Phase Two Environmental Site Assessment - 3401 County Road 13, Milford, Ontario

September 20, 2024

Prepared for:
71223 NB Ltd.

Cambium Reference: 13895-001

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1.0 Executive Summary

71223 NB Ltd. (“Client”) retained Cambium Inc. (Cambium) to complete a Phase Two Environmental Site Assessment (ESA) at 3401 County Road 13 in Milford, Ontario (‘Site’ or ‘Phase Two Property’). The Phase Two ESA will be used to support a site plan approval application with the County of Prince Edward and was, therefore, completed to meet the requirements of Ontario Regulation (O.Reg.) 153/04.

The roughly 22.1-ha Site is northwest of County Road 13 and borders Halfmoon Bay (Lake Ontario) to the north and east and an unopened road allowance to the southwest in Milford, Ontario. The Site is currently vacant land and was first developed for agricultural purposes prior to 1930. The Client intends to develop the Site for residential use.

The Phase One ESA identified two potentially contaminating activities (PCAs), one on-site and one off-site for pesticide use, within the Phase One study area. Both PCAs contributed to areas of potential environmental concern (APECs). The related contaminants of potential concern (COPCs) were metals, hydride-forming metals, mercury, and organochlorine pesticides (OCs). Potentially contaminated media was soil.

A Phase Two ESA work program was developed to investigate COPCs in soil. The Phase Two ESA included 19 boreholes. Soil analysis results were compared to the Table 1 Site Condition Standards (SCS) for the proposed future property use (i.e., residential).

No exceedances of COPCs were observed on the proposed residential subdivision (proposed Lots 1-16) on the north portion of the Site. Exceedances of metals and hydride-forming metals and/or OCs were observed on the central and southeast portions of the Site, which comprise a natural heritage feature and the proposed residential development area, noted as proposed Lot 17. Further, the observed soil exceedances at the central portion of the site appeared to be delineated and does not impact the proposed residential subdivision.

Based on the results of the Phase Two ESA, Cambium recommends further investigation of the sediment near the shoreline and/or groundwater to further characterize the metals and/or OC impacts to support a potential Risk Assessment approach at the proposed Lot 17.

2.0 Introduction

The Client retained Cambium to complete a Phase Two ESA at 3401 County Road 13 in Milford, Ontario. The Phase Two ESA will be used to support a site plan approval application with the County of Prince Edward and was, therefore, completed to meet the requirements of Ontario Regulation (O.Reg.) 153/04.

2.1 Site Description

The Site is northwest of County Road 13 and borders Halfmoon Bay (Lake Ontario) to the north and east and an unopened road allowance to the southwest in Milford, Ontario. The municipal address is 3401 County Road 13. Site information and property owner information are summarized below.

The Phase Two Property location is shown on Figure 1. The Phase Two Property boundary is shown on Figure 2.

Site Identification Information

Municipal Address	3401 County Road 13, Milford, Ontario, K0K 2P0
Historical Land Use	Agricultural
Current Land Use	Vacant
Future Land Use	Residential
PIN	55091-0203 (LT)
Roll No.	804010075010000
Universal Transverse Mercator Coordinates*	Zone 18T 338745 m E, 4867160 m N
Legal Description	Part Lot A, Concession South of Prince Edward Bay S Marysburgh, Parts 1,2,3,4 & 5 47R5215; S/T PE119769 County of Prince Edward
Site Area	≈22.1 ha (54.6 acres)

* The Universal Transverse Mercator measurements were obtained from Google Earth Pro.

2.2 Property Ownership

Property Owner	Contact Information
71223 N B Ltd. 49 Second Avenue Uxbridge, Ontario L9P 1J9	Michael Kerford Phone: (905) 904-3755 Email: michael@urstrong.com

2.3 Current and Proposed Future Uses

The Phase Two Property is a vacant lot primarily covered by trees, shrubs, and grasses. Cambium understands the Site was historically used for agricultural purposes, including the presence of an orchard in the southeastern portion of the Site, from at least 1930 to at least the mid-1970s.

The Client intends to develop the Site for residential use with a residential subdivision at the north portion of the Phase Two Property (i.e., proposed Lots 1 to 16) and a single residential property at the southeast portion of the Phase Two Property (i.e., proposed Lot 17). The concept plan obtained from the Client has been included in Appendix A and is included on Figure 4. The above noted redevelopment does not constitute a change to a more sensitive land use and therefore a Record of Site Condition (RSC) is not required.

2.4 Applicable Site Condition Standards

The *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act* (MOECC, 2011) were used to determine the applicable SCS for the Site. The following site characteristics were considered when choosing which standards should be applied:

- The proposed future use of the Site is residential use.
- The area being investigated is within 30 m of a water body as defined in O.Reg. 153/04. As such, Section 43.1 of O.Reg. 153/04 does apply to the Site.
- According to an Environmental Impact Study (Ecological Services, 2021) completed at the Site, no provincially significant wetlands or areas of natural significance were identified on-

Site. In addition, no significant species at risk habitats were identified with the exception of a potential habitat for Eastern Meadowlark on the adjacent property. It is noted that potential bat habitat was identified on-site; however, the EIS report had concluded that the identified bat habitat was not likely to be significant. In addition, significant wildlife habitat for amphibians was identified in the on-site natural heritage area and at the southeast portion of the proposed Lots 1-16; however, no amphibians were listed as species at risk.

- The County of Prince Edward Official Plan identifies an Environmental Protection area in the southeastern portion of the Site, including a coastal wetland, resulting in an Area of Natural Significance on the Site (Prince Edward County, 2021).
- For groundwater at a property to be considered non-potable, all properties within 250 m of the property must be supplied by a municipal drinking water system that does not obtain its water from a groundwater source. It should be noted that no water source (i.e., potable or non-potable) service the Site. In addition, based on Cambium's regulatory review associated with the Phase One ESA (i.e., Environmental Risk Information Services Ltd (ERIS)), two on-site well records for domestic water supply wells were installed in 1992 (well ID A276029) and 2021 (well ID 5305778). Therefore, not all properties within the Phase One Study Area are serviced by the municipal drinking water system, and as such potable standards apply to the Site.
- The 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.
- The stratigraphy consisted of topsoil followed by native silty sand with some gravel, terminating in inferred bedrock. Top of bedrock is at depths ranging from 0.2 to 1.3 m below ground surface (bgs). Based on field observations, SCS for coarse-grained soil were considered appropriate. In addition, since all boreholes encountered refusal at depths of less than 2 mbgs, the area being investigated is inferred to be a shallow soil property as defined in O.Reg, 153/04. As such, Section 43.1 of O.Reg. 153/04 does apply to Site with respect to the provision for a shallow soil property.

- Based on the potential species at risk habitats (i.e., Eastern Meadowlark on an adjacent property) and the designation of environmental protection for a portion of the site, an area of natural significance, as defined in Section 1 of O.Reg. 153/04, is in whole or in part within the Phase Two study area. On-site soil pH was within the acceptable ranges for surface (≤1.5 mbgs) soil. No soil samples were obtained below 1.5 mbgs due to inferred bedrock.

Based on the above information, the applicable SCS for the Site were the *Table 1: Full Depth Background Site Condition Standards*. Residential property use and coarse soil texture were selected to determine concentration exceedances for the analyzed parameters.

2.5 General Objectives

The general objectives of the Phase Two ESA were to determine the location and concentration of contaminants in the soil or water on, in or under the Phase Two Property; and subsequently determine if the SCS for contaminants on, in or under the Phase Two Property were met. These objectives were achieved by developing an understanding of the geological and hydrogeological conditions at the Phase Two Property and conducting field investigations for the identified COPCs. The Phase Two ESA included a soil investigation.

3.0 Background Information

3.1 Physical Setting

The Site is relatively flat with a gradual slope down to the northeast and northwest toward Lake Ontario. The surface elevation at the Site is similar to the surrounding properties. Review of MNRF (2021) mapping indicated that topographic relief in the area of the Site decreases to the west, north, or east toward Lake Ontario. Surface water pools in low areas at the Site and infiltrates the ground surface or flows northeast toward Halfmoon Bay or northwest toward South Bay, Lake Ontario. The surface elevation at the Site is about 80 m above sea level according to MNRF (2021) mapping.

The Site is within the Prince Edward Peninsula physiographic region (Chapman & Putnam, 1984), characterized by limestone plains. In the general area, the overburden is fine-textured glaciolacustrine deposits of silt and clay with minor sand and gravel (OGS, 2010). The soils overlie Verulam formation limestone and shale along the edge of Lake Ontario and Lindsay formation limestone more inland (OGS, 2007).

The closest water body is Halfmoon Bay (Lake Ontario), adjacent to the northeast of Site. Based on the proximity to Halfmoon Bay, the inferred groundwater flow direction in the Phase Two study area is northeast toward Halfmoon Bay.

Cambium completed a search for Species at Risk records in the Natural Heritage Information Centre (NHIC) database. The NHIC database identified the potential presence on the Site of habitat for the endangered or threatened species listed below.

- Henslow's Sparrow (*Ammodramus henslowii*) – endangered; native to the northeastern limit in Ontario that live in open fields with tall grasses, flowering plants, and a few scattered shrubs. It has also been found in abandoned farm fields, pastures, and wet meadows.
- American Eel (*Anguilla rostrata*) – endangered; found in both fresh and saltwater, living in freshwaters with access to the Atlantic Ocean, including throughout the Great Lakes.

- Eastern Meadowlark (*Sturnella magna*) – threatened; native to Ontario and live in moderately tall grasslands, such as pastures and hayfields but also in alfalfa fields, weedy borders of croplands, roadsides, orchards, airports, shrubby overgrown fields, or other open areas.
- Bobolink (*Dolichonyx oryzivorus*) – threatened; native to southern Ontario and live in open meadows or hayfields, nesting on the ground in dense grasses.
- Wood Thrush (*Hylocichla mustelina*) – threatened; native to Ontario and live in moist stands of trees with well-developed undergrowth and tall trees, nesting in living saplings, trees, or shrubs, and migrating south for the winter months.
- Eastern Whip-poor-will (*Antrostomus vociferous*) – threatened; native to Ontario and live in a mix of open and forested areas, such as open woodlands, nesting on the forest floors.

The Site and surrounding properties are also listed as a Colonial Waterbird Nesting Area.

According to an Environmental Impact Study (Ecological Services, 2021) completed at the Site, no provincially significant wetlands or areas of natural significance were identified on-Site. In addition, no significant species at risk habitats were identified with the exception of a potential habitat for Eastern Meadowlark on the adjacent property. It is noted that potential bat habitat was identified on-site; however, the EIS report had concluded that the identified bat habitat was not likely to be significant. In addition, significant wildlife habitat for amphibians was identified in the on-site natural heritage area and at the southeast portion of the proposed Lots 1-16; however, no amphibians were listed as species at risk.

The County of Prince Edward Official Plan identifies an Environmental Protection area in the southeastern portion of the Site, including a coastal wetland, resulting in an Area of Natural Significance on the Site (Prince Edward County, 2021).

No other Areas of Natural Significance, as defined in Section 1 of O.Reg. 153/04, were identified in whole or in part within the Phase One study area (MNRF, 2021).

The Phase One study area is not municipally serviced for drinking water. Two drinking water wells (A276029 and 5305778) were observed on the Site and four records of drinking water

wells within the Phase one Study Area were identified by the records review. The Phase One study area is not within a well-head protection area. The Town of Milford obtains drinking water from surface water. According to the Ontario Clean Water Agency, the raw water source for the Milford Drinking Water System is Lake Ontario.

A search of the Ministry Water Well Information System by ERIS identified six records for on-site wells, and six records for wells within the study area. These wells range from about 100 m to 210 m from the Site. The stratigraphy, depth to bedrock, and depth to water table were reviewed and incorporated throughout the report. Of the six on-site wells, three were identified as domestic test holes, two as domestic water supply, and one as abandoned. Of the six off-site wells, four wells were identified as domestic water supply, one as livestock supply, and one as an abandoned supply well.

3.2 Past Investigations

The following reports were reviewed by Cambium.

Environmental Impact Study – Half Moon Bay (Ecological Services, 2021)

Ecological Services completed an Environmental Impact Study (EIS) of a portion of the Phase Two property, specifically the northern-most portion of the Site (i.e., the proposed Lots 1-16), to determine if significant natural heritage features were present at the Site.

The EIS report considered the following threatened and endangered species:

- Least Bittern
- Whip-poor-will
- Chimney Swift
- Barn Swallow
- Hensley's Sparrow
- Bobolink
- Eastern Meadowlark

- Red-headed Woodpecker
- Blanding's Turtles
- Bats
- American Eels
- Butternut

The EIS included various site visits between June 26, 2020 and June 28, 2021. No species at risk were identified on the Site; however, Eastern Meadowlarks were observed on the adjacent property. The Eastern Meadowlark habitat was being overtaken by shrubs at the time of the EIS investigation and it was noted that these shrubs are unsuitable as Eastern Meadowlark habitat. Some species at risk bats were observed on-site; however, it was noted that species at risk bats would typically be migrants (i.e., overwintering is not expected). It was indicated that the presence of bat roosting areas would likely be at offsite locations, however, a woodland at the north portion of the Site cannot be discounted as a potential bat roosting area. The numbers of bats recorded at the time of the EIS and the nature of the potential habitat would suggest that the potential of on-site significant bat habitat is unlikely. The nearshore lake areas lack rooting substrate that would facilitate aquatic habitat for fish, waterfowl, and turtles, and the adjacent coastal wetlands are too small to be considered provincially significant.

No significant wetlands or areas of natural and scientific interest (ANSIs) were identified within 120 m of the areas investigated (i.e., the proposed Lots 1-16). However, other wetlands were located on the southeast portion of the proposed development area (proposed Lots 1-16) and the natural heritage area (central portion of the Site). Tree frogs, leopard frogs, and chorus frogs were identified in this wetland area and the onsite wetlands, though not identified as a provincially significant wetland, was referred to a significant wildlife habitat; however, the above noted amphibians were not listed as a threatened or endangered species.

4.0 Scope of the Investigation

4.1 Overview of the Site Investigation

The proposed scope of work for the Phase Two ESA was based on the requirements of O.Reg. 153/04 and the findings of the Phase One ESA. Soil samples were submitted to Paracel Laboratories Ltd. (Paracel), an accredited analytical laboratory. The Phase Two ESA was subject to a Quality Assurance/Quality Control (QA/QC) program, including analysis of blind duplicate soil samples.

Cambium coordinated all subcontractors required to complete the work, including utility locators and the laboratory. Prior to conducting field work, Cambium prepared a Health and Safety Plan (HASP) tailored to the known and possible on-site contaminants, physical site hazards, and the type of work to be conducted. Included in the HASP was a detailed map showing the transportation route to the nearest hospital, emergency contact numbers, and other pertinent information required for work on potentially contaminated sites. All persons entering the Site, as contractors or otherwise, were required to review and sign the HASP prior to their admission.

Cambium arranged for underground services to be located and marked by public and private utility companies prior to starting intrusive investigations. The proposed borehole locations were clear of utilities.

A sampling and analysis plan (SAP) was prepared to address the identified APECs and is included in Appendix B.

4.2 Media Investigated

The Phase Two ESA investigated soil. As no water bodies exist on the Site, surface water and sediment sampling were not applicable. Soil quality at the Site was investigated through drilling and soil sampling.

4.3 Phase One Conceptual Site Model

The Phase One Conceptual Site Model (CSM) is required to assist the Qualified Person (QP) in illustrating the results of the Phase One ESA and to provide a basis for further work, if required. The Phase One CSM Study Area is shown on Figure 2. The Phase One CSM Site Plan is shown on Figure 3. The following descriptions and discussion supplement the figures, and together comprise the CSM.

4.3.1 Site Description

The roughly 22.1 ha Site is northwest of County Road 13 in Milford, Ontario and includes the shoreline of Halfmoon Bay (Lake Ontario) at the northeast portion of the Site. The PIN is 55091-0203 (LT). The UTM coordinates for the centroid for the Site are Zone 18T 338745 m east and 4867160 m north.

The legal description of the Site is *Part Lot A, Concession South of Prince Edward Bay S Marysburgh, Parts 1,2,3,4 & 5 47R5215; S/T PE119769 County of Prince Edward.*

The Site is bound by Half Moon Bay to the northeast and east, South Bay to the northwest, both a part of Lake Ontario, and residential and/or agricultural properties to the west and east. Residential properties and a commercial property (winery) are present southwest/south of the Site followed by County Road 13 and residential and/or agricultural properties.

4.3.2 Existing Buildings and Structures

There were no buildings or structures on the Site. All-terrain vehicle pathways were observed throughout the property, with an existing access road along the west side of the property. A barbed wire fence was observed along the Site access road and property line. The fence was in poor condition. A wood and stone fence was observed in various locations along the property.

4.3.3 Water Bodies and Areas of Natural Significance

Halfmoon Bay is adjacent to the northeast of the Site and South Bay is adjacent to the northwest of the Site; therefore, the Site is within 30 m of a water body, as defined in O.Reg. 153/04.

Cambium completed a search for Species at Risk records in the NHIC database. The NHIC database identified the potential presence on the Site of habitat for the endangered or threatened species listed below.

- Henslow's Sparrow (*Ammodramus henslowii*) – endangered; native to the northeastern limit in Ontario that live in open fields with tall grasses, flowering plants, and a few scattered shrubs. It has also been found in abandoned farm fields, pastures, and wet meadows.
- American Eel (*Anguilla rostrata*) – endangered; found in both fresh and saltwater, living in freshwaters with access to the Atlantic Ocean, including throughout the Great Lakes.
- Eastern Meadowlark (*Sturnella magna*) – threatened; native to Ontario and live in moderately tall grasslands, such as pastures and hayfields but also in alfalfa fields, weedy borders of croplands, roadsides, orchards, airports, shrubby overgrown fields, or other open areas.
- Bobolink (*Dolichonyx oryzivorus*) – threatened; native to southern Ontario and live in open meadows or hayfields, nesting on the ground in dense grasses.
- Wood Thrush (*Hylocichla mustelina*) – threatened; native to Ontario and live in moist stands of trees with well-developed undergrowth and tall trees, nesting in living saplings, trees, or shrubs, and migrating south for the winter months.
- Eastern Whip-poor-will (*Antrostomus vociferous*) – threatened; native to Ontario and live in a mix of open and forested areas, such as open woodlands, nesting on the forest floors.

The Site and surrounding properties are also listed as a Colonial Waterbird Nesting Area.

According to an Environmental Impact Study (Ecological Services, 2021) completed at the Site, no provincially significant wetlands or areas of natural significance were identified on-Site.

In addition, no significant species at risk habitats were identified with the exception of a potential habitat for Eastern Meadowlark on the adjacent property. It is noted that potential bat habitat was identified on-site; however, the EIS report had concluded that the identified bat habitat was not likely to be significant. In addition, significant wildlife habitat for amphibians was identified in the on-site natural heritage area and at the southeast portion of the proposed Lots 1-16; however, no amphibians were listed as species at risk.

The County of Prince Edward Official Plan identifies an Environmental Protection area in the southeastern portion of the Site, including a coastal wetland, resulting in an Area of Natural Significance on the Site (Prince Edward County, 2021).

No other Areas of Natural Significance, as defined in Section 1 of O.Reg. 153/04, were identified in whole or in part within the Phase One study area (MNRF, 2021).

4.3.4 Drinking Water Wells

The Site and phase one study area are not municipally serviced for drinking water. Drinking water is sourced from drinking water wells and Lake Ontario. Two drinking water wells were observed on the Site.

A search of the Ministry Water Well Information System by ERIS identified six records for on-site water wells and six water well records within the Phase One study area ranging from about 100 m to 210 m from the Site. Of the six on-site wells, three were identified as domestic test holes, two as domestic water supply, and one as abandoned. Of the six off-site wells, four wells were identified as domestic water supply, one as livestock supply, and one as an abandoned supply well.

4.3.5 Potentially Contaminating Activities

Cambium reviewed information available for the Phase One Study Area to identify environmental issues normally assessed in a Phase One ESA. two PCAs were identified within the Phase One Study Area, consisting of one on-site and one off-site PCAs. Refer to Table 3 for further description of the PCAs, and Figure 2 for PCA locations.

The following PCAs contribute to APECs:

PCA 1 – On-site – Former on-site orchard/vineyard with possible pesticide use – PCA #40 Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications

PCA 2 – Off-site (adjacent to the south) – Former off-site vineyards and orchards - PCA #40 Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications

4.3.6 Areas of Potential Environmental Concern

As required by O.Reg. 153/04, all on-site PCAs result in an APEC. Based on a review of the potential to result in contamination at the Site, the off-site PCA contributed to an APEC. The APECs are summarized below. Refer to Table 2 for further descriptions of the APECs, and Figure 3 for APEC locations.

APEC 1 - The southeastern portion of the Site. This APEC is related to the suspected application of pesticide use due to a former orchard/vineyard.

APEC 2 – The west/southwestern property boundary due to the presence of former orchards/vineyards off-site.

4.3.7 Contaminants of Potential Concern

COPCs were identified for each PCA contributing to an APEC. The COPCs specific to each APEC are summarized in Table 2. OCs, metals, hydride-forming metals, and mercury were identified as COPCs related to the historical on- and off-site PCAs that contributed to APECs.

4.3.8 Contaminant Distribution and Transport

No underground utilities were identified on, in, or under the Site. Contaminant distribution and transport may be influenced by the presence of utility trenches if present on the Site.

No specific climatic or meteorological conditions were observed that may influence the distribution or migration of contaminants.

4.3.9 Geological and Hydrogeological Setting

The Site is relatively flat with a gradual slope down to the northeast and northwest toward Lake Ontario. The surface elevation at the Site is similar to the surrounding properties. Review of MNRF (2021) mapping indicated that topographic relief in the area of the Site decreases to the west, north, or east toward Lake Ontario. Surface water pools in low areas at the Site and infiltrates the ground surface or flows northeast toward Halfmoon Bay or northwest toward South Bay, Lake Ontario. The surface elevation at the Site is about 80 m above sea level according to MNRF (2021) mapping.

The Site is within the Prince Edward Peninsula physiographic region (Chapman & Putnam, 1984), characterized by limestone plains. In the general area, the overburden is fine-textured glaciolacustrine deposits of silt and clay with minor sand and gravel (OGS, 2010). The soils overlie Verulam formation limestone and shale along the edge of Lake Ontario and Lindsay formation limestone more inland (OGS, 2007). A review of Ministry water well records (MECP, 2021) for boreholes within 250 m of the Site indicated that the local stratigraphy consisted of loam or topsoil underlain by shale and limestone bedrock, encountered between 0.3 to 1.7 mbgs.

4.3.10 Uncertainty or Absence of Information

All aspects of the Phase One ESA were conducted consistent with O.Reg. 153/04, and as such, the Site was investigated thoroughly. As access to the entire Site was possible, and adequate historical information was available through the interviewees and records review, uncertainty or absence of information is not expected. While the placement of historical on- and off-site structures and PCAs based on fire insurance plans (FIPs) may be of low accuracy, investigations completed during the Phase Two ESA can account for this uncertainty.

4.4 Deviations From Sampling and Analysis Plan

No deviations were made from the Sampling and Analysis Plan for the Phase Two ESA.

4.5 Impediments

No physical impediments or denial of access were encountered during the Phase Two ESA.

5.0 Investigation Method

5.1 General

The following sections provide a detailed description of the subsurface investigations. Soil samples were analyzed for one or more of metals, hydride-forming metals, mercury, and OCs.

As indicated in Section 2.4, based on the site characteristics as well as the proposed future use of the Site, the applicable standards for the Site are Table 1 SCS. Residential property use and coarse soil texture were selected to identify analyzed parameters present on the Site at concentrations exceeding the SCS.

5.2 Soil: Drilling

The drilling investigation was completed on April 10 and June 5, 2024. Cambium personnel advanced 19 boreholes with a hand auger into overburden to a maximum depth of 1.2 mbgs. The April sampling locations (HA101 to HA110) were selected to assess the APECs identified in the Phase One ESA. The June sampling locations (HA105a, HA105b, HA105c, HA105d, HA111, HA112, HA113, HA114, and HA115) were selected to further assess exceedances of select metals and OCs identified in the April sampling and included four additional hand auger samples (HA105a, HA105b, HA105c, and HA105d) drilled within 2 m of sample location HA105. Borehole locations are shown on Figure 4.

5.3 Soil: Sampling

During the drilling program, soil samples were collected continuously. Each sample was handled solely by the Cambium field technician using dedicated nitrile gloves to reduce the potential for cross-contamination.

Soil samples were logged for soil type, moisture content, presence of odour, and signs of impacts such as staining, consistent with standard geotechnical and environmental soil descriptions and nomenclature. The samples were divided on-site, a portion was placed in dedicated sample jars for submission to the laboratory, with the remainder placed in sealed plastic sample bags and used to screen for combustible and/or organic vapours present in the

soil headspace. The field screening observations were used to determine which samples to submit for laboratory analysis. Samples to be submitted for analysis of volatile parameters were collected applying the appropriate techniques, as per O.Reg. 153/04 (i.e., pre-calibrated syringe sampler and methanol preserved vial).

5.4 Field Screening Measurements

Olfactory and visual observations of the soil samples were documented immediately upon extraction for soil characteristics and potential indicators of environmental contamination. Soil samples were screened using an RKI Eagle 2 portable gas detector for concentrations of combustible soil vapour (CSV) and organic vapour (OV), calibrated to hexane and isobutylene, respectively. After agitating the sample, the peak reading was recorded by inserting the meter probe into the sample bag. Refer to the borehole logs in Appendix C for the recorded vapour readings.

5.5 Analytical Testing

All samples potentially requiring laboratory analysis were placed in a cooler and kept at less than 10°C for transport to the laboratory.

Samples were submitted for analysis of one or more of the COPCs. The analytical results are discussed in Section 6.0 and copies of the laboratory Certificates of Analysis as received from the analytical laboratory are included in Appendix D. The following samples were submitted for analysis.

- Based on field observations and screening, the following soil samples were submitted for analysis:
  - 26 samples for metals and hydride-forming metals
  - 15 samples for OCs
  - 14 samples for mercury
  - One sample for pH

5.6 Residue Management Procedures

Soil cuttings from the soil sampling program were disposed of off-site as waste due to limited quantities of soil generated.

5.7 Quality Assurance and Quality Control Measures

As part of the QA/QC program, blind duplicate soil samples were submitted at a rate of one duplicate sample for every ten samples analyzed. Blind duplicate samples were collected at the same time as the parent sample and placed into a separate container; split sampling methodology was used to ensure that the sampling was completed using the same method for both parent and duplicate samples. Refer to Section 6.5 for the results of the QA/QC program.

Equipment and tools used to obtain soil samples were cleaned with Alconox© and rinsed with distilled water before the collection of each sample. Technicians wore dedicated nitrile gloves, which were replaced for each sample.

6.0 Review and Evaluation

6.1 Geology

The physiography and geology of the Site has been discussed previously in Section 3.1 and a detailed description of the subsurface soils can be found on the borehole logs in Appendix C. These logs present detailed descriptions of the soils and their associated characteristics to the maximum depth of investigation. Borehole and monitoring well locations are shown on Figure 4.

The stratigraphy consisted of native silty sand with gravel and trace clay. Inferred bedrock was encountered on-site at depths ranging from 0.2 m to 1.3 m bgs.

6.2 Coarse Soil Texture

Soil samples were collected from one soil unit identified at the Site. The soil was coarse-textured, based on field observations. Since at least 1/3 of the soil at the Site consists of coarse soil, the SCS for coarse-textured soil were utilized. The laboratory certificates of analysis for the grain size analyses are included in Appendix D.

6.3 Soil: Field Screening

Refer to the detailed borehole logs included with this report as Appendix C for the results of field soil screening. No measurable CSV or OV were detected in the soil samples.

6.4 Soil Quality

A general discussion of the submission and analysis of soil samples obtained during the subsurface investigation was presented Section 5.5.

Samples were submitted for analysis of one or more of the following: metals, hydride-forming metals, mercury, and OCs. Soil analysis results are presented in Table 2, with exceedances shown with grey shading and bolding. Laboratory Certificates of Analysis are included in Appendix D. The soil sampling locations are shown on Figure 4.

6.4.1 Metals and Hydride-forming Metals

Twenty-six soil samples were submitted for analysis of metals and hydride-forming metals. Results are shown on Figure 5.

Barium exceeded the Table 1 SCS at HA105 (0.15 to 0.3 mbgs). As allowed by O.Reg. 153/04 (Section 48 (2)), averaging was applied to barium concentrations reported at HA105 (0.15 to 0.3 mbgs) using HA105a, HA105b, HA105c, and HA105d. Barium met the Table 1 SCS with an average concentration of 166 µg/g (compared to a Table 1 SCS of 220 µg/g); however, additional Table 1 SCS metal exceedances were identified, including arsenic at HA105a (0.15 to 0.3 mbgs), and arsenic and lead at HA105c (0.15 to 0.3 mbgs). Averaging was also applied to arsenic and lead concentrations at HA105. Lead met the Table 1 SCS with an average concentration of 64 µg/g (compared to a Table 1 SCS of 120 µg/g), however, arsenic marginally exceeded the Table 1 SCS with an average concentration of 19 ug/g (compared to a Table 1 SCS of 18 µg/g). Deeper samples (1.0 to 1.2 m bgs) were collected at HA105a, HA105b, HA105c, and HA105d. Barium exceeded the Table 1 SCS at HA105b and HA105c. Averaging was applied to barium concentrations at HA105 (1.0 to 1.2 mbgs) using HA105a, HA105b, HA105c, and HA105d. Barium met the Table 1 SCS with an average concentration of 193 µg/g.

Arsenic and lead exceeded the Table 1 SCS at HA106 from 0.15 to 0.3 m bgs. A deeper sample (1.0 to 1.2 mbgs) met the SCS.

Arsenic and lead exceeded the Table 1 SCS at HA107 from 0.15 to 0.3 m bgs

Antimony exceeded the Table 1 SCS at HA108 from 0.15 to 0.3 m bgs

Arsenic and lead exceeded the Table 1 SCS at HA109 from 0.15 to 0.3 m bgs

Arsenic and lead exceeded the Table 1 SCS at HA110 from 0.15 to 0.3 m bgs. A deeper sample (1.0 to 1.2 mbgs) met the SCS.

Arsenic exceeded the Table 1 SCS at HA114 from 0.15 to 0.3 m bgs.

Cambium notes that no exceedances were observed on the proposed residential subdivision (proposed Lots 1-16) on the north portion of the Site. The observed soil exceedances were observed on the central and southeast portions of the Site, which comprise a natural heritage feature and the proposed residential development area, noted as Lot 17. Further, the observed soil exceedances at the central portion of the site appeared to be delineated and does not impact the proposed residential subdivision.

6.4.2 OCs

Fifteen soil samples were submitted for analysis of OCs. Results are shown on Figure 6. The following samples exceeded the Table 1 SCS:

- Dichlorodiphenyldichloroethane (DDD) and dichlorodiphenyldichloroethylene (DDE) at HA106 from 0.15 to 0.3 m bgs. A deeper sample (1.0 to 1.2 mbgs) met the Table 1 SCS.
- DDD and DDE at HA107 from 0.15 to 0.3 m bgs
- DDE at HA109 from 0.15 to 0.3 m bgs
- DDD and DDE at HA110 from 0.15 to 0.3 m bgs
- DDE at HA114 from 0.15 to 0.3 m and 1.0 to 1.2 m bgs
- DDE at HA115 from 0.15 to 0.3 m bgs

Cambium notes that no exceedances were observed on the proposed residential subdivision on the north portion of the Site. The exceedances of OCs in the submitted soil sample is inferred to be encompass the entire proposed Lot 17 area. This area was the reported location of the historical on-site orchard/vineyard.

6.4.3 Mercury

Fourteen soil samples were submitted for analysis of mercury. Concentrations were less than the Table 1 SCS in the analyzed soil samples, as shown on Figure 7.

6.4.4 pH

Two samples were analyzed for pH. On-site soil pH was within the acceptable ranges for surface (≤1.5 mbgs) soil.

6.5 Quality Assurance and Quality Control

Duplicate soil samples were collected for each parameter group. Where analytical parameters were detected in both the parent and the duplicate samples at more than five times the detection limits, relative percent difference (RPD) was calculated to assess the precision of the analytical data. The results were evaluated based on a data quality objectives (DQOs) of 50% for soil and 30% for water. RPD was calculated as follows:

$$RPD(\%) = \frac{|x_1 - x_2|}{x_m} \times 100\%$$

Where: x_1 = parent sample result

x_2 = duplicate sample result

x_m = arithmetic mean of initial and duplicate sample results

RPD is more sensitive to low concentrations; as such, RPDs were not calculated where the parameter concentration in the parent and/or duplicate sample was less than five times the laboratory reportable detection limit (RDL).

RPDs met the DQO for soil. Overall, the duplicate samples match very closely with the parent samples. Accordingly, the soil analysis results were considered acceptable and indicated that the analytical data were suitable for use in evaluating soil quality at the Site.

Certificates of Analysis received for each submitted sample are included in Appendix D. All laboratory Certificates of Analysis pursuant to clause 47 (2) (b) of O.Reg. 153/04 comply with subsection 47(3) of the regulation.

Based on the results of the QA/QC program, the analytical results discussed herein can be interpreted with confidence.

6.6 Phase Two Conceptual Site Model

As per Table 1 of Schedule E of O.Reg. 153/04, a CSM is required for a Phase Two ESA to assist the QP in illustrating the results of the Phase Two ESA, demonstrating the current condition of the Phase Two Property, or where remedial actions have been undertaken, the condition of the Phase Two Property before the remedial actions were undertaken.

The following sections describe in detail the Phase Two CSM and provide the requisite narrative that assists in describing the attached figures.

6.6.1 Site Description and Ownership

The Site is northeast of County Road 13 and borders Lake Ontario to the north and east in Milford, Ontario. The municipal address is 3401 County Road 13. The assessment roll number is 804010075010000. The closest water body is Halfmoon Bay, adjacent to the northeast of the Site.

Property use surrounding the Site is as follows.

North – Lake Ontario (Halfmoon Bay to the northeast, South Bay to the northwest)

South – Residential, commercial (vineyard)

East – Lake Ontario (Halfmoon Bay) and residential properties

West – Residential

The Site is currently vacant agricultural land and is owned by Michael Kerford. The Site includes PIN 55091-0203 (LT). The proposed future land use is residential.

6.6.2 Potentially Contaminating Activities

Two PCAs were identified within the Phase One Study Area, consisting of one on-site and one off-site PCAs. Refer to Table 3 for further description of the PCAs, and Figure 2 for PCA locations.

The following PCAs contribute to APECs:

PCA 1 – On-site – Former on-site orchard/vineyard with possible pesticide use – PCA #40 Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications

PCA 2 – Off-site (adjacent to the south) – Former off-site vineyards and orchards - PCA #40 Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications

6.6.3 Areas of Potential Environmental Concern

As required by O.Reg. 153/04, all on-site PCAs result in an APEC. Based on a review of the potential to result in contamination at the Site, the one off-site PCA contributed to an APEC. No other PCAs were identified at the Site or surrounding properties. The APECs are summarized below. Refer to Table 2 for further descriptions of the APECs, and Figure 3 for APEC locations.

APEC 1 - The southeastern portion of the Site. This APEC is related to the suspected application of pesticide use due to a former orchard/vineyard.

APEC 2 – The west/southwestern property boundary due to the presence of former orchards/vineyards off-site.

The sampling and analysis plan was designed to assess the APECs. The following list documents how the investigation sufficiently characterized the APECs. Samples for analysis of parameters were selected based primarily on visual observation and depth.

- HA106, HA107, HA108, HA109, and HA110 investigated APEC 1. Additional soil samples from HA114 and HA115 were collected northwest and southeast of these samples to further assess soil at this portion of the property.
- HA101, HA102, HA103, HA104, HA105 investigated APEC 2. Additional soil samples from HA105a, HA105b, HA105c, HA105d were collected within two metres of sample location

HA105 along with HA111, HA112 and HA113 to further assess metals impacts at this location.

Refer to Figure 4 for borehole locations.

6.6.4 Subsurface Structures and Utilities

No subsurface structures or utilities exist on the Site; as such, they are not expected to affect contaminant distribution and transport.

6.6.5 Stratigraphy

The stratigraphy consisted of native silty sand with gravel and trace silt. Top of bedrock is at depths ranging from 0.2 to 1.3 mbgs.

6.6.6 Hydrogeological Characteristics and Groundwater Elevations

The closest water body is Halfmoon Bay, adjacent to the northeast of the Site.

The groundwater flow direction is inferred to be northwesterly toward Halfmoon Bay.

6.6.7 Applicable Site Condition Standards

The *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act* (MOECC, 2011) were used to determine the applicable SCS for the Site. The following site characteristics were considered when choosing which standards should be applied:

- The proposed future use of the Site is residential use.
- The area being investigated is within 30 m of a water body as defined in O.Reg. 153/04. As such, Section 43.1 of O.Reg. 153/04 does apply to the Site.
- According to an Environmental Impact Study (Ecological Services, 2021) completed at the Site, no provincially significant wetlands or areas of natural significance were identified on-Site. In addition, no significant species at risk habitats were identified with the exception of a potential habitat for Eastern Meadowlark on the adjacent property. It is noted that

potential bat habitat was identified on-site; however, the EIS report had concluded that the identified bat habitat was not likely to be significant. In addition, significant wildlife habitat for amphibians was identified in the on-site natural heritage area and at the southeast portion of the proposed Lots 1-16; however, no amphibians were listed as species at risk.

- The County of Prince Edward Official Plan identifies an Environmental Protection area in the southeastern portion of the Site, including a coastal wetland, resulting in an Area of Natural Significance on the Site (Prince Edward County, 2021).
- For groundwater at a property to be considered non-potable, all properties within 250 m of the property must be supplied by a municipal drinking water system that does not obtain its water from a groundwater source. It should be noted that no water source (i.e., potable or non-potable) service the Site. In addition, based on Cambium's regulatory review associated with the Phase One ESA (i.e., ERIS), two on-site well records for domestic water supply wells were installed in 1992 (well ID A276029) and 2021 (well ID 5305778). Therefore, not all properties within the Phase One Study Area are serviced by the municipal drinking water system, and as such potable standards apply to the Site.
- The 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.
- The stratigraphy consisted of topsoil followed by native silty sand with some gravel, terminating in inferred bedrock. Top of bedrock is at depths ranging from 0.2 to 1.3 m below ground surface (bgs). Based on field observations, SCS for coarse-grained soil were considered appropriate. In addition, since all boreholes encountered refusal at depths of less than 2 mbgs, the area being investigated is inferred to be a shallow soil property as defined in O.Reg, 153/04. As such, Section 43.1 of O.Reg. 153/04 does apply to Site with respect to the provision a shallow soil property.
- Based on the potential species at risk habitats (i.e., Eastern Meadowlark on an adjacent property) and the designation of environmental protection for a portion of the site, an area

of natural significance, as defined in Section 1 of O.Reg. 153/04, is in whole or in part within the Phase Two study area. On-site soil pH was within the acceptable ranges for surface (≤1.5 mbgs) soil. No soil samples were obtained below 1.5 mbgs due to inferred bedrock.

Based on the above information, the applicable SCS for the Site were the *Table 1: Full Depth Background Site Condition Standards*. Residential property use and coarse soil texture were selected to determine concentration exceedances for the analyzed parameters.

6.6.8 Contaminant Identification and Distribution

Site features/sampling locations are shown on Figure 4. Concentrations of metals, hydride-forming metals and/or OCs exceeded the Table 1 SCS in some analyzed soil samples, listed below. Metals impacts are shown on Figure 5, while OC impacts are shown on Figure 6.

- Barium at HA105 from 0.15 to 0.3 m bgs
- Arsenic at HA105a from 0.15 to 0.3 m bgs
- Barium at HA105b from 1.0 to 1.2 m bgs
- Arsenic and lead at HA105c from 0.15 to 0.3 m bgs, and barium at HA105c from 1.0 to 1.2 m bgs
- Arsenic, lead, DDD and DDE at HA106 from 0.15 to 0.3 m bgs
- Arsenic, lead, DDD and DDE at HA107 from 0.15 to 0.3 m bgs
- Antimony at HA108 from 0.15 to 0.3 m bgs
- Arsenic, lead and DDD at HA109 from 0.15 to 0.3 m bgs
- Arsenic, lead, DDD and DDE at HA110 from 0.15 to 0.3 m bgs
- Arsenic and DDE at HA114 from 0.15 to 0.3 m bgs
- DDE at HA114 from 1.0 to 1.2 m bgs
- DDE at HA115 from 0.15 to 0.3 m bgs

Soil samples exceeding the Table 1 SCS for metals, including antimony, arsenic, barium, and lead, were present within the southeast portion of the Site and localized around HA105 in the central portion of the Site. Metal exceedances at HA105, HA105a and HA105c were delineated horizontally to the west, north, and southeast (based on the analysis results from HA111, HA112, and HA113), with the southwestern property boundary limiting further delineation to the southwest. Vertical delineation was achieved at about HA105 based on the average of samples HA105a, HA105b, HA105c, and HA105d from 1.0 to 1.2 m bgs meeting the Table 1 SCS. Horizontal and vertical delineation of metal exceedances at HA106, HA107, HA108. HA109, HA110, and HA114 was not achieved during the Phase Two investigation. Deeper samples at HA106 (HA106 from 1 – 1.2 m bgs) and HA110 (HA110 from 1 to 1.2 m bgs) were collected for vertical delineation at these locations; however, deeper samples were not collected at HA107, HA108, HA109, and HA114 sampling locations.

Cambium notes that no exceedances of metals and hydride metals were observed on the proposed residential subdivision (proposed Lots 1-16) on the north portion of the Site. The observed metal exceedances in soil were observed on the central and southeast portions of the Site, which comprise a natural heritage feature and the proposed residential development area, noted as Lot 17. Further, the observed soil exceedances at the central portion of the site appeared to be delineated and does not impact the proposed residential subdivision.

Soil samples exceeding the Table 1 SCS for OCs, including DDD and DDE, were present within the southeastern portion of the Site. Vertical delineation of HA106 and HA110 was achieved at 1 to 1.2 m bgs; however vertical delineation was not achieved at HA107, HA108, HA109, HA111, HA114, and HA115. Inferred bedrock was encountered at 0.5 to 0.8 mbgs in HA107, HA108, HA109, HA111, and HA115. Horizontal delineation of the OC exceedances was not achieved and is inferred to be present across all of the proposed Lot 17 at the southeast portion of the Site. However, no OCs exceedances were observed in the proposed Lots 1-16.

6.6.9 Contaminant Migration and Transport

Concentrations of OCs, including DDD and DDE, and metals, including antimony, arsenic, barium, and lead, in soil exceeded the SCS. As the property is undeveloped and depth to bedrock ranges from 0.2 to 1.3 mbgs, subsurface utilities are not expected to affect the migration and distribution of contamination.

Climatic or meteorological conditions are not anticipated to influence distribution and migration of the contaminants.

6.6.10 Exposure Pathways and Receptors

The site characterization identified COPCs in soil at concentrations exceeding the Table 1 SCS within the proposed natural heritage area and the proposed Lot 17 (at the central and southeast portion of the Site). Based on a review of site characteristics (e.g., soil profile, depth to groundwater, contaminant type and distribution, etc.), Cambium identified potential exposure pathways and receptors for human and ecological receptors. The human health CSM describes the potential exposure pathways that are likely to be present for various human receptors at the Site.

In the absence of risk management measures (RMMs), the following exposure pathways are considered applicable for current and future on-site receptors:

- Direct contact with soil
- Incidental ingestion of soil
- Inhalation of soil particulates

Based on the future residential land use for the Site, possible receptors at the Site are:

- Resident (all age groups)
- Site visitor (all age groups)
- Subsurface worker (adult)

- Outdoor worker (adult)

The ecological CSM describes the potential exposure pathways that may be present for various ecological receptors at the Site.

Ecological receptors at the Site are assumed to have direct contact with surface soil and shallow groundwater. In the absence of RMMs, the following exposure pathways are considered applicable for the potential on-site ecological receptors:

- Direct contact with soil
- Ingestion of soil
- Inhalation of soil
- Ingestion of impacted food
- Root uptake

Based on the future residential land use for the Site, possible ecological receptors are:

- Terrestrial soil invertebrates and plants
- Birds and mammals
- Aquatic receptor (off-site only)

Cambium notes that no exceedances of the Table 1 SCS were identified on the north portion of the Site and within the proposed subdivision (i.e., proposed Lots 1-16).

6.6.11 Location of Buildings and Structures

No buildings or structures exist on the Site.

The proposed redevelopment of the property includes a residential development in the north and southeast portions (i.e., Lots 1-16 and Lot 17, respectively) of the Site.

6.6.12 Areas of Contamination on the Property

Concentrations of select COPCs exceeded the Table 1 SCS in the analyzed soil samples collected at sampling location HA105 (including HA105a, and HA105c), located centrally on the southwestern property boundary, and HA106, HA107, HA108, HA109, HA110, and HA114, localized to the southeast portion of the Site. Cambium notes that no exceedances were identified at the north portion of the Site (i.e., the proposed subdivision of Lots 1 to 16) based on areas investigated.

7.0 Conclusions

Conclusions regarding the current environmental conditions at the Site are based solely on the results of the Phase One ESA and this Phase Two ESA.

7.1 Environmental Conditions

A Phase Two ESA work program was developed to investigate COPCs (metals, hydride-forming metals, mercury, and OCs) in soil. The Phase Two ESA included 19 boreholes advanced into overburden by hand tools.

Concentrations of metals and OCs at sampling locations HA105 (along with HA105a, and HA105c), HA106, HA107, HA108, HA109, HA110, and HA114 exceeded the Table 1 SCS in soil samples. On-site soil pH was within the acceptable ranges for surface (≤1.5 mbgs) soil. Based on the results of the Phase Two ESA investigation, Cambium concluded that soil at the northwest portion of the Site (i.e., the proposed Lots 1-16) meets the Table 1 SCS; however, surface soil at the proposed natural heritage area and soil at the proposed Lot 17 (i.e., southeast portion of the Site) does not meet the Table 1 SCS. Based on the results of the Phase Two ESA, Cambium recommends further investigation of the sediment near the shoreline and/or groundwater to further characterize the metals and/or OC impacts to support a potential Risk Assessment approach at the proposed Lot 17.

7.2 Signatures

This Phase Two ESA was completed under the supervision of Mr. Derik Tam, P.Eng. (QP), as per O.Reg. 153/04, as amended. Information presented in this report is true and accurate to the best of the assessors' knowledge.

Respectfully submitted,

Cambium Inc.

DocuSigned by:
B565E439308940C...

Meaghan Haligowski, M.Env.Sc.
Project Coordinator

DocuSigned by:
9D273995C602401...

Derik Tam, P.Eng., QPESA
Project Manager

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8.0 References

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9.0 Standard Limitation

Limited Warranty

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A site assessment is created using data and information collected during the investigation of a site and based on conditions encountered at the time and particular locations at which fieldwork is conducted. The information, sample results and data collected represent the conditions only at the specific times at which and at those specific locations from which the information, samples and data were obtained and the information, sample results and data may vary at other locations and times. To the extent that Cambium's work or report considers any locations or times other than those from which information, sample results and data was specifically received, the work or report is based on a reasonable extrapolation from such information, sample results and data but the actual conditions encountered may vary from those extrapolations.

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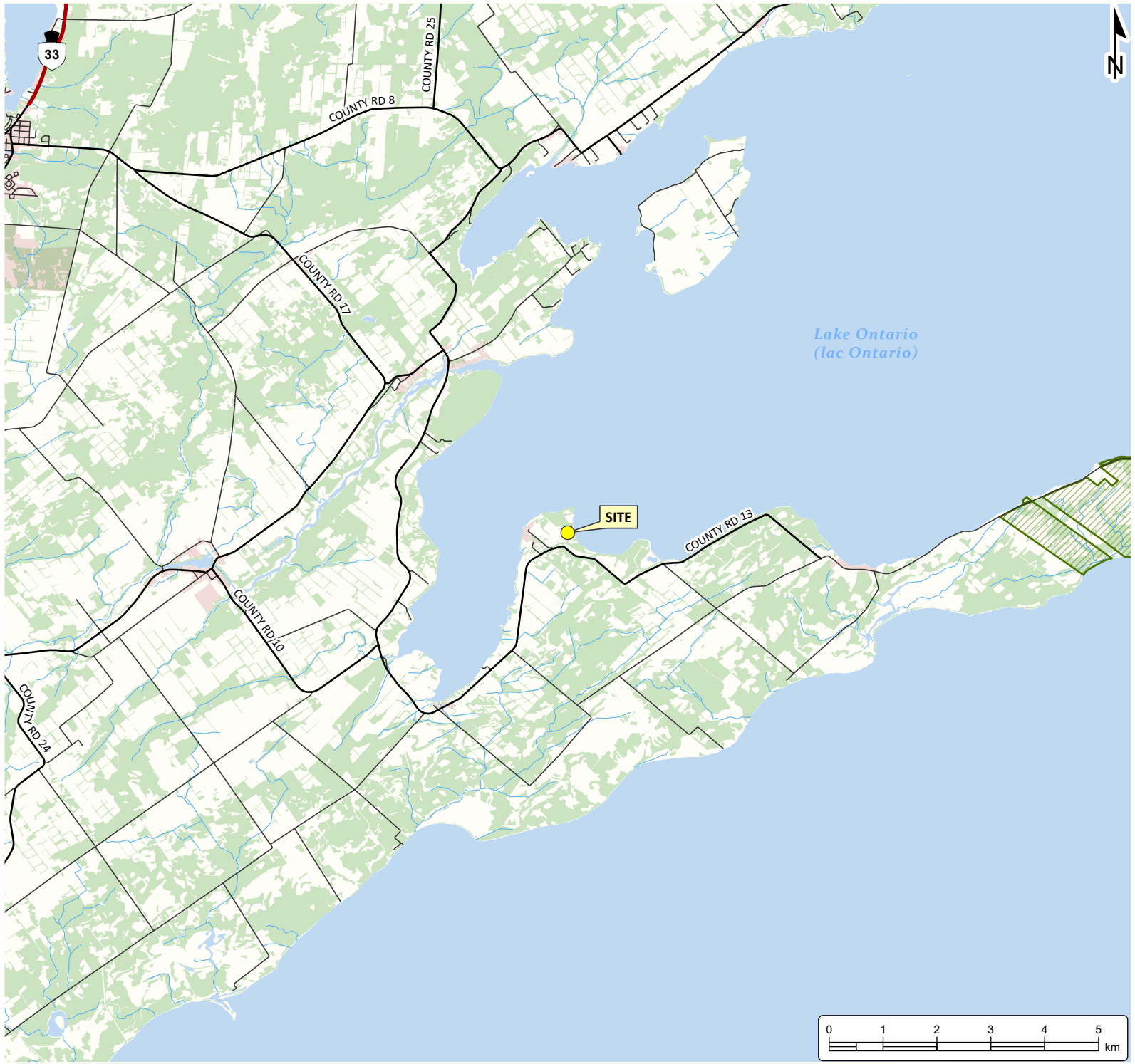
Appended Figures



PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

71223 NB LTD.
3401 County Road 13
Prince Edward County, Ontario

LEGEND

- Highway
- Major Road
- Minor Road
- Watercourse
- Federal Protected Areas
- Built Up Area
- Wooded Area
- Water Area

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SITE LOCATION PLAN

Project No.: 13895-001		Date: September 2024 Rev.:	
Scale: 1:100,000		Projection: NAD 1983 UTM Zone 17N	
Created by: LD	Checked by: DT	Figure:	1

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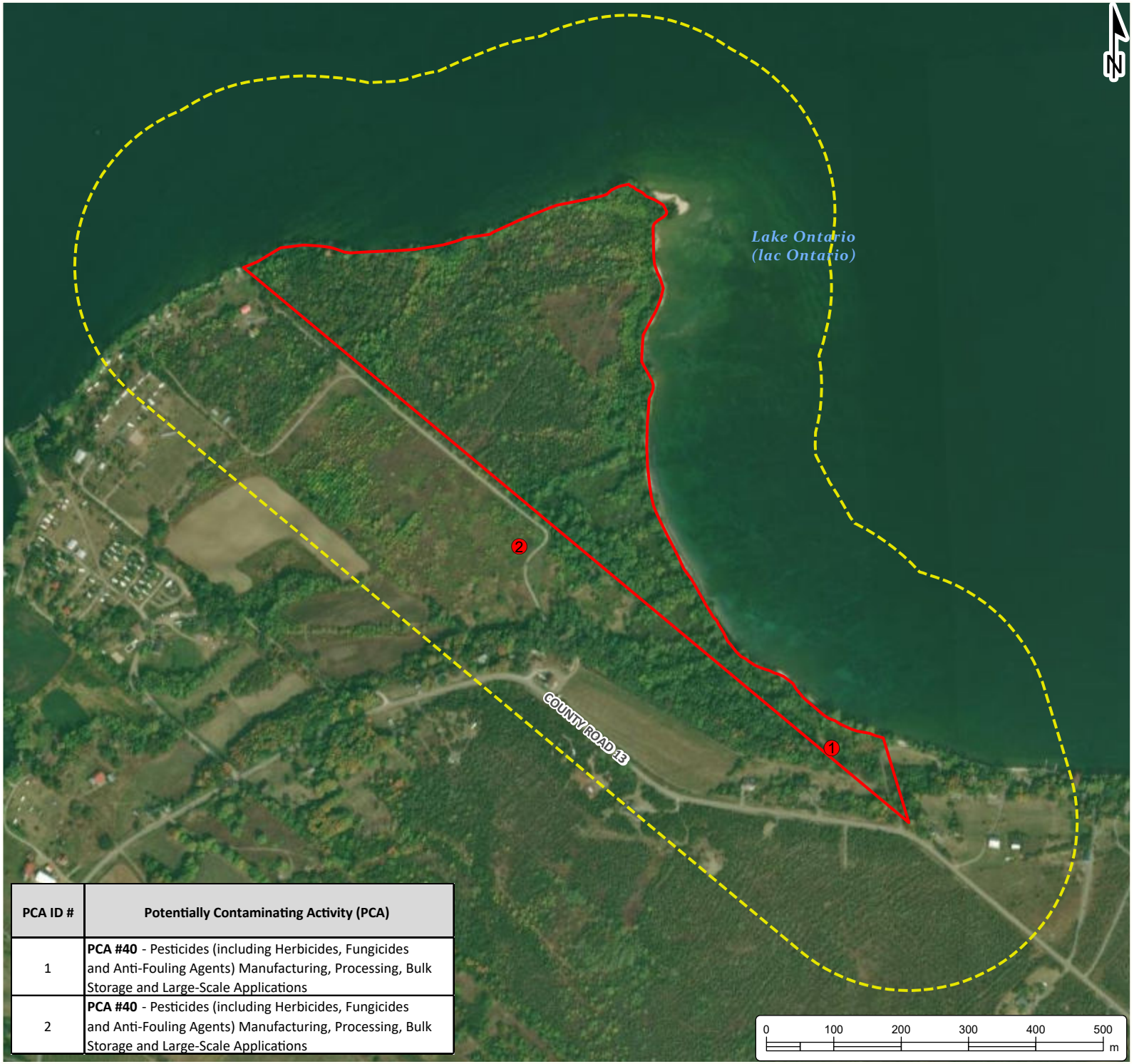

PCA ID #	Potentially Contaminating Activity (PCA)
1	**PCA #40** - Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications
2	**PCA #40** - Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

71223 NB LTD.
3401 County Road 13
Prince Edward County, Ontario

LEGEND

- Study Area (250m)
- Site (approximate)

Potentially Contaminating Activity:

- Does Not Contribute to APECs
- Contributes to APECs

Notes:
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CONCEPTUAL SITE MODEL STUDY AREA AND POTENTIALLY CONTAMINATING ACTIVITIES

Project No.: 13895-001		Date: September 2024 Rev.:	
Scale: 1:8,000		Projection: NAD 1983 UTM Zone 17N	
Created by: LD	Checked by: DT	Figure:	2

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PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

71223 NB LTD.
3401 County Road 13
Prince Edward County, Ontario

LEGEND

- Site (approximate)

Areas of Potential Environmental Concern:

- APEC 1
- APEC 2

Area of Potential Environmental Concern		Potentially Contaminating Activity
APEC 1	1	**PCA #40** - Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications
APEC 2	2	**PCA #40** - Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications

Notes:
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CONCEPTUAL SITE MODEL AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

Project No.: 13895-001		Date: Rev.:	September 2024
Scale: 1:6,000		Projection:	NAD 1983 UTM Zone 17N
Created by: LD	Checked by: DT	Figure:	3

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PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

71223 NB LTD.
3401 County Road 13
Prince Edward County, Ontario

LEGEND

- Hand Auger Location
- Site (approximate)

Areas of Potential Environmental Concern:

- APEC 1
- APEC 2

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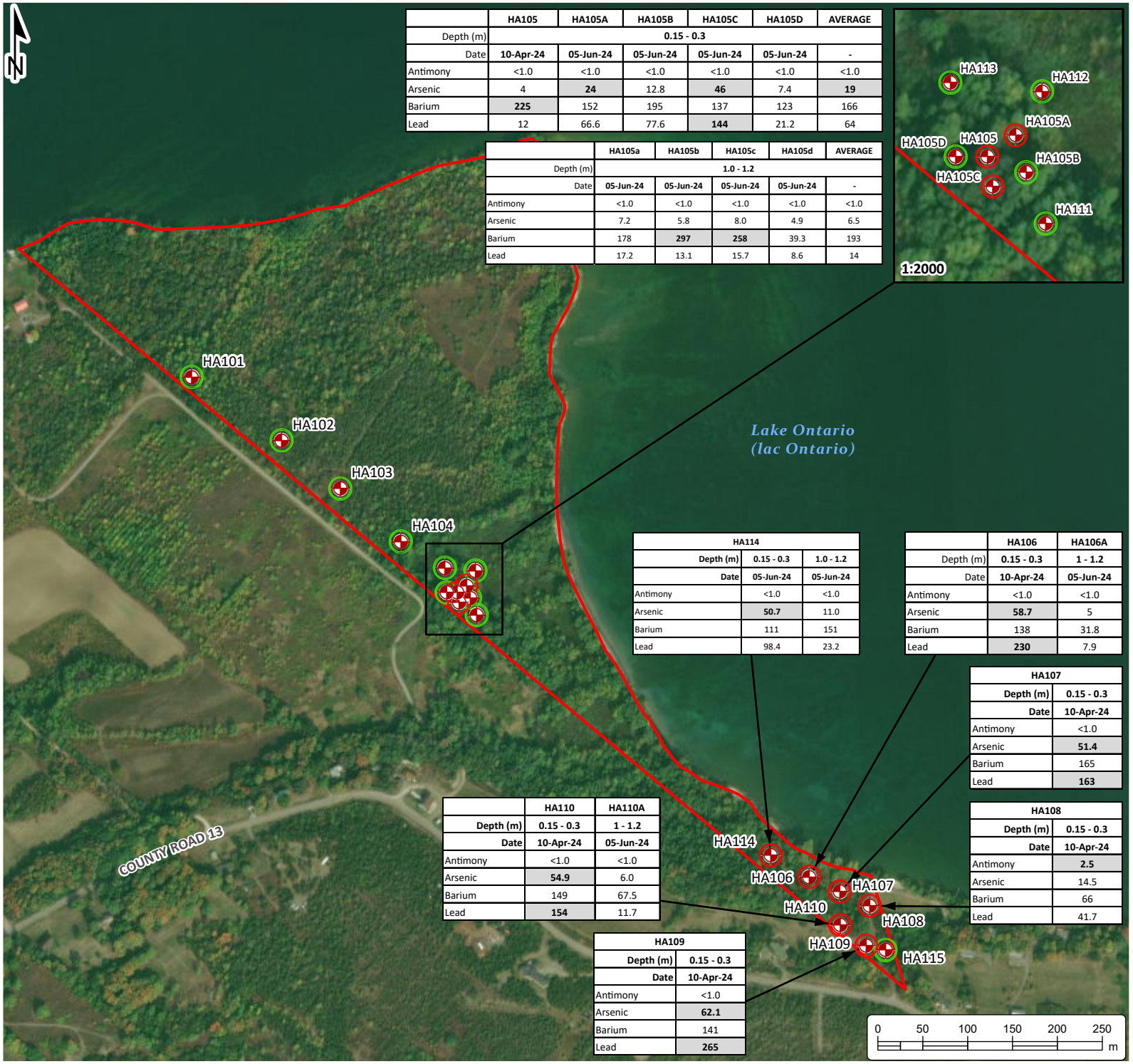
INVESTIGATION LOCATIONS

Project No.: 13895-001		Date: July 2024	Rev.:
Scale: 1:5,500		Projection: NAD 1983 UTM Zone 17N	
Created by: LD	Checked by: DT	Figure: 4	

O:\GIS\MXDs\13800-13899\13895-001 - Mikaheil Kerford - Phase Two ESA - Half Moon Bay PEC\2024-07-02 Phase II ESA 13895-001.aprx



	HA105	HA105A	HA105B	HA105C	HA105D	AVERAGE
Depth (m)	0.15 - 0.3					
Date	10-Apr-24	05-Jun-24	05-Jun-24	05-Jun-24	05-Jun-24	-
Antimony	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Arsenic	4	**24**	12.8	**46**	7.4	**19**
Barium	**225**	152	195	137	123	166
Lead	12	66.6	77.6	**144**	21.2	64

	HA105a	HA105b	HA105c	HA105d	AVERAGE
Depth (m)	1.0 - 1.2				
Date	05-Jun-24	05-Jun-24	05-Jun-24	05-Jun-24	-
Antimony	<1.0	<1.0	<1.0	<1.0	<1.0
Arsenic	7.2	5.8	8.0	4.9	6.5
Barium	178	**297**	**258**	39.3	193
Lead	17.2	13.1	15.7	8.6	14

HA114		
Depth (m)	0.15 - 0.3	1.0 - 1.2
Date	05-Jun-24	05-Jun-24
Antimony	<1.0	<1.0
Arsenic	**50.7**	11.0
Barium	111	151
Lead	98.4	23.2

	HA106	HA106A
Depth (m)	0.15 - 0.3	1 - 1.2
Date	10-Apr-24	05-Jun-24
Antimony	<1.0	<1.0
Arsenic	**58.7**	5
Barium	138	31.8
Lead	**230**	7.9

HA107	
Depth (m)	0.15 - 0.3
Date	10-Apr-24
Antimony	<1.0
Arsenic	**51.4**
Barium	165
Lead	**163**

HA108	
Depth (m)	0.15 - 0.3
Date	10-Apr-24
Antimony	**2.5**
Arsenic	14.5
Barium	66
Lead	41.7

	HA110	HA110A
Depth (m)	0.15 - 0.3	1 - 1.2
Date	10-Apr-24	05-Jun-24
Antimony	<1.0	<1.0
Arsenic	**54.9**	6.0
Barium	149	67.5
Lead	**154**	11.7

HA109	
Depth (m)	0.15 - 0.3
Date	10-Apr-24
Antimony	<1.0
Arsenic	**62.1**
Barium	141
Lead	**265**

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

71223 NB LTD.
3401 County Road 13
Prince Edward County, Ontario

LEGEND

- Hand Auger Locations
- Meets Table 1 RPI
- Exceeds Table 1 RPI
- Site (approximate)

Contaminant	Standard
Antimony	**1**
Arsenic	**18**
Barium	**220**
Lead	**120**

Table 1 (RPI Property Use, Coarse Texture)

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SOIL QUALITY METALS

Project No.: 13895-001	Date: September 2024
Scale: 1:6,000	Rev.:
Projection: NAD 1983 UTM Zone 17N	
Created by: LD	Checked by: DT
Figure: **5**	

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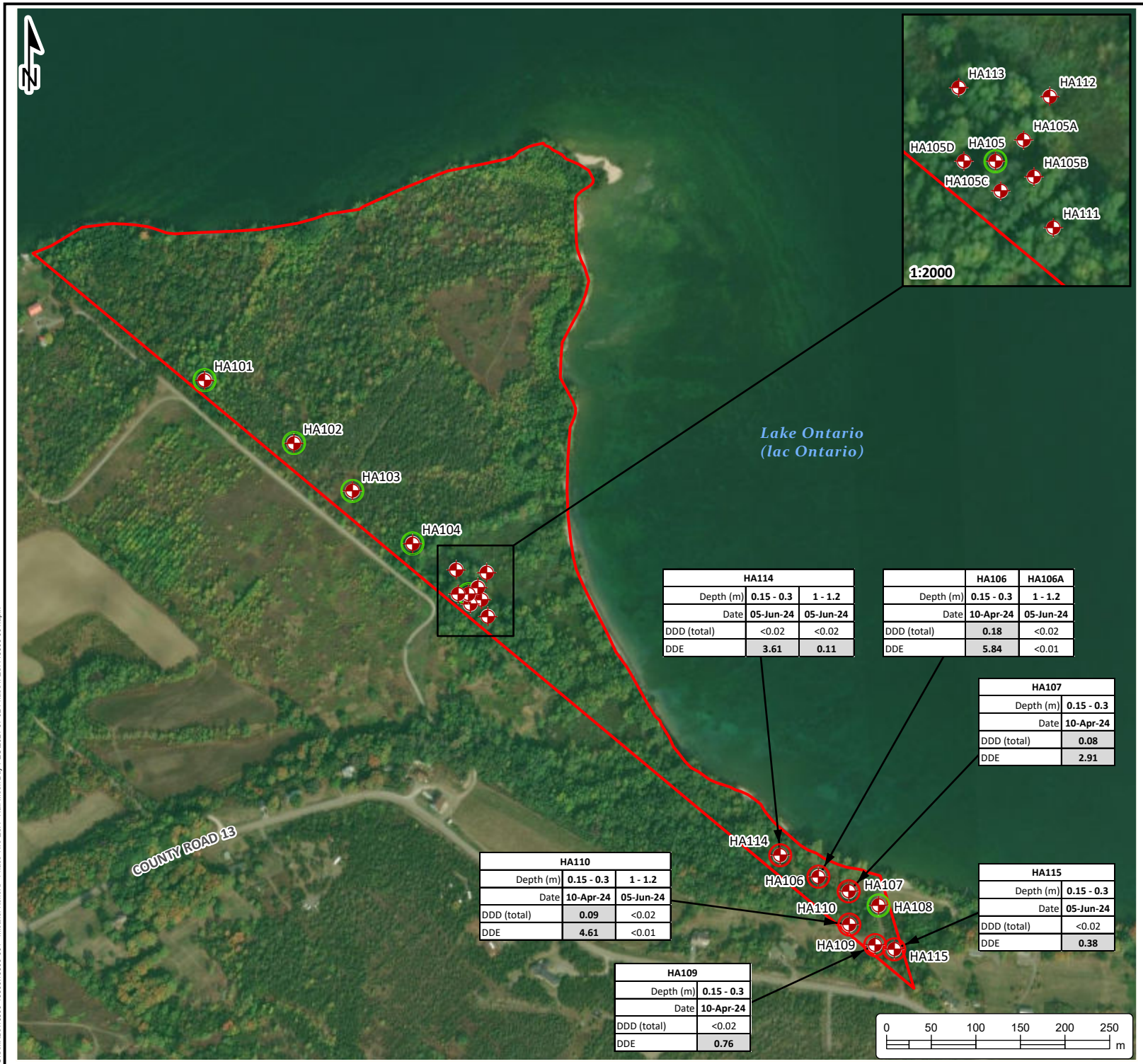

HA114		
Depth (m)	0.15 - 0.3	1 - 1.2
Date	05-Jun-24	05-Jun-24
DDD (total)	<0.02	<0.02
DDE	3.61	0.11

	HA106	HA106A
Depth (m)	0.15 - 0.3	1 - 1.2
Date	10-Apr-24	05-Jun-24
DDD (total)	0.18	<0.02
DDE	5.84	<0.01

HA107	
Depth (m)	0.15 - 0.3
Date	10-Apr-24
DDD (total)	0.08
DDE	2.91

HA110		
Depth (m)	0.15 - 0.3	1 - 1.2
Date	10-Apr-24	05-Jun-24
DDD (total)	0.09	<0.02
DDE	4.61	<0.01

HA115	
Depth (m)	0.15 - 0.3
Date	05-Jun-24
DDD (total)	<0.02
DDE	0.38

HA109	
Depth (m)	0.15 - 0.3
Date	10-Apr-24
DDD (total)	<0.02
DDE	0.76

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

71223 NB LTD.
3401 County Road 13
Prince Edward County, Ontario

LEGEND

- Hand Auger Locations
- Meets Table 1 RPI
- Exceeds Table 1 RPI
- Site (approximate)

Contaminant	Standard
DDD (total)	0.05
DDE	0.05

Table 1 (RPI Property Use, Coarse Texture)

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SOIL QUALITY OCs

Project No.: 13895-001		Date: September 2024	Rev.:
Scale: 1:6,000		Projection: NAD 1983 UTM Zone 17N	
Created by: LD	Checked by: DT	Figure: 6	

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PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

71223 NB LTD.
3401 County Road 13
Prince Edward County, Ontario

LEGEND

- Hand Auger Locations
- Meets Table 1 RPI
- Exceeds Table 1 RPI
- Site (approximate)

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SOIL QUALITY
MERCURY IN SOIL

Project No.: 13895-001		Date: Rev.:	September 2024
Scale: 1:6,000		Projection:	NAD 1983 UTM Zone 17N
Created by: LD	Checked by: DT	Figure:	7

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Appended Tables

Table 1: Potential Contaminating Activities

	Potentially Contaminating Activity (PCA)	Location of PCA	PCA Description	APEC (Yes/No)
1	**PCA #40** - Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On-site, southeastern portion	Possible use of pesticides for agricultural purposes due to the presence of a former orchard	Yes
2	**PCA #40** - Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	Off-site, adjacent to the south	Possible use of pesticides for agricultural purposes due to the presence of a vineyard and former orchards	Yes

Notes:

1. Potentially Contaminating Activity (PCA) means a use or activity set out in Column A of Table 2 of Schedule D that is occurring or has occurred in the phase one study area.

2. Area of Potential Environmental Concern (APEC) means the area on, in, or under a phase one property where one or more contaminants are potentially present.

Table 2: Areas of Potential Environmental Concern

APEC[1]	Location of APEC on Phase One Property	PCA[2]		Location of PCA	Contaminants of Potential Concern[3]	Media Potentially Impacted
1	Southeastern portion fo the Site	1	**PCA #40** - Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On-site	OC Pesticides, Metals	Soil
2	Southern property boundary	2	**PCA #40** - Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	Off-site, adjacent to the south	OC Pesticides, Metals	Soil

Notes:

1. Area 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 assessm
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. Method groups as defined in Protocol for in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, March 9, 2004, amended as of July 1, 2011.

Table 3 - Soil Quality

			Sample Code	HA101	HA102		HA103	HA104	HA105	HA105a	HA105a		HA105b	HA105b	HA105c	HA105c	HA105d	HA105d
			Field ID	HA101_0.15-0.30	HA102_0.15-0.30	QAQC1	HA103_0.15-0.30	HA104_0.0-0.20	HA105_0.15-0.30	HA105a_0.15-0.3	HA105a_1.0-1.2	QAQC1	HA105b_0.15-0.3	HA105b_1.0-1.2	HA105c_0.15-0.3	HA105c_1.0-1.2	HA105d_0.15-0.3	HA105d_1.0-1.2
			Depth (m bgs)	0.15 - 0.3	0.15 - 0.3	0.15 - 0.3	0.15 - 0.3	0 - 0.2	0.15 - 0.3	0.15 - 0.3	1 - 1.2	0.15 - 0.3	0.15 - 0.3	1 - 1.2	0.15 - 0.3	1 - 1.2	0.15 - 0.3	1 - 1.2
			Date	10 Apr 2024	10 Apr 2024	10 Apr 2024	10 Apr 2024	10 Apr 2024	10 Apr 2024	05 Jun 2024	05 Jun 2024	05 Jun 2024	05 Jun 2024	05 Jun 2024	05 Jun 2024	05 Jun 2024	05 Jun 2024	05 Jun 2024
	Unit	EQL	Table 1 - RPIICC															
PCBs																		
Decachlorobiphenyl	mg/kg			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organochlorine Pesticides																		
DDD (total)	µg/g	0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	-	-	-	-	-	-	-
DDT (total)	µg/g	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	-	-	-	-	-	-
DDE	µg/g	0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	-	-	-	-	-	-
Aldrin	µg/g	0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	-	-	-	-	-	-
Chlordane (Total)	µg/g	0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	-	-	-	-	-	-
Chlordane (Alpha)	µg/g	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	-	-	-	-	-	-
Chlordane (Gamma)_	µg/g	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	-	-	-	-	-	-
Dieldrin	µg/g	0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	-	-	-	-	-	-	-
Endosulfan	µg/g	0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	-	-	-	-	-	-	-
Endosulfan I	µg/g	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	-	-	-	-	-	-
Endosulfan II	µg/g	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	-	-	-	-	-	-	-
Endrin	µg/g	0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	-	-	-	-	-	-	-
Heptachlor	µg/g	0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	-	-	-	-	-	-
Heptachlor epoxide	µg/g	0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	µg/g	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	µg/g	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	-	-	-	-	-	-
Hexachlorocyclohexane (g-BHC, Lindane)	µg/g	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	-	-	-	-	-	-
Hexachloroethane	µg/g	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	-	-	-	-	-	-
Methoxychlor	µg/g	0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	-	-	-	-	-	-
Metals																		
Antimony	µg/g	1	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Arsenic	µg/g	1	18	3.6	3.6	3.7	4.3	5.2	4.2	23.5	7.2	17.5	12.8	5.8	46.0	8.0	7.4	4.9
Barium	µg/g	1	220	114	166	192	154	152	225	142	178	152	195	297	137	258	123	177
Beryllium	µg/g	0.5	2.5	1.1	1.0	0.9	1.3	1.5	1.0	0.9	1.1	0.9	0.9	1.5	0.8	1.3	0.8	1.0
Boron	µg/g	5	36	5.0	7.1	7.8	8.2	12.0	11.4	7.3	7.2	7.1	8.9	11.1	5.6	10.1	5.3	10.4
Cadmium	µg/g	0.5	1.2	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (III+VI)	µg/g	5	70	32.9	36.7	38.8	36.8	44.5	42.8	37.1	37.5	38.9	39.7	55.8	36.6	49.2	32.5	39.1
Cobalt	µg/g	1	21	11.6	11.6	12.4	11.6	11.7	12.0	12.0	10.9	11.6	13.3	17.3	12.6	16.9	11.2	9.9
Copper	µg/g	5	92	14.9	21.7	24.8	16.0	19.6	26.6	27.7	22.5	26.7	31.3	33.5	42.0	32.5	18.1	24.6
Lead	µg/g	1	120	12.1	10.0	9.6	12.7	18.8	12.4	66.6	17.2	49.3	77.6	13.1	144	15.7	21.2	8.6
Molybdenum	µg/g	1	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nickel	µg/g	5	82	18.8	23.1	25.9	23.9	25.4	28.3	21.2	25.3	22.2	23.1	36.2	21.1	30.7	18.9	23.2
Selenium	µg/g	1	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Silver	µg/g	0.3	0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Thallium	µg/g	1	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Uranium	µg/g	1	2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vanadium	µg/g	10	86	46.9	52.5	56.9	43.2	42.4	53.0	52.1	50.0	55.5	54.9	69.7	54.0	70.3	47.7	54.2
Zinc	µg/g	20	290	67.0	63.9	64.3	72.4	124	86.0	71.4	113	73.8	100	87.7	79.8	71.4	68.5	56.2
ORPs																		
Mercury	µg/g	0.1	0.27	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-
pH (Lab)	-	0.05	5-9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Table 1 - Full Depth Background Site Condition Standards for Residential, Parkland, Institutional, Industrial, Commercial, and Community property use, in coarse-grained soils

Table 3 - Soil Quality

Sample Code				HA106	HA106A		HA107	HA108	HA109	HA110	HA110A	HA111	HA112	HA113	HA114	HA114	HA115
Field ID				HA106_0.15-0.30	HA106A_1.0-1.2	QAQC2	HA107_0.15-0.30	HA108_0.15-0.30	HA109_0.15-0.30	HA110_0.15-0.30	HA110A_1.0-1.2	HA111_0.15-0.3	HA112_0.15-0.3	HA113_0.15-0.3	HA114_0.15-0.3	HA114_1.0-1.2	HA115_0.15-0.3
Depth (m bgs)				0.15 - 0.3	1 - 1.2	1 - 1.2	0.15 - 0.3	0.15 - 0.3	0.15 - 0.3	0.15 - 0.3	1 - 1.2	0.15 - 0.3	0.15 - 0.3	0.15 - 0.3	0.15 - 0.3	1 - 1.2	0.15 - 0.3
Date				10 Apr 2024	05 Jun 2024	05 Jun 2024	10 Apr 2024	10 Apr 2024	10 Apr 2024	10 Apr 2024	05 Jun 2024	05 Jun 2024	05 Jun 2024	05 Jun 2024	05 Jun 2024	05 Jun 2024	05 Jun 2024
	Unit	EQL	Table 1 - RPIICC														
PCBs																	
Decachlorobiphenyl	mg/kg			-	0.0999	-	-	-	-	-	0.108	-	-	-	0.109	0.0770	0.107
Organochlorine Pesticides																	
DDD (total)	µg/g	0.02	0.05	0.18	<0.02	-	0.08	<0.02	<0.02	0.09	<0.02	-	-	-	<0.02	<0.02	<0.02
DDT (total)	µg/g	0.01		0.57	<0.01	-	0.15	<0.01	0.01	0.27	<0.01	-	-	-	0.66	0.03	<0.01
DDE	µg/g	0.01	0.05	5.84	<0.01	-	2.91	<0.01	0.76	4.61	<0.01	-	-	-	3.61	0.11	0.38
Aldrin	µg/g	0.01	0.05	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	<0.01	<0.01	<0.01
Chlordane (Total)	µg/g	0.01	0.05	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	<0.01	<0.01	<0.01
Chlordane (Alpha)	µg/g	0.01		<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	<0.01	<0.01	<0.01
Chlordane (Gamma)_	µg/g	0.01		<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	<0.01	<0.01	<0.01
Dieldrin	µg/g	0.02	0.05	<0.02	<0.02	-	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	-	<0.02	<0.02	<0.02
Endosulfan	µg/g	0.02	0.04	<0.02	<0.02	-	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	-	<0.02	<0.02	<0.02
Endosulfan I	µg/g	0.01		<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	<0.01	<0.01	<0.01
Endosulfan II	µg/g	0.02		<0.02	<0.02	-	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	-	<0.02	<0.02	<0.02
Endrin	µg/g	0.02	0.04	<0.02	<0.02	-	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	-	<0.02	<0.02	<0.02
Heptachlor	µg/g	0.01	0.05	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	<0.01	<0.01	<0.01
Heptachlor epoxide	µg/g	0.01	0.05	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	<0.01	<0.01	<0.01
Hexachlorobenzene	µg/g	0.01	0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	<0.01	<0.01	<0.01
Hexachlorobutadiene	µg/g	0.01	0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	<0.01	<0.01	<0.01
Hexachlorocyclohexane (g-BHC, Lindane)	µg/g	0.01	0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	<0.01	<0.01	<0.01
Hexachloroethane	µg/g	0.01	0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	<0.01	<0.01	<0.01
Methoxychlor	µg/g	0.01	0.05	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	<0.01	<0.01	<0.01
Metals																	
Antimony	µg/g	1	1.3	<1.0	<1.0	<1.0	<1.0	2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Arsenic	µg/g	1	18	58.7	5.0	6.4	51.4	14.5	62.1	54.9	6.0	7.0	7.3	6.7	50.7	11.0	14.1
Barium	µg/g	1	220	138	31.8	39.3	165	65.6	141	149	67.5	92.7	92.0	78.6	111	151	128
Beryllium	µg/g	0.5	2.5	0.9	<0.5	<0.5	1.0	0.9	1.2	1.3	0.6	0.8	0.8	0.8	0.8	0.9	0.9
Boron	µg/g	5	36	5.7	8.2	8.4	6.9	7.7	9.5	8.5	8.9	9.1	8.4	10.6	6.4	7.7	9.4
Cadmium	µg/g	0.5	1.2	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (III+VI)	µg/g	5	70	31.0	13.9	16.5	35.6	21.2	32.7	35.5	21.7	25.1	26.0	23.8	31.9	33.3	30.4
Cobalt	µg/g	1	21	10.2	5.4	5.5	11.4	6.6	9.8	11.3	6.7	7.8	8.4	7.6	10.1	10.4	9.0
Copper	µg/g	5	92	58.3	6.6	7.9	43.6	18.2	55.9	41.2	8.6	13.5	13.7	12.8	30.6	22.7	17.6
Lead	µg/g	1	120	230	7.9	11.5	163	41.7	265	154	11.7	21.8	21.9	21.1	98.4	23.2	54.1
Molybdenum	µg/g	1	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nickel	µg/g	5	82	20.3	9.9	11.4	23.1	13.1	22.7	23.4	14.0	16.0	16.1	14.8	18.3	22.0	18.2
Selenium	µg/g	1	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Silver	µg/g	0.3	0.5	<0.3	<0.3	<0.3	<0.3	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Thallium	µg/g	1	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Uranium	µg/g	1	2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vanadium	µg/g	10	86	43.5	18.3	21.7	46.7	25.3	39.3	45.3	25.4	28.8	31.4	27.5	46.4	46.2	38.5
Zinc	µg/g	20	290	83.1	21.5	24.5	92.0	68.6	101	98.3	46.3	72.2	69.4	61.7	75.7	56.5	67.5
ORPs																	
Mercury	µg/g	0.1	0.27	0.1	<0.1	<0.1	0.1	<0.1	0.2	0.1	<0.1	-	-	-	<0.1	-	<0.1
pH (Lab)	-	0.05	5-9	-	-	-	-	-	-	-	-	6.82	-	-	6.42	-	-

Note: Table 1 - Full Depth Background Site Condition Standards for Residential, Parkland, Institutional, Industrial, Commercial, and Community property use, in coarse-grained soils

Appendix A

Concept Plan

CLIENT

712223 N.B. Ltd.

ISSUES

No.	DESCRIPTION	DATE
1	PLANNING ACT APPLICATION SUBMISSION	2021-06-02
2	PLANNING ACT APPLICATION SUBMISSION	2024-04-02

FOR REVIEW

KEY PLAN

CONSULTANTS

SEAL

ARCADIS
61 Hyperion Court - Suite 6
Kingston ON K7K 7K7 Canada
tel 613 531 4440
www.arcadis.com

PROJECT

FLATT POINT DEVELOPMENT

PRINCE EDWARD COUNTY

PROJECT NO: 122263	
DRAWN BY: N.A.	CHECKED BY: M.T.
PROJECT MGR: M.T.	APPROVED BY:

SHEET TITLE

CONCEPTUAL PLAN

SHEET NUMBER	ISSUE
C-01	2

True North

Project North

SCALE CHECK 10mm 1 in

File Location: J:\122263_HatMoon\7.0_Production\7.2_Conceptual_Design\04_Civil\Sheets\122263-Concept Plan_2024-04-01.dwg Last Saved: April 5, 2024 by rino.alvarez Plotted: Monday, April 8, 2024 10:41:55 AM by Nino Alvarez

Appendix B

Sampling and Analysis Plan

Sampling and Analysis Plan - 3401 County Road 13, Milford, Ontario

July 31, 2024

Prepared for:
71223 NB Ltd.

Cambium Reference: 13895-001

CAMBIUM INC.

866.217.7900

cambium-inc.com

Table of Contents

1.0 Introduction

This document outlines the Sampling and Analysis Plan (SAP) for the field work proposed for the Phase Two Environmental Site Assessment (ESA) being completed at 3401 County Road 13 in Milford, Ontario (the Site). The roughly 22.1-hectare (ha) Site is currently vacant agricultural land that is northwest of County Road 13 and borders Halfmoon Bay (Lake Ontario) to the north and east and an unopened road allowance to the southwest.

This SAP establishes a quality assurance and quality control (QA/QC) program, data quality objectives, standard operating procedures, and a description of potential physical impediments that may limit the ability to conduct sampling and analysis.

1.1 Objectives

Cambium Inc. (Cambium) completed a Phase One for the Site (Cambium, 2021) which identified areas of potential environmental concern (APECs) associated with current and former uses of the site and surrounding properties.

The purpose of the soil characterization will be to investigate soil quality in the identified APECs through the drilling of boreholes and the collection of soil samples.

The contaminants of potential concern (COPCs) associated with the APECs are metals, hydride-forming metals, mercury, and organochlorine pesticides (OCs).

The overall objective of the Phase Two work program is to identify areas of contamination at the Phase Two property, if any, to support a site plan approval application with the Municipality of Prince Edward.

2.0 Work Proposed

Proposed boreholes and monitoring well locations and rationale are included in the following table:

Location ID	Rationale	Proposed Sample Depth	COPCs
HA101	Investigate soil quality at the southwest portion of the Site (APEC 2)	0.0 to 1.2 mbgs (or bedrock)	Metals, As, Sb, Se, Hg, OCs
HA102	Investigate soil quality at the southwest portion of the Site (APEC 2)	0.0 to 1.2 mbgs (or bedrock)	Metals, As, Sb, Se, Hg, OCs
HA103	Investigate soil quality at the southwest portion of the Site (APEC 2)	0.0 to 1.2 mbgs (or bedrock)	Metals, As, Sb, Se, Hg, OCs
HA104	Investigate soil quality at the southwest portion of the Site (APEC 2)	0.0 to 1.2 mbgs (or bedrock)	Metals, As, Sb, Se, Hg, OCs
HA105	Investigate soil quality at the southwest portion of the Site (APEC 2)	0.0 to 1.2 mbgs (or bedrock)	Metals, As, Sb, Se, Hg, OCs
HA106	Investigate soil quality at the southeast portion of the Site (APEC 1)	0.0 to 1.2 mbgs (or bedrock)	Metals, As, Sb, Se, Hg, OCs
HA107	Investigate soil quality at the southeast portion of the Site (APEC 1)	0.0 to 1.2 mbgs (or bedrock)	Metals, As, Sb, Se, Hg, OCs
HA108	Investigate soil quality at the southeast portion of the Site (APEC 1)	0.0 to 1.2 mbgs (or bedrock)	Metals, As, Sb, Se, Hg, OCs
HA109	Investigate soil quality at the southeast portion of the Site (APEC 1)	0.0 to 1.2 mbgs (or bedrock)	Metals, As, Sb, Se, Hg, OCs
HA110	Investigate soil quality at the southeast portion of the Site (APEC 1)	0.0 to 1.2 mbgs (or bedrock)	Metals, As, Sb, Se, Hg, OCs

To meet the objectives outlined above, the Phase Two ESA work program will generally consist of advancing hand auger boreholes to 1.2 mbgs or to bedrock and collecting up to two soil samples per borehole.

2.1 Quality Assurance

Cambium will maintain the following quality control measures throughout the Phase Two work program:

- Non-dedicated sampling and monitoring equipment will be decontaminated following each use and between each sampling location.
- A minimum of one (1) duplicate sample will be collected for every ten samples collected

An analytical laboratory accredited by the Canadian Association of Laboratory Accreditation (CALA) will be utilized, and the laboratory will complete additional quality control measures (i.e. duplicates, method spikes) as required by its accreditation.

All laboratory certificates of analysis will be reviewed by Cambium for data integrity and quality control. If anomalies in the reported data are identified, Cambium will resample or collect additional samples, where possible and as required.

2.2 Sampling Methods

boreholes will be advanced using a handheld soil auger. Retrieved soil samples will be inspected for visible and olfactory evidence of contamination. Soil samples will be placed in a dedicated polyethylene sample bags then in dedicated sample jars for submission.

Each sample will be handled by a Cambium field technician using dedicated nitrile gloves to minimize the potential for cross-contamination. Hand tools will be cleaned between sample locations using an Alconox wash and rinsed with distilled water.

2.2.1 Sample Handling and Custody

Samples will be collected in laboratory-supplied sample containers, with preservative as necessary. All samples requiring laboratory analysis will be placed in a cooler and maintained at less than 10°C prior to and during transport to the laboratory.

Samples will be labelled with a unique sample ID, sampling date, and project number. All samples will be shipped to the laboratory under chain of custody protocols.

2.3 Quality Control

2.3.1 Verification and Validation Methods

To validate the integrity of the laboratory analytical data as well as sampling methods, Cambium will determine the relative percent difference (RPD) of QA/QC duplicate samples and the corresponding numbered samples. Cambium will also review the analysis of trip blanks and laboratory completed matrix spikes.

RPD is calculated using the following formula:

$$RPD = \frac{|S - D|}{1/2(S + D)} * 100$$

Where S = numbered sample value

D = duplicate value

Low concentrations are more sensitive to RPD values; as such, RPDs will not be calculated where the parameter concentration in the sample and/or duplicate is less than five (5) times the laboratory RDL.

RPD values will be evaluated based on a target variance of 50% or less for soil and 30% or less for groundwater (CCME, 2016).

If an RPD is calculated above the allowable limits, Cambium will attempt to determine the source of the variance, and will assess whether the elevated RPD affects the integrity and usability of the data.

If detectable contaminant concentrations are identified in the trip blank, Cambium will assess the chain of custody protocols and sample transport procedures, and determine if there are impacts to the integrity of the data.

Appendix C

Borehole Logs

Client: 71223 NB Ltd.
Contractor: Cambium Inc.
Project No.: 13895-001
Location: 3401 Country Road 13, Prince Edward County, Ontario

Project Name: Phase Two Environmental Site Assessment
Method: Hand Auger
Elevation: 0
UTM: 18T **N:** 4867204 **E:** 338536

Log of Borehole: HA101
Page: 1 of 1
Date Completed: 10/04/2024

SUBSURFACE PROFILE				SAMPLE									
Elevation (m) / Depth	Lithology	Description (Elevation / Depth)		Number	Type	CSV (ppm)	OV (ppm)	% Recovery	SPT (N)/DCPT	Atterberg Limits (%) LL PL PI; 25 50 75; % Moisture 25 50 75	Shear Strength Cu, kPa (nat V., rem V.); 20 40 60 80; SPT (N) / DCPT 20 40 60 80	Well Installation	Log Notes
0 / 0		**TOPSOIL:** Topsoil; brown, rootlets, no staining or odour, moist	-0.15 / 0.15	1	GB	<5	<2						HA101_0.15-0.30: Metals, OCs, mercury
		(SM) SILTY SAND: Silty Sand with Clay; brown, no staining or odour, moist	-0.51 / 0.51	2	DT	<5	<2						
-0.5 / 0.5		Borehole terminated @ 0.5 mbgs due to presumed Bedrock											
-1 / 1													
-1.5 / 1.5													
-2 / 2													
-2.5 / 2.5													
-3 / 3													
-3.5 / 3.5													
-4 / 4													

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: KD **Input By:** SI

Peterborough, Barrie, Oshawa, Kingston, Whitby

Client: 71223 NB Ltd.
Contractor: Cambium Inc.
Project No.: 13895-001
Location: 3401 Country Road 13, Prince Edward County, Ontario

Project Name: Phase Two Environmental Site Assessment
Method: Hand Auger
Elevation: 0
UTM: 18T **N:** 4867121 **E:** 338625

Log of Borehole: HA102
Page: 1 of 1
Date Completed: 10/04/2024

SUBSURFACE PROFILE			SAMPLE									
Elevation (m) / Depth	Lithology	Description (Elevation / Depth)	Number	Type	CSV (ppm)	OV (ppm)	% Recovery	SPT (N)/DCPT	Atterberg Limits (%) LL PL PI; 25 50 75; % Moisture 25 50 75	Shear Strength Cu, kPa (nat V., rem V.); 20 40 60 80; SPT (N) / DCPT 20 40 60 80	Well Installation	Log Notes
0 / 0		**TOPSOIL:** Topsoil; brown, rootlets, no staining or odour; moist (-0.15 / 0.15)	1	GB	<5	<2						HA102_0.15-0.30 / QAQC1: Metals, OCs, mercury
-0.5 / 0.5		**(SM) SILTY SAND:** Silty Sand with Clay; brown, no staining or odour; moist										
		Wet	2	GB	<5	<2						
-1 / 1		Saturated (-1.22 / 1.22)										
		Borehole terminated @ 1.2 mbgs due to presumed Bedrock										
-1.5 / 1.5												
-2 / 2												
-2.5 / 2.5												
-3 / 3												
-3.5 / 3.5												
-4 / 4												

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: KD **Input By:** SI

Client: 71223 NB Ltd.
Contractor: Cambium Inc.
Project No.: 13895-001
Location: 3401 Country Road 13, Prince Edward County, Ontario

Project Name: Phase Two Environmental Site Assessment
Method: Hand Auger
Elevation: 0
UTM: 18T **N:** 4867063 **E:** 338688

Log of Borehole: HA103
Page: 1 of 1
Date Completed: 10/04/2024

SUBSURFACE PROFILE				SAMPLE									
Elevation (m) / Depth	Lithology	Description (Elevation / Depth)		Number	Type	CSV (ppm)	OV (ppm)	% Recovery	SPT (N)/DCPT	Atterberg Limits (%) LL PL PI; 25 50 75; % Moisture 25 50 75	Shear Strength Cu, kPa (nat V., rem V.); 20 40 60 80; SPT (N) / DCPT 20 40 60 80	Well Installation	Log Notes
0 / 0		**TOPSOIL:** Topsoil; brown, rootlets, no staining or odour, moist	-0.15 / 0.15	1	GB	<5	<2						HA103_0.15-1.30: Metals by ICP, Hg, OC Pest
-0.5 / 0.5		**(SM) SILTY SAND:** Silty Sand with Clay; brown, no staining or odour; moist Light brown, saturated	-0.61 / 0.61	2	GB	<5	<2						
-1 / 1		Borehole terminated @ 0.6 mbgs due to presumed Bedrock											
-1.5 / 1.5													
-2 / 2													
-2.5 / 2.5													
-3 / 3													
-3.5 / 3.5													
-4 / 4													

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: KD **Input By:** SI

Peterborough, Barrie, Oshawa, Kingston, Whitby

Client: 71223 NB Ltd.
Contractor: Cambium Inc.
Project No.: 13895-001
Location: 3401 Country Road 13, Prince Edward County, Ontario

Project Name: Phase Two Environmental Site Assessment
Method: Hand Auger
Elevation: 0
UTM: 18T **N:** 4867000 **E:** 338762

Log of Borehole: HA104
Page: 1 of 1
Date Completed: 10/04/2024

SUBSURFACE PROFILE			SAMPLE									
Elevation (m) / Depth	Lithology	Description (Elevation / Depth)	Number	Type	CSV (ppm)	OV (ppm)	% Recovery	SPT (N)/DCPT	Atterberg Limits (%) LL PL PI; 25 50 75; % Moisture 25 50 75	Shear Strength Cu, kPa (nat V., rem V.); 20 40 60 80; SPT (N) / DCPT 20 40 60 80	Well Installation	Log Notes
0 / 0		**TOPSOIL:** Topsoil, Silty Sand with Clay; brown; saturated (-0.20)	1	GB	<5	<2						HA104_0.0-0.20: Metals, OCs, mercury
		Borehole terminated @ 0.2 mbgs due to presumed Bedrock (0.20)										
-0.5 / 0.5												
-1 / 1												
-1.5 / 1.5												
-2 / 2												
-2.5 / 2.5												
-3 / 3												
-3.5 / 3.5												
-4 / 4												

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: KD **Input By:** SI

Peterborough, Barrie, Oshawa, Kingston, Whitby

Client: 71223 NB Ltd.
Contractor: Cambium Inc.
Project No.: 13895-001
Location: 3401 Country Road 13, Prince Edward County, Ontario

Project Name: Phase Two Environmental Site Assessment
Method: Hand Auger
Elevation: 0
UTM: 18T **N:** 4866940 **E:** 338815

Log of Borehole: HA105
Page: 1 of 1
Date Completed: 10/04/2024

SUBSURFACE PROFILE			SAMPLE									
Elevation (m) / Depth	Lithology	Description (Elevation / Depth)	Number	Type	CSV (ppm)	OV (ppm)	% Recovery	SPT (N)/DCPT	Atterberg Limits (%) LL PL PI; 25 50 75; % Moisture 25 50 75	Shear Strength Cu, kPa (nat V., rem V.); 20 40 60 80; SPT (N) / DCPT 20 40 60 80	Well Installation	Log Notes
0 / 0		**TOPSOIL:** Topsoil; brown, rootlets, so staining or odour; moist (-0.15 / 0.15)	1	GB	<5	<2						HA105_0.15-0.30: Metals, OCs, mercury
		(SM) SILTY SAND: Silty Sand, trace clay; brown, no staining or odour; moist/wet (-0.48 / 0.48)	2	GB	<5	<2						
-0.5 / 0.5		Borehole terminated @ 0.5 mbgs due to presumed bedrock.										
-1 / 1												
-1.5 / 1.5												
-2 / 2												
-2.5 / 2.5												
-3 / 3												
-3.5 / 3.5												
-4 / 4												

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: KD **Input By:** SI

Client: 71223 NB Ltd.
Contractor: Cambium Inc.
Project No.: 13895-001
Location: 3401 Country Road 13, Prince Edward County, Ontario

Project Name: Phase Two Environmental Site Assessment
Method: Hand Auger
Elevation: 0
UTM: 18T **N:** 4866949 **E:** 338824

Log of Borehole: HA105a
Page: 1 of 1
Date Completed: 05/06/2024

Elevation (m) / Depth	Lithology	Description (Elevation / Depth)	Number	Type	CSV (ppm)	OV (ppm)	% Recovery	SPT (N)/DCPT	Atterberg Limits (%) LL PL PI — 25 50 75 / % Moisture 25 50 75	Shear Strength Cu, kPa (nat V., rem V.) — 20 40 60 80 / SPT (N) / DCPT 20 40 60 80	Well Installation	Log Notes
0 / 0		**TOPSOIL:** Topsoil; brown, rootlets; moist — -0.30	1	GB	<5	<2	100					HA105a_0.15-0.3 / QAQC1: Metals
-0.5 / 0.5		0.30 **(SM) SILTY SAND:** Silty Sand; brown; moist Some gravel, light brown, increase in moisture	2	GB	<5	<2	100					
-1 / 1			3	GB	<5	<2	100					HA105a_1.0-1.2: Metals
-1.5 / 1.5		-1.22 1.22 Borehole terminated @ 1.2 mbgs due to target depth achieved.										
-2 / 2												
-2.5 / 2.5												
-3 / 3												
-3.5 / 3.5												
-4 / 4												

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: KD **Input By:** MH

Client: 71223 NB Ltd.
Contractor: Cambium Inc.
Project No.: 13895-001
Location: 3401 Country Road 13, Prince Edward County, Ontario

Project Name: Phase Two Environmental Site Assessment
Method: Hand Auger
Elevation: 0
UTM: 18T **N:** 4866931 **E:** 338829

Log of Borehole: HA105b
Page: 1 of 1
Date Completed: 05/06/2024

Elevation (m) / Depth	Lithology	Description (Elevation / Depth)	Number	Type	CSV (ppm)	OV (ppm)	% Recovery	SPT (N)/DCPT	Atterberg Limits (%) LL PL PI 25 50 75 / % Moisture 25 50 75	Shear Strength Cu, kPa (nat V., rem V.) 20 40 60 80 / SPT (N) / DCPT 20 40 60 80	Well Installation	Log Notes
0 / 0		**TOPSOIL:** Topsoil; brown, rootlets; moist -0.30	1	GB	<5	<2	100					HA105b_0.15-0.13: Metals
-0.5 / 0.5		0.30 **(SM) SILTY SAND:** Silty Sand; brown; moist Some gravel, light brown, increase in moisture	2	GB	<5	<2	100					
-1 / 1		-1.22	3	GB	<5	<2	100					HA105b_1.0-1.2: Metals, pH
-1.5 / 1.5		1.22 Borehole terminated @ 1.2 mbgs due to target depth achieved.										
-2 / 2												
-2.5 / 2.5												
-3 / 3												
-3.5 / 3.5												
-4 / 4												

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: KD **Input By:** MH

Client: 71223 NB Ltd.
Contractor: Cambium Inc.
Project No.: 13895-001
Location: 3401 Country Road 13, Prince Edward County, Ontario

Project Name: Phase Two Environmental Site Assessment
Method: Hand Auger
Elevation: 0
UTM: 18T **N:** 4866928 **E:** 338811

Log of Borehole: HA105c
Page: 1 of 1
Date Completed: 05/06/2024

Elevation (m) / Depth	Lithology	Description (Elevation / Depth)	Number	Type	CSV (ppm)	OV (ppm)	% Recovery	SPT (N)/DCPT	Atterberg Limits (%) LL PL PI — 25 50 75 / % Moisture 25 50 75	Shear Strength Cu, kPa (nat V., rem V.) — 20 40 60 80 / SPT (N) / DCPT 20 40 60 80	Well Installation	Log Notes
0 / 0		**TOPSOIL:** Topsoil; brown, rootlets; moist — -0.30	1	GB	<5	<2	100					HA105c_0.15-0.3: Metals
-0.5 / 0.5		0.30 **(SM) SILTY SAND:** Silty Sand; brown; moist Some gravel, light brown, increase in moisture	2	GB	<5	<2	100					
-1 / 1		-1.22	3	GB	<5	<2	100					HA105c_1.0-1.2: Metals
-1.5 / 1.5		1.22 Borehole terminated @ 1.2 mbgs due to target depth achieved.										
-2 / 2												
-2.5 / 2.5												
-3 / 3												
-3.5 / 3.5												
-4 / 4												

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: KD **Input By:** MH

Client: 71223 NB Ltd.
Contractor: Cambium Inc.
Project No.: 13895-001
Location: 3401 Country Road 13, Prince Edward County, Ontario

Project Name: Phase Two Environmental Site Assessment
Method: Hand Auger
Elevation: 0
UTM: 18T **N:** 4866942 **E:** 338803

Log of Borehole: HA105d
Page: 1 of 1
Date Completed: 05/06/2024

Elevation (m) / Depth	Lithology	Description (Elevation / Depth)	Number	Type	CSV (ppm)	OV (ppm)	% Recovery	SPT (N)/DCPT	Atterberg Limits (%) LL PL PI — 25 50 75 / % Moisture 25 50 75	Shear Strength Cu, kPa (nat V., rem V.) 20 40 60 80 / SPT (N) / DCPT 20 40 60 80	Well Installation	Log Notes
0 / 0		**TOPSOIL:** Topsoil; brown, rootlets; moist — -0.30	1	GB	<5	<2	100					HA105d_0.15-0.3: Metals
-0.5 / 0.5		0.30 **(SM) SILTY SAND:** Silty Sand; brown; moist Some gravel, light brown, increase in moisture	2	GB	<5	<2	100					
-1 / 1		-1.22	3	GB	<5	<2	100					HA105d_1.0-1.2: Metals
-1.5 / 1.5		1.22 Borehole terminated @ 1.2 mbgs due to target depth achieved.										
-2 / 2												
-2.5 / 2.5												
-3 / 3												
-3.5 / 3.5												
-4 / 4												

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: KD **Input By:** MH

Client: 71223 NB Ltd.
Contractor: Cambium Inc.
Project No.: 13895-001
Location: 3401 Country Road 13, Prince Edward County, Ontario

Project Name: Phase Two Environmental Site Assessment
Method: Hand Auger
Elevation: 0
UTM: 18T **N:** 4866584 **E:** 339184

Log of Borehole: HA106
Page: 1 of 1
Date Completed: 10/04/2024

Elevation (m) / Depth	Lithology	Description (Elevation / Depth)	Number	Type	CSV (ppm)	OV (ppm)	% Recovery	SPT (N)/DCPT	Atterberg Limits (%) LL PL PI — 25 50 75 / % Moisture 25 50 75	Shear Strength Cu, kPa (nat V., rem V.) 20 40 60 80 / SPT (N) / DCPT 20 40 60 80	Well Installation	Log Notes
0 / 0		**TOPSOIL:** Topsoil; brown, rootlets, no staining or odour; moist — 0.15	1	GB	<5	<2						HA106_0.15-0.30: Metals, OCs, mercury
-0.5 / 0.5		**(SM) SILTY SAND:** Silty Sand with Clay; brown, no staining or odour; moist Light brown	2	GB	<5	<2						HA106_1.0-1.2 / QAQC2: Metals, OCs, mercury
-1 / 1		Saturated — 1.27										
-1.5 / 1.5		Borehole terminated @ 1.3 mbgs due to presumed Bedrock										
-2 / 2												
-2.5 / 2.5												
-3 / 3												
-3.5 / 3.5												
-4 / 4												

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: KD **Input By:** SI

Peterborough, Barrie, Oshawa, Kingston, Whitby

Client: 71223 NB Ltd.
Contractor: Cambium Inc.
Project No.: 13895-001
Location: 3401 Country Road 13, Prince Edward County, Ontario

Project Name: Phase Two Environmental Site Assessment
Method: Hand Auger
Elevation: 0
UTM: 18T **N:** 4866561 **E:** 339219

Log of Borehole: HA107
Page: 1 of 1
Date Completed: 10/04/2024

Elevation (m) / Depth	Lithology	Description (Elevation / Depth)	Number	Type	CSV (ppm)	OV (ppm)	% Recovery	SPT (N)/DCPT	Atterberg Limits (%) LL PL PI 25 50 75 / % Moisture 25 50 75	Shear Strength Cu, kPa nat V. rem V. 20 40 60 80 / SPT (N) / DCPT 20 40 60 80	Well Installation	Log Notes
0 / 0		**TOPSOIL:** Topsoil; brown, rootlets; moist -0.15	1	GB	<5	<2						
		0.15 **(SM) SILTY SAND:** Silty Sand with Clay; brown, no staining or odour; moist	2	GB	<5	<2						HA107_0.15-0.30: Metals, OCs, mercury
-0.5 / 0.5		Some gravel, saturated	3	GB	<5	<2						
		trace clay, light brown -0.76										
		0.76 Borehole terminated @ 0.8 mbgs due to presumed Bedrock										
-1 / 1												
-1.5 / 1.5												
-2 / 2												
-2.5 / 2.5												
-3 / 3												
-3.5 / 3.5												
-4 / 4												

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: KD **Input By:** SI

Peterborough, Barrie, Oshawa, Kingston, Whitby

Client: 71223 NB Ltd.
Contractor: Cambium Inc.
Project No.: 13895-001
Location: 3401 Country Road 13, Prince Edward County, Ontario

Project Name: Phase Two Environmental Site Assessment
Method: Hand Auger
Elevation: 0
UTM: 18T **N:** 4866539 **E:** 339254

Log of Borehole: HA108
Page: 1 of 1
Date Completed: 10/04/2024

SUBSURFACE PROFILE				SAMPLE									
Elevation (m) / Depth	Lithology	Description (Elevation / Depth)		Number	Type	CSV (ppm)	OV (ppm)	% Recovery	SPT (N)/DCPT	Atterberg Limits (%) LL PL PI; 25 50 75 / % Moisture 25 50 75	Shear Strength Cu, kPa (nat V., rem V.); 20 40 60 80 / SPT (N) / DCPT 20 40 60 80	Well Installation	Log Notes
0 / 0		**TOPSOIL:** Topsoil; brown, rootlets; moist	-0.15	1	GB	<5	<2						HA108_0.15-0.30: Metals, OCs, mercury
		(SM) SILTY SAND: Silty Sand with Clay; brown, no staining or odour; moist Light brown, saturated, with cobble	0.15 -0.69	2	GB	<5	<2						
-0.5 / 0.5		Borehole terminated @ 0.7 mbgs due to presumed Bedrock	0.69										
-1 / 1													
-1.5 / 1.5													
-2 / 2													
-2.5 / 2.5													
-3 / 3													
-3.5 / 3.5													
-4 / 4													

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: KD **Input By:** SI

Peterborough, Barrie, Oshawa, Kingston, Whitby

Client: 71223 NB Ltd.
Contractor: Cambium Inc.
Project No.: 13895-001
Location: 3401 Country Road 13, Prince Edward County, Ontario

Project Name: Phase Two Environmental Site Assessment
Method: Hand Auger
Elevation: 0
UTM: 18T **N:** 4866498 **E:** 339245

Log of Borehole: HA109
Page: 1 of 1
Date Completed: 10/04/2024

SUBSURFACE PROFILE				SAMPLE									
Elevation (m) / Depth	Lithology	Description (Elevation / Depth)		Number	Type	CSV (ppm)	OV (ppm)	% Recovery	SPT (N)/DCPT	Atterberg Limits (%) LL PL PI; 25 50 75; % Moisture 25 50 75	Shear Strength Cu, kPa (nat V., rem V.); 20 40 60 80; SPT (N) / DCPT 20 40 60 80	Well Installation	Log Notes
0 / 0		**TOPSOIL:** Topsoil; brown, rootlets; moist/wet	-0.15	1	GB	<5	<2						
		(SM) SILTY SAND: Silty Sand with Clay, trace gravel; brown; moist/wet Light brown, saturated	0.15 -0.51	2	GB	<5	<2						HA109_0.15-0.30: Metals, OCs, mercury
-0.5 / 0.5		Borehole terminated @ 0.5 mbgs due to presumed Bedrock	0.51										
-1 / 1													
-1.5 / 1.5													
-2 / 2													
-2.5 / 2.5													
-3 / 3													
-3.5 / 3.5													
-4 / 4													

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: KD **Input By:** SI

Peterborough, Barrie, Oshawa, Kingston, Whitby

Client: 71223 NB Ltd.
Contractor: Cambium Inc.
Project No.: 13895-001
Location: 3401 Country Road 13, Prince Edward County, Ontario

Project Name: Phase Two Environmental Site Assessment
Method: Hand Auger
Elevation: 0
UTM: 18T **N:** 4866528 **E:** 339215

Log of Borehole: HA110
Page: 1 of 1
Date Completed: 10/04/2024

Elevation (m) / Depth	Lithology	Description (Elevation / Depth)	Number	Type	CSV (ppm)	OV (ppm)	% Recovery	SPT (N)/DCPT	Atterberg Limits (%) LL PL PI — 25 50 75 / % Moisture 25 50 75	Shear Strength Cu, kPa (nat V., rem V.) 20 40 60 80 / SPT (N) / DCPT 20 40 60 80	Well Installation	Log Notes
0 / 0		**TOPSOIL:** Topsoil; brown, rootlets; moist — -0.10 / 0.10	1	GB	<5	<2						
-0.5 / 0.5		**(SM) SILTY SAND:** Silty Sand with Clay; brown, so staining or odour; moist Light brown										HA110_0.15-0.30: Metals, OCs, mercury
-1 / 1		Saturated — -1.27 / 1.27	2	GB	<5	<2						HA110_1-1.2: Metals, OCs, mercury
-1.5 / 1.5		Borehole terminated @ 1.3 mbgs due to presumed Bedrock										
-2 / 2												
-2.5 / 2.5												
-3 / 3												
-3.5 / 3.5												
-4 / 4												

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: KD **Input By:** SI

Peterborough, Barrie, Oshawa, Kingston, Whitby

Client: 71223 NB Ltd.
Contractor: Cambium Inc.
Project No.: 13895-001
Location: 3401 Country Road 13, Prince Edward County, Ontario

Project Name: Phase Two Environmental Site Assessment
Method: Hand Auger
Elevation: 0
UTM: 18T **N:** 4866908 **E:** 338834

Log of Borehole: HA111
Page: 1 of 1
Date Completed: 06/05/2024

Elevation (m) / Depth	Lithology	Description (Elevation / Depth)	Number	Type	% Recovery	SPT (N)	Atterberg Limits (%) LL PL PI — 25 50 75 / % Moisture 25 50 75	Shear Strength Cu, kPa (nat V., rem V.) — 20 40 60 80 / SPT (N) 20 40 60 80	Well Installation	Log Notes
0 / 0		**TOPSOIL:** Topsoil with gravel; brown; moist (-0.15)	1	GB	100					HA111_0.15-0.3: Metals
		(SM) SILTY SAND: Silty Sand with gravel; brown; moist (0.15 / -0.61)	2	GB	100					
-0.5 / 0.5		Borehole terminated @ 0.6 mbgs due to presumed bedrock. (0.61)								
-1 / 1										
-1.5 / 1.5										
-2 / 2										
-2.5 / 2.5										
-3 / 3										
-3.5 / 3.5										
-4 / 4										

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: KD **Input By:** MH

Client: 71223 NB Ltd.
Contractor: Cambium Inc.
Project No.: 13895-001
Location: 3401 Country Road 13, Prince Edward County, Ontario

Project Name: Phase Two Environmental Site Assessment
Method: Hand Auger
Elevation: 0
UTM: 18T **N:** 4866962 **E:** 338828

Log of Borehole: HA112
Page: 1 of 1
Date Completed: 05/06/2024

SUBSURFACE PROFILE			SAMPLE							
Elevation (m) / Depth	Lithology	Description (Elevation / Depth)	Number	Type	% Recovery	SPT (N)	Atterberg Limits (%) LL PL PI; 25 50 75 / % Moisture 25 50 75	Shear Strength Cu, kPa (nat V., rem V.); 20 40 60 80 / SPT (N) 20 40 60 80	Well Installation	Log Notes
0 / 0		**TOPSOIL:** Topsoil with gravel; brown; moist (-0.15)	1	GB	100					
		0.15 **(SM) SILTY SAND:** Silty Sand with gravel; brown; moist	2	GB	100					HA112_0.15-0.3: Metals
-0.5 / 0.5		(-0.61)								
		0.61 Borehole terminated @ 0.6 mbgs due to presumed bedrock.								
-1 / 1										
-1.5 / 1.5										
-2 / 2										
-2.5 / 2.5										
-3 / 3										
-3.5 / 3.5										
-4 / 4										

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: KD **Input By:** MH

Client: 71223 NB Ltd.
Contractor: Cambium Inc.
Project No.: 13895-001
Location: 3401 Country Road 13, Prince Edward County, Ontario

Project Name: Phase Two Environmental Site Assessment
Method: Hand Auger
Elevation: 0
UTM: 18T **N:** 4866962 **E:** 338794

Log of Borehole: HA113
Page: 1 of 1
Date Completed: 05/06/2024

SUBSURFACE PROFILE			SAMPLE							
Elevation (m) / Depth	Lithology	Description (Elevation / Depth)	Number	Type	% Recovery	SPT (N)	Atterberg Limits (%) LL PL PI; 25 50 75 / % Moisture 25 50 75	Shear Strength Cu, kPa (nat V., rem V.); 20 40 60 80 / SPT (N) 20 40 60 80	Well Installation	Log Notes
0 / 0		**TOPSOIL:** Topsoil with gravel; brown; moist (-0.15)	1	GB	100					
		0.15 **(SM) SILTY SAND:** Silty Sand with gravel; brown; moist	2	GB	100					HA113_0.15-0.3: Metals
-0.5 / 0.5		(-0.61)								
		0.61 Borehole terminated @ 0.6 mbgs due to presumed bedrock.								
-1 / 1										
-1.5 / 1.5										
-2 / 2										
-2.5 / 2.5										
-3 / 3										
-3.5 / 3.5										
-4 / 4										

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: KD **Input By:** MH

Client: 71223 NB Ltd.
Contractor: Cambium Inc.
Project No.: 13895-001
Location: 3401 Country Road 13, Prince Edward County, Ontario

Project Name: Phase Two Environmental Site Assessment
Method: Hand Auger
Elevation: 0
UTM: 18T **N:** 4866612 **E:** 339142

Log of Borehole: HA114
Page: 1 of 1
Date Completed: 05/06/2024

Elevation (m) / Depth	Lithology	Description (Elevation / Depth)	Number	Type	CSV (ppm)	OV (ppm)	% Recovery	SPT (N)/DCPT	Atterberg Limits (%) LL PL PI — 25 50 75 / % Moisture 25 50 75	Shear Strength Cu, kPa (nat V., rem V.) 20 40 60 80 / SPT (N) / DCPT 20 40 60 80	Well Installation	Log Notes
0 / 0		**TOPSOIL:** Topsoil; brown, rootlets; moist — -0.30	1	GB	<5	<2	100					HA114_0.15-0.3: Metals, OCs, mercury
		0.30 **(SM) SILTY SAND:** Silty Sand; brown; moist	2	GB	<5	<2	100					
-0.5 / 0.5			3	GB	<5	<2	100					HA114_1.0-1.2: Metal, OCs, mercury
-1 / 1			4	GB	<5	<2	100					
		-1.22 1.22 Borehole terminated @ 1.2 mbgs due to presumed bedrock.										
-1.5 / 1.5												
-2 / 2												
-2.5 / 2.5												
-3 / 3												
-3.5 / 3.5												
-4 / 4												

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: KD **Input By:** MH

Peterborough, Barrie, Oshawa, Kingston, Whitby

Client: 71223 NB Ltd.
Contractor: Cambium Inc.
Project No.: 13895-001
Location: 3401 Country Road 13, Prince Edward County, Ontario

Project Name: Phase Two Environmental Site Assessment
Method: Hand Auger
Elevation: 0
UTM: 18T **N:** 4866476 **E:** 339268

Log of Borehole: HA115
Page: 1 of 1
Date Completed: 05/06/2024

SUBSURFACE PROFILE			SAMPLE										
Elevation (m) / Depth	Lithology	Description (Elevation / Depth)	Number	Type	CSV (ppm)	OV (ppm)	% Recovery	SPT (N)/DCPT	Atterberg Limits (%) LL PL PI; 25 50 75 / % Moisture 25 50 75	Shear Strength Cu, kPa (nat V., rem V.); 20 40 60 80 / SPT (N) / DCPT 20 40 60 80	Well Installation	Log Notes
0 / 0		**TOPSOIL:** Topsoil; brown, rootlets; moist (-0.30)	1	GB	<5	<2	100					HA115_0.15-0.3: Metals, OCs, mercury
-0.5 / 0.5		0.30 **(SM) SILTY SAND:** Silty Sand, some clay and gravel; brown; moist (-0.61)	2	GB	<5	<2	100					
-1 / 1		0.61 Borehole terminated @ 0.6 mbgs due to presumed bedrock.										
-1.5 / 1.5												
-2 / 2												
-2.5 / 2.5												
-3 / 3												
-3.5 / 3.5												
-4 / 4												

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: KD **Input By:** MH

Appendix D

Laboratory Certificates of Analysis

PARACEL LABORATORIES LTD.

TRUSTED.
RESPONSIVE.
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300 - 2319 St. Laurent Blvd
Ottawa, ON, K1G 4J8
1-800-749-1947
www.paracellabs.com

Certificate of Analysis

Cambium Inc. (Kingston)
223 Brock Street North
Whitby, ON L1N 4N6
Attn: Derik Tam

Client PO:
Project: 13895-001
Custody: 144604, 144605

Report Date: 17-Apr-2024
Order Date: 10-Apr-2024

Order #: 2415346

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

Paracel ID	Client ID
2415346-01	HA101_0.15-0.30
2415346-02	HA102_0.15-0.30
2415346-03	HA103_0.15-0.30
2415346-04	HA104_0.0-0.20
2415346-05	HA105_0.15-0.30
2415346-06	HA106_0.15-0.30
2415346-07	HA107_0.15-0.30
2415346-08	HA108_0.15-0.30
2415346-09	HA109_0.15-0.30
2415346-10	HA110_0.15-0.30
2415346-11	QAQC1

Approved By:

Dale Robertson, BSc
Laboratory Director

PARACEL LABORATORIES LTD.

Order #: 2415346

Certificate of Analysis

Report Date: 17-Apr-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 10-Apr-2024

Client PO:

Project Description: 13895-001

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Mercury by CVAA	EPA 7471B - CVAA, digestion	15-Apr-24	15-Apr-24
REG 153: Metals by ICP/MS, soil	EPA 6020 - Digestion - ICP-MS	15-Apr-24	15-Apr-24
REG 153: Pesticides, OC	EPA 8081B - GC-ECD	12-Apr-24	15-Apr-24
Solids, %	CWS Tier 1 - Gravimetric	15-Apr-24	16-Apr-24

PARACEL LABORATORIES LTD.

Order #: 2415346

Certificate of Analysis

Report Date: 17-Apr-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 10-Apr-2024

Client PO:

Project Description: 13895-001

Summary of Criteria Exceedances

(If this page is blank then there are no exceedances)

Only those criteria that a sample exceeds will be highlighted in red

Regulatory Comparison:

Paracel Laboratories has provided regulatory guidelines on this report for informational purposes only and makes no representations or warranties that the data is accurate or reflects the current regulatory values. The user is advised to consult with the appropriate official regulations to evaluate compliance. Sample results that are highlighted have exceeded the selected regulatory limit. Calculated uncertainty estimations have not been applied for determining regulatory exceedances.

Sample	Analyte	MDL / Units	Result	Reg 153/04 -T1 Res	-
HA105_0.15-0.30	Barium	1.0 ug/g	225	220 ug/g	-
HA106_0.15-0.30	Arsenic	1.0 ug/g	58.7	18 ug/g	-
HA106_0.15-0.30	Lead	1.0 ug/g	230	120 ug/g	-
HA106_0.15-0.30	DDD	0.02 ug/g	0.18	0.05 ug/g	-
HA106_0.15-0.30	DDE	0.01 ug/g	5.84	0.05 ug/g	-
HA107_0.15-0.30	Arsenic	1.0 ug/g	51.4	18 ug/g	-
HA107_0.15-0.30	Lead	1.0 ug/g	163	120 ug/g	-
HA107_0.15-0.30	DDD	0.02 ug/g	0.08	0.05 ug/g	-
HA107_0.15-0.30	DDE	0.01 ug/g	2.91	0.05 ug/g	-
HA108_0.15-0.30	Antimony	1.0 ug/g	2.5	1.3 ug/g	-
HA109_0.15-0.30	Arsenic	1.0 ug/g	62.1	18 ug/g	-
HA109_0.15-0.30	Lead	1.0 ug/g	265	120 ug/g	-
HA109_0.15-0.30	DDE	0.01 ug/g	0.76	0.05 ug/g	-
HA110_0.15-0.30	Arsenic	1.0 ug/g	54.9	18 ug/g	-
HA110_0.15-0.30	Lead	1.0 ug/g	154	120 ug/g	-
HA110_0.15-0.30	DDD	0.02 ug/g	0.09	0.05 ug/g	-
HA110_0.15-0.30	DDE	0.01 ug/g	4.61	0.05 ug/g	-

PARACEL LABORATORIES LTD.

Order #: 2415346

Certificate of Analysis

Report Date: 17-Apr-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 10-Apr-2024

Client PO:

Project Description: 13895-001

	Client ID:	HA101_0.15-0.30	HA102_0.15-0.30	HA103_0.15-0.30	HA104_0.0-0.20	Criteria:	
	Sample Date:	10-Apr-24 09:00	10-Apr-24 09:00	10-Apr-24 09:00	10-Apr-24 09:00	Reg 153/04 -T1 Res	-
	Sample ID:	2415346-01	2415346-02	2415346-03	2415346-04		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	78.9	74.6	78.6	67.2	-	-
Metals							
Antimony	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	1.3 ug/g	-
Arsenic	1.0 ug/g	3.6	3.6	4.3	5.2	18 ug/g	-
Barium	1.0 ug/g	114	166	154	152	220 ug/g	-
Beryllium	0.5 ug/g	1.1	1.0	1.3	1.5	2.5 ug/g	-
Boron	5.0 ug/g	5.0	7.1	8.2	12.0	36 ug/g	-
Cadmium	0.5 ug/g	<0.5	<0.5	<0.5	0.7	1.2 ug/g	-
Chromium	5.0 ug/g	32.9	36.7	36.8	44.5	70 ug/g	-
Cobalt	1.0 ug/g	11.6	11.6	11.6	11.7	21 ug/g	-
Copper	5.0 ug/g	14.9	21.7	16.0	19.6	92 ug/g	-
Lead	1.0 ug/g	12.1	10.0	12.7	18.8	120 ug/g	-
Mercury	0.1 ug/g	<0.1	<0.1	<0.1	<0.1	0.27 ug/g	-
Molybdenum	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	2 ug/g	-
Nickel	5.0 ug/g	18.8	23.1	23.9	25.4	82 ug/g	-
Selenium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	1.5 ug/g	-
Silver	0.3 ug/g	<0.3	<0.3	<0.3	<0.3	0.5 ug/g	-
Thallium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	1 ug/g	-
Uranium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	2.5 ug/g	-
Vanadium	10.0 ug/g	46.9	52.5	43.2	42.4	86 ug/g	-
Zinc	20.0 ug/g	67.0	63.9	72.4	124	290 ug/g	-
Pesticides, OC							
Aldrin	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.05 ug/g	-
gamma-BHC (Lindane)	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.01 ug/g	-
alpha-Chlordane	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-

PARACEL LABORATORIES LTD.

Order #: 2415346

Certificate of Analysis

Report Date: 17-Apr-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 10-Apr-2024

Client PO:

Project Description: 13895-001

	Client ID:	HA101_0.15-0.30	HA102_0.15-0.30	HA103_0.15-0.30	HA104_0.0-0.20	Criteria:	
	Sample Date:	10-Apr-24 09:00	10-Apr-24 09:00	10-Apr-24 09:00	10-Apr-24 09:00	Reg 153/04 -T1 Res	-
	Sample ID:	2415346-01	2415346-02	2415346-03	2415346-04		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Pesticides, OC							
gamma-Chlordane	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-
Chlordane	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.05 ug/g	-
o,p'-DDD	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-
p,p'-DDD	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
DDD	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.05 ug/g	-
o,p'-DDE	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-
p,p'-DDE	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-
DDE	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.05 ug/g	-
o,p'-DDT	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-
p,p'-DDT	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-
DDT	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	1.4 ug/g	-
Dieldrin	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.05 ug/g	-
Endrin	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.04 ug/g	-
Endosulfan I	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-
Endosulfan II	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
Endosulfan I/II	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.04 ug/g	-
Heptachlor	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.05 ug/g	-
Heptachlor epoxide	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.04 ug/g	-
Hexachlorobenzene	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.01 ug/g	-
Hexachlorobutadiene	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.01 ug/g	-
Hexachloroethane	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.01 ug/g	-
Methoxychlor	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.05 ug/g	-
Decachlorobiphenyl	Surrogate	95.5%	95.6%	98.5%	92.3%	-	-

PARACEL LABORATORIES LTD.

Order #: 2415346

Certificate of Analysis

Report Date: 17-Apr-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 10-Apr-2024

Client PO:

Project Description: 13895-001

	Client ID:	HA105_0.15-0.30	HA106_0.15-0.30	HA107_0.15-0.30	HA108_0.15-0.30	Criteria:	
	Sample Date:	10-Apr-24 09:00	10-Apr-24 09:00	10-Apr-24 09:00	10-Apr-24 09:00	Reg 153/04 -T1 Res	-
	Sample ID:	2415346-05	2415346-06	2415346-07	2415346-08		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	68.8	78.4	75.9	82.3	-	-
Metals							
Antimony	1.0 ug/g	<1.0	<1.0	<1.0	2.5	1.3 ug/g	-
Arsenic	1.0 ug/g	4.2	58.7	51.4	14.5	18 ug/g	-
Barium	1.0 ug/g	225	138	165	65.6	220 ug/g	-
Beryllium	0.5 ug/g	1.0	0.9	1.0	0.9	2.5 ug/g	-
Boron	5.0 ug/g	11.4	5.7	6.9	7.7	36 ug/g	-
Cadmium	0.5 ug/g	<0.5	<0.5	<0.5	0.5	1.2 ug/g	-
Chromium	5.0 ug/g	42.8	31.0	35.6	21.2	70 ug/g	-
Cobalt	1.0 ug/g	12.0	10.2	11.4	6.6	21 ug/g	-
Copper	5.0 ug/g	26.6	58.3	43.6	18.2	92 ug/g	-
Lead	1.0 ug/g	12.4	230	163	41.7	120 ug/g	-
Mercury	0.1 ug/g	<0.1	0.1	0.1	<0.1	0.27 ug/g	-
Molybdenum	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	2 ug/g	-
Nickel	5.0 ug/g	28.3	20.3	23.1	13.1	82 ug/g	-
Selenium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	1.5 ug/g	-
Silver	0.3 ug/g	<0.3	<0.3	<0.3	0.3	0.5 ug/g	-
Thallium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	1 ug/g	-
Uranium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	2.5 ug/g	-
Vanadium	10.0 ug/g	53.0	43.5	46.7	25.3	86 ug/g	-
Zinc	20.0 ug/g	86.0	83.1	92.0	68.6	290 ug/g	-
Pesticides, OC							
Aldrin	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.05 ug/g	-
gamma-BHC (Lindane)	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.01 ug/g	-
alpha-Chlordane	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-

PARACEL LABORATORIES LTD.

Order #: 2415346

Certificate of Analysis

Report Date: 17-Apr-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 10-Apr-2024

Client PO:

Project Description: 13895-001

	Client ID:	HA105_0.15-0.30	HA106_0.15-0.30	HA107_0.15-0.30	HA108_0.15-0.30	Criteria:	
	Sample Date:	10-Apr-24 09:00	10-Apr-24 09:00	10-Apr-24 09:00	10-Apr-24 09:00	Reg 153/04 -T1 Res	-
	Sample ID:	2415346-05	2415346-06	2415346-07	2415346-08		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Pesticides, OC							
gamma-Chlordane	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-
Chlordane	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.05 ug/g	-
o,p'-DDD	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-
p,p'-DDD	0.02 ug/g	<0.02	0.18	0.08	<0.02	-	-
DDD	0.02 ug/g	<0.02	0.18	0.08	<0.02	0.05 ug/g	-
o,p'-DDE	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-
p,p'-DDE	0.01 ug/g	<0.01	5.82	2.90	<0.01	-	-
DDE	0.01 ug/g	<0.01	5.84	2.91	<0.01	0.05 ug/g	-
o,p'-DDT	0.01 ug/g	<0.01	0.05	<0.01	<0.01	-	-
p,p'-DDT	0.01 ug/g	<0.01	0.53	0.15	<0.01	-	-
DDT	0.01 ug/g	<0.01	0.57	0.15	<0.01	1.4 ug/g	-
Dieldrin	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.05 ug/g	-
Endrin	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.04 ug/g	-
Endosulfan I	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-
Endosulfan II	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
Endosulfan I/II	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.04 ug/g	-
Heptachlor	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.05 ug/g	-
Heptachlor epoxide	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.04 ug/g	-
Hexachlorobenzene	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.01 ug/g	-
Hexachlorobutadiene	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.01 ug/g	-
Hexachloroethane	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.01 ug/g	-
Methoxychlor	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.05 ug/g	-
Decachlorobiphenyl	Surrogate	98.4%	95.0%	90.5%	99.5%	-	-

PARACEL LABORATORIES LTD.

Order #: 2415346

Certificate of Analysis

Report Date: 17-Apr-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 10-Apr-2024

Client PO:

Project Description: 13895-001

	Client ID:	HA109_0.15-0.30	HA110_0.15-0.30	QAQC1		Criteria:	
	Sample Date:	10-Apr-24 09:00	10-Apr-24 09:00	10-Apr-24 09:00		Reg 153/04 -T1 Res	-
	Sample ID:	2415346-09	2415346-10	2415346-11			
	Matrix:	Soil	Soil	Soil			
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	72.5	74.9	77.9	-	-	-
Metals							
Antimony	1.0 ug/g	<1.0	<1.0	<1.0	-	1.3 ug/g	-
Arsenic	1.0 ug/g	62.1	54.9	3.7	-	18 ug/g	-
Barium	1.0 ug/g	141	149	192	-	220 ug/g	-
Beryllium	0.5 ug/g	1.2	1.3	0.9	-	2.5 ug/g	-
Boron	5.0 ug/g	9.5	8.5	7.8	-	36 ug/g	-
Cadmium	0.5 ug/g	<0.5	<0.5	<0.5	-	1.2 ug/g	-
Chromium	5.0 ug/g	32.7	35.5	38.8	-	70 ug/g	-
Cobalt	1.0 ug/g	9.8	11.3	12.4	-	21 ug/g	-
Copper	5.0 ug/g	55.9	41.2	24.8	-	92 ug/g	-
Lead	1.0 ug/g	265	154	9.6	-	120 ug/g	-
Mercury	0.1 ug/g	0.2	0.1	<0.1	-	0.27 ug/g	-
Molybdenum	1.0 ug/g	<1.0	<1.0	<1.0	-	2 ug/g	-
Nickel	5.0 ug/g	22.7	23.4	25.9	-	82 ug/g	-
Selenium	1.0 ug/g	<1.0	<1.0	<1.0	-	1.5 ug/g	-
Silver	0.3 ug/g	<0.3	<0.3	<0.3	-	0.5 ug/g	-
Thallium	1.0 ug/g	<1.0	<1.0	<1.0	-	1 ug/g	-
Uranium	1.0 ug/g	<1.0	<1.0	<1.0	-	2.5 ug/g	-
Vanadium	10.0 ug/g	39.3	45.3	56.9	-	86 ug/g	-
Zinc	20.0 ug/g	101	98.3	64.3	-	290 ug/g	-
Pesticides, OC							
Aldrin	0.01 ug/g	<0.01	<0.01	<0.01	-	0.05 ug/g	-
gamma-BHC (Lindane)	0.01 ug/g	<0.01	<0.01	<0.01	-	0.01 ug/g	-
alpha-Chlordane	0.01 ug/g	<0.01	<0.01	<0.01	-	-	-

PARACEL LABORATORIES LTD.

Order #: 2415346

Certificate of Analysis

Report Date: 17-Apr-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 10-Apr-2024

Client PO:

Project Description: 13895-001

	Client ID:	HA109_0.15-0.30	HA110_0.15-0.30	QAQC1		Criteria:	
	Sample Date:	10-Apr-24 09:00	10-Apr-24 09:00	10-Apr-24 09:00		Reg 153/04 -T1 Res	-
	Sample ID:	2415346-09	2415346-10	2415346-11			
	Matrix:	Soil	Soil	Soil			
	MDL/Units						
Pesticides, OC							
gamma-Chlordane	0.01 ug/g	<0.01	<0.01	<0.01	-	-	-
Chlordane	0.01 ug/g	<0.01	<0.01	<0.01	-	0.05 ug/g	-
o,p'-DDD	0.01 ug/g	<0.01	<0.01	<0.01	-	-	-
p,p'-DDD	0.02 ug/g	<0.02	0.09	<0.02	-	-	-
DDD	0.02 ug/g	<0.02	0.09	<0.02	-	0.05 ug/g	-
o,p'-DDE	0.01 ug/g	<0.01	0.01	<0.01	-	-	-
p,p'-DDE	0.01 ug/g	0.76	4.60	<0.01	-	-	-
DDE	0.01 ug/g	0.76	4.61	<0.01	-	0.05 ug/g	-
o,p'-DDT	0.01 ug/g	<0.01	0.06	<0.01	-	-	-
p,p'-DDT	0.01 ug/g	<0.01	0.22	<0.01	-	-	-
DDT	0.01 ug/g	0.01	0.27	<0.01	-	1.4 ug/g	-
Dieldrin	0.02 ug/g	<0.02	<0.02	<0.02	-	0.05 ug/g	-
Endrin	0.02 ug/g	<0.02	<0.02	<0.02	-	0.04 ug/g	-
Endosulfan I	0.01 ug/g	<0.01	<0.01	<0.01	-	-	-
Endosulfan II	0.02 ug/g	<0.02	<0.02	<0.02	-	-	-
Endosulfan I/II	0.02 ug/g	<0.02	<0.02	<0.02	-	0.04 ug/g	-
Heptachlor	0.01 ug/g	<0.01	<0.01	<0.01	-	0.05 ug/g	-
Heptachlor epoxide	0.01 ug/g	<0.01	<0.01	<0.01	-	0.04 ug/g	-
Hexachlorobenzene	0.01 ug/g	<0.01	<0.01	<0.01	-	0.01 ug/g	-
Hexachlorobutadiene	0.01 ug/g	<0.01	<0.01	<0.01	-	0.01 ug/g	-
Hexachloroethane	0.01 ug/g	<0.01	<0.01	<0.01	-	0.01 ug/g	-
Methoxychlor	0.01 ug/g	<0.01	<0.01	<0.01	-	0.05 ug/g	-
Decachlorobiphenyl	Surrogate	104%	90.3%	93.7%	-	-	-

PARACEL LABORATORIES LTD.

Order #: 2415346

Certificate of Analysis

Report Date: 17-Apr-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 10-Apr-2024

Client PO:

Project Description: 13895-001

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Metals								
Antimony	ND	1.0	ug/g					
Arsenic	ND	1.0	ug/g					
Barium	ND	1.0	ug/g					
Beryllium	ND	0.5	ug/g					
Boron	ND	5.0	ug/g					
Cadmium	ND	0.5	ug/g					
Chromium	ND	5.0	ug/g					
Cobalt	ND	1.0	ug/g					
Copper	ND	5.0	ug/g					
Lead	ND	1.0	ug/g					
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					
Pesticides, OC								
Aldrin	ND	0.01	ug/g					
gamma-BHC (Lindane)	ND	0.01	ug/g					
alpha-Chlordane	ND	0.01	ug/g					
gamma-Chlordane	ND	0.01	ug/g					
Chlordane	ND	0.01	ug/g					
o,p'-DDD	ND	0.01	ug/g					
p,p'-DDD	ND	0.02	ug/g					
DDD	ND	0.02	ug/g					
o,p'-DDE	ND	0.01	ug/g					
p,p'-DDE	ND	0.01	ug/g					
DDE	ND	0.01	ug/g					
o,p'-DDT	ND	0.01	ug/g					

PARACEL LABORATORIES LTD.

Order #: 2415346

Certificate of Analysis

Report Date: 17-Apr-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 10-Apr-2024

Client PO:

Project Description: 13895-001

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
p,p'-DDT	ND	0.01	ug/g					
DDT	ND	0.01	ug/g					
Dieldrin	ND	0.02	ug/g					
Endrin	ND	0.02	ug/g					
Endosulfan I	ND	0.01	ug/g					
Endosulfan II	ND	0.02	ug/g					
Endosulfan I/II	ND	0.02	ug/g					
Heptachlor	ND	0.01	ug/g					
Heptachlor epoxide	ND	0.01	ug/g					
Hexachlorobenzene	ND	0.01	ug/g					
Hexachlorobutadiene	ND	0.01	ug/g					
Hexachloroethane	ND	0.01	ug/g					
Methoxychlor	ND	0.01	ug/g					
Surrogate: Decachlorobiphenyl	*0.0954*		*%*	*95.4*	*50-140*			

PARACEL LABORATORIES LTD.

Order #: 2415346

Certificate of Analysis

Report Date: 17-Apr-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 10-Apr-2024

Client PO:

Project Description: 13895-001

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Metals									
Antimony	ND	1.0	ug/g	ND			NC	30	
Arsenic	3.2	1.0	ug/g	3.6			10.7	30	
Barium	110	1.0	ug/g	114			3.7	30	
Beryllium	1.0	0.5	ug/g	1.1			8.8	30	
Boron	ND	5.0	ug/g	5.0			NC	30	
Cadmium	ND	0.5	ug/g	ND			NC	30	
Chromium	31.1	5.0	ug/g	32.9			5.7	30	
Cobalt	10.9	1.0	ug/g	11.6			6.1	30	
Copper	14.1	5.0	ug/g	14.9			5.7	30	
Lead	11.6	1.0	ug/g	12.1			4.8	30	
Mercury	ND	0.1	ug/g	ND			NC	30	
Molybdenum	ND	1.0	ug/g	ND			NC	30	
Nickel	18.0	5.0	ug/g	18.8			4.6	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	44.8	10.0	ug/g	46.9			4.7	30	
Zinc	64.0	20.0	ug/g	67.0			4.6	30	
Pesticides, OC									
Aldrin	ND	0.01	ug/g	ND			NC	40	
gamma-BHC (Lindane)	ND	0.01	ug/g	ND			NC	40	
alpha-Chlordane	ND	0.01	ug/g	ND			NC	40	
gamma-Chlordane	ND	0.01	ug/g	ND			NC	40	
o,p'-DDD	ND	0.01	ug/g	ND			NC	40	
p,p'-DDD	ND	0.02	ug/g	ND			NC	40	
o,p'-DDE	ND	0.01	ug/g	ND			NC	40	
p,p'-DDE	ND	0.01	ug/g	ND			NC	40	
o,p'-DDT	ND	0.01	ug/g	ND			NC	40	
p,p'-DDT	ND	0.01	ug/g	ND			NC	40	

PARACEL LABORATORIES LTD.

Order #: 2415346

Certificate of Analysis

Report Date: 17-Apr-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 10-Apr-2024

Client PO:

Project Description: 13895-001

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Dieldrin	ND	0.02	ug/g	ND			NC	40	
Endrin	ND	0.02	ug/g	ND			NC	40	
Endosulfan I	ND	0.01	ug/g	ND			NC	40	
Endosulfan II	ND	0.02	ug/g	ND			NC	40	
Heptachlor	ND	0.01	ug/g	ND			NC	40	
Heptachlor epoxide	ND	0.01	ug/g	ND			NC	40	
Hexachlorobenzene	ND	0.01	ug/g	ND			NC	40	
Hexachlorobutadiene	ND	0.01	ug/g	ND			NC	40	
Hexachloroethane	ND	0.01	ug/g	ND			NC	40	
Methoxychlor	ND	0.01	ug/g	ND			NC	40	
Surrogate: Decachlorobiphenyl	*0.116*		*%*		*102*	*50-140*			
Physical Characteristics									
% Solids	84.9	0.1	% by Wt.	84.7			0.2	25	

PARACEL LABORATORIES LTD.

Order #: 2415346

Certificate of Analysis

Report Date: 17-Apr-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 10-Apr-2024

Client PO:

Project Description: 13895-001

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Metals									
Antimony	35.2	1.0	ug/g	ND	70.0	70-130			
Arsenic	49.0	1.0	ug/g	1.4	95.1	70-130			
Barium	92.8	1.0	ug/g	45.7	94.2	70-130			
Beryllium	47.7	0.5	ug/g	ND	94.5	70-130			
Boron	42.9	5.0	ug/g	ND	81.8	70-130			
Cadmium	47.3	0.5	ug/g	ND	94.3	70-130			
Chromium	62.1	5.0	ug/g	13.2	97.9	70-130			
Cobalt	53.1	1.0	ug/g	4.6	96.9	70-130			
Copper	51.8	5.0	ug/g	6.0	91.7	70-130			
Lead	50.7	1.0	ug/g	4.9	91.7	70-130			
Mercury	1.36	0.1	ug/g	ND	90.6	70-130			
Molybdenum	46.5	1.0	ug/g	ND	92.5	70-130			
Nickel	55.2	5.0	ug/g	7.5	95.3	70-130			
Selenium	45.9	1.0	ug/g	ND	91.5	70-130			
Silver	42.9	0.3	ug/g	ND	85.5	70-130			
Thallium	46.1	1.0	ug/g	ND	91.8	70-130			
Uranium	46.5	1.0	ug/g	ND	92.5	70-130			
Vanadium	68.1	10.0	ug/g	18.8	98.6	70-130			
Zinc	70.9	20.0	ug/g	26.8	88.2	70-130			
Pesticides, OC									
Aldrin	0.19	0.01	ug/g	ND	84.9	50-140			
gamma-BHC (Lindane)	0.17	0.01	ug/g	ND	76.0	50-140			
alpha-Chlordane	0.20	0.01	ug/g	ND	88.4	50-140			
gamma-Chlordane	0.19	0.01	ug/g	ND	83.3	50-140			
o,p'-DDD	0.22	0.01	ug/g	ND	98.9	50-140			
p,p'-DDD	0.21	0.02	ug/g	ND	91.9	50-140			
o,p'-DDE	0.21	0.01	ug/g	ND	94.9	50-140			
p,p'-DDE	0.19	0.01	ug/g	ND	84.8	50-140			
o,p'-DDT	0.24	0.01	ug/g	ND	106	50-140			
p,p'-DDT	0.23	0.01	ug/g	ND	102	50-140			

PARACEL LABORATORIES LTD.

Order #: 2415346

Certificate of Analysis

Report Date: 17-Apr-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 10-Apr-2024

Client PO:

Project Description: 13895-001

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Dieldrin	0.21	0.02	ug/g	ND	93.3	50-140			
Endrin	0.28	0.02	ug/g	ND	122	50-140			
Endosulfan I	0.20	0.01	ug/g	ND	87.5	50-140			
Endosulfan II	0.20	0.02	ug/g	ND	87.8	50-140			
Heptachlor	0.21	0.01	ug/g	ND	91.5	50-140			
Heptachlor epoxide	0.20	0.01	ug/g	ND	90.2	50-140			
Hexachlorobenzene	0.21	0.01	ug/g	ND	92.2	50-140			
Hexachlorobutadiene	0.27	0.01	ug/g	ND	117	50-140			
Hexachloroethane	0.22	0.01	ug/g	ND	99.0	50-140			
Methoxychlor	0.24	0.01	ug/g	ND	105	50-140			
Surrogate: Decachlorobiphenyl	*0.0910*		*%*		*80.4*	*50-140*			

PARACEL LABORATORIES LTD.

Order #: 2415346

Certificate of Analysis

Report Date: 17-Apr-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 10-Apr-2024

Client PO:

Project Description: 13895-001

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 unlesss otherwise noted.

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

PARACEL LABORATORIES LTD.

Paracel ID: 2415346

Paracel Order Number (Lab Use Only)	Chain of Custody (Lab Use Only)
2415346	№ 144604

Client Name: Cambium Inc.
Contact Name: Derik Tam
Address: 31 Hyperion crt, Kingston
Telephone: 866-217-7900

Project Ref: 13895-001
Quote #:
PO #:
E-mail: derik.tam@cambium-inc.com
kels.dougherty@cambium-inc.com

Page 1 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)

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken Date	Sample Taken Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	OC Pest.
1	HA101-0.15-0.30	S		2	10/04/24					X	X			X
2	HA102-0.15-0.30									X	X			X
3	HA103-0.15-0.30									X	X			X
4	HA104-0.0-0.20									X	X			X
5	HA105-0.15-0.30									X	X			X
6	HA106-0.15-0.30									X	X			X
7	HA107-0.15-0.30									X	X			X
8	HA108-0.15-0.30									X	X			X
9	HA109-0.15-0.30									X	X			X
10	HA110-0.15-0.30									X	X			X

Comments:

Method of Delivery: drop-box

Relinquished By (Sign):	Received at Depot:	Received at Lab: SS	Verified By: Raven Cooper
Relinquished By (Print): Kels. Dougherty	Date/Time: Apr 10 16:28	Date/Time: Apr 12, 24 11:00	Date/Time: Apr 11 11:58
Date/Time: 10/04/24 @ 16:28	Temperature: 19.3 °C	Temperature: 11.5, 17.5 °C	pH Verified: ☐ By:

PARACEL LABORATORIES LTD.

Paracel ID: 2415346

Paracel Order Number (Lab Use Only)	Chain of Custody (Lab Use Only)
2415346	№ 144605

Client Name:

Contact Name:

Address:

Telephone:

Project Ref:

Quote #:

PO #: SEE 1st Sheet.

E-mail:

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: Date	Sample Taken: Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	OC Pest				
1	QAQC	S		2	10/04/24					X	X		X	X				
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Comments:

Method of Delivery: drop-box

Relinquished By (Sign):	Received at Depot:	Received at Lab: SS	Verified By: Karen Capper
Relinquished By (Print): Keis Dougan	Date/Time: Apr 10 16:28	Date/Time: Apr 12,24 11:00	Date/Time: Apr 11 11:58
Date/Time: 10/04/24 @ 16:28	Temperature: 19.3 °C	Temperature: 11.5, 17.5 °C	pH Verified: ☐ By:

PARACEL LABORATORIES LTD.

TRUSTED.
RESPONSIVE.
RELIABLE.

300 - 2319 St. Laurent Blvd
Ottawa, ON, K1G 4J8
1-800-749-1947
www.paracellabs.com

Certificate of Analysis

Cambium Inc. (Kingston)
223 Brock Street North
Whitby, ON L1N 4N6
Attn: Derik Tam

Client PO:
Project: 13895-001
Custody: 144720, 721

Report Date: 17-Jun-2024
Order Date: 5-Jun-2024

Order #: 2423363

Revised Report

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

Paracel ID	Client ID
2423363-01	HA115_0.15-0.3
2423363-02	HA114_0.15-0.3
2423363-03	HA114_1.0-1.2
2423363-04	HA106A_1.0-1.2
2423363-05	HA110A_1.0-1.2
2423363-06	HA111_0.15-0.3
2423363-07	HA112_0.15-0.3
2423363-08	HA113_0.15-0.3
2423363-09	HA105a_0.15-0.3
2423363-10	HA105a_1.0-1.2
2423363-11	QAQC1
2423363-12	HA105b_0.15-0.3
2423363-13	HA105b_1.0-1.2
2423363-14	HA105c_0.15-0.3
2423363-15	HA105c_1.0-1.2
2423363-16	HA105d_0.15-0.3
2423363-17	HA105d_1.0-1.2
2423363-18	QAQC2

Approved By:

Dale Robertson, BSc
Laboratory Director

PARACEL LABORATORIES LTD.

Order #: 2423363

Certificate of Analysis

Report Date: 17-Jun-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 5-Jun-2024

Client PO:

Project Description: 13895-001

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Mercury by CVAA	EPA 7471B - CVAA, digestion	10-Jun-24	10-Jun-24
pH, soil	EPA 150.1 - pH probe @ 25 °C, CaCl buffered ext.	6-Jun-24	6-Jun-24
REG 153: Metals by ICP/MS, soil	EPA 6020 - Digestion - ICP-MS	7-Jun-24	7-Jun-24
REG 153: Pesticides, OC	EPA 8081B - GC-ECD	10-Jun-24	10-Jun-24
Solids, %	CWS Tier 1 - Gravimetric	7-Jun-24	10-Jun-24

PARACEL LABORATORIES LTD.

Order #: 2423363

Certificate of Analysis

Report Date: 17-Jun-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 5-Jun-2024

Client PO:

Project Description: 13895-001

Summary of Criteria Exceedances

(If this page is blank then there are no exceedances)

Only those criteria that a sample exceeds will be highlighted in red

Regulatory Comparison:

Paracel Laboratories has provided regulatory guidelines on this report for informational purposes only and makes no representations or warranties that the data is accurate or reflects the current regulatory values. The user is advised to consult with the appropriate official regulations to evaluate compliance. Sample results that are highlighted have exceeded the selected regulatory limit. Calculated uncertainty estimations have not been applied for determining regulatory exceedances.

Sample	Analyte	MDL / Units	Result	Reg 153/04 -T1 Res	-
HA115_0.15-0.3	DDE	0.01 ug/g	0.38	0.05 ug/g	-
HA114_0.15-0.3	Arsenic	1.0 ug/g	50.7	18 ug/g	-
HA114_0.15-0.3	DDE	0.01 ug/g	3.61	0.05 ug/g	-
HA114_1.0-1.2	DDE	0.01 ug/g	0.11	0.05 ug/g	-
HA105a_0.15-0.3	Arsenic	1.0 ug/g	23.5	18 ug/g	-
HA105b_1.0-1.2	Barium	1.0 ug/g	297	220 ug/g	-
HA105c_0.15-0.3	Arsenic	1.0 ug/g	46.0	18 ug/g	-
HA105c_0.15-0.3	Lead	1.0 ug/g	144	120 ug/g	-
HA105c_1.0-1.2	Barium	1.0 ug/g	258	220 ug/g	-

PARACEL LABORATORIES LTD.

Order #: 2423363

Certificate of Analysis

Report Date: 17-Jun-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 5-Jun-2024

Client PO:

Project Description: 13895-001

	Client ID:	HA115_0.15-0.3	HA114_0.15-0.3	HA114_1.0-1.2	HA106A_1.0-1.2	Criteria:	
	Sample Date:	05-Jun-24 09:00	05-Jun-24 09:30	05-Jun-24 09:35	05-Jun-24 09:50	Reg 153/04 -T1 Res	-
	Sample ID:	2423363-01	2423363-02	2423363-03	2423363-04		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	80.4	81.5	79.1	85.6	-	-
General Inorganics							
pH	0.05 pH Units	-	6.42	-	-	5.00 - 9.00 pH Units	-
Metals							
Antimony	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	1.3 ug/g	-
Arsenic	1.0 ug/g	14.1	50.7	11.0	5.0	18 ug/g	-
Barium	1.0 ug/g	128	111	151	31.8	220 ug/g	-
Beryllium	0.5 ug/g	0.9	0.8	0.9	<0.5	2.5 ug/g	-
Boron	5.0 ug/g	9.4	6.4	7.7	8.2	36 ug/g	-
Cadmium	0.5 ug/g	<0.5	<0.5	<0.5	<0.5	1.2 ug/g	-
Chromium	5.0 ug/g	30.4	31.9	33.3	13.9	70 ug/g	-
Cobalt	1.0 ug/g	9.0	10.1	10.4	5.4	21 ug/g	-
Copper	5.0 ug/g	17.6	30.6	22.7	6.6	92 ug/g	-
Lead	1.0 ug/g	54.1	98.4	23.2	7.9	120 ug/g	-
Mercury	0.1 ug/g	<0.1	<0.1	-	<0.1	0.27 ug/g	-
Molybdenum	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	2 ug/g	-
Nickel	5.0 ug/g	18.2	18.3	22.0	9.9	82 ug/g	-
Selenium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	1.5 ug/g	-
Silver	0.3 ug/g	<0.3	<0.3	<0.3	<0.3	0.5 ug/g	-
Thallium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	1 ug/g	-
Uranium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	2.5 ug/g	-
Vanadium	10.0 ug/g	38.5	46.4	46.2	18.3	86 ug/g	-
Zinc	20.0 ug/g	67.5	75.7	56.5	21.5	290 ug/g	-
Pesticides, OC							
Aldrin	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.05 ug/g	-

PARACEL LABORATORIES LTD.

Order #: 2423363

Certificate of Analysis

Report Date: 17-Jun-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 5-Jun-2024

Client PO:

Project Description: 13895-001

	Client ID:	HA115_0.15-0.3	HA114_0.15-0.3	HA114_1.0-1.2	HA106A_1.0-1.2	Criteria:	
	Sample Date:	05-Jun-24 09:00	05-Jun-24 09:30	05-Jun-24 09:35	05-Jun-24 09:50	Reg 153/04 -T1 Res	-
	Sample ID:	2423363-01	2423363-02	2423363-03	2423363-04		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Pesticides, OC							
gamma-BHC (Lindane)	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.01 ug/g	-
alpha-Chlordane	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-
gamma-Chlordane	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-
Chlordane	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.05 ug/g	-
o,p'-DDD	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-
p,p'-DDD	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
DDD	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.05 ug/g	-
o,p'-DDE	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-
p,p'-DDE	0.01 ug/g	0.37	3.61	0.11	<0.01	-	-
DDE	0.01 ug/g	0.38	3.61	0.11	<0.01	0.05 ug/g	-
o,p'-DDT	0.01 ug/g	<0.01	0.06	<0.01	<0.01	-	-
p,p'-DDT	0.01 ug/g	<0.01	0.61	0.03	<0.01	-	-
DDT	0.01 ug/g	<0.01	0.66	0.03	<0.01	1.4 ug/g	-
Dieldrin	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.05 ug/g	-
Endrin	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.04 ug/g	-
Endosulfan I	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-
Endosulfan II	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
Endosulfan I/II	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	0.04 ug/g	-
Heptachlor	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.05 ug/g	-
Heptachlor epoxide	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.04 ug/g	-
Hexachlorobenzene	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.01 ug/g	-
Hexachlorobutadiene	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.01 ug/g	-
Hexachloroethane	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.01 ug/g	-
Methoxychlor	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.05 ug/g	-
Decachlorobiphenyl	Surrogate	86.4%	89.0%	60.9%	85.6%	-	-

PARACEL LABORATORIES LTD.

Order #: 2423363

Certificate of Analysis

Report Date: 17-Jun-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 5-Jun-2024

Client PO:

Project Description: 13895-001

	Client ID:	HA110A_1.0-1.2	HA111_0.15-0.3	HA112_0.15-0.3	HA113_0.15-0.3	Criteria:	
	Sample Date:	05-Jun-24 10:00	05-Jun-24 13:00	05-Jun-24 13:10	05-Jun-24 13:20	Reg 153/04 -T1 Res	-
	Sample ID:	2423363-05	2423363-06	2423363-07	2423363-08		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	81.3	85.5	82.1	87.0	-	-
General Inorganics							
pH	0.05 pH Units	-	6.82	-	-	5.00 - 9.00 pH Units	-
Metals							
Antimony	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	1.3 ug/g	-
Arsenic	1.0 ug/g	6.0	7.0	7.3	6.7	18 ug/g	-
Barium	1.0 ug/g	67.5	92.7	92.0	78.6	220 ug/g	-
Beryllium	0.5 ug/g	0.6	0.8	0.8	0.8	2.5 ug/g	-
Boron	5.0 ug/g	8.9	9.1	8.4	10.6	36 ug/g	-
Cadmium	0.5 ug/g	<0.5	<0.5	<0.5	<0.5	1.2 ug/g	-
Chromium	5.0 ug/g	21.7	25.1	26.0	23.8	70 ug/g	-
Cobalt	1.0 ug/g	6.7	7.8	8.4	7.6	21 ug/g	-
Copper	5.0 ug/g	8.6	13.5	13.7	12.8	92 ug/g	-
Lead	1.0 ug/g	11.7	21.8	21.9	21.1	120 ug/g	-
Mercury	0.1 ug/g	<0.1	-	-	-	0.27 ug/g	-
Molybdenum	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	2 ug/g	-
Nickel	5.0 ug/g	14.0	16.0	16.1	14.8	82 ug/g	-
Selenium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	1.5 ug/g	-
Silver	0.3 ug/g	<0.3	<0.3	<0.3	<0.3	0.5 ug/g	-
Thallium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	1 ug/g	-
Uranium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	2.5 ug/g	-
Vanadium	10.0 ug/g	25.4	28.8	31.4	27.5	86 ug/g	-
Zinc	20.0 ug/g	46.3	72.2	69.4	61.7	290 ug/g	-
Pesticides, OC							
Aldrin	0.01 ug/g	<0.01	-	-	-	0.05 ug/g	-

PARACEL LABORATORIES LTD.

Order #: 2423363

Certificate of Analysis

Report Date: 17-Jun-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 5-Jun-2024

Client PO:

Project Description: 13895-001

	Client ID:	HA110A_1.0-1.2	HA111_0.15-0.3	HA112_0.15-0.3	HA113_0.15-0.3	Criteria:	
	Sample Date:	05-Jun-24 10:00	05-Jun-24 13:00	05-Jun-24 13:10	05-Jun-24 13:20	Reg 153/04 -T1 Res	-
	Sample ID:	2423363-05	2423363-06	2423363-07	2423363-08		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Pesticides, OC							
gamma-BHC (Lindane)	0.01 ug/g	<0.01	-	-	-	0.01 ug/g	-
alpha-Chlordane	0.01 ug/g	<0.01	-	-	-	-	-
gamma-Chlordane	0.01 ug/g	<0.01	-	-	-	-	-
Chlordane	0.01 ug/g	<0.01	-	-	-	0.05 ug/g	-
o,p'-DDD	0.01 ug/g	<0.01	-	-	-	-	-
p,p'-DDD	0.02 ug/g	<0.02	-	-	-	-	-
DDD	0.02 ug/g	<0.02	-	-	-	0.05 ug/g	-
o,p'-DDE	0.01 ug/g	<0.01	-	-	-	-	-
p,p'-DDE	0.01 ug/g	<0.01	-	-	-	-	-
DDE	0.01 ug/g	<0.01	-	-	-	0.05 ug/g	-
o,p'-DDT	0.01 ug/g	<0.01	-	-	-	-	-
p,p'-DDT	0.01 ug/g	<0.01	-	-	-	-	-
DDT	0.01 ug/g	<0.01	-	-	-	1.4 ug/g	-
Dieldrin	0.02 ug/g	<0.02	-	-	-	0.05 ug/g	-
Endrin	0.02 ug/g	<0.02	-	-	-	0.04 ug/g	-
Endosulfan I	0.01 ug/g	<0.01	-	-	-	-	-
Endosulfan II	0.02 ug/g	<0.02	-	-	-	-	-
Endosulfan I/II	0.02 ug/g	<0.02	-	-	-	0.04 ug/g	-
Heptachlor	0.01 ug/g	<0.01	-	-	-	0.05 ug/g	-
Heptachlor epoxide	0.01 ug/g	<0.01	-	-	-	0.04 ug/g	-
Hexachlorobenzene	0.01 ug/g	<0.01	-	-	-	0.01 ug/g	-
Hexachlorobutadiene	0.01 ug/g	<0.01	-	-	-	0.01 ug/g	-
Hexachloroethane	0.01 ug/g	<0.01	-	-	-	0.01 ug/g	-
Methoxychlor	0.01 ug/g	<0.01	-	-	-	0.05 ug/g	-
Decachlorobiphenyl	Surrogate	87.9%	-	-	-	-	-

PARACEL LABORATORIES LTD.

Order #: 2423363

Certificate of Analysis

Report Date: 17-Jun-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 5-Jun-2024

Client PO:

Project Description: 13895-001

	Client ID:	HA105a_0.15-0.3	HA105a_1.0-1.2	QAQC1	HA105b_0.15-0.3	Criteria:	
	Sample Date:	05-Jun-24 11:00	05-Jun-24 11:05	05-Jun-24 11:10	05-Jun-24 11:20	Reg 153/04 -T1 Res	-
	Sample ID:	2423363-09	2423363-10	2423363-11	2423363-12		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	81.7	76.4	81.5	81.5	-	-
Metals							
Antimony	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	1.3 ug/g	-
Arsenic	1.0 ug/g	23.5	7.2	17.5	12.8	18 ug/g	-
Barium	1.0 ug/g	142	178	152	195	220 ug/g	-
Beryllium	0.5 ug/g	0.9	1.1	0.9	0.9	2.5 ug/g	-
Boron	5.0 ug/g	7.3	7.2	7.1	8.9	36 ug/g	-
Cadmium	0.5 ug/g	<0.5	<0.5	<0.5	<0.5	1.2 ug/g	-
Chromium	5.0 ug/g	37.1	37.5	38.9	39.7	70 ug/g	-
Cobalt	1.0 ug/g	12.0	10.9	11.6	13.3	21 ug/g	-
Copper	5.0 ug/g	27.7	22.5	26.7	31.3	92 ug/g	-
Lead	1.0 ug/g	66.6	17.2	49.3	77.6	120 ug/g	-
Molybdenum	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	2 ug/g	-
Nickel	5.0 ug/g	21.2	25.3	22.2	23.1	82 ug/g	-
Selenium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	1.5 ug/g	-
Silver	0.3 ug/g	<0.3	<0.3	<0.3	<0.3	0.5 ug/g	-
Thallium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	1 ug/g	-
Uranium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	2.5 ug/g	-
Vanadium	10.0 ug/g	52.1	50.0	55.5	54.9	86 ug/g	-
Zinc	20.0 ug/g	71.4	113	73.8	100	290 ug/g	-

PARACEL LABORATORIES LTD.

Order #: 2423363

Certificate of Analysis

Report Date: 17-Jun-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 5-Jun-2024

Client PO:

Project Description: 13895-001

	Client ID:	HA105b_1.0-1.2	HA105c_0.15-0.3	HA105c_1.0-1.2	HA105d_0.15-0.3	Criteria:	
	Sample Date:	05-Jun-24 11:25	05-Jun-24 11:30	05-Jun-24 11:35	05-Jun-24 11:40	Reg 153/04 -T1 Res	-
	Sample ID:	2423363-13	2423363-14	2423363-15	2423363-16		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	78.0	82.5	79.8	82.5	-	-
Metals							
Antimony	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	1.3 ug/g	-
Arsenic	1.0 ug/g	5.8	46.0	8.0	7.4	18 ug/g	-
Barium	1.0 ug/g	297	137	258	123	220 ug/g	-
Beryllium	0.5 ug/g	1.5	0.8	1.3	0.8	2.5 ug/g	-
Boron	5.0 ug/g	11.1	5.6	10.1	5.3	36 ug/g	-
Cadmium	0.5 ug/g	<0.5	<0.5	<0.5	<0.5	1.2 ug/g	-
Chromium	5.0 ug/g	55.8	36.6	49.2	32.5	70 ug/g	-
Cobalt	1.0 ug/g	17.3	12.6	16.9	11.2	21 ug/g	-
Copper	5.0 ug/g	33.5	42.0	32.5	18.1	92 ug/g	-
Lead	1.0 ug/g	13.1	144	15.7	21.2	120 ug/g	-
Molybdenum	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	2 ug/g	-
Nickel	5.0 ug/g	36.2	21.1	30.7	18.9	82 ug/g	-
Selenium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	1.5 ug/g	-
Silver	0.3 ug/g	<0.3	<0.3	<0.3	<0.3	0.5 ug/g	-
Thallium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	1 ug/g	-
Uranium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	2.5 ug/g	-
Vanadium	10.0 ug/g	69.7	54.0	70.3	47.7	86 ug/g	-
Zinc	20.0 ug/g	87.7	79.8	71.4	68.5	290 ug/g	-

PARACEL LABORATORIES LTD.

Order #: 2423363

Certificate of Analysis

Report Date: 17-Jun-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 5-Jun-2024

Client PO:

Project Description: 13895-001

	Client ID:	HA105d_1.0-1.2	QAQC2			**Criteria:**	
	Sample Date:	05-Jun-24 11:45	05-Jun-24 09:00			**Reg 153/04 -T1 Res**	-
	Sample ID:	2423363-17	2423363-18				
	Matrix:	Soil	Soil				
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	77.0	88.5	-	-	-	-
Metals							
Antimony	1.0 ug/g	<1.0	<1.0	-	-	1.3 ug/g	-
Arsenic	1.0 ug/g	4.9	6.4	-	-	18 ug/g	-
Barium	1.0 ug/g	177	39.3	-	-	220 ug/g	-
Beryllium	0.5 ug/g	1.0	<0.5	-	-	2.5 ug/g	-
Boron	5.0 ug/g	10.4	8.4	-	-	36 ug/g	-
Cadmium	0.5 ug/g	<0.5	<0.5	-	-	1.2 ug/g	-
Chromium	5.0 ug/g	39.1	16.5	-	-	70 ug/g	-
Cobalt	1.0 ug/g	9.9	5.5	-	-	21 ug/g	-
Copper	5.0 ug/g	24.6	7.9	-	-	92 ug/g	-
Lead	1.0 ug/g	8.6	11.5	-	-	120 ug/g	-
Mercury	0.1 ug/g	-	<0.1	-	-	0.27 ug/g	-
Molybdenum	1.0 ug/g	<1.0	<1.0	-	-	2 ug/g	-
Nickel	5.0 ug/g	23.2	11.4	-	-	82 ug/g	-
Selenium	1.0 ug/g	<1.0	<1.0	-	-	1.5 ug/g	-
Silver	0.3 ug/g	<0.3	<0.3	-	-	0.5 ug/g	-
Thallium	1.0 ug/g	<1.0	<1.0	-	-	1 ug/g	-
Uranium	1.0 ug/g	<1.0	<1.0	-	-	2.5 ug/g	-
Vanadium	10.0 ug/g	54.2	21.7	-	-	86 ug/g	-
Zinc	20.0 ug/g	56.2	24.5	-	-	290 ug/g	-

PARACEL LABORATORIES LTD.

Order #: 2423363

Certificate of Analysis

Report Date: 17-Jun-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 5-Jun-2024

Client PO:

Project Description: 13895-001

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Metals								
Antimony	ND	1.0	ug/g					
Arsenic	ND	1.0	ug/g					
Barium	ND	1.0	ug/g					
Beryllium	ND	0.5	ug/g					
Boron	ND	5.0	ug/g					
Cadmium	ND	0.5	ug/g					
Chromium	ND	5.0	ug/g					
Cobalt	ND	1.0	ug/g					
Copper	ND	5.0	ug/g					
Lead	ND	1.0	ug/g					
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					
Pesticides, OC								
Aldrin	ND	0.01	ug/g					
gamma-BHC (Lindane)	ND	0.01	ug/g					
alpha-Chlordane	ND	0.01	ug/g					
gamma-Chlordane	ND	0.01	ug/g					
Chlordane	ND	0.01	ug/g					
o,p'-DDD	ND	0.01	ug/g					
p,p'-DDD	ND	0.02	ug/g					
DDD	ND	0.02	ug/g					
o,p'-DDE	ND	0.01	ug/g					
p,p'-DDE	ND	0.01	ug/g					
DDE	ND	0.01	ug/g					
o,p'-DDT	ND	0.01	ug/g					

PARACEL LABORATORIES LTD.

Order #: 2423363

Certificate of Analysis

Report Date: 17-Jun-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 5-Jun-2024

Client PO:

Project Description: 13895-001

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
p,p'-DDT	ND	0.01	ug/g					
DDT	ND	0.01	ug/g					
Dieldrin	ND	0.02	ug/g					
Endrin	ND	0.02	ug/g					
Endosulfan I	ND	0.01	ug/g					
Endosulfan II	ND	0.02	ug/g					
Endosulfan I/II	ND	0.02	ug/g					
Heptachlor	ND	0.01	ug/g					
Heptachlor epoxide	ND	0.01	ug/g					
Hexachlorobenzene	ND	0.01	ug/g					
Hexachlorobutadiene	ND	0.01	ug/g					
Hexachloroethane	ND	0.01	ug/g					
Methoxychlor	ND	0.01	ug/g					
Surrogate: Decachlorobiphenyl	*0.0833*		*%*	*83.3*	*50-140*			

PARACEL LABORATORIES LTD.

Order #: 2423363

Certificate of Analysis

Report Date: 17-Jun-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 5-Jun-2024

Client PO:

Project Description: 13895-001

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
General Inorganics									
pH	7.01	0.05	pH Units	7.06			0.7	2.3	
Metals									
Antimony	ND	1.0	ug/g	1.2			NC	30	
Arsenic	5.3	1.0	ug/g	5.5			4.7	30	
Barium	74.8	1.0	ug/g	74.2			0.9	30	
Beryllium	0.5	0.5	ug/g	0.6			6.8	30	
Boron	6.8	5.0	ug/g	6.7			1.9	30	
Cadmium	ND	0.5	ug/g	ND			NC	30	
Chromium	20.4	5.0	ug/g	21.4			4.5	30	
Cobalt	6.6	1.0	ug/g	6.9			5.1	30	
Copper	18.5	5.0	ug/g	18.9			2.0	30	
Lead	38.6	1.0	ug/g	37.5			3.0	30	
Mercury	ND	0.1	ug/g	ND			NC	30	
Molybdenum	ND	1.0	ug/g	ND			NC	30	
Nickel	15.9	5.0	ug/g	16.4			2.9	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	28.5	10.0	ug/g	29.0			1.8	30	
Zinc	71.0	20.0	ug/g	72.3			1.9	30	
Pesticides, OC									
Aldrin	ND	0.01	ug/g	ND			NC	40	
gamma-BHC (Lindane)	ND	0.01	ug/g	ND			NC	40	
alpha-Chlordane	ND	0.01	ug/g	ND			NC	40	
gamma-Chlordane	ND	0.01	ug/g	ND			NC	40	
o,p'-DDD	ND	0.01	ug/g	ND			NC	40	
p,p'-DDD	ND	0.02	ug/g	ND			NC	40	
o,p'-DDE	ND	0.01	ug/g	ND			NC	40	
p,p'-DDE	0.47	0.01	ug/g	0.37			22.1	40	

PARACEL LABORATORIES LTD.

Order #: 2423363

Certificate of Analysis

Report Date: 17-Jun-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 5-Jun-2024

Client PO:

Project Description: 13895-001

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
o,p'-DDT	ND	0.01	ug/g	ND			NC	40	
p,p'-DDT	ND	0.01	ug/g	ND			NC	40	
Dieldrin	ND	0.02	ug/g	ND			NC	40	
Endrin	ND	0.02	ug/g	ND			NC	40	
Endosulfan I	ND	0.01	ug/g	ND			NC	40	
Endosulfan II	ND	0.02	ug/g	ND			NC	40	
Heptachlor	ND	0.01	ug/g	ND			NC	40	
Heptachlor epoxide	ND	0.01	ug/g	ND			NC	40	
Hexachlorobenzene	ND	0.01	ug/g	ND			NC	40	
Hexachlorobutadiene	ND	0.01	ug/g	ND			NC	40	
Hexachloroethane	ND	0.01	ug/g	ND			NC	40	
Methoxychlor	ND	0.01	ug/g	ND			NC	40	
Surrogate: Decachlorobiphenyl	*0.100*		*%*		*80.6*	*50-140*			
Physical Characteristics									
% Solids	92.1	0.1	% by Wt.	92.4			0.4	25	

PARACEL LABORATORIES LTD.

Order #: 2423363

Certificate of Analysis

Report Date: 17-Jun-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 5-Jun-2024

Client PO:

Project Description: 13895-001

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Metals									
Arsenic	51.4	1.0	ug/g	2.2	98.4	70-130			
Barium	72.2	1.0	ug/g	29.7	85.0	70-130			
Beryllium	48.7	0.5	ug/g	ND	97.0	70-130			
Boron	48.6	5.0	ug/g	ND	91.9	70-130			
Cadmium	44.6	0.5	ug/g	ND	89.0	70-130			
Chromium	59.7	5.0	ug/g	8.5	102	70-130			
Cobalt	52.1	1.0	ug/g	2.8	98.7	70-130			
Copper	54.5	5.0	ug/g	7.6	93.8	70-130			
Lead	63.1	1.0	ug/g	15.0	96.1	70-130			
Mercury	1.46	0.1	ug/g	ND	97.0	70-130			
Molybdenum	49.2	1.0	ug/g	ND	98.0	70-130			
Nickel	55.2	5.0	ug/g	6.6	97.2	70-130			
Selenium	44.3	1.0	ug/g	ND	88.2	70-130			
Silver	40.2	0.3	ug/g	ND	80.4	70-130			
Thallium	46.1	1.0	ug/g	ND	92.1	70-130			
Uranium	53.3	1.0	ug/g	ND	106	70-130			
Vanadium	63.3	10.0	ug/g	11.6	103	70-130			
Zinc	72.5	20.0	ug/g	28.9	87.1	70-130			
Pesticides, OC									
Aldrin	0.23	0.01	ug/g	ND	91.8	50-140			
gamma-BHC (Lindane)	0.20	0.01	ug/g	ND	81.6	50-140			
alpha-Chlordane	0.23	0.01	ug/g	ND	94.2	50-140			
gamma-Chlordane	0.21	0.01	ug/g	ND	86.4	50-140			
o,p'-DDD	0.22	0.01	ug/g	ND	89.4	50-140			
p,p'-DDD	0.20	0.02	ug/g	ND	79.4	50-140			
o,p'-DDE	0.23	0.01	ug/g	ND	92.2	50-140			
p,p'-DDE	0.51	0.01	ug/g	0.37	56.0	50-140			
o,p'-DDT	0.23	0.01	ug/g	ND	94.0	50-140			
p,p'-DDT	0.26	0.01	ug/g	ND	106	50-140			
Dieldrin	0.17	0.02	ug/g	ND	67.4	50-140			

PARACEL LABORATORIES LTD.

Order #: 2423363

Certificate of Analysis

Report Date: 17-Jun-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 5-Jun-2024

Client PO:

Project Description: 13895-001

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Endrin	0.15	0.02	ug/g	ND	61.8	50-140			
Endosulfan I	0.22	0.01	ug/g	ND	89.2	50-140			
Endosulfan II	0.21	0.02	ug/g	ND	83.8	50-140			
Heptachlor	0.25	0.01	ug/g	ND	101	50-140			
Heptachlor epoxide	0.24	0.01	ug/g	ND	98.5	50-140			
Hexachlorobenzene	0.24	0.01	ug/g	ND	95.0	50-140			
Hexachlorobutadiene	0.27	0.01	ug/g	ND	111	50-140			
Hexachloroethane	0.27	0.01	ug/g	ND	110	50-140			
Methoxychlor	0.20	0.01	ug/g	ND	81.8	50-140			
Surrogate: Decachlorobiphenyl	*0.105*		*%*		*84.8*	*50-140*			

PARACEL LABORATORIES LTD.

Order #: 2423363

Certificate of Analysis

Report Date: 17-Jun-2024

Client: **Cambium Inc. (Kingston)**

Order Date: 5-Jun-2024

Client PO:

Project Description: 13895-001

Qualifier Notes:

Sample Data Revisions:

None

Work Order Revisions / Comments:

REVISION-1: This report includes additional OCPs and ICP metals data.

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 unlesss otherwise noted.

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

PARACEL LABORATORIES LTD

Paracel ID: 2423363

Paracel Order Number (Lab Use Only)	Chain of Custody (Lab Use Only)
2423368	№ 144720

Client Name: Cambium
Contact Name: Derik Tam
Address: 31 Hyperion Crt Kingston
Telephone:
Project Ref: 18895-001
Quote #:
PO #:
E-mail: Derik.Tam Kels.dougherty
Page 1 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)

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken Date	Sample Taken Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	OCs	HOLD	PAH	PAH HOLD
1	~~HA115-0.15~~ HA115-0.15-0.3	S		1	06/05/24	9:00				X	X			X			
2	HA114-0.15-0.3			2		930				X	X			X		X	
3	HA114-1.0-1.2			1		935									X		
4	HA106A-1.0-1.2			1		950				X	X			X			
5	HA110A-1.0-1.2			1		10:00				X	X			X			
6	HA111-0.15-0.3			2		1300				X						X	
7	~~HA~~112-0.15-0.3			1		1310				X							
8	HA113-0.15-0.3			1		1320				X							
9	HA105B-0.15-0.3					1100				X							
10	HA105B-1.0-1.2			2		1105									X		X

Comments: IF ANY samples are "BH" they should be HA!

Method of Delivery: Drop Box

Relinquished By (Sign):	Received at Depot: Depot	Received at Lab:	Verified By: Karen Cooper
Relinquished By (Print): Kels. Dougherty	Date/Time: June 5/24 15:00	Date/Time: June 6/24 11:00	Date/Time: June 05 15:25
Date/Time: 06/05/24 @ 14:40	Temperature: 25.2 °C	Temperature: 8.2 °C	pH Verified: ☐ By:

Chain of Custody (Env) xlsx

PARACEL LABORATORIES LTD.

Paracel ID: 2423363

Paracel Order Number (Lab Use Only): 2423368

Chain of Custody (Lab Use Only): № 144721

Page 2 of 2

Client Name:
Contact Name:
Address:
Telephone:
Project Ref:
Quote #:
PO #:
E-mail: See 1st page.

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: PHCs F1-F4+BTEX; VOCs; PAHs; Metals by ICP; Hg; CrVI; B (HWS); F1-F4; OCs

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken Date	Sample Taken Time	Metals by ICP	F1-F4
1	~~XX~~ QAQC1	S		1	06/05/24	11:10	X	
2	HA105b_0.15-0.3					11:20	X	~~X~~KD
3	HA105b_1.0-1.2					11:25	~~X~~KD	X
4	HA105c_0.15-0.3					11:30	X	~~X~~KD
5	HA105c_1.0-1.2					11:35	~~X~~KD	X
6	HA105d_0.15-0.3					11:40	X	
7	~~AA~~105d_1.0-1.2					11:45		X
8	QAQC2						X X	~~X~~KD.
9								
10								

Comments:

Method of Delivery: Drop Box

Relinquished By (Sign):
Relinquished By (Print): Kelsi Doughty
Date/Time: 06/05/24 @ 14:40

Received at Depot:
Date/Time: June 5/24 15:00
Temperature: 25.2 °C

Received at Lab:
Date/Time: Jun 6 2024 11:00
Temperature: 8.2, 11.1 °C

Verified By: Karen Cooper
Date/Time: June 05 15:25
pH Verified: ☐ By: