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Phase II Environmental Site Assessment
971 Montreal Road
Ottawa, Ontario

MM2320

July 31, 2020

CM3 Environmental Inc.
5710 Akins Road, Ottawa, Ontario, K2S 1B8

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

1 INTRODUCTION

CM3 Environmental Inc. (CM3) was retained by Developpements Proximi-T Inc. to carry out a Phase II Environmental Site Assessment (ESA) located at 971 Montreal Road in Ottawa, Ontario (site or subject property). The purpose of the Phase II ESA was to assess the presence of potential contaminants of concern identified in the Phase I ESA completed by CM3. The investigation was completed in support of a real estate transaction and not in support of a record of site condition.

1.1 Site Location and Description

The subject property is located on the north side of Montreal Road near the intersection of Burma Road and Montreal Road in Ottawa, Ontario (**Figure 1**). The civic address for the subject property is 971 Montreal Road, Ottawa, Ontario. The legal description is Lot 22, Concession 10F. The property identification number for the subject property is 042740181. The subject property is zoned AM for Arterial Mainstreet Zone. The property is occupied by a two-storey commercial building and a parking lot.

2 BACKGROUND

CM3 completed a Phase I ESA on the subject property in July 2020 (Report dated July 17th, 2020). The Phase I indicated the former presence of a gas station at an adjacent property to the subject property located at 973 Montreal Road. In addition, petroleum storage/use operations were identified within the Phase I Study Area. The Phase II ESA was completed to address these potential environmental concerns.

3 APPLICABLE SITE CONDITION STANDARDS

The results of the soil and groundwater analyses were compared to the Ontario Ministry of Environment, Conservation and Parks (MECP) *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act,* under Ontario Regulation (O. Reg.) 153/04. The following site conditions were used in the selection of the appropriate site condition standards (SCS):

- No environmentally sensitive areas were located on site or in the immediate vicinity;
- Conservatively, the site was considered a shallow soil property (i.e. bedrock less than 2 metres below grade).
- The site was not located within 30 m of a water body;
- Groundwater was not used as a potable water source in the area; and
- Land use at the site was considered commercial, however a residential development is proposed for the property.

The Table 7 Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition with fine soils and residential land use were selected for evaluation of the analytical results, based on the above.

4 SCOPE OF WORK

The purpose of the investigation was to assess the presence of potential contaminants of concern identified in the Phase I ESA. The site investigation was completed following the Canadian Standards Association (CSA) Standard Z769-00 (R2008) and in general accordance with Ontario Regulation 153/04. The scope of work for the supplemental investigation included:

- The preparation of a site-specific health and safety plan;
- The determination of the locations of all underground utilities by a third-party utility locator;
- The advancement of three boreholes completed as monitoring wells;
- The continuous collection of soil samples during the drilling for soil logging and on-site field screening;
- The selection of soil samples from each borehole for laboratory analysis of petroleum hydrocarbons (PHCs), volatile organic compounds (VOCs) and metals;
- The measurement of the depth to liquid phase hydrocarbons (LPH) and groundwater in all newly installed monitoring wells; and
- The collection of groundwater samples from all newly installed monitoring wells for laboratory analysis of PHCs, VOCs and metals.

4.1 Borehole Drilling

A total of three boreholes (MW1 to MW3) were completed on July 10th, 2020, under the supervision of CM3. Boreholes were advanced by Forage Downing Drilling from Hawkesbury, Ontario. All boreholes were advanced in the parking lot on the south, west and north side of the building. The borehole locations are provided on **Figure 2**.

4.1.1 Soil Sampling

Boreholes were advanced using a CME-20 truck mount drill rig. The boreholes were advanced through overburden to a depth of practical refusal by augering below grade using hollow stem augers and split spoon samplers. When bedrock was encountered, coring was initiated, and boreholes were advanced to a maximum depth of 7.2 metres below grade.

Soil samples were collected continuously from grade to the maximum overburden depth of each borehole using a 60 cm long, 5.1 cm diameter split spoon sampler. Soil samples were logged at the time of drilling for grain size, colour, moisture content, and visual or olfactory evidence of impacts. Each soil sample was split for combustible vapour analysis and possible laboratory analysis. The sampling equipment was washed and rinsed between each sample interval and borehole location to prevent cross-contamination.

At the time of recovery, a portion of each sample was placed into a polyethylene bag for relative combustible organic vapour analysis. The remainder of each sample was placed into the appropriate laboratory supplied sample containers for the required analyses, following MECP sampling protocols. The sample containers were placed into an iced chilled cooler pending submission to the laboratory for analysis. The bagged samples were used for field screening of relative combustible vapours.

4.1.2 Field Screening

The bagged soil samples were allowed to equilibrate to ambient temperature prior to combustible vapour measurements. The vapour concentrations were measured and recorded from the bag sample headspace using an RKI Eagle combustible vapour meter calibrated to hexane and operated in methane elimination mode. The intake probe of the vapour meter was inserted into the plastic bag and the highest vapour reading from each sample was recorded. The results of the vapour analysis and field screening were used in the selection of samples for laboratory analysis. A total of 7 borehole soil samples were submitted to Paracel Laboratories for laboratory analysis of PHCs F1 to F4 fractions, VOCs and/or metals.

4.2 Monitoring Well Installation

All boreholes were completed as monitoring wells. Monitoring well construction consisted of 38 mm outside diameter, flush-threaded schedule 40 PVC well screens and risers. At each borehole, a 10-slot well screen was placed to intercept the water table to allow for the detection of LPH. A silica sand pack was placed around the outside of the well screen in the annular space of the borehole to a minimum of 0.3 m above the screened interval. A bentonite seal was placed above the sand pack to approximately 0.3 m bg. All monitoring wells were capped with lockable j-plugs and finished below grade in flush-mounted manhole protective casings.

4.3 LPH and Water Level Measurement

The depth to LPH and groundwater was measured in all monitoring wells on July 13th and July 16th 2020 using a Solinst® electronic oil/water interface meter. The depth to LPH (if present) and water were measured the nearest millimetre from the highest point of the well riser. The interface probe was cleaned and rinsed with distilled water between each well to prevent cross contamination.

4.4 Groundwater Sampling

Groundwater samples were collected from monitoring wells MW1 to MW3 on July 16th and July 23rd, 2020. Prior to sampling, each well was purged to remove stagnant water from within the well bore and surrounding annulus to obtain samples that were representative of formation groundwater. Groundwater purging and sampling was conducted using 3/8" O.D. low density polyethylene (LDPE) tubing and a peristaltic pump. Purging continued until a minimum of three standing well volumes were removed, or the purge waters were relatively free of sediment.

Groundwater samples were collected directly from the outlet of the LDPE tubing into the appropriate laboratory supplied containers for the required analyses, following MECP sampling protocols. The samples were placed into an iced chilled cooler pending submission to Paracel for analysis of PHCs F1-F4 fractions, VOCs and/or metals.

4.5 Site Survey

The locations of all newly installed boreholes/monitoring wells were referenced to existing site buildings and structures. The ground surface and monitoring well top of pipe elevations were referenced to existing monitoring well top of pipe elevations using a TopCon AT-B4 automatic level.

The ground surface and top of pipe elevations are included in **Table 1** and within the borehole logs (**Appendix A**).

5 RESULTS AND EVALUATION

5.1 Site Geology

The site geology was determined based on the borehole drilling and soil logging. Surface materials included asphalt underlain by crushed stone fill to approximately 0.2 m below grade. The overburden soil at the site consisted of sand, gravel, organics and trace clay fill (topsoil in some locations) to approximately 2.5-3m bg underlain by glacial till in some locations to borehole refusal at 2.72m, 3.05m and 1.37m respectively for BH1, BH2 and BH3. The bedrock at the site consisted of limestone, which was found at a depth of 1.37m at BH3 located at the north of the site, and at approximately 3m in BH1 and BH2 which were located on the south and west areas of the site respectively.

The site stratigraphy is provided on the borehole logs (**Appendix A**).

5.2 Site Hydrogeology

5.2.1 Groundwater Elevations and Flow

The depth to LPH and groundwater was measured in newly installed monitoring wells on July 16th, 2020 (**Table 1**). LPH was not present in any of the monitoring wells. Please note that due to the addition of water during coring activities, wells were purged on July 13th and groundwater level measurements were obtained on July 16th to obtain representative static levels.

The water levels were between 95.950 m arl and 96.701 m arl, at average elevation of 96.408 m arl (3.913 m bg).

Groundwater flow direction was determined by triangulation of the static groundwater levels of the three (3) monitoring wells on site. Groundwater flow direction was determined to be northeast towards the Ottawa River.

5.3 Soil Field Screening

A total of 13 soil samples were collected from the boreholes for field screening and combustible vapour analysis. All samples showed combustible vapour concentrations of 0 parts per million (ppm), with the exception of MW2-SA5 and MW3-SA2 which were 15 ppm and 10ppm respectively. The soil combustible vapour concentrations are included on the borehole logs (**Appendix A**).

5.4 Soil Quality

The concentrations of all soil samples submitted for laboratory analysis (PHCs F1-F4 fractions, VOCs and metals) were below the MECP Table 7 SCS and as such, are acceptable for the current land use.

The soil sample analytical results are summarized in **Table 2** through **Table 4**. The borehole soil sample locations and soil quality are provided on **Figure 3**. The soil sample laboratory reports are provided in **Appendix B**.

5.5 Groundwater Quality

The concentrations of all groundwater samples submitted for laboratory analysis (PHCs F1-F4 fractions, VOCs and metals) from July 16th, 2020 were at or below the MECP Table 7 SCS with the exception of chloroform which was slightly over the SCS.

CM3 returned to collect additional groundwater samples from MW1, MW2 and MW3 on July 23rd, 2020 for chloroform analysis. The samples were found to be at or below the MECP Table 7 SCS for chloroform levels.

It is unclear at this time why chloroform levels were slightly elevated on the first sampling event. It may possibly be due to the addition of chlorinated municipal water during the bedrock coring process. No sources of chloroform were found in the Phase I ESA. It does not appear that chloroform is a significant concern based on the investigation(s).

The groundwater sample analytical results are summarized in **Table 5** through **Table 7**. The monitoring well locations and groundwater quality are provided on **Figure 4**. The groundwater sample laboratory reports are provided in **Appendix B**.

6 SUMMARY AND CONCLUSIONS

CM3 Environmental Inc. was retained by retained by Developpements Proximi-T Inc. to carry out a Phase II Environmental Site Assessment (ESA) located at 791 Montreal Road in Ottawa, Ontario (site or subject property). The purpose of the Phase II ESA was to assess the presence of potential contaminants of concern (PHCs F1-F4, VOCs and metals) identified in the Phase I ESA completed by CM3.

The investigation included the advancement of three (3) boreholes completed as monitoring wells to assess the soil and groundwater conditions.

The results of the Phase II ESA are summarized as follows:

Site Characterization

- The overburden soil at the site consisted of sand, gravel, organics and trace clay fill (topsoil in some locations) to approximately 2.5-3m bg underlain by glacial till in some locations to borehole refusal at 2.72m, 3.05m and 1.37m respectively for BH1, BH2 and BH3.
- The bedrock at the site consisted of limestone, which was found at a depth of 1.37m at BH3 located at the north of the site, and at approximately 3m in BH1 and BH2 which were located on the south and west areas of the site respectively.
- Groundwater was present in the newly installed wells at an elevation of 95.95 m arl and 96.70 m arl, at an average elevation of 96.41 m arl (3.91 m bg).

- Groundwater flow direction was determined to be northeast.
- LPH was not present in any monitoring wells during the investigation.

Soil Quality

- Seven (7) soil samples were submitted for analysis of one or more of PHCs F1-F4 fractions, VOCs and metals;
    - All samples were either non-detectable or concentrations were present at levels below the MECP Table 7 SCS.

Groundwater Quality

- The three (3) newly installed monitoring wells were sampled for PHCs F1-F4 fractions, VOCs and metals;
    - Groundwater samples collected on July 16, 2020 from MW1, MW2 and MW3 were found to exceed the MECP Table 7 SCS for chloroform levels.
    - CM3 returned to collect additional groundwater samples from MW1, MW2 and MW3 on July 23, 2020 for chloroform analysis. The samples were found to be at or below the MECP Table 7 SCS for chloroform levels. Based on the investigations, chloroform is not anticipated to be a significant concern.
    - For all other VOCs, metals and PHCs, all samples were either non-detectable or concentrations were present at levels at or below the MECP Table 7 SCS.

7 CLOSING

This report has been prepared and the work referred to in this report has been undertaken by CM3 Environmental Inc. for Developpements Proximi-T Inc. It is intended for the sole and exclusive use of Developpements Proximi-T Inc., its affiliated companies and partners and their respective insurers, agents, employees and advisors. Any use, reliance on, or decision made by any person other than Developpements Proximi-T Inc. based on this report is the sole responsibility of such other person. CM3 Environmental Inc. and Developpements Proximi-T Inc. make no representation or warranty to any other person with regard to this report and the work referred to in this report, and they accept no duty of care to any other person or any liability or responsibility whatsoever for any losses, expenses, damages, fines, penalties or other harm that may be suffered or incurred by any other person as a result of the use of, reliance on, any decision made or any action taken based on this report or the work referred to in this report.

The investigation undertaken by CM3 Environmental Inc. with respect to this report and any conclusions or recommendations made in this report reflect CM3 Environmental Inc.'s judgement based on the site conditions observed at the time of the site inspection on the date(s) set out in this report and on information available at the time of preparation of this report. This report has been prepared for specific application to this site and it is based, in part, upon visual observation of the site, subsurface investigation at discrete locations and depths, and specific analysis of specific chemical parameters and materials during a specific time interval, all as described in this report. Unless otherwise stated, the findings cannot be extended to previous or future site conditions, portions of the site which were unavailable for direct investigation, subsurface locations which were not investigated directly, or chemical parameters, materials or analysis which were not addressed. Substances other than those addressed by the investigation described in this report may exist within the site, substances addressed by the investigation may exist in areas of the site not investigated and concentrations of substances addressed which are different than those reported may exist in areas other than the location from which samples were taken.

If site conditions or applicable standards change or if any additional information becomes available at a future date, modifications to the findings, conclusions and recommendations in this report may be necessary.

Other than by Developpements Proximi-T Inc., copying or distribution of this report or use of or reliance on the information contained herein, in whole or in part, is not permitted without the express written permission of CM3 Environmental Inc. Nothing in this report is intended to constitute or provide a legal opinion.

We trust that the above is satisfactory for your purposes at this time. Please feel free to contact the undersigned if you have any questions.

Yours sincerely,

CM3 Environmental Inc.

Alden Crossman, P.Biol., EP
Project Manager

Marc MacDonald, P.Eng. QP
Principal

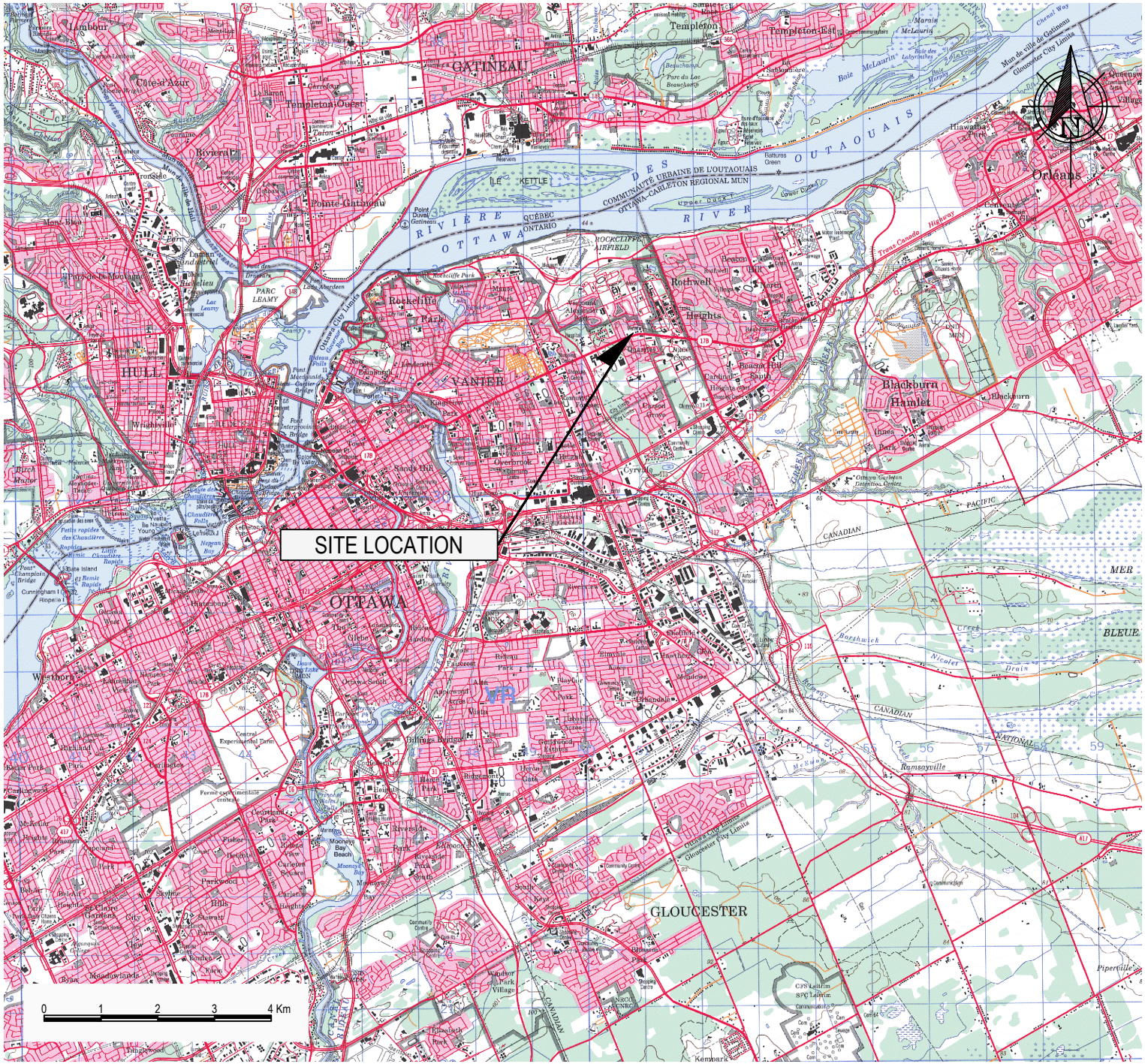
FIGURES

Developpements Proximi-T Inc.

Phase II ESA

971 Montreal Road, Ottawa, Ontario

MM2320



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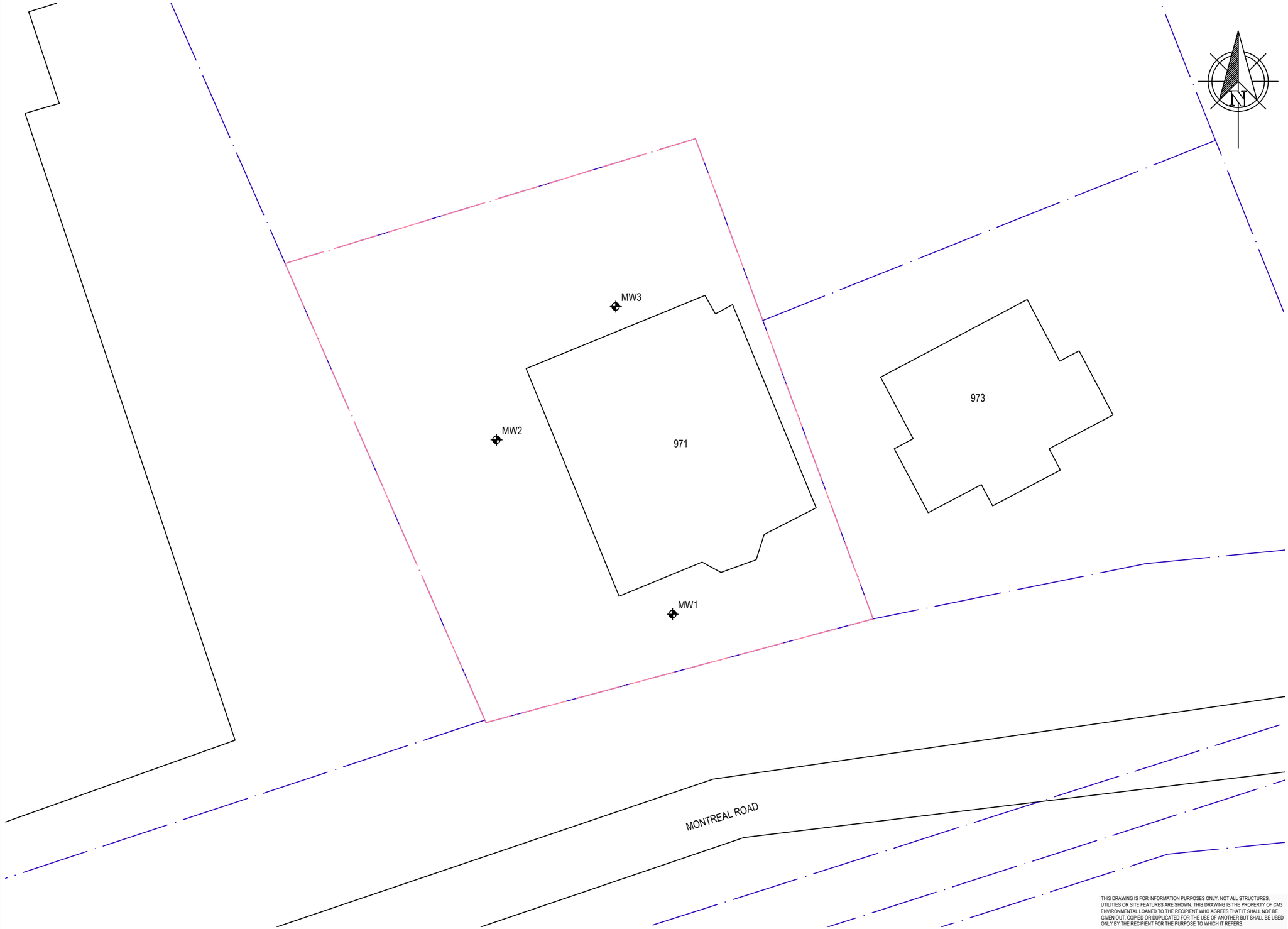
DEVELOPPEMENTS PROXIMI-T INC.

PHASE II ENVIRONMENTAL SITE ASSESSMENT

971 MONTREAL ROAD
OTTAWA, ONTARIO

SITE LOCATION

Project: MM2320	Drawn By: CL
Date: JULY 2020	Reviewed By: MM
Scale: AS SHOWN	Figure: 1



LEGEND

- PROPERTY BOUNDARY
- SITE
- RESIDENCE/BUILDING
- MONITORING WELL

Scale 1:500

0 5 10 15 20 m

(Approx. When plotted 11x17)

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971 MONTREAL ROAD
OTTAWA, ONTARIO

SITE PLAN

Project:	Drawn By:
MM2320	CL
Date:	Reviewed By:
JULY 2020	MM
Scale:	Figure:
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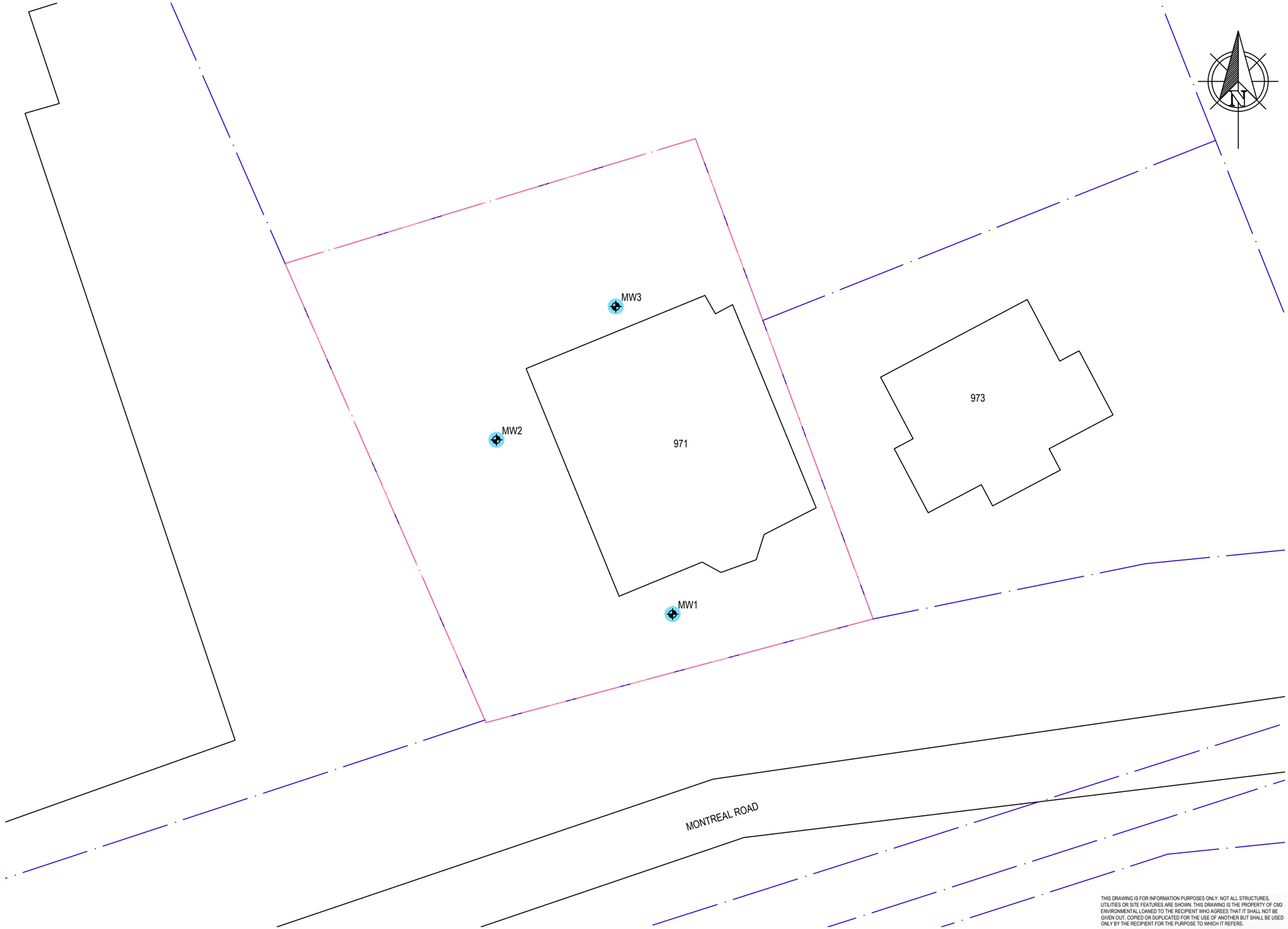

LEGEND

- PROPERTY BOUNDARY
- SUBJECT PROPERTY
- RESIDENCE/BUILDING
- BOREHOLE/MONITORING WELL

SOIL SAMPLES ANALYSED*:

- CONTAMINANTS OF CONCERN NOT DETECTED
- ONE OR MORE CONTAMINANTS OF CONCERN < MECP TABLE 7 SCS
- ONE OR MORE CONTAMINANTS OF CONCERN > MECP TABLE 7 SCS

NS NO SOIL SAMPLES ANALYSED

* - REFER TO TABLE 1 FOR SAMPLING DATES AND RESULTS

Scale 1:500

0 5 10 15 20 m

(Approx. When plotted 11x17)

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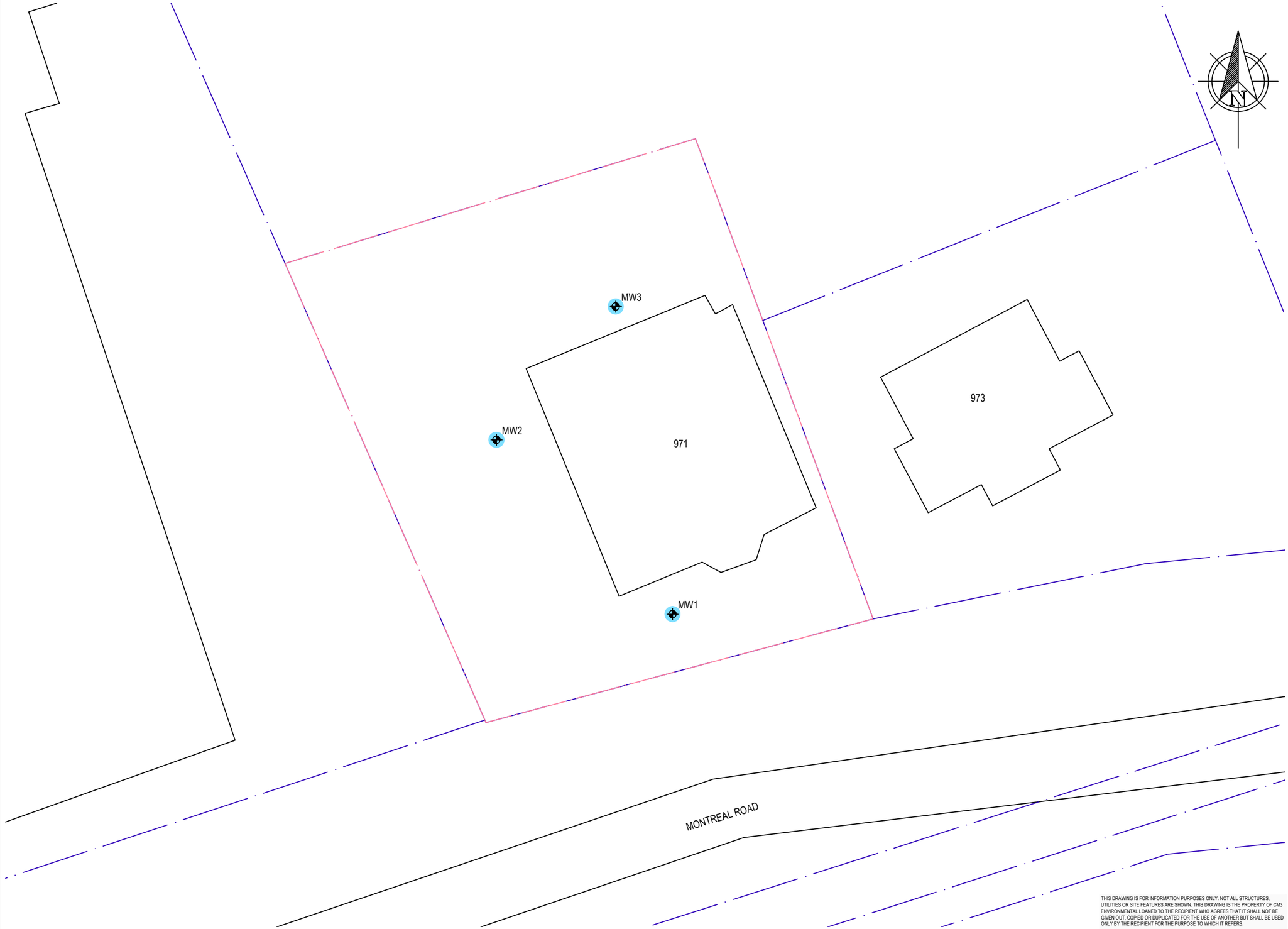
971 MONTREAL ROAD
OTTAWA, ONTARIO

SOIL QUALITY

Project:	Drawn By:
MM2320	CL
Date:	Reviewed By:
JULY 2020	MM
Scale:	Figure:
1:500	3



LEGEND

- PROPERTY BOUNDARY
- SUBJECT PROPERTY
- RESIDENCE/BUILDING
- BOREHOLE/MONITORING WELL

GROUNDWATER SAMPLES ANALYSED*:

- CONTAMINANTS OF CONCERN NOT DETECTED
- ONE OR MORE CONTAMINANTS OF CONCERN AT OR < MECP TABLE 7 SCS
- ONE OR MORE CONTAMINANTS OF CONCERN > MECP TABLE 7 SCS

* - REFER TO TABLE 1 FOR SAMPLING DATES AND RESULTS

Scale 1:500

0 5 10 15 20 m

(Approx. When plotted 11x17)

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PHASE II ENVIRONMENTAL SITE ASSESSMENT

971 MONTREAL ROAD
OTTAWA, ONTARIO

GROUNDWATER QUALITY

Project:	Drawn By:
MM2320	CL
Date:	Reviewed By:
JULY 2020	MM
Scale:	Figure:
1:500	4

TABLES

Developpements Proximi-T Inc.

Phase II ESA

971 Montreal Road, Ottawa, Ontario

MM2320

Table 1:
LPH and Groundwater Level Measurements
Phase II ESA 971 Montreal Road
971 Montreal Road
MM2320

Well ID	Date	TOC (marl)	Grade (marl)	Depth to		Elevation		Comments
				LPH (mbtoc)	GW (mbtoc)	LPH (marl)	GW (marl)	
MW1	July 16 2020	100.894	101.079		4.320	--	96.574	
MW2	July 16 2020	100.071	100.218		3.370	--	96.701	
MW3	July 16 2020	100.000	100.169		4.050	--	95.950	

Notes:

TOC - top of casing
marl - metres above reference level
mbtoc - metres below top of casing
LPH - liquid phase hydrocarbons
GW - groundwater
NM - not measured
NV / -- - no value/LPH not present

TABLE 2: Summary of Soil Analytical Results
BTEX and Petroleum Hydrocarbons (PHCs) F1-F4 Fractions
Phase II ESA 971 Montreal Road
971 Montreal Road
MM2320

Parameter	Sample ID >	MDL	MECP	BH1-SA5	BH2-SA5	BH3-SA3
	Depth (m bg) >		Table 7	2.71	3.04	1.37
	HSVL (ppm) >		SCS	0	15	0
	Sample Date >			2020-07-10	2020-07-10	2020-07-10
Borehole/Monitoring Well Soil Samples						
BTEX						
Benzene		0.02	**0.21**	ND (0.02)	ND (0.02)	ND (0.02)
Ethylbenzene		0.05	**2**	ND (0.05)	ND (0.05)	ND (0.05)
Toluene		0.05	**2.3**	ND (0.05)	ND (0.05)	ND (0.05)
m,p-Xylene		0.05	**NV**	ND (0.05)	ND (0.05)	ND (0.05)
o-Xylene		0.05	**NV**	ND (0.05)	ND (0.05)	ND (0.05)
Xylene (Total)		0.05	**3.1**	ND (0.05)	ND (0.05)	ND (0.05)
PHCs						
PHC F1(C6-C10)		7	**55**	ND (7)	ND (7)	N/A
PHC F2(C10-C16)		4	**98**	ND (4)	ND (4)	N/A
PHC F3(C16-C34)		8	**300**	88	ND (8)	N/A
PHC F4(>C34)		6	**2800**	162	ND (6)	N/A

Notes:

mg/kg - all concentrations provided in parts per million (milligrams per kilogram)

MDL - reported analytical method detection limit

HSVL - headspace vapour level (combustible vapour meter, calibrated to hexane)

m bg - metres below grade

ppm - parts per million

NV - no standard listed

"<" or "ND ( )" - less than detection limits indicated (refer to laboratory report)

NA - not applicable

MECP Table 7 SCS - Ontario Ministry of Environment, Conservation and Parks (MECP) Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. April, 2011. Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition, Residential Land Use, Coarse Textured Soil.

Bold / Italic - indicates concentration above applicable MECP Table 7 SCS

0.5 - MDL above applicable MECP Table 7 SCS (refer to laboratory reports)

TABLE 3: Summary of Soil Analytical Results
VOCs
Phase II ESA 971 Montreal Road
971 Montreal Road
MM2320

Parameter	Sample ID >	MDL	MECP	BH1-SA5	BH2-SA5	BH3-SA3
	Depth (m bg) >		Table 7	2.71	3.04	1.37
	HSVL (ppm) >		SCS	0	15	0
	Sample Date >			2020-07-10	2020-07-10	2020-07-10
Borehole/Monitoring Well Soil Samples						
VOCs						
Acetone		0.50	**16**	ND (0.50)	ND (0.50)	ND (0.50)
Benzene		0.02	**0.21**	ND (0.02)	ND (0.02)	ND (0.02)
Bromodichloromethane		0.05	**13**	ND (0.05)	ND (0.05)	ND (0.05)
Bromoform		0.05	**0.27**	ND (0.05)	ND (0.05)	ND (0.05)
Bromomethane		0.05	**0.05**	ND (0.05)	ND (0.05)	ND (0.05)
Carbon Tetrachloride		0.05	**0.05**	ND (0.05)	ND (0.05)	ND (0.05)
Chlorobenzene		0.05	**2.4**	ND (0.05)	ND (0.05)	ND (0.05)
Chloroform		0.05	**0.05**	ND (0.05)	ND (0.05)	ND (0.05)
Dibromochloromethane		0.05	**9.4**	ND (0.05)	ND (0.05)	ND (0.05)
Dichlorodifluoromethane		0.05	**16**	ND (0.05)	ND (0.05)	ND (0.05)
1,2-Dichlorobenzene		0.05	**3.4**	ND (0.05)	ND (0.05)	ND (0.05)
1,3-Dichlorobenzene		0.05	**4.8**	ND (0.05)	ND (0.05)	ND (0.05)
1,4-Dichlorobenzene		0.05	**0.083**	ND (0.05)	ND (0.05)	ND (0.05)
1,1-Dichloroethane		0.05	**3.5**	ND (0.05)	ND (0.05)	ND (0.05)
1,2-Dichloroethane		0.05	**0.05**	ND (0.05)	ND (0.05)	ND (0.05)
1,1-Dichloroethylene		0.05	**0.05**	ND (0.05)	ND (0.05)	ND (0.05)
cis-1,2-Dichloroethylene		0.05	**3.4**	ND (0.05)	ND (0.05)	ND (0.05)
trans-1,2-Dichloroethylene		0.05	**0.084**	ND (0.05)	ND (0.05)	ND (0.05)
1,2-Dichloropropane		0.05	**0.05**	ND (0.05)	ND (0.05)	ND (0.05)
cis-1,3-Dichloropropylene		0.05		ND (0.05)	ND (0.05)	ND (0.05)
trans-1,3-Dichloropropylene		0.05		ND (0.05)	ND (0.05)	ND (0.05)
1,3-Dichloropropene, total		0.05	**0.05**	ND (0.05)	ND (0.05)	ND (0.05)
Ethylbenzene		0.05	**2**	ND (0.05)	ND (0.05)	ND (0.05)
Ethylene dibromide (dibromoethane, 1,2-)		0.05		ND (0.05)	ND (0.05)	ND (0.05)
Hexane		0.05	**2.8**	ND (0.05)	ND (0.05)	ND (0.05)
Methyl Ethyl Ketone (2-Butanone)		0.50	**16**	ND (0.50)	ND (0.50)	ND (0.50)
Methyl Isobutyl Ketone		0.50	**1.7**	ND (0.50)	ND (0.50)	ND (0.50)
Methyl tert-butyl ether		0.05	**0.75**	ND (0.05)	ND (0.05)	ND (0.05)
Methylene Chloride		0.05	**0.1**	ND (0.05)	ND (0.05)	ND (0.05)
Styrene		0.05	**0.7**	ND (0.05)	ND (0.05)	ND (0.05)
1,1,1,2-Tetrachloroethane		0.05	**0.058**	ND (0.05)	ND (0.05)	ND (0.05)
1,1,2,2-Tetrachloroethane		0.05	**0.05**	ND (0.05)	ND (0.05)	ND (0.05)
Tetrachloroethylene		0.05	**0.28**	ND (0.05)	ND (0.05)	ND (0.05)
Toluene		0.05	**2.3**	ND (0.05)	ND (0.05)	ND (0.05)
1,1,1-Trichloroethane		0.05	**0.38**	ND (0.05)	ND (0.05)	ND (0.05)
1,1,2-Trichloroethane		0.05	**0.05**	ND (0.05)	ND (0.05)	ND (0.05)
Trichloroethylene		0.05	**0.061**	ND (0.05)	ND (0.05)	ND (0.05)
Trichlorofluoromethane		0.05	**4**	ND (0.05)	ND (0.05)	ND (0.05)
Vinyl Chloride		0.02	**0.02**	ND (0.02)	ND (0.02)	ND (0.02)
m/p-Xylene		0.05		ND (0.05)	ND (0.05)	ND (0.05)
o-Xylene		0.05	**NV**	ND (0.05)	ND (0.05)	ND (0.05)
Xylenes, total		0.05		ND (0.05)	ND (0.05)	ND (0.05)

Notes:

mg/kg - all concentrations provided in parts per million (milligrams per kilogram)

MDL - reported analytical method detection limit

HSVL - headspace vapour level (combustible vapour meter, calibrated to hexane)

m bg - metres below grade

ppm - parts per million

NV - no standard listed

"<" or "ND ( )" - less than detection limits indicated (refer to laboratory report)

NA - not applicable

MECP Table 7 SCS - Ontario Ministry of Environment, Conservation and Parks (MECP) Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. April, 2011.

Bold / Italic - indicates concentration above applicable MECP Table 7 SCS

0.5 - MDL above applicable MECP Table 7 SCS (refer to laboratory reports)

TABLE 4: Summary of Soil Analytical Results
Metals
Phase II ESA 971 Montreal Road
971 Montreal Road
MM2320

Parameter	Sample ID >	MDL	MECP	BH1-SA1	BH2-SA1
	Depth (m bg) >		Table 7	0.6	0.6
	HSVL (ppm) >		SCS	0	0
	Sample Date >			2020-07-10	2020-07-10
Borehole/Monitoring Well Soil Samples					
Metals					
Antimony		1.0	**7.5**	ND (1.0)	ND (1.0)
Arsenic		1.0	**18**	3.6	5.6
Barium		1.0	**390**	86.4	68.6
Beryllium		0.5	**4**	ND (0.5)	ND (0.5)
Boron		5.0	**120**	ND (5.0)	5.4
Cadmium		0.5	**1.2**	ND (0.5)	ND (0.5)
Chromium		5.0	**160**	19.6	15.8
Cobalt		1.0	**22**	5.1	7.8
Copper		5.0	**140**	12.7	27.8
Lead		1.0	**120**	16.9	97.3
Molybdenum		1.0	**6.9**	ND (1.0)	2.2
Nickel		5.0	**100**	13.0	22.6
Selenium		1.0	**2.4**	ND (1.0)	ND (1.0)
Silver		0.3	**20**	ND (0.3)	ND (0.3)
Thallium		1.0	**1**	ND (1.0)	ND (1.0)
Uranium		1.0	**23**	ND (1.0)	1.0
Vanadium		10.0	**86**	24.0	24.2
Zinc		20.0	**340**	36.3	61.2

Notes:

mg/kg - all concentrations provided in parts per million (milligrams per kilogram)

MDL - reported analytical method detection limit

HSVL - headspace vapour level (combustible vapour meter, calibrated to hexane)

m bg - metres below grade

ppm - parts per million

NV - no standard listed

"<" or "ND ( )" - less than detection limits indicated (refer to laboratory report)

NA - not applicable

MECP Table 7 SCS - Ontario Ministry of Environment, Conservation and Parks (MECP) Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. April, 2011.

Bold / ***Italic*** - indicates concentration above applicable MECP Table 7 SCS

0.5 - MDL above applicable MECP Table 7 SCS (refer to laboratory reports)

TABLE 5: Summary of Groundwater Analytical Results
BTEX and Petroleum Hydrocarbons (PHCs) F1-F4 Fractions
Phase II ESA 971 Montreal Road
971 Montreal Road
MM2320

Parameter Sample ID > / Sample Date >	MDL	MECP Table 7 SCS	MW1 07/16/20	MW2 07/16/20	MW3 07/16/20
Monitoring Well Samples					
BTEX					
Benzene	0.5	**0.5**	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	0.5	**54**	ND (0.5)	ND (0.5)	ND (0.5)
Toluene	0.5	**320**	ND (0.5)	ND (0.5)	ND (0.5)
m,p-Xylene	0.5	**NV**	ND (0.5)	ND (0.5)	ND (0.5)
o-Xylene	0.5	**NV**	ND (0.5)	ND (0.5)	ND (0.5)
Xylene (Total)	0.5	**72**	ND (0.5)	ND (0.5)	ND (0.5)
PHCs					
PHC F1(C6-C10)	25	**420**	ND (25)	ND (25)	ND (25)
PHC F2(C10-C16)	100	**150**	ND (100)	ND (100)	ND (100)
PHC F3(C16-C34)	100	**500**	360	320	260
PHC F4(>C34)	100	**500**	100	140	119

Notes:

µg/L - all concentrations provided in micrograms per litre (parts per billion)

MDL - reported analytical method detection limit

ppm - parts per million

NV - no standard listed

"<" or "ND ( )" - less than detection limits indicated (refer to laboratory report)

NA - not applicable

MECP Table 7 SCS - Ontario Ministry of Environment, Conservation and Parks (MECP) Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. April, 2011.

Bold / Italic - indicates concentration above applicable

0.5 - MDL above applicable (refer to laboratory reports)

[1] elevated detection/reporting limits and/or modified analytical protocol (e.g. limited sample volume)

TABLE 6: Summary of Groundwater Analytical Results
VOCs
Phase II ESA 971 Montreal Road
971 Montreal Road
MM2320

Parameter / Sample ID >	MDL	MECP Table 7 SCS	MW1	MW2	MW3	MW1	MW2	MW3
Sample Date >			07/16/20	07/16/20	07/16/20	07/23/20	07/23/20	07/23/20
Monitoring Well Samples								
VOCs								
Acetone	5.0	**100000**	ND (5.0)	ND (5.0)	ND (5.0)	N/A	N/A	N/A
Benzene	0.5	**0.5**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
Bromodichloromethane	0.5	**67000**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
Bromoform	0.5	**5**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
Bromomethane	0.5	**0.89**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
Carbon Tetrachloride	0.2	**0.2**	ND (0.2)	ND (0.2)	ND (0.2)	N/A	N/A	N/A
Chlorobenzene	0.5	**140**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
Chloroform	0.5	**2**	***5.70***	***4.90***	***6.70***	2	1.9	1.2
Dibromochloromethane	0.5	**65000**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
Dichlorodifluoromethane	1.0	**3500**	ND (1.0)	ND (1.0)	ND (1.0)	N/A	N/A	N/A
1,2-Dichlorobenzene	0.5	**150**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
1,3-Dichlorobenzene	0.5	**7600**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
1,4-Dichlorobenzene	0.5	**0.5**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
1,1-Dichloroethane	0.5	**11**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
1,2-Dichloroethane	0.5	**0.5**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
1,1-Dichloroethylene	0.5	**0.5**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
cis-1,2-Dichloroethylene	0.5	**1.6**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
trans-1,2-Dichloroethylene	0.5	**1.6**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
1,2-Dichloropropane	0.5	**0.58**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
cis-1,3-Dichloropropylene	0.5		ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
trans-1,3-Dichloropropylene	0.5		ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
1,3-Dichloropropene, total	0.5	**0.5**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
Ethylbenzene	0.5	**54**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
Ethylene dibromide (dibromoethane, 1,2-)	0.2		ND (0.2)	ND (0.2)	ND (0.2)	N/A	N/A	N/A
Hexane	1.0	**5**	ND (1.0)	ND (1.0)	ND (1.0)	N/A	N/A	N/A
Methyl Ethyl Ketone (2-Butanone)	5.0	**21000**	ND (5.0)	ND (5.0)	ND (5.0)	N/A	N/A	N/A
Methyl Isobutyl Ketone	5.0	**5200**	ND (5.0)	ND (5.0)	ND (5.0)	N/A	N/A	N/A
Methyl tert-butyl ether	2.0	**15**	ND (2.0)	ND (2.0)	ND (2.0)	N/A	N/A	N/A
Methylene Chloride	5.0	**26**	ND (5.0)	ND (5.0)	ND (5.0)	N/A	N/A	N/A
Styrene	0.5	**43**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
1,1,1,2-Tetrachloroethane	0.5	**1.1**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane	0.5	**0.5**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
Tetrachloroethylene	0.5	**0.5**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
Toluene	0.5	**320**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
1,1,1-Trichloroethane	0.5	**23**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
1,1,2-Trichloroethane	0.5	**0.5**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
Trichloroethylene	0.5	**0.5**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
Trichlorofluoromethane	1.0	**2000**	ND (1.0)	ND (1.0)	ND (1.0)	N/A	N/A	N/A
Vinyl Chloride	0.5	**0.5**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
m/p-Xylene	0.5		ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
o-Xylene	0.5	**NV**	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
Xylenes, total	0.5		ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A

Notes:

µg/L - all concentrations provided in micrograms per litre (parts per billion)
MDL - reported analytical method detection limit
ppm - parts per million
NV - no standard listed
"<" or "ND ( )" - less than detection limits indicated (refer to laboratory report)
NA - not applicable
MECP Table 7 SCS - Ontario Ministry of Environment, Conservation and Parks (MECP) Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. April, 2011.
Bold / Italic - indicates concentration above applicable MECP Table 7 SCS
0.5 - MDL above applicable MECP Table 7 SCS (refer to laboratory reports)
[1] - elevated detection/reporting limits and/or modified analytical protocol (e.g. limited sample volume, sediment in sample, etc.); refer to laboratory reports

TABLE 7: Summary of Groundwater Analytical Results
Metals
Phase II ESA 971 Montreal Road
971 Montreal Road
MM2320

Parameter / Sample ID >	MDL	MECP Table 7 SCS	MW1	MW2	MW3
Sample Date >			07/16/20	07/16/20	07/16/20
Monitoring Well Samples					
Metals					
Antimony	0.5	**16000**	0.6	0.6	ND (0.5)
Arsenic	1	**1500**	ND (1)	2	ND (1)
Barium	1	**23000**	224	143	104
Beryllium	0.5	**53**	ND (0.5)	ND (0.5)	ND (0.5)
Boron	10	**36000**	117	95	49
Cadmium	0.1	**2.1**	ND (0.1)	ND (0.1)	ND (0.1)
Chromium	1	**640**	ND (1)	ND (1)	ND (1)
Cobalt	0.5	**52**	0.5	1.4	0.6
Copper	0.5	**69**	9.2	4.1	3.8
Lead	0.1	**20**	0.1	0.1	0.2
Molybdenum	0.5	**7300**	12.6	6.7	1.5
Nickel	1	**390**	7	5	2
Selenium	1	**50**	1	ND (1)	ND (1)
Silver	0.1	**1.2**	ND (0.1)	ND (0.1)	ND (0.1)
Sodium	200	**1800000**	710000	195000	41000
Thallium	0.1	**400**	0.2	ND (0.1)	0.4
Uranium	0.1	**330**	25.2	13.7	0.7
Vanadium	0.5	**200**	ND (0.5)	0.8	ND (0.5)
Zinc	5	**890**	20	7	6

Notes:

µg/L - all concentrations provided in micrograms per litre (parts per billion)

MDL - reported analytical method detection limit

ppm - parts per million

NV - no standard listed

"<" or "ND ( )" - less than detection limits indicated (refer to laboratory report)

NA - not applicable

MECP Table 7 SCS - Ontario Ministry of Environment, Conservation and Parks (MECP) Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. April, 2011.

Bold / Italic - indicates concentration above applicable MECP Table 7 SCS

0.5 - MDL above applicable MECP Table 7 SCS (refer to laboratory reports)

APPENDIX A

BOREHOLE LOGS

Developpements Proximi-T Inc.

Phase II ESA

971 Montreal Road, Ottawa, Ontario

MM2320

CLIENT: **Developpements Proximi-T**
PROJECT: **Phase II ESA**
971 Montreal Road
ON

Borehole LOG

Borehole NO: MW1

GROUND ELEVATION: *101.08 m*
TOP ELEVATION: *100.89 m*

CM^3 JOB NO: MM2320

DEPTH (m)	SAMPLE TYPE	SAMPLE ID	SPT COUNT	SOIL TYPE	SOIL DESCRIPTION	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	WELL COMPLETION	WATER LEVEL	WELL COMPLETION NOTES	ELEVATION (m)
0.0					**ASPHALT**				flushmount in concrete j-plug	101
		SA1			**GRAVEL** crushed stone, sandy, dry	0.0				
					gravelly SAND (fill) some dark organics, trace clay, moist					
1.0		SA2				0.0				100
		SA3				0.0				
2.0		SA4				0.0			bentonite seal	99
		SA5				0.0				
3.0					**BEDROCK** limestone					98
4.0									32 mm solid PVC pipe	97
									GW = 4.505 mbg (7/16/2020)	
5.0									silica sand	96
6.0									32 mm 010 slot PVC pipe	95
7.0									end cap	94
					End of borehole at 7.16 m					
8.0					Well Completion Details: Screened interval from 4.11 m to 7.16 m below surface Elevation at top of pipe (TOP) = 100.89 m					
9.0					Groundwater Information: Depth to groundwater from TOP = 4.320 m (7/16/2020)					
10.0										

DRILL DATE: July 10, 2020
DRILLED BY: Downing
DRILLING METHOD: HSA/Core
LOGGED BY: AC
BOREHOLE DIAMETER: 0.21 m (OD)
CHECKED BY: KB

NOTES: GRAB SAMPLE SPLIT SPOON
CORE SAMPLE

CM3LOG BH_MW BH LOGS.GPJ CM3 TEMPLATE V6.0.GDT 7/31/20

CLIENT: **Developpements Proximi-T**
PROJECT: **Phase II ESA**
971 Montreal Road
ON

Borehole LOG

Borehole NO: MW2

GROUND ELEVATION: *100.22 m*
TOP ELEVATION: *100.07 m*

CM^3 JOB NO: MM2320

FIELD TEST DATA

DEPTH (m)	SAMPLE TYPE	SAMPLE ID	SPT COUNT	SOIL TYPE	SOIL DESCRIPTION	ORGANIC VAPOUR LEVEL (ppmv)	WELL COMPLETION	WATER LEVEL	WELL COMPLETION NOTES	ELEVATION (m)
0.0					**ASPHALT**	0.0			flushmount in concrete j-plug	100
					GRAVEL crushed stone, sandy, dry					
1.0		SA1			**gravelly SAND** (fill) some organics, trace brick debris, trace clay, moist	0.0				99
		SA2								
		SA3				0.0				
2.0		SA4				0.0			bentonite seal	98
					ORGANICS peaty, dark brown, moist	15.0				
3.0		SA5			**BEDROCK** limestone			GW = 3.517 mbg (7/16/2020)		97
4.0									32 mm solid PVC pipe	96
5.0									silica sand	95
6.0									32 mm 010 slot PVC pipe	94
7.0									end cap	
					End of borehole at 7.19 m					
8.0					Well Completion Details: Screened interval from 4.14 m to 7.19 m below surface Elevation at top of pipe (TOP) = 100.07 m					
9.0					Groundwater Information: Depth to groundwater from TOP = 3.370 m (7/16/2020)					
10.0										

DRILL DATE: July 10, 2020
DRILLED BY: Downing
DRILLING METHOD: HSA/Core
BOREHOLE DIAMETER: 0.21 m (OD)
LOGGED BY: AC
CHECKED BY: KB

NOTES: SPLIT SPOON CORE SAMPLE

CLIENT: **Developpements Proximi-T**
PROJECT: **Phase II ESA**
971 Montreal Road
ON

Borehole LOG

Borehole NO: MW3

GROUND ELEVATION: *100.17 m*
TOP ELEVATION: *100.00 m*

CM^3 JOB NO: MM2320

FIELD TEST DATA

DEPTH (m)	SAMPLE TYPE	SAMPLE ID	SPT COUNT	SOIL TYPE	SOIL DESCRIPTION	ORGANIC VAPOUR LEVEL (ppmv) 10 100	WELL COMPLETION	WATER LEVEL	WELL COMPLETION NOTES	ELEVATION (m)
0.0					**ASPHALT** dry	0.0			flushmount in concrete j-plug	100
		SA1			**GRAVEL** crushed stone, sandy, dry					
1.0		SA2			**TOPSOIL** trace sand and gravel, moist COBBLE or BOULDER at 0.71m to 0.86m					99
		SA3			**silty SAND** some gravel, trace clay, moist	0.0			bentonite seal	
2.0					**BEDROCK** limestone					98
3.0									32 mm solid PVC pipe	97
4.0								▼	GW = 4.219 mbg (7/16/2020)	96
									32 mm 010 slot PVC pipe	
5.0									silica sand	95
6.0									endcap	
					End of borehole at 6.13 m					
7.0					Well Completion Details: Screened interval from 3.07 m to 6.12 m below surface Elevation at top of pipe (TOP) = 100.00 m					
					Groundwater Information: Depth to groundwater from TOP = 4.050 m (7/16/2020)					
8.0										
9.0										
10.0										

DRILL DATE: July 10, 2020
DRILLED BY: Downing
DRILLING METHOD: HSA/Core
LOGGED BY: AC
BOREHOLE DIAMETER: 0.21 m (OD)
CHECKED BY: KB

NOTES: GRAB SAMPLE ⋈ SPLIT SPOON
CORE SAMPLE

CM3LOG BH_MW BH LOGS.GPJ CM3 TEMPLATE V6.0.GDT 7/31/20

APPENDIX B

LABORATORY REPORTS

Developpements Proximi-T Inc.

Phase II ESA

971 Montreal Road, Ottawa, Ontario

MM2320

PARACEL LABORATORIES LTD.

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Certificate of Analysis

CM3 Environmental Inc.

5710 Akins Road
Ottawa, ON K2S 1B8
Attn: Marc MacDonald

Client PO: 971 Montreal Rd, Ottawa
Project: MM2320
Custody: 125626

Report Date: 17-Jul-2020
Order Date: 10-Jul-2020

Order #: 2028608

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

Paracel ID	Client ID
2028608-01	BH1- SA1
2028608-02	BH1- SA5
2028608-03	BH2- SA1
2028608-04	BH2- SA5
2028608-05	BH3- SA3

Approved By:

Dale Robertson, BSc
Laboratory Director

Certificate of Analysis

Client: CM3 Environmental Inc.

Client PO: 971 Montreal Rd, Ottawa

Report Date: 17-Jul-2020

Order Date: 10-Jul-2020

Project Description: MM2320

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
PHC F1	CWS Tier 1 - P&T GC-FID	13-Jul-20	14-Jul-20
PHC F4G (gravimetric)	CWS Tier 1 - Extraction Gravimetric	16-Jul-20	16-Jul-20
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	11-Jul-20	16-Jul-20
REG 153: Metals by ICP/MS, soil	EPA 6020 - Digestion - ICP-MS	15-Jul-20	15-Jul-20
REG 153: VOCs by P&T GC/MS	EPA 8260 - P&T GC-MS	13-Jul-20	14-Jul-20
Solids, %	Gravimetric, calculation	17-Jul-20	16-Jul-20

Certificate of Analysis

Client: CM3 Environmental Inc.

Client PO: 971 Montreal Rd, Ottawa

Report Date: 17-Jul-2020

Order Date: 10-Jul-2020

Project Description: MM2320

	Client ID:	BH1- SA1	BH1- SA5	BH2- SA1	BH2- SA5
	Sample Date:	10-Jul-20 13:30	10-Jul-20 13:50	10-Jul-20 15:45	10-Jul-20 15:50
	Sample ID:	2028608-01	2028608-02	2028608-03	2028608-04
	MDL/Units	Soil	Soil	Soil	Soil
Physical Characteristics					
% Solids	0.1 % by Wt.	83.2	87.2	92.8	75.4
Metals					
Antimony	1.0 ug/g dry	<1.0	-	<1.0	-
Arsenic	1.0 ug/g dry	3.6	-	5.6	-
Barium	1.0 ug/g dry	86.4	-	68.6	-
Beryllium	0.5 ug/g dry	<0.5	-	<0.5	-
Boron	5.0 ug/g dry	<5.0	-	5.4	-
Cadmium	0.5 ug/g dry	<0.5	-	<0.5	-
Chromium	5.0 ug/g dry	19.6	-	15.8	-
Cobalt	1.0 ug/g dry	5.1	-	7.8	-
Copper	5.0 ug/g dry	12.7	-	27.8	-
Lead	1.0 ug/g dry	16.9	-	97.3	-
Molybdenum	1.0 ug/g dry	<1.0	-	2.2	-
Nickel	5.0 ug/g dry	13.0	-	22.6	-
Selenium	1.0 ug/g dry	<1.0	-	<1.0	-
Silver	0.3 ug/g dry	<0.3	-	<0.3	-
Thallium	1.0 ug/g dry	<1.0	-	<1.0	-
Uranium	1.0 ug/g dry	<1.0	-	1.0	-
Vanadium	10.0 ug/g dry	24.0	-	24.2	-
Zinc	20.0 ug/g dry	36.3	-	61.2	-
Volatiles					
Acetone	0.50 ug/g dry	-	<0.50	-	<0.50
Benzene	0.02 ug/g dry	-	<0.02	-	<0.02
Bromodichloromethane	0.05 ug/g dry	-	<0.05	-	<0.05
Bromoform	0.05 ug/g dry	-	<0.05	-	<0.05
Bromomethane	0.05 ug/g dry	-	<0.05	-	<0.05
Carbon Tetrachloride	0.05 ug/g dry	-	<0.05	-	<0.05
Chlorobenzene	0.05 ug/g dry	-	<0.05	-	<0.05
Chloroform	0.05 ug/g dry	-	<0.05	-	<0.05
Dibromochloromethane	0.05 ug/g dry	-	<0.05	-	<0.05
Dichlorodifluoromethane	0.05 ug/g dry	-	<0.05	-	<0.05
1,2-Dichlorobenzene	0.05 ug/g dry	-	<0.05	-	<0.05
1,3-Dichlorobenzene	0.05 ug/g dry	-	<0.05	-	<0.05
1,4-Dichlorobenzene	0.05 ug/g dry	-	<0.05	-	<0.05
1,1-Dichloroethane	0.05 ug/g dry	-	<0.05	-	<0.05

Certificate of Analysis

Client: CM3 Environmental Inc.

Client PO: 971 Montreal Rd, Ottawa

Report Date: 17-Jul-2020

Order Date: 10-Jul-2020

Project Description: MM2320

	Client ID:	BH1- SA1	BH1- SA5	BH2- SA1	BH2- SA5
	Sample Date:	10-Jul-20 13:30	10-Jul-20 13:50	10-Jul-20 15:45	10-Jul-20 15:50
	Sample ID:	2028608-01	2028608-02	2028608-03	2028608-04
	MDL/Units	Soil	Soil	Soil	Soil
1,2-Dichloroethane	0.05 ug/g dry	-	<0.05	-	<0.05
1,1-Dichloroethylene	0.05 ug/g dry	-	<0.05	-	<0.05
cis-1,2-Dichloroethylene	0.05 ug/g dry	-	<0.05	-	<0.05
trans-1,2-Dichloroethylene	0.05 ug/g dry	-	<0.05	-	<0.05
1,2-Dichloropropane	0.05 ug/g dry	-	<0.05	-	<0.05
cis-1,3-Dichloropropylene	0.05 ug/g dry	-	<0.05	-	<0.05
trans-1,3-Dichloropropylene	0.05 ug/g dry	-	<0.05	-	<0.05
1,3-Dichloropropene, total	0.05 ug/g dry	-	<0.05	-	<0.05
Ethylbenzene	0.05 ug/g dry	-	<0.05	-	<0.05
Ethylene dibromide (dibromoethane, 1,2-)	0.05 ug/g dry	-	<0.05	-	<0.05
Hexane	0.05 ug/g dry	-	<0.05	-	<0.05
Methyl Ethyl Ketone (2-Butanone)	0.50 ug/g dry	-	<0.50	-	<0.50
Methyl Isobutyl Ketone	0.50 ug/g dry	-	<0.50	-	<0.50
Methyl tert-butyl ether	0.05 ug/g dry	-	<0.05	-	<0.05
Methylene Chloride	0.05 ug/g dry	-	<0.05	-	<0.05
Styrene	0.05 ug/g dry	-	<0.05	-	<0.05
1,1,1,2-Tetrachloroethane	0.05 ug/g dry	-	<0.05	-	<0.05
1,1,2,2-Tetrachloroethane	0.05 ug/g dry	-	<0.05	-	<0.05
Tetrachloroethylene	0.05 ug/g dry	-	<0.05	-	<0.05
Toluene	0.05 ug/g dry	-	<0.05	-	<0.05
1,1,1-Trichloroethane	0.05 ug/g dry	-	<0.05	-	<0.05
1,1,2-Trichloroethane	0.05 ug/g dry	-	<0.05	-	<0.05
Trichloroethylene	0.05 ug/g dry	-	<0.05	-	<0.05
Trichlorofluoromethane	0.05 ug/g dry	-	<0.05	-	<0.05
Vinyl chloride	0.02 ug/g dry	-	<0.02	-	<0.02
m,p-Xylenes	0.05 ug/g dry	-	<0.05	-	<0.05
o-Xylene	0.05 ug/g dry	-	<0.05	-	<0.05
Xylenes, total	0.05 ug/g dry	-	<0.05	-	<0.05
4-Bromofluorobenzene	Surrogate	-	97.6%	-	96.9%
Dibromofluoromethane	Surrogate	-	122%	-	122%
Toluene-d8	Surrogate	-	103%	-	103%
Hydrocarbons					
F1 PHCs (C6-C10)	7 ug/g dry	-	<7	-	<7
F2 PHCs (C10-C16)	4 ug/g dry	-	<4	-	<4
F3 PHCs (C16-C34)	8 ug/g dry	-	88	-	<8
F4 PHCs (C34-C50)	6 ug/g dry	-	162 [1]	-	<6

Certificate of Analysis

Client: CM3 Environmental Inc.

Client PO: 971 Montreal Rd, Ottawa

Report Date: 17-Jul-2020

Order Date: 10-Jul-2020

Project Description: MM2320

	Client ID:	BH1- SA1	BH1- SA5	BH2- SA1	BH2- SA5
	Sample Date:	10-Jul-20 13:30	10-Jul-20 13:50	10-Jul-20 15:45	10-Jul-20 15:50
	Sample ID:	2028608-01	2028608-02	2028608-03	2028608-04
	MDL/Units	Soil	Soil	Soil	Soil
F4G PHCs (gravimetric)	50 ug/g dry	-	252	-	-

Certificate of Analysis

Client: CM3 Environmental Inc.

Client PO: 971 Montreal Rd, Ottawa

Report Date: 17-Jul-2020

Order Date: 10-Jul-2020

Project Description: MM2320

	Client ID:	BH3- SA3	-	-	-
	Sample Date:	10-Jul-20 10:30	-	-	-
	Sample ID:	2028608-05	-	-	-
	MDL/Units	Soil	-	-	-
Physical Characteristics					
% Solids	0.1 % by Wt.	82.1	-	-	-
Volatiles					
Acetone	0.50 ug/g dry	<0.50	-	-	-
Benzene	0.02 ug/g dry	<0.02	-	-	-
Bromodichloromethane	0.05 ug/g dry	<0.05	-	-	-
Bromoform	0.05 ug/g dry	<0.05	-	-	-
Bromomethane	0.05 ug/g dry	<0.05	-	-	-
Carbon Tetrachloride	0.05 ug/g dry	<0.05	-	-	-
Chlorobenzene	0.05 ug/g dry	<0.05	-	-	-
Chloroform	0.05 ug/g dry	<0.05	-	-	-
Dibromochloromethane	0.05 ug/g dry	<0.05	-	-	-
Dichlorodifluoromethane	0.05 ug/g dry	<0.05	-	-	-
1,2-Dichlorobenzene	0.05 ug/g dry	<0.05	-	-	-
1,3-Dichlorobenzene	0.05 ug/g dry	<0.05	-	-	-
1,4-Dichlorobenzene	0.05 ug/g dry	<0.05	-	-	-
1,1-Dichloroethane	0.05 ug/g dry	<0.05	-	-	-
1,2-Dichloroethane	0.05 ug/g dry	<0.05	-	-	-
1,1-Dichloroethylene	0.05 ug/g dry	<0.05	-	-	-
cis-1,2-Dichloroethylene	0.05 ug/g dry	<0.05	-	-	-
trans-1,2-Dichloroethylene	0.05 ug/g dry	<0.05	-	-	-
1,2-Dichloropropane	0.05 ug/g dry	<0.05	-	-	-
cis-1,3-Dichloropropylene	0.05 ug/g dry	<0.05	-	-	-
trans-1,3-Dichloropropylene	0.05 ug/g dry	<0.05	-	-	-
1,3-Dichloropropene, total	0.05 ug/g dry	<0.05	-	-	-
Ethylbenzene	0.05 ug/g dry	<0.05	-	-	-
Ethylene dibromide (dibromoethane, 1	0.05 ug/g dry	<0.05	-	-	-
Hexane	0.05 ug/g dry	<0.05	-	-	-
Methyl Ethyl Ketone (2-Butanone)	0.50 ug/g dry	<0.50	-	-	-
Methyl Isobutyl Ketone	0.50 ug/g dry	<0.50	-	-	-
Methyl tert-butyl ether	0.05 ug/g dry	<0.05	-	-	-
Methylene Chloride	0.05 ug/g dry	<0.05	-	-	-
Styrene	0.05 ug/g dry	<0.05	-	-	-
1,1,1,2-Tetrachloroethane	0.05 ug/g dry	<0.05	-	-	-
1,1,2,2-Tetrachloroethane	0.05 ug/g dry	<0.05	-	-	-

Certificate of Analysis

Client: CM3 Environmental Inc.

Client PO: 971 Montreal Rd, Ottawa

Report Date: 17-Jul-2020

Order Date: 10-Jul-2020

Project Description: MM2320

	Client ID:	BH3- SA3	-	-	-
	Sample Date:	10-Jul-20 10:30	-	-	-
	Sample ID:	2028608-05	-	-	-
	MDL/Units	Soil	-	-	-
Tetrachloroethylene	0.05 ug/g dry	<0.05	-	-	-
Toluene	0.05 ug/g dry	<0.05	-	-	-
1,1,1-Trichloroethane	0.05 ug/g dry	<0.05	-	-	-
1,1,2-Trichloroethane	0.05 ug/g dry	<0.05	-	-	-
Trichloroethylene	0.05 ug/g dry	<0.05	-	-	-
Trichlorofluoromethane	0.05 ug/g dry	<0.05	-	-	-
Vinyl chloride	0.02 ug/g dry	<0.02	-	-	-
m,p-Xylenes	0.05 ug/g dry	<0.05	-	-	-
o-Xylene	0.05 ug/g dry	<0.05	-	-	-
Xylenes, total	0.05 ug/g dry	<0.05	-	-	-
4-Bromofluorobenzene	Surrogate	96.1%	-	-	-
Dibromofluoromethane	Surrogate	121%	-	-	-
Toluene-d8	Surrogate	103%	-	-	-

Certificate of Analysis

Client: CM3 Environmental Inc.

Client PO: 971 Montreal Rd, Ottawa

Report Date: 17-Jul-2020

Order Date: 10-Jul-2020

Project Description: MM2320

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						
F4G PHCs (gravimetric)	ND	50	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						
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						
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						

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
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						
Surrogate: 4-Bromofluorobenzene	*8.30*		*ug/g*		*104*	*50-140*			
Surrogate: Dibromofluoromethane	*9.78*		*ug/g*		*122*	*50-140*			
Surrogate: Toluene-d8	*6.87*		*ug/g*		*85.8*	*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)	ND	8	ug/g dry	ND			NC	30	
F4 PHCs (C34-C50)	ND	6	ug/g dry	ND			NC	30	
Metals									
Antimony	ND	1.0	ug/g dry	ND			NC	30	
Arsenic	2.2	1.0	ug/g dry	2.0			6.8	30	
Barium	12.2	1.0	ug/g dry	10.5			14.9	30	
Beryllium	ND	0.5	ug/g dry	ND			NC	30	
Boron	ND	5.0	ug/g dry	ND			NC	30	
Cadmium	ND	0.5	ug/g dry	ND			NC	30	
Chromium	10.7	5.0	ug/g dry	8.1			28.0	30	
Cobalt	2.8	1.0	ug/g dry	2.2			22.3	30	
Copper	ND	5.0	ug/g dry	ND			NC	30	
Lead	3.7	1.0	ug/g dry	3.5			5.8	30	
Molybdenum	ND	1.0	ug/g dry	ND			NC	30	
Nickel	5.3	5.0	ug/g dry	ND			NC	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	ND	1.0	ug/g dry	ND			NC	30	
Vanadium	27.8	10.0	ug/g dry	16.0			NC	30	
Zinc	ND	20.0	ug/g dry	ND			NC	30	
Physical Characteristics									
% Solids	86.3	0.1	% by Wt.	86.4			0.1	25	
Volatiles									
Acetone	ND	0.50	ug/g dry	ND			NC	50	
Benzene	ND	0.02	ug/g dry	ND			NC	50	
Bromodichloromethane	ND	0.05	ug/g dry	ND			NC	50	
Bromoform	ND	0.05	ug/g dry	ND			NC	50	
Bromomethane	ND	0.05	ug/g dry	ND			NC	50	
Carbon Tetrachloride	ND	0.05	ug/g dry	ND			NC	50	
Chlorobenzene	ND	0.05	ug/g dry	ND			NC	50	
Chloroform	ND	0.05	ug/g dry	ND			NC	50	
Dibromochloromethane	ND	0.05	ug/g dry	ND			NC	50	
Dichlorodifluoromethane	ND	0.05	ug/g dry	ND			NC	50	
1,2-Dichlorobenzene	ND	0.05	ug/g dry	ND			NC	50	
1,3-Dichlorobenzene	ND	0.05	ug/g dry	ND			NC	50	
1,4-Dichlorobenzene	ND	0.05	ug/g dry	ND			NC	50	
1,1-Dichloroethane	ND	0.05	ug/g dry	ND			NC	50	
1,2-Dichloroethane	ND	0.05	ug/g dry	ND			NC	50	
1,1-Dichloroethylene	ND	0.05	ug/g dry	ND			NC	50	
cis-1,2-Dichloroethylene	ND	0.05	ug/g dry	ND			NC	50	
trans-1,2-Dichloroethylene	ND	0.05	ug/g dry	ND			NC	50	
1,2-Dichloropropane	ND	0.05	ug/g dry	ND			NC	50	
cis-1,3-Dichloropropylene	ND	0.05	ug/g dry	ND			NC	50	
trans-1,3-Dichloropropylene	ND	0.05	ug/g dry	ND			NC	50	
Ethylbenzene	ND	0.05	ug/g dry	ND			NC	50	
Ethylene dibromide (dibromoethane, 1,2-	ND	0.05	ug/g dry	ND			NC	50	
Hexane	ND	0.05	ug/g dry	ND			NC	50	
Methyl Ethyl Ketone (2-Butanone)	ND	0.50	ug/g dry	ND			NC	50	
Methyl Isobutyl Ketone	ND	0.50	ug/g dry	ND			NC	50	
Methyl tert-butyl ether	ND	0.05	ug/g dry	ND			NC	50	
Methylene Chloride	ND	0.05	ug/g dry	ND			NC	50	
Styrene	ND	0.05	ug/g dry	ND			NC	50	
1,1,1,2-Tetrachloroethane	ND	0.05	ug/g dry	ND			NC	50	

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
1,1,2,2-Tetrachloroethane	ND	0.05	ug/g dry	ND			NC	50	
Tetrachloroethylene	ND	0.05	ug/g dry	ND			NC	50	
Toluene	ND	0.05	ug/g dry	ND			NC	50	
1,1,1-Trichloroethane	ND	0.05	ug/g dry	ND			NC	50	
1,1,2-Trichloroethane	ND	0.05	ug/g dry	ND			NC	50	
Trichloroethylene	ND	0.05	ug/g dry	ND			NC	50	
Trichlorofluoromethane	ND	0.05	ug/g dry	ND			NC	50	
Vinyl chloride	ND	0.02	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: 4-Bromofluorobenzene	*9.13*		*ug/g dry*		*100*	*50-140*			
Surrogate: Dibromofluoromethane	*11.1*		*ug/g dry*		*122*	*50-140*			
Surrogate: Toluene-d8	*9.28*		*ug/g dry*		*102*	*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)	190	7	ug/g	ND	94.9	80-120			
F2 PHCs (C10-C16)	105	4	ug/g	ND	116	60-140			
F3 PHCs (C16-C34)	285	8	ug/g	ND	129	60-140			
F4 PHCs (C34-C50)	172	6	ug/g	ND	123	60-140			
F4G PHCs (gravimetric)	960	50	ug/g	ND	96.0	80-120			
Metals									
Antimony	41.1	1.0	ug/g	ND	81.4	70-130			
Arsenic	48.3	1.0	ug/g	ND	95.0	70-130			
Barium	49.2	1.0	ug/g	4.2	90.0	70-130			
Beryllium	48.7	0.5	ug/g	ND	97.1	70-130			
Boron	43.8	5.0	ug/g	ND	86.7	70-130			
Cadmium	44.3	0.5	ug/g	ND	88.6	70-130			
Chromium	50.6	5.0	ug/g	ND	94.8	70-130			
Cobalt	47.9	1.0	ug/g	ND	94.0	70-130			
Copper	47.5	5.0	ug/g	ND	91.8	70-130			
Lead	47.3	1.0	ug/g	1.4	91.9	70-130			
Molybdenum	46.3	1.0	ug/g	ND	92.4	70-130			
Nickel	47.7	5.0	ug/g	ND	91.8	70-130			
Selenium	46.8	1.0	ug/g	ND	93.5	70-130			
Silver	46.7	0.3	ug/g	ND	93.2	70-130			
Thallium	46.8	1.0	ug/g	ND	93.5	70-130			
Uranium	48.0	1.0	ug/g	ND	95.8	70-130			
Vanadium	58.2	10.0	ug/g	ND	104	70-130			
Zinc	48.4	20.0	ug/g	ND	89.1	70-130			
Volatiles									
Acetone	9.47	0.50	ug/g	ND	94.7	50-140			
Benzene	4.66	0.02	ug/g	ND	116	60-130			
Bromodichloromethane	4.54	0.05	ug/g	ND	114	60-130			
Bromoform	4.63	0.05	ug/g	ND	116	60-130			
Bromomethane	3.53	0.05	ug/g	ND	88.3	50-140			
Carbon Tetrachloride	4.51	0.05	ug/g	ND	113	60-130			
Chlorobenzene	4.53	0.05	ug/g	ND	113	60-130			
Chloroform	4.36	0.05	ug/g	ND	109	60-130			
Dibromochloromethane	4.19	0.05	ug/g	ND	105	60-130			
Dichlorodifluoromethane	2.99	0.05	ug/g	ND	74.7	50-140			
1,2-Dichlorobenzene	4.31	0.05	ug/g	ND	108	60-130			
1,3-Dichlorobenzene	4.22	0.05	ug/g	ND	106	60-130			
1,4-Dichlorobenzene	4.00	0.05	ug/g	ND	100	60-130			
1,1-Dichloroethane	4.70	0.05	ug/g	ND	117	60-130			
1,2-Dichloroethane	4.84	0.05	ug/g	ND	121	60-130			
1,1-Dichloroethylene	4.34	0.05	ug/g	ND	108	60-130			
cis-1,2-Dichloroethylene	3.94	0.05	ug/g	ND	98.5	60-130			
trans-1,2-Dichloroethylene	4.68	0.05	ug/g	ND	117	60-130			
1,2-Dichloropropane	4.44	0.05	ug/g	ND	111	60-130			
cis-1,3-Dichloropropylene	4.89	0.05	ug/g	ND	122	60-130			
trans-1,3-Dichloropropylene	4.59	0.05	ug/g	ND	115	60-130			
Ethylbenzene	4.59	0.05	ug/g	ND	115	60-130			
Ethylene dibromide (dibromoethane, 1,2	4.12	0.05	ug/g	ND	103	60-130			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hexane	4.73	0.05	ug/g	ND	118	60-130			
Methyl Ethyl Ketone (2-Butanone)	11.7	0.50	ug/g	ND	117	50-140			
Methyl Isobutyl Ketone	12.3	0.50	ug/g	ND	123	50-140			
Methyl tert-butyl ether	12.1	0.05	ug/g	ND	121	50-140			
Methylene Chloride	4.64	0.05	ug/g	ND	116	60-130			
Styrene	4.72	0.05	ug/g	ND	118	60-130			
1,1,1,2-Tetrachloroethane	4.78	0.05	ug/g	ND	120	60-130			
1,1,2,2-Tetrachloroethane	4.42	0.05	ug/g	ND	111	60-130			
Tetrachloroethylene	4.69	0.05	ug/g	ND	117	60-130			
Toluene	4.20	0.05	ug/g	ND	105	60-130			
1,1,1-Trichloroethane	4.49	0.05	ug/g	ND	112	60-130			
1,1,2-Trichloroethane	4.95	0.05	ug/g	ND	124	60-130			
Trichloroethylene	4.24	0.05	ug/g	ND	106	60-130			
Trichlorofluoromethane	4.03	0.05	ug/g	ND	101	50-140			
Vinyl chloride	3.23	0.02	ug/g	ND	80.6	50-140			
m,p-Xylenes	9.31	0.05	ug/g	ND	116	60-130			
o-Xylene	4.67	0.05	ug/g	ND	117	60-130			
Surrogate: 4-Bromofluorobenzene	*8.12*		*ug/g*		*102*	*50-140*			
Surrogate: Dibromofluoromethane	*9.78*		*ug/g*		*122*	*50-140*			
Surrogate: Toluene-d8	*7.42*		*ug/g*		*92.8*	*50-140*			

Qualifier Notes:

Sample Qualifiers :

1 : GC-FID signal did not return to baseline by C50

QC 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 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: 2028608

Paracel Order Number (Lab Use Only)	Chain Of Custody (Lab Use Only)
2028608	Nº 125626

Client Name: CM3 Environmental	Project Ref: MP2320	Page 1 of 1
Contact Name: Alden, Marc	Quote #: CM3 Rates	Turnaround Time
Address: 5710 Aicins Rd., Stittsville, ON	PO #: 971 Montreal Rd., Ottawa	☐ 1 day ☐ 3 day
	E-mail: alden@cm3environmental	☐ 2 day ☑ Regular
Telephone: 613-915-0627	marc	Date Required:

Regulation 153/04	Other Regulation
☐ Table 1 ☐ Res/Park ☐ Med/Fine	☐ REG 558 ☐ PWQO
☐ Table 2 ☐ Ind/Comm ☐ Coarse	☐ CCME ☐ MISA
☐ Table 3 ☐ Agri/Other	☐ SU - Sani ☐ SU - Storm
☑ Table 7	Mun:
For RSC: ☐ Yes ☐ No	☐ 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	~~Duplicate~~ BH1-SA1	S		1	07/10/20	1:30				X			
2	~~Duplicate~~ BH1-SA5	S		2		1:50	X	X					
3	BH2-SA1	S		1		3:45				X			
4	BH2-SA5	S		2		3:50	X	X					
5	BH3-SA3	S		1		10:30		X					
6													
7													
8													
9													
10													

Comments:

Method of Delivery: DCB

Relinquished By (Sign): Alden	Received By Driver/Depot:	Received at Lab:
Relinquished By (Print): Alden Crossman	Date/Time:	Date/Time: 7-10-2017
Date/Time: 07/10/20, 5:35	Temperature: °C	Temperature: 34.0 °C

Verified By: Bram

Date/Time: July 10, 2020 17:50

pH Verified: ☐ By:

PARAC LABORATORIES

Paracel ID: 2028608

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K1G 4J8
947
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Paracel Order Number (Lab Use Only)	Chain Of Custody (Lab Use Only)
2028608	Nº 54648

Client Name: CM3	Project Ref: MM2320	Page __ of __
Contact Name: Alden	Quote #:	Turnaround Time
Address:	PO #:	☐ 1 day ☐ 3 day
	E-mail: alden@cm3environmental.com	☐ 2 day ☑ Regular
Telephone: 613-915-0627		Date Required:

Regulation 153/04	Other Regulation
☐ Table 1 ☐ Res/Park ☐ Med/Fine	☐ REG 558 ☐ PWQO
☐ Table 2 ☐ Ind/Comm ☐ Coarse	☐ CCME ☐ MISA
☐ Table 3 ☐ Agri/Other	☐ SU - Sani ☐ SU - Storm
☐ Table 7	Mun:
For RSC: ☐ Yes ☐ No	☐ 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: VOC
1	BH3 -SA3						X
2							
3							
4							
5							
6							
7							
8							
9							
10							

Comments: Missing Samlle from Samlles Submitted on 07/10/20

Method of Delivery: Drop Box

Relinquished By (Sign):	Received By Driver/Depot:	Received at Lab: Sureeporn Dhiman	Verified By:
Relinquished By (Print): Alden Crossman	Date/Time:	Date/Time: JUL 13, 2020 04.42	Date/Time: 13 July 2020 8:28
Date/Time: 07/13/20, 4:20	Temperature: °C	Temperature: 28.5 °C	pH Verified: ☐ By:

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Certificate of Analysis

CM3 Environmental Inc.

5710 Akins Road
Ottawa, ON K2S 1B8
Attn: Alden Crossman

Client PO: 971 Montreal Road
Project: MM2320
Custody: 125625

Report Date: 21-Jul-2020
Order Date: 16-Jul-2020

Order #: 2029408

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

Paracel ID	Client ID
2029408-01	MW1
2029408-02	MW2
2029408-03	MW3

Approved By:

Dale Robertson, BSc
Laboratory Director

Certificate of Analysis

Client: CM3 Environmental Inc.

Client PO: 971 Montreal Road

Report Date: 21-Jul-2020

Order Date: 16-Jul-2020

Project Description: MM2320

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Metals, ICP-MS	EPA 200.8 - ICP-MS	17-Jul-20	17-Jul-20
PHC F1	CWS Tier 1 - P&T GC-FID	16-Jul-20	17-Jul-20
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	20-Jul-20	20-Jul-20
REG 153: VOCs by P&T GC/MS	EPA 624 - P&T GC-MS	16-Jul-20	17-Jul-20

Certificate of Analysis

Client: CM3 Environmental Inc.

Client PO: 971 Montreal Road

Report Date: 21-Jul-2020

Order Date: 16-Jul-2020

Project Description: MM2320

	Client ID:	MW1	MW2	MW3	-
	Sample Date:	16-Jul-20 10:20	16-Jul-20 10:50	16-Jul-20 11:10	-
	Sample ID:	2029408-01	2029408-02	2029408-03	-
	MDL/Units	Water	Water	Water	-
Metals					
Antimony	0.5 ug/L	0.6	0.6	<0.5	-
Arsenic	1 ug/L	<1	2	<1	-
Barium	1 ug/L	224	143	104	-
Beryllium	0.5 ug/L	<0.5	<0.5	<0.5	-
Boron	10 ug/L	117	95	49	-
Cadmium	0.1 ug/L	<0.1	<0.1	<0.1	-
Chromium	1 ug/L	<1	<1	<1	-
Cobalt	0.5 ug/L	0.5	1.4	0.6	-
Copper	0.5 ug/L	9.2	4.1	3.8	-
Lead	0.1 ug/L	0.1	0.1	0.2	-
Molybdenum	0.5 ug/L	12.6	6.7	1.5	-
Nickel	1 ug/L	7	5	2	-
Selenium	1 ug/L	1	<1	<1	-
Silver	0.1 ug/L	<0.1	<0.1	<0.1	-
Sodium	200 ug/L	710000	195000	41000	-
Thallium	0.1 ug/L	0.2	<0.1	0.4	-
Uranium	0.1 ug/L	25.2	13.7	0.7	-
Vanadium	0.5 ug/L	<0.5	0.8	<0.5	-
Zinc	5 ug/L	20	7	6	-
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	-
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	-
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	-
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	-
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	-
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	-
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	-
Chloroform	0.5 ug/L	5.7	4.9	6.7	-
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	-
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	-
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	-
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	-
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	-
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-

Certificate of Analysis

Client: CM3 Environmental Inc.

Client PO: 971 Montreal Road

Report Date: 21-Jul-2020

Order Date: 16-Jul-2020

Project Description: MM2320

	Client ID:	MW1	MW2	MW3	-
	Sample Date:	16-Jul-20 10:20	16-Jul-20 10:50	16-Jul-20 11:10	-
	Sample ID:	2029408-01	2029408-02	2029408-03	-
	MDL/Units	Water	Water	Water	-
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	-
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	-
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	-
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	-
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	-
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	-
Ethylene dibromide (dibromoethane, 1,2-)	0.2 ug/L	<0.2	<0.2	<0.2	-
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	-
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	-
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	-
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	-
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	-
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	-
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	-
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	-
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-
Trichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	-
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	-
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	-
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	-
4-Bromofluorobenzene	Surrogate	102%	101%	101%	-
Dibromofluoromethane	Surrogate	110%	121%	117%	-
Toluene-d8	Surrogate	97.2%	98.3%	97.3%	-
Hydrocarbons					
F1 PHCs (C6-C10)	25 ug/L	<25	<25	<25	-
F2 PHCs (C10-C16)	100 ug/L	<100	<100	<100	-
F3 PHCs (C16-C34)	100 ug/L	360	320	260	-
F4 PHCs (C34-C50)	100 ug/L	100	140	119	-

Certificate of Analysis

Client: CM3 Environmental Inc.

Client PO: 971 Montreal Road

Report Date: 21-Jul-2020

Order Date: 16-Jul-2020

Project Description: MM2320

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
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									
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	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						
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						
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						

Certificate of Analysis

Client: CM3 Environmental Inc.

Client PO: 971 Montreal Road

Report Date: 21-Jul-2020

Order Date: 16-Jul-2020

Project Description: MM2320

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
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						
Xylenes, total	ND	0.5	ug/L						
Surrogate: 4-Bromofluorobenzene	*82.1*		*ug/L*		*103*	*50-140*			
Surrogate: Dibromofluoromethane	*85.1*		*ug/L*		*106*	*50-140*			
Surrogate: Toluene-d8	*79.1*		*ug/L*		*98.9*	*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	25	ug/L	ND			NC	30	
Metals									
Antimony	1.10	0.5	ug/L	0.75			NC	20	
Arsenic	ND	1	ug/L	ND			NC	20	
Barium	360	1	ug/L	341			5.4	20	
Beryllium	ND	0.5	ug/L	ND			NC	20	
Boron	40	10	ug/L	41			2.2	20	
Cadmium	ND	0.1	ug/L	ND			NC	20	
Chromium	ND	1	ug/L	ND			NC	20	
Cobalt	2.06	0.5	ug/L	2.05			0.1	20	
Copper	9.30	0.5	ug/L	9.24			0.6	20	
Lead	0.88	0.1	ug/L	0.91			3.5	20	
Molybdenum	3.23	0.5	ug/L	3.15			2.6	20	
Nickel	3.6	1	ug/L	3.7			0.6	20	
Selenium	ND	1	ug/L	ND			NC	20	
Silver	ND	0.1	ug/L	ND			NC	20	
Sodium	780000	2000	ug/L	832000			6.5	20	
Thallium	ND	0.1	ug/L	ND			NC	20	
Uranium	5.1	0.1	ug/L	5.3			2.8	20	
Vanadium	1.18	0.5	ug/L	1.25			6.1	20	
Zinc	7	5	ug/L	7			7.4	20	
Volatiles									
Acetone	ND	5.0	ug/L	ND			NC	30	
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	
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	

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
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	*82.3*		*ug/L*		*103*	*50-140*			
Surrogate: Dibromofluoromethane	*91.7*		*ug/L*		*115*	*50-140*			
Surrogate: Toluene-d8	*77.0*		*ug/L*		*96.3*	*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)	1590	25	ug/L	ND	79.6	68-117			
F2 PHCs (C10-C16)	1670	100	ug/L	ND	105	60-140			
F3 PHCs (C16-C34)	4230	100	ug/L	ND	108	60-140			
F4 PHCs (C34-C50)	2400	100	ug/L	ND	96.6	60-140			
Metals									
Antimony	42.5	0.5	ug/L	ND	85.0	80-120			
Arsenic	50.3	1	ug/L	ND	101	80-120			
Barium	46.8	1	ug/L	ND	93.5	80-120			
Beryllium	47.9	0.5	ug/L	ND	95.8	80-120			
Boron	41	10	ug/L	ND	82.8	80-120			
Cadmium	46.8	0.1	ug/L	ND	93.6	80-120			
Chromium	49.5	1	ug/L	ND	98.9	80-120			
Cobalt	47.8	0.5	ug/L	ND	95.6	80-120			
Copper	45.7	0.5	ug/L	ND	91.5	80-120			
Lead	44.3	0.1	ug/L	ND	88.7	80-120			
Molybdenum	44.9	0.5	ug/L	ND	89.8	80-120			
Nickel	46.6	1	ug/L	ND	93.3	80-120			
Selenium	47.9	1	ug/L	ND	95.7	80-120			
Silver	46.7	0.1	ug/L	ND	93.5	80-120			
Sodium	9000	200	ug/L	ND	90.0	80-120			
Thallium	45.9	0.1	ug/L	ND	91.9	80-120			
Uranium	47.5	0.1	ug/L	ND	94.9	80-120			
Vanadium	48.4	0.5	ug/L	ND	96.8	80-120			
Zinc	39	5	ug/L	7	65.3	80-120			QM-07
Volatiles									
Acetone	83.8	5.0	ug/L	ND	83.8	50-140			
Benzene	39.0	0.5	ug/L	ND	97.6	60-130			
Bromodichloromethane	33.6	0.5	ug/L	ND	84.0	60-130			
Bromoform	43.9	0.5	ug/L	ND	110	60-130			
Bromomethane	32.1	0.5	ug/L	ND	80.2	50-140			
Carbon Tetrachloride	28.5	0.2	ug/L	ND	71.2	60-130			
Chlorobenzene	34.8	0.5	ug/L	ND	86.9	60-130			
Chloroform	34.7	0.5	ug/L	ND	86.7	60-130			
Dibromochloromethane	31.5	0.5	ug/L	ND	78.8	60-130			
Dichlorodifluoromethane	28.7	1.0	ug/L	ND	71.8	50-140			
1,2-Dichlorobenzene	30.9	0.5	ug/L	ND	77.2	60-130			
1,3-Dichlorobenzene	29.6	0.5	ug/L	ND	74.1	60-130			
1,4-Dichlorobenzene	30.5	0.5	ug/L	ND	76.2	60-130			
1,1-Dichloroethane	31.8	0.5	ug/L	ND	79.5	60-130			
1,2-Dichloroethane	46.1	0.5	ug/L	ND	115	60-130			
1,1-Dichloroethylene	29.7	0.5	ug/L	ND	74.4	60-130			
cis-1,2-Dichloroethylene	37.4	0.5	ug/L	ND	93.4	60-130			
trans-1,2-Dichloroethylene	33.6	0.5	ug/L	ND	84.0	60-130			
1,2-Dichloropropane	39.6	0.5	ug/L	ND	99.0	60-130			
cis-1,3-Dichloropropylene	41.6	0.5	ug/L	ND	104	60-130			
trans-1,3-Dichloropropylene	37.3	0.5	ug/L	ND	93.2	60-130			
Ethylbenzene	34.4	0.5	ug/L	ND	86.0	60-130			
Ethylene dibromide (dibromoethane, 1,2	32.4	0.2	ug/L	ND	81.1	60-130			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hexane	34.8	1.0	ug/L	ND	87.1	60-130			
Methyl Ethyl Ketone (2-Butanone)	107	5.0	ug/L	ND	107	50-140			
Methyl Isobutyl Ketone	115	5.0	ug/L	ND	115	50-140			
Methyl tert-butyl ether	90.3	2.0	ug/L	ND	90.3	50-140			
Methylene Chloride	32.0	5.0	ug/L	ND	80.1	60-130			
Styrene	34.6	0.5	ug/L	ND	86.4	60-130			
1,1,1,2-Tetrachloroethane	32.6	0.5	ug/L	ND	81.4	60-130			
1,1,2,2-Tetrachloroethane	37.3	0.5	ug/L	ND	93.2	60-130			
Tetrachloroethylene	32.6	0.5	ug/L	ND	81.6	60-130			
Toluene	35.3	0.5	ug/L	ND	88.2	60-130			
1,1,1-Trichloroethane	31.2	0.5	ug/L	ND	77.9	60-130			
1,1,2-Trichloroethane	40.1	0.5	ug/L	ND	100	60-130			
Trichloroethylene	37.0	0.5	ug/L	ND	92.6	60-130			
Trichlorofluoromethane	32.8	1.0	ug/L	ND	82.0	60-130			
Vinyl chloride	34.8	0.5	ug/L	ND	86.9	50-140			
m,p-Xylenes	69.6	0.5	ug/L	ND	87.0	60-130			
o-Xylene	35.5	0.5	ug/L	ND	88.8	60-130			
Surrogate: 4-Bromofluorobenzene	*80.5*		*ug/L*		*101*	*50-140*			
Surrogate: Dibromofluoromethane	*91.5*		*ug/L*		*114*	*50-140*			
Surrogate: Toluene-d8	*76.2*		*ug/L*		*95.3*	*50-140*			

Qualifier Notes:

QC Qualifiers :

QM-07 : The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on other acceptable QC.

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: 2029408

Paracel Order Number (Lab Use Only)	Chain Of Custody (Lab Use Only)
2029408	№ 125625

Client Name: CM3
Contact Name: Alden, Marc
Address: 5710 Akins Rd., Stittsville, ON
Telephone: 613-915-0627

Project Ref: MH2320
Quote #: CM3 Rates
PO #: 971 Montreal Road
E-mail: alden@cm3environmental.com
marc @ "

Page 1 of 1

Turnaround Time

☐ 1 day ☐ 3 day
☐ 2 day ☒ Regular
Date Required:

Regulation 153/04

☐ Table 1 ☐ Res/Park ☐ Med/Fine
☐ Table 2 ☐ Ind/Comm ☐ Coarse
☐ Table 3 ☐ Agri/Other
☑ Table 7
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)						
1	MW1	GW		4	07/16/20	10:20	X	X		X									✓
2	MW2	GW		4	↓	10:50	X	X		X									✓
3	MW3	GW		4	↓	11:10	X	X		X									✓
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Comments:

Method of Delivery: Drop Box

Relinquished By (Sign): Alden Z	Received By Driver/Depot:	Received at Lab: Jurreepam Dhaliwal	Verified By: Bam
Relinquished By (Print): Alden Crossman	Date/Time:	Date/Time: JUL 16, 2020 12.16	Date/Time: Jul 16, 2020 12:35
Date/Time: 07/16/20, 12:00 pm	Temperature: °C	Temperature: 17.3 °C	pH Verified: ☑ By: B.S

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Certificate of Analysis

CM3 Environmental Inc.

5710 Akins Road
Ottawa, ON K2S 1B8
Attn: Alden Crossman

Client PO: 971 Montreal Road
Project: MM2320
Custody: 125640

Report Date: 27-Jul-2020
Order Date: 23-Jul-2020

Order #: 2030393

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

Paracel ID	Client ID
2030393-01	MW1
2030393-02	MW2
2030393-03	MW3

Approved By:

Dale Robertson, BSc
Laboratory Director

Certificate of Analysis

Client: CM3 Environmental Inc.

Client PO: 971 Montreal Road

Report Date: 27-Jul-2020

Order Date: 23-Jul-2020

Project Description: MM2320

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Chloroform	EPA 624 - P&T GC-MS	24-Jul-20	26-Jul-20

Certificate of Analysis

Client: CM3 Environmental Inc.

Client PO: 971 Montreal Road

Report Date: 27-Jul-2020

Order Date: 23-Jul-2020

Project Description: MM2320

	Client ID:	MW1	MW2	MW3	-
	Sample Date:	23-Jul-20 09:45	23-Jul-20 10:00	23-Jul-20 10:15	-
	Sample ID:	2030393-01	2030393-02	2030393-03	-
	MDL/Units	Water	Water	Water	-
Volatiles					
Chloroform	0.5 ug/L	2.0	1.9	1.2	-
Dibromofluoromethane	Surrogate	111%	118%	112%	-

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Chloroform	ND	0.5	ug/L						
Surrogate: Dibromofluoromethane	*89.5*		*ug/L*		*112*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Chloroform	5.45	0.5	ug/L	6.09			11.1	30	
Surrogate: Dibromofluoromethane	*95.1*		*ug/L*		*119*	*50-140*			

Certificate of Analysis

Report Date: 27-Jul-2020

Client: CM3 Environmental Inc.

Order Date: 23-Jul-2020

Client PO: 971 Montreal Road

Project Description: MM2320

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Chloroform	35.0	0.5	ug/L	ND	87.4	60-130			
Surrogate: Dibromofluoromethane	*93.9*		*ug/L*		*117*	*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

PARAC LABORATORIES

Paracel ID: 2030393

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com

Paracel Order Number (Lab Use Only)	Chain Of Custody (Lab Use Only)
2030393	Nº 125640

Client Name: CM3	Project Ref: MM2320	Page 1 of 1
Contact Name: Alden, Marc	Quote #: CM3 Rates	Turnaround Time
Address: 5710 Arkins Road, Stittsville, ON	PO #: 971 Montreal Road	☐ 1 day ☑ 3 day
	E-mail: alden@cm3environmental	☐ 2 day ☐ Regular
Telephone: 613-915-0627	marc@	Date Required:

Regulation 153/04	Other Regulation
☐ Table 1 ☐ Res/Park ☐ Med/Fine	☐ REG 558 ☐ PWQO
☐ Table 2 ☐ Ind/Comm ☐ Coarse	☐ CCME ☐ MISA
☐ Table 3 ☐ Agri/Other	☐ SU - Sani ☐ SU - Storm
☑ Table 7	Mun:
For RSC: ☐ Yes ☐ No	☐ 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)	Chloroform
1	MW1	GW		2	07/23/20	9:45								X
2	MW2	GW		2	↓	10:00								X
3	MW3	GW		2	↓	10:15								X
4														
5														
6														
7														
8														
9														
10														

Comments:

Method of Delivery: Drop Box

Relinquished By (Sign): Alden	Received By Driver/Depot:	Received at Lab: Dhreepam Patel	Verified By:
Relinquished By (Print): Alden Crossman	Date/Time:	Date/Time: July 23, 2020 10.55	Date/Time: 7-23-20 1112
Date/Time: 07/23/20 11:00	Temperature: °C	Temperature: 19.9 °C	pH Verified: ☐ By: