

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

Southern Portion of 40 Beechcliffe Street
Ottawa, Ontario

CO986.00

FINAL REPORT

April 2, 2025

Prepared for:

CITY OF OTTAWA

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1.0 EXECUTIVE SUMMARY

Terrapex was retained by the City of Ottawa (the City) to conduct a Phase Two Environmental Site Assessment (ESA) on the southern portion of the property located at 40 Beechcliffe Street, Ottawa, Ontario (the Phase Two Property, hereinafter also referred to as the Site).

It is understood that the Client is proposing to develop portions of the Site with a housing development. The Site has never been developed. However, instances of possible fill placement were identified in 1965 and during construction work associated with the installation of a sanitary sewer in 2012 which crosses the Site. The proposed change from a vacant property to residential development does not require the filing of a Record of Site Condition (RSC), per Ontario Regulation (O. Reg. 153/04) under the Environmental Protection Act (*Records of Site Condition – Part XV.1 of the Act*).

A Phase One ESA was completed by Terrapex in January 2025 in accordance with the requirements of O. Reg. 153/04; the date of last work being January 17, 2025. The Phase One ESA identified two areas of potential environmental concern (APECs) at the Site, resulting from importation of fill at the Site and the presence of a former garage and current retail fuel outlet located to the east of the Site.

The Phase Two ESA was subsequently conducted by Terrapex to investigate the environmental quality of soil and groundwater at and within the APECs identified at the Site. The Phase Two ESA consisted of the completion of eight boreholes to a maximum depth of 4.5 m below ground surface (bgs), installation of three groundwater monitoring wells, and the collection of soil and groundwater samples for laboratory analysis to augment previous sampling and analysis of contaminants of potential concern (COPCs) identified for the Site. Note that replacement monitoring wells (MW109D, MW110D and MW111D) were installed with deeper screened intervals as a replacement for the former wells as they were found to be dry during initial monitoring. An additional 13 test pits were excavated for delineation purposes.

A summary of the COPC sampling locations for each APEC and potentially affected media is provided in the table below.

SUMMARY OF SAMPLING LOCATIONS

| APEC | MEDIA POTENTIALLY IMPACTED | CONTAMINANTS OF POTENTIAL CONCERN | SAMPLING LOCATIONS | |
|--------|----------------------------|-----------------------------------|--|-------------|
| | | | SOIL | GROUNDWATER |
| APEC 1 | Soil | Metals & Inorganics | BH107-1B, BH108-1A, MW109-1A, MW111-B, BH112-1B. | |

| APEC | MEDIA POTENTIALLY IMPACTED | CONTAMINANTS OF POTENTIAL CONCERN | SAMPLING LOCATIONS | |
|--|----------------------------|-----------------------------------|--|-----------------|
| | | | SOIL | GROUNDWATER |
| (Fill) | (Fill Material) | PAHs | BH107-1B, BH108-1A, MW109-1A, MW111-B, MW111-2C, MW111D-5, BH112-1B, BH113-1, BH114-1 TP103-2, TP103-4, TP104-2, TP106-3, TP107-2, TP107-4, TP108-2, TP109-1, TP110-2 and TP11-3. | |
| | | PHCs F1-F4 | MW107-1B, BH108-1A, MW109-1A, MW111-B, MW111-2C and BH112-1B. | |
| | | BTEX | MW107-1B, BH108-1A, MW109-1A, MW111-B, MW111-2C and BH112-1B. | |
| APEC 2 (Former garage and current retail fuel outlet) | Soil & Groundwater | Metals (including HFM metals) | MW109-3A and MW111-2C | MW109 and MW111 |
| | | PHCs F1-F4 | MW109-3A and MW111-2C | MW109 and MW111 |
| | | BTEX | MW109-3A and MW111-2C | MW109 and MW111 |
| | | VOCs | MW109-3A and MW111-2C | MW109 and MW111 |
| Supplemental Analysis* | N/A | PHCs F1-F4 | BH107-3A | MW110 |
| | | BTEX | BH107-3A | MW110 |
| | | VOCs | BH107-3A | MW110 |
| | | ORPs | | MW111 |
| | | PAHs | | MW111 |

BTEX: Benzene, toluene, ethylbenzene, xylene

PHCs: Petroleum hydrocarbons (fractions F1 to F4)

PAHs: Polycyclic aromatic hydrocarbons

VOCs: Volatile Organic Compounds

HFM: hydride forming metals

ORPs: Other regulated parameters including Hexavalent Chromium (Cr (VI)), Mercury (Hg), Methyl Mercury, Cyanide (CN-), and the following media-specific parameters:

- *Soil: hot water soluble Boron (B-HWS), Electrical Conductivity (EC), Sodium Adsorption Ratio (SAR), pH*
- *Groundwater: Sodium (Na), Chloride (Cl-)*

Due to the proposed development of the Site for residential property use, the generic full-depth Ministry of the Environment, Conservation and Parks (MECP) site condition standards (SCS) applicable to residential property use in a non-potable groundwater condition with coarse-textured soil (Table 3 SCS) was selected to evaluate soil and groundwater quality at the Site.

Based on field observations and an evaluation of soil and groundwater quality data, the following conclusions are provided:

- The soil stratigraphy encountered in the boreholes and test pits at the Site generally consisted of a fill material consisting of sand containing varying gravel fractions ranging from some gravel to gravelly, trace silt, organics and trace amount of asphalt and/or brick. The fill materials were underlain by a deposit of native brownish olive silty clay, overlying

grey sand soil. The colour of the native sand becomes brownish grey or grey at depths between 3 and 4 m bgs, and the boreholes were terminated within the sand deposit at depths between 4.5 to 6.1 m bgs, which represents the maximum depth of investigation.

- In December 2024, monitoring wells MW109D, MW110D, and MW111D were monitored. During the December 2024 monitoring event, the depth to groundwater was measured between 4.62 m bgs (MWMW109D) and 4.89 m bgs (MW111D).
- The findings of the December 11, 2024 monitoring event indicated that the groundwater flow is towards the northeast. The groundwater flow direction was likely influenced by the presence of nearby storm and sanitary sewer which transverse the southern portion of the Site. The groundwater monitoring data is summarised in Table 4 (appended) and the interpreted groundwater elevation contours are shown on Figure 7.
- No evidence of non aqueous phase liquids (i.e., NAPL) or free-product was encountered during monitoring, purging, or sampling of the monitoring wells.
- Comparison of the soil analytical results identified concentrations of PAH parameters greater than the Table 3 SCS specifically present within the fill layer at the southeastern portion of the Site. All other parameters did not exhibit any concentrations greater than the Table 3 SCS.
- Comparison of the laboratory results to the Table 3 SCS did not identify any groundwater contaminants at the Site.

Based on the findings of the Phase Two ESA, the environmental quality of soil at the Site does not meet the Table 3 SCS. For due diligence purposes or prior to site redevelopment a full-depth soil remediation and/or a risk assessment should be completed in accordance with the requirements of O. Reg. 153/04.

2.0 INTRODUCTION

Terrapex was retained by the City of Ottawa (the City) to conduct a Phase Two Environmental Site Assessment (ESA) on the southern portion of the property located at 40 Beechcliffe Street in Ottawa, Ontario (the Phase Two Property, hereinafter also referred to as the Site).

It is understood that the Client is proposing to develop portions of the Site with a housing development. The Site has never been developed. However, instances of likely fill placement were identified in the Phase One ESA. The proposed change from a vacant property to residential development does not require the filing of a Record of Site Condition (RSC), per Ontario Regulation (O. Reg. 153/04) under the Environmental Protection Act (*Records of Site Condition – Part XV.1 of the Act*).

The objective of the Phase Two ESA was to assess the areas of potential environmental concern (APECs) identified by a Phase One ESA (Terrapex, 2025).

2.1 SITE DESCRIPTION

The Site is located in a neighbourhood comprised of mixed residential and commercial land uses as shown on Figure 1 (Site Location Plan) and Figure 2 (Site Features).

Information regarding the location, identification, and geometry of the Phase Two Property is provided in the table below. Refer to Figure 1 for the location of the Site, and to Figure 2 for the general layout of the Site at the time of the site reconnaissance.

PHASE TWO PROPERTY INFORMATION

| | |
|---|--|
| Address: | 40 Beechcliffe Street, Ottawa, Ontario (Southern Portion) |
| Current Plan of Survey: | No plan of survey was available at the time of the report as part of the subdivision of the 40 Beechcliffe Street property into a northern (i.e., the Site) and southern parcel to facilitate the development. |
| Property Identification Number: | 04657-0598 |
| Legal Description: | 40 Beechcliffe Street, Ottawa, Ontario PTS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 & 14, PL 4D-70 |
| UTM Coordinates (centre of site, NAD83): | 18T East: 440958.45 m North: 50200406.44 m |
| Approximate Site Area: | 8,410.3 m ² |
| Structures: | None |
| Occupants (current): | Vacant |
| Other facilities of note: | None |

The Site is irregular in shape with a total area of approximately 8,410.3 m². The Site is currently vacant undeveloped land. The Site has the property identification number (PIN) 04657-0598. The general site layout is provided in Figure 2.

A Plan of Survey was not available from the City. As an RSC will not be filed, the requirement for a legal survey was excluded from the work program. The City did provide a topographic map which includes the Site. The topographic map is provided in Appendix I.

2.2 PROPERTY OWNERSHIP

Contact information for the registered owner of the Site and the party authorizing this Phase Two ESA is provided in the table below.

| | |
|---|---|
| Name and Address of Registered Owner: | City of Ottawa 110 Laurier Avenue West Ottawa, ON K1P 1J1 |
| Name and Address of Authorizing Party: | Vahid Arasteh City of Ottawa 110 Laurier Avenue West Ottawa, ON K1P 1J1 |

2.3 CURRENT AND PROPOSED FUTURE USES

The Site has never been developed and is currently a vacant field. The City is proposing developing the Site with housing, which is a residential use per O. Reg. 153/04.

2.4 APPLICABLE SITE CONDITION STANDARDS

Generic Site Condition Standards (SCS) for evaluating laboratory analytical results for soil and groundwater were determined on the basis of site-specific criteria specified in O. Reg. 153/04, and are summarized below:

SITE-SPECIFIC CRITERIA TO DETERMINE APPLICABLE SITE CONDITION STANDARDS

| | | |
|---------------------------------------|--|----------------------------|
| Environmental Sensitivity: | pH of surface soil less than 5 or greater than 9? | No (7.35- 7.50) |
| | pH of subsurface soil less than 5 or greater than 11? | No (7.38) |
| | Includes, or within 30 m of, an area of natural significance? | No |
| | Includes, or within 30 m of, a body of water? | No |
| Stratigraphy and Hydrogeology: | Is bedrock shallower than 2 m beneath the Site? | No |
| | Does the Site lend itself to the application of stratified SCS? | No |
| | Is the Site located in an area designated in the municipal official plan as a well-head protection area or other designation identified by the municipality for the protection of groundwater? | No |
| | Is potable water at the Site, and all other properties wholly or partially within 250 m radius of the Site, supplied by municipal drinking water system as defined in the <i>Safe Drinking Water Act, 2002</i> ? | Yes |
| | Is the Site, or any other property wholly or partially within 250 m radius of the Site, equipped with a well that is used or intended for use as a source of water for human consumption or for agriculture? | No |
| | Has appropriate tier municipalities consented to the use of non-potable site condition standards? | Yes |
| | Is at least 1/3 of the volume of soil beneath the property coarse textured? | Yes (refer to section 6.4) |
| Proposed Land Use: | Agricultural or Other; Residential; Parkland; Institutional; Industrial; Commercial; Community use? | Residential |

Based on the above, the full depth generic SCS applicable to residential/parkland/institutional land use that are listed in Table 3 of the April 15, 2011 MECP *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act* are considered appropriate for evaluating laboratory analytical results.

In accordance with the requirements of Section 35 of O. Reg. 153/04, notification of the intent to use standards corresponding to a non-potable groundwater condition was provided to the Senior Hydrogeologist of the City of Ottawa on January 14, 2025. In a letter dated February 13, 2025, the municipality confirmed it did not object to the application of non potable groundwater site condition standards at the Site. A copy of the notification correspondence is provided in Appendix II.

3.0 BACKGROUND INFORMATION

3.1 PHYSICAL SETTING

3.1.1 Water Bodies & Areas of Natural Significance

Based on the review of the aerial photographs, satellite images, and topographic maps completed as part of the previous Phase One ESA, a summary of water bodies, areas of natural significance, and groundwater sensitivity information within the Phase One Study Area is provided in the table below, and on Figure 3.

WATER BODIES AND AREAS OF NATURAL SIGNIFICANCE

| | |
|---|--|
| Surface Water: | Pinecrest Creek, located approximately 1,935 m to the north of the Site, is the closest mapped waterbody. Pinecrest Creek flows north and ultimately discharges into the Ottawa River approximately 4,800 m from the Site. |
| Area of Natural Significance: | None |
| Wellhead and Intake Protection Zones | None |
| Municipal Drinking Water System | City of Ottawa |

3.1.2 Topography & Surface Water Drainage

Based on a review of the site reconnaissance records, the topographic maps of the Site, and Phase One Study Area determined as part of the previous Phase One ESA, a summary of topography and surface water drainage is presented in the table below:

SUMMARY OF TOPOGRAPHY & SURFACE WATER DRAINAGE

| | |
|--|--|
| Site & Regional Topography: | The regional topography at the Site slopes to the north (towards the Ottawa River). Woodroffe Avenue (located to the east of the Site with an approximate north-south orientation) descends to 4.0 m below the elevation of the Site due to the presence of a underpass. |
| Approximate Elevation: | The Site is at an elevation of approximately 89 m above mean sea level (amsl). |
| Surface Water Drainage: | Surface water drains into the ground at the Site through unpaved surfaces. |

3.2 PAST INVESTIGATIONS

Terrapex was not provided with any previous pertinent environmental reports for review of the Site. Previous environmental reports related to an off-Site property (1545 Woodroffe Avenue, approximately 240 m southeast of the Site) were reviewed as part of the scope of the Phase One ESA. The review of these reports for 1545 Woodroffe Avenue resulted in an APEC for the Site.

3.2.1 Summary of Phase One ESA

A Phase One ESA of the Site was carried out by Terrapex in January 2025 in accordance with the requirements of O. Reg. 153/04, as amended, to support the redevelopment of the Site for residential purposes. The Phase One and Two Properties are identical.

The Phase One ESA identified one potentially contaminating activity (PCA) on the Phase One Property and seven off-site PCAs within the Phase One Study Area (refer to Table 2, appended). Through an evaluation of the information gathered from the records review, interviews, and the site reconnaissance, a total of two APECs were identified within the Phase One Property, as summarized in Table 3 (also appended). The PCAs are shown on Figure 4 and the APECs are shown in Figure 5A. The Phase One Conceptual Site Model (CSM) is presented in Section 4.3.

4.0 SCOPE OF INVESTIGATION

4.1 OVERVIEW OF SITE INVESTIGATION

The scope of Terrapex's assessment comprised the following:

- Preparation of Sampling and Analysis Plans (SAAP) was prepared that identified target sampling locations with associated rationale, a proposed laboratory analytical program, and the number and type of Quality Control (QC) samples. A second SAAP was prepared for the test pitting program specially to delineate the PAH-impacted fill.
- Drilling of six boreholes (BH107, BH108, MW109, MW110, MW111 and BH112) on November 21 and 22, 2025, to 4.6 m below ground surface (bgs), three of which were completed as groundwater monitoring wells (MW109, MW110 and MW111).
- Decommissioning of the three monitoring wells and reinstalling three deeper monitoring wells (MW109D, MW110D and MW111D) at a greater depth (6.1 m bgs) on December 6, 2024.
- Drilling of two additional shallow boreholes (BH113 and BH114) for delineation purposes in the vicinity of borehole MW111 on December 6, 2024 to a maximum depth of 1.5 m bgs.
- Excavating of thirteen test pits (TP101 to TP113) on January 15, 2025 to maximum depth of 2.1 m bgs.
- Collection of soil samples and logging of visual, olfactory and tactile soil characteristics.
- Screening of combustible soil vapour (CSV) concentrations in soil samples.
- Review and assessment of all available chemical data pertaining to the subject Site, including (but not necessarily limited to) the following contaminants of potential concern (COPCs):
 - Metals;
 - Hydride-Forming Metals (HFMs); namely antimony (Sb), arsenic (As), and selenium (Se);
 - Other Regulated Parameters (ORPs); including hexavalent chromium [Cr (VI)], mercury (Hg), methyl mercury, cyanide (CN-), and the following media-specific parameters:
 - Soil: hot water soluble boron (B-HWS), electrical conductivity (EC), sodium adsorption ratio (SAR), pH;
 - Polycyclic Aromatic Hydrocarbons (PAHs);
 - Benzene, Toluene, Ethylbenzene, Xylenes (collectively referred to as BTEX);
 - Petroleum Hydrocarbons (PHCs) fractions F1 through F4;
 - Volatile Organic Compounds (VOCs);

- Measurement of the elevation of each monitoring well relative to a geodetic benchmark.
- Measurement of groundwater conditions within each monitoring well.
- Evaluation of laboratory analytical results with respect to the selected SCS.
- Refinement of the existing CSM (developed during the previous Terrapex Phase One ESA) to reflect the information collected during the Phase Two ESA activities.

Two separate SAAPs were completed for the Phase Two ESA; one completed during the initial Phase Two ESA and one completed for the test pitting program. The sampling procedures are documented in detail in Section 5.0. It should be noted that the initial SAAP includes investigation on the northern portion of the 40 Beechcliffe property (reported under a separate cover). The SAAPs are provided in Appendix IV.

The Phase Two ESA was supervised by Greg Sabourin, PEng., of Terrapex, located at 1-20 Gurdwara Road, Ottawa, Ontario. Greg Sabourin, PEng., holds a license under the *Professional Engineers Act* and therefore meets the qualifications to be considered a Qualified Person for the purposes of conducting or supervising environmental site assessments in Ontario per Section 5 (2) (a) of O. Reg. 153/04.

4.2 MEDIA INVESTIGATED

Based on the Phase One ESA findings, the Phase Two ESA work program documented herein included investigation of the environmental quality of both soil and groundwater at the Site. The environmental quality of sediment was not investigated as sediment is not present at the Site.

Soil and groundwater were investigated by drilling boreholes, excavating test pits, installing monitoring wells, and sampling groundwater, as described above, and in Section 5.0.

4.3 PHASE ONE CONCEPTUAL SITE MODEL

The Phase One CSM presented in the Phase One ESA report (Terrapex, 2025) includes figures and narrative that provided the logical basis for the interpretation of PCAs and APECs on the Phase Two Property. The Phase One CSM is reproduced in the sections below.

The Phase One CSM includes the following figures appended to this report:

PHASE ONE CSM FIGURES

| Requisite Feature | Figure |
|--|--|
| i. Show any existing buildings and structures | Figure 1: Site Location Figure 2: Site Features |
| ii. Identify and locate water bodies located in whole or in part in the Phase One Study Area | Figure 3: Conceptual Site Model – Phase One Study Area |

| Requisite Feature | Figure |
|--|---|
| iii. Identify and locate any areas of natural significance located in whole or in part on the Phase One study area | Figure 3: Conceptual Site Model – Phase One Study Area |
| iv. Locate any drinking water wells at the Phase One Property | Figure 3: Conceptual Site Model – Phase One Study Area |
| v. Show roads, including names, within the Phase One Study Area | Figure 3: Conceptual Site Model – Phase One Study Area |
| vi. Show uses of properties adjacent to the Phase One Property | Figure 3: Conceptual Site Model – Phase One Study Area |
| vii. Identify and locate areas where any potentially contaminating activity has occurred, and show tanks in such areas | Figure 4: Conceptual Site Model and Potentially Contaminating Activities |
| viii. Identify and locate any areas of potential environmental concern | Figure 5A: Conceptual Site Model – Areas of Potential Environmental Concern |

The Phase One CSM comprises the narrative provided in the following table:

PHASE ONE CSM NARRATIVE

| Requisite Component | Description & Assessment |
|--|--|
| i. Areas where potentially contaminating activity on, or potentially affecting the Phase One Property has occurred | <p>A total of one on-Site and two off-Site PCAs are deemed to have affected the property (as summarized in Table 2, appended). The PCA locations are shown in Figure 4.</p> <p>A total of two APECs were identified associated with the aforementioned on-Site and off-Site PCAs, as summarised in Table 3 (also appended) and on Figure 5A.</p> |
| ii. Any contaminants of potential concern, | <p>As summarized in Table 3 (appended), media beneath the Site are considered to be potentially affected by the following contaminants of potential concern:</p> <p><u>Soil and Groundwater</u></p> <ul style="list-style-type: none"> Metals [including hydride forming metals (HFM)] Polycyclic Aromatic Hydrocarbons (PAHs) Benzene, Toluene, Ethylbenzene, Xylenes (collectively referred to as BTEX) Petroleum Hydrocarbons (PHCs) fractions F1 through F4 Volatile Organic Compounds (VOCs) <p><u>Soil Only</u></p> <ul style="list-style-type: none"> Hydride-Forming Metals (HFMs); namely Antimony (Sb), Arsenic (As), and Selenium (Se) Other Regulated Parameters (ORPs); including Hexavalent Chromium (Cr (VI)), Mercury (Hg), Methyl Mercury, Cyanide (CN-), and the following media-specific parameters: Soil: hot water-soluble Boron (B-HWS), Electrical Conductivity (EC), Sodium Adsorption Ratio (SAR), pH |
| iii. The potential for underground utilities, if present, to affect contaminant distribution and transport, | <p>In general, potential migration pathways for subsurface contaminants at the Site would consist of buried services. The presence of the sanitary sewer which crosses the Site would be expected to affect groundwater flow direction and thus potentially contaminant distribution. The presence of the sanitary sewer located to the southern portion of the Site could affect the groundwater flow at the Site and thus potentially contaminant distribution.</p> |
| iv. Available regional or site specific geological and hydrogeological information, and | <p>Site & Regional Topography: Site is generally flat with no significant grade difference. Regional grade generally slopes to the north towards the Ottawa River. The grade difference between the Site and Woodroffe Avenue (located to the east) is between 1.0 m to 3.0 m which varies because of the slope of Woodroffe Avenue due to the rail underpass.</p> |

| Requisite Component | Description & Assessment |
|---|--|
| | <p>Approximate Site Elevation: 89 m asl</p> <p>Surface Water Drainage: Infiltration into ground from surface.</p> <p>Inferred Groundwater Flow Direction: The Phase One CSM indicated that the inferred groundwater flow direction at the Site would be north towards Pinecrest Creek.</p> <p>Physiography and Soil Stratigraphy: Ottawa Valley Clay Plains, which is characterized as fine-textured glaciomarine deposits consisting of silt and clay, minor sand and gravel, massive to well-laminated.</p> <p>Bedrock and Approximate Depth: Lower Ordovician dolostone, sandstone of the Beekmantown Group at approximately 21 m bgs.</p> <p>Surface Water: Pinecrest Creek, located approximately 1,935 m to the north of the Site, is the closest mapped waterbody. Pinecrest Creek flows north and ultimately discharges into the Ottawa River approximately 4,800 m from the Site.</p> <p>Area of Natural Significance: None located within 30 m of the Phase One Property, or within the Phase One Study Area.</p> <p>Wellhead and Intake Protection Areas: None located within the Phase One Property, or within the Phase One Study Area.</p> <p>Municipal Drinking Water System: All properties are deemed to be connected to the municipal drinking water system supplied by the City of Ottawa.</p> <p>Well For Consumption/ Agricultural Use: None currently or previously located within the Site, or within the Phase One Study Area.</p> |
| <p>v. How uncertainty or absence of information obtained in each of the components of the Phase One ESA could affect the validity of the model.</p> | <p>The main uncertainty associated with the CSM developed for the Site relates to the limited information regarding the former use of the Site and possible importation of fill, as well as the limited information regarding activities on neighbouring properties, specifically the former concrete plant. This lack of information is mitigated by the inherent nature of residential land uses, which are not typically associated with significant PCAs.</p> <p>Notwithstanding the above, it should be noted that Phase One ESAs have inherent limitations, and therefore findings cannot be considered definitive (i.e., the findings of a Phase One ESA are inherently associated with some uncertainty).</p> |

The following table describes the rationale pertaining to any applicable reliance on exemptions provided by Paragraphs 1, 1.1, 2 and 3 of Section 49.1 of O. Reg. 153/04.

RELiance ON EXEMPTIONS

| Exemption(s) Circumstances | Rationale |
|---|------------------|
| (1.) Substance(s) applied to surfaces for safety of vehicular or pedestrian traffic under conditions of snow or ice or both. | Not relied upon. |
| (1.1) Excess soil deposited at the property for final placement meets the soil quality standards that apply to the property as determined in accordance with the Excess Soil Standards. | Not relied upon. |

| Exemption(s) Circumstances | Rationale |
|--|------------------|
| (2.) There has been a discharge of drinking water within the meaning of the Safe Drinking Water Act, 2002. | Not relied upon. |
| (3.) Applicable SCS deemed not exceeded if the concentrations do not exceed the naturally occurring range of concentrations typically found within the vicinity of the Site. | Not relied upon |

4.4 DEVIATIONS FROM THE SAMPLING AND ANALYSIS PLAN

Deviations from the initial SAAP during the Phase Two ESA investigation included the completion of supplemental laboratory analysis not necessarily required to fulfill the assessment of the APECs and were completed on the basis of field observations and/or for additional coverage of the Site. The following supplemental laboratory analyses were completed:

- An additional soil sample was submitted from the apparent water table from borehole BH107 (BH107-3A) based on the measurement of an elevated combustible vapour (CV) concentration from the soil sample.
- A groundwater sample collected from monitoring well MW110D was analysed for VOCs and PHC F1-F4 for additional coverage.
- The groundwater sample collected from monitoring well MW111D was analysed for PAHs and ORPs in addition to metals, VOCs and PHC F1-F4.

A copy of the SAAPs are provided in Appendix IV.

4.5 IMPEDIMENTS

Access to the Site was not impeded at any time during the Phase Two ESA work program, except where intended sampling locations conflicted with underground services, such as sanitary sewer lines, and hydro which were present in some areas of the Site.

5.0 INVESTIGATION METHOD

5.1 GENERAL

The soil and groundwater quality at the Site were investigated at the locations shown on Figure 5B through the advancement of boreholes and installation of groundwater monitoring wells to characterize environmental conditions at the APECs identified in the Phase One ESA. Investigation methods followed Standard Operating Procedures (SOPs) prepared by Terrapex for the conduct of environmental investigations.

5.2 DRILLING AND EXCAVATING

Borehole drilling and monitoring well installation services for this work program were provided by Strata Drilling Group (Strata) of Stouffville, Ontario using a direct push drill rig. Strata is an MECP licensed well-drilling contractor. Strata was used for both of the November 21 and 22, 2024, and the December 6, 2024 borehole and monitoring well installation events.

Based on the initial analytical results, specifically from borehole MW111 (soil sample M111-1B), a test pit program was completed at the Site for delineation purposes. Excavation services for the test pit work program were provided by Gerry Crepin Cartage (Crepin) of Ottawa, Ontario using a 9-ton excavator.

Measures to minimize potential cross-contamination or other potential bias are described in Terrapex's SOPs. There were no deviations from the SOPs regarding borehole drilling or test pit excavation during this investigation.

5.3 SOIL

5.3.1 Soil Sampling

The following soil sampling was completed as part of the Phase Two ESA work program and was completed under the full-time supervision of Terrapex staff.

- On November 21 and 22, 2024, Terrapex collected soil samples from all of the boreholes drilled (BH107, BH108, MW109, MW110, MW111 and BH112) per the initial SAAP to depths of 4.5 m bgs. Soil samples were collected at each borehole at regular depth intervals using a disposable dual tube sampler.
- On December 6, 2024, additional drilling was conducted with the purpose of replacing monitoring well MW109, MW110 and MW111 (see Section 5.4.1 for additional details). As soil sampling had previously been completed from surface to 4.5 m bgs, soil sampling from the borehole (MW109D, MW110D, and MW111D) was conducted between 4.5 and 6.1 m bgs (maximum depth of the borehole) using the same procedure as described above

with the exception of MW111D, where a sample of the shallow fill material was also collected.

Laboratory analysis of a soil sample collected from the fill layer at borehole MW111 (soil sample MW111-1B) marginally exceeded the applicable criteria for certain PAH parameters. Based on discussions with the City, it was decided to collect additional soil samples within the immediate vicinity of MW111 to determine lateral and vertical extent of the PAH fill impacts. The following additional work was completed to assess the extent of the PAH impacted fill.

- On December 6, 2024, two additional boreholes were drilled (BH113 and BH114) within two meters of borehole MW111. Soil samples from the same depth as soil sample MW111-1B, were collected from MW111D, BH113 and BH114. The fill samples were submitted for laboratory analysis of PAH parameters.
- On January 15, 2025, Terrapex collected soil samples from test pits (TP101 to TP113). Soil samples were collected from the fill layer and the underlying native silty clay layer (for vertical delineation purposes). Based on the SAAP and in conjunction with Client discussions, soil samples were submitted from select test pits (TP103, TP104, TP106, TP107, TP108, TP109, TP111 and TP111) for laboratory analysis of PAH. Two additional soil samples were submitted for vertical delineation purposes. Soil samples were collected directly from the bucket of the excavator in approximately 0.60 m intervals. Test pits were terminated once the native silty clay layer was encountered beneath the fill layer.

The following methodology was used for each of the three aforementioned soil sampling events. Each recovered sample was divided into two portions. One portion was placed in a clear sampling bag for field screening/logging. The second portion was collected using laboratory supplied sampling containers for analysis of selected COPCs. Samples considered to be “worst-case” based on field screening were submitted for analysis and extracted at the laboratory within the required holding time. Samples were collected based on the following rationale for each of their respective APECs:

- Soil samples collected to assess APEC 1 (the importation of fill of unknown quality) were collected from the apparent fill layer (if present) which was usually indicative by the presence anthropogenic material (debris, construction material etc.) and/or the presence of organic material at depth. Soil samples used to delineate the PAH impacted fill layer were also collected from this layer.
- Samples collected to assess APEC 2 (the former garage and current retail fuel outlet) were collected from the apparent water table as it was possible that contaminants from the former garage and/or the retail fuel outlet would likely migrate in the groundwater to the Site.

Samples for analysis were placed in a cooler with ice and delivered with signed chain of custody to the project laboratory for analysis. Borehole and test pit locations are shown on Figure 5B. Borehole logs and test pit logs illustrating the stratigraphy encountered, chemical analysis samples and measured CV concentrations are included in Appendix V.

5.3.2 Field Screening Measurements

CV concentrations were measured in each soil sample using a RKI Eagle 2 Hydrocarbon Surveyor (Eagle) calibrated to n hexane and operated in “methane elimination” mode. The Eagle can measure combustible organic compounds to a nominal detection level of 5 parts per million (ppm), with an accuracy of $\pm 5\%$.

The Eagle was calibrated according to the manufacturer's instructions and Terrapex SOPs before the field investigation.

“Worst-case” soil samples from each borehole were identified on the basis of vapour screening, visual and olfactory evidence of contamination, and sample location in relation to potential point sources of impact (as described in Section 5.3.1).

5.4 GROUNDWATER

5.4.1 Monitoring Well Installation

Monitoring well installation services for this work program were provided by Strata, under contract with Terrapex.

On November 22, 2024, a monitoring well was installed in select boreholes (MW109, MW110 and MW111), as shown on Figure 5B. The monitoring wells were constructed using 50 mm inside diameter schedule 40 PVC well pipe and #10 slot screen interval. The annulus of each monitoring well was backfilled with washed silica sand to a depth of approximately 0.3 m above the screened interval. A hydrated bentonite seal was placed above the sand pack to prevent infiltration of surface water into the monitoring well. A monument well casing was placed over each monitoring well for protection. Well installation details are provided within the borehole logs in Appendix V.

The depths to the bottom of the screened intervals of the monitoring wells (MW101, MW103, MW105) were located at 4.5 m bgs. The placement of the screened interval was based on the visual observations of saturated conditions at each of the borehole locations. The screened interval depths were established to assess the surface of the groundwater table for the potential on-Site and off-Site sources of contamination.

During groundwater monitoring events conducted on November 23, and December 2, 2024 (refer to Section 6.2 for additional details), monitoring wells MW109, MW111 and MW112 were found

to be dry and indicated that in spite of observations during the borehole drilling, the wells had apparently not been drilled to an adequate depth to intercept the water table. On December 6, 2024, monitoring wells MW109, MW110 and MW111 were decommissioned and replaced with new monitoring wells (MW109D, MW110D and MW111D) drilled adjacent to the former wells with the bottom of the screened intervals at 6.1 m bgs (as opposed to 4.5 m bgs from the original wells).

The decommissioning of the monitoring wells was supervised by Terrapex and completed by a licensed driller (Strata) and in accordance Ontario *Wells* regulation (R.R.O. 1990, Regulation 903).

Prior to developing and groundwater sampling, the monitoring wells were monitored for CV concentrations in the well headspace, and depths to water and to the bottom were measured in each well. The estimated volume of water in each well and its annulus were calculated based on the depth measurements, diameter of the well standpipe and annulus, and an assumed annulus porosity of 30%.

The monitoring wells were subsequently developed in accordance with Terrapex's SOPs in order to remove entrained particulate in the well standpipe, well screen and filter pack as well as surrounding formation materials. Development of each monitoring well was conducted with a dedicated inertial sampler comprising low density polyethylene (LDPE) tubing and a LDPE foot-valve.

5.4.2 Field Measurements of Water Quality Parameters

Prior to conducting groundwater sampling activities, vapour levels were measured within the headspace of each monitoring using an Eagle. The depth to groundwater and apparent thickness, if any, of any light non-aqueous phase liquids (LNAPL) were then measured using a Solinst interface probe.

Water quality parameters (i.e., temperature, pH, specific conductivity, dissolved oxygen, and oxidation reduction potential) were measured in monitoring wells prior to sampling activities using a flow-through cell and a YSI 556 water quality sensor, in accordance with Terrapex SOPs.

5.4.3 Groundwater Sampling

On December 11, 2024, low-flow sampling was conducted in order to minimize drawdown of the water table. After water quality parameters stabilized, groundwater samples from the monitoring wells were collected. Sampling was conducted using "low-flow" methodology using a peristaltic pump and dedicated sample tubing, as per Terrapex SOPs unless otherwise noted. Groundwater samples were collected from monitoring wells MW109D, MW110D and MW111D per the SAAP. Additional analyses for ORPs (MW111D), and VOCs and PHC F1-F4 (MW110D) were conducted on the groundwater samples for supplemental analysis.

Groundwater samples were collected directly into pre-cleaned, laboratory supplied sampling bottles, packed in a cooler with ice, and shipped under a signed chain of custody to the analytical laboratory for analysis.

5.5 SEDIMENT

Sediment sampling was not completed as sediment is not present at the Site.

5.6 ANALYTICAL TESTING

Laboratory analytical services for this work program involving soil and groundwater media were provided by Paracel Laboratories Ltd. (Paracel) at their facility in Ottawa, Ontario, under contract with the City. Paracel's Ottawa laboratory is accredited by the Canadian Association for Laboratory Accreditation (CALA) to International Standard ISO/IEC 17025:2017, *General Requirements for the Competence of Testing and Calibration Laboratories* for the parameters included in the analytical program.

Soil and groundwater samples were analysed as per the SAAP (with the additional soil and groundwater parameters as outlined in Section 4.4) to address the identified APECs from the Phase One ESA.

5.7 RESIDUE MANAGEMENT

Soil cuttings generated during the work program were contained on-Site in drums for disposal off-Site at a licenced waste disposal facility. Following review of the analytical results the purge water was spread out across the Site. Soil cuttings were transported for off-Site disposal under a bill of lading.

5.8 ELEVATION SURVEYING

Terrapex completed a survey of the geodetic elevations of the top of the pipe and ground surface for each monitoring well and borehole location. A Trimble Catalyst DA2 Global Navigation Satellite System (GNSS) Receiver Navigation Satellite System (GNSS) Receiver was used to establish geodetic elevations with reference to NAD 1983.

5.9 QUALITY ASSURANCE AND QUALITY CONTROL MEASURES

Quality Assurance and Quality Control (QA/QC) measures were implemented during the Phase Two ESA in accordance with Terrapex SOPs. A summary of these measures follows.

5.9.1 Sample Collection Avoidance of Cross-Contamination

During drilling, to mitigate cross-contamination, dual tube sample liners were disposed of after the collection of each sample. Fresh nitrile gloves were worn for the handling of each sample.

During groundwater sampling, dedicated sampling equipment was used at each monitoring well location. Multiple containers (including duplicate samples) were drawn concurrently, not sequentially. To mitigate cross-contamination, the interface probe was washed with a liquid solution of Alconox detergent and rinsed with potable water between each monitoring well. A fresh pair of nitrile gloves was donned at each well location.

Pre-cleaned sample containers for the specific parameters of interest were provided by the laboratory and used at each borehole and monitoring well location for the collection of soil and groundwater samples. Samples for analyses were placed in an enclosed cooler with loose ice and transported under a signed chain of custody to Paracel for chemical analysis.

5.9.2 Field Quality Assurance Sampling

The following type of Quality Assurance (QA) field sampling was conducted by Terrapex during the execution of field programs:

SUMMARY FIELD QA SAMPLING

| QA Sample Type | Field QA Sampling |
|--------------------|---|
| Field Duplicate | A second sample concurrently collected from the same location as another sample and submitted for duplicated analyses. |
| Field Blank (Soil) | A sample comprising a container pre-charged with methanol preservative into which no soil is placed and subsequently submitted for laboratory analyses |
| Trip Blank | A sample prepared by the contract laboratory using analyte-free water that accompanies Terrapex during execution of sampling programs but remains unopened. |

With the exception of samples prepared by the laboratory, the laboratory was not informed of the nature or number of the field QA/QC samples outlined above.

5.9.3 Laboratory Quality Assurance Sampling

Commercial contract laboratories will have their own internal quality assurance and quality control programs. These programs typically include quality assurance samples in analytical runs, the results of which are provided (in summary form) in the Certificate of Analysis documenting analytical results for a sample submission. Examples of Laboratory QA sample types are summarized below.

TYPICAL LABORATORY QA SAMPLING

| QA Sample Type | Laboratory QA Sampling |
|-----------------------|--|
| Method Blank | An aliquot prepared using analyte-free water and processed through the entire analytical method, including extracting, digestion, and other preparation procedures. |
| Matrix Spike | A second aliquot from an analytical sample that is fortified with known concentrations of the target parameters and processed through the entire analytical method, including extracting, digestion, and other preparation procedures. |
| Laboratory Duplicate | A second aliquot from an analytical sample that is included in the analytical run for comparison to results from the corresponding sampling pair. |
| Surrogate Recovery | Surrogates are parameters not normally found in nature but that behave chemically and physically similar to the analytical run target parameters, and that are introduced into the aliquot of an analytical sample. |

6.0 REVIEW AND EVALUATION

6.1 GEOLOGY

6.1.1 Background

The Site is located in a physiographic region known as Ottawa Valley Clay Plains. The Ottawa Valley Clay Plains are characterized as fine-textured glaciomarine deposits consisting of silt and clay, minor sand and gravel, massive to well-laminated.

Bedrock geology consists of Lower Ordovician dolostone, sandstone of the Beekmantown Group. Bedrock was not encountered during field investigations completed by Terrapex. Ontario's Geological Survey (OGSEarth), Google Earth map (2006) indicates the depth to bedrock in the vicinity of the Site to be approximately 21 m bgs.

6.1.2 Encountered Stratigraphy

The Phase Two ESA fieldwork programs encountered three hydro-stratigraphic units at the Site, as summarized in the following table.

SUMMARY OF HYDRO STRATIGRAPHIC UNITS ENCOUNTERED BENEATH THE SITE

| Stratigraphic Unit | General Description | Depth Range (m bgs) | Hydrogeological Condition |
|--------------------|---|---------------------|---------------------------|
| Fill | Moist, dark brown silty clay with trace sand, asphalt and/or organics | 0.0 – 3.0 | Unsaturated |
| Native | Moist, brown-olive, or greyish brown, silty clay | 1.0 -4.1 | Saturated |
| Native | Moist, brown-grey sand | 3.0 – 6.1 | Saturated |

No aquitards were encountered during the intrusive investigations. As no contaminants were identified in the shallow overburden aquifer, deeper aquifers were not investigated.

The general soil stratigraphy at the Site is shown on the borehole and test pit logs in Appendix V, and on cross-sections in Figures 6A and 6B.

6.2 GROUNDWATER ELEVATIONS AND FLOW DIRECTION

On November 22, 2024, three groundwater monitoring wells (MW109, MW110 and MW111) were installed at the Site and screened between 1.5 and 4.5 m bgs. Groundwater monitoring events were conducted on November 23 and December 2, 2024, as described below:

- On November 23, 2024, monitoring wells MW109, MW110, and MW111 were monitored, and all of the monitoring wells were found to be dry.

- On December 2, 2024, monitoring wells MW109, MW110, and MW111 were monitored, and all of the monitoring wells were found to be dry.

Based on the November 23 and December 2, 2024 monitoring events, it was decided to decommission the three monitoring wells and install deeper monitoring wells at each location (refer to Section 5.4.1).

On December 11, 2024 (following the installation following the installation of the deeper monitoring wells MW109D, MW110D and MW111D), a monitoring event was conducted. The depth to groundwater was measured between 4.62 m bgs (MW109D) and 4.89 m bgs (MW111D).

Interpretations of the groundwater contours from the December 11, 2024, monitoring event indicated that the shallow groundwater flow was towards the northeast. The groundwater monitoring data is summarised in Table 4 (appended) and the interpreted groundwater elevation contours are shown on Figures 7.

Free-product or non-aqueous phase liquid (NAPL) was not encountered during monitoring, purging, or sampling of the monitoring wells during the Phase Two ESA work programs.

6.3 GROUNDWATER HYDRAULIC GRADIENTS AND CONDUCTIVITY

Based on the relative groundwater elevations on December 11, 2024, the interpreted horizontal gradient was 0.020 (calculated between MW110D and MW109D).

Vertical hydraulic gradients were not calculated as the measured concentrations of contaminants of concern in the shallow groundwater beneath the Site do not exceed the applicable SCS.

Based on the coarse textured soil at the Site (see Section 6.4 for further details), the hydraulic conductivity for the unconfined sand aquifer was estimated to range from 10^{-4} to 10^{-5} m/sec (Freeze and Cherry, 1979).

6.4 SOIL TEXTURE

Soil samples were submitted for grain size analysis from soil samples collected from boreholes BH108 (BH108-1A) and MW109 (MW109-3A). Based on the grain size analysis, the fill material present at the Site (represented by BH108-1A), described as silty sand with some gravel and trace organics, was determined to be medium/fine-textured. However, it should be noted that the fill sample (BH108-1A) grain size is marginally considered fine/medium, as 47.6% and 52.4% of the material was classified as coarse and fine/medium, respectively.

The native sandy silt (represented by MW109-3A) was determined to be medium/fine-textured. Grain size analysis is provided in the laboratory of analysis certificates (Appendix VI).

Due to the presence of the coarse-textured native sand material underlying the native silty clay layer (not analyzed for grain size but understood to be coarse-textured) and the marginal results from the grain size analysis for soil sample BH108-1A, the QP has determined that applying the coarse-textured to the Site would be an appropriate conservative measure, as it is estimated that more than one-third of the soil (measured by volume) is the coarse sand material (per the definitions of O. Reg. 153/04).

6.5 SOIL FIELD SCREENING

All soil material exposed to anthropogenic interaction or disturbance may be classified as fill material, including soil that is essentially reworked (or turned-over) native soil. The identification of fill material at the Site does not directly infer potential chemical impairment, unless it is known to have been imported to the Site. In this regard, Terrapex considers the physical composition of a fill material to be a prime indicator of potential chemical impairment, and as such field screening includes a visual inspection for the presence of deleterious components (fragments of wood, brick, ash, asphalt, concrete, and similar materials).

Evidence of heterogeneous fill material was observed at all boreholes (BH107, BH108, MW109, MW110, MW111, BH112, BH113 and BH114) and all of the test pits (TP101 to TP113).

In addition, potential impacts associated with spills, leaks, or other releases were screened by measuring CV concentrations in the headspace of the portion of recovered soil samples.

During the Phase Two ESA, the following headspace vapour screening measurements were recorded:

- CV concentrations during the November 21 and 22, 2024 soil sampling were less than 5 ppm in all soil samples collected from all boreholes with the exception of sample BH107-3A that had a measured CV concentration of 130 ppm.
- CV concentrations during the December 6, 2024 soil sampling were less than 5 ppm in all soil samples collected, with the exception of samples MW111D-5, BH113-1 and BH114.1, which had measured CV concentrations of 40 ppm, 30 and 45 ppm respectively.
- CV concentrations during the January 15, 2025 soil sampling were less than 5 ppm in all soil samples collected.

The CV concentrations measured for each soil sample are included on the borehole and test pit logs (Appendix V).

6.6 SOIL QUALITY

Laboratory results for the soil samples submitted for analyses of metals, HFMs, ORPs, PAHs, BTEX and PHCs, and VOCs are summarized in the appended Tables 5 through 8, respectively,

with the laboratory Certificates of Analysis enclosed in Appendix VI. As indicated in the tables, most of the soil samples met the applicable Table 3 SCS for the parameters analysed, except for the following:

- BH113-1, TP107-12 (duplicate of TP107-2) and TP109-1 had concentrations of acenaphthylene greater than the Table 3 SCS;
- TP107-12 (duplicate of TP107-2) had a concentration of anthracene, benzo[k]fluoranthene and phenanthrene greater than the Table 3 SCS;
- TP107-2, TP107-12 (duplicate of TP107-2), and TP109-1 had a concentration of benzo[a]anthracene greater than the Table 3 SCS;
- MW111-1B, MW111D-5, BH113-1, TP107-2, TP107-12 (duplicate of TP107-2) and TP109-1 had a concentration of benzo[a]pyrene greater than the Table 3 SCS;
- TP107-12 (duplicate of TP107-2), and TP109-1 had a concentration of benzo[b]fluoranthene, dibenzo[a, h]anthracene and indeno[1 2, 3]pyrene greater than the Table 3 SCS; and,
- MW111-1B, MW111D-5, BH113-1, TP107-2, TP107-12 (duplicate of TP107-2), TP108-2 and TP109-1 had a concentration of fluoranthene greater than the Table 3 SCS

Lateral distribution of soil samples for each of parameter group are depicted as plan views presented in Figures 8 through 14. Lateral and vertical delineation of PAH impacts to soil are depicted as plan and cross-sectional views presented in Figures 11A through 11C.

6.7 GROUNDWATER QUALITY

Laboratory results for the groundwater samples submitted for analyses of metals, HFMs, ORPs, PAHs, BTEX, PHCs, and VOCs are summarized in the appended Tables 9 through 12, respectively, with the laboratory Certificates of Analysis enclosed in Appendix VI. As indicated in the tables, all of the groundwater samples met the applicable Table 3 SCS for the parameters analysed.

Lateral distribution of groundwater samples are depicted as plan presented in Figures 15 through 21.

6.8 SEDIMENT QUALITY

The environmental quality of sediment was not investigated as sediment is not present at the Site.

6.9 QUALITY ASSURANCE AND QUALITY CONTROL RESULTS

Quality assurance samples involving comparisons of actual results to expected results are evaluated on the basis of recovery, or recovery percentage. Note that recovery does not necessarily relate to the ability to provide consistent (similar) quantitations between successive analyses.

Recovery is calculated as follows:

$$\text{Recovery} = \frac{\text{reported concentration}}{\text{actual (expected) concentration}} \times 100\%$$

Quality assurance samples involving comparisons of 'duplicate' analysis are evaluated on the basis of **Relative Percent Difference (RPD)**. RPD provides a measure of the ability to provide consistent results on successive analyses, but does not necessarily relate to the ability to provide results that are representative of the actual concentration of the target parameter (e.g., the expected result when comparing against a known standard).

RPD is calculated as follows:

$$\text{RPD} = \left| \frac{\text{result}_1 - \text{result}_2}{\frac{1}{2} \times (\text{result}_1 + \text{result}_2)} \right| \times 100\%$$

RPD values should not be calculated where one or both results do not yield quantifiable results (i.e., non-detect findings), or where one or both results are less than five times the reported detection limits. RPD values should not be calculated for parameters which are based on calculations using raw data (e.g., sodium adsorption ratio, total xylenes); instead, where applicable, RPD values should be calculated for the 'raw' data (e.g., the m&p-xylenes, o-xylenes parameters).

Note that the mere absence of a calculated RPD is not considered a quality assurance failure, but simply a situation where alert criteria cannot be quantifiably evaluated. Similarly, the absence of a RPD value is not necessarily considered to be an acceptable field quality assurance result.

6.9.1 Field Quality Control Objectives

Analytical concentrations for soil and groundwater field duplicate, blank and spike samples, together with the calculated RPDs are presented in the tables included as Appendix VII. A summary of the field quality assurance objectives is provided below.

FIELD QC OBJECTIVES

| METRIC | QUALITY CONTROL OBJECTIVE | RESULT |
|--------------------------------------|--|-----------------|
| Sample Integrity | Deviation from SOP recorded within field notes | No |
| | Significant variance in field screening results (if applicable) recorded within field notes between duplicate samples | No |
| | Laboratory reports average sample temperature at time of receipt greater than 10°C | No |
| | Incorrect sampling container employed | No |
| | Broken or leaking sampling container reported by laboratory | No |
| Sample Identification Integrity | Excessive particulate within received water sample reported by laboratory | No |
| | Laboratory reports discrepancy between samples reported on Chain of Custody and those actually received (as per sampling container labels) | Yes (see below) |
| Chain Of Custody Integrity | Laboratory reports unlabelled sample received (no sample identification apparent) | No |
| | Laboratory reports missing/damaged custody seal | No |
| | Laboratory reports missing Chain of Custody form | No |
| Sample Storage (Hold Time) Integrity | Date/time of sample recovery not recorded on Chain of Custody form | No |
| | Sample for analysis of VOC / F1 PHCs and/or volatile gases received by laboratory more than 36 hours after recorded sample collection | Yes (see below) |
| Sample Storage (Hold Time) Integrity | Sample for analysis other than VOC / F1 PHCs and volatile gases received by laboratory more than 72 hours after recorded sample collection | No |

On Certificate of Analysis 25033978, the test pit sample TP107-2 was labelled incorrectly on the chain of custody as “TPP107-2”. This copy error does not affect the interpretation of the data. The sample name TP107-2 has been used to identify this sample.

It was noted that the sample name on the Certificate of Analysis for soil sample BH107-3A was mislabelled as “MW107-3A”. The use of “MW” is typically only used for boreholes instrumented as monitoring wells (as opposed to “BH” for a borehole) per the nomenclature policy for Terrapex. This mislabelling does not affect the interpretation of the results. The sample name BH107-3A has been used to identify this sample.

The 36-hour goal for submitting soil and groundwater samples to the laboratory is an internal Terrapex guideline that is to ensure that the laboratory will have sufficient time to extract and analyses the samples within the required laboratory guideline. As all samples were preserved where necessary, kept cold and analysis was completed within the required hold time. As a result, this is not considered to affect the interpretation of the analytical data.

6.9.2 Field Quality Assurance Objectives

Analytical concentrations for soil and groundwater field duplicate, blank and spike samples, together with the calculated RPDs are presented in tables provided in Appendix VII. A summary of the field quality assurance objectives is provided below.

FIELD QA OBJECTIVES

| QA Sample Type | Field QA Sampling |
|--------------------------|---|
| Field Duplicate | Acceptable correlation of parameter concentrations between parent field duplicate and its parent sample, expressed as RPD |
| Trip Blank (groundwater) | All concentrations for parameters analysed should be less than detection. |
| Methanol blank (soil) | All concentrations for parameters analysed should be less than detection. |

The following field QA samples were collected by Terrapex as part of the Phase Two investigation program:

SUMMARY FIELD QA SAMPLING

| QA Sample Type | QA Sample ID & (Parent Sample ID) | Sample Date | Scope of Analysis | QA Objectives Satisfied |
|------------------------|-----------------------------------|-------------------|---|-------------------------|
| Soil Duplicates | MW110-1D (MW101-1A) | November 21, 2024 | Metals, HFMs, ORPs*, PAHs | Yes |
| | MW111-2D (MW111-2C) | November 22, 2024 | Metals, HFMs, PHCs, BTEX, VOCs | Yes |
| | TP107-12 (TP107-2) | January 15, 2025 | PAHs | No (see below) |
| Groundwater Duplicates | MW1005 (MW105D) | December 13, 2024 | Metals, HFMs, ORPs*, PAHs, PHCs, BTEX, VOCs | Yes |
| Groundwater Trip Blank | Methanol Blank | November 25, 2025 | PHC F1, BTEX, VOCs | Yes |
| Soil Trip Blank | Trip Blank | December 11, 2024 | PHC F1, BTEX, VOCs | Yes |

The RPD calculated for electrical conductivity (EC) for soil sample MW110-1A and its duplicate pair MW110-1D was 21% which had exceeded the alert criteria of 10%. Since neither soil sample exceeded the Table 3 SCS this does not affect the interpretation of the data.

The RPDs that were able to be calculated for soil sample TP107-2 and its duplicate pair TP107-12 ranged between 90% (benzo[g, h, i]pyrene) and 174% (phenanthrene) which exceeds the RPD alert criteria of 40% for PAH analysis. The elevated RPDs are likely due to non-homogeneity of the sample matrix (i.e., the fill material) and is not expected to significantly alter the interpretation of the data, as multiple PAH parameters exceeded for both of the sample and its duplicate pair. Non-homogeneity of fill material is not unexpected.

6.9.3 Laboratory Quality Assurance Objectives

The laboratory's QA/QC program consisted of the analysis of laboratory replicates, method and spiked blanks, process percent recoveries, matrix spikes, and surrogate percent recoveries, as appropriate for the particular analysis protocol.

The QA section(s) of the laboratory Certificates of Analyses were reviewed to identify any contraventions to the following QA objectives:

LABORATORY QA OBJECTIVES

| Laboratory QA Objectives | Objective Satisfied | Remarks |
|--|---|--|
| Gas Chromatography Flame Ionization (GC - FID) did not reach baseline | Lab Report # 2448154 (Soil – Boreholes) Yes – Accepted based on completion of gravimetric analysis and resulting analytical results. | The GC-FID for soil samples BH107-1B and MW109-2A did not reach baseline. As the analytical result for gravimetric analysis did not exceed the Table 3 SCS for PHC F4 this is not expected to affect the interpretation of the data. |
| Spike recoveries were outside of the accepted range of 50% to 140% recovery. | Lab Report # 2450112 (Soil – Boreholes) Yes - Batch data was accepted by the laboratory based on other QC data. | The laboratory indicated that the spike recoveries were outside of the accepted range for benzo[a]anthracene, benzo[a]pyrene and chrysene. The laboratory indicated that the spike recoveries were outside of the accepted range due to non-homogenous matrix of the sample. |
| Laboratory duplicate results exceeded the RPD | Lab report # 2450112 (Soil – Test pits) Yes. Based on the homogeneity of the soil sample the exceedance of the RPD is not unexpected. | The laboratory duplicate analysis of benzo[b]fluoranthene, benzo[k]fluoranthene, dibenzo[a,h]anthracene, indeno[1,2,3-cd]pyrene and phenanthrene were outside the RPD limit of 40%. This is not unexpected due to the sample non-homogeneity of the sample matrix (i.e., the fill present at the Site). This was further supported by the analysis of the field duplicates. |
| Spike recoveries were outside of the accepted range of 50% to 140% recovery. | Lab Report # 2450533 (Groundwater) Yes The batch was accepted based on other acceptable QC. | The spike recoveries for the groundwater samples for analysis of lead (72.8%), molybdenum (75.5%) and zinc (79.2) were marginally outside of the of the control limits (80%-120%). This could bias the analytical results low. However, all of the parameters had concentrations that were well below the Table 3 SCS. This does not affect the interpretation of the analytical data. |

6.9.4 Summary of QA/QC Results

Based on the above review of the QA/QC program, no concerns regarding the adequacy or representativeness of the sampling and analytical program were identified and, as a result, the decision-making was not affected, and the overall objectives of the investigation and the assessment were met.

6.10 PHASE TWO CONCEPTUAL SITE MODEL

A preliminary conceptual site model (CSM) was developed as part of the Phase One ESA which is discussed in Section 4.3. Following completion of the Phase Two ESA field program, the CSM has been updated to present the Site characteristics (prior to any efforts to reduce contaminant concentrations), identify and evaluate areas of contaminant impact, including their sources, exposure routes, and receptors at risk.

The Phase Two CSM comprises the tabulated narrative in Appendix VIII and the Figure 22A and Figure 22B contained in this report for CSM for human health and ecological exposure, respectively.

7.0 CONCLUSIONS

Based on the findings of the Phase Two ESA, the environmental quality of soil at the Site does not meet the Table 3 SCS. For due diligence purposes or prior to site redevelopment a full-depth soil remediation and/or a risk assessment should be completed in accordance with the requirements of O. Reg. 153/04.

7.1 SIGNATURES

This report has been completed in accordance with the terms of reference for this project as agreed upon by the City of Ottawa (the City) and Terrapex Environmental Ltd. (Terrapex) and generally accepted engineering or environmental consulting practices in this area.

The reported information is believed to provide a reasonable representation of the general environmental conditions at the site; however, studies of this nature have inherent limitations. The data were collected at specific locations and conditions may vary at other locations, or with the passage of time. The assessment was also limited to a study of those chemical parameters specifically addressed in this report.

Terrapex has relied in good faith on information and representations obtained from the Client and third parties and, except where specifically identified, has made no attempt to verify such information. Terrapex accepts no responsibility for any deficiency or inaccuracy in this report as a result of any misstatement, omission, misrepresentation, or fraudulent act of those providing information. Terrapex shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time of the study.

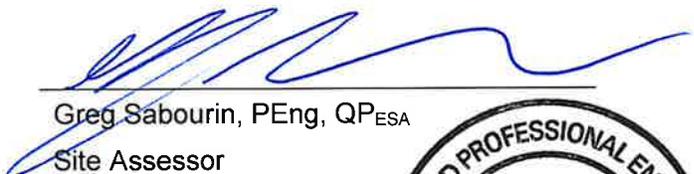
This report has been prepared for the sole use of the City of Ottawa. Terrapex accepts no liability for claims arising from the use of this report, or from actions taken or decisions made as a result of this report, by parties other than the City of Ottawa.

The objectives and requirements set out in Schedule E of O. Reg. 153/04 have been applied in carrying out this environmental site assessment.

Respectfully submitted,
TERRAPEX ENVIRONMENTAL LTD.



Jeff Murray, CET
Environmental Scientist



Greg Sabourin, PEng, QP_{ESA}
Site Assessor



Keith Brown, PEng, QP_{ESA}
Senior Project Manager



8.0 REFERENCES

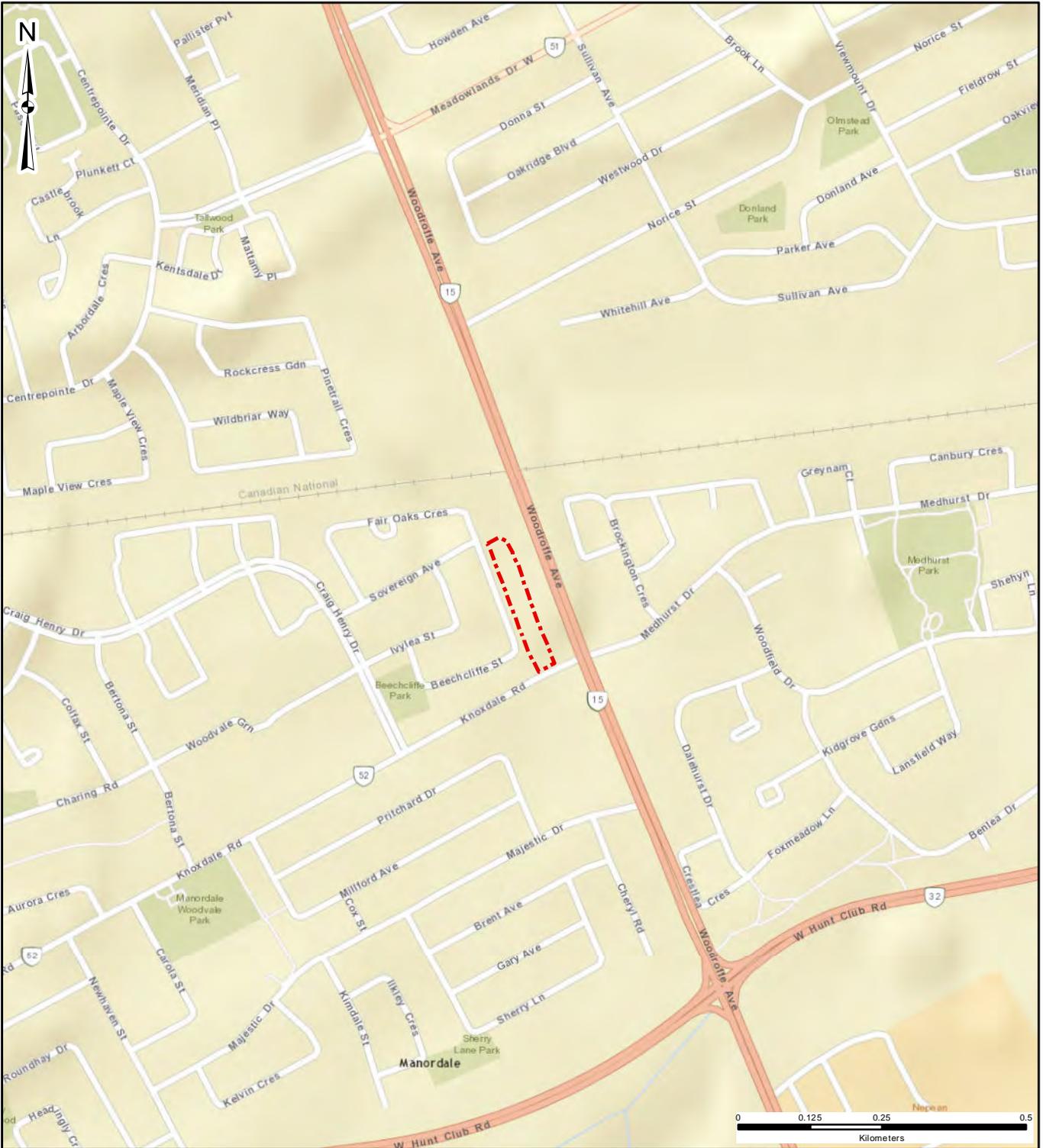
Groundwater. Prentice-Hall Canada Inc., Toronto. Freeze, Allan R. and Cherry, John A., 1979.

Ontario Regulation 153/04, Records of Site Condition – Part XV.1 of the Environmental Protection Act.

Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. Ministry of Environment, Conservation and Parks. April 15, 2011.

Phase One Environmental Site Assessment, South Portion of 40 Beechcliffe Street, Ottawa, Ontario, prepared for the City of Ottawa by Terrapex Environmental Ltd., dated April 2, 2025.

FIGURES



C:\Users\jserroul\OneDrive - Terrapex Environmental Ltd\PROJECTS\Ottawa\CO986.00 40 Beechcliffe St, Ottawa\Map\XD\Phase ONE ESA SOUTHERN PORTION\CO986.00 FIG 1 SITE LOCATION.mxd

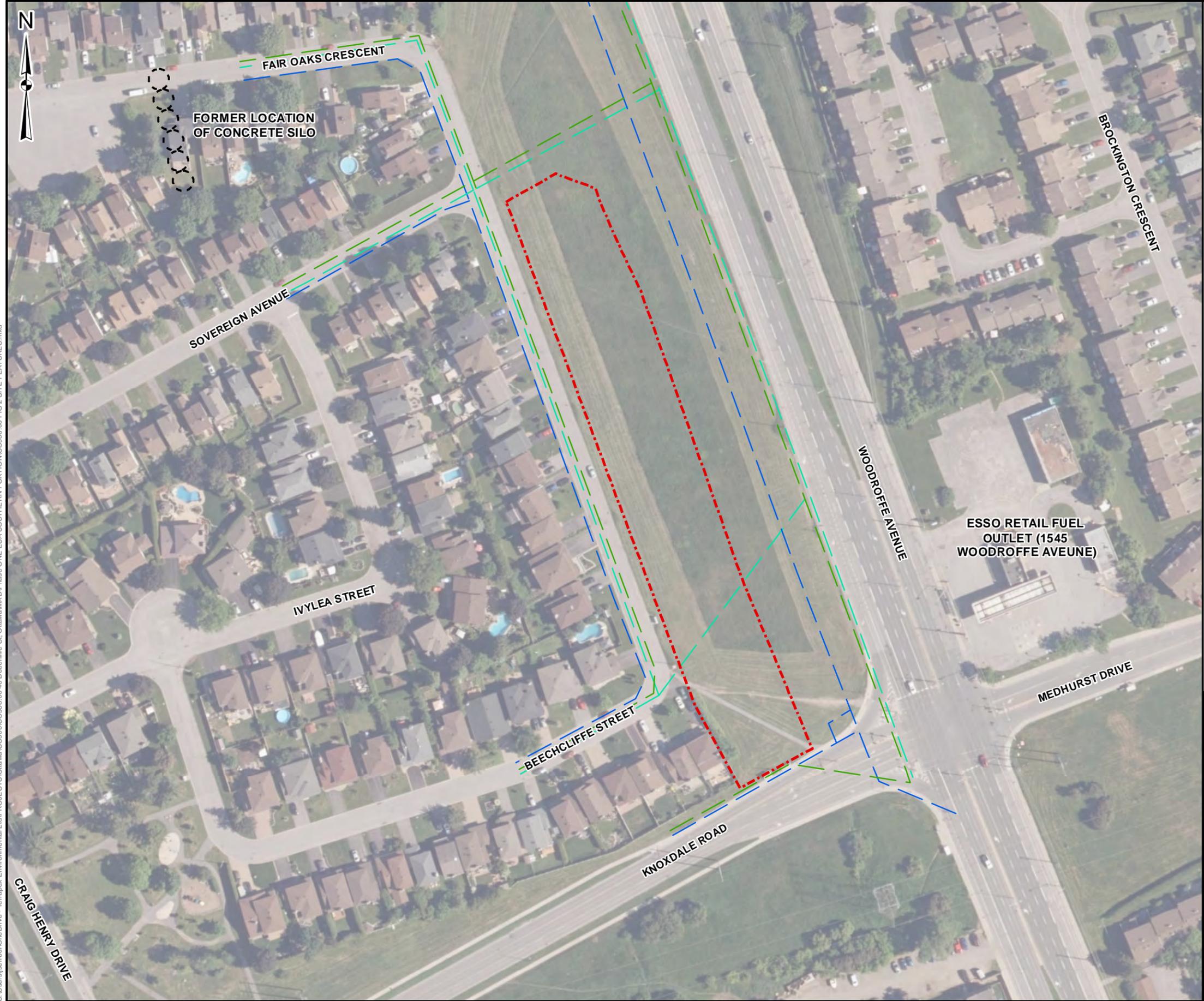
LEGEND

 PHASE ONE PROPERTY BOUNDARY

| | | |
|---|-----------------------|------------------|
| CLIENT: | | |
|  | | |
| SITE LOCATION: | | |
| 40 BEECHCLIFFE STREET OTTAWA, ONTARIO | | |
|  | | |
| TITLE: | | |
| SITE LOCATION | | |
| DRAWN BY: SF/JS | PROJECT NO.: CO986.00 | CHECKED BY: KB |
| REVISION: 00 | DATE: JANUARY 2025 | FIGURE: 1 |

DATA SOURCE: ESRI
 MAP PROJECTION: NAD 1983 UTM Zone 18N

C:\Users\jcorrou\OneDrive - Terrapex Environmental Ltd\PROJECTS\Ottawa\CO900\CO986.00 40 Beechcliffe St. Ottawa\MXD\Phase One ESA\Southern Portion\CO986.00 FIG 2 SITE FEATURES.mxd



- LEGEND**
-  PHASE ONE PROPERTY BOUNDARY
 -  CANADIAN NATIONAL RAILWAY
- UNDERGROUND UTILITIES**
-  STORM SEWER
 -  SANITARY SEWER
 -  WATERMAIN



DATA SOURCE: CITY OF OTTAWA
MAP PROJECTION: NAD 1983 UTM ZONE 18N

CLIENT:


SITE LOCATION:
40 BEECHCLIFFE STREET
OTTAWA, ONTARIO



TITLE:
SITE FEATURES

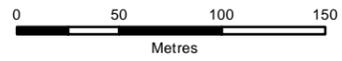
| | | |
|--------------------|--------------------------|-------------------|
| DRAWN BY: JS/SF | PROJECT NO.: CO986.00 | CHECKED BY: KB |
|--------------------|--------------------------|-------------------|

| | | |
|-----------------|-----------------------|---------------------|
| REVISION: 00 | DATE: JANUARY 2025 | FIGURE: 2 |
|-----------------|-----------------------|---------------------|

C:\Users\jseirou\OneDrive - Terrapex Environmental Ltd\PROJECTS\Ottawa\CO900\CO986.00 40 Beechcliffe St. Ottawa\MXD\Phase One ESA Southern Portion\CO986.00 FIG 3 CSM - STUDY AREA.mxd



- LEGEND**
-  PHASE ONE PROPERTY BOUNDARY
 -  PHASE ONE STUDY AREA
 -  CANADIAN NATIONAL RAILWAY



DATA SOURCE: CITY OF OTTAWA
MAP PROJECTION: NAD 1983 UTM ZONE 18N

CLIENT:


SITE LOCATION:
40 BEECHCLIFFE STREET
OTTAWA, ONTARIO



TITLE:
**CONCEPTUAL SITE MODEL -
PHASE ONE STUDY AREA**

| | | |
|-----------------|--------------------------|-------------------|
| DRAWN BY: JS | PROJECT NO.: CO986.00 | CHECKED BY: KB |
|-----------------|--------------------------|-------------------|

| | | |
|-----------------|-----------------------|---------------------|
| REVISION: 00 | DATE: JANUARY 2025 | FIGURE: 3 |
|-----------------|-----------------------|---------------------|

C:\Users\swilliams\OneDrive - Terrapex Environmental Ltd\US_PROJECTS\Ottawa\CO900\CO986.00 40 Beechcliffe St. Ottawa\MXD\Phase One ESA Southern Portion\CO986.00 FIG 4 CSM - PCAs.mxd



LEGEND

- PHASE ONE PROPERTY BOUNDARY
- CANADIAN NATIONAL RAILWAY

POTENTIALLY CONTAMINATING ACTIVITIES

- ON-SITE PCA LEADING TO APEC
- OFF-SITE PCA LEADING TO APEC
- OFF-SITE NOT LEADING TO APEC

POTENTIALLY CONTAMINATING ACTIVITY TYPES

- 12. CONCRETE, CEMENT AND LIME MANUFACTURING
- 27. GARAGES AND MAINTENANCE AND REPAIR OF RAILCARS, MARINE VEHICLES AND AVIATION VEHICLES
- 28. GASOLINE AND ASSOCIATED PRODUCTS STORAGE IN FIXED TANKS
- 30. IMPORTATION OF FILL MATERIAL OF UNKNOWN QUALITY
- 46. RAIL YARDS, TRACKS AND SPURS
- OT1. OTHER - SPILL
- OT2. OTHER - WASTE GENERATION
- OT3. OTHER - RECORD OF UNDERGROUND PIPELINE

NOTE:

- PCA ID (PCA TYPE)

REFER TO THE REPORT FOR ADDITIONAL DETAILS.

0 50 100 150
Metres

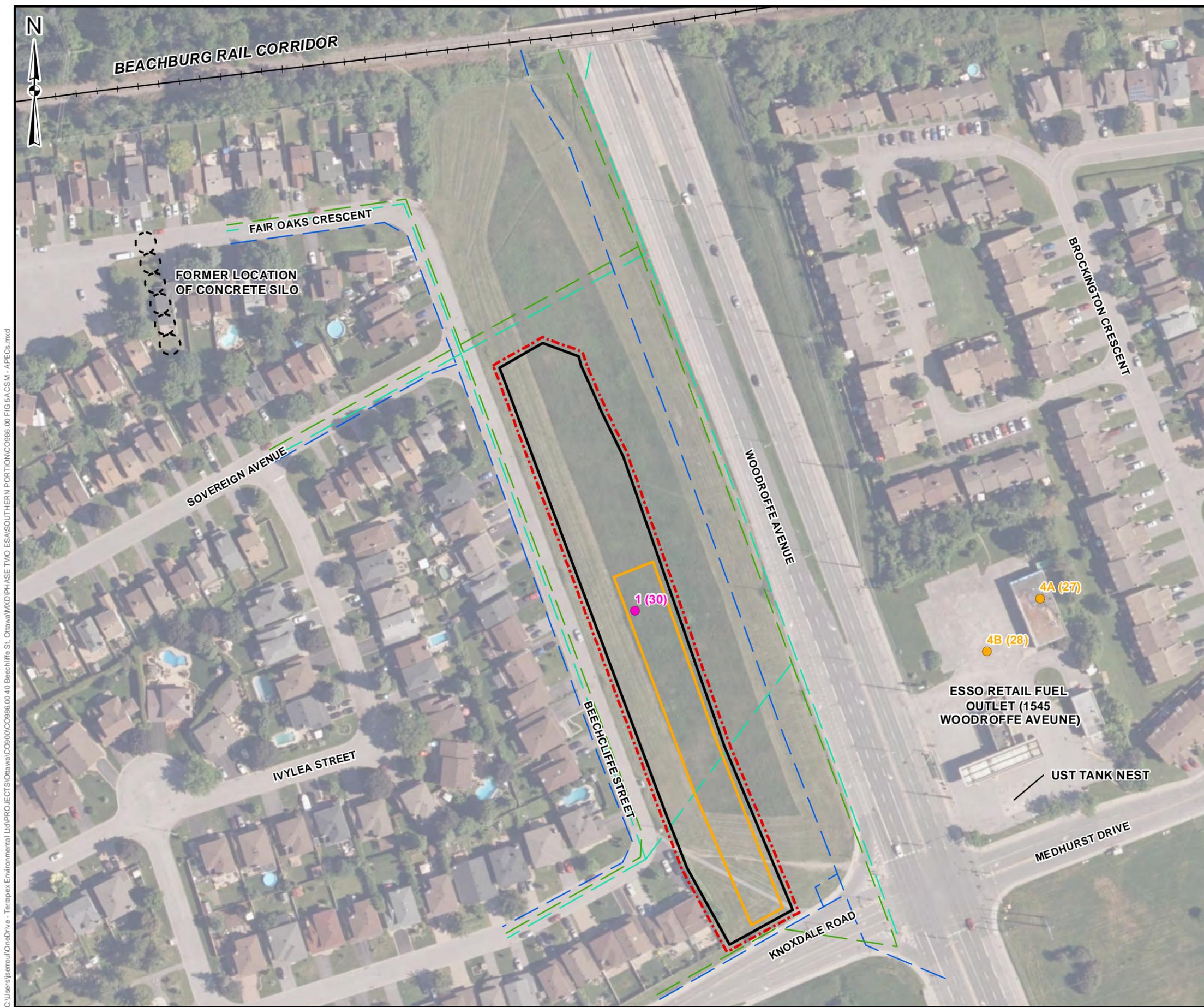
DATA SOURCE: CITY OF OTTAWA
MAP PROJECTION: NAD 1983 UTM ZONE 18N

CLIENT:

SITE LOCATION: 40 BEECHCLIFFE STREET
OTTAWA, ONTARIO

TITLE: **CONCEPTUAL SITE MODEL AND POTENTIALLY CONTAMINATING ACTIVITIES**

| | | |
|-----------------|--------------------------|---------------------|
| DRAWN BY: JS | PROJECT NO.: CO986.00 | CHECKED BY: KB |
| REVISION: 00 | DATE: FEBRUARY 2025 | FIGURE: 4 |



LEGEND

- PHASE ONE PROPERTY BOUNDARY
- CANADIAN NATIONAL RAILWAY

POTENTIALLY CONTAMINATING ACTIVITIES

- ON-SITE PCA LEADING TO APEC
- OFF-SITE PCA LEADING TO APEC

AREA OF POTENTIAL ENVIRONMENTAL CONCERN

- APEC-1 (ENTIRE PROPERTY)
- APEC-2 A,B

UNDERGROUND UTILITES

- STORM SEWER
- SANITARY SEWER
- WATERMAIN

| APEC | PCA ID | PCA TYPE | DESCRIPTION |
|------|--------|----------|---|
| 1 | 1 | 30 | IMPORTATION OF FILL MATERIAL OF UNKNOWN QUALITY |
| 2A | 4A | 27 | GARAGES AND MAINTENANCE AND REPAIR OF RAILCARS, MARINE VEHICLES AND AVIATION VEHICLES |
| 2B | 4B | 28 | GASOLINE AND ASSOCIATED PRODUCTS STORAGE IN FIXED TANKS |

0 20 40 60
Metres

DATA SOURCE: CITY OF OTTAWA
MAP PROJECTION: NAD 1983 UTM ZONE 18N

CLIENT:

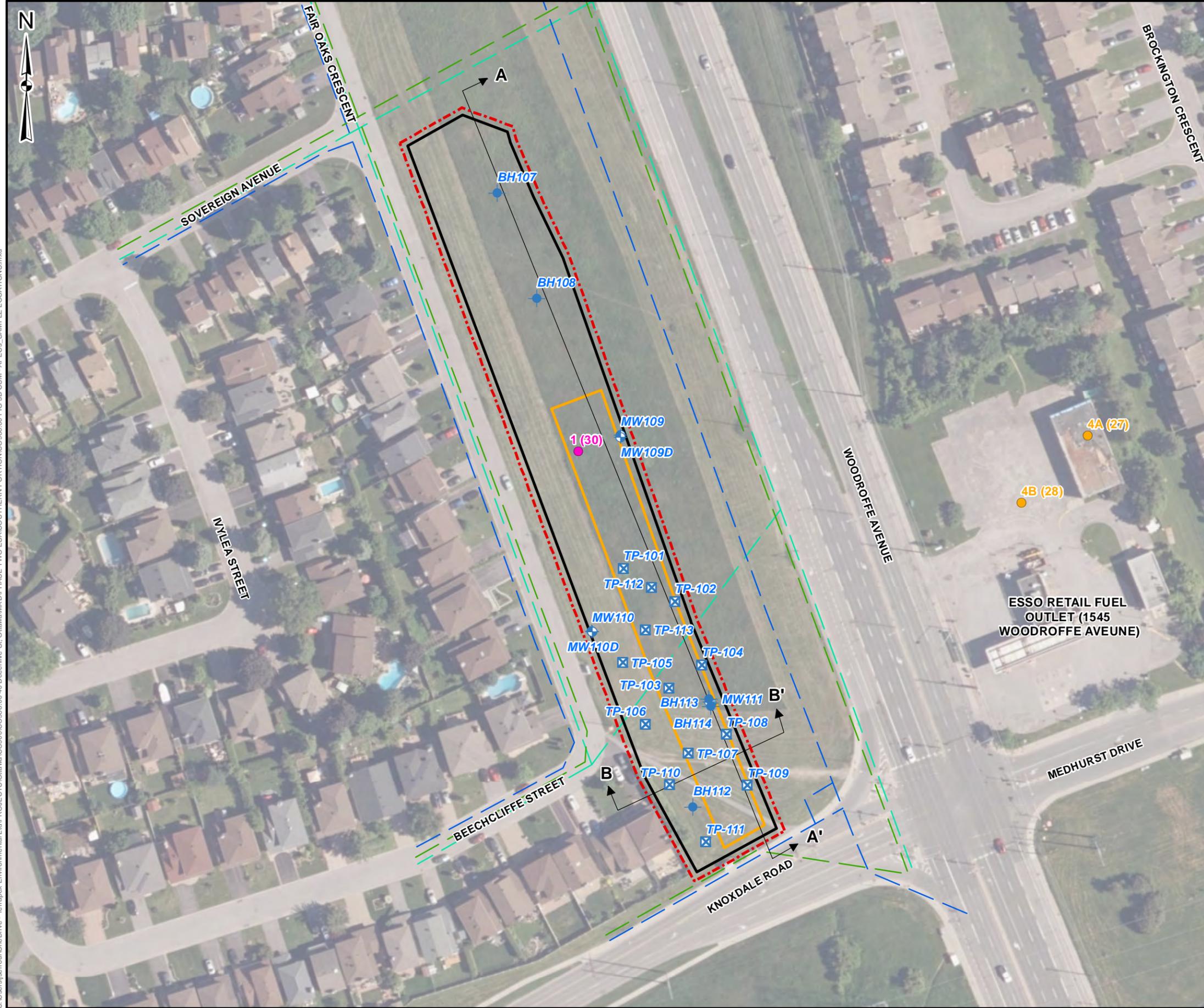
SITE LOCATION: 40 BEECHCLIFFE STREET
OTTAWA, ONTARIO

TITLE: **CONCEPTUAL SITE MODEL - AREAS OF POTENTIAL ENVIRONMENTAL CONCERN**

| | | |
|-----------------|--------------------------|----------------------|
| DRAWN BY: JS | PROJECT NO.: CO986.00 | CHECKED BY: KB |
| REVISION: 00 | DATE: FEBRUARY 2025 | FIGURE: 5A |

C:\Users\jserrou\OneDrive - Terrapex Environmental Ltd\PROJECTS\Ottawa\CO986.00 40 Beechcliffe St, Ottawa\MXD\PHASE TWO ESASOUTHERN PORTION\CO986.00 FIG 5A.CSM - APECs.mxd

C:\Users\jseirrou\OneDrive - Terrapex Environmental Ltd\PROJECTS\Ottawa\CO986.00 40 Beechcliffe St. Ottawa\MXD\PHASE TWO ESA\SOUTHERN PORTION\CO986.00 FIG 5B CSM - APECs - SAMPLE LOCATIONS.mxd



LEGEND

- PHASE ONE PROPERTY BOUNDARY
- CANADIAN NATIONAL RAILWAY
- BOREHOLE
- ⊕ MONITORING WELL
- ⊗ TEST PIT
- ↔ CROSS SECTIONS

POTENTIALLY CONTAMINATING ACTIVITIES

- ON-SITE PCA LEADING TO APEC
- OFF-SITE PCA LEADING TO APEC

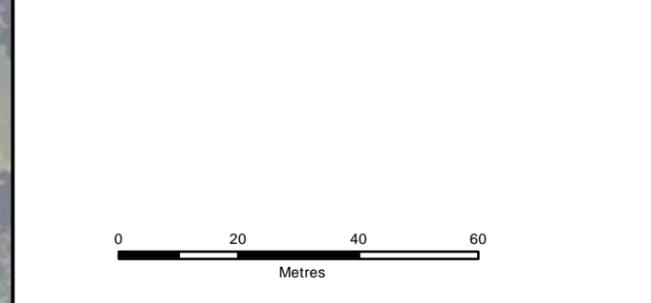
AREA OF POTENTIAL ENVIRONMENTAL CONCERN

- APEC-1 (ENTIRE PROPERTY)
- APEC-2 A,B

UNDERGROUND UTILITIES

- STORM SEWER
- SANITARY SEWER
- WATERMAIN

| APEC | PCA ID | PCA TYPE | DESCRIPTION |
|------|--------|----------|---|
| 1 | 1 | 30 | IMPORTATION OF FILL MATERIAL OF UNKNOWN QUALITY |
| 2A | 4A | 27 | GARAGES AND MAINTENANCE AND REPAIR OF RAILCARS, MARINE VEHICLES AND AVIATION VEHICLES |
| 2B | 4B | 28 | GASOLINE AND ASSOCIATED PRODUCTS STORAGE IN FIXED TANKS |



DATA SOURCE: CITY OF OTTAWA
 MAP PROJECTION: NAD 1983 UTM ZONE 18N

CLIENT:

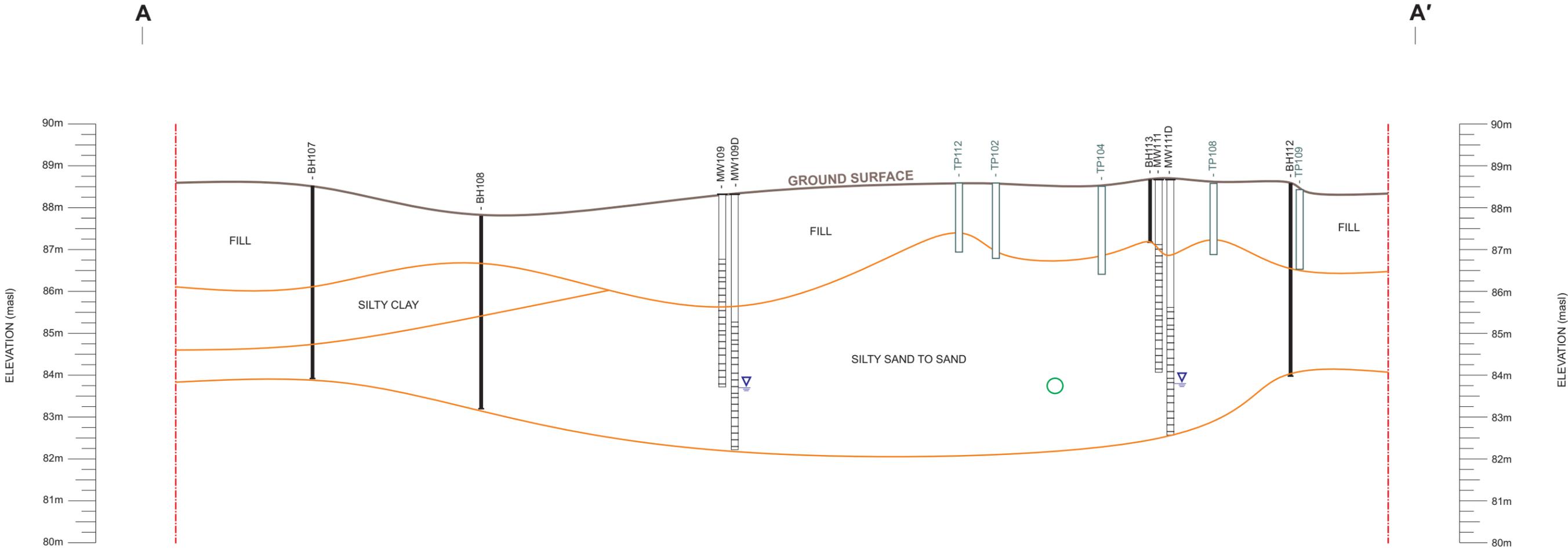
SITE LOCATION:
 40 BEECHCLIFFE STREET
 OTTAWA, ONTARIO

TITLE:
CONCEPTUAL SITE MODEL - AREAS OF POTENTIAL ENVIRONMENTAL CONCERN AND SAMPLE LOCATIONS

| | | |
|-----------------|--------------------------|-------------------|
| DRAWN BY: JS | PROJECT NO.: CO986.00 | CHECKED BY: KB |
|-----------------|--------------------------|-------------------|

| | | |
|-----------------|-----------------------|----------------------|
| REVISION: 00 | DATE: JANUARY 2025 | FIGURE: 5B |
|-----------------|-----------------------|----------------------|

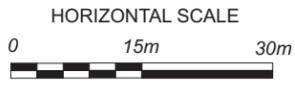
LOOKING EAST



NOTES:
 1. SOIL STRATIGRAPHY BETWEEN LOCATIONS IS INTERPRETED.
 2. UTILITY LOCATIONS AND DEPTHS ARE APPROXIMATE AND ARE FOR ILLUSTRATION PURPOSES.

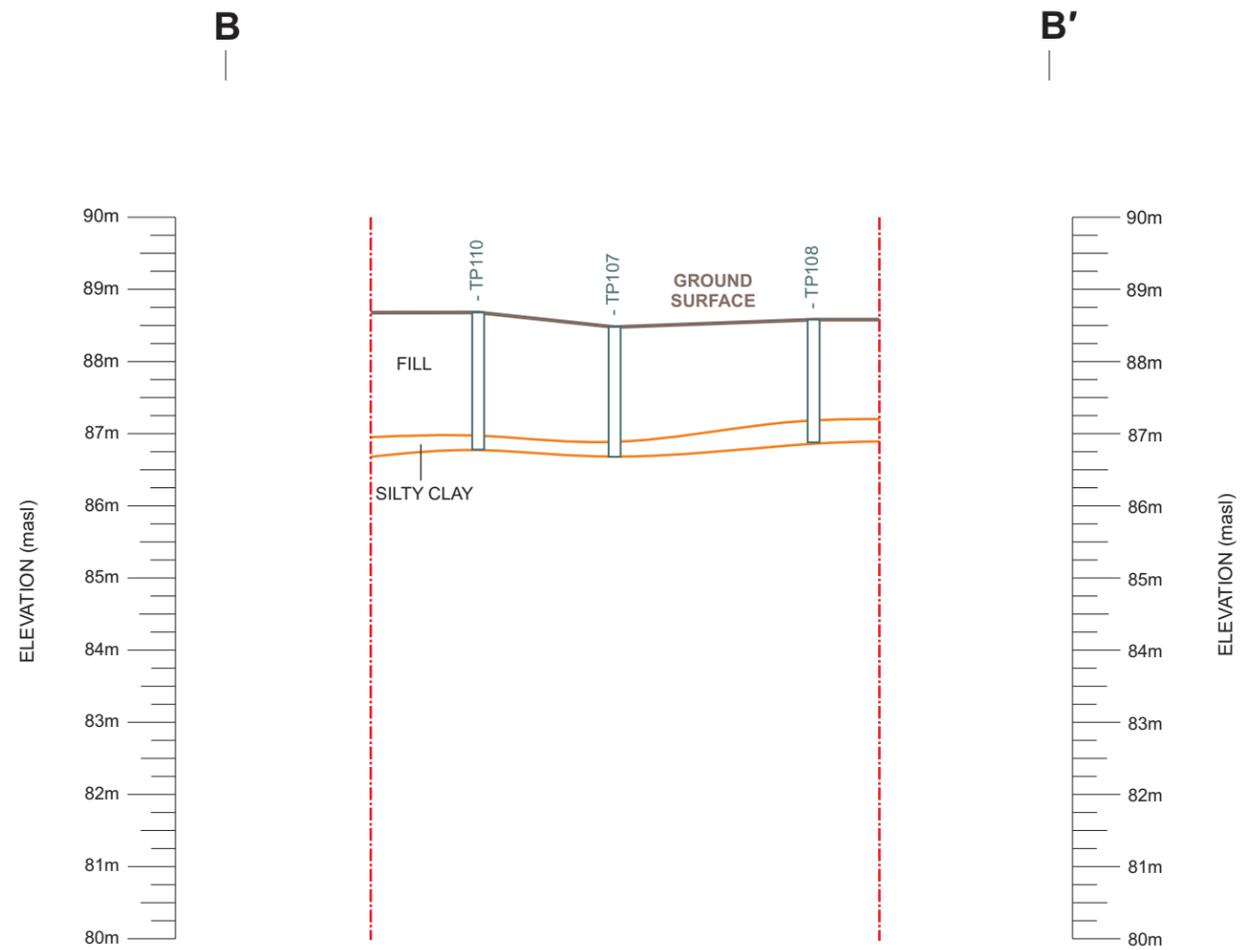
LEGEND

- - - - - PHASE TWO PROPERTY BOUNDARY
- STRATIGRAPHIC UNIT
- ▽ GROUNDWATER LEVEL (AS OF DECEMBER 11, 2024)
- SEWER LINE
- MONITORING WELL
- BOREHOLE
- TEST PIT
- SCREENED LEVEL



| | | |
|---|-----------------------|-------------------|
| CLIENT: | | |
| SITE LOCATION: 40 BEECHCLIFFE STREET OTTAWA, ONTARIO | | |
| | | |
| TITLE: CROSS SECTION A-A' | | |
| DRAWN BY: JS | PROJECT NO.: CO986.00 | CHECKED BY: GS |
| REVISION: 00 | DATE: FEBRUARY 2025 | FIGURE: 6A |

LOOKING NORTH



NOTES:
1. SOIL STRATIGRAPHY BETWEEN LOCATIONS IS INTERPRETED.

LEGEND

- - - - PHASE TWO PROPERTY BOUNDARY
- STRATIGRAPHIC UNIT
- TEST PIT

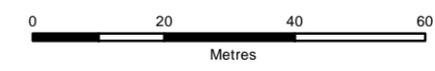


| | | |
|---|-----------------------|-------------------|
| CLIENT: | | |
| SITE LOCATION: 40 BEECHCLIFFE STREET OTTAWA, ONTARIO | | |
| | | |
| TITLE: CROSS SECTION B-B' | | |
| DRAWN BY: JS | PROJECT NO.: CO986.00 | CHECKED BY: GS |
| REVISION: 00 | DATE: FEBRUARY 2025 | FIGURE: 6B |

C:\Users\jseirou\OneDrive - Terrapex Environmental Ltd\PROJECTS\Ottawa\CO986.00\40 Beechcliffe St. Ottawa\MX\DI\PHASE TWO ESA\SOUTHERN PORTION\CO986.00 FIG 7 GW FLOW DIRECTION.mxd



- LEGEND**
- - - PHASE TWO PROPERTY BOUNDARY
 - - - CANADIAN NATIONAL RAILWAY
 - + MONITORING WELL
 - INTERPRETED GROUNDWATER CONTOURS
 - ➔ INTERPRETED GROUNDWATER FLOW DIRECTION
- UNDERGROUND UTILITES**
- - - STORM SEWER
 - - - SANITARY SEWER
 - - - WATERMAIN



DATA SOURCE: CITY OF OTTAWA
 MAP PROJECTION: NAD 1983 UTM ZONE 18N

CLIENT:

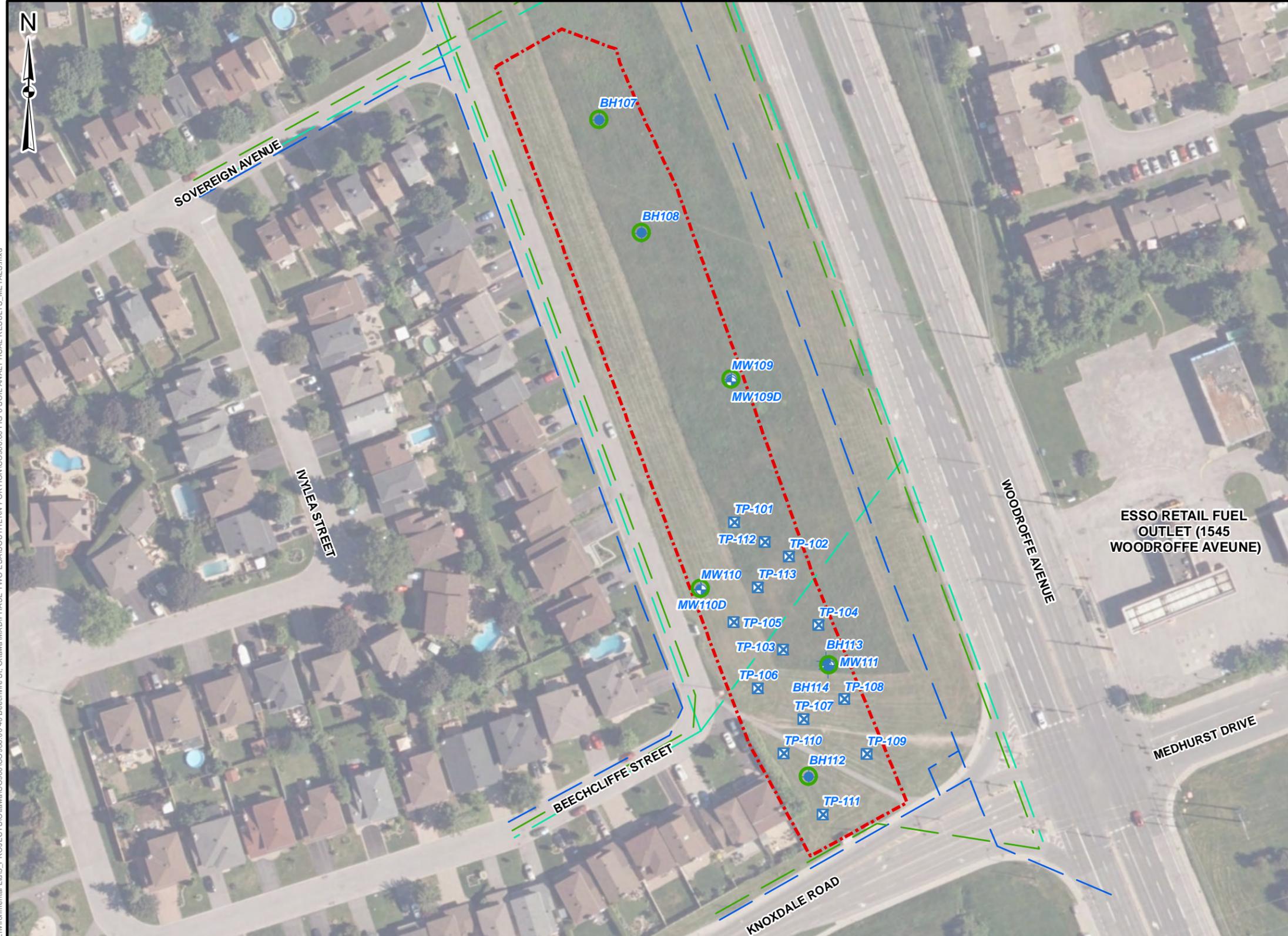

SITE LOCATION:
 40 BEECHCLIFFE STREET
 OTTAWA, ONTARIO



TITLE:
INTERPRETED GROUNDWATER FLOW DIRECTION (AS OF DECEMBER 11, 2024)

| | | |
|-----------------|--------------------------|---------------------|
| DRAWN BY: JS | PROJECT NO.: CO986.00 | CHECKED BY: KB |
| REVISION: 00 | DATE: JANUARY 2025 | FIGURE: 7 |

C:\Users\swilliams\OneDrive - Terrapex Environmental Ltd\5_PROJECTS\Ottawa\CO900\CO986.00\40 Beechcliffe St, Ottawa\MXD\PHASE TWO ESA\SOIL\METALS\FIG 8 SOIL ANALYTICAL RESULTS_METALS.mxd



LEGEND

- PHASE TWO PROPERTY BOUNDARY
- + BOREHOLE
- + MONITORING WELL
- x TEST PIT

UNDERGROUND UTILITIES

- STORM SEWER
- SANITARY SEWER
- WATERMAIN

ANALYSIS INFORMATION

- LESS THAN OR EQUAL TO TABLE 3 SCS

STANDARD INFORMATION
 MECP TABLE 3: FULL DEPTH GENERIC SCS IN A NON-POTABLE GROUND WATER CONDITION FOR RESIDENTIAL/PARKLAND/INSTITUTIONAL PROPERTY-USE WITH COARSE TEXTURED SOIL.



DATA SOURCE: CITY OF OTTAWA
 MAP PROJECTION: NAD 1983 UTM ZONE 18N

CLIENT:

SITE LOCATION:
 40 BEECHCLIFFE STREET
 OTTAWA, ONTARIO

TITLE:
SOIL SAMPLE DISTRIBUTION - METALS

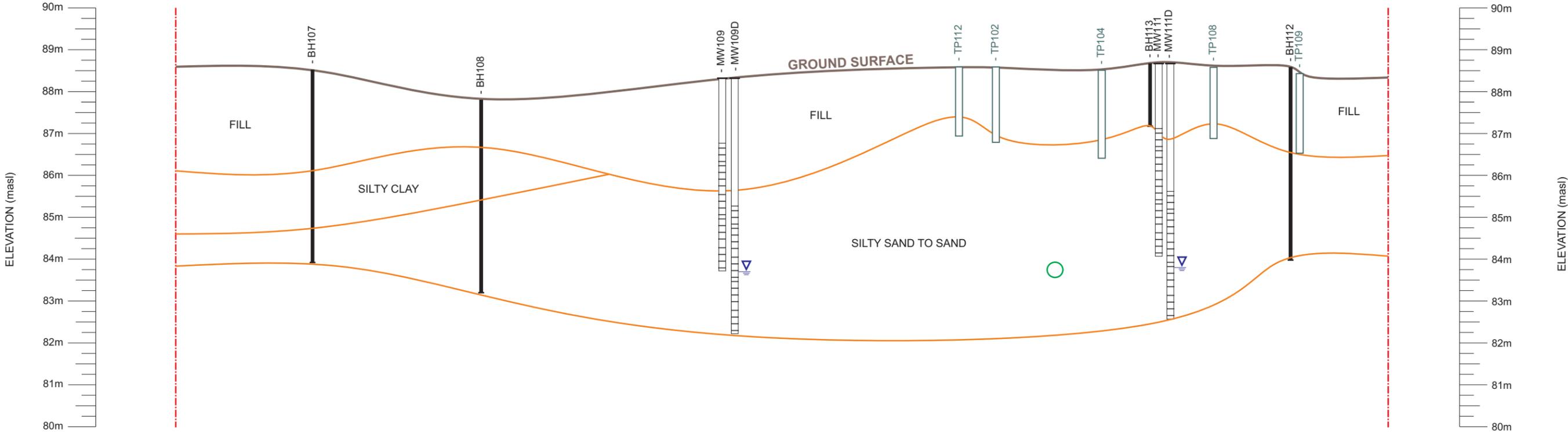
| SAMPLE NAME | UNITS | BH107-1B | BH108-1A | MW109-1A | MW110-1A | MW110-1D DUPLICATE OF MW110-1A | MW111-1B | MW111-2C | MW111-2D DUPLICATE OF MW111-2C | BH112-1B |
|-----------------------------|-----------|-----------|-----------|-----------|-----------|---|-----------|-----------|---|-----------|
| Sample Depth | m bgs | 0.6-1.5 | 0.0-1.1 | 0.0-1.4 | 0.0-1.4 | 0.0-1.4 | 0.2-1.5 | 2.3-3.1 | 2.3-3.1 | 0.3-1.5 |
| Sampling Date | dd-mmm-yy | 21-Nov-24 | 21-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 |
| Certificate of Analysis No. | - | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 |

| | | |
|--------------------|--------------------------|---------------------|
| DRAWN BY: JS/SW | PROJECT NO.: CO986.00 | CHECKED BY: KB |
| REVISION: 00 | DATE: FEBRUARY 2025 | FIGURE: 8 |

LOOKING EAST

A

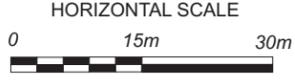
A'



NOTES:
 1. SOIL STRATIGRAPHY BETWEEN LOCATIONS IS INTERPRETED.
 2. UTILITY LOCATIONS AND DEPTHS ARE APPROXIMATE AND ARE FOR ILLUSTRATION PURPOSES.

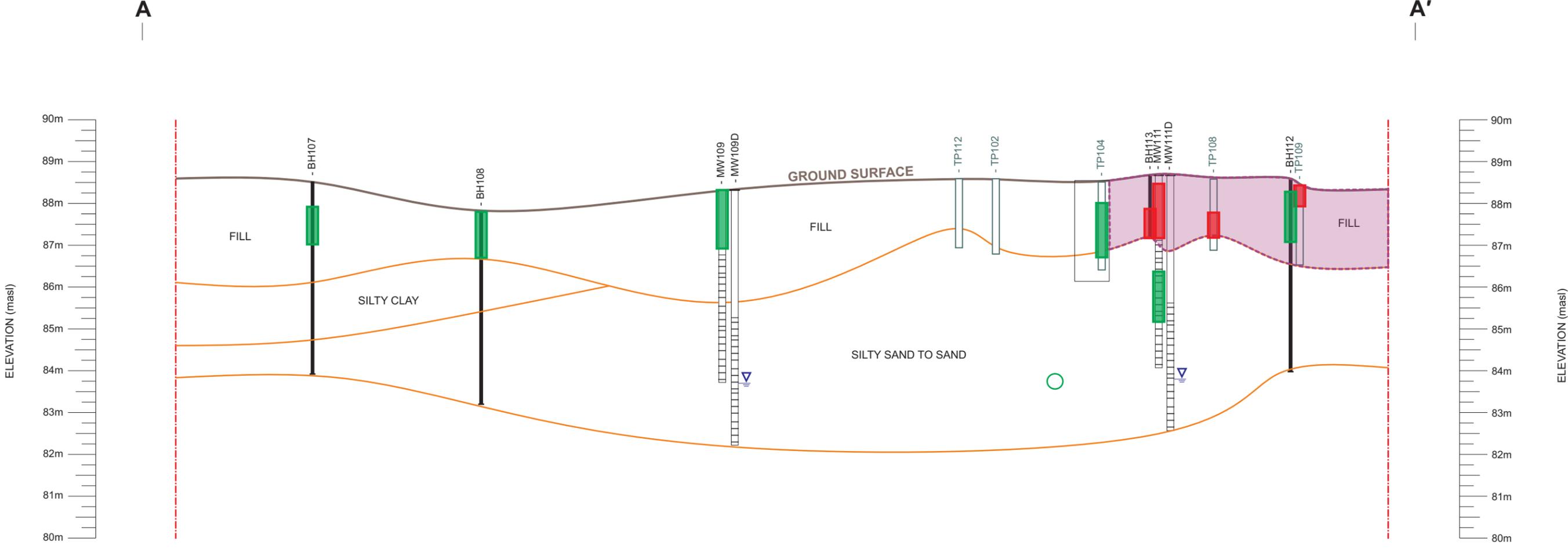
LEGEND

- - - - - PHASE TWO PROPERTY BOUNDARY
- STRATIGRAPHIC UNIT
- ▽ GROUNDWATER LEVEL (AS OF DECEMBER 11, 2024)
- SEWER LINE
- MONITORING WELL
- BOREHOLE
- TEST PIT
- SCREENED LEVEL



| | | |
|---|-----------------------|-------------------|
| CLIENT: | | |
| SITE LOCATION: 40 BEECHCLIFFE STREET OTTAWA, ONTARIO | | |
| | | |
| TITLE: CROSS SECTION A-A' | | |
| DRAWN BY: JS | PROJECT NO.: CO986.00 | CHECKED BY: GS |
| REVISION: 00 | DATE: FEBRUARY 2025 | FIGURE: 6A |

LOOKING EAST



NOTES:
 1. SOIL STRATIGRAPHY BETWEEN LOCATIONS IS INTERPRETED.
 2. UTILITY LOCATIONS AND DEPTHS ARE APPROXIMATE AND ARE FOR ILLUSTRATION PURPOSES.

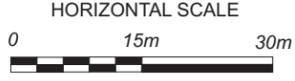
LEGEND

- - - PHASE TWO PROPERTY BOUNDARY
- STRATIGRAPHIC UNIT
- ▽ GROUNDWATER LEVEL (AS OF DECEMBER 11, 2024)
- SEWER LINE
- ESTIMATED EXTENT OF SOIL IMPACT
- MONITORING WELL
- BOREHOLE
- TEST PIT
- SCREENED LEVEL

ANALYSIS INFORMATION

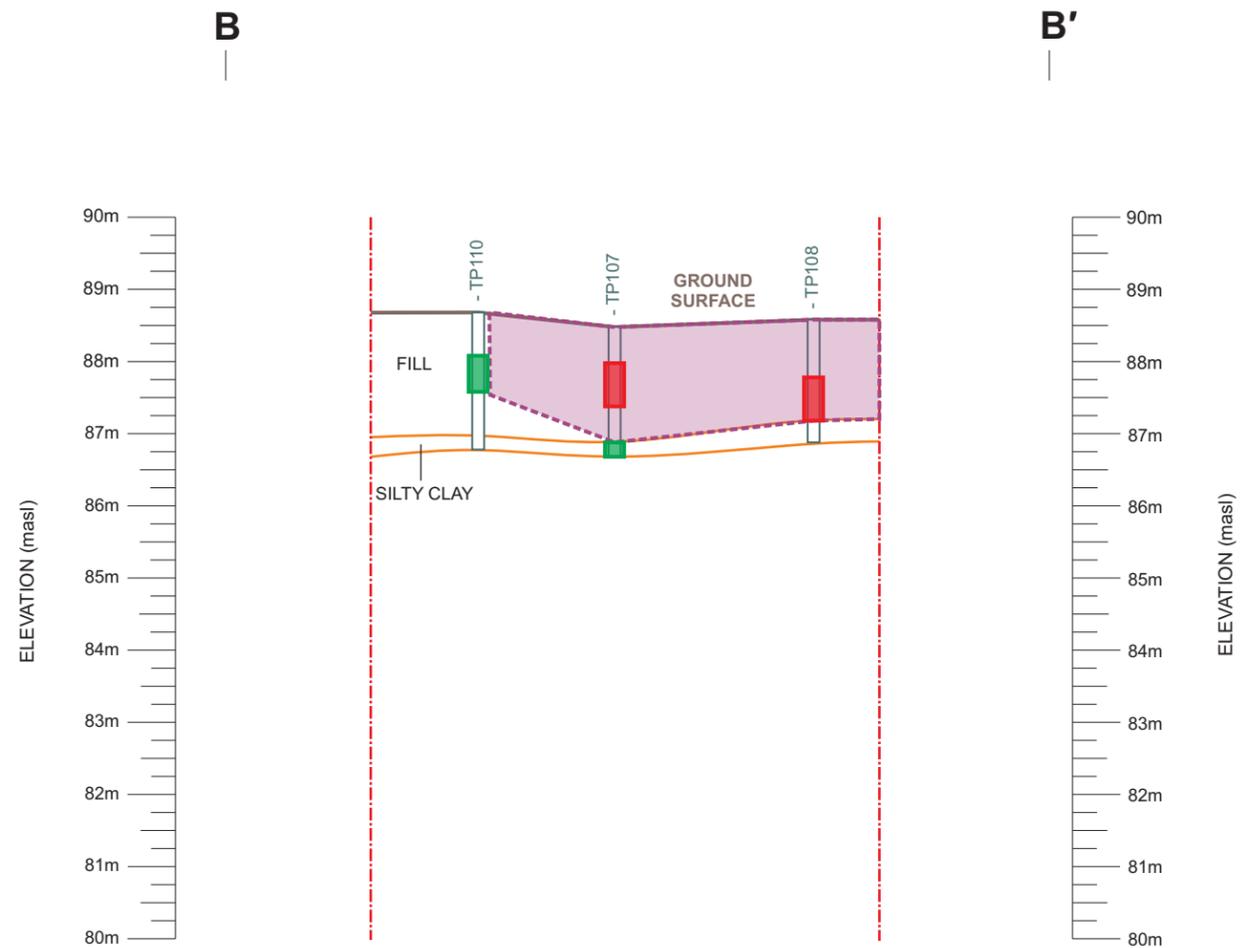
- LESS THAN OR EQUAL TO TABLE 3 SCS
- GREATER THAN TABLE 3 SCS

SCS (Site Conditions Standards) refer to Standards from Table 3 of April 15, 2011 Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act; Residential / Parkland / Institutional, land use, coarse textured soil



| | | |
|--|-----------------------|--------------------|
| CLIENT: | | |
| SITE LOCATION: 40 BEECHCLIFFE STREET OTTAWA, ONTARIO | | |
| | | |
| TITLE: SOIL CONTAMINATION DELINEATION - PAHs (CROSS SECTION A-A') | | |
| DRAWN BY: JS | PROJECT NO.: CO986.00 | CHECKED BY: GS |
| REVISION: 00 | DATE: FEBRUARY 2025 | FIGURE: 11B |

LOOKING NORTH



| SAMPLE NAME | UNITS | STANDARDS Table 3 R/P/I coarse | TP107-2 | TP107-12 DUPLICATE OF TP107-2 | TP107-4 | TP108-2 | TP110-2 |
|---|-----------|---|-----------|--|-----------|-----------|-----------|
| Sample Depth | m bgs | - | 0.5-1.1 | 0.5-1.1 | 1.6-1.8 | 0.8-1.4 | 0.6-1.1 |
| Sampling Date | dd-mmm-yy | - | 15-Jan-25 | 15-Jan-25 | 15-Jan-25 | 15-Jan-25 | 15-Jan-25 |
| Certificate of Analysis No. | - | - | 2503397 | 2503397 | 2503397 | 2503397 | 2503397 |
| POLYCYCLIC AROMATIC HYDROCARBONS | | | | | | | |
| Acenaphthylene | ug/g | 0.15 | 0.15 | 0.48 | <0.02 | 0.15 | 0.07 |
| Anthracene | ug/g | 0.67 | 0.24 | 1.95 | <0.02 | 0.18 | 0.16 |
| Benz[a]anthracene | ug/g | 0.50 | 0.52 | 1.66 | <0.02 | 0.27 | 0.20 |
| Benzo[a]pyrene | ug/g | 0.30 | 0.47 | 1.26 | <0.02 | 0.29 | 0.18 |
| Benzo[b]fluoranthene | ug/g | 0.78 | 0.47 | 1.37 | <0.02 | 0.31 | 0.19 |
| Benzo[k]fluoranthene | ug/g | 0.78 | 0.31 | 0.88 | <0.02 | 0.20 | 0.11 |
| Dibenz[a h]anthracene | ug/g | 0.10 | 0.08 | 0.21 | <0.02 | 0.05 | 0.03 |
| Fluoranthene | ug/g | 0.69 | 1.40 | 7.09 | 0.04 | 0.72 | 0.64 |
| Indeno[1 2 3-cd]pyrene | ug/g | 0.38 | 0.29 | 0.83 | <0.02 | 0.18 | 0.11 |
| Phenanthrene | ug/g | 6.2 | 0.52 | 7.44 | <0.02 | 0.27 | 0.54 |

NOTES:
1. SOIL STRATIGRAPHY BETWEEN LOCATIONS IS INTERPRETED.

| | | |
|---------------------------------|----------|-----------------------------------|
| LEGEND | | ANALYSIS INFORMATION |
| PHASE TWO PROPERTY BOUNDARY | TEST PIT | LESS THAN OR EQUAL TO TABLE 3 SCS |
| STRATIGRAPHIC UNIT | | GREATER THAN TABLE 3 SCS |
| ESTIMATED EXTENT OF SOIL IMPACT | | |



| | | |
|---|--------------------------|-------------------|
| CLIENT: | | |
| SITE LOCATION: 40 BEECHCLIFFE STREET OTTAWA, ONTARIO | | |
| | | |
| TITLE: SOIL CONTAMINATION DELINEATION - PAHS (CROSS SECTION B-B') | | |
| DRAWN BY: JS | PROJECT NO.: CO986.00 | CHECKED BY: GS |
| REVISION: 00 | DATE: FEBRUARY 2025 | FIGURE: 11C |

C:\Users\swilliams\OneDrive - Terrapex Environmental Ltd\5_PROJECTS\Ottawa\CO900\CO986.00\40 Beechcliffe St, Ottawa\MXD\PHASE TWO ESA\SOUTHERN PORTION\CO986.00 FIG 12 SOIL ANALYTICAL RESULTS_BTEX.mxd



LEGEND

- PHASE TWO PROPERTY BOUNDARY
- + BOREHOLE
- + MONITORING WELL
- X TEST PIT

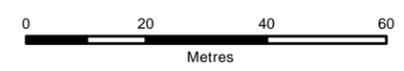
UNDERGROUND UTILITIES

- STORM SEWER
- SANITARY SEWER
- WATERMAIN

ANALYSIS INFORMATION

- LESS THAN OR EQUAL TO TABLE 3 SCS

STANDARD INFORMATION
 MECP TABLE 3: FULL DEPTH GENERIC SCS IN A NON-POTABLE GROUND WATER CONDITION FOR RESIDENTIAL/PARKLAND/INSTITUTIONAL PROPERTY-USE WITH COARSE TEXTURED SOIL.



DATA SOURCE: CITY OF OTTAWA
 MAP PROJECTION: NAD 1983 UTM ZONE 18N

CLIENT:

SITE LOCATION:
 40 BEECHCLIFFE STREET
 OTTAWA, ONTARIO

TITLE:
SOIL SAMPLE DISTRIBUTION - BTEX

| SAMPLE NAME | UNITS | BH107-1B | BH107-3A | BH108-1A | MW109-2A | MW109-3A | MW110-1A | MW111-1B | MW111-2C | MW111-2D DUPLICATE OF MW111-2C | BH112-1B |
|-----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---|-----------|
| Sample Depth | m bgs | 0.6-1.5 | 3.1-4.0 | 0.0-1.1 | 1.5-1.8 | 3.1-4.3 | 0.0-1.4 | 0.2-1.5 | 2.3-3.1 | 2.3-3.1 | 0.3-1.5 |
| Sampling Date | dd-mmm-yy | 21-Nov-24 | 21-Nov-24 | 21-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 |
| Certificate of Analysis No. | - | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 |

| | | |
|--------------------|--------------------------|----------------------|
| DRAWN BY: JS/SW | PROJECT NO.: CO986.00 | CHECKED BY: KB |
| REVISION: 00 | DATE: FEBRUARY 2025 | FIGURE: 12 |

C:\Users\swilliams\OneDrive - Terrapex Environmental Ltd\5_PROJECTS\Ottawa\CO900\CO986.00\40 Beechcliffe St, Ottawa\MXD\PHASE TWO ESA\SOIL\RESULTS_VOCs.mxd



LEGEND

- PHASE TWO PROPERTY BOUNDARY
- + BOREHOLE
- + MONITORING WELL
- TEST PIT

UNDERGROUND UTILITIES

- STORM SEWER
- SANITARY SEWER
- WATERMAIN

ANALYSIS INFORMATION

- LESS THAN OR EQUAL TO TABLE 3 SCS

STANDARD INFORMATION
 MECP TABLE 3: FULL DEPTH GENERIC SCS IN A NON-POTABLE GROUND WATER CONDITION FOR RESIDENTIAL/PARKLAND/INSTITUTIONAL PROPERTY-USE WITH COARSE TEXTURED SOIL.



DATA SOURCE: CITY OF OTTAWA
 MAP PROJECTION: NAD 1983 UTM ZONE 18N

CLIENT:

SITE LOCATION:
 40 BEECHCLIFFE STREET
 OTTAWA, ONTARIO

TITLE:
SOIL SAMPLE DISTRIBUTION - VOCs

| | | |
|--------------------|--------------------------|-------------------|
| DRAWN BY: JS/SW | PROJECT NO.: CO986.00 | CHECKED BY: KB |
|--------------------|--------------------------|-------------------|

| | | |
|-----------------|------------------------|----------------------|
| REVISION: 00 | DATE: FEBRUARY 2025 | FIGURE: 14 |
|-----------------|------------------------|----------------------|

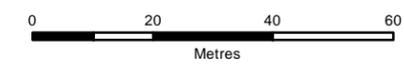
| SAMPLE NAME | UNITS | BH107-3A | MW109-3A | MW111-2C | MW111-2D DUPLICATE OF MW111-2C |
|-----------------------------|-----------|-----------|-----------|-----------|---|
| Sample Depth | m bgs | 3.1-4.0 | 3.1-4.3 | 2.3-3.1 | 2.3-3.1 |
| Sampling Date | dd-mmm-yy | 21-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 |
| Certificate of Analysis No. | - | 2448154 | 2448154 | 2448154 | 2448154 |

C:\Users\seirrou\OneDrive - TerraPex Environmental Ltd\PROJECTS\Ottawa\CO986.00 40 Beechcliffe St, Ottawa\MX\PHASE TWO ESA\SOUTHERN PORTION\CO986.00 FIG 15 GW ANALYTICAL RESULTS, METALS.mxd



LEGEND
 PHASE TWO PROPERTY BOUNDARY
 MONITORING WELL
ANALYSIS INFORMATION
 LESS THAN OR EQUAL TO TABLE 3 SCS

STANDARD INFORMATION
 MECP TABLE 3: FULL DEPTH GENERIC SCS IN A NON-POTABLE GROUND WATER CONDITION FOR ALL TYPES OF PROPERTY USE WITH COARSE TEXTURED SOIL.



DATA SOURCE: CITY OF OTTAWA
 MAP PROJECTION: NAD 1983 UTM ZONE 18N

CLIENT:

SITE LOCATION: 40 BEECHCLIFFE STREET
 OTTAWA, ONTARIO

TITLE: **GROUNDWATER SAMPLE DISTRIBUTION - METALS**

| | | |
|-----------------|--------------------------|-------------------|
| DRAWN BY: JS | PROJECT NO.: CO986.00 | CHECKED BY: GS |
|-----------------|--------------------------|-------------------|

| | | |
|-----------------|-----------------------|----------------------|
| REVISION: 00 | DATE: JANUARY 2025 | FIGURE: 15 |
|-----------------|-----------------------|----------------------|

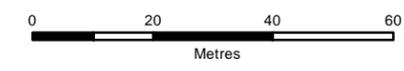
| SAMPLE NAME | UNITS | MW109D | MW111D | MW111 DUPLICATE OF MW111D |
|-----------------------------|-----------|-----------|-----------|------------------------------------|
| Screen Interval | m bgs | 3.1-6.1 | 3.4-6.4 | 3.4-6.4 |
| Sampling Date | dd-mmm-yy | 12-Dec-24 | 12-Dec-24 | 12-Dec-24 |
| Certificate of Analysis No. | - | 2450533 | 2450533 | 2450533 |

C:\Users\senrou\OneDrive - Terrapex Environmental Ltd\PROJECTS\Ottawa\CO986.00 40 Beechcliff St, Ottawa\MX\PHASE TWO ESA\SOUTHERN PORTION\CO986.00 FIG 16 GW ANALYTICAL RESULTS_HFMETAL_S.mxd



- LEGEND**
- PHASE TWO PROPERTY BOUNDARY
 - + MONITORING WELL
- ANALYSIS INFORMATION**
- LESS THAN OR EQUAL TO TABLE 3 SCS

STANDARD INFORMATION
 MECP TABLE 3: FULL DEPTH GENERIC SCS IN A NON-POTABLE GROUND WATER CONDITION FOR ALL TYPES OF PROPERTY USE WITH COARSE TEXTURED SOIL.



DATA SOURCE: CITY OF OTTAWA
 MAP PROJECTION: NAD 1983 UTM ZONE 18N

CLIENT:

SITE LOCATION: 40 BEECHCLIFFE STREET
 OTTAWA, ONTARIO

TITLE: **GROUNDWATER SAMPLE DISTRIBUTION - HYDRIDE FORMING METALS**

| | | |
|-----------------|--------------------------|-------------------|
| DRAWN BY: JS | PROJECT NO.: CO986.00 | CHECKED BY: GS |
|-----------------|--------------------------|-------------------|

| | | |
|-----------------|-----------------------|----------------------|
| REVISION: 00 | DATE: JANUARY 2025 | FIGURE: 16 |
|-----------------|-----------------------|----------------------|

| SAMPLE NAME | UNITS | MW109D | MW111D | MW111 DUPLICATE OF MW111D |
|-----------------------------|-----------|-----------|-----------|------------------------------------|
| Screen Interval | m bgs | 3.1-6.1 | 3.4-6.4 | 3.4-6.4 |
| Sampling Date | dd-mmm-yy | 12-Dec-24 | 12-Dec-24 | 12-Dec-24 |
| Certificate of Analysis No. | - | 2450533 | 2450533 | 2450533 |

C:\Users\swilliams\OneDrive - Terrapex Environmental Ltd\5_PROJECTS\Ottawa\CO900\CO986.00 40 Beechcliffe St. Ottawa\MD\PHASE TWO ESA\SOULTHERN PORTION\CO986.00 FIG 17 GW ANALYTICAL RESULTS_ORP.mxd



LEGEND

- - - PHASE TWO PROPERTY BOUNDARY
- ◆ MONITORING WELL
- ANALYSIS INFORMATION
- LESS THAN OR EQUAL TO TABLE 3 SCS

NOTES

1. OTHER REGULATED PARAMETERS INCLUDE: CYANIDE, HEXAVALENT CHROMIUM, MERCURY, pH, CHLORIDE AND SODIUM.

STANDARD INFORMATION

MECP TABLE 3: FULL DEPTH GENERIC SCS IN A NON-POTABLE GROUND WATER CONDITION FOR ALL TYPES OF PROPERTY USE WITH COARSE TEXTURED SOIL.

0 20 40 60
Metres

DATA SOURCE: CITY OF OTTAWA
MAP PROJECTION: NAD 1983 UTM ZONE 18N

CLIENT:

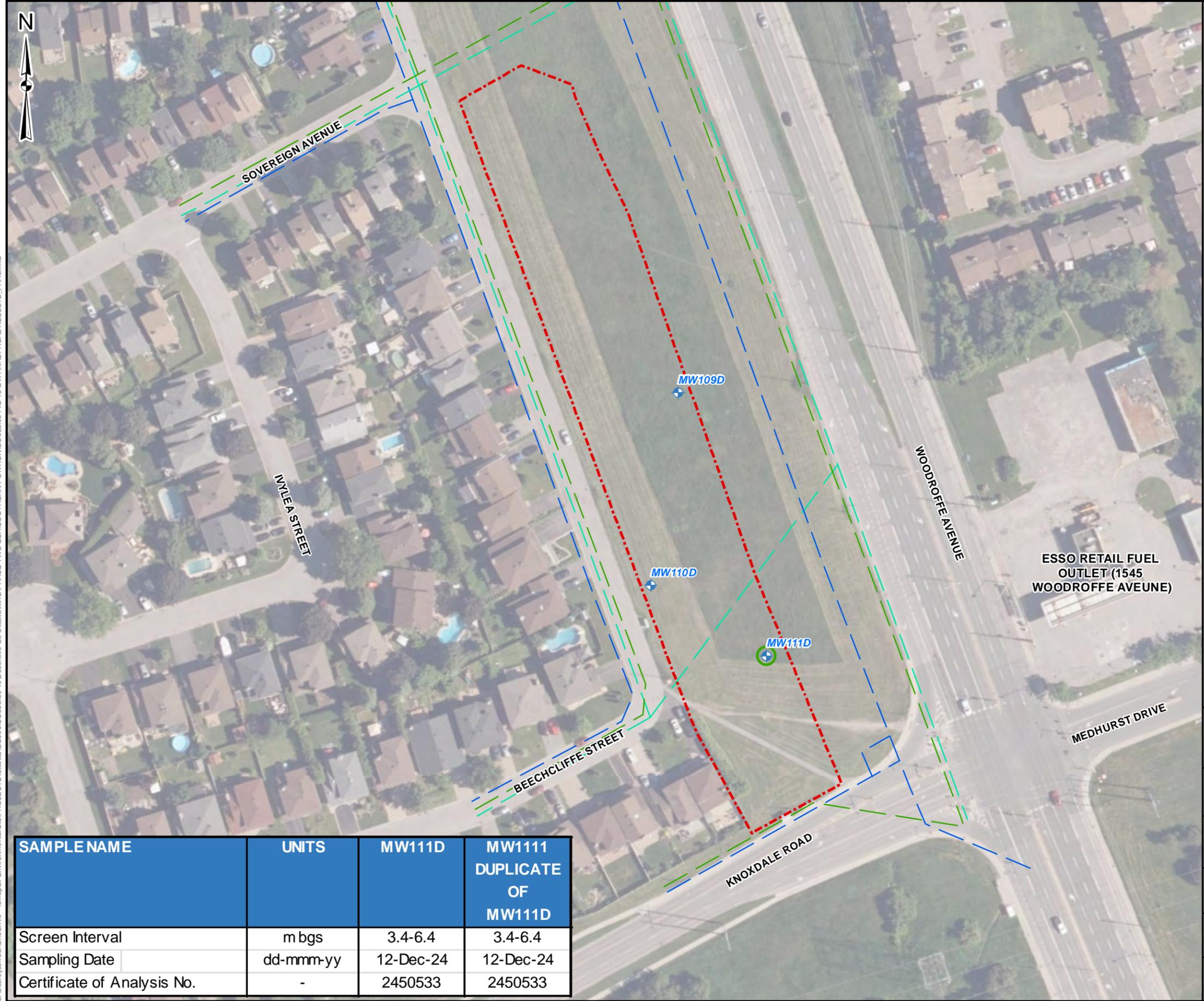
SITE LOCATION: 40 BEECHCLIFFE STREET
OTTAWA, ONTARIO

TITLE: **GROUNDWATER SAMPLE DISTRIBUTION
- OTHER REGULATED PARAMETERS**

| | | |
|---------------------------|---------------------------------|--------------------------|
| DRAWN BY: JS/SW | PROJECT NO.: CO986.00 | CHECKED BY: GS |
| REVISION: 00 | DATE: FEBRUARY 2025 | FIGURE: 17 |

| SAMPLE NAME | UNITS | MW111D | MW1111 DUPLICATE OF MW111D |
|-----------------------------|-----------|-----------|-------------------------------------|
| Screen Interval | m bgs | 3.4-6.4 | 3.4-6.4 |
| Sampling Date | dd-mmm-yy | 12-Dec-24 | 12-Dec-24 |
| Certificate of Analysis No. | - | 2450533 | 2450533 |

C:\Users\seirrou\OneDrive - TerraPex Environmental Ltd\PROJECTS\Ottawa\CO986.00 40 Beechcliffe St, Ottawa\MX\PHASE TWO ESA\SOUTHERN PORTION\CO986.00 FIG 18 GW ANALYTICAL RESULTS_PAHS.mxd



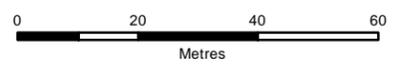
LEGEND

- PHASE TWO PROPERTY BOUNDARY
- + MONITORING WELL

ANALYSIS INFORMATION

- LESS THAN OR EQUAL TO TALBE 3 SCS

STANDARD INFORMATION
 MECP TABLE 3: FULL DEPTH GENERIC SCS IN A NON-POTABLE GROUND WATER CONDITION FOR ALL TYPES OF PROPERTY USE WITH COARSE TEXTURED SOIL.



DATA SOURCE: CITY OF OTTAWA
 MAP PROJECTION: NAD 1983 UTM ZONE 18N

CLIENT:

SITE LOCATION: 40 BEECHCLIFFE STREET
 OTTAWA, ONTARIO

TITLE: **GROUNDWATER SAMPLE DISTRIBUTION - PAHS**

| | | |
|-----------------|--------------------------|-------------------|
| DRAWN BY: JS | PROJECT NO.: CO986.00 | CHECKED BY: GS |
|-----------------|--------------------------|-------------------|

| | | |
|-----------------|-----------------------|----------------------|
| REVISION: 00 | DATE: JANUARY 2025 | FIGURE: 18 |
|-----------------|-----------------------|----------------------|

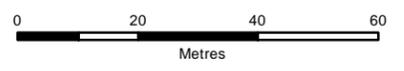
| SAMPLE NAME | UNITS | MW111D | MW1111 DUPLICATE OF MW111D |
|-----------------------------|-----------|-----------|-------------------------------------|
| Screen Interval | m bgs | 3.4-6.4 | 3.4-6.4 |
| Sampling Date | dd-mmm-yy | 12-Dec-24 | 12-Dec-24 |
| Certificate of Analysis No. | - | 2450533 | 2450533 |

C:\Users\seirrou\OneDrive - TerraPex Environmental Ltd\PROJECTS\Ottawa\CO986.00 40 Beechcliffe St, Ottawa\MX\PHASE TWO ESA\SOUTHERN PORTION\CO986.00 FIG 19 GW ANALYTICAL RESULTS_BTEX.mxd



LEGEND
 PHASE TWO PROPERTY BOUNDARY
 MONITORING WELL
ANALYSIS INFORMATION
 LESS THAN OR EQUAL TO TABLE 3 SCS

STANDARD INFORMATION
 MECP TABLE 3: FULL DEPTH GENERIC SCS IN A NON-POTABLE GROUND WATER CONDITION FOR ALL TYPES OF PROPERTY USE WITH COARSE TEXTURED SOIL.



DATA SOURCE: CITY OF OTTAWA
 MAP PROJECTION: NAD 1983 UTM ZONE 18N

CLIENT:

SITE LOCATION: 40 BEECHCLIFFE STREET
 OTTAWA, ONTARIO

TITLE: **GROUNDWATER SAMPLE DISTRIBUTION - BTEX**

| | | |
|-----------------|--------------------------|-------------------|
| DRAWN BY: JS | PROJECT NO.: CO986.00 | CHECKED BY: GS |
|-----------------|--------------------------|-------------------|

| | | |
|-----------------|-----------------------|----------------------|
| REVISION: 00 | DATE: JANUARY 2025 | FIGURE: 19 |
|-----------------|-----------------------|----------------------|

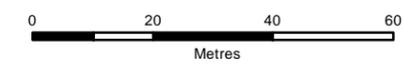
| SAMPLE NAME | UNITS | MW109D | MW110D | MW111D | MW1111 DUPLICATE OF MW111D |
|-----------------------------|-----------|-----------|-----------|-----------|-------------------------------------|
| Screen Interval | m bgs | 3.1-6.1 | 3.1-6.1 | 3.4-6.4 | 3.4-6.4 |
| Sampling Date | dd-mmm-yy | 12-Dec-24 | 12-Dec-24 | 12-Dec-24 | 12-Dec-24 |
| Certificate of Analysis No. | - | 2450533 | 2450533 | 2450533 | 2450533 |

C:\Users\seirrou\OneDrive - TerraPex Environmental Ltd\PROJECTS\Ottawa\CO986.00 40 Beechcliffe St, Ottawa\MX\PHASE TWO ESA\SOUTHERN PORTION\CO986.00 FIG 20 GW ANALYTICAL RESULTS_PHCs.mxd



- LEGEND**
- PHASE TWO PROPERTY BOUNDARY
 - + MONITORING WELL
- ANALYSIS INFORMATION**
- LESS THAN OR EQUAL TO TABLE 3 SCS

STANDARD INFORMATION
 MECP TABLE 3: FULL DEPTH GENERIC SCS IN A NON-POTABLE GROUND WATER CONDITION FOR ALL TYPES OF PROPERTY USE WITH COARSE TEXTURED SOIL.



DATA SOURCE: CITY OF OTTAWA
 MAP PROJECTION: NAD 1983 UTM ZONE 18N

CLIENT:

SITE LOCATION: 40 BEECHCLIFFE STREET
 OTTAWA, ONTARIO

TITLE: **GROUNDWATER SAMPLE DISTRIBUTION - PHCS**

| | | |
|-----------------|--------------------------|-------------------|
| DRAWN BY: JS | PROJECT NO.: CO986.00 | CHECKED BY: GS |
|-----------------|--------------------------|-------------------|

| | | |
|-----------------|-----------------------|----------------------|
| REVISION: 00 | DATE: JANUARY 2025 | FIGURE: 20 |
|-----------------|-----------------------|----------------------|

| SAMPLE NAME | UNITS | MW109D | MW110D | MW111D | MW1111 DUPLICATE OF MW111D |
|-----------------------------|-----------|-----------|-----------|-----------|-------------------------------------|
| Screen Interval | m bgs | 3.1-6.1 | 3.1-6.1 | 3.4-6.4 | 3.4-6.4 |
| Sampling Date | dd-mmm-yy | 12-Dec-24 | 12-Dec-24 | 12-Dec-24 | 12-Dec-24 |
| Certificate of Analysis No. | - | 2450533 | 2450533 | 2450533 | 2450533 |

C:\Users\seirrou\OneDrive - TerraPex Environmental Ltd\PROJECTS\Ottawa\CO986.00 40 Beechcliffe St, Ottawa\MXD\PHASE TWO ESA\SOUTHERN PORTION\CO986.00 FIG 21 GW ANALYTICAL RESULTS_VOCs.mxd



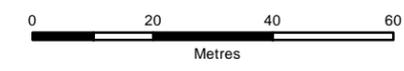
LEGEND

- PHASE TWO PROPERTY BOUNDARY
- + MONITORING WELL

ANALYSIS INFORMATION

- LESS THAN OR EQUAL TO TABLE 3 SCS

STANDARD INFORMATION
 MECP TABLE 3: FULL DEPTH GENERIC SCS IN A NON-POTABLE GROUND WATER CONDITION FOR ALL TYPES OF PROPERTY USE WITH COARSE TEXTURED SOIL.



DATA SOURCE: CITY OF OTTAWA
 MAP PROJECTION: NAD 1983 UTM ZONE 18N

CLIENT:

SITE LOCATION: 40 BEECHCLIFFE STREET
 OTTAWA, ONTARIO

TITLE: **GROUNDWATER SAMPLE DISTRIBUTION - VOCs**

| | | |
|-----------------|--------------------------|-------------------|
| DRAWN BY: JS | PROJECT NO.: CO986.00 | CHECKED BY: GS |
|-----------------|--------------------------|-------------------|

| | | |
|-----------------|-----------------------|----------------------|
| REVISION: 00 | DATE: JANUARY 2025 | FIGURE: 21 |
|-----------------|-----------------------|----------------------|

| SAMPLE NAME | UNITS | MW109D | MW110D | MW111D | MW1111 DUPLICATE OF MW111D |
|-----------------------------|-----------|-----------|-----------|-----------|-------------------------------------|
| Screen Interval | m bgs | 3.1-6.1 | 3.1-6.1 | 3.4-6.4 | 3.4-6.4 |
| Sampling Date | dd-mmm-yy | 12-Dec-24 | 12-Dec-24 | 12-Dec-24 | 12-Dec-24 |
| Certificate of Analysis No. | - | 2450533 | 2450533 | 2450533 | 2450533 |

TABLES

TABLE 1: TABLE OF CURRENT AND PAST USES OF THE PHASE ONE PROPERTY

(Refer to clause 16(2)(b), Schedule D, O. Reg. 153/04)

| Year | Name of Owner | Description of Property Use | Property Use ¹ | Other Observations from Aerial Photographs, Fire Insurance Plans, etc. |
|----------------|-------------------------------------|--|---------------------------|---|
| Pre 1843 | Joseph Sauter | Unknown | Agricultural or other use | First registration in Chain of Title |
| 1843 – 1887 | Christopher Switzer | Unknown | Agricultural or other use | No available information regarding the use of the property at this timeframe |
| 1887 – 1902 | Obadiah Switzer | Unknown | Agricultural or other use | No available information regarding the use of the property at this timeframe |
| 1902 - 1943 | Ivan Switzer | Unknown | Agricultural or other use | No available information regarding the use of the property at this timeframe |
| 1943 - 1955 | Thomas and Katherine brooks | Unknown | Agricultural or other use | No available information regarding the use of the property at this timeframe |
| 1955 - 1958 | Joseph, Abraham, and Harry Addleman | Unknown | Agricultural or other use | No available information regarding the use of the property at this timeframe |
| 1958 - 1965 | McArthur Realities (Ottawa) Limited | Unknown | Agricultural or other use | No available information regarding the use of the property at this timeframe |
| 1965 - 1975 | Woodvale Investments Limited | Appears to be used for Agricultural purposes | Agricultural or other use | Plan 506462 registered in 1966 for Woodvale Investments Limited. Site is agricultural based on the 1965 aerial photograph. Disturbed soil is visible on the southern portion of the Site. |
| 1975 – 1981 | Sheahan Investments Ltd. | Appears to be disturbed soil | Agricultural or other use | Disturbed soil is visible on the 1965 aerial photographs |
| 1981 - 1983 | Theodore Sherman | Vacant property | Agricultural or other use | Property is vacant |
| 1983 - 1984 | Thomas C Assaly | Vacant property | Agricultural or other use | Property is vacant |
| 1984 – 1986 | Trendsetter Developments | Vacant Property | Agricultural or other use | Plan 4M468 and 4M487 registered in 1984 AND 1985 by Trendsetter Developments |
| 1986 – Present | RMO (i.e., City of Ottawa) | Vacant property | Agricultural or other use | Expropriated to the Regional Municipality of Ottawa Carleton in 1986. Pictures of a construction related to the sanitary sewer are visible on the southern portion of the Site. |

Notes:

1 - for each owner, specify one of the following types of property use (as defined in O. Reg. 153/04) that applies:

Agriculture or other use | Commercial use | Community use | Industrial use | Institutional use | Parkland use | Residential use

2 - when submitting a record of site condition for filing, a copy of this table must be attached

TABLE 2: POTENTIALLY CONTAMINATING ACTIVITIES ON, IN OR UNDER THE PHASE ONE PROPERTY AND STUDY AREA

| PCA ¹ | Potentially Contaminating Activity ² | Address/ Location/ Distance/ Direction | Description | Data Source | Likelihood To Affect the Site / Rationale | Uncertainty | Area(s) of Potential Environmental Concern |
|------------------|--|---|---|--|---|---|--|
| PCA 1 | 30 - Importation of Fill Material of Unknown Quality | The Site | Suspected importation of fill to the Site based on evidence of disturbed soil (1965) and the construction of the sanitary sewer (2012). | Aerial Photographs (1965 and 2012) Historical Topographic Maps (1973) | Possible | High. No information regarding the quality of fill is available if any was imported. | APEC 1 (entire Site) |
| PCA 2 | 12 - Concrete, Cement and Lime Manufacturing | 40 Beechcliffe (northern portion of the property) Adjacent vacant land to the north of the Site. | Use of the Site as part of an access road for a concrete plant located to the west of the Site. | HLUI Aerial Photographs Topographic Maps (1961 and 1968) | Not likely due to distance from concrete plant infrastructure | High. No additional information or operating records for the former concrete plant were available | No |
| PCA 3 | 46 – Rail Yards, Tracks and Spurs | North of the Site (112 m north) | Presence of a Beachburg Rail Corridor since at least 1958 | Aerial Photographs Site Reconnaissance | Likely due to being adjacent to the Site. | Low | No |
| PCA 4A | 27 - Garages and Maintenance and Repair of Railcars, Marine Vehicles | 1545 Woodroffe Avenue (70 m east) | Presence of a former automotive service garage | HLUI Previous Environmental Reports | Possible | Low | APEC 2 (eastern portion of the Site) |
| PCA 4B | 28 - Gasoline and Associated Products Storage in Fixed Tanks | | Presence of retail fuel outlet since 1965 | Aerial Photographs HLUI Environmental Reports Site Reconnaissance | Possible | Low | APEC 2 (eastern portion of the Site) |

| PCA ¹ | Potentially Contaminating Activity ² | Address/ Location/ Distance/ Direction | Description | Data Source | Likelihood To Affect the Site / Rationale | Uncertainty | Area(s) of Potential Environmental Concern |
|------------------|---|---|---|------------------------|---|---|--|
| PCA 5 | Other – Spill | 5 Majestic Drive (169 m south) | Record of a spill of an unknown volume of hydraulic oil in 2015 | ERIS | Not likely due to description of incident and relative proximity to the Site | Low | No |
| PCA 6 | Other – Waste Generation | 72G Brockington Avenue (94 m east) | Records of waste generator of paint and pigments light fuels and waste oils and lubricants between 2005 and 2022. | ERIS | Not likely due to description of records and the distance between the Site and the PCA in an apparent cross-gradient direction. | Low | No |
| PCA 7 | N/A | 190 m north of the Site | Record of an “ <i>underground pipeline</i> ” running across Woodroffe Avenue | Topographic map (1973) | Not likely due to the intervening distance between the Site and the PCA in an apparent down-gradient direction. | High. No corroborating records and no information for what the pipeline was used for. | No |
| PCA 8 | Other – Spill | Intersection of Woodroffe Avenue and Knoxdale Road (40 m east) | Record of a spill of an unknown volume of hydraulic oil in 2015 | ERIS | Not likely due to description of incident and relative proximity to the Site | Low | No |

¹ As shown on Figure 4.

² As set out in Table 2 in Schedule D of O. Reg. 153/04.

TABLE 3: TABLE OF AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

(Refer to clause 16(2)(a), Schedule D, O. Reg. 153/04)

| Area of Potential Environmental Concern ¹ | Location of Area of Potential Environmental Concern on Phase One Property | Potentially Contaminating Activity ² | Location of PCA (On-Site Or Off-Site) | Contaminants Of Potential Concern ^{3,4} | Media Potentially Impacted (Ground water, Soil, and/or Sediment) |
|--|--|--|---------------------------------------|---|--|
| APEC 1 | 30 - Importation of Fill Material of Unknown Quality | 30 - Importation of Fill Material of Unknown Quality | On-Site (PCA 1) | - PHCs - BTEX - Metals and Inorganics - PAHs | Soil |
| APEC 2 | 27 - Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles | Off-Site (PCA 4A) | Off-Site (PCA 4A) | - PHCs - BTEX - VOCs - Metals | - Soil - Groundwater |
| | 28 - Gasoline and Associated Products Storage in Fixed Tanks | Off-Site (PCA 4B) | Off-Site (PCA 4B) | - PHCs - BTEX | - Soil - Groundwater |

1 - Areas of potential environmental concern means the area on, in or under a Phase One Property where one or more contaminants are potentially present, as determined through the Phase One environmental site assessment, including through,

- (a) identification of past or present uses on, in or under the Phase One Property, and
(b) identification of potentially contaminating activity.

2 - Potentially contaminating activity means a use or activity set out in Column A of Table 2 of Schedule D that is occurring or has occurred in a Phase One study area.

3 - When completing this column, identify all contaminants of potential concern using the Method Groups as identified in the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, March 9, 2004, amended as of July 1, 2011 and as of February 19, 2021, as specified below:

List of Method Groups:

| | | | | | | | |
|-------------|--------------------------------|------|--------------|------------|--------|---------|----------------|
| ABNs | Dioxins/Furans, PCDDs/PCDFs | PCBs | VOCs | Metals | B- HWS | EC | Methyl Mercury |
| CPs | OCs | PAHs | BTEX | As, Sb, Se | Cl | Cr (VI) | Low or high pH |
| 1,4-Dioxane | PHCs | THMs | Bromomethane | Na | CN | Hg | SAR |

4 - Where an identified contaminant of potential concern is not listed in the table that sets out the applicable site conditions standards in the Soil, Ground Water and Sediment Standards for which sampling and analysis is performed and is associated with potentially contaminating activity, the qualified person is referred to Subsection 43(3) of the Regulation.

5 - When submitting a record of site condition for filing, a copy of this table must be attached.

**TABLE 4: GROUNDWATER MONITORING DATA
40 BEECHCLIFFE STREET, OTTAWA, ONTARIO**

| WELL ID | WELL CONSTRUCTION | | | | WELL MONITORING | | | | | |
|---------|--------------------------------------|--------------------------------------|----------------------|--------------------------------------|-----------------|-----------------|-----------------------------------|-----------------------------------|---|-------------------------------------|
| | GROUND ELEVATION ¹ (m) | T.O.P. ELEVATION ² (m) | SCREEN LENGTH (m) | BOTTOM OF SCREEN ³ (m) | DATE | CV ⁴ | DEPTH TO WATER FROM T.O.P. (m) | DEPTH TO WATER FROM GROUND (m) | GROUNDWATER ELEVATION ⁵ (m) | LNAPL THICKNESS ⁶ (m) |
| MW109 | 88.32 | | 3.05 | 83.75 | 23-Nov-24 | - | DRY | - | - | - |
| MW109 | 88.32 | | 3.05 | 83.75 | 02-Dec-24 | - | DRY | - | - | - |
| MW109D | 88.32 | 89.18 | 3.05 | 82.22 | 11-Dec-24 | 120 ppm | 5.48 | 4.62 | 83.70 | None |
| MW110 | 88.48 | | 3.05 | 83.91 | 23-Nov-24 | - | DRY | - | - | - |
| MW110 | 88.48 | | 3.05 | 83.91 | 02-Dec-24 | - | DRY | - | - | - |
| MW110D | 88.48 | 89.65 | 3.05 | 82.38 | 11-Dec-24 | <5 ppm | 5.80 | 4.63 | 83.85 | None |
| MW111 | 88.69 | | 3.05 | 84.12 | 23-Nov-24 | - | DRY | - | - | - |
| MW111 | 88.69 | | 3.05 | 84.12 | 02-Dec-24 | - | DRY | - | - | - |
| MW111D | 88.69 | 89.85 | 3.05 | 82.59 | 11-Dec-24 | <5 ppm | 6.05 | 4.89 | 83.80 | None |

NOTES

- ¹ Elevation of ground surface at well location, relative to site benchmark
- ² Elevation of highest point of well pipe ("top of pipe"), relative to site benchmark
- ³ Elevation of bottom of well screened interval, relative to site benchmark
- ⁴ Combustible vapour concentration in well headspace in parts per million by volume (ppm) or percent of lower explosive limit (%LEL)
- ⁵ Static water level elevation, relative to site benchmark
- ⁶ Measured thickness of light, non-aqueous phase liquid, if any

**TABLE 5: SUMMARY OF SOIL ANALYTICAL RESULTS - METALS, HFMS AND OTHER REGULATED PARAMETERS
40 BEACHCLIFFE STREET, OTTAWA, ONTARIO**

| SAMPLE NAME | UNITS | STANDARDS Table 3 R/P/I coarse | BH107-1B | BH108-1A | MW109-1A | MW109-2A | MW110-1A | MW110-1D DUPLICATE OF MW110-1A | MW111-1B | MW111-2C | MW111-2D DUPLICATE OF MW111-2C | BH112-1B |
|--|-----------|---|-----------|-----------|-----------|-----------|-----------|---|-----------|-----------|---|-----------|
| Vapour Reading | see note | - | <5 ppm | - | <5 ppm | <5 ppm | - | <5 ppm |
| Sample Depth | m bgs | - | 0.6-1.5 | 0.0-1.1 | 0.0-1.4 | 1.5-1.8 | 0.0-1.4 | 0.0-1.4 | 0.2-1.5 | 2.3-3.1 | 2.3-3.1 | 0.3-1.5 |
| Sampling Date | dd-mmm-yy | - | 21-Nov-24 | 21-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 |
| Analysis Date (on or before) | dd-mmm-yy | - | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 |
| Certificate of Analysis No. | - | - | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 |
| METALS | | | | | | | | | | | | |
| Barium | ug/g | 390 | 137 | 116 | 124 | - | 107 | 126 | 178 | 306 | 280 | 228 |
| Beryllium | ug/g | 4.0 | <0.5 | <0.5 | <0.5 | - | <0.5 | <0.5 | 0.5 | 0.7 | 0.6 | 0.6 |
| Boron (Total) | ug/g | 120 | 6.9 | 5.7 | 5.4 | - | <5.0 | <5.0 | 7.9 | 5.9 | 5.9 | 7.3 |
| Cadmium | ug/g | 1.2 | <0.5 | <0.5 | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Chromium Total | ug/g | 160 | 24.9 | 28.1 | 31.1 | - | 25.6 | 26.4 | 29.8 | 62.0 | 57.1 | 37.7 |
| Cobalt | ug/g | 22 | 7.2 | 7.4 | 8.1 | - | 6.9 | 6.9 | 8.7 | 14.6 | 13.8 | 10.8 |
| Copper | ug/g | 140 | 25.3 | 25.1 | 25.6 | - | 18.9 | 18.9 | 24.8 | 32.9 | 30.7 | 30.6 |
| Lead | ug/g | 120 | 14.7 | 12.8 | 11.4 | - | 6.3 | 5.6 | 19.2 | 5.2 | 4.9 | 17.5 |
| Molybdenum | ug/g | 6.9 | <1.0 | <1.0 | <1.0 | - | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Nickel | ug/g | 100 | 16.2 | 16.6 | 20.4 | - | 14.7 | 15.8 | 19.3 | 35.5 | 32.1 | 24.2 |
| Silver | ug/g | 20 | <0.3 | <0.3 | <0.3 | - | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 |
| Thallium | ug/g | 1.0 | <1.0 | <1.0 | <1.0 | - | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Uranium | ug/g | 23 | <1.0 | <1.0 | <1.0 | - | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Vanadium | ug/g | 86 | 28.0 | 33.6 | 37.3 | - | 34.5 | 33.6 | 36.8 | 65.4 | 60.7 | 47.1 |
| Zinc | ug/g | 340 | 40.2 | 46.9 | 53.6 | - | 38.3 | 36.5 | 68.1 | 78.6 | 73.2 | 62.3 |
| HYDRIDE-FORMING METALS | | | | | | | | | | | | |
| Antimony | ug/g | 7.5 | <1.0 | <1.0 | <1.0 | - | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Arsenic | ug/g | 18 | 2.6 | 2.5 | 2.3 | - | 2.2 | 2.3 | 2.8 | 2.5 | 2.7 | 3.0 |
| Selenium | ug/g | 2.4 | <1.0 | <1.0 | <1.0 | - | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| OTHER REGULATED PARAMETERS (ORPs) | | | | | | | | | | | | |
| Boron (Hot Water Soluble) ¹ | ug/g | 1.5 | <0.5 | <0.5 | <0.5 | - | <0.5 | <0.5 | <0.5 | - | - | <0.5 |
| Cyanide (CN ⁻) | ug/g | 0.051 | <0.03 | <0.03 | <0.03 | - | <0.03 | <0.03 | <0.03 | - | - | <0.03 |
| Chromium VI | ug/g | 8.0 | <0.2 | <0.2 | <0.2 | - | <0.2 | <0.2 | <0.2 | - | - | <0.2 |
| Mercury | ug/g | 0.27 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | - | - | <0.1 |
| pH | pH Units | 5-9* or 5-11** | 7.50 | 7.35 | 7.37 | 7.38 | 7.41 | 7.37 | 7.38 | - | - | 7.47 |
| Electrical Conductivity | uS/cm | 700 | 158 | 169 | 220 | - | 195 | 158 | 166 | - | - | 161 |
| Sodium Adsorption Ratio | N/A | 5.0 | 0.08 | 0.08 | 0.08 | - | 0.10 | 0.09 | 0.07 | - | - | 0.09 |

Standards from Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (April 15, 2011 and as amended).

Table 3: Full Depth Generic SCS in a Non-Potable Ground Water Condition
Residential/Parkland/Institutional Property-Use, Coarse-Textured Soil

- Parameter not analyzed

m bgs meters below ground surface

ppm parts per million by volume

% LEL percent of the lower explosive limit

NV No Value; no standard established

NA Not Applicable; no standard established because a standard is not required

* Surface soil (<1.5m bgs) acceptable pH range

** Subsurface soil (>1.5m bgs) acceptable pH range

Value Exceeds applicable site condition standard

Value Detection limit exceeds standard

¹ Hot water soluble boron applies to surface soils (<1.5 m bg).

² Analysis for methyl mercury only applies when mercury standard is exceeded

**TABLE 6: SUMMARY OF SOIL ANALYTICAL RESULTS - PAHs
40 BEACHCLIFFE STREET, OTTAWA, ONTARIO**

| SAMPLE NAME | UNITS | STANDARDS Table 3 R/P/I coarse | BH107-1B | BH108-1A | MW109-1A | MW110-1A | MW110-1D DUPLICATE OF MW110-1A | MW111-1B | MW111-2C | MW111D-5 | BH112-1B | BH113-1 | BH114-1 |
|--|-----------|---|-----------|-----------|-----------|-----------|---|-------------|-----------|-------------|-----------|-------------|-----------|
| Vapour Reading | see note | - | <5 ppm | <5 ppm | <5 ppm | <5 ppm | - | <5 ppm | <5 ppm | 40 ppm | <5 ppm | 30 ppm | 45 ppm |
| Sample Depth | m bgs | - | 0.6-1.5 | 0.0-1.1 | 0.0-1.4 | 0.0-1.4 | 0.0-1.4 | 0.2-1.5 | 2.3-3.1 | 0.8-1.5 | 0.3-1.5 | 0.8-1.5 | 0.8-1.5 |
| Sampling Date | dd-mmm-yy | - | 21-Nov-24 | 21-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 | 06-Dec-24 | 22-Nov-24 | 06-Dec-24 | 06-Dec-24 |
| Analysis Date (on or before) | dd-mmm-yy | - | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 | 6-Dec-24 | 3-Dec-24 | 6-Dec-24 | 6-Dec-24 |
| Certificate of Analysis No. | - | - | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2450112 | 2448154 | 2450112 | 2450112 |
| POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) | | | | | | | | | | | | | |
| Acenaphthene | ug/g | 7.9 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | 0.02 | <0.02 | 0.03 | <0.02 | <0.02 | <0.02 |
| Acenaphthylene | ug/g | 0.15 | 0.03 | 0.03 | <0.02 | <0.02 | <0.02 | 0.10 | <0.02 | 0.14 | 0.09 | 0.18 | 0.08 |
| Anthracene | ug/g | 0.67 | <0.02 | 0.04 | 0.03 | <0.02 | <0.02 | 0.11 | <0.02 | 0.18 | 0.09 | 0.18 | 0.08 |
| Benz[a]anthracene | ug/g | 0.50 | <0.02 | 0.06 | 0.05 | <0.02 | 0.02 | 0.27 | <0.02 | 0.36 | 0.20 | 0.32 | 0.14 |
| Benzo[a]pyrene | ug/g | 0.30 | 0.03 | 0.10 | 0.07 | 0.03 | 0.04 | 0.36 | <0.02 | 0.39 | 0.27 | 0.44 | 0.15 |
| Benzo[b]fluoranthene | ug/g | 0.78 | 0.02 | 0.08 | 0.05 | 0.02 | 0.03 | 0.26 | <0.02 | 0.44 | 0.19 | 0.52 | 0.19 |
| Benzo[ghi]perylene | ug/g | 6.6 | 0.02 | 0.08 | 0.06 | <0.02 | 0.03 | 0.25 | <0.02 | 0.33 | 0.18 | 0.37 | 0.11 |
| Benzo[k]fluoranthene | ug/g | 0.78 | <0.02 | 0.05 | 0.03 | <0.02 | 0.02 | 0.20 | <0.02 | 0.31 | 0.14 | 0.31 | 0.14 |
| Chrysene | ug/g | 7.0 | <0.02 | 0.07 | 0.06 | <0.02 | 0.04 | 0.28 | <0.02 | 0.32 | 0.23 | 0.30 | 0.14 |
| Dibenz[a h]anthracene | ug/g | 0.10 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | 0.06 | <0.02 | 0.08 | 0.04 | 0.09 | 0.03 |
| Fluoranthene | ug/g | 0.69 | 0.06 | 0.15 | 0.16 | 0.05 | 0.08 | 0.80 | <0.02 | 0.89 | 0.62 | 0.70 | 0.35 |
| Fluorene | ug/g | 62 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | 0.03 | <0.02 | 0.03 | <0.02 | 0.03 | <0.02 |
| Indeno[1 2 3-cd]pyrene | ug/g | 0.38 | <0.02 | 0.06 | 0.04 | <0.02 | 0.02 | 0.20 | <0.02 | 0.31 | 0.15 | 0.34 | 0.11 |
| Methylnaphthalene, 1- | ug/g | 0.99 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Methylnaphthalene, 2- | ug/g | 0.99 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Methylnaphthalene, 2-(1-) ¹ | ug/g | 0.99 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| Naphthalene | ug/g | 0.60 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.03 | <0.01 | <0.01 | <0.01 |
| Phenanthrene | ug/g | 6.2 | 0.05 | 0.09 | 0.13 | <0.02 | 0.03 | 0.38 | <0.02 | 0.41 | 0.29 | 0.31 | 0.11 |
| Pyrene | ug/g | 78 | 0.07 | 0.13 | 0.14 | 0.05 | 0.07 | 0.63 | <0.02 | 0.75 | 0.53 | 0.63 | 0.30 |

Standards from Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (April 15, 2011 and as amended).

Table 3: Full Depth Generic SCS in a Non-Potable Ground Water Condition

Residential/Parkland/Institutional Property-Use, Coarse-Textured Soil

| | |
|--------------|--|
| - | Parameter not analyzed |
| m bgs | meters below ground surface |
| ppm | parts per million by volume |
| % LEL | percent of the lower explosive limit |
| NV | No Value; no standard established |
| NA | Not Applicable; no standard established because a standard is not required |
| Value | Exceeds applicable site condition standard |
| <u>Value</u> | Detection limit exceeds standard |
| ¹ | the sum of 1-methylnaphthalene and 2- methylnaphthalene |

**TABLE 6: SUMMARY OF SOIL ANALYTICAL RESULTS - PAHs
40 BEACHCLIFFE STREET, OTTAWA, ONTARIO**

| SAMPLE NAME | UNITS | STANDARDS Table 3 R/P/I coarse | TP103-2 | TP103-4 | TP104-2 | TP106-3 | TP107-2 | TP107-12 DUPLICATE OF TP107-2 | TP107-4 | TP108-2 | TP109-1 | TP110-2 | TP111-3 |
|--|-----------|---|-----------|-----------|-----------|-----------|-------------|--|-----------|-------------|-------------|-----------|-----------|
| Vapour Reading | see note | - | <5 ppm | - | <5 ppm | <5 ppm | <5 ppm | <5 ppm | <5 ppm |
| Sample Depth | m bgs | - | 0.5-1.0 | 1.5-1.6 | 0.5-1.8 | 1.1-1.5 | 0.5-1.1 | 0.5-1.1 | 1.6-1.8 | 0.8-1.4 | 0.0-0.5 | 0.6-1.1 | 1.1-1.4 |
| Sampling Date | dd-mmm-yy | - | 15-Jan-25 | 15-Jan-25 | 15-Jan-25 | 15-Jan-25 | 15-Jan-25 | 15-Jan-25 | 15-Jan-25 | 15-Jan-25 | 15-Jan-25 | 15-Jan-25 | 15-Jan-25 |
| Analysis Date (on or before) | dd-mmm-yy | - | 21-Jan-24 | 21-Jan-24 | 21-Jan-24 | 21-Jan-24 | 21-Jan-24 | 21-Jan-24 | 21-Jan-24 | 21-Jan-24 | 27-Jan-25 | 21-Jan-24 | 27-Jan-25 |
| Certificate of Analysis No. | - | - | 2503397 | 2503397 | 2503397 | 2503397 | 2503397 | 2503397 | 2503397 | 2503397 | 2503399 | 2503397 | 2503399 |
| POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) | | | | | | | | | | | | | |
| Acenaphthene | ug/g | 7.9 | <0.02 | <0.02 | <0.02 | <0.02 | 0.03 | 0.57 | <0.02 | <0.02 | 0.04 | 0.04 | <0.02 |
| Acenaphthylene | ug/g | 0.15 | <0.02 | <0.02 | <0.02 | <0.02 | 0.15 | 0.48 | <0.02 | 0.15 | 0.32 | 0.07 | <0.02 |
| Anthracene | ug/g | 0.67 | 0.03 | <0.02 | <0.02 | <0.02 | 0.24 | 1.95 | <0.02 | 0.18 | 0.33 | 0.16 | 0.04 |
| Benz[a]anthracene | ug/g | 0.50 | 0.03 | 0.03 | <0.02 | <0.02 | 0.52 | 1.66 | <0.02 | 0.27 | 0.81 | 0.20 | 0.23 |
| Benzo[a]pyrene | ug/g | 0.30 | 0.03 | 0.03 | <0.02 | <0.02 | 0.47 | 1.26 | <0.02 | 0.29 | 0.89 | 0.18 | 0.20 |
| Benzo[b]fluoranthene | ug/g | 0.78 | 0.04 | 0.03 | <0.02 | <0.02 | 0.47 | 1.37 | <0.02 | 0.31 | 0.84 | 0.19 | 0.20 |
| Benzo[ghi]perylene | ug/g | 6.6 | 0.03 | 0.02 | <0.02 | <0.02 | 0.29 | 0.76 | <0.02 | 0.18 | 0.46 | 0.11 | 0.11 |
| Benzo[k]fluoranthene | ug/g | 0.78 | 0.02 | 0.02 | <0.02 | <0.02 | 0.31 | 0.88 | <0.02 | 0.20 | 0.49 | 0.11 | 0.12 |
| Chrysene | ug/g | 7.0 | 0.03 | 0.03 | <0.02 | <0.02 | 0.48 | 1.69 | <0.02 | 0.26 | 0.69 | 0.21 | 0.15 |
| Dibenz[a h]anthracene | ug/g | 0.10 | <0.02 | <0.02 | <0.02 | <0.02 | 0.08 | 0.21 | <0.02 | 0.05 | 0.11 | 0.03 | 0.02 |
| Fluoranthene | ug/g | 0.69 | 0.10 | 0.08 | 0.06 | 0.04 | 1.40 | 7.09 | 0.04 | 0.72 | 1.56 | 0.64 | 0.31 |
| Fluorene | ug/g | 62 | <0.02 | <0.02 | <0.02 | <0.02 | 0.03 | 0.93 | <0.02 | <0.02 | 0.06 | 0.06 | <0.02 |
| Indeno[1 2 3-cd]pyrene | ug/g | 0.38 | <0.02 | <0.02 | <0.02 | <0.02 | 0.29 | 0.83 | <0.02 | 0.18 | 0.40 | 0.11 | 0.09 |
| Methylnaphthalene, 1- | ug/g | 0.99 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | 0.17 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Methylnaphthalene, 2- | ug/g | 0.99 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | 0.20 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Methylnaphthalene, 2-(1-) ¹ | ug/g | 0.99 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | 0.37 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| Naphthalene | ug/g | 0.60 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.22 | <0.01 | <0.01 | 0.03 | 0.04 | <0.01 |
| Phenanthrene | ug/g | 6.2 | 0.07 | 0.04 | 0.03 | <0.02 | 0.52 | 7.44 | <0.02 | 0.27 | 0.79 | 0.54 | 0.08 |
| Pyrene | ug/g | 78 | 0.08 | 0.07 | 0.05 | 0.04 | 1.20 | 4.97 | 0.04 | 0.61 | 1.30 | 0.51 | 0.27 |

Standards from Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (April 15, 2011 and as amended).

Table 3: Full Depth Generic SCS in a Non-Potable Ground Water Condition

Residential/Parkland/Institutional Property-Use, Coarse-Textured Soil

- Parameter not analyzed

m bgs meters below ground surface

ppm parts per million by volume

% LEL percent of the lower explosive limit

NV No Value; no standard established

NA Not Applicable; no standard established because a standard is not required

Value Exceeds applicable site condition standard

Value Detection limit exceeds standard

¹ the sum of 1-methylnaphthalene and 2- methylnaphthalene

**TABLE 7: SUMMARY OF SOIL ANALYTICAL RESULTS - BTEX AND PHCs
40 BEACHCLIFFE STREET, OTTAWA, ONTARIO**

| SAMPLE NAME | UNITS | STANDARDS Table 3 R/P/I coarse | BH107-1B | BH107-3A Labelled "MW107-3A" in COA | BH108-1A | MW109-2A | MW109-3A | MW110-1A | MW111-1B | MW111-2C | MW111-2D DUPLICATE OF MW111-2C | BH112-1B |
|---|-----------|---|-----------|--|-----------|-----------|-----------|-----------|-----------|-----------|---|-----------|
| Vapour Reading | see note | - | <5 ppm | 130 ppm | <5 ppm | <5 ppm | <5 ppm | <5 ppm | <5 ppm | <5 ppm | - | <5 ppm |
| Sample Depth | m bgs | - | 0.6-1.5 | 3.1-4.0 | 0.0-1.1 | 1.5-1.8 | 3.1-4.3 | 0.0-1.4 | 0.2-1.5 | 2.3-3.1 | 2.3-3.1 | 0.3-1.5 |
| Sampling Date | dd-mmm-yy | - | 21-Nov-24 | 21-Nov-24 | 21-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 |
| Analysis Date (on or before) | dd-mmm-yy | - | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 |
| Certificate of Analysis No. | - | - | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 | 2448154 |
| BENZENE, TOLUENE, ETHYLBENZENE, XYLENES (BTEX) | | | | | | | | | | | | |
| Benzene | ug/g | 0.21 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Toluene | ug/g | 2.3 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Ethylbenzene | ug/g | 2.0 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| m-Xylene & p-Xylene | ug/g | NA | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| o-Xylene | ug/g | NA | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Xylenes (Total) | ug/g | 3.1 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| PETROLEUM HYDROCARBONS (PHCs) | | | | | | | | | | | | |
| Petroleum Hydrocarbons F1-BTEX | ug/g | 55 | <7 | <7 | <7 | <7 | <7 | <7 | <7 | <7 | <7 | <7 |
| Petroleum Hydrocarbons F2 | ug/g | 98 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Petroleum Hydrocarbons F3 | ug/g | 300 | 103 | <8 | 35 | 29 | <8 | <8 | 27 | <8 | <8 | 25 |
| Petroleum Hydrocarbons F4 | ug/g | 2,800 | 376 | <6 | 85 | 128 | <6 | <6 | 46 | <6 | <6 | 30 |
| Petroleum Hydrocarbons F4G | - | 2,800 | 1250 | - | - | 520 | - | - | - | - | - | - |

Standards from Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (April 15, 2011 and as amended).

Table 3: Full Depth Generic SCS in a Non-Potable Ground Water Condition
Residential/Parkland/Institutional Property-Use, Coarse-Textured Soil

| | |
|--------------|--|
| - | Not analyzed |
| m bgs | meters below ground surface |
| ppm | parts per million by volume |
| % LEL | percent of the lower explosive limit |
| NV | No Value; no standard established |
| NA | Not Applicable; no standard established because a standard is not required |
| Value | Exceeds applicable site condition standard |
| <u>Value</u> | Detection limit exceeds standard |

TABLE 8: SUMMARY OF SOIL ANALYTICAL RESULTS - VOCs
40 BEACHCLIFFE STREET, OTTAWA, ONTARIO

| SAMPLE NAME | UNITS | STANDARDS Table 3 R/P/I coarse | BH107-3A Labelled "MW107-3A" in COA | MW109-3A | MW111-2C | MW111-2D DUPLICATE OF MW111-2C |
|--|-----------|---|--|-----------|-----------|---|
| Vapour Reading | see note | - | 130 ppm | <5 ppm | <5 ppm | - |
| Sample Depth | m bgs | - | 3.1-4.0 | 3.1-4.3 | 2.3-3.1 | 2.3-3.1 |
| Sampling Date | dd-mmm-yy | - | 21-Nov-24 | 22-Nov-24 | 22-Nov-24 | 22-Nov-24 |
| Analysis Date (on or before) | dd-mmm-yy | - | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 | 3-Dec-24 |
| Certificate of Analysis No. | - | - | 2448154 | 2448154 | 2448154 | 2448154 |
| VOLATILE ORGANIC COMPOUNDS (VOCs) | | | | | | |
| Acetone | ug/g | 16 | <0.50 | <0.50 | <0.50 | <0.50 |
| Bromodichloromethane | ug/g | 13 | <0.05 | <0.05 | <0.05 | <0.05 |
| Bromoform | ug/g | 0.27 | <0.05 | <0.05 | <0.05 | <0.05 |
| Bromomethane | ug/g | 0.050 | <0.05 | <0.05 | <0.05 | <0.05 |
| Carbon Tetrachloride | ug/g | 0.050 | <0.05 | <0.05 | <0.05 | <0.05 |
| Chlorobenzene | ug/g | 2.4 | <0.05 | <0.05 | <0.05 | <0.05 |
| Chloroform | ug/g | 0.050 | <0.05 | <0.05 | <0.05 | <0.05 |
| Dibromochloromethane | ug/g | 9.4 | <0.05 | <0.05 | <0.05 | <0.05 |
| Dichlorobenzene, 1,2- | ug/g | 3.4 | <0.05 | <0.05 | <0.05 | <0.05 |
| Dichlorobenzene, 1,3- | ug/g | 4.8 | <0.05 | <0.05 | <0.05 | <0.05 |
| Dichlorobenzene, 1,4- | ug/g | 0.083 | <0.05 | <0.05 | <0.05 | <0.05 |
| Dichlorodifluoromethane | ug/g | 16 | <0.05 | <0.05 | <0.05 | <0.05 |
| Dichloroethane, 1,1- | ug/g | 3.5 | <0.05 | <0.05 | <0.05 | <0.05 |
| Dichloroethane, 1,2- | ug/g | 0.050 | <0.05 | <0.05 | <0.05 | <0.05 |
| Dichloroethylene, 1,1- | ug/g | 0.050 | <0.05 | <0.05 | <0.05 | <0.05 |
| Dichloroethylene, 1,2-cis- | ug/g | 3.4 | <0.05 | <0.05 | <0.05 | <0.05 |
| Dichloroethylene, 1,2-trans- | ug/g | 0.084 | <0.05 | <0.05 | <0.05 | <0.05 |
| Dichloropropane, 1,2- | ug/g | 0.050 | <0.05 | <0.05 | <0.05 | <0.05 |
| Dichloropropene, 1,3-cis | ug/g | 0.050 | <0.05 | <0.05 | <0.05 | <0.05 |
| Dichloropropene, 1,3-trans | ug/g | 0.050 | <0.05 | <0.05 | <0.05 | <0.05 |
| Dichloropropene, 1,3- | ug/g | 0.050 | <0.05 | <0.05 | <0.05 | <0.05 |
| Ethylene dibromide | ug/g | 0.050 | <0.05 | <0.05 | <0.05 | <0.05 |
| Hexane (n) | ug/g | 2.8 | <0.05 | <0.05 | <0.05 | <0.05 |
| Methyl Ethyl Ketone | ug/g | 16 | <0.50 | <0.50 | <0.50 | <0.50 |
| Methyl Isobutyl Ketone | ug/g | 1.7 | <0.50 | <0.50 | <0.50 | <0.50 |
| Methyl tert-Butyl Ether (MTBE) | ug/g | 0.75 | <0.05 | <0.05 | <0.05 | <0.05 |
| Methylene Chloride | ug/g | 0.10 | <0.05 | <0.05 | <0.05 | <0.05 |
| Styrene | ug/g | 0.70 | <0.05 | <0.05 | <0.05 | <0.05 |
| Tetrachloroethane, 1,1,1,2- | ug/g | 0.058 | <0.05 | <0.05 | <0.05 | <0.05 |
| Tetrachloroethane, 1,1,2,2- | ug/g | 0.050 | <0.05 | <0.05 | <0.05 | <0.05 |
| Tetrachloroethylene | ug/g | 0.28 | <0.05 | <0.05 | <0.05 | <0.05 |
| Trichloroethane, 1,1,1- | ug/g | 0.38 | <0.05 | <0.05 | <0.05 | <0.05 |
| Trichloroethane, 1,1,2- | ug/g | 0.050 | <0.05 | <0.05 | <0.05 | <0.05 |
| Trichloroethylene | ug/g | 0.061 | <0.05 | <0.05 | <0.05 | <0.05 |
| Trichlorofluoromethane | ug/g | 4.0 | <0.05 | <0.05 | <0.05 | <0.05 |
| Vinyl Chloride | ug/g | 0.020 | <0.02 | <0.02 | <0.02 | <0.02 |

Standards from Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (April 15, 2011 and as amended).

Table 3: Full Depth Generic SCS in a Non-Potable Ground Water Condition Residential/Parkland/Institutional Property-Use, Coarse-Textured Soil

| | |
|--------------|--|
| - | Not analyzed |
| m bgs | meters below ground surface |
| ppm | parts per million by volume |
| % LEL | percent of the lower explosive limit |
| NV | No Value; no standard established |
| NA | Not Applicable; no standard established because a standard is not required |
| Value | Exceeds applicable site condition standard |
| <i>Value</i> | Detection limit exceeds standard |

**TABLE 9: SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - METALS, HFMs AND OTHER REGULATED PARAMETERS
40 BEECHCLIFFE STREET, OTTAWA, ONTARIO**

| SAMPLE NAME | UNITS | STANDARDS Table 3 coarse | MW109D | MW111D | MW1111 DUPLICATE OF MW111D |
|--|-----------|--------------------------------|-----------|-----------|-------------------------------------|
| Vapour Reading | see note | - | 120 ppm | <5 ppm | - |
| Screen Interval | m bgs | - | 3.1-6.1 | 3.4-6.4 | 3.4-6.4 |
| Sampling Date | dd-mmm-yy | - | 12-Dec-24 | 12-Dec-24 | 12-Dec-24 |
| Analysis Date (on or before) | dd-mmm-yy | - | 24-Dec-24 | 24-Dec-24 | 24-Dec-24 |
| Certificate of Analysis No. | - | - | 2450533 | 2450533 | 2450533 |
| METALS | | | | | |
| Barium | ug/L | 29,000 | 84 | 69 | 66 |
| Beryllium | ug/L | 67 | <0.5 | <0.5 | <0.5 |
| Boron (Total) | ug/L | 45,000 | 16 | 70 | 71 |
| Cadmium | ug/L | 2.7 | <0.1 | <0.1 | <0.1 |
| Chromium Total | ug/L | 810 | <1 | <1 | <1 |
| Cobalt | ug/L | 66 | 2.5 | 3.4 | 3.4 |
| Copper | ug/L | 87 | 1.7 | 0.7 | 0.8 |
| Lead | ug/L | 25 | <0.1 | <0.1 | <0.1 |
| Molybdenum | ug/L | 9,200 | 1.7 | 4.9 | 5.0 |
| Nickel | ug/L | 490 | 3 | 12 | 12 |
| Silver | ug/L | 1.5 | <0.1 | <0.1 | <0.1 |
| Thallium | ug/L | 510 | <0.1 | <0.1 | <0.1 |
| Uranium | ug/L | 420 | 9.0 | 11.6 | 11.0 |
| Vanadium | ug/L | 250 | <0.5 | <0.5 | <0.5 |
| Zinc | ug/L | 1,100 | <5 | <5 | <5 |
| HYDRIDE-FORMING METALS | | | | | |
| Antimony | ug/L | 20,000 | <0.5 | <0.5 | <0.5 |
| Arsenic | ug/L | 1,900 | <1 | <1 | <1 |
| Selenium | ug/L | 63 | <1 | <1 | <1 |
| OTHER REGULATED PARAMETERS (ORPs) | | | | | |
| Cyanide (CN-) | ug/L | 66 | - | <2 | <2 |
| Chromium VI | ug/L | 140 | - | <10 | <10 |
| Mercury | ug/L | 0.29 | - | <0.1 | <0.1 |
| pH | - | NV | - | 7.2 | 7.2 |
| Chloride | ug/L | 2,300,000 | - | 130 | 130 |
| Sodium | ug/L | 2,300,000 | 56200 | 62800 | 62400 |

Standards from Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (April 15, 2011 and as amended).

Table 3: Full Depth Generic SCS in a Non-Potable Ground Water Condition

All Types of Property-Use, Coarse-Textured Soil

- Parameter not analyzed

m bgs meters below ground surface

ppm parts per million by volume

% LEL percent of the lower explosive limit

NV No Value; no standard established

NA Not Applicable; no standard established because a standard is not required

* Surface soil (<1.5m bgs) acceptable pH range

** Subsurface soil (>1.5m bgs) acceptable pH range

Value Exceeds applicable site condition standard

Value Detection limit exceeds standard

**TABLE 10: SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - PAHs
40 BEECHCLIFFE STREET, OTTAWA, ONTARIO**

| SAMPLE NAME | UNITS | STANDARDS Table 3 coarse | MW111D | MW1111 DUPLICATE OF MW111D |
|--|-----------|--------------------------------|-----------|-------------------------------------|
| Vapour Reading | see note | - | <5 ppm | - |
| Screen Interval | m bgs | - | 3.4-6.4 | 3.4-6.4 |
| Sampling Date | dd-mmm-yy | - | 12-Dec-24 | 12-Dec-24 |
| Analysis Date (on or before) | dd-mmm-yy | - | 24-Dec-24 | 24-Dec-24 |
| Certificate of Analysis No. | - | - | 2450533 | 2450533 |
| POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) | | | | |
| Acenaphthene | ug/L | 600 | <0.05 | <0.05 |
| Acenaphthylene | ug/L | 1.8 | <0.05 | <0.05 |
| Anthracene | ug/L | 2.4 | <0.01 | <0.01 |
| Benz[a]anthracene | ug/L | 4.7 | <0.01 | <0.01 |
| Benzo[a]pyrene | ug/L | 0.81 | <0.01 | <0.01 |
| Benzo[b]fluoranthene | ug/L | 0.75 | <0.05 | <0.05 |
| Benzo[ghi]perylene | ug/L | 0.20 | <0.05 | <0.05 |
| Benzo[k]fluoranthene | ug/L | 0.40 | <0.05 | <0.05 |
| Chrysene | ug/L | 1.0 | <0.05 | <0.05 |
| Dibenz[a h]anthracene | ug/L | 0.52 | <0.05 | <0.05 |
| Fluoranthene | ug/L | 130 | <0.01 | <0.01 |
| Fluorene | ug/L | 400 | <0.05 | <0.05 |
| Indeno[1 2 3-cd]pyrene | ug/L | 0.20 | <0.05 | <0.05 |
| Methylnaphthalene, 1- | ug/L | 1,800 | <0.05 | <0.05 |
| Methylnaphthalene, 2- | ug/L | 1,800 | <0.05 | <0.05 |
| Methylnaphthalene, 2-(1-) ¹ | ug/L | 1,800 | <0.10 | <0.10 |
| Naphthalene | ug/L | 1,400 | <0.05 | <0.05 |
| Phenanthrene | ug/L | 580 | <0.05 | <0.05 |
| Pyrene | ug/L | 68 | <0.01 | <0.01 |

Standards from Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (April 15, 2011 and as amended).

Table 3: Full Depth Generic SCS in a Non-Potable Ground Water Condition

All Types of Property-Use, Coarse-Textured Soil

| | |
|--------------|--|
| - | Parameter not analyzed |
| m bgs | meters below ground surface |
| ppm | parts per million by volume |
| % LEL | percent of the lower explosive limit |
| NV | No Value; no standard established |
| NA | Not Applicable; no standard established because a standard is not required |
| Value | Exceeds applicable site condition standard |
| <u>Value</u> | Detection limit exceeds standard |
| ¹ | the sum of 1-methylnaphthalene and 2- methylnaphthalene |

**TABLE 11: SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - BTEX AND PHCs
40 BEECHCLIFFE STREET, OTTAWA, ONTARIO**

| SAMPLE NAME | UNITS | STANDARDS Table 3 coarse | MW109D | MW110D | MW111D | MW1111 DUPLICATE OF MW111D |
|---|-----------|--------------------------------|-----------|-----------|-----------|-------------------------------------|
| Vapour Reading | see note | - | 120 ppm | <5 ppm | <5 ppm | - |
| Screen Interval | m bgs | - | 3.1-6.1 | 3.1-6.1 | 3.4-6.4 | 3.4-6.4 |
| Sampling Date | dd-mmm-yy | - | 12-Dec-24 | 12-Dec-24 | 12-Dec-24 | 12-Dec-24 |
| Analysis Date (on or before) | dd-mmm-yy | - | 24-Dec-24 | 24-Dec-24 | 24-Dec-24 | 24-Dec-24 |
| Certificate of Analysis No. | - | - | 2450533 | 2450533 | 2450533 | 2450533 |
| BENZENE, TOLUENE, ETHYLBENZENE, XYLENES (BTEX) | | | | | | |
| Benzene | ug/L | 44 | <0.5 | <0.5 | <0.5 | <0.5 |
| Toluene | ug/L | 18,000 | <0.5 | <0.5 | <0.5 | <0.5 |
| Ethylbenzene | ug/L | 2,300 | <0.5 | <0.5 | <0.5 | <0.5 |
| Xylenes (Total) | ug/L | 4,200 | <0.5 | <0.5 | <0.5 | <0.5 |
| PETROLEUM HYDROCARBONS (PHCs) | | | | | | |
| Petroleum Hydrocarbons F1-BTEX | ug/L | 750 | <25 | <25 | <25 | <25 |
| Petroleum Hydrocarbons F2 | ug/L | 150 | <100 | <100 | <100 | <100 |
| Petroleum Hydrocarbons F3 | ug/L | 500 | <100 | <100 | <100 | <100 |
| Petroleum Hydrocarbons F4 | ug/L | 500 | <100 | <100 | <100 | <100 |

Standards from Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (April 15, 2011 and as amended).

Table 3: Full Depth Generic SCS in a Non-Potable Ground Water Condition

All Types of Property-Use, Coarse-Textured Soil

| | |
|--------------|--|
| - | Not analyzed |
| m bgs | meters below ground surface |
| ppm | parts per million by volume |
| % LEL | percent of the lower explosive limit |
| NV | No Value; no standard established |
| NA | Not Applicable; no standard established because a standard is not required |
| Value | Exceeds applicable site condition standard |
| <u>Value</u> | Detection limit exceeds standard |

TABLE 12: SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - VOCs
40 BEECHCLIFFE STREET, OTTAWA, ONTARIO

| SAMPLE NAME | UNITS | STANDARDS Table 3 coarse | MW109D | MW110D | MW111D | MW1111 DUPLICATE OF MW111D |
|--|-----------|--------------------------------|-----------|-----------|-----------|-------------------------------------|
| Vapour Reading | see note | - | 120 ppm | <5 ppm | <5 ppm | - |
| Screen Interval | m bgs | - | 3.1-6.1 | 3.1-6.1 | 3.4-6.4 | 3.4-6.4 |
| Sampling Date | dd-mmm-yy | - | 12-Dec-24 | 12-Dec-24 | 12-Dec-24 | 12-Dec-24 |
| Analysis Date (on or before) | dd-mmm-yy | - | 24-Dec-24 | 24-Dec-24 | 24-Dec-24 | 24-Dec-24 |
| Certificate of Analysis No. | - | - | 2450533 | 2450533 | 2450533 | 2450533 |
| VOLATILE ORGANIC COMPOUNDS (VOCs) | | | | | | |
| Acetone | ug/L | 130,000 | <5.0 | <5.0 | <5.0 | <5.0 |
| Bromodichloromethane | ug/L | 85,000 | <0.5 | <0.5 | <0.5 | <0.5 |
| Bromoform | ug/L | 380 | <0.5 | <0.5 | <0.5 | <0.5 |
| Bromomethane | ug/L | 5.6 | <0.5 | <0.5 | <0.5 | <0.5 |
| Carbon Tetrachloride | ug/L | 0.79 | <0.2 | <0.2 | <0.2 | <0.2 |
| Chlorobenzene | ug/L | 630 | <0.5 | <0.5 | <0.5 | <0.5 |
| Chloroform | ug/L | 2.4 | <0.5 | <0.5 | <0.5 | <0.5 |
| Dibromochloromethane | ug/L | 82,000 | <0.5 | <0.5 | <0.5 | <0.5 |
| Dichlorobenzene, 1,2- | ug/L | 4,600 | <0.5 | <0.5 | <0.5 | <0.5 |
| Dichlorobenzene, 1,3- | ug/L | 9,600 | <0.5 | <0.5 | <0.5 | <0.5 |
| Dichlorobenzene, 1,4- | ug/L | 8.0 | <0.5 | <0.5 | <0.5 | <0.5 |
| Dichlorodifluoromethane | ug/L | 4,400 | <1.0 | <1.0 | <1.0 | <1.0 |
| Dichloroethane, 1,1- | ug/L | 320 | <0.5 | <0.5 | <0.5 | <0.5 |
| Dichloroethane, 1,2- | ug/L | 1.6 | <0.5 | <0.5 | <0.5 | <0.5 |
| Dichloroethylene, 1,1- | ug/L | 1.6 | <0.5 | <0.5 | <0.5 | <0.5 |
| Dichloroethylene, 1,2-cis- | ug/L | 1.6 | <0.5 | <0.5 | <0.5 | <0.5 |
| Dichloroethylene, 1,2-trans- | ug/L | 1.6 | <0.5 | <0.5 | <0.5 | <0.5 |
| Dichloropropane, 1,2- | ug/L | 16 | <0.5 | <0.5 | <0.5 | <0.5 |
| Dichloropropene, 1,3-cis | ug/L | 5.2 | <0.5 | <0.5 | <0.5 | <0.5 |
| Dichloropropene, 1,3-trans | ug/L | 5.2 | <0.5 | <0.5 | <0.5 | <0.5 |
| Dichloropropene, 1,3- | ug/L | 5.2 | <0.5 | <0.5 | <0.5 | <0.5 |
| Ethylene dibromide | ug/L | 0.25 | <0.2 | <0.2 | <0.2 | <0.2 |
| Hexane (n) | ug/L | 51 | <1.0 | <1.0 | <1.0 | <1.0 |
| Methyl Ethyl Ketone | ug/L | 470,000 | <5.0 | <5.0 | <5.0 | <5.0 |
| Methyl Isobutyl Ketone | ug/L | 140,000 | <5.0 | <5.0 | <5.0 | <5.0 |
| Methyl tert-Butyl Ether (MTBE) | ug/L | 190 | <2.0 | <2.0 | <2.0 | <2.0 |
| Methylene Chloride | ug/L | 610 | <5.0 | <5.0 | <5.0 | <5.0 |
| Styrene | ug/L | 1,300 | <0.5 | <0.5 | <0.5 | <0.5 |
| Tetrachloroethane, 1,1,1,2- | ug/L | 3.3 | <0.5 | <0.5 | <0.5 | <0.5 |
| Tetrachloroethane, 1,1,2,2- | ug/L | 3.2 | <0.5 | <0.5 | <0.5 | <0.5 |
| Tetrachloroethylene | ug/L | 1.6 | <0.5 | <0.5 | <0.5 | <0.5 |
| Trichloroethane, 1,1,1- | ug/L | 640 | <0.5 | <0.5 | <0.5 | <0.5 |
| Trichloroethane, 1,1,2- | ug/L | 4.7 | <0.5 | <0.5 | <0.5 | <0.5 |
| Trichloroethylene | ug/L | 1.6 | <0.5 | <0.5 | <0.5 | <0.5 |
| Trichlorofluoromethane | ug/L | 2,500 | <1.0 | <1.0 | <1.0 | <1.0 |
| Vinyl Chloride | ug/L | 0.50 | <0.5 | <0.5 | <0.5 | <0.5 |

Standards from Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (April 15, 2011 and as amended).

Table 3: Full Depth Generic SCS in a Non-Potable Ground Water Condition

All Types of Property-Use, Coarse-Textured Soil

- Not analyzed

m bgs meters below ground surface

ppm parts per million by volume

% LEL percent of the lower explosive limit

NV No Value; no standard established

NA Not Applicable; no standard established because a standard is not required

Value Exceeds applicable site condition standard

Value Detection limit exceeds standard

**TABLE 13: SUMMARY OF MAXIMUM CONCENTRATIONS - SOIL
40 BEACHCLIFFE STREET, OTTAWA, ONTARIO**

| CAS / CONTAMINANT IDENTIFIER | PARAMETER | UNITS | STANDARDS | | MAXIMUM CONCENTRATION | MAXIMUM DETECTION LIMIT | SAMPLE IDENTIFICATION | SAMPLE DEPTH (m bgs) |
|---|--------------------------------|----------|---------------------|--|-----------------------|-------------------------|-----------------------|----------------------|
| | | | Table 3 R/PI coarse | | | | | |
| METALS | | | | | | | | |
| 7440393 | Barium | ug/g | 390 | | 306 | - | MW111-2C | 2.3-3.1 |
| 7440417 | Beryllium | ug/g | 4.0 | | 0.7 | 0.5 | MW111-2C | 2.3-3.1 |
| 7440428 | Boron (Total) | ug/g | 120 | | 7.9 | 5 | MW111-1B | 0.2-1.5 |
| 7440439 | Cadmium | ug/g | 1.2 | | <0.5 | 0.5 | ALL SAMPLES | - |
| 16065831 | Chromium Total | ug/g | 160 | | 62 | - | MW111-2C | 2.3-3.1 |
| 7440484 | Cobalt | ug/g | 22 | | 14.6 | - | MW111-2C | 2.3-3.1 |
| 7440508 | Copper | ug/g | 140 | | 32.9 | - | MW111-2C | 2.3-3.1 |
| 7439921 | Lead | ug/g | 120 | | 19.2 | - | MW111-1B | 0.2-1.5 |
| 7439987 | Molybdenum | ug/g | 6.9 | | <1 | 1 | ALL SAMPLES | - |
| 7440200 | Nickel | ug/g | 100 | | 35.5 | - | MW111-2C | 2.3-3.1 |
| 7440224 | Silver | ug/g | 20 | | <0.3 | 0.3 | ALL SAMPLES | - |
| 7440280 | Thallium | ug/g | 1.0 | | <1 | 1 | ALL SAMPLES | - |
| 7440611 | Uranium | ug/g | 23 | | 1.1 | 1 | MW109-3A | 3.1-4.3 |
| 7440622 | Vanadium | ug/g | 86 | | 65.4 | - | MW111-2C | 2.3-3.1 |
| 7440666 | Zinc | ug/g | 340 | | 78.6 | - | MW111-2C | 2.3-3.1 |
| HYDRIDE-FORMING METALS | | | | | | | | |
| 7440360 | Antimony | ug/g | 7.5 | | <1 | 1 | ALL SAMPLES | - |
| 7440382 | Arsenic | ug/g | 18 | | 3 | - | BH112-1B | 0.3-1.5 |
| 7782492 | Selenium | ug/g | 2.4 | | <1 | 1 | ALL SAMPLES | - |
| OTHER REGULATED PARAMETERS (ORPs) | | | | | | | | |
| 7440428-HWS | Boron (Hot Water Soluble) | ug/g | 1.5 | | <0.5 | 0.5 | ALL SAMPLES | - |
| 57125 | Cyanide (CN-) | ug/g | 0.051 | | <0.03 | 0.03 | ALL SAMPLES | - |
| 18540299 | Chromium VI | ug/g | 8.0 | | <0.2 | 0.2 | ALL SAMPLES | - |
| 7439976 | Mercury | ug/g | 0.27 | | <0.1 | 0.1 | ALL SAMPLES | - |
| pH | pH | pH Units | 5-9* or 5-11** | | 7.5 | - | MW107-1B | 0.6-1.5 |
| EC | Electrical Conductivity | uS/cm | 700 | | 220 | - | MW109-1A | 0.0-1.4 |
| SAR | Sodium Adsorption Ratio | N/A | 5.0 | | 0.1 | - | MW110-1A | 0.0-1.4 |
| POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) | | | | | | | | |
| 83329 | Acenaphthene | ug/g | 7.9 | | 0.57 | 0.02 | TP107-12 | 0.5-1.1 |
| 208968 | Acenaphthylene | ug/g | 0.15 | | 9.48 | 0.02 | TP107-12 | 0.5-1.1 |
| 120127 | Anthracene | ug/g | 0.67 | | 1.95 | 0.02 | TP107-12 | 0.5-1.1 |
| 56553 | Benz[a]anthracene | ug/g | 0.50 | | 1.66 | 0.02 | TP107-12 | 0.5-1.1 |
| 50328 | Benzo[b]fluoranthene | ug/g | 0.30 | | 1.26 | 0.02 | TP107-12 | 0.5-1.1 |
| 205992 | Benzo[b]kijoranthene | ug/g | 0.78 | | 1.37 | 0.02 | TP107-12 | 0.5-1.1 |
| 191242 | Benzo[k]fluoranthene | ug/g | 0.66 | | 0.76 | 0.02 | TP107-12 | 0.5-1.1 |
| 207089 | Benzo[k]fluoranthene | ug/g | 0.78 | | 0.88 | 0.02 | TP107-12 | 0.5-1.1 |
| 218019 | Chrysene | ug/g | 7.0 | | 1.69 | 0.02 | TP107-12 | 0.5-1.1 |
| 53703 | Dibenz[a,h]anthracene | ug/g | 0.10 | | 0.21 | 0.02 | TP107-12 | 0.5-1.1 |
| 206440 | Fluoranthene | ug/g | 0.69 | | 7.09 | 0.02 | TP107-12 | 0.5-1.1 |
| 86737 | Fluorene | ug/g | 62 | | 0.93 | 0.02 | TP107-12 | 0.5-1.1 |
| 193395 | Indeno[1,2,3-cd]pyrene | ug/g | 0.38 | | 0.83 | 0.02 | TP107-12 | 0.5-1.1 |
| 90120 | Methylnaphthalene, 1- | ug/g | 0.99 | | 0.17 | 0.02 | TP107-12 | 0.5-1.1 |
| 91577 | Methylnaphthalene, 2- | ug/g | 0.99 | | 0.2 | 0.02 | TP107-12 | 0.5-1.1 |
| 91576 | Methylnaphthalene, 2-(1-) | ug/g | 0.99 | | 0.37 | 0.04 | TP107-12 | 0.5-1.1 |
| 91203 | Naphthalene | ug/g | 0.60 | | 0.22 | 0.01 | TP107-12 | 0.5-1.1 |
| 85018 | Phenanthrene | ug/g | 6.2 | | 7.44 | 0.02 | TP107-12 | 0.5-1.1 |
| 129000 | Pyrene | ug/g | 78 | | 4.97 | 0.02 | TP107-12 | 0.5-1.1 |
| BENZENE, TOLUENE, ETHYLBENZENE, XYLENES (BTEX) | | | | | | | | |
| 71432 | Benzene | ug/g | 0.21 | | <0.02 | 0.02 | ALL SAMPLES | - |
| 108883 | Toluene | ug/g | 2.3 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 100414 | Ethylbenzene | ug/g | 2.0 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 108383 | m-Xylene & p-Xylene | ug/g | NA | | <0.05 | 0.05 | ALL SAMPLES | - |
| 95476 | o-Xylene | ug/g | NA | | <0.05 | 0.05 | ALL SAMPLES | - |
| 1330207 | Xylenes (Total) | ug/g | 3.1 | | <0.05 | 0.05 | ALL SAMPLES | - |
| PETROLEUM HYDROCARBONS (PHCs) | | | | | | | | |
| PHCF1-BTEX | Petroleum Hydrocarbons F1-BTEX | ug/g | 55 | | <7 | 7 | ALL SAMPLES | - |
| PHCF2 | Petroleum Hydrocarbons F2 | ug/g | 98 | | <4 | 4 | ALL SAMPLES | - |
| PHCF3 | Petroleum Hydrocarbons F3 | ug/g | 300 | | 103 | 8 | MW107-1B | 0.6-1.5 |
| PHCF4-CALC | Petroleum Hydrocarbons F4 | ug/g | 2,800 | | 85 | 6 | BH108-1A | 0.0-1.1 |
| VOLATILE ORGANIC COMPOUNDS (VOCs) | | | | | | | | |
| 676341 | Acetone | ug/g | 16 | | <0.5 | 0.5 | ALL SAMPLES | - |
| 75274 | Bromodichloromethane | ug/g | 13 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 75262 | Bromoform | ug/g | 0.27 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 74839 | Bromomethane | ug/g | 0.050 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 56235 | Carbon Tetrachloride | ug/g | 0.050 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 108907 | Chlorobenzene | ug/g | 2.4 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 67663 | Chloroform | ug/g | 0.050 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 124481 | Dibromochloromethane | ug/g | 9.4 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 95501 | Dichlorobenzene, 1,2- | ug/g | 3.4 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 541731 | Dichlorobenzene, 1,3- | ug/g | 4.8 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 106467 | Dichlorobenzene, 1,4- | ug/g | 0.083 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 75718 | Dichlorodifluoromethane | ug/g | 16 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 75343 | Dichloroethane, 1,1- | ug/g | 3.5 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 107062 | Dichloroethane, 1,2- | ug/g | 0.050 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 75354 | Dichloroethylene, 1,1- | ug/g | 0.050 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 156592 | Dichloroethylene, 1,2-cis- | ug/g | 3.4 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 156605 | Dichloroethylene, 1,2-trans- | ug/g | 0.084 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 78875 | Dichloropropane, 1,2- | ug/g | 0.050 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 542011 | Dichloropropane, 1,3-cis | ug/g | 0.050 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 542012 | Dichloropropane, 1,3-trans | ug/g | 0.050 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 542756 | Dichloropropane, 1,3- | ug/g | 0.050 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 106934 | Ethylene dibromide | ug/g | 0.050 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 11053 | Hexane (n) | ug/g | 2.8 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 78933 | Methyl Ethyl Ketone | ug/g | 16 | | <0.5 | 0.5 | ALL SAMPLES | - |
| 108101 | Methyl Isobutyl Ketone | ug/g | 1.7 | | <0.5 | 0.5 | ALL SAMPLES | - |
| 1634044 | Methyl tert-Butyl Ether (MTBE) | ug/g | 0.75 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 75092 | Methylene Chloride | ug/g | 0.10 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 100425 | Styrene | ug/g | 0.70 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 630206 | Tetrachloroethane, 1,1,1,2- | ug/g | 0.058 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 79345 | Tetrachloroethane, 1,1,2,2- | ug/g | 0.050 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 127184 | Tetrachloroethylene | ug/g | 0.28 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 71556 | Trichloroethane, 1,1,1- | ug/g | 0.38 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 79005 | Trichloroethane, 1,1,2- | ug/g | 0.050 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 79016 | Trichloroethylene | ug/g | 0.061 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 75694 | Trichlorofluoromethane | ug/g | 4.0 | | <0.05 | 0.05 | ALL SAMPLES | - |
| 75014 | Vinyl Chloride | ug/g | 0.020 | | <0.02 | 0.02 | ALL SAMPLES | - |

Standards from Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (April 15, 2011 and as amended).

Table 3: Full Depth Generic SCS in a Non-Potable Ground Water Condition Residential/Parkland/Institutional Property-Use, Coarse-Textured Soil

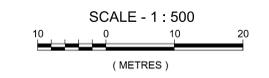
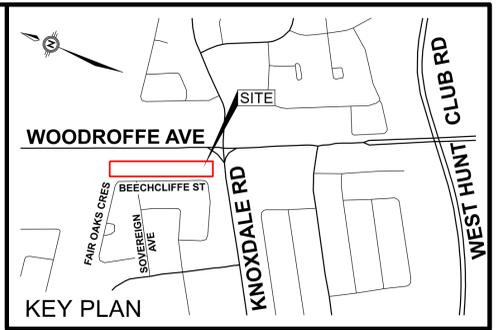
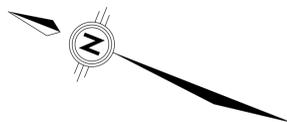
- Depths of samples not applicable, all values are non detectable concentrations
 m bgs meters below ground surface
 NV No Value; no standard established
 NA Not Applicable; no standard established because a standard is not required
 ALL SAMPLES All samples analyzed for the corresponding parameter reported non detectable concentrations
Value Exceeds applicable site condition standard
 Value Detection limit exceeds standard

**TABLE 14: SUMMARY OF MAXIMUM CONCENTRATIONS - GROUNDWATER
40 BEECHCLIFFE STREET, OTTAWA, ONTARIO**

| CAS / CONTAMINANT IDENTIFIER | PARAMETER | UNITS | STANDARDS | MAXIMUM CONCENTRATION | MAXIMUM DETECTION LIMIT | SAMPLE IDENTIFICATION | SCREEN INTERVAL (m bgs) |
|--|--------------------------------|-------|-------------------|-----------------------|-------------------------|-----------------------|-------------------------|
| | | | Table 3 coarse | | | | |
| METALS | | | | | | | |
| 7440393 | Barium | ug/L | 29,000 | 84 | - | MW109D | 3.1-6.1 |
| 7440417 | Beryllium | ug/L | 67 | <0.5 | 0.5 | ALL SAMPLES | - |
| 7440428 | Boron (Total) | ug/L | 45,000 | 71 | - | MW1111 | 3.4-6.4 |
| 7440439 | Cadmium | ug/L | 2.7 | <0.1 | 0.1 | ALL SAMPLES | - |
| 16065831 | Chromium Total | ug/L | 810 | <1 | 1 | ALL SAMPLES | - |
| 7440484 | Cobalt | ug/L | 66 | 3.4 | - | MW111D | 3.4-6.4 |
| 7440508 | Copper | ug/L | 87 | 1.7 | - | MW109D | 3.1-6.1 |
| 7439921 | Lead | ug/L | 25 | <0.1 | 0.1 | ALL SAMPLES | - |
| 7439987 | Molybdenum | ug/L | 9,200 | 5 | - | MW1111 | 3.4-6.4 |
| 7440020 | Nickel | ug/L | 490 | 12 | - | MW111D | 3.4-6.4 |
| 7440224 | Silver | ug/L | 1.5 | <0.1 | 0.1 | ALL SAMPLES | - |
| 7440280 | Thallium | ug/L | 510 | <0.1 | 0.1 | ALL SAMPLES | - |
| 7440611 | Uranium | ug/L | 420 | 11.6 | - | MW111D | 3.4-6.4 |
| 7440622 | Vanadium | ug/L | 250 | <0.5 | 0.5 | ALL SAMPLES | - |
| 7440666 | Zinc | ug/L | 1,100 | <5 | 5 | ALL SAMPLES | - |
| HYDRIDE-FORMING METALS | | | | | | | |
| 7440360 | Antimony | ug/L | 20,000 | <0.5 | 0.5 | ALL SAMPLES | - |
| 7440382 | Arsenic | ug/L | 1,900 | <1 | 1 | ALL SAMPLES | - |
| 7782492 | Selenium | ug/L | 63 | <1 | 1 | ALL SAMPLES | - |
| OTHER REGULATED PARAMETERS (ORPs) | | | | | | | |
| 57125 | Cyanide (CN-) | ug/L | 66 | <2 | 2 | ALL SAMPLES | - |
| 18540299 | Chromium VI | ug/L | 140 | <10 | 10 | ALL SAMPLES | - |
| 7439976 | Mercury | ug/L | 0.29 | <0.1 | 0.1 | ALL SAMPLES | - |
| 16887006 | Chloride | ug/L | 2,300,000 | 130 | - | MW111D | 3.4-6.4 |
| 7440235 | Sodium | ug/L | 2,300,000 | 62,800 | - | MW111D | 3.4-6.4 |
| POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) | | | | | | | |
| 83329 | Acenaphthene | ug/L | 600 | <0.05 | 0.05 | ALL SAMPLES | - |
| 208968 | Acenaphthylene | ug/L | 1.8 | <0.05 | 0.05 | ALL SAMPLES | - |
| 120127 | Anthracene | ug/L | 2.4 | <0.01 | 0.01 | ALL SAMPLES | - |
| 56553 | Benzo[a]anthracene | ug/L | 4.7 | <0.01 | 0.01 | ALL SAMPLES | - |
| 50328 | Benzo[a]pyrene | ug/L | 0.81 | <0.01 | 0.01 | ALL SAMPLES | - |
| 205992 | Benzo[b]fluoranthene | ug/L | 0.75 | <0.05 | 0.05 | ALL SAMPLES | - |
| 191242 | Benzo[g]hperylene | ug/L | 0.20 | <0.05 | 0.05 | ALL SAMPLES | - |
| 207089 | Benzo[k]fluoranthene | ug/L | 0.40 | <0.05 | 0.05 | ALL SAMPLES | - |
| 218019 | Chrysene | ug/L | 1.0 | <0.05 | 0.05 | ALL SAMPLES | - |
| 53703 | Dibenzo[a,h]anthracene | ug/L | 0.52 | <0.05 | 0.05 | ALL SAMPLES | - |
| 206440 | Fluoranthene | ug/L | 130 | <0.01 | 0.01 | ALL SAMPLES | - |
| 86737 | Fluorene | ug/L | 400 | <0.05 | 0.05 | ALL SAMPLES | - |
| 193395 | Indeno[1,2,3-cd]pyrene | ug/L | 0.20 | <0.05 | 0.05 | ALL SAMPLES | - |
| 90120 | Methylnaphthalene, 1- | ug/L | 1,800 | <0.05 | 0.05 | ALL SAMPLES | - |
| 91577 | Methylnaphthalene, 2- | ug/L | 1,800 | <0.05 | 0.05 | ALL SAMPLES | - |
| 91576 | Methylnaphthalene, 2-(1-) | ug/L | 1,800 | <0.1 | 0.1 | ALL SAMPLES | - |
| 91203 | Naphthalene | ug/L | 1,400 | <0.05 | 0.05 | ALL SAMPLES | - |
| 85018 | Phenanthrene | ug/L | 580 | <0.05 | 0.05 | ALL SAMPLES | - |
| 129000 | Pyrene | ug/L | 68 | <0.01 | 0.01 | ALL SAMPLES | - |
| BENZENE, TOLUENE, ETHYL BENZENE, XYLENES (BTEX) | | | | | | | |
| 71432 | Benzene | ug/L | 44 | <0.5 | 0.5 | ALL SAMPLES | - |
| 108883 | Toluene | ug/L | 18,000 | <0.5 | 0.5 | ALL SAMPLES | - |
| 100414 | Ethylbenzene | ug/L | 2,300 | <0.5 | 0.5 | ALL SAMPLES | - |
| 108383 | m-Xylene & p-Xylene | ug/L | NA | <0.5 | 0.5 | ALL SAMPLES | - |
| 95476 | o-Xylene | ug/L | NA | <0.5 | 0.5 | ALL SAMPLES | - |
| 1330207 | Xylenes (Total) | ug/L | 4,200 | <0.5 | 0.5 | ALL SAMPLES | - |
| PETROLEUM HYDROCARBONS (PHCs) | | | | | | | |
| PHCF1-BTEX | Petroleum Hydrocarbons F1-BTEX | ug/L | 750 | <25 | 25 | ALL SAMPLES | - |
| PHCF2 | Petroleum Hydrocarbons F2 | ug/L | 150 | <100 | 100 | ALL SAMPLES | - |
| PHCF3 | Petroleum Hydrocarbons F3 | ug/L | 500 | <100 | 100 | ALL SAMPLES | - |
| PHCF4-CALC | Petroleum Hydrocarbons F4 | ug/L | 500 | <100 | 100 | ALL SAMPLES | - |
| VOLATILE ORGANIC COMPOUNDS (VOCs) | | | | | | | |
| 67641 | Acetone | ug/L | 130,000 | <5 | 5 | ALL SAMPLES | - |
| 75274 | Bromodichloromethane | ug/L | 85,000 | <0.5 | 0.5 | ALL SAMPLES | - |
| 75252 | Bromomethane | ug/L | 390 | <0.5 | 0.5 | ALL SAMPLES | - |
| 74839 | Bromotrichloromethane | ug/L | 5.6 | <0.5 | 0.5 | ALL SAMPLES | - |
| 56235 | Carbon Tetrachloride | ug/L | 0.79 | <0.2 | 0.2 | ALL SAMPLES | - |
| 108907 | Chlorobenzene | ug/L | 630 | <0.5 | 0.5 | ALL SAMPLES | - |
| 67663 | Chloroform | ug/L | 2.4 | <0.5 | 0.5 | ALL SAMPLES | - |
| 124481 | Dibromochloromethane | ug/L | 82,000 | <0.5 | 0.5 | ALL SAMPLES | - |
| 95501 | Dichlorobenzene, 1,2- | ug/L | 4,600 | <0.5 | 0.5 | ALL SAMPLES | - |
| 541731 | Dichlorobenzene, 1,3- | ug/L | 9,600 | <0.5 | 0.5 | ALL SAMPLES | - |
| 106467 | Dichlorobenzene, 1,4- | ug/L | 8.0 | <0.5 | 0.5 | ALL SAMPLES | - |
| 75718 | Dichlorodifluoromethane | ug/L | 4,400 | <1 | 1 | ALL SAMPLES | - |
| 75343 | Dichloroethane, 1,1- | ug/L | 320 | <0.5 | 0.5 | ALL SAMPLES | - |
| 107062 | Dichloroethane, 1,2- | ug/L | 1.6 | <0.5 | 0.5 | ALL SAMPLES | - |
| 75354 | Dichloroethylene, 1,1- | ug/L | 1.6 | <0.5 | 0.5 | ALL SAMPLES | - |
| 156592 | Dichloroethylene, 1,2-cis- | ug/L | 1.6 | <0.5 | 0.5 | ALL SAMPLES | - |
| 156605 | Dichloroethylene, 1,2-trans- | ug/L | 1.6 | <0.5 | 0.5 | ALL SAMPLES | - |
| 78875 | Dichloropropane, 1,2- | ug/L | 16 | <0.5 | 0.5 | ALL SAMPLES | - |
| 542011 | Dichloropropene, 1,3-cis | ug/L | 5.2 | <0.5 | 0.5 | ALL SAMPLES | - |
| 542012 | Dichloropropene, 1,3-trans | ug/L | 5.2 | <0.5 | 0.5 | ALL SAMPLES | - |
| 542756 | Dichloropropene, 1,3- | ug/L | 5.2 | <0.5 | 0.5 | ALL SAMPLES | - |
| 106934 | Ethylene dibromide | ug/L | 0.25 | <0.2 | 0.2 | ALL SAMPLES | - |
| 11053 | Hexane (n) | ug/L | 51 | <1 | 1 | ALL SAMPLES | - |
| 78933 | Methyl Ethyl Ketone | ug/L | 470,000 | <5 | 5 | ALL SAMPLES | - |
| 108101 | Methyl Isobutyl Ketone | ug/L | 140,000 | <5 | 5 | ALL SAMPLES | - |
| 1634044 | Methyl tert-Butyl Ether (MTBE) | ug/L | 190 | <2 | 2 | ALL SAMPLES | - |
| 75092 | Methylene Chloride | ug/L | 610 | <5 | 5 | ALL SAMPLES | - |
| 100425 | Styrene | ug/L | 1,300 | <0.5 | 0.5 | ALL SAMPLES | - |
| 630206 | Tetrachloroethane, 1,1,1,2- | ug/L | 3.3 | <0.5 | 0.5 | ALL SAMPLES | - |
| 79345 | Tetrachloroethane, 1,1,2,2- | ug/L | 3.2 | <0.5 | 0.5 | ALL SAMPLES | - |
| 127184 | Tetrachloroethylene | ug/L | 1.6 | <0.5 | 0.5 | ALL SAMPLES | - |
| 71556 | Trichloroethane, 1,1,1- | ug/L | 640 | <0.5 | 0.5 | ALL SAMPLES | - |
| 79005 | Trichloroethane, 1,1,2- | ug/L | 4.7 | <0.5 | 0.5 | ALL SAMPLES | - |
| 79016 | Trichloroethylene | ug/L | 1.6 | <0.5 | 0.5 | ALL SAMPLES | - |
| 75694 | Trichlorofluoromethane | ug/L | 2,500 | <1 | 1 | ALL SAMPLES | - |
| 75014 | Vinyl Chloride | ug/L | 0.50 | <0.5 | 0.5 | ALL SAMPLES | - |

Standards from Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (April 15, 2011 and as amended).
 Table 3: Full Depth Generic SCS in a Non-Potable Ground Water Condition
 All Types of Property-Use, Coarse-Textured Soil
 - Depths of samples not applicable, all values are non detectable concentrations
 m bgs meters below ground surface
 NV No Value; no standard established
 NA Not Applicable; no standard established because a standard is not required
 ALL SAMPLES All samples analyzed for the corresponding parameter reported non detectable concentrations
 Value Exceeds applicable site condition standard
 Value Detection limit exceeds standard

APPENDIX I
PLAN OF SURVEY



THIS IS NOT A PLAN OF SURVEY
 Boundaries shown hereon are NOT based on an actual survey.
 Contractors are required to verify boundary locations in the field
 prior to commencing construction.

Ottawa
 PLANNING, DEVELOPMENT AND
 BUILDING SERVICES DEPARTMENT
 SURVEYS & MAPPING BRANCH

PHONE (613) 580-2400
 FAX (613) 580-4764

100 CONSTELLATION DRIVE
 OTTAWA, ONTARIO, K2G 6J8

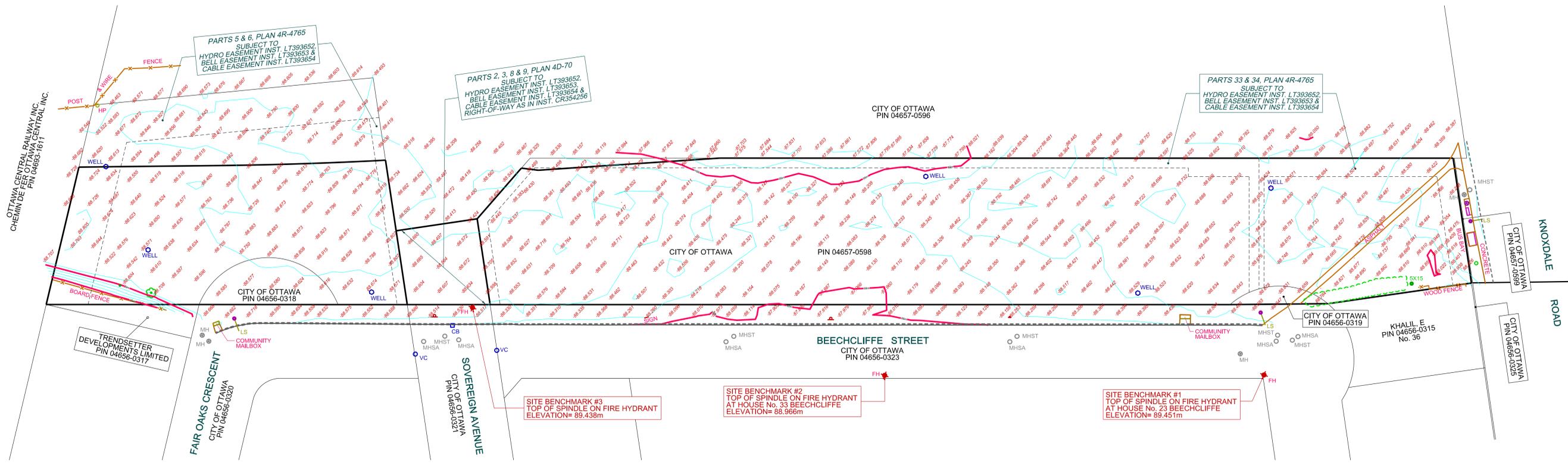
| | |
|---|-----------------------|
| PROJECT : | 40 BEECHCLIFFE STREET |
| DATA COMPILATION : TOTAL STATION MAPPING | |
| DATA TYPE : ELECTRONIC FIELD NOTES | |
| HORIZONTAL AND VERTICAL DATUM : NAD 83 ORIGINAL ZONE 9 MTM - CGVD28 | |
| HYPSOGRAPHIC MODEL : BREAKLINES & SPOT HEIGHTS | |
| RECOMMENDED HARD COPY SCALE : 1 : 250 | |
| RECOMMENDED CONTOUR INTERVAL : 0.25 m | |
| A - NUMBER : A-4746 | |
| COMPUTER GRAPHICS FILE NAME : ORIG-CVGD28-24018A-m.dgn | |
| JOB - NUMBER : 24018-A | DATE : DEC. 2024 |
| FIELD DATE COLLECTED : T.A. / B.B. / C.M. / D.M. | DATE : JAN. 2025 |
| CAD / CALCD : R.D. | DATE : JAN. 2025 |
| MAP / CADASTRAL COMPILATION CHECK : A.R. | DATE : JAN. 2025 |
| THIS MAP DEPICTS DIGITAL DATA | |
| © COPYRIGHT 2025 (CITY OF OTTAWA) | |

WINTER CONDITIONS
 Due to the accumulation of ice and snow, it is possible that some elements may have been overlooked during the commission of this survey.

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This plan was compiled from plans and documents recorded in the Land Registry System and has been prepared for property indexing purposes only.

Easements are not noted on adjacent properties.



PARTS 5 & 6, PLAN 4R-4765
 SUBJECT TO
 HYDRO EASEMENT INST. LT393652,
 BELL EASEMENT INST. LT393653 &
 CABLE EASEMENT INST. LT393654

PARTS 2, 3, 8 & 9, PLAN 4D-70
 SUBJECT TO
 HYDRO EASEMENT INST. LT393652,
 BELL EASEMENT INST. LT393653,
 CABLE EASEMENT INST. LT393654 &
 RIGHT-OF-WAY AS IN INST. CR354256

PARTS 33 & 34, PLAN 4R-4765
 SUBJECT TO
 HYDRO EASEMENT INST. LT393652,
 BELL EASEMENT INST. LT393653 &
 CABLE EASEMENT INST. LT393654

TRENDSETTER
 DEVELOPMENTS LIMITED
 PIN 04656-0317

FAIR OAKS CRESCENT
 CITY OF OTTAWA
 PIN 04656-0320

SOVEREIGN AVENUE
 CITY OF OTTAWA
 PIN 04656-0321

SITE BENCHMARK #3
 TOP OF SPINDLE ON FIRE HYDRANT
 ELEVATION= 89.438m

SITE BENCHMARK #2
 TOP OF SPINDLE ON FIRE HYDRANT
 AT HOUSE No. 33 BEECHCLIFFE
 ELEVATION= 89.966m

SITE BENCHMARK #1
 TOP OF SPINDLE ON FIRE HYDRANT
 AT HOUSE No. 23 BEECHCLIFFE
 ELEVATION= 89.451m

OTTAWA CENTRAL RAILWAY INC.
 CHEMIN DE FER OTTAWA CENTRAL INC.
 PIN 04657-6111

CITY OF OTTAWA
 PIN 04657-0596

CITY OF OTTAWA
 PIN 04657-0598

CITY OF OTTAWA
 PIN 04656-0318

BEECHCLIFFE STREET
 CITY OF OTTAWA
 PIN 04656-0323

CITY OF OTTAWA
 PIN 04656-0319

KHALIL, E
 PIN 04656-0315
 No. 36

CITY OF OTTAWA
 PIN 04657-0599

CITY OF OTTAWA
 PIN 04656-0322

APPENDIX II
CORRESPONDENCE REGARDING
NON-POTABLE STANDARDS



January 14, 2025
CO986.00

City of Ottawa
Planning, Infrastructure and Economic Development
110 Laurier Avenue West
Ottawa, Ontario
K1P 1J1

Attention: Michel Kearney, P. Geo.
Senior Hydrogeologist

Via email: michel.kearney@ottawa.ca

**Re: Notification of Environmental Standards
40 Beechcliffe Street, Ottawa, Ontario**

Dear Mr. Kearney:

Terrapex Environmental Ltd. (Terrapex) has been retained by the City of Ottawa to conduct a Phase Two Environmental Site Assessment for the property located at 40 Beechcliffe Street, in Ottawa, Ontario (the Site).

After reviewing Ontario Regulation (O. Reg.) 153/04 *Records of Site Condition - Part XV.1 of the Act*, Terrapex has determined that the Site meets the requirements outlined in Section 35 of the regulation. As such, applicable full depth generic site condition standards in a non-potable groundwater condition will be applied to the analytical data obtained from the Site.

On behalf of the owner, and in accordance with the requirements of Section 35 of O. Reg. 153/04, Terrapex is hereby providing written notice to the City of Ottawa of the intention to apply non-potable groundwater site condition standards in preparing a Record of Site Condition for the property at 40 Beechcliffe Street, Ottawa, Ontario.

If you have any questions or concerns regarding this matter, please do not hesitate to contact the undersigned.

Sincerely,
TERRAPEX ENVIRONMENTAL LTD

A handwritten signature in blue ink, appearing to read "Greg Sabourin".

Greg Sabourin, PEng
Project Manager



13 February 2025

Mr. Greg Sabourin, P.Eng.
Terrapex Environmental Ltd.
20 Gurdwara Road
Ottawa, Ontario
K2E 8B3

Dear Mr. Sabourin,

Re: Record of Site Condition – 40 Beechcliffe Street

As per your letter of January 14, 2025 (attached), requesting to use non-potable standards, this is to advise that the City of Ottawa consents to the use of non-potable groundwater standards for the property identified as 40 Beechcliffe Street, Ottawa, ON, as part of the filing of a Record of Site Condition.

Best Regards,

A handwritten signature in blue ink that reads "Michel Kearney".

Michel Kearney, P.Geo.

Senior Hydrogeologist
Geoscience & Source Water Protection
Asset Management
Infrastructure and Water Services Department

Hydrogéologue principal
Géosciences & protection des sources d'eau
Gestion des actifs
Direction générale des services d'infrastructure et d'eau

City of Ottawa | Ville d'Ottawa
☎ Cell: 613-606-5862
ottawa.ca/planning / ottawa.ca/urbanisme

APPENDIX III
PERTINENT PREVIOUS ENVIRONMENTAL REPORTS

NO PREVIOUS REPORTS HAVE BEEN INCLUDED

APPENDIX IV
SAMPLING AND ANALYSIS PLAN



SAMPLING AND ANALYSIS PLAN PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

Site: 40 Beechcliffe Street, Ottawa, Ontario

Project No: CO986.00

Date: January 7, 2025

OBJECTIVES

On behalf of the City of Ottawa, Terrapex Environmental Ltd. (Terrapex) has prepared this sampling and analysis plan for a Supplemental Phase Two Environmental Site Assessment (ESA) at 40 Beechcliffe Street, Ontario, the "Phase Two Property". The Phase Two ESA is being conducted in accordance with the requirements of Ontario Regulation (O. Reg.) 153/04, *Records of Site Condition - Part XV.1 of the Act*. It is understood that a Record of Site Condition (RSC) is required as there is an intended change in land use. The objective of this ESA is to determine the location and concentration of contaminants in the land or water on, in or under the Phase Two Property.

The soil sampling completed in November 2024 as part of Phase Two ESA indicated that concentrations of PAH impacted fill were present within the vicinity of borehole MW111. Additional soil samples collected in December 2024 confirmed that fill with concentrations of PAH parameters existed in the vicinity of MW111.

The objective of the current work program is to gain additional information regarding the horizontal extent of the impacted fill layer and its thickness.

SAMPLING PROGRAM

The media to be investigated and the contaminants of concern have been determined based on findings from previous investigations. The rationale for each sampling location, and the proposed laboratory analytical program for each location, is shown on Table 1. The media, contaminants, investigation and sampling methods are summarized on Table 2. Modifications may be made to the program during the course of implementation, based on field observations, and will be documented in the Phase Two ESA report.

STANDARD OPERATING PROCEDURES

The following Terrapex Standard Operating Procedures (SOPs) may be used:

SOP E01.00 – *Field Meter Calibration*
SOP E02.00 – *Test Pitting*
SOP E09.00 – *Soil Sample Handling*
SOP E10.00 – *Soil Classification*
SOP E11.01 – *Measuring and Surveying Using Total Station*
SOP E12.00 – *Field Program Quality Assurance & Quality Control*

DATA QUALITY OBJECTIVES

The investigation will be completed following Terrapex SOP E12.00 - *Field Program Quality Assurance & Quality Control*, which specifies requirements for minimizing cross-contamination, record-keeping, sample storage, sample submission, field QA/QC samples and data quality objectives. If the data quality objectives are not met, the Qualified Person for the project will review the results and determine whether the deviation affects decision-making or the overall objectives of the investigation.

LABORATORY PROGRAM

Project Laboratory: Paracel Laboratories Ltd.

Accreditation: Canadian Association for Laboratory Accreditation Inc. (CALA) in accordance with the International Standard ISO/IEC17025-2005 – *General Requirements for the Competence of Testing and Calibration Laboratories*

Proposed Analytical Program: See Table 3, attached.

Analytical Methods: The laboratory will use the methods specified in the *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, March 9, 2004, amended as of July 1, 2011 (Analytical Protocol)*.

Sample Containers and Preservatives: See Table 4, attached.

Paracel's Quality Assurance/Quality Control (QA/QC) program will consist of the analysis of method blanks, laboratory control samples, matrix spikes, sample duplicates, and surrogates, as appropriate for the particular analysis protocol and as specified in the *Analytical Protocol*.

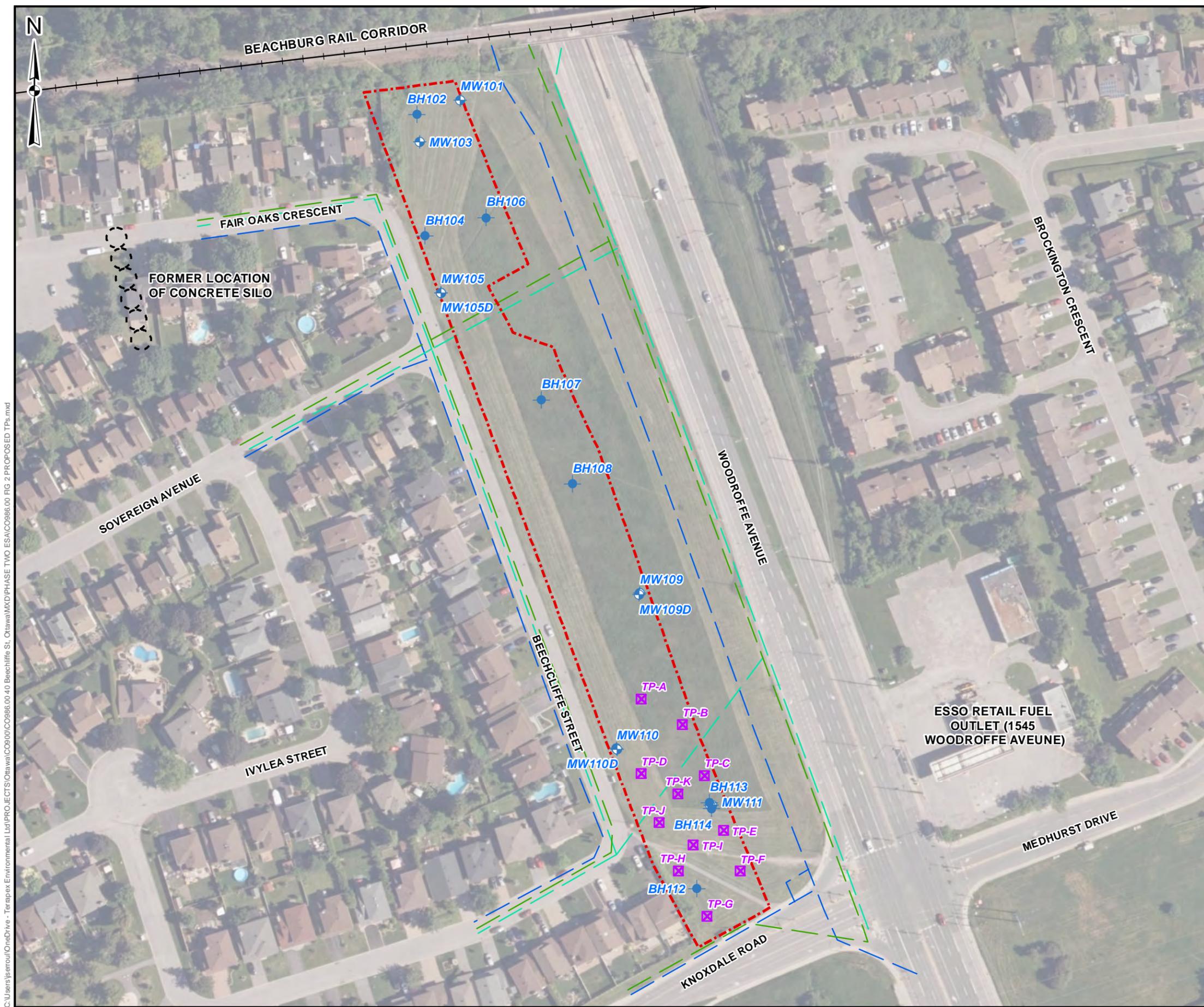
SUB-CONTRACTORS

All sub-contractors used in the test pit program will be approved suppliers according to Terrapex's approval process. The following sub-contractors will be retained for this project:

Private utility locates: Multiview Locates Inc.
Borehole drilling and well installation: Strata Soil Sampling
Laboratory analyses: Paracel Laboratories Ltd.

ATTACHMENTS

Figure 1 – Proposed Sample Locations
Table 1 – Proposed Sampling Plan
Table 2 – Media to be Investigated and Chemicals of Concern
Table 3 – Sample Containers and Preservation Plan

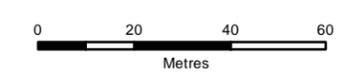


LEGEND

- SITE BOUNDARY
- + BOREHOLE
- + MONITORING WELL
- + PROPOSED TEST PIT
- + CANADIAN NATIONAL RAILWAY

UNDERGROUND UTILITIES

- STORM SEWER
- SANITARY SEWER
- WATERMAIN



DATA SOURCE: CITY OF OTTAWA
 MAP PROJECTION: NAD 1983 UTM ZONE 18N

CLIENT:

SITE LOCATION:
 40 BEECHCLIFFE STREET
 OTTAWA, ONTARIO

TITLE:
PROPOSED TEST PITS

| | | |
|-----------------|--------------------------|---------------------|
| DRAWN BY: JS | PROJECT NO.: CO986.00 | CHECKED BY: KB |
| REVISION: 00 | DATE: JANUARY 2025 | FIGURE: 2 |

C:\Users\jserrou\OneDrive - Terrapex Environmental Ltd\PROJECTS\Ottawa\CO986.00\40 Beechcliffe St, Ottawa\MXD\PHASE TWO ESAC\CO986.00 FIG 2 PROPOSED TPs.mxd

TABLE 1 PROPOSED PHASE TWO ESA PROGRAM

40 Beechcliffe Street, Ottawa, ON

| APEC | LOCATION | CONTAMINANTS OF POTENTIAL CONCERN | MEDIA POTENTIALLY IMPACTED | PROPOSED SAMPLING LOCATIONS | Comments |
|--------|---|-----------------------------------|----------------------------|-----------------------------|---|
| APEC 1 | Throughout southern portion of the Site to delineate PAH impacts in fill as | - PAHs | - Soil | TPA, TPB, TPC | Locations of the test pits to be determined in the field based observations. A days worth of test pits are to be completed. |

PAHs: polycyclic aromatic hydrocarbons

TABLE 2 MEDIA INVESTIGATED, CONTAMINANTS OF CONCERN AND METHODS

40 Beechclife Street, Ottawa, ON

| Media | Contaminants of Concern | Investigation Method | Equipment | Sample Collection Method |
|-------|----------------------------------|----------------------|-----------|---|
| Soil | Polycyclic aromatic hydrocarbons | Test pits | Backhoe | Collection of sample from directly from bucket of the backhoe |

TABLE 3 SAMPLE CONTAINERS AND PRESERVATION

| Media | Analytical Parameter | Field Filtered | Sample Container | Preservation | Holding Time (preserved) |
|-------|----------------------|----------------|------------------------------------|--------------|--------------------------|
| Soil | PAHs | Not applicable | 120 mL glass jar, teflon lined lid | 5 ± 3 °C | 60 days |

BTEX = benzene, toluene, ethylbenzene, xylenes

PHC F1 - F4 = petroleum hydrocarbons F1 to F4 fractions

VOCs = volatile organic compounds

PAHs = polycyclic aromatic hydrocarbons (O. Reg. 153/04)

TCLP = toxicity characterization leachate procedure

HDPE = high density polyethylene

OC = Organochlorine pesticides

SVOC = semi volatile organics compounds



SAMPLING AND ANALYSIS PLAN PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

Site: 40 Beechcliffe Street, Ottawa, Ontario

Project No: CO986.00

Date: November 18, 2024

OBJECTIVES

On behalf of the City of Ottawa, Terrapex Environmental Ltd. (Terrapex) has prepared this sampling and analysis plan for a Supplemental Phase Two Environmental Site Assessment (ESA) at 40 Beechcliffe Street, Ontario, the "Phase Two Property". The Phase Two ESA is being conducted in accordance with the requirements of Ontario Regulation (O. Reg.) 153/04, *Records of Site Condition - Part XV.1 of the Act*. It is understood that a Record of Site Condition (RSC) is required as there is an intended change in land use. The objective of this ESA is to determine the location and concentration of contaminants in the land or water on, in or under the Phase Two Property.

SAMPLING PROGRAM

The media to be investigated and the contaminants of concern have been determined based on findings from previous investigations. The rationale for each sampling location, and the proposed laboratory analytical program for each location, is shown on Table 1. The media, contaminants, investigation and sampling methods are summarized on Table 2. Modifications may be made to the program during the course of implementation, based on field observations, and will be documented in the Phase Two ESA report.

STANDARD OPERATING PROCEDURES

The following Terrapex Standard Operating Procedures (SOPs) may be used:

SOP E01.00 – Field Meter Calibration

SOP E03.03 – Borehole Advancement Using Direct Push Methodology

SOP E04.00 – Monitoring Well Installation

SOP E05.00 – Monitoring Well Development

SOP E06.00 – Groundwater Monitoring

SOP E07.00 – Groundwater Sampling using inertial pump

SOP E09.00 – Soil Sample Handling
SOP E10.00 – Soil Classification
SOP E11.01 – Measuring and Surveying Using Total Station
SOP E12.00 – Field Program Quality Assurance & Quality Control

DATA QUALITY OBJECTIVES

The investigation will be completed following Terrapex SOP E12.00 - *Field Program Quality Assurance & Quality Control*, which specifies requirements for minimizing cross-contamination, record-keeping, sample storage, sample submission, field QA/QC samples and data quality objectives. If the data quality objectives are not met, the Qualified Person for the project will review the results and determine whether the deviation affects decision-making or the overall objectives of the investigation.

LABORATORY PROGRAM

Project Laboratory: Paracel Laboratories Ltd.

Accreditation: Canadian Association for Laboratory Accreditation Inc. (CALA) in accordance with the International Standard ISO/IEC17025-2005 – *General Requirements for the Competence of Testing and Calibration Laboratories*

Proposed Analytical Program: See Table 3, attached.

Analytical Methods: The laboratory will use the methods specified in the *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, March 9, 2004, amended as of July 1, 2011 (Analytical Protocol)*.

Sample Containers and Preservatives: See Table 4, attached.

Paracel's Quality Assurance/Quality Control (QA/QC) program will consist of the analysis of method blanks, laboratory control samples, matrix spikes, sample duplicates, and surrogates, as appropriate for the particular analysis protocol and as specified in the *Analytical Protocol*.

SUB-CONTRACTORS

All sub-contractors used in the Phase Two ESA will be approved suppliers according to Terrapex's approval process. The following sub-contractors will be retained for this project:

Private utility locates: Multiview Locates Inc.
Borehole drilling and well installation: Strata Soil Sampling
Laboratory analyses: Paracel Laboratories Ltd.

ATTACHMENTS

Figure 1 – Site Location

Figure 2 – Proposed Sample Locations

Table 1 – Proposed Sampling Plan

Table 2 – Media to be Investigated and Chemicals of Concern

Table 3 – Sample Containers and Preservation Plan

TABLE 1A PROPOSED PHASE TWO ESA PROGRAM

40 Beechclife Street, Ottawa, ON

| APEC | LOCATION | CONTAMINANTS OF POTENTIAL CONCERN | MEDIA POTENTIALLY IMPACTED | PROPOSED SAMPLING LOCATIONS | Comments |
|--------------------|---|-------------------------------------|----------------------------|--|---|
| APEC 1 | Importation of fill throughout the entirety of the Site. | - M&I - PAHs - BTEX - PHCs | - Soil | MWA, MWB, MWC, BHD, BHE, MWE, MWF, MWG, MWH, BHI, BHJ, BHK and BHL | Fill located in these sampling locations are to be analysed for the COPC |
| APEC 2 | Northwestern portion of property closest to former concrete plan. | - M&I - PAHs - VOCs - PHCs | - Soil - Groundwater | MWB, MWC and BHE | Shallow soil is expected to have maximum concentrations of PAHs and metals and inorganics from APEC 2. Soil samples collected from the apparent groundwater table are expected to have maximum concentrations of VOCs and PHCs. |
| APEC 3 | Northern portion of the Site | - OC - M&I - ABNs - PAHs | - Soil | BHD and MWA | Shallow soil is expected to be the area of maximum concentration. |
| APEC 4A APEC 4B | Southeast Portion of the Site | - metals - VOCs - BTEX | - Soil - Groundwater | MWF and MWG | Soils samples collected from the apparent water table are expected to exhibit the maximum concentration of COPCs. |

BTEX benzene, toluene, ethylbenzene, xylenes
 PHCs: petroleum hydrocarbons (F1-F4)
 VOCs Volatile Organic compounds
 PAHs: polycyclic aromatic hydrocarbons
 M&I Metals and Inorganics
 OC organochlorine pesticides
 SVOCs semi Volatile Organic compounds

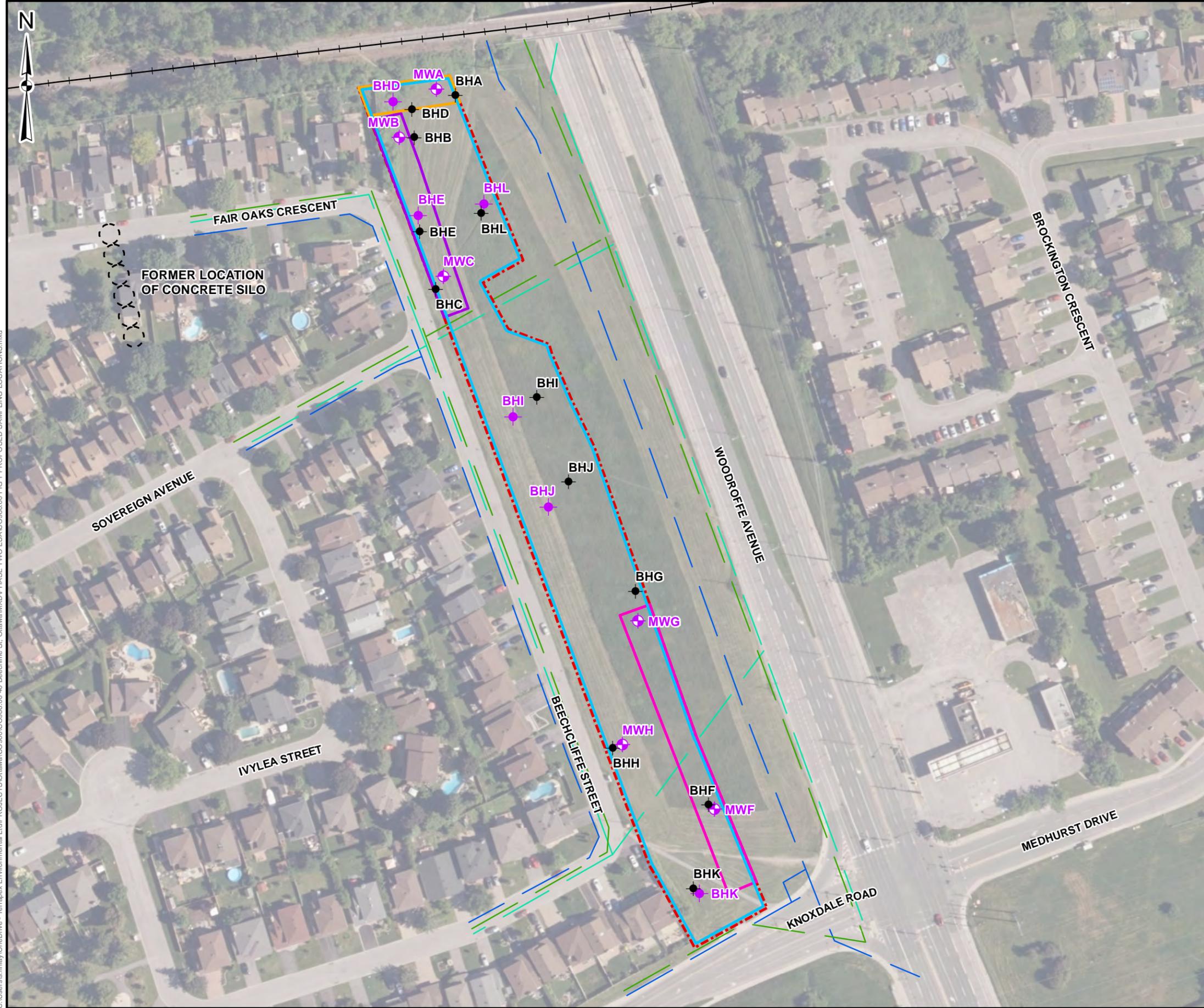
TABLE 1B PROPOSED PHASE TWO ESA PROGRAM

40 Beechclife Street, Ottawa, ON

| LOCATION | Depth | APEC | CONTAMINANTS OF POTENTIAL CONCERN | MEDIA POTENTIALLY IMPACTED | Comments |
|----------------------|---|--|--|----------------------------|---|
| MWA, | Water table (7.6 m bg) | APEC 1 (FILL), | - M&I - PAHs - BTEX - PHCs | - Soil | Collection of fill sample best representative of majority of fill. Select base on CV, or visual or odour impact |
| | | APEC 3 (Rail) | - OC - M&I - SVOCs | Soil | Collection of shallow soil sample to represent worst case condions from the rail |
| MWB and MWC | Water table (7.6 m bg) | APEC 1 (FILL), | - M&I - PAHs - BTEX | Soil | Collection of fill sample best representative of majority of fill. Select base on CV, or visual or odour impact |
| | | APEC 2 (Concrete plant) | - M&I - PAHs - VOCs - PHCs | Soil Groundwater | Collection of soil sample from water table |
| BHD | Depth until native is encountered (4.6) | APEC 1 (FILL), | - M&I - PAHs - BTEX - PHCs | - Soil | Collection of fill sample best representative of majority of fill. Select base on CV, or visual or odour impact |
| | | APEC 3 (Rail) | - OC - M&I - SVOCs | Soil | Collection of shallow soil sample to represent worst case condions from the rail |
| BHE | Water table (7.6 m bg) | APEC 1 (FILL), | - M&I - PAHs - BTEX - PHCs | - Soil | Collection of fill sample best representative of majority of fill. Select base on CV, or visual or odour impact |
| | | APEC 2 (Concrete plant) | - M&I - PAHs - VOCs - PHCs | Soil Groundwater | Collection of soil sample from water table |
| MWF and MWG | Water table (7.6 m bg) | APEC 1 (FILL), | - M&I - PAHs - BTEX - PHCs | - Soil | Collection of fill sample best representative of majority of fill. Select base on CV, or visual or odour impact |
| | | APEC 4A and 4B (RFO and Garage) | - metals - VOCs - BTEX - PHCs | Soil | Collection of soil sample from water table |
| MWH | Water table (7.6 m bg) | APEC 1 (FILL), Third position for flow direction | - BTEX - PHCs | Soil | |
| BHI, BHJ, BHK BHL | Depth until native is encountered (4.6) | APEC 1 (FILL), | - M&I - PAHs - BTEX - PHCs | soil | Collection of fill sample best representative of majority of fill. Select base on CV, or visual or odour impact |

BTEX benzene, toluene, ethylbenzene, xylenes
 PHCs: petroleum hydrocarbons (F1-F4)
 VOCs Volatile Organic compounds
 PAHs: polycyclic aromatic hydrocarbons
 M&I Metals and Inorganics
 OC organochlorine pesticides
 SVOCs semi Volatile Organic compounds

C:\Users\slfinlay\OneDrive - Terrapex Environmental Ltd\PROJECTS\Ottawa\CO986.00 40 Beechcliffe St. Ottawa\MXD\PHASE TWO ESA\CO986.00 FIG 1 PROPOSED SAMPLING LOCATIONS.mxd



LEGEND

- SITE BOUNDARY
- + PROPOSED MONITORING WELL
- PROPOSED BOREHOLE
- STAKED BOREHOLE LOCATIONS
- CANADIAN NATIONAL RAILWAY

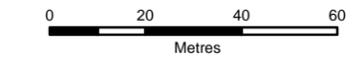
UNDERGROUND UTILITIES

- STORM SEWER
- SANITARY SEWER
- WATERMAIN

AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

- APEC-1 (ENTIRE SITE)
- APEC-2
- APEC-3
- APEC-4

| APEC | PCA ID | PCA TYPE | DESCRIPTION |
|------|--------|----------|---|
| 1 | 1 | 30 | IMPORTATION OF FILL MATERIAL OF UNKNOWN QUALITY |
| 2 | 2 | 12 | CONCRETE, CEMENT AND LIME MANUFACTURING |
| 3 | 3 | 46 | RAIL YARDS, TRACKS AND SPURS |
| 4 | 4A | 27 | GARAGES AND MAINTENANCE AND REPAIR OF RAILCARS, MARINE VEHICLES AND AVIATION VEHICLES |
| | 4B | 28 | GASOLINE AND ASSOCIATED PRODUCTS STORAGE IN FIXED TANKS |



DATA SOURCE: CITY OF OTTAWA
 MAP PROJECTION: NAD 1983 UTM ZONE 18N

CLIENT:

SITE LOCATION:
 40 BEECHCLIFFE STREET
 OTTAWA, ONTARIO

TITLE:
PROPOSED SAMPLING LOCATIONS

| | | |
|--------------------|--------------------------|---------------------|
| DRAWN BY: JS/SF | PROJECT NO.: CO986.00 | CHECKED BY: KB |
| REVISION: 00 | DATE: NOVEMBER 2024 | FIGURE: 1 |

TABLE 2 MEDIA INVESTIGATED, CONTAMINANTS OF CONCERN AND METHODS

40 Beechclife Street, Ottawa, ON

| Media | Contaminants of Concern | Investigation Method | Equipment | Sample Collection Method |
|-------------|--|----------------------|--------------------|--|
| Soil | Petroleum hydrocarbons Polycyclic aromatic hydrocarbons Volatile organic compounds Benzene, toluene, ethylbenzene, xylenes oragnochlorine pesticides semi volatile organic compounds | Boreholes | Geoprobe drill rig | direct push with a dedicated plastic liner, sample every 1.5 m |
| Groundwater | Petroleum hydrocarbons Polycyclic aromatic hydrocarbons Volatile organic compounds Benzene, toluene, ethylbenzene, xylenes Metals, metal hydrides Mercury Chromium VI Sodium, chloride Semi volatile organic compounds | Monitoring wells | Geoprobe drill rig | Low-flow sampling using peristaltic pump, target top 0.5 m of water column |

TABLE 3 SAMPLE CONTAINERS AND PRESERVATION

| Media | Analytical Parameter | Field Filtered | Sample Container | Preservation | Holding Time (preserved) |
|-------------|---|----------------|--|---|--------------------------|
| Soil | Metals, metal hydrides, hot water soluble boron, chromium VI, SAR, EC, pH, OC, SVOC | Not applicable | 250 mL glass jar | 5 ± 3 °C | 180 days |
| | BTEX, PHC F1 | Not applicable | 40 mL glass vial and 60 mL glass jar, no headspace | 10 mL methanol, 5 ± 3 °C | 14 days |
| | BTEX, PHC F1 | Not applicable | Hermetic sampler (Encore™) | 5 ± 3 °C | Extract within 48 hrs |
| | PHCs F2-F4 | Not applicable | 120 mL glass jar, teflon lined lid | 5 ± 3 °C | 14 days |
| | VOCs | Not applicable | 40 mL glass vial and 60 mL glass jar, no headspace | 10 mL methanol, 5 ± 3 °C | 14 days |
| | PAHs | Not applicable | 120 mL glass jar, teflon lined lid | 5 ± 3 °C | 60 days |
| | Reg. 558 TCLP - non-volatiles | Not applicable | 250 mL glass jar | 5 ± 3 °C | |
| | Reg. 558 TCLP - volatiles | Not applicable | 120 mL glass jar, teflon lined lid | 5 ± 3 °C | |
| Groundwater | Metals, metal hydrides, sodium | Yes | 250 mL HDPE bottle | HNO ₃ to pH < 2 5 ± 3 °C | 60 days |
| | Mercury | Yes | 125 mL clear glass bottle | HCl to pH < 2 5 ± 3 °C | 28 days |
| | Chromium VI | Yes | 250 mL HDPE bottle | (NH ₄) ₂ SO ₄ /HN ₄ OH 5 ± 3 °C | 28 days |
| | BTEX, PHC F1 | No | 3 x 40 mL clear glass septum vial, no headspace | NaHSO ₄ to pH < 2 5 ± 3 °C | 14 days |
| | PHCs F2-F4 | No | 2 x 500 mL amber glass bottle | NaHSO ₄ to pH < 2 5 ± 3 °C | 40 days |
| | VOCs | No | 3 x 40 mL clear glass septum vial, no headspace | NaHSO ₄ to pH < 2 5 ± 3 °C | 14 days |
| | PAHs, SVOCs, OCs | No | 1 L amber glass bottle | 5 ± 3 °C | 14 days |

BTEX = benzene, toluene, ethylbenzene, xylenes

PHC F1 - F4 = petroleum hydrocarbons F1 to F4 fractions

VOCs = volatile organic compounds

PAHs = polycyclic aromatic hydrocarbons (O. Reg. 153/04)

TCLP = toxicity characterization leachate procedure

HDPE = high density polyethylene

OC = Organochlorine pesticides

SVOC = semi volatile organics compounds

APPENDIX V

BOREHOLE LOGS

| | | | | | | | | | | | | | | | | | | | |
|---|-------------|--|-----------|--|-----------------------|--|-----|---------------------------------------|-------------------|---------------------------------|----|--------------------------------------|------------|-------------|--------------|----------------------------------|--------------------|-------------------|---------|
| CLIENT: CITY OF OTTAWA | | | | PROJECT NO.: CO986.00 | | | | RECORD OF: BH107 | | | | | | | | | | | |
| ADDRESS: 40 BEECHCLIFFE STREET | | | | STATION: | | | | | | | | | | | | | | | |
| CITY/PROVINCE: OTTAWA, ONTARIO | | | | NORTHING (m): 5020506.783 | | EASTING (m): 440930.761 | | ELEV. (m) 88.52 | | | | | | | | | | | |
| CONTRACTOR: STRATA DRILLING GROUP | | | | METHOD: DIRECT PUSH | | | | | | | | | | | | | | | |
| BOREHOLE DIAMETER (cm): | | WELL DIAMETER (cm): - | | SCREEN SLOT #: - | | SAND TYPE: - | | SEALANT TYPE: - | | | | | | | | | | | |
| SAMPLE TYPE | | <input type="checkbox"/> AUGER | | <input checked="" type="checkbox"/> DRIVEN | | <input checked="" type="checkbox"/> CORING | | <input type="checkbox"/> DYNAMIC CONE | | <input type="checkbox"/> SHELBY | | <input type="checkbox"/> SPLIT SPOON | | | | | | | |
| GWL (m) | SOIL SYMBOL | SOIL DESCRIPTION | DEPTH (m) | ELEVATION (m) | SHEAR STRENGTH (kPa) | | | | WATER CONTENT (%) | | | | SAMPLE NO. | SAMPLE TYPE | RECOVERY (%) | SV/TOV (ppm or %LEL) | LABORATORY TESTING | WELL INSTALLATION | REMARKS |
| | | | | | 40 | 80 | 120 | 160 | PL | W.C. | LL | | | | | | | | |
| | | | | | N-VALUE (Blows/300mm) | | | | | | | | | | | | | | |
| | | | | | 20 | 40 | 60 | 80 | 20 | 40 | 60 | 80 | | | | | | | |
| | | | 0 | 88.5 | | | | | | | | | 1A | 66 | <5 ppm | | | | |
| | | FILL moist, dark brown silty clay some gravel, organics | 0.5 | 88 | | | | | | | | | 1B | 66 | <5 ppm | METALS PAHs, BTEX, PHCs | | | |
| | | FILL moist, light brown silty sand trace gravel | 1 | 87.5 | | | | | | | | | 2A | 80 | <5 ppm | | | | |
| | | | 1.5 | 87 | | | | | | | | | 2B | - | <5 ppm | | | | |
| | | wet, brown/olive SILTY CLAY | 2 | 86.5 | | | | | | | | | 3A | - | 130 ppm | BTEX, PHCs, VOCs | | | |
| | | | 2.5 | 86 | | | | | | | | | 3B | 100 | <5 ppm | | | | |
| | | | 3 | 85.5 | | | | | | | | | | | | | | | |
| | | light brown SAND | 3.5 | 85 | | | | | | | | | | | | | | | |
| | | | 4 | 84.5 | | | | | | | | | | | | | | | |
| | | | 4.5 | 84 | | | | | | | | | | | | | | | |
| | | END OF BOREHOLE | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | LOGGED BY: JM | | | | DRILLING DATE: 21-NOV-2024 | | | |
| | | | | | | | | | | | | INPUT BY: SAF | | | | MONITORING DATE: - | | | |
| | | | | | | | | | | | | REVIEWED BY: GS | | | | PAGE 1 OF 1 | | | |

| CLIENT: CITY OF OTTAWA | | | | PROJECT NO.: CO986.00 | | | | RECORD OF: BH108 | | | | | | | | | | | |
|---|-------------|---|--|--|---------------------------------------|---------------------------------|--------------------------------------|----------------------------|-------------------|------|----|-----------------|------------|-------------|--------------|----------------------------|----------------------------------|-------------------|---------|
| ADDRESS: 40 BEECHCLIFFE STREET | | | | STATION: | | | | | | | | | | | | | | | |
| CITY/PROVINCE: OTTAWA, ONTARIO | | | | NORTHING (m): 5020474.732 | | EASTING (m): 440942.768 | | ELEV. (m) 87.80 | | | | | | | | | | | |
| CONTRACTOR: STRATA DRILLING GROUP | | | | METHOD: DIRECT PUSH | | | | | | | | | | | | | | | |
| BOREHOLE DIAMETER (cm): | | WELL DIAMETER (cm): - | | SCREEN SLOT #: - | | SAND TYPE: - | | SEALANT TYPE: - | | | | | | | | | | | |
| SAMPLE TYPE | | <input type="checkbox"/> AUGER | <input checked="" type="checkbox"/> DRIVEN | <input checked="" type="checkbox"/> CORING | <input type="checkbox"/> DYNAMIC CONE | <input type="checkbox"/> SHELBY | <input type="checkbox"/> SPLIT SPOON | | | | | | | | | | | | |
| GWL (m) | SOIL SYMBOL | SOIL DESCRIPTION | DEPTH (m) | ELEVATION (m) | SHEAR STRENGTH (kPa) | | | | WATER CONTENT (%) | | | | SAMPLE NO. | SAMPLE TYPE | RECOVERY (%) | SV/TOV (ppm or %LEL) | LABORATORY TESTING | WELL INSTALLATION | REMARKS |
| | | | | | 40 | 80 | 120 | 160 | PL | W.C. | LL | | | | | | | | |
| | | FILL moist, dark brown silty sand some gravel, trace organics | 0 0.5 | 87.5 87 | | | | | | | | | | 1A | 66 | <5 ppm | METALS PAHs, BTEX, PHCs | | |
| | | moist, brown SILTY CLAY trace gravel, sand | 1 1.5 | 86.5 86 | | | | | | | | | | 1B | - | <5 ppm | | | |
| | | moist, brown SILTY SAND | 2 2.5 | 85.5 85 | | | | | | | | | | 2A | - | <5 ppm | | | |
| | | wet, brown SAND | 3 3.5 | 84.5 84 | | | | | | | | | | 3A | - | <5 ppm | | | |
| | | | 4 4.5 | 83.5 | | | | | | | | | | 3B | - | <5 ppm | | | |
| | | END OF BOREHOLE | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | LOGGED BY: JM | | | | DRILLING DATE: 21-NOV-2024 | | | |
| | | | | | | | | | | | | INPUT BY: SAF | | | | MONITORING DATE: - | | | |
| | | | | | | | | | | | | REVIEWED BY: GS | | | | PAGE 1 OF 1 | | | |

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|-----------------------------------|-------------|--|-----------|--|-----------------------|--|-----|---------------------------------------|-------------------|---------------------------------|----|--------------------------------------|------------|-------------|--------------|----------------------|--------------------|-------------------|---------|--|
| CLIENT: CITY OF OTTAWA | | | | PROJECT NO.: CO986.00 | | | | RECORD OF: MW109 | | | | | | | | | | | | |
| ADDRESS: 40 BEECHCLIFFE STREET | | | | STATION: | | | | | | | | | | | | | | | | |
| CITY/PROVINCE: OTTAWA, ONTARIO | | | | NORTHING (m): 440968.17 | | EASTING (m): 5020432.67 | | ELEV. (m) 88.32 | | | | | | | | | | | | |
| CONTRACTOR: STRATA DRILLING GROUP | | | | METHOD: DIRECT PUSH | | | | | | | | | | | | | | | | |
| BOREHOLE DIAMETER (cm): 9.53 | | WELL DIAMETER (cm): 5 | | SCREEN SLOT #: 10 | | SAND TYPE: #2 | | SEALANT TYPE: BENTONITE | | | | | | | | | | | | |
| SAMPLE TYPE | | <input type="checkbox"/> AUGER | | <input checked="" type="checkbox"/> DRIVEN | | <input checked="" type="checkbox"/> CORING | | <input type="checkbox"/> DYNAMIC CONE | | <input type="checkbox"/> SHELBY | | <input type="checkbox"/> SPLIT SPOON | | | | | | | | |
| GWL (m) | SOIL SYMBOL | SOIL DESCRIPTION | DEPTH (m) | ELEVATION (m) | SHEAR STRENGTH (kPa) | | | | WATER CONTENT (%) | | | | SAMPLE NO. | SAMPLE TYPE | RECOVERY (%) | SV/TOV (ppm or %LEL) | LABORATORY TESTING | WELL INSTALLATION | REMARKS | |
| | | | | | 40 | 80 | 120 | 160 | PL | W.C. | LL | | | | | | | | | |
| | | | | | N-VALUE (Blows/300mm) | | | | | | | | | | | | | | | |
| | | | | | 20 | 40 | 60 | 80 | 20 | 40 | 60 | 80 | | | | | | | | |
| | | | 0 | 88 | | | | | | | | | | | | | | | | |
| | | FILL moist, dark brown silty clay some gravel, trace sand, trace organics | 0.5 | 87.5 | | | | | | | | | 1A | | <5 ppm | METALS PAHs | | | | |
| | | FILL moist, light brown silty sand | 1.5 | 87 | | | | | | | | | 1B | | <5 ppm | | | | | |
| | | FILL moist, dark brown silty clay some gravel, trace sand, trace organics, trace brick | 2 | 86.5 | | | | | | | | | 2A | | <5 ppm | BTEX, PHCs | | | | |
| | | moist to wet SANDY SILT | 2.5 | 86 | | | | | | | | | 2B | | <5 ppm | | | | | |
| | | moist to wet SANDY SILT | 3 | 85.5 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | | | | | | | | | | | | | | | | |
| | | moist to wet SANDY SILT | 3 | 85 | </ | | | | | | | | | | | | | | | |

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|---|-------------|---|-----------|--|------------------------|--|-----|---------------------------------------|-------------------------|---------------------------------|----|--------------------------------------|------------|------------------------------|--------------|----------------------|--------------------|-------------------|---------|
| CLIENT: CITY OF OTTAWA | | | | PROJECT NO.: CO986.00 | | | | RECORD OF: MW109D | | | | | | | | | | | |
| ADDRESS: 40 BEECHCLIFFE STREET | | | | STATION: | | | | | | | | | | | | | | | |
| CITY/PROVINCE: OTTAWA, ONTARIO | | | | NORTHING (m): 440968.17 | | EASTING (m): 5020432.67 | | ELEV. (m) 88.32 | | | | | | | | | | | |
| CONTRACTOR: STRATA DRILLING GROUP | | | | METHOD: DIRECT PUSH | | | | | | | | | | | | | | | |
| BOREHOLE DIAMETER (cm): 9.53 | | WELL DIAMETER (cm): 5 | | SCREEN SLOT #: 10 | | SAND TYPE: #2 | | SEALANT TYPE: BENTONITE | | | | | | | | | | | |
| SAMPLE TYPE | | <input type="checkbox"/> AUGER | | <input checked="" type="checkbox"/> DRIVEN | | <input checked="" type="checkbox"/> CORING | | <input type="checkbox"/> DYNAMIC CONE | | <input type="checkbox"/> SHELBY | | <input type="checkbox"/> SPLIT SPOON | | | | | | | |
| GWL (m) | SOIL SYMBOL | SOIL DESCRIPTION | DEPTH (m) | ELEVATION (m) | SHEAR STRENGTH (kPa) ● | | | | WATER CONTENT (%) | | | | SAMPLE NO. | SAMPLE TYPE | RECOVERY (%) | SV/TOV (ppm or %LEL) | LABORATORY TESTING | WELL INSTALLATION | REMARKS |
| | | | | | 40 | 80 | 120 | 160 | N-VALUE (Blows/300mm) ▲ | | | | | | | | | | |
| | | | | | 20 | 40 | 60 | 80 | 20 | 40 | 60 | 80 | | | | | | | |
| | | NO SAMPLES COLLECTED ABOVE 4.5 m bgs | 0 | 88 | | | | | | | | | | | | | | | |
| | | | 0.5 | 87.5 | | | | | | | | | | | | | | | |
| | | | 1 | 87 | | | | | | | | | | | | | | | |
| | | | 1.5 | 86.5 | | | | | | | | | | | | | | | |
| | | | 2 | 86 | | | | | | | | | | | | | | | |
| | | | 2.5 | 85.5 | | | | | | | | | | | | | | | |
| | | | 3 | 85 | | | | | | | | | | | | | | | |
| | | | 3.5 | 84.5 | | | | | | | | | | | | | | | |
| | | | 4 | 84 | | | | | | | | | | | | | | | |
| | | wet, brown, coarse SILTY SAND | 4.5 | 83.5 | | | | | | | 1 | 70 | <5 ppm | | | | | | |
| | | | 5 | 83 | | | | | | | | | | | | | | | |
| | | | 5.5 | 82.5 | | | | | | | 2 | 70 | <5 ppm | | | | | | |
| | | | 6 | | | | | | | | | | | | | | | | |
| | | END OF BOREHOLE | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | LOGGED BY: SP | | | | DRILLING DATE: 6-DEC-24 | | | | | |
| | | | | | | | | | | INPUT BY: BW | | | | MONITORING DATE: 11-DEC-2024 | | | | | |
| | | | | | | | | | | REVIEWED BY: GS | | | | PAGE 1 OF 1 | | | | | |

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|---|-------------|---|-----------|--|-------------------------|--|-----|---------------------------------------|-------------------|---------------------------------|----|--------------------------------------|------------|-------------|--------------|---------------------------------|--------------------|-------------------|-------------------|
| CLIENT: CITY OF OTTAWA | | | | PROJECT NO.: CO986.00 | | | | RECORD OF: | | | | | | | | | | | |
| ADDRESS: 40 BEECHCLIFFE STREET | | | | STATION: | | | | MW110 | | | | | | | | | | | |
| CITY/PROVINCE: OTTAWA, ONTARIO | | | | NORTHING (m): 440959.686 | | EASTING (m): 5020373.796 | | ELEV. (m) 88.475 | | | | | | | | | | | |
| CONTRACTOR: STRATA DRILLING GROUP | | | | METHOD: DIRECT PUSH | | | | | | | | | | | | | | | |
| BOREHOLE DIAMETER (cm): 9.53 | | WELL DIAMETER (cm): 5 | | SCREEN SLOT #: 10 | | SAND TYPE: #2 | | SEALANT TYPE: BENTONITE | | | | | | | | | | | |
| SAMPLE TYPE | | <input type="checkbox"/> AUGER | | <input checked="" type="checkbox"/> DRIVEN | | <input checked="" type="checkbox"/> CORING | | <input type="checkbox"/> DYNAMIC CONE | | <input type="checkbox"/> SHELBY | | <input type="checkbox"/> SPLIT SPOON | | | | | | | |
| GWL (m) | SOIL SYMBOL | SOIL DESCRIPTION | DEPTH (m) | ELEVATION (m) | SHEAR STRENGTH (kPa) ● | | | | WATER CONTENT (%) | | | | SAMPLE NO. | SAMPLE TYPE | RECOVERY (%) | SV/TOV (ppm or %LEL) | LABORATORY TESTING | WELL INSTALLATION | REMARKS |
| | | | | | 40 | 80 | 120 | 160 | PL | W.C. | LL | PL | | | | | | | |
| | | | | | N-VALUE (Blows/300mm) ▲ | | | | | | | | | | | | | | |
| | | | | | 20 | 40 | 60 | 80 | 20 | 40 | 60 | 80 | | | | | | | |
| | | | 0 | | | | | | | | | | | | | | | | |
| | | FILL moist, brown silty clay trace concrete, trace asphalt, trace organics | 0.5 | 88 | | | | | | | | | 1A | 73 | <5 ppm | METALS PAHs, BTEX PHCs | | | GW ELEVATION: DRY |
| | | FILL light brown silty sand | 1.5 | 87 | | | | | | | | | 1B | | | | | | |
| | | FILL moist, brown sandy silt trace clay, trace gravel | 2 | 86.5 | | | | | | | | | 2A | 47 | <5 ppm | | | | |
| | | FILL wet, grey silty clay some gravel, trace sand | 3 | 85.5 | | | | | | | | | 2B | 47 | <5 ppm | | | | |
| | | wet, brown SAND | 3.5 | 85 | | | | | | | | | 3 | 47 | <5 ppm | | | | |
| | | | 4 | 84.5 | | | | | | | | | | | | | | | |
| | | | 4.5 | 84 | | | | | | | | | | | | | | | |
| | | END OF BOREHOLE | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | LOGGED BY: MK | | | | DRILLING DATE: 22-NOV-2024 | | | |
| | | | | | | | | | | | | INPUT BY: BW | | | | MONITORING DATE: 02-DEC-2024 | | | |
| | | | | | | | | | | | | REVIEWED BY: GS | | | | PAGE 1 OF 1 | | | |

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|---|-------------|--------------------------------------|-----------|--|-------------------------|--|-----|---------------------------------------|-------------------|---------------------------------|----|--------------------------------------|------------|------------------------------|--------------|----------------------|--------------------|-------------------|---------|
| CLIENT: CITY OF OTTAWA | | | | PROJECT NO.: CO986.00 | | | | RECORD OF: | | | | | | | | | | | |
| ADDRESS: 40 BEECHCLIFFE STREET | | | | STATION: | | | | MW110D | | | | | | | | | | | |
| CITY/PROVINCE: OTTAWA, ONTARIO | | | | NORTHING (m): 440959.686 | | EASTING (m): 5020373.796 | | ELEV. (m) 88.475 | | | | | | | | | | | |
| CONTRACTOR: STRATA DRILLING GROUP | | | | METHOD: DIRECT PUSH | | | | | | | | | | | | | | | |
| BOREHOLE DIAMETER (cm): 9.53 | | WELL DIAMETER (cm): 5 | | SCREEN SLOT #: 10 | | SAND TYPE: #2 | | SEALANT TYPE: BENTONITE | | | | | | | | | | | |
| SAMPLE TYPE | | <input type="checkbox"/> AUGER | | <input checked="" type="checkbox"/> DRIVEN | | <input checked="" type="checkbox"/> CORING | | <input type="checkbox"/> DYNAMIC CONE | | <input type="checkbox"/> SHELBY | | <input type="checkbox"/> SPLIT SPOON | | | | | | | |
| GWL (m) | SOIL SYMBOL | SOIL DESCRIPTION | DEPTH (m) | ELEVATION (m) | SHEAR STRENGTH (kPa) ● | | | | WATER CONTENT (%) | | | | SAMPLE NO. | SAMPLE TYPE | RECOVERY (%) | SV/TOV (ppm or %LEL) | LABORATORY TESTING | WELL INSTALLATION | REMARKS |
| | | | | | 40 | 80 | 120 | 160 | PL | W.C. | LL | PL | | | | | | | |
| | | | | | N-VALUE (Blows/300mm) ▲ | | | | | | | | | | | | | | |
| | | NO SAMPLES COLLECTED ABOVE 4.5 m bgs | 0 | | | | | | | | | | | | | | | | |
| | | | 0.5 | 88 | | | | | | | | | | | | | | | |
| | | | 1 | 87.5 | | | | | | | | | | | | | | | |
| | | | 1.5 | 87 | | | | | | | | | | | | | | | |
| | | | 2 | 86.5 | | | | | | | | | | | | | | | |
| | | | 2.5 | 86 | | | | | | | | | | | | | | | |
| | | | 3 | 85.5 | | | | | | | | | | | | | | | |
| | | | 3.5 | 85 | | | | | | | | | | | | | | | |
| | | | 4 | 84.5 | | | | | | | | | | | | | | | |
| | | wet, light grey fine SILTY SAND | 4.5 | 84 | | | | | | | | | | | | | | | |
| | | | 5 | 83.5 | | | | | | 1 | 90 | <5 ppm | | | | | | | |
| | | | 5.5 | 83 | | | | | | 2 | 90 | <5 ppm | | | | | | | |
| | | END OF BOREHOLE | 6 | 82.5 | | | | | | | | | | | | | | | |
|  | | | | | | | | | | LOGGED BY: SP | | | | DRILLING DATE: 6-DEC-24 | | | | | |
| | | | | | | | | | | INPUT BY: BW | | | | MONITORING DATE: 11-DEC-2024 | | | | | |
| | | | | | | | | | | REVIEWED BY: GS | | | | PAGE 1 OF 1 | | | | | |

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|---|-------------|--|-----------|--|-----------------------|--|-----|---------------------------------------|-------------------|---------------------------------|----|--------------------------------------|------------|-------------|--------------|------------------------------|---|-------------------|--------------|
| CLIENT: CITY OF OTTAWA | | | | PROJECT NO.: CO986.00 | | | | RECORD OF: | | | | | | | | | | | |
| ADDRESS: 40 BEECHCLIFFE STREET | | | | STATION: | | | | MW111 | | | | | | | | | | | |
| CITY/PROVINCE: OTTAWA, ONTARIO | | | | NORTHING (m): 5020352.362 | | EASTING (m): 440995.17 | | ELEV. (m) 88.688 | | | | | | | | | | | |
| CONTRACTOR: STRATA DRILLING GROUP | | | | METHOD: DIRECT PUSH | | | | | | | | | | | | | | | |
| BOREHOLE DIAMETER (cm): | | WELL DIAMETER (cm): 5 | | SCREEN SLOT #: 10 | | SAND TYPE: #2 | | SEALANT TYPE: BENTONITE | | | | | | | | | | | |
| SAMPLE TYPE | | <input type="checkbox"/> AUGER | | <input checked="" type="checkbox"/> DRIVEN | | <input checked="" type="checkbox"/> CORING | | <input type="checkbox"/> DYNAMIC CONE | | <input type="checkbox"/> SHELBY | | <input type="checkbox"/> SPLIT SPOON | | | | | | | |
| GWL (m) | SOIL SYMBOL | SOIL DESCRIPTION | DEPTH (m) | ELEVATION (m) | SHEAR STRENGTH (kPa) | | | | WATER CONTENT (%) | | | | SAMPLE NO. | SAMPLE TYPE | RECOVERY (%) | SV/TOV (ppm or %LEL) | LABORATORY TESTING | WELL INSTALLATION | REMARKS |
| | | | | | 40 | 80 | 120 | 160 | PL | W.C. | LL | | | | | | | | |
| | | | | | N-VALUE (Blows/300mm) | | | | | | | | | | | | | | |
| | | | | | 20 | 40 | 60 | 80 | 20 | 40 | 60 | 80 | | | | | | | |
| | | | 0 | 88.5 | | | | | | | | | 1A | | | | | | |
| | | FILL moist, dark brown silty sand trace clay, trace organics | 0.5 | 88 | | | | | | | | | 1B | 87 | <5 ppm | | METALS PAHs, BTEX, PHCs | | |
| | | FILL moist, dark brown silty clay trace brick, trace sand, trace asphalt | 1 | 87.5 | | | | | | | | | 2A | 100 | <5 ppm | | | | |
| | | moist, light brown SAND | 2 | 86.5 | | | | | | | | | 2B | 100 | <5 ppm | | | | |
| | | wet, light brown, grey SILTY CLAY trace sand | 2.5 | 86 | | | | | | | | | 2C | | <5 ppm | | METALS PAHs, BTEX, PHCs, VOCs | | DUP MW110-1D |
| | | | 3 | 85.5 | | | | | | | | | | | | | | | |
| | | | 3.5 | 85 | | | | | | | | | 3A | 100 | <5 ppm | | | | |
| | | | 4 | 84.5 | | | | | | | | | 3B | | <5 ppm | | | | |
| | | | 4.5 | | | | | | | | | | | | | | | | |
| | | END OF BOREHOLE | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | LOGGED BY: MK | | | | DRILLING DATE: 22-NOV-2024 | | | |
| | | | | | | | | | | | | INPUT BY: BW | | | | MONITORING DATE: 02-DEC-2024 | | | |
| | | | | | | | | | | | | REVIEWED BY: GS | | | | PAGE 1 OF 1 | | | |

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|---|-------------|--|---------------------------------------|--|--|------------------------|--|-------------------|---------------------------------------|------|---------------------------------|-----------------|--------------------------------------|-------------|--------------|------------------------------|--------------------|-------------------|---------|--|
| CLIENT: CITY OF OTTAWA | | | | PROJECT NO.: CO986.00 | | | | RECORD OF: | | | | | | | | | | | | |
| ADDRESS: 40 BEECHCLIFFE STREET | | | | STATION: | | | | MW111D | | | | | | | | | | | | |
| CITY/PROVINCE: OTTAWA, ONTARIO | | | | NORTHING (m): 5020352.362 | | EASTING (m): 440995.17 | | ELEV. (m) 88.688 | | | | | | | | | | | | |
| CONTRACTOR: STRATA DRILLING GROUP | | | | | | METHOD: DIRECT PUSH | | | | | | | | | | | | | | |
| BOREHOLE DIAMETER (cm): | | | WELL DIAMETER (cm): 5 | | SCREEN SLOT #: 10 | | SAND TYPE: #2 | | SEALANT TYPE: BENTONITE | | | | | | | | | | | |
| SAMPLE TYPE | | | <input type="checkbox"/> AUGER | | <input checked="" type="checkbox"/> DRIVEN | | <input checked="" type="checkbox"/> CORING | | <input type="checkbox"/> DYNAMIC CONE | | <input type="checkbox"/> SHELBY | | <input type="checkbox"/> SPLIT SPOON | | | | | | | |
| GWL (m) | SOIL SYMBOL | SOIL DESCRIPTION | DEPTH (m) | ELEVATION (m) | SHEAR STRENGTH (kPa) ● | | | | WATER CONTENT (%) | | | | SAMPLE NO. | SAMPLE TYPE | RECOVERY (%) | SV/TOV (ppm or %LEL) | LABORATORY TESTING | WELL INSTALLATION | REMARKS | |
| | | | | | 40 | 80 | 120 | 160 | PL | W.C. | LL | | | | | | | | | |
| | | | | | N-VALUE (Blows/300mm) ▲ | | | | | | | | | | | | | | | |
| | | | | | 20 | 40 | 60 | 80 | 20 | 40 | 60 | 80 | | | | | | | | |
| | | FILL moist, dark brown silty clay some gravel, trace sand | 0 0.5 | 88.5 88 | | | | | | | | | 4 | | | | | | | |
| | | NO SAMPLES COLLECTED BETWEEN 1.5 TO 4.6 m bgs | 1 1.5 2 2.5 3 3.5 4 | 87.5 87 86.5 86 85.5 85 84.5 | | | | | | | | | 5 | 100 | 40 ppm | PAHs | | | | |
| | | wet, brown SILTY SAND | 4.5 5 5.5 | 84 83.5 83 | | | | | | | | | 6 | | <5 ppm | | | | | |
| | | END OF BOREHOLE | 6 | 83 | | | | | | | | | 7 | | <5 ppm | | | | | |
|  | | | | | | | | | | | | LOGGED BY: SP | | | | DRILLING DATE: 6-DEC-24 | | | | |
| | | | | | | | | | | | | INPUT BY: BW | | | | MONITORING DATE: 11-DEC-2024 | | | | |
| | | | | | | | | | | | | REVIEWED BY: GS | | | | PAGE 1 OF 1 | | | | |
| | | | | | | | | | | | | | | | | | | | | |

| | | |
|--------------------------------|---------------------------|-------------------------|
| CLIENT: CITY OF OTTAWA | PROJECT NO.: CO986.00 | RECORD OF: |
| ADDRESS: 40 BEECHCLIFFE STREET | STATION: | BH112 |
| CITY/PROVINCE: OTTAWA, ONTARIO | NORTHING (m): 5020320.692 | EASTING (m): 440990.215 |
| | | ELEV. (m) 88.687 |

| | |
|-----------------------------------|-----------------------|
| CONTRACTOR: STRATA DRILLING GROUP | METHOD: DIRECT PUSH |
| BOREHOLE DIAMETER (cm): | WELL DIAMETER (cm): - |
| SCREEN SLOT #: - | SAND TYPE: - |
| SEALANT TYPE: - | |

| | | | | | | |
|-------------|--------------------------------|--|--|---------------------------------------|---------------------------------|--------------------------------------|
| SAMPLE TYPE | <input type="checkbox"/> AUGER | <input checked="" type="checkbox"/> DRIVEN | <input checked="" type="checkbox"/> CORING | <input type="checkbox"/> DYNAMIC CONE | <input type="checkbox"/> SHELBY | <input type="checkbox"/> SPLIT SPOON |
|-------------|--------------------------------|--|--|---------------------------------------|---------------------------------|--------------------------------------|

| GWL (m) | SOIL SYMBOL | SOIL DESCRIPTION | DEPTH (m) | ELEVATION (m) | SHEAR STRENGTH (kPa) | | | | WATER CONTENT (%) | | | | SAMPLE NO. | SAMPLE TYPE | RECOVERY (%) | SV/TOV (ppm or %LEL) | LABORATORY TESTING | WELL INSTALLATION | REMARKS |
|---------|------------------|--|-----------|---------------|-----------------------|----|-----|-----|-------------------|------|----|--|------------|-------------|--------------|----------------------|----------------------------------|-------------------|---------|
| | | | | | 40 | 80 | 120 | 160 | PL | W.C. | LL | | | | | | | | |
| | | | | | N-VALUE (Blows/300mm) | | | | | | | | | | | | | | |
| | [Cross-hatch] | FILL moist, dark brown silty clay trace sand, trace organics | 0 | 88.5 | | | | | | | | | 1A | ▲ | 63 | <5 ppm | | | |
| | [Cross-hatch] | FILL moist, light brown silty clay trace sand, trace gravel, trace asphalt | 0.5 | 88 | | | | | | | | | 1B | ▲ | 63 | <5 ppm | METALS PAHs, BTEX, PHCs | | |
| | [Cross-hatch] | FILL moist, grey silty clay and organics | 1.5 | 87 | | | | | | | | | 2A | ▲ | 31 | <5 ppm | | | |
| | [Vertical lines] | moist to wet, light brown SANDY SILT | 2.5 | 86 | | | | | | | | | 2B | ▲ | - | <5 ppm | | | |
| | [Vertical lines] | wet, light brown SAND | 3 | 85.5 | | | | | | | | | 2C | ▲ | - | <5 ppm | | | |
| | [Vertical lines] | wet, light brown SILTY SAND | 4 | 85 | | | | | | | | | 3A | ▲ | - | <5 ppm | | | |
| | [Vertical lines] | | 4.5 | 84.5 | | | | | | | | | 3B | ▲ | - | <5 ppm | | | |
| | | END OF BOREHOLE | | | | | | | | | | | | | | | | | |



| | |
|-----------------|----------------------------|
| LOGGED BY: MK | DRILLING DATE: 22-NOV-2024 |
| INPUT BY: BW | MONITORING DATE: - |
| REVIEWED BY: GS | PAGE 1 OF 1 |

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|---|---|---|--------------------------------|---------------------------|------------------------|--|-----|----------------------------|--|-----------------|----|---------------------------------------|------------|-------------|---------------------------------|----------------------------|--------------------|--------------------------------------|---------|----|
| CLIENT: CITY OF OTTAWA | | | | PROJECT NO.: CO986.00 | | | | RECORD OF: BH113 | | | | | | | | | | | | |
| ADDRESS: 40 BEECHCLIFFE STREET | | | | STATION: | | | | | | | | | | | | | | | | |
| CITY/PROVINCE: OTTAWA, ONTARIO | | | | NORTHING (m): 5020353.504 | | EASTING (m): 440995.114 | | ELEV. (m) 88.668 | | | | | | | | | | | | |
| CONTRACTOR: STRATA DRILLING GROUP | | | | | | METHOD: DIRECT PUSH | | | | | | | | | | | | | | |
| BOREHOLE DIAMETER (cm): | | | WELL DIAMETER (cm): - | | | SCREEN SLOT #: - | | SAND TYPE: - | | SEALANT TYPE: - | | | | | | | | | | |
| SAMPLE TYPE | | | <input type="checkbox"/> AUGER | | | <input checked="" type="checkbox"/> DRIVEN | | | <input checked="" type="checkbox"/> CORING | | | <input type="checkbox"/> DYNAMIC CONE | | | <input type="checkbox"/> SHELBY | | | <input type="checkbox"/> SPLIT SPOON | | |
| GWL (m) | SOIL SYMBOL | SOIL DESCRIPTION | DEPTH (m) | ELEVATION (m) | SHEAR STRENGTH (kPa) ● | | | | WATER CONTENT (%) | | | | SAMPLE NO. | SAMPLE TYPE | RECOVERY (%) | SV/TOV (ppm or %LEL) | LABORATORY TESTING | WELL INSTALLATION | REMARKS | |
| | | | | | 40 | 80 | 120 | 160 | N-VALUE (Blows/300mm) ▲ | | | | | | | | | | | PL |
| | | | | | 20 | 40 | 60 | 80 | 20 | 40 | 60 | 80 | | | | | | | | |
| |  | FILL moist, dark brown silty clay trace sand, trace gravel | 0 0.5 1 1.5 | 88.5 88 87.5 | | | | | | | | | - | 100 | - | | | | | |
| | | END OF BOREHOLE | | | | | | | | | | | 1 | 100 | 30 ppm | PAHs | | | | |
|  | | | | | | | | | | | | LOGGED BY: SP | | | | DRILLING DATE: 06-DEC-2024 | | | | |
| | | | | | | | | | | | | INPUT BY: BW | | | | MONITORING DATE: - | | | | |
| | | | | | | | | | | | | REVIEWED BY: GS | | | | PAGE 1 OF 1 | | | | |

| CLIENT: CITY OF OTTAWA | | | | PROJECT NO.: CO986.00 | | | | RECORD OF: | | | | | | | | | | | | |
|---|-------------|---|--------------------------------|---------------------------|------------------------|--|-----|-------------------|--|-----------------|--|---------------------------------------|------------|-------------|---------------------------------|----------------------|--------------------|--------------------------------------|---------|----|
| ADDRESS: 40 BEECHCLIFFE STREET | | | | STATION: | | | | BH114 | | | | | | | | | | | | |
| CITY/PROVINCE: OTTAWA, ONTARIO | | | | NORTHING (m): 5020351.241 | | EASTING (m): 440995.719 | | ELEV. (m) 88.699 | | | | | | | | | | | | |
| CONTRACTOR: STRATA DRILLING GROUP | | | | | | METHOD: DIRECT PUSH | | | | | | | | | | | | | | |
| BOREHOLE DIAMETER (cm): | | | WELL DIAMETER (cm): - | | | SCREEN SLOT #: - | | SAND TYPE: - | | SEALANT TYPE: - | | | | | | | | | | |
| SAMPLE TYPE | | | <input type="checkbox"/> AUGER | | | <input checked="" type="checkbox"/> DRIVEN | | | <input checked="" type="checkbox"/> CORING | | | <input type="checkbox"/> DYNAMIC CONE | | | <input type="checkbox"/> SHELBY | | | <input type="checkbox"/> SPLIT SPOON | | |
| GWL (m) | SOIL SYMBOL | SOIL DESCRIPTION | DEPTH (m) | ELEVATION (m) | SHEAR STRENGTH (kPa) ● | | | | WATER CONTENT (%) | | | | SAMPLE NO. | SAMPLE TYPE | RECOVERY (%) | SV/TOV (ppm or %LEL) | LABORATORY TESTING | WELL INSTALLATION | REMARKS | |
| | | | | | 40 | 80 | 120 | 160 | N-VALUE (Blows/300mm) ▲ | | | | | | | | | | | PL |
| | | FILL moist, dark brown silty clay trace sand, trace gravel | 0 0.5 1 1.5 | 88.5 88 87.5 | | | | | | | | | | - | 100 | - | | | | |
| | | END OF BOREHOLE | | | | | | | | | | | 1 | 100 | 45 ppm | PAHs | | | | |
|  | | | | | | | | | | | | LOGGED BY: SP | | | DRILLING DATE: 06-DEC-2024 | | | | | |
| | | | | | | | | | | | | INPUT BY: BW | | | MONITORING DATE: - | | | | | |
| | | | | | | | | | | | | REVIEWED BY: GS | | | PAGE 1 OF 1 | | | | | |

TP101

Date: January 15, 2025

| Stratigraphy | | Sample Data | | | | |
|--------------|--|-------------|--------|---------|-----------|---------------------------|
| Depth (m) | Soil Description | Odours | CSV | I.D. | Depth (m) | Lab Analysis/ Comments |
| 0.0 – 0.5 | SILTY SAND, TRACE CLAY AND GRAVEL (FILL) Brown | None | <5 ppm | TP101-1 | 0.5 | |
| 0.5 – 1.8 | SILTY CLAY AND GRAVEL, TRACE SAND (FILL) | None | <5 ppm | TP101-2 | 1.0 | |
| | | None | <5 ppm | TP101-3 | 1.3 | |
| | | None | <5 ppm | TP101-4 | 1.6 | |
| 1.8 – 2.0 | SILTY CLAY, TRACE SAND (NATIVE) | None | <5 ppm | TP101-5 | 1.9 | |

TP102

Date: January 15, 2025

| Stratigraphy | | Sample Data | | | | |
|--------------|---|-------------|--------|---------|-----------|---------------------------|
| Depth (m) | Soil Description | Odours | CSV | I.D. | Depth (m) | Lab Analysis/ Comments |
| 0 – 0.5 | SILTY SAND, TRACE CLAY AND GRAVEL, METAL (FILL) Brown | None | <5 ppm | TP102-1 | 0.5 | |
| 0.5 – 1.4 | SILTY CLAY, TRACE SAND, ASPHALT (FILL) Brown | None | <5 ppm | TP102-2 | 1.0 | |
| | | None | <5 ppm | TP102-3 | 1.4 | |
| 1.4 – 1.7 | SILTY CLAY, TRACE ORGANICS AND ASPHALT (FILL) Red/Yellow, Brown | None | <5 ppm | TP102-4 | 1.7 | |
| 1.7 – 1.8 | SILTY SAND (NATIVE) Brown, wet | None | <5 ppm | TP102-5 | 1.8 | |

TP103

Date: January 15, 2025

| Stratigraphy | | Sample Data | | | | |
|--------------|---|-------------|--------|---------|-----------|---------------------------|
| Depth (m) | Soil Description | Odours | CSV | I.D. | Depth (m) | Lab Analysis/ Comments |
| 0 – 0.5 | SILTY SAND AND GRAVEL (FILL) Brown | None | <5 ppm | TP103-1 | 0.5 | |
| 0.5 – 1.0 | SILTY SAND, TRACE CLAY AND GRAVEL, METAL (FILL) Brown | None | <5 ppm | TP103-2 | 1.0 | PAH |
| 1.0 – 1.5 | SILTY CLAY, TRACE SAND AND PLASTIC, GRAVEL (FILL) Brown | None | <5 ppm | TP103-3 | 1.5 | |
| 1.5 – 1.6 | SILTY SAND (Native) Grey, wet | None | <5 ppm | TP103-4 | 1.6 | |

TP104

Date: January 15, 2025

| Stratigraphy | | Sample Data | | | | |
|--------------|--|-------------|--------|---------|-----------|-----------------------------------|
| Depth (m) | Soil Description | Odours | CSV | I.D. | Depth (m) | Lab Analysis/ Comments |
| 0 – 0.5 | SILTY SAND AND GRAVEL, TRACE CLAY (Fill) Brown. Large concrete blocks in Test pit | None | <5 ppm | TP104-1 | 0.5 | |
| 0.5 – 1.8 | SILTY SAND AND GRAVEL (Fill) Brown, wet | None | <5 ppm | TP104-2 | 1.0 | PAH (DUP sample ID: 104-12) |
| | | None | <5 ppm | TP104-3 | 1.6 | |
| 1.8 – 2.1 | SILTY CLAY (Native) Grey, wet | None | <5 ppm | TP104-4 | 2.1 | |

TP105

Date: January 15, 2025

| Stratigraphy | | Sample Data | | | | |
|--------------|--|-------------|--------|---------|-----------|---------------------------|
| Depth (m) | Soil Description | Odours | CSV | I.D. | Depth (m) | Lab Analysis/ Comments |
| 0 – 0.5 | SILTY SAND AND GRAVEL (Fill) Brown | None | <5 ppm | TP105-1 | 0.5 | |
| 0.5 – 1.2 | SILTY CLAY AND GRAVEL, TRACE SAND (Fill) Brown | None | <5 ppm | TP105-2 | 1.2 | |
| 1.2 – 1.5 | SANDY SILT, TRACE CLAY AND GRAVEL (Fill) Brown | None | <5 ppm | TP105-3 | 1.5 | |
| 1.5 – 1.7 | SILTY SAND (Native) Brown, moist | None | <5 ppm | TP105-4 | 1.7 | |

TP106

Date: January 15, 2025

| Stratigraphy | | Sample Data | | | | |
|--------------|--|-------------|--------|---------|-----------|---------------------------|
| Depth (m) | Soil Description | Odours | CSV | I.D. | Depth (m) | Lab Analysis/ Comments |
| 0 – 0.5 | SAND AND GRAVEL, TRACE SILT (Fill) Brown | None | <5 ppm | TP106-1 | 0.5 | |
| 0.5 – 1.1 | SAND coarse (Fill) Brown | None | <5 ppm | TP106-2 | 1.1 | |
| 1.1 – 1.5 | SILTY CLAY AND GRAVEL (Fill) Brown, wet | None | <5 ppm | TP106-3 | 1.5 | PAH |
| 1.5 – 2.0 | SILTY CLAY AND GRAVEL with ASPHALT (Fill) Brown, wet | None | <5 ppm | TP106-4 | 1.8 | |
| 2.0 – 2.2 | SILTY CLAY, TRACE SAND (Native) Brown, wet | None | <5 ppm | TP106-5 | 2.2 | |

TP107

Date: January 15, 2025

| Stratigraphy | | Sample Data | | | | |
|--------------|---|-------------|--------|---------|-----------|-----------------------------------|
| Depth (m) | Soil Description | Odours | CSV | I.D. | Depth (m) | Lab Analysis/ Comments |
| 0 – 0.5 | SILTY SAND AND GRAVEL (Fill) Brown | None | <5 ppm | TP107-1 | 0.5 | |
| 0.5 – 1.1 | SILTY CLAY AND GRAVEL, TRACE BRICK (Fill) Red/Brown | None | <5 ppm | TP107-2 | 1.1 | PAH (DUP sample ID: 107-12) |
| 1.1 – 1.6 | SILTY CLAY, TRACE GRAVEL (Fill) Brown, wet | None | <5 ppm | TP107-3 | 1.6 | |
| 1.6 – 1.8 | SILTY CLAY (Native) Brown, moist | None | <5 ppm | TP107-4 | 1.8 | PAH |

TP108

Date: January 15, 2025

| Stratigraphy | | Sample Data | | | | |
|--------------|---|-------------|--------|---------|-----------|---------------------------|
| Depth (m) | Soil Description | Odours | CSV | I.D. | Depth (m) | Lab Analysis/ Comments |
| 0 – 0.8 | SILTY SAND AND GRAVEL with ASPHALT (Fill) Brown | None | <5 ppm | TP108-1 | 0.8 | |
| 0.8 – 1.4 | SILTY CLAY with GRAVEL AND ASPHALT (Fill) Brown | None | <5 ppm | TP108-2 | 1.2 | PAH |
| 1.4 – 1.7 | SILTY SAND (Native) Brown, moist | None | <5 ppm | TP108-3 | 1.65 | |

TP109

Date: January 15, 2025

| Stratigraphy | | Sample Data | | | | |
|--------------|--|-------------|--------|---------|-----------|--|
| Depth (m) | Soil Description | Odours | CSV | I.D. | Depth (m) | Lab Analysis/ Comments |
| 0 – 0.5 | SILTY CLAY AND GRAVEL (Fill) Brown | None | <5 ppm | TP109-1 | 0.5 | PAH Concrete piping insulation found |
| 0.5 – 1.7 | SILTY CLAY, TRACE SAND AND GRAVEL (Fill) Brown | None | <5 ppm | TP109-2 | 1.1 | |
| | | None | <5 ppm | TP109-3 | 1.5 | |
| | | None | <5 ppm | TP109-4 | 1.7 | |
| 1.7 – 1.9 | SILTY CLAY (Native) Brown | None | <5 ppm | TP109-5 | 1.9 | |

TP110

Date: January 15, 2025

| Stratigraphy | | Sample Data | | | | |
|--------------|---|-------------|--------|---------|-----------|---------------------------|
| Depth (m) | Soil Description | Odours | CSV | I.D. | Depth (m) | Lab Analysis/ Comments |
| 0 – 0.6 | SILTY SAND AND GRAVEL, TRACE CLAY (Fill) Brown | None | <5 ppm | TP110-1 | 0.6 | |
| 0.6 – 1.1 | SILTY CLAY AND GRAVEL (Fill) Brown, Concrete slabs found in TP | None | <5 ppm | TP110-2 | 1.1 | PAH |
| 1.1 – 1.7 | SILTY CLAY AND GRAVEL, TRACE SAND (Fill) Brown | None | <5 ppm | TP110-3 | 1.7 | |
| 1.7 – 1.9 | SILTY CLAY (Native) Brown, moist | None | <5 ppm | TP110-4 | 1.9 | |

TP111

Date: January 15, 2025

| Stratigraphy | | Sample Data | | | | |
|--------------|---|-------------|--------|---------|-----------|---------------------------|
| Depth (m) | Soil Description | Odours | CSV | I.D. | Depth (m) | Lab Analysis/ Comments |
| 0 – 1.1 | SILTY CLAY AND GRAVEL (Fill) Brown | None | <5 ppm | TP111-1 | 0.6 | |
| | | None | <5 ppm | TP111-2 | 1.1 | |
| 1.1 – 1.4 | SILTY CLAY AND TOPSOIL, TRACE GRAVEL (Fill) Black/brown | None | <5 ppm | TP111-3 | 1.4 | PAH |
| 1.4 – 1.6 | SILTY CLAY (Native) Grey/black, moist | None | <5 ppm | TP111-4 | 1.6 | |

TP112

Date: January 15, 2025

| Stratigraphy | | Sample Data | | | | |
|--------------|--|-------------|--------|---------|-----------|---------------------------|
| Depth (m) | Soil Description | Odours | CSV | I.D. | Depth (m) | Lab Analysis/ Comments |
| 0 – 0.5 | SAND AND GRAVEL, TRACE CLAY (Fill) Brown | None | <5 ppm | TP112-1 | 0.5 | |
| 0.5 – 1.2 | SILTY CLAY AND TRACE GRAVEL (Fill) Brown | None | <5 ppm | TP112-2 | 1.0 | |
| 1.2 – 1.65 | SILTY SAND (Native) Brown, moist | None | <5 ppm | TP112-3 | 1.65 | |

TP113

Date: January 15, 2025

| Stratigraphy | | Sample Data | | | | |
|--------------|---|-------------|--------|---------|-----------|---------------------------|
| Depth (m) | Soil Description | Odours | CSV | I.D. | Depth (m) | Lab Analysis/ Comments |
| 0 – 0.5 | SILTY CLAY AND GRAVEL with WOOD DEBRIS (Fill) Brown | None | <5 ppm | TP113-1 | 0.5 | |
| 0.5 – 1.0 | SILTY CLAY AND GRAVEL with WOOD DEBRIS AND METAL (Fill) Brown | None | <5 ppm | TP113-2 | 1.0 | |
| | | | | | | Refusal at 1.0 m |

APPENDIX VI
LABORATORY CERTIFICATES OF ANALYSIS

Certificate of Analysis

Terrapex Environmental Ltd. (Ottawa)

20 Gurdwara Rd. Unit #1

Ottawa, ON K2E 8B3

Attn: Greg Sabourin

Client PO:

Project: CO986.00/40 Beechcliffe Street

Custody:

Report Date: 21-Jan-2025

Order Date: 16-Jan-2025

Order #: 2503397

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

| Parcel ID | Client ID |
|------------|-----------|
| 2503397-01 | TP103-2 |
| 2503397-02 | TP103-4 |
| 2503397-03 | TP104-2 |
| 2503397-04 | TP106-3 |
| 2503397-05 | TP107-2 |
| 2503397-06 | TP107-12 |
| 2503397-07 | TP108-2 |
| 2503397-08 | TP110-2 |
| 2503397-09 | TP107-4 |

Approved By:



Mark Foto, M.Sc.

Laboratory Director

Certificate of Analysis

Report Date: 21-Jan-2025

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 16-Jan-2025

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Analysis Summary Table

| Analysis | Method Reference/Description | Extraction Date | Analysis Date |
|------------------------|------------------------------|-----------------|---------------|
| REG 153: PAHs by GC-MS | EPA 8270 - GC-MS, extraction | 17-Jan-25 | 19-Jan-25 |
| Solids, % | CWS Tier 1 - Gravimetric | 17-Jan-25 | 20-Jan-25 |

Certificate of Analysis

Report Date: 21-Jan-2025

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 16-Jan-2025

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| | | | | | | |
|---------------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Client ID: | TP103-2 | TP103-4 | TP104-2 | TP106-3 | - | - |
| Sample Date: | 15-Jan-25 09:10 | 15-Jan-25 09:30 | 15-Jan-25 09:40 | 15-Jan-25 10:45 | - | - |
| Sample ID: | 2503397-01 | 2503397-02 | 2503397-03 | 2503397-04 | - | - |
| Matrix: | Soil | Soil | Soil | Soil | - | - |
| MDL/Units | | | | | | |

Physical Characteristics

| | | | | | | | |
|----------|--------------|------|------|------|------|---|---|
| % Solids | 0.1 % by Wt. | 90.8 | 87.6 | 89.4 | 87.7 | - | - |
|----------|--------------|------|------|------|------|---|---|

Semi-Volatiles

| | | | | | | | |
|--------------------------|-----------|-------|-------|-------|-------|---|---|
| Acenaphthene | 0.02 ug/g | <0.02 | <0.02 | <0.02 | <0.02 | - | - |
| Acenaphthylene | 0.02 ug/g | <0.02 | <0.02 | <0.02 | <0.02 | - | - |
| Anthracene | 0.02 ug/g | 0.03 | <0.02 | <0.02 | <0.02 | - | - |
| Benzo [a] anthracene | 0.02 ug/g | 0.03 | 0.03 | <0.02 | <0.02 | - | - |
| Benzo [a] pyrene | 0.02 ug/g | 0.03 | 0.03 | <0.02 | <0.02 | - | - |
| Benzo [b] fluoranthene | 0.02 ug/g | 0.04 | 0.03 | <0.02 | <0.02 | - | - |
| Benzo [g,h,i] perylene | 0.02 ug/g | 0.03 | 0.02 | <0.02 | <0.02 | - | - |
| Benzo [k] fluoranthene | 0.02 ug/g | 0.02 | 0.02 | <0.02 | <0.02 | - | - |
| Chrysene | 0.02 ug/g | 0.03 | 0.03 | <0.02 | <0.02 | - | - |
| Dibenzo [a,h] anthracene | 0.02 ug/g | <0.02 | <0.02 | <0.02 | <0.02 | - | - |
| Fluoranthene | 0.02 ug/g | 0.10 | 0.08 | 0.06 | 0.04 | - | - |
| Fluorene | 0.02 ug/g | <0.02 | <0.02 | <0.02 | <0.02 | - | - |
| Indeno [1,2,3-cd] pyrene | 0.02 ug/g | <0.02 | <0.02 | <0.02 | <0.02 | - | - |
| 1-Methylnaphthalene | 0.02 ug/g | <0.02 | <0.02 | <0.02 | <0.02 | - | - |
| 2-Methylnaphthalene | 0.02 ug/g | <0.02 | <0.02 | <0.02 | <0.02 | - | - |
| Methylnaphthalene (1&2) | 0.04 ug/g | <0.04 | <0.04 | <0.04 | <0.04 | - | - |
| Naphthalene | 0.01 ug/g | <0.01 | <0.01 | <0.01 | <0.01 | - | - |
| Phenanthrene | 0.02 ug/g | 0.07 | 0.04 | 0.03 | <0.02 | - | - |
| Pyrene | 0.02 ug/g | 0.08 | 0.07 | 0.05 | 0.04 | - | - |
| 2-Fluorobiphenyl | Surrogate | 53.2% | 66.7% | 65.1% | 53.3% | - | - |
| Terphenyl-d14 | Surrogate | 70.6% | 89.0% | 88.3% | 74.1% | - | - |

Certificate of Analysis

Report Date: 21-Jan-2025

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 16-Jan-2025

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| | | | | | | |
|---------------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Client ID: | TP107-2 | TP107-12 | TP108-2 | TP110-2 | - | - |
| Sample Date: | 15-Jan-25 11:10 | 15-Jan-25 11:10 | 15-Jan-25 11:40 | 15-Jan-25 12:40 | - | - |
| Sample ID: | 2503397-05 | 2503397-06 | 2503397-07 | 2503397-08 | - | - |
| Matrix: | Soil | Soil | Soil | Soil | - | - |
| MDL/Units | | | | | | |

Physical Characteristics

| | | | | | | | |
|----------|--------------|------|------|------|------|---|---|
| % Solids | 0.1 % by Wt. | 86.4 | 86.6 | 85.2 | 87.9 | - | - |
|----------|--------------|------|------|------|------|---|---|

Semi-Volatiles

| | | | | | | | |
|--------------------------|-----------|-------|-------|-------|-------|---|---|
| Acenaphthene | 0.02 ug/g | 0.03 | 0.57 | <0.02 | 0.04 | - | - |
| Acenaphthylene | 0.02 ug/g | 0.15 | 0.48 | 0.15 | 0.07 | - | - |
| Anthracene | 0.02 ug/g | 0.24 | 1.95 | 0.18 | 0.16 | - | - |
| Benzo [a] anthracene | 0.02 ug/g | 0.52 | 1.66 | 0.27 | 0.20 | - | - |
| Benzo [a] pyrene | 0.02 ug/g | 0.47 | 1.26 | 0.29 | 0.18 | - | - |
| Benzo [b] fluoranthene | 0.02 ug/g | 0.47 | 1.37 | 0.31 | 0.19 | - | - |
| Benzo [g,h,i] perylene | 0.02 ug/g | 0.29 | 0.76 | 0.18 | 0.11 | - | - |
| Benzo [k] fluoranthene | 0.02 ug/g | 0.31 | 0.88 | 0.20 | 0.11 | - | - |
| Chrysene | 0.02 ug/g | 0.48 | 1.69 | 0.26 | 0.21 | - | - |
| Dibenzo [a,h] anthracene | 0.02 ug/g | 0.08 | 0.21 | 0.05 | 0.03 | - | - |
| Fluoranthene | 0.02 ug/g | 1.40 | 7.09 | 0.72 | 0.64 | - | - |
| Fluorene | 0.02 ug/g | 0.03 | 0.93 | <0.02 | 0.06 | - | - |
| Indeno [1,2,3-cd] pyrene | 0.02 ug/g | 0.29 | 0.83 | 0.18 | 0.11 | - | - |
| 1-Methylnaphthalene | 0.02 ug/g | <0.02 | 0.17 | <0.02 | <0.02 | - | - |
| 2-Methylnaphthalene | 0.02 ug/g | <0.02 | 0.20 | <0.02 | <0.02 | - | - |
| Methylnaphthalene (1&2) | 0.04 ug/g | <0.04 | 0.37 | <0.04 | <0.04 | - | - |
| Naphthalene | 0.01 ug/g | <0.01 | 0.22 | <0.01 | 0.04 | - | - |
| Phenanthrene | 0.02 ug/g | 0.52 | 7.44 | 0.27 | 0.54 | - | - |
| Pyrene | 0.02 ug/g | 1.20 | 4.97 | 0.61 | 0.51 | - | - |
| 2-Fluorobiphenyl | Surrogate | 59.4% | 62.3% | 56.6% | 55.0% | - | - |
| Terphenyl-d14 | Surrogate | 80.0% | 88.0% | 79.0% | 81.1% | - | - |

Certificate of Analysis

Report Date: 21-Jan-2025

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 16-Jan-2025

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| | | | | | | |
|---------------------|-----------------|--|--|--|--|--|
| Client ID: | TP107-4 | | | | | |
| Sample Date: | 15-Jan-25 11:30 | | | | | |
| Sample ID: | 2503397-09 | | | | | |
| Matrix: | Soil | | | | | |
| MDL/Units | | | | | | |

Physical Characteristics

| | | | | | | |
|----------|--------------|------|---|---|---|---|
| % Solids | 0.1 % by Wt. | 85.2 | - | - | - | - |
|----------|--------------|------|---|---|---|---|

Semi-Volatiles

| | | | | | | |
|--------------------------|-----------|-------|---|---|---|---|
| Acenaphthene | 0.02 ug/g | <0.02 | - | - | - | - |
| Acenaphthylene | 0.02 ug/g | <0.02 | - | - | - | - |
| Anthracene | 0.02 ug/g | <0.02 | - | - | - | - |
| Benzo [a] anthracene | 0.02 ug/g | <0.02 | - | - | - | - |
| Benzo [a] pyrene | 0.02 ug/g | <0.02 | - | - | - | - |
| Benzo [b] fluoranthene | 0.02 ug/g | <0.02 | - | - | - | - |
| Benzo [g,h,i] perylene | 0.02 ug/g | <0.02 | - | - | - | - |
| Benzo [k] fluoranthene | 0.02 ug/g | <0.02 | - | - | - | - |
| Chrysene | 0.02 ug/g | <0.02 | - | - | - | - |
| Dibenzo [a,h] anthracene | 0.02 ug/g | <0.02 | - | - | - | - |
| Fluoranthene | 0.02 ug/g | 0.04 | - | - | - | - |
| Fluorene | 0.02 ug/g | <0.02 | - | - | - | - |
| Indeno [1,2,3-cd] pyrene | 0.02 ug/g | <0.02 | - | - | - | - |
| 1-Methylnaphthalene | 0.02 ug/g | <0.02 | - | - | - | - |
| 2-Methylnaphthalene | 0.02 ug/g | <0.02 | - | - | - | - |
| Methylnaphthalene (1&2) | 0.04 ug/g | <0.04 | - | - | - | - |
| Naphthalene | 0.01 ug/g | <0.01 | - | - | - | - |
| Phenanthrene | 0.02 ug/g | <0.02 | - | - | - | - |
| Pyrene | 0.02 ug/g | 0.04 | - | - | - | - |
| 2-Fluorobiphenyl | Surrogate | 57.5% | - | - | - | - |
| Terphenyl-d14 | Surrogate | 88.3% | - | - | - | - |

Certificate of Analysis

Report Date: 21-Jan-2025

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 16-Jan-2025

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Blank

| Analyte | Result | Reporting Limit | Units | %REC | %REC Limit | RPD | RPD Limit | Notes |
|-----------------------------|--------|-----------------|-------|------|------------|-----|-----------|-------|
| Semi-Volatiles | | | | | | | | |
| Acenaphthene | ND | 0.02 | ug/g | | | | | |
| Acenaphthylene | ND | 0.02 | ug/g | | | | | |
| Anthracene | ND | 0.02 | ug/g | | | | | |
| Benzo [a] anthracene | ND | 0.02 | ug/g | | | | | |
| Benzo [a] pyrene | ND | 0.02 | ug/g | | | | | |
| Benzo [b] fluoranthene | ND | 0.02 | ug/g | | | | | |
| Benzo [g,h,i] perylene | ND | 0.02 | ug/g | | | | | |
| Benzo [k] fluoranthene | ND | 0.02 | ug/g | | | | | |
| Chrysene | ND | 0.02 | ug/g | | | | | |
| Dibenzo [a,h] anthracene | ND | 0.02 | ug/g | | | | | |
| Fluoranthene | ND | 0.02 | ug/g | | | | | |
| Fluorene | ND | 0.02 | ug/g | | | | | |
| Indeno [1,2,3-cd] pyrene | ND | 0.02 | ug/g | | | | | |
| 1-Methylnaphthalene | ND | 0.02 | ug/g | | | | | |
| 2-Methylnaphthalene | ND | 0.02 | ug/g | | | | | |
| Methylnaphthalene (1&2) | ND | 0.04 | ug/g | | | | | |
| Naphthalene | ND | 0.01 | ug/g | | | | | |
| Phenanthrene | ND | 0.02 | ug/g | | | | | |
| Pyrene | ND | 0.02 | ug/g | | | | | |
| Surrogate: 2-Fluorobiphenyl | 0.853 | | % | 64.0 | 50-140 | | | |
| Surrogate: Terphenyl-d14 | 1.11 | | % | 83.3 | 50-140 | | | |

Certificate of Analysis

Report Date: 21-Jan-2025

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 16-Jan-2025

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Duplicate

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|---------------------------------|--------|-----------------|----------|---------------|------|------------|------|-----------|-------|
| Physical Characteristics | | | | | | | | | |
| % Solids | 87.5 | 0.1 | % by Wt. | 87.6 | | | 0.2 | 25 | |
| Semi-Volatiles | | | | | | | | | |
| Acenaphthene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Acenaphthylene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Anthracene | 0.021 | 0.02 | ug/g | 0.023 | | | 9.0 | 40 | |
| Benzo [a] anthracene | 0.030 | 0.02 | ug/g | 0.037 | | | 21.0 | 40 | |
| Benzo [a] pyrene | 0.023 | 0.02 | ug/g | 0.029 | | | 22.0 | 40 | |
| Benzo [b] fluoranthene | 0.027 | 0.02 | ug/g | 0.037 | | | 29.1 | 40 | |
| Benzo [g,h,i] perylene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Benzo [k] fluoranthene | ND | 0.02 | ug/g | 0.025 | | | NC | 40 | |
| Chrysene | 0.033 | 0.02 | ug/g | 0.035 | | | 7.3 | 40 | |
| Dibenzo [a,h] anthracene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Fluoranthene | 0.087 | 0.02 | ug/g | 0.093 | | | 6.2 | 40 | |
| Fluorene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Indeno [1,2,3-cd] pyrene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| 1-Methylnaphthalene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| 2-Methylnaphthalene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Naphthalene | ND | 0.01 | ug/g | ND | | | NC | 40 | |
| Phenanthrene | 0.045 | 0.02 | ug/g | 0.052 | | | 14.6 | 40 | |
| Pyrene | 0.070 | 0.02 | ug/g | 0.076 | | | 8.4 | 40 | |
| Surrogate: 2-Fluorobiphenyl | 0.813 | | | | 54.6 | 50-140 | | | |
| Surrogate: Terphenyl-d14 | 1.11 | | % | | 74.7 | 50-140 | | | |

Certificate of Analysis

Report Date: 21-Jan-2025

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 16-Jan-2025

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Spike

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|-----------------------------|--------|-----------------|-------|---------------|------|------------|-----|-----------|-------|
| Semi-Volatiles | | | | | | | | | |
| Acenaphthene | 0.165 | 0.02 | ug/g | ND | 88.9 | 50-140 | | | |
| Acenaphthylene | 0.167 | 0.02 | ug/g | ND | 89.8 | 50-140 | | | |
| Anthracene | 0.190 | 0.02 | ug/g | 0.023 | 89.5 | 50-140 | | | |
| Benzo [a] anthracene | 0.143 | 0.02 | ug/g | 0.037 | 57.2 | 50-140 | | | |
| Benzo [a] pyrene | 0.127 | 0.02 | ug/g | 0.029 | 52.7 | 50-140 | | | |
| Benzo [b] fluoranthene | 0.149 | 0.02 | ug/g | 0.037 | 60.3 | 50-140 | | | |
| Benzo [g,h,i] perylene | 0.146 | 0.02 | ug/g | ND | 78.4 | 50-140 | | | |
| Benzo [k] fluoranthene | 0.154 | 0.02 | ug/g | 0.025 | 69.2 | 50-140 | | | |
| Chrysene | 0.188 | 0.02 | ug/g | 0.035 | 82.1 | 50-140 | | | |
| Dibenzo [a,h] anthracene | 0.130 | 0.02 | ug/g | ND | 69.7 | 50-140 | | | |
| Fluoranthene | 0.244 | 0.02 | ug/g | 0.093 | 81.7 | 50-140 | | | |
| Fluorene | 0.164 | 0.02 | ug/g | ND | 88.4 | 50-140 | | | |
| Indeno [1,2,3-cd] pyrene | 0.147 | 0.02 | ug/g | ND | 79.3 | 50-140 | | | |
| 1-Methylnaphthalene | 0.146 | 0.02 | ug/g | ND | 78.6 | 50-140 | | | |
| 2-Methylnaphthalene | 0.156 | 0.02 | ug/g | ND | 84.1 | 50-140 | | | |
| Naphthalene | 0.176 | 0.01 | ug/g | ND | 94.4 | 50-140 | | | |
| Phenanthrene | 0.228 | 0.02 | ug/g | 0.052 | 94.8 | 50-140 | | | |
| Pyrene | 0.236 | 0.02 | ug/g | 0.076 | 85.9 | 50-140 | | | |
| Surrogate: 2-Fluorobiphenyl | 0.886 | | % | | 59.5 | 50-140 | | | |
| Surrogate: Terphenyl-d14 | 1.18 | | % | | 79.1 | 50-140 | | | |

Certificate of Analysis

Report Date: 21-Jan-2025

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 16-Jan-2025

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Qualifier Notes:

Login Qualifiers :

Container and COC sample IDs don't match. Report includes container IDs as directed by client. - Sample is labelled TP107-2; chain of custody reads TPP107-2.

Applies to Samples: TP107-2

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 unless otherwise noted.

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

Any use of these results implies your agreement that our total liability in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Certificate of Analysis

Terrapex Environmental Ltd. (Ottawa)

20 Gurdwara Rd. Unit #1

Ottawa, ON K2E 8B3

Attn: Greg Sabourin

Client PO:

Project: CO986.00/40 Beechcliffe Street

Custody:

Report Date: 27-Jan-2025

Order Date: 16-Jan-2025

Order #: 2503399

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

| Parcel ID | Client ID |
|------------|-----------|
| 2503399-06 | TP109-1 |
| 2503399-08 | TP111-3 |

Approved By:



Mark Foto, M.Sc.

Laboratory Director

Certificate of Analysis

Report Date: 27-Jan-2025

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 16-Jan-2025

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Analysis Summary Table

| Analysis | Method Reference/Description | Extraction Date | Analysis Date |
|------------------------|------------------------------|-----------------|---------------|
| REG 153: PAHs by GC-MS | EPA 8270 - GC-MS, extraction | 24-Jan-25 | 25-Jan-25 |
| Solids, % | CWS Tier 1 - Gravimetric | 22-Jan-25 | 23-Jan-25 |

Certificate of Analysis

Report Date: 27-Jan-2025

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 16-Jan-2025

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| | | | | | |
|---------------------|-----------------|-----------------|---|---|---|
| Client ID: | TP109-1 | TP111-3 | - | - | |
| Sample Date: | 15-Jan-25 12:00 | 15-Jan-25 13:15 | - | - | - |
| Sample ID: | 2503399-06 | 2503399-08 | - | - | - |
| Matrix: | Soil | Soil | - | - | - |
| MDL/Units | | | | | |

Physical Characteristics

| | | | | | | |
|----------|--------------|------|------|---|---|---|
| % Solids | 0.1 % by Wt. | 87.3 | 78.3 | - | - | - |
|----------|--------------|------|------|---|---|---|

Semi-Volatiles

| | | | | | | |
|--------------------------|-----------|-------|-------|---|---|---|
| Acenaphthene | 0.02 ug/g | 0.04 | <0.02 | - | - | - |
| Acenaphthylene | 0.02 ug/g | 0.32 | <0.02 | - | - | - |
| Anthracene | 0.02 ug/g | 0.33 | 0.04 | - | - | - |
| Benzo [a] anthracene | 0.02 ug/g | 0.81 | 0.23 | - | - | - |
| Benzo [a] pyrene | 0.02 ug/g | 0.89 | 0.20 | - | - | - |
| Benzo [b] fluoranthene | 0.02 ug/g | 0.84 | 0.20 | - | - | - |
| Benzo [g,h,i] perylene | 0.02 ug/g | 0.46 | 0.11 | - | - | - |
| Benzo [k] fluoranthene | 0.02 ug/g | 0.49 | 0.12 | - | - | - |
| Chrysene | 0.02 ug/g | 0.69 | 0.15 | - | - | - |
| Dibenzo [a,h] anthracene | 0.02 ug/g | 0.11 | 0.02 | - | - | - |
| Fluoranthene | 0.02 ug/g | 1.56 | 0.31 | - | - | - |
| Fluorene | 0.02 ug/g | 0.06 | <0.02 | - | - | - |
| Indeno [1,2,3-cd] pyrene | 0.02 ug/g | 0.40 | 0.09 | - | - | - |
| 1-Methylnaphthalene | 0.02 ug/g | <0.02 | <0.02 | - | - | - |
| 2-Methylnaphthalene | 0.02 ug/g | <0.02 | <0.02 | - | - | - |
| Methylnaphthalene (1&2) | 0.04 ug/g | <0.04 | <0.04 | - | - | - |
| Naphthalene | 0.01 ug/g | 0.03 | <0.01 | - | - | - |
| Phenanthrene | 0.02 ug/g | 0.79 | 0.08 | - | - | - |
| Pyrene | 0.02 ug/g | 1.30 | 0.27 | - | - | - |
| 2-Fluorobiphenyl | Surrogate | 72.8% | 78.2% | - | - | - |
| Terphenyl-d14 | Surrogate | 65.1% | 66.3% | - | - | - |

Certificate of Analysis

Report Date: 27-Jan-2025

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 16-Jan-2025

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Blank

| Analyte | Result | Reporting Limit | Units | %REC | %REC Limit | RPD | RPD Limit | Notes |
|-----------------------------|--------|-----------------|-------|------|------------|-----|-----------|-------|
| Semi-Volatiles | | | | | | | | |
| Acenaphthene | ND | 0.02 | ug/g | | | | | |
| Acenaphthylene | ND | 0.02 | ug/g | | | | | |
| Anthracene | ND | 0.02 | ug/g | | | | | |
| Benzo [a] anthracene | ND | 0.02 | ug/g | | | | | |
| Benzo [a] pyrene | ND | 0.02 | ug/g | | | | | |
| Benzo [b] fluoranthene | ND | 0.02 | ug/g | | | | | |
| Benzo [g,h,i] perylene | ND | 0.02 | ug/g | | | | | |
| Benzo [k] fluoranthene | ND | 0.02 | ug/g | | | | | |
| Chrysene | ND | 0.02 | ug/g | | | | | |
| Dibenzo [a,h] anthracene | ND | 0.02 | ug/g | | | | | |
| Fluoranthene | ND | 0.02 | ug/g | | | | | |
| Fluorene | ND | 0.02 | ug/g | | | | | |
| Indeno [1,2,3-cd] pyrene | ND | 0.02 | ug/g | | | | | |
| 1-Methylnaphthalene | ND | 0.02 | ug/g | | | | | |
| 2-Methylnaphthalene | ND | 0.02 | ug/g | | | | | |
| Methylnaphthalene (1&2) | ND | 0.04 | ug/g | | | | | |
| Naphthalene | ND | 0.01 | ug/g | | | | | |
| Phenanthrene | ND | 0.02 | ug/g | | | | | |
| Pyrene | ND | 0.02 | ug/g | | | | | |
| Surrogate: 2-Fluorobiphenyl | 1.05 | | % | 78.8 | 50-140 | | | |
| Surrogate: Terphenyl-d14 | 0.946 | | % | 70.9 | 50-140 | | | |

Certificate of Analysis

Report Date: 27-Jan-2025

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 16-Jan-2025

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Duplicate

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|---------------------------------|--------|-----------------|----------|---------------|------|------------|------|-----------|-------|
| Physical Characteristics | | | | | | | | | |
| % Solids | 80.7 | 0.1 | % by Wt. | 80.8 | | | 0.1 | 25 | |
| Semi-Volatiles | | | | | | | | | |
| Acenaphthene | 0.028 | 0.02 | ug/g | 0.036 | | | 24.5 | 40 | |
| Acenaphthylene | 0.278 | 0.02 | ug/g | 0.318 | | | 13.6 | 40 | |
| Anthracene | 0.325 | 0.02 | ug/g | 0.331 | | | 1.9 | 40 | |
| Benzo [a] anthracene | 0.748 | 0.02 | ug/g | 0.813 | | | 8.3 | 40 | |
| Benzo [a] pyrene | 0.862 | 0.02 | ug/g | 0.894 | | | 3.6 | 40 | |
| Benzo [b] fluoranthene | 1.21 | 0.02 | ug/g | 0.838 | | | 36.4 | 40 | |
| Benzo [g,h,i] perylene | 0.460 | 0.02 | ug/g | 0.463 | | | 0.6 | 40 | |
| Benzo [k] fluoranthene | 0.617 | 0.02 | ug/g | 0.486 | | | 23.9 | 40 | |
| Chrysene | 0.672 | 0.02 | ug/g | 0.686 | | | 2.0 | 40 | |
| Dibenzo [a,h] anthracene | 0.104 | 0.02 | ug/g | 0.109 | | | 5.4 | 40 | |
| Fluoranthene | 1.62 | 0.02 | ug/g | 1.56 | | | 3.6 | 40 | |
| Fluorene | 0.063 | 0.02 | ug/g | 0.063 | | | 0.0 | 40 | |
| Indeno [1,2,3-cd] pyrene | 0.381 | 0.02 | ug/g | 0.404 | | | 5.7 | 40 | |
| 1-Methylnaphthalene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| 2-Methylnaphthalene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Naphthalene | 0.019 | 0.01 | ug/g | 0.025 | | | 31.1 | 40 | |
| Phenanthrene | 0.720 | 0.02 | ug/g | 0.787 | | | 8.9 | 40 | |
| Pyrene | 1.33 | 0.02 | ug/g | 1.30 | | | 2.2 | 40 | |
| Surrogate: 2-Fluorobiphenyl | 1.12 | | % | | 73.3 | 50-140 | | | |
| Surrogate: Terphenyl-d14 | 1.05 | | % | | 69.1 | 50-140 | | | |

Certificate of Analysis

Report Date: 27-Jan-2025

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 16-Jan-2025

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Spike

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|-----------------------------|--------|-----------------|-------|---------------|------|------------|-----|-----------|-------|
| Semi-Volatiles | | | | | | | | | |
| Acenaphthene | 0.231 | 0.02 | ug/g | 0.036 | 102 | 50-140 | | | |
| Acenaphthylene | 0.142 | 0.02 | ug/g | ND | 85.1 | 50-140 | | | |
| Anthracene | 0.125 | 0.02 | ug/g | ND | 75.2 | 50-140 | | | |
| Benzo [a] anthracene | 0.117 | 0.02 | ug/g | ND | 70.4 | 50-140 | | | |
| Benzo [a] pyrene | 0.114 | 0.02 | ug/g | ND | 68.7 | 50-140 | | | |
| Benzo [b] fluoranthene | 0.120 | 0.02 | ug/g | ND | 72.1 | 50-140 | | | |
| Benzo [g,h,i] perylene | 0.101 | 0.02 | ug/g | ND | 60.5 | 50-140 | | | |
| Benzo [k] fluoranthene | 0.098 | 0.02 | ug/g | ND | 58.9 | 50-140 | | | |
| Chrysene | 0.139 | 0.02 | ug/g | ND | 83.6 | 50-140 | | | |
| Dibenzo [a,h] anthracene | 0.096 | 0.02 | ug/g | ND | 57.6 | 50-140 | | | |
| Fluoranthene | 0.130 | 0.02 | ug/g | ND | 78.0 | 50-140 | | | |
| Fluorene | 0.283 | 0.02 | ug/g | 0.063 | 115 | 50-140 | | | |
| Indeno [1,2,3-cd] pyrene | 0.092 | 0.02 | ug/g | ND | 55.1 | 50-140 | | | |
| 1-Methylnaphthalene | 0.207 | 0.02 | ug/g | ND | 109 | 50-140 | | | |
| 2-Methylnaphthalene | 0.223 | 0.02 | ug/g | ND | 117 | 50-140 | | | |
| Naphthalene | 0.268 | 0.01 | ug/g | 0.025 | 127 | 50-140 | | | |
| Phenanthrene | 0.158 | 0.02 | ug/g | ND | 94.7 | 50-140 | | | |
| Pyrene | 0.129 | 0.02 | ug/g | ND | 77.6 | 50-140 | | | |
| Surrogate: 2-Fluorobiphenyl | 1.21 | | % | | 79.6 | 50-140 | | | |
| Surrogate: Terphenyl-d14 | 1.06 | | % | | 69.1 | 50-140 | | | |

Certificate of Analysis

Report Date: 27-Jan-2025

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 16-Jan-2025

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Qualifier Notes:

Sample Data Revisions:

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

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

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

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

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

Any use of these results implies your agreement that our total liability in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Certificate of Analysis

Terrapex Environmental Ltd. (Ottawa)

20 Gurdwara Rd. Unit #1

Ottawa, ON K2E 8B3

Attn: Greg Sabourin

Client PO:

Project: CO986.00/40 Beechcliffe Street

Custody: 145885, 145887

Report Date: 12-Dec-2024

Order Date: 25-Nov-2024

Revised Report

Order #: 2448154

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

| Parcel ID | Client ID |
|------------|----------------|
| 2448154-01 | BH107-1B |
| 2448154-02 | MW107-3A |
| 2448154-03 | BH108-1A |
| 2448154-04 | MW109-2A |
| 2448154-05 | MW109-1A |
| 2448154-06 | MW109-3A |
| 2448154-07 | MW110-1A |
| 2448154-08 | MW111-2C |
| 2448154-09 | MW111-2D |
| 2448154-10 | MW110-1D |
| 2448154-11 | BH112-1B |
| 2448154-12 | Methanol Blank |
| 2448154-13 | MW111-1B |

Approved By:



Mark Foto, M.Sc.

Lab Supervisor

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Analysis Summary Table

| Analysis | Method Reference/Description | Extraction Date | Analysis Date |
|---------------------------------|--|-----------------|---------------|
| Boron, available | MOE (HWE), EPA 200.8 - ICP-MS | 28-Nov-24 | 28-Nov-24 |
| BTEX by P&T GC-MS | EPA 8260 - P&T GC-MS | 29-Nov-24 | 30-Nov-24 |
| Chromium, hexavalent - soil | MOE E3056 - Extraction, colourimetric | 27-Nov-24 | 27-Nov-24 |
| Conductivity | MOE E3138 - probe @25 °C, water ext | 28-Nov-24 | 28-Nov-24 |
| Cyanide, free | MOE E3015 - Auto Colour, water extraction | 27-Nov-24 | 27-Nov-24 |
| Mercury by CVAA | EPA 7471B - CVAA, digestion | 28-Nov-24 | 28-Nov-24 |
| pH, soil | EPA 150.1 - pH probe @ 25 °C, CaCl buffered ext. | 27-Nov-24 | 27-Nov-24 |
| PHC F1 | CWS Tier 1 - P&T GC-FID | 29-Nov-24 | 30-Nov-24 |
| PHC F4G (gravimetric) | CWS Tier 1 - Extraction Gravimetric | 28-Nov-24 | 29-Nov-24 |
| PHCs F2 to F4 | CWS Tier 1 - GC-FID, extraction | 27-Nov-24 | 29-Nov-24 |
| REG 153: Metals by ICP/MS, soil | EPA 6020 - Digestion - ICP-MS | 28-Nov-24 | 28-Nov-24 |
| REG 153: PAHs by GC-MS | EPA 8270 - GC-MS, extraction | 28-Nov-24 | 28-Nov-24 |
| REG 153: VOCs by P&T GC/MS | EPA 8260 - P&T GC-MS | 29-Nov-24 | 30-Nov-24 |
| SAR | Calculated | 28-Nov-24 | 28-Nov-24 |
| Solids, % | CWS Tier 1 - Gravimetric | 29-Nov-24 | 2-Dec-24 |
| Texture - Coarse Med/Fine | Based on ASTM D2487 | 27-Nov-24 | 29-Nov-24 |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| | | | | | | |
|---------------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Client ID: | BH107-1B | MW107-3A | BH108-1A | MW109-2A | - | - |
| Sample Date: | 21-Nov-24 14:05 | 21-Nov-24 14:40 | 21-Nov-24 14:55 | 22-Nov-24 08:20 | - | - |
| Sample ID: | 2448154-01 | 2448154-02 | 2448154-03 | 2448154-04 | - | - |
| Matrix: | Soil | Soil | Soil | Soil | - | - |
| MDL/Units | | | | | | |

Physical Characteristics

| | | | | | | | |
|----------|--------------|------|------|----------|------|---|---|
| % Solids | 0.1 % by Wt. | 86.9 | 74.8 | 84.3 | 82.8 | - | - |
| >75 um | 0.1 % | - | - | 47.6 | - | - | - |
| <75 um | 0.1 % | - | - | 52.4 | - | - | - |
| Texture | 0.1 % | - | - | Med/Fine | - | - | - |

General Inorganics

| | | | | | | | |
|---------------|---------------|-------|---|-------|---|---|---|
| SAR | 0.01 N/A | 0.08 | - | 0.08 | - | - | - |
| Conductivity | 5 uS/cm | 158 | - | 169 | - | - | - |
| Cyanide, free | 0.03 ug/g | <0.03 | - | <0.03 | - | - | - |
| pH | 0.05 pH Units | 7.50 | - | 7.35 | - | - | - |

Metals

| | | | | | | | |
|------------------|----------|------|---|------|---|---|---|
| Antimony | 1.0 ug/g | <1.0 | - | <1.0 | - | - | - |
| Arsenic | 1.0 ug/g | 2.6 | - | 2.5 | - | - | - |
| Barium | 1.0 ug/g | 137 | - | 116 | - | - | - |
| Beryllium | 0.5 ug/g | <0.5 | - | <0.5 | - | - | - |
| Boron | 5.0 ug/g | 6.9 | - | 5.7 | - | - | - |
| Boron, available | 0.5 ug/g | <0.5 | - | <0.5 | - | - | - |
| Cadmium | 0.5 ug/g | <0.5 | - | <0.5 | - | - | - |
| Chromium (VI) | 0.2 ug/g | <0.2 | - | <0.2 | - | - | - |
| Chromium | 5.0 ug/g | 24.9 | - | 28.1 | - | - | - |
| Cobalt | 1.0 ug/g | 7.2 | - | 7.4 | - | - | - |
| Copper | 5.0 ug/g | 25.3 | - | 25.1 | - | - | - |
| Lead | 1.0 ug/g | 14.7 | - | 12.8 | - | - | - |
| Mercury | 0.1 ug/g | <0.1 | - | <0.1 | - | - | - |
| Molybdenum | 1.0 ug/g | <1.0 | - | <1.0 | - | - | - |
| Nickel | 5.0 ug/g | 16.2 | - | 16.6 | - | - | - |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| | | | | | | |
|---------------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Client ID: | BH107-1B | MW107-3A | BH108-1A | MW109-2A | - | - |
| Sample Date: | 21-Nov-24 14:05 | 21-Nov-24 14:40 | 21-Nov-24 14:55 | 22-Nov-24 08:20 | - | - |
| Sample ID: | 2448154-01 | 2448154-02 | 2448154-03 | 2448154-04 | - | - |
| Matrix: | Soil | Soil | Soil | Soil | - | - |
| MDL/Units | | | | | | |

Metals

| | | | | | | |
|----------|-----------|------|---|------|---|---|
| Selenium | 1.0 ug/g | <1.0 | - | <1.0 | - | - |
| Silver | 0.3 ug/g | <0.3 | - | <0.3 | - | - |
| Thallium | 1.0 ug/g | <1.0 | - | <1.0 | - | - |
| Uranium | 1.0 ug/g | <1.0 | - | <1.0 | - | - |
| Vanadium | 10.0 ug/g | 28.0 | - | 33.6 | - | - |
| Zinc | 20.0 ug/g | 40.2 | - | 46.9 | - | - |

Volatiles

| | | | | | | |
|----------------------------|-----------|---|-------|---|---|---|
| Acetone | 0.50 ug/g | - | <0.50 | - | - | - |
| Benzene | 0.02 ug/g | - | <0.02 | - | - | - |
| Bromodichloromethane | 0.05 ug/g | - | <0.05 | - | - | - |
| Bromoform | 0.05 ug/g | - | <0.05 | - | - | - |
| Bromomethane | 0.05 ug/g | - | <0.05 | - | - | - |
| Carbon Tetrachloride | 0.05 ug/g | - | <0.05 | - | - | - |
| Chlorobenzene | 0.05 ug/g | - | <0.05 | - | - | - |
| Chloroform | 0.05 ug/g | - | <0.05 | - | - | - |
| Dibromochloromethane | 0.05 ug/g | - | <0.05 | - | - | - |
| Dichlorodifluoromethane | 0.05 ug/g | - | <0.05 | - | - | - |
| 1,2-Dichlorobenzene | 0.05 ug/g | - | <0.05 | - | - | - |
| 1,3-Dichlorobenzene | 0.05 ug/g | - | <0.05 | - | - | - |
| 1,4-Dichlorobenzene | 0.05 ug/g | - | <0.05 | - | - | - |
| 1,1-Dichloroethane | 0.05 ug/g | - | <0.05 | - | - | - |
| 1,2-Dichloroethane | 0.05 ug/g | - | <0.05 | - | - | - |
| 1,1-Dichloroethylene | 0.05 ug/g | - | <0.05 | - | - | - |
| cis-1,2-Dichloroethylene | 0.05 ug/g | - | <0.05 | - | - | - |
| trans-1,2-Dichloroethylene | 0.05 ug/g | - | <0.05 | - | - | - |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| Client ID: | BH107-1B | MW107-3A | BH108-1A | MW109-2A | - | - |
|--------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Sample Date: | 21-Nov-24 14:05 | 21-Nov-24 14:40 | 21-Nov-24 14:55 | 22-Nov-24 08:20 | - | - |
| Sample ID: | 2448154-01 | 2448154-02 | 2448154-03 | 2448154-04 | - | - |
| Matrix: | Soil | Soil | Soil | Soil | - | - |
| MDL/Units | | | | | | |

Volatiles

| Compound | MDL/Units | BH107-1B | MW107-3A | BH108-1A | MW109-2A | - | - |
|------------------------------------|-----------|----------|----------|----------|----------|---|---|
| 1,2-Dichloropropane | 0.05 ug/g | - | <0.05 | - | - | - | - |
| cis-1,3-Dichloropropylene | 0.05 ug/g | - | <0.05 | - | - | - | - |
| trans-1,3-Dichloropropylene | 0.05 ug/g | - | <0.05 | - | - | - | - |
| 1,3-Dichloropropene, total | 0.05 ug/g | - | <0.05 | - | - | - | - |
| Ethylene dibromide (dibromoethane, | 0.05 ug/g | - | <0.05 | - | - | - | - |
| Ethylbenzene | 0.05 ug/g | - | <0.05 | - | - | - | - |
| Hexane | 0.05 ug/g | - | <0.05 | - | - | - | - |
| Methyl Ethyl Ketone (2-Butanone) | 0.50 ug/g | - | <0.50 | - | - | - | - |
| Methyl Isobutyl Ketone | 0.50 ug/g | - | <0.50 | - | - | - | - |
| Methyl tert-butyl ether | 0.05 ug/g | - | <0.05 | - | - | - | - |
| Methylene Chloride | 0.05 ug/g | - | <0.05 | - | - | - | - |
| Styrene | 0.05 ug/g | - | <0.05 | - | - | - | - |
| 1,1,1,2-Tetrachloroethane | 0.05 ug/g | - | <0.05 | - | - | - | - |
| 1,1,2,2-Tetrachloroethane | 0.05 ug/g | - | <0.05 | - | - | - | - |
| Tetrachloroethylene | 0.05 ug/g | - | <0.05 | - | - | - | - |
| Toluene | 0.05 ug/g | - | <0.05 | - | - | - | - |
| 1,1,1-Trichloroethane | 0.05 ug/g | - | <0.05 | - | - | - | - |
| 1,1,2-Trichloroethane | 0.05 ug/g | - | <0.05 | - | - | - | - |
| Trichloroethylene | 0.05 ug/g | - | <0.05 | - | - | - | - |
| Trichlorofluoromethane | 0.05 ug/g | - | <0.05 | - | - | - | - |
| Vinyl chloride | 0.02 ug/g | - | <0.02 | - | - | - | - |
| m,p-Xylenes | 0.05 ug/g | - | <0.05 | - | - | - | - |
| o-Xylene | 0.05 ug/g | - | <0.05 | - | - | - | - |
| Xylenes, total | 0.05 ug/g | - | <0.05 | - | - | - | - |
| Dibromofluoromethane | Surrogate | - | 104% | - | - | - | - |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| | | | | | | |
|---------------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Client ID: | BH107-1B | MW107-3A | BH108-1A | MW109-2A | - | - |
| Sample Date: | 21-Nov-24 14:05 | 21-Nov-24 14:40 | 21-Nov-24 14:55 | 22-Nov-24 08:20 | - | - |
| Sample ID: | 2448154-01 | 2448154-02 | 2448154-03 | 2448154-04 | - | - |
| Matrix: | Soil | Soil | Soil | Soil | - | - |
| MDL/Units | | | | | | |

Volatiles

| | | | | | | | |
|----------------------|-----------|-------|------|-------|-------|---|---|
| Toluene-d8 | Surrogate | - | 119% | - | - | - | - |
| 4-Bromofluorobenzene | Surrogate | - | 114% | - | - | - | - |
| Benzene | 0.02 ug/g | <0.02 | - | <0.02 | <0.02 | - | - |
| Ethylbenzene | 0.05 ug/g | <0.05 | - | <0.05 | <0.05 | - | - |
| Toluene | 0.05 ug/g | <0.05 | - | <0.05 | <0.05 | - | - |
| m,p-Xylenes | 0.05 ug/g | <0.05 | - | <0.05 | <0.05 | - | - |
| o-Xylene | 0.05 ug/g | <0.05 | - | <0.05 | <0.05 | - | - |
| Xylenes, total | 0.05 ug/g | <0.05 | - | <0.05 | <0.05 | - | - |
| Toluene-d8 | Surrogate | 109% | - | 112% | 114% | - | - |

Hydrocarbons

| | | | | | | | |
|------------------------|---------|---------|----|----|---------|---|---|
| F1 PHCs (C6-C10) | 7 ug/g | <7 | <7 | <7 | <7 | - | - |
| F2 PHCs (C10-C16) | 4 ug/g | <4 | <4 | <4 | <4 | - | - |
| F3 PHCs (C16-C34) | 8 ug/g | 103 | <8 | 35 | 29 | - | - |
| F4 PHCs (C34-C50) | 6 ug/g | 376 [1] | <6 | 85 | 128 [1] | - | - |
| F4G PHCs (gravimetric) | 50 ug/g | 1250 | - | - | 520 | - | - |

Semi-Volatiles

| | | | | | | | |
|------------------------|-----------|-------|---|-------|---|---|---|
| Acenaphthene | 0.02 ug/g | <0.02 | - | <0.02 | - | - | - |
| Acenaphthylene | 0.02 ug/g | 0.03 | - | 0.03 | - | - | - |
| Anthracene | 0.02 ug/g | <0.02 | - | 0.04 | - | - | - |
| Benzo [a] anthracene | 0.02 ug/g | <0.02 | - | 0.06 | - | - | - |
| Benzo [a] pyrene | 0.02 ug/g | 0.03 | - | 0.10 | - | - | - |
| Benzo [b] fluoranthene | 0.02 ug/g | 0.02 | - | 0.08 | - | - | - |
| Benzo [g,h,i] perylene | 0.02 ug/g | 0.02 | - | 0.08 | - | - | - |
| Benzo [k] fluoranthene | 0.02 ug/g | <0.02 | - | 0.05 | - | - | - |
| Chrysene | 0.02 ug/g | <0.02 | - | 0.07 | - | - | - |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| | | | | | | |
|---------------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Client ID: | BH107-1B | MW107-3A | BH108-1A | MW109-2A | - | - |
| Sample Date: | 21-Nov-24 14:05 | 21-Nov-24 14:40 | 21-Nov-24 14:55 | 22-Nov-24 08:20 | - | - |
| Sample ID: | 2448154-01 | 2448154-02 | 2448154-03 | 2448154-04 | - | - |
| Matrix: | Soil | Soil | Soil | Soil | - | - |
| MDL/Units | | | | | | |

Semi-Volatiles

| | | | | | | |
|--------------------------|-----------|-------|---|-------|---|---|
| Dibenzo [a,h] anthracene | 0.02 ug/g | <0.02 | - | <0.02 | - | - |
| Fluoranthene | 0.02 ug/g | 0.06 | - | 0.15 | - | - |
| Fluorene | 0.02 ug/g | <0.02 | - | <0.02 | - | - |
| Indeno [1,2,3-cd] pyrene | 0.02 ug/g | <0.02 | - | 0.06 | - | - |
| 1-Methylnaphthalene | 0.02 ug/g | <0.02 | - | <0.02 | - | - |
| 2-Methylnaphthalene | 0.02 ug/g | <0.02 | - | <0.02 | - | - |
| Methylnaphthalene (1&2) | 0.04 ug/g | <0.04 | - | <0.04 | - | - |
| Naphthalene | 0.01 ug/g | <0.01 | - | 0.01 | - | - |
| Phenanthrene | 0.02 ug/g | 0.05 | - | 0.09 | - | - |
| Pyrene | 0.02 ug/g | 0.07 | - | 0.13 | - | - |
| 2-Fluorobiphenyl | Surrogate | 53.0% | - | 53.1% | - | - |
| Terphenyl-d14 | Surrogate | 65.5% | - | 67.2% | - | - |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| | | | | | | |
|---------------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Client ID: | MW109-1A | MW109-3A | MW110-1A | MW111-2C | - | - |
| Sample Date: | 22-Nov-24 08:05 | 22-Nov-24 08:55 | 22-Nov-24 09:05 | 22-Nov-24 10:40 | - | - |
| Sample ID: | 2448154-05 | 2448154-06 | 2448154-07 | 2448154-08 | - | - |
| Matrix: | Soil | Soil | Soil | Soil | - | - |
| MDL/Units | | | | | | |

Physical Characteristics

| | | | | | | | |
|----------|--------------|------|----------|------|------|---|---|
| % Solids | 0.1 % by Wt. | 87.3 | 68.0 | 83.8 | 70.5 | - | - |
| >75 um | 0.1 % | - | 4.0 | - | - | - | - |
| <75 um | 0.1 % | - | 96.0 | - | - | - | - |
| Texture | 0.1 % | - | Med/Fine | - | - | - | - |

General Inorganics

| | | | | | | | |
|---------------|---------------|-------|------|-------|---|---|---|
| SAR | 0.01 N/A | 0.08 | - | 0.10 | - | - | - |
| Conductivity | 5 uS/cm | 220 | - | 195 | - | - | - |
| Cyanide, free | 0.03 ug/g | <0.03 | - | <0.03 | - | - | - |
| pH | 0.05 pH Units | 7.37 | 7.38 | 7.41 | - | - | - |

Metals

| | | | | | | | |
|------------------|----------|------|------|------|------|---|---|
| Antimony | 1.0 ug/g | <1.0 | <1.0 | <1.0 | <1.0 | - | - |
| Arsenic | 1.0 ug/g | 2.3 | 2.3 | 2.2 | 2.5 | - | - |
| Barium | 1.0 ug/g | 124 | 180 | 107 | 306 | - | - |
| Beryllium | 0.5 ug/g | <0.5 | <0.5 | <0.5 | 0.7 | - | - |
| Boron | 5.0 ug/g | 5.4 | <5.0 | <5.0 | 5.9 | - | - |
| Boron, available | 0.5 ug/g | <0.5 | - | <0.5 | - | - | - |
| Cadmium | 0.5 ug/g | <0.5 | <0.5 | <0.5 | <0.5 | - | - |
| Chromium | 5.0 ug/g | 31.1 | 39.6 | 25.6 | 62.0 | - | - |
| Chromium (VI) | 0.2 ug/g | <0.2 | - | <0.2 | - | - | - |
| Cobalt | 1.0 ug/g | 8.1 | 9.6 | 6.9 | 14.6 | - | - |
| Copper | 5.0 ug/g | 25.6 | 23.2 | 18.9 | 32.9 | - | - |
| Lead | 1.0 ug/g | 11.4 | 3.5 | 6.3 | 5.2 | - | - |
| Mercury | 0.1 ug/g | <0.1 | - | <0.1 | - | - | - |
| Molybdenum | 1.0 ug/g | <1.0 | <1.0 | <1.0 | <1.0 | - | - |
| Nickel | 5.0 ug/g | 20.4 | 21.7 | 14.7 | 35.5 | - | - |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| | | | | | | |
|---------------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Client ID: | MW109-1A | MW109-3A | MW110-1A | MW111-2C | - | - |
| Sample Date: | 22-Nov-24 08:05 | 22-Nov-24 08:55 | 22-Nov-24 09:05 | 22-Nov-24 10:40 | - | - |
| Sample ID: | 2448154-05 | 2448154-06 | 2448154-07 | 2448154-08 | - | - |
| Matrix: | Soil | Soil | Soil | Soil | - | - |
| MDL/Units | | | | | | |

Metals

| | | | | | | | |
|----------|-----------|------|------|------|------|---|---|
| Selenium | 1.0 ug/g | <1.0 | <1.0 | <1.0 | <1.0 | - | - |
| Silver | 0.3 ug/g | <0.3 | <0.3 | <0.3 | <0.3 | - | - |
| Thallium | 1.0 ug/g | <1.0 | <1.0 | <1.0 | <1.0 | - | - |
| Uranium | 1.0 ug/g | <1.0 | 1.1 | <1.0 | <1.0 | - | - |
| Vanadium | 10.0 ug/g | 37.3 | 48.2 | 34.5 | 65.4 | - | - |
| Zinc | 20.0 ug/g | 53.6 | 48.0 | 38.3 | 78.6 | - | - |

Volatiles

| | | | | | | | |
|----------------------------|-----------|---|-------|---|-------|---|---|
| Acetone | 0.50 ug/g | - | <0.50 | - | <0.50 | - | - |
| Benzene | 0.02 ug/g | - | <0.02 | - | <0.02 | - | - |
| Bromodichloromethane | 0.05 ug/g | - | <0.05 | - | <0.05 | - | - |
| Bromoform | 0.05 ug/g | - | <0.05 | - | <0.05 | - | - |
| Bromomethane | 0.05 ug/g | - | <0.05 | - | <0.05 | - | - |
| Carbon Tetrachloride | 0.05 ug/g | - | <0.05 | - | <0.05 | - | - |
| Chlorobenzene | 0.05 ug/g | - | <0.05 | - | <0.05 | - | - |
| Chloroform | 0.05 ug/g | - | <0.05 | - | <0.05 | - | - |
| Dibromochloromethane | 0.05 ug/g | - | <0.05 | - | <0.05 | - | - |
| Dichlorodifluoromethane | 0.05 ug/g | - | <0.05 | - | <0.05 | - | - |
| 1,2-Dichlorobenzene | 0.05 ug/g | - | <0.05 | - | <0.05 | - | - |
| 1,3-Dichlorobenzene | 0.05 ug/g | - | <0.05 | - | <0.05 | - | - |
| 1,4-Dichlorobenzene | 0.05 ug/g | - | <0.05 | - | <0.05 | - | - |
| 1,1-Dichloroethane | 0.05 ug/g | - | <0.05 | - | <0.05 | - | - |
| 1,2-Dichloroethane | 0.05 ug/g | - | <0.05 | - | <0.05 | - | - |
| 1,1-Dichloroethylene | 0.05 ug/g | - | <0.05 | - | <0.05 | - | - |
| cis-1,2-Dichloroethylene | 0.05 ug/g | - | <0.05 | - | <0.05 | - | - |
| trans-1,2-Dichloroethylene | 0.05 ug/g | - | <0.05 | - | <0.05 | - | - |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| Client ID: | MW109-1A | MW109-3A | MW110-1A | MW111-2C | - | - |
|--------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Sample Date: | 22-Nov-24 08:05 | 22-Nov-24 08:55 | 22-Nov-24 09:05 | 22-Nov-24 10:40 | - | - |
| Sample ID: | 2448154-05 | 2448154-06 | 2448154-07 | 2448154-08 | - | - |
| Matrix: | Soil | Soil | Soil | Soil | - | - |
| MDL/Units | | | | | | |

Volatiles

| 1,2-Dichloropropane | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
|------------------------------------|-----------|---|-------|---|-------|---|
| cis-1,3-Dichloropropylene | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
| trans-1,3-Dichloropropylene | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
| 1,3-Dichloropropene, total | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
| Ethylbenzene | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
| Ethylene dibromide (dibromoethane, | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
| Hexane | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
| Methyl Ethyl Ketone (2-Butanone) | 0.50 ug/g | - | <0.50 | - | <0.50 | - |
| Methyl Isobutyl Ketone | 0.50 ug/g | - | <0.50 | - | <0.50 | - |
| Methyl tert-butyl ether | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
| Methylene Chloride | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
| Styrene | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
| 1,1,1,2-Tetrachloroethane | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
| 1,1,2,2-Tetrachloroethane | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
| Tetrachloroethylene | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
| Toluene | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
| 1,1,1-Trichloroethane | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
| 1,1,2-Trichloroethane | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
| Trichloroethylene | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
| Trichlorofluoromethane | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
| Vinyl chloride | 0.02 ug/g | - | <0.02 | - | <0.02 | - |
| m,p-Xylenes | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
| o-Xylene | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
| Xylenes, total | 0.05 ug/g | - | <0.05 | - | <0.05 | - |
| 4-Bromofluorobenzene | Surrogate | - | 118% | - | 115% | - |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| Client ID: | MW109-1A | MW109-3A | MW110-1A | MW111-2C | - | - |
|--------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Sample Date: | 22-Nov-24 08:05 | 22-Nov-24 08:55 | 22-Nov-24 09:05 | 22-Nov-24 10:40 | - | - |
| Sample ID: | 2448154-05 | 2448154-06 | 2448154-07 | 2448154-08 | - | - |
| Matrix: | Soil | Soil | Soil | Soil | - | - |
| MDL/Units | | | | | | |

Volatiles

| | | | | | | | |
|----------------------|-----------|---|------|-------|------|---|---|
| Toluene-d8 | Surrogate | - | 121% | - | 119% | - | - |
| Dibromofluoromethane | Surrogate | - | 107% | - | 106% | - | - |
| Benzene | 0.02 ug/g | - | - | <0.02 | - | - | - |
| Ethylbenzene | 0.05 ug/g | - | - | <0.05 | - | - | - |
| Toluene | 0.05 ug/g | - | - | <0.05 | - | - | - |
| m,p-Xylenes | 0.05 ug/g | - | - | <0.05 | - | - | - |
| o-Xylene | 0.05 ug/g | - | - | <0.05 | - | - | - |
| Xylenes, total | 0.05 ug/g | - | - | <0.05 | - | - | - |
| Toluene-d8 | Surrogate | - | - | 113% | - | - | - |

Hydrocarbons

| | | | | | | | |
|-------------------|--------|---|----|----|----|---|---|
| F1 PHCs (C6-C10) | 7 ug/g | - | <7 | <7 | <7 | - | - |
| F2 PHCs (C10-C16) | 4 ug/g | - | <4 | <4 | <4 | - | - |
| F3 PHCs (C16-C34) | 8 ug/g | - | <8 | <8 | <8 | - | - |
| F4 PHCs (C34-C50) | 6 ug/g | - | <6 | <6 | <6 | - | - |

Semi-Volatiles

| | | | | | | | |
|--------------------------|-----------|-------|---|-------|-------|---|---|
| Acenaphthene | 0.02 ug/g | <0.02 | - | <0.02 | <0.02 | - | - |
| Acenaphthylene | 0.02 ug/g | <0.02 | - | <0.02 | <0.02 | - | - |
| Anthracene | 0.02 ug/g | 0.03 | - | <0.02 | <0.02 | - | - |
| Benzo [a] anthracene | 0.02 ug/g | 0.05 | - | <0.02 | <0.02 | - | - |
| Benzo [a] pyrene | 0.02 ug/g | 0.07 | - | 0.03 | <0.02 | - | - |
| Benzo [b] fluoranthene | 0.02 ug/g | 0.05 | - | 0.02 | <0.02 | - | - |
| Benzo [g,h,i] perylene | 0.02 ug/g | 0.06 | - | <0.02 | <0.02 | - | - |
| Benzo [k] fluoranthene | 0.02 ug/g | 0.03 | - | <0.02 | <0.02 | - | - |
| Chrysene | 0.02 ug/g | 0.06 | - | <0.02 | <0.02 | - | - |
| Dibenzo [a,h] anthracene | 0.02 ug/g | <0.02 | - | <0.02 | <0.02 | - | - |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| | | | | | | |
|---------------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Client ID: | MW109-1A | MW109-3A | MW110-1A | MW111-2C | - | - |
| Sample Date: | 22-Nov-24 08:05 | 22-Nov-24 08:55 | 22-Nov-24 09:05 | 22-Nov-24 10:40 | - | - |
| Sample ID: | 2448154-05 | 2448154-06 | 2448154-07 | 2448154-08 | - | - |
| Matrix: | Soil | Soil | Soil | Soil | - | - |
| MDL/Units | | | | | | |

Semi-Volatiles

| | | | | | | | |
|--------------------------|-----------|-------|---|-------|-------|---|---|
| Fluoranthene | 0.02 ug/g | 0.16 | - | 0.05 | <0.02 | - | - |
| Fluorene | 0.02 ug/g | <0.02 | - | <0.02 | <0.02 | - | - |
| Indeno [1,2,3-cd] pyrene | 0.02 ug/g | 0.04 | - | <0.02 | <0.02 | - | - |
| 1-Methylnaphthalene | 0.02 ug/g | <0.02 | - | <0.02 | <0.02 | - | - |
| 2-Methylnaphthalene | 0.02 ug/g | <0.02 | - | <0.02 | <0.02 | - | - |
| Methylnaphthalene (1&2) | 0.04 ug/g | <0.04 | - | <0.04 | <0.04 | - | - |
| Naphthalene | 0.01 ug/g | <0.01 | - | <0.01 | <0.01 | - | - |
| Phenanthrene | 0.02 ug/g | 0.13 | - | <0.02 | <0.02 | - | - |
| Pyrene | 0.02 ug/g | 0.14 | - | 0.05 | <0.02 | - | - |
| 2-Fluorobiphenyl | Surrogate | 50.9% | - | 61.0% | 66.6% | - | - |
| Terphenyl-d14 | Surrogate | 73.2% | - | 95.1% | 91.3% | - | - |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| | | | | | | |
|---------------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Client ID: | MW111-2D | MW110-1D | BH112-1B | Methanol Blank | - | - |
| Sample Date: | 22-Nov-24 10:40 | 22-Nov-24 09:05 | 22-Nov-24 10:50 | 25-Nov-24 12:30 | - | - |
| Sample ID: | 2448154-09 | 2448154-10 | 2448154-11 | 2448154-12 | - | - |
| Matrix: | Soil | Soil | Soil | Soil | - | - |
| MDL/Units | | | | | | |

Physical Characteristics

| | | | | | | | |
|----------|--------------|------|------|------|-----|---|---|
| % Solids | 0.1 % by Wt. | 70.2 | 87.7 | 86.8 | 100 | - | - |
|----------|--------------|------|------|------|-----|---|---|

General Inorganics

| | | | | | | | |
|---------------|---------------|---|-------|-------|---|---|---|
| SAR | 0.01 N/A | - | 0.09 | 0.09 | - | - | - |
| Conductivity | 5 uS/cm | - | 158 | 161 | - | - | - |
| Cyanide, free | 0.03 ug/g | - | <0.03 | <0.03 | - | - | - |
| pH | 0.05 pH Units | - | 7.37 | 7.47 | - | - | - |

Metals

| | | | | | | | |
|------------------|----------|------|------|------|---|---|---|
| Antimony | 1.0 ug/g | <1.0 | <1.0 | <1.0 | - | - | - |
| Arsenic | 1.0 ug/g | 2.7 | 2.3 | 3.0 | - | - | - |
| Barium | 1.0 ug/g | 280 | 126 | 228 | - | - | - |
| Beryllium | 0.5 ug/g | 0.6 | <0.5 | 0.6 | - | - | - |
| Boron, available | 0.5 ug/g | - | <0.5 | <0.5 | - | - | - |
| Boron | 5.0 ug/g | 5.9 | <5.0 | 7.3 | - | - | - |
| Cadmium | 0.5 ug/g | <0.5 | <0.5 | <0.5 | - | - | - |
| Chromium (VI) | 0.2 ug/g | - | <0.2 | <0.2 | - | - | - |
| Chromium | 5.0 ug/g | 57.1 | 26.4 | 37.7 | - | - | - |
| Cobalt | 1.0 ug/g | 13.8 | 6.9 | 10.8 | - | - | - |
| Copper | 5.0 ug/g | 30.7 | 18.9 | 30.6 | - | - | - |
| Lead | 1.0 ug/g | 4.9 | 5.6 | 17.5 | - | - | - |
| Mercury | 0.1 ug/g | - | <0.1 | <0.1 | - | - | - |
| Molybdenum | 1.0 ug/g | <1.0 | <1.0 | <1.0 | - | - | - |
| Nickel | 5.0 ug/g | 32.1 | 15.8 | 24.2 | - | - | - |
| Selenium | 1.0 ug/g | <1.0 | <1.0 | <1.0 | - | - | - |
| Silver | 0.3 ug/g | <0.3 | <0.3 | <0.3 | - | - | - |
| Thallium | 1.0 ug/g | <1.0 | <1.0 | <1.0 | - | - | - |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| | | | | | | |
|---------------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Client ID: | MW111-2D | MW110-1D | BH112-1B | Methanol Blank | - | - |
| Sample Date: | 22-Nov-24 10:40 | 22-Nov-24 09:05 | 22-Nov-24 10:50 | 25-Nov-24 12:30 | - | - |
| Sample ID: | 2448154-09 | 2448154-10 | 2448154-11 | 2448154-12 | - | - |
| Matrix: | Soil | Soil | Soil | Soil | - | - |
| MDL/Units | | | | | | |

Metals

| | | | | | | |
|----------|-----------|------|------|------|---|---|
| Uranium | 1.0 ug/g | <1.0 | <1.0 | <1.0 | - | - |
| Vanadium | 10.0 ug/g | 60.7 | 33.6 | 47.1 | - | - |
| Zinc | 20.0 ug/g | 73.2 | 36.5 | 62.3 | - | - |

Volatiles

| | | | | | | | |
|-----------------------------|-----------|-------|---|---|-------|---|---|
| Acetone | 0.50 ug/g | <0.50 | - | - | <0.50 | - | - |
| Benzene | 0.02 ug/g | <0.02 | - | - | <0.02 | - | - |
| Bromodichloromethane | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| Bromoform | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| Bromomethane | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| Carbon Tetrachloride | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| Chlorobenzene | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| Chloroform | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| Dibromochloromethane | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| Dichlorodifluoromethane | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| 1,2-Dichlorobenzene | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| 1,3-Dichlorobenzene | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| 1,4-Dichlorobenzene | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| 1,1-Dichloroethane | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| 1,2-Dichloroethane | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| 1,1-Dichloroethylene | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| cis-1,2-Dichloroethylene | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| trans-1,2-Dichloroethylene | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| 1,2-Dichloropropane | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| cis-1,3-Dichloropropylene | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| trans-1,3-Dichloropropylene | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| Client ID: | MW111-2D | MW110-1D | BH112-1B | Methanol Blank | - | - |
|--------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Sample Date: | 22-Nov-24 10:40 | 22-Nov-24 09:05 | 22-Nov-24 10:50 | 25-Nov-24 12:30 | - | - |
| Sample ID: | 2448154-09 | 2448154-10 | 2448154-11 | 2448154-12 | - | - |
| Matrix: | Soil | Soil | Soil | Soil | - | - |
| MDL/Units | | | | | | |

Volatiles

| | | | | | | | |
|------------------------------------|-----------|-------|---|-------|-------|---|---|
| 1,3-Dichloropropene, total | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| Ethylbenzene | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| Ethylene dibromide (dibromoethane, | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| Hexane | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| Methyl Ethyl Ketone (2-Butanone) | 0.50 ug/g | <0.50 | - | - | <0.50 | - | - |
| Methyl Isobutyl Ketone | 0.50 ug/g | <0.50 | - | - | <0.50 | - | - |
| Methyl tert-butyl ether | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| Methylene Chloride | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| Styrene | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| 1,1,1,2-Tetrachloroethane | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| 1,1,2,2-Tetrachloroethane | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| Tetrachloroethylene | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| Toluene | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| 1,1,1-Trichloroethane | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| 1,1,2-Trichloroethane | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| Trichloroethylene | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| Trichlorofluoromethane | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| Vinyl chloride | 0.02 ug/g | <0.02 | - | - | <0.02 | - | - |
| m,p-Xylenes | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| o-Xylene | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| Xylenes, total | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| 4-Bromofluorobenzene | Surrogate | 114% | - | - | 98.9% | - | - |
| Toluene-d8 | Surrogate | 119% | - | - | 102% | - | - |
| Dibromofluoromethane | Surrogate | 107% | - | - | 89.6% | - | - |
| Benzene | 0.02 ug/g | - | - | <0.02 | - | - | - |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| Client ID: | MW111-2D | MW110-1D | BH112-1B | Methanol Blank | - | - |
|--------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Sample Date: | 22-Nov-24 10:40 | 22-Nov-24 09:05 | 22-Nov-24 10:50 | 25-Nov-24 12:30 | - | - |
| Sample ID: | 2448154-09 | 2448154-10 | 2448154-11 | 2448154-12 | - | - |
| Matrix: | Soil | Soil | Soil | Soil | - | - |
| MDL/Units | | | | | | |

Volatiles

| | | | | | | |
|----------------|-----------|---|---|-------|---|---|
| Ethylbenzene | 0.05 ug/g | - | - | <0.05 | - | - |
| Toluene | 0.05 ug/g | - | - | <0.05 | - | - |
| m,p-Xylenes | 0.05 ug/g | - | - | <0.05 | - | - |
| o-Xylene | 0.05 ug/g | - | - | <0.05 | - | - |
| Xylenes, total | 0.05 ug/g | - | - | <0.05 | - | - |
| Toluene-d8 | Surrogate | - | - | 108% | - | - |

Hydrocarbons

| | | | | | | |
|-------------------|--------|----|---|----|----|---|
| F1 PHCs (C6-C10) | 7 ug/g | <7 | - | <7 | <7 | - |
| F2 PHCs (C10-C16) | 4 ug/g | <4 | - | <4 | - | - |
| F3 PHCs (C16-C34) | 8 ug/g | <8 | - | 25 | - | - |
| F4 PHCs (C34-C50) | 6 ug/g | <6 | - | 30 | - | - |

Semi-Volatiles

| | | | | | | |
|--------------------------|-----------|---|-------|-------|---|---|
| Acenaphthene | 0.02 ug/g | - | <0.02 | <0.02 | - | - |
| Acenaphthylene | 0.02 ug/g | - | <0.02 | 0.09 | - | - |
| Anthracene | 0.02 ug/g | - | <0.02 | 0.09 | - | - |
| Benzo [a] anthracene | 0.02 ug/g | - | 0.02 | 0.20 | - | - |
| Benzo [a] pyrene | 0.02 ug/g | - | 0.04 | 0.27 | - | - |
| Benzo [b] fluoranthene | 0.02 ug/g | - | 0.03 | 0.19 | - | - |
| Benzo [g,h,i] perylene | 0.02 ug/g | - | 0.03 | 0.18 | - | - |
| Benzo [k] fluoranthene | 0.02 ug/g | - | 0.02 | 0.14 | - | - |
| Chrysene | 0.02 ug/g | - | 0.04 | 0.23 | - | - |
| Dibenzo [a,h] anthracene | 0.02 ug/g | - | <0.02 | 0.04 | - | - |
| Fluoranthene | 0.02 ug/g | - | 0.08 | 0.62 | - | - |
| Fluorene | 0.02 ug/g | - | <0.02 | <0.02 | - | - |
| Indeno [1,2,3-cd] pyrene | 0.02 ug/g | - | 0.02 | 0.15 | - | - |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| | | | | | | |
|---------------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Client ID: | MW111-2D | MW110-1D | BH112-1B | Methanol Blank | | |
| Sample Date: | 22-Nov-24 10:40 | 22-Nov-24 09:05 | 22-Nov-24 10:50 | 25-Nov-24 12:30 | - | - |
| Sample ID: | 2448154-09 | 2448154-10 | 2448154-11 | 2448154-12 | | |
| Matrix: | Soil | Soil | Soil | Soil | | |
| MDL/Units | | | | | | |

Semi-Volatiles

| | | | | | | | |
|-------------------------|-----------|---|-------|-------|---|---|---|
| 1-Methylnaphthalene | 0.02 ug/g | - | <0.02 | <0.02 | - | - | - |
| 2-Methylnaphthalene | 0.02 ug/g | - | <0.02 | <0.02 | - | - | - |
| Methylnaphthalene (1&2) | 0.04 ug/g | - | <0.04 | <0.04 | - | - | - |
| Naphthalene | 0.01 ug/g | - | <0.01 | <0.01 | - | - | - |
| Phenanthrene | 0.02 ug/g | - | 0.03 | 0.29 | - | - | - |
| Pyrene | 0.02 ug/g | - | 0.07 | 0.53 | - | - | - |
| 2-Fluorobiphenyl | Surrogate | - | 56.7% | 58.9% | - | - | - |
| Terphenyl-d14 | Surrogate | - | 82.1% | 83.2% | - | - | - |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| | | | | | | |
|---------------------|-----------------|--|--|--|--|--|
| Client ID: | MW111-1B | | | | | |
| Sample Date: | 22-Nov-24 10:50 | | | | | |
| Sample ID: | 2448154-13 | | | | | |
| Matrix: | Soil | | | | | |
| MDL/Units | | | | | | |

Physical Characteristics

| | | | | | | |
|----------|--------------|------|---|---|---|---|
| % Solids | 0.1 % by Wt. | 88.7 | - | - | - | - |
|----------|--------------|------|---|---|---|---|

General Inorganics

| | | | | | | |
|---------------|---------------|-------|---|---|---|---|
| SAR | 0.01 N/A | 0.07 | - | - | - | - |
| Conductivity | 5 uS/cm | 166 | - | - | - | - |
| Cyanide, free | 0.03 ug/g | <0.03 | - | - | - | - |
| pH | 0.05 pH Units | 7.38 | - | - | - | - |

Metals

| | | | | | | |
|------------------|----------|------|---|---|---|---|
| Antimony | 1.0 ug/g | <1.0 | - | - | - | - |
| Arsenic | 1.0 ug/g | 2.8 | - | - | - | - |
| Barium | 1.0 ug/g | 178 | - | - | - | - |
| Beryllium | 0.5 ug/g | 0.5 | - | - | - | - |
| Boron | 5.0 ug/g | 7.9 | - | - | - | - |
| Boron, available | 0.5 ug/g | <0.5 | - | - | - | - |
| Cadmium | 0.5 ug/g | <0.5 | - | - | - | - |
| Chromium | 5.0 ug/g | 29.8 | - | - | - | - |
| Chromium (VI) | 0.2 ug/g | <0.2 | - | - | - | - |
| Cobalt | 1.0 ug/g | 8.7 | - | - | - | - |
| Copper | 5.0 ug/g | 24.8 | - | - | - | - |
| Lead | 1.0 ug/g | 19.2 | - | - | - | - |
| Mercury | 0.1 ug/g | <0.1 | - | - | - | - |
| Molybdenum | 1.0 ug/g | <1.0 | - | - | - | - |
| Nickel | 5.0 ug/g | 19.3 | - | - | - | - |
| Selenium | 1.0 ug/g | <1.0 | - | - | - | - |
| Silver | 0.3 ug/g | <0.3 | - | - | - | - |
| Thallium | 1.0 ug/g | <1.0 | - | - | - | - |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| | | | | | | |
|---------------------|-----------------|--|--|--|--|--|
| Client ID: | MW111-1B | | | | | |
| Sample Date: | 22-Nov-24 10:50 | | | | | |
| Sample ID: | 2448154-13 | | | | | |
| Matrix: | Soil | | | | | |
| MDL/Units | | | | | | |

Metals

| | | | | | | |
|----------|-----------|------|---|---|---|---|
| Uranium | 1.0 ug/g | <1.0 | - | - | - | - |
| Vanadium | 10.0 ug/g | 36.8 | - | - | - | - |
| Zinc | 20.0 ug/g | 68.1 | - | - | - | - |

Volatiles

| | | | | | | |
|----------------|-----------|-------|---|---|---|---|
| Benzene | 0.02 ug/g | <0.02 | - | - | - | - |
| Ethylbenzene | 0.05 ug/g | <0.05 | - | - | - | - |
| Toluene | 0.05 ug/g | <0.05 | - | - | - | - |
| m,p-Xylenes | 0.05 ug/g | <0.05 | - | - | - | - |
| o-Xylene | 0.05 ug/g | <0.05 | - | - | - | - |
| Xylenes, total | 0.05 ug/g | <0.05 | - | - | - | - |
| Toluene-d8 | Surrogate | 109% | - | - | - | - |

Hydrocarbons

| | | | | | | |
|-------------------|--------|----|---|---|---|---|
| F1 PHCs (C6-C10) | 7 ug/g | <7 | - | - | - | - |
| F2 PHCs (C10-C16) | 4 ug/g | <4 | - | - | - | - |
| F3 PHCs (C16-C34) | 8 ug/g | 27 | - | - | - | - |
| F4 PHCs (C34-C50) | 6 ug/g | 46 | - | - | - | - |

Semi-Volatiles

| | | | | | | |
|------------------------|-----------|------|---|---|---|---|
| Acenaphthene | 0.02 ug/g | 0.02 | - | - | - | - |
| Acenaphthylene | 0.02 ug/g | 0.10 | - | - | - | - |
| Anthracene | 0.02 ug/g | 0.11 | - | - | - | - |
| Benzo [a] anthracene | 0.02 ug/g | 0.27 | - | - | - | - |
| Benzo [a] pyrene | 0.02 ug/g | 0.36 | - | - | - | - |
| Benzo [b] fluoranthene | 0.02 ug/g | 0.26 | - | - | - | - |
| Benzo [g,h,i] perylene | 0.02 ug/g | 0.25 | - | - | - | - |
| Benzo [k] fluoranthene | 0.02 ug/g | 0.20 | - | - | - | - |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| | | | | | | |
|---------------------|-----------------|--|--|--|--|--|
| Client ID: | MW111-1B | | | | | |
| Sample Date: | 22-Nov-24 10:50 | | | | | |
| Sample ID: | 2448154-13 | | | | | |
| Matrix: | Soil | | | | | |
| MDL/Units | | | | | | |

Semi-Volatiles

| | | | | | | |
|--------------------------|-----------|-------|---|---|---|---|
| Chrysene | 0.02 ug/g | 0.28 | - | - | - | - |
| Dibenzo [a,h] anthracene | 0.02 ug/g | 0.06 | - | - | - | - |
| Fluoranthene | 0.02 ug/g | 0.80 | - | - | - | - |
| Fluorene | 0.02 ug/g | 0.03 | - | - | - | - |
| Indeno [1,2,3-cd] pyrene | 0.02 ug/g | 0.20 | - | - | - | - |
| 1-Methylnaphthalene | 0.02 ug/g | <0.02 | - | - | - | - |
| 2-Methylnaphthalene | 0.02 ug/g | <0.02 | - | - | - | - |
| Methylnaphthalene (1&2) | 0.04 ug/g | <0.04 | - | - | - | - |
| Naphthalene | 0.01 ug/g | <0.01 | - | - | - | - |
| Phenanthrene | 0.02 ug/g | 0.38 | - | - | - | - |
| Pyrene | 0.02 ug/g | 0.63 | - | - | - | - |
| 2-Fluorobiphenyl | Surrogate | 61.5% | - | - | - | - |
| Terphenyl-d14 | Surrogate | 88.0% | - | - | - | - |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Blank

| Analyte | Result | Reporting Limit | Units | %REC | %REC Limit | RPD | RPD Limit | Notes |
|---------------------------|--------|-----------------|-------|------|------------|-----|-----------|-------|
| General Inorganics | | | | | | | | |
| Conductivity | ND | 5 | uS/cm | | | | | |
| Cyanide, free | ND | 0.03 | ug/g | | | | | |
| Hydrocarbons | | | | | | | | |
| F1 PHCs (C6-C10) | ND | 7 | ug/g | | | | | |
| F2 PHCs (C10-C16) | ND | 4 | ug/g | | | | | |
| F3 PHCs (C16-C34) | ND | 8 | ug/g | | | | | |
| F4 PHCs (C34-C50) | ND | 6 | ug/g | | | | | |
| F4G PHCs (gravimetric) | ND | 50 | ug/g | | | | | |
| Metals | | | | | | | | |
| Antimony | ND | 1.0 | ug/g | | | | | |
| Arsenic | ND | 1.0 | ug/g | | | | | |
| Barium | ND | 1.0 | ug/g | | | | | |
| Beryllium | ND | 0.5 | ug/g | | | | | |
| Boron, available | ND | 0.5 | ug/g | | | | | |
| Boron | ND | 5.0 | ug/g | | | | | |
| Cadmium | ND | 0.5 | ug/g | | | | | |
| Chromium (VI) | ND | 0.2 | ug/g | | | | | |
| Chromium | ND | 5.0 | ug/g | | | | | |
| Cobalt | ND | 1.0 | ug/g | | | | | |
| Copper | ND | 5.0 | ug/g | | | | | |
| Lead | ND | 1.0 | ug/g | | | | | |
| Mercury | ND | 0.1 | ug/g | | | | | |
| Molybdenum | ND | 1.0 | ug/g | | | | | |
| Nickel | ND | 5.0 | ug/g | | | | | |
| Selenium | ND | 1.0 | ug/g | | | | | |
| Silver | ND | 0.3 | ug/g | | | | | |
| Thallium | ND | 1.0 | ug/g | | | | | |
| Uranium | ND | 1.0 | ug/g | | | | | |
| Vanadium | ND | 10.0 | ug/g | | | | | |
| Zinc | ND | 20.0 | ug/g | | | | | |
| Semi-Volatiles | | | | | | | | |
| Acenaphthene | ND | 0.02 | ug/g | | | | | |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Blank

| Analyte | Result | Reporting Limit | Units | %REC | %REC Limit | RPD | RPD Limit | Notes |
|-----------------------------|--------|-----------------|-------|------|------------|-----|-----------|-------|
| Acenaphthylene | ND | 0.02 | ug/g | | | | | |
| Anthracene | ND | 0.02 | ug/g | | | | | |
| Benzo [a] anthracene | ND | 0.02 | ug/g | | | | | |
| Benzo [a] pyrene | ND | 0.02 | ug/g | | | | | |
| Benzo [b] fluoranthene | ND | 0.02 | ug/g | | | | | |
| Benzo [g,h,i] perylene | ND | 0.02 | ug/g | | | | | |
| Benzo [k] fluoranthene | ND | 0.02 | ug/g | | | | | |
| Chrysene | ND | 0.02 | ug/g | | | | | |
| Dibenzo [a,h] anthracene | ND | 0.02 | ug/g | | | | | |
| Fluoranthene | ND | 0.02 | ug/g | | | | | |
| Fluorene | ND | 0.02 | ug/g | | | | | |
| Indeno [1,2,3-cd] pyrene | ND | 0.02 | ug/g | | | | | |
| 1-Methylnaphthalene | ND | 0.02 | ug/g | | | | | |
| 2-Methylnaphthalene | ND | 0.02 | ug/g | | | | | |
| Methylnaphthalene (1&2) | ND | 0.04 | ug/g | | | | | |
| Naphthalene | ND | 0.01 | ug/g | | | | | |
| Phenanthrene | ND | 0.02 | ug/g | | | | | |
| Pyrene | ND | 0.02 | ug/g | | | | | |
| Surrogate: 2-Fluorobiphenyl | 0.721 | | % | 54.1 | 50-140 | | | |
| Surrogate: Terphenyl-d14 | 1.74 | | % | 130 | 50-140 | | | |
| Volatiles | | | | | | | | |
| Acetone | ND | 0.50 | ug/g | | | | | |
| Benzene | ND | 0.02 | ug/g | | | | | |
| Bromodichloromethane | ND | 0.05 | ug/g | | | | | |
| Bromoform | ND | 0.05 | ug/g | | | | | |
| Bromomethane | ND | 0.05 | ug/g | | | | | |
| Carbon Tetrachloride | ND | 0.05 | ug/g | | | | | |
| Chlorobenzene | ND | 0.05 | ug/g | | | | | |
| Chloroform | ND | 0.05 | ug/g | | | | | |
| Dibromochloromethane | ND | 0.05 | ug/g | | | | | |
| Dichlorodifluoromethane | ND | 0.05 | ug/g | | | | | |
| 1,2-Dichlorobenzene | ND | 0.05 | ug/g | | | | | |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Blank

| Analyte | Result | Reporting Limit | Units | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|------|------------|-----|-----------|-------|
| 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 | | | | | |
| 1,1,1,2,2-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 | 8.00 | | % | 100 | 50-140 | | | |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Blank

| Analyte | Result | Reporting Limit | Units | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|------|------------|-----|-----------|-------|
| <i>Surrogate: Dibromofluoromethane</i> | 7.05 | | % | 88.1 | 50-140 | | | |
| <i>Surrogate: Toluene-d8</i> | 8.42 | | % | 105 | 50-140 | | | |
| Benzene | ND | 0.02 | ug/g | | | | | |
| Ethylbenzene | ND | 0.05 | ug/g | | | | | |
| Toluene | ND | 0.05 | ug/g | | | | | |
| m,p-Xylenes | ND | 0.05 | ug/g | | | | | |
| o-Xylene | ND | 0.05 | ug/g | | | | | |
| Xylenes, total | ND | 0.05 | ug/g | | | | | |
| <i>Surrogate: Toluene-d8</i> | 8.42 | | % | 105 | 50-140 | | | |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Duplicate

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|---------------------------|--------|-----------------|----------|---------------|------|------------|------|-----------|-------|
| General Inorganics | | | | | | | | | |
| SAR | ND | 0.01 | N/A | 0.07 | | | NC | 30 | |
| Conductivity | 196 | 5 | uS/cm | 193 | | | 1.2 | 5 | |
| Cyanide, free | ND | 0.03 | ug/g | ND | | | NC | 35 | |
| pH | 7.18 | 0.05 | pH Units | 7.17 | | | 0.1 | 2.3 | |
| Hydrocarbons | | | | | | | | | |
| F1 PHCs (C6-C10) | ND | 7 | ug/g | ND | | | NC | 40 | |
| F2 PHCs (C10-C16) | ND | 4 | ug/g | ND | | | NC | 30 | |
| F3 PHCs (C16-C34) | ND | 8 | ug/g | ND | | | NC | 30 | |
| F4 PHCs (C34-C50) | ND | 6 | ug/g | ND | | | NC | 30 | |
| Metals | | | | | | | | | |
| Antimony | ND | 1.0 | ug/g | ND | | | NC | 30 | |
| Arsenic | 2.3 | 1.0 | ug/g | 2.7 | | | 18.5 | 30 | |
| Barium | 102 | 1.0 | ug/g | 113 | | | 10.8 | 30 | |
| Beryllium | ND | 0.5 | ug/g | 0.5 | | | NC | 30 | |
| Boron, available | ND | 0.5 | ug/g | ND | | | NC | 35 | |
| Boron | 5.7 | 5.0 | ug/g | 7.0 | | | 19.5 | 30 | |
| Cadmium | ND | 0.5 | ug/g | ND | | | NC | 30 | |
| Chromium (VI) | ND | 0.2 | ug/g | 0.2 | | | NC | 35 | |
| Chromium | 26.6 | 5.0 | ug/g | 30.1 | | | 12.4 | 30 | |
| Cobalt | 6.9 | 1.0 | ug/g | 7.9 | | | 12.5 | 30 | |
| Copper | 18.1 | 5.0 | ug/g | 19.5 | | | 7.3 | 30 | |
| Lead | 12.1 | 1.0 | ug/g | 13.2 | | | 8.7 | 30 | |
| Mercury | ND | 0.1 | ug/g | ND | | | NC | 30 | |
| Molybdenum | ND | 1.0 | ug/g | 1.1 | | | NC | 30 | |
| Nickel | 15.3 | 5.0 | ug/g | 16.8 | | | 9.3 | 30 | |
| Selenium | ND | 1.0 | ug/g | ND | | | NC | 30 | |
| Silver | ND | 0.3 | ug/g | ND | | | NC | 30 | |
| Thallium | ND | 1.0 | ug/g | ND | | | NC | 30 | |
| Uranium | ND | 1.0 | ug/g | ND | | | NC | 30 | |
| Vanadium | 33.7 | 10.0 | ug/g | 37.4 | | | 10.5 | 30 | |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Duplicate

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|---------------------------------|--------|-----------------|----------|---------------|------|------------|------|-----------|-------|
| Zinc | 42.6 | 20.0 | ug/g | 47.1 | | | 10.0 | 30 | |
| Physical Characteristics | | | | | | | | | |
| % Solids | 80.1 | 0.1 | % by Wt. | 79.9 | | | 0.3 | 25 | |
| Semi-Volatiles | | | | | | | | | |
| Acenaphthene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Acenaphthylene | ND | 0.02 | ug/g | 0.025 | | | NC | 40 | |
| Anthracene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Benzo [a] anthracene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Benzo [a] pyrene | 0.022 | 0.02 | ug/g | 0.026 | | | 17.8 | 40 | |
| Benzo [b] fluoranthene | ND | 0.02 | ug/g | 0.021 | | | NC | 40 | |
| Benzo [g,h,i] perylene | 0.026 | 0.02 | ug/g | 0.022 | | | 15.4 | 40 | |
| Benzo [k] fluoranthene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Chrysene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Dibenzo [a,h] anthracene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Fluoranthene | 0.043 | 0.02 | ug/g | 0.059 | | | 32.0 | 40 | |
| Fluorene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Indeno [1,2,3-cd] pyrene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| 1-Methylnaphthalene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| 2-Methylnaphthalene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Naphthalene | ND | 0.01 | ug/g | ND | | | NC | 40 | |
| Phenanthrene | 0.028 | 0.02 | ug/g | 0.045 | | | NC | 40 | |
| Pyrene | 0.052 | 0.02 | ug/g | 0.070 | | | 29.3 | 40 | |
| Surrogate: 2-Fluorobiphenyl | 0.776 | | % | | 50.5 | 50-140 | | | |
| Surrogate: Terphenyl-d14 | 1.13 | | % | | 73.5 | 50-140 | | | |
| Volatiles | | | | | | | | | |
| Acetone | ND | 0.50 | ug/g | ND | | | NC | 50 | |
| Benzene | ND | 0.02 | ug/g | ND | | | NC | 50 | |
| Bromodichloromethane | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| Bromoform | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| Bromomethane | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| Carbon Tetrachloride | ND | 0.05 | ug/g | ND | | | NC | 50 | |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Duplicate

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

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Duplicate

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--|-------------|-----------------|-------|---------------|-------------|---------------|-----|-----------|-------|
| Vinyl chloride | ND | 0.02 | ug/g | ND | | | NC | 50 | |
| m,p-Xylenes | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| o-Xylene | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| <i>Surrogate: 4-Bromofluorobenzene</i> | <i>9.07</i> | | % | | <i>104</i> | <i>50-140</i> | | | |
| <i>Surrogate: Dibromofluoromethane</i> | <i>8.44</i> | | % | | <i>96.4</i> | <i>50-140</i> | | | |
| <i>Surrogate: Toluene-d8</i> | <i>9.38</i> | | % | | <i>107</i> | <i>50-140</i> | | | |
| Benzene | ND | 0.02 | ug/g | ND | | | NC | 50 | |
| Ethylbenzene | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| Toluene | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| m,p-Xylenes | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| o-Xylene | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| <i>Surrogate: Toluene-d8</i> | <i>9.38</i> | | % | | <i>107</i> | <i>50-140</i> | | | |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Spike

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|---------------------------|--------|-----------------|-------|---------------|------|------------|-----|-----------|-------|
| General Inorganics | | | | | | | | | |
| Cyanide, free | 0.307 | 0.03 | ug/g | ND | 95.9 | 50-150 | | | |
| Hydrocarbons | | | | | | | | | |
| F1 PHCs (C6-C10) | 195 | 7 | ug/g | ND | 97.4 | 85-115 | | | |
| F2 PHCs (C10-C16) | 80 | 4 | ug/g | ND | 87.8 | 60-140 | | | |
| F3 PHCs (C16-C34) | 225 | 8 | ug/g | ND | 101 | 60-140 | | | |
| F4 PHCs (C34-C50) | 120 | 6 | ug/g | ND | 85.1 | 60-140 | | | |
| F4G PHCs (gravimetric) | 1000 | 50 | ug/g | ND | 100 | 80-120 | | | |
| Metals | | | | | | | | | |
| Antimony | 35.7 | 1.0 | ug/g | ND | 71.3 | 70-130 | | | |
| Arsenic | 47.9 | 1.0 | ug/g | 1.1 | 93.6 | 70-130 | | | |
| Barium | 86.0 | 1.0 | ug/g | 45.3 | 81.4 | 70-130 | | | |
| Beryllium | 48.4 | 0.5 | ug/g | ND | 96.5 | 70-130 | | | |
| Boron, available | 3.72 | 0.5 | ug/g | ND | 74.4 | 70-122 | | | |
| Boron | 47.2 | 5.0 | ug/g | ND | 88.8 | 70-130 | | | |
| Cadmium | 44.3 | 0.5 | ug/g | ND | 88.4 | 70-130 | | | |
| Chromium (VI) | 4.8 | 0.2 | ug/g | 0.2 | 81.0 | 48-112 | | | |
| Chromium | 58.5 | 5.0 | ug/g | 12.0 | 93.0 | 70-130 | | | |
| Cobalt | 51.1 | 1.0 | ug/g | 3.1 | 96.0 | 70-130 | | | |
| Copper | 53.5 | 5.0 | ug/g | 7.8 | 91.3 | 70-130 | | | |
| Lead | 48.7 | 1.0 | ug/g | 5.3 | 86.9 | 70-130 | | | |
| Mercury | 1.48 | 0.1 | ug/g | ND | 98.4 | 70-130 | | | |
| Molybdenum | 45.0 | 1.0 | ug/g | ND | 89.2 | 70-130 | | | |
| Nickel | 53.2 | 5.0 | ug/g | 6.7 | 93.1 | 70-130 | | | |
| Selenium | 45.1 | 1.0 | ug/g | ND | 89.8 | 70-130 | | | |
| Silver | 43.7 | 0.3 | ug/g | ND | 87.3 | 70-130 | | | |
| Thallium | 45.0 | 1.0 | ug/g | ND | 89.9 | 70-130 | | | |
| Uranium | 47.2 | 1.0 | ug/g | ND | 93.7 | 70-130 | | | |
| Vanadium | 60.7 | 10.0 | ug/g | 15.0 | 91.4 | 70-130 | | | |
| Zinc | 61.4 | 20.0 | ug/g | ND | 85.1 | 70-130 | | | |

Semi-Volatiles

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Spike

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|------------------------------------|--------------|-----------------|-------|---------------|-------------|---------------|-----|-----------|-------|
| Acenaphthene | 0.187 | 0.02 | ug/g | ND | 97.4 | 50-140 | | | |
| Acenaphthylene | 0.196 | 0.02 | ug/g | 0.025 | 88.9 | 50-140 | | | |
| Anthracene | 0.200 | 0.02 | ug/g | ND | 104 | 50-140 | | | |
| Benzo [a] anthracene | 0.157 | 0.02 | ug/g | ND | 81.9 | 50-140 | | | |
| Benzo [a] pyrene | 0.213 | 0.02 | ug/g | 0.026 | 97.4 | 50-140 | | | |
| Benzo [b] fluoranthene | 0.159 | 0.02 | ug/g | 0.021 | 72.0 | 50-140 | | | |
| Benzo [g,h,i] perylene | 0.216 | 0.02 | ug/g | 0.022 | 101 | 50-140 | | | |
| Benzo [k] fluoranthene | 0.174 | 0.02 | ug/g | ND | 90.9 | 50-140 | | | |
| Chrysene | 0.196 | 0.02 | ug/g | ND | 102 | 50-140 | | | |
| Dibenzo [a,h] anthracene | 0.159 | 0.02 | ug/g | ND | 83.1 | 50-140 | | | |
| Fluoranthene | 0.230 | 0.02 | ug/g | 0.059 | 89.0 | 50-140 | | | |
| Fluorene | 0.153 | 0.02 | ug/g | ND | 79.7 | 50-140 | | | |
| Indeno [1,2,3-cd] pyrene | 0.191 | 0.02 | ug/g | ND | 99.5 | 50-140 | | | |
| 1-Methylnaphthalene | 0.136 | 0.02 | ug/g | ND | 70.8 | 50-140 | | | |
| 2-Methylnaphthalene | 0.146 | 0.02 | ug/g | ND | 76.3 | 50-140 | | | |
| Naphthalene | 0.181 | 0.01 | ug/g | ND | 94.2 | 50-140 | | | |
| Phenanthrene | 0.213 | 0.02 | ug/g | 0.045 | 87.1 | 50-140 | | | |
| Pyrene | 0.248 | 0.02 | ug/g | 0.070 | 92.6 | 50-140 | | | |
| <i>Surrogate: 2-Fluorobiphenyl</i> | <i>0.874</i> | | % | | <i>57.0</i> | <i>50-140</i> | | | |
| <i>Surrogate: Terphenyl-d14</i> | <i>1.13</i> | | % | | <i>73.6</i> | <i>50-140</i> | | | |
| Volatiles | | | | | | | | | |
| Acetone | 8.98 | 0.50 | ug/g | ND | 89.8 | 50-140 | | | |
| Benzene | 4.07 | 0.02 | ug/g | ND | 102 | 60-130 | | | |
| Bromodichloromethane | 3.60 | 0.05 | ug/g | ND | 90.0 | 60-130 | | | |
| Bromoform | 3.22 | 0.05 | ug/g | ND | 80.5 | 60-130 | | | |
| Bromomethane | 4.46 | 0.05 | ug/g | ND | 111 | 50-140 | | | |
| Carbon Tetrachloride | 3.56 | 0.05 | ug/g | ND | 89.1 | 60-130 | | | |
| Chlorobenzene | 3.20 | 0.05 | ug/g | ND | 80.0 | 60-130 | | | |
| Chloroform | 3.73 | 0.05 | ug/g | ND | 93.3 | 60-130 | | | |
| Dibromochloromethane | 3.76 | 0.05 | ug/g | ND | 94.0 | 60-130 | | | |
| Dichlorodifluoromethane | 4.03 | 0.05 | ug/g | ND | 101 | 50-140 | | | |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Spike

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|---------------|------|------------|-----|-----------|-------|
| 1,2-Dichlorobenzene | 3.46 | 0.05 | ug/g | ND | 86.5 | 60-130 | | | |
| 1,3-Dichlorobenzene | 3.45 | 0.05 | ug/g | ND | 86.2 | 60-130 | | | |
| 1,4-Dichlorobenzene | 3.32 | 0.05 | ug/g | ND | 83.0 | 60-130 | | | |
| 1,1-Dichloroethane | 3.18 | 0.05 | ug/g | ND | 79.5 | 60-130 | | | |
| 1,2-Dichloroethane | 3.97 | 0.05 | ug/g | ND | 99.2 | 60-130 | | | |
| 1,1-Dichloroethylene | 3.54 | 0.05 | ug/g | ND | 88.6 | 60-130 | | | |
| cis-1,2-Dichloroethylene | 3.73 | 0.05 | ug/g | ND | 93.3 | 60-130 | | | |
| trans-1,2-Dichloroethylene | 3.59 | 0.05 | ug/g | ND | 89.8 | 60-130 | | | |
| 1,2-Dichloropropane | 3.92 | 0.05 | ug/g | ND | 98.0 | 60-130 | | | |
| cis-1,3-Dichloropropylene | 3.64 | 0.05 | ug/g | ND | 91.0 | 60-130 | | | |
| trans-1,3-Dichloropropylene | 3.76 | 0.05 | ug/g | ND | 94.1 | 60-130 | | | |
| Ethylbenzene | 3.49 | 0.05 | ug/g | ND | 87.4 | 60-130 | | | |
| Ethylene dibromide (dibromoethane, 1,2-) | 3.45 | 0.05 | ug/g | ND | 86.1 | 60-130 | | | |
| Hexane | 4.17 | 0.05 | ug/g | ND | 104 | 60-130 | | | |
| Methyl Ethyl Ketone (2-Butanone) | 10.2 | 0.50 | ug/g | ND | 102 | 50-140 | | | |
| Methyl Isobutyl Ketone | 10.7 | 0.50 | ug/g | ND | 107 | 50-140 | | | |
| Methyl tert-butyl ether | 10.7 | 0.05 | ug/g | ND | 107 | 50-140 | | | |
| Methylene Chloride | 3.75 | 0.05 | ug/g | ND | 93.7 | 60-130 | | | |
| Styrene | 3.19 | 0.05 | ug/g | ND | 79.8 | 60-130 | | | |
| 1,1,1,2-Tetrachloroethane | 3.24 | 0.05 | ug/g | ND | 80.9 | 60-130 | | | |
| 1,1,1,2,2-Tetrachloroethane | 3.09 | 0.05 | ug/g | ND | 77.3 | 60-130 | | | |
| Tetrachloroethylene | 3.13 | 0.05 | ug/g | ND | 78.4 | 60-130 | | | |
| Toluene | 3.36 | 0.05 | ug/g | ND | 83.9 | 60-130 | | | |
| 1,1,1-Trichloroethane | 3.62 | 0.05 | ug/g | ND | 90.6 | 60-130 | | | |
| 1,1,2-Trichloroethane | 3.81 | 0.05 | ug/g | ND | 95.2 | 60-130 | | | |
| Trichloroethylene | 3.98 | 0.05 | ug/g | ND | 99.5 | 60-130 | | | |
| Trichlorofluoromethane | 4.39 | 0.05 | ug/g | ND | 110 | 50-140 | | | |
| Vinyl chloride | 4.22 | 0.02 | ug/g | ND | 105 | 50-140 | | | |
| m,p-Xylenes | 6.87 | 0.05 | ug/g | ND | 85.9 | 60-130 | | | |
| o-Xylene | 3.50 | 0.05 | ug/g | ND | 87.6 | 60-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 7.89 | | % | | 98.6 | 50-140 | | | |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Spike

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|---------------|------|------------|-----|-----------|-------|
| <i>Surrogate: Dibromofluoromethane</i> | 6.92 | | % | | 86.5 | 50-140 | | | |
| <i>Surrogate: Toluene-d8</i> | 8.00 | | % | | 100 | 50-140 | | | |
| Benzene | 4.07 | 0.02 | ug/g | ND | 102 | 60-130 | | | |
| Ethylbenzene | 3.49 | 0.05 | ug/g | ND | 87.4 | 60-130 | | | |
| Toluene | 3.36 | 0.05 | ug/g | ND | 83.9 | 60-130 | | | |
| m,p-Xylenes | 6.87 | 0.05 | ug/g | ND | 85.9 | 60-130 | | | |
| o-Xylene | 3.50 | 0.05 | ug/g | ND | 87.6 | 60-130 | | | |
| <i>Surrogate: Toluene-d8</i> | 8.00 | | % | | 100 | 50-140 | | | |

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Qualifier Notes:

Sample Qualifiers :

- 1: GC-FID signal did not return to baseline by C50
Applies to Samples: BH107-1B, MW109-2A

QC Qualifiers:

Sample Data Revisions:

None

Certificate of Analysis

Report Date: 12-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 25-Nov-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Work Order Revisions / Comments:

Revision-1: This report includes additional PAH analysis for sample MW111-2C (2448154-08) as per the client.

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 unless otherwise noted.

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

CCME PHC additional information:

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

Any use of these results implies your agreement that our total liability in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Parcel ID: 2448154



Parcel Order Number
(Lab Use Only)

2448154

Chain of Custody
(Lab Use Only)

No 145885

Client Name: Terrapac Environmental Ltd
Contact Name: Greg Sabourin
Address: 1-20 Gurdwara Rd.
Ottawa ON K2E 8B3
Telephone: 613 745 6971

Project Ref: C0906.40
Quote #: 0094503 City of Ottawa
PO #: City of Ottawa
E-mail: g.sabourin@terrapac.com

Page 1 of 2
Turnaround Time
 1 day 3 day
 2 day Regular
Date Required:

REG 153/04 REG 406/19 Other Regulation

Table 1 Res/Park Med/Fine REG 558 PWQO
 Table 2 Ind/Comm Coarse CCME MISA
 Table 3 Agri/Other SU - Sani SU-Storm
 Table _____ Mun: _____
For RSC: Yes No Other

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

Required Analysis

| Sample ID/Location Name | Matrix | Air Volume | # of Containers | Sample Taken | | PHCs F1-F4+BTEX | VOCs | PAHs | Metals by ICP | Hg | CMI | B (HWS) | 0.45 153 Mt1 | PAHs | PH/grain size 75um |
|-------------------------|--------|------------|-----------------|--------------|-------|-----------------|------|------|---------------|----|-----|---------|--------------|------|--------------------|
| | | | | Date | Time | | | | | | | | | | |
| 1 BH106-1B | S | | 3 | 21 Nov 24 | 13:40 | X | X | | | | | | X | X | |
| 2 BH107-1B | S | | 3 | 21 Nov 24 | 14:05 | X | | | | | | | X | X | |
| 3 MW107-3A | S | | 2 | 21 Nov 24 | 14:40 | X | X | | | | | | | | |
| 4 BH108-1A | S | | 2 | 21 Nov 24 | 14:55 | X | | | | | | | X | X | X |
| 5 MW109-2A | S | | 2 | 22 Nov 24 | 8:20 | X | | | | | | | | | |
| 6 MW109-1A | S | | 2 | 22 Nov 24 | 8:05 | | | | | | | | X | X | |
| 7 MW109-3A | S | | 3 | 22 Nov 24 | 8:55 | X | X | X | | | | | | | X |
| 8 MW110-1A | S | | 3 | 22 Nov 24 | 9:05 | X | | | | | | | X | X | |
| 9 MW111-2C | S | | 2 | 22 Nov 24 | 10:40 | X | X | X | | | | | | | |
| 10 MW111-2D | S | | 2 | 22 Nov 24 | 10:40 | X | X | X | | | | | | | |

Comments: MW107-1B limited soil volume.

City of Ottawa Project, valid at street city PM

Method of Delivery: Walk in

Relinquished By (Print): J.A. Murray
Date/Time: 25 Nov 24 16:15

Received at Depot:
Date/Time:
Temperature: °C

Received at Lab: SS
Date/Time: 25 Nov 24 16:14
Temperature: 3.9 7.7

Verified By: JM
Date/Time: 11-26-24 11:50
pH Verified: By:



Client Name: Terraplex Environmental Ltd
Contact Name: Greg Sabourin
Address: 120 Gurdwara Rd. Ottawa ON
Telephone: 613 745 6471

Project Ref: C0926. w / Sabourin
Quote #: 00945.03 / City of Ottawa
PO #: City of Ottawa
E-mail: g.sabourin@terraplex.com

Page 2 of 2
Turnaround Time
 1 day 3 day
 2 day Regular
Date Required: _____

REG 153/04 REG 406/19
 Table 1 Res/Park Med/Fine
 Table 2 Ind/Comm Coarse
 Table 3 Agri/Other
 Table _____
For RSC: Yes No

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

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

Required Analysis

| Sample ID/Location Name | Matrix | Air Volume | # of Containers | Sample Taken | | PHCs F1-F4+BTEX | VOCs | PAHs | Metals by ICP | Hg | CrVI | B (HWS) | 0.05 mg/l Pb+1 | Pb+1 |
|-------------------------|--------|------------|-----------------|----------------------|------------------|-----------------|------|------|---------------|----|------|---------|----------------|------|
| | | | | Date | Time | | | | | | | | | |
| 1 MW110-1D | S | - | 2 | 22 Nov 24 | 9:05 | | | X | | | | | X | |
| 2 BW112-1B | S | - | 3 | 22 Nov 24 | 10:50 | X | X | X | | | | | X | |
| 3 BW112-2D | S | - | 2 | 22 Nov 24 | 11:00 | | X | | | | | | | |
| 4 Methanol Blank | - | - | 1 | | 12:30 | | X | | | | | | | X |
| 5 MW111-1B | S | - | 3 | 22 Nov 24 | 10:50 | X | X | | | | | | X | |
| 6 | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |

Comments: City of Ottawa Project, National Asterisk City PM

Method of Delivery: Walk in

Relinquished By (Sign): J. Miller
Relinquished By (Print): J. Miller
Date/Time: 25 Nov 24 16:15

Received at Depot:
Date/Time:
Temperature: _____ °C

Received at Lab: SS
Date/Time: 25 Nov 24 16:14
Temperature: 3.9 7.7

Verified By: Jm
Date/Time: 11-26-24 11:50
pH Verified: By: _____

Certificate of Analysis

Terrapex Environmental Ltd. (Ottawa)

20 Gurdwara Rd. Unit #1

Ottawa, ON K2E 8B3

Attn: Greg Sabourin

Client PO:

Project: CO986.00/40 Beechcliffe Street

Custody: 145883

Report Date: 16-Dec-2024

Order Date: 9-Dec-2024

Order #: 2450112

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

| Parcel ID | Client ID |
|------------|-----------|
| 2450112-01 | MW111D-5 |
| 2450112-02 | BH113-1 |
| 2450112-03 | BH114-1 |

Approved By:



Mark Foto, M.Sc.

Lab Supervisor

Certificate of Analysis

Report Date: 16-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 9-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Analysis Summary Table

| Analysis | Method Reference/Description | Extraction Date | Analysis Date |
|------------------------|------------------------------|-----------------|---------------|
| REG 153: PAHs by GC-MS | EPA 8270 - GC-MS, extraction | 11-Dec-24 | 13-Dec-24 |
| Solids, % | CWS Tier 1 - Gravimetric | 13-Dec-24 | 16-Dec-24 |

Certificate of Analysis

Report Date: 16-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 9-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| | | | | | |
|---------------------|-----------------|-----------------|-----------------|---|---|
| Client ID: | MW111D-5 | BH113-1 | BH114-1 | - | |
| Sample Date: | 06-Dec-24 14:30 | 06-Dec-24 14:40 | 06-Dec-24 14:50 | - | - |
| Sample ID: | 2450112-01 | 2450112-02 | 2450112-03 | - | |
| Matrix: | Soil | Soil | Soil | - | |
| MDL/Units | | | | | |

Physical Characteristics

| | | | | | | |
|----------|--------------|------|------|------|---|---|
| % Solids | 0.1 % by Wt. | 89.2 | 88.1 | 88.2 | - | - |
|----------|--------------|------|------|------|---|---|

Semi-Volatiles

| | | | | | | |
|--------------------------|-----------|-------|-------|-------|---|---|
| Acenaphthene | 0.02 ug/g | 0.03 | <0.02 | <0.02 | - | - |
| Acenaphthylene | 0.02 ug/g | 0.14 | 0.18 | 0.08 | - | - |
| Anthracene | 0.02 ug/g | 0.18 | 0.18 | 0.08 | - | - |
| Benzo [a] anthracene | 0.02 ug/g | 0.36 | 0.32 | 0.14 | - | - |
| Benzo [a] pyrene | 0.02 ug/g | 0.39 | 0.44 | 0.15 | - | - |
| Benzo [b] fluoranthene | 0.02 ug/g | 0.44 | 0.52 | 0.19 | - | - |
| Benzo [g,h,i] perylene | 0.02 ug/g | 0.33 | 0.37 | 0.11 | - | - |
| Benzo [k] fluoranthene | 0.02 ug/g | 0.31 | 0.31 | 0.14 | - | - |
| Chrysene | 0.02 ug/g | 0.32 | 0.30 | 0.14 | - | - |
| Dibenzo [a,h] anthracene | 0.02 ug/g | 0.08 | 0.09 | 0.03 | - | - |
| Fluoranthene | 0.02 ug/g | 0.89 | 0.70 | 0.35 | - | - |
| Fluorene | 0.02 ug/g | 0.03 | 0.03 | <0.02 | - | - |
| Indeno [1,2,3-cd] pyrene | 0.02 ug/g | 0.31 | 0.34 | 0.11 | - | - |
| 1-Methylnaphthalene | 0.02 ug/g | <0.02 | <0.02 | <0.02 | - | - |
| 2-Methylnaphthalene | 0.02 ug/g | <0.02 | <0.02 | <0.02 | - | - |
| Methylnaphthalene (1&2) | 0.04 ug/g | <0.04 | <0.04 | <0.04 | - | - |
| Naphthalene | 0.01 ug/g | 0.03 | <0.01 | <0.01 | - | - |
| Phenanthrene | 0.02 ug/g | 0.41 | 0.31 | 0.11 | - | - |
| Pyrene | 0.02 ug/g | 0.75 | 0.63 | 0.30 | - | - |
| 2-Fluorobiphenyl | Surrogate | 60.8% | 65.5% | 59.8% | - | - |
| Terphenyl-d14 | Surrogate | 68.6% | 69.1% | 63.5% | - | - |

Certificate of Analysis

Report Date: 16-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 9-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Blank

| Analyte | Result | Reporting Limit | Units | %REC | %REC Limit | RPD | RPD Limit | Notes |
|-----------------------------|--------|-----------------|-------|------|------------|-----|-----------|-------|
| Semi-Volatiles | | | | | | | | |
| Acenaphthene | ND | 0.02 | ug/g | | | | | |
| Acenaphthylene | ND | 0.02 | ug/g | | | | | |
| Anthracene | ND | 0.02 | ug/g | | | | | |
| Benzo [a] anthracene | ND | 0.02 | ug/g | | | | | |
| Benzo [a] pyrene | ND | 0.02 | ug/g | | | | | |
| Benzo [b] fluoranthene | ND | 0.02 | ug/g | | | | | |
| Benzo [g,h,i] perylene | ND | 0.02 | ug/g | | | | | |
| Benzo [k] fluoranthene | ND | 0.02 | ug/g | | | | | |
| Chrysene | ND | 0.02 | ug/g | | | | | |
| Dibenzo [a,h] anthracene | ND | 0.02 | ug/g | | | | | |
| Fluoranthene | ND | 0.02 | ug/g | | | | | |
| Fluorene | ND | 0.02 | ug/g | | | | | |
| Indeno [1,2,3-cd] pyrene | ND | 0.02 | ug/g | | | | | |
| 1-Methylnaphthalene | ND | 0.02 | ug/g | | | | | |
| 2-Methylnaphthalene | ND | 0.02 | ug/g | | | | | |
| Methylnaphthalene (1&2) | ND | 0.04 | ug/g | | | | | |
| Naphthalene | ND | 0.01 | ug/g | | | | | |
| Phenanthrene | ND | 0.02 | ug/g | | | | | |
| Pyrene | ND | 0.02 | ug/g | | | | | |
| Surrogate: 2-Fluorobiphenyl | 0.708 | | % | 53.1 | 50-140 | | | |
| Surrogate: Terphenyl-d14 | 0.721 | | % | 54.1 | 50-140 | | | |

Certificate of Analysis

Report Date: 16-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 9-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Duplicate

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|---------------------------------|--------|-----------------|----------|---------------|------|------------|------|-----------|-------|
| Physical Characteristics | | | | | | | | | |
| % Solids | 85.5 | 0.1 | % by Wt. | 85.5 | | | 0.0 | 25 | |
| Semi-Volatiles | | | | | | | | | |
| Acenaphthene | ND | 0.02 | ug/g | 0.029 | | | NC | 40 | |
| Acenaphthylene | 0.124 | 0.02 | ug/g | 0.139 | | | 11.2 | 40 | |
| Anthracene | 0.149 | 0.02 | ug/g | 0.185 | | | 21.4 | 40 | |
| Benzo [a] anthracene | 0.269 | 0.02 | ug/g | 0.357 | | | 28.1 | 40 | |
| Benzo [a] pyrene | 0.314 | 0.02 | ug/g | 0.387 | | | 20.9 | 40 | |
| Benzo [b] fluoranthene | 0.264 | 0.02 | ug/g | 0.441 | | | 50.1 | 40 | QR-04 |
| Benzo [g,h,i] perylene | 0.230 | 0.02 | ug/g | 0.334 | | | 36.6 | 40 | |
| Benzo [k] fluoranthene | 0.172 | 0.02 | ug/g | 0.305 | | | 55.7 | 40 | QR-04 |
| Chrysene | 0.258 | 0.02 | ug/g | 0.323 | | | 22.6 | 40 | |
| Dibenzo [a,h] anthracene | 0.049 | 0.02 | ug/g | 0.082 | | | 49.7 | 40 | QR-04 |
| Fluoranthene | 0.656 | 0.02 | ug/g | 0.893 | | | 30.7 | 40 | |
| Fluorene | ND | 0.02 | ug/g | 0.034 | | | NC | 40 | |
| Indeno [1,2,3-cd] pyrene | 0.194 | 0.02 | ug/g | 0.309 | | | 45.6 | 40 | QR-04 |
| 1-Methylnaphthalene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| 2-Methylnaphthalene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Naphthalene | ND | 0.01 | ug/g | 0.029 | | | NC | 40 | |
| Phenanthrene | 0.262 | 0.02 | ug/g | 0.408 | | | 43.5 | 40 | QR-04 |
| Pyrene | 0.543 | 0.02 | ug/g | 0.754 | | | 32.5 | 40 | |
| Surrogate: 2-Fluorobiphenyl | 1.00 | | % | | 66.9 | 50-140 | | | |
| Surrogate: Terphenyl-d14 | 1.19 | | % | | 79.8 | 50-140 | | | |

Certificate of Analysis

Report Date: 16-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 9-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Spike

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|-----------------------------|--------|-----------------|-------|---------------|------|------------|-----|-----------|-------|
| Semi-Volatiles | | | | | | | | | |
| Acenaphthene | 0.156 | 0.02 | ug/g | 0.029 | 67.5 | 50-140 | | | |
| Acenaphthylene | 0.258 | 0.02 | ug/g | 0.139 | 64.1 | 50-140 | | | |
| Anthracene | 0.294 | 0.02 | ug/g | 0.185 | 58.5 | 50-140 | | | |
| Benzo [a] anthracene | 0.421 | 0.02 | ug/g | 0.357 | 34.4 | 50-140 | | | QM-06 |
| Benzo [a] pyrene | 0.458 | 0.02 | ug/g | 0.387 | 38.2 | 50-140 | | | QM-06 |
| Benzo [b] fluoranthene | 0.101 | 0.02 | ug/g | ND | 60.6 | 50-140 | | | |
| Benzo [g,h,i] perylene | 0.450 | 0.02 | ug/g | 0.334 | 62.6 | 50-140 | | | |
| Benzo [k] fluoranthene | 0.089 | 0.02 | ug/g | ND | 53.4 | 50-140 | | | |
| Chrysene | 0.384 | 0.02 | ug/g | 0.323 | 32.6 | 50-140 | | | QM-06 |
| Dibenzo [a,h] anthracene | 0.193 | 0.02 | ug/g | 0.082 | 59.2 | 50-140 | | | |
| Fluoranthene | 0.118 | 0.02 | ug/g | ND | 70.7 | 50-140 | | | |
| Fluorene | 0.169 | 0.02 | ug/g | 0.034 | 72.4 | 50-140 | | | |
| Indeno [1,2,3-cd] pyrene | 0.420 | 0.02 | ug/g | 0.309 | 59.5 | 50-140 | | | |
| 1-Methylnaphthalene | 0.154 | 0.02 | ug/g | ND | 82.5 | 50-140 | | | |
| 2-Methylnaphthalene | 0.154 | 0.02 | ug/g | ND | 82.3 | 50-140 | | | |
| Naphthalene | 0.177 | 0.01 | ug/g | 0.029 | 79.5 | 50-140 | | | |
| Phenanthrene | 0.130 | 0.02 | ug/g | ND | 78.3 | 50-140 | | | |
| Pyrene | 0.121 | 0.02 | ug/g | ND | 72.7 | 50-140 | | | |
| Surrogate: 2-Fluorobiphenyl | 0.884 | | % | | 59.2 | 50-140 | | | |
| Surrogate: Terphenyl-d14 | 1.09 | | % | | 73.0 | 50-140 | | | |

Certificate of Analysis

Report Date: 16-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 9-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Qualifier Notes:

QC Qualifiers:

QM-06 Due to noted non-homogeneity of the QC sample matrix, the spike recoveries were out side the accepted range. Batch data accepted based on other QC.
QR-04 Duplicate results exceeds RPD limits due to non-homogeneous matrix.

Sample Data Revisions:

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

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

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

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

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

Any use of these results implies your agreement that our total liability in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.



Client Name: Terrapex Environmental Ltd.
Contact Name: Greg Sabourin
Address: 1-20 Chaudiere Rd, Nepean, Ottawa ON K2E 8B3.
Telephone: 613 745 6471

Project Ref: C0986.00
Quote #: 60945.03 / City of Ottawa Job
PO #: City of Ottawa
E-mail: g.sabourin@terrapex.com

Turnaround Time
 1 day 3 day
 2 day Regular
Date Required: _____

| REG 153/04 <input checked="" type="checkbox"/> REG 408/19 <input type="checkbox"/> | | Other Regulation | Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (paint A (Air) O (Other) | | | Required Analysis | | | | | | | | |
|---|--|--------------------------------|--|------------|-----------------|-------------------|-------|-----------------|------|------|---------------|----|------|---------|
| <input type="checkbox"/> Table 1 <input checked="" type="checkbox"/> Res/Park <input type="checkbox"/> Med/Fine | <input type="checkbox"/> REG 558 <input type="checkbox"/> PWQO | | Matrix | Air Volume | # of Containers | Sample Taken | | PHCs F1-F4+BTEX | VOCs | PAHs | Metals by ICP | Hg | CrVI | B (HWS) |
| <input type="checkbox"/> Table 2 <input type="checkbox"/> Ind/Comm <input checked="" type="checkbox"/> Coarse | <input type="checkbox"/> CCME <input type="checkbox"/> MISA | | | | | Date | Time | | | | | | | |
| <input checked="" type="checkbox"/> Table 3 <input type="checkbox"/> Agri/Other | <input type="checkbox"/> SU - Sani <input type="checkbox"/> SU-Storm | | | | | | | | | | | | | |
| <input type="checkbox"/> Table _____ | Mun: _____ | | | | | | | | | | | | | |
| For RSC: <input type="checkbox"/> Yes <input type="checkbox"/> No | | <input type="checkbox"/> Other | | | | | | | | | | | | |
| Sample ID/Location Name | | | | | | | | | | | | | | |
| 1 | MW1110-5 | BNK 300 | S | - | 1 | 6/12/2024 | 14:30 | | | / | | | | |
| 2 | BH113-1 | ↓ 301 | S | - | 1 | n | 14:40 | | | / | | | | |
| 3 | BH114-1 | ↓ 302 | S | - | 1 | n | 14:50 | | | / | | | | |
| 4 | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |

Comments: City of Ottawa Job Nuhid Arasteh, City PM
Method of Delivery: Walk in

Relinquished By (Sign):
Received at Depot: _____
Received at Lab: JM
Relinquished By (Print): SREE
Date/Time: 12-09-24 1634
Date/Time: Dec 10 835
Date/Time: 09/12/2024 12:00 pm.
Temperature: _____ °C
Temperature: 1.8 °C
pH Verified: By: _____

Certificate of Analysis

Terrapex Environmental Ltd. (Ottawa)

20 Gurdwara Rd. Unit #1

Ottawa, ON K2E 8B3

Attn: Greg Sabourin

Client PO:

Project: CO986.00/40 Beechcliffe Street

Custody: 77161

Report Date: 24-Dec-2024

Order Date: 13-Dec-2024

Order #: 2450539

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

| Parcel ID | Client ID |
|------------|-----------|
| 2450539-01 | MW105D |
| 2450539-02 | MW101 |
| 2450539-03 | MW103 |
| 2450539-04 | MW1005 |

Approved By:



Dale Robertson, BSc

Laboratory Director

Certificate of Analysis

Report Date: 24-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Analysis Summary Table

| Analysis | Method Reference/Description | Extraction Date | Analysis Date |
|------------------------------|---------------------------------|-----------------|---------------|
| Anions | EPA 300.1 - IC | 16-Dec-24 | 16-Dec-24 |
| Chromium, hexavalent - water | MOE E3056 - colourimetric | 16-Dec-24 | 16-Dec-24 |
| Cyanide, free | MOE E3015 - Auto Colour | 16-Dec-24 | 16-Dec-24 |
| Mercury by CVAA | EPA 245.2 - Cold Vapour AA | 16-Dec-24 | 16-Dec-24 |
| Metals, ICP-MS | EPA 200.8 - ICP-MS | 16-Dec-24 | 16-Dec-24 |
| pH | EPA 150.1 - pH probe @25 °C | 16-Dec-24 | 16-Dec-24 |
| PHC F1 | CWS Tier 1 - P&T GC-FID | 16-Dec-24 | 17-Dec-24 |
| PHCs F2 to F4 | CWS Tier 1 - GC-FID, extraction | 19-Dec-24 | 19-Dec-24 |
| REG 153: PAHs by GC-MS | EPA 625 - GC-MS, extraction | 23-Dec-24 | 23-Dec-24 |
| REG 153: VOCs by P&T GC/MS | EPA 624 - P&T GC-MS | 16-Dec-24 | 17-Dec-24 |

Certificate of Analysis

Report Date: 24-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| Client ID: | MW105D | MW101 | MW103 | MW1005 | - | - |
|--------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Sample Date: | 13-Dec-24 10:45 | 11-Dec-24 14:10 | 11-Dec-24 14:30 | 13-Dec-24 10:45 | - | - |
| Sample ID: | 2450539-01 | 2450539-02 | 2450539-03 | 2450539-04 | - | - |
| Matrix: | Ground Water | Ground Water | Ground Water | Ground Water | - | - |
| MDL/Units | | | | | | |

General Inorganics

| | | | | | | | |
|---------------|--------------|-----|---|-----|-----|---|---|
| Cyanide, free | 2 ug/L | <2 | - | <2 | <2 | - | - |
| pH | 0.1 pH Units | 7.5 | - | 7.4 | 7.6 | - | - |

Anions

| | | | | | | | |
|----------|--------|----|---|---|----|---|---|
| Chloride | 1 mg/L | 92 | - | 5 | 92 | - | - |
|----------|--------|----|---|---|----|---|---|

Metals

| | | | | | | | |
|---------------|----------|-------|---|-------|-------|---|---|
| Mercury | 0.1 ug/L | <0.1 | - | <0.1 | <0.1 | - | - |
| Antimony | 0.5 ug/L | <0.5 | - | <0.5 | <0.5 | - | - |
| Arsenic | 1 ug/L | <1 | - | <1 | <1 | - | - |
| Barium | 1 ug/L | 67 | - | 133 | 66 | - | - |
| Beryllium | 0.5 ug/L | <0.5 | - | <0.5 | <0.5 | - | - |
| Boron | 10 ug/L | 21 | - | 23 | 19 | - | - |
| Cadmium | 0.1 ug/L | <0.1 | - | <0.1 | <0.1 | - | - |
| Chromium (VI) | 10 ug/L | <10 | - | <10 | <10 | - | - |
| Chromium | 1 ug/L | <1 | - | <1 | <1 | - | - |
| Cobalt | 0.5 ug/L | 7.8 | - | 1.0 | 7.8 | - | - |
| Copper | 0.5 ug/L | 1.6 | - | 1.3 | 1.5 | - | - |
| Lead | 0.1 ug/L | <0.1 | - | <0.1 | <0.1 | - | - |
| Molybdenum | 0.5 ug/L | 4.1 | - | 6.0 | 4.3 | - | - |
| Nickel | 1 ug/L | 12 | - | 2 | 13 | - | - |
| Selenium | 1 ug/L | <1 | - | <1 | <1 | - | - |
| Silver | 0.1 ug/L | <0.1 | - | <0.1 | <0.1 | - | - |
| Sodium | 200 ug/L | 59900 | - | 10900 | 60600 | - | - |
| Thallium | 0.1 ug/L | <0.1 | - | <0.1 | <0.1 | - | - |
| Uranium | 0.1 ug/L | 7.3 | - | 2.5 | 7.4 | - | - |
| Vanadium | 0.5 ug/L | <0.5 | - | 1.1 | <0.5 | - | - |

Certificate of Analysis

Report Date: 24-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| Client ID: | MW105D | MW101 | MW103 | MW1005 | | |
|--------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Sample Date: | 13-Dec-24 10:45 | 11-Dec-24 14:10 | 11-Dec-24 14:30 | 13-Dec-24 10:45 | - | - |
| Sample ID: | 2450539-01 | 2450539-02 | 2450539-03 | 2450539-04 | | |
| Matrix: | Ground Water | Ground Water | Ground Water | Ground Water | | |
| MDL/Units | | | | | | |

Metals

| | | | | | | | |
|------|--------|----|---|----|----|---|---|
| Zinc | 5 ug/L | <5 | - | <5 | <5 | - | - |
|------|--------|----|---|----|----|---|---|

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 | - | - |

Certificate of Analysis

Report Date: 24-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| Client ID: | MW105D | MW101 | MW103 | MW1005 | - | - |
|--------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Sample Date: | 13-Dec-24 10:45 | 11-Dec-24 14:10 | 11-Dec-24 14:30 | 13-Dec-24 10:45 | - | - |
| Sample ID: | 2450539-01 | 2450539-02 | 2450539-03 | 2450539-04 | - | - |
| Matrix: | Ground Water | Ground Water | Ground Water | Ground Water | - | - |
| MDL/Units | | | | | | |

Volatiles

| | | | | | | | |
|------------------------------------|-----------|-------|-------|-------|-------|---|---|
| Ethylene dibromide (dibromoethane) | 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 | - | - |
| 1,1,2-Trichloroethane | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | - | - |
| Trichloroethylene | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | - | - |
| 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 | 92.1% | 92.3% | 93.2% | 91.1% | - | - |
| Dibromofluoromethane | Surrogate | 76.3% | 76.5% | 76.4% | 76.0% | - | - |
| Toluene-d8 | Surrogate | 112% | 111% | 112% | 112% | - | - |

Hydrocarbons

| | | | | | | | |
|-------------------|----------|------|------|----------|------|---|---|
| F1 PHCs (C6-C10) | 25 ug/L | <25 | <25 | <25 | <25 | - | - |
| F2 PHCs (C10-C16) | 100 ug/L | <100 | <100 | <100 [3] | <100 | - | - |

Certificate of Analysis

Report Date: 24-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| Client ID: | MW105D | MW101 | MW103 | MW1005 | - | - |
|--------------|-----------------|-----------------|-----------------|-----------------|---|---|
| Sample Date: | 13-Dec-24 10:45 | 11-Dec-24 14:10 | 11-Dec-24 14:30 | 13-Dec-24 10:45 | - | - |
| Sample ID: | 2450539-01 | 2450539-02 | 2450539-03 | 2450539-04 | - | - |
| Matrix: | Ground Water | Ground Water | Ground Water | Ground Water | - | - |
| MDL/Units | | | | | | |

Hydrocarbons

| | | | | | | | |
|-------------------|----------|------|------|----------|------|---|---|
| F3 PHCs (C16-C34) | 100 ug/L | <100 | <100 | <100 [3] | <100 | - | - |
| F4 PHCs (C34-C50) | 100 ug/L | <100 | <100 | <100 [3] | <100 | - | - |

Semi-Volatiles

| | | | | | | | |
|--------------------------|-----------|-------|---|-------|-------|---|---|
| Acenaphthene | 0.05 ug/L | <0.05 | - | <0.05 | <0.05 | - | - |
| Acenaphthylene | 0.05 ug/L | <0.05 | - | <0.05 | <0.05 | - | - |
| Anthracene | 0.01 ug/L | <0.01 | - | <0.01 | <0.01 | - | - |
| Benzo [a] anthracene | 0.01 ug/L | <0.01 | - | <0.01 | <0.01 | - | - |
| Benzo [a] pyrene | 0.01 ug/L | <0.01 | - | <0.01 | <0.01 | - | - |
| Benzo [b] fluoranthene | 0.05 ug/L | <0.05 | - | <0.05 | <0.05 | - | - |
| Benzo [g,h,i] perylene | 0.05 ug/L | <0.05 | - | <0.05 | <0.05 | - | - |
| Benzo [k] fluoranthene | 0.05 ug/L | <0.05 | - | <0.05 | <0.05 | - | - |
| Chrysene | 0.05 ug/L | <0.05 | - | <0.05 | <0.05 | - | - |
| Dibenzo [a,h] anthracene | 0.05 ug/L | <0.05 | - | <0.05 | <0.05 | - | - |
| Fluoranthene | 0.01 ug/L | <0.01 | - | <0.01 | <0.01 | - | - |
| Fluorene | 0.05 ug/L | <0.05 | - | <0.05 | <0.05 | - | - |
| Indeno [1,2,3-cd] pyrene | 0.05 ug/L | <0.05 | - | <0.05 | <0.05 | - | - |
| 1-Methylnaphthalene | 0.05 ug/L | <0.05 | - | <0.05 | <0.05 | - | - |
| 2-Methylnaphthalene | 0.05 ug/L | <0.05 | - | <0.05 | <0.05 | - | - |
| Methylnaphthalene (1&2) | 0.10 ug/L | <0.10 | - | <0.10 | <0.10 | - | - |
| Naphthalene | 0.05 ug/L | <0.05 | - | <0.05 | <0.05 | - | - |
| Phenanthrene | 0.05 ug/L | <0.05 | - | <0.05 | <0.05 | - | - |
| Pyrene | 0.01 ug/L | <0.01 | - | <0.01 | <0.01 | - | - |
| 2-Fluorobiphenyl | Surrogate | 68.4% | - | 58.7% | 68.2% | - | - |
| Terphenyl-d14 | Surrogate | 110% | - | 70.0% | 102% | - | - |

Certificate of Analysis

Report Date: 24-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Blank

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

Certificate of Analysis

Report Date: 24-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Blank

| Analyte | Result | Reporting Limit | Units | %REC | %REC Limit | RPD | RPD Limit | Notes |
|------------------------------------|--------|-----------------|-------|------|------------|-----|-----------|-------|
| Acenaphthylene | ND | 0.05 | ug/L | | | | | |
| Anthracene | ND | 0.01 | ug/L | | | | | |
| Benzo [a] anthracene | ND | 0.01 | ug/L | | | | | |
| Benzo [a] pyrene | ND | 0.01 | ug/L | | | | | |
| Benzo [b] fluoranthene | ND | 0.05 | ug/L | | | | | |
| Benzo [g,h,i] perylene | ND | 0.05 | ug/L | | | | | |
| Benzo [k] fluoranthene | ND | 0.05 | ug/L | | | | | |
| Chrysene | ND | 0.05 | ug/L | | | | | |
| Dibenzo [a,h] anthracene | ND | 0.05 | ug/L | | | | | |
| Fluoranthene | ND | 0.01 | ug/L | | | | | |
| Fluorene | ND | 0.05 | ug/L | | | | | |
| Indeno [1,2,3-cd] pyrene | ND | 0.05 | ug/L | | | | | |
| 1-Methylnaphthalene | ND | 0.05 | ug/L | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | ug/L | | | | | |
| Methylnaphthalene (1&2) | ND | 0.10 | ug/L | | | | | |
| Naphthalene | ND | 0.05 | ug/L | | | | | |
| Phenanthrene | ND | 0.05 | ug/L | | | | | |
| Pyrene | ND | 0.01 | ug/L | | | | | |
| <i>Surrogate: 2-Fluorobiphenyl</i> | 13.8 | | % | 69.1 | 50-140 | | | |
| <i>Surrogate: Terphenyl-d14</i> | 19.3 | | % | 96.3 | 50-140 | | | |
| Volatiles | | | | | | | | |
| Acetone | ND | 5.0 | ug/L | | | | | |
| Benzene | ND | 0.5 | ug/L | | | | | |
| Bromodichloromethane | ND | 0.5 | ug/L | | | | | |
| Bromoform | ND | 0.5 | ug/L | | | | | |
| Bromomethane | ND | 0.5 | ug/L | | | | | |
| Carbon Tetrachloride | ND | 0.2 | ug/L | | | | | |
| Chlorobenzene | ND | 0.5 | ug/L | | | | | |
| Chloroform | ND | 0.5 | ug/L | | | | | |
| Dibromochloromethane | ND | 0.5 | ug/L | | | | | |
| Dichlorodifluoromethane | ND | 1.0 | ug/L | | | | | |
| 1,2-Dichlorobenzene | ND | 0.5 | ug/L | | | | | |

Certificate of Analysis

Report Date: 24-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Blank

| Analyte | Result | Reporting Limit | Units | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|------|------------|-----|-----------|-------|
| 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 | | | | | |
| 1,1,1,2,2-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 | 72.6 | | % | 90.7 | 50-140 | | | |

Certificate of Analysis

Report Date: 24-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Blank

| Analyte | Result | Reporting Limit | Units | %REC | %REC Limit | RPD | RPD Limit | Notes |
|---------------------------------|--------|-----------------|-------|------|------------|-----|-----------|-------|
| Surrogate: Dibromofluoromethane | 60.5 | | % | 75.6 | 50-140 | | | |
| Surrogate: Toluene-d8 | 83.0 | | % | 104 | 50-140 | | | |

Certificate of Analysis

Report Date: 24-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Duplicate

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|---------------------------|--------|-----------------|----------|---------------|------|------------|-----|-----------|-------|
| Anions | | | | | | | | | |
| Chloride | 4.01 | 1 | mg/L | 3.99 | | | 0.5 | 20 | |
| General Inorganics | | | | | | | | | |
| Cyanide, free | ND | 2 | ug/L | ND | | | NC | 20 | |
| pH | 8.1 | 0.1 | pH Units | 8.1 | | | 0.1 | 3.3 | |
| Hydrocarbons | | | | | | | | | |
| F1 PHCs (C6-C10) | ND | 25 | ug/L | ND | | | NC | 30 | |
| Metals | | | | | | | | | |
| Mercury | ND | 0.1 | ug/L | ND | | | NC | 20 | |
| Antimony | ND | 0.5 | ug/L | 0.66 | | | NC | 20 | |
| Arsenic | ND | 1 | ug/L | ND | | | NC | 20 | |
| Barium | 17.9 | 1 | ug/L | 17.0 | | | 4.8 | 20 | |
| Beryllium | ND | 0.5 | ug/L | ND | | | NC | 20 | |
| Boron | 16 | 10 | ug/L | 15 | | | 0.5 | 20 | |
| Cadmium | ND | 0.1 | ug/L | ND | | | NC | 20 | |
| Chromium (VI) | ND | 10 | ug/L | ND | | | NC | 20 | |
| Chromium | ND | 1 | ug/L | ND | | | NC | 20 | |
| Cobalt | ND | 0.5 | ug/L | ND | | | NC | 20 | |
| Copper | 2.21 | 0.5 | ug/L | 2.17 | | | 1.7 | 20 | |
| Lead | ND | 0.1 | ug/L | ND | | | NC | 20 | |
| Molybdenum | 2.66 | 0.5 | ug/L | 2.45 | | | 8.3 | 20 | |
| Nickel | ND | 1 | ug/L | ND | | | NC | 20 | |
| Selenium | ND | 1 | ug/L | ND | | | NC | 20 | |
| Silver | ND | 0.1 | ug/L | ND | | | NC | 20 | |
| Sodium | 16600 | 200 | ug/L | 15800 | | | 4.5 | 20 | |
| Thallium | ND | 0.1 | ug/L | ND | | | NC | 20 | |
| Uranium | ND | 0.1 | ug/L | ND | | | NC | 20 | |
| Vanadium | ND | 0.5 | ug/L | ND | | | NC | 20 | |
| Zinc | 13 | 5 | ug/L | 12 | | | 1.0 | 20 | |
| Volatiles | | | | | | | | | |
| Acetone | ND | 5.0 | ug/L | ND | | | NC | 30 | |

Certificate of Analysis

Report Date: 24-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Duplicate

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

Certificate of Analysis

Report Date: 24-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Duplicate

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|---------------------------------|--------|-----------------|-------|---------------|------|------------|-----|-----------|-------|
| Toluene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| 1,1,1-Trichloroethane | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| 1,1,2-Trichloroethane | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Trichloroethylene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Trichlorofluoromethane | ND | 1.0 | ug/L | ND | | | NC | 30 | |
| Vinyl chloride | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| m,p-Xylenes | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| o-Xylene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Surrogate: 4-Bromofluorobenzene | 74.4 | | % | | 93.1 | 50-140 | | | |
| Surrogate: Dibromofluoromethane | 67.8 | | % | | 84.7 | 50-140 | | | |
| Surrogate: Toluene-d8 | 85.2 | | % | | 106 | 50-140 | | | |

Certificate of Analysis

Report Date: 24-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Spike

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|---------------------------|--------|-----------------|-------|---------------|------|------------|-----|-----------|-------|
| Anions | | | | | | | | | |
| Chloride | 13.7 | 1 | mg/L | 3.99 | 96.7 | 70-124 | | | |
| General Inorganics | | | | | | | | | |
| Cyanide, free | 47.5 | 2 | ug/L | ND | 94.9 | 61-139 | | | |
| Hydrocarbons | | | | | | | | | |
| F1 PHCs (C6-C10) | 1900 | 25 | ug/L | ND | 110 | 85-115 | | | |
| F2 PHCs (C10-C16) | 1570 | 100 | ug/L | ND | 97.9 | 60-140 | | | |
| F3 PHCs (C16-C34) | 4540 | 100 | ug/L | ND | 116 | 60-140 | | | |
| F4 PHCs (C34-C50) | 2640 | 100 | ug/L | ND | 106 | 60-140 | | | |
| Metals | | | | | | | | | |
| Mercury | 3.12 | 0.1 | ug/L | ND | 104 | 70-130 | | | |
| Arsenic | 48.8 | 1 | ug/L | ND | 96.8 | 80-120 | | | |
| Barium | 59.6 | 1 | ug/L | 17.0 | 85.2 | 80-120 | | | |
| Beryllium | 44.0 | 0.5 | ug/L | ND | 88.0 | 80-120 | | | |
| Boron | 57 | 10 | ug/L | 15 | 82.8 | 80-120 | | | |
| Cadmium | 41.5 | 0.1 | ug/L | ND | 83.1 | 80-120 | | | |
| Chromium (VI) | 187 | 10 | ug/L | ND | 93.5 | 75-115 | | | |
| Chromium | 47.6 | 1 | ug/L | ND | 94.8 | 80-120 | | | |
| Cobalt | 48.6 | 0.5 | ug/L | ND | 97.2 | 80-120 | | | |
| Copper | 43.9 | 0.5 | ug/L | 2.17 | 83.4 | 80-120 | | | |
| Lead | 36.4 | 0.1 | ug/L | ND | 72.8 | 80-120 | | | QM-07 |
| Molybdenum | 38.5 | 0.5 | ug/L | 0.80 | 75.5 | 80-120 | | | QM-07 |
| Nickel | 44.6 | 1 | ug/L | ND | 88.5 | 80-120 | | | |
| Selenium | 43.2 | 1 | ug/L | ND | 86.4 | 80-120 | | | |
| Silver | 48.3 | 0.1 | ug/L | ND | 96.7 | 80-120 | | | |
| Sodium | 26200 | 200 | ug/L | 15800 | 103 | 80-120 | | | |
| Thallium | 44.8 | 0.1 | ug/L | ND | 89.6 | 80-120 | | | |
| Uranium | 41.6 | 0.1 | ug/L | ND | 83.1 | 80-120 | | | |
| Vanadium | 47.4 | 0.5 | ug/L | ND | 94.6 | 80-120 | | | |
| Zinc | 52 | 5 | ug/L | 12 | 79.2 | 80-120 | | | QM-07 |

Semi-Volatiles

Certificate of Analysis

Report Date: 24-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Spike

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|------------------------------------|-------------|-----------------|-------|---------------|-------------|---------------|-----|-----------|-------|
| Acenaphthene | 4.16 | 0.05 | ug/L | ND | 83.2 | 50-140 | | | |
| Acenaphthylene | 4.10 | 0.05 | ug/L | ND | 82.0 | 50-140 | | | |
| Anthracene | 5.13 | 0.01 | ug/L | ND | 103 | 50-140 | | | |
| Benzo [a] anthracene | 3.75 | 0.01 | ug/L | ND | 74.9 | 50-140 | | | |
| Benzo [a] pyrene | 3.63 | 0.01 | ug/L | ND | 72.6 | 50-140 | | | |
| Benzo [b] fluoranthene | 3.94 | 0.05 | ug/L | ND | 78.8 | 50-140 | | | |
| Benzo [g,h,i] perylene | 3.61 | 0.05 | ug/L | ND | 72.2 | 50-140 | | | |
| Benzo [k] fluoranthene | 3.76 | 0.05 | ug/L | ND | 75.1 | 50-140 | | | |
| Chrysene | 4.35 | 0.05 | ug/L | ND | 86.9 | 50-140 | | | |
| Dibenzo [a,h] anthracene | 3.92 | 0.05 | ug/L | ND | 78.4 | 50-140 | | | |
| Fluoranthene | 5.05 | 0.01 | ug/L | ND | 101 | 50-140 | | | |
| Fluorene | 3.64 | 0.05 | ug/L | ND | 72.7 | 50-140 | | | |
| Indeno [1,2,3-cd] pyrene | 3.87 | 0.05 | ug/L | ND | 77.5 | 50-140 | | | |
| 1-Methylnaphthalene | 3.62 | 0.05 | ug/L | ND | 72.4 | 50-140 | | | |
| 2-Methylnaphthalene | 3.82 | 0.05 | ug/L | ND | 76.3 | 50-140 | | | |
| Naphthalene | 4.06 | 0.05 | ug/L | ND | 81.1 | 50-140 | | | |
| Phenanthrene | 4.78 | 0.05 | ug/L | ND | 95.6 | 50-140 | | | |
| Pyrene | 5.25 | 0.01 | ug/L | ND | 105 | 50-140 | | | |
| <i>Surrogate: 2-Fluorobiphenyl</i> | <i>15.1</i> | | % | | <i>75.7</i> | <i>50-140</i> | | | |
| <i>Surrogate: Terphenyl-d14</i> | <i>20.5</i> | | % | | <i>102</i> | <i>50-140</i> | | | |
| Volatiles | | | | | | | | | |
| Acetone | 77.8 | 5.0 | ug/L | ND | 77.8 | 50-140 | | | |
| Benzene | 36.4 | 0.5 | ug/L | ND | 91.1 | 60-130 | | | |
| Bromodichloromethane | 33.5 | 0.5 | ug/L | ND | 83.8 | 60-130 | | | |
| Bromoform | 35.7 | 0.5 | ug/L | ND | 89.2 | 60-130 | | | |
| Bromomethane | 30.5 | 0.5 | ug/L | ND | 76.4 | 50-140 | | | |
| Carbon Tetrachloride | 32.1 | 0.2 | ug/L | ND | 80.2 | 60-130 | | | |
| Chlorobenzene | 36.4 | 0.5 | ug/L | ND | 91.1 | 60-130 | | | |
| Chloroform | 35.2 | 0.5 | ug/L | ND | 88.1 | 60-130 | | | |
| Dibromochloromethane | 34.6 | 0.5 | ug/L | ND | 86.6 | 60-130 | | | |
| Dichlorodifluoromethane | 33.5 | 1.0 | ug/L | ND | 83.6 | 50-140 | | | |

Certificate of Analysis

Report Date: 24-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Spike

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|---------------|------|------------|-----|-----------|-------|
| 1,2-Dichlorobenzene | 38.2 | 0.5 | ug/L | ND | 95.4 | 60-130 | | | |
| 1,3-Dichlorobenzene | 37.5 | 0.5 | ug/L | ND | 93.7 | 60-130 | | | |
| 1,4-Dichlorobenzene | 38.5 | 0.5 | ug/L | ND | 96.2 | 60-130 | | | |
| 1,1-Dichloroethane | 36.1 | 0.5 | ug/L | ND | 90.4 | 60-130 | | | |
| 1,2-Dichloroethane | 37.3 | 0.5 | ug/L | ND | 93.2 | 60-130 | | | |
| 1,1-Dichloroethylene | 34.4 | 0.5 | ug/L | ND | 85.9 | 60-130 | | | |
| cis-1,2-Dichloroethylene | 34.5 | 0.5 | ug/L | ND | 86.3 | 60-130 | | | |
| trans-1,2-Dichloroethylene | 35.1 | 0.5 | ug/L | ND | 87.7 | 60-130 | | | |
| 1,2-Dichloropropane | 34.4 | 0.5 | ug/L | ND | 85.9 | 60-130 | | | |
| cis-1,3-Dichloropropylene | 32.3 | 0.5 | ug/L | ND | 80.8 | 60-130 | | | |
| trans-1,3-Dichloropropylene | 31.3 | 0.5 | ug/L | ND | 78.2 | 60-130 | | | |
| Ethylbenzene | 39.3 | 0.5 | ug/L | ND | 98.2 | 60-130 | | | |
| Ethylene dibromide (dibromoethane, 1,2-) | 31.0 | 0.2 | ug/L | ND | 77.6 | 60-130 | | | |
| Hexane | 34.8 | 1.0 | ug/L | ND | 87.0 | 60-130 | | | |
| Methyl Ethyl Ketone (2-Butanone) | 72.3 | 5.0 | ug/L | ND | 72.3 | 50-140 | | | |
| Methyl Isobutyl Ketone | 67.2 | 5.0 | ug/L | ND | 67.2 | 50-140 | | | |
| Methyl tert-butyl ether | 85.1 | 2.0 | ug/L | ND | 85.1 | 50-140 | | | |
| Methylene Chloride | 34.0 | 5.0 | ug/L | ND | 85.0 | 60-130 | | | |
| Styrene | 36.6 | 0.5 | ug/L | ND | 91.6 | 60-130 | | | |
| 1,1,1,2-Tetrachloroethane | 32.5 | 0.5 | ug/L | ND | 81.2 | 60-130 | | | |
| 1,1,2,2-Tetrachloroethane | 32.1 | 0.5 | ug/L | ND | 80.4 | 60-130 | | | |
| Tetrachloroethylene | 39.9 | 0.5 | ug/L | ND | 99.7 | 60-130 | | | |
| Toluene | 37.6 | 0.5 | ug/L | ND | 94.1 | 60-130 | | | |
| 1,1,1-Trichloroethane | 31.6 | 0.5 | ug/L | ND | 79.0 | 60-130 | | | |
| 1,1,2-Trichloroethane | 32.3 | 0.5 | ug/L | ND | 80.8 | 60-130 | | | |
| Trichloroethylene | 35.6 | 0.5 | ug/L | ND | 89.0 | 60-130 | | | |
| Trichlorofluoromethane | 30.0 | 1.0 | ug/L | ND | 74.9 | 60-130 | | | |
| Vinyl chloride | 34.2 | 0.5 | ug/L | ND | 85.6 | 50-140 | | | |
| m,p-Xylenes | 72.5 | 0.5 | ug/L | ND | 90.7 | 60-130 | | | |
| o-Xylene | 33.8 | 0.5 | ug/L | ND | 84.4 | 60-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 79.9 | | % | | 99.9 | 50-140 | | | |

Certificate of Analysis

Report Date: 24-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Spike

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|---------------------------------|--------|-----------------|-------|---------------|------|------------|-----|-----------|-------|
| Surrogate: Dibromofluoromethane | 76.8 | | % | | 96.0 | 50-140 | | | |
| Surrogate: Toluene-d8 | 83.3 | | % | | 104 | 50-140 | | | |

Certificate of Analysis

Report Date: 24-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Qualifier Notes:

Login Qualifiers :

Sample - Received with >5% sediment, directed by client to perform whole bottle extraction and include sediment
Applies to Samples: MW103

Sample Qualifiers :

- 3: Water sample included significant amount of sediment which was included in extraction process. The inclusion of sediment in the extraction is expected to reduce accuracy and results may be biased high.
Applies to Samples: MW103

QC Qualifiers:

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

Sample Data Revisions:

None

Certificate of Analysis

Report Date: 24-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

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

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

CCME PHC additional information:

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

Any use of these results implies your agreement that our total liability in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Parcel ID: 2450539



| | |
|---|---|
| Parcel Order Number (Lab Use Only) 2450539 | Chain Of Custody (Lab Use Only) No 77161 |
|---|---|

| | | |
|---|---|--|
| Client Name: Terrapex Environmental | Project Ref: C0986.00 | Page 1 of 1 |
| Contact Name: Greg Sabocurin | Quote #: 90945.03 / City of Ottawa Job | Turnaround Time <input type="checkbox"/> 1 day <input type="checkbox"/> 3 day <input type="checkbox"/> 2 day <input checked="" type="checkbox"/> Regular Date Required: _____ |
| Address: 1-20 Grandview Rd, Nepean, ON | PO #: City of Ottawa | |
| Telephone: 613 745 6471 | E-mail: G.Sabocurin@terrapex.com | |

| <input type="checkbox"/> REG 153/04 <input type="checkbox"/> REG 406/19 Other Regulation <input type="checkbox"/> Table 1 <input type="checkbox"/> Agri/Other <input type="checkbox"/> Med/Fine <input type="checkbox"/> REG 558 <input type="checkbox"/> PWQO <input type="checkbox"/> Table 2 <input checked="" type="checkbox"/> Res/Park <input checked="" type="checkbox"/> Coarse <input type="checkbox"/> CCME <input type="checkbox"/> MISA <input checked="" type="checkbox"/> Table 3 <input type="checkbox"/> Ind/Comm <input type="checkbox"/> SU - Sani <input type="checkbox"/> SU - Storm <input type="checkbox"/> Table _____ For RSC: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Other: _____ | | Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other) | | Required Analysis | | | | | | | | | | | | | | | |
|---|--------|---|-----------------|-------------------|--------------|-------|--------------|------|--|--|--|--|--|--|--|--|--|--|--|
| Sample ID/Location Name | Matrix | Air Volume | # of Containers | Field Filtered | Sample Taken | | VOCs BTEX | PAHs | Metals Al, Cd, Cr, Cu, Fe, Ni, Pb, Zn | | | | | | | | | | |
| | | | | | Date | Time | | | | | | | | | | | | | |
| 1 MW105D BUK 308 | GW | | 9 | Y | 13/12/2024 | 10:45 | - | - | - | | | | | | | | | | |
| 2 MW101 309 | n | | 3 | N | 11/12/2024 | 14:10 | - | - | - | | | | | | | | | | |
| 3 MW103 310 | n | | 9 | Y | n | 14:30 | - | - | - | | | | | | | | | | |
| 4 MW1005 311 | n | | 9 | Y | 13/12/2024 | 10:45 | - | - | - | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | |

| | | | |
|---|-----------------------|------------------------------------|-------------------------------------|
| Comments: MW103 has sediments in it; Sample As Is. | | Method of Delivery: Walk in | |
| Relinquished By (Sign): | Received at Depot: | Received at Lab: JM | Verified By: SS |
| Relinquished By (Print): SREE | Date/Time: | Date/Time: 13-12-24 12:20 | Date/Time: 13 Dec 24 14:27 |
| Date/Time: 13/12/2024 11:30 | Temperature: _____ °C | Temperature: 7.3 / 4.8 | pH Verified: A By: JM |

Certificate of Analysis

Terrapex Environmental Ltd. (Ottawa)

20 Gurdwara Rd. Unit #1

Ottawa, ON K2E 8B3

Attn: Greg Sabourin

Client PO:

Project: CO986.00/40 Beechcliffe Street

Custody: 77159

Report Date: 18-Dec-2024

Order Date: 13-Dec-2024

Order #: 2450540

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

| Parcel ID | Client ID |
|------------|------------|
| 2450540-01 | TRIP BLANK |

Approved By:



Mark Foto, M.Sc.

Lab Supervisor

Certificate of Analysis

Report Date: 18-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Analysis Summary Table

| Analysis | Method Reference/Description | Extraction Date | Analysis Date |
|----------------------------|------------------------------|-----------------|---------------|
| PHC F1 | CWS Tier 1 - P&T GC-FID | 16-Dec-24 | 17-Dec-24 |
| REG 153: VOCs by P&T GC/MS | EPA 624 - P&T GC-MS | 16-Dec-24 | 17-Dec-24 |

Certificate of Analysis

Report Date: 18-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| | | | | | |
|---------------------|-----------------|---|---|---|---|
| Client ID: | TRIP BLANK | - | - | - | - |
| Sample Date: | 26-Nov-24 09:00 | - | - | - | - |
| Sample ID: | 2450540-01 | - | - | - | - |
| Matrix: | Water | - | - | - | - |
| MDL/Units | | | | | |

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 | - | - | - | - |
| Ethylene dibromide (dibromoethane) | 0.2 ug/L | <0.2 | - | - | - | - |
| Ethylbenzene | 0.5 ug/L | <0.5 | - | - | - | - |
| Hexane | 1.0 ug/L | <1.0 | - | - | - | - |

Certificate of Analysis

Report Date: 18-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

| | | | | | |
|---------------------|-----------------|---|---|---|---|
| Client ID: | TRIP BLANK | - | - | - | - |
| Sample Date: | 26-Nov-24 09:00 | - | - | - | - |
| Sample ID: | 2450540-01 | - | - | - | - |
| Matrix: | Water | - | - | - | - |
| MDL/Units | | | | | |

Volatiles

| | | | | | | |
|----------------------------------|-----------|-------|---|---|---|---|
| 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 | - | - | - | - |
| 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 | 91.9% | - | - | - | - |
| Dibromofluoromethane | Surrogate | 75.9% | - | - | - | - |
| Toluene-d8 | Surrogate | 112% | - | - | - | - |

Hydrocarbons

| | | | | | | |
|------------------|---------|-----|---|---|---|---|
| F1 PHCs (C6-C10) | 25 ug/L | <25 | - | - | - | - |
|------------------|---------|-----|---|---|---|---|

Certificate of Analysis

Report Date: 18-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Blank

| Analyte | Result | Reporting Limit | Units | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|------|------------|-----|-----------|-------|
| Hydrocarbons | | | | | | | | |
| F1 PHCs (C6-C10) | ND | 25 | ug/L | | | | | |
| Volatiles | | | | | | | | |
| Acetone | ND | 5.0 | ug/L | | | | | |
| Benzene | ND | 0.5 | ug/L | | | | | |
| Bromodichloromethane | ND | 0.5 | ug/L | | | | | |
| Bromoform | ND | 0.5 | ug/L | | | | | |
| Bromomethane | ND | 0.5 | ug/L | | | | | |
| Carbon Tetrachloride | ND | 0.2 | ug/L | | | | | |
| Chlorobenzene | ND | 0.5 | ug/L | | | | | |
| Chloroform | ND | 0.5 | ug/L | | | | | |
| Dibromochloromethane | ND | 0.5 | ug/L | | | | | |
| Dichlorodifluoromethane | ND | 1.0 | ug/L | | | | | |
| 1,2-Dichlorobenzene | ND | 0.5 | ug/L | | | | | |
| 1,3-Dichlorobenzene | ND | 0.5 | ug/L | | | | | |
| 1,4-Dichlorobenzene | ND | 0.5 | ug/L | | | | | |
| 1,1-Dichloroethane | ND | 0.5 | ug/L | | | | | |
| 1,2-Dichloroethane | ND | 0.5 | ug/L | | | | | |
| 1,1-Dichloroethylene | ND | 0.5 | ug/L | | | | | |
| cis-1,2-Dichloroethylene | ND | 0.5 | ug/L | | | | | |
| trans-1,2-Dichloroethylene | ND | 0.5 | ug/L | | | | | |
| 1,2-Dichloropropane | ND | 0.5 | ug/L | | | | | |
| cis-1,3-Dichloropropylene | ND | 0.5 | ug/L | | | | | |
| trans-1,3-Dichloropropylene | ND | 0.5 | ug/L | | | | | |
| 1,3-Dichloropropene, total | ND | 0.5 | ug/L | | | | | |
| Ethylbenzene | ND | 0.5 | ug/L | | | | | |
| Ethylene dibromide (dibromoethane, 1,2-) | ND | 0.2 | ug/L | | | | | |
| Hexane | ND | 1.0 | ug/L | | | | | |
| Methyl Ethyl Ketone (2-Butanone) | ND | 5.0 | ug/L | | | | | |
| Methyl Isobutyl Ketone | ND | 5.0 | ug/L | | | | | |
| Methyl tert-butyl ether | ND | 2.0 | ug/L | | | | | |
| Methylene Chloride | ND | 5.0 | ug/L | | | | | |
| Styrene | ND | 0.5 | ug/L | | | | | |

Certificate of Analysis

Report Date: 18-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Blank

| Analyte | Result | Reporting Limit | Units | %REC | %REC Limit | RPD | RPD Limit | Notes |
|---------------------------------|--------|-----------------|-------|------|------------|-----|-----------|-------|
| 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 | 72.6 | | % | 90.7 | 50-140 | | | |
| Surrogate: Dibromofluoromethane | 60.5 | | % | 75.6 | 50-140 | | | |
| Surrogate: Toluene-d8 | 83.0 | | % | 104 | 50-140 | | | |

Certificate of Analysis

Report Date: 18-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Duplicate

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|---------------|------|------------|-----|-----------|-------|
| Hydrocarbons | | | | | | | | | |
| F1 PHCs (C6-C10) | ND | 25 | ug/L | ND | | | NC | 30 | |
| Volatiles | | | | | | | | | |
| Acetone | ND | 5.0 | ug/L | ND | | | NC | 30 | |
| Benzene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Bromodichloromethane | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Bromoform | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Bromomethane | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Carbon Tetrachloride | ND | 0.2 | ug/L | ND | | | NC | 30 | |
| Chlorobenzene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Chloroform | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Dibromochloromethane | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Dichlorodifluoromethane | ND | 1.0 | ug/L | ND | | | NC | 30 | |
| 1,2-Dichlorobenzene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| 1,3-Dichlorobenzene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| 1,4-Dichlorobenzene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| 1,1-Dichloroethane | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| 1,2-Dichloroethane | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| 1,1-Dichloroethylene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| cis-1,2-Dichloroethylene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| trans-1,2-Dichloroethylene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| 1,2-Dichloropropane | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| cis-1,3-Dichloropropylene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| trans-1,3-Dichloropropylene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Ethylbenzene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Ethylene dibromide (dibromoethane, 1,2-) | ND | 0.2 | ug/L | ND | | | NC | 30 | |
| Hexane | ND | 1.0 | ug/L | ND | | | NC | 30 | |
| Methyl Ethyl Ketone (2-Butanone) | ND | 5.0 | ug/L | ND | | | NC | 30 | |
| Methyl Isobutyl Ketone | ND | 5.0 | ug/L | ND | | | NC | 30 | |
| Methyl tert-butyl ether | ND | 2.0 | ug/L | ND | | | NC | 30 | |
| Methylene Chloride | ND | 5.0 | ug/L | ND | | | NC | 30 | |

Certificate of Analysis

Report Date: 18-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Duplicate

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--|-------------|-----------------|----------|---------------|-------------|---------------|-----|-----------|-------|
| 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 | |
| <i>Surrogate: 4-Bromofluorobenzene</i> | <i>74.4</i> | | <i>%</i> | | <i>93.1</i> | <i>50-140</i> | | | |
| <i>Surrogate: Dibromofluoromethane</i> | <i>67.8</i> | | <i>%</i> | | <i>84.7</i> | <i>50-140</i> | | | |
| <i>Surrogate: Toluene-d8</i> | <i>85.2</i> | | <i>%</i> | | <i>106</i> | <i>50-140</i> | | | |

Certificate of Analysis

Report Date: 18-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Spike

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|---------------|------|------------|-----|-----------|-------|
| Hydrocarbons | | | | | | | | | |
| F1 PHCs (C6-C10) | 1900 | 25 | ug/L | ND | 110 | 85-115 | | | |
| Volatiles | | | | | | | | | |
| Acetone | 77.8 | 5.0 | ug/L | ND | 77.8 | 50-140 | | | |
| Benzene | 36.4 | 0.5 | ug/L | ND | 91.1 | 60-130 | | | |
| Bromodichloromethane | 33.5 | 0.5 | ug/L | ND | 83.8 | 60-130 | | | |
| Bromoform | 35.7 | 0.5 | ug/L | ND | 89.2 | 60-130 | | | |
| Bromomethane | 30.5 | 0.5 | ug/L | ND | 76.4 | 50-140 | | | |
| Carbon Tetrachloride | 32.1 | 0.2 | ug/L | ND | 80.2 | 60-130 | | | |
| Chlorobenzene | 36.4 | 0.5 | ug/L | ND | 91.1 | 60-130 | | | |
| Chloroform | 35.2 | 0.5 | ug/L | ND | 88.1 | 60-130 | | | |
| Dibromochloromethane | 34.6 | 0.5 | ug/L | ND | 86.6 | 60-130 | | | |
| Dichlorodifluoromethane | 33.5 | 1.0 | ug/L | ND | 83.6 | 50-140 | | | |
| 1,2-Dichlorobenzene | 38.2 | 0.5 | ug/L | ND | 95.4 | 60-130 | | | |
| 1,3-Dichlorobenzene | 37.5 | 0.5 | ug/L | ND | 93.7 | 60-130 | | | |
| 1,4-Dichlorobenzene | 38.5 | 0.5 | ug/L | ND | 96.2 | 60-130 | | | |
| 1,1-Dichloroethane | 36.1 | 0.5 | ug/L | ND | 90.4 | 60-130 | | | |
| 1,2-Dichloroethane | 37.3 | 0.5 | ug/L | ND | 93.2 | 60-130 | | | |
| 1,1-Dichloroethylene | 34.4 | 0.5 | ug/L | ND | 85.9 | 60-130 | | | |
| cis-1,2-Dichloroethylene | 34.5 | 0.5 | ug/L | ND | 86.3 | 60-130 | | | |
| trans-1,2-Dichloroethylene | 35.1 | 0.5 | ug/L | ND | 87.7 | 60-130 | | | |
| 1,2-Dichloropropane | 34.4 | 0.5 | ug/L | ND | 85.9 | 60-130 | | | |
| cis-1,3-Dichloropropylene | 32.3 | 0.5 | ug/L | ND | 80.8 | 60-130 | | | |
| trans-1,3-Dichloropropylene | 31.3 | 0.5 | ug/L | ND | 78.2 | 60-130 | | | |
| Ethylbenzene | 39.3 | 0.5 | ug/L | ND | 98.2 | 60-130 | | | |
| Ethylene dibromide (dibromoethane, 1,2-) | 31.0 | 0.2 | ug/L | ND | 77.6 | 60-130 | | | |
| Hexane | 34.8 | 1.0 | ug/L | ND | 87.0 | 60-130 | | | |
| Methyl Ethyl Ketone (2-Butanone) | 72.3 | 5.0 | ug/L | ND | 72.3 | 50-140 | | | |
| Methyl Isobutyl Ketone | 67.2 | 5.0 | ug/L | ND | 67.2 | 50-140 | | | |
| Methyl tert-butyl ether | 85.1 | 2.0 | ug/L | ND | 85.1 | 50-140 | | | |
| Methylene Chloride | 34.0 | 5.0 | ug/L | ND | 85.0 | 60-130 | | | |

Certificate of Analysis

Report Date: 18-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Method Quality Control: Spike

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|---------------|------|------------|-----|-----------|-------|
| Styrene | 36.6 | 0.5 | ug/L | ND | 91.6 | 60-130 | | | |
| 1,1,1,2-Tetrachloroethane | 32.5 | 0.5 | ug/L | ND | 81.2 | 60-130 | | | |
| 1,1,2,2-Tetrachloroethane | 32.1 | 0.5 | ug/L | ND | 80.4 | 60-130 | | | |
| Tetrachloroethylene | 39.9 | 0.5 | ug/L | ND | 99.7 | 60-130 | | | |
| Toluene | 37.6 | 0.5 | ug/L | ND | 94.1 | 60-130 | | | |
| 1,1,1-Trichloroethane | 31.6 | 0.5 | ug/L | ND | 79.0 | 60-130 | | | |
| 1,1,2-Trichloroethane | 32.3 | 0.5 | ug/L | ND | 80.8 | 60-130 | | | |
| Trichloroethylene | 35.6 | 0.5 | ug/L | ND | 89.0 | 60-130 | | | |
| Trichlorofluoromethane | 30.0 | 1.0 | ug/L | ND | 74.9 | 60-130 | | | |
| Vinyl chloride | 34.2 | 0.5 | ug/L | ND | 85.6 | 50-140 | | | |
| m,p-Xylenes | 72.5 | 0.5 | ug/L | ND | 90.7 | 60-130 | | | |
| o-Xylene | 33.8 | 0.5 | ug/L | ND | 84.4 | 60-130 | | | |
| <i>Surrogate: 4-Bromofluorobenzene</i> | 79.9 | | % | | 99.9 | 50-140 | | | |
| <i>Surrogate: Dibromofluoromethane</i> | 76.8 | | % | | 96.0 | 50-140 | | | |
| <i>Surrogate: Toluene-d8</i> | 83.3 | | % | | 104 | 50-140 | | | |

Certificate of Analysis

Report Date: 18-Dec-2024

Client: Terrapex Environmental Ltd. (Ottawa)

Order Date: 13-Dec-2024

Client PO:

Project Description: CO986.00/40 Beechcliffe Street

Qualifier Notes:

Sample Data Revisions:

None

Work Order Revisions / Comments:

The Sample Date for lab provided Trip QC samples is based on the date of preparation at the lab.

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

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

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

CCME PHC additional information:

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

Any use of these results implies your agreement that our total liability in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Parcel ID: 2450540



Blvd.
4J8
ss.com

Parcel Order Number
(Lab Use Only)

2450540

Chain Of Custody

(Lab Use Only)

No 77159

Client Name: Tessapex Environmental Ltd
 Contact Name: Greg Sabourin
 Address: 1-20 Grandview Rd, Nepean, ON
 Telephone: 613 745 6471

Project Ref: C0986.00
 Quote #: 00945.03 City of Ottawa Job
 PO #: City of Ottawa
 E-mail: g.sabourin@tessapex.com

Page 1 of 1

Turnaround Time

- 1 day 3 day
 2 day Regular

Date Required: _____

- REG 153/04 REG 406/19 **Other Regulation**
- Table 1 Agri/Other Med/Fine REG 558 PWQO
 Table 2 Res/Park Coarse CCME MISA
 Table 3 Ind/Comm SU - Sani SU - Storm
 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

| Sample ID/Location Name | Matrix | Air Volume | # of Containers | Field Filtered | Sample Taken | | VOC/BTEX/PHC/F | Required Analysis | | | | | | | | | | | | | |
|-------------------------|--------|------------|-----------------|----------------|--------------|-------|----------------|-------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | Date | Time | | | | | | | | | | | | | | | |
| 1 TRIP BLANK BUK 312 | | | 1 | N | 11/12/2024 | 14:30 | - | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | |

Comments: City of Ottawa Project / Nahid Arasteh
40 Beechcliffe

Method of Delivery:

Walk in

Relinquished By (Sign): [Signature]

Received at Depot:

Received at Lab:

Verified By: SS

Relinquished By (Print): SRGE

Date/Time:

Date/Time:

Date/Time:

Date/Time: 13/12/2024 11:30

Temperature:

°C

Temperature:

4.8 °C

pH Verified: By:

APPENDIX VII
QA/QC RESULTS

**APPENDIX VII: SUMMARY OF QA/QC SAMPLES AND RPD CALCULATIONS - GROUNDWATER
40 BEECHCLIFFE STREET, OTTAWA, ONTARIO**

| SAMPLE NAME | UNITS | GROUNDWATER ALERT CRITERIA | | | | MW111D | MW1111 | RPD | TRIP BLANK |
|--|-----------|----------------------------|-------|-----------------|-------------|-----------|-----------------|-----|------------|
| | | FIELD DUPLICATE | BLANK | SPIKED RECOVERY | | | | | |
| | | | | LOWER LIMIT | UPPER LIMIT | | | | |
| Sample Type | - | - | - | - | - | PARENT | FIELD DUPLICATE | - | BLANK |
| Screen Interval | m bgs | - | - | - | - | 3.4-6.4 | 3.4-6.4 | - | #N/A |
| Sampling Date | dd-mmm-yy | - | - | - | - | 12-Dec-24 | 12-Dec-24 | - | 26-Nov-24 |
| Analysis Date (on or before) | dd-mmm-yy | - | - | - | - | 24-Dec-24 | 24-Dec-24 | - | #N/A |
| Certificate of Analysis No. | - | - | - | - | - | 2450533 | 2450533 | - | 2450540 |
| METALS | | | | | | | | | |
| Barium | ug/L | >20% | >RDL | <70% | >130% | 69 | 66 | 4% | - |
| Beryllium | ug/L | >20% | >RDL | <70% | >130% | <0.5 | <0.5 | NC | - |
| Boron (Total) | ug/L | >20% | >RDL | <70% | >130% | 70 | 71 | 1% | - |
| Cadmium | ug/L | >20% | >RDL | <70% | >130% | <0.1 | <0.1 | NC | - |
| Chromium Total | ug/L | >20% | >RDL | <70% | >130% | <1 | <1 | NC | - |
| Cobalt | ug/L | >20% | >RDL | <70% | >130% | 3.4 | 3.4 | 0% | - |
| Copper | ug/L | >20% | >RDL | <70% | >130% | 0.7 | 0.8 | NC | - |
| Lead | ug/L | >20% | >RDL | <70% | >130% | <0.1 | <0.1 | NC | - |
| Molybdenum | ug/L | >20% | >RDL | <70% | >130% | 4.9 | 5.0 | 2% | - |
| Nickel | ug/L | >20% | >RDL | <70% | >130% | 12 | 12 | 0% | - |
| Silver | ug/L | >20% | >RDL | <70% | >130% | <0.1 | <0.1 | NC | - |
| Thallium | ug/L | >20% | >RDL | <70% | >130% | <0.1 | <0.1 | NC | - |
| Uranium | ug/L | >20% | >RDL | <70% | >130% | 11.6 | 11.0 | 5% | - |
| Vanadium | ug/L | >20% | >RDL | <70% | >130% | <0.5 | <0.5 | NC | - |
| Zinc | ug/L | >20% | >RDL | <70% | >130% | <5 | <5 | NC | - |
| HYDRIDE-FORMING METALS | | | | | | | | | |
| Antimony | ug/L | >20% | >RDL | <70% | >130% | <0.5 | <0.5 | NC | - |
| Arsenic | ug/L | >20% | >RDL | <70% | >130% | <1 | <1 | NC | - |
| Selenium | ug/L | >20% | >RDL | <70% | >130% | <1 | <1 | NC | - |
| OTHER REGULATED PARAMETERS (ORPs) | | | | | | | | | |
| Cyanide (CN-) | ug/L | >20% | >RDL | <70% | >130% | <2 | <2 | NC | - |
| Chromium VI | ug/L | >20% | >RDL | <70% | >130% | <10 | <10 | NC | - |
| Mercury | ug/L | >20% | >RDL | <70% | >130% | <0.1 | <0.1 | NC | - |
| pH | - | 0.3 | >RDL | - | - | 7.2 | 7.2 | 0% | - |
| Chloride | ug/L | >20% | >RDL | <70% | >130% | 130 | 130 | 0% | - |
| Sodium | ug/L | >20% | >RDL | <70% | >130% | 62800 | 62400 | 1% | - |
| POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) | | | | | | | | | |
| Acenaphthene | ug/L | >30% | >RDL | <50% | >140% | <0.05 | <0.05 | NC | - |
| Acenaphthylene | ug/L | >30% | >RDL | <50% | >140% | <0.05 | <0.05 | NC | - |
| Anthracene | ug/L | >30% | >RDL | <50% | >140% | <0.01 | <0.01 | NC | - |
| Benz[a]anthracene | ug/L | >30% | >RDL | <50% | >140% | <0.01 | <0.01 | NC | - |
| Benzo[a]pyrene | ug/L | >30% | >RDL | <50% | >140% | <0.01 | <0.01 | NC | - |
| Benzo[b]fluoranthene | ug/L | >30% | >RDL | <50% | >140% | <0.05 | <0.05 | NC | - |
| Benzo[ghi]perylene | ug/L | >30% | >RDL | <50% | >140% | <0.05 | <0.05 | NC | - |
| Benzo[k]fluoranthene | ug/L | >30% | >RDL | <50% | >140% | <0.05 | <0.05 | NC | - |
| Chrysene | ug/L | >30% | >RDL | <50% | >140% | <0.05 | <0.05 | NC | - |
| Dibenz[a h]anthracene | ug/L | >30% | >RDL | <50% | >140% | <0.05 | <0.05 | NC | - |
| Fluoranthene | ug/L | >30% | >RDL | <50% | >140% | <0.01 | <0.01 | NC | - |
| Fluorene | ug/L | >30% | >RDL | <50% | >140% | <0.05 | <0.05 | NC | - |
| Indeno[1 2 3-cd]pyrene | ug/L | >30% | >RDL | <50% | >140% | <0.05 | <0.05 | NC | - |
| Methylnaphthalene, 1- | ug/L | >30% | >RDL | <50% | >140% | <0.05 | <0.05 | NC | - |
| Methylnaphthalene, 2- | ug/L | >30% | >RDL | <50% | >140% | <0.05 | <0.05 | NC | - |
| Naphthalene | ug/L | >30% | >RDL | <50% | >140% | <0.05 | <0.05 | NC | - |
| Phenanthrene | ug/L | >30% | >RDL | <50% | >140% | <0.05 | <0.05 | NC | - |
| Pyrene | ug/L | >30% | >RDL | <50% | >140% | <0.01 | <0.01 | NC | - |
| BENZENE, TOLUENE, ETHYBENZENE, XYLENES (BTEX) | | | | | | | | | |
| Benzene | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Toluene | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Ethylbenzene | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| m-Xylene & p-Xylene | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| o-Xylene | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| PETROLEUM HYDROCARBONS (PHCs) | | | | | | | | | |
| Petroleum Hydrocarbons F2 | ug/L | 30% | >RDL | <60% | >140% | <100 | <100 | NC | - |
| Petroleum Hydrocarbons F3 | ug/L | 30% | >RDL | 60% | 140% | <100 | <100 | NC | - |
| Petroleum Hydrocarbons F4 | ug/L | 30% | >RDL | <60% | >140% | <100 | <100 | NC | - |
| VOLATILE ORGANIC COMPOUNDS (VOCs) | | | | | | | | | |
| Acetone | ug/L | >30% | >RDL | <50% | >140% | <5.0 | <5.0 | NC | <5.0 |
| Bromodichloromethane | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Bromoform | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Bromomethane | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Carbon Tetrachloride | ug/L | >30% | >RDL | <50% | >140% | <0.2 | <0.2 | NC | <0.2 |
| Chlorobenzene | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Chloroform | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Dibromochloromethane | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Dichlorobenzene, 1,2- | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Dichlorobenzene, 1,3- | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Dichlorobenzene, 1,4- | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Dichlorodifluoromethane | ug/L | >30% | >RDL | <50% | >140% | <1.0 | <1.0 | NC | <1.0 |
| Dichloroethane, 1,1- | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Dichloroethane, 1,2- | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Dichloroethylene, 1,1- | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Dichloroethylene, 1,2-cis- | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Dichloroethylene, 1,2-trans- | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Dichloropropene, 1,3-cis | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Dichloropropene, 1,3-trans | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Ethylene dibromide | ug/L | >30% | >RDL | <50% | >140% | <0.2 | <0.2 | NC | <0.2 |
| Hexane (n) | ug/L | >30% | >RDL | <50% | >140% | <1.0 | <1.0 | NC | <1.0 |
| Methyl Ethyl Ketone | ug/L | >30% | >RDL | <50% | >140% | <5.0 | <5.0 | NC | <5.0 |
| Methyl Isobutyl Ketone | ug/L | >30% | >RDL | <50% | >140% | <5.0 | <5.0 | NC | <5.0 |
| Methyl tert-Butyl Ether (MTBE) | ug/L | >30% | >RDL | <50% | >140% | <2.0 | <2.0 | NC | <2.0 |
| Methylene Chloride | ug/L | >30% | >RDL | <50% | >140% | <5.0 | <5.0 | NC | <5.0 |
| Styrene | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Tetrachloroethane, 1,1,1,2- | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Tetrachloroethane, 1,1,2,2- | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Tetrachloroethylene | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Trichloroethane, 1,1,1- | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Trichloroethane, 1,1,2- | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Trichloroethylene | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |
| Trichlorofluoromethane | ug/L | >30% | >RDL | <50% | >140% | <1.0 | <1.0 | NC | <1.0 |
| Vinyl Chloride | ug/L | >30% | >RDL | <50% | >140% | <0.5 | <0.5 | NC | <0.5 |

- Not analyzed
 m bgs meters below ground surface
 RPD Relative percent difference
 NC RPD not calculable due to results <5x RDL or one and/or both results are <RDL
 RDL Reportable Detection Limit
Value Exceeds applicable alert criteria or recovery range

**APPENDIX VII: SUMMARY OF QA/QC SAMPLES AND RPD CALCULATIONS - SOIL
40 BEACHCLIFFE STREET, OTTAWA, ONTARIO**

| SAMPLE NAME | UNITS | SOIL ALERT CRITERIA | | | | MW110-1A | MW110-1D | RPD | MW111-2C | MW111-2D | RPD | TP107-2 | TP107-12 | RPD | Methanol Blank |
|--|-----------|---------------------|-------|-----------------|-------------|-----------|-----------------|-----|-----------|-----------------|-----|-----------|-----------------|------|----------------|
| | | FIELD DUPLICATE | BLANK | SPIKED RECOVERY | | | | | | | | | | | |
| | | | | LOWER LIMIT | UPPER LIMIT | | | | | | | | | | |
| Sample Type | - | - | - | - | - | PARENT | FIELD DUPLICATE | - | PARENT | FIELD DUPLICATE | - | PARENT | FIELD DUPLICATE | - | BLANK |
| Sample Depth | m bgs | - | - | - | - | 0.0-1.4 | 0.0-1.4 | - | 2.3-3.1 | 2.3-3.1 | - | 0.5-1.1 | 0.5-1.1 | - | - |
| Sampling Date | dd-mmm-yy | - | - | - | - | 22-Nov-24 | 22-Nov-24 | - | 22-Nov-24 | 22-Nov-24 | - | 15-Jan-25 | 15-Jan-25 | - | 22-Nov-24 |
| Analysis Date (on or before) | dd-mmm-yy | - | - | - | - | 3-Dec-24 | 3-Dec-24 | - | 3-Dec-24 | 3-Dec-24 | - | 21-Jan-24 | 21-Jan-24 | - | - |
| Certificate of Analysis No. | - | - | - | - | - | 2448154 | 2448154 | - | 2448154 | 2448154 | - | 2503397 | 2503397 | - | 2448144 |
| METALS | | | | | | | | | | | | | | | |
| Barium | ug/g | >30% | >RDL | <70% | >130% | 107 | 126 | 16% | 306 | 280 | 9% | - | - | NC | - |
| Beryllium | ug/g | >30% | >RDL | <70% | >130% | <0.5 | <0.5 | NC | 0.7 | 0.6 | NC | - | - | NC | - |
| Boron (Total) | ug/g | >30% | >RDL | <70% | >130% | <5.0 | <5.0 | NC | 5.9 | 5.9 | NC | - | - | NC | - |
| Cadmium | ug/g | >30% | >RDL | <70% | >130% | <0.5 | <0.5 | NC | <0.5 | <0.5 | NC | - | - | NC | - |
| Chromium Total | ug/g | >30% | >RDL | <70% | >130% | 25.6 | 26.4 | 3% | 62.0 | 57.1 | 8% | - | - | NC | - |
| Cobalt | ug/g | >30% | >RDL | <70% | >130% | 6.9 | 6.9 | 0% | 14.6 | 13.8 | 6% | - | - | NC | - |
| Copper | ug/g | >30% | >RDL | <70% | >130% | 18.9 | 18.9 | NC | 32.9 | 30.7 | 7% | - | - | NC | - |
| Lead | ug/g | >30% | >RDL | <70% | >130% | 6.3 | 5.6 | 12% | 5.2 | 4.9 | NC | - | - | NC | - |
| Molybdenum | ug/g | >30% | >RDL | <70% | >130% | <1.0 | <1.0 | NC | <1.0 | <1.0 | NC | - | - | NC | - |
| Nickel | ug/g | >30% | >RDL | <70% | >130% | 14.7 | 15.8 | NC | 35.5 | 32.1 | 10% | - | - | NC | - |
| Silver | ug/g | >30% | >RDL | <70% | >130% | <0.3 | <0.3 | NC | <0.3 | <0.3 | NC | - | - | NC | - |
| Thallium | ug/g | >30% | >RDL | <70% | >130% | <1.0 | <1.0 | NC | <1.0 | <1.0 | NC | - | - | NC | - |
| Uranium | ug/g | >30% | >RDL | <70% | >130% | <1.0 | <1.0 | NC | <1.0 | <1.0 | NC | - | - | NC | - |
| Vanadium | ug/g | >30% | >RDL | <70% | >130% | 34.5 | 33.6 | NC | 65.4 | 60.7 | 7% | - | - | NC | - |
| Zinc | ug/g | >30% | >RDL | <70% | >130% | 38.3 | 36.5 | NC | 78.6 | 73.2 | NC | - | - | NC | - |
| HYDRIDE-FORMING METALS | | | | | | | | | | | | | | | |
| Antimony | ug/g | >30% | >RDL | <70% | >130% | <1.0 | <1.0 | NC | <1.0 | <1.0 | NC | - | - | NC | - |
| Arsenic | ug/g | >30% | >RDL | <70% | >130% | 2.2 | 2.3 | NC | 2.5 | 2.7 | NC | - | - | NC | - |
| Selenium | ug/g | >30% | >RDL | <70% | >130% | <1.0 | <1.0 | NC | <1.0 | <1.0 | NC | - | - | NC | - |
| OTHER REGULATED PARAMETERS (ORPs) | | | | | | | | | | | | | | | |
| Boron (Hot Water Soluble) | ug/g | >40% | >RDL | <60% | >140% | <0.5 | <0.5 | NC | - | - | NC | - | - | NC | - |
| Cyanide (CN-) | ug/g | >35% | >RDL | <70% | >130% | <0.03 | <0.03 | NC | - | - | NC | - | - | NC | - |
| Chromium VI | ug/g | >35% | >RDL | <70% | >130% | <0.2 | <0.2 | NC | - | - | NC | - | - | NC | - |
| Mercury | ug/g | >30% | >RDL | <70% | >130% | <0.1 | <0.1 | NC | - | - | NC | - | - | NC | - |
| pH | pH Units | 0.3 | >RDL | - | - | 7.41 | 7.37 | 4% | - | - | NC | - | - | NC | - |
| Electrical Conductivity | uS/cm | >10% | >RDL | - | - | 195 | 158 | 21% | - | - | NC | - | - | NC | - |
| Sodium Adsorption Ratio | N/A | - | >RDL | - | - | 0.10 | 0.09 | 11% | - | - | NC | - | - | NC | - |
| POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) | | | | | | | | | | | | | | | |
| Acenaphthene | ug/g | >40% | >RDL | <50% | >140% | <0.02 | <0.02 | NC | <0.02 | - | NC | 0.03 | 0.57 | NC | - |
| Acenaphthylene | ug/g | >40% | >RDL | <50% | >140% | <0.02 | <0.02 | NC | <0.02 | - | NC | 0.15 | 0.48 | 105% | - |
| Anthracene | ug/g | >40% | >RDL | <50% | >140% | <0.02 | <0.02 | NC | <0.02 | - | NC | 0.24 | 1.95 | 156% | - |
| Benzo[a]anthracene | ug/g | >40% | >RDL | <50% | >140% | <0.02 | 0.02 | NC | <0.02 | - | NC | 0.52 | 1.66 | 105% | - |
| Benzo[a]pyrene | ug/g | >40% | >RDL | <50% | >140% | 0.03 | 0.04 | NC | <0.02 | - | NC | 0.47 | 1.26 | 91% | - |
| Benzo[b]fluoranthene | ug/g | >40% | >RDL | <50% | >140% | 0.02 | 0.03 | NC | <0.02 | - | NC | 0.47 | 1.37 | 98% | - |
| Benzo[ghi]perylene | ug/g | >40% | >RDL | <50% | >140% | <0.02 | 0.03 | NC | <0.02 | - | NC | 0.29 | 0.76 | 90% | - |
| Benzo[k]fluoranthene | ug/g | >40% | >RDL | <50% | >140% | <0.02 | 0.02 | NC | <0.02 | - | NC | 0.31 | 0.88 | 96% | - |
| Chrysene | ug/g | >40% | >RDL | <50% | >140% | <0.02 | 0.04 | NC | <0.02 | - | NC | 0.48 | 1.69 | 112% | - |
| Dibenz[a,h]anthracene | ug/g | >40% | >RDL | <50% | >140% | <0.02 | <0.02 | NC | <0.02 | - | NC | 0.08 | 0.21 | NC | - |
| Fluoranthene | ug/g | >40% | >RDL | <50% | >140% | 0.05 | 0.08 | NC | <0.02 | - | NC | 1.40 | 7.09 | 134% | - |
| Fluorene | ug/g | >40% | >RDL | <50% | >140% | <0.02 | <0.02 | NC | <0.02 | - | NC | 0.03 | 0.93 | NC | - |
| Indeno[1,2,3-cd]pyrene | ug/g | >40% | >RDL | <50% | >140% | <0.02 | 0.02 | NC | <0.02 | - | NC | 0.29 | 0.83 | 96% | - |
| Methylnaphthalene, 1- | ug/g | >40% | >RDL | <50% | >140% | <0.02 | <0.02 | NC | <0.02 | - | NC | <0.02 | 0.17 | NC | - |
| Methylnaphthalene, 2- | ug/g | >40% | >RDL | <50% | >140% | <0.02 | <0.02 | NC | <0.02 | - | NC | <0.02 | 0.20 | NC | - |
| Methylnaphthalene, 2-(1-) | ug/g | - | >RDL | - | - | <0.04 | <0.04 | NC | <0.04 | - | NC | <0.04 | 0.37 | NC | - |
| Naphthalene | ug/g | >40% | >RDL | <50% | >140% | <0.01 | <0.01 | NC | <0.01 | - | NC | <0.01 | 0.22 | NC | - |
| Phenanthrene | ug/g | >40% | >RDL | <50% | >140% | <0.02 | 0.03 | NC | <0.02 | - | NC | 0.52 | 7.44 | 174% | - |
| Pyrene | ug/g | >40% | >RDL | <50% | >140% | 0.05 | 0.07 | NC | <0.02 | - | NC | 1.20 | 4.97 | 122% | - |
| BENZENE, TOLUENE, ETHYBENZENE, XYLENES (BTEX) | | | | | | | | | | | | | | | |
| Benzene | ug/g | >50% | >RDL | <50% | >140% | <0.02 | - | NC | <0.02 | <0.02 | NC | - | - | NC | <0.02 |
| Toluene | ug/g | >50% | >RDL | <50% | >140% | <0.05 | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Ethylbenzene | ug/g | >50% | >RDL | <50% | >140% | <0.05 | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| m-Xylene & p-Xylene | ug/g | >50% | >RDL | <50% | >140% | <0.05 | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| o-Xylene | ug/g | >50% | >RDL | <50% | >140% | <0.05 | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| PETROLEUM HYDROCARBONS (PHCs) | | | | | | | | | | | | | | | |
| Petroleum Hydrocarbons F2 | ug/g | 30% | >RDL | <60% | >140% | <4 | - | NC | <4 | <4 | NC | - | - | NC | - |
| Petroleum Hydrocarbons F3 | ug/g | 30% | >RDL | 60% | 140% | <8 | - | NC | <8 | <8 | NC | - | - | NC | - |
| Petroleum Hydrocarbons F4 | ug/g | 30% | >RDL | <60% | >140% | <6 | - | NC | <6 | <6 | NC | - | - | NC | - |

APPENDIX VII: SUMMARY OF QA/QC SAMPLES AND RPD CALCULATIONS - SOIL
40 BEACHCLIFFE STREET, OTTAWA, ONTARIO

| SAMPLE NAME | UNITS | SOIL ALERT CRITERIA | | | | MW110-1A | MW110-1D | RPD | MW111-2C | MW111-2D | RPD | TP107-2 | TP107-12 | RPD | Methanol Blank |
|--|-----------|---------------------|-------|-----------------|-------------|-----------|-----------------|-----|-----------|-----------------|-----|-----------|-----------------|-----|----------------|
| | | FIELD DUPLICATE | BLANK | SPIKED RECOVERY | | | | | | | | | | | |
| | | | | LOWER LIMIT | UPPER LIMIT | | | | | | | | | | |
| Sample Type | - | - | - | - | - | PARENT | FIELD DUPLICATE | - | PARENT | FIELD DUPLICATE | - | PARENT | FIELD DUPLICATE | - | BLANK |
| Sample Depth | m bgs | - | - | - | - | 0.0-1.4 | 0.0-1.4 | - | 2.3-3.1 | 2.3-3.1 | - | 0.5-1.1 | 0.5-1.1 | - | - |
| Sampling Date | dd-mmm-yy | - | - | - | - | 22-Nov-24 | 22-Nov-24 | - | 22-Nov-24 | 22-Nov-24 | - | 15-Jan-25 | 15-Jan-25 | - | 22-Nov-24 |
| Analysis Date (on or before) | dd-mmm-yy | - | - | - | - | 3-Dec-24 | 3-Dec-24 | - | 3-Dec-24 | 3-Dec-24 | - | 21-Jan-24 | 21-Jan-24 | - | - |
| Certificate of Analysis No. | - | - | - | - | - | 2448154 | 2448154 | - | 2448154 | 2448154 | - | 2503397 | 2503397 | - | 2448144 |
| VOLATILE ORGANIC COMPOUNDS (VOCs) | | | | | | | | | | | | | | | |
| Acetone | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.50 | <0.50 | NC | - | - | NC | <0.50 |
| Bromodichloromethane | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Bromoform | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Bromomethane | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Carbon Tetrachloride | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Chlorobenzene | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Chloroform | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Dibromochloromethane | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Dichlorobenzene, 1,2- | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Dichlorobenzene, 1,3- | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Dichlorobenzene, 1,4- | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Dichlorodifluoromethane | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Dichloroethane, 1,1- | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Dichloroethane, 1,2- | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Dichloroethylene, 1,1- | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Dichloroethylene, 1,2-cis- | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Dichloroethylene, 1,2-trans- | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Dichloropropene, 1,3-cis | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Dichloropropene, 1,3-trans | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Ethylene dibromide | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Hexane (n) | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Methyl Ethyl Ketone | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.50 | <0.50 | NC | - | - | NC | <0.50 |
| Methyl Isobutyl Ketone | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.50 | <0.50 | NC | - | - | NC | <0.50 |
| Methyl tert-Butyl Ether (MTBE) | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Methylene Chloride | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Styrene | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Tetrachloroethane, 1,1,1,2- | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Tetrachloroethane, 1,1,2,2- | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Tetrachloroethylene | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Trichloroethane, 1,1,1- | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Trichloroethane, 1,1,2- | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Trichloroethylene | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Trichlorofluoromethane | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.05 | <0.05 | NC | - | - | NC | <0.05 |
| Vinyl Chloride | ug/g | >50% | >RDL | <50% | >140% | - | - | NC | <0.02 | <0.02 | NC | - | - | NC | <0.02 |

- Not analyzed
 m bgs meters below ground surface
 RPD Relative percent difference
 NC RPD not calculable due to results <5x RDL or one and/or both results are <RDL
 RDL Reportable Detection Limit
Value Exceeds applicable alert criteria or recovery range

APPENDIX VIII
PHASE TWO CONCEPTUAL SITE MODEL

PHASE TWO CONCEPTUAL SITE MODEL SOUTHERN PORTION OF 40 BEECHCLIFFE STREET IN OTTAWA, ONTARIO

A preliminary conceptual site model (CSM) was developed as part of the Phase One ESA which is discussed in Section 4.3 of the Phase Two ESA report. Following completion of the Phase Two ESA field program, the CSM has been updated to present the Site characteristics (prior to any efforts to reduce contaminant concentrations), identify and evaluate areas of contaminant impact, including their sources, exposure routes, and receptors at risk.

The Phase Two CSM narrative is provided below, illustrated and supported by Figures 1 through 23 (attached).

| Requisite Component | Description & Assessment |
|--|---|
| Section 1. A description and assessment of, | |
| i. Areas where potentially contaminating activity (PCA) has occurred, | A total of one on-Site and two off-Site PCAs are deemed to have affected the property, as summarized in Table 2, appended. The locations of all PCAs within the Phase One Study Area are shown in Figure 4. |
| ii. areas of potential environmental concern (APECs), | A total of two APECs have been identified associated with the aforementioned on-Site and off-Site PCAs, as summarised in the appended Table 3 and on Figure 5A. |
| iii. any subsurface structures and utilities on, in or under the Phase Two Property that may affect contaminant distribution and transport. | <p>During the Phase Two ESA work program, local utility companies were contacted in order to obtain stake outs and clearance with respect to buried services under the Phase Two Property. Private locating companies (Multiview Locates Inc. & USL-1) were also retained to provide clearance with respect to buried services in the drill and test pit excavation areas. Underground utilities at the Phase Two Property included storm and sanitary sewer lines, natural gas, electrical and telephone. These utilities are typically at depths ranging from 0.3 to 3.0 m below ground surface (bgs).</p> <p>Based on the presence of the sanitary and storm sewer at the Site, it may affect the shallow groundwater flow direction and thus may affect contaminant distribution. The depth of groundwater was measured to be at least 4.62 m bgs and the results of the Phase Two ESA indicate that the groundwater conditions at the Phase Two Property meet the Table 3 SCS.</p> <p>Sanitary and storm sewer are shown in the drawings and cross sections where applicable..</p> |
| Section 2. Provide a narrative description of and, as appropriate, figures illustrating, the physical setting of the Phase Two Property and any areas under it including, | <p>The Phase Two Property measures with an average ground surface elevation of 89 m above sea level (asl). Pertinent current and former site features are summarized in Figure 2.</p> <p>The Phase One Study Area ("surrounding area") covers land uses within a 250 m radius of the Phase Two Property, as shown in Figure 3. There are no water bodies, permanent streams, rivers or similar watercourses, ponds, or areas of natural significance on the Phase Two Property or within the 250 m Phase One Study Area, as shown in Figure 3.</p> |
| i. stratigraphy from ground surface to the deepest aquifer or aquitard investigated, | <p>Fill material generally extended to depths of 2.6 m bgs throughout the Phase Two Property. The fill layer generally comprised brown and/or grey sand, gravel, and sandy to clayey silt, with occasional asphalt.</p> <p>The fill was underlain by native strata of silty clay to depths of 4.0 m bgs overlying sand to a depth of 6.1 m bgs (the maximum depth of investigation).</p> <p>Bedrock was not encountered during the investigation.</p> <p>Please refer to Cross-Sections A-A', and B-B', presented as Figures 6A, and 6B, respectively. The locations of the Cross-Sections are shown on Figure 5B.</p> |

| Requisite Component | Description & Assessment |
|--|---|
| ii. hydrogeological characteristics, including aquifers, aquitards and, in each hydrostratigraphic unit where one or more contaminants is present at concentrations above the applicable site condition standards, lateral and vertical gradients, | <p>Chemical impacts to soil and groundwater were identified at the southern portion of the Site. At this location fill material was identified as impacted with PAH parameters to a maximum inferred depth of 2.3 m bgs.</p> <p>There is a single hydrostratigraphic unit at the Phase Two Property, which extends to at least 6.1 m bgs.</p> <p>Groundwater monitoring wells completed for the investigation of chemical impacts to groundwater were installed to intersect groundwater strikes revealed during borehole drilling. The shallow groundwater was generally encountered within the silty clay to sand stratum at depths ranging between 4.62 to 4.89 m bgs. A lateral gradient of 0.020 was calculated with a flow direction towards the northeast.</p> <p>The QP determined that the soil at the Site is classified as coarse-textured (per the definitions of O. Reg. 153/04), as more than one-third of the soil (measured by volume) constitutes coarse-textured soil especially considering the presence of the native sand material underlying the native silty clay layer.</p> |
| iii. approximate depth to bedrock, | <p>Lower Ordovician dolostone, sandstone of the Beekmantown Group at is estimated at approximately 21 m bgs. Bedrock was not encountered during the subsurface investigations, which reached the maximum depth of 6.1 m bgs.</p> |
| iv. approximate depth to water table, | <p>Based on observations during borehole drilling and water level measurements, the shallow water table generally resides in the silty sand to sand stratum at depths ranging between 3.5 and 5.0 m bgs. Please refer to Figure 7.</p> |
| v. any respect in which section 35, 41 or 43.1 of the regulation applies to the property, | <p>Section 35 is not applicable. Ministry of Environment, Conservation and Parks (MECP) Well Records Dataset and ERIS Water Well Information System database report 17 well records on properties wholly or partially within 250 m radius of the Phase Two Property (Figure 3), two of which were identified for use for potable water supply. Based on date of installation of the wells and the redevelopment in the area it is not believed that these supply wells are still in use.</p> <p>The Phase Two Property is not located in an area designated in the municipal official plan as a well-head protection area or other designation identified by the municipality for the protection of groundwater (IPZ 8.1). All properties within 250 m radius of the Phase Two Property boundaries are deemed to be supplied by a municipal drinking water system. The City of Ottawa has provided written confirmation (mmm dd, yyyy) that it does not object to the application of non-potable groundwater site condition standards in relation to environmental assessment of the Phase Two Property.</p> <p>Section 41 is not applicable. No Areas of Natural Significance were identified on the Phase Two Property, or in the Phase One study area. A total of 13 samples (including two duplicates) of surface and subsurface soil were collected from the Phase Two Property at various depths (including "surface" and "subsurface" samples) and analyzed for pH. The pH for surface and subsurface soils ranges between 7.3 and 75.0 (surface soil), and were 7.38 (subsurface soil), and are within acceptable limits.</p> <p>Section 43.1 is not applicable. The Phase Two Property is not considered to be a shallow soil property. The Phase Two Property does not include, nor is located within, 30 m of a water body.</p> |
| vi. areas on, in or under the Phase Two Property where excess soil is finally placed, and | <p>Although fill materials exist at the Phase Two Property, no soil has been imported to the Phase Two Property from another property during or subsequent to this Phase Two ESA.</p> |
| vii. approximate locations, if known, of any proposed buildings and other structures. | <p>It is proposed that new residential multi-storey buildings be constructed at the Site.</p> |

| Requisite Component | Description & Assessment |
|---|--|
| Section 3. Provide where a contaminant is present, in or under the Phase Two Property at a concentration greater than the applicable site condition standard, identification of, | The evaluation of impacts in soil and groundwater is based upon analytical data obtained during this Phase Two ESA. |
| i. each area where a contaminant is present on, in or under the Phase Two Property at a concentration greater than the applicable site condition standard, | Figures 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 and 20 illustrate sampling locations with respect to the APECs for soil and groundwater for the various parameter groups. Impact Area 1 (southern portion): Soils impacted with PAHs to maximum inferred depths of 1.6 and 2.3 m bgs, respectively. |
| ii. the contaminants associated with each of the areas referred to in subparagraph A, | Impact Area 1 <ul style="list-style-type: none"> PAHs (acenaphthylene, anthracene, benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[g,h,i]fluoranthene, benzo[k]fluoranthene, dibenz[a,h]anthracene, fluoranthene, indeno[1 2 3-cd]pyrene and phenanthrene) |
| iii. each medium in which a contaminant associated with an area referred to in subparagraph is present, | Impact Area 1 <ul style="list-style-type: none"> PAHs (acenaphthylene, anthracene, benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[g,h,i]fluoranthene, benzo[k]fluoranthene, dibenz[a,h]anthracene, fluoranthene, indeno[1 2 3-cd]pyrene and phenanthrene) - soil |
| iv. a description and assessment of what is known about each of the areas referred to in subparagraph A, | Impact Area 1 <ul style="list-style-type: none"> Impact Area 1 is located to the south of the sanitary sewer located on the southeastern portion of the Site. The PAH impacts are present in the fill layer which has an approximate depth of between 1.5 to 2.3 m bgs. The fill layer is described as silty sand with trace amounts of gravel with various amounts of anthropogenic debris consisting of brick, asphalt and wood. The impact area is generally congruent with the area of the disturbed soil visible in the 1965 aerial Photograph. The area of impact could have potentially also affected by the construction work visible in 2012 aerial photograph. |
| v. the distribution, in each of the areas referred to in subparagraph A, of each contaminant present in the area at a concentration greater than the applicable site condition standard, for each medium in which the contaminant is present, together with figures showing the distribution, | Figures 11A through 11C show the distribution of contaminant impacts to soil beneath the Phase Two Property. Impact Area 1 The PAH impacted fill material present in the southeastern portion of the Site were identified in sample locations MW111/MW111D, BH113, TP107, TP108, and TP109. Maximum concentrations of PAH parameters were identified at test pit TP107 (duplicate sample TP107-12). Vertical delineation of the PAH impacted fill was provided by soil samples MW111-2C and TP107-4 which are located at maximum depth of 2.3 m bgs, collected in the underlying native silty clay soil. The PAH soil impacts likely extend to the Site's southern and eastern property boundaries. Delineation to the north is provided by sampling locations TP103, TP104 and TP106. Delineation to the west is provided by TP110, BH112 and TP111. |
| vi. Anything known about the reason for the discharge of the contaminants present on, in or under the Phase Two Property at a concentration greater than the applicable site condition standard into the natural environment, | Impact Area 1 PAH contaminant to fill material is anticipated to be related to APEC 1. |
| vii. Anything known about migration of the contaminants | Impact Area 1 |

| Requisite Component | Description & Assessment |
|--|--|
| present on, in or under the Phase Two Property at a concentration greater than the applicable site condition standard away from any area of potential environmental concern, including the identification of any preferential pathways, | PAH impacts appear to be immobile and unlikely to migrate. No groundwater impacts were identified at MW111D (where soil impacts were identified) as additional support that the soil impacts are unlikely to migrate. |
| viii. Climatic or meteorological conditions that may have influenced distribution and migration of the contaminants, such as temporal fluctuations in groundwater levels, and | Climatic or meteorological conditions could influence the distribution and migration of any identified contaminants by raising or lowering the groundwater table. Since the PAH impacts in Impact Area 1 are located in the fill material, which is in the unsaturated zone, it is unlikely to be affected by climatic or meteorological conditions. |
| ix. If applicable, information concerning soil vapour intrusion of the contaminants into building including, (A) relevant construction features of a building, such as a basement or crawl space, (B) building heating, ventilation and air conditioning design and operation, (C) subsurface utilities. | Soil vapour intrusion has not been assessed for the PAH impacts. |

| Requisite Component | Description & Assessment |
|--|---|
| <p>Section 4. Provide, where contaminants on, in or under the phase two property are present at concentrations greater than the applicable site condition standard, two or more cross-sections showing, by parameter group as defined in the Analytical Protocol for which a contaminant has been analysed,</p> <ol style="list-style-type: none"> the lateral and vertical distribution of each contaminant in each area where the contaminant is present at a concentration greater than the applicable site condition standard in soil, ground water and sediment, approximate depth to water table in each area referred to in subparagraph i, stratigraphy from ground surface to the deepest aquifer or aquitard investigated, and any subsurface structures and utilities that may affect contaminant distribution and transport in each area referred to in subparagraph i. | <p>Impacts to Soil</p> <p>Cross-sections describing the vertical and lateral distribution of impacts to soil from PAHs are shown in the following Figures:</p> <ul style="list-style-type: none"> Figure 11A: Soil Contaminant Delineation – PAHs (Plan View) Figure 11B: Soil Contaminant Delineation – PAHs (Section A-A') Figure 11C: Soil Contaminant Delineation – PAHs (Section B-B') <p>Impacts to Groundwater</p> <p>Not Applicable as all of the groundwater samples met the applicable Table 3 SCS.</p> |
| <p>Section 5. Provide, for each area where a contaminant is present on, in or under the property at a concentration greater than the applicable site condition standard for the contaminant, a diagram identifying, with narrative explanatory notes,</p> <ol style="list-style-type: none"> the release mechanisms, contaminant transport pathway, the human and ecological receptors located on, in or under the phase two property, receptor exposure points, and routes of exposure. | <p>APEC 1 is related to the presence of PAH contaminant to the shallow fill layer beneath the southeastern portion of the Site. The presence of the PAH impacted fill is likely related to the importation of the fill.</p> <p>As the Phase Two Property is located in an urban area where groundwater is not extracted for potable consumption, potable water consumption pathway is not considered viable.</p> <p>There are no surface water bodies or areas of sediment present on the Phase Two Property, and as such these do not represent contaminant receptors.</p> <p>Generally, impacts can be transported through one or more of the following release mechanisms and transport pathways:</p> <ul style="list-style-type: none"> Contaminant leaching: Contaminants leach from the fill materials into surrounding soils and groundwater due to water infiltration and moisture movement. Groundwater migration: contaminants dissolved in groundwater and migrated laterally and vertically. Soil vapour migration: vapour can move through soil pores depending on soil permeability and vapour pressure. Volatilization and vapour intrusion: vapour can volatilize from soil r into air depending on the physical condition of the environment and the chemical properties of COC. . <p>Based on the results, the PAH impacts appear limited to the fill material on a portion of the Site. Based on the limited extent of the impacts and the nature of the contaminants, the risk of migration appears to be low.</p> <p>As future land use for the Site is residential, human receptors include resident, property visitor, subsurface worker, outdoor worker, and indoor worker.</p> |

| Requisite Component | Description & Assessment |
|--|---|
| | <p>Complete human health pathways include direct contact with soil (via incidental ingestion, dermal contact, and inhalation of particulates),, inhalation of soil contaminants of concern (CoCs) vapour in indoor air, and inhalation of soil CoCs vapour in outdoor / trench air.</p> <p>Based on the proposed residential property use, the anticipated ecological receptors include soil invertebrates and terrestrial plants, mammals and birds, and off-site aquatic receptors.</p> <p>Completed ecological pathways include the following: plants and soil invertebrates may be in direct soil contact (root uptake or dermal and/or ingestion), indirect soil contact (plant / stem / foliar uptake or inhalation of volatile/particulate in ambient air), or inhalation of volatile COCs in ambient air); mammals and birds may be in direct contact with impacted soil, ingestion of prey items, inhalation of volatiles/particulates in ambient air. As such, the release mechanisms, contaminant transport pathways, human and ecological receptors, receptor exposure points, and routes of exposure for the two APECs are presented in Figures 22A and 22B, respectively.</p> |
| <p>Section 6. If a non-standard delineation was conducted in accordance with section 7.1 of this Schedule as part of preparing the phase two environmental site assessment report, provide a narrative description of how the non-standard delineation satisfies the requirements in that section.</p> | <p>Not Applicable – A risk assessment has not been conducted for the Phase Two Property.</p> |
| <p>Section 7. If the exemption set out in paragraph 1, 1.1 or 2 of section 49.1 of the regulation is being relied upon, provide a statement as to the reliance upon the exemption and a narrative description of the rationale for relying upon the exemption, which may be based on information gathered during the site investigation.</p> | <p>Section 49.1 provides exemption if applicable site conditions standards are exceeded on the basis that:</p> <ul style="list-style-type: none"> (1.) substances applied to surfaces for safety of vehicular or pedestrian traffic under conditions of snow or ice or both. (1.1) excess soil deposited at the Phase Two Property for final placement meets the soil quality standards that apply to the Phase Two Property as determined in accordance with the Excess Soil Standards (2.) due to a discharge of drinking water within the meaning of the Safe Drinking Water Act, 2002 <p>Paragraph 1. of Section 49.1 is not being relied upon. Paragraphs 1.1 and 2 of section 49.1 are not being relied upon.</p> |
| <p>Section 8. If the exemption set out in paragraph 3 of section 49.1 of the regulation is being relied upon, provide,</p> <ul style="list-style-type: none"> i. a statement as to the reliance upon the exemption, ii. a narrative description of the rationale for relying upon the exemption, which may be based on information gathered during the site investigation, and iii. one or more cross-sections and one or more figures in plan view of the phase two property that demonstrate, through identification of sample locations, sample depths and contaminant concentrations, the distribution of the contaminant in question laterally and vertically and the | <p>Paragraph 3 of section 49.1 provides exemption if applicable site conditions standards are exceeded on the basis that the concentration of the contaminant does not exceed naturally occurring range of concentrations of that contaminant typically found within the area in which the Phase Two Property is located.</p> <p>Paragraph 3 of section 49.1 is not being relied upon.</p> |

| Requisite Component | Description & Assessment |
|---|--------------------------|
| range of concentrations of that contaminant on, in or under the phase two property. | |

The Phase Two CSM is based on the following Phase Two ESA summary information:

Terrapex was retained by the City of Ottawa (the City) to conduct a Phase Two Environmental Site Assessment (ESA) of the property located at 40 Beechcliffe Street, Ottawa, Ontario (the Phase Two Property, hereinafter also referred to as the Site).

It is understood that the Client is proposing to develop portions of the Site with a housing development. The Site has never been developed. However, instances of possible fill placement were identified in 1965 and during construction work associated with the installation of a sanitary sewer in 2012 which crosses the Site. The proposed change from a vacant property to residential development does not require the filing of a Record of Site Condition (RSC), per Ontario Regulation (O. Reg. 153/04) under the Environmental Protection Act (*Records of Site Condition – Part XV.1 of the Act*).

The date the last work on all of the planning of the site investigation, conducting the site investigation and reviewing and evaluating the information gathered through the site investigation required for the Phase Two ESA (per Section 35.5 (1) (a) of O. Reg. 153/04) is February 1, 2025, the date the Qualified Person reviewed the final laboratory results pertaining to samples recovered from the Phase Two Property.

A Phase One ESA was completed by Terrapex in January 2025 in accordance with the requirements of O. Reg. 153/04; the date of last work being January 17, 2025. The Phase One ESA identified three areas of potential environmental concern (APECs) at the Site, resulting from past importation of fill to the Site and off-Site properties.

The Phase Two ESA was subsequently conducted by Terrapex to investigate the environmental quality of soil and groundwater at and in the vicinity of the APECs identified at the Site. The Phase Two ESA consisted of the completion of seven boreholes to a maximum depth of 6.1 m bgs, installation of six groundwater monitoring wells (including the replacement of the three initial monitoring wells that were found to be dry), and the collection of soil and groundwater samples for laboratory analysis to augment previous sampling and analysis of contaminants of potential concern (COPCs) identified for the Site. An additional 13 test pits were excavated for delineation purposes.

A summary of the COPC sampling locations for each APEC and potentially affected media is provided in the table below.

SUMMARY OF SAMPLING LOCATIONS

| APEC | MEDIA POTENTIALLY IMPACTED | CONTAMINANTS OF POTENTIAL CONCERN | SAMPLING LOCATIONS | |
|--|----------------------------|-----------------------------------|--|-------------------|
| | | | SOIL | GROUNDWATER |
| APEC 1 (Imported Fill) | Soil (Fill Material) | Metals & Inorganics | BH107-1B, BH108-1A, MW109-1A, MW110-1A, MW111-B, BH112-1B. | |
| | | PAHs | BH107-1B, BH108-1A, MW109-1A, MW110-1A, MW111-B, MW111-2C, MW111D-5, BH112-1B, BH113-1, BH114-1 TP103-2, TP103-4, TP104-2, TP106-3, TP107-2, TP107-4, TP108-2, TP109-1, TP110-2 and TP11-3. | |
| | | PHCs F1-F4 | MW107-1B, BH108-1A, MW109-1A, MW110-1A, MW111-B, MW111-2C and BH112-1B. | |
| | | BTEX | MW107-1B, BH108-1A, MW109-1A, MW110-1A, MW111-B, MW111-2C and BH112-1B. | |
| APEC 2 (Former garage and current retail fuel outlet) | Soil & Groundwater | Metals (including HFM metals) | MW109-3A and MW111-2C | MW109D and MW111D |
| | | PHCs F1-F4 | MW109-3A and MW111-2C | MW109D and MW111D |
| | | BTEX | MW109-3A and MW111-2C | MW109D and MW111D |
| | | VOCs | MW109-3A and MW111-2C | MW109D and MW111D |
| Supplemental Analysis* | N/A | PHCs F1-F4 | BH107-3A | MW110D |
| | | BTEX | BH107-3A | MW110D |
| | | VOCs | BH107-3A | MW110D |
| | | ORPs | | MW111D |
| | | PAHs | | MW111D |

BTEX: Benzene, toluene, ethylbenzene, xylene

PHCs: Petroleum hydrocarbons (fractions F1 to F4)

PAHs: Polycyclic aromatic hydrocarbons

VOCs: Volatile Organic Compounds

HFM: hydride forming metals

ORPs: Other Regulated Parameters

Due to the proposed development of the Site for residential property use, the generic full-depth Ministry of the Environment, Conservation and Parks (MECP) SCS applicable to residential property use in a non-potable groundwater condition with coarse-textured soil (Table 3 SCS) was selected to evaluate soil and groundwater quality at the Site.

Based on field observations and an evaluation of soil and groundwater quality data, the following conclusions are provided:

- The soil stratigraphy encountered in the boreholes and test pits at the Site generally consisted of a fill material consisting of sand containing varying gravel fractions ranging from some gravel to gravelly, trace silt, organics and/or construction debris. The fill materials were underlain by a deposit of native brownish olive silty clay, overlying grey sand soil. The colour of the native sand becomes brownish grey or grey at depths between 3 and 4 m bgs, and the boreholes were terminated within the sand deposit at depths between 4.5 to 6.1 m bgs, which represents the maximum depth of investigation.
- In December 2024, monitoring wells MW109D, MW110D, and MW111D were monitored. During the December 2024 monitoring event, the depth to groundwater was measured between 4.62 m bgs (MWMW109D) and 4.89 m bgs (MW111D).
- The findings of the December 11, 2024 monitoring event indicated that the groundwater flow is towards the northeast. The groundwater flow direction was likely influenced by the presence of nearby storm and sanitary sewer which transverse the southern portion of the Site. The groundwater monitoring data is summarised in Table 4 (appended) and the interpreted groundwater elevation contours are shown on Figure 7.
- No evidence of non aqueous phase liquids (i.e., NAPL) or free-product was encountered during monitoring, purging, or sampling of the monitoring wells.
- Comparison of the soil analytical results identified concentrations of PAH parameters greater than the Table 3 SCS; specifically present within the fill layer at the southeastern portion of the Site. All other parameters did not exhibit any concentrations greater than the Table 3 SCS.
- Comparison of the laboratory results to the Table 3 SCS did identify any groundwater contaminants at the Site.

Based on the findings of the Phase Two ESA, the environmental quality of soil and groundwater at the Site does not meet the Table 3 SCS. Therefore, an RSC cannot be filed for the Site unless a full-depth soil remediation and/or a risk assessment is completed in accordance with the requirements of O. Reg. 153/04. However, it is Terrapex's understanding that there is no intention to file an RSC at this time.

APPENDIX IX

QUALIFICATIONS OF ASSESSORS

Position: Senior Project Manager, Ottawa Office

Qualifications: B.Sc. (Eng) Environmental

Experience: Terrapex Environmental Ltd. 2003 to present
Terrapex Environnement Ltée. 2000 to 2003
Regional Municipality of Ottawa – Carleton May to Sep. 1999

Mr. Brown is a senior project manager responsible for supervising site assessments, and remediations for various residential, commercial and petroleum clients. Mr. Brown has conducted numerous Phase I/One Environmental Site Assessments (ESA), including historical research, site inspection and report preparation. Mr. Brown has extensive experience in Phase II/Two ESAs, small- and large-scale site remediations (both in-situ and ex-situ), environmental monitoring programs for sites impacted with petroleum, VOCs, PAHs and/or heavy metals, air sampling, peer reviews, and data interpretation. Mr. Brown is registered with the Ontario Ministry of the Environment, Conservation and Parks (MECP) as a Qualified Person (QP) for undertaking Environmental Site Assessment activities and certifying Records of Site Condition (RSC). He also provides senior technical review on all reports/correspondence issued for his projects. More recently, Mr. Brown has assumed a supervisor role responsible for personnel management, and quality control. His major clients have included Parkland Corp., Valero Energy Inc., Canadian Tire, Tim Hortons, and Minto Properties Inc.

Representative projects include the following:

Parkland Corp. Account Manager and Senior Technical Reviewer. Since 2013, Mr. Brown has been responsible for assigning work requests in Ontario. This includes managing projects (administering budgets, allocating technical resources, arranging subcontractors, and adhering to schedules), regular client updates; conducting data review/analysis; preparing ESA and remediation workplans and budget estimates; data interpretation, overall QA/QC of correspondence and reports, reviewing invoices and liaising with the public and regulatory agencies if required.

Valero Energy Inc. Account Manager and Senior Technical Reviewer. Since 2019, responsible for overseeing compliance sampling, site assessments and site investigations, overall QA/QC of correspondence and reports, and liaising with regulatory agencies if required.

Project Manager, Senior Technical Reviewer and QP for a project to complete a risk assessment and obtain a Record of Site Condition (RSC) of a petroleum hydrocarbon impacted site in Ottawa. This project included a data gap analyses, completion of a Phase One and Two ESA, supplemental investigations to assess soil vapour and sub-slab soil vapour conditions, development of a conceptual site model, preparation of a human health and ecological risk assessment, liaison with the MECP and other stakeholders.

Project Manager, Senior Technical Reviewer and QP for the completion of a multi-stage Phase Two ESA as part of the proposed development of a bulk fuel. Mr. Brown reviewed the previously completed Phase One ESA to identify any data gaps, developed the sampling and analysis plan to assess all the areas of potential environmental concern (APECs) for the identified contaminants of concern (COCs), directed the assessment work, reviewed the analytical results, developed the conceptual site model (CSM) and had overall responsibility for the Phase Two ESA in accordance with the requirements of O. Reg. 153/04.

Project Manager, Senior Technical Reviewer for a remediation project that included the excavation around the perimeter of two adjacent residences to expose the foundation and to allow for removal of a waterproofing membrane previously applied by others that was linked to chemical odours in the residences. It was further determined that during application the waterproofing product had been diluted with a xylene-based solvent. The former waterproofing membrane was removed and necessary remediation was conducted, including excavation beneath the footing of one of the residences to excavate contaminated soil. In total 412.12 tonnes of soil and 3,620 L of water was pumped from the excavation as part of the remediation. Terrapex also assist with monitoring vapour concentrations inside the residences over the course of the project (indoor air sampling was conducted by another consultant).

Education: B.Eng. Environmental Engineering 2010 Carleton University, Ottawa

Professional Associations: Professional Engineers of Ontario (PEO) – Membership Number: 100165530

EXPERIENCE 2010 to present – Terrapex Environmental Ltd., Ottawa, Ontario

Mr Sabourin is project manager responsible for supervising environmental site assessments for various municipal residential, commercial and developer clients. Mr. Sabourin has a wide variety of field experience including but not limited to borehole drilling, groundwater sampling, soil and sub-slab vapor sampling, and remedial supervision. Mr. Sabourin is registered with the Ontario Ministry of the Environment, Conservation and Parks (MECP) as a Qualified Person (QP) for undertaking Environmental Site Assessment activities and certifying Records of Site Condition (RSC) and has experience filing in the registry.

PROJECT EXPERIENCE

Municipal client: Completed several Phase I environmental site assessments (ESA) at properties owned by a municipality compliant with CSA standards. The work completed included site inspections to identify visible signs and/or potential sources of contamination possible, contaminant transport pathways, and potential receptors. Conducted interviews with relevant people who had a connection to the site. Conducted research and reviewed available documents including requesting information from public and private entities; interpreting aerial photographs; reviewing city directories, and previous environmental reports and acquired information; drafting of site plans; and, report composition. Additional responsibilities included client and tenant liaison. All Phase I ESAs were finalized with a recommendation for either no further work or the design and completion of a Phase II ESA.

Commercial Client: Was an integral part of a team that completed a Phase One ESA and a subsequent Phase Two ESA at a former industrial Site in Ottawa ON. The ESAs were completed so the Site could be re-developed into childcare facility. Since the Site was to be redeveloped into a more sensitive land use this necessitated the filing of a RSC with the Ministry of Environment, Conservation and Parks (MECP). Responsibilities included developing the conceptual site model (CSM), liaison with the clients and property owner for the supporting documentation needed for the RSC filing, filling out the electronic RSC form and addressing MECP comments during the initial review.

Petroleum Client: Conducted field and reporting tasks for a soil remediation project at a former gas station and commercial property, in Ottawa, Ontario. The area excavated was based on results of a previous Phase II ESA and observations of the soil conditions during the excavation. The total soil excavated and disposed of offsite was 4,700 metric tonnes. Responsibilities included supervision and direction of all excavation activities, collection of confirmatory soil samples, interpretation of laboratory analytical data, drafting of site plans and analytical results figures, and report composition.

Technology Client: Conducted field and office activities for Human Health and Ecological Risk Assessment (HHERA) for site located in eastern Ontario that was contaminated by historic use and storage of chlorinated solvents. Responsibilities included management of sub-contractors, liaison with client and land owners, health and safety, groundwater monitoring and sampling, sub-slab vapour and ambient air sampling, drafting of site plans, review of historic reports, completion of data gap analysis, and annual report composition. In order to support the HHERA, Mr. Sabourin conducted a building floor and subgrade investigation consisting of the installation and sampling of sub-slab vapour probes and conducting preliminary pilot sub-slab communicative testing for the eventual design and installation of a sub-slab depressurization system.

Government Client: Provided multi-year environmental consulting services to a government campus in Ottawa, Ontario with respect to due diligence monitoring of the facilities sanitary effluent flow. Responsibilities included reviewing sanitary sewer plans and selecting sample locations, completion of a health and safety plan, supervising and training Terrapex staff in collection of sanitary effluent samples using manual and automatic sampling methodologies, and writing reports comparing the analytical results to the Ottawa's sewer-use bylaw. The sanitary effluent sampling program has since expanded to include additional buildings and facilities.

APPENDIX X RESIDUE MANAGEMENT

BADGER
DAYLIGHTING™

613-831-9763

Date: 24/01/2025 Time in: 8:00 am

Address: 40 BEACHCLIF

Customer: TERRA PEX

Dumped at: 2355 McGees Side Road Other Drop at Tomlinson

- Collect Drum of soil cuttings

Time out: 9:00

Truck # / Area: Pick up 4

Job #: C0986.00
PO #: _____

TYPE OF MATERIAL:

- Non Regulated Waste
- Liquid
- Sludge
- Both
- Sand
- Soil
- UFill
- Granular
- Smell / Foul Odor
- Organics

COLOURATION OF MATERIAL SUSPECTED CONTAMINATION: Yes No

(If yes, contact your area manager)

ate Volume: 1 BARREL

Phil Sandfield
Driver's Signature
Print Name

Monemery Hall
Customer's Signature
Print Name