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August 10, 2021
File: PE5371-LET.01

City of Ottawa
100 Constellation Drive
Ottawa, Ontario
K2C 3L6

Attention: **Mr. Shawn Lynch**

Subject: **Excess Soil Quality Assessment**
1075 March Road - Proposed Fire Station
Ottawa, Ontario

Dear Sir,

Further to your request and authorization, Paterson Group (Paterson) conducted an environmental testing program of soil located at 1075 March Road. It is our understanding that as part of the proposed development of the subject site, excess soil will be generated, some of which will require off-site disposal. The intent of the program has been to assess the quality of the upper soils onsite to determine any special disposal and management requirements.

Background (Assessment of Past Uses)

A review of aerial images from our 2018 Phase I ESA indicates that the subject was used for agricultural crops in 1934, the earliest image obtained. The land use has remained such. The majority of the adjacent lands have also been used for agricultural purposes, as well as residential and institutional. No APECs were identified on the subject property and therefore no contaminants of potential concern were identified.

Field Findings/Observations

The field portion of the testing program was carried out on July 20, 2021. At that time, representative topsoil and native clay samples were recovered at approximately 1.6 m deep from five (5) test pit locations from representative locations across the site. A total of fifteen (15) soil samples were recovered from the test pits, and eight (8) representative samples (3 of topsoil and 5 of silt clay) were submitted for analysis. No apparent contamination or odours were noted in the collected samples. Screening of the samples did not identify any potential for volatile compounds.

Analytical Test Results

In order to assess the quality of the soil, eight (8) representative soil samples were submitted to Paracel Laboratories (Paracel) in Ottawa for analysis of benzene, ethylbenzene, toluene and xylenes (BTEX), petroleum hydrocarbons (PHCs, Fractions F1 to F4), metals, polycyclic aromatic hydrocarbons (PAHs) and pH.

The test results are presented below in Tables 1 through 4, with the MECP Table 1 Residential and Table 2.1 Residential Standards for soil. The above test parameter suites and MECP Standards were selected based on requirements of Ontario Regulation 406/19.

Table 1 - Analytical Test Results
BTEX and PHC (F_1-F_4)

Parameter	MDL (µg/g)	Soil Samples (µg/g) July 20, 2021				MECP Table 1 Standards Residential (µg/g)	MECP Table 2.1 Standards Residential (µg/g)
		TP1-G1 (Topsoil)	TP1-G2 (Clay)	TP2-G1 (Topsoil)	TP2-G3 (Clay)		
Benzene	0.02	nd	nd	nd	nd	0.02	0.02
Ethylbenzene	0.05	nd	nd	nd	nd	0.05	0.05
Toluene	0.05	nd	nd	nd	nd	0.2	0.2
Xylenes	0.05	nd	nd	nd	nd	0.05	0.091
F_1 (C-C_{10})	7	nd	nd	nd	nd	25	25
F_2 (C_{10}-C_{16})	4	nd	nd	nd	nd	10	10
F_3 (C_{16}-C_{34})	8	60	nd	16	nd	240	240
F_4 (C_{34}-C_{50})	6	18	nd	7	nd	120	2800

Notes:

- MDL - Method Detection Limit
- nd - not detected above the MDL
- **Bold** - Value exceeds selected MECP Table 1 Standard
- **Bold** - Value exceeds selected MECP Table 1 and Table 2.1 Standards

Table 1 - Continued - Analytical Test Results
BTEX and PHC (F_1-F_4)

Parameter	MDL (µg/g)	Soil Samples (µg/g) July 20, 2021				MECP Table 1 Standards Residential (µg/g)	MECP Table 2.1 Standards Residential (µg/g)
		TP3-G1 (Topsoil)	TP3-G2 (Clay)	TP4-G3 (Clay)	TP5-G2 (Clay)		
Benzene	0.02	nd	nd	nd	nd	0.02	0.02
Ethylbenzene	0.05	nd	nd	nd	nd	0.05	0.05
Toluene	0.05	nd	nd	nd	nd	0.2	0.2
Xylenes	0.05	nd	nd	nd	nd	0.05	0.091
F_1 (C-C_{10})	7	nd	nd	nd	nd	25	25
F_2 (C_{10}-C_{16})	4	nd	nd	nd	nd	10	10
F_3 (C_{16}-C_{34})	8	17	nd	15	nd	240	240
F_4 (C_{34}-C_{50})	6	8	nd	nd	nd	120	2800

Notes:

- MDL - Method Detection Limit
- nd - not detected above the MDL
- **Bold** - Value exceeds selected MECP Table 1 Standard
- **Bold** - Value exceeds selected MECP Table 1 and Table 2.1 Standards

All BTEX and PHC results comply with the selected MECP Table 1 and Table 2.1 Standards.

Table 2 - Analytical Test Results
Metals

Parameter	MDL (µg/g)	Soil Samples (µg/g) July 20, 2021				MECP Table 1 Standards Residential (µg/g)	MECP Table 2.1 Standards Residential (µg/g)
		TP1-G1 (Topsoil)	TP1-G2 (Clay)	TP2-G1 (Topsoil)	TP2-G3 (Clay)		
Antimony	1.0	nd	nd	nd	nd	1.3	7.5
Arsenic	1.0	2.7	2.7	1.6	2.2	18	18
Barium	1.0	202	**282**	101	**278**	220	390
Beryllium	0.5	0.7	0.8	nd	0.7	2.5	4
Boron (total)	5	nd	6.0	nd	nd	36	120
Cadmium	0.5	nd	nd	nd	nd	1.2	1.2
Chromium	5.0	60.0	**70.7**	33.2	60.5	70	160
Cobalt	1.0	14.0	17.2	7.9	15.7	21	22
Copper	5.0	21.8	28.5	10.6	28.5	92	140
Lead	1.0	13.3	5.9	7.9	4.7	120	120
Molybdenum	1.0	nd	nd	nd	nd	2	6.9
Nickel	5.0	29.8	36.7	16.1	33.5	82	100
Selenium	1.0	nd	nd	nd	nd	1.5	2.4
Silver	0.3	nd	nd	nd	nd	0.5	20
Thallium	1.0	nd	nd	nd	nd	1	1
Uranium	1.0	1.1	nd	nd	nd	2.5	23
Vanadium	10.0	74.5	81.8	45.6	71.7	86	86
Zinc	20.0	108	93.8	57.1	83.4	290	340

Notes:

- MDL - Method Detection Limit
- nd - not detected above the MDL
- **Bold** - Value exceeds selected MECP Table 1 Standard
- **Bold** - Value exceeds selected MECP Table 1 and Table 2.1 Standards

Table 2 - Continued - Analytical Test Results
Metals

Parameter	MDL (µg/g)	Soil Samples (µg/g) July 20, 2021				MECP Table 1 Standards Residential (µg/g)	MECP Table 2.1 Standards Residential (µg/g)
		TP3-G1 (Topsoil)	TP3-G2 (Clay)	TP4-G3 (Clay)	TP5-G2 (Clay)		
Antimony	1.0	nd	nd	nd	nd	1.3	7.5
Arsenic	1.0	2.0	2.6	2.3	2.9	18	18
Barium	1.0	124	**281**	**238**	**353**	220	390
Beryllium	0.5	nd	0.8	0.7	0.9	2.5	4
Boron (total)	5	nd	5.8	5.1	6.0	36	120
Cadmium	0.5	nd	nd	nd	nd	1.2	1.2
Chromium	5.0	38.1	59.6	55.2	**82.8**	70	160
Cobalt	1.0	9.0	15.7	14.2	19.5	21	22
Copper	5.0	13.4	29.2	25.0	33.8	92	140
Lead	1.0	8.0	6.1	4.9	6.8	120	120
Molybdenum	1.0	nd	nd	nd	nd	2	6.9
Nickel	5.0	18.6	32.4	29.4	42.1	82	100
Selenium	1.0	nd	nd	nd	nd	1.5	2.4
Silver	0.3	nd	nd	nd	nd	0.5	20
Thallium	1.0	nd	nd	nd	nd	1	1
Uranium	1.0	1.1	nd	nd	nd	2.5	23
Vanadium	10.0	49.6	74.2	68.3	**93.9**	86	86 [160]
Zinc	20.0	69.3	87.5	76.5	110	290	340

Notes:

- MDL - Method Detection Limit
- nd - not detected above the MDL
- [160] - Table 4.1 Standard
- **Bold** - Value exceeds selected MECP Table 1 Standard
- **Bold** - Value exceeds selected MECP Table 1 and Table 2.1 Standards

All test results are in compliance with Table 1 Standards with the exception of Cobalt in sample TP1-G2, cobalt and vanadium in sample TP5-G2 and barium in all 5 native silty clay samples. The vanadium concentration in sample TP5-G2 also marginally exceeded the MECP Table 2.1 Standards. Based on the clayey nature of the soil and the consistency of the results, it is our opinion that this elevated vanadium concentration is

naturally occurring. All remaining metals results comply with MECP Table 1 and Table 2.1 Standards.

Table 3 - Analytical Test Results
PAHs

Parameter	MDL (µg/g)	Soil Samples (µg/g) July 20, 2021				MECP Table 1 Standards Residential (µg/g)	MECP Table 2.1 Standards Residential (µg/g)
		TP1-G1 (T.S.)	TP1-G2 (Clay)	TP2-G1 (T.S.)	TP2-G3 (Clay)		
Acenapthene	0.02	nd	nd	nd	nd	0.072	2.5
Acenaphthylene	0.02	nd	nd	nd	nd	0.093	0.093
Anthracene	0.02	nd	nd	nd	nd	0.16	0.16
Benzo[a]anthracene	0.02	nd	nd	nd	nd	0.36	0.5
Benzo[a]pyrene	0.02	nd	nd	nd	nd	0.3	0.31
Benzo[b]fluoranthene	0.02	nd	nd	nd	nd	0.47	3.2
Benzo[g,h,i]perylene	0.02	nd	nd	nd	nd	0.68	6.6
Benzo[k]fluoranthene	0.02	nd	nd	nd	nd	0.48	3.1
Chrysene	0.02	nd	nd	nd	nd	2.8	7
Dibenzo[a,h]anthracene	0.02	nd	nd	nd	nd	0.1	0.57
Fluoranthene	0.02	nd	nd	nd	nd	0.56	0.69
Fluorene	0.02	nd	nd	nd	nd	0.12	6.8
Indeno[1,2,3-cd]pyrene	0.02	nd	nd	nd	nd	0.23	0.38
1-Methylnaphthalene	0.02	nd	nd	nd	nd	0.59	0.59
2-Methylnaphthalene	0.02	nd	nd	nd	nd	0.59	0.59
Methylnaphthalene (1&2)	0.04	nd	nd	nd	nd	0.59	0.59
Naphthalene	0.01	nd	nd	nd	nd	0.09	0.2
Phenanthrene	0.02	nd	nd	nd	nd	0.69	6.2
Pyrene	0.02	nd	nd	nd	nd	1.0	28

Notes:

- MDL - Method Detection Limit
- nd - not detected above the MDL
- T.S. - topsoil
- **Bold** - Value exceeds selected MECP Table 1 Standard
- **Bold** - Value exceeds selected MECP Table 1 and Table 2.1 Standards

Table 3 - Continued - Analytical Test Results
PAHs

Parameter	MDL (µg/g)	Soil Samples (µg/g) July 20, 2021				MECP Table 1 Standards Residential (µg/g)	MECP Table 2.1 Standards Residential (µg/g)
		TP3-G1 (T.S.)	TP3-G2 (Clay)	TP4-G3 (Clay)	TP5-G2 (Clay)		
Acenapthene	0.02	nd	nd	nd	nd	0.072	2.5
Acenaphthylene	0.02	nd	nd	nd	nd	0.093	0.093
Anthracene	0.02	nd	nd	nd	nd	0.16	0.16
Benzo[a]anthracene	0.02	nd	nd	nd	nd	0.36	0.5
Benzo[a]pyrene	0.02	nd	nd	nd	nd	0.3	0.31
Benzo[b]fluoranthene	0.02	nd	nd	nd	nd	0.47	3.2
Benzo[g,h,i]perylene	0.02	nd	nd	nd	nd	0.68	6.6
Benzo[k]fluoranthene	0.02	nd	nd	nd	nd	0.48	3.1
Chrysene	0.02	nd	nd	nd	nd	2.8	7
Dibenzo[a,h]anthracene	0.02	nd	nd	nd	nd	0.1	0.57
Fluoranthene	0.02	nd	nd	nd	nd	0.56	0.69
Fluorene	0.02	nd	nd	nd	nd	0.12	6.8
Indeno[1,2,3-cd]pyrene	0.02	nd	nd	nd	nd	0.23	0.38
1-Methylnaphthalene	0.02	nd	nd	nd	nd	0.59	0.59
2-Methylnaphthalene	0.02	nd	nd	nd	nd	0.59	0.59
Methylnaphthalene (1&2)	0.04	nd	nd	nd	nd	0.59	0.59
Naphthalene	0.01	nd	nd	nd	nd	0.09	0.2
Phenanthrene	0.02	nd	nd	nd	nd	0.69	6.2
Pyrene	0.02	nd	nd	nd	nd	1.0	28

Notes:

- MDL - Method Detection Limit
- nd - not detected above the MDL
- T.S. - topsoil
- **Bold** - Value exceeds selected MECP Table 1 Standard
- **Bold** - Value exceeds selected MECP Table 1 and Table 2.1 Standards

All PAH results comply with the selected MECP Table 1 and Table 2.1 standards.

Table 4 - Analytical Test Results
pH

Parameter	MDL (µg/g)	Soil Samples (µg/g) July 20, 2021				MECP Table 1 Standards Residential (µg/g)	MECP Table 2.1 Standards Residential (µg/g)
		TP1-G1 (Topsoil)	TP2-G3 (Clay)	TP3-G1 (Topsoil)	TP4-G3 (Clay)		
pH	0.05	6.16	6.72	5.30	6.78	5.0 - 9.0 (surface soils) 5.0 - 11.0 (subsurface soil)	5.0 - 9.0 (surface soils) 5.0 - 11.0 (subsurface soil)

Notes:
- MDL - Method Detection Limit
- nd - not detected above the MDL
- **Bold** - Value exceeds selected MECP Table 1 Standard
- **Bold** - Value exceeds selected MECP Table 1 and Table 2.1 Standards

All pH results comply with MECP Table 1 and Table 2.1 Standards.

Conclusion

The soil profile encountered in the test pits consisted of topsoil over in-situ silty clay. No fill material was encountered and no indication of contamination was observed.

A total of fifteen (15) soil samples were collected from the test pits. Of the fifteen (15) samples, eight (8) representative samples (3 of topsoil and 5 of silty clay) were submitted to Paracel Laboratories for analyses of BTEX, PHC (Fractions F1 to F4), metals, polycyclic aromatic hydrocarbons (PAHs), and pH.

The MECP Table 1 Residential and Table 2.1 Residential Standards for soil were used to assess the quality of the subject soil. A comparison of the test data to the Table 1 Standards indicates that all of the test results are in compliance with these standards with the exception of cobalt in sample TP1-G2, cobalt and vanadium in sample TP5-G2 and barium in all 5 native silty clay samples. Based on our knowledge of the soils in this area, these 3 metals concentrations are considered to be indicative of naturally elevated metals that are known to exist in the Champlain Sea clay deposits in the Ottawa region. A comparison of the data to the O.Reg 406/09 Table 2.1 Standards indicates that all of the data complies with these excess soil standards, with the exception of the vanadium concentration in Sample TP5-G2, although this value does comply with the Table 4.1 Subsurface Standard.

Recommendations

All topsoil results comply with Table 1 standards. As a results, the topsoil can be disposed of off site without any special management requirements.

While the silty clay does not comply with Table 1 standards, the majority of it complies with the Table 2.1 standards and can be disposed of at a Table 2.1 classified reuse site for a beneficial use. The single vanadium result that exceeds Table 2.1 does comply with the Table 4.1 subsurface standards. This soil could also be taken to a Table 2.1 site provided that it can be placed below a depth of 1.5 m.

Statement of Limitations

A soils investigation of this nature is a limited sampling program. Should any conditions at the site be encountered which differ from those at the test locations, we request that we be notified immediately in order to permit reassessment of our recommendations/conclusions.

The present report applies only to the project described in this document. Use of this report for purposes other than those described herein or by person(s) other than the City of Ottawa, or their agents, without review by this firm for the applicability of our recommendations to the altered use of the report, is prohibited.

Regards,

Paterson Group Inc.

Mark D'Arcy, P.Eng., QP$_{ESA}$

Attachments

- ❑ Laboratory Certificates of Analysis
- ❑ Soil Profile and Test Data Sheets
- ❑ Drawing No. PE5371-1 - Test Hole Location Plan

Report Distribution

- ❑ City of Ottawa
- ❑ Paterson Group

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Certificate of Analysis

Paterson Group Consulting Engineers

154 Colonnade Road South
Nepean, ON K2E 7J5
Attn: Mark D'Arcy

Client PO: 32512
Project: PE5371
Custody: 133013

Report Date: 26-Jul-2021
Order Date: 20-Jul-2021

Order #: 2130238

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

Paracel ID	Client ID
2130238-01	TP1-G1
2130238-02	TP1-G2
2130238-03	TP2-G1
2130238-04	TP2-G3
2130238-05	TP3-G1
2130238-06	TP3-G2
2130238-07	TP4-G3
2130238-08	TP5-G2

Approved By:

Mark Foto

Mark Foto, M.Sc.
Lab Supervisor

Certificate of Analysis

Report Date: 26-Jul-2021

Client: Paterson Group Consulting Engineers

Order Date: 20-Jul-2021

Client PO: 32512

Project Description: PE5371

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
BTEX by P&T GC-MS	EPA 8260 - P&T GC-MS	21-Jul-21	21-Jul-21
pH, soil	EPA 150.1 - pH probe @ 25 °C, CaCl buffered ext.	22-Jul-21	22-Jul-21
PHC F1	CWS Tier 1 - P&T GC-FID	21-Jul-21	21-Jul-21
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	21-Jul-21	22-Jul-21
REG 153: Metals by ICP/MS, soil	EPA 6020 - Digestion - ICP-MS	22-Jul-21	22-Jul-21
REG 153: PAHs by GC-MS	EPA 8270 - GC-MS, extraction	21-Jul-21	24-Jul-21
Solids, %	Gravimetric, calculation	22-Jul-21	22-Jul-21

Certificate of Analysis

Report Date: 26-Jul-2021

Client: Paterson Group Consulting Engineers

Order Date: 20-Jul-2021

Client PO: 32512

Project Description: PE5371

	Client ID:	TP1-G1	TP1-G2	TP2-G1	TP2-G3
	Sample Date:	20-Jul-21 09:00	20-Jul-21 09:00	20-Jul-21 09:00	20-Jul-21 09:00
	Sample ID:	2130238-01	2130238-02	2130238-03	2130238-04
	MDL/Units	Soil	Soil	Soil	Soil
Physical Characteristics					
% Solids	0.1 % by Wt.	84.7	77.0	86.8	76.2
General Inorganics					
pH	0.05 pH Units	6.16	-	-	6.72
Metals					
Antimony	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Arsenic	1.0 ug/g dry	2.7	2.7	1.6	2.2
Barium	1.0 ug/g dry	202	282	101	278
Beryllium	0.5 ug/g dry	0.7	0.8	<0.5	0.7
Boron	5.0 ug/g dry	<5.0	6.0	<5.0	<5.0
Cadmium	0.5 ug/g dry	<0.5	<0.5	<0.5	<0.5
Chromium	5.0 ug/g dry	60.0	70.7	33.2	60.5
Cobalt	1.0 ug/g dry	14.0	17.2	7.9	15.7
Copper	5.0 ug/g dry	21.8	28.5	10.6	28.5
Lead	1.0 ug/g dry	13.3	5.9	7.9	4.7
Molybdenum	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Nickel	5.0 ug/g dry	29.8	36.7	16.1	33.5
Selenium	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Silver	0.3 ug/g dry	<0.3	<0.3	<0.3	<0.3
Thallium	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Uranium	1.0 ug/g dry	1.1	<1.0	<1.0	<1.0
Vanadium	10.0 ug/g dry	74.5	81.8	45.6	71.7
Zinc	20.0 ug/g dry	108	93.8	57.1	83.4
Volatiles					
Benzene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Ethylbenzene	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
Toluene	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
m,p-Xylenes	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
o-Xylene	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
Xylenes, total	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
Toluene-d8	Surrogate	64.6%	100%	85.6%	91.4%
Hydrocarbons					
F1 PHCs (C6-C10)	7 ug/g dry	<7	<7	<7	<7
F2 PHCs (C10-C16)	4 ug/g dry	<4	<4	<4	<4
F3 PHCs (C16-C34)	8 ug/g dry	60	<8	16	<8
F4 PHCs (C34-C50)	6 ug/g dry	18	<6	7	<6

Certificate of Analysis

Report Date: 26-Jul-2021

Client: Paterson Group Consulting Engineers

Order Date: 20-Jul-2021

Client PO: 32512

Project Description: PE5371

	Client ID:	TP1-G1	TP1-G2	TP2-G1	TP2-G3
	Sample Date:	20-Jul-21 09:00	20-Jul-21 09:00	20-Jul-21 09:00	20-Jul-21 09:00
	Sample ID:	2130238-01	2130238-02	2130238-03	2130238-04
	MDL/Units	Soil	Soil	Soil	Soil
Semi-Volatiles					
Acenaphthene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Acenaphthylene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Anthracene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Benzo [a] anthracene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Benzo [a] pyrene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Benzo [b] fluoranthene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Benzo [g,h,i] perylene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Benzo [k] fluoranthene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Chrysene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Dibenzo [a,h] anthracene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Fluoranthene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Fluorene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Indeno [1,2,3-cd] pyrene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
1-Methylnaphthalene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
2-Methylnaphthalene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Methylnaphthalene (1&2)	0.04 ug/g dry	<0.04	<0.04	<0.04	<0.04
Naphthalene	0.01 ug/g dry	<0.01	<0.01	<0.01	<0.01
Phenanthrene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Pyrene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
2-Fluorobiphenyl	Surrogate	95.1%	78.4%	94.8%	98.0%
Terphenyl-d14	Surrogate	99.6%	95.7%	105%	103%

Certificate of Analysis

Report Date: 26-Jul-2021

Client: Paterson Group Consulting Engineers

Order Date: 20-Jul-2021

Client PO: 32512

Project Description: PE5371

	Client ID:	TP3-G1	TP3-G2	TP4-G3	TP5-G2
	Sample Date:	20-Jul-21 09:00	20-Jul-21 09:00	20-Jul-21 09:00	20-Jul-21 09:00
	Sample ID:	2130238-05	2130238-06	2130238-07	2130238-08
	MDL/Units	Soil	Soil	Soil	Soil
Physical Characteristics					
% Solids	0.1 % by Wt.	88.6	76.4	77.0	77.4
General Inorganics					
pH	0.05 pH Units	5.30	-	6.78	-
Metals					
Antimony	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Arsenic	1.0 ug/g dry	2.0	2.6	2.3	2.9
Barium	1.0 ug/g dry	124	281	238	353
Beryllium	0.5 ug/g dry	<0.5	0.8	0.7	0.9
Boron	5.0 ug/g dry	<5.0	5.8	5.1	6.0
Cadmium	0.5 ug/g dry	<0.5	<0.5	<0.5	<0.5
Chromium	5.0 ug/g dry	38.1	59.6	55.2	82.8
Cobalt	1.0 ug/g dry	9.0	15.7	14.2	19.5
Copper	5.0 ug/g dry	13.4	29.2	25.0	33.8
Lead	1.0 ug/g dry	8.0	6.1	4.9	6.8
Molybdenum	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Nickel	5.0 ug/g dry	18.6	32.4	29.4	42.1
Selenium	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Silver	0.3 ug/g dry	<0.3	<0.3	<0.3	<0.3
Thallium	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Uranium	1.0 ug/g dry	1.1	<1.0	<1.0	<1.0
Vanadium	10.0 ug/g dry	49.6	74.2	68.3	93.9
Zinc	20.0 ug/g dry	69.3	87.5	76.5	110
Volatiles					
Benzene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Ethylbenzene	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
Toluene	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
m,p-Xylenes	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
o-Xylene	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
Xylenes, total	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
Toluene-d8	Surrogate	86.1%	96.6%	95.6%	99.1%
Hydrocarbons					
F1 PHCs (C6-C10)	7 ug/g dry	<7	<7	<7	<7
F2 PHCs (C10-C16)	4 ug/g dry	<4	<4	<4	<4
F3 PHCs (C16-C34)	8 ug/g dry	17	<8	15	<8
F4 PHCs (C34-C50)	6 ug/g dry	8	<6	<6	<6

Certificate of Analysis

Report Date: 26-Jul-2021

Client: Paterson Group Consulting Engineers

Order Date: 20-Jul-2021

Client PO: 32512

Project Description: PE5371

	Client ID:	TP3-G1	TP3-G2	TP4-G3	TP5-G2
	Sample Date:	20-Jul-21 09:00	20-Jul-21 09:00	20-Jul-21 09:00	20-Jul-21 09:00
	Sample ID:	2130238-05	2130238-06	2130238-07	2130238-08
	MDL/Units	Soil	Soil	Soil	Soil
Semi-Volatiles					
Acenaphthene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Acenaphthylene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Anthracene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Benzo [a] anthracene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Benzo [a] pyrene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Benzo [b] fluoranthene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Benzo [g,h,i] perylene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Benzo [k] fluoranthene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Chrysene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Dibenzo [a,h] anthracene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Fluoranthene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Fluorene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Indeno [1,2,3-cd] pyrene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
1-Methylnaphthalene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
2-Methylnaphthalene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Methylnaphthalene (1&2)	0.04 ug/g dry	<0.04	<0.04	<0.04	<0.04
Naphthalene	0.01 ug/g dry	<0.01	<0.01	<0.01	<0.01
Phenanthrene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Pyrene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
2-Fluorobiphenyl	Surrogate	104%	71.9%	74.1%	92.8%
Terphenyl-d14	Surrogate	117%	80.7%	73.1%	108%

Certificate of Analysis

Report Date: 26-Jul-2021

Client: Paterson Group Consulting Engineers

Order Date: 20-Jul-2021

Client PO: 32512

Project Description: PE5371

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						
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	ND	5.0	ug/g						
Cadmium	ND	0.5	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						
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						
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	*1.37*		*ug/g*		*103*	*50-140*			
Surrogate: Terphenyl-d14	*1.57*		*ug/g*		*118*	*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	*2.90*		*ug/g*		*90.6*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
General Inorganics									
pH	6.53	0.05	pH Units	6.46			1.1	2.3	
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)	ND	8	ug/g dry	60			NC	30	
F4 PHCs (C34-C50)	ND	6	ug/g dry	18			NC	30	
Metals									
Antimony	3.1	1.0	ug/g dry	ND			NC	30	
Arsenic	2.6	1.0	ug/g dry	2.7			5.3	30	
Barium	185	1.0	ug/g dry	202			8.8	30	
Beryllium	0.6	0.5	ug/g dry	0.7			15.4	30	
Boron	5.0	5.0	ug/g dry	ND			NC	30	
Cadmium	ND	0.5	ug/g dry	ND			NC	30	
Chromium	54.5	5.0	ug/g dry	60.0			9.6	30	
Cobalt	12.9	1.0	ug/g dry	14.0			8.3	30	
Copper	19.9	5.0	ug/g dry	21.8			9.0	30	
Lead	12.0	1.0	ug/g dry	13.3			10.2	30	
Molybdenum	ND	1.0	ug/g dry	ND			NC	30	
Nickel	27.1	5.0	ug/g dry	29.8			9.5	30	
Selenium	ND	1.0	ug/g dry	ND			NC	30	
Silver	ND	0.3	ug/g dry	ND			NC	30	
Thallium	ND	1.0	ug/g dry	ND			NC	30	
Uranium	1.0	1.0	ug/g dry	1.1			4.1	30	
Vanadium	68.0	10.0	ug/g dry	74.5			9.1	30	
Zinc	99.5	20.0	ug/g dry	108			8.4	30	
Physical Characteristics									
% Solids	90.6	0.1	% by Wt.	91.6			1.1	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	ND	0.02	ug/g dry	ND			NC	40	
Benzo [a] pyrene	ND	0.02	ug/g dry	ND			NC	40	
Benzo [b] fluoranthene	ND	0.02	ug/g dry	ND			NC	40	
Benzo [g,h,i] perylene	ND	0.02	ug/g dry	ND			NC	40	
Benzo [k] fluoranthene	ND	0.02	ug/g dry	ND			NC	40	
Chrysene	ND	0.02	ug/g dry	ND			NC	40	
Dibenzo [a,h] anthracene	ND	0.02	ug/g dry	ND			NC	40	
Fluoranthene	ND	0.02	ug/g dry	ND			NC	40	
Fluorene	ND	0.02	ug/g dry	ND			NC	40	
Indeno [1,2,3-cd] pyrene	ND	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	ND	0.02	ug/g dry	ND			NC	40	
Surrogate: 2-Fluorobiphenyl	*1.37*		*ug/g dry*		*87.3*	*50-140*			
Surrogate: Terphenyl-d14	*1.48*		*ug/g dry*		*94.3*	*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	*3.97*		*ug/g dry*		*105*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	179	7	ug/g	ND	89.7	80-120			
F2 PHCs (C10-C16)	96	4	ug/g	ND	102	60-140			
F3 PHCs (C16-C34)	249	8	ug/g	60	81.6	60-140			
F4 PHCs (C34-C50)	156	6	ug/g	18	94.3	60-140			
Metals									
Antimony	51.1	1.0	ug/g	ND	102	70-130			
Arsenic	50.7	1.0	ug/g	1.1	99.2	70-130			
Barium	117	1.0	ug/g	80.7	73.5	70-130			
Beryllium	48.0	0.5	ug/g	ND	95.4	70-130			
Boron	46.3	5.0	ug/g	ND	88.9	70-130			
Cadmium	46.0	0.5	ug/g	ND	91.8	70-130			
Chromium	71.9	5.0	ug/g	24.0	95.8	70-130			
Cobalt	54.8	1.0	ug/g	5.6	98.3	70-130			
Copper	55.7	5.0	ug/g	8.7	94.0	70-130			
Lead	48.1	1.0	ug/g	5.3	85.6	70-130			
Molybdenum	49.5	1.0	ug/g	ND	98.5	70-130			
Nickel	59.6	5.0	ug/g	11.9	95.3	70-130			
Selenium	46.0	1.0	ug/g	ND	91.8	70-130			
Silver	42.4	0.3	ug/g	ND	84.7	70-130			
Thallium	44.9	1.0	ug/g	ND	89.7	70-130			
Uranium	46.4	1.0	ug/g	ND	92.0	70-130			
Vanadium	77.3	10.0	ug/g	29.8	95.1	70-130			
Zinc	84.4	20.0	ug/g	43.3	82.1	70-130			
Semi-Volatiles									
Acenaphthene	0.180	0.02	ug/g	ND	91.7	50-140			
Acenaphthylene	0.167	0.02	ug/g	ND	84.9	50-140			
Anthracene	0.169	0.02	ug/g	ND	85.9	50-140			
Benzo [a] anthracene	0.149	0.02	ug/g	ND	75.6	50-140			
Benzo [a] pyrene	0.173	0.02	ug/g	ND	87.8	50-140			
Benzo [b] fluoranthene	0.216	0.02	ug/g	ND	110	50-140			
Benzo [g,h,i] perylene	0.168	0.02	ug/g	ND	85.2	50-140			
Benzo [k] fluoranthene	0.231	0.02	ug/g	ND	117	50-140			
Chrysene	0.182	0.02	ug/g	ND	92.4	50-140			
Dibenzo [a,h] anthracene	0.163	0.02	ug/g	ND	82.7	50-140			
Fluoranthene	0.169	0.02	ug/g	ND	86.1	50-140			
Fluorene	0.175	0.02	ug/g	ND	88.9	50-140			
Indeno [1,2,3-cd] pyrene	0.142	0.02	ug/g	ND	71.9	50-140			
1-Methylnaphthalene	0.185	0.02	ug/g	ND	94.0	50-140			
2-Methylnaphthalene	0.204	0.02	ug/g	ND	104	50-140			
Naphthalene	0.184	0.01	ug/g	ND	93.2	50-140			
Phenanthrene	0.171	0.02	ug/g	ND	86.8	50-140			
Pyrene	0.161	0.02	ug/g	ND	82.0	50-140			
Surrogate: 2-Fluorobiphenyl	*1.39*		*ug/g*		*88.2*	*50-140*			
Surrogate: Terphenyl-d14	*1.48*		*ug/g*		*94.2*	*50-140*			
Volatiles									
Benzene	3.87	0.02	ug/g	ND	96.8	60-130			
Ethylbenzene	3.05	0.05	ug/g	ND	76.2	60-130			
Toluene	3.40	0.05	ug/g	ND	84.9	60-130			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
m,p-Xylenes	5.67	0.05	ug/g	ND	70.9	60-130			
o-Xylene	3.37	0.05	ug/g	ND	84.4	60-130			
Surrogate: Toluene-d8	*2.78*		*ug/g*		*86.9*	*50-140*			

Qualifier Notes:

None

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.

PARACEL LABORATORIES LTD.

Paracel ID: 2130238

Paracel Order Number (Lab Use Only)	Chain Of Custody (Lab Use Only)
2130238	№ 133013

Client Name: Paterson	Project Ref: PE5371
Contact Name: Mark D'Arcy	Quote #:
Address: 154 Colonnade RD	PO #: 32512
Telephone: 613 [redacted] 226 7381	E-mail: MDarcy@patersongroup.ca

Page __ of __

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	Sample Taken Date	Sample Taken Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	PH				
1	TP1-G1	S		2			✓		✓	✓				✓				
2	TP1-G2	↓		↓			↓		↓	↓								
3	TP2-G1	↓		↓			↓		↓	↓								
4	TP2-G3	↓		↓			↓		↓	↓				✓				
5	TP3-G1	↓		↓			↓		↓	↓				✓				
6	TP3-G2	↓		↓			↓		↓	↓								
7	TP4-G3	↓		↓			↓		↓	↓				✓				
8	TP5-G2	↓		↓			↓		↓	↓								
9																		
10																		

Comments:

Method of Delivery: Paracel Courier

Relinquished By (Sign): G Pat	Received By Driver/Depot: A. Dlouhe	Received at Lab: Sumeeparn Dohmai	Verified By: [signature]
Relinquished By (Print): Grant Paterson	Date/Time: 20/07/21 2:44	Date/Time: Jul 20, 2021 03.40	Date/Time: July 20, 2021 16:45
Date/Time: July 20 2021	Temperature: °C PM	Temperature: 19,1 °C	pH Verified: ☐ By:

patersongroup Consulting Engineers

154 Colonnade Road South, Ottawa, Ontario K2E 7J5

SOIL PROFILE AND TEST DATA

Excess Soil Quality Assessment
1075 March Road
Ottawa, Ontario

DATUM

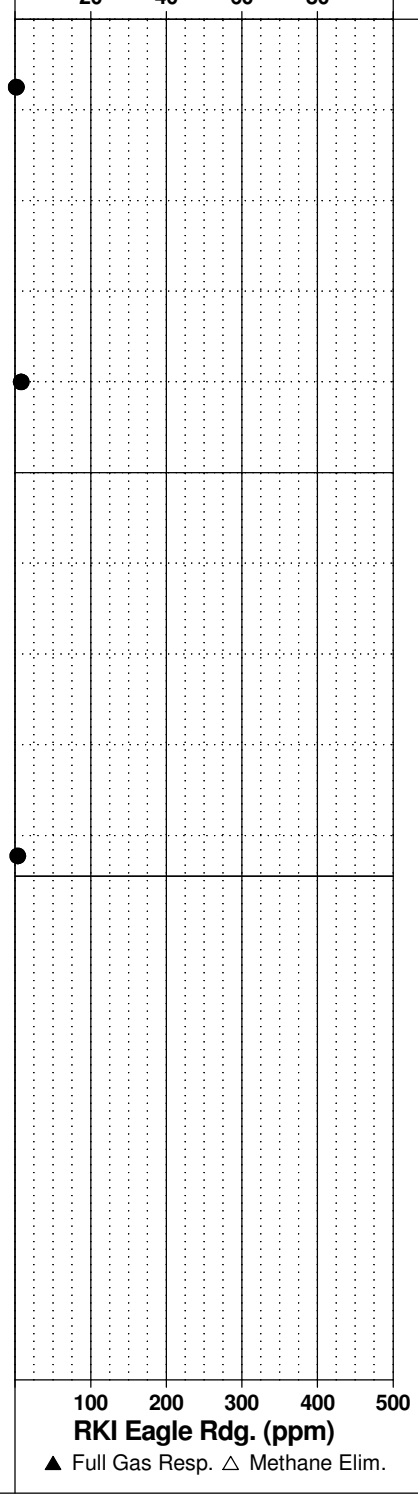
REMARKS

BORINGS BY Excavator **DATE** July 20, 2021

FILE NO. PE5371

HOLE NO. TP 1

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)	Photo Ionization Detector: Volatile Organic Rdg. (ppm) / Lower Explosive Limit %	Monitoring Well Construction
GROUND SURFACE						0	82.14		
TOPSOIL		G	1						
0.55									
Brown **SILTY CLAY**		G	2			1	81.14		
1.89		G	3						
End of Test Pit									



patersongroup Consulting Engineers

154 Colonnade Road South, Ottawa, Ontario K2E 7J5

SOIL PROFILE AND TEST DATA

Excess Soil Quality Assessment
1075 March Road
Ottawa, Ontario

DATUM

REMARKS

BORINGS BY Excavator **DATE** July 20, 2021

FILE NO. PE5371

HOLE NO. TP 2

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)	Photo Ionization Detector: Volatile Organic Rdg. (ppm) / Lower Explosive Limit %	Monitoring Well Construction
GROUND SURFACE						0	83.48		
TOPSOIL		G	1						
0.71									
Brown **SILTY CLAY**		G	2			1	82.48		
		G	3						
1.81									
End of Test Pit									

Photo Ionization Detector
● Volatile Organic Rdg. (ppm)
○ Lower Explosive Limit %
20 40 60 80
100 200 300 400 500
RKI Eagle Rdg. (ppm)
▲ Full Gas Resp. △ Methane Elim.

patersongroup Consulting Engineers

154 Colonnade Road South, Ottawa, Ontario K2E 7J5

SOIL PROFILE AND TEST DATA

Excess Soil Quality Assessment
1075 March Road
Ottawa, Ontario

DATUM

REMARKS

BORINGS BY Excavator **DATE** July 20, 2021

FILE NO. PE5371

HOLE NO. TP 3

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	84.20
TOPSOIL		G	1				
0.70							
		G	2			1	83.20
Brown **SILTY CLAY**		G	3				
2.06						2	82.20
End of Test Pit							

Photo Ionization Detector
● Volatile Organic Rdg. (ppm)

○ **Lower Explosive Limit %**

20 40 60 80

100 200 300 400 500

RKI Eagle Rdg. (ppm)

▲ Full Gas Resp. △ Methane Elim.

Monitoring Well Construction

patersongroup Consulting Engineers

154 Colonnade Road South, Ottawa, Ontario K2E 7J5

SOIL PROFILE AND TEST DATA

Excess Soil Quality Assessment
1075 March Road
Ottawa, Ontario

DATUM

REMARKS

BORINGS BY Excavator **DATE** July 20, 2021

FILE NO. PE5371

HOLE NO. TP 4

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	% RECOVERY	N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	82.81
TOPSOIL		G	1				
0.47							
		G	2				
Brown **SILTY CLAY**						1	81.81
		G	3				
1.82							
End of Test Pit							

Photo Ionization Detector
● Volatile Organic Rdg. (ppm)

○ **Lower Explosive Limit %**

20 40 60 80

100 200 300 400 500

RKI Eagle Rdg. (ppm)

▲ Full Gas Resp. △ Methane Elim.

Monitoring Well Construction

patersongroup Consulting Engineers

154 Colonnade Road South, Ottawa, Ontario K2E 7J5

SOIL PROFILE AND TEST DATA

Excess Soil Quality Assessment
1075 March Road
Ottawa, Ontario

DATUM

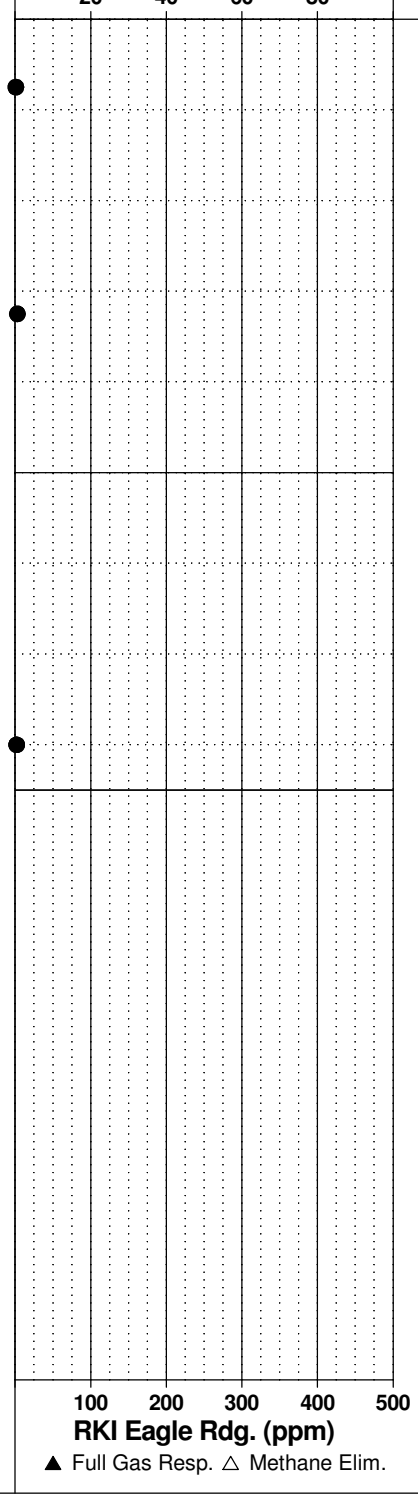
REMARKS

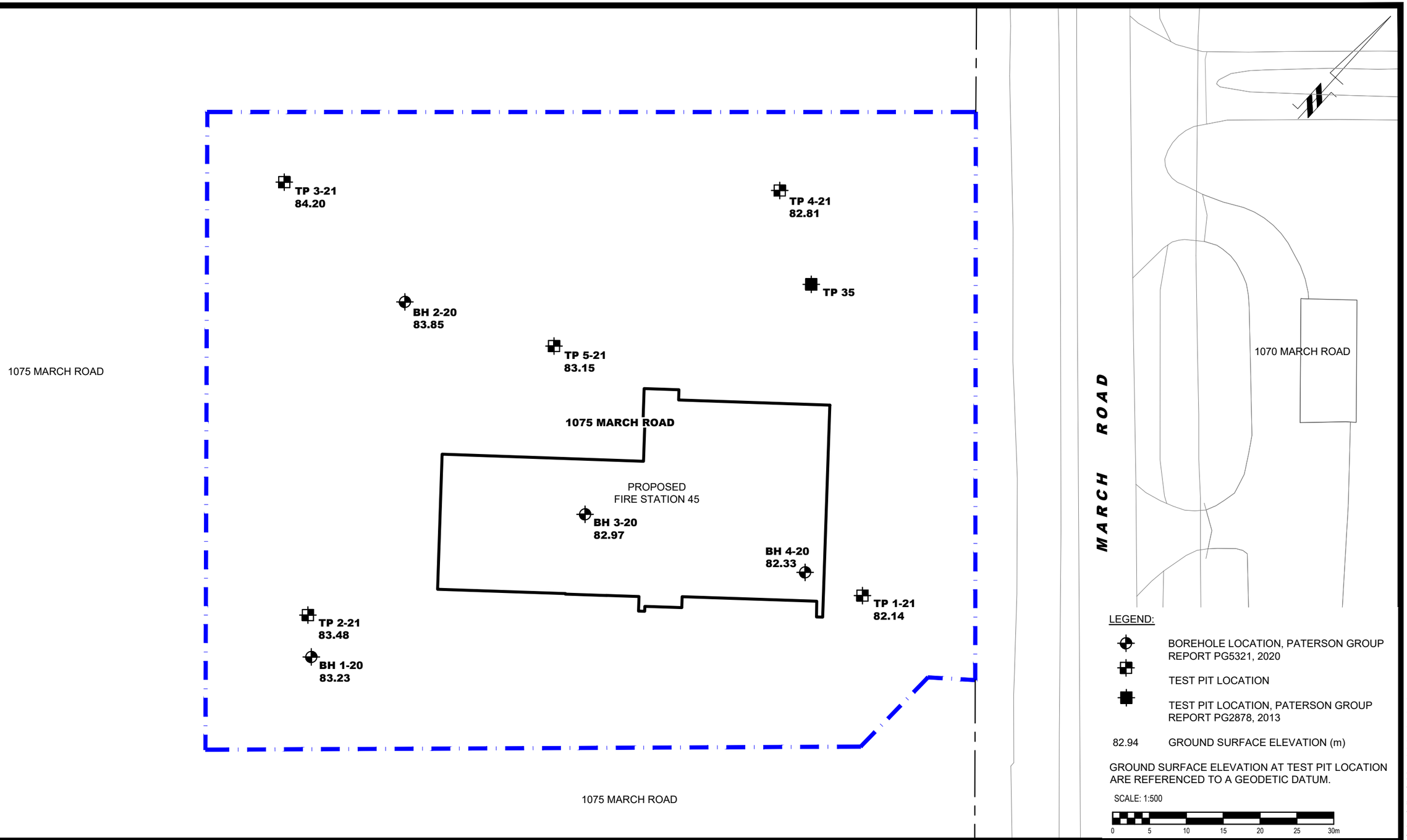
BORINGS BY Excavator **DATE** July 20, 2021

FILE NO. PE5371

HOLE NO. TP 5

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)	Photo Ionization Detector: Volatile Organic Rdg. (ppm) / Lower Explosive Limit %	Monitoring Well Construction
GROUND SURFACE						0	83.15		
TOPSOIL		G	1						
0.49									
Brown **SILTY CLAY**		G	2			1	82.15		
		G	3						
1.70									
End of Test Pit									





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NO.	REVISIONS	DATE	INITIAL

CITY OF OTTAWA

EXCESS SOIL REPORT
1075 MARCH ROAD

OTTAWA, ONTARIO

Title:

TEST HOLE LOCATION PLAN

Scale: 1:500	Date: 08/2021
Drawn by: YA	Report No.: PE5371-1
Checked by: KL	Dwg. No.: PE5371-1
Approved by: MSD	Revision No.:

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