FINAL

Phase Two Environmental Site Assessment

864 Lady Ellen Place
Ottawa, Ontario

Prepared for:

Access Self Storage Inc.
100 Canadian Road
Toronto ON, M1R 4Z5

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1.0 EXECUTIVE SUMMARY

Pinchin Ltd. (Pinchin) was retained by Access Self Storage Inc. (Client), to complete a Phase Two Environmental Site Assessment (Phase Two ESA) of the property located at 864 Lady Ellen Place in Ottawa, Ontario (hereafter referred to as the Site or Phase Two Property).

The Phase Two Property is situated at the municipal address of 864 Lady Ellen Place, Ottawa, Ontario which is currently owned by the Client. The Phase One Property is located immediately north of Lady Ellen Place, approximately 144 metres (m) northwest of the intersection of Lady Ellen Place and Laperriere Avenue, in Ottawa, Ontario. The Phase One Property is presently developed with a two-storey commercial office building (Site Building).

The Phase Two ESA was conducted at the request of the Client in support of the Client's application for Site Plan Approval (SPA) with the City of Ottawa for the above-noted property (Site).

This Phase Two ESA was conducted in accordance with the Province of Ontario's *Ontario Regulation 153/04: Records of Site Condition – Part XV.1 of the Act*, which was last amended by Ontario Regulation 274/20 on July 1, 2020 (O. Reg. 153/04) at the request of the Client for SPA with the City of Ottawa. Pinchin's understanding that the Client does not intend to file a Record of Site Condition (RSC) with the Ontario Ministry of Environment, Conservation and Parks (MECP).

The objectives of this Phase Two ESA were to assess the soil and groundwater quality in relation to one area of potential environmental concern (APEC) and related potentially contaminating activity (PCA) and contaminants of potential concern (COPCs) identified in a Phase One ESA completed by Pinchin in accordance with O. Reg. 153/04.

The Phase Two ESA was completed by Pinchin between January 14, 2022, and January 20, 2022, and included the advancement of four boreholes at the Phase Two Property, all of which were completed as a groundwater monitoring well to facilitate the sampling of groundwater. The boreholes were advanced to depths ranging from approximately 3.2 to 7.6 metres below ground surface (mbgs). Select soil samples collected from each of the borehole locations were submitted for laboratory analysis of volatile organic compounds (VOCs). Groundwater samples were collected from the newly installed monitoring wells and submitted for laboratory analysis of VOCs.

Based on Site-specific information, the applicable regulatory standards for the Phase Two Property were determined to be the *"Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition",* provided in the MECP document entitled, *"Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act"* dated April 15, 2011 *(Table 3 Standards)* for coarse-textured soils and Industrial/commercial/community property use.

The laboratory results for the submitted soil samples indicated that all reported concentrations for the parameters analyzed met the corresponding *Table 3 Standards.*

The laboratory results for the submitted groundwater samples indicated that all reported concentrations for the parameters analyzed met the corresponding *Table 3 Standards* with the exception of:

- The concentrations of trichloroethylene (2.2 µg/L vs. the *Table 3 Standard* of 1.6 µg/L) at monitoring well location MW102 which exceeded the *Table 3 Standards*; and
- The concentrations of trichloroethylene (2.2 µg/L vs. the *Table 3 Standard* of 1.6 µg/L) within groundwater sample "DUP-GW" collected monitoring well location MW102 which exceeded the *Table 3 Standards*;

Based on the results of the Phase Two ESA completed by Pinchin, the groundwater in one monitoring well in the southeast corner of the Site was measured to marginally exceed the *Table 3 Standards*. It should be noted that the source of these impacts is likely originating from off-Site. However, based on the distance from the impacts to the current on-Site Building, no further investigation is required at this time. It is Pinchin's understanding that the client intends to complete redevelopment in the portion of the Site at a later date. Further risk-based work may be warranted pending the future Site Building configuration; however, remedial work is not anticipated.

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.

2.0 INTRODUCTION

A Phase Two ESA is defined as an "assessment of property conducted in accordance with the regulations by or under the supervision of a QP to determine the location and concentration of one or more contaminants in the land or water on, in or under the property". Under O. Reg. 153/04, the purpose of a Phase Two ESA is as follows:

- To determine the location and concentration of contaminants in the land or water on, in or under the Phase Two Property; and
- To determine if applicable Site Condition Standards for contaminants on, in or under the Phase Two Property were met as of the certification date by developing an understanding of the geological and hydrogeological conditions at the Phase Two Property and conducting one or more rounds of field sampling for all contaminants associated with any APEC identified in the Phase Two ESA sampling and analysis plan (SAP) and for any such contaminants identified during subsequent Phase Two ESA activities and analyses of environmental conditions at the Phase Two Property.

The Phase Two ESA was conducted at the request of the Client in support of the Client's application for Site Plan Approval (SPA) with the City of Ottawa for the above-noted property (Site). The Phase Two ESA was conducted in accordance with O. Reg. 153/04 even though the Client does not intend to submit an RSC to MECP given that there is no regulatory requirement to file one.

The overall objectives of this Phase Two ESA were to assess the soil and groundwater quality in relation to APECs and related COPCs identified in a Phase One ESA completed by Pinchin, the findings of which were summarized in the report entitled "*Phase One Environmental Site Assessment, 864 Lady Ellen Place, Ottawa, Ontario*, completed by Pinchin for the Client and dated January 20, 2022. The property assessed by the Pinchin Phase One ESA is referred to herein as the Phase One Property. The Phase Two ESA was conducted on the whole Phase One Property, at specific APECs identified during the Phase One ESA, and the Phase One Property and Phase Two Property have the same boundaries.

2.1 Site Description

This Phase Two ESA was completed for the property located at the municipal address of 864 Lady Ellen Place, Ottawa, Ontario. A Key Map showing the Phase Two Property location is provided on Figure 1 and a detailed plan of the Phase Two Property and surrounding lands is provided on Figure 2 (all Figures are provided within Section 9.0).

The Phase Two Property is presently developed with a two-storey commercial office building (Site Building).

A summary of the pertinent details of the Phase Two Property is provided in the following table:

Detail	Source / Reference	Information
Legal Description	N/A (legal land survey currently being prepared by Client)	N/A
Municipal Address	Client	864 Lady Ellen Place, Ottawa, Ontario K1Z 5MR
Parcel Identification Number (PIN)	N/A (legal land survey currently being prepared by Client)	N/A
Current Owner	Client	Mr. Iqbal Khan
Current Occupant(s)	J.L. Richards & Associates Limited	Engineers, Architects, Planners
Client	Authorization to Proceed, Limitation of Liability & Terms of Engagement Form	Access Results Management Services Inc.
Client Contact Information	Authorization to Proceed Form for Pinchin Proposal	Manuel Botelho 4305 Fairview Street Burlington, ON L7L 2A4 Phone: 289-288-0295 ext. 27 mbotelho@accessstorage.ca
Site Area	Site Representative	10,422 m^2 (2.57 acres)

2.2 Property Ownership

The entirety of the Phase Two Property is currently owned by Access Results Management Services, located at 100 Canadian Road, Toronto, ON M1R 4Z5. Contact information for the Phase Two Property owner is provided in the preceding section.

Pinchin was retained by Mr. Manuel Botelho to conduct the Phase Two ESA of the Phase Two Property. Contact information for Mr. Manuel Botelho is provided in the preceding section.

2.3 Current and Proposed Future Uses

The Phase Two Property is presently utilized for commercial land use. The proposed future use of the Site is to remain commercial, as such does not require that an RSC be filed as per Section 168.3.1 of the Province of Ontario's *Environmental Protection Act*.

2.4 Applicable Site Condition Standards

The Phase Two Property is currently a commercial property located within the City of Ottawa and the proposed future land use is to remain commercial. It is Pinchin's understanding that drinking water for the

Phase Two Property and surrounding properties within 250 metres of the Phase Two Property is supplied by the City of Ottawa, and there are no known drinking water supply wells within 250 metres of the Phase Two Property. Source water is obtained by the City of Ottawa from the Ottawa River.

The depth to bedrock at the boreholes completed at the Phase Two Property during the Phase Two ESA ranged from 3.2 to 6.1 mbgs. Based on the available information, the depth to bedrock is interpreted to be greater than two mbgs over more than two-thirds of the Phase Two Property and, as such, the Phase Two Property is not a shallow soil property as defined in Section 43.1 of O. Reg. 153/04.

The Phase Two Property does not contain a water body, nor is it located within 30 metres of a water body and the use of standards for properties situated within 30 metres of a water body is not required.

Section 41 of O. Reg. 153/04 states that a property is classified as an “environmentally sensitive area” if the pH of the surface soil (less than or equal to 1.5 mbgs) is less than 5 or greater than 9, if the pH of the subsurface soil (greater than 1.5 mbgs) is less than 5 or greater than 11, or if the property is an area of natural significance or is adjacent to or contains land within 30 metres of an area of natural significance. A total of two representative soil samples collected from the boreholes advanced at the Phase Two Property were submitted for pH analysis. The pH analytical results are summarized in Table 2. The pH values measured in the submitted soil samples were within the limits for non-sensitive sites. The Phase Two Property is also not an area of natural significance, and it is not adjacent to, nor does it contain land within 30 metres of, an area of natural significance. As such, the Phase Two Property is not an environmentally sensitive area.

As discussed further in Section 6.4, based on the results of grain size analysis completed on representative soil samples collected during the Phase Two ESA and the observed stratigraphy at the borehole locations at the Phase Two Property, it is the QP’s opinion that over two-thirds of the overburden at the Phase Two Property is coarse-textured as defined by O. Reg. 153/04. Therefore, the soil at the Phase Two Property has been considered coarse textured for the purpose of establishing the applicable MECP Site Condition Standards.

Based on the above, the appropriate Site Condition Standards for the Phase Two Property are the Table 3 Standards for:

- Coarse-textured soils; and
- Industrial/commercial/community property use.

As such, all analytical results have been compared to these *Table 3 Standards*.

3.0 BACKGROUND INFORMATION

3.1 Physical Setting

The Phase Two Property is located in the east portion of the City of Ottawa at an elevation of approximately 76 m above mean sea level (mamsl). The general topography in the local and surrounding area gradually slopes towards the northeast, whereby the Phase One Property is at a similar elevation to the adjacent/surrounding properties, however, the topography gradually slopes towards the northeast across the Phase One Property. No bedrock outcrops were observed on-Site or in the surrounding area.

There are no drainage features (e.g., open ditches or swales) present on-Site. Surface water (e.g., storm runoff) is inferred to run overland and drain into the on-Site municipal storm sewer catch basins.

There are no open water bodies or areas of natural significance located on-Site or within the area assessed by the Pinchin Phase One ESA (the Phase One Study Area). A plan showing the Phase One Study Area is presented on Figure 2. The nearest surface water body is the Ottawa, located approximately 2.0 km northwest of the Phase One Property at an elevation of approximately 55 mamsl.

A review of the municipal plan for the City of Ottawa indicated that the Phase Two Study Area is not located in whole or in part within a well head protection area or other designation identified by the City of Ottawa for the protection of groundwater.

The records review indicated that the Phase One Property and all other properties within the Phase One Study Area are not serviced by a municipal drinking water system.

3.2 Past Investigations

3.2.1 Summary of Previous environmental Investigations by Others.

The following previous environmental reports for the Phase One Property provided by the Client were reviewed by Pinchin:

- Report entitled "*Phase One Environmental Site Assessment, 864 Lady Ellen Place, Ottawa, Ontario*", prepared by Golder Associates Ltd. (Golder) for J.L. Richards & Associates Limited, and dated May 2019 (2019 Golder Phase One ESA Report); and
- Report entitled "*Phase Two Environmental Site Assessment, 864 Lady Ellen Place, Ottawa, Ontario*", prepared by Golder for J.L. Richards & Associates Limited, and dated December 2019 (2019 Golder Phase Two ESA Report).

A summary of the salient information identified in the above-referenced reports prepared by others is provided below.

3.2.1.1 2019 Golder Phase One ESA Report

The Phase I ESA completed by Golder included a review of historical information for the Phase One Property, documents provided by the Client and interviews, a Site inspection, and a review of surrounding land uses. Based on the results of the Phase I ESA, environmental concerns were identified as current and former automotive repair/servicing with or without associated ASTs/USTs, heating oil tank storage, commercial printing and manufacturing operation, and truck transport industry and industrial chemical storage at the surrounding properties that would result in an APEC at the Phase One Property.

Based on the above-noted PCAs, Golder recommended a Phase Two ESA be conducted at the Phase One Property to investigate potential environmental impacts due to the environmental concerns outlined above.

3.2.1.2 2019 Golder Phase Two ESA Report

The Phase Two ESA conducted by Golder in December 2019 was conducted at the Phase One Property in order to investigate potential environmental impacts related to the APECs noted in the 2019 Golder Phase One ESA Report. The Phase Two ESA detailed the advancement of three boreholes on the central (19-01), southeast (19-02) and northwest (19-03) portions of the Phase One Property in June 2019. In addition, each borehole was completed as a groundwater monitoring well. A total of four soil samples were collected from the boreholes and four groundwater samples were collected from the groundwater monitoring wells and submitted for laboratory analyses of petroleum hydrocarbons fractions F1 to F4 (PHCs), volatile organic compounds (VOCs), benzene, toluene, ethylbenzene and xylene (BTEX), pH, metals and sodium adsorption ratio (SAR).

The results of the laboratory analysis for the four soil samples and four groundwater samples indicated that the concentrations of the parameters tested (PHCs, VOCs, BTEX, pH, metals and SAR) were either non-detect or below the applicable Table 3 Standards; with the exception of an elevated SAR concentration in the soil sample collected from 19-01, and elevated VOC and SAR concentrations in the groundwater sample collected from 19-02. The elevated SAR concentrations are likely due to the application of deicing agents (salt) at the property and surrounding roadways.

Based on the results of the 2019 Golder Phase Two ESA Report, additional subsurface investigations were recommended to define the vertical and horizontal extent of VOC impacts in the southeastern portion of the Phase One Property that were reported to be likely associated with former off-Site commercial printing activities and/or former off-Site cosmetics manufacturing on the properties located adjacent to the northeast elevation and 40 m southeast of the Phase One Property.

3.2.2 Summary of Previous Environmental Investigations by Pinchin

The following previous environmental report entitled “Phase One Environmental Site Assessment, 864 Lady Ellen Place, Ottawa, Ontario”, prepared by Pinchin for Access Results Management Services, and dated January 20, 2022 (2022 Pinchin Phase Two ESA Report) completed by Pinchin for the Phase One Property was reviewed by Pinchin.

3.2.2.1 2022 Pinchin Phase One ESA Report

The 2017 Pinchin I ESA Report was conducted in accordance with O. Reg. 153/04 in support of filing a Record of Site Condition (RSC) and was comprised of a records review, interview, Site Reconnaissance, and an evaluation of records. The Phase One Property consists of one legal lot situated at the municipal address of 864 Lady Ellen Place, Ottawa, Ontario and is currently owned by Mr. Iqbal Khan. The Phase One Property is located immediately north of Lady Ellen Place, approximately 144 metres (m) northwest of the intersection of Lady Ellen Place and Laperriere Avenue, in Ottawa, Ontario.

To the best of Pinchin’s knowledge, the Phase One Property consisted of vacant undeveloped land until the construction of the original portion of the Site Building in approximately 1960. Since construction of the Site Building, the Phase One Property has been utilized solely for commercial office purposes.

It was Pinchin’s opinion that the date of the first developed use of the Phase One Property is approximately 1960, with the construction of the original portion of the Site Building on the Phase One Property. The date of the first developed use of the Phase One Property was determined through a review of aerial photographs, PURs, a PUP and FIPs, as well as an interview with the Site Representative. No other historical records were available to Pinchin that provided information for determining the date of first developed use of the Phase One Property.

Based on the findings of this Phase One ESA, Pinchin identified one PCA at the Phase One Property (i.e., on-Site) and 11 PCAs within the Phase One Study Area outside of the Phase One Property (i.e., off-Site). Of the off-Site PCAs, ten are not considered to result in APECs at the Phase One Property given their distance from the Phase One Property, time elapsed and/or the inferred groundwater flow direction. The remaining one off-Site PCA has resulted in a total of one APEC at the Phase One Property. It is Pinchin’s opinion that this PCA may have impacted soil and groundwater quality at the Phase One Property and, as such, PCA # 4 has resulted in an APEC at the Phase One Property that warrants further investigation prior to the application of a Site Plan Approval application with the City of Ottawa.

Based on the findings noted above, Pinchin recommended that a Phase Two ESA be completed at the Site to investigate the above-noted APECs.

4.0 SCOPE OF INVESTIGATION

4.1 Overview of Site Investigation

The scope of work for this Phase Two ESA was prepared to address the APECs identified at the Phase Two Property and consisted of the following:

- Prepared a health and safety plan and arranged for the completion of underground utility locates prior to the commencement of drilling activities.
- Retained Strata Drilling Group Inc. (Strata) to advance boreholes using a Geoprobe 7822DT™ drill rig. Strata is licensed by the MECP in accordance with Ontario Regulation 903 (as amended) (O. Reg. 903) to undertake borehole drilling/well installation activities. Strata advanced four boreholes at the Phase Two Property to investigate the potential for soil contaminants associated with the APECs identified in the Phase One ESA.
- Collected soil samples at regular intervals within each borehole.
- Field screened soil samples for visual/olfactory evidence of impacts as well as for petroleum-derived vapours in soil headspace using a combustible gas indicator (CGI) calibrated to hexane and VOC-derived vapours in soil headspace using a photoionization detector (PID).
- Submitted a minimum of one “worst case” soil sample from each borehole for chemical analysis of:
  - VOCs;
- Developed each of the newly installed monitoring wells prior to the collection of groundwater samples.
- Submitted one representative groundwater sample from each of the newly installed monitoring wells and for the chemical analysis of the following parameters:
  - VOCs;
- Submitted one duplicate soil sample and one duplicate groundwater sample for chemical analysis of select parameters for quality assurance/quality control (QA/QC) purposes.
- Submitted one trip blank for the groundwater sampling program for the chemical analysis of VOCs for QA/QC purposes.
- Submitted two representative soil samples for the laboratory analysis of grain size and two representative soil samples for the laboratory analysis of pH in order to confirm the appropriate MECP Site Condition Standards.

- Conducted groundwater monitoring at each of the newly installed groundwater monitoring wells by measuring depth to groundwater from both top of casing and ground surface reference points and assessing the presence/absence of non-aqueous phase liquid (NAPL), including light NAPL (LNAPL) and dense NAPL (DNAPL), using an oil/water interface probe.
- Compared the soil and groundwater analytical results to the applicable criteria stipulated in the *Table 3 Standards*.
- Prepared a report (this report) documenting the findings of the Phase Two ESA which meets the reporting requirements listed in *Schedule E* and *Table 1 – Mandatory Requirements for Phase Two Environmental Site Assessment Reports* of O. Reg. 153/04.

4.2 Media Investigated

The scope of work for this Phase Two ESA was prepared to address the APEC and corresponding media at the Phase Two Property as identified through completion of the Phase One ESA.

The media of concern for the Phase Two ESA were soil and groundwater. Pinchin included the assessment of groundwater as part of the Phase Two ESA to investigate groundwater quality in relation to off-Site current and former printing facility approximately 40 m southeast of the Phase Two Property. Pinchin did not conduct sediment sampling as part of this Phase Two ESA as there are no surface water bodies and, therefore no sources of sediment, present on-Site.

For assessing the soil at the Phase Two Property for the presence of COPC, a total of four boreholes were advanced at the Phase Two Property for the purpose of collecting soil samples. Select “worst case” samples collected from each of the boreholes, were submitted for laboratory analysis of the COPC. It should be noted that no soil samples were submitted for borehole MW103BR.

For assessing the groundwater at the Phase Two Property for the presence of COPC, groundwater monitoring wells were installed in all of the boreholes completed at the Phase Two Property to permit the collection of groundwater samples. Groundwater samples were collected from the newly installed monitoring wells and were submitted to the analytical laboratory for analysis of the COPC.

4.3 Phase One Conceptual Site Model

A conceptual site model (CSM) has been created to provide a summary of the findings of the Phase One ESA. The Phase One CSM is summarized in Figures 1 through Figure 4, which illustrate the following features within the Phase One Study Area, where present:

- Existing buildings and structures;

- Water bodies located in whole or in part within the Phase One Study Area.;
- Areas of natural significance located in whole or in part within the Phase One Study Area;
- Drinking water wells located at the Phase One Property;
- Land use of adjacent properties;
- Roads within the Phase One Study Area;
- PCAs within the Phase One Study Area, including the locations of tanks; and
- APECs at the Phase One Property.

The following provides a narrative summary of the Phase One CSM:

- The Phase One Property is approximately 2.57 acres (1.04 hectares) in size located immediately north of Lady Ellen Place, approximately 144 m northwest of the intersection of Lady Ellen Place and Laperriere Avenue, in Ottawa, Ontario. The Phase One Property is presently developed with a two-storey commercial office building (Site Building). The Phase One Property has been used for commercial office purposes since the initial development of the original portion of the Site Building in approximately 1960. There is no record of industrial use or of a commercial use (e.g., garage, bulk liquid dispensing facility or dry cleaner) that would require classifying the Phase One Property as an enhanced investigation property;
- The nearest surface water body is the Ottawa River, located approximately 2.0 km northwest of the Phase One Property at an elevation of approximately 55 mamsl;
- No areas of natural significance were identified within the Phase One Study Area;
- No drinking water wells were located on the Phase One Property;
- The adjacent and surrounding properties in the vicinity of the Site consist of residential, commercial, and light industrial land uses. The properties surrounding the Phase One Property consist of commercial developments, light industrial developments, residential developments, as well as associated roadways, to beyond 200 m from the Phase One Property;
- One PCA was identified at the Phase One Property (i.e., a hydro vault located in the basement of the Site Building on the Phase One Property); however, based on no evidence of spills or historical spills (i.e., staining) observed in the vicinity of hydro vault, no issues of potential environmental concern (i.e., spills) noted for this hydro vault within the ERIS report and the fact that any maintenance/environmental issues related to the

hydro vault would be the responsibility of Hydro Ottawa, it is Pinchin's opinion that this PCA does not result in an APEC for the Phase One Property;

- 11 PCAs were identified within the Phase One Study Area outside of the Phase One Property (i.e., off-Site) (refer to Section 6.9); however, based on the short duration of the emergency generator located on the property adjacent to the northeast elevation of the Phase One Property, the distance between these properties and the Phase One Property and the inferred groundwater flow direction, observations made during Pinchin's Site reconnaissance, it is Pinchin's opinion that these PCAs do not result in APECs for the Phase One Property, with the exception of PCA # 4;
- One PCA (i.e., PCA # 4) was identified within the Phase One Study Area (i.e., a printing operation that was identified within the Waste Generator Database Review Area and was listed within the O. Reg. 347 Waste Generators database search results as a waste generator located approximately 40 m southeast of the Phase One Property). Based on the nature of operations (i.e., printing operation), as well as the generation of hazardous waste, it is Pinchin's opinion that this PCA does result in an APEC for the Phase One Property. Figure 4 provides a detailed summary of the APEC;
- Underground utilities at the Phase One Property provide potable water, natural gas, electrical, telephone, cable and sewer services to the Site Building. These services enter the Site Building through subsurface conduits, with the exception of a pressurized natural gas line, which connects to meters located along the exterior of the Site Building;
- The Phase One Property and the surrounding properties located within the Phase One Study Area are located within alluvial deposits consisting of silty sand to approximately 1.52 mbgs, sand and clay to a depth of 3.05 mbgs and silty sand to a depth of 6.1 mbgs, based on a review of the 2019 Golder Phase Two ESA Report. Bedrock is expected to consist of sedimentary rocks consisting of limestone, dolomite, shale, argillite, sandstone, quartzite, and/or grit; and
- The Phase One Property is at a similar elevation to the adjacent/surrounding properties; however, the topography gradually slopes towards the northeast across the Phase One Property.

4.4 Impediments

Pinchin had full access to the Phase Two Property throughout the completion of the Phase Two ESA.

5.0 INVESTIGATION METHOD

5.1 General

The Phase Two ESA field work was conducted in accordance with Pinchin's standard operating procedures (SOPs) as provided in the SAP, which have been developed in accordance with the procedures and protocols provided in the MECP document entitled "*Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*", dated December 1996, in the Association of Professional Geoscientists of Ontario document entitled *"Guidance for Environmental Site Assessments under Ontario Regulation 153/04 (as amended)"*, dated April 2011, and in O. Reg. 153/04.

In addition, Pinchin's SOP for groundwater sampling using low flow purging and sampling procedures follows the United States Environmental Protection Agency Region I document entitled *"Low Stress (Low Flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells"* dated January 19, 2010 (Low Flow Sampling Protocol).

No deviations from Pinchin's SOPs occurred during the Phase Two ESA.

5.2 Drilling and Excavating

Pinchin retained Strata to advance a total of two boreholes at the Phase Two Property on Jan 14, 2022, to investigate the potential presence of COPC associated with the APEC identified in the Phase One ESA. The boreholes were drilled to a maximum depth of 6.1 mbgs using a Geoprobe 7822DT™ drill rig.

The locations of the boreholes are provided on Figure 4. A description of the subsurface stratigraphy encountered during the drilling program is documented in the borehole logs included in Appendix A.

Measures taken to minimize the potential for cross-contamination during the borehole drilling program included:

- The use of dedicated, disposable polyvinyl chloride (PVC) soil sample liners for soil sample collection during direct-push drilling;
- The extraction of soil samples from the interior of the sampling device (where possible), rather than from areas in contact with the sampler walls;
- The cleaning of all non-dedicated drilling and soil sampling equipment (i.e., spatulas used for sample collection) before initial use and between sample and borehole locations; and
- The use of dedicated and disposable nitrile gloves for all soil sample handling.

Soil samples were collected at continuous intervals during direct-push drilling at a general frequency of one soil sample for every 0.76 metres drilled.

No excavating activities (e.g., test pitting) were completed as part of the Phase Two ESA.

5.3 Soil Sampling

Soil samples were collected in the boreholes at continuous intervals using 3.8 centimetre (cm) inner diameter (ID) direct push soil samplers with dedicated single-use sample liners.

Discrete soil samples were collected from the dedicated sample liners by Pinchin personnel using a stainless-steel spatula. Dedicated and disposable nitrile gloves were worn during the collection of each soil sample. A portion of each sample was placed in a resealable plastic bag for field screening and a portion was containerized in laboratory-supplied glass sampling jars. Following sample collection, the sample jars were placed into dedicated coolers with ice for storage pending transport to Paracel Laboratories (Paracel) in Ottawa, Ontario. Formal chain of custody records was maintained between Pinchin and the staff at Paracel.

Subsurface soil conditions were logged on-Site by Pinchin personnel at the time of borehole drilling. Based on the soil samples recovered during the borehole drilling program, the soil stratigraphy at the drilling locations generally consists of material comprised of sand and gravel with trace silt and organics to a maximum depth of approximately 6.01 mbgs. The depth to bedrock at the boreholes completed at the Site ranged from 3.2 to 6.1 mbgs.

No odours or staining were observed in the soil samples collected during the borehole drilling program.

A detailed description of the subsurface stratigraphy encountered during the borehole drilling program is documented in the borehole logs included in Appendix A.

5.4 Field Screening Measurements

Soil samples were collected at each of the sampling intervals during the drilling activities and analyzed in the field for VOC-derived and petroleum-derived vapour concentrations in soil headspace with an RKI Eagle 2™ equipped with a PID and a CGI operated in methane elimination mode. The soil samples collected for field-screening purposes were placed in resealable plastic bags. The plastic bags were stored in a warm environment for a minimum of five minutes and agitated in order to release organic vapours within the soil pore space prior to analysis with the PID and CGI.

Based on a review of the operator's manual, the RKI Eagle 2™ PID has an accuracy/precision of up to 0.1 parts per million (ppm). The PID was calibrated prior to field use by the equipment supplier Maxim Environmental and Safety (Maxim) according to Maxim's standard operating procedures. The gas standard was stored in a gas cylinder and delivered to the PID via a regulator valve. An in-field re-calibration of the PID was conducted (using the gas standard in accordance with the operator's manual instructions) if the calibration check indicated that the PID's calibration had drifted by more than +/- 10%.

Based on a review of the operator's manual, the RKI Eagle 2™ has an accuracy/precision of up to +/- 25 ppm, or +/- 5% of the reading (whichever is greater). The CGI was calibrated prior to field use by Maxim according to Maxim's standard operating procedures. In addition, the CGI calibration was tested at the beginning of each day of drilling activities (beginning on the second day of drilling) against a Maxim-provided hexane gas standard with a concentration of 1,650 ppm. The gas standard was stored in a gas cylinder and delivered to the CGI via a regulator valve. An in-field re-calibration of the CGI was conducted (using the gas standard in accordance with the operator's manual instructions) if the calibration check indicated that the CGI's calibration had drifted by more than +/- 10%.

In general, the soil samples with the highest measured vapour concentrations (i.e., "worst case") from a given borehole were submitted for laboratory analysis. Sample depth and visual and olfactory observations of potential contaminants were also used in conjunction with the vapour concentrations in making the final selection of "worst case" soil samples for laboratory analysis.

5.5 Groundwater Monitoring Well Installation

Following soil sampling, Strata installed a groundwater monitoring well in boreholes MW101, MW102, MW103, and MW103BR under the full-time monitoring of a Pinchin field representative.

The monitoring wells were constructed with 5.1 cm inner diameter (ID) flush-threaded Schedule 40 polyvinyl chloride (PVC) risers, followed by a length of 5.1 cm ID No. 10 slot PVC screen. 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 10 cm ID Schedule 40 PVC outer casing, approximately 20 cm in length, was installed in each well around the top of the riser and into the top of the bentonite seal. A bentonite seal was then placed between the riser and outer casing. A protective stickup casing was installed at the ground surface over each riser pipe and outer casing and cemented in place.

The monitoring wells were installed in accordance with O. Reg. 903. The monitoring well construction details are provided in Table 3 and on the borehole logs in Appendix A. Upon completion of the monitoring well installation, Strata completed and filed a Water Well Record with the MECP for the well cluster.

The monitoring wells were developed on January 19, 2022, in accordance with Pinchin's SOP for well development by removing a minimum of three to a maximum of seven standing water column volumes using dedicated inertial pumps comprised of Waterra polyethylene tubing and foot valves. The well development activities were completed a minimum of 24 hours prior to the groundwater sampling activities.

Measures taken to minimize the potential for cross-contamination during well installation and well development included the following:

- The use of dedicated and disposable nitrile gloves for handling well materials during well installation and during well development; and
- The use of dedicated inertial pumps for each well.

5.6 Groundwater Field Measurements of Water Quality Parameters

Measurements of the water quality parameters oxidation-reduction potential, dissolved oxygen, temperature, specific conductance, pH and turbidity were not collected during the Phase Two ESA as inertial pumps were used.

All monitoring well development, purging and sampling activities were conducted using dedicated inertial pumps comprised of Waterra polyethylene tubing to draw groundwater to the surface.

5.7 Groundwater Sampling

The monitoring well installed by Pinchin as part of the Phase Two ESA was sampled a minimum of 24 hours after the completion of well development activities (see Section 5.5).

On January 19, 2022, the newly installed groundwater monitoring wells MW101, MW102, and MW103BR were developed by purging until dryness was achieve three times, in accordance with Pinchin's SOPs. It should be noted that monitoring well MW103 was observed to have insufficient volume for development and/or sampling activities.

On January 20, 2022, the newly installed groundwater monitoring wells MW101, MW102, and MW103BR were purged prior to sampling by removing three to five well casing volumes, or were purged until dry, in accordance with Pinchin's SOPs. Upon groundwater recovery, groundwater samples were collected from these monitoring wells and submitted for laboratory analysis of VOCs.

All monitoring well development, purging and sampling activities were conducted using dedicated inertial pumps comprised of Waterra polyethylene tubing and foot valves to draw groundwater to the surface.

Following sample collection, the sample bottles were placed into dedicated coolers with ice for storage pending transport to Paracel Labs. Formal chain of custody records was maintained between Pinchin and the staff at Paracel Labs.

5.8 Sediment Sampling

Sediment sampling was not completed as part of this Phase Two ESA.

5.9 Analytical Testing

All collected soil and groundwater samples were delivered to Paracel Labs for analysis. Paracel Labs is an independent laboratory accredited by the Canadian Association for Laboratory Accreditation. Formal chain of custody records of the sample submissions was maintained between Pinchin and the staff at Paracel Labs. Paracel Labs conducted the laboratory analysis in accordance with the MECP document entitled *"Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act"* dated March 9, 2004, and revised on July 1, 2011 (*Analytical Protocol)*.

5.10 Residue Management Procedures

Given that the laboratory results for the submitted soil samples indicated that all reported concentrations for the parameters analyzed met the corresponding *Table 3 Standards*, and no evidence of NAPL, odours or sheens was observed during sampling and monitoring activities, the excess soil was deposited on the ground surface at the Phase Two Property or removed off-Site by Strata. Excess groundwater was deposited into a 205-L drum located on the central portion of the Site north of monitoring wells MW103 and MW103BR.

5.11 Site Elevation

Based on general hydrogeological principles and Pinchin's familiarity with subsurface conditions at and near the Phase One Property and the surrounding properties within the Phase One Study Area, the unconfined groundwater beneath the Phase Two Property is expected to flow in an easterly direction. The nearest surface water body is the Ottawa River, located approximately 2.0 km northwest of the Phase One Property at an elevation of approximately 55 mamsl.

5.12 Quality Assurance and Quality Control Measures

The QA/QC protocols that were followed during borehole drilling and soil and groundwater sampling so that representative samples were obtained are described in the following subsections.

5.12.1 Sample Containers, Preservation, Labelling, Handling and Custody of Samples

Soil and groundwater samples were containerized within laboratory-prepared sample containers in accordance with the *Analytical Protocol*.

The following soil sample containers and preservatives were used:

- VOCs: 40 millilitre (mL) glass vials with septum-lids, pre-charged with methanol preservative.

The following groundwater sample containers and preservatives were used:

- VOCs: 40 mL clear glass vials with septum-lids, pre-charged with sodium bisulphate preservative.

A Trip blank water sample for VOC parameter analysis was provided by Paracel Labs in 40 mL clear glass vials filled with VOC-free water.

Each soil, groundwater and QA/QC sample was labelled with a unique sample identifier along with the company name, sampling date, Pinchin project number and analysis required.

Each sample was placed in a cooler on ice immediately upon collection and prior to submission to Paracel Labs for analysis. Formal chain of custody records of the sample submissions was maintained between Pinchin and the staff at Paracel Labs.

5.12.2 Equipment Cleaning Procedures

Dedicated, single-use PVC sample liners were used for each soil sample collected, which precluded the need for drilling equipment cleaning during soil sample collection. Equipment utilized in soil sample collection and handling (i.e., spatulas used to remove soil from the sample liners) was cleaned with a solution of Alconox™ detergent and potable water followed by a distilled water rinse prior to initial use and between samples.

During groundwater monitoring activities, the oil/water interface probe used to measure water levels were cleaned with a solution of Alconox™ detergent and potable water followed by a distilled water rinse prior to initial use and between well locations.

5.12.3 Field Quality Control Measures

One field duplicate soil sample were collected by Pinchin during the Phase Two ESA for analysis COPC. The frequency of field duplicate soil sample analysis complied with the requirement that one field duplicate soil sample is analyzed for every ten regular soil samples submitted for analysis of the COPC. The soil sample field duplicate pairings and corresponding analytical schedules are summarized as follows:

- Soil sample MW103 SS-5 and its corresponding field duplicate “Dup-1” was submitted for laboratory analysis of VOCs.

One field duplicate groundwater sample was collected by Pinchin during the Phase Two ESA for analysis of VOCs. The groundwater sample field duplicate pairing and corresponding analytical schedules are summarized as follows:

- Groundwater sample MW102 and its corresponding field duplicate “DUP GW” was submitted for laboratory analysis of VOCs.

One laboratory-prepared trip blank was analyzed for VOC parameters to comply with the requirement that one trip blank is analyzed for each submission of groundwater samples for VOC parameter analysis.

The calibrations of the RKI Eagle 2™ CGI used for field screening and the Horiba Water Quality Meter used for water quality parameter measurements were checked by the equipment supplier (Maxim) prior to use in the field by Pinchin.

Maxim completed the calibration checks in accordance with the equipment manufacturers’ specifications and/or Maxim’s SOPs.

5.12.4 QA/QC Sampling Program Deviations

There were no deviations from the QA/QC sampling program outlined in the SAP.

6.0 REVIEW AND EVALUATION

6.1 Geology

Based on the stratigraphic information obtained from the soil samples recovered during the drilling activities completed as part of the Phase Two ESA, the gravel surface at the Phase Two Property is underlain by materials generally comprised of gravel, sand and silty sand to a maximum depth of 6.01 mbgs underlain by limestone/shale bedrock. The water table is located at a depth of approximately 4.18 to 4.41 mbgs and this uppermost water bearing unit represents an unconfined aquifer. The depth to bedrock at the boreholes completed at the Site ranged from 3.2 to 6.1 mbgs.

6.2 Groundwater Elevations and Flow Direction

The wells screen in the monitoring well installed by Pinchin was of a consistent length (i.e., 1.52-2.74 metres). The monitoring wells were installed at a depth interval intended to investigate groundwater quality in the shallow groundwater zone within the unconfined aquifer. Given that VOCs were a COPC for groundwater at the Phase Two Property, the monitoring wells were installed at the Phase Two Property such that the well screen intersected the water table.

The measured depths to groundwater and the results of NAPL monitoring for the monitoring event is summarized in Table 4.

Based on general hydrogeological principles and Pinchin's familiarity with subsurface conditions at and near the Phase One Property and the surrounding properties within the Phase One Study Area, the unconfined groundwater beneath the Phase One Property is expected to flow in an easterly direction. The nearest surface water body is the Ottawa River, located approximately 2.0 km northwest of the Phase One Property at an elevation of approximately 55 mamsl.

6.3 Coarse Soil Texture

Two soil samples were collected from the boreholes advanced at the Phase Two Property was submitted for 75 micron single-sieve grain size analysis. The soil samples selected for analysis were considered to be representative of the Site.

Based on these grain size analysis results and the observed stratigraphy at the borehole locations at the Phase Two Property, it is the QP's opinion that over two-thirds of the overburden at the Phase Two Property is coarse-textured as defined by O. Reg. 153/04. Therefore, the soil at the Phase Two Property was interpreted to be coarse-textured for the purpose of determining the MECP Site Condition Standards applicable to the Phase Two Property.

6.4 Soil Field Screening

Soil vapour headspace concentrations measured in the soil samples collected as part of this Phase Two ESA are presented in the borehole logs. Soil vapour headspace values measured with the CGI in methane elimination mode. Soil vapour headspace values measured with the PID did not range above 0.0 ppm_v in any of collected soil samples.

One most apparent worst case soil sample, based on vapour concentrations as well as visual and/or olfactory considerations, preferred pathway migration, groundwater depths and contaminant characteristics, recovered from each borehole was submitted for laboratory analysis of VOCs.

6.5 Soil Quality

A total of four boreholes were advanced at the Phase Two Property at the locations shown on Figure 4 in order to assess for the presence of subsurface impacts resulting from the APEC identified in the Pinchin Phase One ESA. Select soil samples were collected from boreholes MW101, MW102, and MW103 submitted for laboratory analysis of the COPC. The soil sample locations, depths and laboratory analyses are summarized in Table 1 and in the borehole logs.

The soil sample analytical results were compared to the *Table 3 Standards* and the following subsections provide a discussion of the findings.

6.5.1 VOCs

The soil sample analytical results for VOCs, along with the corresponding *Table 3 Standards*, are presented in Table 4. As indicated in Table 4, all reported concentrations of VOCs in the soil samples submitted for analysis were below the *Table 3 Standards*.

6.5.2 General Comments on Soil Quality

The soil sample results show no evidence of chemical or biological transformations of chemical parameters in the subsurface.

6.6 Groundwater Quality

Groundwater samples were collected from monitoring well MW101, MW102 and MW103BR and submitted for analysis of the COPC to assess for the presence of subsurface impacts within the APEC identified in the Pinchin Phase One ESA. It should be noted that monitoring location MW103 had insufficient water volume for sample collection. The locations of the monitoring wells are shown on Figure 4.

The groundwater sample analytical results were compared to the *Table 3 Standards* and the following subsections provide a discussion of the findings.

6.6.1 VOCs

The groundwater analytical results for VOCs, along with the corresponding *Table 3 Standards*, are presented in Table 5. As indicated in Table 5, all reported concentrations of VOCs in the groundwater samples submitted for analysis were below the *Table 3 Standards*, with the exception of trichloroethylene with a concentration of 2.2 micrograms µg/L) reported for groundwater sample MW102 and its duplicate sample, collected from monitoring well MW102, which exceeded the corresponding *Table 3 Standard* of 1.6 µg/L. Detectable concentrations of trichloroethylene at levels below the *Table 3 Standards* were also noted at on-Site monitoring well MW101.

6.6.2 General Comments on Groundwater Quality

The groundwater sample results show no evidence of chemical or biological transformations of chemical parameters in the subsurface.

6.7 Sediment Quality

Sediment sampling was not completed as part of this Phase Two ESA.

6.8 Quality Assurance and Quality Control Results

QA/QC comprises technical activities that are used to measure or assess the effect of errors or variability in sampling and analysis. It may also include specification of acceptance criteria for the data and corrective actions to be taken when they are exceeded. QA/QC also includes checks performed to evaluate laboratory analytical quality, checks designed to assess the combined influence of field sampling and laboratory analysis and checks to specifically evaluate the potential for cross contamination during sampling and sample handling.

The QA/QC samples collected and submitted for analysis by Pinchin during the Phase Two ESA consisted of the following:

- Field duplicate soil and groundwater samples to assess the suitability of field sampling methods and laboratory performance.
- A trip blank water sample to assess whether ambient conditions during transport of groundwater sample containers from the analytical laboratory to the Phase Two Property and back to the analytical laboratory may have biased the groundwater sample results with respect to volatile constituents.

In addition to the above, laboratory quality control activities and sample checks employed by Paracel included:

- Method blanks - where a clean sample is processed simultaneously with and under the same conditions (i.e., using the same reagents and solvents) as the samples being analyzed. These are used to confirm whether the instrument, reagents and solvents used are contaminant free.
- Laboratory duplicates - where two samples obtained from the sample container are analyzed. These are used to evaluate laboratory precision.
- Surrogate spike samples - where a known mass of compound not found in nature (e.g., deuterated compounds such as toluene-d8) but that has similar characteristics to the analyzed compounds is added to a sample at a known concentration. These are used to assess the recovery efficiency.
- Matrix spike samples - where a known mass of target analyte is added to a matrix sample with known concentrations. These are used to evaluate the influence of the matrix on a method’s recovery efficiency.
- Use of standard or certified reference materials - a reference material where the content or concentration has been established to a very high level of certainty (usually by a national regulatory agency). These are used to assess accuracy.

The results of the field QA/QC samples are discussed in the following subsections.

6.8.1 Soil Duplicate Results

During borehole soil sampling activities, a single soil duplicate sample pair was submitted for laboratory analysis. The field duplicate sample was collected by vertically splitting the soil cores into two halves, with one half collected as the regular sample and the other half collected as the field duplicate sample. The sample pairings and corresponding laboratory analyses are as follows:

- Soil sample MW103 SS-5 and its corresponding field duplicate “Dup-1” were submitted for laboratory analysis of VOCs.

The quality of the analytical results was evaluated by calculating relative percent differences (RPDs) for the parameters analyzed for the original and field duplicate samples. The RPD for each parameter was calculated using the following equation:

$$\text{RPD} = \frac{(\text{Original Concentration} - \text{Duplicate Concentration}) \times 100}{(\text{Original Concentration} + \text{Duplicate Concentration})/2}$$

An RPD was not calculated unless the parameter concentration in both the original and duplicate sample had detectable concentrations above the corresponding practical quantitation limit for the parameter, which is equal to five times the lowest laboratory reportable detection limit (RDL).

The calculated RPDs for the original and field duplicate soil samples have been compared to performance standards provided in the *Analytical Protocol.* Pinchin notes that although these performance standards only strictly apply to laboratory duplicate samples, they have been considered suitable for comparison to the field duplicate soil sample results as well.

Each of the calculated RPDs met the corresponding performance standards.

Based on Pinchin’s review of the calculated RPD values for the submitted soil sample duplicate pairings, the level of observed variance in the reported analytical results is considered acceptable for the purpose of meeting the data quality objectives of this Phase Two ESA.

6.8.2 Groundwater Sample Duplicate Results

During groundwater sampling activities, one groundwater duplicate sample pair, consisting of groundwater sample “MW102” and its corresponding field duplicate “DUP-GW”, was submitted for laboratory analysis of VOCs.

The calculated RPDs for the original and field duplicate groundwater samples have been compared to performance standards provided in the *Analytical Protocol.* Pinchin notes that although these

performance standards only strictly apply to laboratory duplicate samples, they have been considered suitable for comparison to the field duplicate groundwater sample results as well.

Each of the calculated RPDs met the corresponding performance standard.

Based on Pinchin's review of the calculated RPD values for the submitted groundwater sample duplicate pairing, the level of observed variance in the reported analytical results is considered acceptable for the purpose of meeting the data quality objectives of this Phase Two ESA.

6.8.3 Groundwater Trip Blank Results

A trip blank sample, consisting of VOC-free water contained within a set of VOC sample vials, was prepared by Paracel and accompanied the VOC groundwater sample containers during transportation to the Phase Two Property and was stored in the cooler with the VOC groundwater samples in the field and during transportation back to Paracel. The trip blank sample was submitted to Paracel for chemical analysis for VOCs during the groundwater sampling activities completed as part of this Phase Two ESA.

As indicated in Table 5, the concentrations of the VOC parameters analyzed in the trip blank sample were below the laboratory RDLs. These findings indicate that ambient conditions during the transportation of the sample containers to and from the Phase Two Property, and during groundwater sampling, did not positively bias the VOCs parameter analytical results for the groundwater samples.

6.8.4 Deviations from Analytical Protocol

There were no deviations from the holding times, preservation methods, storage requirements and container types specified in the *Analytical Protocol* during the completion of the Phase Two ESA.

6.8.5 QA/QC Sample Summary

The overall evaluation of the QA/QC sample results indicates no issues with respect to field collection methods and laboratory performance, and no apparent bias due to ambient conditions at the Phase Two Property and during transportation of the sample containers/samples to and from the analytical laboratory.

As such, it is the QP's opinion that the soil and groundwater analytical data obtained during the Phase Two ESA are representative of actual Site conditions and are appropriate for meeting the objective of assessing whether the soil and groundwater at the Phase Two Property meets the applicable MECP Site Condition Standards.

6.9 Phase Two Conceptual Site Model

This Phase Two ESA was completed for the property located at the municipal address of 864 Lady Ellen Place, Ottawa, Ontario. A Key Map showing the Phase Two Property location is provided on Figure 1 and a detailed plan of the Phase Two Property and surrounding lands is provided on Figure 2.

A Phase One CSM was created during the Pinchin Phase One ESA in order to provide a detailed visualization of the APECs which could occur on, in, under, or affecting the Phase Two Property. The Phase One CSM is summarized in Figures 1 through 4, which illustrate the following features within the Phase One Study Area, where present:

- Existing buildings and structures.
- Water bodies located in whole or in part within the Phase One Study Area.
- Areas of natural significance located in whole or in part within the Phase One Study Area.
- Drinking water wells located at the Phase One Property.
- Land use of adjacent properties.
- Roads within the Phase One Study Area.
- PCAs within the Phase One Study Area, including the locations of tanks.
- APECs at the Phase One Property.

The following subsections expand on the Phase One CSM with the information collected during the completion of the Phase Two ESA.

6.9.1 Potentially Contaminating Activities

A single PCAs was identified within the Phase One Study Area, consisting of eleven PCAs outside of the Phase One Property.

6.9.2 Areas of Potential Environmental Concern

One APEC and related potentially contaminating activities (PCAs) and contaminants of potential concern (COPC) were identified in a Phase One ESA completed by Pinchin in accordance with O. Reg.

The following summarizes the APEC identified during the Phase One ESA, as well as the respective PCA, COPC and the media which could potentially be impacted:

- One PCA was identified at the Phase One Property (i.e., a hydro vault located in the basement of the Site Building on the Phase One Property); however, based on no evidence of spills or historical spills (i.e., staining) observed in the vicinity of hydro vault, no issues of potential environmental concern (i.e., spills) noted for this hydro vault within the ERIS report and the fact that any maintenance/environmental issues related to the

hydro vault would be the responsibility of Hydro Ottawa, it is Pinchin's opinion that this PCA does not result in an APEC for the Phase One Property;

- 11 PCAs were identified within the Phase One Study Area outside of the Phase One Property (i.e., off-Site) (refer to Section 7.2); however, based on the short duration of the emergency generator located on the property adjacent to the northeast elevation of the Phase One Property, the distance between these properties and the Phase One Property and the inferred groundwater flow direction, observations made during Pinchin's Site reconnaissance, it is Pinchin's opinion that these PCAs do not result in APECs for the Phase One Property, with the exception of PCA # 4;
- One PCA (i.e., PCA # 4) was identified within the Phase One Study Area (i.e., a printing operation that was identified within the Waste Generator Database Review Area and was listed within the O. Reg. 347 Waste Generators database search results as a waste generator located approximately 40 m southeast of the Phase One Property). Based on the nature of operations (i.e., printing operation), as well as the generation of hazardous waste, it is Pinchin's opinion that this PCA does result in an APEC for the Phase One Property. Figure 4 provides a detailed summary of the APEC;
- Underground utilities at the Phase One Property provide potable water, natural gas, electrical, telephone, cable and sewer services to the Site Building. These services enter the Site Building through subsurface conduits, with the exception of a pressurized natural gas line, which connects to meters located along the exterior of the Site Building;
- The Phase One Property and the surrounding properties located within the Phase One Study Area are located within alluvial deposits consisting of silty sand to approximately 1.52 mbgs, sand and clay to a depth of 3.05 mbgs and silty sand to a depth of 5.03 mbgs, based on a review of the 2019 Golder Phase Two ESA Report. Bedrock is expected to consist of sedimentary rocks consisting of limestone, dolomite, shale, argillite, sandstone, quartzite, and/or grit; and
- The Phase One Property is at a similar elevation to the adjacent/surrounding properties; however, the topography gradually slopes towards the northeast across the Phase One Property.

6.9.3 Subsurface Structures and Utilities

Underground utilities which are known or inferred to be present at the Phase Two Property include natural gas, telephone, electrical, water and sanitary sewer services located throughout the Phase Two Property. A water main runs along the east portion of the Site in a north to south orientation and is approximately 10 m east of monitoring wells MW101 and MW102.

Interaction of the groundwater at the Phase Two Property with buried utilities is possible given that the water table in some areas of the Phase Two Property is located at approximate depths of between 3 and 4 mbgs and the utilities are known to be located at depths ranging from approximately 2 to 4 mbgs. Given that groundwater impacts were identified at the Phase Two Property, preferential migration of contaminants along utilities is a potential concern.

6.9.4 Physical Setting

Based on the work completed as part of this Phase Two ESA, the following subsections provide a summary of the physical setting of the Phase Two Property.

Stratigraphy

The soil stratigraphy at the drilling locations generally consists of fill material comprised of sand and gravel underlain by silty sand to a maximum depth of approximately 6.01 mbgs. The borehole locations are shown on Figure 4.

Hydrogeological Characteristics

Based on general hydrogeological principles and Pinchin's familiarity with subsurface conditions at and near the Phase One Property and the surrounding properties within the Phase One Study Area, the unconfined groundwater beneath the Phase One Property is expected to flow in an easterly direction. The nearest surface water body is the Ottawa River, located approximately 2.0 km northwest of the Phase One Property at an elevation of approximately 55 mamsl.

Depth to Bedrock

The depth to bedrock at the boreholes completed at the Site ranged from 3.2 to 6.1 mbgs

Depth to Water Table

The water table at the Phase Two Property is located primarily within the shallow silty sand unit that has been interpreted to be an unconfined aquifer. The depth to the water table across the Phase Two Property ranges from approximately 4.18 to 4.41 mbgs.

Applicability of Section 35 of O. Reg 153/04 – Non-Potable Site Condition Standards

Site Condition Standards for non-potable groundwater use have been applied to the Phase Two Property given that the following conditions specified in Section 35 of O. Reg. 153/04 have been met:

- The Phase Two Property and all properties within 250 metres of the Phase Two Property are supplied by a municipal drinking water system.
- The Phase Two Property is not located within a well head protection area or other designation identified by the City of Ottawa for the protection of groundwater.

- There are no wells located at the Phase Two Property or within the Phase One Study Area that are used or intended for use as a water source for human consumption or agriculture.

Applicability of Section 41 of O. Reg 153/04 – Environmentally Sensitive Area

Section 41 of O. Reg. 153/04 states that a property is classified as an "environmentally sensitive area" if the property is within an area of natural significance, the property includes or is adjacent to an area of natural significance or part of such an area, the property includes land that is within 30 m of an area of natural significance or part of such an area, the soil at the property has a pH value for surface soil less than 5 or greater than 9 or the soil at the property has a pH value for subsurface soil less than 5 or greater than 11.

The Phase Two Property is not located in or adjacent to, nor does it contain land within 30 m of, an area of natural significance. Furthermore, the pH values measured in the submitted soil samples were within the limits for non-sensitive sites. As such, the Phase Two Property is not an environmentally sensitive area as defined by Section 41 of O. Reg. 153/04.

Applicability of Section 43.1 of O. Reg 153/04 – Shallow Soil Property and Proximity to a Water Body

Section 43.1 of O. Reg. 153/04 states that a property is classified as a "shallow soil property" if one-third or more of the area consists of soil less than 2 m in depth.

Bedrock was encountered at each of the borehole locations at depths ranging from 3.2 mbgs at borehole MW101 to 6.1 mbgs at borehole MW103BR (i.e., greater than 2.0 mbgs at all borehole locations).

As per Section 43.1 of O. Reg. 153/04, the proximity of the Phase Two Property to a water body must be considered when selecting the appropriate Site Condition Standards.

The Phase Two Property does not include all or part of a water body, it is not adjacent to a water body, and it does not include land within 30 m of a water body. As such, Site Condition Standards for use within 30 m of a water body were not applied.

Soil Imported to Phase Two Property

No soil was imported to the Phase Two Property during completion of the Phase Two ESA.

Proposed Buildings and Other Structures

Pinchin understands that the future use of the Phase Two Property will be remain commercial, however additional commercial buildings are proposed.

6.9.5 Applicable Site Condition Standards

Based on the grain size analysis of representative soil samples collected during the Phase Two ESA and the observed stratigraphy at the borehole locations, Pinchin concluded that over two-thirds of the overburden at the Phase Two Property is coarse -textured as defined by O. Reg. 153/04 and Site Condition Standards for coarse -textured soil were applied.

Based on the information obtained from the Phase One and Two ESAs, the appropriate Site Condition Standards for the Phase Two Property are:

- "Table 3: Full Depth Generic Site Condition Standards for Use in a Potable Ground Water Condition", provided in the Ontario Ministry of the Environment, Conservation and Parks (MECP) document entitled, "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" dated April 15, 2011 (*Table 3 Standards*) for:
  - Coarse-textured soils; and
  - Industrial/commercial/community property use.

6.9.6 Contaminants Exceeding Applicable Site Condition Standards in Soil

All soil samples collected during the Phase Two ESA met the applicable *Table 3 Standards* for the parameters analyzed.

6.9.7 Contaminants Exceeding Applicable Site Condition Standards in Groundwater

All groundwater samples collected during the Phase Two ESA met the applicable *Table 3 Standards* for the parameters analyzed with the exception of trichloroethylene with a concentration of 2.2 micrograms µg/L) reported for groundwater sample MW102 and its duplicate sample, collected from monitoring well MW102, which exceeded the corresponding *Table 3 Standard* of 1.6 µg/L. Detectable concentrations of trichloroethylene at levels below the *Table 3 Standards* were also noted at on-Site monitoring well MW101.

6.9.8 Meteorological and Climatic Conditions

The groundwater table was observed to fluctuate slightly in elevation (i.e., a maximum difference of 3 centimetres) over two rounds of groundwater monitoring completed on January 19, 2022, and January 20, 2022. The minor temporal groundwater table fluctuations are expected to have had a minimal effect on contaminant distribution throughout the Phase Two Property. As such, it is the QP's opinion that meteorological, or climatic conditions have not influenced the distribution or migration of the contaminants at the Phase Two Property.

6.9.9 Soil Vapour Intrusion

No volatile parameters were identified at concentrations exceeding the *Table 3 Standards*. As such, soil vapour intrusion into buildings at the Phase Two Property is not considered a concern.

6.9.10 Applicability of Section 49.1 Exemptions

The Phase One Property has a paved parking area located around the perimeters of the Site Buildings. According to the Site Representative, salt has historically been applied to the parking area for safety reasons during winter conditions to remove snow and ice. It is the opinion of the QP_{ESA} supervising the Phase One ESA that, although salt-related parameters such as Sodium Adsorption Ratio and electrical conductivity in soil and sodium and chloride in groundwater may be present at concentrations exceeding the applicable Site Condition Standards (i.e., Table 3), the exemption provided in Section 49.1 of O. Reg. 153/04 can be applied. As such, these parameters would be deemed to meet the Site Condition Standards and were not assessed as part of this Phase Two ESA.

7.0 CONCLUSIONS

Pinchin completed a Phase Two ESA at the Phase Two Property in accordance with the requirements stipulated in O. Reg. 153/04 for the purpose of an SPA with the City of Ottawa. The SPA is required by the Client in relation to the potential future development of the Phase Two Property with additional commercial buildings.

The Phase Two ESA completed by Pinchin included the advancement of four boreholes at the Phase Two Property, with all being completed as groundwater monitoring well.

Based on Site-specific information, the applicable regulatory standards for the Phase Two Property were determined to be the *Table 3 Standards* for industrial commercial land use and coarse-textured soils. Soil and groundwater samples were collected from each of the borehole locations and submitted for laboratory analysis of VOCs.

The laboratory results for the soil samples submitted during the Phase Two ESA indicated that all reported concentrations for the parameters analyzed met the corresponding *Table 3 Standards*, with the exception of the following:

- The concentrations of trichloroethylene (2.2 µg/L vs. the *Table 3 Standard* of 1.6 µg/L) at monitoring well location MW102 which exceeded the *Table 3 Standards*; and
- The concentrations of trichloroethylene (2.2 µg/L vs. the *Table 3 Standard* of 1.6 µg/L) within groundwater sample “DUP-GW” collected monitoring well location MW102 which exceeded the *Table 3 Standards*.

Based on the results of the Phase Two ESA completed by Pinchin, the groundwater in one monitoring well in the southeast corner of the Site was measured to marginally exceed the *Table 3 Standards*. It should be noted that the source of these impacts is likely originating from off-Site. However, based on the distance from the impacts to the current on-Site Building, no further investigation is required at this time. It is Pinchin's understanding that the client intends to complete redevelopment in the portion of the Site at a later date. Further risk-based work may be warranted pending the future Site Building configuration; however, remedial work is not anticipated.

7.1 Signatures

This Phase Two ESA was undertaken under the supervision of Scott Mather, P.Eng., QP_{ESA} in accordance with the requirements of O. Reg. 153/04 to support the filing of an SPA for the Phase Two Property.

7.2 Terms and Limitations

This Phase Two ESA was performed for Access Results Management Services (Client) in order to investigate potential environmental impacts at 864 Lady Ellen Place in Ottawa, Ontario (Site). The term recognized environmental condition means the presence or likely presence of any hazardous substance on a property under conditions that indicate an existing release, past release, or a material threat of a release of a hazardous substance into structures on the property or into the ground, groundwater, or surface water of the property. This Phase Two ESA does not quantify the extent of the current and/or recognized environmental condition 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 recognized environmental conditions on a property. Performance of this Phase Two ESA to the standards established by Pinchin is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions on the Site and recognizes reasonable limits on time and cost.

This Phase Two ESA was performed in general compliance with currently acceptable practices for environmental site investigations, and specific Client requests, as applicable to this Site.

This report was prepared for the exclusive use of the Client, 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.

If additional parties require reliance on this report, written authorization from Pinchin will be required. Pinchin disclaims responsibility of consequential financial effects on transactions or property values, or requirements for follow-up actions and costs. No other warranties are implied or expressed. Furthermore, this report should not be construed as legal advice. Pinchin will not provide results or information to any party unless disclosure by Pinchin is required by law.

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.

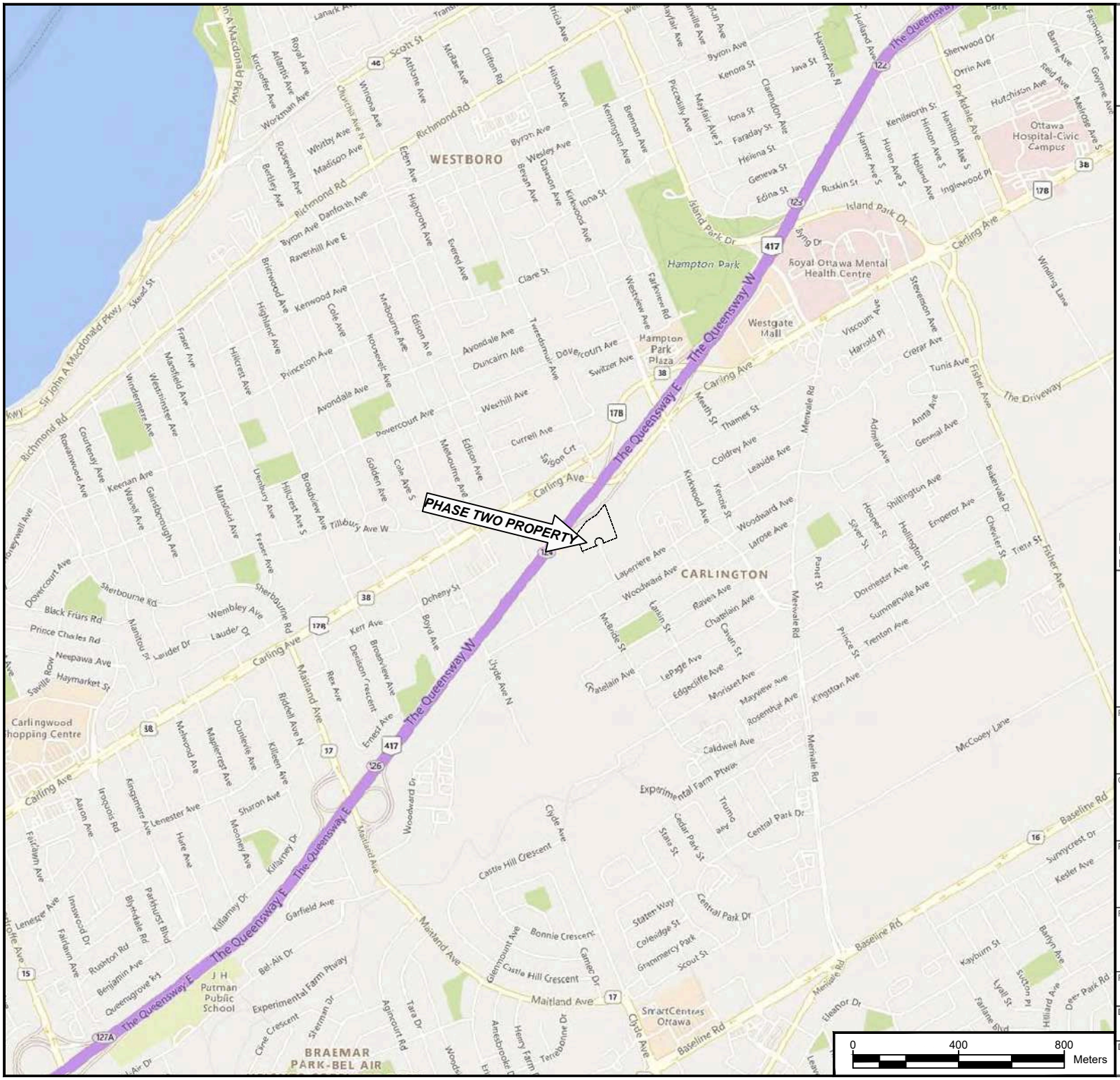
8.0 REFERENCES

The following documents provided information used in this report:

- Association of Professional Geoscientists of Ontario. Guidance for Environmental Site Assessments under Ontario Regulation 153/04 (as amended). April 2011.
- Ontario Ministry of the Environment. Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario. December 1996.
- Ontario Ministry of the Environment. Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. March 9, 2004, amended July 1, 2011.
- Ontario Ministry of the Environment. Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. April 15, 2011.
- Pinchin Ltd. "*Phase One Environmental Site Assessment, 864 Lady Ellen Place, Ottawa, Ontario."* Prepared for Client., January 20, 2022.
- Golder Associates Ltd. *"Phase One Environmental Site Assessment, 864 Lady Ellen Place, Ottawa, Ontario*" Prepared for J.L. Richards & Associates Limited, May 2019.
- Golder Associates Ltd. *"Phase Two Environmental Site Assessment, 864 Lady Ellen Place, Ottawa, Ontario*" Prepared for J.L. Richards & Associates Limited, December 2019.
- Province of Ontario. Environmental Protection Act, R.S.O 1990, Chapter E.19.

- Province of Ontario. R.R.O. 1990, Regulation 347, General – Waste Management, as amended by Ontario Regulation 234/11.
- Province of Ontario. Ontario Regulation 153/04: Records of Site Condition – Part XV.1 of the Act. Last amended by Ontario Regulation 274/20 on July 1, 2020.
- U.S. Environmental Protection Agency - Region 1. Low Stress (Low Flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells. Revised January 19, 2010.

9.0 FIGURES AND TABLES



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PINCHIN

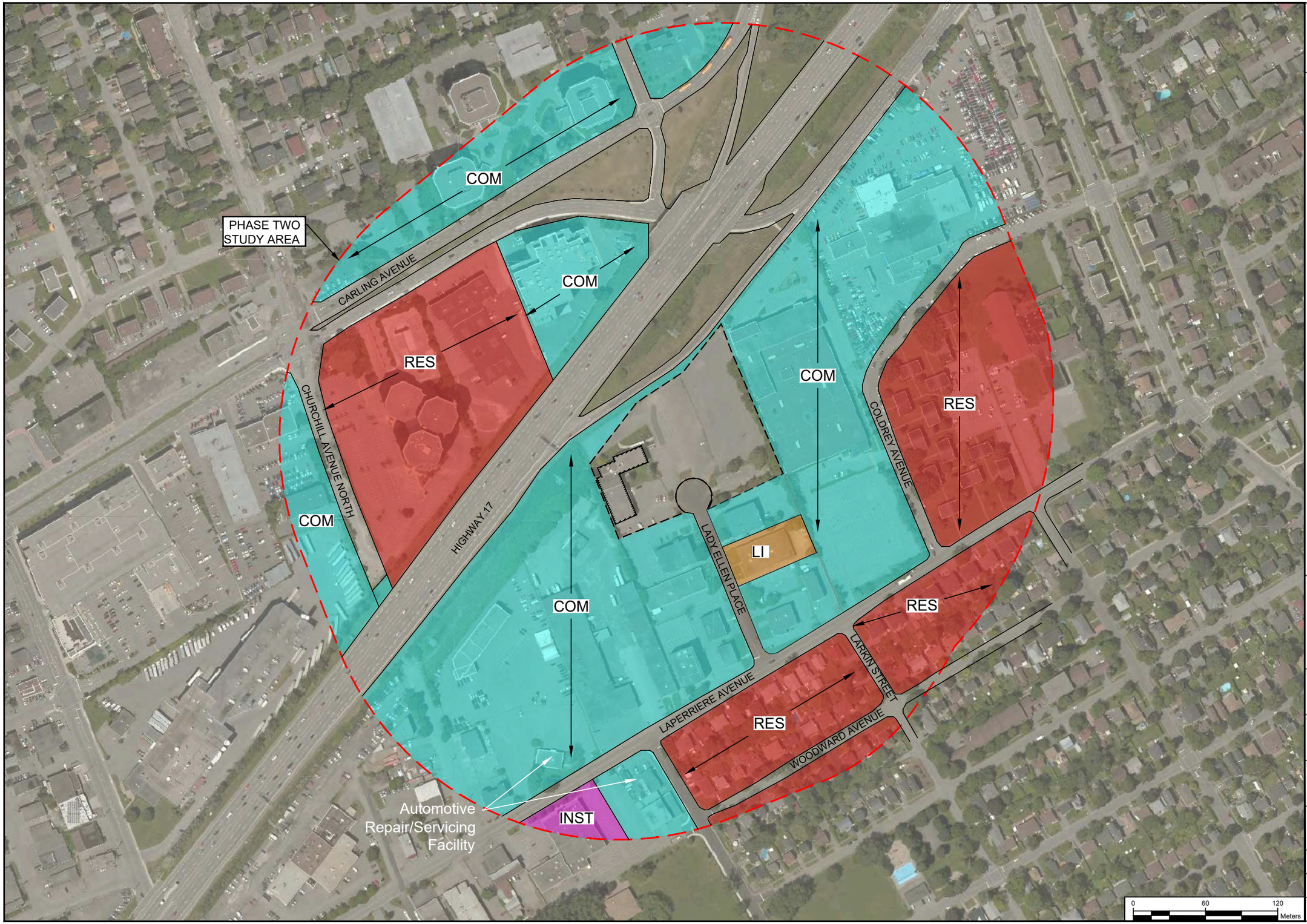
PROJECT NAME:
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

CLIENT NAME:
ACCESS SELF STORAGE INC.

PROJECT LOCATION:
864 LADY ELLEN PLACE, OTTAWA, ONTARIO

FIGURE NAME:
KEY MAP

PROJECT NUMBER:	SCALE:
301925.001	AS SHOWN
DRAWN BY:	REVIEWED BY:
DM	AK
DATE:	FIGURE NUMBER:
MARCH 2022	1



LEGEND

- PHASE ONE PROPERTY BOUNDARY
- PHASE ONE STUDY AREA
- SITE BUILDING
- RES RESIDENTIAL
- COM COMMERCIAL
- INST INSTITUTIONAL
- LI LIGHT INDUSTRIAL
- RESIDENTIAL
- COMMERCIAL
- INSTITUTIONAL
- LIGHT INDUSTRIAL

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PINCHIN

PROJECT NAME:
PHASE TWO
ENVIRONMENTAL SITE
ASSESSMENT

CLIENT NAME:
ACCESS SELF STORAGE INC.

PROJECT LOCATION:
864 LADY ELLEN PLACE,
OTTAWA, ONTARIO

FIGURE NAME:
PHASE ONE STUDY AREA

PROJECT NUMBER:	SCALE:
301925.001	AS SHOWN
DRAWN BY:	REVIEWED BY:
DM	AK
DATE:	FIGURE NUMBER:
JANUARY 2022	2

LEGEND

- PHASE ONE PROPERTY BOUNDARY
- PHASE ONE STUDY AREA
- SITE BUILDING
- # PCA

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INTERPRETATION.

PINCHIN

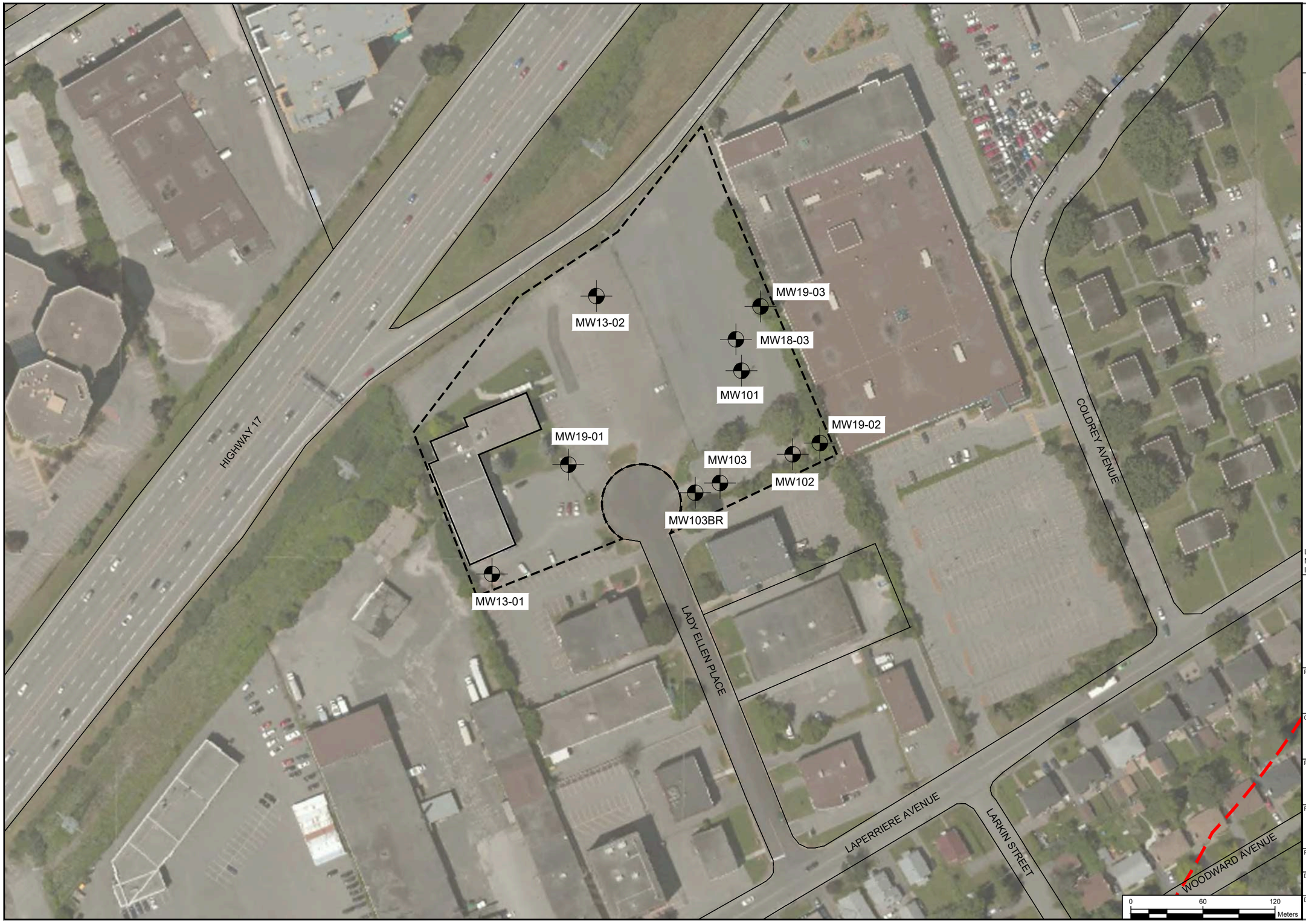
PROJECT NAME:
PHASE TWO
ENVIRONMENTAL SITE
ASSESSMENT

CLIENT NAME:
ACCESS SELF STORAGE INC.

PROJECT LOCATION:
864 LADY ELLEN PLACE,
OTTAWA, ONTARIO

FIGURE NAME:
POTENTIALLY
CONTAMINATING ACTIVIES

PROJECT NUMBER:	SCALE:
301925.001	AS SHOWN
DRAWN BY:	REVIEWED BY:
DM	AK
DATE:	FIGURE NUMBER:
JANUARY 2022	3



LEGEND

- PHASE ONE PROPERTY BOUNDARY
- PHASE ONE STUDY AREA
- SITE BUILDING
- MONITORING WELL

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NON-COLOUR COPIES MAY ALTER INTERPRETATION.

PINCHIN

PROJECT NAME:
PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

CLIENT NAME:
ACCESS SELF STORAGE INC.

PROJECT LOCATION:
864 LADY ELLEN PLACE, OTTAWA, ONTARIO

FIGURE NAME:
BOREHOLE AND MONITORING WELL LOCATION PLAN

PROJECT NUMBER:	SCALE:
301925.001	AS SHOWN
DRAWN BY:	REVIEWED BY:
DM	AK
DATE:	FIGURE NUMBER:
JANUARY 2022	4

TABLE 1
SAMPLES SUBMITTED FOR LABORATORY ANALYSIS
Access Self Storage Inc.
864 Lady Ellen Place, Ottawa, Ontario

Samples			Parameters						
			SOIL SAMPLES				GROUNDWATER SAMPLES		
Borehole / Monitoring Well ID	Sample ID	Sample Depth Range (mbgs)		VOCs	pH	Grain Size Analysis		VOCs	Rationale/Notes
MW101	MW 101	-						●	Assess soil and groundwater quality in relation to off-Site APECs located along the south and south east corner of the Site Boundary.Confirm applicable MECP standards.
	MW101 SS-4	2.29-3.05		●	●	●			
MW102	MW 102	-						●	
	DUP-GW							●	QA/QC sample in relation to groundwater sample MW102.
	MW102 SS-2	0.76-1.52			●	●			Assess soil quality in relation to off-Site APECs located along the south and south east corner of the Site Boundary.
	MW102 SS-6	3.81-4.57		●					
MW103	MW103 SS-5	3.05-2.81		●					
	Dup-1	3.05-2.81		●					QA/QC sample in relation to soil sample MW103 SS-5.
MW103BR	MW103BR	-						●	Assess groundwater quality in relation to off-Site APECs located along the south and south east corner of the Site Boundary within bedrock.
Trip Blank	GW-704	-						●	QA/QC Trip Blank Sample

Notes:

PHCs (F1-F4)	Petroleum Hydrocarbons (Fraction 1 to Fraction 4)
VOCs	Volatile Organic Compounds
mbgs	Metres Below Ground Surface
MECP	Ontario Ministry of the Environment, Conservation and Parks

Pinchin File: 301925.001

TABLE 2
pH AND GRAIN SIZE ANALYSIS FOR SOIL
Access Self Storage Inc.
864 Lady Ellen Place, Ottawa, Ontario

Parameter	*Units*	*MECP Site Condition Standard Selection Criteria*	*Sample Designation*		
			Sample Collection Date (dd/mm/yyyy)		
			Sample Depth (mbgs)		
			MW101 SS-4	*MW102 SS-6*	*MW102 SS-2*
			14/01/2022	*14/01/2022*	*14/01/2022*
			2.29-3.05	*3.81-4.57*	*0.76-1.52*
			Sub-Surface	*NA*	*Surface*
pH		Surface: 5 < pH < 9 Subsurface: 5 < pH < 11	7.62	NA	7.67
Sieve #200 <0.075 mm	%	50%	57.8	41.2	-
Sieve #200 >0.075 mm	%	50%	42.2	58.8	-
		Grain Size Classification	Medium/Fine	Coarse	-

Notes:

BOLD	Environmentally Sensitive Area (Based Upon pH of Surface Soil)
BOLD	Environmentally Sensitive Area (Based Upon pH of Sub-Surface Soil)
NA	Not Analysed
mbgs	Metres Below Ground Surface

Pinchin File: 301925.001

TABLE 3
GROUNDWATER ELEVATION DATA
Access Self Storage Inc.
864 Lady Ellen Place, Ottawa, Ontario

Well Number	*Date (dd/mm/yyyy)*	*NAPL Level Measurement from TOC (m)*	*Water Level Measurement from TOC (m)*	*Water Level Measurement from Ground (mbgs)*	*Product Thickness (m)*	*Calculated Water Level Elevation (mREL)*
MW101	20/01/2022	ND	5.01	4.18	ND	NM
MW102	20/01/2022	ND	5.36	4.41	ND	NM
MW103	20/01/2022	ND	<0.06	<0.06	ND	NM
MW103BR	20/01/2022	ND	5.21	4.38	ND	NM

Notes:

mREL	Indicates Groundwater Elevation (metres) Relative To Site Benchmark with Assumed Elevation of 100.00 Metres
NAPL	Non-Aqueous Phase Liquid
ND	Not Detected
TOC	Indicates Top of Casing
m	Metres
mbgs	Metres Below Ground Surface

Pinchin File: 301925.001

TABLE 4

VOLATILE ORGANIC COMPOUND ANALYSIS FOR SOIL

Access Self Storage Inc.

864 Lady Ellen Place, Ottawa, Ontario

Parameter	*MECP Table 3 Standards**	*Sample Designation*			
		Sample Collection Date (dd/mm/yyyy)			
		Sample Depth (mbgs)			
		MW101 SS-4	*MW102 SS-6*	*MW103 SS-5*	*Dup-1*
		14/01/2022	*14/01/2022*	*14/01/2022*	*14/01/2022*
		2.29-3.05	*3.81-4.57*	*3.05-2.81*	*3.05-2.81*
Acetone	16	<0.50	<0.50	<0.50	<0.50
Benzene	0.32	<0.02	<0.02	<0.02	<0.02
Bromodichloromethane	18	<0.05	<0.05	<0.05	<0.05
Bromoform	0.61	<0.05	<0.05	<0.05	<0.05
Bromomethane	0.05	<0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride	0.21	<0.05	<0.05	<0.05	<0.05
Chlorobenzene	2.4	<0.05	<0.05	<0.05	<0.05
Chloroform	0.47	<0.05	<0.05	<0.05	<0.05
Dibromochloromethane	13	<0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene	6.8	<0.05	<0.05	<0.05	<0.05
1,3-Dichlorobenzene	9.6	<0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene	0.2	<0.05	<0.05	<0.05	<0.05
Dichlorodifluoromethane	16	<0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane	17	<0.05	<0.05	<0.05	<0.05
1,2-Dichloroethane	0.05	<0.05	<0.05	<0.05	<0.05
1,1-Dichloroethylene	0.064	<0.05	<0.05	<0.05	<0.05
cis-1,2-Dichloroethylene	55	<0.05	<0.05	<0.05	<0.05
trans-1,2-Dichloroethylene	1.3	<0.05	<0.05	<0.05	<0.05
1,2-Dichloropropane	0.16	<0.05	<0.05	<0.05	<0.05
1,3-Dichloropropene (Total)	0.18	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	9.5	<0.05	<0.05	<0.05	<0.05
Ethylene Dibromide	0.05	<0.05	<0.05	<0.05	<0.05
Hexane	46	<0.05	<0.05	<0.05	<0.05
Methyl Ethyl Ketone	70	<0.05	<0.05	<0.05	<0.05
Methyl Isobutyl Ketone	31	<0.05	<0.05	<0.05	<0.05
Methyl t-Butyl Ether (MTBE)	11	<0.05	<0.05	<0.05	<0.05
Methylene Chloride	1.6	<0.05	<0.05	<0.05	<0.05
Styrene	34	<0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	0.087	<0.05	<0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	0.05	<0.05	<0.05	<0.05	<0.05
Tetrachloroethylene	4.5	<0.05	<0.05	<0.05	<0.05
Toluene	68	<0.05	<0.05	<0.05	<0.05
1,1,1-Trichloroethane	6.1	<0.05	<0.05	<0.05	<0.05
1,1,2-Trichloroethane	0.05	<0.05	<0.05	<0.05	<0.05
Trichloroethylene	0.91	<0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane	4	<0.05	<0.05	<0.05	<0.05
Vinyl Chloride	0.032	<0.02	<0.02	<0.02	<0.02
Xylenes (Total)	26	<0.05	<0.05	<0.05	<0.05

Notes:

MECP Table 3 Standards* — Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, April 15, 2011, Table 3 Standards, Coarse-Textured Soils, Non-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

Pinchin File: 301925.001

TABLE 5

VOLATILE ORGANIC COMPOUND ANALYSIS FOR GROUNDWATER

Access Self Storage Inc.

864 Lady Ellen Place, Ottawa, Ontario

Parameter	*MECP Table 3 Standards**	*Sample Designation*				
		Sample Collection Date (dd/mm/yyyy)				
		MW101	*MW102*	*DUP-GW*	*MW103BR*	*Trip Blank*
		20/01/2022	*20/01/2022*	*20/01/2022*	*20/01/2022*	*20/01/2022*
Acetone	130000	<5	<5	<5	<5	<5
Benzene	44	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	85000	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	380	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	5.6	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.79	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	630	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	2.4	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	82000	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	4600	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	9600	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	8	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	4400	<1	<1	<1	<1	<1
1,1-Dichloroethane	320	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	1.6	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	1.6	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	1.6	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethylene	1.6	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	16	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene (Total)	5.2	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	2300	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylene Dibromide	0.25	<0.2	<0.2	<0.2	<0.2	<0.2
Hexane	51	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone	470000	<0.5	<0.5	<0.5	<0.5	<0.5
Methyl Isobutyl Ketone	140000	<0.5	<0.5	<0.5	<0.5	<0.5
Methyl t-Butyl Ether (MTBE)	190	<2.0	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	610	<5	<5	<5	<5	<5
Styrene	1300	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	3.3	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	3.2	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	1.6	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	18000	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	640	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	4.7	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	1.6	1.6	**2.2**	**2.2**	<0.5	<0.5
Trichlorofluoromethane	2500	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes (Total)	4200	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

MECP Table 3 Standards* — Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, April 15, 2011, Table 3 Standards, Coarse-Textured Soils, Non-Potable Groundwater Condition, for All Types of Property Use.

BOLD — Exceeds Site Condition Standard

BOLD — Reportable Detection Limit Exceeds Site Condition Standard

Units — All Units in µg/L

Pinchin File: 301925.001

10.0 APPENDICES

APPENDIX A
Borehole Logs

Log of Borehole: MW101

Project #: 301925.001 **Logged By:** MK

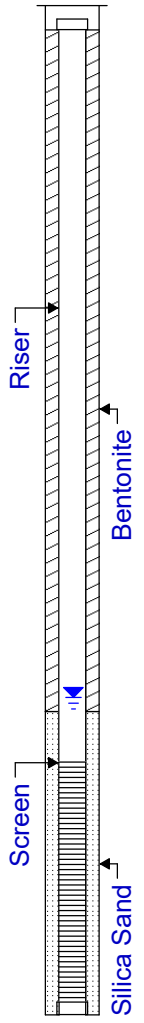
Project: Phase Two Environmental Site Assessment

Client: Access Self Storage Inc.

Location: 864 Lady Ellen Place, Ottawa, Ontario

Drill Date: January 14, 2022

SUBSURFACE PROFILE					SAMPLE			
Depth (ft / m)	Symbol	Description	Measured Depth (m)	Monitoring Well Details	Recovery (%)	Sample ID	Soil Vapour Concentration* (ppm) CGI/PID	Laboratory Analysis
0 / 0		Ground Surface	0.00					
0–5 / 0–1		***Fill*** Brown sand and gravel, trace silt, damp, no odours or staining	-1.52		60	SS1	0/0	
					60	SS2	0/0	
5–10 / 1–3		***Sandy Silt*** Trace gravel, brown, damp, no odours or staining	-3.20		70	SS3	0/0	
					70	SS4	0/0	VOCs, pH, Grain Size
11–20 / 4–6		***Bedrock*** Refusal	-6.10					
20 / 6		End of Borehole		Groundwater Level = 4.18 mbgs Jan. 20, 2022				



Contractor: Strata Drilling Group

Drilling Method: Direct Push

Well Casing Size: 5.1 cm

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

Grade Elevation: -

Top of Casing Elevation: -

Sheet: 1 of 1

Log of Borehole: MW103

Project #: 301925.001 **Logged By:** MK

Project: Phase Two Environmental Site Assessment

Client: Access Self Storage Inc.

Location: 864 Lady Ellen Place, Ottawa, Ontario

Drill Date: January 14, 2022

SUBSURFACE PROFILE					SAMPLE			
Depth (ft / m)	Symbol	Description	Measured Depth (m)	Monitoring Well Details	Recovery (%)	Sample ID	Soil Vapour Concentration* (ppm) CGI/PID	Laboratory Analysis
0 / 0		Ground Surface	0.00					
		Gravel	-0.20					
1		***Sand and Gravel*** Trace silt and organics, brown, damp, no odours or staining			75	SS1	0/0	
2								
3 / 1					75	SS2	0/0	
4								
5			-1.52					
6		***Silty Sand*** Trace gravel, brown, moist, no odours or staining			45	SS3	0/0	
7 / 2								
8					45	SS4	0/0	
9								
10 / 3			-3.05					
11		***Sandy Silt and Gravel*** Brown, moist, no odours or staining			100	SS5	0/0	VOCs
12			-3.81					
13 / 4		End of Borehole						
14								

Riser, Bentonite, Screen, Silica Sand

Contractor: Strata Drilling Group

Drilling Method: Direct Push

Well Casing Size: 5.1 cm

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

Grade Elevation: -

Top of Casing Elevation: -

Sheet: 1 of 1

Log of Borehole: MW102

Project #: 301925.001 **Logged By:** MK

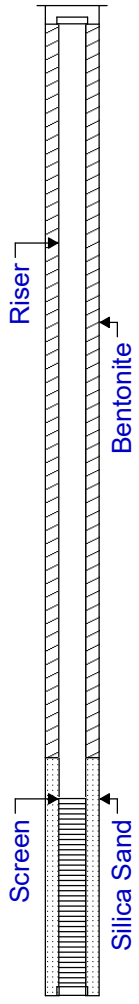
Project: Phase Two Environmental Site Assessment

Client: Access Self Storage Inc.

Location: 864 Lady Ellen Place, Ottawa, Ontario

Drill Date: January 14, 2022

SUBSURFACE PROFILE					SAMPLE			
Depth (ft / m)	Symbol	Description	Measured Depth (m)	Monitoring Well Details	Recovery (%)	Sample ID	Soil Vapour Concentration* (ppm) CGI/PID	Laboratory Analysis
0 / 0		Ground Surface	0.00					
		Gravel			30	SS1	0/0	
1 / 0		***Sand and Gravel*** Brown, damp, no odours or staining			30	SS2	0/0	pH
			-1.52					
5 / 1		***Silty Sand and Gravel*** Brown, moist, no odours or staining			40	SS3	0/0	
10 / 3					40	SS4	0/0	
					20	SS5	0/0	
13 / 4					20	SS6	0/0	VOCs, Grain Size
			-4.88					
16 / 5		Refusal						
		Bedrock						
20 / 6								
23 / 7								
			-7.62					
26 / 8		End of Borehole		Groundwater Level = 4.41 mbgs Jan. 20, 2022				



Contractor: Strata Drilling Group

Drilling Method: Direct Push

Well Casing Size: 5.1 cm

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

Grade Elevation: -

Top of Casing Elevation: -

Sheet: 1 of 1

Log of Borehole: MW103BR

Project #: 301925.001 **Logged By:** MK

Project: Phase Two Environmental Site Assessment

Client: Access Self Storage Inc.

Location: 864 Lady Ellen Place, Ottawa, Ontario

Drill Date: January 14, 2022

SUBSURFACE PROFILE					SAMPLE			
Depth (ft / m)	Symbol	Description	Measured Depth (m)	Monitoring Well Details	Recovery (%)	Sample ID	Soil Vapour Concentration* (ppm) CGI/PID	Laboratory Analysis
0 / 0		Ground Surface	0.00					
		Gravel	-0.20					
1 / 0 – 2 / 1		***Sand and Gravel*** Trace silt and organics, brown, damp, no odours or staining	-1.52					
2 / 1 – 10 / 3		***Silty Sand*** Trace gravel, brown, moist, no odours or staining	-3.05					
10 / 3 – 13 / 4		***Sandy Silt and Gravel*** Brown, moist, no odours or staining	-3.96					
13 / 4 – 20 / 6		***Bedrock***	-6.10					
		End of Borehole		Riser, Bentonite, Screen, Silica Sand; Groundwater Level =4.38 mbgs on Jan. 20, 2022				

Contractor: Strata Drilling Group

Drilling Method: Direct Push

Well Casing Size: 5.1 cm

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

Grade Elevation: -

Top of Casing Elevation: -

Sheet: 1 of 1

APPENDIX B

Laboratory Certificates of Analysis

PARACEL LABORATORIES LTD.
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Certificate of Analysis

Pinchin Ltd. (Ottawa)

1 Hines Road, Suite 200
Kanata, ON K2K 3C7
Attn: Matthew Ryan

Client PO:
Project: 301925.001
Custody: 63374

Report Date: 24-Jan-2022
Order Date: 19-Jan-2022

Order #: 2204244

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

Paracel ID	Client ID
2204244-01	MW101 SS-4
2204244-02	MW102 SS-2
2204244-03	MW102 SS-6
2204244-04	MW103 SS-5
2204244-05	Dup-1

Approved By:

Mark Foto, M.Sc.
Lab Supervisor

Certificate of Analysis

Client: Pinchin Ltd. (Ottawa)

Client PO:

Report Date: 24-Jan-2022

Order Date: 19-Jan-2022

Project Description: 301925.001

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
pH, soil	EPA 150.1 - pH probe @ 25 °C, CaCl buffered ext.	21-Jan-22	21-Jan-22
REG 153: VOCs by P&T GC/MS	EPA 8260 - P&T GC-MS	20-Jan-22	21-Jan-22
Solids, %	Gravimetric, calculation	20-Jan-22	20-Jan-22
Texture - Coarse Med/Fine	Based on ASTM D2487	20-Jan-22	24-Jan-22

Certificate of Analysis

Client: **Pinchin Ltd. (Ottawa)**

Client PO:

Report Date: 24-Jan-2022

Order Date: 19-Jan-2022

Project Description: 301925.001

	Client ID:	MW101 SS-4	MW102 SS-2	MW102 SS-6	MW103 SS-5
	Sample Date:	14-Jan-22 09:00	14-Jan-22 12:00	14-Jan-22 12:00	18-Jan-22 09:00
	Sample ID:	2204244-01	2204244-02	2204244-03	2204244-04
	MDL/Units	Soil	Soil	Soil	Soil
Physical Characteristics					
% Solids	0.1 % by Wt.	96.6	96.4	96.4	95.6
>75 um	0.1 %	42.2	-	58.8	-
<75 um	0.1 %	57.8	-	41.2	-
Texture	0.1 %	Med/Fine	-	Coarse	-
General Inorganics					
pH	0.05 pH Units	7.62	7.67	-	-
Volatiles					
Acetone	0.50 ug/g dry	<0.50	-	<0.50	<0.50
Benzene	0.02 ug/g dry	<0.02	-	<0.02	<0.02
Bromodichloromethane	0.05 ug/g dry	<0.05	-	<0.05	<0.05
Bromoform	0.05 ug/g dry	<0.05	-	<0.05	<0.05
Bromomethane	0.05 ug/g dry	<0.05	-	<0.05	<0.05
Carbon Tetrachloride	0.05 ug/g dry	<0.05	-	<0.05	<0.05
Chlorobenzene	0.05 ug/g dry	<0.05	-	<0.05	<0.05
Chloroform	0.05 ug/g dry	<0.05	-	<0.05	<0.05
Dibromochloromethane	0.05 ug/g dry	<0.05	-	<0.05	<0.05
Dichlorodifluoromethane	0.05 ug/g dry	<0.05	-	<0.05	<0.05
1,2-Dichlorobenzene	0.05 ug/g dry	<0.05	-	<0.05	<0.05
1,3-Dichlorobenzene	0.05 ug/g dry	<0.05	-	<0.05	<0.05
1,4-Dichlorobenzene	0.05 ug/g dry	<0.05	-	<0.05	<0.05
1,1-Dichloroethane	0.05 ug/g dry	<0.05	-	<0.05	<0.05
1,2-Dichloroethane	0.05 ug/g dry	<0.05	-	<0.05	<0.05
1,1-Dichloroethylene	0.05 ug/g dry	<0.05	-	<0.05	<0.05
cis-1,2-Dichloroethylene	0.05 ug/g dry	<0.05	-	<0.05	<0.05
trans-1,2-Dichloroethylene	0.05 ug/g dry	<0.05	-	<0.05	<0.05
1,2-Dichloropropane	0.05 ug/g dry	<0.05	-	<0.05	<0.05
cis-1,3-Dichloropropylene	0.05 ug/g dry	<0.05	-	<0.05	<0.05
trans-1,3-Dichloropropylene	0.05 ug/g dry	<0.05	-	<0.05	<0.05
1,3-Dichloropropene, total	0.05 ug/g dry	<0.05	-	<0.05	<0.05
Ethylbenzene	0.05 ug/g dry	<0.05	-	<0.05	<0.05
Ethylene dibromide (dibromoethane, 1,2-)	0.05 ug/g dry	<0.05	-	<0.05	<0.05
Hexane	0.05 ug/g dry	<0.05	-	<0.05	<0.05
Methyl Ethyl Ketone (2-Butanone)	0.50 ug/g dry	<0.50	-	<0.50	<0.50
Methyl Isobutyl Ketone	0.50 ug/g dry	<0.50	-	<0.50	<0.50
Methyl tert-butyl ether	0.05 ug/g dry	<0.05	-	<0.05	<0.05

Certificate of Analysis

Client: Pinchin Ltd. (Ottawa)

Client PO:

Report Date: 24-Jan-2022

Order Date: 19-Jan-2022

Project Description: 301925.001

	Client ID:	MW101 SS-4	MW102 SS-2	MW102 SS-6	MW103 SS-5
	Sample Date:	14-Jan-22 09:00	14-Jan-22 12:00	14-Jan-22 12:00	18-Jan-22 09:00
	Sample ID:	2204244-01	2204244-02	2204244-03	2204244-04
	MDL/Units	Soil	Soil	Soil	Soil
Methylene Chloride	0.05 ug/g dry	<0.05	-	<0.05	<0.05
Styrene	0.05 ug/g dry	<0.05	-	<0.05	<0.05
1,1,1,2-Tetrachloroethane	0.05 ug/g dry	<0.05	-	<0.05	<0.05
1,1,2,2-Tetrachloroethane	0.05 ug/g dry	<0.05	-	<0.05	<0.05
Tetrachloroethylene	0.05 ug/g dry	<0.05	-	<0.05	<0.05
Toluene	0.05 ug/g dry	<0.05	-	<0.05	<0.05
1,1,1-Trichloroethane	0.05 ug/g dry	<0.05	-	<0.05	<0.05
1,1,2-Trichloroethane	0.05 ug/g dry	<0.05	-	<0.05	<0.05
Trichloroethylene	0.05 ug/g dry	<0.05	-	<0.05	<0.05
Trichlorofluoromethane	0.05 ug/g dry	<0.05	-	<0.05	<0.05
Vinyl chloride	0.02 ug/g dry	<0.02	-	<0.02	<0.02
m,p-Xylenes	0.05 ug/g dry	<0.05	-	<0.05	<0.05
o-Xylene	0.05 ug/g dry	<0.05	-	<0.05	<0.05
Xylenes, total	0.05 ug/g dry	<0.05	-	<0.05	<0.05
4-Bromofluorobenzene	Surrogate	104%	-	102%	102%
Dibromofluoromethane	Surrogate	114%	-	75.0%	113%
Toluene-d8	Surrogate	111%	-	110%	111%

Certificate of Analysis

Client: Pinchin Ltd. (Ottawa)

Client PO:

Report Date: 24-Jan-2022

Order Date: 19-Jan-2022

Project Description: 301925.001

	Client ID:	Dup-1	-	-	-
	Sample Date:	18-Jan-22 09:00	-	-	-
	Sample ID:	2204244-05	-	-	-
	MDL/Units	Soil	-	-	-
Physical Characteristics					
% Solids	0.1 % by Wt.	93.6	-	-	-
Volatiles					
Acetone	0.50 ug/g dry	<0.50	-	-	-
Benzene	0.02 ug/g dry	<0.02	-	-	-
Bromodichloromethane	0.05 ug/g dry	<0.05	-	-	-
Bromoform	0.05 ug/g dry	<0.05	-	-	-
Bromomethane	0.05 ug/g dry	<0.05	-	-	-
Carbon Tetrachloride	0.05 ug/g dry	<0.05	-	-	-
Chlorobenzene	0.05 ug/g dry	<0.05	-	-	-
Chloroform	0.05 ug/g dry	<0.05	-	-	-
Dibromochloromethane	0.05 ug/g dry	<0.05	-	-	-
Dichlorodifluoromethane	0.05 ug/g dry	<0.05	-	-	-
1,2-Dichlorobenzene	0.05 ug/g dry	<0.05	-	-	-
1,3-Dichlorobenzene	0.05 ug/g dry	<0.05	-	-	-
1,4-Dichlorobenzene	0.05 ug/g dry	<0.05	-	-	-
1,1-Dichloroethane	0.05 ug/g dry	<0.05	-	-	-
1,2-Dichloroethane	0.05 ug/g dry	<0.05	-	-	-
1,1-Dichloroethylene	0.05 ug/g dry	<0.05	-	-	-
cis-1,2-Dichloroethylene	0.05 ug/g dry	<0.05	-	-	-
trans-1,2-Dichloroethylene	0.05 ug/g dry	<0.05	-	-	-
1,2-Dichloropropane	0.05 ug/g dry	<0.05	-	-	-
cis-1,3-Dichloropropylene	0.05 ug/g dry	<0.05	-	-	-
trans-1,3-Dichloropropylene	0.05 ug/g dry	<0.05	-	-	-
1,3-Dichloropropene, total	0.05 ug/g dry	<0.05	-	-	-
Ethylbenzene	0.05 ug/g dry	<0.05	-	-	-
Ethylene dibromide (dibromoethane, 1	0.05 ug/g dry	<0.05	-	-	-
Hexane	0.05 ug/g dry	<0.05	-	-	-
Methyl Ethyl Ketone (2-Butanone)	0.50 ug/g dry	<0.50	-	-	-
Methyl Isobutyl Ketone	0.50 ug/g dry	<0.50	-	-	-
Methyl tert-butyl ether	0.05 ug/g dry	<0.05	-	-	-
Methylene Chloride	0.05 ug/g dry	<0.05	-	-	-
Styrene	0.05 ug/g dry	<0.05	-	-	-
1,1,1,2-Tetrachloroethane	0.05 ug/g dry	<0.05	-	-	-
1,1,2,2-Tetrachloroethane	0.05 ug/g dry	<0.05	-	-	-

	Client ID:	Dup-1	-	-	-
	Sample Date:	18-Jan-22 09:00	-	-	-
	Sample ID:	2204244-05	-	-	-
	MDL/Units	Soil	-	-	-
Tetrachloroethylene	0.05 ug/g dry	<0.05	-	-	-
Toluene	0.05 ug/g dry	<0.05	-	-	-
1,1,1-Trichloroethane	0.05 ug/g dry	<0.05	-	-	-
1,1,2-Trichloroethane	0.05 ug/g dry	<0.05	-	-	-
Trichloroethylene	0.05 ug/g dry	<0.05	-	-	-
Trichlorofluoromethane	0.05 ug/g dry	<0.05	-	-	-
Vinyl chloride	0.02 ug/g dry	<0.02	-	-	-
m,p-Xylenes	0.05 ug/g dry	<0.05	-	-	-
o-Xylene	0.05 ug/g dry	<0.05	-	-	-
Xylenes, total	0.05 ug/g dry	<0.05	-	-	-
4-Bromofluorobenzene	Surrogate	104%	-	-	-
Dibromofluoromethane	Surrogate	75.1%	-	-	-
Toluene-d8	Surrogate	113%	-	-	-

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	0.50	ug/g						
Benzene	ND	0.02	ug/g						
Bromodichloromethane	ND	0.05	ug/g						
Bromoform	ND	0.05	ug/g						
Bromomethane	ND	0.05	ug/g						
Carbon Tetrachloride	ND	0.05	ug/g						
Chlorobenzene	ND	0.05	ug/g						
Chloroform	ND	0.05	ug/g						
Dibromochloromethane	ND	0.05	ug/g						
Dichlorodifluoromethane	ND	0.05	ug/g						
1,2-Dichlorobenzene	ND	0.05	ug/g						
1,3-Dichlorobenzene	ND	0.05	ug/g						
1,4-Dichlorobenzene	ND	0.05	ug/g						
1,1-Dichloroethane	ND	0.05	ug/g						
1,2-Dichloroethane	ND	0.05	ug/g						
1,1-Dichloroethylene	ND	0.05	ug/g						
cis-1,2-Dichloroethylene	ND	0.05	ug/g						
trans-1,2-Dichloroethylene	ND	0.05	ug/g						
1,2-Dichloropropane	ND	0.05	ug/g						
cis-1,3-Dichloropropylene	ND	0.05	ug/g						
trans-1,3-Dichloropropylene	ND	0.05	ug/g						
1,3-Dichloropropene, total	ND	0.05	ug/g						
Ethylbenzene	ND	0.05	ug/g						
Ethylene dibromide (dibromoethane, 1,2	ND	0.05	ug/g						
Hexane	ND	0.05	ug/g						
Methyl Ethyl Ketone (2-Butanone)	ND	0.50	ug/g						
Methyl Isobutyl Ketone	ND	0.50	ug/g						
Methyl tert-butyl ether	ND	0.05	ug/g						
Methylene Chloride	ND	0.05	ug/g						
Styrene	ND	0.05	ug/g						
1,1,1,2-Tetrachloroethane	ND	0.05	ug/g						
1,1,2,2-Tetrachloroethane	ND	0.05	ug/g						
Tetrachloroethylene	ND	0.05	ug/g						
Toluene	ND	0.05	ug/g						
1,1,1-Trichloroethane	ND	0.05	ug/g						
1,1,2-Trichloroethane	ND	0.05	ug/g						
Trichloroethylene	ND	0.05	ug/g						
Trichlorofluoromethane	ND	0.05	ug/g						
Vinyl chloride	ND	0.02	ug/g						
m,p-Xylenes	ND	0.05	ug/g						
o-Xylene	ND	0.05	ug/g						
Xylenes, total	ND	0.05	ug/g						
Surrogate: 4-Bromofluorobenzene	*8.38*		*ug/g*		*105*	*50-140*			
Surrogate: Dibromofluoromethane	*8.89*		*ug/g*		*111*	*50-140*			
Surrogate: Toluene-d8	*8.83*		*ug/g*		*110*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
General Inorganics									
pH	6.99	0.05	pH Units	6.88			1.6	2.3	
Physical Characteristics									
% Solids	93.2	0.1	% by Wt.	92.2			1.0	25	
Volatiles									
Acetone	ND	0.50	ug/g dry	ND			NC	50	
Benzene	ND	0.02	ug/g dry	ND			NC	50	
Bromodichloromethane	ND	0.05	ug/g dry	ND			NC	50	
Bromoform	ND	0.05	ug/g dry	ND			NC	50	
Bromomethane	ND	0.05	ug/g dry	ND			NC	50	
Carbon Tetrachloride	ND	0.05	ug/g dry	ND			NC	50	
Chlorobenzene	ND	0.05	ug/g dry	ND			NC	50	
Chloroform	ND	0.05	ug/g dry	ND			NC	50	
Dibromochloromethane	ND	0.05	ug/g dry	ND			NC	50	
Dichlorodifluoromethane	ND	0.05	ug/g dry	ND			NC	50	
1,2-Dichlorobenzene	ND	0.05	ug/g dry	ND			NC	50	
1,3-Dichlorobenzene	ND	0.05	ug/g dry	ND			NC	50	
1,4-Dichlorobenzene	ND	0.05	ug/g dry	ND			NC	50	
1,1-Dichloroethane	ND	0.05	ug/g dry	ND			NC	50	
1,2-Dichloroethane	ND	0.05	ug/g dry	ND			NC	50	
1,1-Dichloroethylene	ND	0.05	ug/g dry	ND			NC	50	
cis-1,2-Dichloroethylene	ND	0.05	ug/g dry	ND			NC	50	
trans-1,2-Dichloroethylene	ND	0.05	ug/g dry	ND			NC	50	
1,2-Dichloropropane	ND	0.05	ug/g dry	ND			NC	50	
cis-1,3-Dichloropropylene	ND	0.05	ug/g dry	ND			NC	50	
trans-1,3-Dichloropropylene	ND	0.05	ug/g dry	ND			NC	50	
Ethylbenzene	ND	0.05	ug/g dry	ND			NC	50	
Ethylene dibromide (dibromoethane, 1,2-	ND	0.05	ug/g dry	ND			NC	50	
Hexane	ND	0.05	ug/g dry	ND			NC	50	
Methyl Ethyl Ketone (2-Butanone)	ND	0.50	ug/g dry	ND			NC	50	
Methyl Isobutyl Ketone	ND	0.50	ug/g dry	ND			NC	50	
Methyl tert-butyl ether	ND	0.05	ug/g dry	ND			NC	50	
Methylene Chloride	ND	0.05	ug/g dry	ND			NC	50	
Styrene	ND	0.05	ug/g dry	ND			NC	50	
1,1,1,2-Tetrachloroethane	ND	0.05	ug/g dry	ND			NC	50	
1,1,2,2-Tetrachloroethane	ND	0.05	ug/g dry	ND			NC	50	
Tetrachloroethylene	ND	0.05	ug/g dry	ND			NC	50	
Toluene	ND	0.05	ug/g dry	ND			NC	50	
1,1,1-Trichloroethane	ND	0.05	ug/g dry	ND			NC	50	
1,1,2-Trichloroethane	ND	0.05	ug/g dry	ND			NC	50	
Trichloroethylene	ND	0.05	ug/g dry	ND			NC	50	
Trichlorofluoromethane	ND	0.05	ug/g dry	ND			NC	50	
Vinyl chloride	ND	0.02	ug/g dry	ND			NC	50	
m,p-Xylenes	ND	0.05	ug/g dry	ND			NC	50	
o-Xylene	ND	0.05	ug/g dry	ND			NC	50	
Surrogate: 4-Bromofluorobenzene	*10.9*		*ug/g dry*		*112*	*50-140*			
Surrogate: Dibromofluoromethane	*8.10*		*ug/g dry*		*82.6*	*50-140*			
Surrogate: Toluene-d8	*11.6*		*ug/g dry*		*118*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	11.5	0.50	ug/g	ND	115	50-140			
Benzene	4.83	0.02	ug/g	ND	121	60-130			
Bromodichloromethane	4.63	0.05	ug/g	ND	116	60-130			
Bromoform	3.89	0.05	ug/g	ND	97.3	60-130			
Bromomethane	5.17	0.05	ug/g	ND	129	50-140			
Carbon Tetrachloride	4.45	0.05	ug/g	ND	111	60-130			
Chlorobenzene	4.08	0.05	ug/g	ND	102	60-130			
Chloroform	4.33	0.05	ug/g	ND	108	60-130			
Dibromochloromethane	3.50	0.05	ug/g	ND	87.6	60-130			
Dichlorodifluoromethane	4.95	0.05	ug/g	ND	124	50-140			
1,2-Dichlorobenzene	3.74	0.05	ug/g	ND	93.5	60-130			
1,3-Dichlorobenzene	3.69	0.05	ug/g	ND	92.3	60-130			
1,4-Dichlorobenzene	4.04	0.05	ug/g	ND	101	60-130			
1,1-Dichloroethane	5.16	0.05	ug/g	ND	129	60-130			
1,2-Dichloroethane	4.19	0.05	ug/g	ND	105	60-130			
1,1-Dichloroethylene	4.45	0.05	ug/g	ND	111	60-130			
cis-1,2-Dichloroethylene	4.77	0.05	ug/g	ND	119	60-130			
trans-1,2-Dichloroethylene	4.52	0.05	ug/g	ND	113	60-130			
1,2-Dichloropropane	4.68	0.05	ug/g	ND	117	60-130			
cis-1,3-Dichloropropylene	4.46	0.05	ug/g	ND	111	60-130			
trans-1,3-Dichloropropylene	5.05	0.05	ug/g	ND	126	60-130			
Ethylbenzene	4.07	0.05	ug/g	ND	102	60-130			
Ethylene dibromide (dibromoethane, 1,2	4.09	0.05	ug/g	ND	102	60-130			
Hexane	4.74	0.05	ug/g	ND	118	60-130			
Methyl Ethyl Ketone (2-Butanone)	13.3	0.50	ug/g	ND	133	50-140			
Methyl Isobutyl Ketone	13.7	0.50	ug/g	ND	137	50-140			
Methyl tert-butyl ether	13.1	0.05	ug/g	ND	131	50-140			
Methylene Chloride	4.13	0.05	ug/g	ND	103	60-130			
Styrene	3.98	0.05	ug/g	ND	99.6	60-130			
1,1,1,2-Tetrachloroethane	3.92	0.05	ug/g	ND	98.0	60-130			
1,1,2,2-Tetrachloroethane	4.44	0.05	ug/g	ND	111	60-130			
Tetrachloroethylene	3.77	0.05	ug/g	ND	94.3	60-130			
Toluene	4.15	0.05	ug/g	ND	104	60-130			
1,1,1-Trichloroethane	4.78	0.05	ug/g	ND	120	60-130			
1,1,2-Trichloroethane	4.92	0.05	ug/g	ND	123	60-130			
Trichloroethylene	4.65	0.05	ug/g	ND	116	60-130			
Trichlorofluoromethane	5.00	0.05	ug/g	ND	125	50-140			
Vinyl chloride	3.53	0.02	ug/g	ND	88.2	50-140			
m,p-Xylenes	8.09	0.05	ug/g	ND	101	60-130			
o-Xylene	4.12	0.05	ug/g	ND	103	60-130			
Surrogate: 4-Bromofluorobenzene	*8.42*		*ug/g*		*105*	*50-140*			
Surrogate: Dibromofluoromethane	*10.1*		*ug/g*		*126*	*50-140*			
Surrogate: Toluene-d8	*8.24*		*ug/g*		*103*	*50-140*			

Qualifier Notes:

Sample Qualifiers :

Sample Data Revisions

None

Work Order Revisions / Comments:

None

Other Report Notes:

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

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

Paracel ID: 2204244

PARACE LABORATORIES LT

Paracel Order Number (Lab Use Only)	Chain Of Custody (Lab Use Only)
2204244	№ 63374

Client Name: Pinchin Ltd
Contact Name: McKosiw, McRyan
Address: 5 Mather
1 Hines Rd Kanata
Telephone:
Project Ref: 301925.001
Quote #:
PO #:
E-mail: on file
Page 1 of 1

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

☐ REG 153/04 ☐ REG 406/19

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

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

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

Required Analysis: VOCs, pH, Texture 75um

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken: Date	Sample Taken: Time	VOCs	pH	Texture 75um
1	MW101 SS-4			2	Jan 14	AM	X	X	X
2	MW102 SS-2			1	2022	PM		X	
3	MW102 SS-6			2	"	"	X		X
4	MW103 SS-5			2	Jan 18	AM	X		
5	Dup-1			2	2022	"	X		
6									
7									
8									
9									
10									

Comments:

Method of Delivery: PARACEL COURIER

Relinquished By (Sign):	Received By Driver/Depot: A. FLOWIE	Received At Lab:	Verified By:
Relinquished By (Print): Mike Kosiw	Date/Time: 19/01/22 1:54	Date/Time: Jan 19/22 1610	Date/Time: Jan 19 2022 5:23
Date/Time: Jan 19, 2022	Temperature: °C	Temperature: 6.4 °C	pH Verified: ☐ By:

Chain of Custody (Blank) xlsx

Revision 4.0

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Certificate of Analysis

Pinchin Ltd. (Ottawa)

1 Hines Road, Suite 200
Kanata, ON K2K 3C7
Attn: Matthew Ryan

Client PO:
Project: 301925.001
Custody: 41315

Report Date: 24-Jan-2022
Order Date: 20-Jan-2022

Order #: 2204353

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

Paracel ID	Client ID
2204353-01	MW101
2204353-02	MW102
2204353-03	MW103 BR
2204353-04	GW DUP-1
2204353-05	Trip Blank

Approved By:

Mark Foto, M.Sc.
Lab Supervisor

Certificate of Analysis

Client: Pinchin Ltd. (Ottawa)

Client PO:

Report Date: 24-Jan-2022

Order Date: 20-Jan-2022

Project Description: 301925.001

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
REG 153: VOCs by P&T GC/MS	EPA 624 - P&T GC-MS	21-Jan-22	22-Jan-22

Certificate of Analysis

Client: **Pinchin Ltd. (Ottawa)**

Client PO:

Report Date: 24-Jan-2022

Order Date: 20-Jan-2022

Project Description: 301925.001

	Client ID:	MW101	MW102	MW103 BR	GW DUP-1
	Sample Date:	20-Jan-22 09:00	20-Jan-22 09:00	20-Jan-22 09:00	20-Jan-22 09:00
	Sample ID:	2204353-01	2204353-02	2204353-03	2204353-04
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylene dibromide (dibromoethane, 1,2-)	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis

Client: Pinchin Ltd. (Ottawa)

Client PO:

Report Date: 24-Jan-2022

Order Date: 20-Jan-2022

Project Description: 301925.001

	Client ID:	MW101	MW102	MW103 BR	GW DUP-1
	Sample Date:	20-Jan-22 09:00	20-Jan-22 09:00	20-Jan-22 09:00	20-Jan-22 09:00
	Sample ID:	2204353-01	2204353-02	2204353-03	2204353-04
	MDL/Units	Water	Water	Water	Water
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	1.6	2.2	<0.5	2.2
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
4-Bromofluorobenzene	Surrogate	97.8%	98.5%	98.5%	98.1%
Dibromofluoromethane	Surrogate	60.8%	60.7%	61.6%	61.0%
Toluene-d8	Surrogate	104%	104%	104%	105%

Certificate of Analysis

Client: **Pinchin Ltd. (Ottawa)**

Client PO:

Report Date: 24-Jan-2022

Order Date: 20-Jan-2022

Project Description: 301925.001

	Client ID:	Trip Blank	-	-	-
	Sample Date:	18-Jan-22 09:00	-	-	-
	Sample ID:	2204353-05	-	-	-
	MDL/Units	Water	-	-	-
Volatiles					
Acetone	5.0 ug/L	<5.0	-	-	-
Benzene	0.5 ug/L	<0.5	-	-	-
Bromodichloromethane	0.5 ug/L	<0.5	-	-	-
Bromoform	0.5 ug/L	<0.5	-	-	-
Bromomethane	0.5 ug/L	<0.5	-	-	-
Carbon Tetrachloride	0.2 ug/L	<0.2	-	-	-
Chlorobenzene	0.5 ug/L	<0.5	-	-	-
Chloroform	0.5 ug/L	<0.5	-	-	-
Dibromochloromethane	0.5 ug/L	<0.5	-	-	-
Dichlorodifluoromethane	1.0 ug/L	<1.0	-	-	-
1,2-Dichlorobenzene	0.5 ug/L	<0.5	-	-	-
1,3-Dichlorobenzene	0.5 ug/L	<0.5	-	-	-
1,4-Dichlorobenzene	0.5 ug/L	<0.5	-	-	-
1,1-Dichloroethane	0.5 ug/L	<0.5	-	-	-
1,2-Dichloroethane	0.5 ug/L	<0.5	-	-	-
1,1-Dichloroethylene	0.5 ug/L	<0.5	-	-	-
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	-	-	-
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	-	-	-
1,2-Dichloropropane	0.5 ug/L	<0.5	-	-	-
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	-	-	-
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	-	-	-
1,3-Dichloropropene, total	0.5 ug/L	<0.5	-	-	-
Ethylbenzene	0.5 ug/L	<0.5	-	-	-
Ethylene dibromide (dibromoethane, 1	0.2 ug/L	<0.2	-	-	-
Hexane	1.0 ug/L	<1.0	-	-	-
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	-	-	-
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	-	-	-
Methyl tert-butyl ether	2.0 ug/L	<2.0	-	-	-
Methylene Chloride	5.0 ug/L	<5.0	-	-	-
Styrene	0.5 ug/L	<0.5	-	-	-
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	-	-	-
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	-	-	-
Tetrachloroethylene	0.5 ug/L	<0.5	-	-	-
Toluene	0.5 ug/L	<0.5	-	-	-

Certificate of Analysis

Client: Pinchin Ltd. (Ottawa)

Client PO:

Report Date: 24-Jan-2022

Order Date: 20-Jan-2022

Project Description: 301925.001

	Client ID:	Trip Blank	-	-	-
	Sample Date:	18-Jan-22 09:00	-	-	-
	Sample ID:	2204353-05	-	-	-
	MDL/Units	Water	-	-	-
1,1,1-Trichloroethane	0.5 ug/L	<0.5	-	-	-
1,1,2-Trichloroethane	0.5 ug/L	<0.5	-	-	-
Trichloroethylene	0.5 ug/L	<0.5	-	-	-
Trichlorofluoromethane	1.0 ug/L	<1.0	-	-	-
Vinyl chloride	0.5 ug/L	<0.5	-	-	-
m,p-Xylenes	0.5 ug/L	<0.5	-	-	-
o-Xylene	0.5 ug/L	<0.5	-	-	-
Xylenes, total	0.5 ug/L	<0.5	-	-	-
4-Bromofluorobenzene	Surrogate	99.6%	-	-	-
Dibromofluoromethane	Surrogate	62.3%	-	-	-
Toluene-d8	Surrogate	105%	-	-	-

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	5.0	ug/L						
Benzene	ND	0.5	ug/L						
Bromodichloromethane	ND	0.5	ug/L						
Bromoform	ND	0.5	ug/L						
Bromomethane	ND	0.5	ug/L						
Carbon Tetrachloride	ND	0.2	ug/L						
Chlorobenzene	ND	0.5	ug/L						
Chloroform	ND	0.5	ug/L						
Dibromochloromethane	ND	0.5	ug/L						
Dichlorodifluoromethane	ND	1.0	ug/L						
1,2-Dichlorobenzene	ND	0.5	ug/L						
1,3-Dichlorobenzene	ND	0.5	ug/L						
1,4-Dichlorobenzene	ND	0.5	ug/L						
1,1-Dichloroethane	ND	0.5	ug/L						
1,2-Dichloroethane	ND	0.5	ug/L						
1,1-Dichloroethylene	ND	0.5	ug/L						
cis-1,2-Dichloroethylene	ND	0.5	ug/L						
trans-1,2-Dichloroethylene	ND	0.5	ug/L						
1,2-Dichloropropane	ND	0.5	ug/L						
cis-1,3-Dichloropropylene	ND	0.5	ug/L						
trans-1,3-Dichloropropylene	ND	0.5	ug/L						
1,3-Dichloropropene, total	ND	0.5	ug/L						
Ethylbenzene	ND	0.5	ug/L						
Ethylene dibromide (dibromoethane, 1,2	ND	0.2	ug/L						
Hexane	ND	1.0	ug/L						
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L						
Methyl Isobutyl Ketone	ND	5.0	ug/L						
Methyl tert-butyl ether	ND	2.0	ug/L						
Methylene Chloride	ND	5.0	ug/L						
Styrene	ND	0.5	ug/L						
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L						
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L						
Tetrachloroethylene	ND	0.5	ug/L						
Toluene	ND	0.5	ug/L						
1,1,1-Trichloroethane	ND	0.5	ug/L						
1,1,2-Trichloroethane	ND	0.5	ug/L						
Trichloroethylene	ND	0.5	ug/L						
Trichlorofluoromethane	ND	1.0	ug/L						
Vinyl chloride	ND	0.5	ug/L						
m,p-Xylenes	ND	0.5	ug/L						
o-Xylene	ND	0.5	ug/L						
Xylenes, total	ND	0.5	ug/L						
Surrogate: 4-Bromofluorobenzene	*79.2*		*ug/L*		*99.0*	*50-140*			
Surrogate: Dibromofluoromethane	*72.9*		*ug/L*		*91.1*	*50-140*			
Surrogate: Toluene-d8	*84.3*		*ug/L*		*105*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	5.0	ug/L	ND			NC	30	
Benzene	ND	0.5	ug/L	ND			NC	30	
Bromodichloromethane	2.68	0.5	ug/L	2.26			17.0	30	
Bromoform	ND	0.5	ug/L	ND			NC	30	
Bromomethane	ND	0.5	ug/L	ND			NC	30	
Carbon Tetrachloride	ND	0.2	ug/L	ND			NC	30	
Chlorobenzene	ND	0.5	ug/L	ND			NC	30	
Chloroform	5.02	0.5	ug/L	4.47			11.6	30	
Dibromochloromethane	1.63	0.5	ug/L	1.56			4.4	30	
Dichlorodifluoromethane	ND	1.0	ug/L	ND			NC	30	
1,2-Dichlorobenzene	ND	0.5	ug/L	ND			NC	30	
1,3-Dichlorobenzene	ND	0.5	ug/L	ND			NC	30	
1,4-Dichlorobenzene	ND	0.5	ug/L	ND			NC	30	
1,1-Dichloroethane	ND	0.5	ug/L	ND			NC	30	
1,2-Dichloroethane	ND	0.5	ug/L	ND			NC	30	
1,1-Dichloroethylene	ND	0.5	ug/L	ND			NC	30	
cis-1,2-Dichloroethylene	ND	0.5	ug/L	ND			NC	30	
trans-1,2-Dichloroethylene	ND	0.5	ug/L	ND			NC	30	
1,2-Dichloropropane	ND	0.5	ug/L	ND			NC	30	
cis-1,3-Dichloropropylene	ND	0.5	ug/L	ND			NC	30	
trans-1,3-Dichloropropylene	ND	0.5	ug/L	ND			NC	30	
Ethylbenzene	ND	0.5	ug/L	ND			NC	30	
Ethylene dibromide (dibromoethane, 1,2	ND	0.2	ug/L	ND			NC	30	
Hexane	ND	1.0	ug/L	ND			NC	30	
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L	ND			NC	30	
Methyl Isobutyl Ketone	ND	5.0	ug/L	ND			NC	30	
Methyl tert-butyl ether	ND	2.0	ug/L	ND			NC	30	
Methylene Chloride	ND	5.0	ug/L	ND			NC	30	
Styrene	ND	0.5	ug/L	ND			NC	30	
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	ND			NC	30	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	ND			NC	30	
Tetrachloroethylene	ND	0.5	ug/L	ND			NC	30	
Toluene	ND	0.5	ug/L	ND			NC	30	
1,1,1-Trichloroethane	ND	0.5	ug/L	ND			NC	30	
1,1,2-Trichloroethane	ND	0.5	ug/L	ND			NC	30	
Trichloroethylene	ND	0.5	ug/L	ND			NC	30	
Trichlorofluoromethane	ND	1.0	ug/L	ND			NC	30	
Vinyl chloride	ND	0.5	ug/L	ND			NC	30	
m,p-Xylenes	ND	0.5	ug/L	ND			NC	30	
o-Xylene	ND	0.5	ug/L	ND			NC	30	
Surrogate: 4-Bromofluorobenzene	*79.2*		*ug/L*		*99.0*	*50-140*			
Surrogate: Dibromofluoromethane	*73.3*		*ug/L*		*91.6*	*50-140*			
Surrogate: Toluene-d8	*83.6*		*ug/L*		*104*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	110	5.0	ug/L	ND	110	50-140			
Benzene	40.4	0.5	ug/L	ND	101	60-130			
Bromodichloromethane	33.9	0.5	ug/L	ND	84.7	60-130			
Bromoform	38.5	0.5	ug/L	ND	96.3	60-130			
Bromomethane	45.0	0.5	ug/L	ND	112	50-140			
Carbon Tetrachloride	33.6	0.2	ug/L	ND	84.1	60-130			
Chlorobenzene	40.1	0.5	ug/L	ND	100	60-130			
Chloroform	38.2	0.5	ug/L	ND	95.5	60-130			
Dibromochloromethane	36.3	0.5	ug/L	ND	90.8	60-130			
Dichlorodifluoromethane	40.6	1.0	ug/L	ND	102	50-140			
1,2-Dichlorobenzene	38.7	0.5	ug/L	ND	96.7	60-130			
1,3-Dichlorobenzene	38.6	0.5	ug/L	ND	96.5	60-130			
1,4-Dichlorobenzene	39.9	0.5	ug/L	ND	99.6	60-130			
1,1-Dichloroethane	38.7	0.5	ug/L	ND	96.7	60-130			
1,2-Dichloroethane	41.4	0.5	ug/L	ND	104	60-130			
1,1-Dichloroethylene	39.1	0.5	ug/L	ND	97.7	60-130			
cis-1,2-Dichloroethylene	37.9	0.5	ug/L	ND	94.8	60-130			
trans-1,2-Dichloroethylene	40.4	0.5	ug/L	ND	101	60-130			
1,2-Dichloropropane	38.5	0.5	ug/L	ND	96.3	60-130			
cis-1,3-Dichloropropylene	35.6	0.5	ug/L	ND	89.0	60-130			
trans-1,3-Dichloropropylene	38.0	0.5	ug/L	ND	95.0	60-130			
Ethylbenzene	41.2	0.5	ug/L	ND	103	60-130			
Ethylene dibromide (dibromoethane, 1,2	36.0	0.2	ug/L	ND	89.9	60-130			
Hexane	34.8	1.0	ug/L	ND	87.0	60-130			
Methyl Ethyl Ketone (2-Butanone)	110	5.0	ug/L	ND	110	50-140			
Methyl Isobutyl Ketone	124	5.0	ug/L	ND	124	50-140			
Methyl tert-butyl ether	112	2.0	ug/L	ND	112	50-140			
Methylene Chloride	42.2	5.0	ug/L	ND	105	60-130			
Styrene	37.6	0.5	ug/L	ND	93.9	60-130			
1,1,1,2-Tetrachloroethane	36.6	0.5	ug/L	ND	91.6	60-130			
1,1,2,2-Tetrachloroethane	38.0	0.5	ug/L	ND	95.1	60-130			
Tetrachloroethylene	37.6	0.5	ug/L	ND	94.1	60-130			
Toluene	40.1	0.5	ug/L	ND	100	60-130			
1,1,1-Trichloroethane	46.7	0.5	ug/L	ND	117	60-130			
1,1,2-Trichloroethane	41.6	0.5	ug/L	ND	104	60-130			
Trichloroethylene	41.3	0.5	ug/L	ND	103	60-130			
Trichlorofluoromethane	35.9	1.0	ug/L	ND	89.7	60-130			
Vinyl chloride	36.3	0.5	ug/L	ND	90.8	50-140			
m,p-Xylenes	81.9	0.5	ug/L	ND	102	60-130			
o-Xylene	42.5	0.5	ug/L	ND	106	60-130			
Surrogate: 4-Bromofluorobenzene	*80.6*		*ug/L*		*101*	*50-140*			
Surrogate: Dibromofluoromethane	*81.1*		*ug/L*		*101*	*50-140*			
Surrogate: Toluene-d8	*80.6*		*ug/L*		*101*	*50-140*			

Qualifier Notes:

None

Sample Data Revisions

None

Work Order Revisions / Comments:

None

Other Report Notes:

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

PARACEL LABORATORIES LTD.

Paracel ID: 2204353

Office
19 St. Laurent Blvd.
Ontario K1G 4J8
0-749-1947
cel@paracellabs.com

Chain of Custody
(Lab Use Only)
№ 41315

Page 1 of 1

Client Name: Pinchin Ltd.
Contact Name: M. Kosiw, M Ryan, S. Mather
Address: 1 Hines Rd, Kanata ON
Telephone:

Project Reference: 301925.001
Quote #
PO #
Email Address: on file

Turnaround Time:
☐ 1 Day ☐ 3 Day
☐ 2 Day ☒ Regular
Date Required:

Criteria: ☒ O. Reg. 153/04 (As Amended) Table 3 ☐ RSC Filing ☐ O Reg. 558/00 ☐ PWQO ☐ CCME ☐ SUB (Storm) ☐ SUB (Sanitary) Municipality: ☐ Other:

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

Paracel Order Number: 2204353

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken: Date	Sample Taken: Time	Required Analyses: VOCs
1	MW101	GW		2	Jan 20 2022	AM	X
2	MW102						X
3	MW103BR						X
4	GW Dup-1						X
5	Trip Blank			1	Jan 20 22		X
6							
7							
8							
9							
10							

Comments:

Method of Delivery: PARACEL COURIER

Relinquished By (Sign):	Received by Driver/Depot:	Received at Lab:	Verified By:
Relinquished By (Print): Mike Kosiw	Date/Time: 20/01/22 2:25	Date/Time: Jan 20, 2022 15:15	Date/Time: Jan 20, 22 15:30
Date/Time: Jan 20, 2022	Temperature: °C	Temperature: 12.7 °C	pH Verified [ ] By: