



FINAL

Phase II Environmental Site Assessment

19 Lennox Drive (formerly 440 Dunlop Street West)
Barrie, Ontario

Prepared for:

Cassandra Projects Inc.
111 Worsley Street, Suite 710
Barrie, Ontario L4M 0J5

October 15, 2021

Pinchin File: 295667.010



Phase II Environmental Site Assessment

19 Lennox Drive (formerly 440 Dunlop Street West), Barrie, Ontario
Cassandra Projects Inc.

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Issued To:	Cassandra Projects Inc.
Issued On:	October 15, 2021
Pinchin File:	295667.010
Issuing Office:	Barrie, ON
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EXECUTIVE SUMMARY

Pinchin Ltd. (Pinchin) was retained through an Authorization to Proceed, Limitation of Liability and Terms of Engagement form signed by Cassandra Projects Inc. (the Client) to conduct a Phase II Environmental Site Assessment (ESA) of the property located at 19 Lennox Drive (formerly 440 Dunlop Street West) in Barrie, Ontario (Site).

Pinchin was advised by the Client that the purpose of this Phase II ESA was to support the potential acquisition and redevelopment of the Site.

The Phase II ESA was completed at the Site by Pinchin between August 24, 2021, and September 1, 2021, and consisted of the advancement of three boreholes, all of which were completed as groundwater monitoring wells.

Select “worst case” soil samples collected during the borehole drilling program were submitted for laboratory analysis of benzene, toluene, ethylbenzene and xylenes (collectively referred to as BTEX), petroleum hydrocarbons (PHCs) in the F1 to F4 fraction ranges (F1-F4), volatile organic compounds (VOCs) and/or polycyclic aromatic hydrocarbons (PAHs). Groundwater samples collected from the newly installed monitoring wells were submitted for laboratory analysis of BTEX, PHCs (F1-F4), VOCs and/or PAHs.

Based on Site-specific information, the soil and groundwater quality was assessed based on the Ontario Ministry of the Environment, Conservation and Parks *Table 2 Standards* for coarse-textured soil and industrial/commercial/community land use.

Reported concentrations in the soil and groundwater samples submitted for analysis of BTEX, PHCs (F1-F4), VOCs and/or PAHs satisfied the *Table 2 Standards*.

Based on the findings of this Phase II ESA, it is Pinchin’s opinion that no further subsurface investigation is required for the Site at this time.

This Executive Summary is subject to the same standard limitations as contained in the report and must be read in conjunction with the entire report.



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1.0 INTRODUCTION

Pinchin Ltd. (Pinchin) was retained through an Authorization to Proceed, Limitation of Liability and Terms of Engagement form signed by Cassandra Projects Inc. (the Client) to conduct a Phase II Environmental Site Assessment (ESA) of the property located at 19 Lennox Drive (formerly 440 Dunlop Street West) in Barrie, Ontario (Site). The Site location is shown on Figure 1 (all Figures are provided in Appendix I).

Pinchin was advised by the Client that the purpose of this Phase II ESA was to support the potential redevelopment of the Site.

This Phase II ESA was completed in general accordance with the Canadian Standards Association document entitled "*Phase II Environmental Site Assessment, CSA Standard Z769-00 (R2018)*", dated 2000 and reaffirmed in 2018.

1.1 Background

Pinchin completed a Phase I Environmental Site Assessment (ESA) at the Site for the Client in conjunction with this Phase II ESA, the findings of which were provided in the report entitled "*Phase I Environmental Site Assessment, 125 Ferndale Drive North and 440 Dunlop Street West, Barrie, Ontario*", dated October 15, 2021. This Phase I ESA did not identify any issues of potential environmental concern for the Site that hadn't previously been investigated.

1.2 Scope of Work

The scope of work completed by Pinchin included the following:

- Advancement of three boreholes following the clearance of underground services, all of which were instrumented with a monitoring well;
- Submission of select "worst case" soil samples for laboratory analysis of benzene, toluene, ethylbenzene and xylenes (collectively referred to as BTEX), petroleum hydrocarbons (PHCs) in the F1 to F4 fraction ranges (F1-F4), volatile organic compounds (VOCs) and/or polycyclic aromatic hydrocarbons (PAHs);
- Collection of groundwater samples from each of the newly installed monitoring wells, following well development and purging, for laboratory analysis of BTEX, PHCs (F1-F4), VOCs and/or PAHs;
- Comparison of the soil and groundwater laboratory analytical results to the applicable regulatory criteria; and
- Preparation of a factual report detailing the findings of the Phase II ESA and recommendations.



2.0 METHODOLOGY

The investigation methodology was conducted in general accordance with the Ontario Ministry of the Environment, Conservation and Parks (MECP) document entitled *"Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario"* dated December 1996 (*MECP Sampling Guideline*), the Association of Professional Geoscientists of Ontario document entitled *"Guidance for Environmental Site Assessments under Ontario Regulation 153/04 (as amended)"*, dated April 2011 (*APGO Guideline*) and Pinchin's standard operating procedures (SOPs).

2.1 Borehole Investigation

Pinchin retained Pontil Drilling (Pontil) to complete the borehole drilling program at the Site on August 24, 2021, following the clearance of underground services in the vicinity of the work area by public utility locators and a private utility locator retained by Pinchin.

The boreholes were advanced to a maximum depth of 5.18 metres below ground surface (mbgs) using a CME 55 drill rig equipped with hollow-stem augers and split-spoon sampling equipment. Soil samples were collected at regular intervals using 5.1 centimetre (cm) inner diameter (ID) split-spoon samplers. Discrete soil samples were collected from the split-spoon samplers and containerized in laboratory-supplied glass sampling jars.

Subsurface soil conditions were logged on-Site by Pinchin personnel at the time of drilling. Soil samples were examined for visual and olfactory evidence of impacts and a portion of each sample was analyzed in the field for VOC and petroleum-derived vapour concentrations in soil headspace using a photoionization detector (PID) and a hydrocarbon surveyor operated in methane elimination mode (RKI Eagle 2).

The locations of the boreholes are shown on Figure 2 and a description of the subsurface stratigraphy encountered during the drilling program is documented in the borehole logs included in Appendix II.

2.2 Monitoring Well Installation

Groundwater monitoring wells were installed in boreholes MW201, MW202 and MW203 to enable groundwater monitoring and sampling. The monitoring wells were constructed with 5.1 cm ID flush-threaded Schedule 40 polyvinyl chloride (PVC) risers, followed by a length of 5.1 cm ID No. 10 slot PVC screen that intersected suspected static groundwater level.

Each well screen was sealed at the bottom using a threaded cap and each riser was sealed at the top with a lockable J-plug cap. Silica sand was placed around and above the screened interval to form a filter pack around the well screen. A layer of bentonite was placed above the silica sand and was extended to just below the ground surface. A protective flush-mount cover was installed at the ground surface over each riser pipe and outer casing and cemented in place.



The locations of the monitoring wells are shown on Figure 2. The monitoring well construction details are shown on the borehole logs included in Appendix II.

2.3 Groundwater Monitoring

The water levels within the monitoring wells were measured on September 1, 2021, using an interface probe. The presence/absence of non-aqueous phase liquid (NAPL) was also assessed during groundwater monitoring using the interface probe.

2.4 Sampling and Laboratory Analysis

2.4.1 Soil

One most apparent “worst case” soil sample, based on vapour concentrations as well as visual and/or olfactory considerations, recovered from each borehole was submitted for laboratory analysis of BTEX, PHCs (F1-F4), VOCs and/or PAHs.

In addition, a composite sample of the excess soil generated by the borehole drilling program was also submitted for analysis of leachate concentrations of inorganics, VOCs, polychlorinated biphenyls and benzo(a)pyrene in accordance with the Toxicity Characteristic Leaching Procedure (TCLP) procedure as per Ontario Regulation 347 (as amended) to characterize the soil cuttings for possible off-Site disposal purposes.

The borehole locations are shown on Figure 2. Table 1 provides a summary of the soil samples submitted for laboratory analysis (all Tables are provided in Appendix III).

2.4.2 Groundwater

On August 31, 2021, all newly installed groundwater monitoring wells were developed by removing three to five well casing volumes, or were purged until dry, in accordance with Pinchin’s SOPs.

On September 1, 2021, newly installed groundwater monitoring wells were purged and sampled using Pinchin’s SOPs. The groundwater samples collected from these monitoring wells were submitted for laboratory analysis of BTEX, PHCs (F1-F4), VOCs and/or PAHs.

All monitoring well development activities were conducted using dedicated inertial pumps comprised of Waterra polyethylene tubing and foot valves and/or dedicated. Following pre-sampling purging with dedicated inertial pumps, sampling for PHCs (F2-F4) and/or PAHs was conducted using a peristaltic pump and dedicated polyethylene tubing. Sampling for VOCs, PHCs (F1) and/or BTEX was then conducted using dedicated inertial pumps.

The monitoring well locations are shown on Figure 2. Table 1 provides a summary of the groundwater samples submitted for laboratory analysis.



2.4.3 Analytical Laboratory

Selected soil and groundwater samples were delivered to Bureau Veritas Laboratories (BV Labs) in Mississauga, Ontario for analysis. BV Labs is an independent laboratory accredited by the Standards Council of Canada and the Canadian Association for Laboratory Accreditation. Formal chain of custody records of the sample submissions were maintained between Pinchin and the staff at BV Labs.

2.5 QA/QC Protocols

Various quality assurance/quality control (QA/QC) protocols were followed during the Phase II ESA to ensure that representative samples were obtained and that representative analytical data were reported by the laboratory.

Field QA/QC protocols that were employed by Pinchin included the following:

- Soil samples were extracted from the interior of the sampling device (where possible), rather than from areas in contact with the sampler walls to minimize the potential for cross-contamination;
- Soil and groundwater samples were placed in laboratory-supplied glass sample jars;
- The monitoring wells were developed following installation and were purged to remove stagnant water prior to sample collection so that representative groundwater samples could be obtained. Dedicated purging and sampling equipment was used for monitoring well development, purging and sampling to minimize the potential for cross-contamination;
- Soil and groundwater samples were placed in coolers on ice immediately upon collection, with appropriate sample temperatures maintained prior to submission to the laboratory;
- Dedicated and disposable nitrile gloves were used for sample handling;
- Non-dedicated monitoring and sampling equipment (e.g., interface probe) was cleaned before initial use and between uses to minimize the potential for cross-contamination by washing with an Alconox™/potable water mixture followed by a deionized water rinse; and
- Sample collection and handling procedures were performed in general accordance with the *MECP Sampling Guideline*, the *APGO Guideline* and Pinchin's SOPs for Phase II ESAs.

BV Labs' internal laboratory QA/QC consisted of the analysis of laboratory duplicate, method blank, matrix spike and spiked blank samples, an evaluation of relative percent difference (RPD) calculations for laboratory duplicate samples, and an evaluation of surrogate recoveries.



2.6 Ontario Water Well Records

Ontario Regulation 903 (as amended) requires that all wells installed to depths greater than 3.0 mbgs have a water well record completed by a licensed well technician. The owner of the monitoring well must keep the water well record on file for a period of two years and the monitoring wells must be decommissioned as per Ontario Regulation 903 (as amended) if monitoring wells are no longer in use. Pontil is a licensed well driller under Ontario Regulation 903 (as amended), and submitted a water well record to the MECP and the Client to fulfill the requirements of Ontario Regulation 903 (as amended).

2.7 Site Condition Standards

This Site is a commercial property located within the Barrie, Ontario. It is Pinchin's understanding that potable water for the Site and surrounding area is supplied by the City of Barrie, which obtains source water from a combination of Lake Simcoe and regional groundwater supply wells.

Based on previous subsurface investigation work conducted at the Site by Pinchin, the Site Condition Standards for the Site are:

- "Table 2: Full Depth Generic Site Condition Standards for Use in a Potable Ground Water Condition", provided in the *MECP Standards (Table 2 Standards)* for:
 - Coarse-textured soils; and
 - Industrial/commercial/community property use.

As such, the analytical results have been compared to these *Table 2 Standards*.

3.0 RESULTS

3.1 Site Geology and Hydrogeology

Based on the soil samples recovered during the borehole drilling program, the soil stratigraphy at the drilling locations below the asphalt surface generally consists of fill material comprised of sand and gravel and/or sand that extended to depths between approximately 0.76 mbgs and 3.05 mbgs.

Native subsurface material underlying the fill material was observed to generally consist of sand and silty clay that extended to the maximum borehole completion depth of 5.18 mbgs.

A detailed description of the subsurface stratigraphy encountered during borehole advancement is documented in the borehole logs located in Appendix II.

The water level information obtained during groundwater monitoring is presented in Table 2 and on the borehole logs in Appendix II. The depth to groundwater measured within the monitoring wells ranged from 0.85 mbgs at monitoring well MW202 to 1.82 mbgs at monitoring well MW203 on September 1, 2021.



An unnamed tributary is located approximately 140 m south of the Site, flows east and discharges into Lake Simcoe. Lake Simcoe is located approximately 2.4 kilometres east of the Site. The topography of the Site and surrounding area were observed flat. Groundwater flow at the Site is inferred to be towards the south based a review of previous subsurface investigation work completed at and in the immediate vicinity of the Site.

3.2 Soil Headspace Vapour Concentrations

Vapour concentrations measured in the headspace of soil samples collected during the drilling investigation are presented on the borehole logs in Appendix II and ranged from 0 parts per million by volume (ppm_v) to a maximum of 280 ppm_v in soil sample MW203-3 collected at a depth of 1.52 to 2.13 mbgs in borehole MW203.

3.3 Field Observations

No odours or staining were observed in the soil samples collected during the borehole drilling program, with the exception of soil sample BH203-3 collected at borehole MW203 at a depth of 1.52 to 2.13 mbgs which exhibited black staining and slight PHC-like odours.

No odours or evidence of NAPL were observed during groundwater monitoring and sampling.

3.4 Analytical

3.4.1 Soil

As indicated in Tables 3 through 5, reported concentrations of BTEX, PHCs (F1-F4), VOCs and/or PAHs in the soil samples submitted for analysis met the *Table 2 Standards*.

The summary of the TCLP analytical results along with the leachate quality criteria listed in Schedule 4 of Ontario Regulation 347 (as amended) (*Schedule 4 Criteria*) can be found in Table 6.

As indicated in Table 6, the leachate concentrations in the soil sample were below the applicable *Schedule 4 Criteria*. Based on these findings, the excess soil generated by the borehole drilling program is suitable for off-Site disposal as non-hazardous solid waste.

The laboratory Certificate of Analysis for the soil samples is provided in Appendix IV.

3.4.2 Groundwater

As indicated in Tables 7 through 9, reported concentrations in the groundwater samples submitted for analysis of BTEX, PHCs (F1-F4), VOCs and/or PAHs met the *Table 2 Standards*.

The laboratory Certificate of Analysis for the groundwater samples is provided in Appendix IV.



4.0 FINDINGS AND CONCLUSIONS

Based on the work completed, the following is a summary of the activities and findings of this Phase II ESA:

- Pinchin retained Pontil to advance three boreholes at the Site on August 24, 2021. The boreholes were advanced to a maximum depth of 5.18 mbgs using a CME 55 drill rig equipped with hollow stem augers and split-spoon samplers. All of the boreholes were instrumented with monitoring wells to enable groundwater monitoring and sampling.
- The soil stratigraphy at the drilling locations generally consists of sand and gravel and/or sand fill material that extended to depths between approximately 0.76 mbgs and 3.05 mbgs overlying native soil comprised of sand and silty clay that extended to the maximum borehole completion depth of 5.18 mbgs.
- Groundwater levels at the Site measured on September 1, 2021, varied between 0.85 mbgs (MW202) and 1.82 mbgs (MW203). Inferred groundwater flow is expected to be south.
- Based on Site-specific information, the soil and groundwater quality was assessed based on the *Table 2 Standards* for coarse textured soils and industrial/commercial/community land use.
- Three “worst case” soil samples based on the results of field screening were submitted for laboratory analysis of BTEX, PHCs (F1-F4), VOCs and/or PAHs.
- Groundwater samples were collected from monitoring wells MW201, MW202, MW203 installed by Pinchin on September 1, 2021, and were submitted for laboratory analysis of BTEX, PHCs (F1-F4), VOCs and/or PAHs.
- Reported concentrations in the soil samples submitted for analysis of BTEX, PHCs (F1-F4), VOCs and/or PAHs satisfied their respective *Table 2 Standards*.
- Reported concentrations in the groundwater samples submitted for analysis of BTEX, PHCs (F1-F4), VOCs and/or PAHs satisfied their respective *Table 2 Standards*.

Based on the findings of this Phase II ESA, it is Pinchin’s opinion that no further subsurface investigation is required for the Site at this time.

5.0 TERMS AND LIMITATIONS

This Phase II ESA was performed for Cassandra Projects Inc. (Client) in order to investigate potential environmental impacts at 19 Lennox Drive (formerly 440 Dunlop Street West) in Barrie, Ontario (Site). This Phase II ESA does not quantify the extent of the current and/or potential environmental impacts or the cost of any remediation.



Conclusions derived are specific to the immediate area of study and cannot be extrapolated extensively away from sample locations. Samples have been analyzed for a limited number of contaminants that are expected to be present at the Site, and the absence of information relating to a specific contaminant does not indicate that it is not present.

No environmental site assessment can wholly eliminate uncertainty regarding the potential for environmental impacts on a property. Performance of this Phase II ESA to the standards established by Pinchin is intended to reduce, but not eliminate, uncertainty regarding the potential for environmental impacts on the Site and recognizes reasonable limits on time and cost.

This Phase II ESA was performed in general compliance with currently acceptable practices for environmental site investigations, and specific Client requests, as applicable to this Site. The scope of work completed by Pinchin, as part of this Phase II ESA, is not sufficient (in and of itself) to meet the requirements for the submission of a Record of Site Condition (RSC) in accordance with Ontario Regulation 153/04 (as amended). If an RSC is an intended end product of work conducted at the Site, further consultation and/or work will be required.

This report was prepared for the exclusive use of the Client Cassandra Projects Inc., subject to the terms, conditions and limitations contained within the duly authorized proposal for this project. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, is the sole responsibility of such third parties. Pinchin accepts no responsibility for damages suffered by any third party as a result of decisions made or actions conducted.

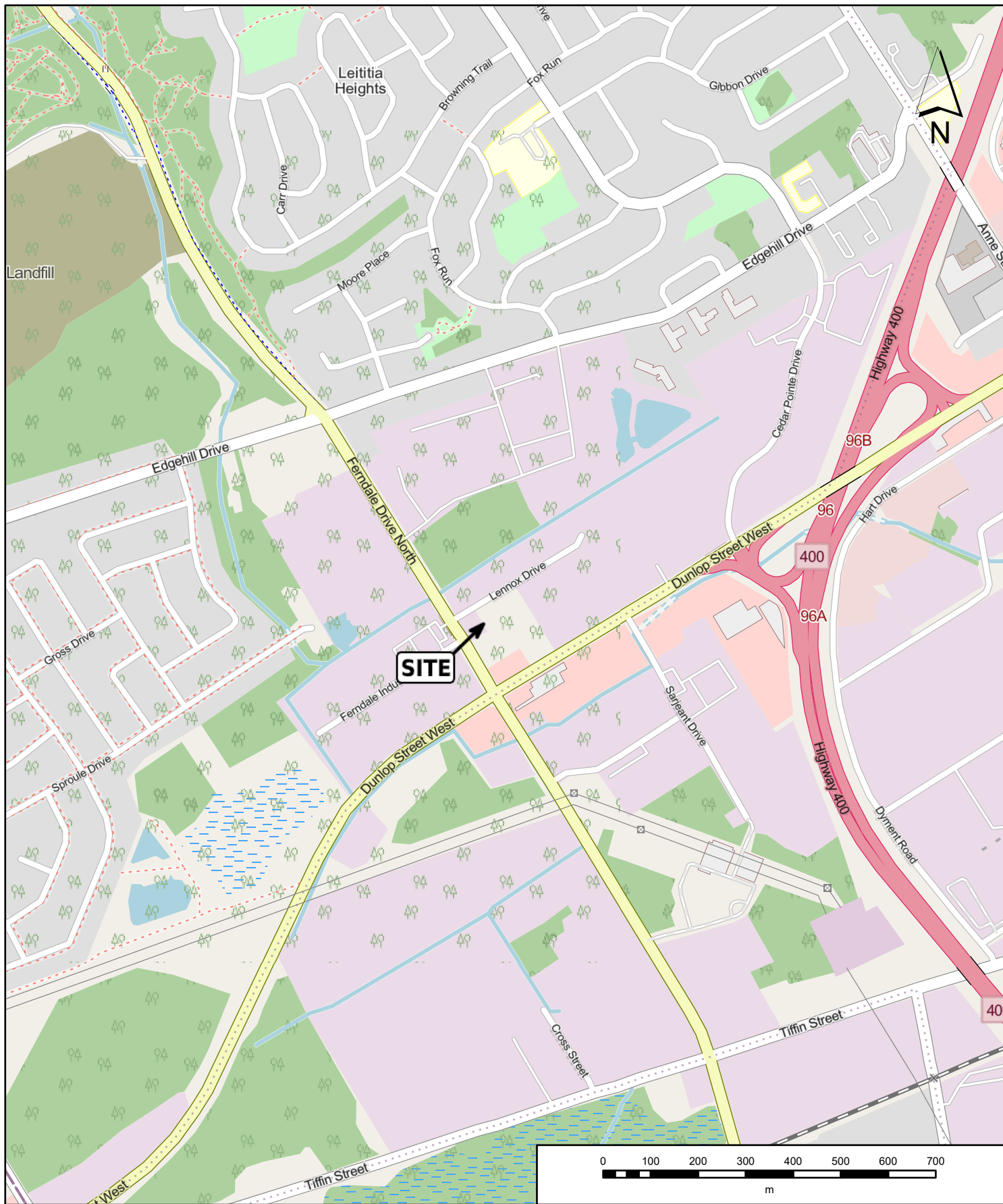
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Pinchin makes no other representations whatsoever, including those concerning the legal significance of its findings, or as to other legal matters touched on in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issues, regulatory statutes are subject to interpretation and these interpretations may change over time.

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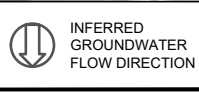
APPENDIX I
Figures



	PROJECT NAME: PHASE II ENVIRONMENTAL SITE ASSESSMENT					
	CLIENT NAME: CASSANDRA PROJECTS INC.					
	PROJECT LOCATION: 19 LENNOX DRIVE (FORMERLY 440 DUNLOP STREET WEST), BARRIE, ONTARIO					
	FIGURE NAME: KEY MAP				FIGURE NUMBER: 1	
	PROJECT NUMBER: 295667.010	SCALE: 1:15,000	DRAWN BY: SIN	REVIEWED BY: BG	DATE: OCTOBER 2021	



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LEGEND	
	SITE BOUNDARY
	MONITORING WELL (PINCHIN, 2021)
LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.	
PROJECT NAME: PHASE II ENVIRONMENTAL SITE ASSESSMENT	
CLIENT NAME: CASSANDRA PROJECTS INC.	
PROJECT LOCATION: 19 LENNOX DRIVE (FORMERLY 440 DUNLOP STREET WEST) BARRIE, ONTARIO	
FIGURE NAME: MONITORING WELL LOCATION PLAN	
PROJECT NUMBER: 295667.010	SCALE: AS SHOWN
DRAWN BY: SIN	REVIEWED BY: BG
DATE: OCTOBER 2021	FIGURE NUMBER: 2

APPENDIX II
Borehole Logs



Log of Borehole: MW201

Project #: 295667.010

Logged By: BG

Project: Phase II Environmental Site Assessment

Client: Cassandra Projects Inc.

Location: 19 Lennox Drive (Formerly 440 Dunlop Street West),
Barrie, Ontario

Drill Date: August 24, 2021

SUBSURFACE PROFILE					SAMPLE			
Depth	Symbol	Description	Measured Depth (m)	Monitoring Well Details	Recovery (%)	Sample ID	Soil Vapour Concentration* (ppm) CGI/PID	Laboratory Analysis
0 ft 0 m		Ground Surface	0.00					
1		Asphalt			50	1	10/0	
2		Sand and gravel fill						
3		Brown, moist			20	2	10/0	
4			1.52					
5		Sand			91	3	80/2	BTEX, PHCs, PAHs
6		Brown, trace silt, moist						
7		Trace sand, wet			83	4	35/2	
8								
9					100	5	25/2	
10		Trace to some gravel	3.91	Screen Silica Sand	91	6	10/2	
11								
12		Silty Clay			66	7	10/2	
13		Grey, wet, trace sand and gravel.						
14								
15								
16			5.18					
17		End of Borehole						
18		Borehole terminated at 5.18 mbgs						
19								
20								

Contractor: Pontil Drilling

Drilling Method: Split-spoon

Well Casing Size: 5.1 cm

Note:

* Soil vapour concentrations measured using a RKI Eagle 2 equipped with a photoionization detector (PID) and a combustible gas indicator (CGI).

Grade Elevation: NM

Top of Casing Elevation: NM

Sheet: 1 of 1



Log of Borehole: MW202

Project #: 295667.010

Logged By: BG

Project: Phase II Environmental Site Assessment

Client: Cassandra Projects Inc.

Location: 19 Lennox Drive (Formerly 440 Dunlop Street West)
Barrie, Ontario

Drill Date: August 24, 2021

SUBSURFACE PROFILE					SAMPLE			
Depth	Symbol	Description	Measured Depth (m)	Monitoring Well Details	Recovery (%)	Sample ID	Soil Vapour Concentration* (ppm) CGI/PID	Laboratory Analysis
0		Ground Surface	0.00					
1		Asphalt			58	1	30/0	
2		Sand and Gravel Fill Brown, moist	0.76					
3		Sand Brown, trace silt and gravel, moist			58	2	70/0	PHCs, VOCs
4								
5								
6		Wet			67	3	30/0	
7								
8								
9								
10			3.05		100	4	30/0	
11		Silty Clay Grey, trace sand and gravel, wet						
12					75	5	30/0	
13								
14					100	6	25/0	
15								
16								
17			5.18		NM	7	35/0	
18		End of Borehole Borehole terminated at 5.18 mbgs						
19								
20								

Contractor: Pontil Drilling

Drilling Method: Split-spoon

Well Casing Size: 5.1 cm

Note:

* Soil vapour concentrations measured using a RKI Eagle 2 equipped with a photoionization detector (PID) and a combustible gas indicator (CGI).

Grade Elevation: NM

Top of Casing Elevation: NM

Sheet: 1 of 1



Log of Borehole: MW203

Project #: 295667.010

Logged By: BG

Project: Phase II Environmental Site Assessment

Client: Cassandra Projects Inc.

Location: 19 Lennox Drive (Formerly 440 Dunlop Street West)
Barrie, Ontario

Drill Date: August 23, 2020

SUBSURFACE PROFILE					SAMPLE			
Depth	Symbol	Description	Measured Depth (m)	Monitoring Well Details	Recovery (%)	Sample ID	Soil Vapour Concentration* (ppm) CGI/PID	Laboratory Analysis
0		Ground Surface	0.00	Riser Bentonite Screen Silica Sand Groundwater Level = 1.82 mbgs measured on September 1, 2021				
1		Sand and Gravel Fill Brown, moist			8	1	0/0	
2			0.76					
3		Sand Fill Brown, moist			33	2	30/10	PHCs, VOCs
4								
5		Greyish brown, some black staining and slight PHC-like odours			50	3	280/8	
6			2.29					
7		Sand and Gravel Fill Grey, moist, no odours, no staining			38	4	55/0	
8			3.05					
9		Sand Brown, some silt, wet			50	5	80/0	
10			3.81					
11		Silty Clay Grey, trace sand and gravel, wet			50	6	30/0	
12								
13					NM	7	25/0	
14		End of Borehole Borehole terminated at 5.18 mbgs						
15			5.18					
16								
17								
18								
19								
20								

Contractor: Pontil Drilling

Drilling Method: Split-spoon

Well Casing Size: 5.1 cm

Note:

* Soil vapour concentrations measured using a RKI Eagle 2 equipped with a photoionization detector (PID) and a combustible gas indicator (CGI).

Grade Elevation: NM

Top of Casing Elevation: NM

Sheet: 1 of 1

APPENDIX III
Summary Tables

TABLE 1
SAMPLES SUBMITTED FOR LABORATORY ANALYSIS
Cassandra Projects Inc.
19 Lennox Drive (formerly 440 Dunlop Street West), Barrie, Ontario

Samples			Parameters								Rationale			
Borehole / Monitoring Well ID	Sample ID	Sample Depth Range (mbgs)	SOIL SAMPLES	BTEX	PHCs (F1-F4)	VOCs	PAHs	GROUNDWATER SAMPLES	BTEX	PHCs (F1-F4)		VOCs	PAHs	
MW201	MW201-3	1.52 - 2.13		●	●		●							
	MW201	NA								●	●		●	
MW202	MW202-2	1.52 - 2.13			●	●								
	MW202	NA									●	●		
MW203	MW203-3	1.52 - 2.13			●	●								
	MW203	NA									●	●		
Confirm soil and groundwater quality at the Site.														

Notes:

PHCs (F1-F4)	Petroleum Hydrocarbons (Fraction 1 to Fraction 4)
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
VOCs	Volatile Organic Compounds
PAHs	Polycyclic Aromatic Hydrocarbons
mbgs	Metres Below Ground Surface
NA	Not Applicable
RFO	Retail Fuel Outlet
UST	Underground Storage Tank

TABLE 2
GROUNDWATER MONITORING DATA

Cassandra Projects Inc.
19 Lennox Drive (formerly 440 Dunlop Street West), Barrie, Ontario

<i>Well ID</i>	<i>Date (dd/mm/yyyy)</i>	<i>NAPL Level Measurement from TOC (m)</i>	<i>Water Level Measurement from TOC (m)</i>	<i>Water Level Measurement from Ground (mbgs)</i>	<i>Product Thickness (m)</i>
MW201	01-09-2021	ND	1.20	1.30	ND
MW202	01-09-2021	ND	0.74	0.85	ND
MW203	01-09-2021	ND	1.72	1.82	ND

Notes:

NAPL Non-Aqueous Phase Liquid
 ND Not Detected
 TOC Indicates Top of Casing
 m Metres
 mbgs Metres Below Ground Surface

TABLE 3
PETROLEUM HYDROCARBON AND BTEX ANALYSIS FOR SOIL
Cassandra Projects Inc.
19 Lennox Drive (formerly 440 Dunlop Street West), Barrie, Ontario

<i>Parameter</i>	<i>MECP Table 2 Standards*</i>	<i>Sample Designation</i>		
		<i>Sample Collection Date (dd/mm/yyyy)</i>		
		<i>Sample Depth (mbgs)</i>		
		<i>MW201-3</i>	<i>MW202-2</i>	<i>MW203-3</i>
		<i>24/08/2021</i>	<i>24/08/2021</i>	<i>23/08/2021</i>
		<i>1.52 - 2.13</i>	<i>1.52 - 2.13</i>	<i>1.52 - 2.13</i>
Benzene	0.32	<0.020	<0.0060	<0.0060
Toluene	6.4	<0.020	<0.020	0.070
Ethylbenzene	1.1	<0.020	<0.010	<0.010
Xylenes (Total)	26	<0.040	<0.020	<0.020
Petroleum Hydrocarbons F1 (C ₆ - C ₁₀)	55	<10	<10	<10
Petroleum Hydrocarbons F2 (>C ₁₀ - C ₁₆)	230	<10	<10	<10
Petroleum Hydrocarbons F3 (>C ₁₆ - C ₃₄)	1700	380	<50	69
Petroleum Hydrocarbons F4 (>C ₃₄ - C ₅₀)	3300	3300	<50	67

Notes:

MECP Table 2 Standards*

Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, April 15, 2011, Table 2 Standards, Coarse-Textured Soils, Potable Groundwater Condition, for Industrial/Commercial/Community Property Use.

BOLD
BOLD

Units
mbgs
BTEX

Exceeds Site Condition Standard
Reportable Detection Limit Exceeds Site Condition Standard
All Units in µg/g
Metres Below Ground Surface
Benzene, Toluene, Ethylbenzene and Xylenes

TABLE 4
VOLATILE ORGANIC COMPOUND ANALYSIS FOR SOIL
Cassandra Projects Inc.
19 Lennox Drive (formerly 440 Dunlop Street West), Barrie, Ontario

Parameter	MECP Table 2 Standards*	Sample Designation	
		Sample Collection Date (dd/mm/yyyy)	
		Sample Depth (mbgs)	
		MW202-2	MW203-3
		24/08/2021	23/08/2021
		1.52 - 2.13	1.52 - 2.13
Acetone	16	<0.49	<0.49
Benzene	0.32	<0.0060	<0.0060
Bromodichloromethane	1.5	<0.040	<0.040
Bromoform	0.61	<0.040	<0.040
Bromomethane	0.05	<0.040	<0.040
Carbon Tetrachloride	0.21	<0.040	<0.040
Chlorobenzene	2.4	<0.040	<0.040
Chloroform	0.47	<0.040	<0.040
Dibromochloromethane	2.3	<0.040	<0.040
1,2-Dichlorobenzene	1.2	<0.040	<0.040
1,3-Dichlorobenzene	9.6	<0.040	<0.040
1,4-Dichlorobenzene	0.2	<0.040	<0.040
Dichlorodifluoromethane	16	<0.040	<0.040
1,1-Dichloroethane	0.47	<0.040	<0.040
1,2-Dichloroethane	0.05	<0.049	<0.049
1,1-Dichloroethylene	0.064	<0.040	<0.040
cis-1,2-Dichloroethylene	1.9	<0.040	<0.040
trans-1,2-Dichloroethylene	1.3	<0.040	<0.040
1,2-Dichloropropane	0.16	<0.040	<0.040
1,3-Dichloropropene (Total)	0.059	<0.050	<0.050
Ethylbenzene	1.1	<0.010	<0.010
Ethylene Dibromide	0.05	<0.040	<0.040
Hexane	46	<0.040	<0.040
Methyl Ethyl Ketone	70	<0.40	<0.40
Methyl Isobutyl Ketone	31	<0.40	<0.40
Methyl t-Butyl Ether (MTBE)	1.6	<0.040	<0.040
Methylene Chloride	1.6	<0.049	<0.049
Styrene	34	<0.040	<0.040
1,1,1,2-Tetrachloroethane	0.087	<0.040	<0.040
1,1,2,2-Tetrachloroethane	0.05	<0.040	<0.040
Tetrachloroethylene	1.9	<0.040	<0.040
Toluene	6.4	<0.020	0.070
1,1,1-Trichloroethane	6.1	<0.040	<0.040
1,1,2-Trichloroethane	0.05	<0.040	<0.040
Trichloroethylene	0.55	<0.010	0.053
Trichlorofluoromethane	4	<0.040	<0.040
Vinyl Chloride	0.032	<0.019	<0.019
Xylenes (Total)	26	<0.020	<0.020

Notes:

MECP Table 2 Standards*

Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, April 15, 2011, Table 2 Standards, Coarse-Textured Soils, Potable Groundwater Condition, for Industrial/Commercial/Community Property Use.

BOLD	Exceeds Site Condition Standard
BOLD	Reportable Detection Limit Exceeds Site Condition Standard
Units	All Units in µg/g
mbgs	Metres Below Ground Surface

TABLE 5
POLYCYCLIC AROMATIC HYDROCARBON ANALYSIS FOR SOIL
Cassandra Projects Inc.
19 Lennox Drive (formerly 440 Dunlop Street West), Barrie, Ontario

<i>Parameter</i>	<i>MECP Table 2 Standards*</i>	<i>Sample Designation</i>
		<i>Sample Collection Date (dd/mm/yyyy)</i>
		<i>Sample Depth (mbgs)</i>
		<i>MW201-3</i>
		<i>24/08/2021</i>
		<i>1.52 - 2.13</i>
Acenaphthene	21	<0.0050
Acenaphthylene	0.15	<0.0050
Anthracene	0.67	<0.0050
Benzo(a)anthracene	0.96	<0.0050
Benzo(a)pyrene	0.3	<0.0050
Benzo(b)fluoranthene	0.96	0.0058
Benzo(ghi)perylene	9.6	0.0088
Benzo(k)fluoranthene	0.96	<0.0050
Chrysene	9.6	<0.0050
Dibenzo(a,h)anthracene	0.1	<0.0050
Fluoranthene	9.6	0.0055
Fluorene	62	<0.0050
Indeno(1,2,3-cd)pyrene	0.76	<0.0050
Methylnaphthalene 2-(1-)	30	<0.0071
Naphthalene	9.6	<0.0050
Phenanthrene	12	<0.0050
Pyrene	96	0.0065

Notes:

MECP Table 2 Standards*

Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, April 15, 2011, Table 2 Standards, Coarse-Textured Soils, Potable Groundwater Condition, for Industrial/Commercial/Community Property Use.

BOLD
BOLD

Units
mbgs

Exceeds Site Condition Standard
Reportable Detection Limit Exceeds Site Condition Standard
All Units in µg/g
Metres Below Ground Surface

TABLE 6
TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP) ANALYSIS FOR SOIL
Cassandra Projects Inc.
19 Lennox Drive (formerly 440 Dunlop Street West), Barrie, Ontario

Parameter	Schedule 4 ⁺⁺	Sample Designation
		Sample Collection Date (dd/mm/yyyy)
		TCLP
		24-08-2021
METALS		
Arsenic	2.5	<0.2
Barium	100	0.6
Boron	500	0.2
Cadmium	0.5	<0.05
Chromium	5	<0.1
Lead	5	<0.1
Mercury	0.1	<0.001
Selenium	1	<0.1
Silver	5	<0.01
Uranium	10	<0.01
VOLATILE ORGANIC COMPOUNDS		
Benzene	0.5	<0.020
Carbon Tetrachloride	0.5	<0.020
Chlorobenzene	8	<0.020
Chloroform	10	<0.020
1,2-Dichlorobenzene	20	<0.050
1,4-Dichlorobenzene	0.5	<0.050
1,2-Dichloroethane	0.5	<0.050
1,1-Dichloroethylene	1.4	<0.020
Dichloromethane	5	<0.20
Methyl Ethyl Ketone	200	<1.0
Tetrachloroethylene	3	<0.020
Trichloroethylene	5	<0.020
Vinyl Chloride	0.2	<0.020
INORGANICS		
Fluoride	150	0.11
Free Cyanide	20	<0.010
Nitrite and Nitrate	1000	<1.0
POLYCHLORINATED BIPHENYLS		
Total PCBs	0.3	<0.003
SEMI-VOLATILE		
Benzo(a)pyrene	0.001	<0.0001

Notes:

Schedule 4⁺⁺ Ontario Regulation 347/90 - As Amended

BOLD

Units

Exceeds Schedule 4 Criteria

All Values Reported in Units of mg/L.

TABLE 7
PETROLEUM HYDROCARBON AND BTEX ANALYSIS FOR GROUNDWATER

Cassandra Projects Inc.
19 Lennox Drive (formerly 440 Dunlop Street West), Barrie, Ontario

<i>Parameter</i>	<i>MECP Table 2 Standards*</i>	<i>Sample Designation</i>		
		<i>Sample Collection Date (dd/mm/yyyy)</i>		
		<i>MW201</i>	<i>MW202</i>	<i>MW203</i>
		<i>01-09-2021</i>	<i>01-09-2021</i>	<i>01-09-2021</i>
Benzene	5	<0.20	<0.17	<0.17
Toluene	24	0.23	<0.20	<0.20
Ethylbenzene	2.4	<0.20	<0.20	<0.20
Xylenes (Total)	300	<0.40	<0.20	<0.20
Petroleum Hydrocarbons F1 (C ₆ - C ₁₀)	750	<25	<25	<25
Petroleum Hydrocarbons F2 (>C ₁₀ - C ₁₆)	150	<100	<100	<100
Petroleum Hydrocarbons F3 (>C ₁₆ - C ₃₄)	500	<200	<200	<200
Petroleum Hydrocarbons F4 (>C ₃₄ - C ₅₀)	500	<200	<200	<200

Notes:

MECP Table 2 Standards*

Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, April 15, 2011, Table 2 Standards, Coarse-Textured Soils, Potable Groundwater Condition, for All Types of Property Use.

BOLD
BOLD

Units

BTEX

Exceeds Site Condition Standard

Reportable Detection Limit Exceeds Site Condition Standard

All Units in µg/L

Benzene, Toluene, Ethylbenzene and Xylenes

TABLE 8
VOLATILE ORGANIC COMPOUND ANALYSIS FOR GROUNDWATER
Cassandra Projects Inc.
19 Lennox Drive (formerly 440 Dunlop Street West), Barrie, Ontario

Parameter	MECP Table 2 Standards*	Sample Designation	
		Sample Collection Date (dd/mm/yyyy)	
		MW202	MW203
		01-09-2021	01-09-2021
Acetone	2700	<10	<10
Benzene	5	<0.17	<0.17
Bromodichloromethane	16	<0.50	<0.50
Bromoform	25	<1.0	<1.0
Bromomethane	0.89	<0.50	<0.50
Carbon Tetrachloride	0.79	<0.20	<0.20
Chlorobenzene	30	<0.20	<0.20
Chloroform	2.4	<0.20	<0.20
Dibromochloromethane	25	<0.50	<0.50
1,2-Dichlorobenzene	3	<0.50	<0.50
1,3-Dichlorobenzene	59	<0.50	<0.50
1,4-Dichlorobenzene	1	<0.50	<0.50
Dichlorodifluoromethane	590	<1.0	<1.0
1,1-Dichloroethane	5	<0.20	<0.20
1,2-Dichloroethane	1.6	<0.50	<0.50
1,1-Dichloroethylene	1.6	<0.20	<0.20
cis-1,2-Dichloroethylene	1.6	<0.50	<0.50
trans-1,2-Dichloroethylene	1.6	<0.50	<0.50
1,2-Dichloropropane	5	<0.20	<0.20
1,3-Dichloropropene (Total)	0.5	<0.50	<0.50
Ethylbenzene	2.4	<0.20	<0.20
Ethylene Dibromide	0.2	<0.20	<0.20
Hexane	51	<1.0	<1.0
Methyl Ethyl Ketone	1800	<10	<10
Methyl Isobutyl Ketone	640	<5.0	<5.0
Methyl t-Butyl Ether (MTBE)	15	<0.50	<0.50
Methylene Chloride	50	<2.0	<2.0
Styrene	5.4	<0.50	<0.50
1,1,1,2-Tetrachloroethane	1.1	<0.50	<0.50
1,1,2,2-Tetrachloroethane	1	<0.50	<0.50
Tetrachloroethylene	1.6	<0.20	<0.20
Toluene	24	<0.20	<0.20
1,1,1-Trichloroethane	200	<0.20	<0.20
1,1,2-Trichloroethane	4.7	<0.50	<0.50
Trichloroethylene	1.6	<0.20	<0.20
Trichlorofluoromethane	150	<0.50	<0.50
Vinyl Chloride	0.5	<0.20	<0.20
Xylenes (Total)	300	<0.20	<0.20

Notes:

MECP Table 2 Standards*

Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, April 15, 2011, Table 2 Standards, Coarse-Textured Soils, Potable Groundwater Condition, for All Types of Property Use.

BOLD
BOLD
Units

Exceeds Site Condition Standard
Reportable Detection Limit Exceeds Site Condition Standard
All Units in µg/L

TABLE 9
POLYCYCLIC AROMATIC HYDROCARBON ANALYSIS FOR GROUNDWATER
Cassandra Projects Inc.
19 Lennox Drive (formerly 440 Dunlop Street West), Barrie, Ontario

<i>Parameter</i>	<i>MECP Table 2 Standards*</i>	<i>Sample Designation</i>
		<i>Sample Collection Date (dd/mm/yyyy)</i>
		<i>MW201</i>
		<i>01-09-2021</i>
Acenaphthene	4.1	<0.050
Acenaphthylene	1	<0.050
Anthracene	2.4	<0.050
Benzo(a)anthracene	1	<0.050
Benzo(a)pyrene	0.01	<0.0090
Benzo(b)fluoranthene	0.1	<0.050
Benzo(ghi)perylene	0.2	<0.050
Benzo(k)fluoranthene	0.1	<0.050
Chrysene	0.1	<0.050
Dibenzo(a,h)anthracene	0.2	<0.050
Fluoranthene	0.41	<0.050
Fluorene	120	<0.050
Indeno(1,2,3-cd)pyrene	0.2	<0.050
Methylnaphthalene 2-(1-)	3.2	<0.071
Naphthalene	11	<0.050
Phenanthrene	1	<0.030
Pyrene	4.1	<0.050

Notes:

MECP Table 2 Standards*

Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, April 15, 2011, Table 2 Standards, Coarse-Textured Soils, Potable Groundwater Condition, for All Types of Property Use.

BOLD
BOLD

Units

Exceeds Site Condition Standard

Reportable Detection Limit Exceeds Site Condition Standard

All Units in µg/L

APPENDIX IV
Laboratory Certificates of Analysis



Your Project #: 295667.002
Your C.O.C. #: n/a

Attention: Matthew Charles

Pinchin Ltd
680 Bayview Drive
Unit 5
Barrie, ON
CANADA L4N 9A6

Report Date: 2021/09/09
Report #: R6803686
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BV LABS JOB #: C103796

Received: 2021/08/26, 08:15

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Methylnaphthalene Sum	1	N/A	2021/08/30	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum	2	N/A	2021/09/02		EPA 8260C m
Petroleum Hydro. CCME F1 & BTEX in Soil (1)	1	N/A	2021/08/30	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (2)	2	2021/08/27	2021/08/28	CAM SOP-00316	CCME CWS m
Petroleum Hydrocarbons F2-F4 in Soil (2)	1	2021/09/08	2021/09/09	CAM SOP-00316	CCME CWS m
F4G (CCME Hydrocarbons Gravimetric)	1	2021/08/31	2021/08/31	CAM SOP-00316	CCME PHC-CWS m
Moisture	3	N/A	2021/08/26	CAM SOP-00445	Carter 2nd ed 51.2 m
PAH Compounds in Soil by GC/MS (SIM)	1	2021/08/28	2021/08/29	CAM SOP-00318	EPA 8270D m
Volatile Organic Compounds and F1 PHCs	2	N/A	2021/09/02	CAM SOP-00230	EPA 8260C m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.



Your Project #: 295667.002
Your C.O.C. #: n/a

Attention: Matthew Charles

Pinchin Ltd
680 Bayview Drive
Unit 5
Barrie, ON
CANADA L4N 9A6

Report Date: 2021/09/09
Report #: R6803686
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BV LABS JOB #: C103796

Received: 2021/08/26, 08:15

(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Antonella Brasil, Senior Project Manager
Email: Antonella.Brasil@bureauveritas.com
Phone# (905)817-5817

=====

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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VERITAS

BV Labs Job #: C103796

Report Date: 2021/09/09

Pinchin Ltd

Client Project #: 295667.002

Sampler Initials: BM

O.REG 153 PAHS (SOIL)

BV Labs ID			QMF544			
Sampling Date			2021/08/24 10:00			
COC Number			n/a			
	UNITS	Criteria	MW201-3	MDL	QC Batch	RDL
Methylnaphthalene, 2-(1-)	ug/g	76	<0.0071	N/A	7543347	0.014
Acenaphthene	ug/g	96	<0.0050	0.0020	7547424	0.0050
Acenaphthylene	ug/g	0.15	<0.0050	0.0010	7547424	0.0050
Anthracene	ug/g	0.67	<0.0050	0.0010	7547424	0.0050
Benzo(a)anthracene	ug/g	0.96	<0.0050	0.0020	7547424	0.0050
Benzo(a)pyrene	ug/g	0.3	<0.0050	0.0010	7547424	0.0050
Benzo(b,j)fluoranthene	ug/g	0.96	0.0058	0.0020	7547424	0.0050
Benzo(g,h,i)perylene	ug/g	9.6	0.0088	0.0040	7547424	0.0050
Benzo(k)fluoranthene	ug/g	0.96	<0.0050	0.0020	7547424	0.0050
Chrysene	ug/g	9.6	<0.0050	0.0020	7547424	0.0050
Dibenzo(a,h)anthracene	ug/g	0.1	<0.0050	0.0040	7547424	0.0050
Fluoranthene	ug/g	9.6	0.0055	0.0010	7547424	0.0050
Fluorene	ug/g	62	<0.0050	0.0010	7547424	0.0050
Indeno(1,2,3-cd)pyrene	ug/g	0.76	<0.0050	0.0040	7547424	0.0050
1-Methylnaphthalene	ug/g	76	<0.0050	0.0010	7547424	0.0050
2-Methylnaphthalene	ug/g	76	<0.0050	0.0010	7547424	0.0050
Naphthalene	ug/g	9.6	<0.0050	0.0010	7547424	0.0050
Phenanthrene	ug/g	12	<0.0050	0.0010	7547424	0.0050
Pyrene	ug/g	96	0.0065	0.0010	7547424	0.0050
Surrogate Recovery (%)						
D10-Anthracene	%	-	82	N/A	7547424	N/A
D14-Terphenyl (FS)	%	-	82	N/A	7547424	N/A
D8-Acenaphthylene	%	-	83	N/A	7547424	N/A
QC Batch = Quality Control Batch Criteria: Ontario Reg. 153/04 (Amended April 15, 2011) Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition Soil - Industrial/Commercial/Community - Coarse Textured Soil N/A = Not Applicable						

BUREAU
VERITAS

BV Labs Job #: C103796

Report Date: 2021/09/09

Pinchin Ltd

Client Project #: 295667.002

Sampler Initials: BM

O.REG 153 PHCS, BTEX/F1-F4 (SOIL)

BV Labs ID			QMF544			
Sampling Date			2021/08/24 10:00			
COC Number			n/a			
	UNITS	Criteria	MW201-3	MDL	QC Batch	RDL
Moisture	%	-	21	0.50	7544234	1.0
Benzene	ug/g	0.32	<0.020	0.020	7548426	0.020
Toluene	ug/g	68	<0.020	0.020	7548426	0.020
Ethylbenzene	ug/g	9.5	<0.020	0.020	7548426	0.020
o-Xylene	ug/g	-	<0.020	0.020	7548426	0.020
p+m-Xylene	ug/g	-	<0.040	0.040	7548426	0.040
Total Xylenes	ug/g	26	<0.040	0.040	7548426	0.040
F1 (C6-C10)	ug/g	55	<10	5.0	7548426	10
F1 (C6-C10) - BTEX	ug/g	55	<10	5.0	7548426	10
F2 (C10-C16 Hydrocarbons)	ug/g	230	<10	5.0	7545879	10
F3 (C16-C34 Hydrocarbons)	ug/g	1700	380	5.0	7545879	50
F4 (C34-C50 Hydrocarbons)	ug/g	3300	710	10	7545879	50
Reached Baseline at C50	ug/g	-	No	N/A	7545879	N/A
Surrogate Recovery (%)						
1,4-Difluorobenzene	%	-	100	N/A	7548426	N/A
4-Bromofluorobenzene	%	-	89	N/A	7548426	N/A
D10-o-Xylene	%	-	83	N/A	7548426	N/A
D4-1,2-Dichloroethane	%	-	105	N/A	7548426	N/A
o-Terphenyl	%	-	84	N/A	7545879	N/A
QC Batch = Quality Control Batch						
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)						
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition						
Soil - Industrial/Commercial/Community - Coarse Textured Soil						
N/A = Not Applicable						

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VERITAS

BV Labs Job #: C103796

Report Date: 2021/09/09

Pinchin Ltd

Client Project #: 295667.002

Sampler Initials: BM

O.REG 153 VOCS BY HS & F1-F4 (SOIL)

BV Labs ID			QMF545	QMF546			
Sampling Date			2021/08/23 16:30	2021/08/24 16:30			
COC Number			n/a	n/a			
	UNITS	Criteria	MW203-3	MW202-2	MDL	QC Batch	RDL
Moisture	%	-	13	12	0.50	7544234	1.0
1,3-Dichloropropene (cis+trans)	ug/g	0.18	<0.050	<0.050	0.010	7542636	0.050
Acetone (2-Propanone)	ug/g	16	<0.49	<0.49	0.49	7548005	0.49
Benzene	ug/g	0.32	<0.0060	<0.0060	0.0060	7548005	0.0060
Bromodichloromethane	ug/g	18	<0.040	<0.040	0.040	7548005	0.040
Bromoform	ug/g	0.61	<0.040	<0.040	0.040	7548005	0.040
Bromomethane	ug/g	0.05	<0.040	<0.040	0.040	7548005	0.040
Carbon Tetrachloride	ug/g	0.21	<0.040	<0.040	0.040	7548005	0.040
Chlorobenzene	ug/g	2.4	<0.040	<0.040	0.040	7548005	0.040
Chloroform	ug/g	0.47	<0.040	<0.040	0.040	7548005	0.040
Dibromochloromethane	ug/g	13	<0.040	<0.040	0.040	7548005	0.040
1,2-Dichlorobenzene	ug/g	6.8	<0.040	<0.040	0.040	7548005	0.040
1,3-Dichlorobenzene	ug/g	9.6	<0.040	<0.040	0.040	7548005	0.040
1,4-Dichlorobenzene	ug/g	0.2	<0.040	<0.040	0.040	7548005	0.040
Dichlorodifluoromethane (FREON 12)	ug/g	16	<0.040	<0.040	0.040	7548005	0.040
1,1-Dichloroethane	ug/g	17	<0.040	<0.040	0.040	7548005	0.040
1,2-Dichloroethane	ug/g	0.05	<0.049	<0.049	0.049	7548005	0.049
1,1-Dichloroethylene	ug/g	0.064	<0.040	<0.040	0.040	7548005	0.040
cis-1,2-Dichloroethylene	ug/g	55	<0.040	<0.040	0.040	7548005	0.040
trans-1,2-Dichloroethylene	ug/g	1.3	<0.040	<0.040	0.040	7548005	0.040
1,2-Dichloropropane	ug/g	0.16	<0.040	<0.040	0.040	7548005	0.040
cis-1,3-Dichloropropene	ug/g	0.18	<0.030	<0.030	0.030	7548005	0.030
trans-1,3-Dichloropropene	ug/g	0.18	<0.040	<0.040	0.040	7548005	0.040
Ethylbenzene	ug/g	9.5	<0.010	<0.010	0.010	7548005	0.010
Ethylene Dibromide	ug/g	0.05	<0.040	<0.040	0.040	7548005	0.040
Hexane	ug/g	46	<0.040	<0.040	0.040	7548005	0.040
Methylene Chloride(Dichloromethane)	ug/g	1.6	<0.049	<0.049	0.049	7548005	0.049
Methyl Ethyl Ketone (2-Butanone)	ug/g	70	<0.40	<0.40	0.40	7548005	0.40
Methyl Isobutyl Ketone	ug/g	31	<0.40	<0.40	0.40	7548005	0.40
Methyl t-butyl ether (MTBE)	ug/g	11	<0.040	<0.040	0.040	7548005	0.040
Styrene	ug/g	34	<0.040	<0.040	0.040	7548005	0.040
1,1,1,2-Tetrachloroethane	ug/g	0.087	<0.040	<0.040	0.040	7548005	0.040
1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.040	<0.040	0.040	7548005	0.040
Tetrachloroethylene	ug/g	4.5	<0.040	<0.040	0.040	7548005	0.040
QC Batch = Quality Control Batch							
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)							
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition							
Soil - Industrial/Commercial/Community - Coarse Textured Soil							

BUREAU
VERITAS

BV Labs Job #: C103796

Report Date: 2021/09/09

Pinchin Ltd

Client Project #: 295667.002

Sampler Initials: BM

O.REG 153 VOCS BY HS & F1-F4 (SOIL)

BV Labs ID			QMF545	QMF546			
Sampling Date			2021/08/23 16:30	2021/08/24 16:30			
COC Number			n/a	n/a			
	UNITS	Criteria	MW203-3	MW202-2	MDL	QC Batch	RDL
Toluene	ug/g	68	0.070	<0.020	0.020	7548005	0.020
1,1,1-Trichloroethane	ug/g	6.1	<0.040	<0.040	0.040	7548005	0.040
1,1,2-Trichloroethane	ug/g	0.05	<0.040	<0.040	0.040	7548005	0.040
Trichloroethylene	ug/g	0.91	0.053	<0.010	0.010	7548005	0.010
Trichlorofluoromethane (FREON 11)	ug/g	4	<0.040	<0.040	0.040	7548005	0.040
Vinyl Chloride	ug/g	0.032	<0.019	<0.019	0.019	7548005	0.019
p+m-Xylene	ug/g	-	<0.020	<0.020	0.020	7548005	0.020
o-Xylene	ug/g	-	<0.020	<0.020	0.020	7548005	0.020
Total Xylenes	ug/g	26	<0.020	<0.020	0.020	7548005	0.020
F1 (C6-C10)	ug/g	55	<10	<10	N/A	7548005	10
F1 (C6-C10) - BTEX	ug/g	55	<10	<10	N/A	7548005	10
F2 (C10-C16 Hydrocarbons)	ug/g	230	N/A	<10	5.0	7545879	10
F3 (C16-C34 Hydrocarbons)	ug/g	1700	N/A	<50	5.0	7545879	50
F4 (C34-C50 Hydrocarbons)	ug/g	3300	N/A	<50	10	7545879	50
Reached Baseline at C50	ug/g	-	N/A	Yes	N/A	7545879	N/A
Surrogate Recovery (%)							
o-Terphenyl	%	-	N/A	91	N/A	7545879	N/A
4-Bromofluorobenzene	%	-	97	94	N/A	7548005	N/A
D10-o-Xylene	%	-	79	82	N/A	7548005	N/A
D4-1,2-Dichloroethane	%	-	111	111	N/A	7548005	N/A
D8-Toluene	%	-	92	94	N/A	7548005	N/A
QC Batch = Quality Control Batch							
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)							
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition							
Soil - Industrial/Commercial/Community - Coarse Textured Soil							
N/A = Not Applicable							



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PETROLEUM HYDROCARBONS (CCME)

BV Labs ID			QMF544	QMF545			
Sampling Date			2021/08/24 10:00	2021/08/23 16:30			
COC Number			n/a	n/a			
	UNITS	Criteria	MW201-3	MW203-3	MDL	QC Batch	RDL
F4G-sg (Grav. Heavy Hydrocarbons)	ug/g	3300	3300	N/A	100	7550446	100
F2 (C10-C16 Hydrocarbons)	ug/g	230	N/A	<10	5.0	7565406	10
F3 (C16-C34 Hydrocarbons)	ug/g	1700	N/A	69	5.0	7565406	50
F4 (C34-C50 Hydrocarbons)	ug/g	3300	N/A	67	10	7565406	50
Reached Baseline at C50	ug/g	-	N/A	Yes	N/A	7565406	N/A
Surrogate Recovery (%)							
o-Terphenyl	%	-	N/A	93	N/A	7565406	N/A
QC Batch = Quality Control Batch Criteria: Ontario Reg. 153/04 (Amended April 15, 2011) Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition Soil - Industrial/Commercial/Community - Coarse Textured Soil N/A = Not Applicable							



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GENERAL COMMENTS

F2-F4 is past hold time for sample MW203-3 and analysis conducted with client's consent .

Revised Report (2021/09/09) : F2-F4 included for sample MW203-3, as per client request .

Sample QMF544 [MW201-3] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Results relate only to the items tested.



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BV Labs Job #: C103796

Report Date: 2021/09/09

Pinchin Ltd

Client Project #: 295667.002

Sampler Initials: BM

QUALITY ASSURANCE REPORT

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
	7544234	HHY	RPD	Moisture	2021/08/26	9.6		%	20
	7545879	RGA	Matrix Spike	o-Terphenyl	2021/08/28		86	%	60 - 130
				F2 (C10-C16 Hydrocarbons)	2021/08/28		88	%	50 - 130
				F3 (C16-C34 Hydrocarbons)	2021/08/28		89	%	50 - 130
				F4 (C34-C50 Hydrocarbons)	2021/08/28		95	%	50 - 130
	7545879	RGA	Spiked Blank	o-Terphenyl	2021/08/28		85	%	60 - 130
				F2 (C10-C16 Hydrocarbons)	2021/08/28		88	%	80 - 120
				F3 (C16-C34 Hydrocarbons)	2021/08/28		89	%	80 - 120
				F4 (C34-C50 Hydrocarbons)	2021/08/28		93	%	80 - 120
	7545879	RGA	Method Blank	o-Terphenyl	2021/08/30		88	%	60 - 130
				F2 (C10-C16 Hydrocarbons)	2021/08/30	<10		ug/g	
				F3 (C16-C34 Hydrocarbons)	2021/08/30	<50		ug/g	
				F4 (C34-C50 Hydrocarbons)	2021/08/30	<50		ug/g	
	7545879	RGA	RPD	F2 (C10-C16 Hydrocarbons)	2021/08/28	25		%	30
				F3 (C16-C34 Hydrocarbons)	2021/08/28	2.0		%	30
				F4 (C34-C50 Hydrocarbons)	2021/08/28	NC		%	30
	7547424	JET	Matrix Spike	D10-Anthracene	2021/08/28		85	%	50 - 130
				D14-Terphenyl (FS)	2021/08/28		84	%	50 - 130
				D8-Acenaphthylene	2021/08/28		85	%	50 - 130
				Acenaphthene	2021/08/28		102	%	50 - 130
				Acenaphthylene	2021/08/28		103	%	50 - 130
				Anthracene	2021/08/28		104	%	50 - 130
				Benzo(a)anthracene	2021/08/28		112	%	50 - 130
				Benzo(a)pyrene	2021/08/28		88	%	50 - 130
				Benzo(b/j)fluoranthene	2021/08/28		97	%	50 - 130
				Benzo(g,h,i)perylene	2021/08/28		102	%	50 - 130
				Benzo(k)fluoranthene	2021/08/28		98	%	50 - 130
				Chrysene	2021/08/28		109	%	50 - 130
				Dibenzo(a,h)anthracene	2021/08/28		99	%	50 - 130
				Fluoranthene	2021/08/28		104	%	50 - 130
				Fluorene	2021/08/28		109	%	50 - 130
				Indeno(1,2,3-cd)pyrene	2021/08/28		100	%	50 - 130
				1-Methylnaphthalene	2021/08/28		97	%	50 - 130
				2-Methylnaphthalene	2021/08/28		96	%	50 - 130
				Naphthalene	2021/08/28		91	%	50 - 130
				Phenanthrene	2021/08/28		104	%	50 - 130
				Pyrene	2021/08/28		104	%	50 - 130
	7547424	JET	Spiked Blank	D10-Anthracene	2021/08/28		92	%	50 - 130
				D14-Terphenyl (FS)	2021/08/28		91	%	50 - 130
				D8-Acenaphthylene	2021/08/28		96	%	50 - 130
				Acenaphthene	2021/08/28		104	%	50 - 130
				Acenaphthylene	2021/08/28		105	%	50 - 130
				Anthracene	2021/08/28		105	%	50 - 130
				Benzo(a)anthracene	2021/08/28		111	%	50 - 130
				Benzo(a)pyrene	2021/08/28		90	%	50 - 130
				Benzo(b/j)fluoranthene	2021/08/28		101	%	50 - 130
				Benzo(g,h,i)perylene	2021/08/28		105	%	50 - 130
				Benzo(k)fluoranthene	2021/08/28		101	%	50 - 130
				Chrysene	2021/08/28		109	%	50 - 130
				Dibenzo(a,h)anthracene	2021/08/28		96	%	50 - 130
				Fluoranthene	2021/08/28		112	%	50 - 130
				Fluorene	2021/08/28		108	%	50 - 130



BUREAU
VERITAS

BV Labs Job #: C103796
Report Date: 2021/09/09

Pinchin Ltd
Client Project #: 295667.002
Sampler Initials: BM

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7547424	JET	Method Blank	Indeno(1,2,3-cd)pyrene	2021/08/28		102	%	50 - 130
			1-Methylnaphthalene	2021/08/28		103	%	50 - 130
			2-Methylnaphthalene	2021/08/28		102	%	50 - 130
			Naphthalene	2021/08/28		97	%	50 - 130
			Phenanthrene	2021/08/28		108	%	50 - 130
			Pyrene	2021/08/28		111	%	50 - 130
			D10-Anthracene	2021/08/28		87	%	50 - 130
			D14-Terphenyl (FS)	2021/08/28		88	%	50 - 130
			D8-Acenaphthylene	2021/08/28		88	%	50 - 130
			Acenaphthene	2021/08/28	<0.0050		ug/g	
			Acenaphthylene	2021/08/28	<0.0050		ug/g	
			Anthracene	2021/08/28	<0.0050		ug/g	
			Benzo(a)anthracene	2021/08/28	<0.0050		ug/g	
			Benzo(a)pyrene	2021/08/28	<0.0050		ug/g	
			Benzo(b/j)fluoranthene	2021/08/28	<0.0050		ug/g	
			Benzo(g,h,i)perylene	2021/08/28	<0.0050		ug/g	
			Benzo(k)fluoranthene	2021/08/28	<0.0050		ug/g	
			Chrysene	2021/08/28	<0.0050		ug/g	
			Dibenzo(a,h)anthracene	2021/08/28	<0.0050		ug/g	
			Fluoranthene	2021/08/28	<0.0050		ug/g	
			Fluorene	2021/08/28	<0.0050		ug/g	
			Indeno(1,2,3-cd)pyrene	2021/08/28	<0.0050		ug/g	
			1-Methylnaphthalene	2021/08/28	<0.0050		ug/g	
			2-Methylnaphthalene	2021/08/28	<0.0050		ug/g	
			Naphthalene	2021/08/28	<0.0050		ug/g	
			Phenanthrene	2021/08/28	<0.0050		ug/g	
			Pyrene	2021/08/28	<0.0050		ug/g	
7547424	JET	RPD	Acenaphthene	2021/08/28	NC		%	40
			Acenaphthylene	2021/08/28	NC		%	40
			Anthracene	2021/08/28	NC		%	40
			Benzo(a)anthracene	2021/08/28	21		%	40
			Benzo(a)pyrene	2021/08/28	16		%	40
			Benzo(b/j)fluoranthene	2021/08/28	11		%	40
			Benzo(g,h,i)perylene	2021/08/28	19		%	40
			Benzo(k)fluoranthene	2021/08/28	14		%	40
			Chrysene	2021/08/28	25		%	40
			Dibenzo(a,h)anthracene	2021/08/28	NC		%	40
			Fluoranthene	2021/08/28	28		%	40
			Fluorene	2021/08/28	NC		%	40
			Indeno(1,2,3-cd)pyrene	2021/08/28	5.6		%	40
			1-Methylnaphthalene	2021/08/28	NC		%	40
			2-Methylnaphthalene	2021/08/28	NC		%	40
			Naphthalene	2021/08/28	NC		%	40
			Phenanthrene	2021/08/28	NC		%	40
			Pyrene	2021/08/28	21		%	40
7548005	DR1	Matrix Spike	4-Bromofluorobenzene	2021/09/02		100	%	60 - 140
			D10-o-Xylene	2021/09/02		85	%	60 - 130
			D4-1,2-Dichloroethane	2021/09/02		106	%	60 - 140
			D8-Toluene	2021/09/02		103	%	60 - 140
			Acetone (2-Propanone)	2021/09/02		102	%	60 - 140
			Benzene	2021/09/02		84	%	60 - 140
			Bromodichloromethane	2021/09/02		101	%	60 - 140



BUREAU
VERITAS

BV Labs Job #: C103796
Report Date: 2021/09/09

Pinchin Ltd
Client Project #: 295667.002
Sampler Initials: BM

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7548005	DR1	Spiked Blank	Bromoform	2021/09/02		99	%	60 - 140
			Bromomethane	2021/09/02		85	%	60 - 140
			Carbon Tetrachloride	2021/09/02		97	%	60 - 140
			Chlorobenzene	2021/09/02		96	%	60 - 140
			Chloroform	2021/09/02		96	%	60 - 140
			Dibromochloromethane	2021/09/02		100	%	60 - 140
			1,2-Dichlorobenzene	2021/09/02		92	%	60 - 140
			1,3-Dichlorobenzene	2021/09/02		90	%	60 - 140
			1,4-Dichlorobenzene	2021/09/02		104	%	60 - 140
			Dichlorodifluoromethane (FREON 12)	2021/09/02		51 (1)	%	60 - 140
			1,1-Dichloroethane	2021/09/02		90	%	60 - 140
			1,2-Dichloroethane	2021/09/02		95	%	60 - 140
			1,1-Dichloroethylene	2021/09/02		91	%	60 - 140
			cis-1,2-Dichloroethylene	2021/09/02		98	%	60 - 140
			trans-1,2-Dichloroethylene	2021/09/02		94	%	60 - 140
			1,2-Dichloropropane	2021/09/02		92	%	60 - 140
			cis-1,3-Dichloropropene	2021/09/02		76	%	60 - 140
			trans-1,3-Dichloropropene	2021/09/02		85	%	60 - 140
			Ethylbenzene	2021/09/02		84	%	60 - 140
			Ethylene Dibromide	2021/09/02		96	%	60 - 140
			Hexane	2021/09/02		86	%	60 - 140
			Methylene Chloride(Dichloromethane)	2021/09/02		103	%	60 - 140
			Methyl Ethyl Ketone (2-Butanone)	2021/09/02		99	%	60 - 140
			Methyl Isobutyl Ketone	2021/09/02		90	%	60 - 140
			Methyl t-butyl ether (MTBE)	2021/09/02		82	%	60 - 140
			Styrene	2021/09/02		99	%	60 - 140
			1,1,1,2-Tetrachloroethane	2021/09/02		100	%	60 - 140
			1,1,2,2-Tetrachloroethane	2021/09/02		100	%	60 - 140
			Tetrachloroethylene	2021/09/02		93	%	60 - 140
			Toluene	2021/09/02		94	%	60 - 140
			1,1,1-Trichloroethane	2021/09/02		95	%	60 - 140
			1,1,2-Trichloroethane	2021/09/02		103	%	60 - 140
			Trichloroethylene	2021/09/02		99	%	60 - 140
			Trichlorofluoromethane (FREON 11)	2021/09/02		92	%	60 - 140
			Vinyl Chloride	2021/09/02		76	%	60 - 140
			p+m-Xylene	2021/09/02		89	%	60 - 140
			o-Xylene	2021/09/02		88	%	60 - 140
			F1 (C6-C10)	2021/09/02		96	%	60 - 140
			4-Bromofluorobenzene	2021/09/02		99	%	60 - 140
			D10-o-Xylene	2021/09/02		100	%	60 - 130
			D4-1,2-Dichloroethane	2021/09/02		106	%	60 - 140
			D8-Toluene	2021/09/02		104	%	60 - 140
			Acetone (2-Propanone)	2021/09/02		100	%	60 - 140
			Benzene	2021/09/02		84	%	60 - 130
			Bromodichloromethane	2021/09/02		101	%	60 - 130
			Bromoform	2021/09/02		101	%	60 - 130
			Bromomethane	2021/09/02		84	%	60 - 140
			Carbon Tetrachloride	2021/09/02		97	%	60 - 130
			Chlorobenzene	2021/09/02		97	%	60 - 130
			Chloroform	2021/09/02		96	%	60 - 130
			Dibromochloromethane	2021/09/02		100	%	60 - 130
			1,2-Dichlorobenzene	2021/09/02		95	%	60 - 130

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BV Labs Job #: C103796

Report Date: 2021/09/09

Pinchin Ltd

Client Project #: 295667.002

Sampler Initials: BM

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7548005	DR1	Method Blank	1,3-Dichlorobenzene	2021/09/02		94	%	60 - 130
			1,4-Dichlorobenzene	2021/09/02		107	%	60 - 130
			Dichlorodifluoromethane (FREON 12)	2021/09/02		52 (1)	%	60 - 140
			1,1-Dichloroethane	2021/09/02		90	%	60 - 130
			1,2-Dichloroethane	2021/09/02		95	%	60 - 130
			1,1-Dichloroethylene	2021/09/02		91	%	60 - 130
			cis-1,2-Dichloroethylene	2021/09/02		97	%	60 - 130
			trans-1,2-Dichloroethylene	2021/09/02		94	%	60 - 130
			1,2-Dichloropropane	2021/09/02		92	%	60 - 130
			cis-1,3-Dichloropropene	2021/09/02		75	%	60 - 130
			trans-1,3-Dichloropropene	2021/09/02		85	%	60 - 130
			Ethylbenzene	2021/09/02		86	%	60 - 130
			Ethylene Dibromide	2021/09/02		97	%	60 - 130
			Hexane	2021/09/02		86	%	60 - 130
			Methylene Chloride(Dichloromethane)	2021/09/02		102	%	60 - 130
			Methyl Ethyl Ketone (2-Butanone)	2021/09/02		98	%	60 - 140
			Methyl Isobutyl Ketone	2021/09/02		91	%	60 - 130
			Methyl t-butyl ether (MTBE)	2021/09/02		82	%	60 - 130
			Styrene	2021/09/02		101	%	60 - 130
			1,1,1,2-Tetrachloroethane	2021/09/02		101	%	60 - 130
			1,1,2,2-Tetrachloroethane	2021/09/02		102	%	60 - 130
			Tetrachloroethylene	2021/09/02		94	%	60 - 130
			Toluene	2021/09/02		96	%	60 - 130
			1,1,1-Trichloroethane	2021/09/02		96	%	60 - 130
			1,1,2-Trichloroethane	2021/09/02		104	%	60 - 130
			Trichloroethylene	2021/09/02		100	%	60 - 130
			Trichlorofluoromethane (FREON 11)	2021/09/02		92	%	60 - 130
			Vinyl Chloride	2021/09/02		76	%	60 - 130
			p+m-Xylene	2021/09/02		90	%	60 - 130
			o-Xylene	2021/09/02		90	%	60 - 130
			F1 (C6-C10)	2021/09/02		92	%	80 - 120
			4-Bromofluorobenzene	2021/09/02		94	%	60 - 140
			D10-o-Xylene	2021/09/02		75	%	60 - 130
			D4-1,2-Dichloroethane	2021/09/02		109	%	60 - 140
			D8-Toluene	2021/09/02		94	%	60 - 140
			Acetone (2-Propanone)	2021/09/02	<0.49		ug/g	
			Benzene	2021/09/02	<0.0060		ug/g	
			Bromodichloromethane	2021/09/02	<0.040		ug/g	
			Bromoform	2021/09/02	<0.040		ug/g	
			Bromomethane	2021/09/02	<0.040		ug/g	
			Carbon Tetrachloride	2021/09/02	<0.040		ug/g	
			Chlorobenzene	2021/09/02	<0.040		ug/g	
			Chloroform	2021/09/02	<0.040		ug/g	
			Dibromochloromethane	2021/09/02	<0.040		ug/g	
			1,2-Dichlorobenzene	2021/09/02	<0.040		ug/g	
			1,3-Dichlorobenzene	2021/09/02	<0.040		ug/g	
			1,4-Dichlorobenzene	2021/09/02	<0.040		ug/g	
			Dichlorodifluoromethane (FREON 12)	2021/09/02	<0.040		ug/g	
			1,1-Dichloroethane	2021/09/02	<0.040		ug/g	
			1,2-Dichloroethane	2021/09/02	<0.049		ug/g	
			1,1-Dichloroethylene	2021/09/02	<0.040		ug/g	
			cis-1,2-Dichloroethylene	2021/09/02	<0.040		ug/g	



BUREAU
VERITAS

BV Labs Job #: C103796
Report Date: 2021/09/09

Pinchin Ltd
Client Project #: 295667.002
Sampler Initials: BM

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7548005	DR1	RPD	trans-1,2-Dichloroethylene	2021/09/02	<0.040		ug/g	
			1,2-Dichloropropane	2021/09/02	<0.040		ug/g	
			cis-1,3-Dichloropropene	2021/09/02	<0.030		ug/g	
			trans-1,3-Dichloropropene	2021/09/02	<0.040		ug/g	
			Ethylbenzene	2021/09/02	<0.010		ug/g	
			Ethylene Dibromide	2021/09/02	<0.040		ug/g	
			Hexane	2021/09/02	<0.040		ug/g	
			Methylene Chloride(Dichloromethane)	2021/09/02	<0.049		ug/g	
			Methyl Ethyl Ketone (2-Butanone)	2021/09/02	<0.40		ug/g	
			Methyl Isobutyl Ketone	2021/09/02	<0.40		ug/g	
			Methyl t-butyl ether (MTBE)	2021/09/02	<0.040		ug/g	
			Styrene	2021/09/02	<0.040		ug/g	
			1,1,1,2-Tetrachloroethane	2021/09/02	<0.040		ug/g	
			1,1,2,2-Tetrachloroethane	2021/09/02	<0.040		ug/g	
			Tetrachloroethylene	2021/09/02	<0.040		ug/g	
			Toluene	2021/09/02	<0.020		ug/g	
			1,1,1-Trichloroethane	2021/09/02	<0.040		ug/g	
			1,1,2-Trichloroethane	2021/09/02	<0.040		ug/g	
			Trichloroethylene	2021/09/02	<0.010		ug/g	
			Trichlorofluoromethane (FREON 11)	2021/09/02	<0.040		ug/g	
			Vinyl Chloride	2021/09/02	<0.019		ug/g	
			p+m-Xylene	2021/09/02	<0.020		ug/g	
			o-Xylene	2021/09/02	<0.020		ug/g	
			Total Xylenes	2021/09/02	<0.020		ug/g	
			F1 (C6-C10)	2021/09/02	<10		ug/g	
			F1 (C6-C10) - BTEX	2021/09/02	<10		ug/g	
			Acetone (2-Propanone)	2021/09/02	NC		%	50
			Benzene	2021/09/02	NC		%	50
			Bromodichloromethane	2021/09/02	NC		%	50
			Bromoform	2021/09/02	NC		%	50
			Bromomethane	2021/09/02	NC		%	50
			Carbon Tetrachloride	2021/09/02	NC		%	50
			Chlorobenzene	2021/09/02	NC		%	50
			Chloroform	2021/09/02	NC		%	50
			Dibromochloromethane	2021/09/02	NC		%	50
			1,2-Dichlorobenzene	2021/09/02	NC		%	50
			1,3-Dichlorobenzene	2021/09/02	NC		%	50
			1,4-Dichlorobenzene	2021/09/02	NC		%	50
			Dichlorodifluoromethane (FREON 12)	2021/09/02	NC		%	50
			1,1-Dichloroethane	2021/09/02	NC		%	50
			1,2-Dichloroethane	2021/09/02	NC		%	50
			1,1-Dichloroethylene	2021/09/02	NC		%	50
			cis-1,2-Dichloroethylene	2021/09/02	NC		%	50
			trans-1,2-Dichloroethylene	2021/09/02	NC		%	50
			1,2-Dichloropropane	2021/09/02	NC		%	50
			cis-1,3-Dichloropropene	2021/09/02	NC		%	50
			trans-1,3-Dichloropropene	2021/09/02	NC		%	50
			Ethylbenzene	2021/09/02	NC		%	50
			Ethylene Dibromide	2021/09/02	NC		%	50
			Hexane	2021/09/02	NC		%	50
			Methylene Chloride(Dichloromethane)	2021/09/02	NC		%	50
			Methyl Ethyl Ketone (2-Butanone)	2021/09/02	NC		%	50

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BV Labs Job #: C103796

Report Date: 2021/09/09

Pinchin Ltd

Client Project #: 295667.002

Sampler Initials: BM

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7548426	AGA	Matrix Spike	Methyl Isobutyl Ketone	2021/09/02	NC		%	50
			Methyl t-butyl ether (MTBE)	2021/09/02	NC		%	50
			Styrene	2021/09/02	NC		%	50
			1,1,1,2-Tetrachloroethane	2021/09/02	NC		%	50
			1,1,2,2-Tetrachloroethane	2021/09/02	NC		%	50
			Tetrachloroethylene	2021/09/02	NC		%	50
			Toluene	2021/09/02	NC		%	50
			1,1,1-Trichloroethane	2021/09/02	NC		%	50
			1,1,2-Trichloroethane	2021/09/02	NC		%	50
			Trichloroethylene	2021/09/02	NC		%	50
			Trichlorofluoromethane (FREON 11)	2021/09/02	NC		%	50
			Vinyl Chloride	2021/09/02	NC		%	50
			p+m-Xylene	2021/09/02	NC		%	50
			o-Xylene	2021/09/02	NC		%	50
			Total Xylenes	2021/09/02	NC		%	50
			F1 (C6-C10)	2021/09/02	NC		%	30
			F1 (C6-C10) - BTEX	2021/09/02	NC		%	30
			1,4-Difluorobenzene	2021/08/30		99	%	60 - 140
			4-Bromofluorobenzene	2021/08/30		107	%	60 - 140
			D10-o-Xylene	2021/08/30		107	%	60 - 140
7548426	AGA	Spiked Blank	D4-1,2-Dichloroethane	2021/08/30		97	%	60 - 140
			Benzene	2021/08/30		130	%	50 - 140
			Toluene	2021/08/30		127	%	50 - 140
			Ethylbenzene	2021/08/30		143 (2)	%	50 - 140
			o-Xylene	2021/08/30		140	%	50 - 140
			p+m-Xylene	2021/08/30		141 (3)	%	50 - 140
			F1 (C6-C10)	2021/08/30		121	%	60 - 140
			1,4-Difluorobenzene	2021/08/30		99	%	60 - 140
			4-Bromofluorobenzene	2021/08/30		106	%	60 - 140
			D10-o-Xylene	2021/08/30		87	%	60 - 140
7548426	AGA	Method Blank	D4-1,2-Dichloroethane	2021/08/30		101	%	60 - 140
			Benzene	2021/08/30		105	%	50 - 140
			Toluene	2021/08/30		102	%	50 - 140
			Ethylbenzene	2021/08/30		114	%	50 - 140
			o-Xylene	2021/08/30		111	%	50 - 140
			p+m-Xylene	2021/08/30		113	%	50 - 140
			F1 (C6-C10)	2021/08/30		93	%	80 - 120
			1,4-Difluorobenzene	2021/08/30		101	%	60 - 140
			4-Bromofluorobenzene	2021/08/30		89	%	60 - 140
			D10-o-Xylene	2021/08/30		88	%	60 - 140
7548426	AGA	RPD	D4-1,2-Dichloroethane	2021/08/30		103	%	60 - 140
			Benzene	2021/08/30	<0.020		ug/g	
			Toluene	2021/08/30	<0.020		ug/g	
			Ethylbenzene	2021/08/30	<0.020		ug/g	
			o-Xylene	2021/08/30	<0.020		ug/g	
			p+m-Xylene	2021/08/30	<0.040		ug/g	
			Total Xylenes	2021/08/30	<0.040		ug/g	
			F1 (C6-C10)	2021/08/30	<10		ug/g	
			F1 (C6-C10) - BTEX	2021/08/30	<10		ug/g	
			Benzene	2021/08/30	NC		%	50
7548426	AGA	RPD	Toluene	2021/08/30	2.7		%	50
			Ethylbenzene	2021/08/30	7.3		%	50



QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			o-Xylene	2021/08/30	11		%	50
			p+m-Xylene	2021/08/30	2.0		%	50
			Total Xylenes	2021/08/30	4.2		%	50
			F1 (C6-C10)	2021/08/30	NC		%	30
			F1 (C6-C10) - BTEX	2021/08/30	NC		%	30
7550446	JMY	Matrix Spike	F4G-sg (Grav. Heavy Hydrocarbons)	2021/08/31		94	%	65 - 135
7550446	JMY	Spiked Blank	F4G-sg (Grav. Heavy Hydrocarbons)	2021/08/31		101	%	65 - 135
7550446	JMY	Method Blank	F4G-sg (Grav. Heavy Hydrocarbons)	2021/08/31	<100		ug/g	
7550446	JMY	RPD	F4G-sg (Grav. Heavy Hydrocarbons)	2021/08/31	0		%	50
7565406	AS2	Matrix Spike	o-Terphenyl	2021/09/09		91	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/09/09		100	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2021/09/09		NC	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2021/09/09		NC	%	50 - 130
7565406	AS2	Spiked Blank	o-Terphenyl	2021/09/09		93	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/09/09		97	%	80 - 120
			F3 (C16-C34 Hydrocarbons)	2021/09/09		96	%	80 - 120
			F4 (C34-C50 Hydrocarbons)	2021/09/09		92	%	80 - 120
7565406	AS2	Method Blank	o-Terphenyl	2021/09/09		93	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/09/09	<10		ug/g	
			F3 (C16-C34 Hydrocarbons)	2021/09/09	<50		ug/g	
			F4 (C34-C50 Hydrocarbons)	2021/09/09	<50		ug/g	
7565406	AS2	RPD	F2 (C10-C16 Hydrocarbons)	2021/09/09	94 (4)		%	30
			F3 (C16-C34 Hydrocarbons)	2021/09/09	86 (4)		%	30
			F4 (C34-C50 Hydrocarbons)	2021/09/09	66 (4)		%	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) The recovery was below the lower control limit. This may represent a low bias in some results for this specific analyte.

(2) The recovery of Ethylbenzene in the matrix spiked was above the acceptance criteria. The sample was reanalyzed with the same results. This is likely due to sample heterogeneity.

(3) The recovery of p+m-Xylene in the matrix spiked was above the acceptance criteria. The sample was reanalyzed with the same results. This is likely due to sample heterogeneity.

(4) Duplicate results exceeded RPD acceptance criteria for flagged analytes. The sample was reanalyzed with the same results. This is likely due to sample heterogeneity.



BUREAU
VERITAS

BV Labs Job #: C103796

Report Date: 2021/09/09

Pinchin Ltd

Client Project #: 295667.002

Sampler Initials: BM

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:




Ewa Pranjić, M.Sc., C.Chem, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Your Project #: 295667.002
Site Location: 440 DUNLOP ST WEST, BARRIE
Your C.O.C. #: NA

Attention: Matthew Charles

Pinchin Ltd
680 Bayview Drive
Unit 5
Barrie, ON
CANADA L4N 9A6

Report Date: 2021/10/18
Report #: R6858176
Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BV LABS JOB #: C1P1886

Received: 2021/09/02, 08:45

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	1	N/A	2021/09/07	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum	2	N/A	2021/09/08		EPA 8260C m
Petroleum Hydro. CCME F1 & BTEX in Water	1	N/A	2021/09/04	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1)	3	2021/09/04	2021/09/05	CAM SOP-00316	CCME PHC-CWS m
PAH Compounds in Water by GC/MS (SIM)	1	2021/09/04	2021/09/04	CAM SOP-00318	EPA 8270D m
Volatile Organic Compounds and F1 PHCs	2	N/A	2021/09/07	CAM SOP-00230	EPA 8260C m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1



Your Project #: 295667.002
Site Location: 440 DUNLOP ST WEST, BARRIE
Your C.O.C. #: NA

Attention: Matthew Charles

Pinchin Ltd
680 Bayview Drive
Unit 5
Barrie, ON
CANADA L4N 9A6

Report Date: 2021/10/18
Report #: R6858176
Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BV LABS JOB #: C1P1886

Received: 2021/09/02, 08:45

Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Antonella Brasil, Senior Project Manager
Email: Antonella.Brasil@bureauveritas.com
Phone# (905)817-5817

=====

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



BUREAU
VERITAS

Bureau Veritas Job #: C1P1886
Report Date: 2021/10/18

Pinchin Ltd
Client Project #: 295667.002
Site Location: 440 DUNLOP ST WEST, BARRIE
Sampler Initials: JP

O.REG 153 PAHS (WATER)

Bureau Veritas ID		QNX066			
Sampling Date		2021/09/01 10:00			
COC Number		NA			
	UNITS	MW201	MDL	QC Batch	RDL
Methylnaphthalene, 2-(1-)	ug/L	<0.071	N/A	7556366	0.071
Acenaphthene	ug/L	<0.050	0.0030	7560445	0.050
Acenaphthylene	ug/L	<0.050	0.0030	7560445	0.050
Anthracene	ug/L	<0.050	0.0030	7560445	0.050
Benzo(a)anthracene	ug/L	<0.050	0.0030	7560445	0.050
Benzo(a)pyrene	ug/L	<0.0090	0.0030	7560445	0.0090
Benzo(b/j)fluoranthene	ug/L	<0.050	0.0030	7560445	0.050
Benzo(g,h,i)perylene	ug/L	<0.050	0.0030	7560445	0.050
Benzo(k)fluoranthene	ug/L	<0.050	0.0030	7560445	0.050
Chrysene	ug/L	<0.050	0.0030	7560445	0.050
Dibenzo(a,h)anthracene	ug/L	<0.050	0.0030	7560445	0.050
Fluoranthene	ug/L	<0.050	0.0030	7560445	0.050
Fluorene	ug/L	<0.050	0.0030	7560445	0.050
Indeno(1,2,3-cd)pyrene	ug/L	<0.050	0.0030	7560445	0.050
1-Methylnaphthalene	ug/L	<0.050	0.0030	7560445	0.050
2-Methylnaphthalene	ug/L	<0.050	0.0030	7560445	0.050
Naphthalene	ug/L	<0.050	0.0030	7560445	0.050
Phenanthrene	ug/L	<0.030	0.0030	7560445	0.030
Pyrene	ug/L	<0.050	0.0030	7560445	0.050
Surrogate Recovery (%)					
D10-Anthracene	%	88	N/A	7560445	N/A
D14-Terphenyl (FS)	%	78	N/A	7560445	N/A
D8-Acenaphthylene	%	75	N/A	7560445	N/A
QC Batch = Quality Control Batch					
N/A = Not Applicable					



O.REG 153 PHCS, BTEX/F1-F4 (WATER)

Bureau Veritas ID		QNX066			
Sampling Date		2021/09/01 10:00			
COC Number		NA			
	UNITS	MW201	MDL	QC Batch	RDL
Benzene	ug/L	<0.20	0.040	7559324	0.20
Toluene	ug/L	0.23	0.040	7559324	0.20
Ethylbenzene	ug/L	<0.20	0.040	7559324	0.20
o-Xylene	ug/L	<0.20	0.040	7559324	0.20
p+m-Xylene	ug/L	<0.40	0.080	7559324	0.40
Total Xylenes	ug/L	<0.40	0.080	7559324	0.40
F1 (C6-C10)	ug/L	<25	20	7559324	25
F1 (C6-C10) - BTEX	ug/L	<25	20	7559324	25
F2 (C10-C16 Hydrocarbons)	ug/L	<100	50	7560447	100
F3 (C16-C34 Hydrocarbons)	ug/L	<200	70	7560447	200
F4 (C34-C50 Hydrocarbons)	ug/L	<200	50	7560447	200
Reached Baseline at C50	ug/L	Yes	N/A	7560447	N/A
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	104	N/A	7559324	N/A
4-Bromofluorobenzene	%	95	N/A	7559324	N/A
D10-o-Xylene	%	108	N/A	7559324	N/A
D4-1,2-Dichloroethane	%	105	N/A	7559324	N/A
o-Terphenyl	%	93	N/A	7560447	N/A
QC Batch = Quality Control Batch					
N/A = Not Applicable					



BUREAU
VERITAS

Bureau Veritas Job #: C1P1886

Report Date: 2021/10/18

Pinchin Ltd

Client Project #: 295667.002

Site Location: 440 DUNLOP ST WEST, BARRIE

Sampler Initials: JP

O.REG 153 VOCs BY HS & F1-F4 (WATER)

Bureau Veritas ID		QNX067	QNX068			
Sampling Date		2021/09/01 10:15	2021/09/01 10:30			
COC Number		NA	NA			
	UNITS	MW202	MW203	MDL	QC Batch	RDL
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	0.50	7555792	0.28
Acetone (2-Propanone)	ug/L	<10	<10	1.0	7560496	10
Benzene	ug/L	<0.17	<0.17	0.020	7560496	0.17
Bromodichloromethane	ug/L	<0.50	<0.50	0.050	7560496	0.50
Bromoform	ug/L	<1.0	<1.0	0.10	7560496	1.0
Bromomethane	ug/L	<0.50	<0.50	0.10	7560496	0.50
Carbon Tetrachloride	ug/L	<0.20	<0.20	0.050	7560496	0.20
Chlorobenzene	ug/L	<0.20	<0.20	0.010	7560496	0.20
Chloroform	ug/L	<0.20	<0.20	0.050	7560496	0.20
Dibromochloromethane	ug/L	<0.50	<0.50	0.050	7560496	0.50
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	0.050	7560496	0.50
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	0.050	7560496	0.50
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	0.050	7560496	0.50
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	0.050	7560496	1.0
1,1-Dichloroethane	ug/L	<0.20	<0.20	0.050	7560496	0.20
1,2-Dichloroethane	ug/L	<0.50	<0.50	0.020	7560496	0.50
1,1-Dichloroethylene	ug/L	<0.20	<0.20	0.050	7560496	0.20
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.050	7560496	0.50
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.050	7560496	0.50
1,2-Dichloropropane	ug/L	<0.20	<0.20	0.050	7560496	0.20
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	0.050	7560496	0.30
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	0.050	7560496	0.40
Ethylbenzene	ug/L	<0.20	<0.20	0.010	7560496	0.20
Ethylene Dibromide	ug/L	<0.20	<0.20	0.050	7560496	0.20
Hexane	ug/L	<1.0	<1.0	0.10	7560496	1.0
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	0.10	7560496	2.0
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	0.50	7560496	10
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	0.10	7560496	5.0
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	0.050	7560496	0.50
Styrene	ug/L	<0.50	<0.50	0.050	7560496	0.50
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.050	7560496	0.50
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.050	7560496	0.50
Tetrachloroethylene	ug/L	<0.20	<0.20	0.050	7560496	0.20
Toluene	ug/L	<0.20	<0.20	0.010	7560496	0.20
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	0.050	7560496	0.20
QC Batch = Quality Control Batch						



BUREAU
VERITAS

Bureau Veritas Job #: C1P1886

Report Date: 2021/10/18

Pinchin Ltd

Client Project #: 295667.002

Site Location: 440 DUNLOP ST WEST, BARRIE

Sampler Initials: JP

O.REG 153 VOCs BY HS & F1-F4 (WATER)

Bureau Veritas ID		QNX067	QNX068			
Sampling Date		2021/09/01 10:15	2021/09/01 10:30			
COC Number		NA	NA			
	UNITS	MW202	MW203	MDL	QC Batch	RDL
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	0.050	7560496	0.50
Trichloroethylene	ug/L	<0.20	<0.20	0.050	7560496	0.20
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	0.10	7560496	0.50
Vinyl Chloride	ug/L	<0.20	<0.20	0.050	7560496	0.20
p+m-Xylene	ug/L	<0.20	<0.20	0.010	7560496	0.20
o-Xylene	ug/L	<0.20	<0.20	0.010	7560496	0.20
Total Xylenes	ug/L	<0.20	<0.20	0.010	7560496	0.20
F1 (C6-C10)	ug/L	<25	<25	20	7560496	25
F1 (C6-C10) - BTEX	ug/L	<25	<25	20	7560496	25
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	50	7560447	100
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	70	7560447	200
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	50	7560447	200
Reached Baseline at C50	ug/L	Yes	Yes	N/A	7560447	N/A
Surrogate Recovery (%)						
o-Terphenyl	%	92	91	N/A	7560447	N/A
4-Bromofluorobenzene	%	97	97	N/A	7560496	N/A
D4-1,2-Dichloroethane	%	116	116	N/A	7560496	N/A
D8-Toluene	%	100	101	N/A	7560496	N/A
QC Batch = Quality Control Batch						
N/A = Not Applicable						



BUREAU
VERITAS

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Sampler Initials: JP

GENERAL COMMENTS

All 40 ml vials for F1BTEx and VOC analyses contained visible sediment.

All 100 ml amber glass bottles for F2-F4 and PAH analyses contained visible sediment, which was included in the extraction.

Revised Report (2021/10/18): Split reports as per client request.

Results relate only to the items tested.



**BUREAU
VERITAS**

Bureau Veritas Job #: C1P1886

Report Date: 2021/10/18

Pinchin Ltd

Client Project #: 295667.002

Site Location: 440 DUNLOP ST WEST, BARRIE

Sampler Initials: JP

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7559324	DAN	Matrix Spike	1,4-Difluorobenzene	2021/09/03		93	%	70 - 130
			4-Bromofluorobenzene	2021/09/03		107	%	70 - 130
			D10-o-Xylene	2021/09/03		99	%	70 - 130
			D4-1,2-Dichloroethane	2021/09/03		100	%	70 - 130
			Benzene	2021/09/03		105	%	50 - 140
			Toluene	2021/09/03		96	%	50 - 140
			Ethylbenzene	2021/09/03		115	%	50 - 140
			o-Xylene	2021/09/03		115	%	50 - 140
			p+m-Xylene	2021/09/03		115	%	50 - 140
			F1 (C6-C10)	2021/09/03		95	%	60 - 140
7559324	DAN	Spiked Blank	1,4-Difluorobenzene	2021/09/03		95	%	70 - 130
			4-Bromofluorobenzene	2021/09/03		108	%	70 - 130
			D10-o-Xylene	2021/09/03		96	%	70 - 130
			D4-1,2-Dichloroethane	2021/09/03		94	%	70 - 130
			Benzene	2021/09/03		102	%	50 - 140
			Toluene	2021/09/03		94	%	50 - 140
			Ethylbenzene	2021/09/03		114	%	50 - 140
			o-Xylene	2021/09/03		114	%	50 - 140
			p+m-Xylene	2021/09/03		114	%	50 - 140
			F1 (C6-C10)	2021/09/03		94	%	60 - 140
7559324	DAN	Method Blank	1,4-Difluorobenzene	2021/09/03		104	%	70 - 130
			4-Bromofluorobenzene	2021/09/03		97	%	70 - 130
			D10-o-Xylene	2021/09/03		105	%	70 - 130
			D4-1,2-Dichloroethane	2021/09/03		109	%	70 - 130
			Benzene	2021/09/03	<0.20		ug/L	
			Toluene	2021/09/03	<0.20		ug/L	
			Ethylbenzene	2021/09/03	<0.20		ug/L	
			o-Xylene	2021/09/03	<0.20		ug/L	
			p+m-Xylene	2021/09/03	<0.40		ug/L	
			Total Xylenes	2021/09/03	<0.40		ug/L	
			F1 (C6-C10)	2021/09/03	<25		ug/L	
			F1 (C6-C10) - BTEX	2021/09/03	<25		ug/L	
			Benzene	2021/09/03	NC		%	30
			Toluene	2021/09/03	NC		%	30
			Ethylbenzene	2021/09/03	NC		%	30
			o-Xylene	2021/09/03	NC		%	30
			p+m-Xylene	2021/09/03	NC		%	30
7559324	DAN	RPD	Total Xylenes	2021/09/03	NC		%	30
			F1 (C6-C10)	2021/09/03	NC		%	30
			F1 (C6-C10) - BTEX	2021/09/03	NC		%	30
			Benzene	2021/09/03	NC		%	30
			Toluene	2021/09/03	NC		%	30
			Ethylbenzene	2021/09/03	NC		%	30
			o-Xylene	2021/09/03	NC		%	30
			p+m-Xylene	2021/09/03	NC		%	30
			Total Xylenes	2021/09/03	NC		%	30
			F1 (C6-C10)	2021/09/03	NC		%	30
			F1 (C6-C10) - BTEX	2021/09/03	NC		%	30
7560445	JET	Matrix Spike	D10-Anthracene	2021/09/04		99	%	50 - 130
			D14-Terphenyl (F5)	2021/09/04		95	%	50 - 130
			D8-Acenaphthylene	2021/09/04		94	%	50 - 130
			Acenaphthene	2021/09/04		84	%	50 - 130
			Acenaphthylene	2021/09/04		95	%	50 - 130
			Anthracene	2021/09/04		93	%	50 - 130
			Benzo(a)anthracene	2021/09/04		101	%	50 - 130
			Benzo(a)pyrene	2021/09/04		84	%	50 - 130
			Benzo(b,j)fluoranthene	2021/09/04		87	%	50 - 130
			Benzo(g,h,i)perylene	2021/09/04		94	%	50 - 130
			Benzo(k)fluoranthene	2021/09/04		96	%	50 - 130



BUREAU
VERITAS

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Report Date: 2021/10/18

Pinchin Ltd

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Site Location: 440 DUNLOP ST WEST, BARRIE

Sampler Initials: JP

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7560445	JET	Spiked Blank	Chrysene	2021/09/04		99	%	50 - 130
			Dibenzo(a,h)anthracene	2021/09/04		94	%	50 - 130
			Fluoranthene	2021/09/04		102	%	50 - 130
			Fluorene	2021/09/04		95	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2021/09/04		96	%	50 - 130
			1-Methylnaphthalene	2021/09/04		97	%	50 - 130
			2-Methylnaphthalene	2021/09/04		100	%	50 - 130
			Naphthalene	2021/09/04		85	%	50 - 130
			Phenanthrene	2021/09/04		88	%	50 - 130
			Pyrene	2021/09/04		98	%	50 - 130
			D10-Anthracene	2021/09/04		111	%	50 - 130
			D14-Terphenyl (FS)	2021/09/04		113	%	50 - 130
			D8-Acenaphthylene	2021/09/04		103	%	50 - 130
			Acenaphthene	2021/09/04		87	%	50 - 130
			Acenaphthylene	2021/09/04		84	%	50 - 130
			Anthracene	2021/09/04		94	%	50 - 130
			Benzo(a)anthracene	2021/09/04		98	%	50 - 130
			Benzo(a)pyrene	2021/09/04		83	%	50 - 130
			Benzo(b/j)fluoranthene	2021/09/04		86	%	50 - 130
			Benzo(g,h,i)perylene	2021/09/04		93	%	50 - 130
			Benzo(k)fluoranthene	2021/09/04		94	%	50 - 130
			Chrysene	2021/09/04		97	%	50 - 130
			Dibenzo(a,h)anthracene	2021/09/04		92	%	50 - 130
			Fluoranthene	2021/09/04		101	%	50 - 130
			Fluorene	2021/09/04		93	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2021/09/04		95	%	50 - 130
			1-Methylnaphthalene	2021/09/04		98	%	50 - 130
			2-Methylnaphthalene	2021/09/04		94	%	50 - 130
			Naphthalene	2021/09/04		84	%	50 - 130
			Phenanthrene	2021/09/04		93	%	50 - 130
			Pyrene	2021/09/04		99	%	50 - 130
7560445	JET	Method Blank	D10-Anthracene	2021/09/04		105	%	50 - 130
			D14-Terphenyl (FS)	2021/09/04		98	%	50 - 130
			D8-Acenaphthylene	2021/09/04		91	%	50 - 130
			Acenaphthene	2021/09/04	<0.050		ug/L	
			Acenaphthylene	2021/09/04	<0.050		ug/L	
			Anthracene	2021/09/04	<0.050		ug/L	
			Benzo(a)anthracene	2021/09/04	<0.050		ug/L	
			Benzo(a)pyrene	2021/09/04	<0.0090		ug/L	
			Benzo(b/j)fluoranthene	2021/09/04	<0.050		ug/L	
			Benzo(g,h,i)perylene	2021/09/04	<0.050		ug/L	
			Benzo(k)fluoranthene	2021/09/04	<0.050		ug/L	
			Chrysene	2021/09/04	<0.050		ug/L	
			Dibenzo(a,h)anthracene	2021/09/04	<0.050		ug/L	
			Fluoranthene	2021/09/04	<0.050		ug/L	
			Fluorene	2021/09/04	<0.050		ug/L	
			Indeno(1,2,3-cd)pyrene	2021/09/04	<0.050		ug/L	
			1-Methylnaphthalene	2021/09/04	<0.050		ug/L	
			2-Methylnaphthalene	2021/09/04	<0.050		ug/L	
			Naphthalene	2021/09/04	<0.050		ug/L	
			Phenanthrene	2021/09/04	<0.030		ug/L	



BUREAU
VERITAS

Bureau Veritas Job #: C1P1886

Report Date: 2021/10/18

Pinchin Ltd

Client Project #: 295667.002

Site Location: 440 DUNLOP ST WEST, BARRIE

Sampler Initials: JP

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7560445	JET	RPD	Pyrene	2021/09/04	<0.050		ug/L	
			Acenaphthene	2021/09/04	4.9		%	30
			Acenaphthylene	2021/09/04	5.6		%	30
			Anthracene	2021/09/04	26		%	30
			Benzo(a)anthracene	2021/09/04	NC		%	30
			Benzo(a)pyrene	2021/09/04	NC		%	30
			Benzo(b/j)fluoranthene	2021/09/04	NC		%	30
			Benzo(g,h,i)perylene	2021/09/04	NC		%	30
			Benzo(k)fluoranthene	2021/09/04	NC		%	30
			Chrysene	2021/09/04	NC		%	30
			Dibenzo(a,h)anthracene	2021/09/04	NC		%	30
			Fluoranthene	2021/09/04	NC		%	30
			Fluorene	2021/09/04	5.3		%	30
			Indeno(1,2,3-cd)pyrene	2021/09/04	NC		%	30
			1-Methylnaphthalene	2021/09/04	0.33		%	30
			2-Methylnaphthalene	2021/09/04	2.9		%	30
			Naphthalene	2021/09/04	NC (1)		%	30
			Phenanthrene	2021/09/04	6.2		%	30
			Pyrene	2021/09/04	1.7		%	30
7560447	AS2	Matrix Spike [QNX067-01]	o-Terphenyl	2021/09/05		94	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/09/05		99	%	60 - 130
			F3 (C16-C34 Hydrocarbons)	2021/09/05		100	%	60 - 130
			F4 (C34-C50 Hydrocarbons)	2021/09/05		102	%	60 - 130
7560447	AS2	Spiked Blank	o-Terphenyl	2021/09/05		93	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/09/05		98	%	60 - 130
			F3 (C16-C34 Hydrocarbons)	2021/09/05		102	%	60 - 130
			F4 (C34-C50 Hydrocarbons)	2021/09/05		104	%	60 - 130
7560447	AS2	Method Blank	o-Terphenyl	2021/09/05		95	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/09/05	<100		ug/L	
			F3 (C16-C34 Hydrocarbons)	2021/09/05	<200		ug/L	
			F4 (C34-C50 Hydrocarbons)	2021/09/05	<200		ug/L	
7560447	AS2	RPD	F2 (C10-C16 Hydrocarbons)	2021/09/05	17		%	30
			F3 (C16-C34 Hydrocarbons)	2021/09/05	NC		%	30
			F4 (C34-C50 Hydrocarbons)	2021/09/05	NC		%	30
7560496	AYA	Matrix Spike	4-Bromofluorobenzene	2021/09/07		98	%	70 - 130
			D4-1,2-Dichloroethane	2021/09/07		116	%	70 - 130
			D8-Toluene	2021/09/07		102	%	70 - 130
			Acetone (2-Propanone)	2021/09/07		100	%	60 - 140
			Benzene	2021/09/07		90	%	70 - 130
			Bromodichloromethane	2021/09/07		111	%	70 - 130
			Bromoform	2021/09/07		101	%	70 - 130
			Bromomethane	2021/09/07		103	%	60 - 140
			Carbon Tetrachloride	2021/09/07		110	%	70 - 130
			Chlorobenzene	2021/09/07		97	%	70 - 130
			Chloroform	2021/09/07		106	%	70 - 130
			Dibromochloromethane	2021/09/07		98	%	70 - 130
			1,2-Dichlorobenzene	2021/09/07		106	%	70 - 130
			1,3-Dichlorobenzene	2021/09/07		95	%	70 - 130
			1,4-Dichlorobenzene	2021/09/07		113	%	70 - 130
			Dichlorodifluoromethane (FREON 12)	2021/09/07		93	%	60 - 140



BUREAU
VERITAS

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Pinchin Ltd
Client Project #: 295667.002
Site Location: 440 DUNLOP ST WEST, BARRIE
Sampler Initials: JP

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7560496	AYA	Spiked Blank	1,1-Dichloroethane	2021/09/07		101	%	70 - 130
			1,2-Dichloroethane	2021/09/07		115	%	70 - 130
			1,1-Dichloroethylene	2021/09/07		109	%	70 - 130
			cis-1,2-Dichloroethylene	2021/09/07		101	%	70 - 130
			trans-1,2-Dichloroethylene	2021/09/07		100	%	70 - 130
			1,2-Dichloropropane	2021/09/07		104	%	70 - 130
			cis-1,3-Dichloropropene	2021/09/07		104	%	70 - 130
			trans-1,3-Dichloropropene	2021/09/07		97	%	70 - 130
			Ethylbenzene	2021/09/07		91	%	70 - 130
			Ethylene Dibromide	2021/09/07		94	%	70 - 130
			Hexane	2021/09/07		102	%	70 - 130
			Methylene Chloride(Dichloromethane)	2021/09/07		97	%	70 - 130
			Methyl Ethyl Ketone (2-Butanone)	2021/09/07		102	%	60 - 140
			Methyl Isobutyl Ketone	2021/09/07		108	%	70 - 130
			Methyl t-butyl ether (MTBE)	2021/09/07		94	%	70 - 130
			Styrene	2021/09/07		97	%	70 - 130
			1,1,1,2-Tetrachloroethane	2021/09/07		100	%	70 - 130
			1,1,2,2-Tetrachloroethane	2021/09/07		98	%	70 - 130
			Tetrachloroethylene	2021/09/07		86	%	70 - 130
			Toluene	2021/09/07		98	%	70 - 130
			1,1,1-Trichloroethane	2021/09/07		108	%	70 - 130
			1,1,2-Trichloroethane	2021/09/07		116	%	70 - 130
			Trichloroethylene	2021/09/07		105	%	70 - 130
			Trichlorofluoromethane (FREON 11)	2021/09/07		106	%	70 - 130
			Vinyl Chloride	2021/09/07		106	%	70 - 130
			p+m-Xylene	2021/09/07		95	%	70 - 130
			o-Xylene	2021/09/07		93	%	70 - 130
			F1 (C6-C10)	2021/09/07		79	%	60 - 140
			4-Bromofluorobenzene	2021/09/07		98	%	70 - 130
			D4-1,2-Dichloroethane	2021/09/07		118	%	70 - 130
			D8-Toluene	2021/09/07		101	%	70 - 130
			Acetone (2-Propanone)	2021/09/07		103	%	60 - 140
			Benzene	2021/09/07		89	%	70 - 130
			Bromodichloromethane	2021/09/07		112	%	70 - 130
			Bromoform	2021/09/07		103	%	70 - 130
			Bromomethane	2021/09/07		107	%	60 - 140
			Carbon Tetrachloride	2021/09/07		110	%	70 - 130
			Chlorobenzene	2021/09/07		98	%	70 - 130
			Chloroform	2021/09/07		107	%	70 - 130
			Dibromochloromethane	2021/09/07		99	%	70 - 130
			1,2-Dichlorobenzene	2021/09/07		106	%	70 - 130
			1,3-Dichlorobenzene	2021/09/07		94	%	70 - 130
			1,4-Dichlorobenzene	2021/09/07		112	%	70 - 130
			Dichlorodifluoromethane (FREON 12)	2021/09/07		95	%	60 - 140
			1,1-Dichloroethane	2021/09/07		101	%	70 - 130
			1,2-Dichloroethane	2021/09/07		117	%	70 - 130
			1,1-Dichloroethylene	2021/09/07		108	%	70 - 130
			cis-1,2-Dichloroethylene	2021/09/07		101	%	70 - 130
			trans-1,2-Dichloroethylene	2021/09/07		99	%	70 - 130
			1,2-Dichloropropane	2021/09/07		105	%	70 - 130
			cis-1,3-Dichloropropene	2021/09/07		105	%	70 - 130



**BUREAU
VERITAS**

Bureau Veritas Job #: C1P1886

Report Date: 2021/10/18

Pinchin Ltd

Client Project #: 295667.002

Site Location: 440 DUNLOP ST WEST, BARRIE

Sampler Initials: JP

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7560496	AYA	Method Blank	trans-1,3-Dichloropropene	2021/09/07		98	%	70 - 130
			Ethylbenzene	2021/09/07		91	%	70 - 130
			Ethylene Dibromide	2021/09/07		96	%	70 - 130
			Hexane	2021/09/07		102	%	70 - 130
			Methylene Chloride(Dichloromethane)	2021/09/07		98	%	70 - 130
			Methyl Ethyl Ketone (2-Butanone)	2021/09/07		106	%	60 - 140
			Methyl Isobutyl Ketone	2021/09/07		111	%	70 - 130
			Methyl t-butyl ether (MTBE)	2021/09/07		95	%	70 - 130
			Styrene	2021/09/07		97	%	70 - 130
			1,1,1,2-Tetrachloroethane	2021/09/07		100	%	70 - 130
			1,1,2,2-Tetrachloroethane	2021/09/07		100	%	70 - 130
			Tetrachloroethylene	2021/09/07		86	%	70 - 130
			Toluene	2021/09/07		97	%	70 - 130
			1,1,1-Trichloroethane	2021/09/07		108	%	70 - 130
			1,1,2-Trichloroethane	2021/09/07		117	%	70 - 130
			Trichloroethylene	2021/09/07		105	%	70 - 130
			Trichlorofluoromethane (FREON 11)	2021/09/07		108	%	70 - 130
			Vinyl Chloride	2021/09/07		109	%	70 - 130
			p+m-Xylene	2021/09/07		94	%	70 - 130
			o-Xylene	2021/09/07		92	%	70 - 130
			F1 (C6-C10)	2021/09/07		89	%	60 - 140
			4-Bromofluorobenzene	2021/09/07		97	%	70 - 130
			D4-1,2-Dichloroethane	2021/09/07		116	%	70 - 130
			D8-Toluene	2021/09/07		101	%	70 - 130
			Acetone (2-Propanone)	2021/09/07	<10		ug/L	
			Benzene	2021/09/07	<0.17		ug/L	
			Bromodichloromethane	2021/09/07	<0.50		ug/L	
			Bromoform	2021/09/07	<1.0		ug/L	
			Bromomethane	2021/09/07	<0.50		ug/L	
			Carbon Tetrachloride	2021/09/07	<0.20		ug/L	
			Chlorobenzene	2021/09/07	<0.20		ug/L	
			Chloroform	2021/09/07	<0.20		ug/L	
			Dibromochloromethane	2021/09/07	<0.50		ug/L	
			1,2-Dichlorobenzene	2021/09/07	<0.50		ug/L	
			1,3-Dichlorobenzene	2021/09/07	<0.50		ug/L	
			1,4-Dichlorobenzene	2021/09/07	<0.50		ug/L	
			Dichlorodifluoromethane (FREON 12)	2021/09/07	<1.0		ug/L	
			1,1-Dichloroethane	2021/09/07	<0.20		ug/L	
			1,2-Dichloroethane	2021/09/07	<0.50		ug/L	
			1,1-Dichloroethylene	2021/09/07	<0.20		ug/L	
			cis-1,2-Dichloroethylene	2021/09/07	<0.50		ug/L	
			trans-1,2-Dichloroethylene	2021/09/07	<0.50		ug/L	
			1,2-Dichloropropane	2021/09/07	<0.20		ug/L	
			cis-1,3-Dichloropropene	2021/09/07	<0.30		ug/L	
			trans-1,3-Dichloropropene	2021/09/07	<0.40		ug/L	
			Ethylbenzene	2021/09/07	<0.20		ug/L	
			Ethylene Dibromide	2021/09/07	<0.20		ug/L	
			Hexane	2021/09/07	<1.0		ug/L	
			Methylene Chloride(Dichloromethane)	2021/09/07	<2.0		ug/L	
			Methyl Ethyl Ketone (2-Butanone)	2021/09/07	<10		ug/L	
			Methyl Isobutyl Ketone	2021/09/07	<5.0		ug/L	



BUREAU
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Bureau Veritas Job #: C1P1886
Report Date: 2021/10/18

Pinchin Ltd
Client Project #: 295667.002
Site Location: 440 DUNLOP ST WEST, BARRIE
Sampler Initials: JP

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7560496	AYA	RPD	Methyl t-butyl ether (MTBE)	2021/09/07	<0.50		ug/L	
			Styrene	2021/09/07	<0.50		ug/L	
			1,1,1,2-Tetrachloroethane	2021/09/07	<0.50		ug/L	
			1,1,2,2-Tetrachloroethane	2021/09/07	<0.50		ug/L	
			Tetrachloroethylene	2021/09/07	<0.20		ug/L	
			Toluene	2021/09/07	<0.20		ug/L	
			1,1,1-Trichloroethane	2021/09/07	<0.20		ug/L	
			1,1,2-Trichloroethane	2021/09/07	<0.50		ug/L	
			Trichloroethylene	2021/09/07	<0.20		ug/L	
			Trichlorofluoromethane (FREON 11)	2021/09/07	<0.50		ug/L	
			Vinyl Chloride	2021/09/07	<0.20		ug/L	
			p+m-Xylene	2021/09/07	<0.20		ug/L	
			o-Xylene	2021/09/07	<0.20		ug/L	
			Total Xylenes	2021/09/07	<0.20		ug/L	
			F1 (C6-C10)	2021/09/07	<25		ug/L	
			F1 (C6-C10) - BTEX	2021/09/07	<25		ug/L	
			Acetone (2-Propanone)	2021/09/07	NC		%	30
			Benzene	2021/09/07	NC		%	30
			Bromodichloromethane	2021/09/07	NC		%	30
			Bromoform	2021/09/07	NC		%	30
			Bromomethane	2021/09/07	NC		%	30
			Carbon Tetrachloride	2021/09/07	NC		%	30
			Chlorobenzene	2021/09/07	NC		%	30
			Chloroform	2021/09/07	NC		%	30
			Dibromochloromethane	2021/09/07	NC		%	30
			1,2-Dichlorobenzene	2021/09/07	NC		%	30
			1,3-Dichlorobenzene	2021/09/07	NC		%	30
			1,4-Dichlorobenzene	2021/09/07	NC		%	30
			Dichlorodifluoromethane (FREON 12)	2021/09/07	NC		%	30
			1,1-Dichloroethane	2021/09/07	NC		%	30
			1,2-Dichloroethane	2021/09/07	NC		%	30
			1,1-Dichloroethylene	2021/09/07	NC		%	30
			cis-1,2-Dichloroethylene	2021/09/07	NC		%	30
			trans-1,2-Dichloroethylene	2021/09/07	NC		%	30
			1,2-Dichloropropane	2021/09/07	NC		%	30
			cis-1,3-Dichloropropene	2021/09/07	NC		%	30
			trans-1,3-Dichloropropene	2021/09/07	NC		%	30
			Ethylbenzene	2021/09/07	NC		%	30
			Ethylene Dibromide	2021/09/07	NC		%	30
			Hexane	2021/09/07	NC		%	30
			Methylene Chloride(Dichloromethane)	2021/09/07	NC		%	30
			Methyl Ethyl Ketone (2-Butanone)	2021/09/07	NC		%	30
			Methyl Isobutyl Ketone	2021/09/07	NC		%	30
			Methyl t-butyl ether (MTBE)	2021/09/07	NC		%	30
			Styrene	2021/09/07	NC		%	30
			1,1,1,2-Tetrachloroethane	2021/09/07	NC		%	30
			1,1,2,2-Tetrachloroethane	2021/09/07	NC		%	30
			Tetrachloroethylene	2021/09/07	NC		%	30
			Toluene	2021/09/07	NC		%	30
			1,1,1-Trichloroethane	2021/09/07	NC		%	30
			1,1,2-Trichloroethane	2021/09/07	NC		%	30



QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Trichloroethylene	2021/09/07	NC		%	30
			Trichlorofluoromethane (FREON 11)	2021/09/07	NC		%	30
			Vinyl Chloride	2021/09/07	NC		%	30
			p+m-Xylene	2021/09/07	NC		%	30
			o-Xylene	2021/09/07	NC		%	30
			Total Xylenes	2021/09/07	NC		%	30
			F1 (C6-C10)	2021/09/07	NC		%	30
			F1 (C6-C10) - BTEX	2021/09/07	NC		%	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference $\leq 2 \times$ RDL).

(1) DL was raised due to matrix interference.



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VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Brad Newman, B.Sc., C.Chem., Scientific Service Specialist

Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.