Depth (m)		From	2.13	2.44	2.44	2.13	1.22	
		To	4.57	4.57	4.57	5.18	3.66	
Chemicals	Units	RDL	Results	Results	Results	Results	Results	
Analysis Date			2022-03-21	2022-03-21	2022-03-21	2022-03-21	2022-03-21	
Antimony	ug/L	0.5	<0.5	<0.5	<0.5	<0.5	1.7	20000
Arsenic	ug/L	1	<1	<1	<1	<1	1	1900
Barium	ug/L	1	267	240	233	94	125	29000
Beryllium	ug/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	67
Boron	ug/L	10	66	73	72	76	200	45000
Cadmium	ug/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	2.7
Chromium	ug/L	1	<1	<1	<1	<1	<1	810
Cobalt	ug/L	0.5	<0.5	<0.5	<0.5	<0.5	6.0	66
Copper	ug/L	0.5	<0.5	<0.5	<0.5	<0.5	1.5	87
Lead	ug/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	25
Molybdenum	ug/L	0.5	1.1	<0.5	<0.5	20.6	4.1	9200
Nickel	ug/L	1	1	1	1	2	15	490
Selenium	ug/L	1	<1	<1	<1	<1	<1	63
Silver	ug/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.5
Sodium	ug/L	200	1100000	894000	9130000	279000	3630	2300000
Thallium	ug/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	510
Uranium	ug/L	0.1	1.1	0.9	0.9	4.8	7.4	420
Vanadium	ug/L	0.5	<0.5	<0.5	<0.5	0.9	<0.5	250
Zinc	ug/L	5	<5	<5	<5	<5	11	1100
Analysis Date			2022-03-24	2022-03-24	2022-03-24	2022-03-24	2022-03-24	
Chloride	mg/L	1	3080	2440	2450	483	807	2300
Analysis Date			2022-03-21	2022-03-21	2022-03-21	2022-03-21	2022-03-21	
Cyanide, free	ug/L	2	<2	<2	<2	<2	<2	66
Analysis Date			2022-03-22	2022-03-22	2022-03-22	2022-03-22	2022-03-22	
Mercury	ug/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	2.8
Analysis Date			2022-03-21	2022-03-21	2022-03-21	2022-03-21	2022-03-21	
Chromium (VI)	ug/L	10	<10	<10	<10	<10	<10	140
Analysis Date			2022-03-19	2022-03-19	2022-03-19	2022-03-19	2022-03-19	
pH		0.1	7.2	7.3	7.3	7.6	7.1	5 to 9

RDL - Result Detection Limit

MECP Table 3 - Ministry of Environment, Conservation and Parks, Soil, Ground Water And Sediment Standards For Use Under Part XV.1 of the Environmental Protection Act, Table 3 Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, 2011

Results above Table 3 criteria

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Table 12 - PAHs In Groundwater

Location			MW1/22	MW3/22	MW6/22		MW8/22	MW9/22	MECP Table 3 Fine
Sample ID			B1982	B1983	B1980	B1981 DUP of B1980	B1985	B1984	
Report Number			2212494	2212494	2212494	2212494	2212494	2212494	
Sample Date			2022-03-17	2022-03-17	2022-03-17	2022-03-17	2022-03-18	2022-03-17	
Sample Time			1:30:00 PM	3:58:00 PM	11:35:00 AM	11:35:00 AM	10:10:00 AM	4:20:00 PM	
Depth (m)		From	2.13	2.13	2.44	2.44	2.13	1.22	
		To	4.57	4.57	4.57	4.57	5.18	3.66	
Chemicals	Units	RDL	Results	Results	Results	Results	Results	Results	
Analysis Date			2022-03-23	2022-03-23	2022-03-23	2022-03-23	2022-03-23	2022-03-23	
Acenaphthene	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1700
Acenaphthylene	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.8
Anthracene	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	2.4
Benzo(a)anthracene	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	4.7
Benzo(a)pyrene	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.81
Benzo(b/j)fluoranthene	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.75
Benzo(g,h,i)perylene	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.2
Benzo(k)fluoranthene	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.4
Chrysene	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1
Dibenz(a,h)anthracene	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.52
Fluoranthene	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	130
Fluorene	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	400
Indeno(1,2,3-cd)pyrene	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.2
1-Methylnaphthalene	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1800
2-Methylnaphthalene	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Methylnaphthalene, 2-(1-)	µg/L	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Naphthalene	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	6400
Phenanthrene	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	580
Pyrene	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	68

PAH - Polycyclic Aromatic Hydrocarbons

RDL - Result Detection Limit

MECP Table 3 - Ministry of Environment, Conservation and Parks, Soil, Ground Water And Sediment Standards For Use Under Part XV.1 of the Environmental Protection Act, Table 3 Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, 2011

Results above Table 3 criteria

1705 Argentia Rd, Unit 3
Mississauga, ON L5N 3A9
aelenv.com

Table 13 - PCBs in Groundwater

Location			MW1/22	MECP Table 3 Fine
Sample ID			B1982	
Report Number			2212494	
Sample Date			2022-03-17	
Sample Time			1:30:00 PM	
Depth (m)		From	2.13	
		To	4.57	
Chemicals	Units	RDL	Results	
Analysis Date			2022-03-22	
Total PCB	µg/g	0.05	<0.05	15

OC - Organochlorinated

RDL - Result Detection Limit

MECP Table 3 - Ministry of Environment, Conservation and Parks, Soil, Ground Water And Sediment Standards For Use Under Part XV.1 of the Environmental Protection Act, Table 3 Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, 2011

Results above Table 3 criteria

Table 14 Contaminant Inventory - Soil

Analyte	RDL	Units	Maximum Measured Concentration	Sampling Location	Sampling Date	Sampling Depth
PHCs						
F1 (C6-C10)	7	µg/g	<7	Not Detected On-Site	N/A	N/A
F2 (C10-C16)	4	µg/g	12	BH2-22	2022-01-27	1.22 - 1.83
F3 (C16-C34)	8	µg/g	37	BH4-22	2022-01-27	1.22 - 1.83
F4 (C34 - C50)	6	µg/g	82	BH4-22	2022-01-27	1.22 - 1.83
Metals						
Acid Extractable Barium (Ba)	1.00	µg/g	146	MW1/22	2022-03-16	0.61 - 1.52
Acid Extractable Beryllium (Be)	0.50	µg/g	0.9	MW6/22	2022-03-16	0.61 - 1.52
Acid Extractable Boron (B)	5.0	µg/g	7.8	MW1/22	2022-03-16	0.61 - 1.52
Acid Extractable Cadmium (Cd)	0.50	µg/g	<0.5	Not Detected On-Site	N/A	N/A
Acid Extractable Chromium (Cr)	5.0	µg/g	31.8	MW9/22	2022-03-15	0.91 - 1.52
Acid Extractable Cobalt (Co)	1.00	µg/g	12.5	MW6/22	2022-03-16	0.61 - 1.52
Acid Extractable Copper (Cu)	5.00	µg/g	29	MW1/22	2022-03-16	0.61 - 1.52
Acid Extractable Lead (Pb)	1.0	µg/g	8.6	MW1/22	2022-03-16	0.61 - 1.52
Acid Extractable Molybdenum (Mo)	1.00	µg/g	4.1	MW1/22	2022-03-16	0.61 - 1.52
Acid Extractable Nickel (Ni)	5.00	µg/g	28.9	MW1/22	2022-03-16	0.61 - 1.52
Acid Extractable Silver (Ag)	0.30	µg/g	<0.3	MW1/22	2022-03-16	0.61 - 1.52
Acid Extractable Thallium (Tl)	1.00	µg/g	<1.0	MW1/22	2022-03-16	0.61 - 1.52
Acid Extractable Uranium (U)	1.00	µg/g	<1.0	MW1/22	2022-03-16	0.61 - 1.52
Acid Extractable Vanadium (V)	10.0	µg/g	36.3	MW8/22	2022-03-16	1.52 - 2.44
Acid Extractable Zinc (Zn)	20.0	µg/g	55.3	MW8/22	2022-03-16	1.52 - 2.44
Metals, Hydride-Forming						
Acid Extractable Antimony (Sb)	1.00	µg/g	<1.0	Not Detected On-Site	N/A	N/A
Acid Extractable Arsenic (As)	1.0	µg/g	6.7	MW6/22	2022-03-16	0.61 - 1.52
Acid Extractable Selenium (Se)	1.00	µg/g	<1.0	MW1/22	2022-03-16	0.61 - 1.52
Other Regulated Parameters						
Hot Water Ext. Boron (B)	0.50	µg/g	<0.5	MW1/22	2022-03-16	0.61 - 1.52
Free Cyanide	0.03	µg/g	<0.03	MW1/22	2022-03-16	0.61 - 1.52
Conductivity	5.000	µS/cm	695	MW1/22	2022-03-16	0.61 - 1.52
Chromium (VI)	0.20	µg/g	<0.2	MW1/22	2022-03-16	0.61 - 1.52
Acid Extractable Mercury (Hg)	0.10	µg/g	<0.1	MW1/22	2022-03-16	0.61 - 1.52
pH	0.05	s.u.	7.76	MW6/22	2022-03-16	0.61 - 1.52
Sodium Adsorption Ratio	0.01	-	11.6	MW6/22	2022-03-16	0.61 - 1.52

Table 14 Contaminant Inventory - Soil

Analyte	RDL	Units	Maximum Measured Concentration	Sampling Location	Sampling Date	Sampling Depth
VOCs						
Acetone (2-Propanone)	0.50	µg/g	<0.50	Not Detected On-Site	N/A	N/A
Bromomethane	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
Carbon Tetrachloride	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
Chlorobenzene	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
Chloroform	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
1,2-Dichlorobenzene	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
1,3-Dichlorobenzene	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
1,4-Dichlorobenzene	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
Dichlorodifluoromethane (FREON 12)	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
1,1-Dichloroethane	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
1,2-Dichloroethane	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
1,1-Dichloroethylene	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
cis-1,2-Dichloroethylene	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
trans-1,2-Dichloroethylene	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
1,2-Dichloropropane	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
cis-1,3-Dichloropropene	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
trans-1,3-Dichloropropene	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
Ethylene Dibromide	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
Hexane	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
Methyl Ethyl Ketone (2-Butanone)	0.50	µg/g	<0.50	Not Detected On-Site	N/A	N/A
Methyl Isobutyl Ketone	0.50	µg/g	<0.50	Not Detected On-Site	N/A	N/A
Methyl t-butyl ether (MTBE)	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
Methylene Chloride(Dichloromethane)	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
Styrene	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
1,1,1,2-Tetrachloroethane	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
1,1,2,2-Tetrachloroethane	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
Tetrachloroethylene	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
1,1,1-Trichloroethane	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
1,1,2-Trichloroethane	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
Trichloroethylene	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
Trichlorofluoromethane (FREON 11)	0.05	µg/g	<0.050	Not Detected On-Site	N/A	N/A
Vinyl Chloride	0.02	µg/g	<0.020	Not Detected On-Site	N/A	N/A
Trihalomethanes						
Bromodichloromethane	0.05	µg/g	<0.05	Not Detected On-Site	N/A	N/A
Bromoform	0.05	µg/g	<0.05	Not Detected On-Site	N/A	N/A
Dibromochloromethane	0.05	µg/g	<0.05	Not Detected On-Site	N/A	N/A

Table 14 Contaminant Inventory - Soil

Analyte	RDL	Units	Maximum Measured Concentration	Sampling Location	Sampling Date	Sampling Depth
BTEX						
Benzene	0.02	µg/g	<0.02	Not Detected On-Site	N/A	N/A
Ethylbenzene	0.05	µg/g	<0.05	Not Detected On-Site	N/A	N/A
Toluene	0.05	µg/g	<0.05	Not Detected On-Site	N/A	N/A
o-Xylene	0.05	µg/g	<0.05	Not Detected On-Site	N/A	N/A
p+m-Xylene	0.05	µg/g	<0.05	Not Detected On-Site	N/A	N/A
Xylene (Total)	0.05	µg/g	<0.05	Not Detected On-Site	N/A	N/A
PAHs						
Acenaphthene	0.02	µg/g	<0.02	Not Detected On-Site	N/A	N/A
Acenaphthylene	0.02	µg/g	<0.02	Not Detected On-Site	N/A	N/A
Anthracene	0.02	µg/g	<0.02	Not Detected On-Site	N/A	N/A
Benzo(a)anthracene	0.02	µg/g	<0.02	Not Detected On-Site	N/A	N/A
Benzo(a)pyrene	0.02	µg/g	<0.02	Not Detected On-Site	N/A	N/A
Benzo(b/j)fluoranthene	0.02	µg/g	<0.02	Not Detected On-Site	N/A	N/A
Benzo(g,h,i)perylene	0.02	µg/g	<0.02	Not Detected On-Site	N/A	N/A
Benzo(k)fluoranthene	0.02	µg/g	<0.02	Not Detected On-Site	N/A	N/A
Chrysene	0.02	µg/g	<0.02	Not Detected On-Site	N/A	N/A
Dibenz(a,h)anthracene	0.02	µg/g	<0.02	Not Detected On-Site	N/A	N/A
Fluoranthene	0.02	µg/g	<0.02	Not Detected On-Site	N/A	N/A
Fluorene	0.02	µg/g	<0.02	Not Detected On-Site	N/A	N/A
Indeno(1,2,3-cd)pyrene	0.02	µg/g	<0.02	Not Detected On-Site	N/A	N/A
1-Methylnaphthalene	0.02	µg/g	<0.02	Not Detected On-Site	N/A	N/A
2-Methylnaphthalene	0.02	µg/g	<0.02	Not Detected On-Site	N/A	N/A
Methylnaphthalene, 2-(1-)	0.04	µg/g	<0.04	Not Detected On-Site	N/A	N/A
Naphthalene	0.01	µg/g	<0.01	Not Detected On-Site	N/A	N/A
Phenanthrene	0.02	µg/g	<0.02	Not Detected On-Site	N/A	N/A
Pyrene	0.02	µg/g	<0.02	Not Detected On-Site	N/A	N/A
PCBs						
Total PCB	0.050	µg/g	<0.05	Not Detected On-Site	N/A	N/A

RDL - Result Detection Limit

Table 15 Contaminant Inventory - Groundwater

Parameter	RDL	Units	Maximum Measured Concentration	Sampling Location	Sampling Date	Sampling Depth
PHCs						
F1 (C6-C10)	25	µg/L	<25	Not Detected On-Site	N/A	N/A
F2 (C10-C16)	100	µg/L	<100	Not Detected On-Site	N/A	N/A
F3 (C16-C34)	100	µg/L	<100	Not Detected On-Site	N/A	N/A
F4 (C34 - C50)	100	µg/L	<100	Not Detected On-Site	N/A	N/A
Metals						
Barium (Ba)	1.00	µg/L	267	MW1/22	2022-03-17	2.13 - 4.57
Beryllium (Be)	0.50	µg/L	<0.5	Not Detected On-Site	N/A	N/A
Boron (B)	10.0	µg/L	200	MW9/22	2022-03-17	1.22 - 3.66
Cadmium (Cd)	0.10	µg/L	<0.1	Not Detected On-Site	N/A	N/A
Chromium (Cr)	1.00	µg/L	<1.0	Not Detected On-Site	N/A	N/A
Cobalt (Co)	0.50	µg/L	6.00	MW9/22	2022-03-17	1.22 - 3.66
Copper (Cu)	0.50	µg/L	1.50	MW9/22	2022-03-17	1.22 - 3.66
Lead (Pb)	0.10	µg/L	<0.1	Not Detected On-Site	N/A	N/A
Molybdenum (Mo)	0.50	µg/L	20.6	MW8/22	2022-03-18	2.13 - 5.18
Nickel (Ni)	1.00	µg/L	15.00	MW9/22	2022-03-17	1.22 - 3.66
Silver (Ag)	0.10	µg/L	<0.1	Not Detected On-Site	N/A	N/A
Thallium (Tl)	0.10	µg/L	<0.1	Not Detected On-Site	N/A	N/A
Uranium (U)	0.10	µg/L	7.40	MW9/22	2022-03-17	1.22 - 3.66
Vanadium (V)	0.50	µg/L	0.90	MW8/22	2022-03-18	2.13 - 5.18
Zinc (Zn)	5.00	µg/L	11.00	MW9/22	2022-03-17	1.22 - 3.66
Metals, Hydride-Forming						
Antimony (Sb)	0.50	µg/L	1.7	MW9/22	2022-03-17	1.22 - 3.66
Arsenic (As)	1.0	µg/L	1	MW9/22	2022-03-17	1.22 - 3.66
Selenium (Se)	1.00	µg/L	<1.0	Not Detected On-Site	N/A	N/A
Other Regulated Parameters						
Free Cyanide	2.00	µg/L	<2.0	Not Detected On-Site	N/A	N/A
Chloride	1.00	mg/L	807	MW9/22	2022-03-17	1.22 - 3.66
Sodium	200	µg/L	1100000	MW1/22	2022-03-17	2.13 - 4.57
Chromium (VI)	10	µg/L	<10	Not Detected On-Site	N/A	N/A
Mercury (Hg)	0.10	µg/L	<0.1	Not Detected On-Site	N/A	N/A

Table 15 Contaminant Inventory - Groundwater

Parameter	RDL	Units	Maximum Measured Concentration	Sampling Location	Sampling Date	Sampling Depth
VOCs						
Acetone (2-Propanone)	5	µg/L	<5.0	Not Detected On-Site	N/A	N/A
Bromomethane	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
Carbon Tetrachloride	0.20	µg/L	<0.20	Not Detected On-Site	N/A	N/A
Chlorobenzene	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
Chloroform	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
1,2-Dichlorobenzene	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
1,3-Dichlorobenzene	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
1,4-Dichlorobenzene	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
Dichlorodifluoromethane (FREON 12)	1.00	µg/L	<1.0	Not Detected On-Site	N/A	N/A
1,1-Dichloroethane	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
1,2-Dichloroethane	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
1,1-Dichloroethylene	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
cis-1,2-Dichloroethylene	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
trans-1,2-Dichloroethylene	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
1,2-Dichloropropane	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
cis-1,3-Dichloropropene	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
trans-1,3-Dichloropropene	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
Ethylene Dibromide	0.20	µg/L	<0.20	Not Detected On-Site	N/A	N/A
Hexane	1.00	µg/L	<1.0	Not Detected On-Site	N/A	N/A
Methyl Ethyl Ketone (2-Butanone)	5.00	µg/L	<5.0	Not Detected On-Site	N/A	N/A
Methyl Isobutyl Ketone	5.00	µg/L	<5.0	Not Detected On-Site	N/A	N/A
Methyl t-butyl ether (MTBE)	2.00	µg/L	<2.0	Not Detected On-Site	N/A	N/A
Methylene Chloride(Dichloromethane)	5.00	µg/L	<5.0	Not Detected On-Site	N/A	N/A
Styrene	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
1,1,1,2-Tetrachloroethane	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
1,1,2,2-Tetrachloroethane	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
Tetrachloroethylene	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
1,1,1-Trichloroethane	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
1,1,2-Trichloroethane	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
Trichloroethylene	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
Trichlorofluoromethane (FREON 11)	1.00	µg/L	<1.0	Not Detected On-Site	N/A	N/A
Vinyl Chloride	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
1,3-Dichloropropene (cis+trans)	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
Trihalomethanes						
Bromodichloromethane	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A
Bromoform	0.5	µg/L	<0.5	Not Detected On-Site	N/A	N/A
Dibromochloromethane	0.50	µg/L	<0.50	Not Detected On-Site	N/A	N/A

Table 15 Contaminant Inventory - Groundwater

Parameter	RDL	Units	Maximum Measured Concentration	Sampling Location	Sampling Date	Sampling Depth
BTEX						
Benzene	0.50	µg/L	<0.5	Not Detected On-Site	N/A	N/A
Ethylbenzene	0.50	µg/L	<0.5	Not Detected On-Site	N/A	N/A
Toluene	0.50	µg/L	<0.5	Not Detected On-Site	N/A	N/A
o-Xylene	0.50	µg/L	<0.5	Not Detected On-Site	N/A	N/A
p+m-Xylene	0.50	µg/L	<0.5	Not Detected On-Site	N/A	N/A
Xylene (Total)	0.50	µg/L	<0.5	Not Detected On-Site	N/A	N/A
PAHs						
Acenaphthene	0.05	µg/L	<0.05	Not Detected On-Site	N/A	N/A
Acenaphthylene	0.05	µg/L	<0.05	Not Detected On-Site	N/A	N/A
Anthracene	0.01	µg/L	<0.01	Not Detected On-Site	N/A	N/A
Benzo(a)anthracene	0.01	µg/L	<0.01	Not Detected On-Site	N/A	N/A
Benzo(a)pyrene	0.01	µg/L	<0.01	Not Detected On-Site	N/A	N/A
Benzo(b/j)fluoranthene	0.05	µg/L	<0.05	Not Detected On-Site	N/A	N/A
Benzo(g,h,i)perylene	0.05	µg/L	<0.05	Not Detected On-Site	N/A	N/A
Benzo(k)fluoranthene	0.05	µg/L	<0.05	Not Detected On-Site	N/A	N/A
Chrysene	0.05	µg/L	<0.05	Not Detected On-Site	N/A	N/A
Dibenz(a,h)anthracene	0.05	µg/L	<0.05	Not Detected On-Site	N/A	N/A
Fluoranthene	0.01	µg/L	<0.01	Not Detected On-Site	N/A	N/A
Fluorene	0.05	µg/L	<0.05	Not Detected On-Site	N/A	N/A
Indeno(1,2,3-cd)pyrene	0.05	µg/L	<0.05	Not Detected On-Site	N/A	N/A
1-Methylnaphthalene	0.05	µg/L	<0.05	Not Detected On-Site	N/A	N/A
2-Methylnaphthalene	0.05	µg/L	<0.05	Not Detected On-Site	N/A	N/A
Methylnaphthalene, 2-(1-)	0.10	µg/L	<0.10	Not Detected On-Site	N/A	N/A
Naphthalene	0.05	µg/L	<0.05	Not Detected On-Site	N/A	N/A
Phenanthrene	0.05	µg/L	<0.05	Not Detected On-Site	N/A	N/A
Pyrene	0.01	µg/L	<0.01	Not Detected On-Site	N/A	N/A
PAHs						
Total PCB	0.05	µg/L	<0.05	Not Detected On-Site	N/A	N/A

RDL - Result Detection Limit

Phase One Site and Study Area

Figure 1

#11556 2021-11-18

Legend

- Railway
- Roads
- Study Area (250m)
- Site Boundary

Notes:

2020 Bantree Road
Ottawa, ON

Source:

ENVIRONMENT

Phase One Site and Neighbouring Property Uses

Figure 2a

#11556 2021-11-18

Legend

- Railway
- Roads
- Site Boundary

Notes:

2020 Bantree Road
Ottawa, ON

Source:

ENVIRONMENT

Potentially Contaminating Activities

Figure 2b

#11556 2022-03-28

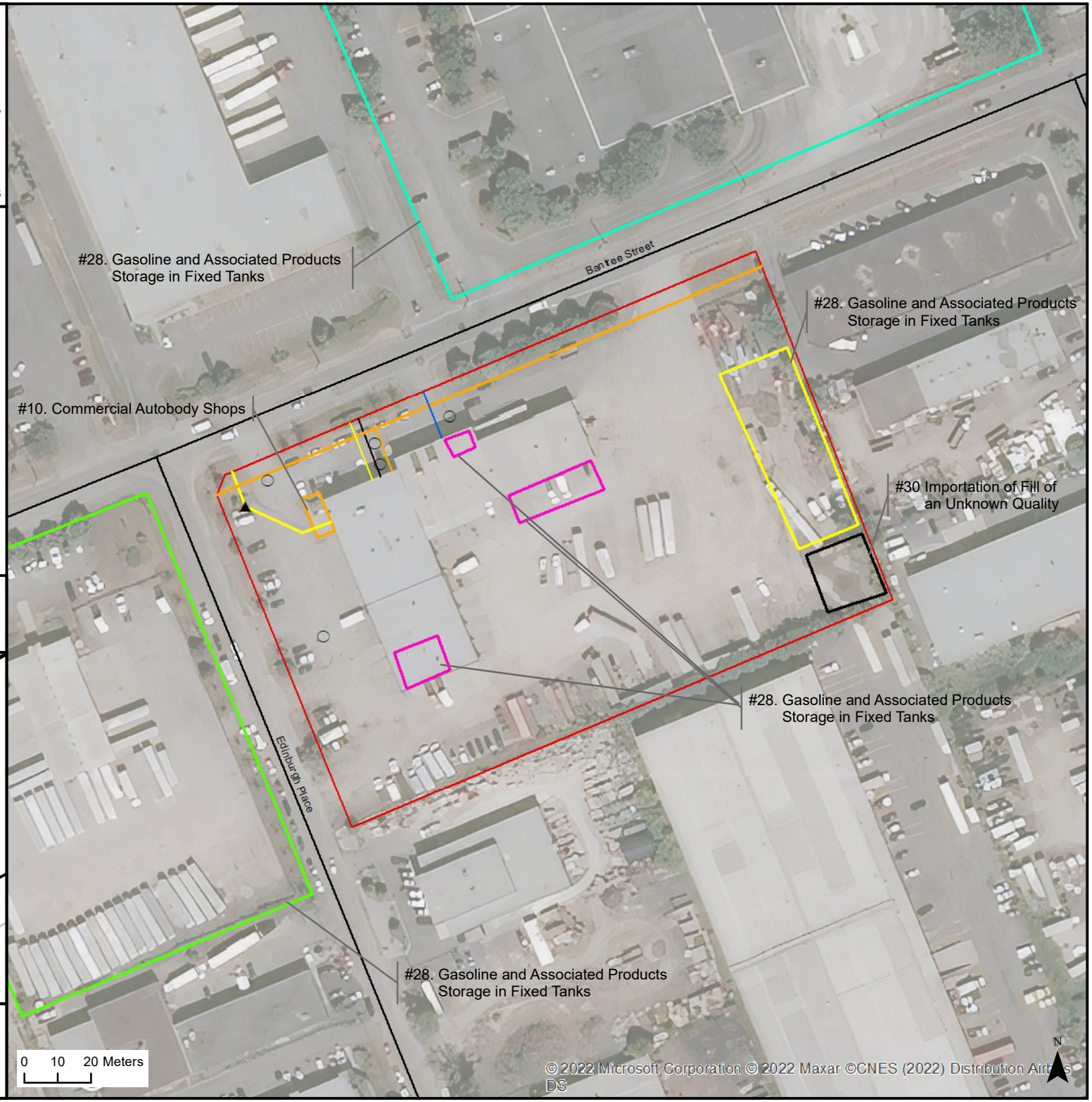
Legend

- Manhole
- Transformer
- Bell
- Electric
- Hydro
- Gas
- Gas Main
- Water
- Roads
- PCA1
- PCA2
- PCA3
- PCA4
- PCA5
- PCA6
- Site Boundary

Notes:

2020 Bantree Road
Ottawa, ON

Source:



Phase One Site Areas of Potential Environmental Concern

Figure 2c

#11556 2021-11-30

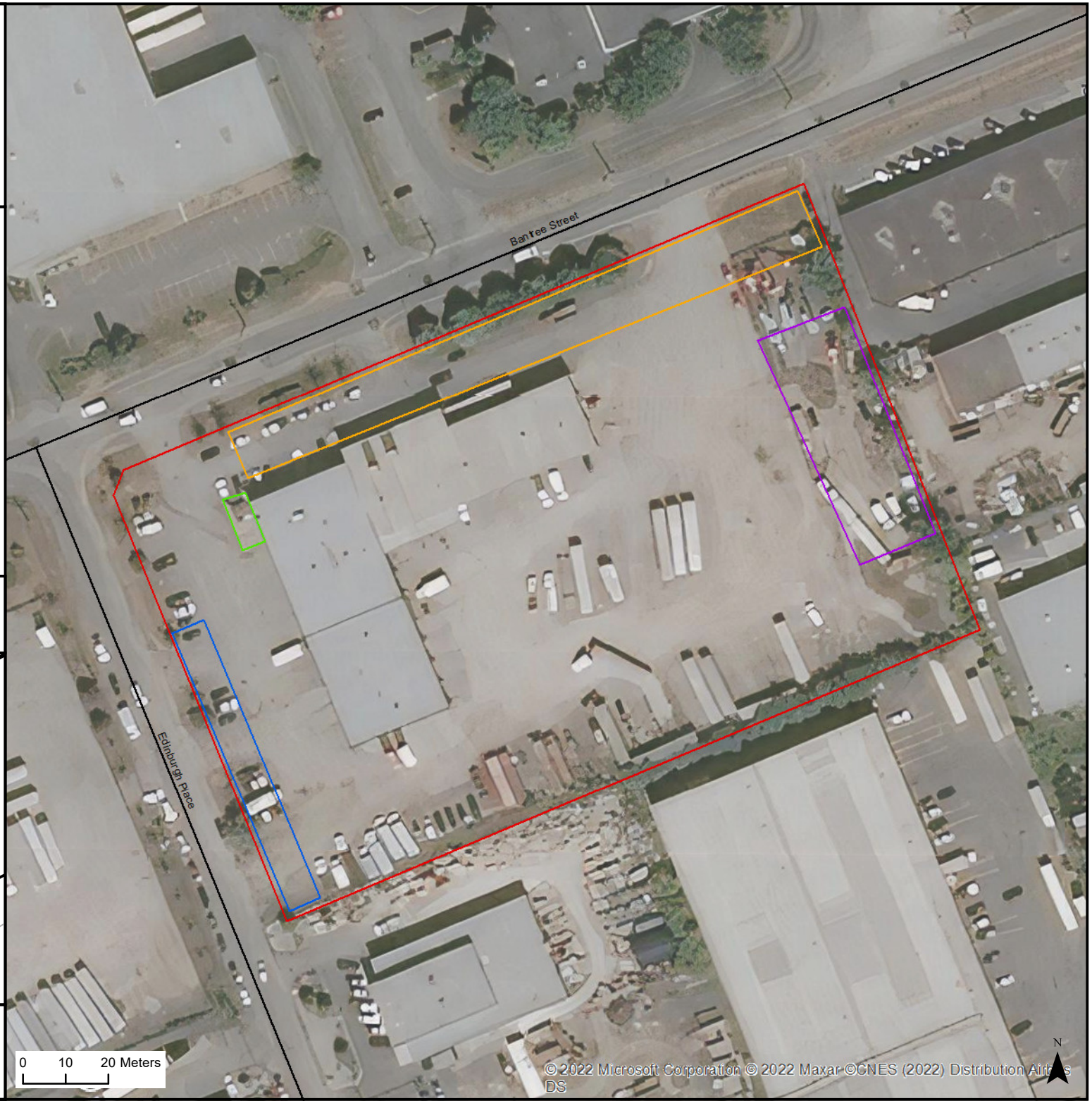
Legend

- Railway
- Roads
- APEC1
- APEC2
- APEC3
- APEC4
- Site Boundary

Notes:

2020 Bantree Road
Ottawa, ON

Source:



ENVIRONMENT

Sampling Locations

Figure 3

#11556 2022-03-25

Legend

- Borehole
- Monitoring Well
- Roads
- Site Boundary

Notes:
2020 Bantree Road
Ottawa, ON

Source:

Bantree Road

Groundwater Flow

Figure 4

#11556 2022-03-25

Legend

- Monitoring Well
- Groundwater Elevation (masl)
- Roads
- Site Boundary

Notes:
2020 Bantree Road
Ottawa, ON

Source:

ENVIRONMENT

MECP Table 3 Exceedances In Soil

Figure 5

#11556 2022-03-25

Legend

- No Exceedance
- Exceedance
- Manhole
- Transformer
- Bell
- Electric
- Hydro
- Gas
- Gas Main
- Water
- Roads
- Site Boundary

Notes:

2020 Bantree Road
Ottawa, ON

MECP Table 3 - Industrial/Fine
Conductivity - 1,400 µs/cm

Source:

ENVIRONMENT

MECP Table 3 Exceedances in Groundwater

#11556 *Figure 6* 2022-03-25

Legend

- No Exceedance
- Exceedance
- Manhole
- Transformer
- Bell
- Electric
- Hydro
- Gas
- Gas Main
- Water
- Roads
- Site Boundary

Notes:
2020 Bantree Road
Ottawa, ON

MECP Table 3 - Fine
Sodium - 2,300,000 µg/L
Chloride - 2,300 mg/L

Source:

1705 Argentia Rd, Unit 3
Mississauga, ON L5N 3A9
aelenv.com

APPENDIX 1
SAMPLING AND ANALYSIS PLAN

1705 Argentia Rd, Unit 3
Mississauga, ON L5N 3A9
aelenv.com

SAMPLING & ANALYSIS PLAN

2020 BANTREE STREET, OTTAWA, ONTARIO

Project Information:

2020 Bantree Street
Ottawa, Ontario

Client Information:

7137796 Canada Inc.
700 Education Boulevard
Cornwall, ON K6H 6B8
Attention: Martin Benson

Date: January 11, 2022
Project #: 11556
Prepared by: E. Hunt

The purpose of the Sampling and Analysis Plan (SAP) is to identify and provide procedures for the following phase two field related activities: the sampling method, the sampling media, number of samples, sampling locations, field measurements required and samples to be submitted for laboratory analysis.

The plan includes consideration by the Qualified Person (QP_{ESA}) for potentially contaminating activities (PCAs), contaminants of concern (CoC) and any matters relating to the environmental condition of the property. All CoCs are to be sampled and analyzed to characterize the environmental condition of the property in order to make decisions regarding the property.

The SAP is a required component of a phase two ESA and applies to the commercial property at 2020 Bantree St. in Ottawa, Ontario ("the site").

1. INTRODUCTION

The SAP was prepared following a review of the information obtained about the property during the phase one ESA.

The results of the phase one ESA have confirmed that the phase two property is not on or located within 30 m of a surface water body or environmentally sensitive area, that the groundwater at the property is not used for drinking water and that there is more than 2 m of overburden present. Accordingly, the analytical results for soil and groundwater samples will be compared to Table 3 of the MECP *Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, April 15, 2011* for industrial/commercial/community land use (the "MECP 2011 Table 3 Standards"). The MECP 2011 Table 3 Standards are based on updated science and are protective of human health and ecosystems.

2. SCOPE OF INVESTIGATION

Proposed sampling locations will be distributed as follows to investigate the five (5) Areas of Environmental Potential Concern (APEC #1, #2, #3, #4 and #5) identified by the phase one ESA.

Table 1: Areas of Potential Concern

APECs	Location of APEC on Phase One Property	PCA	Location of PCA	Contaminants of Concern	Media Potentially Impacted
Central portion of site (APEC #1)	Central portion of site, downgradient of historical automotive repair activities on western portion of site building and adjacent of former transformer.	#10 Commercial Autobody Shops	On-site	PHCs, VOCs, PAHs, PCBs and metals	Soil Groundwater
Eastern end of site (APEC #2)	Eastern end of site, area of historical 2,500 L diesel fuel AST	#28 Gasoline and Associated Products Storage in Fixed Tanks	On-site	PHCs	Soil
Western property boundary (APEC #3)	Western property boundary, downgradient from off-site USTs	#28 Gasoline and Associated Products Storage in Fixed Tanks	Off-site	PHCs, VOCs, PAHs and metals	Soil Groundwater

Table 1: Areas of Potential Concern					
APECs	**Location of APEC on Phase One Property**	**PCA**	**Location of PCA**	**Contaminants of Concern**	**Media Potentially Impacted**
Northern property boundary (APEC #4)	Northern property boundary, transgradient from off-site ASTs and USTs and historical 200 L diesel spill	#28 Gasoline and Associated Products Storage in Fixed Tanks	Off-site	PHCs, VOCs, PAHs and metals	Soil Groundwater
Northeast corner, southwest corner and centrally (APEC #5)	Northeast corner, southwest corner and centrally to the West.	No specific PCA was identified for this APEC (uninspected oil/water interceptors)	On-site	PHCs, VOCs, PAHs and metals	Soil Groundwater

2.1 APEC #1 – CENTRAL PORTION OF SITE

Drill one (1) borehole to a depth of 4.88 m (16 feet), completed as a monitoring well (MW1/22), to provide characterization for the building on-site, due to the current and historical use of the site for auto service and the associated presence of a transformer. Soil and groundwater samples will be collected and submitted for analysis of CoCs (PHCs, VOCs, PAHs, PCBs and metals and inorganics).

2.2 APEC #2 – EASTERN END OF SITE

Drill one (1) shallow overburden borehole (BH2/22) to a depth of 4.88 m (16 feet) to provide characterization for a potential former fuel AST. Soil samples will be collected and submitted for analysis of CoCs (PHCs + BTEX).

2.3 APEC #3 – WESTERN PROPERTY BOUNDARY

Drill two (2) boreholes to depths of 4.88 m (16 feet), both completed as monitoring wells (MW3/22 and MW4/22) to provide characterization for potential contamination related to off-site upgradient USTs located on the neighbouring property to the west (west of Edinburgh Pl.). Soil and groundwater samples will be collected and submitted for analysis of CoCs (PHCs, VOCs, PAHs and metals and inorganics).

2.4 APEC #4 – NOTHERN PROPERTY BOUNDARY

Drill two (2) boreholes to depths of 4.88 m (16 feet), one completed as a monitoring well (MW5/22 and BH6/22) and sample up to two existing monitoring wells (MW2(SLT) and MW2(SLT-O)) to provide characterization for potential contamination related to off-site upgradient USTs located on the neighbouring property to the north northwest (north of Bantree St.). Soil and groundwater samples will be collected and submitted for analysis of CoCs (PHCs, VOCs, PAHs and metals and inorganics).

2.5 APEC #5 – OIL/WATER INTERCEPTORS

Drill three (3) boreholes to depths of 4.88 m (16 feet), all completed as monitoring wells (MW7/22, MW8/22 and MW9/22) to provide characterization for the oil/water interceptors on-site, which have not been available for inspection. Soil and groundwater samples will be collected and submitted for analysis of CoCs (PHCs, VOCs, PAHs and metals and inorganics).

In addition to the above, one (1) soil sample will be submitted for a TCLP for metals, VOCs and benzo(a)pyrene, to determine if soil is classified as non-hazardous for disposal of cuttings.

Since the phase two property does not contain a surface water body, no surface water or sediment will be collected. No vapour probes will be installed.

Tasks relating to the phase two ESA will include:

- Review Site Specific Health and Safety Plan (HASP) including – safety provisions for project team members (i.e. protective gloves, hard hat, safety boots and high visibility vest);
- Review of AEL Standard Operating Procedures for borehole and monitoring well installation, shallow soil sampling, field screening and equipment calibration, field measurement of water quality, groundwater sampling, disposal of soil cuttings and development water and equipment decontamination;
- Review of locates for all services at the site prior to drilling (public and private locates provided by SLT).
- Locate and assess functional use of two existing monitoring wells previously installed (MW2(SLT) and MW2(SLT-O));
- Drill nine (9) shallow overburden boreholes, with seven (7) completed as monitoring wells;
- Assessment and field screening of soil samples from each borehole for the presence of environmental impacts;
- Submission of selected soil samples for laboratory analysis of required CoCs according to chain-of-custody procedures;
- Measurement of water levels at each of the monitoring wells at the site for determination of groundwater flow and gradient;
- Well development to remove drill liquids, followed by purging and field assessment of groundwater from each monitoring well using low flow purging and sampling methods;
- Collection of groundwater samples from each of the existing and newly installed monitoring wells for laboratory analysis of required CoCs according to chain-of-custody procedures;
- Quality Assurance/Quality control (QA/QC) procedures for field activities and laboratory data; and
- Photographic record of field activities.

All samples shall be submitted to Paracel Laboratories in Ottawa, ON, according to quotation number 21-687.

3. STANDARD OPERATING PROCEDURES

AEL technical staff shall review and follow the following company Standard Operating Procedures:

- Drilling Inspection (revised May 2015)
- Identification of Soil (revised March 2015)
- Well-Boring Log Completion (revised January 2018)
- Soil Sampling for Analysis (revised May 2013)
- Chain of Custody Instructions (revised January 2018)
- Monitoring Well Installation (revised March 2015)
- Well development (revised July 2019)
- Water Quality Sampling (revised July 2019)
- Post-Drilling Site Cleanup (July 2020)

4. HEALTH AND SAFETY PROGRAM

COCs in soil and groundwater identified by the phase one ESA include the following:

- Petroleum Hydrocarbon (PHC) Fractions F1-F4 in soil and groundwater.
- Volatile Organic Compounds (VOCs) including Benzene, Ethyl benzene, Toluene, Xylene (BTEX) in soil and groundwater.

- Metals in soil and groundwater.
- Polycyclic Aromatic Hydrocarbons (PAHs) in soil and groundwater.
- Polychlorinated Biphenyls (PCBs) in soil and groundwater.

The prepared Health and Safety Plan shall be reviewed and followed. AEL personnel shall don safety boots, reflective vests, nitrile gloves and long pants for the duration of all sampling activities.

Access to the site is to be provided from Bantree Street. AEL staff shall park on-site during the sampling and field activities. Procedures for working alone include notification of arrival and departure and periodic check-ins as required by the project manager.

5. FIELD ACTIVITIES

Equipment calibration and maintenance shall be performed by AEL according to manufacturers' recommendations and AEL SOP prior to arriving at the site to ensure proper operation in the field.

Soil cores, hand samples and grab samples shall be examined for visual and olfactory (odour) evidence of environmental impact.

Soil cores where there is no obvious free product stains or sheen shall be selected for field screening using a pre-cleaned and calibrated RKI Eagle II Gas Meter equipped with a photoionization detector (PID) and a catalytic sensor to determine if VOCs or hydrocarbons (HCs) were present. The PID is used to detect the presence of any VOCs in the range of 0.1 – 999.9 ppm with a precision of 0.1 ppm and an accuracy of 10 to 2000 ppm: ± 3%. The catalytic sensor is used to detect the presence of HCs in the range of 0 – 100% Lower Explosive Limit (LEL) with an accuracy of 0 to 100% LEL: ± 3%.

Soil samples being analyzed for volatile parameters shall be placed in septum vials pre-charged with methanol preservative with Teflon® lined lids provided by the laboratory. The following details the container types and preservatives that shall be used for soil sample collection:

Table 2 Soil Sampling

Parameter Group	Container Type	Preservative
PHC Fraction F1 & VOCs	3 x 40 mL Glass Vials	$NaHSO^4$
PHC Fraction F2-F4	1 x 120 mL Glass Bottle 1 x 60 mL Glass Bottle	None None
Metals & Inorganics	1 x 250 mL Glass Jar	None
PAHs	1 x 120 mL Glass Jar	None
PCBs	1 x 120 mL Glass Jar	None
TCLP	1 x 250 mL Glass Jar 1 x 120 mL Glass Jar 1 x 60 mL Glass Jar	None None None

Well development by pumping will be required to remove drilling liquid introduced by the driller before sampling commences. Headspace measurements will be taken using a pre-cleaned and calibrated RKI Eagle II Gas Meter equipped with a photoionization detector (PID) and a catalytic sensor to determine if VOCs or hydrocarbons (HCs) were present. The PID is used to detect the presence of any VOCs in the range of 0.1 – 999.9 ppm with a precision of 0.1 ppm and an accuracy of 10 to 2000 ppm: ± 3%. The catalytic sensor is used to detect the presence of HCs in the range of 0 – 100% Lower Explosive Limit (LEL) with an accuracy of 0 to 100% LEL: ± 3%.

The well(s) will be screened for the presence of non-aqueous phase liquids (NAPLs) using a pre-cleaned and calibrated interface probe. The interface probe is used to detect the presence of NAPLs with an accuracy of 1.0 mm.

Water levels shall be collected prior to purging the wells. The water level probe is to be decontaminated between sampling locations as indicated in the SOP.

Field chemistry parameters that may include conductivity, pH, temperature, dissolved oxygen, oxidation reduction potential and turbidity should be monitored during well development until stabilized measurements are recorded. If the monitor does not provide sufficient water, each monitoring well should be purged dry at least once. The purge water is to be collected and stored in the drums located at the phase two property. Dedicated tubing should be used to purge each monitoring well.

Groundwater samples being analyzed for volatile parameters shall be placed in zero head-space, septum vials with Teflon® lined lids provided by the laboratory. The following details the container types and preservatives that shall be used for groundwater sample collection:

Table 3 Groundwater Sampling

Parameter Group	Container Type	Preservative
PHC Fraction F1 & VOCs	3 x 40 mL Glass Vials	$NaHSO^4$
PHC Fraction F2-F4	2 x 250 mL Amber Glass Bottle	HCl
Metals & Inorganics	1 x 125 mL Plastic Bottle (Field Filtered) 1 x 125 mL Plastic Bottle 1 x 120 mL Plastic Bottle (Field Filtered) 1 x 500 mL Plastic Bottle 1 x 100 mL Clear Glass Bottle	$(NH_4)2SO_4/NH_4OH$ NaOH HNO_3 None HCl
PAHs	2 x 500 mL Amber Glass Bottle	$NaHSO_4$
PCBs	2 x 500 mL Amber Glass Bottle	

The samples should be stored in insulated coolers with loose ice to initiate cooling for same day transportation to an accredited laboratory.

Field logs are to be maintained by technical staff to record data collection and sampling activities. The equipment used to collect samples shall be noted, along with the time of sampling, sampling description, depth from which the samples were collected and volume and number of containers. All samples are to be accompanied by a completed chain of custody record which lists each sample identifier, sampling date and time, sample matrix, the number of containers and analytical parameters for which the sample is to be tested.

6. PHYSICAL IMPEDIMENTS AND FIELD CHANGES

There are no known physical or access impediments to completing the scope or work, however conditions such as weather, buried utilities, minimum clearance requirements or ongoing site operations may require alteration and revision of the investigation and sampling plan. Report any of these situations to the AEL PM and QP_{ESA} as soon as possible for instruction and revisions.

7. QUALITY ASSURANCE AND QUALITY CONTROL RESULTS

The quality of data depends upon planning, sampling, analysis and reporting. The Sampling and Analysis Plan for this project required data validation and acceptance of greater than 90% of the sample results.

Based on the anticipated volume of soil samples, a minimum of two (2) duplicate soil samples shall be collected for QA/QC purposes.

Based on the anticipated volume of groundwater samples required, one (1) duplicate groundwater sample shall be collected for QA/QC purposes. One (1) trip blank shall also accompany the samples for QA/QC purposes.

Laboratory Certificates of Analysis shall be obtained from Paracel for all soil and groundwater sample submitted to the laboratory. The lab reports shall meet the requirements of S. 47(3) of O. Reg. 153/04 (as amended) and be signed by the account manager.

The QP_{ESA} shall confirm with the lab that all samples were received in good condition, within as acceptable temperature range and that the holding times, preservation requirements and the proper number of containers were met.

The QP_{ESA} shall review the results of analysis and address all occurrences where the data has been qualified by the lab due to sample dilution, matrix interference, RPD values >30% for duplicate samples and reporting detection limits (RDLs) greater than the applicable MOECC Site Condition Standard.

8. OTHER CONSIDERATIONS

8.1 WEATHER CONDITIONS

The field work is planned to proceed in the month of January. Field conditions may include extreme cold, ice, rain and/or snow. Field staff will be equipped with appropriate cold weather clothing and should be aware of slipping associated with wet/icy surfaces. Regular break periods are encouraged during cold weather.

In addition, all drums containing soil cuttings and/or purge water are to be placed on wood pallets, which are to be located on site in an area indicated by the client. Disposal of the cuttings and purge water are the responsibility of St. Lawrence Testing Co. Ltd.

8.2 PANDEMIC

At the time of sampling, the federal and provincial governments have declared precautions and required actions as a result of the global spread of COVID-19. AEL employees must practice the following in order to prevent the spread of the disease: keep a minimum of 2 m from other individuals, wash/sanitize hands often, cough/sneeze into a tissue or sleeve and limit those places visited to the job site. AEL employees should only remain on-site while they are carrying out active sampling. AEL employees should not enter the site building unless it is absolutely necessary and will double mask if entering the building is necessary.

8.3 PEDESTRIAN TRAFFIC

The site is currently private land but is open to public access. AEL shall consider the pedestrian traffic as necessary to properly carry out the work described above.

END

Bantree Road

Draft Borehole/Monitoring Well Plan

Figure

#11556 2021-11-29

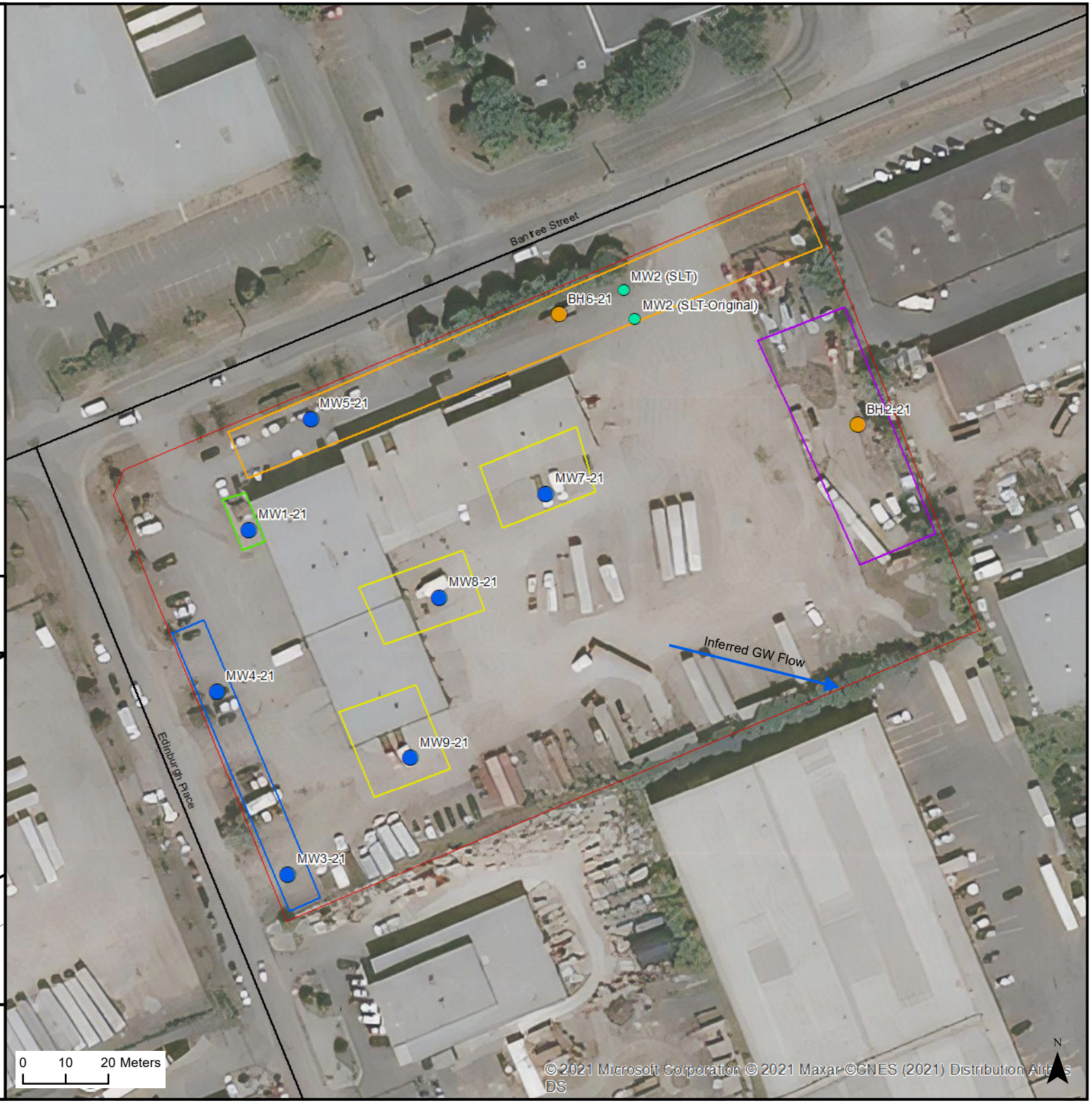
Legend

- Proposed Borehole
- Proposed Monitoring Well
- Existing Monitoring Well
- Railway
- Roads
- APEC1
- APEC2
- APEC3
- APEC4
- APEC5
- Site Boundary

Notes:

2020 Bantree Road
Ottawa, ON

Source:



11556-02 - 2020 Bantree St., Ottawa

Soil

Sample Location	Depth (ft)	PID	PHCs & BTEX	VOCs	PAHs	Metals	PCBs	Grain Size	Notes
MW1/22	0 - 2'	1							
	2' - 4'	1							
	4' - 6'	1	1	1	1	1	1		Sample should be highest PID above the water table
	6' - 8'	1						1 *	
	8' - 10'	1							
	10' - 12'	1	1	1	1	1	1		Sample should be within water table
	12 - 14'	1							
	14' - 16'	1							
MW3/22	0 - 2'	1							
	2' - 4'	1							
	4' - 6'	1	1		1				Sample should be highest PID above the water table
	6' - 8'	1						1 *	
	8' - 10'	1							
	10' - 12'	1	1		1				Sample should be within water table
	12 - 14'	1							
	14' - 16'	1							
MW6/22	0 - 2'	1							
	2' - 4'	1							
	4' - 6'	1	1	1	1	1			Sample should be highest PID above the water table
	6' - 8'	1						1 *	
	8' - 10'	1							
	10' - 12'	1	1	1	1	1			Sample should be within water table
	12 - 14'	1							
	14' - 16'	1							
MW8/22	0 - 2'	1							
	2' - 4'	1							
	4' - 6'	1	1	1	1	1			Sample should be highest PID above the water table
	6' - 8'	1						1 *	
	8' - 10'	1							
	10' - 12'	1	1	1	1	1			Sample should be within water table
	12 - 14'	1							
	14' - 16'	1							
MW9/22	0 - 2'	1							
	2' - 4'	1							
	4' - 6'	1	1	1	1	1			Sample should be highest PID above the water table
	6' - 8'	1							
	8' - 10'	1							
	10' - 12'	1	1	1	1	1			Sample should be within water table
	12 - 14'	1							
	14' - 16'	1							
Duplicate	-	-	1	1	1	1	0	0	
Total	-	-	11	9	11	9	2	4	

*Note: Grain Size to be obtained from most common type of material identified when logging

Obtain 1 TCLP sample for metals & VOCs

11556-02 - 2020 Bantree St., Ottawa

Groundwater

Sample Location	Water Level	Headspace/ Interface Probe	PHCs & BTEX	VOCs	PAHs	Metals	PCBs
MW1/22	1	1	1	1	1	1	1
MW3/22	1	1	1		1		
MW6/22	1	1	1	1	1	1	
MW8/22	1	1	1	1	1	1	
MW9/22	1	1	1	1	1	1	
Duplicate	-	-	1	0	1	0	0
Total	-	-	6	4	6	4	1

Include 1 trip blank for EVERY laboratory submission

2020 Bantree Street.,
Ottawa, Ontario

P.O. # 11556-2

Legend ⊗ Proposed Monitoring Well

1705 Argentia Rd, Unit 3
Mississauga, ON L5N 3A9
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APPENDIX 2
FINALIZED FIELD LOGS

1705 Argentia Rd, Unit 3
Mississauga, ON L5N 3A9
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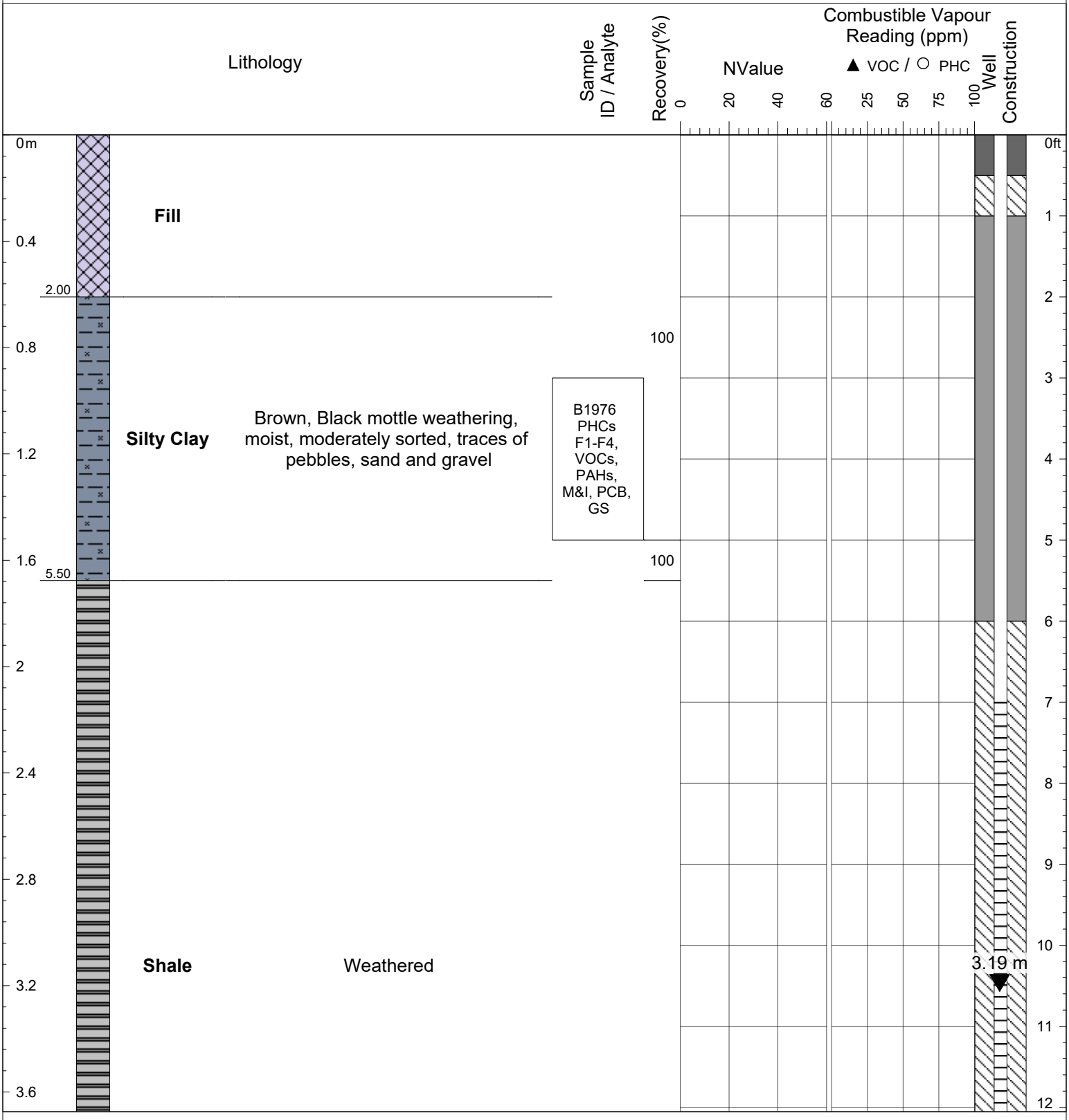
Project No.:	11556	**Log of Test Hole:**	MW1/22
Project:	Bantree Road P2	Easting:	452019.67
Location:	2020 Bantree Road Ottawa, Ontario	Northing:	5028109.09
Project Manager:	Charna Kozole	Elevation (masl):	68.05



Drill Method:	Direct Push/Air Percussion	Hole Depth (m):	4.57 m	GW Level Date:	17-Mar-22
Drill Date:	16-Mar-22	Technician:	JS		
Hole / Casing Diameter:	4" / 2"	Drilled By:	Strata Drilling Group		

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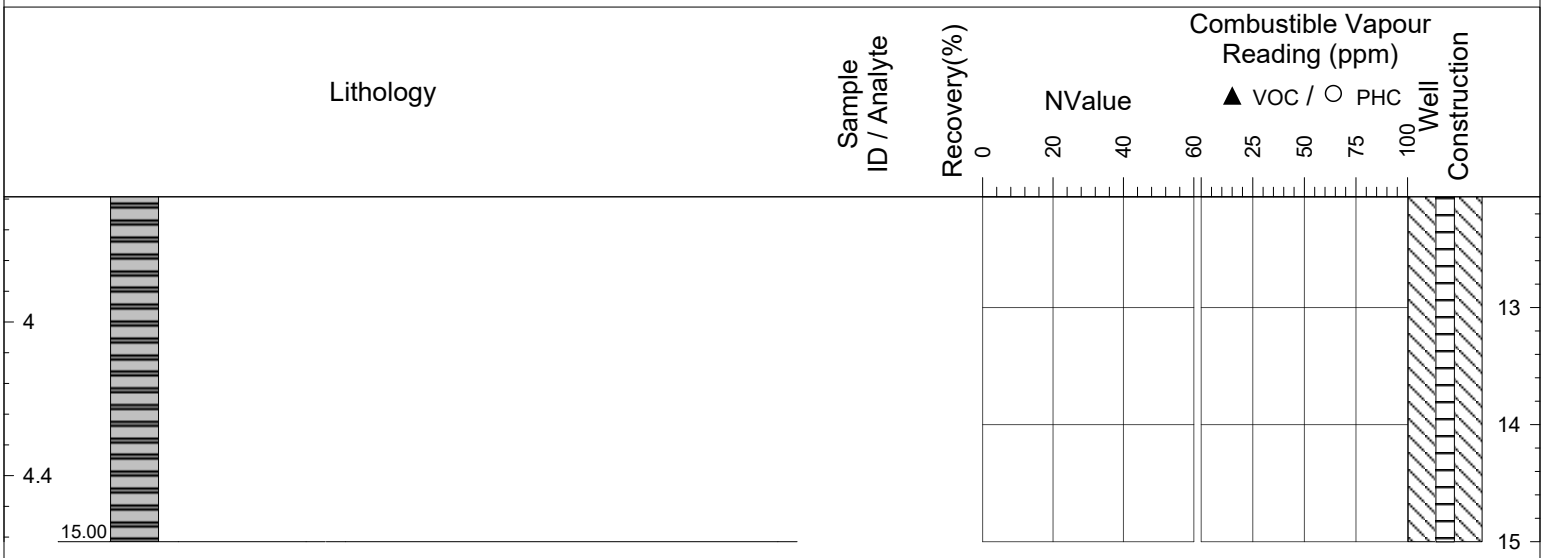
Project No.:	11556	**Log of Test Hole:**	MW1/22
Project:	Bantree Road P2	Easting:	452019.67
Location:	2020 Bantree Road Ottawa, Ontario	Northing:	5028109.09
Project Manager:	Charna Kozole	Elevation (masl):	68.05



Drill Method:	Direct Push/Air Percussion	Hole Depth (m):	4.57 m	GW Level Date:	17-Mar-22
Drill Date:	16-Mar-22	Technician:	JS		
Hole / Casing Diameter:	4" / 2"	Drilled By:	Strata Drilling Group		

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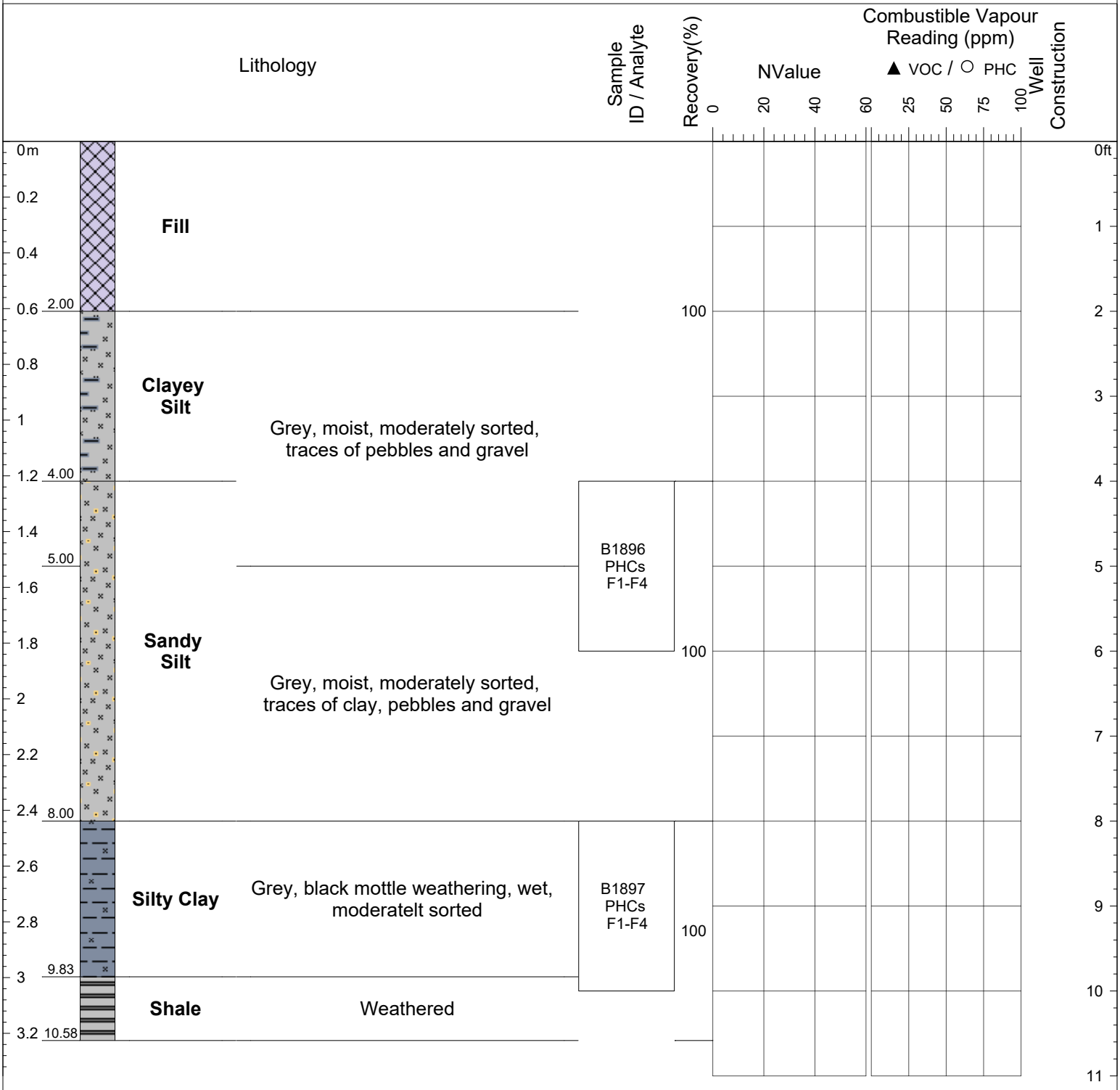
Project No.:	11556	**Log of Test Hole:**	BH2-22
Project:	Bantree Road P2	Easting:	452163.78
Location:	2020 Bantree Road Ottawa, Ontario	Northing:	5028132.02
Project Manager:	Charna Kozole	Elevation (masl):	67.04



Drill Method:	Direct Push	Hole Depth (m):	3.23 m	GW Level Date:	
Drill Date:	27-Jan-22	Technician:	JS		
Hole / Casing Diameter:	4" /	Drilled By:	Downey Drilling		

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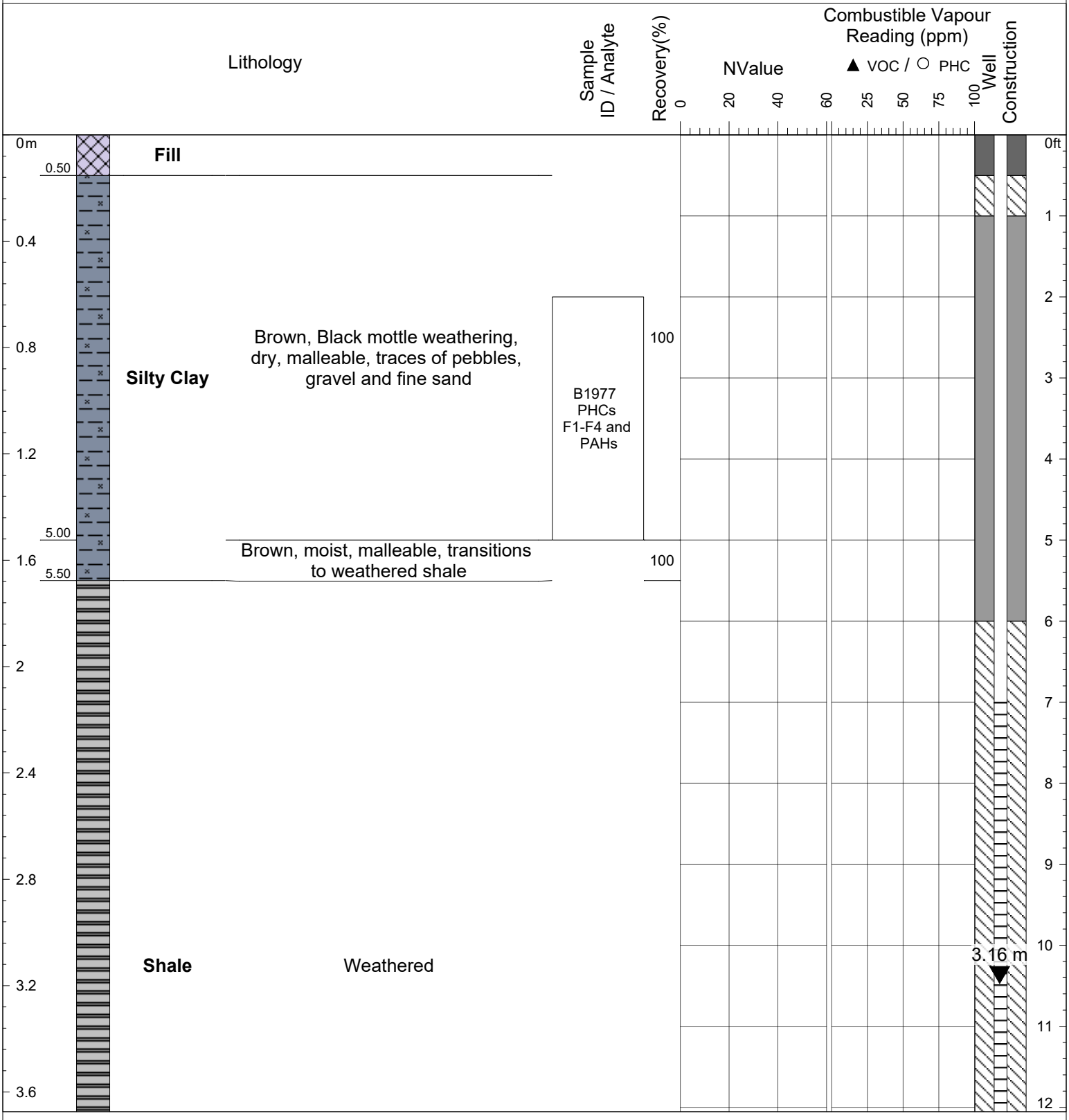
Project No.:	11556	**Log of Test Hole:**	MW3/22
Project:	Bantree Road P2	Easting:	452027.41
Location:	2020 Bantree Road Ottawa, Ontario	Northing:	5028029.24
Project Manager:	Charna Kozole	Elevation (masl):	68.22



Drill Method:	Direct Push/Air Percussion	Hole Depth (m):	4.57 m	GW Level Date:	17-Mar-22
Drill Date:	16-Mar-22	Technician:	JS		
Hole / Casing Diameter:	4" / 2"	Drilled By:	Strata Drilling Group		

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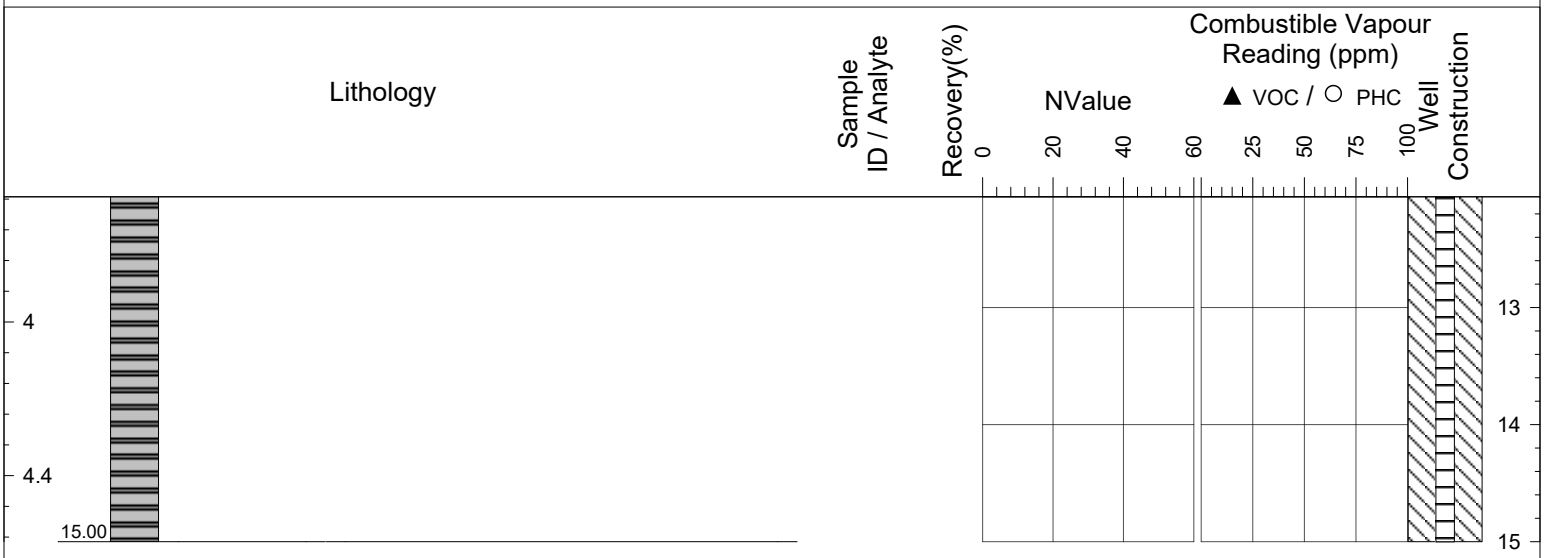
Project No.:	11556	**Log of Test Hole:**	MW3/22
Project:	Bantree Road P2	Easting:	452027.41
Location:	2020 Bantree Road Ottawa, Ontario	Northing:	5028029.24
Project Manager:	Charna Kozole	Elevation (masl):	68.22



Drill Method:	Direct Push/Air Percussion	Hole Depth (m):	4.57 m	GW Level Date:	17-Mar-22
Drill Date:	16-Mar-22	Technician:	JS		
Hole / Casing Diameter:	4" / 2"	Drilled By:	Strata Drilling Group		

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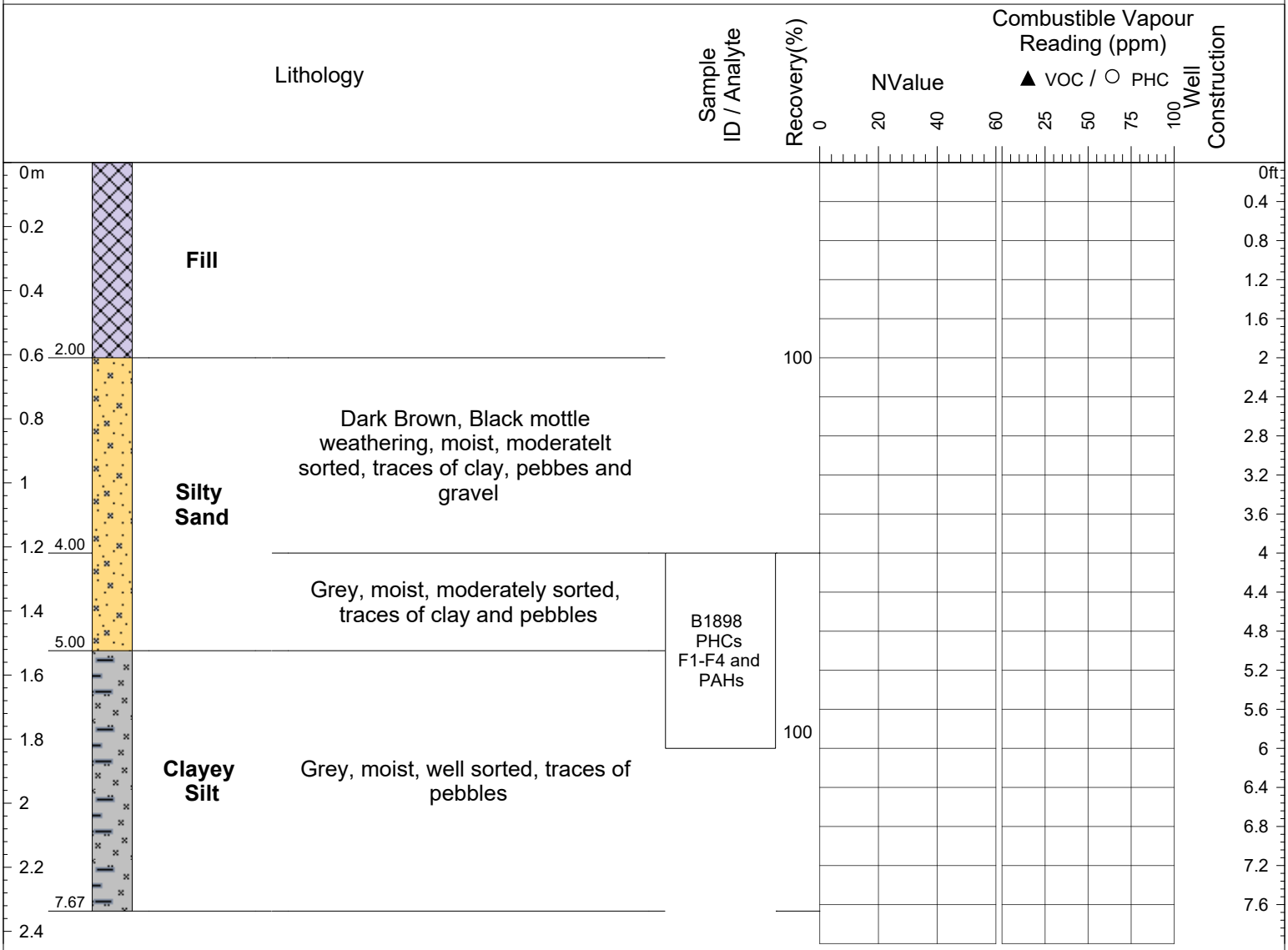
Project No.:	11556	**Log of Test Hole:**	BH4-22
Project:	Bantree Road P2	Easting:	452012.76
Location:	2020 Bantree Road Ottawa, Ontario	Northing:	5028074.16
Project Manager:	Charna Kozole	Elevation (masl):	67.80



Drill Method:	Direct Push	Hole Depth (m):	2.34 m	GW Level Date:	
Drill Date:	27-Jan-22	Technician:	JS		
Hole / Casing Diameter:	4" /	Drilled By:	Downey Drilling		1 of 1

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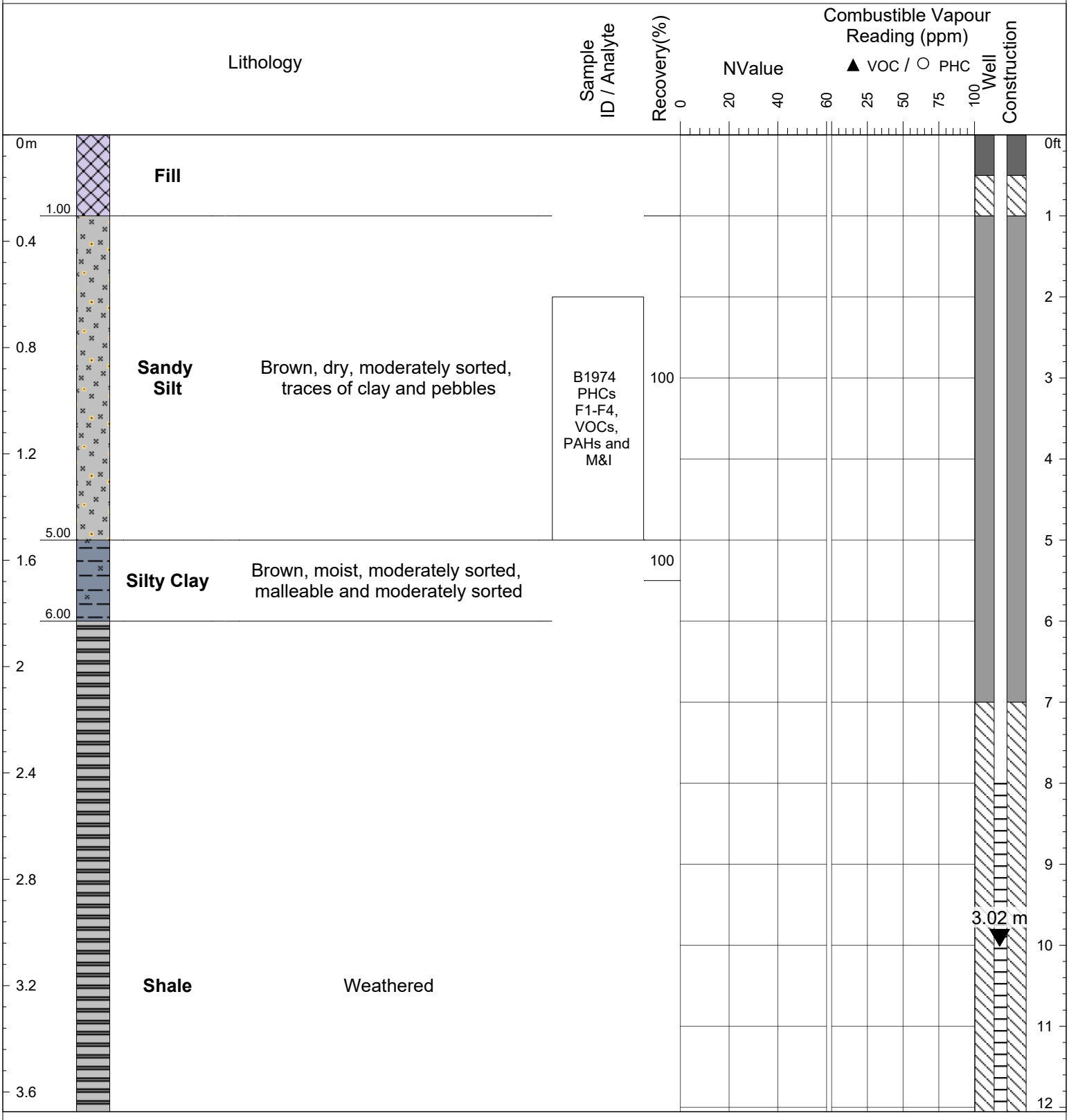
Project No.:	11556	**Log of Test Hole:**	MW6/22
Project:	Bantree Road P2	Easting:	452042.64
Location:	2020 Bantree Road Ottawa, Ontario	Northing:	5028137.98
Project Manager:	Charna Kozole	Elevation (masl):	67.87



Drill Method:	Direct Push/Air Percussion	Hole Depth (m):	4.57 m	GW Level Date:	17-Mar-22
Drill Date:	16-Mar-22	Technician:	JS		
Hole / Casing Diameter:	4" / 2"	Drilled By:	Strata Drilling Group		

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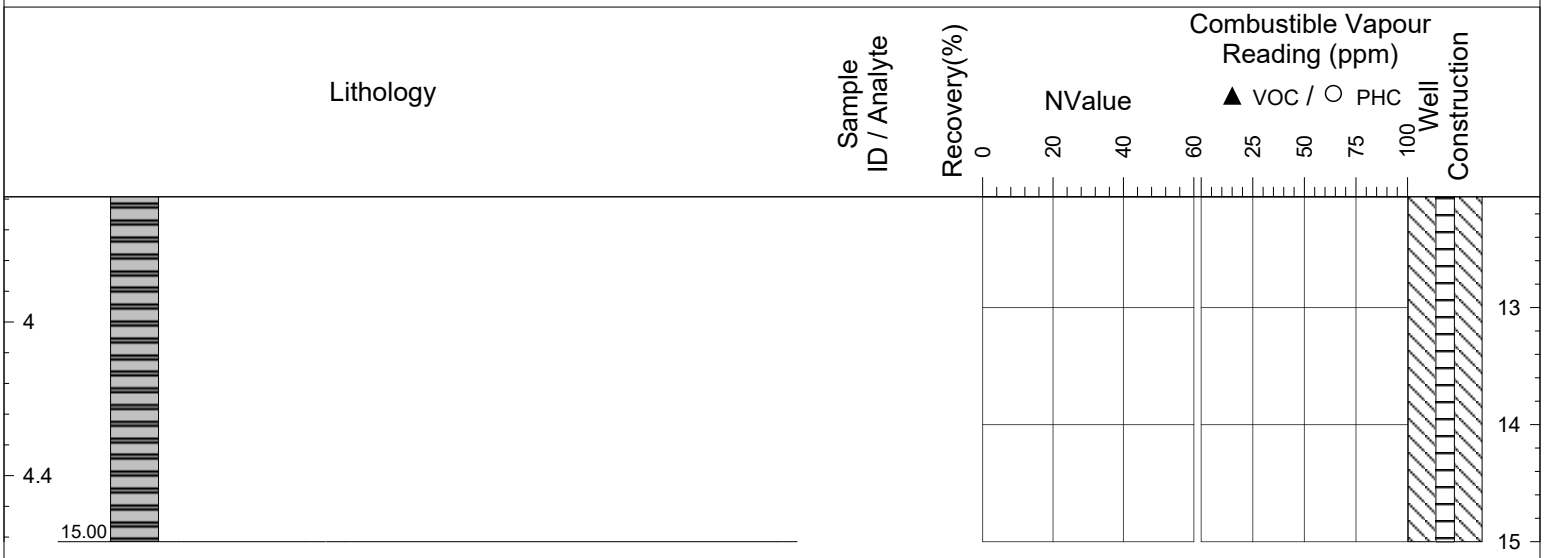
Project No.:	11556	**Log of Test Hole:**	MW6/22
Project:	Bantree Road P2	Easting:	452042.64
Location:	2020 Bantree Road Ottawa, Ontario	Northing:	5028137.98
Project Manager:	Charna Kozole	Elevation (masl):	67.87



Drill Method:	Direct Push/Air Percussion	Hole Depth (m):	4.57 m	GW Level Date:	17-Mar-22
Drill Date:	16-Mar-22	Technician:	JS		
Hole / Casing Diameter:	4" / 2"	Drilled By:	Strata Drilling Group		

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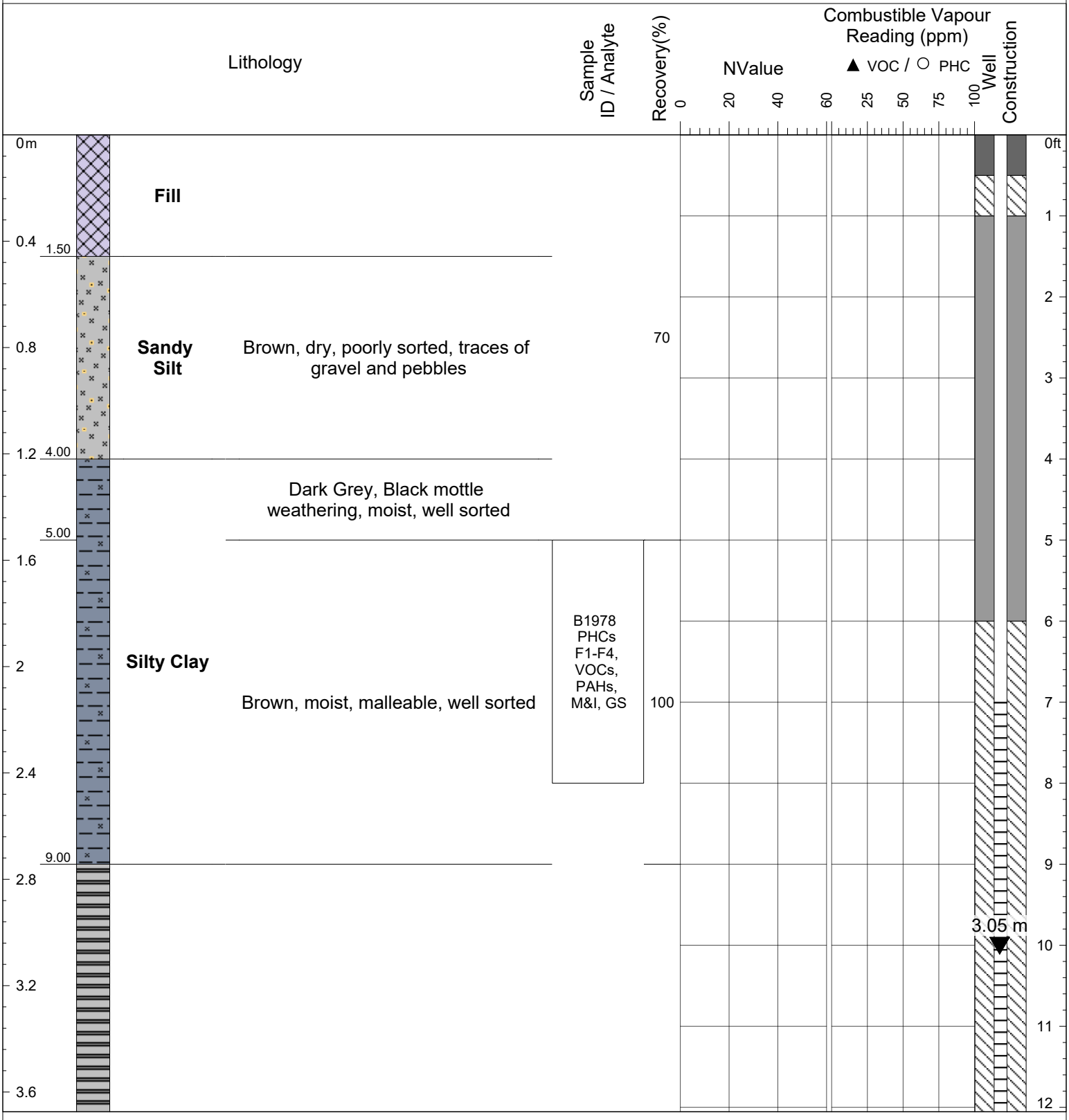
Project No.:	11556	**Log of Test Hole:**	MW8/22
Project:	Bantree Road P2	Easting:	452088.98
Location:	2020 Bantree Road Ottawa, Ontario	Northing:	5028122.89
Project Manager:	Charna Kozole	Elevation (masl):	68.03



Drill Method:	Direct Push/Air Percussion	Hole Depth (m):	5.18 m	GW Level Date:	17-Mar-22
Drill Date:	16-Mar-22	Technician:	JS		
Hole / Casing Diameter:	4" / 2"	Drilled By:	Strata Drilling Group		

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Mississauga, ON L5N 3A9
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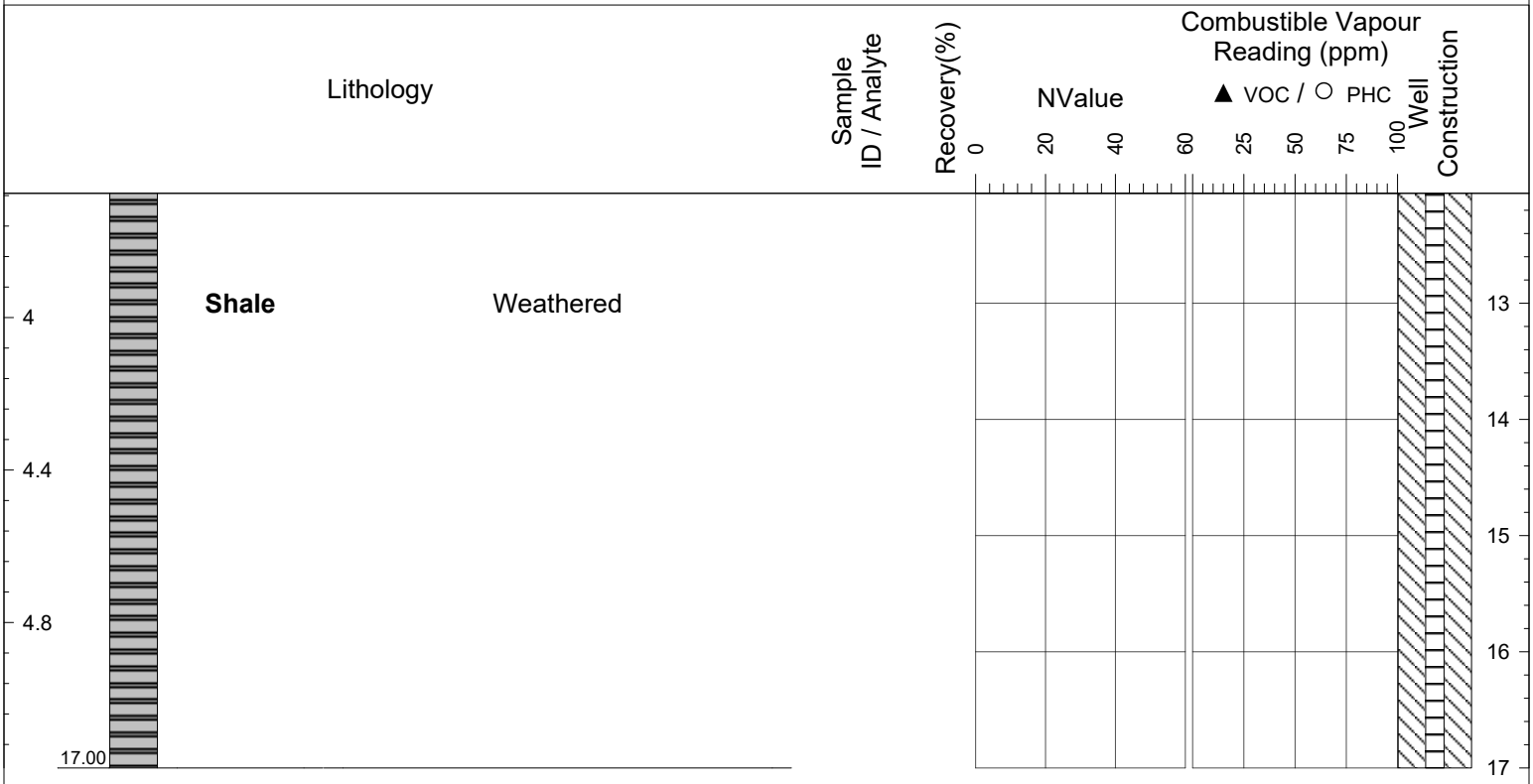
Project No.:	11556	**Log of Test Hole:**	MW8/22
Project:	Bantree Road P2	Easting:	452088.98
Location:	2020 Bantree Road Ottawa, Ontario	Northing:	5028122.89
Project Manager:	Charna Kozole	Elevation (masl):	68.03



Drill Method:	Direct Push/Air Percussion	Hole Depth (m):	5.18 m	GW Level Date:	17-Mar-22
Drill Date:	16-Mar-22	Technician:	JS		
Hole / Casing Diameter:	4" / 2"	Drilled By:	Strata Drilling Group		

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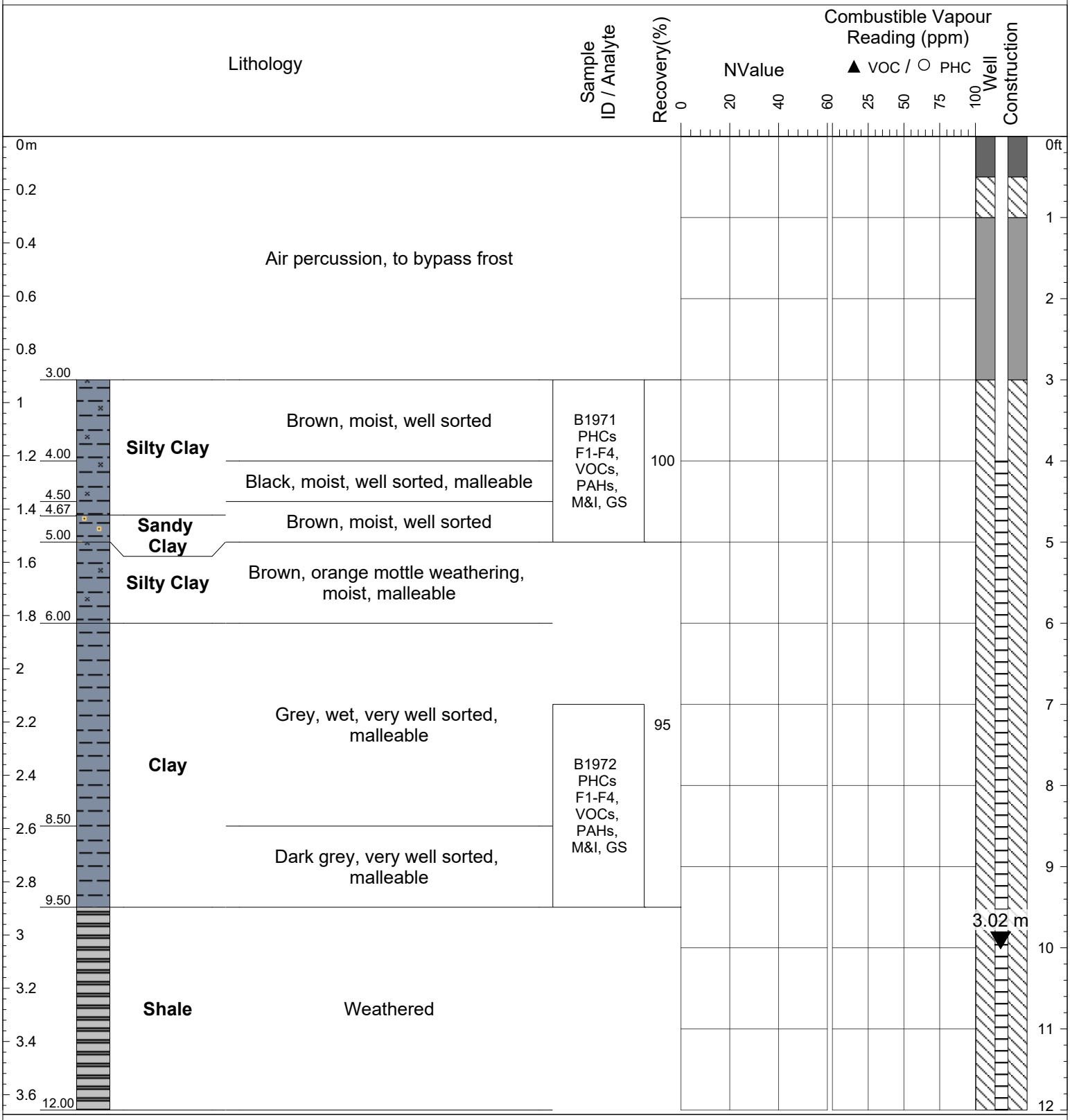
Project No.:	11556	**Log of Test Hole:**	MW9/22
Project:	Bantree Road P2	Easting:	452102.4
Location:	2020 Bantree Road Ottawa, Ontario	Northing:	5028162.87
Project Manager:	Charna Kozole	Elevation (masl):	67.84



Drill Method:	Direct Push/Air Percussion	Hole Depth (m):	3.66 m	GW Level Date:	17-Mar-22
Drill Date:	15-Mar-22	Technician:	JS		
Hole / Casing Diameter:	4" / 2"	Drilled By:	Strata Drilling Group		

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APPENDIX 3
CERTIFICATES OF ANALYSIS

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Certificate of Analysis

AEL Environment

1705 Argentia Road, Unit 3
Mississauga, ON L5N 3A9
Attn: Erin Hunt

Client PO:
Project: 11556-02
Custody: 134513

Report Date: 3-Feb-2022
Order Date: 28-Jan-2022

Order #: 2205578

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
2205578-01	B1896 - BH2-22 (4' - 6')
2205578-02	B1897 - BH2-22 (8' - 10')
2205578-03	B1898 - BH4-22 (4' - 6')

Approved By:

Milan Ralitsch, PhD
Senior Technical Manager

Certificate of Analysis

Client: AEL Environment

Client PO:

Report Date: 03-Feb-2022

Order Date: 28-Jan-2022

Project Description: 11556-02

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
BTEX by P&T GC-MS	EPA 8260 - P&T GC-MS	2-Feb-22	3-Feb-22
PHC F1	CWS Tier 1 - P&T GC-FID	2-Feb-22	3-Feb-22
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	2-Feb-22	3-Feb-22
REG 153: PAHs by GC-MS	EPA 8270 - GC-MS, extraction	1-Feb-22	2-Feb-22
Solids, %	Gravimetric, calculation	2-Feb-22	3-Feb-22

Certificate of Analysis

Client: **AEL Environment**

Client PO:

Report Date: 03-Feb-2022

Order Date: 28-Jan-2022

Project Description: 11556-02

	Client ID:	B1896 - BH2-22 (4' - 6')	B1897 - BH2-22 (8' - 10')	B1898 - BH4-22 (4' - 6')	-
	Sample Date:	27-Jan-22	27-Jan-22	27-Jan-22	-
	Sample ID:	2205578-01	2205578-02	2205578-03	-
	MDL/Units	Soil	Soil	Soil	-
Physical Characteristics					
% Solids	0.1 % by Wt.	90.7	89.0	95.0	-
Volatiles					
Benzene	0.02 ug/g dry	<0.02	<0.02	<0.02	-
Ethylbenzene	0.05 ug/g dry	<0.05	<0.05	<0.05	-
Toluene	0.05 ug/g dry	<0.05	<0.05	<0.05	-
m,p-Xylenes	0.05 ug/g dry	<0.05	<0.05	<0.05	-
o-Xylene	0.05 ug/g dry	<0.05	<0.05	<0.05	-
Xylenes, total	0.05 ug/g dry	<0.05	<0.05	<0.05	-
Toluene-d8	Surrogate	109%	108%	108%	-
Hydrocarbons					
F1 PHCs (C6-C10)	7 ug/g dry	<7	<7	<7	-
F2 PHCs (C10-C16)	4 ug/g dry	12	<4	<4	-
F3 PHCs (C16-C34)	8 ug/g dry	23	15	37	-
F4 PHCs (C34-C50)	6 ug/g dry	<6	<6	82	-
Semi-Volatiles					
Acenaphthene	0.02 ug/g dry	-	-	<0.02	-
Acenaphthylene	0.02 ug/g dry	-	-	<0.02	-
Anthracene	0.02 ug/g dry	-	-	<0.02	-
Benzo [a] anthracene	0.02 ug/g dry	-	-	<0.02	-
Benzo [a] pyrene	0.02 ug/g dry	-	-	<0.02	-
Benzo [b] fluoranthene	0.02 ug/g dry	-	-	<0.02	-
Benzo [g,h,i] perylene	0.02 ug/g dry	-	-	<0.02	-
Benzo [k] fluoranthene	0.02 ug/g dry	-	-	<0.02	-
Chrysene	0.02 ug/g dry	-	-	<0.02	-
Dibenzo [a,h] anthracene	0.02 ug/g dry	-	-	<0.02	-
Fluoranthene	0.02 ug/g dry	-	-	<0.02	-
Fluorene	0.02 ug/g dry	-	-	<0.02	-
Indeno [1,2,3-cd] pyrene	0.02 ug/g dry	-	-	<0.02	-
1-Methylnaphthalene	0.02 ug/g dry	-	-	<0.02	-
2-Methylnaphthalene	0.02 ug/g dry	-	-	<0.02	-
Methylnaphthalene (1&2)	0.03 ug/g dry	-	-	<0.03	-
Naphthalene	0.01 ug/g dry	-	-	<0.01	-
Phenanthrene	0.02 ug/g dry	-	-	<0.02	-
Pyrene	0.02 ug/g dry	-	-	<0.02	-
2-Fluorobiphenyl	Surrogate	-	-	71.8%	-

Certificate of Analysis

Client: AEL Environment

Client PO:

Report Date: 03-Feb-2022

Order Date: 28-Jan-2022

Project Description: 11556-02

	Client ID:	B1896 - BH2-22 (4' - 6')	B1897 - BH2-22 (8' - 10')	B1898 - BH4-22 (4' - 6')	-
	Sample Date:	27-Jan-22	27-Jan-22	27-Jan-22	-
	Sample ID:	2205578-01	2205578-02	2205578-03	-
	MDL/Units	Soil	Soil	Soil	-
Terphenyl-d14	Surrogate	-	-	95.8%	-

Certificate of Analysis

Client: AEL Environment

Client PO:

Report Date: 03-Feb-2022

Order Date: 28-Jan-2022

Project Description: 11556-02

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	ND	7	ug/g						
F2 PHCs (C10-C16)	ND	4	ug/g						
F3 PHCs (C16-C34)	ND	8	ug/g						
F4 PHCs (C34-C50)	ND	6	ug/g						
Semi-Volatiles									
Acenaphthene	ND	0.02	ug/g						
Acenaphthylene	ND	0.02	ug/g						
Anthracene	ND	0.02	ug/g						
Benzo [a] anthracene	ND	0.02	ug/g						
Benzo [a] pyrene	ND	0.02	ug/g						
Benzo [b] fluoranthene	ND	0.02	ug/g						
Benzo [g,h,i] perylene	ND	0.02	ug/g						
Benzo [k] fluoranthene	ND	0.02	ug/g						
Chrysene	ND	0.02	ug/g						
Dibenzo [a,h] anthracene	ND	0.02	ug/g						
Fluoranthene	ND	0.02	ug/g						
Fluorene	ND	0.02	ug/g						
Indeno [1,2,3-cd] pyrene	ND	0.02	ug/g						
1-Methylnaphthalene	ND	0.02	ug/g						
2-Methylnaphthalene	ND	0.02	ug/g						
Methylnaphthalene (1&2)	ND	0.03	ug/g						
Naphthalene	ND	0.01	ug/g						
Phenanthrene	ND	0.02	ug/g						
Pyrene	ND	0.02	ug/g						
Surrogate: 2-Fluorobiphenyl	*0.151*		*ug/g*		*75.9*	*50-140*			
Surrogate: Terphenyl-d14	*0.186*		*ug/g*		*93.2*	*50-140*			
Volatiles									
Benzene	ND	0.02	ug/g						
Ethylbenzene	ND	0.05	ug/g						
Toluene	ND	0.05	ug/g						
m,p-Xylenes	ND	0.05	ug/g						
o-Xylene	ND	0.05	ug/g						
Xylenes, total	ND	0.05	ug/g						
Surrogate: Toluene-d8	*8.62*		*ug/g*		*108*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	ND	7	ug/g dry	ND			NC	40	
F2 PHCs (C10-C16)	ND	4	ug/g dry	ND			NC	30	
F3 PHCs (C16-C34)	136	8	ug/g dry	154			12.5	30	
F4 PHCs (C34-C50)	354	6	ug/g dry	413			15.4	30	
Physical Characteristics									
% Solids	92.4	0.1	% by Wt.	92.3			0.1	25	
Semi-Volatiles									
Acenaphthene	ND	0.02	ug/g dry	ND			NC	40	
Acenaphthylene	ND	0.02	ug/g dry	ND			NC	40	
Anthracene	ND	0.02	ug/g dry	ND			NC	40	
Benzo [a] anthracene	0.032	0.02	ug/g dry	ND			NC	40	
Benzo [a] pyrene	0.053	0.02	ug/g dry	ND			NC	40	
Benzo [b] fluoranthene	0.079	0.02	ug/g dry	0.030			NC	40	
Benzo [g,h,i] perylene	0.034	0.02	ug/g dry	ND			NC	40	
Benzo [k] fluoranthene	0.053	0.02	ug/g dry	ND			NC	40	
Chrysene	0.034	0.02	ug/g dry	ND			NC	40	
Dibenzo [a,h] anthracene	ND	0.02	ug/g dry	ND			NC	40	
Fluoranthene	0.051	0.02	ug/g dry	0.022			NC	40	
Fluorene	ND	0.02	ug/g dry	ND			NC	40	
Indeno [1,2,3-cd] pyrene	0.033	0.02	ug/g dry	ND			NC	40	
1-Methylnaphthalene	ND	0.02	ug/g dry	ND			NC	40	
2-Methylnaphthalene	ND	0.02	ug/g dry	ND			NC	40	
Naphthalene	ND	0.01	ug/g dry	ND			NC	40	
Phenanthrene	ND	0.02	ug/g dry	ND			NC	40	
Pyrene	0.047	0.02	ug/g dry	ND			NC	40	
Surrogate: 2-Fluorobiphenyl	*0.162*		*ug/g dry*		*73.3*	*50-140*			
Surrogate: Terphenyl-d14	*0.206*		*ug/g dry*		*92.7*	*50-140*			
Volatiles									
Benzene	ND	0.02	ug/g dry	ND			NC	50	
Ethylbenzene	ND	0.05	ug/g dry	ND			NC	50	
Toluene	ND	0.05	ug/g dry	ND			NC	50	
m,p-Xylenes	ND	0.05	ug/g dry	ND			NC	50	
o-Xylene	ND	0.05	ug/g dry	ND			NC	50	
Surrogate: Toluene-d8	*5.90*		*ug/g dry*		*109*	*50-140*			

Certificate of Analysis

Report Date: 03-Feb-2022

Client: AEL Environment

Order Date: 28-Jan-2022

Client PO:

Project Description: 11556-02

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	64	7	ug/g	ND	89.7	80-120			
F2 PHCs (C10-C16)	109	4	ug/g	ND	122	60-140			
F3 PHCs (C16-C34)	430	8	ug/g	154	137	60-140			
F4 PHCs (C34-C50)	131	6	ug/g	ND	98.3	80-120			
Semi-Volatiles									
Acenaphthene	0.129	0.02	ug/g	ND	116	50-140			
Acenaphthylene	0.123	0.02	ug/g	ND	111	50-140			
Anthracene	0.134	0.02	ug/g	ND	121	50-140			
Benzo [a] anthracene	0.169	0.02	ug/g	ND	152	50-140			QM-04
Benzo [a] pyrene	0.202	0.02	ug/g	ND	182	50-140			QM-04
Benzo [b] fluoranthene	0.174	0.02	ug/g	0.030	130	50-140			
Benzo [g,h,i] perylene	0.174	0.02	ug/g	ND	156	50-140			QM-04
Benzo [k] fluoranthene	0.130	0.02	ug/g	ND	117	50-140			
Chrysene	0.161	0.02	ug/g	ND	145	50-140			QM-04
Dibenzo [a,h] anthracene	0.145	0.02	ug/g	ND	131	50-140			
Fluoranthene	0.203	0.02	ug/g	0.022	164	50-140			QM-04
Fluorene	0.145	0.02	ug/g	ND	130	50-140			
Indeno [1,2,3-cd] pyrene	0.187	0.02	ug/g	ND	168	50-140			QM-04
1-Methylnaphthalene	0.129	0.02	ug/g	ND	116	50-140			
2-Methylnaphthalene	0.125	0.02	ug/g	ND	112	50-140			
Naphthalene	0.118	0.01	ug/g	ND	106	50-140			
Phenanthrene	0.155	0.02	ug/g	ND	139	50-140			
Pyrene	0.169	0.02	ug/g	ND	152	50-140			QM-04
Surrogate: 2-Fluorobiphenyl	*0.166*		*ug/g*		*75.1*	*50-140*			
Surrogate: Terphenyl-d14	*0.199*		*ug/g*		*89.8*	*50-140*			
Volatiles									
Benzene	39.7	0.02	ug/g	ND	98.9	60-130			
Ethylbenzene	38.6	0.05	ug/g	ND	96.1	60-130			
Toluene	38.2	0.05	ug/g	ND	95.4	60-130			
m,p-Xylenes	76.5	0.05	ug/g	ND	95.4	60-130			
o-Xylene	39.0	0.05	ug/g	ND	96.9	60-130			
Surrogate: Toluene-d8	*15.3*		*ug/g*		*95.8*	*50-140*			

Qualifier Notes:

QC Qualifiers :

QM-04 : Visual evaluation of the sample indicates the RPD is above the control limit due to a non-homogeneous sample matrix.

Sample Data Revisions

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable
ND: Not Detected
MDL: Method Detection Limit
Source Result: Data used as source for matrix and duplicate samples
%REC: Percent recovery.
RPD: Relative percent difference.
NC: Not Calculated

Soil results are reported on a dry weight basis when the units are denoted with 'dry'.
Where %Solids is reported, moisture loss includes the loss of volatile hydrocarbons.

CCME PHC additional information:

- The method for the analysis of PHCs complies with the Reference Method for the CWS PHC and is validated for use in the laboratory. All prescribed quality criteria identified in the method has been met.
- F1 range corrected for BTEX.
- F2 to F3 ranges corrected for appropriate PAHs where available.
- The gravimetric heavy hydrocarbons (F4G) are not to be added to C6 to C50 hydrocarbons.
- In the case where F4 and F4G are both reported, the greater of the two results is to be used for comparison to CWS PHC criteria.
- When reported, data for F4G has been processed using a silica gel cleanup.

PARACE LABORATORIES LT

Paracel ID: 2205578

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Paracel Order Number (Lab Use Only)	Chain Of Custody (Lab Use Only)
2205578	№ 134513

Client Name: AEL Environment	Project Ref: 11556-CZ	Page 1 of 1
Contact Name: Erin Hunt (Project Manager)	Quote #:	**Turnaround Time**
Address: Unit 3, 1705 Argentia Road, Mississauga, ON	PO #:	☐ 1 day ☐ 3 day
	E-mail: lab@aclenv.com	☐ 2 day ☑ Regular
Telephone:		Date Required:

☑ REG 153/04 ☐ REG 406/19

☐ Table 1 ☐ Res/Park ☐ Med/Fine
☐ Table 2 ☐ Ind/Comm ☐ Coarse
☑ Table 3 ☐ Agri/Other
☐ Table ___
For RSC: ☑ Yes ☐ No

Other Regulation

☐ REG 558 ☐ PWQO
☐ CCME ☐ MISA
☐ SU - Sani ☐ SU - Storm
Mun: ___
☐ Other:

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken Date	Sample Taken Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)
1	B1896 - BH2-22 (4'-6')	S		2	Jan27,2022	10:00 AM	✓						
2	B1897 - BH2-22 (8'-10')	S		2	Jan27,2022	10:30 AM	✓						
3	B1898 - BH4-22 (4'-6')	S		3	Jan27,2022	11:55 AM	✓		✓				
4													
5													
6													
7													
8													
9													
10													

Comments:

Method of Delivery: DROP BOX

Relinquished By (Sign):	Received By Driver/Depot: KR	Received at Lab:	Verified By: BB
Relinquished By (Print): John Stephen	Date/Time: Jan 28/22 1621	Date/Time: Jan 31/22 11:16	Date/Time: Jan31/21 11:20 am
Date/Time: Jan 28, 2022 4:00PM	Temperature: 9.1 °C	Temperature: 4.2 °C	pH Verified: ☐ By: N/A

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Certificate of Analysis

AEL Environment
1705 Argentia Road, Unit 3
Mississauga, ON L5N 3A9
Attn: Erin Hunt

Client PO:
Project: 11556-03
Custody: 134514

Report Date: 22-Mar-2022
Order Date: 16-Mar-2022

Order #: 2212310

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
2212310-01	B1971- MW9/22 (3'-5')
2212310-02	B1972- MW9/22 (7'-9'6")
2212310-03	B1973- MW9/22 (7'-9'6")
2212310-04	B1974- MW6/22 (2'-5')
2212310-05	B1975- MW6/22 (3'-5')
2212310-06	B1976- MW1/22 (3'-5')
2212310-07	B1977- MW3/22 (2'-5')
2212310-08	B1978- MW8/22 (5'-8')

Approved By:

Dale Robertson, BSc
Laboratory Director

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Boron, available	MOE (HWE), EPA 200.8 - ICP-MS	18-Mar-22	18-Mar-22
BTEX by P&T GC-MS	EPA 8260 - P&T GC-MS	17-Mar-22	17-Mar-22
Chromium, hexavalent - soil	MOE E3056 - Extraction, colourimetric	18-Mar-22	21-Mar-22
Conductivity	MOE E3138 - probe @25 °C, water ext	18-Mar-22	18-Mar-22
Cyanide, free	MOE E3015 - Auto Colour, water extraction	21-Mar-22	21-Mar-22
Mercury by CVAA	EPA 7471B - CVAA, digestion	21-Mar-22	21-Mar-22
PCBs, total	SW846 8082A - GC-ECD	17-Mar-22	18-Mar-22
pH, soil	EPA 150.1 - pH probe @ 25 °C, CaCl buffered ext.	16-Mar-22	18-Mar-22
PHC F1	CWS Tier 1 - P&T GC-FID	17-Mar-22	17-Mar-22
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	17-Mar-22	18-Mar-22
REG 153: Metals by ICP/MS, soil	EPA 6020 - Digestion - ICP-MS	18-Mar-22	18-Mar-22
REG 153: PAHs by GC-MS	EPA 8270 - GC-MS, extraction	17-Mar-22	18-Mar-22
REG 153: VOCs by P&T GC/MS	EPA 8260 - P&T GC-MS	17-Mar-22	17-Mar-22
SAR	Calculated	18-Mar-22	18-Mar-22
Solids, %	Gravimetric, calculation	17-Mar-22	17-Mar-22
Texture - Coarse Med/Fine	Based on ASTM D2487	17-Mar-22	18-Mar-22

Summary of Criteria Exceedances

(If this page is blank then there are no exceedances)

Only those criteria that a sample exceeds will be highlighted in red

Regulatory Comparison:

Paracel Laboratories has provided regulatory guidelines on this report for informational purposes only and makes no representations or warranties that the data is accurate or reflects the current regulatory values. The user is advised to consult with the appropriate official regulations to evaluate compliance. Sample results that are highlighted have exceeded the selected regulatory limit. Calculated uncertainty estimations have not been applied for determining regulatory exceedances.

Sample	Analyte	MDL / Units	Result	Reg 153/04 -T3 Ind/Com, fine	Reg 153/04 -T3 Ind/Com, coarse
B1974- MW6/22 (2'-5')	Conductivity	5 uS/cm	1700	1.4 mS/cm	1.4 mS/cm

PARACEL LABORATORIES LTD.

Order #: 2212310

Certificate of Analysis

Report Date: 22-Mar-2022

Client: **AEL Environment**

Order Date: 16-Mar-2022

Client PO:

Project Description: 11556-03

	Client ID:	B1971- MW9/22 (3'-5')	B1972- MW9/22 (7'-9'6")	B1973- MW9/22 (7'-9'6")	B1974- MW6/22 (2'-5')	Criteria:	
	Sample Date:	15-Mar-22 13:45	15-Mar-22 14:05	15-Mar-22 14:05	16-Mar-22 09:45	Reg 153/04 -T3 Ind/Com, fine	Reg 153/04 -T3 Ind/Com, coarse
	Sample ID:	2212310-01	2212310-02	2212310-03	2212310-04		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	84.1	83.4	81.2	84.2	-	-
General Inorganics							
SAR	0.01 N/A	1.08	0.26	0.29	11.6	12 N/A	12 N/A
Conductivity	5 uS/cm	397	384	300	1700	1.4 mS/cm	1.4 mS/cm
Cyanide, free	0.03 ug/g	<0.03	<0.03	<0.03	<0.03	0.051 ug/g	0.051 ug/g
pH	0.05 pH Units	7.05	7.57	7.46	7.76	5.00 - 9.00 pH Units	5.00 - 9.00 pH Units
Metals							
Antimony	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	50 ug/g	40 ug/g
Arsenic	1.0 ug/g	2.1	3.4	3.8	6.7	18 ug/g	18 ug/g
Barium	1.0 ug/g	99.7	111	112	140	670 ug/g	670 ug/g
Beryllium	0.5 ug/g	<0.5	0.6	0.5	0.9	10 ug/g	8 ug/g
Boron, available	0.5 ug/g	<0.5	<0.5	<0.5	<0.5	2 ug/g	2 ug/g
Boron	5.0 ug/g	<5.0	6.1	6.1	6.6	120 ug/g	120 ug/g
Cadmium	0.5 ug/g	<0.5	<0.5	<0.5	<0.5	1.9 ug/g	1.9 ug/g
Chromium	5.0 ug/g	31.8	22.7	23.9	29.4	160 ug/g	160 ug/g
Chromium (VI)	0.2 ug/g	<0.2	<0.2	<0.2	<0.2	10 ug/g	8 ug/g
Cobalt	1.0 ug/g	8.5	8.7	8.8	12.5	100 ug/g	80 ug/g
Copper	5.0 ug/g	8.7	20.0	21.0	26.5	300 ug/g	230 ug/g
Lead	1.0 ug/g	5.0	6.3	6.0	5.5	120 ug/g	120 ug/g
Mercury	0.1 ug/g	<0.1	<0.1	<0.1	<0.1	20 ug/g	3.9 ug/g
Molybdenum	1.0 ug/g	<1.0	1.3	1.5	1.0	40 ug/g	40 ug/g
Nickel	5.0 ug/g	19.1	21.1	21.4	28.2	340 ug/g	270 ug/g
Selenium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	5.5 ug/g	5.5 ug/g
Silver	0.3 ug/g	<0.3	<0.3	<0.3	<0.3	50 ug/g	40 ug/g

Certificate of Analysis

Report Date: 22-Mar-2022

Client: **AEL Environment**

Order Date: 16-Mar-2022

Client PO:

Project Description: 11556-03

	Client ID:	B1971- MW9/22 (3'-5')	B1972- MW9/22 (7'-9'6")	B1973- MW9/22 (7'-9'6")	B1974- MW6/22 (2'-5')	Criteria:	
	Sample Date:	15-Mar-22 13:45	15-Mar-22 14:05	15-Mar-22 14:05	16-Mar-22 09:45	Reg 153/04 -T3 Ind/Com, fine	Reg 153/04 -T3 Ind/Com, coarse
	Sample ID:	2212310-01	2212310-02	2212310-03	2212310-04		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Metals							
Thallium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	3.3 ug/g	3.3 ug/g
Uranium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	33 ug/g	33 ug/g
Vanadium	10.0 ug/g	33.2	32.8	33.4	34.7	86 ug/g	86 ug/g
Zinc	20.0 ug/g	43.3	40.7	41.8	52.5	340 ug/g	340 ug/g
Volatiles							
Acetone	0.50 ug/g	<0.50	<0.50	<0.50	<0.50	28 ug/g	16 ug/g
Benzene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.4 ug/g	0.32 ug/g
Bromodichloromethane	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	18 ug/g	18 ug/g
Bromoform	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	1.7 ug/g	0.61 ug/g
Bromomethane	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	0.05 ug/g	0.05 ug/g
Carbon Tetrachloride	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	1.5 ug/g	0.21 ug/g
Chlorobenzene	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	2.7 ug/g	2.4 ug/g
Chloroform	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	0.18 ug/g	0.47 ug/g
Dibromochloromethane	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	13 ug/g	13 ug/g
Dichlorodifluoromethane	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	25 ug/g	16 ug/g
1,2-Dichlorobenzene	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	8.5 ug/g	6.8 ug/g
1,3-Dichlorobenzene	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	12 ug/g	9.6 ug/g
1,4-Dichlorobenzene	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	0.84 ug/g	0.2 ug/g
1,1-Dichloroethane	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	21 ug/g	17 ug/g
1,2-Dichloroethane	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	0.05 ug/g	0.05 ug/g
1,1-Dichloroethylene	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	0.48 ug/g	0.064 ug/g
cis-1,2-Dichloroethylene	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	37 ug/g	55 ug/g
trans-1,2-Dichloroethylene	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	9.3 ug/g	1.3 ug/g
1,2-Dichloropropane	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	0.68 ug/g	0.16 ug/g

	Client ID:	B1971- MW9/22 (3'-5')	B1972- MW9/22 (7'-9'6")	B1973- MW9/22 (7'-9'6")	B1974- MW6/22 (2'-5')	Criteria:	
	Sample Date:	15-Mar-22 13:45	15-Mar-22 14:05	15-Mar-22 14:05	16-Mar-22 09:45	Reg 153/04 -T3 Ind/Com, fine	Reg 153/04 -T3 Ind/Com, coarse
	Sample ID:	2212310-01	2212310-02	2212310-03	2212310-04		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Volatiles							
cis-1,3-Dichloropropylene	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	-	-
trans-1,3-Dichloropropylene	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	-	-
1,3-Dichloropropene, total	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	0.21 ug/g	0.18 ug/g
Ethylbenzene	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	19 ug/g	9.5 ug/g
Ethylene dibromide (dibromoethane,	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	0.05 ug/g	0.05 ug/g
Hexane	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	88 ug/g	46 ug/g
Methyl Ethyl Ketone (2-Butanone)	0.50 ug/g	<0.50	<0.50	<0.50	<0.50	88 ug/g	70 ug/g
Methyl Isobutyl Ketone	0.50 ug/g	<0.50	<0.50	<0.50	<0.50	210 ug/g	31 ug/g
Methyl tert-butyl ether	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	3.2 ug/g	11 ug/g
Methylene Chloride	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	2 ug/g	1.6 ug/g
Styrene	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	43 ug/g	34 ug/g
1,1,1,2-Tetrachloroethane	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	0.11 ug/g	0.087 ug/g
1,1,2,2-Tetrachloroethane	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	0.094 ug/g	0.05 ug/g
Tetrachloroethylene	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	21 ug/g	4.5 ug/g
Toluene	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	78 ug/g	68 ug/g
1,1,1-Trichloroethane	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	12 ug/g	6.1 ug/g
1,1,2-Trichloroethane	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	0.11 ug/g	0.05 ug/g
Trichloroethylene	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	0.61 ug/g	0.91 ug/g
Trichlorofluoromethane	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	5.8 ug/g	4 ug/g
Vinyl chloride	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.25 ug/g	0.032 ug/g
m,p-Xylenes	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	-	-
o-Xylene	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	-	-
Xylenes, total	0.05 ug/g	<0.05	<0.05	<0.05	<0.05	30 ug/g	26 ug/g
4-Bromofluorobenzene	Surrogate	122%	125%	127%	121%	-	-

	Client ID:	B1971- MW9/22 (3'-5')	B1972- MW9/22 (7'-9'6")	B1973- MW9/22 (7'-9'6")	B1974- MW6/22 (2'-5')	Criteria:	
	Sample Date:	15-Mar-22 13:45	15-Mar-22 14:05	15-Mar-22 14:05	16-Mar-22 09:45	Reg 153/04 -T3 Ind/Com, fine	Reg 153/04 -T3 Ind/Com, coarse
	Sample ID:	2212310-01	2212310-02	2212310-03	2212310-04		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Volatiles							
Toluene-d8	Surrogate	113%	115%	117%	112%	-	-
Dibromofluoromethane	Surrogate	103%	104%	105%	100%	-	-
Hydrocarbons							
F1 PHCs (C6-C10)	7 ug/g	<7	<7	<7	<7	65 ug/g	55 ug/g
F2 PHCs (C10-C16)	4 ug/g	<4	11	16	<4	250 ug/g	230 ug/g
F3 PHCs (C16-C34)	8 ug/g	<8	10	14	19	2500 ug/g	1700 ug/g
F4 PHCs (C34-C50)	6 ug/g	<6	<6	<6	27	6600 ug/g	3300 ug/g
Semi-Volatiles							
Acenaphthene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	96 ug/g	96 ug/g
Acenaphthylene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.17 ug/g	0.15 ug/g
Anthracene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.74 ug/g	0.67 ug/g
Benzo [a] anthracene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.96 ug/g	0.96 ug/g
Benzo [a] pyrene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.3 ug/g	0.3 ug/g
Benzo [b] fluoranthene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.96 ug/g	0.96 ug/g
Benzo [g,h,i] perylene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	9.6 ug/g	9.6 ug/g
Benzo [k] fluoranthene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.96 ug/g	0.96 ug/g
Chrysene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	9.6 ug/g	9.6 ug/g
Dibenzo [a,h] anthracene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.1 ug/g	0.1 ug/g
Fluoranthene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	9.6 ug/g	9.6 ug/g
Fluorene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	69 ug/g	62 ug/g
Indeno [1,2,3-cd] pyrene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.95 ug/g	0.76 ug/g
1-Methylnaphthalene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	85 ug/g	76 ug/g
2-Methylnaphthalene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	85 ug/g	76 ug/g
Methylnaphthalene (1&2)	0.04 ug/g	<0.04	<0.04	<0.04	<0.04	85 ug/g	76 ug/g
Naphthalene	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	28 ug/g	9.6 ug/g

Certificate of Analysis

Report Date: 22-Mar-2022

Client: **AEL Environment**

Order Date: 16-Mar-2022

Client PO:

Project Description: 11556-03

	Client ID:	B1971- MW9/22 (3'-5')	B1972- MW9/22 (7'-9'6")	B1973- MW9/22 (7'-9'6")	B1974- MW6/22 (2'-5')	Criteria:	
	Sample Date:	15-Mar-22 13:45	15-Mar-22 14:05	15-Mar-22 14:05	16-Mar-22 09:45	Reg 153/04 -T3 Ind/Com, fine	Reg 153/04 -T3 Ind/Com, coarse
	Sample ID:	2212310-01	2212310-02	2212310-03	2212310-04		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Semi-Volatiles							
Phenanthrene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	16 ug/g	12 ug/g
Pyrene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	96 ug/g	96 ug/g
2-Fluorobiphenyl	Surrogate	69.2%	99.6%	81.1%	64.7%	-	-
Terphenyl-d14	Surrogate	84.7%	116%	104%	81.3%	-	-

PARACEL LABORATORIES LTD.

Order #: 2212310

Certificate of Analysis

Report Date: 22-Mar-2022

Client: AEL Environment

Order Date: 16-Mar-2022

Client PO:

Project Description: 11556-03

	Client ID:	B1975- MW6/22 (3'-5')	B1976- MW1/22 (3'-5')	B1977- MW3/22 (2'-5')	B1978- MW8/22 (5'-8')	Criteria:	
	Sample Date:	16-Mar-22 09:45	16-Mar-22 11:05	16-Mar-22 13:00	16-Mar-22 14:43	Reg 153/04 -T3 Ind/Com, fine	Reg 153/04 -T3 Ind/Com, coarse
	Sample ID:	2212310-05	2212310-06	2212310-07	2212310-08		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	88.4	87.5	83.3	82.4	-	-
>75 um	0.1 %	44.9	46.0	35.7	23.8	-	-
<75 um	0.1 %	55.1	54.0	64.3	76.2	-	-
Texture	0.1 %	Med/Fine	Med/Fine	Med/Fine	Med/Fine	-	-
General Inorganics							
SAR	0.01 N/A	-	3.98	-	0.58	12 N/A	12 N/A
Conductivity	5 uS/cm	-	695	-	215	1.4 mS/cm	1.4 mS/cm
Cyanide, free	0.03 ug/g	-	<0.03	-	<0.03	0.051 ug/g	0.051 ug/g
pH	0.05 pH Units	-	7.74	-	7.38	5.00 - 9.00 pH Units	5.00 - 9.00 pH Units
Metals							
Antimony	1.0 ug/g	-	<1.0	-	<1.0	50 ug/g	40 ug/g
Arsenic	1.0 ug/g	-	6.3	-	3.9	18 ug/g	18 ug/g
Barium	1.0 ug/g	-	146	-	102	670 ug/g	670 ug/g
Beryllium	0.5 ug/g	-	0.7	-	0.6	10 ug/g	8 ug/g
Boron, available	0.5 ug/g	-	<0.5	-	<0.5	2 ug/g	2 ug/g
Boron	5.0 ug/g	-	7.8	-	5.5	120 ug/g	120 ug/g
Cadmium	0.5 ug/g	-	<0.5	-	<0.5	1.9 ug/g	1.9 ug/g
Chromium (VI)	0.2 ug/g	-	<0.2	-	<0.2	10 ug/g	8 ug/g
Chromium	5.0 ug/g	-	29.2	-	27.9	160 ug/g	160 ug/g
Cobalt	1.0 ug/g	-	11.1	-	11.1	100 ug/g	80 ug/g
Copper	5.0 ug/g	-	29.0	-	25.4	300 ug/g	230 ug/g
Lead	1.0 ug/g	-	8.6	-	8.1	120 ug/g	120 ug/g
Mercury	0.1 ug/g	-	<0.1	-	<0.1	20 ug/g	3.9 ug/g
Molybdenum	1.0 ug/g	-	4.1	-	1.0	40 ug/g	40 ug/g

Certificate of Analysis

Report Date: 22-Mar-2022

Client: **AEL Environment**

Order Date: 16-Mar-2022

Client PO:

Project Description: 11556-03

	Client ID:	B1975- MW6/22 (3'-5')	B1976- MW1/22 (3'-5')	B1977- MW3/22 (2'-5')	B1978- MW8/22 (5'-8')	Criteria:	
	Sample Date:	16-Mar-22 09:45	16-Mar-22 11:05	16-Mar-22 13:00	16-Mar-22 14:43	Reg 153/04 -T3 Ind/Com, fine	Reg 153/04 -T3 Ind/Com, coarse
	Sample ID:	2212310-05	2212310-06	2212310-07	2212310-08		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Metals							
Nickel	5.0 ug/g	-	28.9	-	28.1	340 ug/g	270 ug/g
Selenium	1.0 ug/g	-	<1.0	-	<1.0	5.5 ug/g	5.5 ug/g
Silver	0.3 ug/g	-	<0.3	-	<0.3	50 ug/g	40 ug/g
Thallium	1.0 ug/g	-	<1.0	-	<1.0	3.3 ug/g	3.3 ug/g
Uranium	1.0 ug/g	-	<1.0	-	<1.0	33 ug/g	33 ug/g
Vanadium	10.0 ug/g	-	27.6	-	36.3	86 ug/g	86 ug/g
Zinc	20.0 ug/g	-	49.4	-	55.3	340 ug/g	340 ug/g
Volatiles							
Acetone	0.50 ug/g	-	<0.50	-	<0.50	28 ug/g	16 ug/g
Benzene	0.02 ug/g	-	<0.02	-	<0.02	0.4 ug/g	0.32 ug/g
Bromodichloromethane	0.05 ug/g	-	<0.05	-	<0.05	18 ug/g	18 ug/g
Bromoform	0.05 ug/g	-	<0.05	-	<0.05	1.7 ug/g	0.61 ug/g
Bromomethane	0.05 ug/g	-	<0.05	-	<0.05	0.05 ug/g	0.05 ug/g
Carbon Tetrachloride	0.05 ug/g	-	<0.05	-	<0.05	1.5 ug/g	0.21 ug/g
Chlorobenzene	0.05 ug/g	-	<0.05	-	<0.05	2.7 ug/g	2.4 ug/g
Chloroform	0.05 ug/g	-	<0.05	-	<0.05	0.18 ug/g	0.47 ug/g
Dibromochloromethane	0.05 ug/g	-	<0.05	-	<0.05	13 ug/g	13 ug/g
Dichlorodifluoromethane	0.05 ug/g	-	<0.05	-	<0.05	25 ug/g	16 ug/g
1,2-Dichlorobenzene	0.05 ug/g	-	<0.05	-	<0.05	8.5 ug/g	6.8 ug/g
1,3-Dichlorobenzene	0.05 ug/g	-	<0.05	-	<0.05	12 ug/g	9.6 ug/g
1,4-Dichlorobenzene	0.05 ug/g	-	<0.05	-	<0.05	0.84 ug/g	0.2 ug/g
1,1-Dichloroethane	0.05 ug/g	-	<0.05	-	<0.05	21 ug/g	17 ug/g
1,2-Dichloroethane	0.05 ug/g	-	<0.05	-	<0.05	0.05 ug/g	0.05 ug/g
1,1-Dichloroethylene	0.05 ug/g	-	<0.05	-	<0.05	0.48 ug/g	0.064 ug/g

	Client ID:	B1975- MW6/22 (3'-5')	B1976- MW1/22 (3'-5')	B1977- MW3/22 (2'-5')	B1978- MW8/22 (5'-8')	Criteria:	
	Sample Date:	16-Mar-22 09:45	16-Mar-22 11:05	16-Mar-22 13:00	16-Mar-22 14:43	Reg 153/04 -T3 Ind/Com, fine	Reg 153/04 -T3 Ind/Com, coarse
	Sample ID:	2212310-05	2212310-06	2212310-07	2212310-08		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Volatiles							
cis-1,2-Dichloroethylene	0.05 ug/g	-	<0.05	-	<0.05	37 ug/g	55 ug/g
trans-1,2-Dichloroethylene	0.05 ug/g	-	<0.05	-	<0.05	9.3 ug/g	1.3 ug/g
1,2-Dichloropropane	0.05 ug/g	-	<0.05	-	<0.05	0.68 ug/g	0.16 ug/g
cis-1,3-Dichloropropylene	0.05 ug/g	-	<0.05	-	<0.05	-	-
trans-1,3-Dichloropropylene	0.05 ug/g	-	<0.05	-	<0.05	-	-
1,3-Dichloropropene, total	0.05 ug/g	-	<0.05	-	<0.05	0.21 ug/g	0.18 ug/g
Ethylbenzene	0.05 ug/g	-	<0.05	-	<0.05	19 ug/g	9.5 ug/g
Ethylene dibromide (dibromoethane,	0.05 ug/g	-	<0.05	-	<0.05	0.05 ug/g	0.05 ug/g
Hexane	0.05 ug/g	-	<0.05	-	<0.05	88 ug/g	46 ug/g
Methyl Ethyl Ketone (2-Butanone)	0.50 ug/g	-	<0.50	-	<0.50	88 ug/g	70 ug/g
Methyl Isobutyl Ketone	0.50 ug/g	-	<0.50	-	<0.50	210 ug/g	31 ug/g
Methyl tert-butyl ether	0.05 ug/g	-	<0.05	-	<0.05	3.2 ug/g	11 ug/g
Methylene Chloride	0.05 ug/g	-	<0.05	-	<0.05	2 ug/g	1.6 ug/g
Styrene	0.05 ug/g	-	<0.05	-	<0.05	43 ug/g	34 ug/g
1,1,1,2-Tetrachloroethane	0.05 ug/g	-	<0.05	-	<0.05	0.11 ug/g	0.087 ug/g
1,1,2,2-Tetrachloroethane	0.05 ug/g	-	<0.05	-	<0.05	0.094 ug/g	0.05 ug/g
Tetrachloroethylene	0.05 ug/g	-	<0.05	-	<0.05	21 ug/g	4.5 ug/g
Toluene	0.05 ug/g	-	<0.05	-	<0.05	78 ug/g	68 ug/g
1,1,1-Trichloroethane	0.05 ug/g	-	<0.05	-	<0.05	12 ug/g	6.1 ug/g
1,1,2-Trichloroethane	0.05 ug/g	-	<0.05	-	<0.05	0.11 ug/g	0.05 ug/g
Trichloroethylene	0.05 ug/g	-	<0.05	-	<0.05	0.61 ug/g	0.91 ug/g
Trichlorofluoromethane	0.05 ug/g	-	<0.05	-	<0.05	5.8 ug/g	4 ug/g
Vinyl chloride	0.02 ug/g	-	<0.02	-	<0.02	0.25 ug/g	0.032 ug/g
m,p-Xylenes	0.05 ug/g	-	<0.05	-	<0.05	-	-

Certificate of Analysis

Report Date: 22-Mar-2022

Client: AEL Environment

Order Date: 16-Mar-2022

Client PO:

Project Description: 11556-03

	Client ID:	B1975- MW6/22 (3'-5')	B1976- MW1/22 (3'-5')	B1977- MW3/22 (2'-5')	B1978- MW8/22 (5'-8')	Criteria:	
	Sample Date:	16-Mar-22 09:45	16-Mar-22 11:05	16-Mar-22 13:00	16-Mar-22 14:43	Reg 153/04 -T3 Ind/Com, fine	Reg 153/04 -T3 Ind/Com, coarse
	Sample ID:	2212310-05	2212310-06	2212310-07	2212310-08		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Volatiles							
o-Xylene	0.05 ug/g	-	<0.05	-	<0.05	-	-
Xylenes, total	0.05 ug/g	-	<0.05	-	<0.05	30 ug/g	26 ug/g
Toluene-d8	Surrogate	-	110%	-	114%	-	-
4-Bromofluorobenzene	Surrogate	-	118%	-	118%	-	-
Dibromofluoromethane	Surrogate	-	99.5%	-	102%	-	-
Benzene	0.02 ug/g	-	-	<0.02	-	0.4 ug/g	0.32 ug/g
Ethylbenzene	0.05 ug/g	-	-	<0.05	-	19 ug/g	9.5 ug/g
Toluene	0.05 ug/g	-	-	<0.05	-	78 ug/g	68 ug/g
m,p-Xylenes	0.05 ug/g	-	-	<0.05	-	-	-
o-Xylene	0.05 ug/g	-	-	<0.05	-	-	-
Xylenes, total	0.05 ug/g	-	-	<0.05	-	30 ug/g	26 ug/g
Toluene-d8	Surrogate	-	-	113%	-	-	-
Hydrocarbons							
F1 PHCs (C6-C10)	7 ug/g	-	<7	<7	<7	65 ug/g	55 ug/g
F2 PHCs (C10-C16)	4 ug/g	-	11	<4	<4	250 ug/g	230 ug/g
F3 PHCs (C16-C34)	8 ug/g	-	15	<8	<8	2500 ug/g	1700 ug/g
F4 PHCs (C34-C50)	6 ug/g	-	<6	<6	<6	6600 ug/g	3300 ug/g
Semi-Volatiles							
Acenaphthene	0.02 ug/g	-	<0.02	<0.02	<0.02	96 ug/g	96 ug/g
Acenaphthylene	0.02 ug/g	-	<0.02	<0.02	<0.02	0.17 ug/g	0.15 ug/g
Anthracene	0.02 ug/g	-	<0.02	<0.02	<0.02	0.74 ug/g	0.67 ug/g
Benzo [a] anthracene	0.02 ug/g	-	<0.02	<0.02	<0.02	0.96 ug/g	0.96 ug/g
Benzo [a] pyrene	0.02 ug/g	-	<0.02	<0.02	<0.02	0.3 ug/g	0.3 ug/g
Benzo [b] fluoranthene	0.02 ug/g	-	<0.02	<0.02	<0.02	0.96 ug/g	0.96 ug/g
Benzo [g,h,i] perylene	0.02 ug/g	-	<0.02	<0.02	<0.02	9.6 ug/g	9.6 ug/g

	Client ID:	B1975- MW6/22 (3'-5')	B1976- MW1/22 (3'-5')	B1977- MW3/22 (2'-5')	B1978- MW8/22 (5'-8')	Criteria:	
	Sample Date:	16-Mar-22 09:45	16-Mar-22 11:05	16-Mar-22 13:00	16-Mar-22 14:43	Reg 153/04 -T3 Ind/Com, fine	Reg 153/04 -T3 Ind/Com, coarse
	Sample ID:	2212310-05	2212310-06	2212310-07	2212310-08		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Semi-Volatiles							
Benzo [k] fluoranthene	0.02 ug/g	-	<0.02	<0.02	<0.02	0.96 ug/g	0.96 ug/g
Chrysene	0.02 ug/g	-	<0.02	<0.02	<0.02	9.6 ug/g	9.6 ug/g
Dibenzo [a,h] anthracene	0.02 ug/g	-	<0.02	<0.02	<0.02	0.1 ug/g	0.1 ug/g
Fluoranthene	0.02 ug/g	-	<0.02	<0.02	<0.02	9.6 ug/g	9.6 ug/g
Fluorene	0.02 ug/g	-	<0.02	<0.02	<0.02	69 ug/g	62 ug/g
Indeno [1,2,3-cd] pyrene	0.02 ug/g	-	<0.02	<0.02	<0.02	0.95 ug/g	0.76 ug/g
1-Methylnaphthalene	0.02 ug/g	-	<0.02	<0.02	<0.02	85 ug/g	76 ug/g
2-Methylnaphthalene	0.02 ug/g	-	<0.02	<0.02	<0.02	85 ug/g	76 ug/g
Methylnaphthalene (1&2)	0.04 ug/g	-	<0.04	<0.04	<0.04	85 ug/g	76 ug/g
Naphthalene	0.01 ug/g	-	<0.01	<0.01	<0.01	28 ug/g	9.6 ug/g
Phenanthrene	0.02 ug/g	-	<0.02	<0.02	<0.02	16 ug/g	12 ug/g
Pyrene	0.02 ug/g	-	<0.02	<0.02	<0.02	96 ug/g	96 ug/g
2-Fluorobiphenyl	Surrogate	-	70.4%	71.8%	69.0%	-	-
Terphenyl-d14	Surrogate	-	89.5%	102%	88.2%	-	-
PCBs							
PCBs, total	0.05 ug/g	-	<0.05	-	-	1.1 ug/g	1.1 ug/g
Decachlorobiphenyl	Surrogate	-	110%	-	-	-	-

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
General Inorganics								
Conductivity	ND	5	uS/cm					
Cyanide, free	ND	0.03	ug/g					
Hydrocarbons								
F1 PHCs (C6-C10)	ND	7	ug/g					
F2 PHCs (C10-C16)	ND	4	ug/g					
F3 PHCs (C16-C34)	ND	8	ug/g					
F4 PHCs (C34-C50)	ND	6	ug/g					
Metals								
Antimony	ND	1.0	ug/g					
Arsenic	ND	1.0	ug/g					
Barium	ND	1.0	ug/g					
Beryllium	ND	0.5	ug/g					
Boron, available	ND	0.5	ug/g					
Boron	ND	5.0	ug/g					
Cadmium	ND	0.5	ug/g					
Chromium (VI)	ND	0.2	ug/g					
Chromium	ND	5.0	ug/g					
Cobalt	ND	1.0	ug/g					
Copper	ND	5.0	ug/g					
Lead	ND	1.0	ug/g					
Mercury	ND	0.1	ug/g					
Molybdenum	ND	1.0	ug/g					
Nickel	ND	5.0	ug/g					
Selenium	ND	1.0	ug/g					
Silver	ND	0.3	ug/g					
Thallium	ND	1.0	ug/g					
Uranium	ND	1.0	ug/g					
Vanadium	ND	10.0	ug/g					
Zinc	ND	20.0	ug/g					
PCBs								
PCBs, total	ND	0.05	ug/g					
Surrogate: Decachlorobiphenyl	*0.114*		*ug/g*	*114*	*60-140*			

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Semi-Volatiles								
Acenaphthene	ND	0.02	ug/g					
Acenaphthylene	ND	0.02	ug/g					
Anthracene	ND	0.02	ug/g					
Benzo [a] anthracene	ND	0.02	ug/g					
Benzo [a] pyrene	ND	0.02	ug/g					
Benzo [b] fluoranthene	ND	0.02	ug/g					
Benzo [g,h,i] perylene	ND	0.02	ug/g					
Benzo [k] fluoranthene	ND	0.02	ug/g					
Chrysene	ND	0.02	ug/g					
Dibenzo [a,h] anthracene	ND	0.02	ug/g					
Fluoranthene	ND	0.02	ug/g					
Fluorene	ND	0.02	ug/g					
Indeno [1,2,3-cd] pyrene	ND	0.02	ug/g					
1-Methylnaphthalene	ND	0.02	ug/g					
2-Methylnaphthalene	ND	0.02	ug/g					
Methylnaphthalene (1&2)	ND	0.04	ug/g					
Naphthalene	ND	0.01	ug/g					
Phenanthrene	ND	0.02	ug/g					
Pyrene	ND	0.02	ug/g					
Surrogate: 2-Fluorobiphenyl	*1.20*		*ug/g*	*89.9*	*50-140*			
Surrogate: Terphenyl-d14	*1.42*		*ug/g*	*106*	*50-140*			
Volatiles								
Acetone	ND	0.50	ug/g					
Benzene	ND	0.02	ug/g					
Bromodichloromethane	ND	0.05	ug/g					
Bromoform	ND	0.05	ug/g					
Bromomethane	ND	0.05	ug/g					
Carbon Tetrachloride	ND	0.05	ug/g					
Chlorobenzene	ND	0.05	ug/g					
Chloroform	ND	0.05	ug/g					
Dibromochloromethane	ND	0.05	ug/g					

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Dichlorodifluoromethane	ND	0.05	ug/g					
1,2-Dichlorobenzene	ND	0.05	ug/g					
1,3-Dichlorobenzene	ND	0.05	ug/g					
1,4-Dichlorobenzene	ND	0.05	ug/g					
1,1-Dichloroethane	ND	0.05	ug/g					
1,2-Dichloroethane	ND	0.05	ug/g					
1,1-Dichloroethylene	ND	0.05	ug/g					
cis-1,2-Dichloroethylene	ND	0.05	ug/g					
trans-1,2-Dichloroethylene	ND	0.05	ug/g					
1,2-Dichloropropane	ND	0.05	ug/g					
cis-1,3-Dichloropropylene	ND	0.05	ug/g					
trans-1,3-Dichloropropylene	ND	0.05	ug/g					
1,3-Dichloropropene, total	ND	0.05	ug/g					
Ethylbenzene	ND	0.05	ug/g					
Ethylene dibromide (dibromoethane, 1,2-)	ND	0.05	ug/g					
Hexane	ND	0.05	ug/g					
Methyl Ethyl Ketone (2-Butanone)	ND	0.50	ug/g					
Methyl Isobutyl Ketone	ND	0.50	ug/g					
Methyl tert-butyl ether	ND	0.05	ug/g					
Methylene Chloride	ND	0.05	ug/g					
Styrene	ND	0.05	ug/g					
1,1,1,2-Tetrachloroethane	ND	0.05	ug/g					
1,1,2,2-Tetrachloroethane	ND	0.05	ug/g					
Tetrachloroethylene	ND	0.05	ug/g					
Toluene	ND	0.05	ug/g					
1,1,1-Trichloroethane	ND	0.05	ug/g					
1,1,2-Trichloroethane	ND	0.05	ug/g					
Trichloroethylene	ND	0.05	ug/g					
Trichlorofluoromethane	ND	0.05	ug/g					
Vinyl chloride	ND	0.02	ug/g					
m,p-Xylenes	ND	0.05	ug/g					
o-Xylene	ND	0.05	ug/g					
Xylenes, total	ND	0.05	ug/g					

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Surrogate: 4-Bromofluorobenzene	*8.64*		*ug/g*	*108*	*50-140*			
Surrogate: Dibromofluoromethane	*7.42*		*ug/g*	*92.8*	*50-140*			
Surrogate: Toluene-d8	*8.30*		*ug/g*	*104*	*50-140*			
Benzene	ND	0.02	ug/g					
Ethylbenzene	ND	0.05	ug/g					
Toluene	ND	0.05	ug/g					
m,p-Xylenes	ND	0.05	ug/g					
o-Xylene	ND	0.05	ug/g					
Xylenes, total	ND	0.05	ug/g					
Surrogate: Toluene-d8	*8.30*		*ug/g*	*104*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
General Inorganics									
SAR	1.08	0.01	N/A	1.09			0.9	30	
Conductivity	2030	5	uS/cm	2040			0.5	5	
Cyanide, free	ND	0.03	ug/g	ND			NC	35	
pH	7.51	0.05	pH Units	7.51			0.0	2.3	
Hydrocarbons									
F1 PHCs (C6-C10)	ND	7	ug/g	ND			NC	40	
F2 PHCs (C10-C16)	ND	4	ug/g	ND			NC	30	
F3 PHCs (C16-C34)	20	8	ug/g	28			NC	30	
F4 PHCs (C34-C50)	12	6	ug/g	35			NC	30	
Metals									
Antimony	1.8	1.0	ug/g	2.0			8.3	30	
Arsenic	4.6	1.0	ug/g	4.5			2.4	30	
Barium	177	1.0	ug/g	177			0.0	30	
Beryllium	0.7	0.5	ug/g	0.8			7.7	30	
Boron, available	ND	0.5	ug/g	ND			NC	35	
Boron	11.6	5.0	ug/g	10.5			10.5	30	
Cadmium	1.9	0.5	ug/g	1.4			27.9	30	
Chromium (VI)	ND	0.2	ug/g	ND			NC	35	
Chromium	23.7	5.0	ug/g	22.6			5.0	30	
Cobalt	11.7	1.0	ug/g	11.0			6.6	30	
Copper	22.2	5.0	ug/g	21.0			5.3	30	
Mercury	ND	0.1	ug/g	ND			NC	30	
Molybdenum	1.1	1.0	ug/g	1.0			7.2	30	
Nickel	25.0	5.0	ug/g	23.5			6.2	30	
Selenium	ND	1.0	ug/g	ND			NC	30	
Silver	ND	0.3	ug/g	ND			NC	30	
Thallium	ND	1.0	ug/g	ND			NC	30	
Uranium	ND	1.0	ug/g	ND			NC	30	
Vanadium	31.7	10.0	ug/g	30.1			5.2	30	
Zinc	586	20.0	ug/g	463			23.5	30	

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
PCBs									
PCBs, total	ND	0.05	ug/g	ND			NC	40	
Surrogate: Decachlorobiphenyl	*0.131*		*ug/g*		*115*	*60-140*			
Physical Characteristics									
% Solids	82.7	0.1	% by Wt.	84.1			1.7	25	
Semi-Volatiles									
Acenaphthene	ND	0.02	ug/g	ND			NC	40	
Acenaphthylene	ND	0.02	ug/g	ND			NC	40	
Anthracene	ND	0.02	ug/g	ND			NC	40	
Benzo [a] anthracene	ND	0.02	ug/g	ND			NC	40	
Benzo [a] pyrene	ND	0.02	ug/g	ND			NC	40	
Benzo [b] fluoranthene	ND	0.02	ug/g	ND			NC	40	
Benzo [g,h,i] perylene	ND	0.02	ug/g	ND			NC	40	
Benzo [k] fluoranthene	ND	0.02	ug/g	ND			NC	40	
Chrysene	ND	0.02	ug/g	ND			NC	40	
Dibenzo [a,h] anthracene	ND	0.02	ug/g	ND			NC	40	
Fluoranthene	ND	0.02	ug/g	ND			NC	40	
Fluorene	ND	0.02	ug/g	ND			NC	40	
Indeno [1,2,3-cd] pyrene	ND	0.02	ug/g	ND			NC	40	
1-Methylnaphthalene	ND	0.02	ug/g	ND			NC	40	
2-Methylnaphthalene	ND	0.02	ug/g	ND			NC	40	
Naphthalene	ND	0.01	ug/g	ND			NC	40	
Phenanthrene	ND	0.02	ug/g	ND			NC	40	
Pyrene	ND	0.02	ug/g	ND			NC	40	
Surrogate: 2-Fluorobiphenyl	*1.81*		*ug/g*		*78.3*	*50-140*			
Surrogate: Terphenyl-d14	*2.24*		*ug/g*		*96.9*	*50-140*			
Volatiles									
Acetone	ND	0.50	ug/g	ND			NC	50	
Benzene	ND	0.02	ug/g	ND			NC	50	
Bromodichloromethane	ND	0.05	ug/g	ND			NC	50	
Bromoform	ND	0.05	ug/g	ND			NC	50	

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Bromomethane	ND	0.05	ug/g	ND			NC	50	
Carbon Tetrachloride	ND	0.05	ug/g	ND			NC	50	
Chlorobenzene	ND	0.05	ug/g	ND			NC	50	
Chloroform	ND	0.05	ug/g	ND			NC	50	
Dibromochloromethane	ND	0.05	ug/g	ND			NC	50	
Dichlorodifluoromethane	ND	0.05	ug/g	ND			NC	50	
1,2-Dichlorobenzene	ND	0.05	ug/g	ND			NC	50	
1,3-Dichlorobenzene	ND	0.05	ug/g	ND			NC	50	
1,4-Dichlorobenzene	ND	0.05	ug/g	ND			NC	50	
1,1-Dichloroethane	ND	0.05	ug/g	ND			NC	50	
1,2-Dichloroethane	ND	0.05	ug/g	ND			NC	50	
1,1-Dichloroethylene	ND	0.05	ug/g	ND			NC	50	
cis-1,2-Dichloroethylene	ND	0.05	ug/g	ND			NC	50	
trans-1,2-Dichloroethylene	ND	0.05	ug/g	ND			NC	50	
1,2-Dichloropropane	ND	0.05	ug/g	ND			NC	50	
cis-1,3-Dichloropropylene	ND	0.05	ug/g	ND			NC	50	
trans-1,3-Dichloropropylene	ND	0.05	ug/g	ND			NC	50	
Ethylbenzene	ND	0.05	ug/g	ND			NC	50	
Ethylene dibromide (dibromoethane, 1,2-)	ND	0.05	ug/g	ND			NC	50	
Hexane	ND	0.05	ug/g	ND			NC	50	
Methyl Ethyl Ketone (2-Butanone)	ND	0.50	ug/g	ND			NC	50	
Methyl Isobutyl Ketone	ND	0.50	ug/g	ND			NC	50	
Methyl tert-butyl ether	ND	0.05	ug/g	ND			NC	50	
Methylene Chloride	ND	0.05	ug/g	ND			NC	50	
Styrene	ND	0.05	ug/g	ND			NC	50	
1,1,1,2-Tetrachloroethane	ND	0.05	ug/g	ND			NC	50	
1,1,2,2-Tetrachloroethane	ND	0.05	ug/g	ND			NC	50	
Tetrachloroethylene	ND	0.05	ug/g	ND			NC	50	
Toluene	ND	0.05	ug/g	ND			NC	50	
1,1,1-Trichloroethane	ND	0.05	ug/g	ND			NC	50	
1,1,2-Trichloroethane	ND	0.05	ug/g	ND			NC	50	

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Trichloroethylene	ND	0.05	ug/g	ND			NC	50	
Trichlorofluoromethane	ND	0.05	ug/g	ND			NC	50	
Vinyl chloride	ND	0.02	ug/g	ND			NC	50	
m,p-Xylenes	ND	0.05	ug/g	ND			NC	50	
o-Xylene	ND	0.05	ug/g	ND			NC	50	
Surrogate: 4-Bromofluorobenzene	*10.2*		*ug/g*		*117*	*50-140*			
Surrogate: Dibromofluoromethane	*8.39*		*ug/g*		*96.3*	*50-140*			
Surrogate: Toluene-d8	*9.37*		*ug/g*		*108*	*50-140*			
Benzene	ND	0.02	ug/g	ND			NC	50	
Ethylbenzene	ND	0.05	ug/g	ND			NC	50	
Toluene	ND	0.05	ug/g	ND			NC	50	
m,p-Xylenes	ND	0.05	ug/g	ND			NC	50	
o-Xylene	ND	0.05	ug/g	ND			NC	50	
Surrogate: Toluene-d8	*9.37*		*ug/g*		*108*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
General Inorganics									
Cyanide, free	0.358	0.03	ug/g	ND	112	50-150			
Hydrocarbons									
F1 PHCs (C6-C10)	176	7	ug/g	ND	88.0	80-120			
F2 PHCs (C10-C16)	96	4	ug/g	ND	107	60-140			
F3 PHCs (C16-C34)	227	8	ug/g	28	90.1	60-140			
F4 PHCs (C34-C50)	151	6	ug/g	35	83.4	60-140			
Metals									
Antimony	48.7	1.0	ug/g	ND	95.9	70-130			
Arsenic	53.6	1.0	ug/g	1.8	104	70-130			
Barium	126	1.0	ug/g	71.0	110	70-130			
Beryllium	50.2	0.5	ug/g	ND	99.8	70-130			
Boron, available	3.42	0.5	ug/g	ND	68.4	70-122			QS-02
Boron	52.1	5.0	ug/g	ND	95.9	70-130			
Cadmium	53.6	0.5	ug/g	0.6	106	70-130			
Chromium (VI)	0.2	0.2	ug/g	ND	75.5	70-130			
Chromium	62.8	5.0	ug/g	9.0	108	70-130			
Cobalt	56.9	1.0	ug/g	4.4	105	70-130			
Copper	58.9	5.0	ug/g	8.4	101	70-130			
Lead	82.2	1.0	ug/g	20.4	123	70-130			
Mercury	1.57	0.1	ug/g	ND	105	70-130			
Molybdenum	53.5	1.0	ug/g	ND	106	70-130			
Nickel	61.0	5.0	ug/g	9.4	103	70-130			
Selenium	48.1	1.0	ug/g	ND	95.8	70-130			
Silver	55.9	0.3	ug/g	ND	112	70-130			
Thallium	52.9	1.0	ug/g	ND	106	70-130			
Uranium	50.5	1.0	ug/g	ND	100	70-130			
Vanadium	68.4	10.0	ug/g	12.0	113	70-130			
Zinc	52.6	20.0	ug/g	ND	105	70-130			
PCBs									
PCBs, total	0.451	0.05	ug/g	ND	98.6	60-140			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Surrogate: Decachlorobiphenyl	*0.137*		*ug/g*		*120*	*60-140*			
Semi-Volatiles									
Acenaphthene	0.216	0.02	ug/g	ND	74.7	50-140			
Acenaphthylene	0.169	0.02	ug/g	ND	58.5	50-140			
Anthracene	0.210	0.02	ug/g	ND	72.6	50-140			
Benzo [a] anthracene	0.189	0.02	ug/g	ND	65.3	50-140			
Benzo [a] pyrene	0.209	0.02	ug/g	ND	72.3	50-140			
Benzo [b] fluoranthene	0.202	0.02	ug/g	ND	69.8	50-140			
Benzo [g,h,i] perylene	0.192	0.02	ug/g	ND	66.3	50-140			
Benzo [k] fluoranthene	0.198	0.02	ug/g	ND	68.4	50-140			
Chrysene	0.214	0.02	ug/g	ND	74.0	50-140			
Dibenzo [a,h] anthracene	0.176	0.02	ug/g	ND	60.8	50-140			
Fluoranthene	0.190	0.02	ug/g	ND	65.5	50-140			
Fluorene	0.199	0.02	ug/g	ND	68.8	50-140			
Indeno [1,2,3-cd] pyrene	0.146	0.02	ug/g	ND	50.4	50-140			
1-Methylnaphthalene	0.231	0.02	ug/g	ND	79.8	50-140			
2-Methylnaphthalene	0.258	0.02	ug/g	ND	89.1	50-140			
Naphthalene	0.238	0.01	ug/g	ND	82.3	50-140			
Phenanthrene	0.214	0.02	ug/g	ND	73.9	50-140			
Pyrene	0.187	0.02	ug/g	ND	64.7	50-140			
Surrogate: 2-Fluorobiphenyl	*1.46*		*ug/g*		*63.0*	*50-140*			
Surrogate: Terphenyl-d14	*1.94*		*ug/g*		*83.7*	*50-140*			
Volatiles									
Acetone	9.01	0.50	ug/g	ND	90.1	50-140			
Benzene	3.47	0.02	ug/g	ND	86.6	60-130			
Bromodichloromethane	3.08	0.05	ug/g	ND	76.9	60-130			
Bromoform	3.51	0.05	ug/g	ND	87.9	60-130			
Bromomethane	3.68	0.05	ug/g	ND	91.9	50-140			
Carbon Tetrachloride	2.95	0.05	ug/g	ND	73.7	60-130			
Chlorobenzene	3.74	0.05	ug/g	ND	93.5	60-130			
Chloroform	3.36	0.05	ug/g	ND	83.9	60-130			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Dibromochloromethane	3.46	0.05	ug/g	ND	86.5	60-130			
Dichlorodifluoromethane	4.62	0.05	ug/g	ND	115	50-140			
1,2-Dichlorobenzene	3.46	0.05	ug/g	ND	86.4	60-130			
1,3-Dichlorobenzene	3.41	0.05	ug/g	ND	85.3	60-130			
1,4-Dichlorobenzene	3.48	0.05	ug/g	ND	87.0	60-130			
1,1-Dichloroethane	3.25	0.05	ug/g	ND	81.3	60-130			
1,2-Dichloroethane	3.34	0.05	ug/g	ND	83.5	60-130			
1,1-Dichloroethylene	3.58	0.05	ug/g	ND	89.5	60-130			
cis-1,2-Dichloroethylene	3.36	0.05	ug/g	ND	84.1	60-130			
trans-1,2-Dichloroethylene	3.60	0.05	ug/g	ND	89.9	60-130			
1,2-Dichloropropane	3.32	0.05	ug/g	ND	83.1	60-130			
cis-1,3-Dichloropropylene	3.35	0.05	ug/g	ND	83.8	60-130			
trans-1,3-Dichloropropylene	3.71	0.05	ug/g	ND	92.6	60-130			
Ethylbenzene	3.60	0.05	ug/g	ND	90.0	60-130			
Ethylene dibromide (dibromoethane, 1,2-)	4.13	0.05	ug/g	ND	103	60-130			
Hexane	3.46	0.05	ug/g	ND	86.5	60-130			
Methyl Ethyl Ketone (2-Butanone)	7.19	0.50	ug/g	ND	71.9	50-140			
Methyl Isobutyl Ketone	9.20	0.50	ug/g	ND	92.0	50-140			
Methyl tert-butyl ether	11.1	0.05	ug/g	ND	111	50-140			
Methylene Chloride	3.36	0.05	ug/g	ND	83.9	60-130			
Styrene	3.39	0.05	ug/g	ND	84.7	60-130			
1,1,1,2-Tetrachloroethane	3.79	0.05	ug/g	ND	94.8	60-130			
1,1,2,2-Tetrachloroethane	3.23	0.05	ug/g	ND	80.6	60-130			
Tetrachloroethylene	3.81	0.05	ug/g	ND	95.2	60-130			
Toluene	3.82	0.05	ug/g	ND	95.4	60-130			
1,1,1-Trichloroethane	3.55	0.05	ug/g	ND	88.8	60-130			
1,1,2-Trichloroethane	3.27	0.05	ug/g	ND	81.7	60-130			
Trichloroethylene	3.42	0.05	ug/g	ND	85.6	60-130			
Trichlorofluoromethane	3.74	0.05	ug/g	ND	93.4	50-140			
Vinyl chloride	3.38	0.02	ug/g	ND	84.4	50-140			
m,p-Xylenes	6.99	0.05	ug/g	ND	87.4	60-130			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
o-Xylene	3.49	0.05	ug/g	ND	87.3	60-130			
Surrogate: 4-Bromofluorobenzene	*8.88*		*ug/g*		*111*	*50-140*			
Surrogate: Dibromofluoromethane	*8.23*		*ug/g*		*103*	*50-140*			
Surrogate: Toluene-d8	*7.86*		*ug/g*		*98.3*	*50-140*			
Benzene	3.47	0.02	ug/g	ND	86.6	60-130			
Ethylbenzene	3.60	0.05	ug/g	ND	90.0	60-130			
Toluene	3.82	0.05	ug/g	ND	95.4	60-130			
m,p-Xylenes	6.99	0.05	ug/g	ND	87.4	60-130			
o-Xylene	3.49	0.05	ug/g	ND	87.3	60-130			
Surrogate: Toluene-d8	*7.86*		*ug/g*		*98.3*	*50-140*			

Qualifier Notes:

QC Qualifiers :

QS-02 : Spike level outside of control limits. Analysis batch accepted based on other QC included in the batch.

Sample Qualifiers :

Sample Data Revisions:

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

Source Result: Data used as source for matrix and duplicate samples

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

Soil results are reported on a dry weight basis unlesss otherwise noted.

Where %Solids is reported, moisture loss includes the loss of volatile hydrocarbons.

CCME PHC additional information:

- The method for the analysis of PHCs complies with the Reference Method for the CWS PHC and is validated for use in the laboratory. All prescribed quality criteria identified in the method has been met.

- F1 range corrected for BTEX.

- F2 to F3 ranges corrected for appropriate PAHs where available.

- The gravimetric heavy hydrocarbons (F4G) are not to be added to C6 to C50 hydrocarbons.

- In the case where F4 and F4G are both reported, the greater of the two results is to be used for comparison to CWS PHC criteria.

- When reported, data for F4G has been processed using a silica gel cleanup.

Paracel ID: 2212310

PARACEL LABORATORIES LTD.

Paracel Order Number (Lab Use Only)	Chain Of Custody (Lab Use Only)
2212310-BULK 2212313-TCLP	№ 134514

Client Name: AFL Environment	Project Ref: 11556-03	Page 1 of 1	
Contact Name: Erin Hunt	Quote #:	Turnaround Time	
Address: Unit 3, 1705 Argentia Road Mississauga, ON	PO #:	☐ 1 day	☐ 3 day
	E-mail: lab@aelenv.com, ehunt@aelenv.com	☐ 2 day	☑ Regular
Telephone:		Date Required:	

☑ REG 153/04 ☐ REG 406/19

☐ Table 1 ☐ Res/Park ☐ Med/Fine
☐ Table 2 ☑ Ind/Comm ☐ Coarse
☑ Table 3 ☐ Agri/Other
☐ Table ___
For RSC: ☑ Yes ☐ No

Other Regulation
☐ REG 558 ☐ PWQO
☐ CCME ☐ MISA
☐ SU - Sani ☐ SU - Storm
Mun: ___
☐ Other:

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)

Required Analysis

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken Date	Sample Taken Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	Grain Size	PCBs		TCLP	
1	B1971 - MW9/22 (3'-5')	S		2	March 15, 2022	1:45PM	✓	✓	✓	✓								
2	B1972 - MW9/22 (7'-9'6")	S		2	" "	2:05PM	✓	✓	✓	✓								
3	B1973 - MW9/22 (7'-9'6")	S		2	" "	2:05PM	✓	✓	✓	✓								
4	B1974 - MW6/22 (2'-5')	S		2	March 16, 2022	9:45AM	✓	✓	✓	✓								
5	B1975 - MW6/22 (3'-5')	S		1	March 16, 2022	9:45AM								✓				
6	B1976 - MW1/22 (3'-5')	S		4	March 16, 2022	11:05AM	✓	✓	✓	✓				✓	✓			
7	B1977 - MW3/22 (2'-5')	S		3	March 16, 2022	1:00PM	✓		✓					✓				
8	B1978 - MW8/22 (5'-8')	S		3	March 16, 2022	2:43PM	✓	✓	✓	✓				✓				
9	B1979 - TCLP	S		1													✓	
10																		

Comments:

Method of Delivery: Walk in

Relinquished By (Sign): [signature]	Received By Driver/Depot:	Received at Lab: Jumegaram Dohmmi	Verified By: [signature]
Relinquished By (Print): John Stephen	Date/Time:	Date/Time: Mar 16, 2022 04.38	Date/Time: March 16, 2022 16:46
Date/Time: March 16, 2022 / 4:30PM	Temperature: °C	Temperature: 8.0 °C	pH Verified: ☐ By:

Chain of Custody (Env) xlsx

Revision 4.0

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Certificate of Analysis

AEL Environment
1705 Argentia Road, Unit 3
Mississauga, ON L5N 3A9
Attn: Erin Hunt

Client PO:
Project: 11556-03
Custody: 134514

Report Date: 22-Mar-2022
Order Date: 16-Mar-2022

Order #: 2212313

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
2212313-01	B1979- TCLP

Approved By:

Dale Robertson, BSc
Laboratory Director

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Metals, ICP-MS	TCLP EPA 6020 - Digestion - ICP-MS	18-Mar-22	18-Mar-22
REG 558 - Mercury by CVAA	TCLP EPA 7470A, CVAA	21-Mar-22	22-Mar-22
REG 558 - VOCs	TCLP ZHE EPA 624 - P&T GC-MS	18-Mar-22	19-Mar-22
Solids, %	Gravimetric, calculation	17-Mar-22	17-Mar-22

Summary of Criteria Exceedances

(If this page is blank then there are no exceedances)

Only those criteria that a sample exceeds will be highlighted in red

Regulatory Comparison:

Paracel Laboratories has provided regulatory guidelines on this report for informational purposes only and makes no representations or warranties that the data is accurate or reflects the current regulatory values. The user is advised to consult with the appropriate official regulations to evaluate compliance. Sample results that are highlighted have exceeded the selected regulatory limit. Calculated uncertainty estimations have not been applied for determining regulatory exceedances.

Sample	Analyte	MDL / Units	Result	Reg 558 Schedule 4	-

Certificate of Analysis

Report Date: 22-Mar-2022

Client: **AEL Environment**

Order Date: 16-Mar-2022

Client PO:

Project Description: 11556-03

	Client ID:	B1979- TCLP	-	-	-	**Criteria:**	
	Sample Date:	16-Mar-22 09:00	-	-	-	**Reg 558 Schedule 4**	-
	Sample ID:	2212313-01	-	-	-		
	Matrix:	Soil	-	-	-		
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	83.2	-	-	-	-	-
EPA 1311 - TCLP Leachate Metals							
Arsenic	0.05 mg/L	<0.05	-	-	-	2.5 mg/L	-
Barium	0.05 mg/L	0.96	-	-	-	100 mg/L	-
Boron	0.05 mg/L	<0.05	-	-	-	500 mg/L	-
Cadmium	0.01 mg/L	<0.01	-	-	-	0.5 mg/L	-
Chromium	0.05 mg/L	<0.05	-	-	-	5 mg/L	-
Lead	0.05 mg/L	<0.05	-	-	-	5 mg/L	-
Mercury	0.005 mg/L	<0.005	-	-	-	0.1 mg/L	-
Selenium	0.05 mg/L	<0.05	-	-	-	1 mg/L	-
Silver	0.05 mg/L	<0.05	-	-	-	5 mg/L	-
Uranium	0.05 mg/L	<0.05	-	-	-	10 mg/L	-
EPA 1311 - TCLP Leachate Volatiles							
Benzene	0.005 mg/L	<0.005	-	-	-	0.5 mg/L	-
Carbon Tetrachloride	0.005 mg/L	<0.005	-	-	-	0.5 mg/L	-
Chlorobenzene	0.004 mg/L	<0.004	-	-	-	8 mg/L	-
Chloroform	0.006 mg/L	<0.006	-	-	-	10 mg/L	-
1,2-Dichlorobenzene	0.004 mg/L	<0.004	-	-	-	20 mg/L	-
1,4-Dichlorobenzene	0.004 mg/L	<0.004	-	-	-	0.5 mg/L	-
1,2-Dichloroethane	0.005 mg/L	<0.005	-	-	-	0.5 mg/L	-
1,1-Dichloroethylene	0.006 mg/L	<0.006	-	-	-	1.4 mg/L	-
Methyl Ethyl Ketone (2-Butanone)	0.30 mg/L	<0.30	-	-	-	200 mg/L	-
Methylene Chloride	0.04 mg/L	<0.04	-	-	-	5 mg/L	-
Tetrachloroethylene	0.005 mg/L	<0.005	-	-	-	3 mg/L	-
Trichloroethylene	0.004 mg/L	<0.004	-	-	-	5 mg/L	-

Certificate of Analysis

Report Date: 22-Mar-2022

Client: **AEL Environment**

Order Date: 16-Mar-2022

Client PO:

Project Description: 11556-03

	Client ID:	B1979- TCLP	-	-	-	**Criteria:**	
	Sample Date:	16-Mar-22 09:00	-	-	-	**Reg 558 Schedule 4**	-
	Sample ID:	2212313-01	-	-	-		
	Matrix:	Soil	-	-	-		
	MDL/Units						
EPA 1311 - TCLP Leachate Volatiles							
Vinyl chloride	0.005 mg/L	<0.005	-	-	-	0.2 mg/L	-
4-Bromofluorobenzene	Surrogate	100%	-	-	-	-	-
Dibromofluoromethane	Surrogate	115%	-	-	-	-	-
Toluene-d8	Surrogate	106%	-	-	-	-	-

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
EPA 1311 - TCLP Leachate Metals								
Arsenic	ND	0.05	mg/L					
Barium	ND	0.05	mg/L					
Boron	ND	0.05	mg/L					
Cadmium	ND	0.01	mg/L					
Chromium	ND	0.05	mg/L					
Lead	ND	0.05	mg/L					
Mercury	ND	0.005	mg/L					
Selenium	ND	0.05	mg/L					
Silver	ND	0.05	mg/L					
Uranium	ND	0.05	mg/L					
EPA 1311 - TCLP Leachate Volatiles								
Benzene	ND	0.005	mg/L					
Carbon Tetrachloride	ND	0.005	mg/L					
Chlorobenzene	ND	0.004	mg/L					
Chloroform	ND	0.006	mg/L					
1,2-Dichlorobenzene	ND	0.004	mg/L					
1,4-Dichlorobenzene	ND	0.004	mg/L					
1,2-Dichloroethane	ND	0.005	mg/L					
1,1-Dichloroethylene	ND	0.006	mg/L					
Methyl Ethyl Ketone (2-Butanone)	ND	0.30	mg/L					
Methylene Chloride	ND	0.04	mg/L					
Tetrachloroethylene	ND	0.005	mg/L					
Trichloroethylene	ND	0.004	mg/L					
Vinyl chloride	ND	0.005	mg/L					
Surrogate: 4-Bromofluorobenzene	*0.736*		*mg/L*	*107*	*83-134*			
Surrogate: Dibromofluoromethane	*0.708*		*mg/L*	*103*	*78-124*			
Surrogate: Toluene-d8	*0.731*		*mg/L*	*106*	*76-118*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
EPA 1311 - TCLP Leachate Metals									
Arsenic	ND	0.05	mg/L	ND			NC	29	
Barium	0.381	0.05	mg/L	0.375			1.7	34	
Boron	0.279	0.05	mg/L	0.273			2.2	33	
Cadmium	ND	0.01	mg/L	ND			NC	33	
Chromium	ND	0.05	mg/L	ND			NC	32	
Lead	ND	0.05	mg/L	ND			NC	32	
Mercury	ND	0.005	mg/L	ND			NC	30	
Selenium	ND	0.05	mg/L	ND			NC	28	
Silver	ND	0.05	mg/L	ND			NC	28	
Uranium	ND	0.05	mg/L	ND			NC	27	
EPA 1311 - TCLP Leachate Volatiles									
Benzene	ND	0.005	mg/L	ND			NC	25	
Carbon Tetrachloride	ND	0.005	mg/L	ND			NC	25	
Chlorobenzene	ND	0.004	mg/L	ND			NC	25	
Chloroform	ND	0.006	mg/L	ND			NC	25	
1,2-Dichlorobenzene	ND	0.004	mg/L	ND			NC	25	
1,4-Dichlorobenzene	ND	0.004	mg/L	ND			NC	25	
1,2-Dichloroethane	ND	0.005	mg/L	ND			NC	25	
1,1-Dichloroethylene	ND	0.006	mg/L	ND			NC	25	
Methyl Ethyl Ketone (2-Butanone)	ND	0.30	mg/L	ND			NC	25	
Methylene Chloride	ND	0.04	mg/L	ND			NC	25	
Tetrachloroethylene	ND	0.005	mg/L	ND			NC	25	
Trichloroethylene	ND	0.004	mg/L	ND			NC	25	
Vinyl chloride	ND	0.005	mg/L	ND			NC	25	
Surrogate: 4-Bromofluorobenzene	*0.814*		*mg/L*		*118*	*83-134*			
Surrogate: Dibromofluoromethane	*0.794*		*mg/L*		*115*	*78-124*			
Surrogate: Toluene-d8	*0.728*		*mg/L*		*106*	*76-118*			
Physical Characteristics									
% Solids	82.4	0.1	% by Wt.	79.5			3.6	25	

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
EPA 1311 - TCLP Leachate Metals									
Arsenic	50.9	0.05	mg/L	0.124	102	83-119			
Barium	88.6	0.05	mg/L	37.5	102	80-120			
Boron	67.6	0.05	mg/L	27.3	80.5	71-128			
Cadmium	47.3	0.01	mg/L	0.040	94.5	78-119			
Chromium	54.3	0.05	mg/L	0.171	108	80-124			
Lead	46.2	0.05	mg/L	0.222	91.9	77-126			
Mercury	0.0317	0.005	mg/L	ND	106	70-130			
Selenium	42.2	0.05	mg/L	0.148	84.1	75-125			
Silver	55.0	0.05	mg/L	ND	110	70-128			
Uranium	49.7	0.05	mg/L	0.422	98.5	70-131			
EPA 1311 - TCLP Leachate Volatiles									
Benzene	0.259	0.005	mg/L	ND	75.3	55-141			
Carbon Tetrachloride	0.248	0.005	mg/L	ND	72.0	49-149			
Chlorobenzene	0.324	0.004	mg/L	ND	94.1	64-137			
Chloroform	0.260	0.006	mg/L	ND	75.7	58-138			
1,2-Dichlorobenzene	0.254	0.004	mg/L	ND	73.8	60-150			
1,4-Dichlorobenzene	0.302	0.004	mg/L	ND	87.9	63-132			
1,2-Dichloroethane	0.278	0.005	mg/L	ND	80.7	50-140			
1,1-Dichloroethylene	0.290	0.006	mg/L	ND	84.2	43-153			
Methyl Ethyl Ketone (2-Butanone)	0.896	0.30	mg/L	ND	104	26-153			
Methylene Chloride	0.278	0.04	mg/L	ND	80.8	58-149			
Tetrachloroethylene	0.346	0.005	mg/L	ND	101	51-145			
Trichloroethylene	0.256	0.004	mg/L	ND	74.4	52-135			
Vinyl chloride	0.263	0.005	mg/L	ND	76.3	31-159			
Surrogate: 4-Bromofluorobenzene	*0.790*		*mg/L*		*115*	*83-134*			
Surrogate: Dibromofluoromethane	*0.762*		*mg/L*		*111*	*78-124*			
Surrogate: Toluene-d8	*0.708*		*mg/L*		*103*	*76-118*			

Certificate of Analysis

Report Date: 22-Mar-2022

Client: **AEL Environment**

Order Date: 16-Mar-2022

Client PO:

Project Description: 11556-03

Qualifier Notes:

Sample Data Revisions:

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

Source Result: Data used as source for matrix and duplicate samples

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

Soil results are reported on a dry weight basis unlesss otherwise noted.

Where %Solids is reported, moisture loss includes the loss of volatile hydrocarbons.

PARACEL LABORATORIES LTD

Paracel ID: 2212313

Paracel Order Number (Lab Use Only)	Chain Of Custody (Lab Use Only)
2212310-BULK 2212313-TCLP	№ 134514

Client Name: AFL Environment	Project Ref: 11556.03
Contact Name: Erin Hunt	Quote #:
Address: Unit 3, 1705 Argentia Road, Mississauga, ON	PO #:
Telephone:	E-mail: lab@afl-env.com, ehunt@aflenv.com

Page 1 of 1

Turnaround Time

- ☐ 1 day ☐ 3 day
- ☐ 2 day ☑ Regular

Date Required:

☑ REG 153/04 ☐ REG 406/19

☐ Table 1 ☐ Res/Park ☐ Med/Fine
☐ Table 2 ☑ Ind/Comm ☐ Coarse
☑ Table 3 ☐ Agri/Other
☐ Table

For RSC: ☑ Yes ☐ No

Other Regulation

☐ REG 558 ☐ PWQO
☐ CCME ☐ MISA
☐ SU - Sani ☐ SU - Storm
Mun:
☐ Other:

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)

Required Analysis

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Date	Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	Grain Size	PCBs		TCLP	
1	B1971 - MW9/22 (3'-5')	S		2	March 15, 2022	1:45 PM	✓	✓	✓	✓								
2	B1972 - MW9/22 (7'-9'6")	S		2	" "	2:05 PM	✓	✓	✓	✓								
3	B1973 - MW9/22 (7'-9'6")	S		2	" "	2:05 PM	✓	✓	✓	✓								
4	B1974 - MW6/22 (2'-5')	S		2	March 16, 2022	9:45 AM	✓	✓	✓	✓								
5	B1975 - MW6/22 (3'-5')	S		1	March 16, 2022	9:45 AM												
6	B1976 - MW1/22 (3'-5')	S		4	March 16, 2022	11:05 AM	✓	✓	✓	✓				✓				
7	B1977 - MW3/22 (2'-5')	S		3	March 16, 2022	1:00 PM	✓		✓					✓	✓			
8	B1978 - MW8/22 (5'-8')	S		3	March 16, 2022	2:43 PM	✓	✓	✓	✓				✓				
9	B1979 - TCLP	S		1										✓			✓	
10																	✓	

Comments:

Relinquished By (Sign): EH	Received By Driver/Depot:	Received at Lab: Swneegam Dakma	Method of Delivery: Walk in
Relinquished By (Print): John Stephen	Date/Time:	Date/Time: Mar 16, 2022 04.38	Verified By: BClu
Date/Time: March 16, 2022 / 4:30 PM	Temperature: °C	Temperature: 8.0 °C	Date/Time: March 16, 22 17:48
			pH Verified: ☐ By:

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Certificate of Analysis

AEL Environment
1705 Argentia Road, Unit 3
Mississauga, ON L5N 3A9
Attn: Erin Hunt

Client PO:
Project: 11556-03
Custody: 134515

Report Date: 24-Mar-2022
Order Date: 18-Mar-2022

Order #: 2212494

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
2212494-01	B1980- MW6/22
2212494-02	B1981- MW6/22
2212494-03	B1982- MW1/22
2212494-04	B1983- MW3/22
2212494-05	B1984- MW9/22
2212494-06	B1985- MW8/22
2212494-07	Trip Blank

Approved By:

Mark Foto

Mark Foto, M.Sc.
Lab Supervisor

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Anions	EPA 300.1 - IC	21-Mar-22	24-Mar-22
BTEX by P&T GC-MS	EPA 624 - P&T GC-MS	19-Mar-22	19-Mar-22
Chromium, hexavalent - water	MOE E3056 - colourimetric	19-Mar-22	21-Mar-22
Cyanide, free	MOE E3015 - Auto Colour	21-Mar-22	21-Mar-22
Mercury by CVAA	EPA 245.2 - Cold Vapour AA	21-Mar-22	22-Mar-22
Metals, ICP-MS	EPA 200.8 - ICP-MS	21-Mar-22	21-Mar-22
PCBs, total	EPA 608 - GC-ECD	21-Mar-22	22-Mar-22
pH	EPA 150.1 - pH probe @25 °C	19-Mar-22	19-Mar-22
PHC F1	CWS Tier 1 - P&T GC-FID	18-Mar-22	19-Mar-22
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	23-Mar-22	23-Mar-22
REG 153: PAHs by GC-MS	EPA 625 - GC-MS, extraction	23-Mar-22	23-Mar-22
REG 153: VOCs by P&T GC/MS	EPA 624 - P&T GC-MS	18-Mar-22	19-Mar-22

Certificate of Analysis

Report Date: 24-Mar-2022

Client: **AEL Environment**

Order Date: 18-Mar-2022

Client PO:

Project Description: 11556-03

Summary of Criteria Exceedances

(If this page is blank then there are no exceedances)

Only those criteria that a sample exceeds will be highlighted in red

Regulatory Comparison:

Paracel Laboratories has provided regulatory guidelines on this report for informational purposes only and makes no representations or warranties that the data is accurate or reflects the current regulatory values. The user is advised to consult with the appropriate official regulations to evaluate compliance. Sample results that are highlighted have exceeded the selected regulatory limit. Calculated uncertainty estimations have not been applied for determining regulatory exceedances.

Sample	Analyte	MDL / Units	Result	Reg 153/04 -T3 Non-Potable Groundwater, coarse	Reg 153/04 -T3 Non-Potable Groundwater, fine
B1980- MW6/22	Chloride	1 mg/L	2440	2300000 ug/L	2300000 ug/L
B1981- MW6/22	Chloride	1 mg/L	2450	2300000 ug/L	2300000 ug/L
B1981- MW6/22	Sodium	200 ug/L	9130000	2300000 ug/L	2300000 ug/L
B1982- MW1/22	Chloride	1 mg/L	3080	2300000 ug/L	2300000 ug/L

PARACEL LABORATORIES LTD.

Order #: 2212494

Certificate of Analysis

Report Date: 24-Mar-2022

Client: **AEL Environment**

Order Date: 18-Mar-2022

Client PO:

Project Description: 11556-03

	Client ID:	B1980- MW6/22	B1981- MW6/22	B1982- MW1/22	B1983- MW3/22	Criteria:	
	Sample Date:	17-Mar-22 11:35	17-Mar-22 11:35	17-Mar-22 00:00	17-Mar-22 15:58	**Reg 153/04 -T3 Non-Potable Groundwater, coarse**	**Reg 153/04 -T3 Non-Potable Groundwater, fine**
	Sample ID:	2212494-01	2212494-02	2212494-03	2212494-04		
	Matrix:	Water	Water	Water	Water		
	MDL/Units						
General Inorganics							
Cyanide, free	2 ug/L	<2	<2	<2	-	66 ug/L	66 ug/L
pH	0.1 pH Units	7.3	7.3	7.2	-	5.00 - 9.00 pH Units	5.00 - 9.00 pH Units
Anions							
Chloride	1 mg/L	2440	2450	3080	-	2300000 ug/L	2300000 ug/L
Metals							
Mercury	0.1 ug/L	<0.1	<0.1	<0.1	-	0.29 ug/L	2.8 ug/L
Antimony	0.5 ug/L	<0.5	<0.5	<0.5	-	20000 ug/L	20000 ug/L
Arsenic	1 ug/L	<1	<1	<1	-	1900 ug/L	1900 ug/L
Barium	1 ug/L	240	233	267	-	29000 ug/L	29000 ug/L
Beryllium	0.5 ug/L	<0.5	<0.5	<0.5	-	67 ug/L	67 ug/L
Boron	10 ug/L	73	72	66	-	45000 ug/L	45000 ug/L
Cadmium	0.1 ug/L	<0.1	<0.1	<0.1	-	2.7 ug/L	2.7 ug/L
Chromium (VI)	10 ug/L	<10	<10	<10	-	140 ug/L	140 ug/L
Chromium	1 ug/L	<1	<1	<1	-	810 ug/L	810 ug/L
Cobalt	0.5 ug/L	<0.5	<0.5	<0.5	-	66 ug/L	66 ug/L
Copper	0.5 ug/L	<0.5	<0.5	<0.5	-	87 ug/L	87 ug/L
Lead	0.1 ug/L	<0.1	<0.1	<0.1	-	25 ug/L	25 ug/L
Molybdenum	0.5 ug/L	<0.5	<0.5	1.1	-	9200 ug/L	9200 ug/L
Nickel	1 ug/L	1	1	1	-	490 ug/L	490 ug/L
Selenium	1 ug/L	<1	<1	<1	-	63 ug/L	63 ug/L
Silver	0.1 ug/L	<0.1	<0.1	<0.1	-	1.5 ug/L	1.5 ug/L
Sodium	200 ug/L	894000	9130000	1100000	-	2300000 ug/L	2300000 ug/L
Thallium	0.1 ug/L	<0.1	<0.1	<0.1	-	510 ug/L	510 ug/L
Uranium	0.1 ug/L	0.9	0.9	1.1	-	420 ug/L	420 ug/L
Vanadium	0.5 ug/L	<0.5	<0.5	<0.5	-	250 ug/L	250 ug/L

Certificate of Analysis

Report Date: 24-Mar-2022

Client: **AEL Environment**

Order Date: 18-Mar-2022

Client PO:

Project Description: 11556-03

	Client ID:	B1980- MW6/22	B1981- MW6/22	B1982- MW1/22	B1983- MW3/22	Criteria:	
	Sample Date:	17-Mar-22 11:35	17-Mar-22 11:35	17-Mar-22 00:00	17-Mar-22 15:58	**Reg 153/04 -T3 Non-Potable Groundwater, coarse**	**Reg 153/04 -T3 Non-Potable Groundwater, fine**
	Sample ID:	2212494-01	2212494-02	2212494-03	2212494-04		
	Matrix:	Water	Water	Water	Water		
	MDL/Units						
Metals							
Zinc	5 ug/L	<5	<5	<5	-	1100 ug/L	1100 ug/L
Volatiles							
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	-	130000 ug/L	130000 ug/L
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	-	44 ug/L	430 ug/L
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	-	85000 ug/L	85000 ug/L
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	-	380 ug/L	770 ug/L
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	-	5.6 ug/L	56 ug/L
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	-	0.79 ug/L	8.4 ug/L
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	-	630 ug/L	630 ug/L
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	-	2.4 ug/L	22 ug/L
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	-	82000 ug/L	82000 ug/L
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	-	4400 ug/L	4400 ug/L
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	-	4600 ug/L	9600 ug/L
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	-	9600 ug/L	9600 ug/L
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	-	8 ug/L	67 ug/L
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-	320 ug/L	3100 ug/L
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-	1.6 ug/L	12 ug/L
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	-	1.6 ug/L	17 ug/L
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	-	1.6 ug/L	17 ug/L
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	-	1.6 ug/L	17 ug/L
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	-	16 ug/L	140 ug/L
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	-	-	-
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	-	-	-
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	-	5.2 ug/L	45 ug/L
Ethylene dibromide (dibromoethane,	0.2 ug/L	<0.2	<0.2	<0.2	-	0.25 ug/L	0.83 ug/L

	Client ID:	B1980- MW6/22	B1981- MW6/22	B1982- MW1/22	B1983- MW3/22	Criteria:	
	Sample Date:	17-Mar-22 11:35	17-Mar-22 11:35	17-Mar-22 00:00	17-Mar-22 15:58	Reg 153/04 -T3 Non-Potable Groundwater, coarse	Reg 153/04 -T3 Non-Potable Groundwater, fine
	Sample ID:	2212494-01	2212494-02	2212494-03	2212494-04		
	Matrix:	Water	Water	Water	Water		
	MDL/Units						
Volatiles							
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	-	2300 ug/L	2300 ug/L
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	-	51 ug/L	520 ug/L
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	-	470000 ug/L	1500000 ug/L
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	-	140000 ug/L	580000 ug/L
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	-	190 ug/L	1400 ug/L
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	-	610 ug/L	5500 ug/L
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	-	1300 ug/L	9100 ug/L
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-	3.3 ug/L	28 ug/L
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-	3.2 ug/L	15 ug/L
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	-	1.6 ug/L	17 ug/L
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	-	18000 ug/L	18000 ug/L
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-	640 ug/L	6700 ug/L
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-	4.7 ug/L	30 ug/L
Trichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	-	1.6 ug/L	17 ug/L
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	-	2500 ug/L	2500 ug/L
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	-	0.5 ug/L	1.7 ug/L
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	-	-	-
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	-	-	-
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	-	4200 ug/L	4200 ug/L
Dibromofluoromethane	Surrogate	126%	109%	108%	-	-	-
Toluene-d8	Surrogate	104%	103%	103%	-	-	-
4-Bromofluorobenzene	Surrogate	112%	121%	117%	-	-	-
Benzene	0.5 ug/L	-	-	-	<0.5	44 ug/L	430 ug/L
Ethylbenzene	0.5 ug/L	-	-	-	<0.5	2300 ug/L	2300 ug/L
Toluene	0.5 ug/L	-	-	-	<0.5	18000 ug/L	18000 ug/L

Certificate of Analysis

Report Date: 24-Mar-2022

Client: **AEL Environment**

Order Date: 18-Mar-2022

Client PO:

Project Description: 11556-03

	Client ID:	B1980- MW6/22	B1981- MW6/22	B1982- MW1/22	B1983- MW3/22	Criteria:	
	Sample Date:	17-Mar-22 11:35	17-Mar-22 11:35	17-Mar-22 00:00	17-Mar-22 15:58	**Reg 153/04 -T3 Non-Potable Groundwater, coarse**	**Reg 153/04 -T3 Non-Potable Groundwater, fine**
	Sample ID:	2212494-01	2212494-02	2212494-03	2212494-04		
	Matrix:	Water	Water	Water	Water		
	MDL/Units						
Volatiles							
m,p-Xylenes	0.5 ug/L	-	-	-	<0.5	-	-
o-Xylene	0.5 ug/L	-	-	-	<0.5	-	-
Xylenes, total	0.5 ug/L	-	-	-	<0.5	4200 ug/L	4200 ug/L
Toluene-d8	Surrogate	-	-	-	104%	-	-
Hydrocarbons							
F1 PHCs (C6-C10)	25 ug/L	<25	<25	<25	<25	750 ug/L	750 ug/L
F2 PHCs (C10-C16)	100 ug/L	<100	<100	<100	<100	150 ug/L	150 ug/L
F3 PHCs (C16-C34)	100 ug/L	<100	<100	<100	<100	500 ug/L	500 ug/L
F4 PHCs (C34-C50)	100 ug/L	<100	<100	<100	<100	500 ug/L	500 ug/L
Semi-Volatiles							
Acenaphthene	0.05 ug/L	<0.05	<0.05	<0.05	<0.05	600 ug/L	1700 ug/L
Acenaphthylene	0.05 ug/L	<0.05	<0.05	<0.05	<0.05	1.8 ug/L	1.8 ug/L
Anthracene	0.01 ug/L	<0.01	<0.01	<0.01	<0.01	2.4 ug/L	2.4 ug/L
Benzo [a] anthracene	0.01 ug/L	<0.01	<0.01	<0.01	<0.01	4.7 ug/L	4.7 ug/L
Benzo [a] pyrene	0.01 ug/L	<0.01	<0.01	<0.01	<0.01	0.81 ug/L	0.81 ug/L
Benzo [b] fluoranthene	0.05 ug/L	<0.05	<0.05	<0.05	<0.05	0.75 ug/L	0.75 ug/L
Benzo [g,h,i] perylene	0.05 ug/L	<0.05	<0.05	<0.05	<0.05	0.2 ug/L	0.2 ug/L
Benzo [k] fluoranthene	0.05 ug/L	<0.05	<0.05	<0.05	<0.05	0.4 ug/L	0.4 ug/L
Chrysene	0.05 ug/L	<0.05	<0.05	<0.05	<0.05	1 ug/L	1 ug/L
Dibenzo [a,h] anthracene	0.05 ug/L	<0.05	<0.05	<0.05	<0.05	0.52 ug/L	0.52 ug/L
Fluoranthene	0.01 ug/L	<0.01	<0.01	<0.01	<0.01	130 ug/L	130 ug/L
Fluorene	0.05 ug/L	<0.05	<0.05	<0.05	<0.05	400 ug/L	400 ug/L
Indeno [1,2,3-cd] pyrene	0.05 ug/L	<0.05	<0.05	<0.05	<0.05	0.2 ug/L	0.2 ug/L
1-Methylnaphthalene	0.05 ug/L	<0.05	<0.05	<0.05	<0.05	1800 ug/L	1800 ug/L
2-Methylnaphthalene	0.05 ug/L	<0.05	<0.05	<0.05	<0.05	1800 ug/L	1800 ug/L

Certificate of Analysis

Report Date: 24-Mar-2022

Client: **AEL Environment**

Order Date: 18-Mar-2022

Client PO:

Project Description: 11556-03

	Client ID:	B1980- MW6/22	B1981- MW6/22	B1982- MW1/22	B1983- MW3/22	Criteria:	
	Sample Date:	17-Mar-22 11:35	17-Mar-22 11:35	17-Mar-22 00:00	17-Mar-22 15:58	**Reg 153/04 -T3 Non-Potable Groundwater, coarse**	**Reg 153/04 -T3 Non-Potable Groundwater, fine**
	Sample ID:	2212494-01	2212494-02	2212494-03	2212494-04		
	Matrix:	Water	Water	Water	Water		
	MDL/Units						
Semi-Volatiles							
Methylnaphthalene (1&2)	0.10 ug/L	<0.10	<0.10	<0.10	<0.10	1800 ug/L	1800 ug/L
Naphthalene	0.05 ug/L	<0.05	<0.05	<0.05	<0.05	1400 ug/L	6400 ug/L
Phenanthrene	0.05 ug/L	<0.05	<0.05	<0.05	<0.05	580 ug/L	580 ug/L
Pyrene	0.01 ug/L	<0.01	<0.01	<0.01	<0.01	68 ug/L	68 ug/L
2-Fluorobiphenyl	Surrogate	83.7%	87.8%	88.2%	89.1%	-	-
Terphenyl-d14	Surrogate	107%	114%	112%	108%	-	-
PCBs							
PCBs, total	0.05 ug/L	-	-	<0.05	-	7.8 ug/L	15 ug/L
Decachlorobiphenyl	Surrogate	-	-	90.5%	-	-	-

Certificate of Analysis

Report Date: 24-Mar-2022

Client: **AEL Environment**

Order Date: 18-Mar-2022

Client PO:

Project Description: 11556-03

	Client ID:	B1984- MW9/22	B1985- MW8/22	Trip Blank		Criteria:	
	Sample Date:	17-Mar-22 16:20	18-Mar-22 10:10	14-Mar-22 09:00		Reg 153/04 -T3 Non-Potable Groundwater, coarse	Reg 153/04 -T3 Non-Potable Groundwater, fine
	Sample ID:	2212494-05	2212494-06	2212494-07			
	Matrix:	Water	Water	Water			
	MDL/Units						
General Inorganics							
Cyanide, free	2 ug/L	<2	<2	-	-	66 ug/L	66 ug/L
pH	0.1 pH Units	7.1	7.6	-	-	5.00 - 9.00 pH Units	5.00 - 9.00 pH Units
Anions							
Chloride	1 mg/L	807	483	-	-	2300000 ug/L	2300000 ug/L
Metals							
Mercury	0.1 ug/L	<0.1	<0.1	-	-	0.29 ug/L	2.8 ug/L
Antimony	0.5 ug/L	1.7	<0.5	-	-	20000 ug/L	20000 ug/L
Arsenic	1 ug/L	1	<1	-	-	1900 ug/L	1900 ug/L
Barium	1 ug/L	125	94	-	-	29000 ug/L	29000 ug/L
Beryllium	0.5 ug/L	<0.5	<0.5	-	-	67 ug/L	67 ug/L
Boron	10 ug/L	200	76	-	-	45000 ug/L	45000 ug/L
Cadmium	0.1 ug/L	<0.1	<0.1	-	-	2.7 ug/L	2.7 ug/L
Chromium (VI)	10 ug/L	<10	<10	-	-	140 ug/L	140 ug/L
Chromium	1 ug/L	<1	<1	-	-	810 ug/L	810 ug/L
Cobalt	0.5 ug/L	6.0	<0.5	-	-	66 ug/L	66 ug/L
Copper	0.5 ug/L	1.5	<0.5	-	-	87 ug/L	87 ug/L
Lead	0.1 ug/L	<0.1	<0.1	-	-	25 ug/L	25 ug/L
Molybdenum	0.5 ug/L	4.1	20.6	-	-	9200 ug/L	9200 ug/L
Nickel	1 ug/L	15	2	-	-	490 ug/L	490 ug/L
Selenium	1 ug/L	<1	<1	-	-	63 ug/L	63 ug/L
Silver	0.1 ug/L	<0.1	<0.1	-	-	1.5 ug/L	1.5 ug/L
Sodium	200 ug/L	3630	279000	-	-	2300000 ug/L	2300000 ug/L
Thallium	0.1 ug/L	<0.1	<0.1	-	-	510 ug/L	510 ug/L
Uranium	0.1 ug/L	7.4	4.8	-	-	420 ug/L	420 ug/L
Vanadium	0.5 ug/L	<0.5	0.9	-	-	250 ug/L	250 ug/L

	Client ID:	B1984- MW9/22	B1985- MW8/22	Trip Blank		Criteria:	
	Sample Date:	17-Mar-22 16:20	18-Mar-22 10:10	14-Mar-22 09:00		Reg 153/04 -T3 Non-Potable Groundwater, coarse	Reg 153/04 -T3 Non-Potable Groundwater, fine
	Sample ID:	2212494-05	2212494-06	2212494-07			
	Matrix:	Water	Water	Water			
	MDL/Units						
Metals							
Zinc	5 ug/L	11	<5	-	-	1100 ug/L	1100 ug/L
Volatiles							
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	-	130000 ug/L	130000 ug/L
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	-	44 ug/L	430 ug/L
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	-	85000 ug/L	85000 ug/L
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	-	380 ug/L	770 ug/L
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	-	5.6 ug/L	56 ug/L
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	-	0.79 ug/L	8.4 ug/L
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	-	630 ug/L	630 ug/L
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	-	2.4 ug/L	22 ug/L
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	-	82000 ug/L	82000 ug/L
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	-	4400 ug/L	4400 ug/L
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	-	4600 ug/L	9600 ug/L
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	-	9600 ug/L	9600 ug/L
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	-	8 ug/L	67 ug/L
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-	320 ug/L	3100 ug/L
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-	1.6 ug/L	12 ug/L
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	-	1.6 ug/L	17 ug/L
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	-	1.6 ug/L	17 ug/L
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	-	1.6 ug/L	17 ug/L
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	-	16 ug/L	140 ug/L
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	-	-	-
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	-	-	-
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	-	5.2 ug/L	45 ug/L
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	-	2300 ug/L	2300 ug/L

Certificate of Analysis

Report Date: 24-Mar-2022

Client: **AEL Environment**

Order Date: 18-Mar-2022

Client PO:

Project Description: 11556-03

	Client ID:	B1984- MW9/22	B1985- MW8/22	Trip Blank		Criteria:	
	Sample Date:	17-Mar-22 16:20	18-Mar-22 10:10	14-Mar-22 09:00		Reg 153/04 -T3 Non-Potable Groundwater, coarse	Reg 153/04 -T3 Non-Potable Groundwater, fine
	Sample ID:	2212494-05	2212494-06	2212494-07			
	Matrix:	Water	Water	Water			
	MDL/Units						
Volatiles							
Ethylene dibromide (dibromoethane,	0.2 ug/L	<0.2	<0.2	<0.2	-	0.25 ug/L	0.83 ug/L
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	-	51 ug/L	520 ug/L
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	-	470000 ug/L	1500000 ug/L
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	-	140000 ug/L	580000 ug/L
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	-	190 ug/L	1400 ug/L
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	-	610 ug/L	5500 ug/L
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	-	1300 ug/L	9100 ug/L
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-	3.3 ug/L	28 ug/L
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-	3.2 ug/L	15 ug/L
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	-	1.6 ug/L	17 ug/L
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	-	18000 ug/L	18000 ug/L
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-	640 ug/L	6700 ug/L
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-	4.7 ug/L	30 ug/L
Trichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	-	1.6 ug/L	17 ug/L
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	-	2500 ug/L	2500 ug/L
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	-	0.5 ug/L	1.7 ug/L
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	-	-	-
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	-	-	-
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	-	4200 ug/L	4200 ug/L
Dibromofluoromethane	Surrogate	131%	125%	120%	-	-	-
4-Bromofluorobenzene	Surrogate	119%	115%	115%	-	-	-
Toluene-d8	Surrogate	103%	103%	104%	-	-	-
Hydrocarbons							
F1 PHCs (C6-C10)	25 ug/L	<25	<25	-	-	750 ug/L	750 ug/L
F2 PHCs (C10-C16)	100 ug/L	<100	<100	-	-	150 ug/L	150 ug/L

Certificate of Analysis

Report Date: 24-Mar-2022

Client: **AEL Environment**

Order Date: 18-Mar-2022

Client PO:

Project Description: 11556-03

	Client ID:	B1984- MW9/22	B1985- MW8/22	Trip Blank		Criteria:	
	Sample Date:	17-Mar-22 16:20	18-Mar-22 10:10	14-Mar-22 09:00		Reg 153/04 -T3 Non-Potable Groundwater, coarse	Reg 153/04 -T3 Non-Potable Groundwater, fine
	Sample ID:	2212494-05	2212494-06	2212494-07			
	Matrix:	Water	Water	Water			
	MDL/Units						
Hydrocarbons							
F3 PHCs (C16-C34)	100 ug/L	<100	<100	-	-	500 ug/L	500 ug/L
F4 PHCs (C34-C50)	100 ug/L	<100	<100	-	-	500 ug/L	500 ug/L
Semi-Volatiles							
Acenaphthene	0.05 ug/L	<0.05	<0.05	-	-	600 ug/L	1700 ug/L
Acenaphthylene	0.05 ug/L	<0.05	<0.05	-	-	1.8 ug/L	1.8 ug/L
Anthracene	0.01 ug/L	<0.01	<0.01	-	-	2.4 ug/L	2.4 ug/L
Benzo [a] anthracene	0.01 ug/L	<0.01	<0.01	-	-	4.7 ug/L	4.7 ug/L
Benzo [a] pyrene	0.01 ug/L	<0.01	<0.01	-	-	0.81 ug/L	0.81 ug/L
Benzo [b] fluoranthene	0.05 ug/L	<0.05	<0.05	-	-	0.75 ug/L	0.75 ug/L
Benzo [g,h,i] perylene	0.05 ug/L	<0.05	<0.05	-	-	0.2 ug/L	0.2 ug/L
Benzo [k] fluoranthene	0.05 ug/L	<0.05	<0.05	-	-	0.4 ug/L	0.4 ug/L
Chrysene	0.05 ug/L	<0.05	<0.05	-	-	1 ug/L	1 ug/L
Dibenzo [a,h] anthracene	0.05 ug/L	<0.05	<0.05	-	-	0.52 ug/L	0.52 ug/L
Fluoranthene	0.01 ug/L	<0.01	<0.01	-	-	130 ug/L	130 ug/L
Fluorene	0.05 ug/L	<0.05	<0.05	-	-	400 ug/L	400 ug/L
Indeno [1,2,3-cd] pyrene	0.05 ug/L	<0.05	<0.05	-	-	0.2 ug/L	0.2 ug/L
1-Methylnaphthalene	0.05 ug/L	<0.05	<0.05	-	-	1800 ug/L	1800 ug/L
2-Methylnaphthalene	0.05 ug/L	<0.05	<0.05	-	-	1800 ug/L	1800 ug/L
Methylnaphthalene (1&2)	0.10 ug/L	<0.10	<0.10	-	-	1800 ug/L	1800 ug/L
Naphthalene	0.05 ug/L	<0.05	<0.05	-	-	1400 ug/L	6400 ug/L
Phenanthrene	0.05 ug/L	<0.05	<0.05	-	-	580 ug/L	580 ug/L
Pyrene	0.01 ug/L	<0.01	<0.01	-	-	68 ug/L	68 ug/L
2-Fluorobiphenyl	Surrogate	86.9%	90.2%	-	-	-	-
Terphenyl-d14	Surrogate	109%	112%	-	-	-	-

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Anions								
Chloride	ND	1	mg/L					
General Inorganics								
Cyanide, free	ND	2	ug/L					
Hydrocarbons								
F1 PHCs (C6-C10)	ND	25	ug/L					
F2 PHCs (C10-C16)	ND	100	ug/L					
F3 PHCs (C16-C34)	ND	100	ug/L					
F4 PHCs (C34-C50)	ND	100	ug/L					
Metals								
Mercury	ND	0.1	ug/L					
Antimony	ND	0.5	ug/L					
Arsenic	ND	1	ug/L					
Barium	ND	1	ug/L					
Beryllium	ND	0.5	ug/L					
Boron	ND	10	ug/L					
Cadmium	ND	0.1	ug/L					
Chromium (VI)	ND	10	ug/L					
Chromium	ND	1	ug/L					
Cobalt	ND	0.5	ug/L					
Copper	ND	0.5	ug/L					
Lead	ND	0.1	ug/L					
Molybdenum	ND	0.5	ug/L					
Nickel	ND	1	ug/L					
Selenium	ND	1	ug/L					
Silver	ND	0.1	ug/L					
Sodium	ND	200	ug/L					
Thallium	ND	0.1	ug/L					
Uranium	ND	0.1	ug/L					
Vanadium	ND	0.5	ug/L					
Zinc	ND	5	ug/L					
PCBs								
PCBs, total	ND	0.05	ug/L					

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Surrogate: Decachlorobiphenyl	*0.309*		*ug/L*	*61.8*	*60-140*			
Semi-Volatiles								
Acenaphthene	ND	0.05	ug/L					
Acenaphthylene	ND	0.05	ug/L					
Anthracene	ND	0.01	ug/L					
Benzo [a] anthracene	ND	0.01	ug/L					
Benzo [a] pyrene	ND	0.01	ug/L					
Benzo [b] fluoranthene	ND	0.05	ug/L					
Benzo [g,h,i] perylene	ND	0.05	ug/L					
Benzo [k] fluoranthene	ND	0.05	ug/L					
Chrysene	ND	0.05	ug/L					
Dibenzo [a,h] anthracene	ND	0.05	ug/L					
Fluoranthene	ND	0.01	ug/L					
Fluorene	ND	0.05	ug/L					
Indeno [1,2,3-cd] pyrene	ND	0.05	ug/L					
1-Methylnaphthalene	ND	0.05	ug/L					
2-Methylnaphthalene	ND	0.05	ug/L					
Methylnaphthalene (1&2)	ND	0.10	ug/L					
Naphthalene	ND	0.05	ug/L					
Phenanthrene	ND	0.05	ug/L					
Pyrene	ND	0.01	ug/L					
Surrogate: 2-Fluorobiphenyl	*17.6*		*ug/L*	*88.1*	*50-140*			
Surrogate: Terphenyl-d14	*24.2*		*ug/L*	*121*	*50-140*			
Volatiles								
Acetone	ND	5.0	ug/L					
Benzene	ND	0.5	ug/L					
Bromodichloromethane	ND	0.5	ug/L					
Bromoform	ND	0.5	ug/L					
Bromomethane	ND	0.5	ug/L					
Carbon Tetrachloride	ND	0.2	ug/L					
Chlorobenzene	ND	0.5	ug/L					
Chloroform	ND	0.5	ug/L					

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Dibromochloromethane	ND	0.5	ug/L					
Dichlorodifluoromethane	ND	1.0	ug/L					
1,2-Dichlorobenzene	ND	0.5	ug/L					
1,3-Dichlorobenzene	ND	0.5	ug/L					
1,4-Dichlorobenzene	ND	0.5	ug/L					
1,1-Dichloroethane	ND	0.5	ug/L					
1,2-Dichloroethane	ND	0.5	ug/L					
1,1-Dichloroethylene	ND	0.5	ug/L					
cis-1,2-Dichloroethylene	ND	0.5	ug/L					
trans-1,2-Dichloroethylene	ND	0.5	ug/L					
1,2-Dichloropropane	ND	0.5	ug/L					
cis-1,3-Dichloropropylene	ND	0.5	ug/L					
trans-1,3-Dichloropropylene	ND	0.5	ug/L					
1,3-Dichloropropene, total	ND	0.5	ug/L					
Ethylbenzene	ND	0.5	ug/L					
Ethylene dibromide (dibromoethane, 1,2-)	ND	0.2	ug/L					
Hexane	ND	1.0	ug/L					
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L					
Methyl Isobutyl Ketone	ND	5.0	ug/L					
Methyl tert-butyl ether	ND	2.0	ug/L					
Methylene Chloride	ND	5.0	ug/L					
Styrene	ND	0.5	ug/L					
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L					
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L					
Tetrachloroethylene	ND	0.5	ug/L					
Toluene	ND	0.5	ug/L					
1,1,1-Trichloroethane	ND	0.5	ug/L					
1,1,2-Trichloroethane	ND	0.5	ug/L					
Trichloroethylene	ND	0.5	ug/L					
Trichlorofluoromethane	ND	1.0	ug/L					
Vinyl chloride	ND	0.5	ug/L					
m,p-Xylenes	ND	0.5	ug/L					
o-Xylene	ND	0.5	ug/L					

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Xylenes, total	ND	0.5	ug/L					
Surrogate: 4-Bromofluorobenzene	*86.1*		*ug/L*	*108*	*50-140*			
Surrogate: Dibromofluoromethane	*89.3*		*ug/L*	*112*	*50-140*			
Surrogate: Toluene-d8	*83.5*		*ug/L*	*104*	*50-140*			
Benzene	ND	0.5	ug/L					
Ethylbenzene	ND	0.5	ug/L					
Toluene	ND	0.5	ug/L					
m,p-Xylenes	ND	0.5	ug/L					
o-Xylene	ND	0.5	ug/L					
Xylenes, total	ND	0.5	ug/L					
Surrogate: Toluene-d8	*85.5*		*ug/L*	*107*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Anions									
Chloride	20.1	1	mg/L	19.7			1.7	10	
General Inorganics									
Cyanide, free	ND	2	ug/L	ND			NC	20	
pH	7.4	0.1	pH Units	7.5			0.8	3.3	
Hydrocarbons									
F1 PHCs (C6-C10)	ND	25	ug/L	ND			NC	30	
Metals									
Mercury	ND	0.1	ug/L	ND			NC	20	
Antimony	1.80	0.5	ug/L	1.76			2.2	20	
Arsenic	ND	1	ug/L	ND			NC	20	
Barium	22.9	1	ug/L	22.6			1.2	20	
Beryllium	ND	0.5	ug/L	ND			NC	20	
Boron	18	10	ug/L	17			0.5	20	
Cadmium	ND	0.1	ug/L	ND			NC	20	
Chromium (VI)	ND	10	ug/L	ND			NC	20	
Chromium	ND	1	ug/L	ND			NC	20	
Cobalt	ND	0.5	ug/L	ND			NC	20	
Copper	1.23	0.5	ug/L	1.24			0.1	20	
Lead	0.11	0.1	ug/L	0.10			2.2	20	
Molybdenum	3.31	0.5	ug/L	3.17			4.5	20	
Nickel	ND	1	ug/L	ND			NC	20	
Selenium	ND	1	ug/L	ND			NC	20	
Silver	ND	0.1	ug/L	ND			NC	20	
Sodium	18200	200	ug/L	18200			0.1	20	
Thallium	0.10	0.1	ug/L	ND			NC	20	
Uranium	0.7	0.1	ug/L	0.7			3.3	20	
Vanadium	ND	0.5	ug/L	ND			NC	20	
Zinc	79	5	ug/L	79			0.4	20	
Volatiles									
Acetone	ND	5.0	ug/L	ND			NC	30	

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Benzene	ND	0.5	ug/L	ND			NC	30	
Bromodichloromethane	ND	0.5	ug/L	ND			NC	30	
Bromoform	ND	0.5	ug/L	ND			NC	30	
Bromomethane	ND	0.5	ug/L	ND			NC	30	
Carbon Tetrachloride	ND	0.2	ug/L	ND			NC	30	
Chlorobenzene	ND	0.5	ug/L	ND			NC	30	
Chloroform	ND	0.5	ug/L	ND			NC	30	
Dibromochloromethane	ND	0.5	ug/L	ND			NC	30	
Dichlorodifluoromethane	ND	1.0	ug/L	ND			NC	30	
1,2-Dichlorobenzene	ND	0.5	ug/L	ND			NC	30	
1,3-Dichlorobenzene	ND	0.5	ug/L	ND			NC	30	
1,4-Dichlorobenzene	ND	0.5	ug/L	ND			NC	30	
1,1-Dichloroethane	ND	0.5	ug/L	ND			NC	30	
1,2-Dichloroethane	ND	0.5	ug/L	ND			NC	30	
1,1-Dichloroethylene	ND	0.5	ug/L	ND			NC	30	
cis-1,2-Dichloroethylene	ND	0.5	ug/L	ND			NC	30	
trans-1,2-Dichloroethylene	ND	0.5	ug/L	ND			NC	30	
1,2-Dichloropropane	ND	0.5	ug/L	ND			NC	30	
cis-1,3-Dichloropropylene	ND	0.5	ug/L	ND			NC	30	
trans-1,3-Dichloropropylene	ND	0.5	ug/L	ND			NC	30	
Ethylbenzene	ND	0.5	ug/L	ND			NC	30	
Ethylene dibromide (dibromoethane, 1,2-)	ND	0.2	ug/L	ND			NC	30	
Hexane	ND	1.0	ug/L	ND			NC	30	
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L	ND			NC	30	
Methyl Isobutyl Ketone	ND	5.0	ug/L	ND			NC	30	
Methyl tert-butyl ether	ND	2.0	ug/L	ND			NC	30	
Methylene Chloride	ND	5.0	ug/L	ND			NC	30	
Styrene	ND	0.5	ug/L	ND			NC	30	
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	ND			NC	30	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	ND			NC	30	
Tetrachloroethylene	ND	0.5	ug/L	ND			NC	30	

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Toluene	ND	0.5	ug/L	ND			NC	30	
1,1,1-Trichloroethane	ND	0.5	ug/L	ND			NC	30	
1,1,2-Trichloroethane	ND	0.5	ug/L	ND			NC	30	
Trichloroethylene	ND	0.5	ug/L	ND			NC	30	
Trichlorofluoromethane	ND	1.0	ug/L	ND			NC	30	
Vinyl chloride	ND	0.5	ug/L	ND			NC	30	
m,p-Xylenes	ND	0.5	ug/L	ND			NC	30	
o-Xylene	ND	0.5	ug/L	ND			NC	30	
Surrogate: 4-Bromofluorobenzene	*86.0*		*ug/L*		*107*	*50-140*			
Surrogate: Dibromofluoromethane	*88.1*		*ug/L*		*110*	*50-140*			
Surrogate: Toluene-d8	*83.1*		*ug/L*		*104*	*50-140*			
Benzene	ND	0.5	ug/L	ND			NC	30	
Ethylbenzene	ND	0.5	ug/L	ND			NC	30	
Toluene	ND	0.5	ug/L	ND			NC	30	
m,p-Xylenes	ND	0.5	ug/L	ND			NC	30	
o-Xylene	ND	0.5	ug/L	ND			NC	30	
Surrogate: Toluene-d8	*84.9*		*ug/L*		*106*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Anions									
Chloride	31.0	1	mg/L	19.7	113	77-123			
General Inorganics									
Cyanide, free	51.6	2	ug/L	ND	103	61-139			
Hydrocarbons									
F1 PHCs (C6-C10)	2240	25	ug/L	ND	112	68-117			
F2 PHCs (C10-C16)	1360	100	ug/L	ND	85.0	60-140			
F3 PHCs (C16-C34)	3790	100	ug/L	ND	96.7	60-140			
F4 PHCs (C34-C50)	2680	100	ug/L	ND	108	60-140			
Metals									
Mercury	3.10	0.1	ug/L	ND	103	70-130			
Antimony	42.7	0.5	ug/L	0.73	83.9	80-120			
Arsenic	49.7	1	ug/L	ND	98.4	80-120			
Barium	69.2	1	ug/L	22.6	93.0	80-120			
Beryllium	45.2	0.5	ug/L	ND	90.4	80-120			
Boron	58	10	ug/L	17	81.2	80-120			
Cadmium	48.0	0.1	ug/L	ND	95.9	80-120			
Chromium (VI)	187	10	ug/L	ND	93.5	70-130			
Chromium	50.4	1	ug/L	1.2	98.4	80-120			
Cobalt	48.4	0.5	ug/L	ND	96.7	80-120			
Copper	50.7	0.5	ug/L	4.59	92.3	80-120			
Lead	44.2	0.1	ug/L	0.10	88.2	80-120			
Molybdenum	45.8	0.5	ug/L	1.23	89.2	80-120			
Nickel	48.0	1	ug/L	ND	94.2	80-120			
Selenium	46.0	1	ug/L	ND	91.6	80-120			
Silver	59.6	0.1	ug/L	ND	119	80-120			
Sodium	27500	200	ug/L	18200	93.4	80-120			
Thallium	43.7	0.1	ug/L	ND	87.3	80-120			
Uranium	44.0	0.1	ug/L	ND	87.8	80-120			
Vanadium	49.6	0.5	ug/L	ND	98.7	80-120			
Zinc	56	5	ug/L	11	89.5	80-120			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
PCBs									
PCBs, total	0.691	0.05	ug/L	ND	69.1	65-135			
Surrogate: Decachlorobiphenyl	*0.371*		*ug/L*		*74.1*	*60-140*			
Semi-Volatiles									
Acenaphthene	5.04	0.05	ug/L	ND	101	50-140			
Acenaphthylene	4.20	0.05	ug/L	ND	84.0	50-140			
Anthracene	4.33	0.01	ug/L	ND	86.6	50-140			
Benzo [a] anthracene	4.18	0.01	ug/L	ND	83.7	50-140			
Benzo [a] pyrene	5.33	0.01	ug/L	ND	107	50-140			
Benzo [b] fluoranthene	5.45	0.05	ug/L	ND	109	50-140			
Benzo [g,h,i] perylene	4.74	0.05	ug/L	ND	94.9	50-140			
Benzo [k] fluoranthene	5.78	0.05	ug/L	ND	116	50-140			
Chrysene	5.24	0.05	ug/L	ND	105	50-140			
Dibenzo [a,h] anthracene	4.88	0.05	ug/L	ND	97.5	50-140			
Fluoranthene	4.36	0.01	ug/L	ND	87.2	50-140			
Fluorene	4.56	0.05	ug/L	ND	91.2	50-140			
Indeno [1,2,3-cd] pyrene	4.38	0.05	ug/L	ND	87.5	50-140			
1-Methylnaphthalene	5.19	0.05	ug/L	ND	104	50-140			
2-Methylnaphthalene	5.54	0.05	ug/L	ND	111	50-140			
Naphthalene	5.10	0.05	ug/L	ND	102	50-140			
Phenanthrene	4.56	0.05	ug/L	ND	91.1	50-140			
Pyrene	4.38	0.01	ug/L	ND	87.6	50-140			
Surrogate: 2-Fluorobiphenyl	*17.9*		*ug/L*		*89.3*	*50-140*			
Surrogate: Terphenyl-d14	*21.8*		*ug/L*		*109*	*50-140*			
Volatiles									
Acetone	68.3	5.0	ug/L	ND	68.3	50-140			
Benzene	33.0	0.5	ug/L	ND	82.4	60-130			
Bromodichloromethane	33.5	0.5	ug/L	ND	83.8	60-130			
Bromoform	30.5	0.5	ug/L	ND	76.2	60-130			
Bromomethane	38.0	0.5	ug/L	ND	95.0	50-140			
Carbon Tetrachloride	37.1	0.2	ug/L	ND	92.7	60-130			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Chlorobenzene	35.7	0.5	ug/L	ND	89.4	60-130			
Chloroform	31.6	0.5	ug/L	ND	79.1	60-130			
Dibromochloromethane	30.2	0.5	ug/L	ND	75.4	60-130			
Dichlorodifluoromethane	41.6	1.0	ug/L	ND	104	50-140			
1,2-Dichlorobenzene	32.6	0.5	ug/L	ND	81.5	60-130			
1,3-Dichlorobenzene	32.6	0.5	ug/L	ND	81.6	60-130			
1,4-Dichlorobenzene	33.2	0.5	ug/L	ND	83.0	60-130			
1,1-Dichloroethane	30.9	0.5	ug/L	ND	77.3	60-130			
1,2-Dichloroethane	31.5	0.5	ug/L	ND	78.8	60-130			
1,1-Dichloroethylene	34.3	0.5	ug/L	ND	85.6	60-130			
cis-1,2-Dichloroethylene	31.6	0.5	ug/L	ND	79.0	60-130			
trans-1,2-Dichloroethylene	33.6	0.5	ug/L	ND	83.9	60-130			
1,2-Dichloropropane	31.2	0.5	ug/L	ND	77.9	60-130			
cis-1,3-Dichloropropylene	43.1	0.5	ug/L	ND	108	60-130			
trans-1,3-Dichloropropylene	31.2	0.5	ug/L	ND	78.1	60-130			
Ethylbenzene	34.7	0.5	ug/L	ND	86.8	60-130			
Ethylene dibromide (dibromoethane, 1,2-)	34.7	0.2	ug/L	ND	86.6	60-130			
Hexane	34.4	1.0	ug/L	ND	86.1	60-130			
Methyl Ethyl Ketone (2-Butanone)	88.0	5.0	ug/L	ND	88.0	50-140			
Methyl Isobutyl Ketone	79.3	5.0	ug/L	ND	79.3	50-140			
Methyl tert-butyl ether	105	2.0	ug/L	ND	105	50-140			
Methylene Chloride	32.6	5.0	ug/L	ND	81.4	60-130			
Styrene	30.5	0.5	ug/L	ND	76.4	60-130			
1,1,1,2-Tetrachloroethane	34.0	0.5	ug/L	ND	85.0	60-130			
1,1,2,2-Tetrachloroethane	35.7	0.5	ug/L	ND	89.2	60-130			
Tetrachloroethylene	36.8	0.5	ug/L	ND	92.0	60-130			
Toluene	36.8	0.5	ug/L	ND	91.9	60-130			
1,1,1-Trichloroethane	30.9	0.5	ug/L	ND	77.3	60-130			
1,1,2-Trichloroethane	28.5	0.5	ug/L	ND	71.3	60-130			
Trichloroethylene	31.5	0.5	ug/L	ND	78.8	60-130			
Trichlorofluoromethane	35.9	1.0	ug/L	ND	89.6	60-130			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Vinyl chloride	37.4	0.5	ug/L	ND	93.5	50-140			
m,p-Xylenes	67.2	0.5	ug/L	ND	84.0	60-130			
o-Xylene	32.4	0.5	ug/L	ND	81.0	60-130			
Surrogate: 4-Bromofluorobenzene	*88.1*		*ug/L*		*110*	*50-140*			
Surrogate: Dibromofluoromethane	*86.1*		*ug/L*		*108*	*50-140*			
Surrogate: Toluene-d8	*79.9*		*ug/L*		*99.8*	*50-140*			
Benzene	33.0	0.5	ug/L	ND	82.4	60-130			
Ethylbenzene	34.7	0.5	ug/L	ND	86.8	60-130			
Toluene	36.8	0.5	ug/L	ND	91.9	60-130			
m,p-Xylenes	67.2	0.5	ug/L	ND	84.0	60-130			
o-Xylene	32.4	0.5	ug/L	ND	81.0	60-130			
Surrogate: Toluene-d8	*79.9*		*ug/L*		*99.8*	*50-140*			

Qualifier Notes:

Sample Data Revisions:

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

Source Result: Data used as source for matrix and duplicate samples

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

CCME PHC additional information:

- The method for the analysis of PHCs complies with the Reference Method for the CWS PHC and is validated for use in the laboratory. All prescribed quality criteria identified in the method has been met.

- F1 range corrected for BTEX.

- F2 to F3 ranges corrected for appropriate PAHs where available.

- The gravimetric heavy hydrocarbons (F4G) are not to be added to C6 to C50 hydrocarbons.

- In the case where F4 and F4G are both reported, the greater of the two results is to be used for comparison to CWS PHC criteria.

- When reported, data for F4G has been processed using a silica gel cleanup.

PARACEL LABORATORIES LTD.

Paracel ID: 2212494

Paracel Order Number (Lab Use Only)	Chain Of Custody (Lab Use Only)
2212494	№ 134515

Client Name: AEL Environment	Project Ref: 11556-03	Page 1 of 1
Contact Name: Erin Hunt.	Quote #:	Turnaround Time
Address: Unit 3, 1705 Argentia Road Mississauga, ON	PO #:	☐ 1 day ☐ 3 day ☐ 2 day ☑ Regular
Telephone:	E-mail: lab@aelenv.com, ehunt@aelenv.com	Date Required:

☐ REG 153/04 ☐ REG 406/19

☐ Table 1 ☐ Res/Park ☐ Med/Fine
☐ Table 2 ☑ Ind/Comm ☐ Coarse
☑ Table 3 ☐ Agri/Other
☐ Table
For RSC: ☑ Yes ☐ No

Other Regulation: ☐ REG 558 ☐ PWQO ☐ CCME ☐ MISA ☐ SU - Sani ☐ SU - Storm
Mun:
☐ Other:

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken Date	Sample Taken Time	Required Analysis: PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	~~Mercury~~ PCBs				
1	B1980 - MW6/22	GW		9	March 17, 2022	11:35AM	✓	✓	✓	✓	✓	✓						
2	B1981 - MW6/22	GW		9	March 17, 2022	11:35 Am	✓	✓	✓	✓	✓	✓						
3	B1982 - MW1/22	GW		10	March 17, 2022		✓	✓	✓	✓	✓	✓		✓				
4	B1983 - MW3/22	GW		4	March 17, 2022	3:58 PM	✓		✓									
5	B1984 - ~~MW97~~ MW9/22	GW		9	March 17, 2022	4:20 PM	✓	✓	✓	✓	✓	✓						
6	B1985 - MW8/22	GW		9	March 18, 2022	10:10 Am	✓	✓	✓	✓	✓	✓						
7	Trip Blanks	GW		2	MAR 14, 2022			✓		✓								
8																		
9																		
10																		

Comments:

Method of Delivery: Walk-in

Relinquished By (Sign):	Received By Driver/Depot:	Received at Lab:
Relinquished By (Print): John Stephen	Date/Time:	Date/Time: Mar 18/22 11:00a
Date/Time: Mar 15, 2022 10:55AM	Temperature: °C	Temperature: 8.5 °C

Verified By: BF
Date/Time: March 18 22 12:27
pH Verified: ☑ By: RS

1705 Argentia Rd, Unit 3
Mississauga, ON L5N 3A9
aelenv.com

APPENDIX 4
AUTHORIZATION AND TERMS

□□□□ □rgentia Rd□Unit □
Mississauga□ON □□N □□□
ae□en□□o□

Terms of Engagement

GENERAL - □eon □g□ond □td□ □□□□ and the □ient □as des□ribed in the atta□hed proposa□ agree that any pro□essiona□ser□i□es□in□uding subse□uent ser□i□es and □harges □o□e□ti□e□ the Ser□i□es□to be pro□ided by □□□ re□ating to the Proposa□□i□□be sub□e□t to the □o□o□ing Ter□s and □onditions□

STANDARD OF CARE – Ser□i□es pro□ided by □□□ □i□□be □ondu□te□ □ith a □e□e□ o□ □are ordinari□ pro□ided by the engineering and geos□ien□es pro□essions under si□i□ar site and ti□e □onstraints□No □arranty□e□press or i□p□ied is □ade□□□□s □or□□ay resu□t in da□□age to sur□a□es□ the restoration o□□hi□h is not part o□this agree□ent□

SITE ACCESS □The □ient pro□ides right o□entry to □□□ and their sub□ontra□tors to □arry out the □or□□

INFORMATION – The □ient □arrants that it has pro□ided □□□ a□□in□or□ation □no□n to□or suspe□ted by the □ient re□ating to the past and e□isting □ondition o□the Site□in□uding but not □□ited to soi□and ground□ater data□ha□ardous □ateria□s and buried uti□ities□□□□ □ay re□y on su□h in□or□ation□

SAFETY □ □□□ is responsib□e on□y □or its a□ti□ities and that o□its e□p□oyees□

PAYMENT - □harges □or the ser□i□e□s□rendered □i□□be □ade in a□□ordan□e □ith the □onsu□tants S□hedu□e o□□ees and Disburse□ ents as the ser□i□es are rendered□ In□oi□es □i□□be due and payab□e on re□eipt □ro□ the date o□the in□oi□e □ithout ho□dba□□□Interest on o□erdue a□□ounts is □□ per □onth□ □o□e□tion □ees being e□tra and payab□e on □o□e□tion □□here a□□o□ed□I□the a□□ount is not paid □ithin □□ days □ro□ the date o□the in□oi□e then □□□ sha□□ha□e the right to suspend a□□□or□ under this agree□ ent □ithout pre□udi□e□

CHANGES IN WORK SCOPE – □□□ and the □ient agree that it □ay be ne□essary to □odi□y the s□ope o□□or□□s□hedu□e and□or □ost esti□ ate proposed in the agree□ ent□

INSURANCE – □□□ □arries □□□□□□□□□ in □o□ □er□ia□genera□□iabi□ity□pro□essiona□□iabi□ity and auto□ obi□e □o□erage□Deta□s on our standard □o□erage is a□ai□ab□e on re□uest□□□□ □aintains □or□er□s □o□pensation □o□erage to statutory a□ ounts□

LIMITATION OF LIABILITY – The □ient agrees to □□it the □iabi□ity o□ □□□□ its e□p□oyees□ o□□□ers□ dire□tors□ agents□ □onsu□tants and sub□ontra□tors to □atters □hi□h arise dire□t□y □ro□ □□□s a□ts□errors or o□ issions and su□h that the tota□aggregate □iabi□ity o□□□□□□hether arising in □ontra□t□tort□or other□ise□sha□□not e□□eed the greater o□□□□□□□□ or □□□s tota□ee □or ser□i□es□□ny □iabi□ity sha□e□pire one year a□ter substantia□ □o□ p□etion o□the ser□i□es□Neither party sha□□be responsib□e □or □ost re□enues□pro□its□□ost o□□apita□□□ai□s o□□usto□ ers□or other spe□ia□□indire□t□ □onse□uentia□or puniti□e da□ ages□

MUTUAL INDEMNITY – □□□ agrees to inde□ nity□de□end and sa□e har□ □ess the □ient□its o□□□ers□dire□tors□e□ p□oyees□sub□ontra□tors and agents □ro□ and against a□□□ai□s□da□ ages□□osses and e□penses □in□uding but not □□ited to □ega□□ees□arising □ro□ persona□in□ury□death or da□ age to third party property to the e□tent arising □ro□ the neg□gent a□ts□errors and o□ issions o□□□□□The □ient agrees to inde□ nity□de□end and sa□e har□ □ess □□□□its o□□□ers□dire□tors□e□ p□oyees□sub□ontra□tors and agents □ro□ and against a□□□ai□s□da□ ages□□osses and e□penses □in□uding but not □□ited to □ega□□ees□arising out o□or resu□ting □ro□ the Ser□i□es or □or□ o□□□□ in□uding but not □□ited to□□ai□s □ade by third parties or any □ai□s against □□□ arising □ro□ the a□ts□errors□or o□ issions o□the □ient or others□To the □u□□est e□tent per□itted by □a□□su□h inde□ ni□□ations sha□□app□y regard□ess o□brea□h o□□ontra□t or stri□t □iabi□ity o□□□□□Su□h inde□ nity sha□□not app□y to the e□tent that □□□ is □ina□y deter□ ined to be neg□gent□

SUBSURFACE RISKS – Spe□ia□ris□s o□□ur □hene□er engineering or re□ated dis□p□ines are app□ied to identi□y subsur□a□e □onditions and e□en a □o□ prehensi□e sa□p□ing and testing progra□ □ay □ai□to dete□t □ertain □onditions□The en□iron□enta□□geo□ogi□a□□geote□hni□a□□geo□he□i□a□and hydrogeo□ogi□a□□onditions that □□□ interprets to e□ist bet□een sa□p□ing points □ay di□□er □ro□ those that a□tua□□y e□ist□The □ient agrees to □ai□e any □ai□ against □□□ and agrees to de□end□inde□ nity and ho□d □□□ har□ □ess □ro□ any □ai□ or □iabi□ity □or in□ury or □oss □hi□h □ay arise as a resu□t o□any da□ age and resu□ting i□pa□ts to subterranean stru□tures□uti□ities or □ross□onta□ination □aused by any subsur□a□e in□estigation□

DISCOVERY OF HAZARDOUS MATERIALS – The □ient re□ogni□ed that ha□ardous or suspe□ted ha□ardous substan□es □ay be dis□o□ered at the site in the □ourse o□the □or□ and that the presen□e o□su□h substan□es are not the responsibi□ity o□□□□□□□□onta□inated sa□p□es□□ateria□s□ and □ie□ e□ui□p□ent that □annot be readi□y □□eaned□sha□□re□ain the property and responsibi□ity □or the □ient □or proper handi□ng and disposa□□ The □ient agrees that the dis□o□ery o□any su□h substan□es sha□□onstitute a □hanged □ondition □or □hi□h □□□ sha□□be □air□y □o□pensated□The □ient agrees to □ai□e any □ai□ against □□□ and agree to de□end□inde□ ni□ and ho□d □□□ har□ □ess □ro□ any □ai□ or □iabi□ity □or in□ury or □oss o□ any type arising □ro□ any a□□ged or a□tua□dis□o□ery o□ha□ardous or suspe□ted ha□ardous substan□es□

DOCUMENTS □ □□reports□p□ans□data□notes□dra□ings and other do□u□ ents prepared by □□□ are □onsidered its pro□essiona□□or□ produ□t and sha□re□ ain the □opyright property o□□□□□The ser□i□es and do□u□ ents pro□ided by □□□ are intended □or one ti□ e use on□□□t the re□uest and e□pense o□the □ient□ □□□ sha□□pro□ide the □ient □ith □opies o□su□h do□u□ ents□The □ient a□□no□□edges that e□e□troni□ □edia are sus□eptib□e to unauthorised □odi□□ation deterioration and in□o□patibi□ity and there□ore the □ient □annot re□y upon the e□e□troni□□edia □ersion□

DELAYS – I□site □onditions pre□ent or inhibit per□or□ an□e o□the □or□ or unre□ea□ed ha□ardous □aste □ateria□s or □onditions are en□ountered ser□i□es under this □gree□ ent □ay be de□ayed□The □ient sha□□not ho□d □□□ responsib□e □or da□ ages or de□ays in per□or□ an□e □aused by any su□h de□ays□or de□ays □aused by the □ient□its sub□ontra□tors□a□ts o□God□a□ts and□or o□ issions o□go□ern□enta□authorities and regu□atory agen□ies or other e□ents □hi□h are beyond the reasonab□e □ontro□□□□□

LITIGATION □The □ient sha□□rei□burse □□□ □or a□□dire□t e□penses and ti□e in □onne□tion □ith any disputes□□itigation or arbitration in□o□□ing representati□es or do□u□ ents o□□□□ arising out o□the Ser□i□es in a□□ordan□e □ith □□□s pre□ai□ing S□hedu□e o□□ees□

PROPERTY TRANSACTIONS – In □onne□tion □ith any □onte□p□ated or a□tua□purchase or sa□e o□property re□ated to the □or□□□□□ □i□not be responsib□e □or the independent □on□usions□interpretations□interpo□ations and□or de□isions □or the □ient or others arising out o□data □hi□h is dire□t□y the produ□t o□□□□□s ser□i□es□

MISCELLANEOUS – This agree□ ent supersedes a□□other agree□ ents□ ora□ or □ritten and □ontains the entire agree□ ent o□ at the parties □on□erning its sub□e□t □atter□No □an□e□ation□□odi□□ation□a□end□ ent□de□etion□addition□□ai□er or other □hange in the □gree□ ent sha□□ha□e e□e□t un□ess spe□i□a□y set □orth in □riting singed by the party to be bound thereby□**The Client acknowledges and agrees that if it accepts this engagement letter, or AEL performs the services contemplated therein, then the above Terms of Engagement shall constitute a binding agreement for the sole benefit of the Client and AEL and that no third party beneficiaries are created by this agreement.**