



# Phase II Environmental Site Assessment - 1683 Moore Drive and 1490 County Road 28, Fraserville, Ontario

September 30, 2021

Prepared for:  
RIC (Moore Drive) Inc. and RIC (Highway 28) Inc.

Cambium Reference: 12579-002

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## **Executive Summary**

RIC (Moore Drive) Inc. and RIC (Highway 28) Inc. retained Cambium Inc. to complete a Phase II Environmental Site Assessment (ESA) at 1683 Moore Drive and 1490 County Road 28, Fraserville, Ontario. The 59.3 ha Site consists of two rectangular land parcels that are used for agricultural purposes with a residential dwelling on each.

Cambium previously completed a Phase I ESA (Cambium Inc., 2021) to identify potential and actual environmental concerns associated with the current and historical activities at the Site and surrounding properties, for due diligence purposes. The Phase I ESA identified the following actual and/or potential on-site sources of environmental contamination:

### **On-Site**

- Dyed diesel above ground storage tank (AST) at 1409 County Road 28
- Historical AST at 1683 Moore Drive
- Potential use of pesticides on crops
- Burn area at 1683 Moore Drive

A Phase II ESA work program was developed to investigate contaminants of potential concern (COPCs), including benzene, toluene, ethylbenzene, and xylenes (BTEX), petroleum hydrocarbon fractions 1 to 4 (PHC F1-F4), OC pesticides and/or metals and inorganics (M&I) in soil and groundwater, identified in the Phase I ESA.

The Phase II ESA included nine boreholes, two of which were completed as groundwater monitoring wells. Ten soil samples and three groundwater samples were submitted for laboratory analysis of the COPCs.

The laboratory analysis results and discussion present through Section 4.0 indicated that all analysed contaminants of potential concern in the submitted soil and groundwater samples met the Table 1 SCS.

Cambium recommends the following work at the site:



- When no longer required, all monitoring wells should be abandoned as per the requirements of R.R.O. 1990, Regulation 903 - Wells.
- Soil cuttings and purge water are considered inert and can be disposed on the property, and in accordance with the regional sewer use by-law, and the drums recycled. Alternatively, Cambium can arrange for their removal from the site.



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## 1.0 Introduction

RIC (Moore Drive) Inc. and RIC (Highway 28) Inc. retained Cambium to complete a Phase II Environmental Site Assessment (ESA) at 1683 Moore Drive and 1490 County Road 28, Fraserville, Ontario (Site). The Phase II ESA was completed consistent with the *Canadian Standards Association (CSA) Standard Z769-00* (CSA, 2013), with reference to Ontario Regulation (O.Reg.) 153/04.

### 1.1 Previous Environmental Investigations

The following environmental reports were available for review by Cambium:

- Phase I Environmental Site Assessment - 1683 Moore Drive and 1490 County Road 28, Fraserville, Ontario (Cambium Inc., 2021)

The Phase I ESA identified the following actual and/or potential on-site sources of environmental contamination:

#### On-Site

- Dyed diesel AST at 1490 County Road 28
- Historical AST at 1683 Moore Drive
- Potential use of pesticides on crops
- Burn area at 1683 Moore Drive

The Phase I ESA identified evidence of environmental concerns associated with the Site; therefore, Cambium recommended a Phase II ESA to evaluate soil and groundwater quality at the Site.

### 1.2 Scope of Work

In accordance with our work plan and proposal to the Client, Cambium conducted the following activities as part of the Phase II ESA.



- Review of previous environmental reports to determine COPCs and aspects of environmental concern.
- Obtained public and private locates for identification of buried services and utilities via Ontario One Call and a private locate company.
- Developed a site-specific Health and Safety Plan (HASP) prior to commencement of the fieldwork.
- Arranged for a Ministry of the Environment, Conservation and Parks (Ministry) licensed driller to advance nine boreholes and install two monitoring wells on the Site.
- Arranged for a Canadian Association of Laboratory Accreditation Inc. (CALA) accredited laboratory to supply Cambium with appropriate sample containers for the proposed soil and groundwater testing program and to undertake analytical services in accordance with standard operating protocols (MOE, 2011a).



## 2.0 Site Description

The Site is at 1683 Moore Drive and 1490 County Road 28, Fraserville, Ontario (Figure 1). The Universal Transverse Mercator (UTM) coordinates for the centre of the Site are Zone 17T, 707,899m east, 4,898,990m north.

The roughly 59.3 ha Site is currently developed for residential and agricultural use, and is proposed to be redeveloped for residential use. The Site is currently developed with residential dwellings located at 1683 Moore Drive and 1409 County Road 28, originally constructed prior to 1951.

The Site slopes to the east, west, and south where a provincially significant wetland (PSW) is present on-site. The central-north portion of the Site is at a higher elevation which runs in a north to south direction. The Site is bordered by Moore Drive to the north and County Road 28 to the east. Kawartha Downs and Speedway is located on the southeast property boundary. Agricultural properties are present to the south and west.

Based on the location of the nearest water bodies and regional topographic relief, the inferred groundwater flow direction is easterly.

### 2.1 Applicable Site Condition Standards

The following site characteristics were reviewed to determine the applicable SCS in the *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act* (MOE, 2011b).

- The Site is proposed for redevelopment as a residential use property in a rural area.
- The Site and surrounding properties rely on groundwater obtained via private wells for drinking water.
- The Site is adjacent to an area of natural significance, a PSW. As such, the Site is environmentally sensitive as per Section 41 of O.Reg. 153/04.



- The average overburden thickness was greater than 2 m based on observations made during the subsurface investigation; as such, Section 43.1(a) of O.Reg. 153/04 does not apply.
- The Site is within 30 m of a water body as defined in O.Reg. 153/04; as such, Section 43.1(b) of O.Reg. 153/04 applies.
- Grain size analysis completed on a representative soil sample indicated that the soil texture at the Site is coarse.

Based on the review of site characteristics, the Table 1 Full Depth Background Site Condition Standards, residential/parkland/institutional (RPI) property use, and coarse-textured soils are applicable. As most of the sampling locations are greater than 30 m from water bodies and the PSW, Table 2 SCS can be applied to those locations.



### **3.0 Methodology**

The following sections provide a detailed description of the investigations completed and methodologies used to conduct the Phase II ESA. The aspects of environmental concern for the Site were identified based on review of the historical and current operations at the Site and surrounding properties as described in Section 1.0.

The COPCs related to these environmental concerns are BTEX, PHC F1-F4, OC pesticides, and metals and inorganics.

#### **3.1 Soil Sampling**

Prior to commencing the drilling program, Cambium arranged for underground services to be located and marked for public and private utilities. On-Site Locates attended the Site on July 22 and 23, 2021 to provide clearance for buried services at the proposed drilling locations. The drilling locations were clear of utilities.

On July 22, 2021, Strata Drilling Group advanced one borehole (BH108) to a maximum depth of 4.57 m below ground surface (mbgs) using a track-mounted Geoprobe 7822DT drilling rig equipped with 10 cm (4 inch) outside diameter dual-tube sampling equipment.

On July 23, 2021, Cambium advanced two boreholes (BH105 and BH107) to a maximum depth of 1.5 mbgs using a hand auger.

From July 26 - 28, 2021, Canadian Environmental Drilling advanced six boreholes (BH106, BH201, and BH204 to BH207) to a maximum depth of 8.2 mbgs using a track-mounted CME 55 drilling rig equipped with 15 cm (6 in) outside diameter hollow-stem augers and split spoon sampling equipment.

Boreholes were advanced at the following locations (Figure 2). Borehole logs are provided in Appendix A.

- Borehole BH105, adjacent the AST at 1683 Moore Drive
- Borehole BH106, northwest portion of the Site, along the eastern boundary of the PSW
- Borehole BH107, north portion of the Site, in an agricultural field



- Borehole BH108, adjacent the AST at 1409 County Road 28
- Borehole BH201, southwest portion of the Site, in an agricultural field
- Borehole BH204, east of the residential building at 1683 Moore Drive, near the burn pile
- Borehole BH205, north portion of the Site, in an agricultural field
- Borehole BH206, northeast portion of the Site, in an agricultural field
- Borehole BH207, southeast portion of the Site, in an agricultural field north of the barn at 1409 County Road 28

Samples were collected consistent with accepted industry practices and regulatory guidance. During the soil investigation program, soil samples were collected in 0.15, 0.61, or 1.5 m sections.

On September 21, 2021, Cambium returned to Site to re-sample BH205 after identifying a uranium exceedance in soil results between 0.75 to 1.20 mbgs. A borehole was advanced at BH205 via hand auger and a sample was collected between 0.75 to 1.20 mbgs.

Each sample was handled solely by the field technician using dedicated nitrile gloves to reduce the potential for cross-contamination. Gloves were replaced after collection of each sample. Samples to be submitted for analysis of VOCs and/or PHC F1 were collected using a pre-calibrated syringe sampler and methanol preserved vials.

Olfactory and visual observations of the soil samples were documented immediately upon extraction for soil characteristics and potential indicators of environmental contamination. The samples, which were placed in plastic sample bags and sealed, were used to determine if volatile and/or organic contaminants were present in the sample headspace. An RKI Eagle 2 portable gas detector was used to screen the soil samples for concentrations of combustible soil vapour (CSV) and organic vapour (OV). The RKI was calibrated to hexane and isobutylene standards. After agitating the sample, the peak concentration was recorded by inserting the RKI probe into the sample bag. Refer to the borehole logs in Appendix A for the measured vapour concentrations.



Soil samples were selected for laboratory analysis based on the soil screening results, visual and olfactory observation, and location of the sample with respect to an environmental concern. Nine soil samples were submitted to the laboratory for analysis. The soil analysis results are discussed in Section 4.3.

### **3.2 Monitoring Well Installation**

Boreholes BH108 and BH204 were instrumented with groundwater monitoring wells in accordance with Ontario Regulation 903 - Wells. The monitoring wells were constructed using 51 mm flush-threaded environmental quality PVC well pipe. Each well was constructed with a riser pipe and 3 m section of screen installed to intersect the groundwater table. Silica sand filter-pack was placed in the annular space to approximately 0.3 m above the top of the screen. Bentonite was placed in the remaining annular space to about 6 cm below ground surface to seal the well. The bentonite was hydrated using store bought distilled water. A steel monument style protective cover was cemented in place at the ground surface to protect the well from damage. Well construction details are shown on the borehole logs in Appendix A.

### **3.3 Groundwater Sampling**

Following installation, the monitoring wells were purged of a minimum of three well volumes, to remove sediment from the well, stabilize and grade the filter pack, improve connectivity between the well and the formation, and restore groundwater that may have been disturbed during the drilling process.

On July 26, 2021, the depth to groundwater was measured in each monitoring well prior to purging or sampling. An interface probe, which can accurately measure the depth to groundwater and the thickness of dense and light non-aqueous phase liquids (DNAPL and LNAPL, respectively) that may be present in the monitoring wells, was used to measure fluid levels. The probe was cleaned between wells with a mixture of Alconox™ soap and water and rinsed with distilled water to reduce the potential for cross-contamination between the monitoring wells.



Each well was purged of a minimum of three well volumes to remove stagnant water from the well prior to sampling. Groundwater samples were collected using a peristaltic pump, with dedicated tubing installed in each of the monitoring wells. The peristaltic pump reduces the amount of sediment entrained in the collected groundwater samples, as agitation of the water column is reduced by lowering the pumping rate and limiting the movement of the tubing in the water column.

On September 21, 2021, Cambium returned to Site to re-sample BH204 after identifying a toluene exceedance in groundwater results. BH204 was purged of a minimum of three well volumes to remove stagnant water from the well prior to sampling. A groundwater sample was collected using a peristaltic pump, with dedicated tubing installed in the monitoring well.

Field staff wore nitrile sample gloves while collecting the groundwater samples. Gloves were replaced between each sample location. The groundwater analysis results are discussed in Section 4.4.

### **3.4 Laboratory Testing and Analysis**

Soil and groundwater samples were maintained at a temperature less than 10°C. Select samples were transported to SGS Canada, a CALA accredited analytical laboratory in Lakefield, Ontario, for analysis of BTEX, PHC F1-F4, OC pesticides, and metals and inorganics. The analysis results are discussed in Section 4.0. Copies of the original laboratory Certificates of Analysis as received from SGS Canada are included in Appendix B.



## 4.0 Results

### 4.1 Stratigraphy

Subsurface conditions at the Site generally consisted of topsoil underlain by silty sand with traces of gravel. Soil that appeared disturbed was considered as 'possible fill'. There was no olfactory evidence of hydrocarbon contamination detected in the soil samples recovered from the boreholes.

Bedrock was not encountered to the maximum depth of the investigation.

### 4.2 Water levels and Flow Direction

Depth to groundwater ranged from 1.72 to 6.21 mbgs on July 26, 2021. Based on topography and nearby water bodies, the groundwater flow direction is inferred to be to the west. Local groundwater flow direction may be affected by sub-surface utility conduits located on-site and beneath nearby streets and neighbouring properties. Water level data and groundwater flow direction is shown on Figure 2.

### 4.3 Soil Quality

The submitted soil samples met the Table 1 SCS for the analyzed parameters with the exception of uranium in borehole BH205 from 0.75 m to 1.2 m. Uranium in borehole BH205 marginally exceeded the Table 1 SCS standard of 2.5 µg/g with a reported concentration of 2.6 µg/g, but meets the Table 2 SCS of 20 µg/g.

As the uranium exceedance was minor, BH205 was re-sampled on September 21, 2021, to determine if the exceedance would be replicated. The soil collected during the September 21, 2021 re-sampling event met the Table 1 SCS for the analyzed parameters. Overall, the Table 1 SCS for uranium is met.

The soil analysis results are summarized in Table 1.



#### **4.4 Groundwater Quality**

No free phase product, hydrocarbon sheen, or unusual odours or discoloration was observed in the purge water or recovered groundwater samples.

The submitted groundwater samples met the Table 1 SCS with the exception of toluene in monitoring well BH204. Toluene in groundwater from monitoring well BH204 marginally exceeded the Table 1 SCS standard of 0.8 µg/L with a reported concentration of 1.2 µg/L. Due to limited sample volumes PHC F1 could not be reported for groundwater from monitoring well BH204.

As the toluene exceedance was minor, the well was re-sampled on September 21, 2021, to determine if the exceedance would be replicated. The ground water collected during the September 21, 2021 re-sampling event met the Table 1 SCS for the analyzed parameters. Overall, the Table 1 SCS for toluene is met.

The groundwater analysis results are summarized in Table 2.

#### **4.5 Quality Assurance / Quality Control**

SGS reported that the laboratory analytical data is within statistical control and has met quality control and method performance criteria as provided in the appended Certificates of Analysis.

Based on the laboratory and field QA/QC data, the soil and groundwater analysis results can be interpreted with confidence.



## 5.0 Discussion and Conclusions

Conclusions regarding the current environmental conditions at the Site are based solely on the results of the Phase II ESA. The Phase II ESA included nine boreholes, two of which were completed as groundwater monitoring wells.

Ten soil samples and three groundwater samples were submitted for laboratory analysis of select COPCs.

The laboratory analysis results and discussion present through Section 4.0 indicated that all analysed contaminants of potential concern in the submitted soil and groundwater samples met the Table 1 SCS.

Cambium recommends the following work at the site:

- When no longer required, all monitoring wells should be abandoned as per the requirements of R.R.O. 1990, Regulation 903 - Wells.
- Soil cuttings and purge water are considered inert and can be disposed on the property, and in accordance with the regional sewer use by-law, and the drums recycled. Alternatively, Cambium can arrange for their removal from the site.



## 6.0 Qualifications of the Assessor

This Phase II ESA was completed under the supervision of Mr. Brad Sawdon, P.Geo. Credentials are presented in Appendix C. Information presented in this report is true and accurate to the best of the assessors' knowledge.

Respectfully submitted,

**Cambium Inc.**

---

Brad Sawdon, P.Geo.  
Senior Project Manager

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Steven Elford, Hons. BA.  
Senior Technologist

*BATS/sjbe*



## 7.0 References

- Cambium Inc. (2021). *Phase I Environmental Site Assessment - 1683 Moore Drive and 1490 County Road 28, Fraserville, Ontario.*
- CSA. (2013). *CSA Standard Z769-00 Phase II Environmental Site Assessment (R2013).* Canadian Standards Association.
- MOE. (2011a). *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act.* Ministry of the Environment. July 1, 2011.
- MOE. (2011b). *Soil, Groundwater, and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act.* Ministry of the Environment. April 15, 2011.



## 8.0 Qualifications and Limitations

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In performing work on behalf of a client, Cambium relies on its client to provide instructions on the scope of its retainer and, on that basis, Cambium determines the precise nature of the work to be performed. Cambium undertakes all work in accordance with applicable accepted industry practices and standards. Unless required under local laws, other than as expressly stated herein, no other warranties or conditions, either expressed or implied, are made regarding the services, work or reports provided.

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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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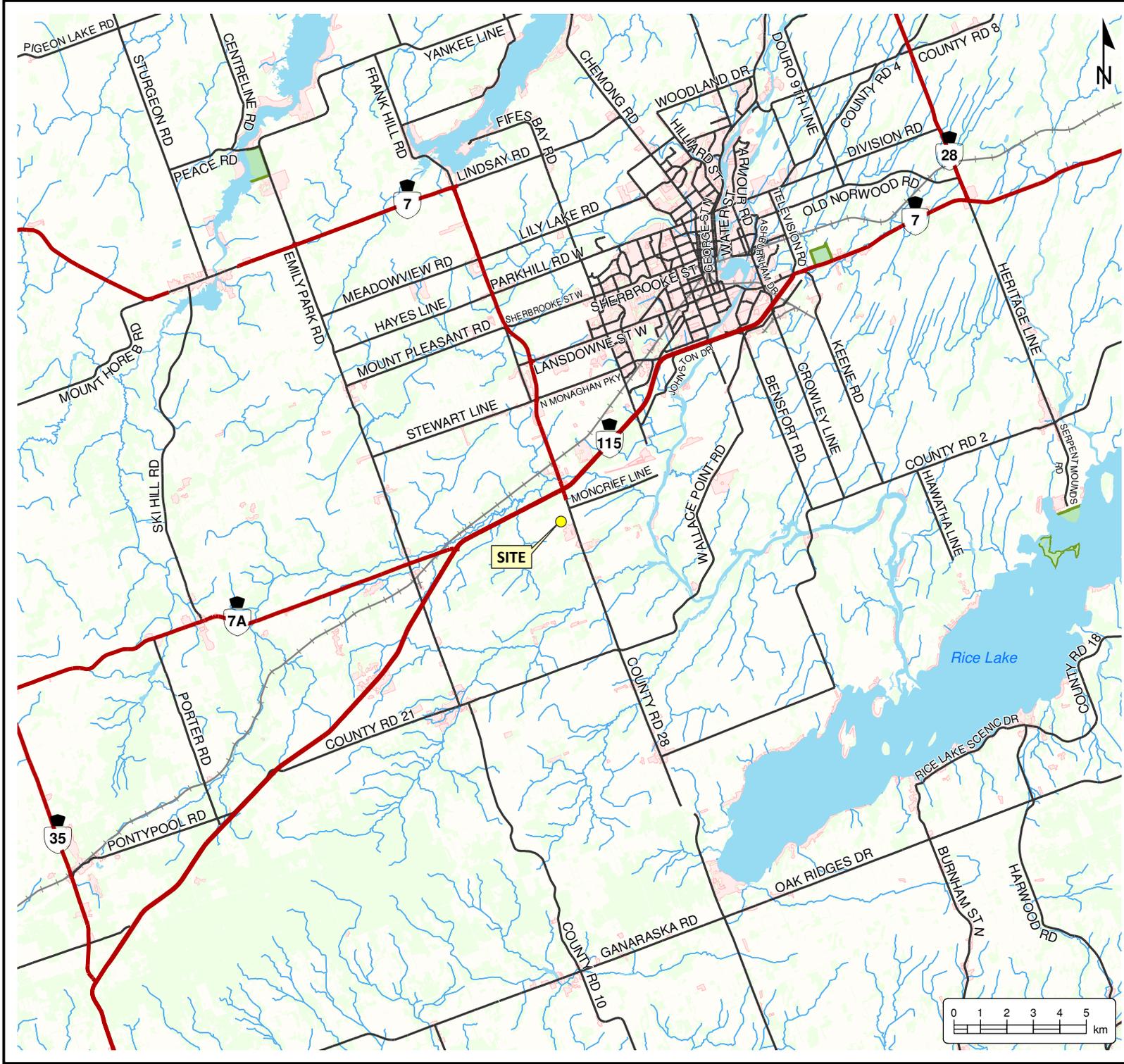
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## Figures

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**PHASE II ENVIRONMENTAL  
SITE ASSESSMENT**  
 RIC (MOORE DRIVE) INC. &  
 RIC (HIGHWAY 28) INC.  
 1683 Moore Drive & 1490 County Road 28,  
 Fraserville, Ontario

**LEGEND**

- Highway
- Major Road
- Railroad
- Watercourse
- Water Area
- Provincial Park
- Wooded Area
- Built Up Area

**Notes:**  
 - Base mapping features are © Queen's Printer of Ontario, 2019 (this does not constitute an endorsement by the Ministry of Natural Resources or the Ontario Government).  
 - Distances on this plan are in metres and can be converted to feet by dividing by 0.3048.  
 - Cambium Inc. makes every effort to ensure this map is free from errors but cannot be held responsible for any damages due to error or omissions. This map should not be used for navigation or legal purposes. It is intended for general reference use only.



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**SITE LOCATION MAP**

Project No.: 12579-002	Date: August 2021
Scale: 1:200,000	Projection: NAD 1983 UTM Zone 17N
Created by: TLC	Checked by: BATS
Figure: 1	



O:\GIS\MXDs\172500-12599\12579-002 RIC (KOL) Inc. - Phase I & II ESA - Kawartha Downs\2021-08-18 PII FIG.2 - Site Plan.mxd



## PHASE II ENVIRONMENTAL SITE ASSESSMENT

RIC (MOORE DRIVE) INC. &  
RIC (HIGHWAY 28) INC.  
1683 Moore Drive & 1490 County Road 28  
Fraserville, Ontario

### LEGEND

-  Borehole
-  Monitoring Well
-  Site (approximate)

**Notes:**  
 - Base mapping features are © Queen's Printer of Ontario, 2019 (this does not constitute an endorsement by the Ministry of Natural Resources or the Ontario Government).  
 - Distances on this plan are in metres and can be converted to feet by dividing by 0.3048.  
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### SITE PLAN

Project No.:	12579-002	Date:	August 2021
Scale:	1:7,000	Rev.:	
Created by:	TLC	Projection:	NAD 1983 UTM Zone 17N
Checked by:	BATS	Figure:	<b>2</b>



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## Tables

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Table 1 - Soil Quality

	Unit	RD.L	Table 1 - RPWCC	Location																
				BH105	BH106	BH107	BH108	BH201	BH204	BH205	BH206	BH207	BH208							
Date	2021-07-23	2021-07-23	2021-07-23	2021-07-22	2021-07-27	2021-07-26	2021-07-28	2021-07-28	2021-07-27	2021-09-21										
Depth	0.25	0.3 - 0.6	0.3 - 0.6	3 - 3.8	0.3 - 0.6	0.7 - 1.3	0.75 - 1.2	0.3 - 0.6	0.75 - 1.2	0.75 - 1.2										
<b>BTEX</b>																				
Benzene	µg/g	0.02	0.02	<0.02	-	-	<0.02	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	µg/g	0.05	0.2	<0.05	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	µg/g	0.05	0.05	<0.05	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylene Total	µg/g	0.05	0.05 <sup>#1</sup>	<0.05	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>PHCs</b>																				
PHC F1 - BTEX	µg/g	10	25 <sup>#2</sup>	<10	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-
PHC F2	µg/g	10	10 <sup>#3</sup>	<10	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-
PHC F3	µg/g	50	240 <sup>#4</sup>	<50	-	-	<50	-	-	-	-	-	-	-	-	-	-	-	-	-
PHC F4	µg/g	50	120	<50	-	-	<50	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Metals</b>																				
Antimony	µg/g	0.8	1.3	-	-	<0.8	-	-	<0.8	<0.8	-	-	-	-	-	-	-	-	< 0.8	-
Arsenic	µg/g	0.5	18	-	-	0.9	-	-	1.5	0.8	-	-	-	-	-	-	-	-	1.7	-
Barium	µg/g	0.1	220	-	-	27	-	-	33	20	-	-	-	-	-	-	-	-	35	-
Boron	µg/g	1	36	-	-	1	-	-	4	<1	-	-	-	-	-	-	-	-	2	-
Boron (hot water soluble)	µg/g	0.5	-	-	-	<0.5	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Beryllium	µg/g	0.02	2.5	-	-	0.13	-	-	0.23	0.22	-	-	-	-	-	-	-	-	0.32	-
Cadmium	µg/g	0.02	1.2	-	-	0.08	-	-	0.04	0.03	-	-	-	-	-	-	-	-	0.14	-
Chromium (VI)	µg/g	0.2	0.66	-	-	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-
Chromium (III+VI)	µg/g	0.5	70	-	-	6.7	-	-	7.5	16	-	-	-	-	-	-	-	-	7.7	-
Cobalt	µg/g	0.01	21	-	-	2.0	-	-	3.0	4.5	-	-	-	-	-	-	-	-	2.9	-
Cyanide (Free)	µg/g	0.05	0.051	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-
Copper	µg/g	0.1	92	-	-	1.9	-	-	5.7	21	-	-	-	-	-	-	-	-	3.7	-
Lead	µg/g	0.1	120	-	-	2.1	-	-	3.0	5.8	-	-	-	-	-	-	-	-	3.5	-
Mercury	µg/g	0.05	0.27	-	-	<0.05	-	-	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-
Molybdenum	µg/g	0.1	2	-	-	0.2	-	-	0.2	0.4	-	-	-	-	-	-	-	-	0.2	-
Nickel	µg/g	0.5	92	-	-	3.1	-	-	5.4	10.0	-	-	-	-	-	-	-	-	3.9	-
Selenium	µg/g	0.7	1.5	-	-	<0.7	-	-	<0.7	<0.7	-	-	-	-	-	-	-	-	< 0.7	-
Silver	µg/g	0.05	0.5	-	-	<0.05	-	-	<0.05	<0.05	-	-	-	-	-	-	-	-	< 0.05	-
Thallium	µg/g	0.02	1	-	-	0.03	-	-	0.07	0.05	-	-	-	-	-	-	-	-	0.05	-
Uranium	µg/g	0.002	2.5	-	-	0.36	-	-	0.41	2.6	-	-	-	-	-	-	-	-	0.46	-
Vanadium	µg/g	3	86	-	-	14	-	-	13	21	-	-	-	-	-	-	-	-	17	-
Zinc	µg/g	0.7	290	-	-	12	-	-	15	19	-	-	-	-	-	-	-	-	14	-
<b>Organochlorine Pesticides</b>																				
o,p'-DDD	µg/g	0.02	-	-	-	<0.02	-	-	<0.02	-	-	-	-	<0.02	-	-	-	<0.02	-	-
p,p'-DDD	µg/g	0.02	-	-	-	<0.02	-	-	<0.02	-	-	-	-	<0.02	-	-	-	<0.02	-	-
DDD (Total)	µg/g	0.05	0.05	-	-	<0.05	-	-	<0.05	-	-	-	-	<0.05	-	-	-	<0.05	-	-
o,p'-DDE	µg/g	0.02	-	-	-	<0.02	-	-	<0.02	-	-	-	-	<0.02	-	-	-	<0.02	-	-
p,p'-DDE	µg/g	0.02	-	-	-	<0.02	-	-	<0.02	-	-	-	-	<0.02	-	-	-	<0.02	-	-
DDE (Total)	µg/g	0.05	0.05	-	-	<0.05	-	-	<0.05	-	-	-	-	<0.05	-	-	-	<0.05	-	-
o,p'-DDT	µg/g	0.02	-	-	-	<0.02	-	-	<0.02	-	-	-	-	<0.02	-	-	-	<0.02	-	-
p,p'-DDT	µg/g	0.02	-	-	-	<0.02	-	-	<0.02	-	-	-	-	<0.02	-	-	-	<0.02	-	-
DDT (total)	µg/g	0.05	1.4	-	-	<0.05	-	-	<0.05	-	-	-	-	<0.05	-	-	-	<0.05	-	-
Aldrin	µg/g	0.05	0.05	-	-	<0.05	-	-	<0.05	-	-	-	-	<0.05	-	-	-	<0.05	-	-
Chlordane	µg/g	0.05	0.05	-	-	<0.05	-	-	<0.05	-	-	-	-	<0.05	-	-	-	<0.05	-	-
Chlordane (cis)	µg/g	0.02	-	-	-	<0.02	-	-	<0.02	-	-	-	-	<0.02	-	-	-	<0.02	-	-
Chlordane (trans)	µg/g	0.02	-	-	-	<0.02	-	-	<0.02	-	-	-	-	<0.02	-	-	-	<0.02	-	-
Dieldrin	µg/g	0.05	0.05	-	-	<0.05	-	-	<0.05	-	-	-	-	<0.05	-	-	-	<0.05	-	-
Endosulfan	µg/g	0.04	0.04	-	-	<0.05	-	-	<0.04	-	-	-	-	<0.04	-	-	-	<0.04	-	-
Endosulfan I	µg/g	0.02	-	-	-	<0.03	-	-	<0.02	-	-	-	-	<0.02	-	-	-	<0.02	-	-
Endosulfan II	µg/g	0.02	-	-	-	<0.03	-	-	<0.02	-	-	-	-	<0.02	-	-	-	<0.02	-	-
Endrin	µg/g	0.04	0.04	-	-	<0.04	-	-	<0.04	-	-	-	-	<0.04	-	-	-	<0.04	-	-
g-BHC (Lindane)	µg/g	0.01	0.01	-	-	<0.01	-	-	<0.01	-	-	-	-	<0.01	-	-	-	<0.01	-	-
Heptachlor	µg/g	0.01	0.05	-	-	<0.02	-	-	<0.01	-	-	-	-	<0.01	-	-	-	<0.01	-	-
Heptachlor epoxide	µg/g	0.01	0.05	-	-	<0.01	-	-	<0.01	-	-	-	-	<0.01	-	-	-	<0.01	-	-
Hexachlorobenzene	µg/g	0.01	0.01	-	-	<0.02	-	-	<0.01	-	-	-	-	<0.01	-	-	-	<0.01	-	-
Hexachlorobutadiene	µg/g	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	-	-
Methoxychlor	µg/g	0.05	0.05	-	-	<0.05	-	-	<0.05	-	-	-	-	<0.05	-	-	-	<0.05	-	-
<b>Inorganics</b>																				
Conductivity (lab)	mS/cm	0.002	0.57	-	-	-	-	-	0.11	-	-	-	-	-	-	-	-	-	-	-
Sodium Adsorption Ratio	---	0.2	2.4	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-
pH (Lab)	-	0.05	9.11	-	-	-	-	-	7.93	-	-	-	-	-	-	-	-	-	-	-

**Comments**  
 #1 Standard is applicable to total xylenes; m & p-xylenes and o-xylenes should be summed for comparison.  
 #2 Standard is applicable to PHC in the F1 range minus BTEX.  
 #3 Standard is applicable to PHC F2 minus naphthalene. If naphthalene is not analyzed, the standard is applied to F2.  
 #4 Standard is applicable to PHC F3 minus PAHs (other than naphthalene). If PAHs have not been measured, the standard is applied to F3.

**Environmental Standards**  
 Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (MOE, 2011), Table 1 - RPWCC



Table 2 - Groundwater Quality

	Unit	RDL	Location Date	BH108	BH204	BH204
				2021-07-26	2021-08-04	2021-09-21
<b>Table 1 - All Types of Property Use</b>						
<b>BTEX</b>						
Benzene	µg/L	0.5	0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	0.8	<0.5	1.2	<0.5
Ethylbenzene	µg/L	0.5	0.5	<0.5	<0.5	<0.5
Xylene Total	µg/L	0.5	72 <sup>#1</sup>	<0.5	1.0	<0.5
<b>PHCs</b>						
PHC F1 - BTEX	µg/L	25	420 <sup>#2</sup>	<25	-	-
PHC F2	µg/L	100	150 <sup>#3</sup>	<100	<100	-
PHC F3	µg/L	200	500 <sup>#4</sup>	<200	<200	-
PHC F4	µg/L	200	500	<200	<200	-
<b>VOCs</b>						
Acetone	µg/L	30	2,700	<30	<30	-
Bromodichloromethane	µg/L	0.5	2	<0.5	<0.5	-
Bromoform	µg/L	0.5	5	<0.5	<0.5	-
Bromomethane	µg/L	0.5	0.89	<0.5	<0.5	-
Carbon tetrachloride	µg/L	0.2	0.2	<0.2	<0.2	-
Chlorobenzene	µg/L	0.5	0.5	<0.5	<0.5	-
Chloroform	µg/L	0.5	2	<0.5	<0.5	-
Dibromochloromethane	µg/L	0.5	2	<0.5	<0.5	-
Dichlorobenzene, 1,2-	µg/L	0.5	0.5	<0.5	<0.5	-
Dichlorobenzene, 1,3-	µg/L	0.5	0.5	<0.5	<0.5	-
Dichlorobenzene, 1,4-	µg/L	0.5	0.5	<0.5	<0.5	-
Dichlorodifluoromethane	µg/L	2	590	<2	<2	-
Dichloroethane, 1,1-	µg/L	0.5	0.5	<0.5	<0.5	-
Dichloroethane, 1,2-	µg/L	0.5	0.5	<0.5	<0.5	-
Dichloroethylene, 1,1-	µg/L	0.5	0.5	<0.5	<0.5	-
Dichloroethylene, 1,2-trans-	µg/L	0.5	1.6	<0.5	<0.5	-
Dichloroethylene, 1,2-cis-	µg/L	0.5	1.6	<0.5	<0.5	-
Dichloropropane, 1,2-	µg/L	0.5	0.5	<0.5	<0.5	-
Dichloropropene, 1,3-(cis+trans)	µg/L	0.5	0.5	<0.5	<0.5	-
Ethylene dibromide	µg/L	0.2	0.2	<0.2	<0.2	-
Hexane	µg/L	1	5	<1	<1	-
Methyl Ethyl Ketone	µg/L	20	400	<20	<20	-
Methyl Isobutyl Ketone	µg/L	20	640	<20	<20	-
Methylene chloride	µg/L	0.5	5	<0.5	<0.5	-
Methyl tert-Butyl Ether	µg/L	2	15	<2	<2	-
Styrene	µg/L	0.5	0.5	<0.5	<0.5	-
Tetrachloroethane, 1,1,1,2,2-	µg/L	0.5	0.5	<0.5	<0.5	-
Tetrachloroethane, 1,1,1,2-	µg/L	0.5	1.1	<0.5	<0.5	-
Tetrachloroethylene	µg/L	0.5	0.5	<0.5	<0.5	-
Trichloroethane, 1,1,1-	µg/L	0.5	0.5	<0.5	<0.5	-
Trichloroethane, 1,1,2-	µg/L	0.5	0.5	<0.5	<0.5	-
Trichloroethylene	µg/L	0.5	0.5	<0.5	<0.5	-
Trichlorofluoromethane	µg/L	5	150	<5	<5	-
Vinyl chloride	µg/L	0.2	0.5	<0.2	<0.2	-
<b>Metals</b>						
Antimony	µg/L	0.9	1.5	<0.9	<0.9	-
Arsenic	µg/L	0.2	13	0.5	0.6	-
Barium	µg/L	0.02	610	195	61.6	-
Boron	µg/L	2	1,700	49	101	-
Beryllium	µg/L	0.007	0.5	<0.007	<0.007	-
Cadmium	µg/L	0.003	0.5	0.004	0.003	-
Chromium (VI)	µg/L	0.2	25	0.3	<0.2	-
Chromium (III+VI)	µg/L	0.08	11	0.40	0.12	-
Cobalt	µg/L	0.004	3.8	0.078	0.559	-
Copper	µg/L	0.2	5	0.8	2.5	-
Lead	µg/L	0.09	1.9	<0.09	0.10	-
Mercury	µg/L	0.01	0.1	<0.01	<0.01	-
Molybdenum	µg/L	0.04	23	1.84	5.74	-
Nickel	µg/L	0.1	14	0.2	2.1	-
Selenium	µg/L	0.04	5	0.82	0.27	-
Sodium	µg/L	10	490,000	5,320	26,500	-
Silver	µg/L	0.05	0.3	<0.05	<0.05	-
Thallium	µg/L	0.005	0.5	0.026	0.009	-
Uranium	µg/L	0.002	8.9	0.607	2.79	-
Vanadium	µg/L	0.01	3.9	0.86	0.64	-
Zinc	µg/L	2	160	2	6	-

**Comments**

- #1 Standard is applicable to total xylenes; m & p-xylenes and o-xylenes should be summed for comparison.
- #2 Standard is applicable to PHC in the F1 range minus BTEX.
- #3 Standard is applicable to PHC F2 minus naphthalene. If naphthalene is not analyzed, the standard is applied to F2.
- #4 Standard is applicable to PHC F3 minus PAHs (other than naphthalene). If PAHs have not been measured, the standard is applied to F3.

**Environmental Standards**

Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (MOE, 2011), Table 1 - All Types of Property Use



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## **Appendix A**

### **Borehole Logs**

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# Log of Borehole:

BH105

**Client:** RIC (Moore Drive) Inc. & RIC (Highway 28) Inc.  
**Contractor:** Cambium Inc.  
**Location:** 1683 Moore Dr & 1409 CR 28, Fraserville

**Project Name:** Phase II ESA  
**Method:** Hand Auger  
**UTM:** -

**Project No.:** 12579-002  
**Date Completed:** 2021-07-23  
**Elevation:** -

SUBSURFACE PROFILE				SAMPLING INFO					Well Installation	Remarks
Depth (ft)	Depth (m)	Lithology	Description	Elevation (m)	Number	Type	% Recovery	CSV (ppm)		
0	0	Topsoil		0	1	HA	100	ND	ND	PHC, BTEX
1	0.3	SANDY SILT: brown, sandy silt, trace clay, moist, no odour, no staining		-0.3	2	HA	100	ND	ND	
2	0.6		End borehole at 0.3 mbgs in sandy silt	-0.6						
3	0.9			-0.9						
4	1.2			-1.2						
5	1.5			-1.5						
6	1.8			-1.8						
7	2.1			-2.1						
8	2.4			-2.4						
9	2.7			-2.7						
10	3.0			-3.0						
11	3.3			-3.3						
12	3.6			-3.6						
13	3.9			-3.9						
14	4.2			-4.2						
15	4.5			-4.5						
16	4.8			-4.8						
17	5.1			-5.1						
18	5.4			-5.4						
19	5.7			-5.7						
20	6.0			-6.0						
21	6.3			-6.3						
22	6.6			-6.6						
23	6.9			-6.9						
24	7.2			-7.2						
25	7.5			-7.5						
26	7.8			-7.8						
27	8.1			-8.1						
28	8.4			-8.4						
29	8.7			-8.7						
30	9.0			-9.0						

Logged By: C. Fraser

Input By: S. Elford



Peterborough  
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 Kingston  
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# Log of Borehole:

BH106

Page 1 of 1

**Client:** RIC (Moore Drive) Inc. & RIC (Highway 28) Inc.  
**Contractor:** Cambium Inc.  
**Location:** 1683 Moore Dr & 1409 CR 28, Fraserville

**Project Name:** Phase II ESA  
**Method:** Hand Auger  
**UTM:** -

**Project No.:** 12579-002  
**Date Completed:** 2021-07-23  
**Elevation:** -

SUBSURFACE PROFILE				SAMPLING INFO					Well Installation	Remarks	
Depth (ft)	Depth (m)	Lithology	Description	Elevation (m)	Number	Type	% Recovery	CSV (ppm)			OV (ppm)
0	0		TOPSOIL	0	1	HA	100	ND	ND		OC Pesticides
1			SANDY SILT: brown, sandy silt, damp, no odour, no staining  - grey colouring, wet		2	HA	100	ND	ND		
2					3	HA	100	ND	ND		
3	-1				4	HA	100	ND	ND		
4					5	HA	100	ND	ND		
5						End borehole at 1.5 mbs in sandy silt					
6	-2										
7											
8	-2										
9											
10	-3										
11											
12	-3										
13											
14	-4										
15											
16	-4										
17											
18	-5										
19											
20	-5										
21											
22	-6										
23											
24	-6										
25											
26	-7										
27											
28	-7										
29											
30	-8										
	-8										
	-9										
	-9										

Logged By: C. Fraser

Input By: S. Elford



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# Log of Borehole:

BH107

Page 1 of 1

**Client:** RIC (Moore Drive) Inc. & RIC (Highway 28) Inc.  
**Contractor:** Cambium Inc.  
**Location:** 1683 Moore Dr & 1409 CR 28, Fraserville

**Project Name:** Phase II ESA  
**Method:** Hand Auger  
**UTM:** -

**Project No.:** 12579-002  
**Date Completed:** 2021-07-23  
**Elevation:** -

SUBSURFACE PROFILE				SAMPLING INFO					Well Installation	Remarks	
Depth (ft)	Depth (m)	Lithology	Description	Elevation (m)	Number	Type	% Recovery	CSV (ppm)			OV (ppm)
0	0		TOPSOIL	0	1	HA	100	ND	ND		Metals
1			SANDY SILT: brown, sandy silt, dry, no odour, no staining	-1	2	HA	100	ND	ND		
2					3	HA	100	ND	ND		
3	-1				4	HA	100	ND	ND		
4					5	HA	100	ND	ND		
5						End borehole at 1.5 mbgs in sandy silt	-2				
6	-2										
7											
8	-2										
9											
10	-3										
11											
12	-3										
13											
14	-4										
15											
16	-4										
17											
18	-5										
19											
20	-5										
21											
22	-6										
23											
24	-6										
25											
26	-7										
27											
28	-7										
29											
30	-8										
	-8										
	-9										
	-9										

Logged By: C. Fraser

Input By: S. Elford



**Peterborough  
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# Log of Borehole:

**BH108**

Page 1 of 1

**Client:** RIC (Moore Drive) Inc. & RIC (Highway 28) Inc.  
**Contractor:** Strata Drilling Group  
**Location:** 1683 Moore Dr & 1409 CR 28, Fraserville

**Project Name:** Phase II ESA  
**Method:** Direct Push  
**UTM:** -

**Project No.:** 12579-002  
**Date Completed:** 2021-07-22  
**Elevation:** -

SUBSURFACE PROFILE				SAMPLING INFO					Well Installation	Remarks	
Depth (ft)	Depth (m)	Lithology	Description	Elevation (m)	Number	Type	% Recovery	CSV (ppm)			OV (ppm)
0	0		TOPSOIL	0							PHC, BTEX
1			SANDY SILT: brown, sandy silt, damp, no odour, no staining		1	DT	100	ND	ND		
2					2	DT	100	ND	ND		
3	-1				3	DT	100	ND	ND		
4			- grey colouring, increasing clay		4	DT	100	ND	ND		
5	-2				5	DT	100	ND	ND		
6			SILTY CLAY: grey, silty clay, wet, no odour, no staining		6	DT	100	ND	ND		
7	-2				7	DT	100	ND	ND		
8					8	DT	100	ND	ND		
9	-3				9	DT	100	ND	ND		
10					10	DT	100	ND	ND		
11	-3				11	DT	100	ND	ND		
12					12	DT	100	ND	ND		
13	-4		- black staining - cobbles		13	DT	100	ND	ND		
14					14	DT	100	ND	ND		
15	-4				15	DT	100	ND	ND		
16	-5		End borehole at 4.5 mbgs in silty clay								
17											
18	-5										
19											
20	-6										
21											
22	-6										
23											
24	-7										
25											
26	-7										
27											
28	-8										
29											
30	-8										
	-9										
	-9										

Logged By: C. Fraser

Input By: S. Elford



**Peterborough  
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# Log of Borehole:

BH201

Page 1 of 1

**Client:** RIC (Moore Drive) Inc. & RIC (Highway 28) Inc.  
**Contractor:** Canadian Environmental Drilling  
**Location:** 1683 Moore Dr & 1409 CR 28, Fraserville

**Project Name:** Phase II ESA  
**Method:** Solid Stem Auger  
**UTM:** -

**Project No.:** 12579-002  
**Date Completed:** 2021-07-27  
**Elevation:** -

SUBSURFACE PROFILE				SAMPLING INFO					Well Installation	Remarks
Depth (ft)	Depth (m)	Lithology	Description	Elevation (m)	Number	Type	% Recovery	CSV (ppm)		
0	0		TOPSOIL	0						
1			SAND: Brown, sand, some silt, dry to moist, loose, no odour, no stain		1	SS	100	ND	ND	OC Pesticides
2										
3	1		SANDY SILT: Light brown, sandy silt, trace gravel, dry to moist, dense, no odour, no stain	-1	2	SS	100	ND	ND	
4										
5			SILTY SAND: Light brown, silty gravelly sand, trace clay, moist, compact, no odour, no stain		3	SS	40	ND	ND	
6	2			-2						
7										
8			-becomes moist to wet		4	SS	30	ND	ND	
9										
10	3			-3						
11					5	SS	80	ND	ND	
12										
13	4			-4						
14			SILTY SAND: Grey, silty gravelly sand, trace clay, moist to wet, compact, no odour, no stain		6	SS	100	ND	ND	
15										
16	5			-5						
17										
18										
19	6			-6						
20										
21			-becomes wet, very dense		7	SS	80	ND	ND	
22										
23	7			-7						
24										
25										
26	8		-becomes compact	-8	8	SS	100	ND	ND	
27										
28			End borehole at 8.1 mbgs in silty gravelly sand							
29	9			-9						
30										

Logged By: J. Riseling

Input By: S. Elford





**Peterborough  
Barrie  
Oshawa  
Kingston**  
T: 866-217-7900  
www.cambium-inc.com

# Log of Borehole:

**BH205**

Page 1 of 1

**Client:** RIC (Moore Drive) Inc. & RIC (Highway 28) Inc.  
**Contractor:** Canadian Environmental Drilling  
**Location:** 1683 Moore Dr & 1409 CR 28, Fraserville

**Project Name:** Phase II ESA  
**Method:** Solid Stem Auger  
**UTM:** -

**Project No.:** 12579-002  
**Date Completed:** 2021-07-28  
**Elevation:** -

SUBSURFACE PROFILE				SAMPLING INFO					Well Installation	Remarks	
Depth (ft)	Depth (m)	Lithology	Description	Elevation (m)	Number	Type	% Recovery	CSV (ppm)			OV (ppm)
0	0		TOPSOIL	0							
1			SAND: Brown, sand, some silt, trace organics, dry to moist, loose, no odour, no stain		1	SS	75	ND	ND		
2											
3	1		SILTY SAND: Light brown, silty sand, some gravel, trace clay, dry to moist, compact, no odour, no stain	-1	2	SS	100	ND	ND		Metals
4											
5											
6	2		-becomes loose	-2	3	SS	40	ND	ND		
7											
8											
9											
10	3		SILTY SAND: Light brown, silty gravelly sand, some clay, moist, compact, no odour, no stain	-3	4	SS	0	ND	ND		
11											
12											
13	4			-4							
14											
15											
16	5		-becomes moist to wet, dense	-5	6	SS	100	ND	ND		
17											
18											
19											
20	6			-6							
21											
22											
23	7		-becomes grey, very dense	-7	7	SS	60	ND	ND		
24			End borehole at 6.55 mbgs in silty gravelly sand	-7							
25											
26	8			-8							
27											
28											
29	9			-9							
30											

Logged By: J. Riseling

Input By: S. Elford



**Peterborough  
Barrie  
Oshawa  
Kingston**  
T: 866-217-7900  
www.cambium-inc.com

# Log of Borehole:

**BH206**

Page 1 of 1

**Client:** RIC (Moore Drive) Inc. & RIC (Highway 28) Inc.  
**Contractor:** Canadian Environmental Drilling  
**Location:** 1683 Moore Dr & 1409 CR 28, Fraserville

**Project Name:** Phase II ESA  
**Method:** Solid Stem Auger  
**UTM:** -

**Project No.:** 12579-002  
**Date Completed:** 2021-07-28  
**Elevation:** -

SUBSURFACE PROFILE				SAMPLING INFO					Well Installation	Remarks		
Depth (ft)	Depth (m)	Lithology	Description	Elevation (m)	Number	Type	% Recovery	CSV (ppm)			OV (ppm)	
0	0		TOPSOIL	0								
1			SAND AND SILT: Brown, sand and silt, moist, loose, no odour, no stain		1	SS	100	ND	ND			OC Pesticides
2			SILTY SAND: Brown, silty sand, some gravel, trace clay, moist to wet, compact, no odour, no stain									
3	-1		SILTY SAND: Brown, silty sand, some gravel, trace clay, moist to wet, compact, no odour, no stain	-1	2	SS	60	ND	ND			
4												
5			SILTY SAND: Light brown, silty gravelly sand, some clay, moist to wet, compact, no odour, no stain									
6	-2		SILTY SAND: Light brown, silty gravelly sand, some clay, moist to wet, compact, no odour, no stain	-2	3	SS	70	ND	ND			
7												
8												
9												
10	-3			-3								
11												
12												
13	-4			-4								
14												
15												
16	-5		-becomes very dense	-5	6	SS	100	ND	ND			
17												
18												
19												
20	-6			-6								
21			-becomes grey, wet									
22					7	SS	50	ND	ND			
23	-7		End borehole at 6.55 mbgs in silty gravelly sand	-7								
24												
25												
26	-8			-8								
27												
28												
29	-9			-9								
30												

Logged By: J. Riseling

Input By: S. Elford



Peterborough  
 Barrie  
 Oshawa  
 Kingston  
 T: 866-217-7900  
 www.cambium-inc.com

# Log of Borehole:

BH207

Page 1 of 1

**Client:** RIC (Moore Drive) Inc. & RIC (Highway 28) Inc.  
**Contractor:** Canadian Environmental Drilling  
**Location:** 1683 Moore Dr & 1409 CR 28, Fraserville

**Project Name:** Phase II ESA  
**Method:** Solid Stem Auger  
**UTM:** -

**Project No.:** 12579-002  
**Date Completed:** 2021-07-27  
**Elevation:** -

SUBSURFACE PROFILE				SAMPLING INFO					Well Installation	Remarks	
Depth (ft)	Depth (m)	Lithology	Description	Elevation (m)	Number	Type	% Recovery	CSV (ppm)			OV (ppm)
0	0		TOPSOIL	0							
1					1	SS	50	ND	ND		
2											
3	-1		SILTY SAND: Light brown, silty sand, some gravel, trace clay, moist to wet, compact, no odour, no stain	-1	2	SS	100	ND	ND		OC Pesticides
4											
5			SAND AND SILT: Light brown, sand and silt, some gravel, trace clay, saturated, compact, no odour, no stain		3	SS	0	ND	ND		
6	-2			-2							
7											
8					4	SS	50	ND	ND		
9			-becomes dense								
10	-3			-3							
11					5	SS	40	ND	ND		
12											
13	-4			-4							
14											
15											
16	-5		-becomes light brown/grey, very dense	-5	6	SS	100	ND	ND		
17											
18											
19											
20	-6			-6							
21					7	SS	100	ND	ND		
22											
23	-7		End borehole at 6.55 mbgs in sand and silt	-7							
24											
25											
26	-8			-8							
27											
28											
29	-9			-9							
30											

Logged By: J. Riseling

Input By: S. Elford



---

**Appendix B**  
**Laboratory Certificates of Analysis**

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## FINAL REPORT

CA14461-JUL21 R

12579-002

Prepared for

**Cambium Inc.**

**First Page**

CLIENT DETAILS		LABORATORY DETAILS	
Client	Cambium Inc.	Project Specialist	Brad Moore Hon. B.Sc
Address	194 Sofia Street Peterborough, ON K9H 1E3. Canada	Laboratory	SGS Canada Inc.
Contact	Bernie Taylor	Address	185 Concession St., Lakefield ON, K0L 2H0
Telephone	705-742-7900 ext 200	Telephone	705-652-2143
Facsimile	705-742-7907	Facsimile	705-652-6365
Email	bernie.taylor@cambium-inc.com; file@cambium-inc.com	Email	brad.moore@sgs.com
Project	12579-002	SGS Reference	CA14461-JUL21
Order Number		Received	07/22/2021
Samples	Soil (1)	Approved	07/28/2021
		Report Number	CA14461-JUL21 R
		Date Reported	07/28/2021

**COMMENTS**

CCME Method Compliance: Analyses were conducted using analytical procedures that comply with the Reference Method for the CWS for Petroleum Hydrocarbons in Soil and have been validated for use at the SGS laboratory, Lakefield, ON site.

Quality Compliance: Instrument performance / calibration quality criteria were met and extraction and analysis limits for holding times were met.

nC6 and nC10 response factors within 30% of response factor for toluene: YES

nC10, nC16 and nC34 response factors within 10% of the average response for the three compounds: YES

C50 response factors within 70% of nC10 + nC16 + nC34 average: YES

Linearity is within 15%: YES

F4G - gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

The results for F4 and F4G are both reported and the greater of the two values is to be used in application to the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

Benzo(b)fluoranthene results for comparison to the standard are reported as benzo(b+j)fluoranthene. Benzo(b)fluoranthene and benzo(j)fluoranthene co-elute and cannot be reported individually by the analytical method used.

Temperature of Sample upon Receipt: 13 degrees C

Cooling Agent Present: Yes

Custody Seal Present: Yes

Chain of Custody Number: 025800

**SIGNATORIES**

Brad Moore Hon. B.Sc



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# FINAL REPORT

CA14461-JUL21 R

**Client:** Cambium Inc.

**Project:** 12579-002

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

PACKAGE: **REG153 - BTEX (SOIL)**

**Sample Number** 11

**Sample Name** BH108\_3.0-3.8

**Sample Matrix** Soil

**Sample Date** 22/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>BTEX</b>				
Benzene	µg/g	0.02	0.02	< 0.02
Ethylbenzene	µg/g	0.05	0.05	< 0.05
Toluene	µg/g	0.05	0.2	< 0.05
Xylene (total)	µg/g	0.05	0.05	< 0.05
m/p-xylene	µg/g	0.05		< 0.05
o-xylene	µg/g	0.05		< 0.05

PACKAGE: **REG153 - Metals and Inorganics (SOIL)**

**Sample Number** 11

**Sample Name** BH108\_3.0-3.8

**Sample Matrix** Soil

**Sample Date** 22/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Metals and Inorganics</b>				
Moisture Content	%	-		7.7



# FINAL REPORT

CA14461-JUL21 R

**Client:** Cambium Inc.

**Project:** 12579-002

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

PACKAGE: **REG153 - PHCs (SOIL)**

**Sample Number** 11

**Sample Name** BH108\_3.0-3.8

**Sample Matrix** Soil

**Sample Date** 22/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>PHCs</b>				
F1 (C6-C10)	µg/g	10	25	< 10
F1-BTEX (C6-C10)	µg/g	10		< 10
F2 (C10-C16)	µg/g	10	10	< 10
F3 (C16-C34)	µg/g	50	240	< 50
F4 (C34-C50)	µg/g	50	120	< 50
Chromatogram returned to baseline at nC50	Yes / No	-		YES

**EXCEEDANCE SUMMARY**

---

No exceedances are present above the regulatory limit(s) indicated

QC SUMMARY

Petroleum Hydrocarbons (F1)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F1 (C6-C10)	GCM0414-JUL21	µg/g	10	<10	ND	30	103	80	120	99	60	140

Petroleum Hydrocarbons (F2-F4)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F2 (C10-C16)	GCM0437-JUL21	µg/g	10	<10	ND	30	101	80	120	113	60	140
F3 (C16-C34)	GCM0437-JUL21	µg/g	50	<50	26	30	101	80	120	113	60	140
F4 (C34-C50)	GCM0437-JUL21	µg/g	50	<50	ND	30	101	80	120	113	60	140

## QC SUMMARY

### Volatile Organics

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-IENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Benzene	GCM0414-JUL21	µg/g	0.02	<0.02	0	50	90	60	130	88	50	140
Ethylbenzene	GCM0414-JUL21	µg/g	0.05	<0.05	ND	50	83	60	130	85	50	140
m/p-xylene	GCM0414-JUL21	µg/g	0.05	<0.05	1	50	87	60	130	89	50	140
o-xylene	GCM0414-JUL21	µg/g	0.05	<0.05	ND	50	86	60	130	89	50	140
Toluene	GCM0414-JUL21	µg/g	0.05	<0.05	ND	50	85	60	130	86	50	140

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

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

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

**Multielement Scan Qualifier:** as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

**Duplicate Qualifier:** for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

**Matrix Spike Qualifier:** for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.



# FINAL REPORT

CA14461-JUL21 R

## QC SUMMARY

---

**LEGEND**

---

**FOOTNOTES**

**NSS** Insufficient sample for analysis.  
**RL** Reporting Limit.  
    ↑ Reporting limit raised.  
    ↓ Reporting limit lowered.  
**NA** The sample was not analysed for this analyte  
**ND** Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

This report must not be reproduced, except in full. This report supersedes all previous versions.

-- End of Analytical Report --

## Request for Laboratory Services and CHAIN OF CUSTODY

### Laboratory Information Section - Lab use only

Received By: Mick Davis Received By (signature): [Signature]  
 Received Date: 07-27-2021 (mm/dd/yy) Custody Seal Present: Yes  No   
 Received Time: 16:25 (hr : min) Custody Seal Intact: Yes  No  Cooling Agent Present: Yes  No  Type: REE  
 Temperature Upon Receipt (°C): 13.13.13 LAB LIMS #: 09 14461-10621

Company: Cambium Inc (Same as Report Information)  
 Contact: Bernie Taylor  
 Address: 194 Sophia Street  
Peterborough  
 Phone: 705-768-7719  
 Fax: -  
 Email: Bernie.Taylor@Cambium.com  
 Invoice #: 12579-002  
 Project #: 12579-002  
 P.O. #: \_\_\_\_\_  
 Site Location/ID: \_\_\_\_\_

REGULATIONS  
 O.Reg 153/04  O.Reg 406/19  
 Table 1  Res/Park  Soil Texture: \_\_\_\_\_  
 Table 2  Ind/Com  Coarse  PW/OO  MMER  
 Table 3  Agr/Other  Medium/Fine  CCME  Other: \_\_\_\_\_  
 Table \_\_\_\_\_  MISA  
 Soil Volume  <350m3  >350m3  ODWS Not Reportable - See note  
 Sewer By-Law:  Sanitary  Storm  
 Reg 347/558 (3 Day min TAT)  Other Regulations: \_\_\_\_\_  
 Reg 347/558 (3 Day min TAT)  PW/OO  MMER  
 CCME  Other: \_\_\_\_\_  
 Municipality: \_\_\_\_\_  
 Other Regulations: \_\_\_\_\_  
 Record of Site Condition (RSC)  YES  NO

INVOICE INFORMATION  
 Quotation #: \_\_\_\_\_  
 Project #: 12579-002  
 Turnaround Time (TAT) Required:  Regular TAT (5-7days)  
 Rush TAT (Additional Charges May Apply):  1 Day  2 Days  3 Days  4 Days  
 PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION  
 Specify Due Date: \_\_\_\_\_  
 NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

SAMPLE IDENTIFICATION				DATE SAMPLED		TIME SAMPLED	# OF BOTTLES	MATRIX
1	BH101-0-0.8	07-22-21	-	1			Soil	
2	BH108-0.8-1.5	11	-	1			Soil	
3	BH101-3.0-3.8	11	-	3			Soil	
4	BH108-3.0-3.8	11	-	3			Soil	
5								
6								
7								
8								
9								
10								
11								
12								

ANALYSIS REQUESTED		M & I		SVOC	PCB	PHC	VOC	Pest	Other (please specify)	SPLP	TCLP						
Field Filtered (Y/N)		Metals & Inorganics <small>incl CrVI, CN, Hg pH, (B(HWS), EC, SAR-soil) (Cl, Na-water)</small>		Full Metals Suite <small>ICP metals plus B(HWS-soil only) Hg, CrVI</small>	ICP Metals only <small>Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Pb, Mo, Ni</small>	PAHs only	SVOCs <small>all incl PAHs, ABNs, CPs</small>	PCBs <small>Total <input type="checkbox"/> Aroclor <input type="checkbox"/></small>	F1-F4 + BTEX	F1-F4 only <small>no BTEX</small>	VOCs <small>all incl BTEX</small>	BTEX only	Pesticides <small>Organochlorine or specify other</small>	Sewer Use: <small>Specify pkg:</small>	Water Characterization Pkg <small>General <input type="checkbox"/> Extended <input type="checkbox"/></small>	Specify tests	Specify tests

REMARKS/Comments/Special Instructions  
 Sampled By (NAME): CONNOR FROZER Signature: [Signature] Date: 07/22/21 (mm/dd/yy)  
 Refiniquished by (NAME): CONNOR FROZER Signature: [Signature] Date: 07/22/21 (mm/dd/yy)  
 Note: Submission of samples to SGS is acknowledgment that you have been provided direction on sample collection, handling and transportation of samples. (2) Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). (3) Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under its General Conditions of Service accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). (Printed copies are available upon request.) Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.  
 Pink Copy - Client  
 Yellow & White Copy - SGS  
 COMMENTS: PAH on hand  
PAH on hand



## FINAL REPORT

CA14737-JUL21 R

12579-002,

Prepared for

**Cambium Inc.**

## First Page

### CLIENT DETAILS

Client Cambium Inc.  
 Address 194 Sofia Street  
 Peterborough, ON  
 K9H 1E3, Canada  
 Contact Bernie Taylor  
 Telephone 705-742-7900 ext 200  
 Facsimile 705-742-7907  
 Email bernie.taylor@cambium-inc.com; file@cambium-inc.com  
 Project 12579-002,  
 Order Number  
 Samples Soil (3)

### LABORATORY DETAILS

Project Specialist Brad Moore Hon. B.Sc  
 Laboratory SGS Canada Inc.  
 Address 185 Concession St., Lakefield ON, K0L 2H0  
 Telephone 705-652-2143  
 Facsimile 705-652-6365  
 Email brad.moore@sgs.com  
 SGS Reference CA14737-JUL21  
 Received 07/23/2021  
 Approved 07/30/2021  
 Report Number CA14737-JUL21 R  
 Date Reported 07/30/2021

### COMMENTS

CCME Method Compliance: Analyses were conducted using analytical procedures that comply with the Reference Method for the CWS for Petroleum Hydrocarbons in Soil and have been validated for use at the SGS laboratory, Lakefield, ON site.

Quality Compliance: Instrument performance / calibration quality criteria were met and extraction and analysis limits for holding times were met.

nC6 and nC10 response factors within 30% of response factor for toluene: YES

nC10, nC16 and nC34 response factors within 10% of the average response for the three compounds: YES

C50 response factors within 70% of nC10 + nC16 + nC34 average: YES

Linearity is within 15%: YES

F4G - gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

The results for F4 and F4G are both reported and the greater of the two values is to be used in application to the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

Temperature of Sample upon Receipt: 9 degrees C

Cooling Agent Present: Yes

Custody Seal Present: Yes

Chain of Custody Number: 021280

### SIGNATORIES

Brad Moore Hon. B.Sc



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# FINAL REPORT

CA14737-JUL21 R

**Client:** Cambium Inc.

**Project:** 12579-002,

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

PACKAGE: **REG153 - BTEX (SOIL)**

**Sample Number** 8

**Sample Name** BH105\_0.25

**Sample Matrix** Soil

**Sample Date** 23/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>BTEX</b>				
Benzene	µg/g	0.02	0.02	< 0.02
Ethylbenzene	µg/g	0.05	0.05	< 0.05
Toluene	µg/g	0.05	0.2	< 0.05
Xylene (total)	µg/g	0.05	0.05	< 0.05
m/p-xylene	µg/g	0.05		< 0.05
o-xylene	µg/g	0.05		< 0.05

PACKAGE: **REG153 - Hydrides (SOIL)**

**Sample Number** 9

**Sample Name** BH107\_0.3-0.6

**Sample Matrix** Soil

**Sample Date** 23/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Hydrides</b>				
Antimony	µg/g	0.8	1.3	< 0.8
Arsenic	µg/g	0.5	18	0.9
Selenium	µg/g	0.7	1.5	< 0.7



# FINAL REPORT

CA14737-JUL21 R

**Client:** Cambium Inc.

**Project:** 12579-002,

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

PACKAGE: **REG153 - Metals and Inorganics**

(SOIL)

Sample Number	8	9	10
<b>Sample Name</b>	BH105_0.25	BH107_0.3-0.6	BH106_0.3-0.6
<b>Sample Matrix</b>	Soil	Soil	Soil
<b>Sample Date</b>	23/07/2021	23/07/2021	23/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result
<b>Metals and Inorganics</b>						
Moisture Content	%	-		16.2	11.5	18.8
Barium	µg/g	0.1	220		27	
Beryllium	µg/g	0.02	2.5		0.13	
Boron	µg/g	1	36		1	
Cadmium	µg/g	0.02	1.2		0.08	
Chromium	µg/g	0.5	70		6.7	
Cobalt	µg/g	0.01	21		2.0	
Copper	µg/g	0.1	92		1.9	
Lead	µg/g	0.1	120		2.1	
Molybdenum	µg/g	0.1	2		0.2	
Nickel	µg/g	0.5	82		3.1	
Silver	µg/g	0.05	0.5		< 0.05	
Thallium	µg/g	0.02	1		0.03	
Uranium	µg/g	0.002	2.5		0.36	
Vanadium	µg/g	3	86		14	
Zinc	µg/g	0.7	290		12	
Water Soluble Boron	µg/g	0.5			< 0.5	



# FINAL REPORT

CA14737-JUL21 R

**Client:** Cambium Inc.

**Project:** 12579-002,

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

PACKAGE: **REG153 - Organochlorine Pests**

**Sample Number** 10

**(OCs) (SOIL)**

**Sample Name** BH106\_0.3-0.6

**Sample Matrix** Soil

**Sample Date** 23/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Organochlorine Pests (OCs)</b>				
Aldrin	µg/g	0.05	0.05	< 0.05
alpha-Chlordane	µg/g	0.02		< 0.02
gamma-Chlordane	µg/g	0.02		< 0.02
Chlordane (total)	µg/g	0.05	0.05	< 0.05
o,p-DDD	µg/g	0.02		< 0.02
pp-DDD	µg/g	0.02		< 0.02
DDD (total)	µg/g	0.05	0.05	< 0.05
o,p-DDE	µg/g	0.02		< 0.02
pp-DDE	µg/g	0.02		< 0.02
DDE (total)	µg/g	0.05	0.05	< 0.05
op-DDT	µg/g	0.02		< 0.02
pp-DDT	µg/g	0.02		< 0.02
DDT (total)	µg/g	0.05	1.4	< 0.05
Dieldrin	µg/g	0.05	0.05	< 0.05
gamma-BHC	µg/g	0.01	0.01	< 0.01
Endosulfan I	µg/g	0.02		< 0.03 †
Endosulfan II	µg/g	0.02		< 0.03 †
Endosulfan (total)	µg/g	0.04	0.04	< 0.05 †
Endrin	µg/g	0.04	0.04	< 0.04
Heptachlor	µg/g	0.01	0.05	< 0.02 †
Heptachlor epoxide	µg/g	0.01	0.05	< 0.01
Hexachlorobenzene	µg/g	0.01	0.01	< 0.02 †



# FINAL REPORT

CA14737-JUL21 R

**Client:** Cambium Inc.

**Project:** 12579-002,

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

**PACKAGE: REG153 - Organochlorine Pests**

**Sample Number** 10

**(OCs) (SOIL)**

**Sample Name** BH106\_0.3-0.6

**Sample Matrix** Soil

**Sample Date** 23/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Organochlorine Pests (OCs) (continued)</b>				
Hexachlorobutadiene	µg/g	0.01	0.01	< 0.01
Hexachloroethane	µg/g	0.01	0.01	< 0.01
Methoxychlor	µg/g	0.05	0.05	< 0.05

**PACKAGE: REG153 - Other (ORP) (SOIL)**

**Sample Number** 9

**Sample Name** BH107\_0.3-0.6

**Sample Matrix** Soil

**Sample Date** 23/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Other (ORP)</b>				
Mercury	ug/g	0.05	0.27	< 0.05
Chromium VI	µg/g	0.2	0.66	< 0.2

**PACKAGE: REG153 - Pesticides Surrogate (SOIL)**

**Sample Number** 10

**Sample Name** BH106\_0.3-0.6

**Sample Matrix** Soil

**Sample Date** 23/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Pesticides Surrogate</b>				
Surr Decachlorobiphenyl	Surr Rec %	-		92



# FINAL REPORT

CA14737-JUL21 R

**Client:** Cambium Inc.

**Project:** 12579-002,

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

PACKAGE: **REG153 - PHCs (SOIL)**

**Sample Number** 8

**Sample Name** BH105\_0.25

**Sample Matrix** Soil

**Sample Date** 23/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>PHCs</b>				
F1 (C6-C10)	µg/g	10	25	< 10
F1-BTEX (C6-C10)	µg/g	10		< 10
F2 (C10-C16)	µg/g	10	10	< 10
F3 (C16-C34)	µg/g	50	240	< 50
F4 (C34-C50)	µg/g	50	120	< 50
Chromatogram returned to baseline at nC50	Yes / No	-		YES

PACKAGE: **REG153 - VOC Surrogates (SOIL)**

**Sample Number** 10

**Sample Name** BH106\_0.3-0.6

**Sample Matrix** Soil

**Sample Date** 23/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>VOC Surrogates</b>				
Surr TCMX	Surr Rec %	-		83

## EXCEEDANCE SUMMARY

Parameter	Method	Units	Result	REG153 / SOIL / COARSE - TABLE 1 - Residential/Parklan d/Industrial - UNDEFINED L1
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### BH106\_0.3-0.6

Endosulfan	EPA 3541/8270D	µg/g	< 0.05	0.04
Hexachlorobenzene	EPA 3541/8270D	µg/g	< 0.02	0.01



# FINAL REPORT

CA14737-JUL21 R

## QC SUMMARY

### Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-IENVISKA-LAK-AN-012

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Chromium VI	SKA5108-JUL21	ug/g	0.2	<0.2	ND	20	94	80	120	91	75	125

### Mercury by CVAAS

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-IENVISPE-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Mercury	EMS0148-JUL21	ug/g	0.05	<0.05	ND	20	107	80	120	87	70	130



# FINAL REPORT

CA14737-JUL21 R

## QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0148-JUL21	ug/g	0.05	<0.05	ND	20	96	70	130	94	70	130
Arsenic	EMS0148-JUL21	µg/g	0.5	<0.5	10	20	100	70	130	90	70	130
Barium	EMS0148-JUL21	ug/g	0.1	<0.1	19	20	101	70	130	92	70	130
Beryllium	EMS0148-JUL21	µg/g	0.02	<0.02	10	20	100	70	130	82	70	130
Boron	EMS0148-JUL21	µg/g	1	<1	2	20	102	70	130	85	70	130
Cadmium	EMS0148-JUL21	µg/g	0.02	<0.02	18	20	99	70	130	90	70	130
Cobalt	EMS0148-JUL21	µg/g	0.01	<0.01	11	20	100	70	130	95	70	130
Chromium	EMS0148-JUL21	µg/g	0.5	<0.5	18	20	101	70	130	98	70	130
Copper	EMS0148-JUL21	µg/g	0.1	<0.1	12	20	99	70	130	89	70	130
Molybdenum	EMS0148-JUL21	µg/g	0.1	<0.1	15	20	96	70	130	96	70	130
Nickel	EMS0148-JUL21	ug/g	0.5	<0.5	8	20	97	70	130	90	70	130
Lead	EMS0148-JUL21	µg/g	0.1	<0.1	10	20	106	70	130	93	70	130
Antimony	EMS0148-JUL21	µg/g	0.8	<0.8	ND	20	99	70	130	72	70	130
Selenium	EMS0148-JUL21	µg/g	0.7	<0.7	ND	20	94	70	130	91	70	130
Thallium	EMS0148-JUL21	µg/g	0.02	<0.02	ND	20	102	70	130	83	70	130
Uranium	EMS0148-JUL21	µg/g	0.002	<0.002	ND	20	100	70	130	84	70	130
Vanadium	EMS0148-JUL21	µg/g	3	<3	13	20	99	70	130	96	70	130
Zinc	EMS0148-JUL21	µg/g	0.7	<0.7	14	20	99	70	130	89	70	130

## QC SUMMARY

### Pesticides

Method: EPA 3541/8270D | Internal ref.: ME-CA-IENVIGC-LAK-AN-018

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Aldrin	GCM0470-JUL21	µg/g	0.05	< 0.05	ND	40	86	50	140	92	50	140
alpha-Chlordane	GCM0470-JUL21	µg/g	0.02	< 0.02	ND	40	83	50	140	96	50	140
Dieldrin	GCM0470-JUL21	µg/g	0.05	< 0.05	ND	40	86	50	140	98	50	140
Endosulfan I	GCM0470-JUL21	µg/g	0.02	< 0.02	ND	40	85	50	140	95	50	140
Endosulfan II	GCM0470-JUL21	µg/g	0.02	< 0.02	ND	40	82	50	140	96	50	140
Endrin	GCM0470-JUL21	µg/g	0.04	< 0.04	ND	40	83	50	140	98	50	140
gamma-BHC	GCM0470-JUL21	µg/g	0.01	< 0.01	ND	40	90	50	140	101	50	140
gamma-Chlordane	GCM0470-JUL21	µg/g	0.02	< 0.02	ND	40	84	50	140	90	50	140
Heptachlor epoxide	GCM0470-JUL21	µg/g	0.01	< 0.01	ND	40	84	50	140	89	50	140
Heptachlor	GCM0470-JUL21	µg/g	0.01	< 0.01	ND	40	84	50	140	88	50	140
Hexachlorobenzene	GCM0470-JUL21	µg/g	0.01	< 0.01	ND	40	85	50	140	92	50	140
Hexachlorobutadiene	GCM0470-JUL21	µg/g	0.01	< 0.01	ND	40	84	50	140	89	50	140
Hexachloroethane	GCM0470-JUL21	µg/g	0.01	< 0.01	ND	40	81	50	140	87	50	140
Methoxychlor	GCM0470-JUL21	µg/g	0.05	< 0.05	ND	40	86	50	140	85	50	140
o,p-DDD	GCM0470-JUL21	µg/g	0.02	< 0.02	ND	40	82	50	140	97	50	140
o,p-DDE	GCM0470-JUL21	µg/g	0.02	< 0.02	ND	40	87	50	140	91	50	140
op-DDT	GCM0470-JUL21	µg/g	0.02	< 0.02	ND	40	81	50	140	74	50	140
pp-DDD	GCM0470-JUL21	µg/g	0.02	< 0.02	ND	40	80	50	140	102	50	140
pp-DDE	GCM0470-JUL21	µg/g	0.02	< 0.02	ND	40	86	50	140	91	50	140
pp-DDT	GCM0470-JUL21	µg/g	0.02	< 0.02	ND	40	87	50	140	79	50	140

QC SUMMARY

Petroleum Hydrocarbons (F1)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F1 (C6-C10)	GCM0448-JUL21	µg/g	10	<10	ND	30	96	80	120	97	60	140

Petroleum Hydrocarbons (F2-F4)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F2 (C10-C16)	GCM0456-JUL21	µg/g	10	<10	ND	30	97	80	120	97	60	140
F3 (C16-C34)	GCM0456-JUL21	µg/g	50	<50	ND	30	97	80	120	97	60	140
F4 (C34-C50)	GCM0456-JUL21	µg/g	50	<50	ND	30	97	80	120	97	60	140



# FINAL REPORT

CA14737-JUL21 R

## QC SUMMARY

### Volatile Organics

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-IENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Benzene	GCM0448-JUL21	µg/g	0.02	<0.02	ND	50	84	60	130	86	50	140
Ethylbenzene	GCM0448-JUL21	µg/g	0.05	<0.05	ND	50	78	60	130	84	50	140
m/p-xylene	GCM0448-JUL21	µg/g	0.05	<0.05	ND	50	81	60	130	88	50	140
o-xylene	GCM0448-JUL21	µg/g	0.05	<0.05	ND	50	80	60	130	88	50	140
Toluene	GCM0448-JUL21	µg/g	0.05	<0.05	ND	50	81	60	130	85	50	140

### Water Soluble Boron

Method: O.Req. 15 3/04 | Internal ref.: ME-CA-IENVI SPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Water Soluble Boron	ESG0068-JUL21	µg/g	0.5	<0.5	ND	20	100	80	120	93	70	130

## QC SUMMARY

---

**Method Blank:** a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

**Duplicate:** Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

**LCS/Spike Blank:** Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

**Matrix Spike:** A sample to which a known amount of the analyte of interest has been added. Used to evaluate laboratory accuracy with sample matrix effects.

**Reference Material:** a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

**RL:** Reporting limit

**RPD:** Relative percent difference

**AC:** Acceptance criteria

**Multielement Scan Qualifier:** as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

**Duplicate Qualifier:** for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

**Matrix Spike Qualifier:** for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

## LEGEND

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### FOOTNOTES

- NSS** Insufficient sample for analysis.
- RL** Reporting Limit.
  - ↑ Reporting limit raised.
  - ↓ Reporting limit lowered.
- NA** The sample was not analysed for this analyte
- ND** Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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-- End of Analytical Report --

## Request for Laboratory Services and CHAIN OF CUSTODY

Received By: **CAVIN GRIFFIN**  
 Received Date: **14 Feb 2020** (mm/dd/yy)  
 Received Time: **14:30** (hr : min)

Received By (signature): *[Signature]*  
 Custody Seal Present: Yes  No   
 Custody Seal Intact: Yes  No

Cooling Agent Present: Yes  No   
 Temperature Upon Receipt (°C): **9.10** Type: **Ice**

LAB LIMS #: **CA14737-14738**  
 P.O. #: \_\_\_\_\_  
 Site Location/ID: \_\_\_\_\_

### REPORT INFORMATION

Company: **Camblum Inc**  
 Contact: **Bernie Taylor**  
 Address: **144 Sophie St, Peterborough**  
 Phone: **705-768-4749**  
 Fax: \_\_\_\_\_  
 Email: **Bernie.Taylor@camblum-mc.com**

### INVOICE INFORMATION

(same as Report Information)  
 Company: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_

### REGULATIONS

O.Reg 153/04  O.Reg 406/19  
 Table 1  Rest/Park  Soil Texture:  
 Table 2  Ind/Com  Coarse  
 Table 3  Agr/Other  Medium/Fine  
 Soil Volume  <350m3  >350m3  
 Other Regulations: \_\_\_\_\_  
 Reg 347/558 (3 Day min TAT)  
 PW/OO  M/MER  
 C/CME  Other: \_\_\_\_\_  
 MISA   
 Sewer By-Law: \_\_\_\_\_  
 Sanitary   
 Storm   
 Municipality: \_\_\_\_\_  
 O.D.W.S. Not Reportable \*See note

M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)	TCLP
Field Filtered (Y/N)							
<b>Metals &amp; Inorganics</b> <small>Incl CrVI, CN, Hg pH, (B)(HWS), EC, SAR - soil (Cl, Na-water)</small>							
<b>Full Metals Suite</b> <small>ICP metals plus B(HWS-soil only) Hg, CrVI</small>							
<b>ICP Metals only</b> <small>Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Pb, Mo, Ni</small>							
<b>PAHs only</b>							
<b>SVOCs</b> <small>all incl PAHs, ABNs, CPs</small>							
<b>PCBs</b> <input type="checkbox"/> Total <input type="checkbox"/> Aroclor							
<b>F1-F4 + BTEX</b>							
<b>F1-F4 only</b> <small>no BTEX</small>							
<b>VOCs</b> <small>all incl BTEX</small>							
<b>BTEX only</b>							
<b>Pesticides</b> <small>Organochlorine or specify other</small>							
<b>Appendix 2: 406/19 Leachate Screening Levels Table :</b>							
<b>Sewer Use:</b> <small>Specify pkg.</small>							
<b>Water Characterization Pkg</b> General <input type="checkbox"/> Extended <input type="checkbox"/>							
<input type="checkbox"/> TCLP tests							
<input type="checkbox"/> MxI							
<input type="checkbox"/> VOC							
<input type="checkbox"/> PCB							
<input type="checkbox"/> B(a)P							
<input type="checkbox"/> AABN							
<input type="checkbox"/> Ignit.							

COMMENTS:

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX	RECORD OF SITE CONDITION (RSC)	
					YES	NO
1 B4105-0.05	21-07-23	-	3	Soil		
2 B4107-0.3-0.6	11	-	2	W		
3 B4106-0.3-0.6	11	-	2	W		
4						
5						
6						
7						
8						
9						
10						
11						
12						

Observations/Comments/Special Instructions

Sampled By (NAME): **Connor Frater** Signature: *[Signature]* Date: **27.12.2017** (mm/dd/yy)  
 Relinquished by (NAME): **Connor Frater** Signature: *[Signature]* Date: **07.23.20** (mm/dd/yy)

Revision # 1.4  
 Date of Issue: 22 May, 2020  
 Note: Submission of samples to SGS is acknowledgement that you have been provided direction on sample collection, handling and transportation of samples. (2) Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). (3) Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under its General Conditions of Service accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). (Printed copies are available upon request.) Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.



## FINAL REPORT

CA15634-JUL21 R

12579-002, 1490 County Rd 28

Prepared for

**Cambium Inc.**

**First Page**

CLIENT DETAILS		LABORATORY DETAILS	
Client	Cambium Inc.	Project Specialist	Brad Moore Hon. B.Sc
Address	194 Sofia Street Peterborough, ON K9H 1E3, Canada	Laboratory	SGS Canada Inc.
Contact	Bernie Taylor	Address	185 Concession St., Lakefield ON, K0L 2H0
Telephone	705-742-7900 ext 200	Telephone	705-652-2143
Facsimile	705-742-7907	Facsimile	705-652-6365
Email	bernie.taylor@cambium-inc.com; file@cambium-inc.com	Email	brad.moore@sgs.com
Project	12579-002, 1490 County Rd 28	SGS Reference	CA15634-JUL21
Order Number		Received	07/26/2021
Samples	Ground Water (1)	Approved	08/03/2021
		Report Number	CA15634-JUL21 R
		Date Reported	08/03/2021

**COMMENTS**

CCME Method Compliance: Analyses were conducted using analytical procedures that comply with the Reference Method for the CWS for Petroleum Hydrocarbons in Soil and have been validated for use at the SGS laboratory, Lakefield, ON site.

Quality Compliance: Instrument performance / calibration quality criteria were met and extraction and analysis limits for holding times were met.

nC6 and nC10 response factors within 30% of response factor for toluene: YES

nC10, nC16 and nC34 response factors within 10% of the average response for the three compounds: YES

C50 response factors within 70% of nC10 + nC16 + nC34 average: YES

Linearity is within 15%: YES

F4G - gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

The results for F4 and F4G are both reported and the greater of the two values is to be used in application to the CWS PHC.

Benzo(b)fluoranthene results for comparison to the standard are reported as benzo(b+j)fluoranthene. Benzo(b)fluoranthene and benzo(j)fluoranthene co-elute and cannot be reported individually by the analytical method used.

Temperature of Sample upon Receipt: 19 degrees C

Cooling Agent Present: Yes

Custody Seal Present: Yes

Chain of Custody Number: 022158

PHC F2 (C10-C16), F3 (C16-C34), F4 (C34-C50) Matrix Spike recovery is outside control limits due to sample heterogeneity.

**SIGNATORIES**

Brad Moore Hon. B.Sc



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# FINAL REPORT

CA15634-JUL21 R

**Client:** Cambium Inc.

**Project:** 12579-002, 1490 County Rd 28

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

PACKAGE: **REG153 - BTEX (WATER)**

**Sample Number** 7  
**Sample Name** BH108  
**Sample Matrix** Ground Water  
**Sample Date** 26/07/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>BTEX</b>				
Benzene	µg/L	0.5	0.5	< 0.5
Ethylbenzene	µg/L	0.5	0.5	< 0.5
Toluene	µg/L	0.5	0.8	< 0.5
Xylene (total)	µg/L	0.5	72	< 0.5
m/p-xylene	µg/L	0.5		< 0.5
o-xylene	µg/L	0.5		< 0.5

PACKAGE: **REG153 - Hydrides (WATER)**

**Sample Number** 7  
**Sample Name** BH108  
**Sample Matrix** Ground Water  
**Sample Date** 26/07/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Hydrides</b>				
Antimony	µg/L	0.9	1.5	< 0.9
Arsenic	µg/L	0.2	13	0.5
Selenium	µg/L	0.04	5	0.82



# FINAL REPORT

CA15634-JUL21 R

**Client:** Cambium Inc.

**Project:** 12579-002, 1490 County Rd 28

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

PACKAGE: REG153 - Metals and Inorganics

Sample Number 7

(WATER)

Sample Name BH108

Sample Matrix Ground Water

Sample Date 26/07/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Metals and Inorganics</b>				
Barium	µg/L	0.02	610	195
Beryllium	µg/L	0.007	0.5	< 0.007
Boron	µg/L	2	1700	49
Cadmium	µg/L	0.003	0.5	0.004
Chromium	µg/L	0.08	11	0.40
Cobalt	µg/L	0.004	3.8	0.078
Copper	µg/L	0.2	5	0.8
Lead	µg/L	0.09	1.9	< 0.09
Molybdenum	µg/L	0.04	23	1.84
Nickel	µg/L	0.1	14	0.2
Silver	µg/L	0.05	0.3	< 0.05
Thallium	µg/L	0.005	0.5	0.026
Uranium	µg/L	0.002	8.9	0.607
Vanadium	µg/L	0.01	3.9	0.86
Zinc	µg/L	2	160	2



# FINAL REPORT

CA15634-JUL21 R

**Client:** Cambium Inc.

**Project:** 12579-002, 1490 County Rd 28

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

PACKAGE: **REG153 - Na (WATER)**

**Sample Number** 7  
**Sample Name** BH108  
**Sample Matrix** Ground Water  
**Sample Date** 26/07/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Na</b>				
Sodium	µg/L	10	490000	5320

PACKAGE: **REG153 - Other (ORP) (WATER)**

**Sample Number** 7  
**Sample Name** BH108  
**Sample Matrix** Ground Water  
**Sample Date** 26/07/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Other (ORP)</b>				
Mercury (total)	µg/L	0.01	0.1	< 0.01
Chromium VI	µg/L	0.2	25	0.3

PACKAGE: **REG153 - PHCs (WATER)**

**Sample Number** 7  
**Sample Name** BH108  
**Sample Matrix** Ground Water  
**Sample Date** 26/07/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>PHCs</b>				
F1 (C6-C10)	µg/L	25	420	< 25
F1-BTEX (C6-C10)	µg/L	25		< 25
F2 (C10-C16)	µg/L	100	150	< 100
F3 (C16-C34)	µg/L	200	500	< 200
F4 (C34-C50)	µg/L	200	500	< 200
Chromatogram returned to baseline at nC50	Yes / No	-		YES



# FINAL REPORT

CA15634-JUL21 R

**Client:** Cambium Inc.

**Project:** 12579-002, 1490 County Rd 28

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

PACKAGE: **REG153 - THMs (VOC)** (WATER)

**Sample Number** 7  
**Sample Name** BH108  
**Sample Matrix** Ground Water  
**Sample Date** 26/07/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>THMs (VOC)</b>				
Bromodichloromethane	µg/L	0.5	2	< 0.5
Bromoform	µg/L	0.5	5	< 0.5
Dibromochloromethane	µg/L	0.5	2	< 0.5

PACKAGE: **REG153 - VOC Surrogates** (WATER)

**Sample Number** 7  
**Sample Name** BH108  
**Sample Matrix** Ground Water  
**Sample Date** 26/07/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>VOC Surrogates</b>				
Surr 1,2-Dichloroethane-d4	Surr Rec %	-		100
Surr 2-Bromo-1-Chloropropane	Surr Rec %	-		100
Surr 4-Bromofluorobenzene	Surr Rec %	-		95

PACKAGE: **REG153 - VOCs** (WATER)

**Sample Number** 7  
**Sample Name** BH108  
**Sample Matrix** Ground Water  
**Sample Date** 26/07/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>VOCs</b>				
Acetone	µg/L	30	2700	< 30
Bromomethane	µg/L	0.5	0.89	< 0.5
Carbon tetrachloride	µg/L	0.2	0.2	< 0.2
Chlorobenzene	µg/L	0.5	0.5	< 0.5



# FINAL REPORT

CA15634-JUL21 R

**Client:** Cambium Inc.

**Project:** 12579-002, 1490 County Rd 28

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

PACKAGE: **REG153 - VOCs (WATER)**

**Sample Number** 7  
**Sample Name** BH108  
**Sample Matrix** Ground Water  
**Sample Date** 26/07/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>VOCs (continued)</b>				
Chloroform	µg/L	0.5	2	< 0.5
1,2-Dichlorobenzene	µg/L	0.5	0.5	< 0.5
1,3-Dichlorobenzene	µg/L	0.5	0.5	< 0.5
1,4-Dichlorobenzene	µg/L	0.5	0.5	< 0.5
Dichlorodifluoromethane	µg/L	2.0	590	< 2
1,1-Dichloroethane	µg/L	0.5	0.5	< 0.5
1,2-Dichloroethane	µg/L	0.5	0.5	< 0.5
1,1-Dichloroethylene	µg/L	0.5	0.5	< 0.5
trans-1,2-Dichloroethene	µg/L	0.5	1.6	< 0.5
cis-1,2-Dichloroethene	µg/L	0.5	1.6	< 0.5
1,2-Dichloropropane	µg/L	0.5	0.5	< 0.5
cis-1,3-Dichloropropene	µg/L	0.5		< 0.5
trans-1,3-Dichloropropene	µg/L	0.5		< 0.5
1,3-dichloropropene (total)	µg/L	0.5	0.5	< 0.5
Ethylenedibromide	µg/L	0.2	0.2	< 0.2
n-Hexane	µg/L	1.0	5	< 1
Methyl ethyl ketone	µg/L	20	400	< 20
Methyl Isobutyl Ketone	µg/L	20	640	< 20
Methyl-t-butyl Ether	µg/L	2.0	15	< 2
Methylene Chloride	µg/L	0.5	5	< 0.5
Styrene	µg/L	0.5	0.5	< 0.5
Tetrachloroethylene	µg/L	0.5	0.5	< 0.5
1,1,1,2-Tetrachloroethane	µg/L	0.5	1.1	< 0.5



# FINAL REPORT

CA15634-JUL21 R

**Client:** Cambium Inc.

**Project:** 12579-002, 1490 County Rd 28

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

PACKAGE: REG153 - VOCs (WATER)

**Sample Number** 7

**Sample Name** BH108

**Sample Matrix** Ground Water

**Sample Date** 26/07/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>VOCs (continued)</b>				
1,1,2,2-Tetrachloroethane	µg/L	0.5	0.5	< 0.5
1,1,1-Trichloroethane	µg/L	0.5	0.5	< 0.5
1,1,2-Trichloroethane	µg/L	0.5	0.5	< 0.5
Trichloroethylene	µg/L	0.5	0.5	< 0.5
Trichlorofluoromethane	µg/L	5.0	150	< 5
Vinyl Chloride	µg/L	0.2	0.5	< 0.2

**EXCEEDANCE SUMMARY**

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No exceedances are present above the regulatory limit(s) indicated



# FINAL REPORT

CA15634-JUL21 R

## QC SUMMARY

### Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-IENVISKA-LAK-AN-012

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Chromium VI	SKA0266-JUL21	ug/L	0.2	<0.2	ND	20	103	80	120	93	75	125

### Mercury by CVAAS

Method: SM 3112/SM 3112B | Internal ref.: ME-CA-IENVISPE-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Mercury (total)	EHG0029-JUL21	ug/L	0.01	< 0.01	ND	20	117	80	120	114	70	130



# FINAL REPORT

CA15634-JUL21 R

## QC SUMMARY

Metals in aqueous samples - ICP-MS

Method: SM 3030/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0163-JUL21	ug/L	0.05	<0.05	ND	20	105	90	110	100	70	130
Arsenic	EMS0163-JUL21	µg/L	0.2	<0.2	ND	20	102	90	110	100	70	130
Barium	EMS0163-JUL21	µg/L	0.02	<0.02	ND	20	101	90	110	101	70	130
Beryllium	EMS0163-JUL21	µg/L	0.007	<0.07	ND	20	92	90	110	87	70	130
Cadmium	EMS0163-JUL21	µg/L	0.003	<0.003	ND	20	104	90	110	105	70	130
Cobalt	EMS0163-JUL21	µg/L	0.004	<0.004	ND	20	101	90	110	101	70	130
Chromium	EMS0163-JUL21	ug/L	0.08	<0.08	ND	20	99	90	110	97	70	130
Copper	EMS0163-JUL21	ug/L	0.2	<0.2	17	20	99	90	110	104	70	130
Molybdenum	EMS0163-JUL21	ug/L	0.04	<0.04	ND	20	101	90	110	104	70	130
Sodium	EMS0163-JUL21	ug/L	10	<0.01	ND	20	90	90	110	99	70	130
Nickel	EMS0163-JUL21	µg/L	0.1	<0.1	ND	20	97	90	110	99	70	130
Lead	EMS0163-JUL21	ug/L	0.09	<0.01	ND	20	99	90	110	101	70	130
Antimony	EMS0163-JUL21	ug/L	0.9	<0.9	ND	20	105	90	110	109	70	130
Selenium	EMS0163-JUL21	µg/L	0.04	<0.04	ND	20	101	90	110	112	70	130
Thallium	EMS0163-JUL21	µg/L	0.005	<0.005	ND	20	99	90	110	102	70	130
Uranium	EMS0163-JUL21	µg/L	0.002	<0.002	ND	20	91	90	110	96	70	130
Vanadium	EMS0163-JUL21	µg/L	0.01	0.001	ND	20	99	90	110	105	70	130
Zinc	EMS0163-JUL21	µg/L	2	0.009	ND	20	103	90	110	116	70	130
Boron	EMS0177-JUL21	µg/L	2	<2	11	20	106	90	110	97	70	130



# FINAL REPORT

CA15634-JUL21 R

## QC SUMMARY

### Petroleum Hydrocarbons (F1)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F1 (C6-C10)	GCM0520-JUL21	µg/L	25	<25	ND	30	96	60	140	77	60	140

### Petroleum Hydrocarbons (F2-F4)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F2 (C10-C16)	GCM0481-JUL21	µg/L	100	<100	ND	30	84	60	140	53	60	140
F3 (C16-C34)	GCM0481-JUL21	µg/L	200	<200	ND	30	84	60	140	53	60	140
F4 (C34-C50)	GCM0481-JUL21	µg/L	200	<200	ND	30	84	60	140	53	60	140

## QC SUMMARY

### Volatile Organics

Method: EPA 5030B/8260C | Internal ref.: ME-CA-ENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1,1,1,2-Tetrachloroethane	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	97	60	130	99	50	140
1,1,1-Trichloroethane	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	93	60	130	96	50	140
1,1,1,2,2-Tetrachloroethane	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	97	60	130	99	50	140
1,1,2-Trichloroethane	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	103	60	130	100	50	140
1,1-Dichloroethane	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	94	60	130	96	50	140
1,1-Dichloroethylene	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	93	60	130	95	50	140
1,2-Dichlorobenzene	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	96	60	130	99	50	140
1,2-Dichloroethane	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	97	60	130	100	50	140
1,2-Dichloropropane	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	96	60	130	98	50	140
1,3-Dichlorobenzene	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	95	60	130	98	50	140
1,4-Dichlorobenzene	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	96	60	130	99	50	140
Acetone	GCM0489-JUL21	ug/L	30	<30	ND	30	94	60	130	93	50	140
Benzene	GCM0489-JUL21	µg/L	0.5	<0.5	ND	30	95	60	130	98	50	140
Bromodichloromethane	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	100	60	130	100	50	140
Bromoform	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	100	60	130	100	50	140
Bromomethane	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	99	50	140	102	50	140
Carbon tetrachloride	GCM0489-JUL21	ug/L	0.2	<0.2	ND	30	96	60	130	98	50	140
Chlorobenzene	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	95	60	130	97	50	140
Chloroform	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	97	60	130	97	50	140
cis-1,2-Dichloroethene	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	96	60	130	96	50	140

## QC SUMMARY

### Volatile Organics (continued)

Method: EPA 5030B/8260C | Internal ref.: ME-CA-ENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
cis-1,3-Dichloropropene	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	100	60	130	100	50	140
Dibromochloromethane	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	99	60	130	101	50	140
Dichlorodifluoromethane	GCM0489-JUL21	ug/L	2.0	<2	ND	30	74	50	140	73	50	140
Ethylbenzene	GCM0489-JUL21	µg/L	0.5	<0.5	ND	30	93	60	130	97	50	140
Ethylenedibromide	GCM0489-JUL21	ug/L	0.2	<0.2	ND	30	102	60	130	100	50	140
n-Hexane	GCM0489-JUL21	ug/L	1.0	<1	ND	30	83	60	130	84	50	140
m/p-xylene	GCM0489-JUL21	µg/L	0.5	<0.5	ND	30	93	60	130	96	50	140
Methyl ethyl ketone	GCM0489-JUL21	ug/L	20	<20	ND	30	101	60	130	97	50	140
Methyl Isobutyl Ketone	GCM0489-JUL21	ug/L	20	<20	ND	30	96	50	140	91	50	140
Methyl-t-butyl Ether	GCM0489-JUL21	ug/L	2.0	<2	ND	30	105	60	130	100	50	140
Methylene Chloride	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	96	60	130	97	50	140
o-xylene	GCM0489-JUL21	µg/L	0.5	<0.5	ND	30	93	60	130	97	50	140
Styrene	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	95	60	130	98	50	140
Tetrachloroethylene	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	95	60	130	98	50	140
Toluene	GCM0489-JUL21	µg/L	0.5	<0.5	ND	30	94	60	130	97	50	140
trans-1,2-Dichloroethene	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	93	60	130	96	50	140
trans-1,3-Dichloropropene	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	97	60	130	98	50	140
Trichloroethylene	GCM0489-JUL21	ug/L	0.5	<0.5	ND	30	95	60	130	98	50	140
Trichlorofluoromethane	GCM0489-JUL21	ug/L	5.0	<5	ND	30	88	50	140	90	50	140
Vinyl Chloride	GCM0489-JUL21	ug/L	0.2	<0.2	ND	30	87	60	130	88	50	140

## QC SUMMARY

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**Method Blank:** a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

**Duplicate:** Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

**LCS/Spike Blank:** Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

**Matrix Spike:** A sample to which a known amount of the analyte of interest has been added. Used to evaluate laboratory accuracy with sample matrix effects.

**Reference Material:** a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

**RL:** Reporting limit

**RPD:** Relative percent difference

**AC:** Acceptance criteria

**Multielement Scan Qualifier:** as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

**Duplicate Qualifier:** for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

**Matrix Spike Qualifier:** for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

**LEGEND**

---

**FOOTNOTES**

**NSS** Insufficient sample for analysis.  
**RL** Reporting Limit.  
    ↑ Reporting limit raised.  
    ↓ Reporting limit lowered.  
**NA** The sample was not analysed for this analyte  
**ND** Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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-- End of Analytical Report --





## FINAL REPORT

CA15428-JUL21 R

12579-002

Prepared for

**Cambium Inc.**

## First Page

### CLIENT DETAILS

Client Cambium Inc.  
 Address 194 Sofia Street  
 Peterborough, ON  
 K9H 1E3, Canada  
 Contact Bernie Taylor  
 Telephone 705-742-7900 ext 200  
 Facsimile 705-742-7907  
 Email bernie.taylor@cambium-inc.com; file@cambium-inc.com  
 Project 12579-002  
 Order Number  
 Samples Soil (1)

### LABORATORY DETAILS

Project Specialist Brad Moore Hon. B.Sc  
 Laboratory SGS Canada Inc.  
 Address 185 Concession St., Lakefield ON, K0L 2H0  
 Telephone 705-652-2143  
 Facsimile 705-652-6365  
 Email brad.moore@sgs.com  
 SGS Reference CA15428-JUL21  
 Received 07/27/2021  
 Approved 08/04/2021  
 Report Number CA15428-JUL21 R  
 Date Reported 08/04/2021

### COMMENTS

Temperature of Sample upon Receipt: 10 degrees C  
 Cooling Agent Present: Yes  
 Custody Seal Present: Yes  
 Chain of Custody Number: 022156

### SIGNATORIES

Brad Moore Hon. B.Sc



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# FINAL REPORT

CA15428-JUL21 R

**Client:** Cambium Inc.

**Project:** 12579-002

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

**PACKAGE: REG153 - Hydrides (SOIL)**

**Sample Number** 8  
**Sample Name** BH204\_0.7-1.3  
**Sample Matrix** Soil  
**Sample Date** 26/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Hydrides</b>				
Antimony	µg/g	0.8	1.3	< 0.8
Arsenic	µg/g	0.5	18	1.5
Selenium	µg/g	0.7	1.5	< 0.7

**PACKAGE: REG153 - Metals and Inorganics (SOIL)**

**Sample Number** 8  
**Sample Name** BH204\_0.7-1.3  
**Sample Matrix** Soil  
**Sample Date** 26/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Metals and Inorganics</b>				
Moisture Content	%	-		5.1
Barium	µg/g	0.1	220	33
Beryllium	µg/g	0.02	2.5	0.23
Boron	µg/g	1	36	4
Cadmium	µg/g	0.02	1.2	0.04
Chromium	µg/g	0.5	70	7.5
Cobalt	µg/g	0.01	21	3.0
Copper	µg/g	0.1	92	5.7
Lead	µg/g	0.1	120	3.0
Molybdenum	µg/g	0.1	2	0.2
Nickel	µg/g	0.5	82	5.4
Silver	µg/g	0.05	0.5	< 0.05



# FINAL REPORT

CA15428-JUL21 R

**Client:** Cambium Inc.

**Project:** 12579-002

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

PACKAGE: **REG153 - Metals and Inorganics**

(SOIL)

**Sample Number** 8

**Sample Name** BH204\_0.7-1.3

**Sample Matrix** Soil

**Sample Date** 26/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Metals and Inorganics (continued)</b>				
Thallium	µg/g	0.02	1	0.07
Uranium	µg/g	0.002	2.5	0.41
Vanadium	µg/g	3	86	13
Zinc	µg/g	0.7	290	15
Water Soluble Boron	µg/g	0.5		< 0.5

PACKAGE: **REG153 - Other (ORP)** (SOIL)

**Sample Number** 8

**Sample Name** BH204\_0.7-1.3

**Sample Matrix** Soil

**Sample Date** 26/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Other (ORP)</b>				
Mercury	ug/g	0.05	0.27	< 0.05
Sodium Adsorption Ratio	No unit	0.2	2.4	< 0.2
SAR Calcium	mg/L	0.2		18.2
SAR Magnesium	mg/L	0.3		0.9
SAR Sodium	mg/L	0.1		2.5
Conductivity	mS/cm	0.002	0.57	0.11
pH	pH Units	0.05		7.93
Chromium VI	µg/g	0.2	0.66	< 0.2
Free Cyanide	µg/g	0.05	0.051	< 0.05

**EXCEEDANCE SUMMARY**

---

No exceedances are present above the regulatory limit(s) indicated



# FINAL REPORT

CA15428-JUL21 R

## QC SUMMARY

### Conductivity

Method: EPA 6010/SM 2510 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Conductivity	EWL0471-JUL21	mS/cm	0.002	<0.002	0	10	99	90	110	NA		

### Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-IENVISFA-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Free Cyanide	SKA5105-JUL21	µg/g	0.05	<0.05	ND	20	96	80	120	95	75	125

### Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-IENVISKA-LAK-AN-012

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Chromium VI	SKA5122-JUL21	ug/g	0.2	<0.2	ND	20	109	80	120	87	75	125



# FINAL REPORT

CA15428-JUL21 R

## QC SUMMARY

### Mercury by CVAAS

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-IENVISPE-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Mercury	EMS0159-JUL21	ug/g	0.05	<0.05	ND	20	106	80	120	93	70	130

### Metals in aqueous samples - ICP-OES

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-IENVISPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
SAR Calcium	ESG0079-JUL21	mg/L	0.2	<0.09	3	20	102	80	120	102	70	130
SAR Magnesium	ESG0079-JUL21	mg/L	0.3	<0.02	3	20	102	80	120	103	70	130
SAR Sodium	ESG0079-JUL21	mg/L	0.1	<0.15	0	20	102	80	120	95	70	130

## QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0159-JUL21	ug/g	0.05	<0.05	9	20	99	70	130	89	70	130
Arsenic	EMS0159-JUL21	µg/g	0.5	<0.5	1	20	102	70	130	89	70	130
Barium	EMS0159-JUL21	ug/g	0.1	<0.1	1	20	108	70	130	90	70	130
Beryllium	EMS0159-JUL21	µg/g	0.02	<0.02	3	20	100	70	130	89	70	130
Boron	EMS0159-JUL21	µg/g	1	<1	1	20	105	70	130	89	70	130
Cadmium	EMS0159-JUL21	µg/g	0.02	<0.02	12	20	102	70	130	91	70	130
Cobalt	EMS0159-JUL21	µg/g	0.01	<0.01	3	20	102	70	130	94	70	130
Chromium	EMS0159-JUL21	µg/g	0.5	<0.5	2	20	104	70	130	94	70	130
Copper	EMS0159-JUL21	µg/g	0.1	<0.1	1	20	100	70	130	90	70	130
Molybdenum	EMS0159-JUL21	µg/g	0.1	<0.1	ND	20	100	70	130	104	70	130
Nickel	EMS0159-JUL21	ug/g	0.5	<0.5	3	20	101	70	130	91	70	130
Lead	EMS0159-JUL21	µg/g	0.1	<0.1	0	20	101	70	130	90	70	130
Antimony	EMS0159-JUL21	µg/g	0.8	<0.8	ND	20	98	70	130	NV	70	130
Selenium	EMS0159-JUL21	µg/g	0.7	<0.7	ND	20	102	70	130	88	70	130
Thallium	EMS0159-JUL21	µg/g	0.02	<0.02	2	20	103	70	130	86	70	130
Uranium	EMS0159-JUL21	µg/g	0.002	<0.002	6	20	99	70	130	87	70	130
Vanadium	EMS0159-JUL21	µg/g	3	<3	4	20	102	70	130	96	70	130
Zinc	EMS0159-JUL21	µg/g	0.7	<0.7	2	20	100	70	130	88	70	130



# FINAL REPORT

CA15428-JUL21 R

## QC SUMMARY

### pH

Method: SM 4500 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-001

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
pH	ARD0129-JUL21	pH Units	0.05		0	20	100	80	120			

### Water Soluble Boron

Method: O.Reg. 15 3/04 | Internal ref.: ME-CA-IENVI SPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Water Soluble Boron	ESG0076-JUL21	µg/g	0.5	<0.5	ND	20	109	80	120	103	70 130	

## QC SUMMARY

---

**Method Blank:** a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

**Duplicate:** Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

**LCS/Spike Blank:** Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

**Matrix Spike:** A sample to which a known amount of the analyte of interest has been added. Used to evaluate laboratory accuracy with sample matrix effects.

**Reference Material:** a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

**RL:** Reporting limit

**RPD:** Relative percent difference

**AC:** Acceptance criteria

**Multielement Scan Qualifier:** as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

**Duplicate Qualifier:** for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

**Matrix Spike Qualifier:** for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

**LEGEND**

---

**FOOTNOTES**

**NSS** Insufficient sample for analysis.  
**RL** Reporting Limit.  
    ↑ Reporting limit raised.  
    ↓ Reporting limit lowered.  
**NA** The sample was not analysed for this analyte  
**ND** Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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-- End of Analytical Report --

## Request for Laboratory Services and CHAIN OF CUSTODY

### Laboratory Information Section - Lab use only

Received By: N. F. Sharm  
 Received Date: 01/27/21 (mm/dd/yy)  
 Received Time: 10:55 (hr : min)

Received By (signature): N. F. Sharm  
 Custody Seal Present: Yes  No   
 Custody Seal Intact: Yes  No   
 Cooling Agent Present: Yes  No   
 Temperature Upon Receipt (°C): 9.10 Type: ICE

LAB LIMS # CA15428-ju21

### REPORT INFORMATION

Company: Combium Inc  
 Contact: Bonnie Taylor  
 Address: 144 Sophia Street  
Peterborough  
 Phone: 705-768-4749  
 Fax: 705-768-4749  
 Email: bonnie.taylor@combium.com

### INVOICE INFORMATION

(same as Report Information)  
 Company: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_

Quotation #: \_\_\_\_\_  
 Project #: 12529-002

P.O. #: \_\_\_\_\_  
 Site Location/ID: \_\_\_\_\_

### TURNAROUND TIME (TAT) REQUIRED

Regular TAT (5-7days)  
**RUSH TAT (Additional Charges May Apply):**  1 Day  2 Days  3 Days  4 Days  
**PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION**

TAT's are quoted in business days (exclude statutory holidays & weekends).  
 Samples received after 6pm or on weekends: TAT begins next business day

REGULATIONS

O.Reg 153/04  O.Reg 406/19

Other Regulations:  
 Reg 347/558 (3 Day min TAT)  
 PWCO  MMER  
 CCME  Other: \_\_\_\_\_  
 MSA  
 ODIWS Not Reportable \*See note

Soil Volume:  <350m3  >350m3

### ANALYSIS REQUESTED

\*NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX	ANALYSIS REQUESTED														
					M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)	TCLP							
1 BH204-07-1.3	21-07-20	-	2		<input checked="" type="checkbox"/>														
2 BH204-6.8-7.4	11	-	3		<input checked="" type="checkbox"/>														
3 BH202-0.75-1.2	11	-	1		<input checked="" type="checkbox"/>														
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

### COMMENTS:

APP on hold  
 Full  
 methods on hold

Observations/Comments/Special Instructions

Sampled By (NAME): Connor Hooper

Signature: \_\_\_\_\_

Date: 07.06.21 (mm/dd/yy)

Pink Copy - Client

Relinquished by (NAME): Connor Hooper

Signature: \_\_\_\_\_

Date: 07.07.21 (mm/dd/yy)

Yellow & White Copy - SGS

Note: Submission of samples to SGS is acknowledgement that you have provided directions for sample collection, handling and transportation of samples. (2) Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). (3) Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under its General Conditions of Service accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). (Printed copies are available upon request). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.



## FINAL REPORT

CA19686-JUL21 R

12579-001

Prepared for

**Cambium Inc.**

## First Page

### CLIENT DETAILS

Client Cambium Inc.  
 Address 194 Sofia Street  
 Peterborough, ON  
 K9H 1E3. Canada  
 Contact Bernie Taylor  
 Telephone 705-742-7900 ext 200  
 Facsimile 705-742-7907  
 Email bernie.taylor@cambium-inc.com; file@cambium-inc.com  
 Project 12579-001  
 Order Number  
 Samples Soil (2)

### LABORATORY DETAILS

Project Specialist Jill Campbell, B.Sc.,GISAS  
 Laboratory SGS Canada Inc.  
 Address 185 Concession St., Lakefield ON, K0L 2H0  
 Telephone 2165  
 Facsimile 705-652-6365  
 Email jill.campbell@sgs.com  
 SGS Reference CA19686-JUL21  
 Received 07/29/2021  
 Approved 08/05/2021  
 Report Number CA19686-JUL21 R  
 Date Reported 08/05/2021

### COMMENTS

Temperature of Sample upon Receipt: 4 degrees C  
 Cooling Agent Present:Yes  
 Custody Seal Present:Yes  
 Chain of Custody Number:021357

### SIGNATORIES

Jill Campbell, B.Sc.,GISAS





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# FINAL REPORT

CA19686-JUL21 R

Client: Cambium Inc.

Project: 12579-001

Project Manager: Bernie Taylor

Samplers: Connor Frazer

## PACKAGE: REG153 - Metals and Inorganics (SOIL)

Sample Number 8 9

Sample Name BH201\_0.3-0.6 BH207\_0.75-1.2  
Sample Matrix Soil Soil  
Sample Date 27/07/2021 27/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result
<b>Metals and Inorganics</b>					
Moisture Content	%	-		18.1	14.1

## PACKAGE: REG153 - Organochlorine Pests (OCs) (SOIL)

Sample Number 8 9

Sample Name BH201\_0.3-0.6 BH207\_0.75-1.2  
Sample Matrix Soil Soil  
Sample Date 27/07/2021 27/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result
<b>Organochlorine Pests (OCs)</b>					
Aldrin	µg/g	0.05	0.05	< 0.05	< 0.05
alpha-Chlordane	µg/g	0.02		< 0.02	< 0.02
gamma-Chlordane	µg/g	0.02		< 0.02	< 0.02
Chlordane (total)	µg/g	0.05	0.05	< 0.05	< 0.05
o,p-DDD	µg/g	0.02		< 0.02	< 0.02
pp-DDD	µg/g	0.02		< 0.02	< 0.02
DDD (total)	µg/g	0.05	0.05	< 0.05	< 0.05
o,p-DDE	µg/g	0.02		< 0.02	< 0.02
pp-DDE	µg/g	0.02		< 0.02	< 0.02
DDE (total)	µg/g	0.05	0.05	< 0.05	< 0.05
op-DDT	µg/g	0.02		< 0.02	< 0.02
pp-DDT	µg/g	0.02		< 0.02	< 0.02
DDT (total)	µg/g	0.05	1.4	< 0.05	< 0.05
Dieldrin	µg/g	0.05	0.05	< 0.05	< 0.05
gamma-BHC	µg/g	0.01	0.01	< 0.01	< 0.01



# FINAL REPORT

CA19686-JUL21 R

Client: Cambium Inc.

Project: 12579-001

Project Manager: Bernie Taylor

Samplers: Connor Frazer

PACKAGE: REG153 - Organochlorine Pests

(OCs) (SOIL)

Sample Number 8 9

Sample Name BH201\_0.3-0.6 BH207\_0.75-1.2

Sample Matrix Soil Soil

Sample Date 27/07/2021 27/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result
<b>Organochlorine Pests (OCs) (continued)</b>					
Endosulfan I	µg/g	0.02		< 0.02	< 0.02
Endosulfan II	µg/g	0.02		< 0.02	< 0.02
Endosulfan (total)	µg/g	0.04	0.04	< 0.04	< 0.04
Endrin	µg/g	0.04	0.04	< 0.04	< 0.04
Heptachlor	µg/g	0.01	0.05	< 0.01	< 0.01
Heptachlor epoxide	µg/g	0.01	0.05	< 0.01	< 0.01
Hexachlorobenzene	µg/g	0.01	0.01	< 0.01	< 0.01
Hexachlorobutadiene	µg/g	0.01	0.01	< 0.01	< 0.01
Hexachloroethane	µg/g	0.01	0.01	< 0.01	< 0.01
Methoxychlor	µg/g	0.05	0.05	< 0.05	< 0.05



# FINAL REPORT

CA19686-JUL21 R

Client: Cambium Inc.

Project: 12579-001

Project Manager: Bernie Taylor

Samplers: Connor Frazer

PACKAGE: **REG153 - Pesticides Surrogate (SOIL)**

<b>Sample Number</b>	8	9
<b>Sample Name</b>	BH201_0.3-0.6	BH207_0.75-1.2
<b>Sample Matrix</b>	Soil	Soil
<b>Sample Date</b>	27/07/2021	27/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result
<b>Pesticides Surrogate</b>					
Surr Decachlorobiphenyl	Surr Rec %	-		80	76

PACKAGE: **REG153 - VOC Surrogates (SOIL)**

<b>Sample Number</b>	8	9
<b>Sample Name</b>	BH201_0.3-0.6	BH207_0.75-1.2
<b>Sample Matrix</b>	Soil	Soil
<b>Sample Date</b>	27/07/2021	27/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result
<b>VOC Surrogates</b>					
Surr TCMX	Surr Rec %	-		77	80

**EXCEEDANCE SUMMARY**

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No exceedances are present above the regulatory limit(s) indicated

## QC SUMMARY

### Pesticides

Method: EPA 3541/8270D | Internal ref.: ME-CA-IENVIGC-LAK-AN-018

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Aldrin	GCM0010-AUG21	µg/g	0.05	< 0.05	ND	40	89	50	140	66	50	140
alpha-Chlordane	GCM0010-AUG21	µg/g	0.02	< 0.02	ND	40	86	50	140	63	50	140
Dieldrin	GCM0010-AUG21	µg/g	0.05	< 0.05	ND	40	86	50	140	68	50	140
Endosulfan I	GCM0010-AUG21	µg/g	0.02	< 0.02	ND	40	91	50	140	69	50	140
Endosulfan II	GCM0010-AUG21	µg/g	0.02	< 0.02	ND	40	83	50	140	75	50	140
Endrin	GCM0010-AUG21	µg/g	0.04	< 0.04	ND	40	81	50	140	72	50	140
gamma-BHC	GCM0010-AUG21	µg/g	0.01	< 0.01	ND	40	89	50	140	82	50	140
gamma-Chlordane	GCM0010-AUG21	µg/g	0.02	< 0.02	ND	40	87	50	140	63	50	140
Heptachlor epoxide	GCM0010-AUG21	µg/g	0.01	< 0.01	ND	40	86	50	140	65	50	140
Heptachlor	GCM0010-AUG21	µg/g	0.01	< 0.01	ND	40	83	50	140	68	50	140
Hexachlorobenzene	GCM0010-AUG21	µg/g	0.01	< 0.01	ND	40	90	50	140	68	50	140
Hexachlorobutadiene	GCM0010-AUG21	µg/g	0.01	< 0.01	ND	40	86	50	140	70	50	140
Hexachloroethane	GCM0010-AUG21	µg/g	0.01	< 0.01	ND	40	80	50	140	71	50	140
Methoxychlor	GCM0010-AUG21	µg/g	0.05	< 0.05	ND	40	80	50	140	100	50	140
o,p-DDD	GCM0010-AUG21	µg/g	0.02	< 0.02	ND	40	84	50	140	63	50	140
o,p-DDE	GCM0010-AUG21	µg/g	0.02	< 0.02	ND	40	90	50	140	65	50	140
op-DDT	GCM0010-AUG21	µg/g	0.02	< 0.02	ND	40	82	50	140	73	50	140
pp-DDD	GCM0010-AUG21	µg/g	0.02	< 0.02	ND	40	78	50	140	61	50	140
pp-DDE	GCM0010-AUG21	µg/g	0.02	< 0.02	ND	40	90	50	140	64	50	140
pp-DDT	GCM0010-AUG21	µg/g	0.02	< 0.02	ND	40	78	50	140	78	50	140

## QC SUMMARY

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**Method Blank:** a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

**Duplicate:** Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

**LCS/Spike Blank:** Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

**Matrix Spike:** A sample to which a known amount of the analyte of interest has been added. Used to evaluate laboratory accuracy with sample matrix effects.

**Reference Material:** a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

**RL:** Reporting limit

**RPD:** Relative percent difference

**AC:** Acceptance criteria

**Multielement Scan Qualifier:** as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

**Duplicate Qualifier:** for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

**Matrix Spike Qualifier:** for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

**LEGEND**

---

**FOOTNOTES**

**NSS** Insufficient sample for analysis.  
**RL** Reporting Limit.  
    ↑ Reporting limit raised.  
    ↓ Reporting limit lowered.  
**NA** The sample was not analysed for this analyte  
**ND** Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

This report must not be reproduced, except in full. This report supersedes all previous versions.

-- End of Analytical Report --

Received By: Watesherm  
 Received Date: 07/29/21 (mm/dd/yy)  
 Received Time: 09:30 (hr : min)

Received By (signature): Watesherm  
 Custody Seal Present: Yes  No   
 Cooling Agent Present: Yes  No   
 Temperature Upon Receipt (°C) 36.4

LAB LIMS # CA19686-JUL21

**REPORT INFORMATION**

Company: Cambium Inc  
 Contact: Bernie Taylor  
 Address: 194 Sophia Street  
Peterborough  
 Phone: 705-768-4749  
 Fax: bernie.taylor@gmail.com  
 Email: \_\_\_\_\_

**INVOICE INFORMATION**

(same as Report Information)  
 Company: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_

Quotation #: \_\_\_\_\_ P.O. #: \_\_\_\_\_  
 Project #: 12579-001 Site Location/ID: \_\_\_\_\_  
**TURNAROUND TIME (TAT) REQUIRED**  
 TAT's are quoted in business days (exclude statutory holidays & weekends).  
 Samples received after 6pm or on weekends: TAT begins next business day  
 Regular TAT (5-7days)  
 RUSH TAT (Additional Charges May Apply):  1 Day  2 Days  3 Days  4 Days  
**PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION**  
 Specify Due Date: \_\_\_\_\_  
 \*NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

**REGULATIONS**

O.Reg 153/04  O.Reg 406/19  
 Table 1  Res/Park  Soil Texture:  
 Table 2  Ind/Com  Coarse  
 Table 3  Agri/Other  Medium/Fine  
 Table \_\_\_\_\_  
 Soil Volume  <350m3  >350m3

**Other Regulations:**  
 Reg 347/558 (3 Day min TAT)  
 PWQO  MMER  
 CCME  Other:  
 MISA  
 ODWS Not Reportable \*See note

**Sewer By-Law:**  
 Sanitary  
 Storm  
 Municipality:

**RECORD OF SITE CONDITION (RSC)** YES  NO

**SAMPLE IDENTIFICATION**

**DATE SAMPLED** **TIME SAMPLED** **# OF BOTTLES** **MATRIX**

	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX
1	BH201-0.3-0.6	07-27-21	2	Soil
2	BH207-0.75-1.2	07-27-21	2	Soil
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

**ANALYSIS REQUESTED**

M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)	TCLP
Field Filtered (Y/N)	PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor	F1-F4 only	VOCs all incl BTEX	BTEX only	Appendix 2: 406/19 Leachate Screening Levels Table: Sewer Use: Specify pkg: Water Characterization Pkg	Specify TCLP tests M&I VOC PCB B(a)P ABN Ignit.
Metals & Inorganics (incl CN, Cu, Hg, Pb, Se, Ag, Ni, Cr, Mn, Fe, Zn, Cd, Ni, As, Sb, Ba, Be, B, Br, Ca, Co, Cr, Cu, Pb, Mo, Ni, Cl, Na-water)	SVOCs all incl PAHs, ABNS, CFS		F1-F4 + BTEX				
Full Metals Suite ICP metals plus B(HWS-soil only) Hg, Cr, Mn	PAHs only						
ICP Metals only Sb, Ba, Be, B, Cd, Cr, Co, Cu, Pb, Mo, Ni							
Pesticides Organochlorine or specify other							

**COMMENTS:**

MPATHSON  
hold  
Please saw  
EDD Files

Observations/Comments/Special Instructions

Sampled By (NAME): Conor Frazier Signature: \_\_\_\_\_ Date: 07/27/21 (mm/dd/yy)  
 Relinquished by (NAME): Conor Frazier Signature: \_\_\_\_\_ Date: 07/27/21 (mm/dd/yy)  
 Revision # 1.4  
 Date of Issue: 22 May, 2020  
 Note: Submission of samples to SGS is acknowledgement that you have been provided direction on sample collection/handling and transportation of samples. (2) Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). (3) Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under its General Conditions of Service accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). (Printed copies are available upon request.) Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Pink Copy - Client  
 Yellow & White Copy - SGS



## FINAL REPORT

CA19685-JUL21 R1

12579-001

Prepared for

**Cambium Inc.**

## First Page

### CLIENT DETAILS

Client Cambium Inc.  
 Address 194 Sofia Street  
 Peterborough, ON  
 K9H 1E3, Canada  
 Contact Bernie Taylor  
 Telephone 705-742-7900 ext 200  
 Facsimile 705-742-7907  
 Email bernie.taylor@cambium-inc.com; file@cambium-inc.com  
 Project 12579-001  
 Order Number  
 Samples Soil (2)

### LABORATORY DETAILS

Project Specialist Maarit Wolfe, Hon.B.Sc  
 Laboratory SGS Canada Inc.  
 Address 185 Concession St., Lakefield ON, K0L 2H0  
 Telephone 705-652-2000  
 Facsimile 705-652-6365  
 Email Maarit.Wolfe@sgs.com  
 SGS Reference CA19685-JUL21  
 Received 07/29/2021  
 Approved 08/06/2021  
 Report Number CA19685-JUL21 R1  
 Date Reported 08/06/2021

### COMMENTS

CCME Method Compliance: Analyses were conducted using analytical procedures that comply with the Reference Method for the CWS for Petroleum Hydrocarbons in Soil and have been validated for use at the SGS laboratory, Lakefield, ON site.

Quality Compliance: Instrument performance / calibration quality criteria were met and extraction and analysis limits for holding times were met.

nC6 and nC10 response factors within 30% of response factor for toluene: YES

nC10, nC16 and nC34 response factors within 10% of the average response for the three compounds: YES

C50 response factors within 70% of nC10 + nC16 + nC34 average: YES

Linearity is within 15%: YES

F4G - gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

The results for F4 and F4G are both reported and the greater of the two values is to be used in application to the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

Benzo(b)fluoranthene results for comparison to the standard are reported as benzo(b+j)fluoranthene. Benzo(b)fluoranthene and benzo(j)fluoranthene co-elute and cannot be reported individually by the analytical method used.

Temperature of Sample upon Receipt: 4 degrees C

Cooling Agent Present: Yes

Custody Seal Present: Yes

Chain of Custody Number: 021356

### SIGNATORIES

Maarit Wolfe, Hon.B.Sc



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# FINAL REPORT

CA19685-JUL21 R1

Client: Cambium Inc.

Project: 12579-001

Project Manager: Bernie Taylor

Samplers: Connor Frazer

PACKAGE: **REG153 - Hydrides (SOIL)**

Sample Number 8  
Sample Name BH205\_0.75-1.2  
Sample Matrix Soil  
Sample Date 28/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Hydrides</b>				
Antimony	µg/g	0.8	1.3	< 0.8
Arsenic	µg/g	0.5	18	0.8
Selenium	µg/g	0.7	1.5	< 0.7

PACKAGE: **REG153 - Metals and Inorganics (SOIL)**

Sample Number 8 9  
Sample Name BH205\_0.75-1.2 BH206\_0.3-0.6  
Sample Matrix Soil Soil  
Sample Date 28/07/2021 28/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result
<b>Metals and Inorganics</b>					
Moisture Content	%	-		7.3	23.1
Barium	µg/g	0.1	220	20	
Beryllium	µg/g	0.02	2.5	0.22	
Boron	µg/g	1	36	< 1	
Cadmium	µg/g	0.02	1.2	0.03	
Chromium	µg/g	0.5	70	16	
Cobalt	µg/g	0.01	21	4.5	
Copper	µg/g	0.1	92	21	
Lead	µg/g	0.1	120	5.8	
Molybdenum	µg/g	0.1	2	0.4	
Nickel	µg/g	0.5	82	10.0	
Silver	µg/g	0.05	0.5	< 0.05	
Thallium	µg/g	0.02	1	0.05	
Uranium	µg/g	0.002	2.5	2.6	



# FINAL REPORT

CA19685-JUL21 R1

Client: Cambium Inc.

Project: 12579-001

Project Manager: Bernie Taylor

Samplers: Connor Frazer

PACKAGE: **REG153 - Metals and Inorganics**  
(SOIL)

Sample Number 8 9

Sample Name BH205\_0.75-1.2 BH206\_0.3-0.6  
Sample Matrix Soil Soil  
Sample Date 28/07/2021 28/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result
<b>Metals and Inorganics (continued)</b>					
Vanadium	µg/g	3	86	21	
Zinc	µg/g	0.7	290	19	
Water Soluble Boron	µg/g	0.5		< 0.5	

PACKAGE: **REG153 - Organochlorine Pests**  
(OCs) (SOIL)

Sample Number 9

Sample Name BH206\_0.3-0.6  
Sample Matrix Soil  
Sample Date 28/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Organochlorine Pests (OCs)</b>				
Aldrin	µg/g	0.05	0.05	< 0.05
alpha-Chlordane	µg/g	0.02		< 0.02
gamma-Chlordane	µg/g	0.02		< 0.02
Chlordane (total)	µg/g	0.05	0.05	< 0.05
o,p-DDD	µg/g	0.02		< 0.02
pp-DDD	µg/g	0.02		< 0.02
DDD (total)	µg/g	0.05	0.05	< 0.05
o,p-DDE	µg/g	0.02		< 0.02
pp-DDE	µg/g	0.02		< 0.02
DDE (total)	µg/g	0.05	0.05	< 0.05
op-DDT	µg/g	0.02		< 0.02
pp-DDT	µg/g	0.02		< 0.02
DDT (total)	µg/g	0.05	1.4	< 0.05



# FINAL REPORT

CA19685-JUL21 R1

**Client:** Cambium Inc.

**Project:** 12579-001

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

PACKAGE: **REG153 - Organochlorine Pests**

**Sample Number** 9

**(OCs) (SOIL)**

**Sample Name** BH206\_0.3-0.6

**Sample Matrix** Soil

**Sample Date** 28/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Organochlorine Pests (OCs) (continued)</b>				
Dieldrin	µg/g	0.05	0.05	< 0.05
gamma-BHC	µg/g	0.01	0.01	< 0.01
Endosulfan I	µg/g	0.02		< 0.02
Endosulfan II	µg/g	0.02		< 0.02
Endosulfan (total)	µg/g	0.04	0.04	< 0.04
Endrin	µg/g	0.04	0.04	< 0.04
Heptachlor	µg/g	0.01	0.05	< 0.01
Heptachlor epoxide	µg/g	0.01	0.05	< 0.01
Hexachlorobenzene	µg/g	0.01	0.01	< 0.01
Hexachlorobutadiene	µg/g	0.01	0.01	< 0.01
Hexachloroethane	µg/g	0.01	0.01	< 0.01
Methoxychlor	µg/g	0.05	0.05	< 0.05



# FINAL REPORT

CA19685-JUL21 R1

Client: Cambium Inc.

Project: 12579-001

Project Manager: Bernie Taylor

Samplers: Connor Frazer

PACKAGE: **REG153 - Other (ORP) (SOIL)**

Sample Number 8  
Sample Name BH205\_0.75-1.2  
Sample Matrix Soil  
Sample Date 28/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Other (ORP)</b>				
Mercury	ug/g	0.05	0.27	< 0.05
Chromium VI	µg/g	0.2	0.66	< 0.2

PACKAGE: **REG153 - Pesticides Surrogate (SOIL)**

Sample Number 9  
Sample Name BH206\_0.3-0.6  
Sample Matrix Soil  
Sample Date 28/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Pesticides Surrogate</b>				
Surr Decachlorobiphenyl	Surr Rec %	-		76

PACKAGE: **REG153 - VOC Surrogates (SOIL)**

Sample Number 9  
Sample Name BH206\_0.3-0.6  
Sample Matrix Soil  
Sample Date 28/07/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result
<b>VOC Surrogates</b>				
Surr TCMX	Surr Rec %	-		85

## EXCEEDANCE SUMMARY

Parameter	Method	Units	Result	REG153 / SOIL / COARSE - TABLE 1 - Residential/Parklan d/Industrial - UNDEFINED L1
-----------	--------	-------	--------	------------------------------------------------------------------------------------------------------

### BH205\_0.75-1.2

Uranium	EPA 3050/EPA 200.8	µg/g	2.6	2.5
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# FINAL REPORT

CA19685-JUL21 R1

## QC SUMMARY

### Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-IENVISKA-LAK-AN-012

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Chromium VI	SKA5006-AUG21	ug/g	0.2	<0.2	ND	20	94	80	120	83	75	125

### Mercury by CVAAS

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-IENVISPE-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Mercury	EMS0171-JUL21	ug/g	0.05	<0.05	8	20	104	80	120	92	70	130



# FINAL REPORT

CA19685-JUL21 R1

## QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0171-JUL21	ug/g	0.05	<0.05	ND	20	100	70	130	94	70	130
Arsenic	EMS0171-JUL21	µg/g	0.5	<0.5	1	20	104	70	130	94	70	130
Barium	EMS0171-JUL21	ug/g	0.1	<0.1	2	20	105	70	130	92	70	130
Beryllium	EMS0171-JUL21	µg/g	0.02	<0.02	1	20	99	70	130	92	70	130
Boron	EMS0171-JUL21	µg/g	1	<1	9	20	103	70	130	90	70	130
Cadmium	EMS0171-JUL21	µg/g	0.02	<0.02	6	20	102	70	130	92	70	130
Cobalt	EMS0171-JUL21	µg/g	0.01	<0.01	1	20	103	70	130	97	70	130
Chromium	EMS0171-JUL21	µg/g	0.5	<0.5	3	20	104	70	130	97	70	130
Copper	EMS0171-JUL21	µg/g	0.1	<0.1	1	20	103	70	130	93	70	130
Molybdenum	EMS0171-JUL21	µg/g	0.1	<0.1	3	20	92	70	130	93	70	130
Nickel	EMS0171-JUL21	ug/g	0.5	<0.5	1	20	103	70	130	97	70	130
Lead	EMS0171-JUL21	µg/g	0.1	<0.1	14	20	105	70	130	95	70	130
Antimony	EMS0171-JUL21	µg/g	0.8	<0.8	ND	20	100	70	130	84	70	130
Selenium	EMS0171-JUL21	µg/g	0.7	<0.7	ND	20	103	70	130	92	70	130
Thallium	EMS0171-JUL21	µg/g	0.02	<0.02	ND	20	106	70	130	90	70	130
Uranium	EMS0171-JUL21	µg/g	0.002	<0.002	3	20	105	70	130	119	70	130
Vanadium	EMS0171-JUL21	µg/g	3	<3	1	20	103	70	130	99	70	130
Zinc	EMS0171-JUL21	µg/g	0.7	<0.7	0	20	102	70	130	92	70	130

## QC SUMMARY

### Pesticides

Method: EPA 3541/8270D | Internal ref.: ME-CA-IENVIGC-LAK-AN-018

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Aldrin	GCM0010-AUG21	µg/g	0.05	< 0.05	ND	40	89	50	140	66	50	140
alpha-Chlordane	GCM0010-AUG21	µg/g	0.02	< 0.02	ND	40	86	50	140	63	50	140
Dieldrin	GCM0010-AUG21	µg/g	0.05	< 0.05	ND	40	86	50	140	68	50	140
Endosulfan I	GCM0010-AUG21	µg/g	0.02	< 0.02	ND	40	91	50	140	69	50	140
Endosulfan II	GCM0010-AUG21	µg/g	0.02	< 0.02	ND	40	83	50	140	75	50	140
Endrin	GCM0010-AUG21	µg/g	0.04	< 0.04	ND	40	81	50	140	72	50	140
gamma-BHC	GCM0010-AUG21	µg/g	0.01	< 0.01	ND	40	89	50	140	82	50	140
gamma-Chlordane	GCM0010-AUG21	µg/g	0.02	< 0.02	ND	40	87	50	140	63	50	140
Heptachlor epoxide	GCM0010-AUG21	µg/g	0.01	< 0.01	ND	40	86	50	140	65	50	140
Heptachlor	GCM0010-AUG21	µg/g	0.01	< 0.01	ND	40	83	50	140	68	50	140
Hexachlorobenzene	GCM0010-AUG21	µg/g	0.01	< 0.01	ND	40	90	50	140	68	50	140
Hexachlorobutadiene	GCM0010-AUG21	µg/g	0.01	< 0.01	ND	40	86	50	140	70	50	140
Hexachloroethane	GCM0010-AUG21	µg/g	0.01	< 0.01	ND	40	80	50	140	71	50	140
Methoxychlor	GCM0010-AUG21	µg/g	0.05	< 0.05	ND	40	80	50	140	100	50	140
o,p-DDD	GCM0010-AUG21	µg/g	0.02	< 0.02	ND	40	84	50	140	63	50	140
o,p-DDE	GCM0010-AUG21	µg/g	0.02	< 0.02	ND	40	90	50	140	65	50	140
op-DDT	GCM0010-AUG21	µg/g	0.02	< 0.02	ND	40	82	50	140	73	50	140
pp-DDD	GCM0010-AUG21	µg/g	0.02	< 0.02	ND	40	78	50	140	61	50	140
pp-DDE	GCM0010-AUG21	µg/g	0.02	< 0.02	ND	40	90	50	140	64	50	140
pp-DDT	GCM0010-AUG21	µg/g	0.02	< 0.02	ND	40	78	50	140	78	50	140

## QC SUMMARY

### Water Soluble Boron

Method: O.Reg. 15 3/04 | Internal ref.: ME-CA-IENV1 SPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Water Soluble Boron	ESG0082-JUL21	µg/g	0.5	<0.5	ND	20	100	80	120	103	70	130

**Method Blank:** a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

**Duplicate:** Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

**LCS/Spike Blank:** Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

**Matrix Spike:** A sample to which a known amount of the analyte of interest has been added. Used to evaluate laboratory accuracy with sample matrix effects.

**Reference Material:** a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

**Multielement Scan Qualifier:** as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

**Duplicate Qualifier:** for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

**Matrix Spike Qualifier:** for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

**LEGEND****FOOTNOTES**

**NSS** Insufficient sample for analysis.  
**RL** Reporting Limit.  
    ↑ Reporting limit raised.  
    ↓ Reporting limit lowered.  
**NA** The sample was not analysed for this analyte  
**ND** Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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-- End of Analytical Report --





## FINAL REPORT

CA15014-AUG21 R

12579-002

Prepared for

**Cambium Inc.**

**First Page**

CLIENT DETAILS		LABORATORY DETAILS	
Client	Cambium Inc.	Project Specialist	Brad Moore Hon. B.Sc
Address	194 Sofia Street Peterborough, ON K9H 1E3, Canada	Laboratory	SGS Canada Inc.
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Email	bernie.taylor@cambium-inc.com; file@cambium-inc.com	Email	brad.moore@sgs.com
Project	12579-002	SGS Reference	CA15014-AUG21
Order Number		Received	08/04/2021
Samples	Ground Water (1)	Approved	08/13/2021
		Report Number	CA15014-AUG21 R
		Date Reported	08/13/2021

**COMMENTS**

CCME Method Compliance: Analyses were conducted using analytical procedures that comply with the Reference Method for the CWS for Petroleum Hydrocarbons in Soil and have been validated for use at the SGS laboratory, Lakefield, ON site.

Quality Compliance: Instrument performance / calibration quality criteria were met and extraction and analysis limits for holding times were met.

nC6 and nC10 response factors within 30% of response factor for toluene: YES

nC10, nC16 and nC34 response factors within 10% of the average response for the three compounds: YES

C50 response factors within 70% of nC10 + nC16 + nC34 average: YES

Linearity is within 15%: YES

F4G - gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

The results for F4 and F4G are both reported and the greater of the two values is to be used in application to the CWS PHC.

Temperature of Sample upon Receipt: 12 degrees C

Cooling Agent Present: Yes

Custody Seal Present: Yes

Chain of Custody Number: 025799

**SIGNATORIES**

Brad Moore Hon. B.Sc



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# FINAL REPORT

CA15014-AUG21 R

**Client:** Cambium Inc.

**Project:** 12579-002

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

PACKAGE: **REG153 - BTEX (WATER)**

**Sample Number** 7  
**Sample Name** BH204  
**Sample Matrix** Ground Water  
**Sample Date** 04/08/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>BTEX</b>				
Benzene	ug/L	0.5	0.5	< 0.5
Ethylbenzene	ug/L	0.5	0.5	< 0.5
Toluene	ug/L	0.5	0.8	1.2
Xylene (total)	ug/L	0.5	72	1.0
m/p-xylene	ug/L	0.5		0.7
o-xylene	ug/L	0.5		< 0.5

PACKAGE: **REG153 - Hydrides (WATER)**

**Sample Number** 7  
**Sample Name** BH204  
**Sample Matrix** Ground Water  
**Sample Date** 04/08/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Hydrides</b>				
Antimony	µg/L	0.9	1.5	< 0.9
Arsenic	µg/L	0.2	13	0.6
Selenium	µg/L	0.04	5	0.27



# FINAL REPORT

CA15014-AUG21 R

**Client:** Cambium Inc.

**Project:** 12579-002

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

PACKAGE: REG153 - Metals and Inorganics

(WATER)

**Sample Number** 7

**Sample Name** BH204

**Sample Matrix** Ground Water

**Sample Date** 04/08/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Metals and Inorganics</b>				
Barium	µg/L	0.02	610	61.6
Beryllium	µg/L	0.007	0.5	< 0.007
Boron	µg/L	2	1700	101
Cadmium	µg/L	0.003	0.5	0.003
Chromium	µg/L	0.08	11	0.12
Cobalt	µg/L	0.004	3.8	0.559
Copper	µg/L	0.2	5	2.5
Lead	µg/L	0.09	1.9	0.10
Molybdenum	µg/L	0.04	23	5.74
Nickel	µg/L	0.1	14	2.1
Silver	µg/L	0.05	0.3	< 0.05
Thallium	µg/L	0.005	0.5	0.009
Uranium	µg/L	0.002	8.9	2.79
Vanadium	µg/L	0.01	3.9	0.64
Zinc	µg/L	2	160	6



# FINAL REPORT

CA15014-AUG21 R

**Client:** Cambium Inc.

**Project:** 12579-002

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

**PACKAGE: REG153 - Na (WATER)**

**Sample Number** 7  
**Sample Name** BH204  
**Sample Matrix** Ground Water  
**Sample Date** 04/08/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Na</b>				
Sodium	µg/L	10	490000	26500

**PACKAGE: REG153 - Other (ORP) (WATER)**

**Sample Number** 7  
**Sample Name** BH204  
**Sample Matrix** Ground Water  
**Sample Date** 04/08/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>Other (ORP)</b>				
Mercury (total)	µg/L	0.01	0.1	< 0.01
Chromium VI	µg/L	0.2	25	< 0.2

**PACKAGE: REG153 - PHCs (WATER)**

**Sample Number** 7  
**Sample Name** BH204  
**Sample Matrix** Ground Water  
**Sample Date** 04/08/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>PHCs</b>				
F2 (C10-C16)	µg/L	100	150	< 100
F3 (C16-C34)	µg/L	200	500	< 200
F4 (C34-C50)	µg/L	200	500	< 200
Chromatogram returned to baseline at nC50	Yes / No	-		YES



# FINAL REPORT

CA15014-AUG21 R

**Client:** Cambium Inc.

**Project:** 12579-002

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

PACKAGE: **REG153 - THMs (VOC)** (WATER)

**Sample Number** 7  
**Sample Name** BH204  
**Sample Matrix** Ground Water  
**Sample Date** 04/08/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>THMs (VOC)</b>				
Bromodichloromethane	µg/L	0.5	2	< 0.5
Bromoform	µg/L	0.5	5	< 0.5
Dibromochloromethane	µg/L	0.5	2	< 0.5

PACKAGE: **REG153 - VOC Surrogates** (WATER)

**Sample Number** 7  
**Sample Name** BH204  
**Sample Matrix** Ground Water  
**Sample Date** 04/08/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>VOC Surrogates</b>				
Surr 1,2-Dichloroethane-d4	Surr Rec %	-		100
Surr 2-Bromo-1-Chloropropane	Surr Rec %	-		100
Surr 4-Bromofluorobenzene	Surr Rec %	-		93

PACKAGE: **REG153 - VOCs** (WATER)

**Sample Number** 7  
**Sample Name** BH204  
**Sample Matrix** Ground Water  
**Sample Date** 04/08/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>VOCs</b>				
Acetone	µg/L	30	2700	< 30
Bromomethane	µg/L	0.5	0.89	< 0.5
Carbon tetrachloride	µg/L	0.2	0.2	< 0.2
Chlorobenzene	µg/L	0.5	0.5	< 0.5



# FINAL REPORT

CA15014-AUG21 R

**Client:** Cambium Inc.

**Project:** 12579-002

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

PACKAGE: **REG153 - VOCs (WATER)**

**Sample Number** 7

**Sample Name** BH204

**Sample Matrix** Ground Water

**Sample Date** 04/08/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>VOCs (continued)</b>				
Chloroform	µg/L	0.5	2	< 0.5
1,2-Dichlorobenzene	µg/L	0.5	0.5	< 0.5
1,3-Dichlorobenzene	µg/L	0.5	0.5	< 0.5
1,4-Dichlorobenzene	µg/L	0.5	0.5	< 0.5
Dichlorodifluoromethane	µg/L	2.0	590	< 2
1,1-Dichloroethane	µg/L	0.5	0.5	< 0.5
1,2-Dichloroethane	µg/L	0.5	0.5	< 0.5
1,1-Dichloroethylene	µg/L	0.5	0.5	< 0.5
trans-1,2-Dichloroethene	µg/L	0.5	1.6	< 0.5
cis-1,2-Dichloroethene	µg/L	0.5	1.6	< 0.5
1,2-Dichloropropane	µg/L	0.5	0.5	< 0.5
cis-1,3-Dichloropropene	µg/L	0.5		< 0.5
trans-1,3-Dichloropropene	µg/L	0.5		< 0.5
1,3-dichloropropene (total)	µg/L	0.5	0.5	< 0.5
Ethylenedibromide	µg/L	0.2	0.2	< 0.2
n-Hexane	µg/L	1.0	5	< 1
Methyl ethyl ketone	µg/L	20	400	< 20
Methyl Isobutyl Ketone	µg/L	20	640	< 20
Methyl-t-butyl Ether	µg/L	2.0	15	< 2
Methylene Chloride	µg/L	0.5	5	< 0.5
Styrene	µg/L	0.5	0.5	< 0.5
Tetrachloroethylene	µg/L	0.5	0.5	< 0.5
1,1,1,2-Tetrachloroethane	µg/L	0.5	1.1	< 0.5



# FINAL REPORT

CA15014-AUG21 R

**Client:** Cambium Inc.

**Project:** 12579-002

**Project Manager:** Bernie Taylor

**Samplers:** Connor Frazer

PACKAGE: REG153 - VOCs (WATER)

**Sample Number** 7

**Sample Name** BH204

**Sample Matrix** Ground Water

**Sample Date** 04/08/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result
<b>VOCs (continued)</b>				
1,1,2,2-Tetrachloroethane	µg/L	0.5	0.5	< 0.5
1,1,1-Trichloroethane	µg/L	0.5	0.5	< 0.5
1,1,2-Trichloroethane	µg/L	0.5	0.5	< 0.5
Trichloroethylene	µg/L	0.5	0.5	< 0.5
Trichlorofluoromethane	µg/L	5.0	150	< 5
Vinyl Chloride	µg/L	0.2	0.5	< 0.2

## EXCEEDANCE SUMMARY

Parameter	Method	Units	Result	REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED L1
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### BH204

Toluene	EPA 5030B/8260C	µg/L	1.2	0.8
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# FINAL REPORT

CA15014-AUG21 R

## QC SUMMARY

### Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-IENVISKA-LAK-AN-012

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Chromium VI	SKA0044-AUG21	ug/L	0.2	<0.2	6	20	99	80	120	NV	75	125

### Mercury by CVAAS

Method: SM 3112/SM 3112B | Internal ref.: ME-CA-IENVISPE-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Mercury (total)	EHG0007-AUG21	ug/L	0.01	< 0.01	ND	20	101	80	120	102	70	130

QC SUMMARY

Metals in aqueous samples - ICP-MS

Method: SM 3030/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0019-AUG21	ug/L	0.05	<0.05	ND	20	101	90	110	94	70	130
Arsenic	EMS0019-AUG21	ug/L	0.2	<0.0002	5	20	100	90	110	95	70	130
Barium	EMS0019-AUG21	ug/L	0.02	<0.00002	6	20	97	90	110	99	70	130
Beryllium	EMS0019-AUG21	ug/L	0.007	<0.07	ND	20	94	90	110	97	70	130
Boron	EMS0019-AUG21	ug/L	2	<2	0	20	101	90	110	98	70	130
Cadmium	EMS0019-AUG21	ug/L	0.003	<0.003	ND	20	99	90	110	101	70	130
Cobalt	EMS0019-AUG21	ug/L	0.004	<0.004	8	20	98	90	110	94	70	130
Chromium	EMS0019-AUG21	ug/L	0.08	<0.08	15	20	98	90	110	98	70	130
Copper	EMS0019-AUG21	ug/L	0.2	<0.2	6	20	97	90	110	92	70	130
Molybdenum	EMS0019-AUG21	ug/L	0.04	<0.04	10	20	98	90	110	98	70	130
Sodium	EMS0019-AUG21	ug/L	10	<0.01	2	20	101	90	110	113	70	130
Nickel	EMS0019-AUG21	ug/L	0.1	<0.1	3	20	95	90	110	94	70	130
Lead	EMS0019-AUG21	ug/L	0.09	<0.01	3	20	98	90	110	113	70	130
Antimony	EMS0019-AUG21	ug/L	0.9	<0.9	ND	20	96	90	110	95	70	130
Selenium	EMS0019-AUG21	ug/L	0.04	<0.04	15	20	101	90	110	100	70	130
Thallium	EMS0019-AUG21	ug/L	0.005	<0.005	ND	20	91	90	110	93	70	130
Uranium	EMS0019-AUG21	ug/L	0.002	<0.002	20	20	101	90	110	102	70	130
Vanadium	EMS0019-AUG21	ug/L	0.01	<0.00001	6	20	99	90	110	102	70	130
Zinc	EMS0019-AUG21	ug/L	2	<0.002	ND	20	98	90	110	114	70	130

QC SUMMARY

Petroleum Hydrocarbons (F2-F4)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F2 (C10-C16)	GCM0083-AUG21	µg/L	100	<100	ND	30	95	60	140	106	60	140
F3 (C16-C34)	GCM0083-AUG21	µg/L	200	<200	ND	30	95	60	140	106	60	140
F4 (C34-C50)	GCM0083-AUG21	µg/L	200	<200	ND	30	95	60	140	106	60	140

QC SUMMARY

Volatile Organics

Method: EPA 5030B/8260C | Internal ref.: ME-CA-ENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1,1,1,2-Tetrachloroethane	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	102	60	130	107	50	140
1,1,1-Trichloroethane	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	96	60	130	98	50	140
1,1,2,2-Tetrachloroethane	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	99	60	130	109	50	140
1,1,2-Trichloroethane	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	99	60	130	107	50	140
1,1-Dichloroethane	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	97	60	130	96	50	140
1,1-Dichloroethylene	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	98	60	130	98	50	140
1,2-Dichlorobenzene	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	98	60	130	105	50	140
1,2-Dichloroethane	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	98	60	130	99	50	140
1,2-Dichloropropane	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	99	60	130	97	50	140
1,3-Dichlorobenzene	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	100	60	130	104	50	140
1,4-Dichlorobenzene	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	99	60	130	104	50	140
Acetone	GCM0105-AUG21	ug/L	30	<30	ND	30	90	60	130	86	50	140
Benzene	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	97	60	130	98	50	140
Bromodichloromethane	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	99	60	130	102	50	140
Bromoform	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	99	60	130	105	50	140
Bromomethane	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	108	50	140	109	50	140
Carbon tetrachloride	GCM0105-AUG21	ug/L	0.2	<0.2	ND	30	95	60	130	98	50	140
Chlorobenzene	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	102	60	130	105	50	140
Chloroform	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	99	60	130	100	50	140
cis-1,2-Dichloroethene	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	97	60	130	96	50	140

QC SUMMARY

Volatile Organics (continued)

Method: EPA 5030B/8260C | Internal ref.: ME-CA-ENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
cis-1,3-Dichloropropene	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	99	60	130	101	50	140
Dibromochloromethane	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	98	60	130	102	50	140
Dichlorodifluoromethane	GCM0105-AUG21	ug/L	2.0	<2	ND	30	111	50	140	106	50	140
Ethylbenzene	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	102	60	130	103	50	140
Ethylenedibromide	GCM0105-AUG21	ug/L	0.2	<0.2	ND	30	98	60	130	101	50	140
n-Hexane	GCM0105-AUG21	ug/L	1.0	<1	ND	30	93	60	130	95	50	140
m/p-xylene	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	100	60	130	102	50	140
Methyl ethyl ketone	GCM0105-AUG21	ug/L	20	<20	ND	30	89	60	130	90	50	140
Methyl Isobutyl Ketone	GCM0105-AUG21	ug/L	20	<20	ND	30	86	50	140	87	50	140
Methyl-t-butyl Ether	GCM0105-AUG21	ug/L	2.0	<2	ND	30	94	60	130	95	50	140
Methylene Chloride	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	97	60	130	99	50	140
o-xylene	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	101	60	130	103	50	140
Styrene	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	101	60	130	106	50	140
Tetrachloroethylene	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	96	60	130	99	50	140
Toluene	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	99	60	130	99	50	140
trans-1,2-Dichloroethene	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	99	60	130	96	50	140
trans-1,3-Dichloropropene	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	97	60	130	99	50	140
Trichloroethylene	GCM0105-AUG21	ug/L	0.5	<0.5	ND	30	97	60	130	98	50	140
Trichlorofluoromethane	GCM0105-AUG21	ug/L	5.0	<5	ND	30	105	50	140	106	50	140
Vinyl Chloride	GCM0105-AUG21	ug/L	0.2	<0.2	ND	30	105	60	130	103	50	140

## QC SUMMARY

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**Method Blank:** a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

**Duplicate:** Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

**LCS/Spike Blank:** Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

**Matrix Spike:** A sample to which a known amount of the analyte of interest has been added. Used to evaluate laboratory accuracy with sample matrix effects.

**Reference Material:** a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

**RL:** Reporting limit

**RPD:** Relative percent difference

**AC:** Acceptance criteria

**Multielement Scan Qualifier:** as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

**Duplicate Qualifier:** for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

**Matrix Spike Qualifier:** for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

## LEGEND

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### FOOTNOTES

**NSS** Insufficient sample for analysis.  
**RL** Reporting Limit.  
 ↑ Reporting limit raised.  
 ↓ Reporting limit lowered.  
**NA** The sample was not analysed for this analyte  
**ND** Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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-- End of Analytical Report --





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## **Appendix C**

### **Curriculum Vitae**

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## **BRAD SAWDON, P.Geo., EP**

*Project Manager*

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Mr. Sawdon holds an Honours Bachelors of Environmental Studies degree from the University of Waterloo and is a Project Manager at Cambium. Mr. Sawdon is a licensed Professional Geoscientist (P.Geo.) with the Association of Professional Geoscientists of Ontario and is a Qualified Person (QP<sub>ESA</sub>) for Environmental Site Assessments under the Environmental Protection Act. Mr. Sawdon is also an Environmental Professional (EP), specializing in Air Quality, with the Canadian Environmental Certification Approvals Board (CECAB). He has 10 years of employment experience in the environmental consulting field, working throughout Ontario, Alberta, British Columbia, Saskatchewan and Northwest Territories.

### **SUMMARY OF PROFESSIONAL EXPERIENCE**

2011 – Present      Project Manager. Cambium Inc.  
Peterborough, Ontario, Canada

*Mr. Sawdon's responsibilities include the coordination and management of projects related to environmental site assessments, soil and groundwater remediations, air quality, source testing, environmental compliance approvals, and designated substance surveys. Mr. Sawdon has extensive experience with proposal and report preparation including data compilation, interpretation, and completion of final reports.*

2008 – 2010      Project Manager. O'Connor Associates Environmental Inc.  
Calgary, Alberta, Canada

*Mr. Sawdon's responsibilities included project management and field component of work related to Phase I, Phase II and Phase III Environmental Site Assessments (ESAs), risk management plans, aquatic pathway assessments, and compliance groundwater monitoring and sampling events. Mr. Sawdon was involved with providing the client with cost estimation for all aspects of a project, supervising field technicians and technical support staff, scheduling of field work, arranging for required sub-contractors, and analyzing and interpreting the field data in order to write the related reports.*

### **PROFESSIONAL ASSOCIATIONS**

- Professional Geoscientist (P.Geo.); Association of Professional Geoscientists of Ontario
- Environmental Professional (EP); Canadian Environmental Certification Approvals Board

### **EDUCATION & TRAINING**

#### **Education**

2003      Honours Bachelor of Environmental Studies, University of Waterloo, Waterloo, Ontario



## **SELECTED EXPERIENCE**

### ***ENVIRONMENTAL SITE ASSESSMENTS***

Mr. Sawdon has completed hundreds of Environmental Site Assessments on Brownfield sites, existing commercial and industrial properties, and vacant lands, proposed for industrial and commercial development. Various assessments include the removal of fuel storage tanks, contaminant delineation and remediation, risk assessment, and filing of Records of Site Condition. Contaminants of concern have included, but are not limited to, petroleum hydrocarbons, chlorinated solvents, volatile and semi-volatile organic compounds, polycyclic aromatic hydrocarbons and metals.

#### ***290 WATER STREET ESA – PETERBOROUGH, ONTARIO***

Phase I and Phase II ESA, investigated and delineated soil and groundwater contaminants, and facilitated a Risk Assessment, at a site is currently occupied by a commercial printing press operation, and was historically occupied by a canoe manufacturer. The site is also adjacent to a river, a former railway line, and a former coal gasification plant. Due to the varying land uses, a large number of contaminants were of concern at the site. Conducted an extensive drilling program including both shallow aquifer and deep aquifer monitoring wells to assess the light non-aqueous phase liquids and dense non-aqueous phase liquids. Client: The Corporation of the City of Peterborough.

#### ***JIFFY LUBE PHASE I AND PHASE II ESA – PETERBOROUGH, ONTARIO***

Phase I and Phase II Environmental Site Assessment of a Jiffy Lube service station, adjacent to a laundromat and dry cleaners. Conducted a drilling program including both shallow aquifer and deep aquifer monitoring wells to assess the potential light non-aqueous phase liquids and dense non-aqueous phase liquids. Client: 462455 Ontario Ltd. and Reach Car Wash.

#### ***FORMER MURATA ERIE NORTH AMERICA SITE – TRENTON, ONTARIO***

Work included a Phase I and Phase II ESA, Risk Assessment, and site remediation. Long-term assessment and remediation of a groundwater plume containing dissolved volatile organic compounds, migrating southeasterly from the Site and extending to the Bay of Quinte. Cambium completed a design and build of an in-situ remediation using pump and treat techniques. Cambium continues to operate the system which has extracted approximately 100 kg of chlorinated solvents since 2007. The remediation is expected to come to completion in 2015. Client: The Corporation of the City of Quinte West



**STEVEN ELFORD, B.A. Hons.**

*Technologist*

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Mr. Steven Elford is a Senior Technician with Cambium. Mr. Elford graduated from York University in 2009 with an Honours Bachelor of Arts Degree in Geography and Environmental Studies and received an Advanced Diploma in Ecosystem Management Technology from Sir Sandford Fleming College. Mr. Elford's professional experience includes six years in the environmental consulting industry with a sole focus on petroleum site inspections with extensive experience completing the field portion of Phase I and Phase II ESAs, long-term monitoring and sampling programs, and soil and groundwater remediation. Mr. Elford has completed work in Alberta, Saskatchewan, Manitoba, Ontario and Quebec.

## **SUMMARY OF PROFESSIONAL EXPERIENCE**

- 2017 – Present    Senior Environmental Technician, Cambium Inc.  
Peterborough, Ontario, Canada  
*Mr. Elford's responsibilities include project support, and field work related to environmental site assessments, soil and groundwater remediation, and work at contaminated sites.*
- 2011 – 2017      Environmental Technician, exp Energy Services Ltd.  
Markham, Ontario, Canada  
*Mr. Elford's responsibilities included field work related to Site Remediation, Phase I and Phase II Environmental Site Assessments, and Long-Term Monitoring and Sampling programs. Mr. Elford has worked extensively in the oil and gas sector primarily for Exxon Mobil and Imperial Oil Ltd. Mr. Elford was responsible for carrying out the onsite health and safety program, managing sub-contractors, and the training of new staff and co-operative education students.*

## **EDUCATION & TRAINING**

- 2017              Workplace Hazardous Materials Information System
- 2016              Standard First Aid  
Fire Extinguisher Training
- 2015              Work at Heights Awareness Training  
Confined Space Awareness Training  
Transportation of Dangerous Goods Certification  
Bear Awareness Training  
Ground Disturbance Training
- 2014              Engine Repair Level 1 – Durham College
- 2008              Defensive Driving Training  
Working in Inclement Weather Training



## **SELECTED EXPERIENCE**

Mr. Elford has completed multiple Phase I and Phase II Environmental Site Assessments on brownfield sites, existing commercial properties, and vacant lands to evaluate environmental liability for clients.

### *ENVIRONMENTAL SITE ASSESSMENTS –VARIOUS SITES, ONTARIO*

Mr. Elford has completed multiple Phase I and Phase II Environmental Site Assessments on brownfield sites, existing and vacated properties. Mr. Elford's role for Phase I assessments generally included a site walkover, personnel interviews and a drinking well survey. He has supervised the detailed subsurface investigations contingent with Phase II assessments including: the excavation of test pits, advancement of overburden and bedrock wells, obtaining overburden soil samples and groundwater samples and soil vapour samples. (2017 & Ongoing)

### *WASTE DISPOSAL SITE ENVIRONMENTAL MONITORING – VARIOUS LOCATIONS, ONTARIO*

Cambium is responsible for solid waste disposal site environmental monitoring, compliance, annual reporting, permitting, and approvals for over forty-eight (48) sites for numerous small to medium-sized municipal and private clients in central and eastern Ontario. As Senior Field Technician, Mr. Elford was responsible for the field scope of services which included coordination with client and laboratories, collection of all required samples and sampling data at each site (groundwater and surface water samples, data pertaining to surface water discharge volumes, landfill gas, and soil samples). (Ongoing)

### *FORMER MURATA ERIE NORTH AMERICA SITE – CITY OF QUINTE WEST, TRENTON, ONTARIO*

Cambium initially developed a remedial options study which reviewed several methods for the remediation of chlorinated hydrocarbons including risk assessment and multiple in-situ and ex-situ technologies. The results guided a design and build of an in-situ groundwater remediation using pump and treat techniques. Cambium continues to operate the system and Mr. Elford has been responsible for site work relating to the maintenance and operations, groundwater sampling of the design-build in-situ groundwater remediation pump and treat system. (Ongoing)

### *PETERBOROUGH AIRPORT, ENVIRONMENTAL ASSESSMENT – PETERBOROUGH, ONTARIO*

Cambium is undertaking a long-term investigation of contaminant impacts, primarily PCBs, at the Peterborough Municipal Airport. Historical information indicates the airport property was used as a landfill for approximately 20 years, and sewage biosolids and lagoon sludge were periodically spread on the site. The ongoing investigation aims to identify and prioritize PCB "hot spots" on the property in order to guide management recommendations and in turn mitigate adverse effects of PCBs on the environment. Mr.



Elford has been responsible for the field work including Surface Water and Sediment Sampling of on-site and off-site surface water bodies and receptors, soil sampling for characterization. (Ongoing)

***TRENT VALLEY HONDA IN-SITU REMEDIATION SYSTEM MAINTENANCE - ONGOING***

Cambium was responsible for the investigation and the installation of an in-situ remediation system to delineate a petroleum plume. The system is maintained by Cambium and Mr. Elford has been responsible for inspections, maintenance, sampling, data interpretation and reporting of all aspects of the pump and treat systems. (Ongoing)

***GE CANADA ENERGY POWER CONVERSION MONITORING AND MAINTENANCE - ONGOING***

Cambium is a local consultant contracted by AECOM for GE Energy Power Conversion onsite work to monitor/maintain operations of treatment system for trichloroethylene. Mr. Elford is responsible for the routine maintenance which requires onsite work twice a week.

***IMPERIAL OIL INTERM GROUND WATER MONITORING AND SAMPLING PROGRAM – MANITOBA, SASKATCHEWAN, ALBERTA, QUEBEC, ONTARIO – 2014 - 2016***

Mr. Elford organized, scheduled and completed monitoring and sampling of over 250 long term monitoring sites throughout the prairies, Ontario and Quebec. Within this project Mr. Elford's role included: planning field logistics, data and sample collection, organizing sub-contractors and implementing the onsite health and safety program. The results from the collected data and samples confirmed the existence and extent of impacts, if any, on vacant and active Imperial Oil owned properties.

***IMPACTED SOIL REMEDIATION – DUNDAS, ONTARIO – 2013***

Project included the remediation of contaminated soil impacted by a previous commercial gasoline service station near Dundas, Ontario. The work involved the delineation and excavation of impacted material, the pumping and disposal of impacted ground water, the disposal of impacted material at a suitable landfill facility, backfilling and contouring the excavation. Upon completion of the remedial activities, post remedial monitoring wells were installed and sampled using the low flow technique.

Client: Imperial Oil Ltd. Role: Environmental Technician

***TEST PITTING AND DRILLING PROGRAM – BLIND RIVER, ONTARIO – 2013 - 2016***

The aim of the project was to delineate impacts on a vacant property in Blind River, Ontario with results from samples taken during test pitting, drilling (overburden and bedrock wells), low flow sampling and soil vapour probe sampling. Mr. Elford's role was that of site supervisor and environmental technician and



included the coordination of site activity, managing of subcontractors, installing soil vapour probes and the completion of the soil, water and soil vapour sampling program.

Client: Imperial Oil Ltd. Role: Site Supervisor, lead Environmental Technician

***PORT CREDIT SITE ASSESSMENT – PORT CREDIT, ONTARIO – 2011 – 2015***

Focusing on a 75 hectare property on the shore of Lake Ontario, this program aimed to identify the extent of soil and groundwater impacts in order to project the potential cost of remediation. The program encompassed the digging of approximately 300 test pits, drilling approximately 1400 boreholes and installing approximately 200 monitoring wells. Upon completion of the drilling and test pitting, groundwater monitoring data and low flow samples were completed to further delineate the groundwater impacts.

Client: Imperial Oil Ltd. Role: Environmental Technician

***ENVIRONMENTAL SITE ASSESSMENTS –ONTARIO – 2011 - 2016***

Mr. Elford has completed multiple Phase I and Phase II Environmental Site Assessments on brownfield sites, existing commercial properties, and vacant lands to evaluate environmental liability for clients. Mr. Elford's role for Phase I assessments generally included a site walkover, personnel interviews and a drinking well survey. Mr. Elford supervised the detailed subsurface investigations contingent with Phase II assessments including: the excavation of test pits, advancement of overburden and bedrock wells, obtaining overburden soil samples and groundwater samples and soil vapour samples.