Phase Two Environmental Site Assessment

424 Churchill Avenue North, Ottawa, Ontario

Churchill Properties Inc.
Final Report

March 2024
02103035.000

ENGLOBE

Executive Summary

Englobe Corp. (Englobe) was retained by Churchill Properties Inc. (the "Client") to conduct a Phase Two Environmental Site Assessment (ESA) at the property located at 424 Churchill Avenue North in Ottawa, Ontario (herein referred to as the "Site" or the "Phase Two Property").

Current development plans for the Site include a new 58 unit mid-rise apartment building with an underground parking garage. In order to develop this parcel of land as planned, the land use of the property will be changed to residential, which triggers the need for a Record of Site Condition (RSC) as per *Ontario Regulation 153/04 Records of Site Condition – Part XV.1 of the Act under the Ontario Environmental Protection Act, R.S.O. 1990, chapter E.19* (O. Reg. 153/04), as amended.

The purpose of this Phase Two ESA was to evaluate the presence/absence of contamination on Site, in the Areas of Potential Environmental Concern (APECs) that were identified in the Phase One ESA report (Englobe, February 2023).

A total of six soil samples were collected during the investigation and submitted for laboratory analysis of various Potential Contaminants of Potential Concern (PCOCs), specifically as follows:

- Three soil samples (one from each of boreholes MW21-01, MW21-02, MW21-03) were submitted for laboratory analysis of petroleum hydrocarbons (PHCs F1-F4) and volatile organic compounds (VOCs);
- Three soil samples (one from each of boreholes MW23-01, MW23-03, and MW23-04) were submitted for laboratory analysis of PHCs F1-F4, VOCs, polycyclic aromatic hydrocarbons (PAHs), metals, Arsenic (As), Antimony (Sb) and Selenium (Se); and
- One soil sample, collected from borehole MW21-02, was submitted for laboratory analysis of pH.

A total of 14 groundwater samples (a minimum of one from each of monitoring wells MW21-01 through MW21-03, MW23-1 through MW23-04, and MW24-1), in addition to two blind field duplicates, were collected during the investigation and submitted for laboratory analysis of one or more of the following method groups: PHCs F1-F4, BTEX, VOCs, PAHs, metals, As, Sb, Se, and dissolved chloride.

There was no water body or sediment identified on the Phase Two Property at the time of Englobe's investigation; therefore, surface water and sediment were not investigated as part of this Phase Two ESA.

Soil sample results were compared to the MECP Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition (Residential/Parkland/Institutional Property Use, medium-fine textured soil as per "Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act", April 15, 2011.

Based on the laboratory analytical results, concentrations of all analyzed parameters in the laboratory-submitted soil samples met the applicable MECP Table 7 SCS, with the exception of:

- Concentrations of PHC F4 gravimetric (6,100 µg/g) and barium (630 µg/g) at MW23-01 at a depth of 0.3 to 0.9 m bgs; and
- Concentrations of lead (200 µg/g), anthracene (1.2 µg/g), benzo(a)anthracene (3.5 µg/g), benzo(a)pyrene (3 µg/g), benzo(b/j) fluoranthene (4.3 µg/g), benzo(k)fluoranthene (1.7 µg/g), dibenzo(a,h)anthracene (0.54 µg/g), fluoranthene (8.6 µg/g), and indeno(1,2,3-cd)pyrene (2 µg/g) at MW23-04 at a depth of 0 to 0.3 m bgs.

Concentrations of all other analyzed parameters in soil were below the MECP Table 7 SCS.

Groundwater sample results were compared to the MECP Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition (All Types of Property Use, medium-fine textured soils) as per “Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act", April 2011.

Based on the laboratory analytical results, the following exceedances of the applicable MECP Table 7 were detected in the groundwater samples collected:

- Concentrations of 1,1- dichloroethylene in the groundwater sample collected from monitoring well MW21-02 (0.66 µg/L), MW23-01 (as well as field duplicate MW23-11) (1.2 µg/L), and MW23-03 (2 µg/L) exceeded the applicable MECP Table 7 standard (0.5 µg/L);
- Concentrations of 1,2-dichloroethylene (cis) in the groundwater samples collected from monitoring wells MW21-01 (220 µg/L), MW21-02 (860 µg/L), MW23-01 (as well as field duplicate MW23-11) (max. 630 µg/L in August 2023 and 40 µg/L in November 2023), MW23-02 (16 µg/L in September 2023, 33 µg/L in November 2023, and 27 µg/L in January 2024), and MW23-03 (940 µg/L) exceeded the applicable MECP Table 7 standard (1.6 µg/L);
- Concentrations of 1,2-dichloroethylene (trans) in the groundwater samples collected from monitoring wells MW21-01 (3.7 µg/L), MW21-02 (12 µg/L), MW23-01 (as well as field duplicate MW23-11) (max. 4.7 µg/L), MW23-02 (1.7 µg/L), and MW23-03 (14 µg/L) exceeded the applicable MECP Table 7 standard (1.6 µg/L);
- Concentrations of tetrachloroethylene in the groundwater samples collected from monitoring wells MW21-01 (930 µg/L), MW21-02 (890 µg/L), MW21-03 (32 µg/L in April 2021 and 2.4 µg/L in August 2023), MW23-01 (as well as field duplicate MW23-11) (max. 13 µg/L) in August 2023 and 0.57 µg/L in November 2023, MW23-02 (720 µg/L in September 2023, 1,400 µg/L in November 2023, and 730 µg/L in January 2024), MW23-03 (9.6 µg/L), and MW23-04 (8.4 µg/L) exceeded the applicable MECP Table 7 standard (0.5 µg/L);
- Concentrations of trichloroethylene in the groundwater samples collected from monitoring wells MW21-01 (100 µg/L), MW21-02 (160 µg/L), MW21-03 (2 µg/L in April 2021 and 0.72 in August 2023), MW23-01 (as well as field duplicate MW23-11) (110 µg/L) in August 2023 and 1.2 µg/L in November 2023, MW23-02 (44 µg/L in September 2023, 120 µg/L in November 2023, and 51 µg/L in January 2024), MW23-03 (23 µg/L), and MW23-04 (0.65 µg/L) exceeded the applicable MECP Table 7 standard (0.5 µg/L);
- Concentrations of vinyl chloride in the groundwater samples collected from monitoring wells MW21-01 (7 µg/L), MW21-02 (31 µg/L), MW23-01 (as well as field duplicate MW23-11) (100 µg/L) in August 2023 and 7.3 µg/L in November 2023, MW23-02 (0.96 µg/L in September 2023, 4.0 µg/L in November 2023, and 3.2 µg/L in January 2024), and MW23-03 (88 µg/L) exceeded the applicable MECP Table 7 standard (0.5 µg/L);
- Concentrations of PHC F1 in the groundwater samples collected from monitoring wells MW23-02 (as well as field duplicate MW23-20) (max. 540 µg/L) in August 2023 as well as November 2023 (480 µg/L) exceeded the applicable MECP Table 7 standard (420 µg/L); and
- Concentrations of PHC F2 (370 µg/L) and PHC F3 (750 µg/L) in the groundwater sample collected from monitoring well MW21-02 exceeded the applicable MECP Table 7 standards (150 µg/L and 500 µg/L, respectively).

Concentrations of all other analyzed parameters in groundwater were below the MECP Table 7 SCS.

It is recommended that the identified soil and groundwater contamination (exceeding the applicable MECP Table 7 standards) on Site be addressed through the completion of a Risk Assessment for the Phase Two Property, in support of a Record of Site Condition, in accordance with O. Reg. 153/04 (as amended). It should be noted that the Risk Assessment is underway and is being completed by Englobe under a separate cover.

Furthermore, with regards to the management of impacted soil during construction, any excess soils generated during the re-development of the Site must be managed in accordance with O. Reg. 406/19 (as amended).

Property and Confidentiality

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If tests have been carried out, the results of these tests are valid only for the sample described in this report.

Englobe Corp.’s subcontractors who have carried out on-site or laboratory work are duly assessed according to the purchase procedure of our quality system. For further information, please contact your project manager.”

Table of Contents

APPENDICES

1 Introduction

1.1 General

Englobe Corp. (Englobe) was retained by Churchill Properties Inc. (the "Client") to conduct a Phase Two Environmental Site Assessment (ESA) at the property located at 424 Churchill Avenue North in Ottawa, Ontario (herein referred to as the "Site" or the "Phase Two Property").

Current development plans for the Site include a new 58 unit mid-rise apartment building with an underground parking garage. In order to develop this parcel of land as planned, the land use of the property will be changed to residential, which triggers the need for the filing of a Record of Site Condition (RSC) as per *Ontario Regulation 153/04 Records of Site Condition – Part XV.1 of the Act under the Ontario Environmental Protection Act, R.S.O. 1990, chapter E.19* (O. Reg. 153/04), as amended.

The purpose of this Phase Two ESA was to evaluate the presence/absence of contamination on Site, in the Areas of Potential Environmental Concern (APECs) that were identified in the Phase One ESA report (Englobe, February 2023).

This Phase Two ESA report was prepared in accordance with O. Reg. 153/04 (as amended), and it is understood that this report is intended to be utilized as supporting documentation for the filing of an RSC in accordance with O. Reg. 153/04, as amended.

This report was prepared for the exclusive use of Churchill Properties Inc. Any use of this report by any third party, or any reliance on or decisions to be made based on it, are the responsibility of such parties. Englobe accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. Please refer to Section 9 for additional limitations.

1.2 Site Description

The Site is located at 424 Churchill Avenue North in Ottawa, Ontario, in an area zoned as TM H(24) – Traditional Mainstreet Zone. It is developed with a single-storey, single-tenant commercial building, with one underground basement level, and an asphalt parking lot. The building, which has a footprint area of approximately 350 m^2, is now vacant but was formerly operated as a dry cleaner and laundromat (Laundry Land). The Site is bordered to the North by Danforth Avenue, to the East by Churchill Avenue North, to the South by Byron Avenue, and to the West by 352 Danforth Avenue.

The Site and the surrounding properties are shown on Figures 1 and 2 in Appendix A.

A summary of the Site details is presented below.

Table 1.1. Phase Two Property detail summary

Item	Detail
Municipal Address	424 Churchill Avenue North, Ottawa,
Site Area	1,006.76 m^2
Property Identification No.	04017-0158
Legal Description	LT 1 & PT LT 2, PL 204, S/S OF DANFORTH AV; ALL AS IN N632657 ; OTTAWA/NEPEAN

Item	Detail
Site Centroid	441001.74 m E, 5026679.72 m N (UTM NAD83-18)

1.3 Property Ownership

Englobe was retained by Churchill Properties Inc. The contact information for Jemmy Taing, Churchill Properties Inc.'s representative, is as follows:

Email: jemmy@gsiproperties.ca

1.4 Current and Proposed Future Uses

Based on a review of the available information, the Site was first developed sometime prior to, or during, year 1915. A building noted as a church is present on the Site in the 1915 Fire Insurance Plan (FIP). No earlier records are available for the Site. The Site was used for commercial/retail purposes from approximately 1928 and to 1960. From approximately 1960 to 2020, the Site building was used as a laundromat and dry cleaning facility; however, these operations are no longer ongoing.

Englobe's understanding of the Site and the Project is based on the following drawings provided by the Client:

- "Topographic Plan of Survey of Lot 1 and Part of Lot 2 (South Danforth Avenue), Registered Plan 204, City of Ottawa", dated July 12, 2022, prepared by Annis, O'Sullivan, Vollebekk Ltd.
- Architectural Plan Drawings, Drawing Nos. A000 to A300 inclusive, dated January 06, 2022 to October 20, prepared by Open Plan Architects Inc.; and
- Civil Plan Drawings, Nos. C301, C401, and C601, dated October 11, 2022, prepared by LRL Associates Ltd.

Current development plans for the Site include a new 58 unit mid-rise residential apartment building with an underground parking garage.

The proposed building will cover an approximate area of 882.3 m^2 and will be comprised of a seven-storey multi-unit residential building with three basement levels to be used for parking. Based on the architectural and civil Site plans available to Englobe, the ground floor of the building will be at an approximate elevation of 75.92 metres above sea level (masl). The B3 basement level will be approximately 10.6 meters deeper, at an approximate elevation of 65.32 masl. The completed building will have a finished average grade elevation of approximately 73.10 masl.

In order to develop this parcel of land as planned, the land use type will be changed to residential, which requires the filing of a Record of Site Condition (RSC) as per *Ontario Regulation 153/04 Records of Site Condition - Part XV.1 of the Act under the Ontario Environmental Protection Act, R.S.O. 1990, chapter E.19* (O. Reg. 153/04), as amended.

1.5 Applicable Site Condition Standards

Based on Site conditions, the following Site Conditions Standards were considered applicable to the Site:

SOIL:

Ontario Ministry of the Environment, Conservation and Parks (MECP) “Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act”, April 2011. Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition (Residential/Parkland/Institutional Property Use, medium-fine textured soils).

GROUNDWATER:

MECP “Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act", April 2011. Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition (All Types of Property Use, medium-fine textured soils).

The rationale for the selection of the above-referenced Site Condition Standards was as follows:

— The Site and properties within 250 m of the Site are supplied with potable water through the City of Ottawa’s municipal drinking water system; thus, the potable groundwater pathway is not considered applicable;

— The proposed future use of the site is residential;

— Based on the boreholes advanced at the Site, more than 1/3 of the property consists of less than two metres of overburden soil overlying the bedrock. The Site is, therefore, designated as a shallow soil property as per O. Reg 153/04 (as amended) section 43.1(3).

— The Site is located more than 30 metres from the nearest surface water body;

— Surface soils at the Site do not have a pH value less than 5 or greater than 9 (refer to the laboratory certificates of analysis in Appendix E); and

— A medium-fine grained soil texture was selected for comparison of analytical data to applicable provincial standards based on the results of two grain size analysis on collected samples (refer to the laboratory certificates of analysis in Appendix E).

2 Background Information

2.1 Physical Setting

Aerial photographs, as well as soil, bedrock geology, and topography maps were reviewed for information pertaining to the physical setting of the Site. The Site is located at an approximate elevation of approximately 68-70 masl. The Ottawa River is the nearest surface water feature, found approximately 650 m northwest of the Site. No wetlands and Areas of Natural and Scientific Interest (ANSIs) are present in the Phase One Study Area. All properties within the Phase One Study Area appear to be serviced by the City of Ottawa municipal drinking water system. The Site is located within the City of Ottawa Intake Protection Zone (IPZ) 2.

2.2 Past Investigations

Englobe completed a review of available previous environmental reports for the Site. The findings are summarized below:

2.2.1 Phase One ESA (Englobe, February 2023)

Englobe prepared a Phase One ESA report for the Site in 2023. The primary objective of the Phase One ESA was to assess the Site and surrounding lands within a 250 m radius for potentially contaminating activities (PCAs), to identify any APECs at the Site.

Based on the findings of the Phase One ESA, the following APECs were identified at the Site:

Table 2.2.1. Summary of APECs

PCA							APEC			
PCA No.	O. Reg. 153/04 PCA Item No.	PCA Location (On/Off Site)	Historical and/or Current Activities	PCA Proximity to Site (m)	PCA Relative Direction to the Site	Up-gradient (Yes/No)	APEC No.	Location of APEC on the Site	Contaminants of Potential Concern (COCs)	Potentially Impacted Media (Groundwater, Soil, and/or Sediment)
PCA 1	37. Operation of Dry Cleaning Equipment (where chemicals are used)	On-Site	Laundromat and dry cleaning facility	N/A	N/A	N/A	APEC 1	Entire Site	VOCs	Soil and Groundwater
PCA 2	Undefined No. 1. Application of salt for de-icing purposes for the safety of vehicular or pedestrian traffic	On-Site	Application of salt for de-icing purposes for the safety of vehicular or pedestrian traffic	N/A	N/A	N/A	APEC 2[1]	Parking Area and Driving Laneway	EC, SAR, Cl^-, Na	Soil and Groundwater
PCA 54	30. Importation of Fill Material of Unknown Quality	On-Site	Potential historical importation of fill material of unknown quality on Site	N/A	N/A	N/A	APEC 3	Entire Site	PAHs, Metals, As, Sb, Se	Soil

[1] Road salt and/or de-icing substances have likely been applied to the surface of the driveway/parking areas of the Site for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both; thus, it is the QP's opinion that this PCA and associated APEC are exempted, and no soil and groundwater samples must be collected and submitted for laboratory analyses for related parameters.

Note:
As = Arsenic
Cl^- = Chloride
EC = Electrical conductivity
Na = Sodium
PAHs = Polycyclic aromatic hydrocarbons
SAR = Sodium adsorption ratio
Sb = Antimony
Se = Selenium
VOCs = Volatile organic compounds

Based on the finding of the Phase One ESA for the Site, further environmental investigation, in the form of a Phase Two ESA, was recommended to investigate the environmental condition of the soil and groundwater at the Site prior to the filing of an RSC.

3 Scope of the Investigation

3.1 Overview of the Site Investigation

The scope of work for this Phase Two ESA was developed in order to investigate the subsurface conditions at the Site. The Phase Two ESA Site Investigation consisted of the following:

— Clearance of underground utilities (public and private);

— Advancement of seven boreholes (MW21-01 through MW21-03 in 2021, MW23-01 through MW23-04 in 2023, and MW24-1 in 2024) instrumented with groundwater monitoring wells at strategic locations on Site. Please refer to Appendix A for figures depicting the locations of all sampling locations;

— Soil and groundwater sampling;

— Laboratory analysis of soil and groundwater samples;

— Borehole and monitoring well surveying;

— Interpretation of laboratory results; and

— Preparation of this Phase Two ESA report.

The field component of this Phase Two ESA was conducted between April 2021 and January 2024.

3.2 Media Investigated

The field program consisted of the advancement of eight boreholes (MW21-01 through MW21-03 in 2021, MW23-01 through MW23-04 in 2023, and MW24-1 in 2024) instrumented with groundwater monitoring wells at strategic locations on Site.

A total of six soil samples were collected during the investigation and submitted for laboratory analysis of various Contaminants of Potential Concern (COPCs), specifically as follows:

— Three soil samples (one from each of boreholes MW21-01, MW21-02, MW21-03) were submitted for laboratory analysis of petroleum hydrocarbons (PHCs F1-F4) and volatile organic compounds (VOCs);

— Three soil samples (one from each of boreholes MW23-01, MW23-03, and MW23-04) were submitted for laboratory analysis of PHCs F1-F4, VOCs, polycyclic aromatic hydrocarbons (PAHs), metals, Arsenic (As), Antimony (Sb) and Selenium (Se); and

— One soil sample, collected from borehole MW21-02, was submitted for laboratory analysis of pH.

A total of 14 groundwater samples (a minimum of one from each of monitoring wells MW21-01 through MW21-03, MW23-1 through MW23-04, and MW24-1), in addition to two blind field duplicates, were collected during the investigation and submitted for laboratory analysis of one or more of the following parameters: PHCs F1-F4, BTEX, VOCs, PAHs, metals, As, Sb, Se, and dissolved chloride.

There was no water body or sediment identified on the Phase Two Property at the time of Englobe's investigation; therefore, surface water and sediment were not investigated as part of this Phase Two ESA.

3.3 Phase One Conceptual Site Model

Englobe previously completed a Phase One ESA for the Site. Based on the findings of the Phase One ESA, three APECs were identified on Site. The mandatory requirements for the Phase One Conceptual Site Model (CSM) outlined in "Table 1 of Schedule D, Part VI – Phase One Environmental Site Assessment Report in O. Reg. 153/04 as amended", and the findings/details from the Phase One ESA are summarized in the table below.

Table 3.3. Phase One CSM details

O. Reg. 153/04 Schedule D (Part VI) Table 1 Requirement	Phase One ESA Findings / Details
Show any existing buildings and structures	The Site is an irregularly shaped parcel of land that has a total property area of approximately 1000 m^2. At the time of the Phase One ESA Site Reconnaissance, the Site was no longer operating as an active dry cleaning facility. The location of the Site is shown on Figure 1, in Appendix A.
Identify and locate water bodies located in whole or in part on the Phase One Study Area	The Ottawa River is the nearest surface water feature, found approximately 650 m northwest of the Site.
Identify and locate any areas of natural significance located in whole or in part on the Phase One Study Area	No wetlands and Areas of Natural and Scientific Interest (ANSIs) are present in the Phase One Study Area.
Locate any drinking water wells at the Phase One Property	No known water supply wells were identified or observed at the Phase One Property. No known water supply wells were identified within the Phase One Study Area.
Show roads, including names, within the Phase One Study Area	The Site is bordered to the north by the Danforth Avenue, to the east by Churchill Avenue North, to the south by Byron Avenue, and to the west by 352 Danforth Avenue.
Show uses of properties adjacent to the Phase One Property	The Phase One Property is located in an area of mixed property use. Surrounding nearby property uses primarily include commercial and residential.
Identify and locate areas where any PCA has occurred and show tanks in such areas.	The following PCAs were identified within the Phase One Study Area: 1) 37. Operation of Dry Cleaning Equipment (where chemicals are used) 2) Undefined No. 1. Application of salt for de-icing purposes for the safety of vehicular or pedestrian traffic 3) 46. Rail Yards, Tracks and Spurs 4) 31. Ink Manufacturing, Processing and Bulk Storage 5) 33. Metal Treatment, Coating, Plating and Finishing 6) 28. Gasoline and Associated Products Storage in Fixed Tanks 7) 37. Operation of Dry Cleaning Equipment (where chemicals are used) 8) 28. Gasoline and Associated Products Storage in Fixed Tanks 9) Undefined No. 2 - Spill 10) 31. Ink Manufacturing, Processing and Bulk Storage 11) 10. Commercial Autobody Shops 12) Undefined No. 3 - Salt Storage 13) 28. Gasoline and Associated Products Storage in Fixed Tanks 14) 37. Operation of Dry Cleaning Equipment (where chemicals are used) 15) 28. Gasoline and Associated Products Storage in Fixed Tanks 16) 28. Gasoline and Associated Products Storage in Fixed Tanks 17) 28. Gasoline and Associated Products Storage in Fixed Tanks 18) 37. Operation of Dry Cleaning Equipment (where chemicals are used)

O. Reg. 153/04 Schedule D (Part VI) Table 1 Requirement	Phase One ESA Findings / Details
	19) 10. Commercial Autobody Shops 20) 54. Textile Manufacturing and Processing 21) 37. Operation of Dry Cleaning Equipment (where chemicals are used) 22) 10. Commercial Autobody Shops 23) Undefined No. 4 - Spill 24) 28. Gasoline and Associated Products Storage in Fixed Tanks 25) 10. Commercial Autobody Shops 26) Undefined No. 5 - Spill 27) 28. Gasoline and Associated Products Storage in Fixed Tanks 28) 10. Commercial Autobody Shops 29) 31. Ink Manufacturing, Processing and Bulk Storage 30) 31. Ink Manufacturing, Processing and Bulk Storage 31) 10. Commercial Autobody Shops 32) 10. Commercial Autobody Shops 33) 28. Gasoline and Associated Products Storage in Fixed Tanks 34) 31. Ink Manufacturing, Processing and Bulk Storage 35) Undefined No. 6 - Manufacturing 36) 28. Gasoline and Associated Products Storage in Fixed Tanks 37) 10. Commercial Autobody Shops 38) 34. Metal Fabrication 39) 54. Textile Manufacturing and Processing 40) Undefined No. 7 - Manufacturing 41) 10. Commercial Autobody Shops 42) 39. Paints Manufacturing, Processing and Bulk Storage 43) 10. Commercial Autobody Shops 44) Undefined No. 8 - Spill 45) 31. Ink Manufacturing, Processing and Bulk Storage 46) Undefined No. 9 - Spill 47) 31. Ink Manufacturing, Processing and Bulk Storage 48) 10. Commercial Autobody Shops 49) 37. Operation of Dry Cleaning Equipment (where chemicals are used) 50) 43. Plastics (including Fibreglass) Manufacturing and Processing 51) Undefined No. 10 - Spill 52) 31.Ink Manufacturing, Processing and Bulk Storage 53) 28. Gasoline and Associated Products Storage in Fixed Tanks 54) 30. Importation of Fill Material of Unknown Quality The locations of the PCAs and any known underground storage tanks (USTs) or above ground storage tanks (ASTs) are shown on Figure 3 in Appendix A.
Identify and locate any APECs	The following APECs have been identified on the Phase One Property: APEC 1 – Entire Site - (PCA 1) APEC 2 – Parking Area and Driving Laneway (PCA 2) APEC 3 – Entire Site - (PCA 54) The locations of the APECs are shown on Figure 4, in Appendix A.
Describe and assess any areas where potentially contaminating activity on or potentially affecting the Phase One Property has occurred.	Based on the PCAs and resulting APECs on the Phase One Property, media potentially impacted includes soil and groundwater.

O. Reg. 153/04 Schedule D (Part VI) Table 1 Requirement	Phase One ESA Findings / Details
Describe and assess any contaminants of potential environmental concern	Based on the PCAs and resulting APECs on the Phase One Property, the following contaminants of potential environmental concern have been identified in the soil and/or groundwater: VOCs, PAHs, metals, As, Se, Sb, Na, Cl-, EC, and SAR.
Describe and assess the potential for underground utilities, if any present, to affect contaminant distribution and transport	Assumed below-ground structures on Site include municipal servicing for water, sewer, and natural gas. Current subsurface structures and utilities at the Phase One Property may provided pathways that affect contaminant distribution and/or transport. Historic subsurface structures and utilities associated with the building or previous buildings on the Phase One Property may have consisted of abandoned municipal water, sewer, and/or natural gas services. Potential historic and subsurface structures and utilities at the Phase One Property may have provided pathways that affect contaminant distribution and/or transport.
Describe and assess available regional or site specific geological and hydrogeological information	The bedrock geology in the area of the Site consists of limestone, dolostone, shale, and sandstone of the Simcoe Group, Gull River Formation. The Quaternary Geology of the Site is composed of till which contains stone poor, sandy silty to silty sand-textured till on Paleozoic terrain.
Describe and assess how any uncertainty or absence of information obtained in each of the components of the Phase One ESA could affect the validity of the model.	At the time of writing this report, a response has not yet been received by the MECP. Any documented issues (if applicable) could require revisions to the CSM. Potential information provided by these agencies is not expected to alter the conclusions of this report.
If the exemption set out in paragraph 1, 1.1 or 2 of section 49.1 of the regulation is being relied upon, document the rationale for relying upon the exemption, which may be based on information gathered during one or more of the records review, interviews and site reconnaissance.	It is highly possible that the application of road salt or de-icing substances along the Phase One Property driveway and parking area has occurred during the winter seasons. This represents a potential environmental concern to the Phase One Property. However, as road salt and de-icing substances on the driveway and parking area was applied for the purposes of keeping these areas safe for traffic and pedestrians under conditions of snow or ice or both, exemptions for potential road salt and/or de-icing substance impacts to the Phase One Property, provided for under Paragraph 1 of Section 49.1 of O. Reg. 153/04, as amended, apply. Englobe intends to rely upon the exemption set out in Paragraph 1 of Section 49.1 of O. Reg. 153/04, as amended, to exempt road salt and/or de-icing substance impacts to the Phase One Property in the area of the driveway and parking area, specific to impacts of electrical conductivity and SAR, in soil, and sodium and chloride, in groundwater. Englobe does not intend to rely upon the exemption set out in Paragraph 1.1 or 2 of Section 49.1 of O. Reg. 153/04, as amended, as Englobe is not aware of any previously identified exceedances at the Site to which this exemption would apply.
If there is an intention to rely upon the exemption set out in paragraph 3 of section 49.1 of the regulation, set out the intention to rely upon the exemption and provide a brief explanation as to why the exemption may apply, which may be based on information gathered during one or more of the records review, interviews and site reconnaissance.	Englobe does not intend to rely upon the exemption set out in Paragraph 3 of Section 49.1 of O. Reg. 153/04, as amended, as Englobe is not aware of any previously identified exceedances at the Site to which this exemption would apply.

The illustrative requirements, according to O. Reg. 153/04, of the Phase One Conceptual Site Model (CSM) are shown on the figures provided in Appendix A. These figures identify the locations of the Ottawa River, roads, the uses of properties adjacent to the Site, the location of PCAs within the Phase

One Study Area and APECs at the Site, in addition to any known AST/UST locations. The PCAs and evaluation of any APECs are discussed in the Phase One ESA report.

3.4 Deviations from Sampling and Analysis Plan

The sampling and analysis plan prepared for this investigation is provided in Appendix B. There were no deviations from the sampling and analysis plan, with the exception of:

— Inability to submit soil field duplicates for laboratory analysis as part of the Quality Assurance/Quality control (QA/QC) program. This was the result of minimal soil recoveries during drilling due to the shallow bedrock conditions on Site;

— As detectable concentrations of PAHs and metals including hydride-forming metals (As, Se, and Sb) were observed in the collected soil samples, analysis of PAHs and metals including hydride-forming metals (As, Se, and Sb) in groundwater was conducted as part of this Phase Two ESA; and

— As groundwater impacts were identified at monitoring well location MW23-01 (screened interval at 13.5 to 16.5 mbgs), a deep groundwater monitoring well (MW24-1), with a screened interval from 27.5 to 30.5 mbgs, was advanced in order to achieve vertical delineation of contaminants in groundwater.

3.5 Impediments

There were no physical impediments during the course of this Phase Two ESA.

4 Investigation Method

4.1 General

See below sub-sections for a description of the investigation methods employed throughout this Phase Two ESA investigation.

4.2 Drilling and Excavating

The drilling program took place on April 21 and 22, 2021 (MW21-01 through MW21-03), July 11, 12 19, and 20, 2023 (MW23-01 through MW23-04), and January 8, 2024 (MW24-1) and consisted of the advancement of eight boreholes. All boreholes were instrumented with groundwater monitoring wells screened within the bedrock.

Boreholes MW21-01 through MW21-03 were advanced by CCC Geotechnical & Environmental Drilling Ltd. (CCC), under the supervision of Englobe field personnel, using a CME truck-mounted drill rig. The boreholes were advanced through the overburden using hollow stem augers. The drill rig was equipped with a split spoon sampling device, which allowed for continuous soil sampling in the overburden. Two of the boreholes (MW21-01 and MW21-03) were advanced through the encountered bedrock using tri-cone air hammer methods. Borehole MW21-02 was advanced through the bedrock using wireline diamond coring methods. Representative soil samples were recovered in 0.6 m intervals, where possible, and were then placed directly into laboratory-supplied containers.

Boreholes MW23-01 through MW23-04 were advanced by Strata Soil Sampling (Strata), under the supervision of Englobe field personnel, using truck mounted and portable drill rigs. The boreholes were advanced through the overburden via direct push. Borehole MW23-01 was advanced into the bedrock using double-walled wireline diamond coring methods. Boreholes MW23-02 through MW23-04 were advanced into the bedrock using pneumatic drilling methods (i.e., air hammer). Representative soil samples were recovered, where possible, and were then placed directly into laboratory-supplied containers.

Borehole MW24-1 was advanced by Strata, under the supervision of Englobe field personnel, using a truck mounted drill rig. The borehole was advanced through the overburden via direct push drilling and continued into bedrock using pneumatic drilling methods (i.e., air hammer).

All boreholes were advanced into the bedrock, to final depths of approximately 11.1 m below ground surface (bgs) (MW21-01), 10.0 m bgs (MW21-02), 12.8 m bgs (MW21-03), 16.8 m bgs (MW23-01), 9.2 m bgs (MW23-02 and MW23-03), 8.2 m bgs (MW23-04) and 30.5 (MW24-1).

A Site Plan illustrating the borehole/monitoring well locations is provided in Appendix A, as Figure 3. Borehole logs are provided in Appendix C.

4.3 Soil Sampling

Soil samples were placed directly into laboratory-supplied sample jars and vials. The sample jars were filled completely with soil to minimize the amount of headspace vapour within the jars. Samples to be submitted for laboratory analysis of PHC F2 – F4 were placed in unpreserved 120 mL clear glass jars with Teflon lids, while samples to be submitted for laboratory analysis of volatile compounds (VOCs and PHC F1) were collected using disposable soil plug sample collectors supplied by the laboratory. The soil plugs were placed in laboratory-supplied vials charged with measured volumes of methanol for sample preservation.

Table 4.3. Summary of Soil Samples Submitted for Laboratory Analysis

Sample ID	Sampling Date (dd/mm/yyyy)	Sample Depth (m bgs)	Laboratory Analysis
MW21-01 SS2	21/04/2021	0.9 - 1.2	PHCs F1-F4, VOCs
MW21-02 SS2	21/04/2021	0.9 - 1.0	PHCs F1-F4, VOCs, pH
MW21-03 SS2	22/04/2021	0.3 - 0.8	PHCs F1-F4, VOCs
MW23-01 SS1	11/07/2023	0.3 - 0.9	PHCs F1-F4, VOCs, PAHs, Metals, Hydride-Forming Metals
MW23-03 SS1	20/07/2023	0.15 - 0.45	PHCs F1-F4, VOCs, PAHs, Metals, Hydride-Forming Metals
MW23-04 SS1	12/07/2023	0 – 0.3	PHCs F1-F4, VOCs, PAHs, Metals, Hydride-Forming Metals

During drilling activities, the thickness of the fill material on Site ranged between 0.2 – 0.4 m. Recovery during drilling was minimal and, thus, the collection of soil sample field duplicates was not possible.

Please see Appendix D for a summary of all analytical data. Figures 6 through 9 provide a plan view of all soil sampling locations and exceedances, as well as the inferred lateral extent of soil contamination at the Site. Figures 16 through 31 provide a cross-sectional view of exceedances, as well as the inferred vertical extent of soil contamination. Lateral and vertical delineation of soil impacts has been achieved.

4.4 Field Screening Measurements

Soil samples were logged in the field for texture, odour, moisture and visual appearance (staining).

A portion of each collected soil sample from the advanced boreholes was placed in a polyethylene bag and was allowed to equilibrate in a warm environment prior to being screened for combustible vapour concentrations (CVCs). Combustible vapour concentrations of soil samples were measured using an RKI Eagle 2™ dual gas portable vapour meter. The RKI Eagle 2™ is equipped with a catalytic combustible gas detector (CCGD), with a detection limit of 5 parts per million (ppm), and a photoionization detector (PID) with a detection limit of 1 ppm, for the detection of volatile vapour concentrations. The vapour meter was operated in methane elimination mode and was calibrated prior to use.

4.5 Groundwater: Monitoring Well Installation

Monitoring wells were installed by CCC and/or Strata, in all eight of the advanced boreholes, using the same drilling equipment described above. The wells were constructed with a 50 mm diameter polyvinyl chloride (PVC) pipe and a #10 slotted PVC well screen, approximately 3.0 m in length, with the exception of MW23-02 and MW23-03 which were constructed with a 25.4 mm diameter PVC pipe. A sand-pack consisting of clean silica gravel was placed within the annular space surrounding the screened section of the wells, to a depth of approximately 0.3 m above the top of the screen. Bentonite was placed within the remaining annular space within the bedrock and overburden. A locking J-Plug cap was placed at the top of each well pipe, and a protective flush-mount steel casing was cemented at surface to protect the well. The monitoring wells were installed in accordance with Ontario Regulation (O. Reg.) 903 – Wells (as amended), made under the Ontario Water Resources Act.

In order to remove any stagnant groundwater prior to sampling, reduce the amount of sediment within the wells, and to remove any water impacted by drilling activities, the installed monitoring wells were developed after being installed.

4.6 Groundwater: Field Measurements of Water Quality Parameters

Englobe recorded water quality parameters using a Horiba™ U52 multi-parameter water quality meter and/or In-Situ™ Aqua TROLL 400 Multiparameter Probe, including pH, conductivity, dissolved oxygen (DO), temperature, turbidity and oxygen redox potential (ORP) prior to collecting groundwater samples.

Englobe field personnel also collected groundwater level measurements from the installed monitoring wells prior to groundwater sampling activities. The water levels were measured using a Solinst Canada Ltd. oil/water interface (IP) meter. The electronic interface probe was decontaminated (washed with Alconox brand phosphate-free detergent and rinsed with distilled water) prior to the collection of each groundwater level measurement.

4.7 Groundwater Sampling

On April 30, 2021, groundwater purging/sampling was completed using low flow techniques using a submersible pump (bladder pump), operating at a low flow rate. Englobe monitored the water quality parameters using a Horiba™ U52 multi-parameter water quality meter, including pH, conductivity, DO, temperature, turbidity and ORP, and recorded each reading every 3 to 5 minutes during purging, prior

to sampling. Once field parameters stabilized, the flow-through cell was removed, and the groundwater sample was collected directly into laboratory-supplied sample containers.

All other groundwater purging/sampling events between August 2023 and January 2024 were also completed using low flow techniques using a submersible pump (bladder pump), operating at a low flow rate. Englobe monitored the water quality parameters using a In-Situ™ Aqua TROLL 400 Multiparameter Probe, including pH, conductivity, dissolved oxygen (DO), temperature, and oxidation-reduction potential (ORP). Once field parameters stabilized, the groundwater sample was collected directly into laboratory-supplied sample containers.

All groundwater sample containers were labelled with the Englobe project number and Site name, monitoring well identification, and sampling date. Groundwater samples were then placed in clean laboratory-supplied coolers containing ice made from potable water, to store and maintain the samples at a temperature below 10°C.

Prior to well development, purging, and the collection of every groundwater sample, the submersible pump, and other sampling equipment was decontaminated with Alconox brand phosphate-free detergent and distilled water with a distilled water rinse. New powder-free nitrile gloves were donned by the Englobe technician prior to the handling of each sample, to eliminate cross-contamination.

Groundwater sample locations and analyses are presented in the table below.

Table 4.7. Summary of Groundwater Samples Submitted for Laboratory Analysis

Sample ID	Sampling Date (dd/mm/yyyy)	Laboratory Analysis
MW21-01	30/04/2021	PHCs F1-F4, VOCs
MW21-02	30/04/2021	PHCs F1-F4, VOCs
MW21-03	30/04/2021	PHCs F1-F4, VOCs
	15/08/2023	PHCs F1-F4, VOCs, PAHs, Metals and Hydride Forming Metals
MW23-01	28/08/2023	PHCs F1-F4, VOCs, PAHs, Metals and Hydride Forming Metals
	28/11/2023	PHCs F1-F4, VOCs
MW23-11 (DUP OF MW23-01)	28/08/2023	PHCs F1-F4, VOCs, PAHs, Metals and Hydride Forming Metals
MW23-02	28/08/2023	PHCs F1, BTEX
	11/29/2023	PHCs F1-F4, VOCs
	25/01/2024	VOCs
MW23-20 (DUP OF MW23-02)	28/08/2023	PHCs F1, BTEX
MW23-02 (2)	13/09/2023	pH, PAHs, semivolatile organic compounds (SVOCs), VOCs, Hexachlorobenzene, and total polychlorinated biphenyls (PCBs)
MW23-03	14/08/2023	PHCs F2-F4, VOCs, PAHs, Metals and Hydride Forming Metals
	28/08/2023	PHCs F1, BTEX
MW23-04	14/08/2023	PHCs F1-F4, VOCs, PAHs, Metals and Hydride Forming Metals
MW24-1	25/01/2024	PHCs F1-F4, VOCs

(2) Conducted in Support of Evaluating Potential Discharge to Municipal Sewer System for Development Purposes Only. SVOCs, Hexachlorobenzene, and PCBs do not constitute COPCs for the Site.

Please see Appendix D for a summary of all analytical data. Figures 10 through 13 provide a plan view of all groundwater sampling locations and exceedances, as well as the inferred lateral extent of groundwater contamination. Figures 16 through 31 provide a cross-sectional view of groundwater exceedances, as well as the inferred vertical extent of contamination. Lateral and vertical delineation of groundwater impacts has been achieved.

4.8 Sediment Sampling

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

4.9 Analytical Testing

Soil and groundwater samples were submitted to Bureau Veritas Laboratories (BV Labs) of Ottawa, Ontario, for chemical analysis. BV is recognized as a Standards Council of Canada (SCC) accredited laboratory that conforms to the requirements of International Standard ISO/IEC 17025:2017 and conditions for accreditation established by the SCC.

4.10 Residue Management Procedures

All soil cuttings resulting from drilling activities, purge water resulting from well development and purging activities, and fluids resulting from equipment decontamination were appropriately contained and secured on Site. Proper disposal is to be coordinated by Englobe.

4.11 Elevation Surveying

An elevation survey was conducted to establish the ground surface elevation at each of the borehole/monitoring well locations. The borehole locations were geodetically surveyed by Englobe personnel using Trimble R10 Integrated GNSS System connected to Cansel CANNET East Network UTM Zone 18N (NAD83). The system connects to a network of satellites to determine the coordinates and elevation of each set point.

The ground surface elevation at each monitoring well location is shown on the borehole logs included in Appendix C.

4.12 Quality Assurance and Quality Control Measures

Englobe maintains a standard Quality Assurance/ Quality Control (QA/QC) program for environmental investigations. All project documentation was maintained and controlled by the appointed field supervisor. All borehole advancement and soil and groundwater sampling were completed in accordance with industry standards, and applicable provincial standards/guidelines.

Collected soil and groundwater samples during the investigation were placed in ice-packed coolers prior to being shipped, under a Chain of Custody protocol, to BV Labs for chemical analysis.

The potential for cross-contamination between samples was minimized by, where applicable, washing sampling tools with reagent-free detergent and water, followed by rinsing with distilled water, and by wearing new disposable nitrile gloves prior to the handling of each sample. All field screening instruments (i.e., RKI Eagle 2™ vapour meter) were calibrated prior to arriving to Site.

Chemical analyses for specific analytical test groups were performed in accordance with the MECP 2011 document *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act*. Analytical test group specific quality control samples were prepared and analyzed by the retained laboratory, including:

— Blind field duplicates to method reproducibility and sample homogeneity;

— Method blanks to evaluate potential bias;

— Spike blanks to evaluate method accuracy and bias; and

— Matrix spikes to evaluate extraction efficiency and matrix interferences.

Quality control results evaluated by the contractual laboratory were compared to applicable alert and control criteria and are presented in the quality control reports accompanying the Certificates of Analysis as presented in Appendix E.

5 Review and Evaluation

5.1 Geology

Based on the soil data collected during the advancement of the boreholes, the general soil stratigraphy at the Site is characterized as a thin layer of fill material, mainly consisting of silty sand with trace to some gravel (0.1 to 0.5 m thick), occasionally followed by a layer of sandy silt (0.5 to 0.7 m thick) or glacial till (0.5 m thick), underlain by limestone bedrock (encountered between 0.8 to 1 m bgs). At MW23-02 and MW23-03 (interior boreholes), a sand and gravel or gravel base layer (0.1 to 0.6 m thick) was observed beneath the concrete slab (0.03 to 0.15 m thick) prior to encountering bedrock. The Site is largely asphalt covered. The bedrock type was confirmed at the MW21-02 and MW23-01 locations as limestone bedrock. The remainder of the boreholes were advanced using air drilling techniques; therefore, the bedrock type could not be verified at these locations.

The borehole logs are provided Appendix C. The geological cross-sections A-A' and B-B' are shown on Figure 14 and Figure 15, respectively.

5.2 Groundwater: Elevations and Flow Direction

As noted in Section 5.6, Englobe field personnel collected groundwater level measurements from the installed monitoring wells prior to groundwater sampling activities. The groundwater levels are provided in Table 6.2 below.

Table 5.2. Groundwater Elevation Data.

Sample Location	Easting (m)	Northing (m)	Elevation at ground surface (masl)	Measurement Date (dd/mm/yyyy)	Groundwater Depth (m bgs)	Groundwater Elevation (masl)
MW21-01	5026693.517	441011.962	75.365	04/29/2021	6.46	68.905
MW21-02	5026686.879	441001.753	75.530	04/30/2021	6.80	68.73

				15/08/2023	5.65	69.88
MW21-03	5026664.437	440991.735	75.353	04/29/2021	6.92	68.433
				15/08/2023	6.71	68.643
MW23-01	5026690.656	441013.409	75.268	15/08/2023	5.89	69.378
MW23-02	5026692.766	441009.374	73.571	15/08/2023	6.25	69.671
MW23-03	5026685.848	441000.022	75.923	15/08/2023	6.23	69.693
MW23-04	5026692.732	441016.497	75.773	15/08/2023	5.99	69.783
MW24-1	5026689.78	441012.47	75.268	01/25/2024	11.44	63.828

Based on measured groundwater elevation data, the apparent highest groundwater elevation is present in the central area of the Site, with the inferred local groundwater flow direction at the Phase Two Property being both to the southwest and east/northeast.

A groundwater contour and interpreted local groundwater flow direction plan, based on measured groundwater elevations, is provided on Figure 4.

5.3 Groundwater: Hydraulic Gradients

The horizontal hydraulic gradients for the Phase Two Property were calculated to be 0.0316 m/m in the east/northeast direction (calculated from groundwater elevations in MW21-02 and MW23-01) and 0.0541 in the southwest direction (calculated from groundwater elevations in MW21-02 and MW21-03).

5.4 Fine-Medium Soil Texture

Two soil samples (MW21-01 SS2, and MW21-03 SS1) were submitted to BV Labs of Ottawa, Ontario for grain size analysis. Based on the results, the submitted samples contain approximately 80 percent by mass of particles smaller than 75 micrometers in mean diameter. Therefore, fine-medium grained soil texture was selected for comparison of analytical data to applicable provincial standards. The laboratory certificates of analysis are provided in Appendix E.

5.5 Soil: Field Screening

There was no visual or olfactory evidence of petroleum or other impacts observed in any of the soil samples collected. No sheen or free-phase liquid petroleum hydrocarbons or dense non-aqueous phase liquids were noted during the drilling or sampling activities.

5.6 Soil Quality

Analytical results of the soil samples submitted for laboratory analysis were compared against the applicable MECP Table 7 standards for Residential/Parkland/Institutional Property Use and medium-fine textured soils.

Based on the laboratory analytical results, concentrations of all analyzed parameters (PHCs F1 – F4 , VOCs, Metals, As, Se, Sb, and PAHs) in the laboratory-submitted soil samples met the applicable MECP Table 7 SCS, with the exception of:

— Concentrations of PHC F4 gravimetric (6,100 µg/g) and barium (630 µg/g) at MW23-01 at a depth of 0.3 to 0.9 m bgs; and

— Concentrations of lead (200 µg/g), anthracene (1.2 µg/g), benzo(a)anthracene (3.5 µg/g), benzo(a)pyrene (3 µg/g), benzo(b/j) fluoranthene (4.3 µg/g), benzo(k)fluoranthene (1.7 µg/g), dibenzo(a,h)anthracene (0.54 µg/g), fluoranthene (8.6 µg/g), and indeno(1,2,3-cd)pyrene (2 µg/g) at MW23-04 at a depth of 0 to 0.3 m bgs.

Concentrations of all other analyzed parameters in soil were below the MECP Table 7 SCS.

Please refer to Table D-1 in Appendix D for a summary of the soil analytical results, their location and depth, and its comparison to the SCS. A copy of the laboratory certificates of analysis are provided in Appendix E.

5.7 Groundwater Quality

Analytical results of the groundwater samples submitted for laboratory analysis were compared against the applicable MECP Table 7 standards for All Types of Property Use.

Based on the laboratory analytical results, the following exceedances of the applicable MECP Table 7 were detected in the groundwater samples collected:

— Concentrations of 1,1- dichloroethylene in the groundwater sample collected from monitoring well MW21-02 (0.66 µg/L), MW23-01 (as well as field duplicate MW23-11) (1.2 µg/L), and MW23-03 (2 µg/L) exceeded the applicable MECP Table 7 standard (0.5 µg/L);

— Concentrations of 1,2-dichloroethylene (cis) in the groundwater samples collected from monitoring wells MW21-01 (220 µg/L), MW21-02 (860 µg/L), MW23-01 (as well as field duplicate MW23-11) (max. 630 µg/L in August 2023 and 40 µg/L in November 2023), MW23-02 (16 µg/L in September 2023, 33 µg/L in November 2023, and 27 µg/L in January 2024), and MW23-03 (940 µg/L) exceeded the applicable MECP Table 7 standard (1.6 µg/L);

— Concentrations of 1,2-dichloroethylene (trans) in the groundwater samples collected from monitoring wells MW21-01 (3.7 µg/L), MW21-02 (12 µg/L), MW23-01 (as well as field duplicate MW23-11) (max. 4.7 µg/L), MW23-02 (1.7 µg/L), and MW23-03 (14 µg/L) exceeded the applicable MECP Table 7 standard (1.6 µg/L);

— Concentrations of tetrachloroethylene in the groundwater samples collected from monitoring wells MW21-01 (930 µg/L), MW21-02 (890 µg/L), MW21-03 (32 µg/L in April 2021 and 2.4 µg/L in August 2023), MW23-01 (as well as field duplicate MW23-11) (max. 13 µg/L) in August 2023 and 0.57 µg/L in November 2023, MW23-02 (720 µg/L in September 2023, 1,400 µg/L in November 2023, and 730 µg/L in January 2024), MW23-03 (9.6 µg/L), and MW23-04 (8.4 µg/L) exceeded the applicable MECP Table 7 standard (0.5 µg/L);

— Concentrations of trichloroethylene in the groundwater samples collected from monitoring wells MW21-01 (100 µg/L), MW21-02 (160 µg/L), MW21-03 (2 µg/L in April 2021 and 0.72 in August 2023), MW23-01 (as well as field duplicate MW23-11) (110 µg/L) in August 2023 and 1.2 µg/L in November 2023, MW23-02 (44 µg/L in September 2023, 120 µg/L in November 2023, and 51 µg/L in January

2024), MW23-03 (23 µg/L), and MW23-04 (0.65 µg/L) exceeded the applicable MECP Table 7 standard (0.5 µg/L);

— Concentrations of vinyl chloride in the groundwater samples collected from monitoring wells MW21-01 (7 µg/L), MW21-02 (31 µg/L), MW23-01 (as well as field duplicate MW23-11) (100 µg/L) in August 2023 and 7.3 µg/L in November 2023, MW23-02 (0.96 µg/L in September 2023, 4.0 µg/L in November 2023, and 3.2 µg/L in January 2024), and MW23-03 (88 µg/L) exceeded the applicable MECP Table 7 standard (0.5 µg/L);

— Concentrations of PHC F1 in the groundwater samples collected from monitoring wells MW23-02 (as well as field duplicate MW23-20) (max. 540 µg/L) in August 2023 as well as November 2023 (480 µg/L) exceeded the applicable MECP Table 7 standard (420 µg/L); and

— Concentrations of PHC F2 (370 µg/L) and PHC F3 (750 µg/L) in the groundwater sample collected from monitoring well MW21-02 exceeded the applicable MECP Table 7 standards (150 µg/L and 500 µg/L, respectively).

Concentrations of all other analyzed parameters in groundwater were below the MECP Table 7 SCS.

Refer to Table D-3 in Appendix D for a summary of the groundwater analytical results and their comparison to SCS. A copy of the laboratory certificates of analysis are provided in Appendix E.

It should be noted that hydrocarbon odours were noted during well development activities at monitoring well locations MW21-02 and MW21-03, on April 29, 2021. No visual or olfactory evidence of petroleum or other impacts were observed during any other groundwater purging or sampling activities. No sheen or free-phase liquid petroleum hydrocarbons or dense non-aqueous phase liquids were noted during drilling or groundwater sampling activities.

5.8 Sediment Quality

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

5.9 Quality Assurance and Quality Control Results

All sample containers (with the appropriate preservatives added) including soil field preservation containers were provided by BV labs. The samples were kept cold in coolers with ice and delivered to the laboratory within the required timelines to fulfill sample storage and holding time requirements under chain of custody protocols.

Laboratory certificates of analysis have been received for all soil and groundwater samples analyzed as part of this assessment. Copies of the laboratory certificates of analysis are presented in Appendix E.

Chemical analyses for specific analytical test groups were performed in accordance with the MOE 2011 document *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act*. Analytical test group specific quality control samples were prepared and analyzed by the contractual laboratory, including:

— Duplicates to method reproducibility and sample homogeneity;

— Method blanks to evaluate potential bias;

— Spike blanks to evaluate method accuracy and bias; and,

— Matrix spikes to evaluate extraction efficiency and matrix interferences.

Laboratory quality control samples generally met the required performance standards as outlined in Table 5-1: Performance Criteria - Acid/Base Neutral Extractable Organic Compounds (ABNs), Chlorophenols (CPs), Polycyclic Aromatic Hydrocarbons (PAHs), Table 5-6: Performance Criteria -

Petroleum Hydrocarbons (PHCs), Table 5-7: Performance Criteria - Volatile Organic Compounds (VOCs), and Table 5-14: Performance Criteria - Boron, Hot Water Soluble (HWS); Calcium, Nitrate, Nitrogen (total), Magnesium, Sodium, Metals (Including Hydride-Forming Metals).

The *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act* as summarized below:

— Method Blank: target analytes are less than reporting limit;

— Matrix Spike: percent recoveries are between 50-140% for PAHs, 60-140% for PHCs, 50-140% for VOCs, and 70-130% for metals; and

— Sample Duplicate: RPD ≤30% for water and ≤40% for solids for PAHs, ≤30% for water and ≤30% for solids for PHCs, ≤30% for waters and ≤50% for solids for VOCs, and 20% for water and ≤30% for solids for metals.

Table 5.9. Summary of QA/QC Program.

Sample Location	Primary Sample ID	Duplicate Sample ID	Media	Analysis Performed
MW23-01	MW23-01	MW23-11	Groundwater	PHCs F1-F4, VOCs, PAHs, Metals and Hydride-Forming metals
MW23-02	MW23-02	MW23-20	Groundwater	PHC F1, BTEX

Relative percent difference (RPD) calculation was completed to evaluate precision of the blind field duplicate analyses using the following equation:

$$Duplicate\ RPD\ = \frac{(Sample\ Result\ -\ Duplicate\ Result)}{(Sample\ Result\ +\ Duplicate\ Result)\ /\ 2}\ X\ 100\%$$

Relative percent differences are only calculated for a parameter when the average of both sample concentrations (the parent and the duplicate) are greater than five times the laboratory reporting detection limit (RDL).

All statistically valid RPDs were within the alert limits for groundwater between the primary groundwater sample and its duplicate groundwater sample. In addition, all VOC concentrations in the groundwater trip blanks and field blanks were below laboratory detection limits.

Based on the above discussion, it is the opinion of the Englobe QP that the overall objectives of the investigation were met in terms of the quality of the field and laboratory data obtained.

5.10 Phase Two Conceptual Site Model

The Phase Two Conceptual Site Model (CSM) is provided in Appendix F. A Legal Survey of the Site can be found in Appendix A.

6 Conclusions

Englobe conducted a Phase Two ESA at the property located at 424 Churchill Avenue in Ottawa, Ontario, to evaluate the environmental quality of soils and groundwater at the Site based upon the findings of the Phase One ESA report.

A total of six soil samples were collected during the investigation and submitted for laboratory analysis of various COPCs, specifically as follows:

— Three soil samples (one from each of boreholes MW21-01, MW21-02, MW21-03) were submitted for laboratory analysis of petroleum hydrocarbons (PHCs F1-F4) and volatile organic compounds (VOCs);

— Three soil samples (one from each of boreholes MW23-01, MW23-03, and MW23-04) were submitted for laboratory analysis of PHCs F1-F4, VOCs, polycyclic aromatic hydrocarbons (PAHs), metals, Arsenic (As), Antimony (Sb) and Selenium (Se); and

— One soil sample, collected from borehole MW21-02, was submitted for laboratory analysis of pH.

A total of 14 groundwater samples (a minimum of one sample from each of monitoring wells MW21-01 through MW21-03, MW23-1 through MW23-04, and MW24-1), in addition to two blind field duplicates, were collected during the investigation and submitted for laboratory analysis of one or more of the following parameters: PHCs F1-F4, BTEX, VOCs, PAHs, metals, As, Sb, Se, and dissolved chloride.

There was no water body or sediment identified on the Phase Two Property at the time of Englobe's investigation; therefore, surface water and sediment were not investigated as part of this Phase Two ESA.

Soil sample results were compared to the MECP Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition (Residential/Parkland/Institutional Property Use, medium-fine textured soil as per "Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act", April 15, 2011.

Based on the laboratory analytical results, concentrations of all analyzed parameters in the laboratory-submitted soil samples met the applicable MECP Table 7 SCS, with the exception of:

— Concentrations of PHC F4 gravimetric (6,100 µg/g) and barium (630 µg/g) at MW23-01 at a depth of 0.3 to 0.9 m bgs; and

— Concentrations of lead (200 µg/g), anthracene (1.2 µg/g), benzo(a)anthracene (3.5 µg/g), benzo(a)pyrene (3 µg/g), benzo(b/j) fluoranthene (4.3 µg/g), benzo(k)fluoranthene (1.7 µg/g), dibenzo(a,h)anthracene (0.54 µg/g), fluoranthene (8.6 µg/g), and indeno(1,2,3-cd)pyrene (2 µg/g) at MW23-04 at a depth of 0 to 0.3 m bgs.

Concentrations of all other analyzed parameters in soil were below the MECP Table 7 SCS.

Groundwater sample results were compared to the MECP Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition (All Types of Property Use, medium-fine textured soils) as per "Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act", April 2011.

Based on the laboratory analytical results, the following exceedances of the applicable MECP Table 7 were detected in the groundwater samples collected:

— Concentrations of 1,1- dichloroethylene in the groundwater sample collected from monitoring well MW21-02 (0.66 µg/L), MW23-01 (as well as field duplicate MW23-11) (1.2 µg/L), and MW23-03 (2 µg/L) exceeded the applicable MECP Table 7 standard (0.5 µg/L);

— Concentrations of 1,2-dichloroethylene (cis) in the groundwater samples collected from monitoring wells MW21-01 (220 µg/L), MW21-02 (860 µg/L), MW23-01 (as well as field duplicate MW23-11) (max. 630 µg/L in August 2023 and 40 µg/L in November 2023), MW23-02 (16 µg/L in September 2023, 33 µg/L in November 2023, and 27 µg/L in January 2024), and MW23-03 (940 µg/L) exceeded the applicable MECP Table 7 standard (1.6 µg/L);

— Concentrations of 1,2-dichloroethylene (trans) in the groundwater samples collected from monitoring wells MW21-01 (3.7 µg/L), MW21-02 (12 µg/L), MW23-01 (as well as field duplicate MW23-11) (max. 4.7 µg/L), MW23-02 (1.7 µg/L), and MW23-03 (14 µg/L) exceeded the applicable MECP Table 7 standard (1.6 µg/L);

— Concentrations of tetrachloroethylene in the groundwater samples collected from monitoring wells MW21-01 (930 µg/L), MW21-02 (890 µg/L), MW21-03 (32 µg/L in April 2021 and 2.4 µg/L in August 2023), MW23-01 (as well as field duplicate MW23-11) (max. 13 µg/L) in August 2023 and 0.57 µg/L in November 2023, MW23-02 (720 µg/L in September 2023, 1,400 µg/L in November 2023, and 730 µg/L in January 2024), MW23-03 (9.6 µg/L), and MW23-04 (8.4 µg/L) exceeded the applicable MECP Table 7 standard (0.5 µg/L);

— Concentrations of trichloroethylene in the groundwater samples collected from monitoring wells MW21-01 (100 µg/L), MW21-02 (160 µg/L), MW21-03 (2 µg/L in April 2021 and 0.72 in August 2023), MW23-01 (as well as field duplicate MW23-11) (110 µg/L) in August 2023 and 1.2 µg/L in November 2023, MW23-02 (44 µg/L in September 2023, 120 µg/L in November 2023, and 51 µg/L in January 2024), MW23-03 (23 µg/L), and MW23-04 (0.65 µg/L) exceeded the applicable MECP Table 7 standard (0.5 µg/L);

— Concentrations of vinyl chloride in the groundwater samples collected from monitoring wells MW21-01 (7 µg/L), MW21-02 (31 µg/L), MW23-01 (as well as field duplicate MW23-11) (100 µg/L) in August 2023 and 7.3 µg/L in November 2023, MW23-02 (0.96 µg/L in September 2023, 4.0 µg/L in November 2023, and 3.2 µg/L in January 2024), and MW23-03 (88 µg/L) exceeded the applicable MECP Table 7 standard (0.5 µg/L);

— Concentrations of PHC F1 in the groundwater samples collected from monitoring wells MW23-02 (as well as field duplicate MW23-20) (max. 540 µg/L) in August 2023 as well as November 2023 (480 µg/L) exceeded the applicable MECP Table 7 standard (420 µg/L); and

— Concentrations of PHC F2 (370 µg/L) and PHC F3 (750 µg/L) in the groundwater sample collected from monitoring well MW21-02 exceeded the applicable MECP Table 7 standards (150 µg/L and 500 µg/L, respectively).

Concentrations of all other analyzed parameters in groundwater were below the MECP Table 7 SCS.

Given the presence of confirmed VOC and PHC impacts within the soil and groundwater at various borehole/ monitoring well locations on Site, it is recommended that the identified soil and groundwater contamination (exceeding the applicable MECP Table 7 standards) on Site be addressed through the completion of a Risk Assessment, in support of a Record of Site Condition, in accordance with O. Reg. 153/04 (as amended). It should be noted that the Risk Assessment is underway and is being completed by Englobe under a separate cover.

Furthermore, with regards to the management of impacted soil during construction, any excess soils generated during the re-development of the Site must be managed in accordance with O. Reg. 406/19 (as amended).

6.1 Signatures

Salim Eid, P. Eng.
Senior Project Manager

Andrew Naoum, P. Eng., QP_{ESA}
Senior Director of Operations, Engineering

By signing the above, the Qualified Person (QP) confirms that they have conducted and/or supervised the Phase Two ESA and that all findings and conclusions of the Phase Two ESA are included in this report.

7 References

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Ontario Ministry of the Environment, Conservation and Parks, as amended January 1, 2014. *Ontario Resources Act R.R.O. 1990, Regulation 903 – Wells.*

8 Statement of Limitations

This report (hereinafter, the “Report”) was prepared by Englobe Corp. (herein the “Company”) and is provided for the sole exclusive use and benefit of the Churchill Properties Inc. (the “Client”). Ownership in and copyright for the contents of the Report belong to the Company.

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This Report should be considered in its entirety; selecting specific portions of the Report may result in the misinterpretation of the content.

The work performed by the Company was carried out in accordance with the terms and conditions specified in the Professional Services Agreement between the Company and the Client, in accordance with currently accepted engineering standards and practices and in a manner consistent with the level of skill, care and competence ordinarily exercised by members of the same profession currently practicing under similar conditions and like circumstances in the same jurisdiction in which the services were provided. Standards, guidelines, and practices may change over time; those which were applied to produce this Report may be obsolete or unacceptable at a later date.

The findings, recommendations, suggestions, or opinions expressed in this Report reflect the Company’s best professional judgement based on observations and/or information reasonably available at the time the work was performed, as appropriate for the scope, work schedule and budgetary constraints established by the Client. No other warranty or representation, expressed or implied, is included in this Report including, but not limited to, that the Report deals with all issues potentially applicable to the site and/or that the Report deals with any and all of the important features of the Site, except as expressly provided in the scope of work.

This report has been prepared for the specific site, development, building, design or building assessment objectives and/or purposes that were described to the Company by the Client. The applicability and reliability of the content of this Report, subject to the limitations provided herein, are only valid to the extent that there has been no material alteration or variation thereto, and the Company expressly disclaims any obligation to update the Report. However, the Company reserves the right to amend or supplement this Report based on additional information, documentation or evidence made available to it.

The Company makes no representation concerning the legal significance of its findings, nor as to the present or future value of the property, or its fitness for a particular purpose and hereby disclaims any responsibility or liability for consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

Since the passage of time, natural occurrences, and direct or indirect human intervention may affect the views, conclusions, and recommendations (if any) provided in the Report, it is intended for immediate use.

This Statement of Limitations forms an integral part of the Report.

In preparing this Report, the Company has relied in good faith on information provided by others and has assumed that such information is factual, accurate, and complete. The Company accepts no responsibility

or liability for any deficiency, misstatement, or inaccuracy in this Report resulting from the information provided, concealed, or not fully disclosed by those individuals.

The assessment should not be considered a comprehensive audit that covers and eliminates all present, past and future risks. The information presented in this Report is based on data collected during the completion of the monitoring conducted. The overall site/building/subsurface/groundwater conditions were extrapolated based on information collected at specific sampling locations. Professional judgement was exercised in gathering and analyzing data; however, no monitoring method can completely eliminate the possibility of obtaining partially imprecise or incomplete information; it can only reduce the possibility to an acceptable level. Consequently, the actual site/building/subsurface/groundwater conditions between the sampling points may vary. In addition, analysis has been carried out only for the chemical and physical parameters identified, and it should not be inferred that other chemical species or physical conditions are not present.

It is recommended practice that the Company be retained during subsequent phases of the project, to confirm that the conditions throughout the site do not deviate materially from those encountered throughout the sampling program.

Any description of the site and its physical setting documented in this Report is presented for informational purposes only, to provide the reader a better understanding of the site and scope of work. Any topographic benchmarks and elevations are primarily to establish relative elevation differences between sampling locations and should not be used for other purposes such as grading, excavation, planning, development, or similar purposes.

Any results from laboratory or other subcontractors reported herein have been carried out by others, and the Company cannot warrant their accuracy.

9 Tables

9.1 Monitoring Well Installation

Table 10.1. Monitoring well installation details.

Location	Easting (m)	Northing (m)	Well Depth (mbgs)	Elevation at ground surface (masl)	Screened Interval (mbgs)	Ground surface to top of monitoring well casing	Installation Date (dd/mm/yyyy)
MW21-01	5026693.517	441011.962	11.1	75.365	8.1 - 11.1	0.05	04/21/2021
MW21-02	5026686.879	441001.753	10.0	75.530	7 - 10	0.06	04/21/2021
MW21-03	5026664.437	440991.735	12.8	75.353	9.8 - 12.8	0.04	04/22/2021
MW23-01	5026690.656	441013.409	16.8	75.268	13.5 - 16.5	0.09	07/11/2023
MW23-02	5026692.766	441009.374	9.2	73.571	6 - 9	0.10	07/19/2023
MW23-03	5026685.848	441000.022	9.2	75.923	6 - 9	0.10	07/20/2023
MW23-04	5026692.732	441016.497	8.2	75.773	4.5- 7.5	0.08	07/12/2023
MW24-1	5026689.78	441012.47	30.5	75.268	27.5 - 30.5	0.11	08/01/2024

9.2 Water Levels

Table 10.2. Groundwater elevations.

Sample Location	Easting (m)	Northing (m)	Elevation at ground surface (masl)	Sampling Date (dd/mm/yyyy)	Groundwater Depth (m bgs)	Groundwater Elevation (masl
MW21-01	5026693.517	441011.962	75.365	04/29/2021	6.46	68.905
MW21-02	5026686.879	441001.753	75.530	04/30/2021	6.80	68.73
				15/08/2023	5.65	69.88
MW21-03	5026664.437	440991.735	75.353	04/29/2021	6.92	68.433
				15/08/2023	6.71	68.643
MW23-01	5026690.656	441013.409	75.268	15/08/2023	5.89	69.378

MW23-02	5026692.766	441009.374	73.571	15/08/2023	6.25	69.671
MW23-03	5026685.848	441000.022	75.923	15/08/2023	6.23	69.693
MW23-04	5026692.732	441016.497	75.773	15/08/2023	5.99	69.783
MW24-1	5026689.78	441012.47	75.268	25/01/2024	11.44	63.828

9.3 LNAPLs and DNAPLs

LNAPLs/DNAPLs were not encountered in the boreholes during drilling activities or during groundwater sampling events.

9.4 Soil Data

Please refer to Table D-1 Appendix D for a summary of the soil analytical results. A copy of the laboratory certificates of analysis are provided in Appendix D.

9.5 Groundwater Data

Refer to Table D-3 in Appendix D for a summary of the groundwater analytical results. A copy of the laboratory certificates of analysis are provided in Appendix D.

9.6 Sediment Data

No sediment samples were collected as part of this Phase Two ESA.

9.7 Soil: Maximum Concentration Data

The soil maximum concentration data is collected and provided in Table D-2 Appendix D.

9.8 Groundwater: Maximum Concentration Data

The soil maximum concentration data is collected and provided in Table D-4 in Appendix D.

Appendix A
Legal Survey & Figures

ENGLOBE

Note

1. This drawing shall be read in conjunction with the associated technical report.

0	03/15/2024	Original	AN
Revision	Date	Issue	Approval

Client: **Churchill Properties Inc.**

Site: **424 Churchill Avenue North, Ottawa, ON**

ENGLOBE

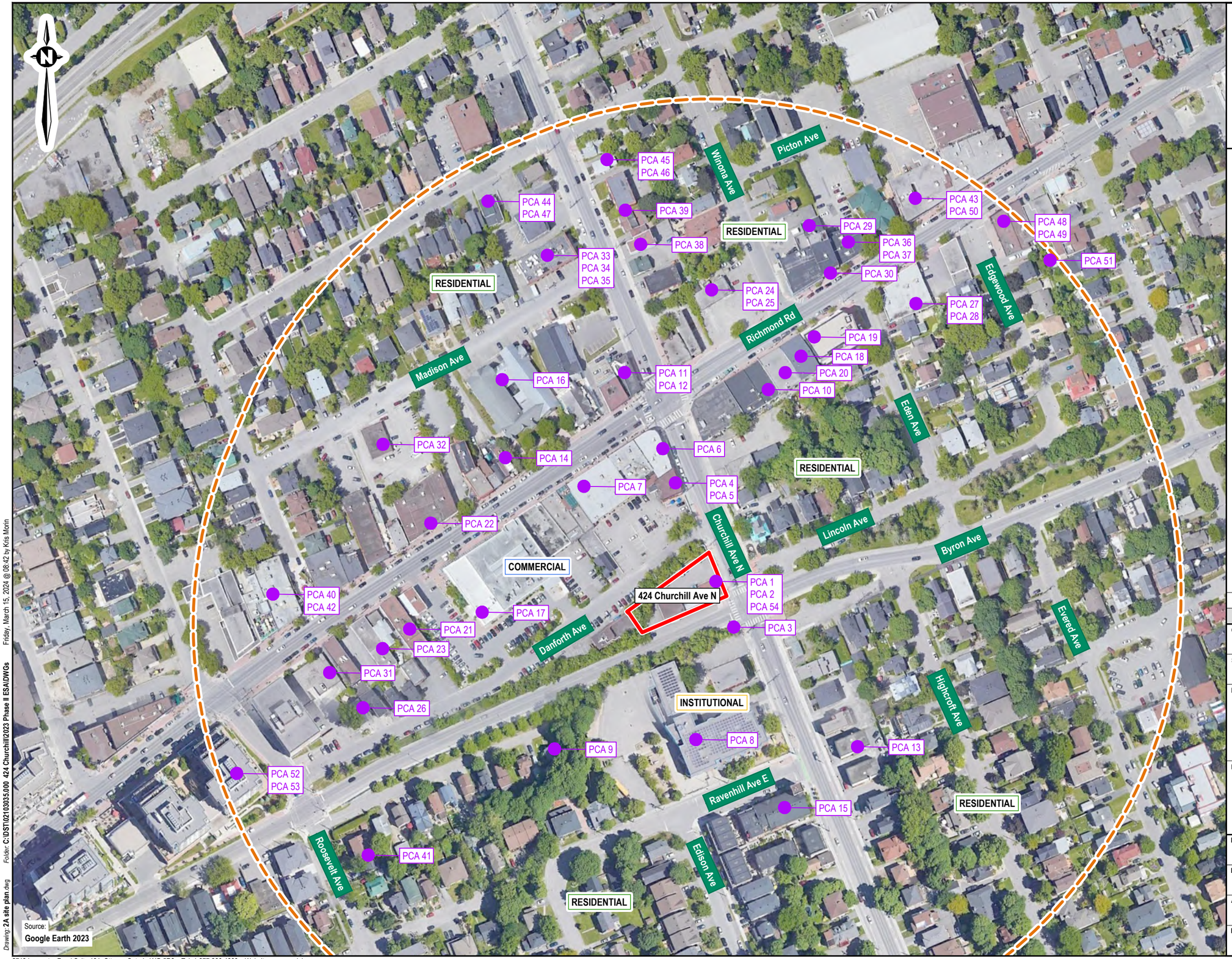
Report Title: **Phase Two Environmental Site Assessment**

Drawing Title: **Site Location Map**

Designed By	Date
C.O.	March 2024
Drawn By	Project No.
K.M.	02103035.000
Approved By	Figure No.
A.N.	1
Scale	
As shown	

Drawing: 1 site location.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Friday, March 15, 2024 @ 08:42 by Kris Morin

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



Note

1. This drawing shall be read in conjunction with the associated technical report.
2. Refer to Fig. 2B for PCA details.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Phase One Study Area
- PCA — Potentially Contaminating Activity

1:2 000

0 20 40 60 80 100 m

0 1:1 5 cm

Scale accurate when printed at 100% using paper size ANSI full bleed B (11.0 x 17.0 Inches)

0	03/15/2024	Original	AN
Revision	Date	Issue	Approval

Client
Churchill Properties Inc.

Site
424 Churchill Avenue North, Ottawa, ON

Report Title
Phase Two Environmental Site Assessment

Drawing Title
Potentially Contaminating Activities (PCAs)

Designed By	Scale
C.O.	As shown
Drawn By	**Date**
K.M.	March 2024
Approved By	**Project No.**
A.N.	02103035.000

Figure No. 2A

Drawing: 2A site plan.dwg Folder: C:\DST\02103035.000_424 Churchill\2023 Phase II ESA\DWGs Friday, March 15, 2024 @ 08:42 by Kris Morin

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PCA ID	O.Reg 153/04 PCA No.	PCA Property Address	Historical and/or Current Activities
PCA 1	37. - Operation of dry cleaning equipment (where chemicals are used)	424 Churchill Avenue North	Presence of laundromat and dry cleaning facility
PCA 2	Undefined PCA - Application of salt for de-icing purposes for the safety of vehicular or pedestrian traffic	424 Churchill Avenue North	Application of salt for de-icing purposes for the safety of vehicular or pedestrian traffic
PCA 3	46. - Rail yards, tracks and spurs	Byron Avenue	Historical presence of an electric rail line right of way
PCA 4	31. - Ink manufacturing, processing and bulk storage	412 Churchill Avenue North	Historical presence of commercial printers (Westboro Printers Ltd. from 1965 to 1996)
PCA 5	33. - Metal treatment, coating, plating and finishing	412 Churchill Avenue North	Historical presence of a plate making and engraver workshop (Albert & Son Engravers)
PCA 6	28. - Gasoline and associated products storage in fixed tanks	408 Churchill Avenue North	Record of 3000 Gallon fuel oil UST in 1958
PCA 7	37. - Operation of dry cleaning equipment (where chemicals are used)	354 Richmond Road	Historical presence of dry cleaner
PCA 8	28. - Gasoline and associated products storage in fixed tanks	345 Ravenhill Avenue	Record of 3000 Gallon bunker oil UST in 1951
PCA 9	Undefined PCA - Spill	518 Byron Avenue	Historic 400 L furnace oil spill
PCA 10	31. - Ink manufacturing, processing and bulk storage	322 Richmond Road	Valberg Imaging
PCA 11	10. - Commercial autobody shops	337 Richmond Road	Record of motor vehicle repair shops (Westboro Police Village) including record of heavy equipment storage
PCA 12	Undefined PCA - Salt storage	337 Richmond Road	Record of salt and sand storage
PCA 13	28. - Gasoline and associated products storage in fixed tanks	449 Churchill Avenue North	Record of historic fuel oil UST, previously leaking and removed in 1973
PCA 14	37. - Operation of dry cleaning equipment (where chemicals are used)	357 Richmond Road	Record of laundries and cleaners (superior services store)
PCA 15	28. - Gasoline and associated products storage in fixed tanks	450 Churchill Avenue North	Record of 3000 Gallon fuel oil UST in 1958
PCA 16	28. - Gasoline and associated products storage in fixed tanks	347 Richmond Road	Record of 1000 Gallon fuel oil AST in concrete bunker in 1953
PCA 17	28. - Gasoline and associated products storage in fixed tanks	372 Richmond Road	Historical presence of gasoline service station
PCA 18	37. - Operation of dry cleaning equipment (where chemicals are used)	312 Richmond Road	Record of laundries and cleaners (Corley Cleaners)
PCA 19	10. - Commercial autobody shops	300 Richmond Road	Historic records of auto body garages
PCA 20	54. - Textile manufacturing and processing	314 Richmond Road	Cut and sew clothing manufacturing
PCA 21	37. - Operation of dry cleaning equipment (where chemicals are used)	384 Richmond Road	Record of laundries and cleaners (Palmer Cleaners)
PCA 22	10. - Commercial autobody shops	371 Richmond Road	Record of motor vehicle repair shops (Westboro Motor Sales Ltd.)
PCA 23	Undefined PCA - Spill	388 Richmond Road	Historic records of fuel spills
PCA 24	28. - Gasoline and associated products storage in fixed tanks	319 Richmond Road	Historical presence of gasoline service station with USTs
PCA 25	10. - Commercial autobody shops	319 Richmond Road	Historical presence of general automotive repair shop in 2013 (Avenues Garage Ltd.)
PCA 26	Undefined PCA - Spill	389 Danforth Avenue	Historical record of fuel spill of unknown volume
PCA 27	28. - Gasoline and associated products storage in fixed tanks	298 Richmond Road	Two records of 2 fuel oil USTs
PCA 28	10. - Commercial autobody shops	298 Richmond Road	Record of motor vehicle repair shop
PCA 29	31. - Ink manufacturing, processing and bulk storage	383 Winona Avenue	Presence of commercial printing facility
PCA 30	31. - Ink manufacturing, processing and bulk storage	311 Richmond Road	Presence of commercial printing facility
PCA 31	10. - Commercial autobody shops	394 Richmond Road	Record of motor vehicle repair shop (Archie Macdonald Ltd. New and Used Cars)
PCA 32	10. - Commercial autobody shops	376 Madison Avenue	Record of motor vehicle repair shop (Lytle Roboring Services Ltd.)
PCA 33	28. - Gasoline and associated products storage in fixed tanks	376 Churchill Avenue North	Record of oil UST
PCA 34	31. - Ink manufacturing, processing and bulk storage	376 Churchill Avenue North	Records of publishing and commercial printing industries
PCA 35	Undefined PCA - Manufacturing	376 Churchill Avenue North	Record of industrial machinery manufacturing
PCA 36	28. - Gasoline and associated products storage in fixed tanks	307 Richmond Road	Record of fuel oil UST in 1963 and fuel oil AST in 1953
PCA 37	10. - Commercial autobody shops	307 Richmond Road	Record of motor vehicle repair shops (unnamed auto body repairs)
PCA 38	34. - Metal manufacturing	377 Churchill Avenue North	Record of jewelry and silverware manufacturing
PCA 39	54. - Textile manufacturing and processing	375 Churchill Avenue North	Presence of cut and sew clothing company
PCA 40	Undefined PCA - Manufacturing	393 Richmond Road	Wood counter manufacturing
PCA 41	10. - Commercial autobody shops	433 Roosevelt Avenue	Record of motor vehicle repair shop (The Registered Trimmer)
PCA 42	39. - Paints manufacturing, processing and bulk storage	397 Richmond Road	Record of paint storage (Stained Glass Stuff)
PCA 43	10. - Commercial autobody shops	277 Richmond Road	Record of motor vehicle repair shops (unnamed auto body repairs)
PCA 44	Undefined PCA - Spill	348 Whitby Avenue	Record of historic furnace oil spill of unknown quantity
PCA 45	31. - Ink manufacturing, processing and bulk storage	363 Churchill Avenue North	Record of combined publishing and printing (Saratime Publishings Inc.)
PCA 46	Undefined PCA - Spill	363 Churchill Avenue North	Record of historic 140 L hydraulic fluid spill
PCA 47	31. - Ink manufacturing, processing and bulk storage	364 Churchill Avenue North	Historic record of plate-making, typesetting and bindery industry operations (Metrotype Graphics Ltd.)
PCA 48	10. - Commercial autobody shops	276 Richmond Road	Unnamed gas and auto repair centre
PCA 49	37. - Operation of dry cleaning equipment (where chemicals are used)	282 Richmond Road	Record of laundries and cleaners (Sparkle Cleaners)
PCA 50	43. - Plastics (including Fibreglass) manufacturing and processing	290 Picton Avenue	Historic plastic product manufacturing
PCA 51	Undefined PCA - Spill	400 Athlone Avenue	Record of historic hydraulic fluid spill of unknown quantity
PCA 52	31. - Ink manufacturing, processing and bulk storage	416 Richmond Road	Historic commercial printing operations
PCA 53	28. - Gasoline and associated products storage in fixed tanks	416 Richmond Road	Historic record of UST
PCA 54	30. - Importation of fill material of unknown quality	424 Churchill Avenue North	Potential historical importation of fill material of unknown quality on Site

Note

1. This drawing shall be read in conjunction with the associated technical report.
2. Refer to Fig. 2A for PCA locations.

0	03/15/2024	Original	AN
Revision	Date	Issue	Approval

Client
Churchill Properties Inc.

Site
424 Churchill Avenue North, Ottawa, ON

Report Title
Phase Two Environmental Site Assessment

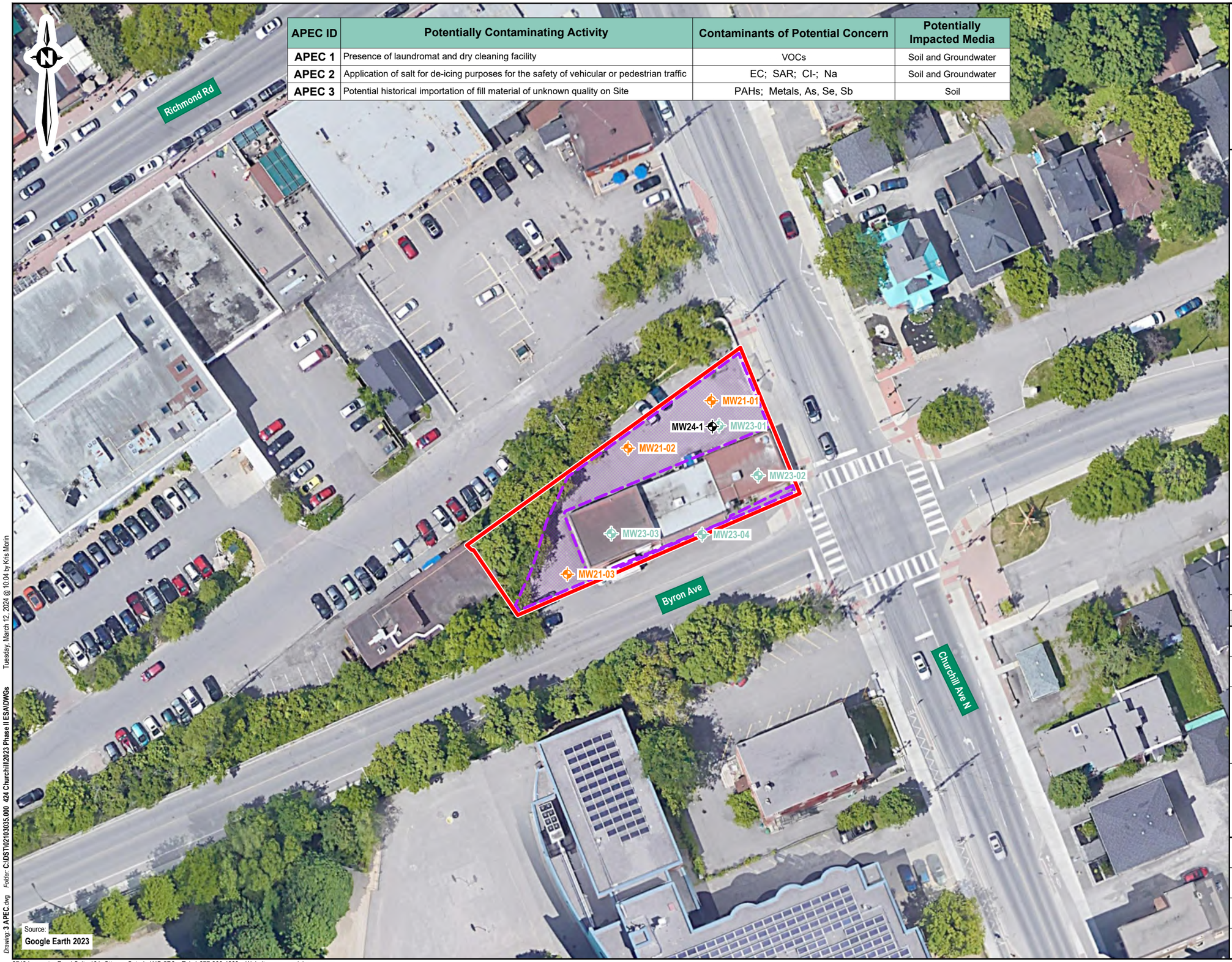
Drawing Title
PCA Details

Designed By	Scale
C.O.	
Drawn By	**Date**
K.M.	March 2024
Approved By	**Project No.**
A.N.	02103035.000

Figure No.
2B

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com

APEC ID	Potentially Contaminating Activity	Contaminants of Potential Concern	Potentially Impacted Media
APEC 1	Presence of laundromat and dry cleaning facility	VOCs	Soil and Groundwater
APEC 2	Application of salt for de-icing purposes for the safety of vehicular or pedestrian traffic	EC; SAR; Cl-; Na	Soil and Groundwater
APEC 3	Potential historical importation of fill material of unknown quality on Site	PAHs; Metals, As, Se, Sb	Soil



Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- APEC 1 / APEC 3 (RSC Property Boundary)
- APEC 2
- Location of Monitoring Well (Englobe, 2021)
- Location of Monitoring Well (Englobe, 2023)
- Location of Deep Monitoring Well (Englobe, 2024)

1:600

0 10 20 30 m

0 1:1 5 cm

Scale accurate when printed at 100% using paper size ANSI full bleed B (11.0 x 17.0 Inches)

0	03/15/2024	Original	AN
Revision	Date	Issue	Approval

Client: **Churchill Properties Inc.**

Site: **424 Churchill Avenue North, Ottawa, ON**

Report Title: **Phase Two Environmental Site Assessment**

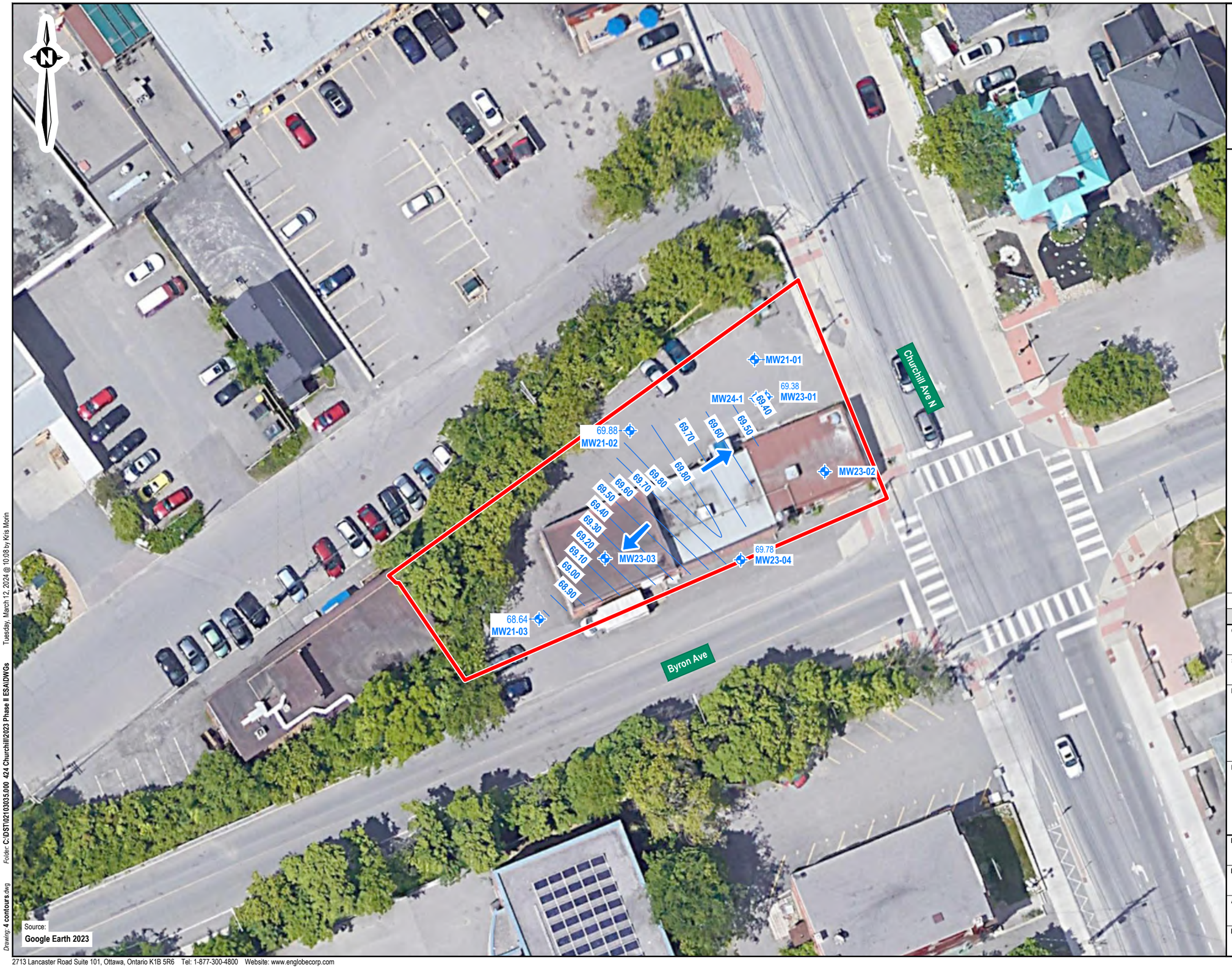
Drawing Title: **Areas of Potential Environmental Concern**

Designed By	Scale
C.O.	As shown
Drawn By	**Date**
K.M.	March 2024
Approved By	**Project No.**
A.N.	02103035.000

Figure No. **3**

Drawing: 3 APEC.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:04 by Kris Morin

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Approximate Location of Monitoring Well
- 69.88 Measured Groundwater Elevation (masl) (2023)
- Groundwater Contour (masl) (2023)
- Interpreted Groundwater Flow Direction (2023)

1:400

0 4 8 12 16 20 m

0 1:1 5 cm

Scale accurate when printed at 100% using paper size ANSI full bleed B (11.0 x 17.0 Inches)

Revision	Date	Issue	Approval
0	03/15/2024	Original	AN

Client: **Churchill Properties Inc.**

Site: **424 Churchill Avenue North, Ottawa, ON**

Report Title: **Phase Two Environmental Site Assessment**

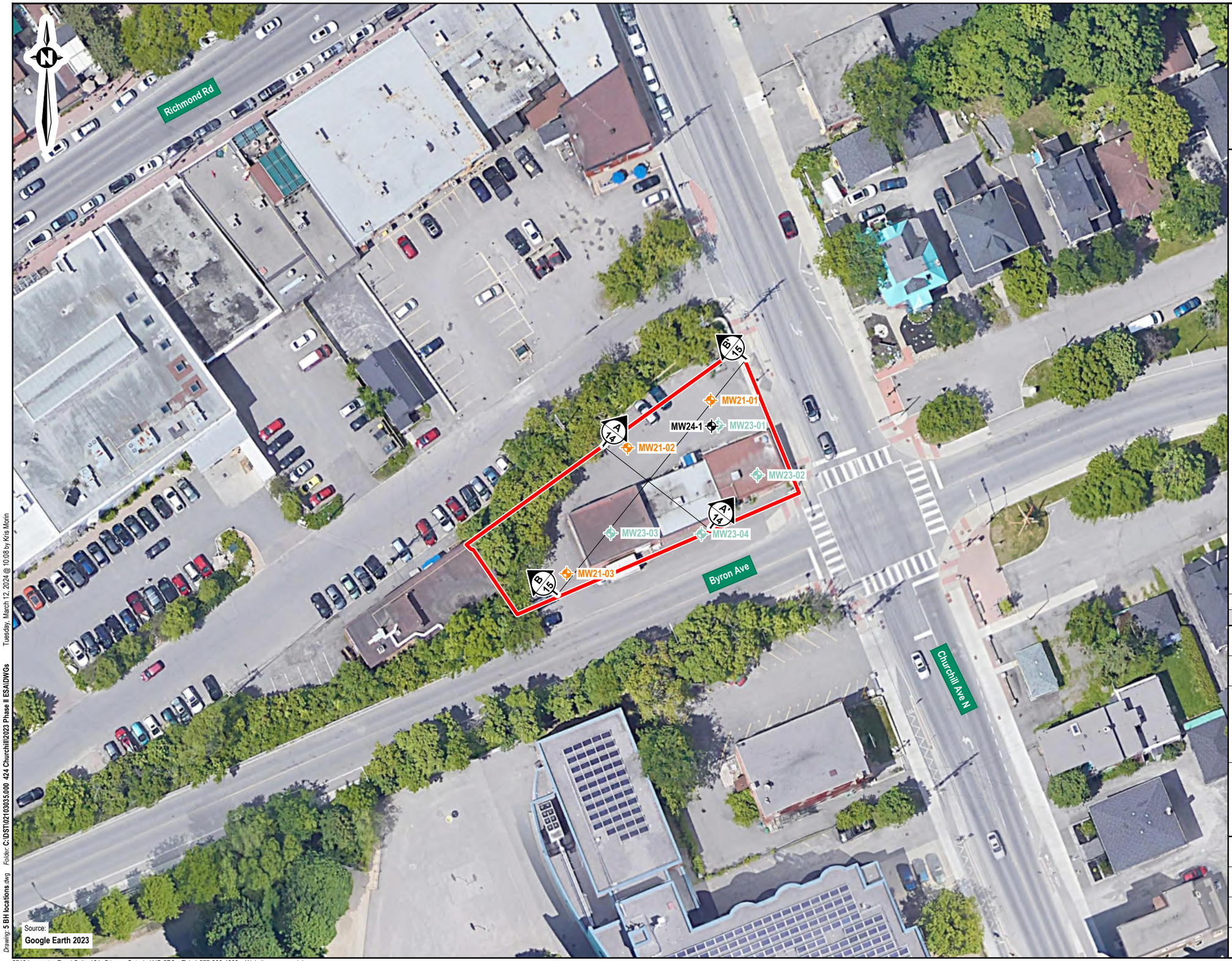
Drawing Title: **Groundwater Contours and Interpreted Flow Direction**

Designed By: C.O.	Scale: As shown
Drawn By: K.M.	Date: March 2024
Approved By: A.N.	Project No.: 02103035.000

Figure No.: **4**

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com

Drawing: 4 contours.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:08 by Kris Morin



Source: Google Earth 2023

Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Location of Monitoring Well (Englobe, 2021)
- Location of Monitoring Well (Englobe, 2023)
- Location of Deep Monitoring Well (Englobe, 2024)
- Cross Section Reference
- Cross Section Figure

1:600

0 10 20 30 m

0 1:1 5 cm

Scale accurate when printed at 100% using paper size ANSI full bleed B (11.0 x 17.0 Inches)

0	03/15/2024	Original	AN
Revision	Date	Issue	Approval

Client: **Churchill Properties Inc.**

Site: **424 Churchill Avenue North, Ottawa, ON**

Report Title: **Phase Two Environmental Site Assessment**

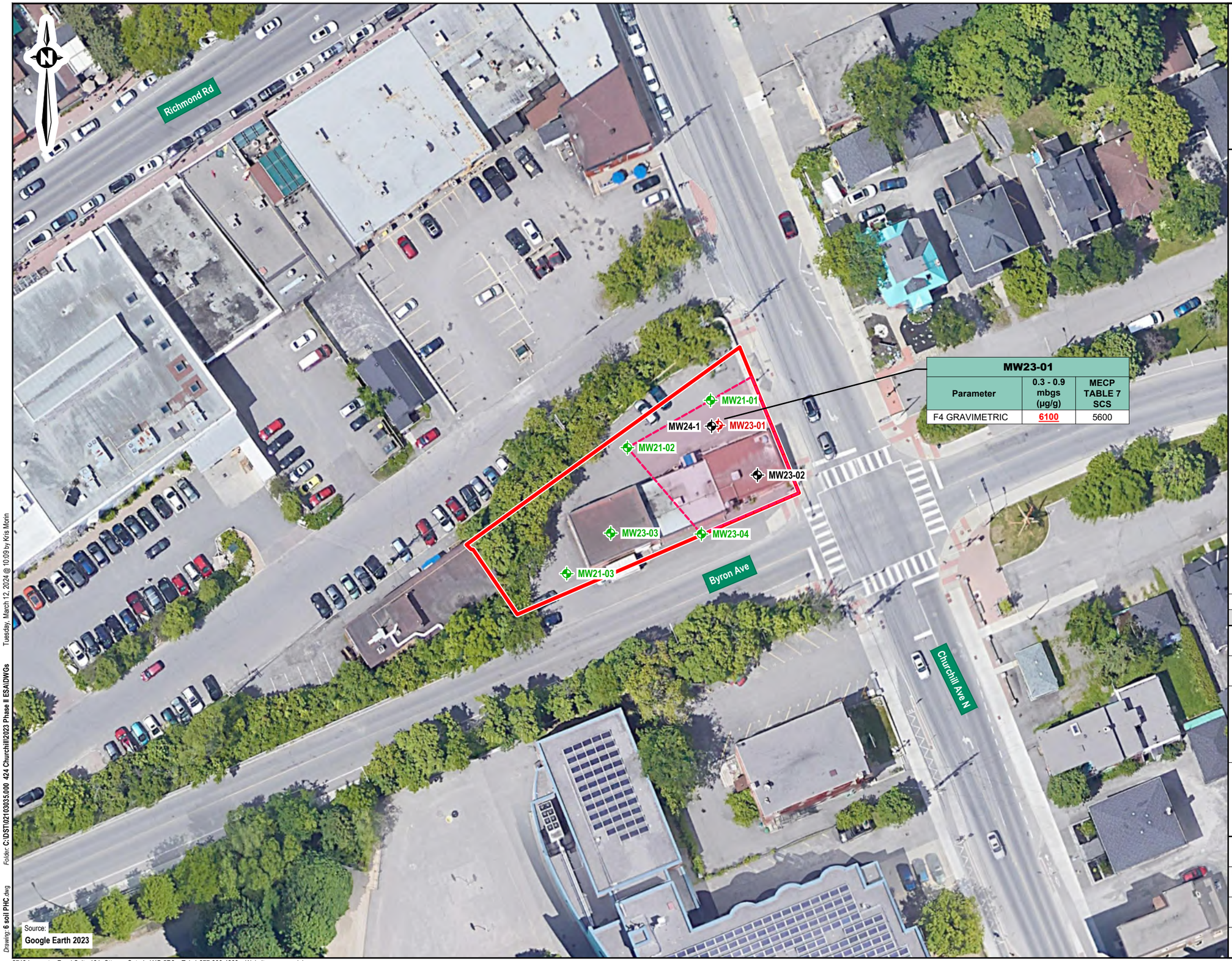
Drawing Title: **Cross Section Locations**

Designed By	Scale
C.O.	As shown
Drawn By	**Date**
K.M.	March 2024
Approved By	**Project No.**
A.N.	02103035.000

Figure No. **5**

Drawing: 5 BH locations.dwg Folder: C:\DST\02103035.000_424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:08 by Kris Morin

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



Source: Google Earth 2023

Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Soil Sample Meets Applicable Table 7 SCS for PHCs
- Soil Sample Exceeeds Applicable Table 7 SCS for PHCs
- Soil Sample Not Analyzed
- Inferred Extent of PHC Contamination in Soil

1:600

0 10 20 30 m

0 1:1 5 cm

Scale accurate when printed at 100% using paper size ANSI full bleed B (11.0 x 17.0 Inches)

Revision	Date	Issue	Approval
0	03/15/2024	Original	AN

Client: Churchill Properties Inc.

Site: 424 Churchill Avenue North, Ottawa, ON

Report Title: Phase Two Environmental Site Assessment

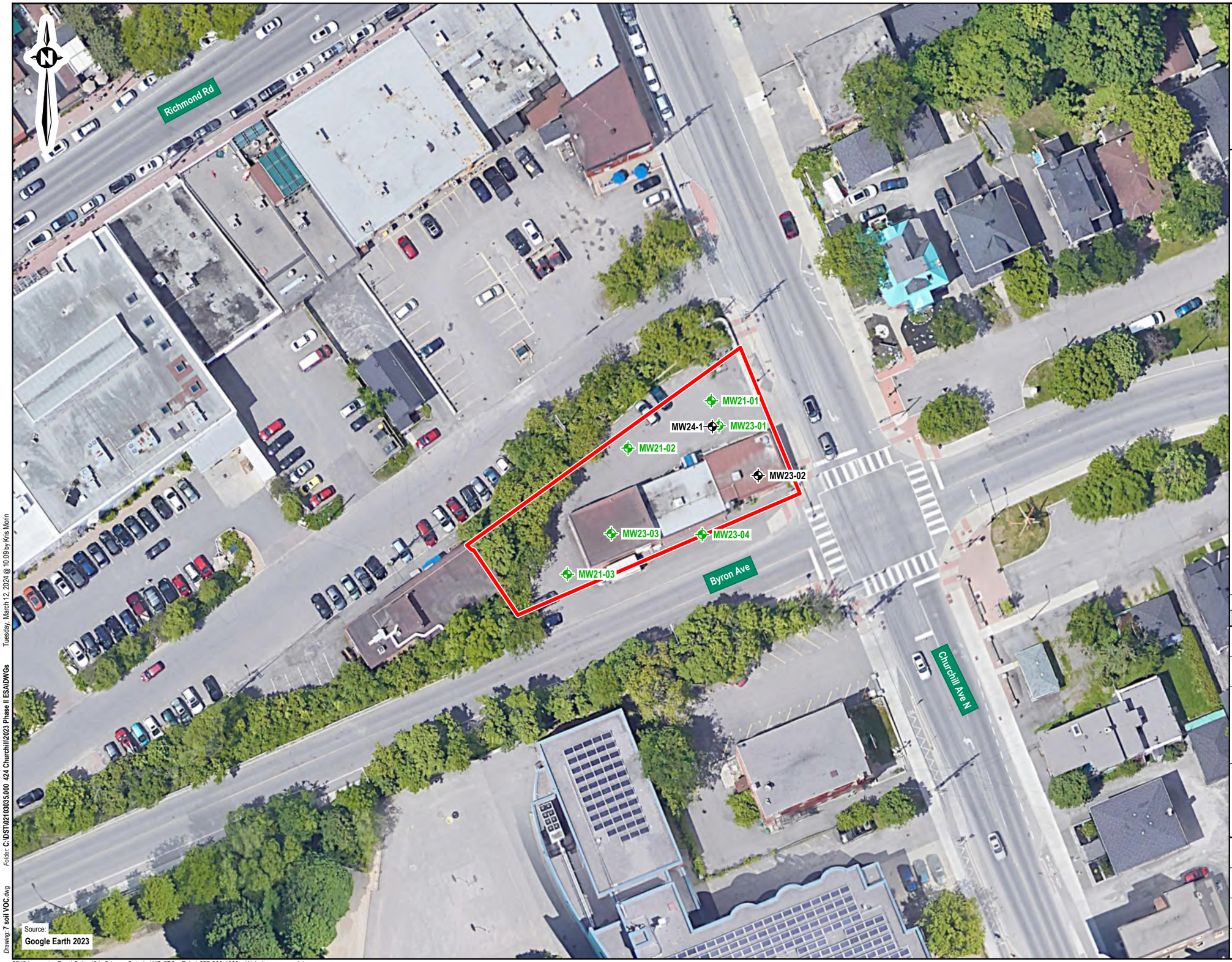
Drawing Title: PHCs in Soil

Designed By: C.O.	Scale: As shown
Drawn By: K.M.	Date: March 2024
Approved By: A.N.	Project No.: 02103035.000

Figure No. 6

Folder: C:\DST\02103035.000_424 Churchill\2023 Phase II ESA\DWGs
Drawing: 6 soil PHC.dwg
Tuesday, March 12, 2024 @ 10:09 by Kris Morin

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Soil Sample Meets Applicable Table 7 SCS for VOCs
- Soil Sample Not Analyzed

1:600

0 10 20 30 m

0 1:1 5 cm

Scale accurate when printed at 100% using paper size ANSI full bleed B (11.0 x 17.0 Inches)

Revision	Date	Issue	Approval
0	03/15/2024	Original	AN

Client: **Churchill Properties Inc.**

Site: **424 Churchill Avenue North, Ottawa, ON**

Report Title: **Phase Two Environmental Site Assessment**

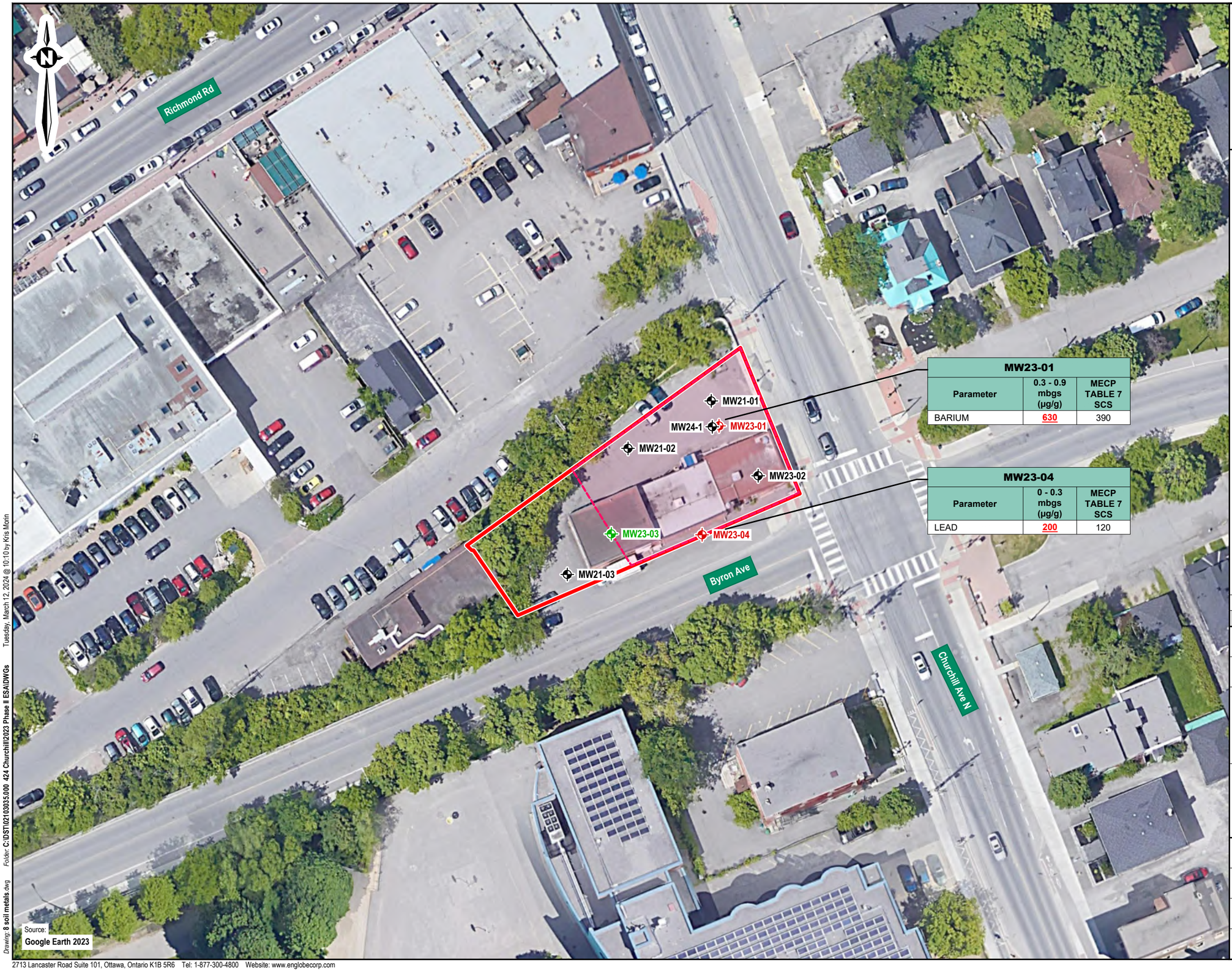
Drawing Title: **VOCs in Soil**

Designed By	Scale
C.O.	As shown
Drawn By	**Date**
K.M.	March 2024
Approved By	**Project No.**
A.N.	02103035.000

Figure No. **7**

Drawing: 7 soil VOC.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:09 by Kris Morin

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



MW23-01		
Parameter	0.3 - 0.9 mbgs (µg/g)	MECP TABLE 7 SCS
BARIUM	630	390

MW23-04		
Parameter	0 - 0.3 mbgs (µg/g)	MECP TABLE 7 SCS
LEAD	200	120

Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Soil Sample Meets Applicable Table 7 SCS for Metals
- Soil Sample Exceeeds Applicable Table 7 SCS for Metals
- Soil Sample Not Analyzed
- Inferred Extent of Metal Contamination in Soil

1:600

0 10 20 30 m

0 1:1 5 cm

Scale accurate when printed at 100% using paper size ANSI full bleed B (11.0 x 17.0 Inches)

Revision	Date	Issue	Approval
0	03/15/2024	Original	AN

Client: Churchill Properties Inc.

Site: 424 Churchill Avenue North, Ottawa, ON

Report Title: Phase Two Environmental Site Assessment

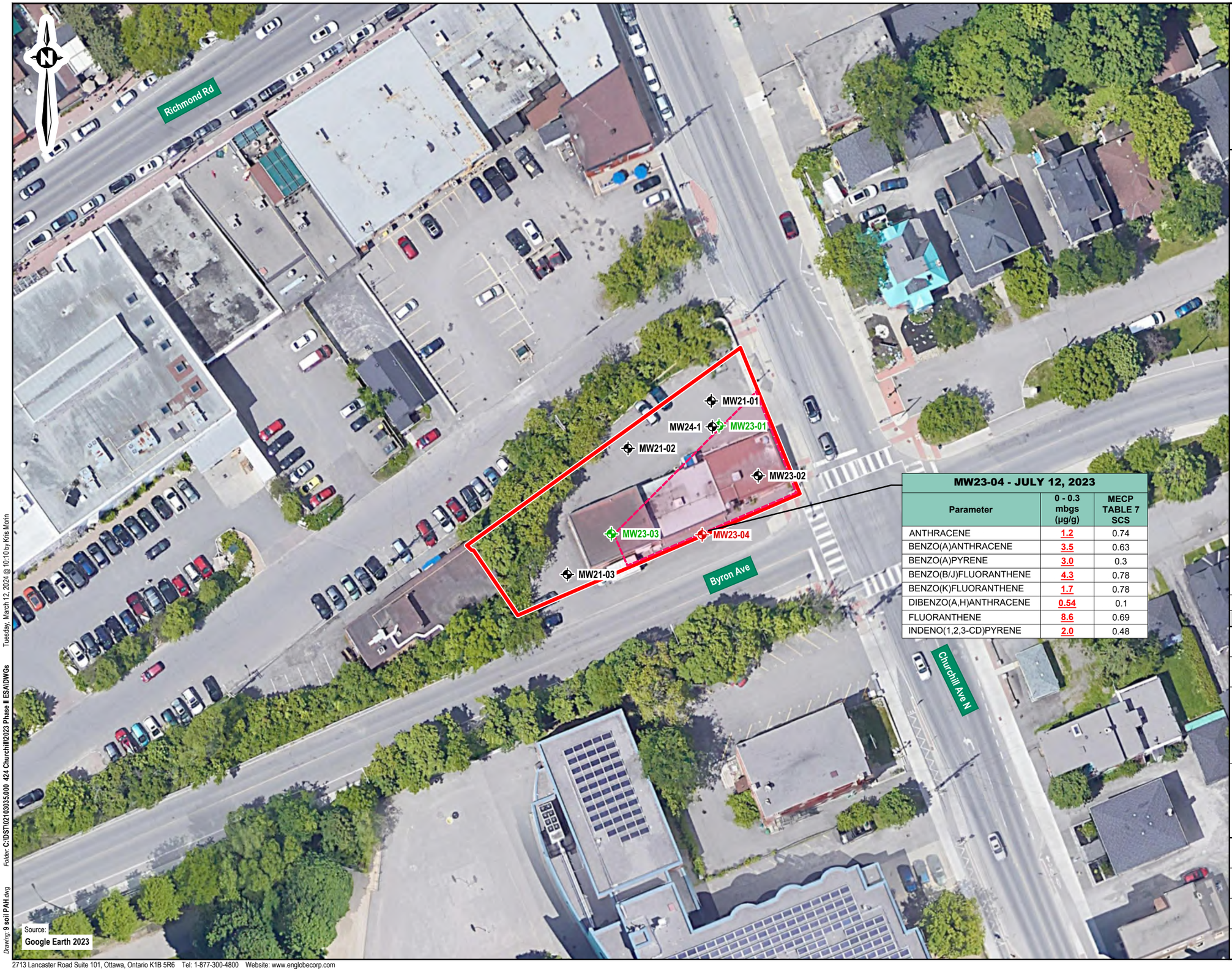
Drawing Title: Metals in Soil

Designed By	Scale
C.O.	As shown
Drawn By	**Date**
K.M.	March 2024
Approved By	**Project No.**
A.N.	02103035.000

Figure No. 8

Drawing: 8 soil metals.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:10 by Kris Morin

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



MW23-04 - JULY 12, 2023		
Parameter	0 - 0.3 mbgs (µg/g)	MECP TABLE 7 SCS
ANTHRACENE	1.2	0.74
BENZO(A)ANTHRACENE	3.5	0.63
BENZO(A)PYRENE	3.0	0.3
BENZO(B/J)FLUORANTHENE	4.3	0.78
BENZO(K)FLUORANTHENE	1.7	0.78
DIBENZO(A,H)ANTHRACENE	0.54	0.1
FLUORANTHENE	8.6	0.69
INDENO(1,2,3-CD)PYRENE	2.0	0.48

Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Soil Sample Meets Applicable Table 7 SCS for PAHs
- Soil Sample Exceeeds Applicable Table 7 SCS for PAHs
- Soil Sample Not Analyzed
- Inferred Extent of PAH Contamination in Soil

1:600

0 10 20 30 m

0 1:1 5 cm

Scale accurate when printed at 100% using paper size ANSI full bleed B (11.0 x 17.0 Inches)

0	03/15/2024	Original	AN
Revision	Date	Issue	Approval

Client: Churchill Properties Inc.

Site: 424 Churchill Avenue North, Ottawa, ON

Report Title: Phase Two Environmental Site Assessment

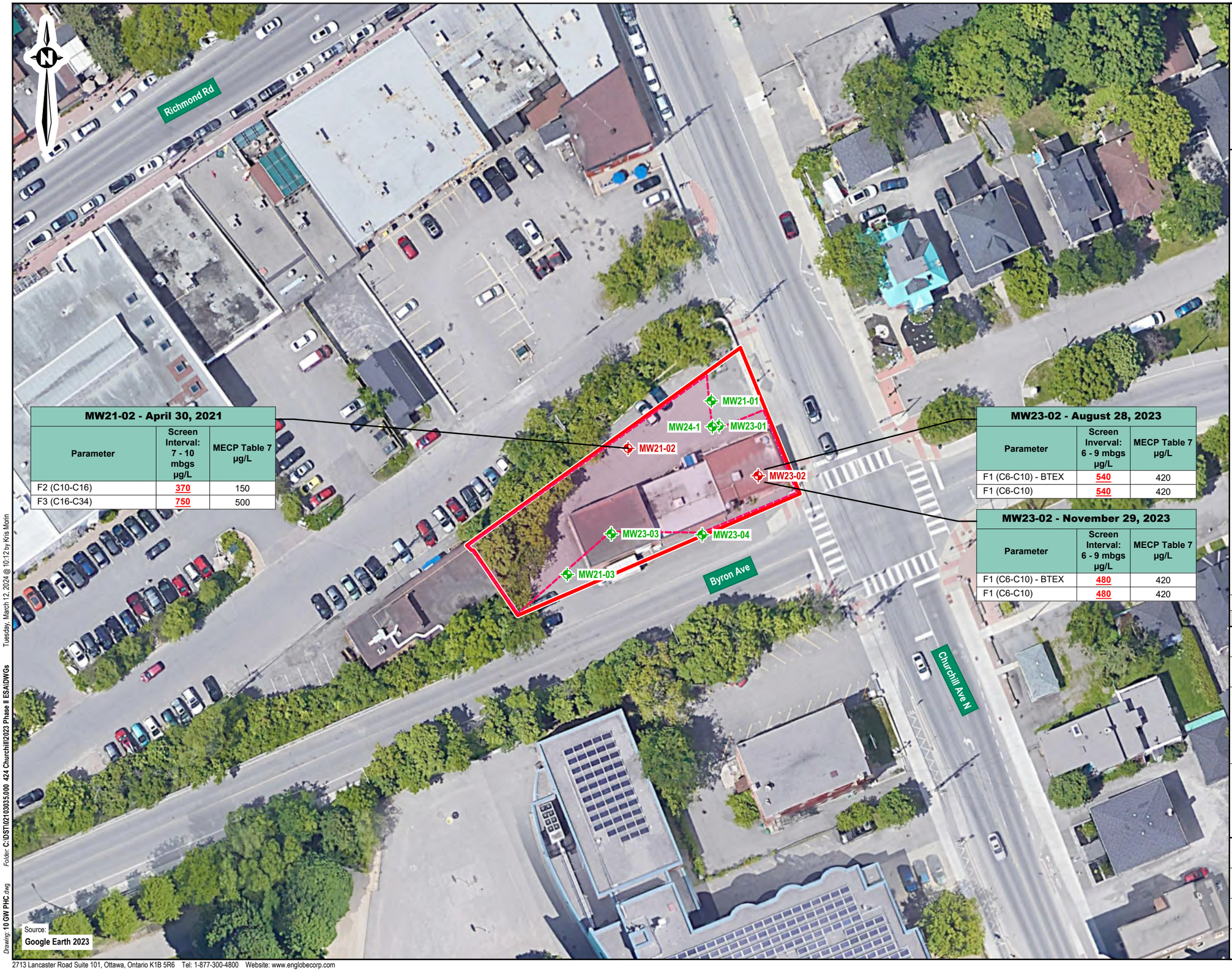
Drawing Title: PAHs in Soil

Designed By	Scale
C.O.	As shown
Drawn By	**Date**
K.M.	March 2024
Approved By	**Project No.**
A.N.	02103035.000

Figure No. 9

Drawing: 9 soil PAH.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:10 by Kris Morin

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



MW21-02 - April 30, 2021		
Parameter	Screen Interval: 7 - 10 mbgs µg/L	MECP Table 7 µg/L
F2 (C10-C16)	370	150
F3 (C16-C34)	750	500

MW23-02 - August 28, 2023		
Parameter	Screen Inverval: 6 - 9 mbgs µg/L	MECP Table 7 µg/L
F1 (C6-C10) - BTEX	540	420
F1 (C6-C10)	540	420

MW23-02 - November 29, 2023		
Parameter	Screen Interval: 6 - 9 mbgs µg/L	MECP Table 7 µg/L
F1 (C6-C10) - BTEX	480	420
F1 (C6-C10)	480	420

Source:
Google Earth 2023

Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Groundwater Sample Meets Applicable Table 7 SCS for PHCs
- Groundwater Sample Exceeds Applicable Table 7 SCS for PHCs
- Inferred Extent of PHC Contamination in Groundwater

1:600

0 10 20 30 m

0 1:1 5 cm

Scale accurate when printed at 100% using paper size ANSI full bleed B (11.0 x 17.0 Inches)

Revision	Date	Issue	Approval
0	03/15/2024	Original	AN

Client: Churchill Properties Inc.

Site: 424 Churchill Avenue North, Ottawa, ON

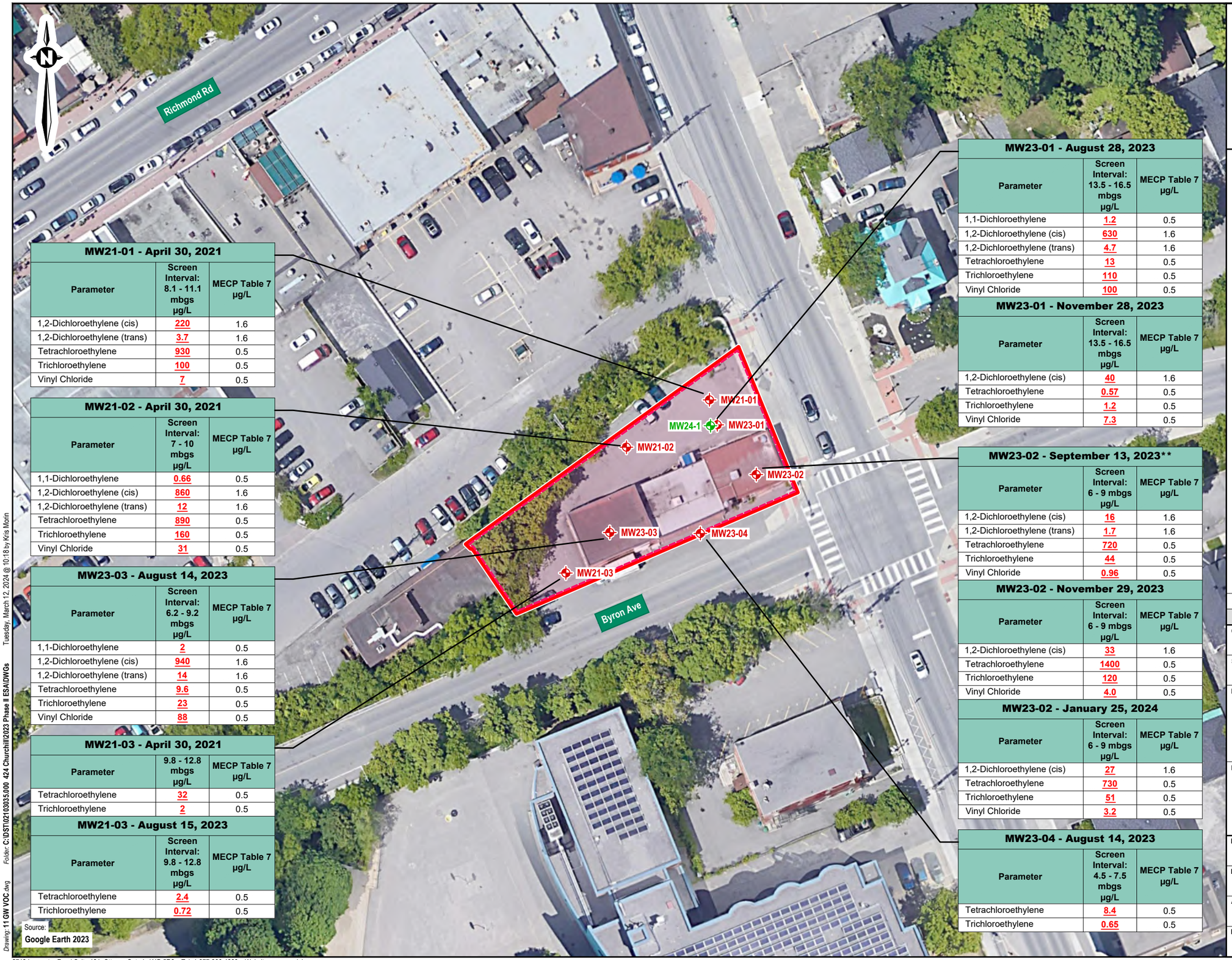
Report Title: Phase Two Environmental Site Assessment

Drawing Title: PHCs in Groundwater

Designed By: C.O.	Scale: As shown
Drawn By: K.M.	Date: March 2024
Approved By: A.N.	Project No.: 02103035.000
Figure No.: 10	

Drawing: 10 GW PHC.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:12 by Kris Morin

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



MW21-01 - April 30, 2021

Parameter	Screen Interval: 8.1 - 11.1 mbgs µg/L	MECP Table 7 µg/L
1,2-Dichloroethylene (cis)	220	1.6
1,2-Dichloroethylene (trans)	3.7	1.6
Tetrachloroethylene	930	0.5
Trichloroethylene	100	0.5
Vinyl Chloride	7	0.5

MW21-02 - April 30, 2021

Parameter	Screen Interval: 7 - 10 mbgs µg/L	MECP Table 7 µg/L
1,1-Dichloroethylene	0.66	0.5
1,2-Dichloroethylene (cis)	860	1.6
1,2-Dichloroethylene (trans)	12	1.6
Tetrachloroethylene	890	0.5
Trichloroethylene	160	0.5
Vinyl Chloride	31	0.5

MW23-03 - August 14, 2023

Parameter	Screen Interval: 6.2 - 9.2 mbgs µg/L	MECP Table 7 µg/L
1,1-Dichloroethylene	2	0.5
1,2-Dichloroethylene (cis)	940	1.6
1,2-Dichloroethylene (trans)	14	1.6
Tetrachloroethylene	9.6	0.5
Trichloroethylene	23	0.5
Vinyl Chloride	88	0.5

MW21-03 - April 30, 2021

Parameter	9.8 - 12.8 mbgs µg/L	MECP Table 7 µg/L
Tetrachloroethylene	32	0.5
Trichloroethylene	2	0.5

MW21-03 - August 15, 2023

Parameter	Screen Interval: 9.8 - 12.8 mbgs µg/L	MECP Table 7 µg/L
Tetrachloroethylene	2.4	0.5
Trichloroethylene	0.72	0.5

Source:
Google Earth 2023

MW23-01 - August 28, 2023

Parameter	Screen Interval: 13.5 - 16.5 mbgs µg/L	MECP Table 7 µg/L
1,1-Dichloroethylene	1.2	0.5
1,2-Dichloroethylene (cis)	630	1.6
1,2-Dichloroethylene (trans)	4.7	1.6
Tetrachloroethylene	13	0.5
Trichloroethylene	110	0.5
Vinyl Chloride	100	0.5

MW23-01 - November 28, 2023

Parameter	Screen Interval: 13.5 - 16.5 mbgs µg/L	MECP Table 7 µg/L
1,2-Dichloroethylene (cis)	40	1.6
Tetrachloroethylene	0.57	0.5
Trichloroethylene	1.2	0.5
Vinyl Chloride	7.3	0.5

MW23-02 - September 13, 2023**

Parameter	Screen Interval: 6 - 9 mbgs µg/L	MECP Table 7 µg/L
1,2-Dichloroethylene (cis)	16	1.6
1,2-Dichloroethylene (trans)	1.7	1.6
Tetrachloroethylene	720	0.5
Trichloroethylene	44	0.5
Vinyl Chloride	0.96	0.5

MW23-02 - November 29, 2023

Parameter	Screen Interval: 6 - 9 mbgs µg/L	MECP Table 7 µg/L
1,2-Dichloroethylene (cis)	33	1.6
Tetrachloroethylene	1400	0.5
Trichloroethylene	120	0.5
Vinyl Chloride	4.0	0.5

MW23-02 - January 25, 2024

Parameter	Screen Interval: 6 - 9 mbgs µg/L	MECP Table 7 µg/L
1,2-Dichloroethylene (cis)	27	1.6
Tetrachloroethylene	730	0.5
Trichloroethylene	51	0.5
Vinyl Chloride	3.2	0.5

MW23-04 - August 14, 2023

Parameter	Screen Interval: 4.5 - 7.5 mbgs µg/L	MECP Table 7 µg/L
Tetrachloroethylene	8.4	0.5
Trichloroethylene	0.65	0.5

Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Groundwater Sample Meets Applicable Table 7 SCS for VOCs
- Groundwater Sample Exceeds Applicable Table 7 SCS for VOCs
- Inferred Extent of VOC Contamination in Groundwater

** Conducted in support of evaluating potential discharge to municipal sewer system for development purposes only

1:600

0 10 20 30 m

0 1:1 5 cm

Scale accurate when printed at 100% using paper size ANSI full bleed B (11.0 x 17.0 Inches)

0	03/15/2024	Original	AN
Revision	Date	Issue	Approval

Client: Churchill Properties Inc.

Site: 424 Churchill Avenue North, Ottawa, ON

Report Title: Phase Two Environmental Site Assessment

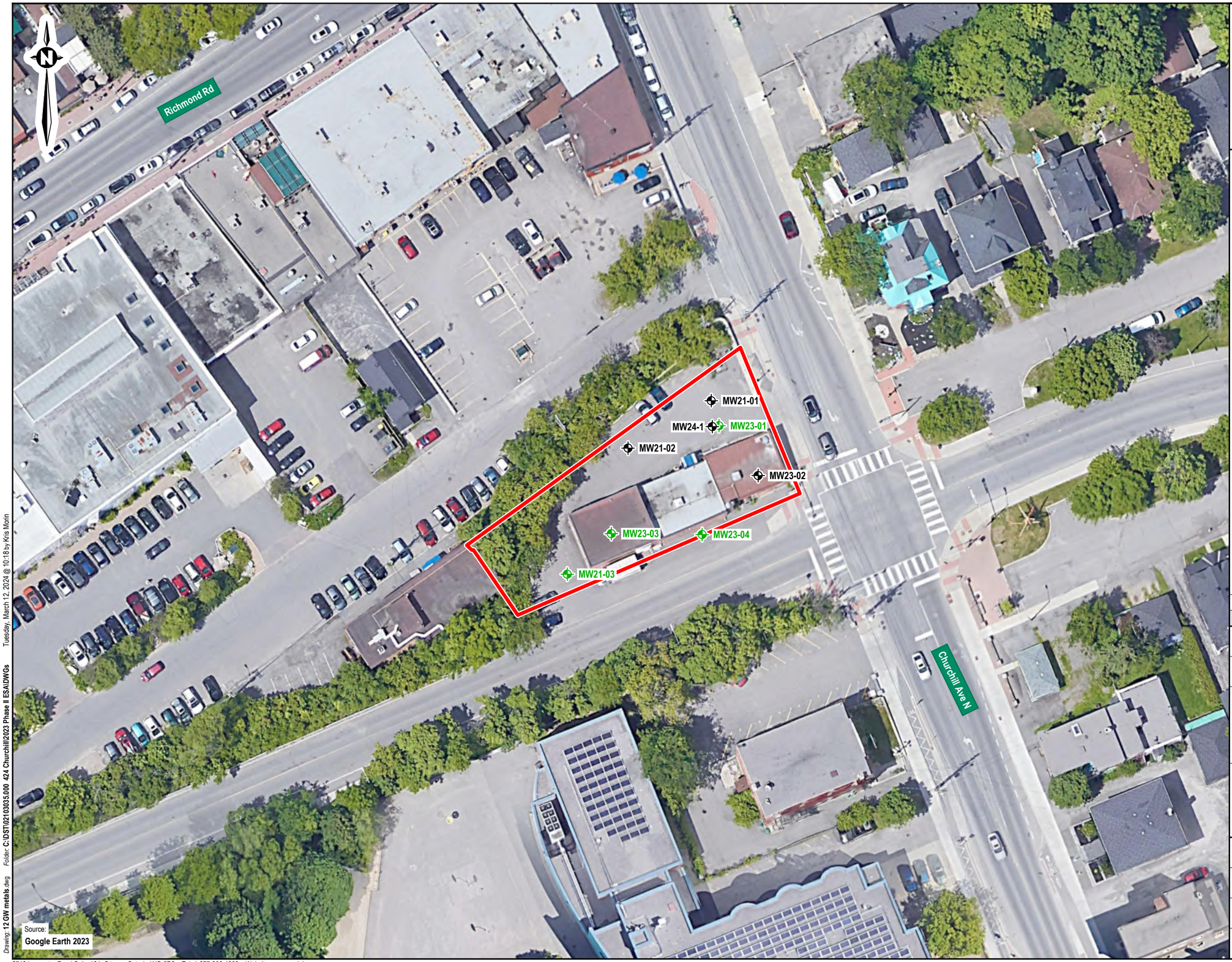
Drawing Title: VOCs in Groundwater

Designed By	Scale
C.O.	As shown
Drawn By	**Date**
K.M.	March 2024
Approved By	**Project No.**
A.N.	02103035.000

Figure No. 11

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com

Drawing: 11 GW VOC.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:18 by Kris Morin



Drawing: 12 GW metals.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:18 by Kris Morin

Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Groundwater Sample Meets Applicable Table 7 SCS for Metals
- Groundwater Sample Not Analyzed

1:600

0 10 20 30 m

0 1:1 5 cm

Scale accurate when printed at 100% using paper size ANSI full bleed B (11.0 x 17.0 Inches)

0	03/15/2024	Original	AN
Revision	Date	Issue	Approval

Client
Churchill Properties Inc.

Site
424 Churchill Avenue North, Ottawa, ON

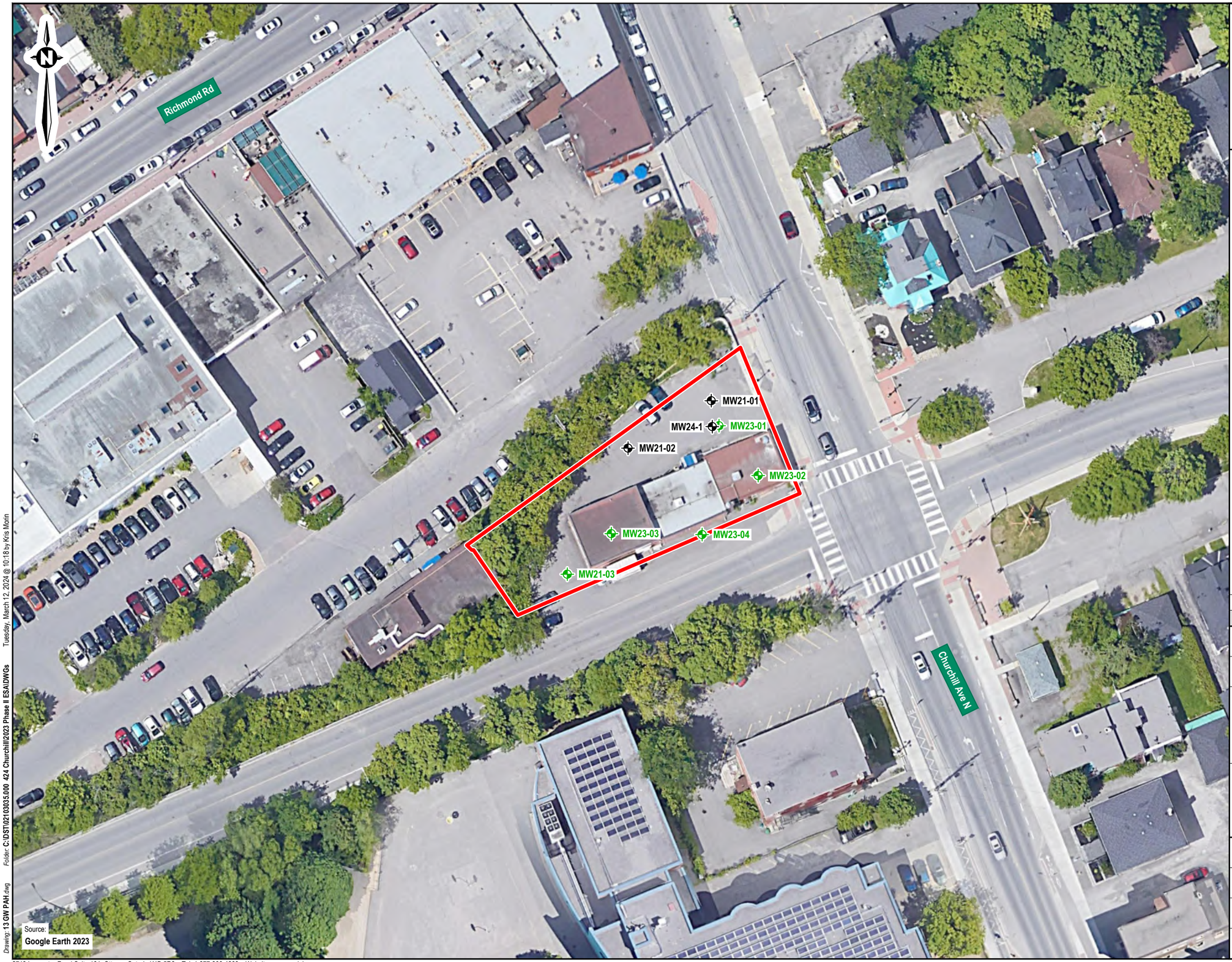
Report Title
Phase Two Environmental Site Assessment

Drawing Title
Metals in Groundwater

Designed By	Scale
C.O.	As shown
Drawn By	**Date**
K.M.	March 2024
Approved By	**Project No.**
A.N.	02103035.000

Figure No.
12

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Groundwater Sample Meets Applicable Table 7 SCS for PAHs
- Groundwater Sample Not Analyzed

1:600

0 10 20 30 m

0 1:1 5 cm

Scale accurate when printed at 100% using paper size ANSI full bleed B (11.0 x 17.0 Inches)

Revision	Date	Issue	Approval
0	03/15/2024	Original	AN

Client
Churchill Properties Inc.

Site
424 Churchill Avenue North, Ottawa, ON

Report Title
Phase Two Environmental Site Assessment

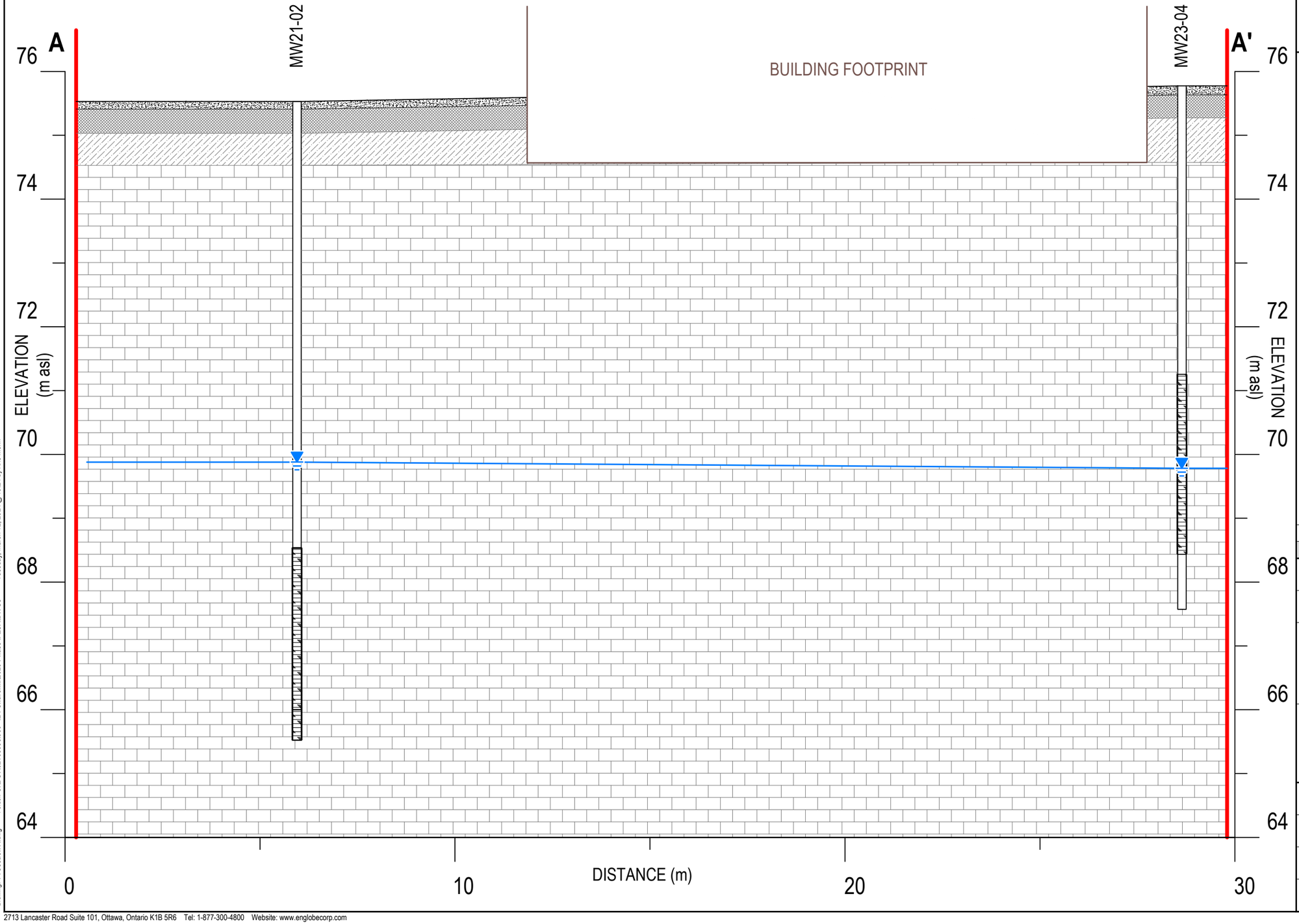
Drawing Title
PAHs in Groundwater

Designed By	Scale
C.O.	As shown
Drawn By	**Date**
K.M.	March 2024
Approved By	**Project No.**
A.N.	02103035.000

Figure No. 13

Drawing: 13 GW PAH.dwg *Folder:* C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs *Tuesday, March 12, 2024 @ 10:18 by Kris Morin*

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Asphalt
- Fill
- Sandy Silt
- Limestone Bedrock
- Monitoring Well Screened Interval
- Measured Groundwater Level (2023)
- Inferred Groundwater Elevation (2023)

Revision	Date	Issue	Approval
0	03/15/2024	Original	AN

Client: **Churchill Properties Inc.**

Site: **424 Churchill Avenue North, Ottawa, ON**

Report Title: **Phase Two Environmental Site Assessment**

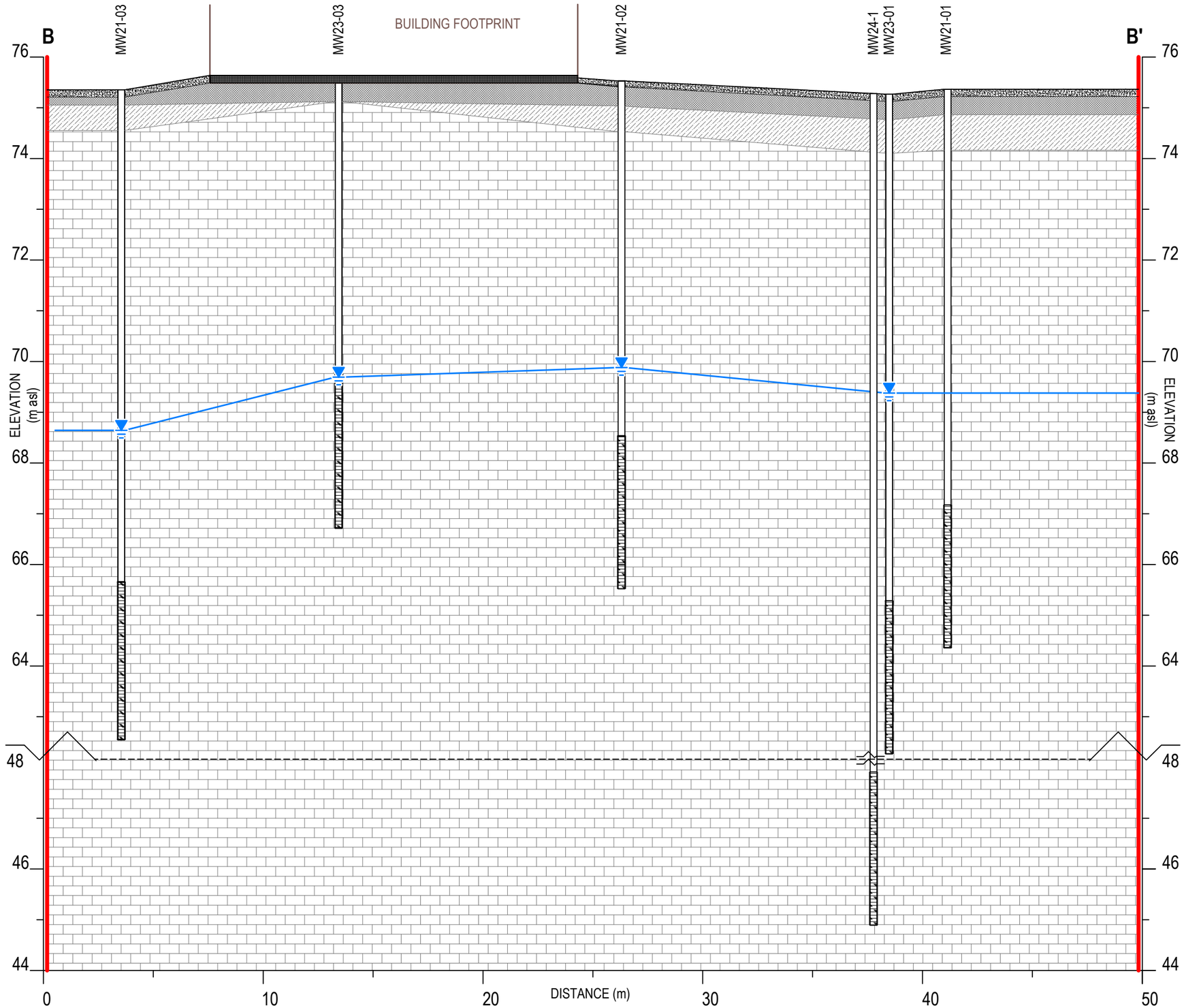
Drawing Title: **Geological Cross Section A-A'**

Designed By: C.O.	Scale: As shown
Drawn By: K.M.	Date: March 2024
Approved By: A.N.	Project No.: 02103035.000

Figure No.: **14**

Drawing: 14 section A.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:21 by Kris Morin

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Asphalt
- Concrete Slab
- Fill
- Sandy Silt / Silty Sand
- Limestone Bedrock
- Monitoring Well Screened Interval
- Measured Groundwater Level (2023)
- Inferred Groundwater Elevation (2023)

0	03/15/2024	Original	AN
Revision	Date	Issue	Approval

Client
Churchill Properties Inc.

Site
424 Churchill Avenue North, Ottawa, ON

Report Title
Phase Two Environmental Site Assessment

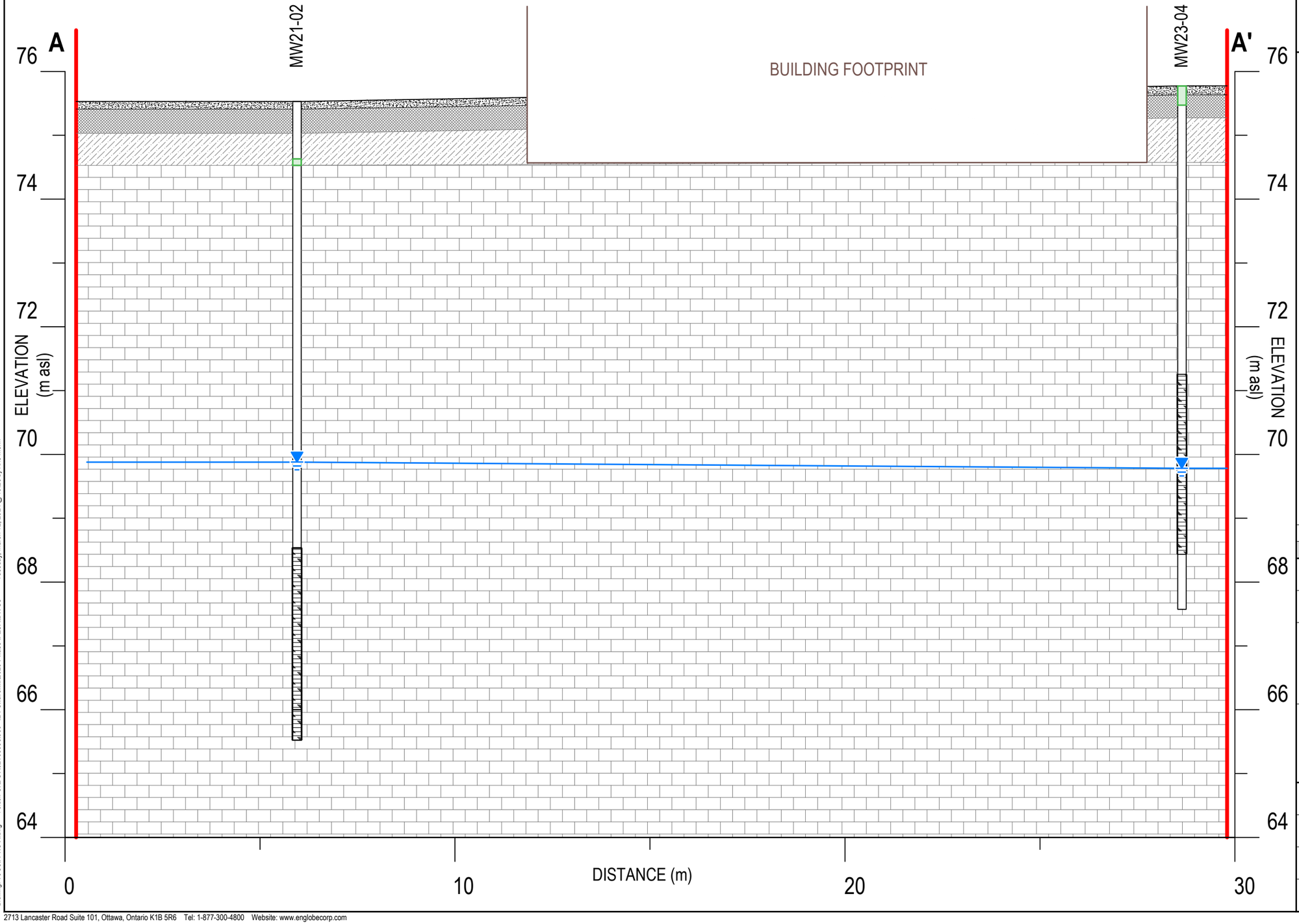
Drawing Title
Geological Cross Section B-B'

Designed By	Scale
C.O.	As shown
Drawn By	**Date**
K.M.	March 2024
Approved By	**Project No.**
A.N.	02103035.000

Figure No.
15

Drawing: 15 section B.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:22 by Kris Morin

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Asphalt
- Fill
- Sandy Silt
- Limestone Bedrock
- Monitoring Well Screened Interval
- Measured Groundwater Level (2023)
- Inferred Groundwater Elevation (2023)
- Soil Sample Meets MECP Table 7 SCS for PHCs

Revision	Date	Issue	Approval
0	03/15/2024	Original	AN

Client: **Churchill Properties Inc.**

Site: **424 Churchill Avenue North, Ottawa, ON**

Report Title: **Phase Two Environmental Site Assessment**

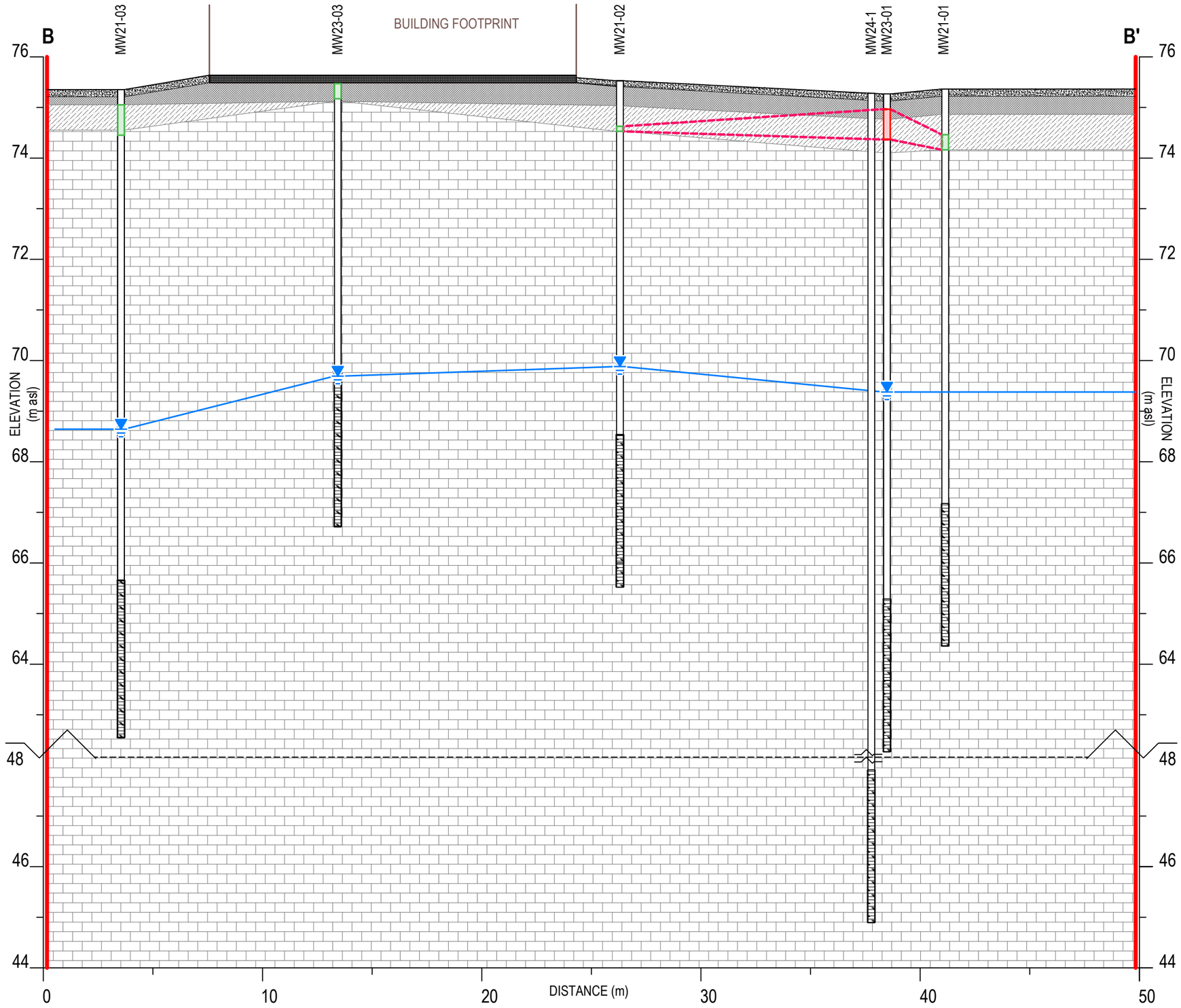
Drawing Title: **Cross Section A-A' - PHCs in Soil**

Designed By: C.O.	Scale: As shown
Drawn By: K.M.	Date: March 2024
Approved By: A.N.	Project No.: 02103035.000

Figure No.: **16**

Drawing: **16 soil PHC A.dwg** *Folder:* **C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs** Tuesday, March 12, 2024 @ 10:23 by Kris Morin

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Asphalt
- Concrete Slab
- Fill
- Sandy Silt / Silty Sand
- Limestone Bedrock
- Monitoring Well Screened Interval
- Measured Groundwater Level (2023)
- Inferred Groundwater Elevation (2023)
- Soil Sample Meets MECP Table 7 SCS for PHCs
- Soil Sample Exceeds MECP Table 7 SCS for PHCs
- Inferred Extent of PHC Contamination in Soil

Revision	Date	Issue	Approval
0	03/15/2024	Original	AN

Client: **Churchill Properties Inc.**

Site: **424 Churchill Avenue North, Ottawa, ON**

Report Title: **Phase Two Environmental Site Assessment**

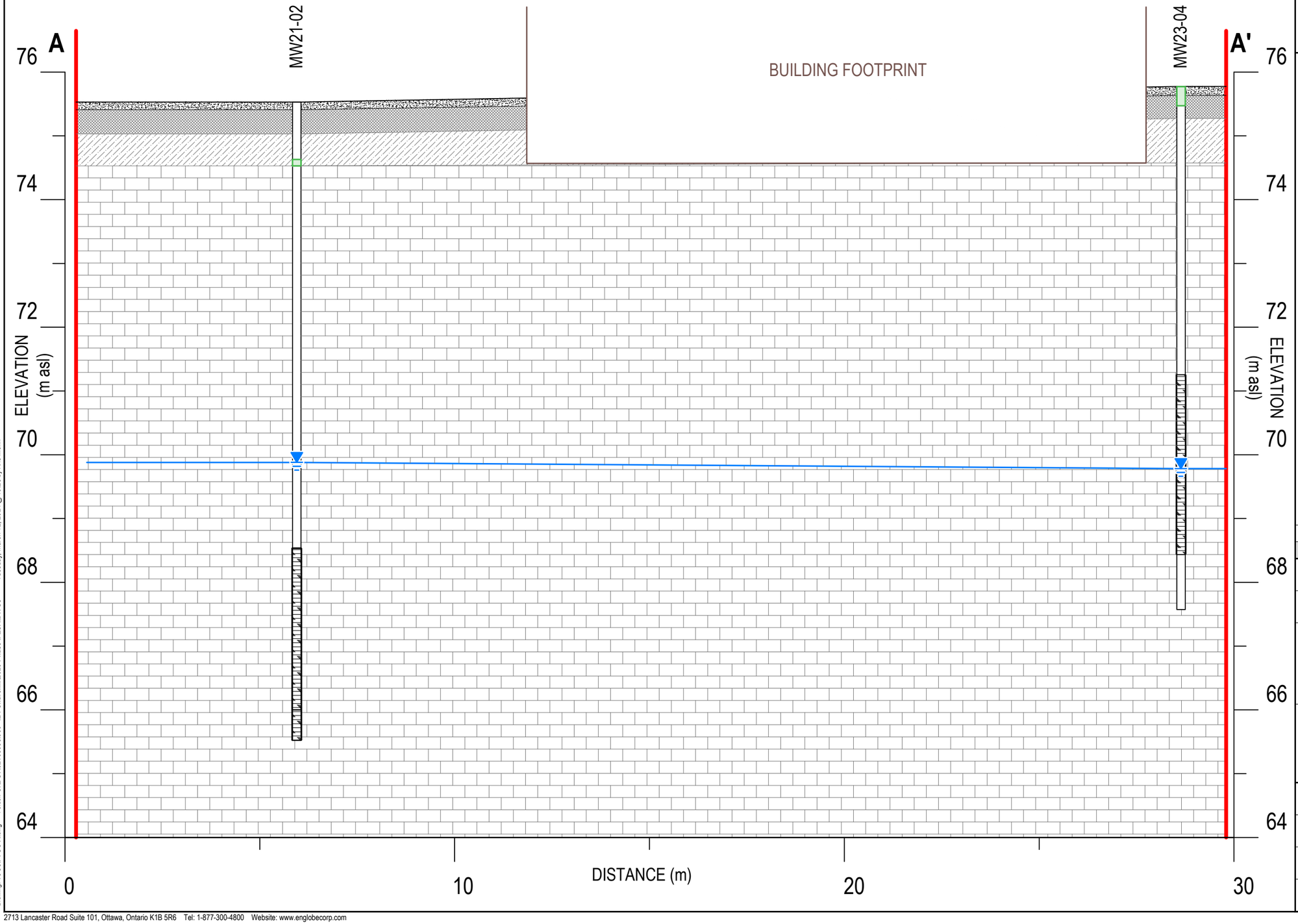
Drawing Title: **Cross Section B-B' - PHCs in Soil**

Designed By: C.O.	Scale: As shown
Drawn By: K.M.	Date: March 2024
Approved By: A.N.	Project No.: 02103035.000

Figure No. **17**

Drawing: 17 soil PHC B.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:24 by Kris Morin

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Asphalt
- Fill
- Sandy Silt
- Limestone Bedrock
- Monitoring Well Screened Interval
- Measured Groundwater Level (2023)
- Inferred Groundwater Elevation (2023)
- Soil Sample Meets MECP Table 7 SCS for VOCs

Revision	Date	Issue	Approval
0	03/15/2024	Original	AN

Client: **Churchill Properties Inc.**

Site: **424 Churchill Avenue North, Ottawa, ON**

Report Title: **Phase Two Environmental Site Assessment**

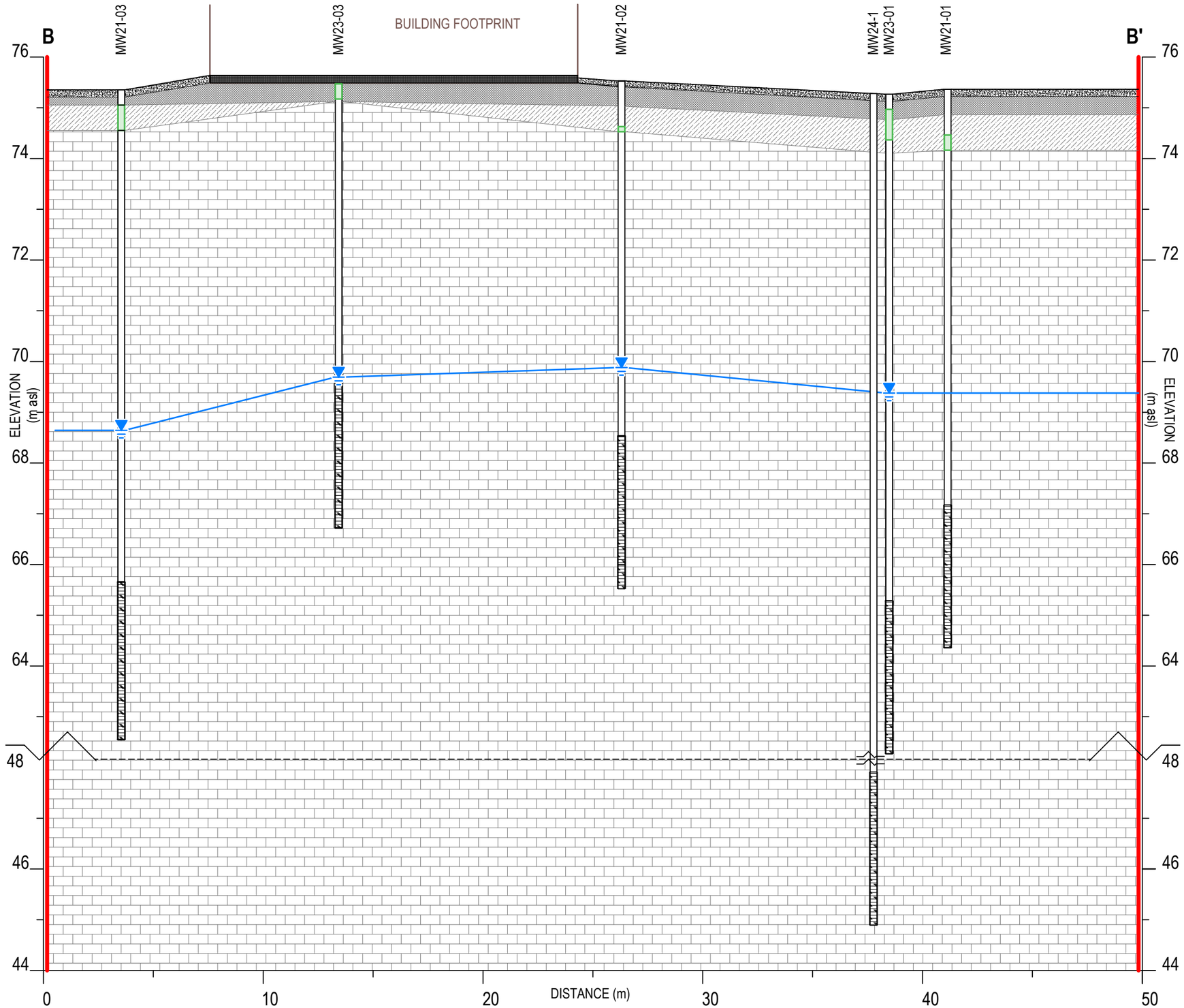
Drawing Title: **Cross Section A-A' - VOCs in Soil**

Designed By: C.O.	Scale: As shown
Drawn By: K.M.	Date: March 2024
Approved By: A.N.	Project No.: 02103035.000

Figure No.: **18**

Drawing: 18 soil VOC A.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:25 by Kris Morin

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Asphalt
- Concrete Slab
- Fill
- Sandy Silt / Silty Sand
- Limestone Bedrock
- Monitoring Well Screened Interval
- Measured Groundwater Level (2023)
- Inferred Groundwater Elevation (2023)
- Soil Sample Meets MECP Table 7 SCS for VOCs

Revision	Date	Issue	Approval
0	03/15/2024	Original	AN

Client
Churchill Properties Inc.

Site
424 Churchill Avenue North, Ottawa, ON

Report Title
Phase Two Environmental Site Assessment

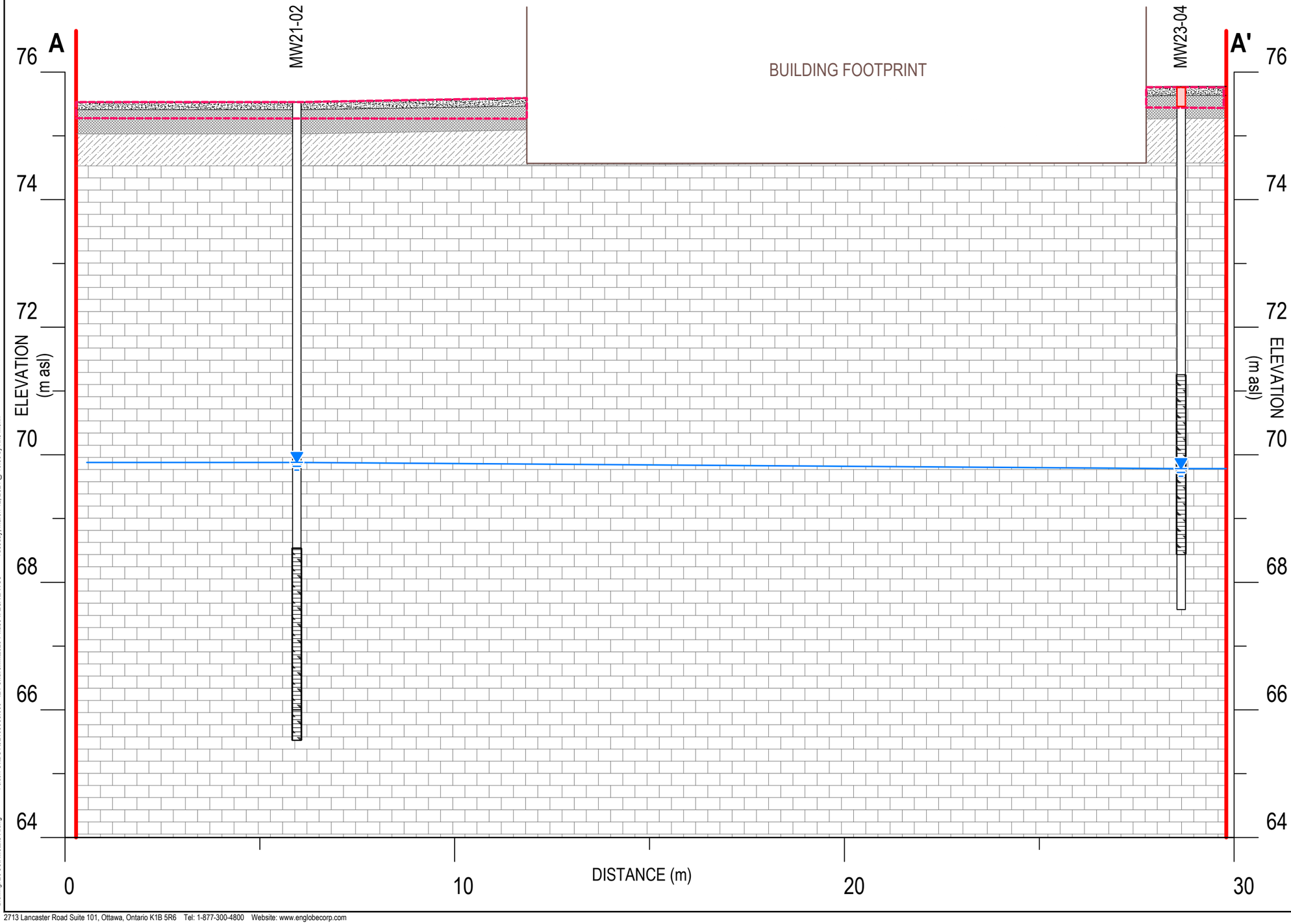
Drawing Title
Cross Section B-B' - VOCs in Soil

Designed By: C.O.	Scale: As shown
Drawn By: K.M.	Date: March 2024
Approved By: A.N.	Project No.: 02103035.000

Figure No. 19

Drawing: 19 soil VOC B.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:29 by Kris Morin

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



Note

1. This drawing shall be read in conjunction with the associated technical report.
2. Analytical results on this figure include the following method groups: Metals, As, Se, Sb

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Asphalt
- Fill
- Sandy Silt
- Limestone Bedrock
- Monitoring Well Screened Interval
- Measured Groundwater Level (2023)
- Inferred Groundwater Elevation (2023)
- Soil Sample Meets MECP Table 7 SCS for Metals
- Soil Sample Exceeds MECP Table 7 SCS for Metals
- Inferred Extent of Metal Contamination in Soil

Revision	Date	Issue	Approval
0	03/15/2024	Original	AN

Client: **Churchill Properties Inc.**

Site: **424 Churchill Avenue North, Ottawa, ON**

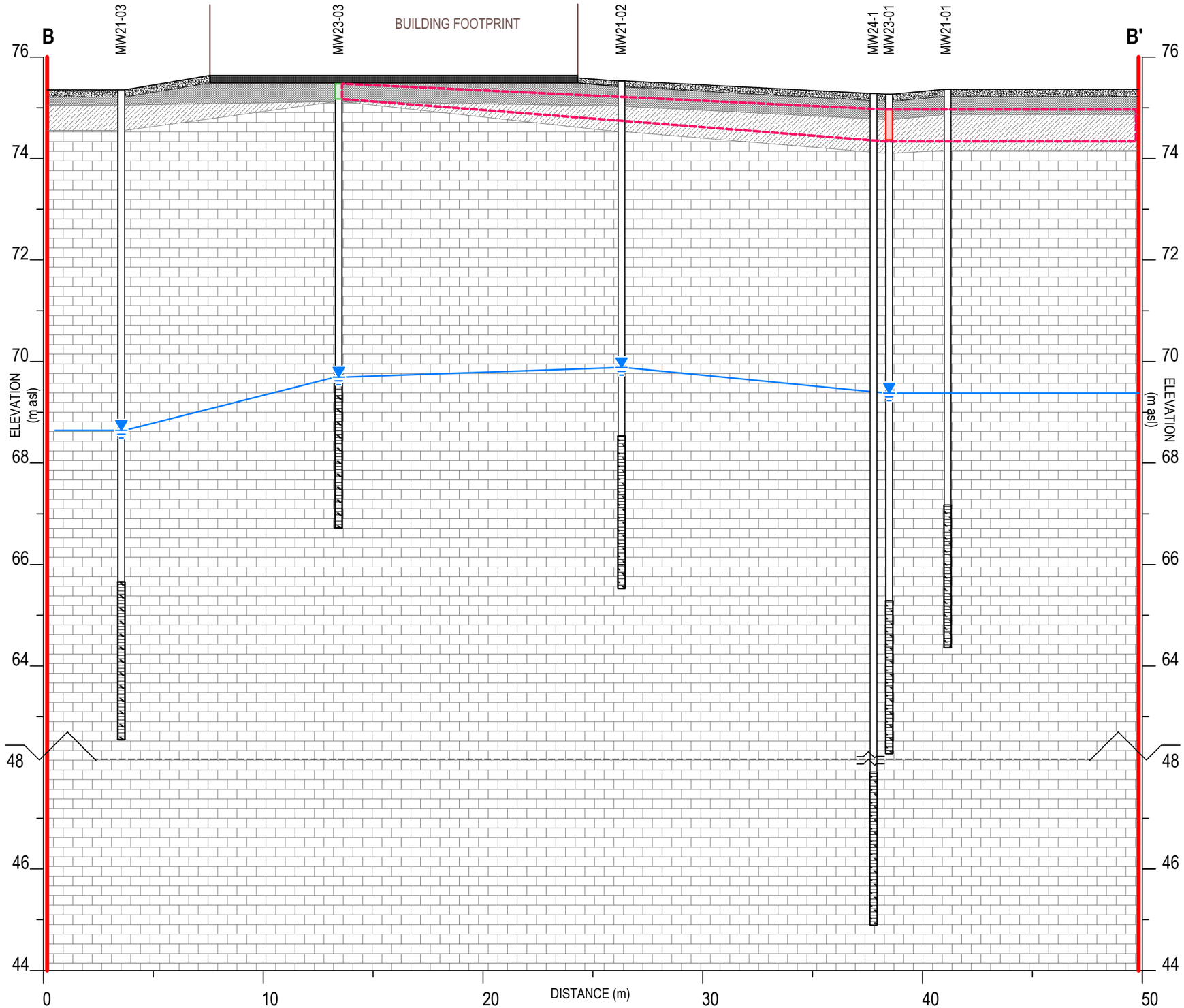
Report Title: **Phase Two Environmental Site Assessment**

Drawing Title: **Cross Section A-A' - Metals in Soil**

Designed By: C.O.	Scale: As shown
Drawn By: K.M.	Date: March 2024
Approved By: A.N.	Project No.: 02103035.000

Figure No.: **20**

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



Note

1. This drawing shall be read in conjunction with the associated technical report.
2. Analytical results on the figure include the following method groups: Metals, As, Se, Sb

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Asphalt
- Concrete Slab
- Fill
- Sandy Silt / Silty Sand
- Limestone Bedrock
- Monitoring Well Screened Interval
- Measured Groundwater Level (2023)
- Inferred Groundwater Elevation (2023)
- Soil Sample Meets MECP Table 7 SCS for Metals
- Soil Sample Exceeds MECP Table 7 SCS for Metals
- Inferred Extent of Metal Contamination in Soil

0	03/15/2024	Original	AN
Revision	Date	Issue	Approval

Client
Churchill Properties Inc.

Site
424 Churchill Avenue North, Ottawa, ON

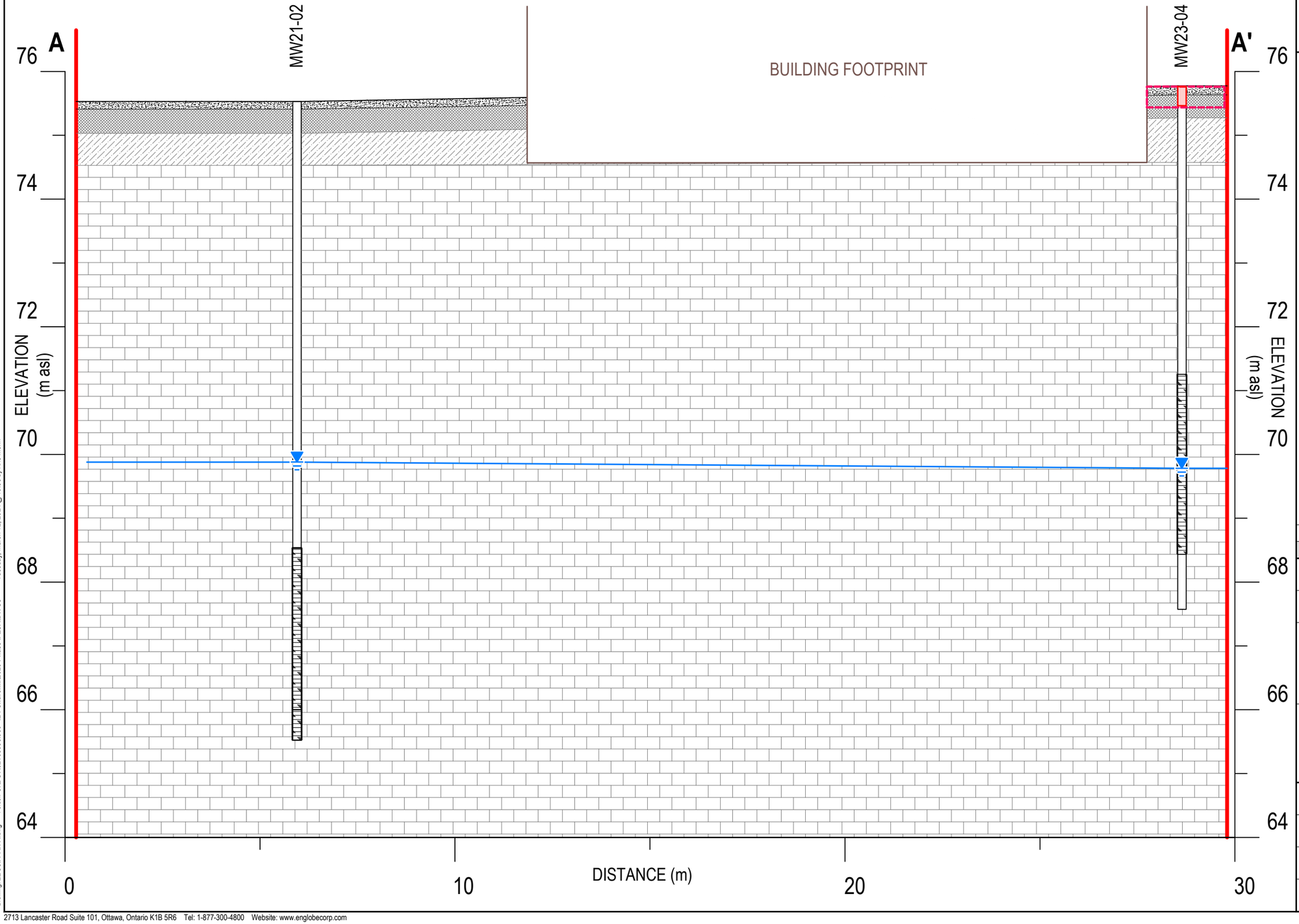
Report Title
Phase Two Environmental Site Assessment

Drawing Title
Cross Section B-B' - Metals in Soil

Designed By	Scale
C.O.	As shown
Drawn By	**Date**
K.M.	March 2024
Approved By	**Project No.**
A.N.	02103035.000

Figure No.
21

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Asphalt
- Fill
- Sandy Silt
- Limestone Bedrock
- Monitoring Well Screened Interval
- Measured Groundwater Level (2023)
- Inferred Groundwater Elevation (2023)
- Soil Sample Meets MECP Table 7 SCS for PAHs
- Soil Sample Exceeds MECP Table 7 SCS for PAHs
- Inferred Extent of PAH Contamination in Soil

Revision	Date	Issue	Approval
0	03/15/2024	Original	AN

Client: **Churchill Properties Inc.**

Site: **424 Churchill Avenue North, Ottawa, ON**

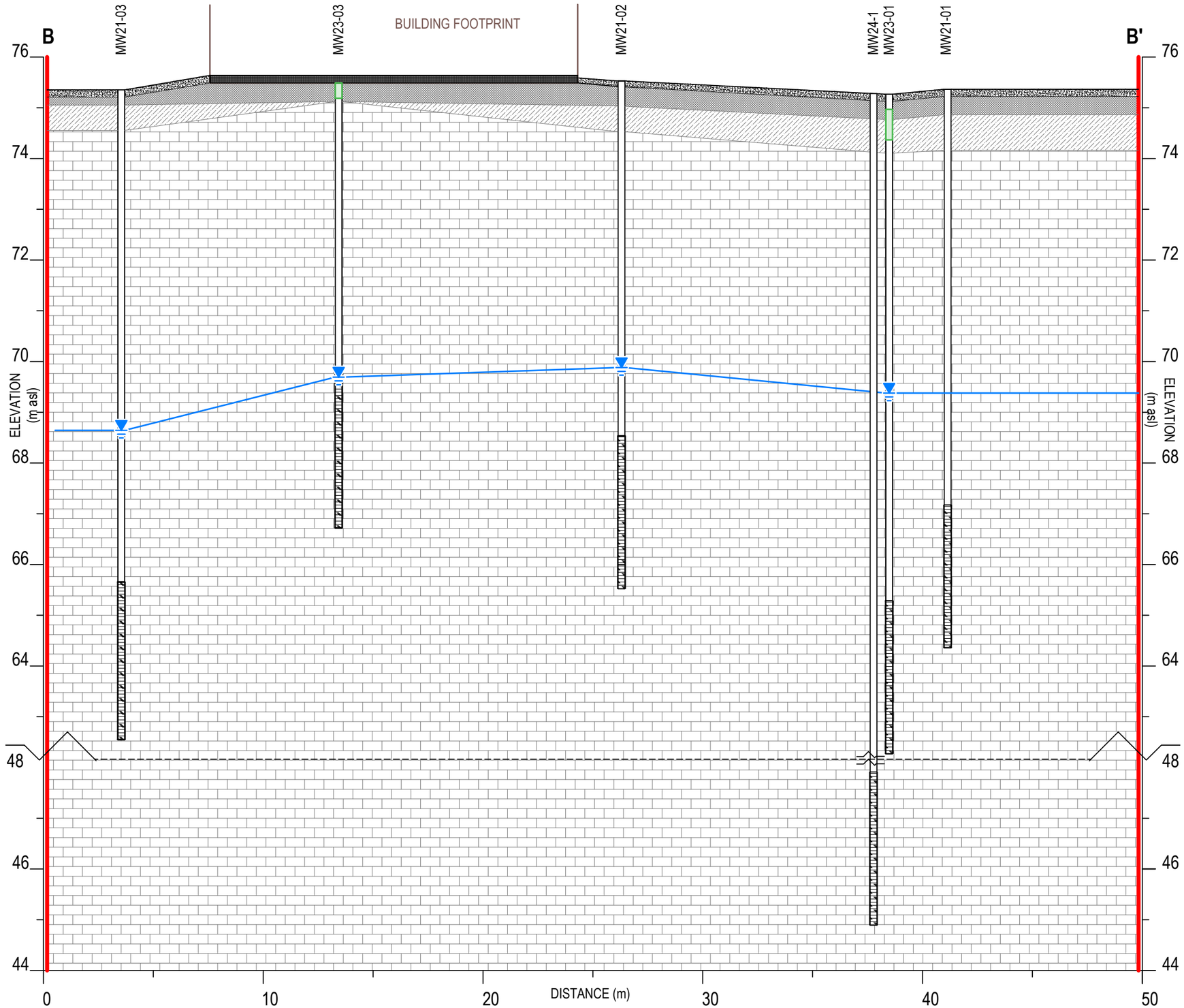
Report Title: **Phase Two Environmental Site Assessment**

Drawing Title: **Cross Section A-A' - PAHs in Soil**

Designed By: C.O.	Scale: As shown
Drawn By: K.M.	Date: March 2024
Approved By: A.N.	Project No.: 02103035.000

Figure No.: **22**

Drawing: 22 soil PAH A.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:33 by Kris Morin



Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Asphalt
- Concrete Slab
- Fill
- Sandy Silt / Silty Sand
- Limestone Bedrock
- Monitoring Well Screened Interval
- Measured Groundwater Level (2023)
- Inferred Groundwater Elevation (2023)
- Soil Sample Meets MECP Table 7 SCS for PAHs

Revision	Date	Issue	Approval
0	03/15/2024	Original	AN

Client
Churchill Properties Inc.

Site
424 Churchill Avenue North, Ottawa, ON

Report Title
Phase Two Environmental Site Assessment

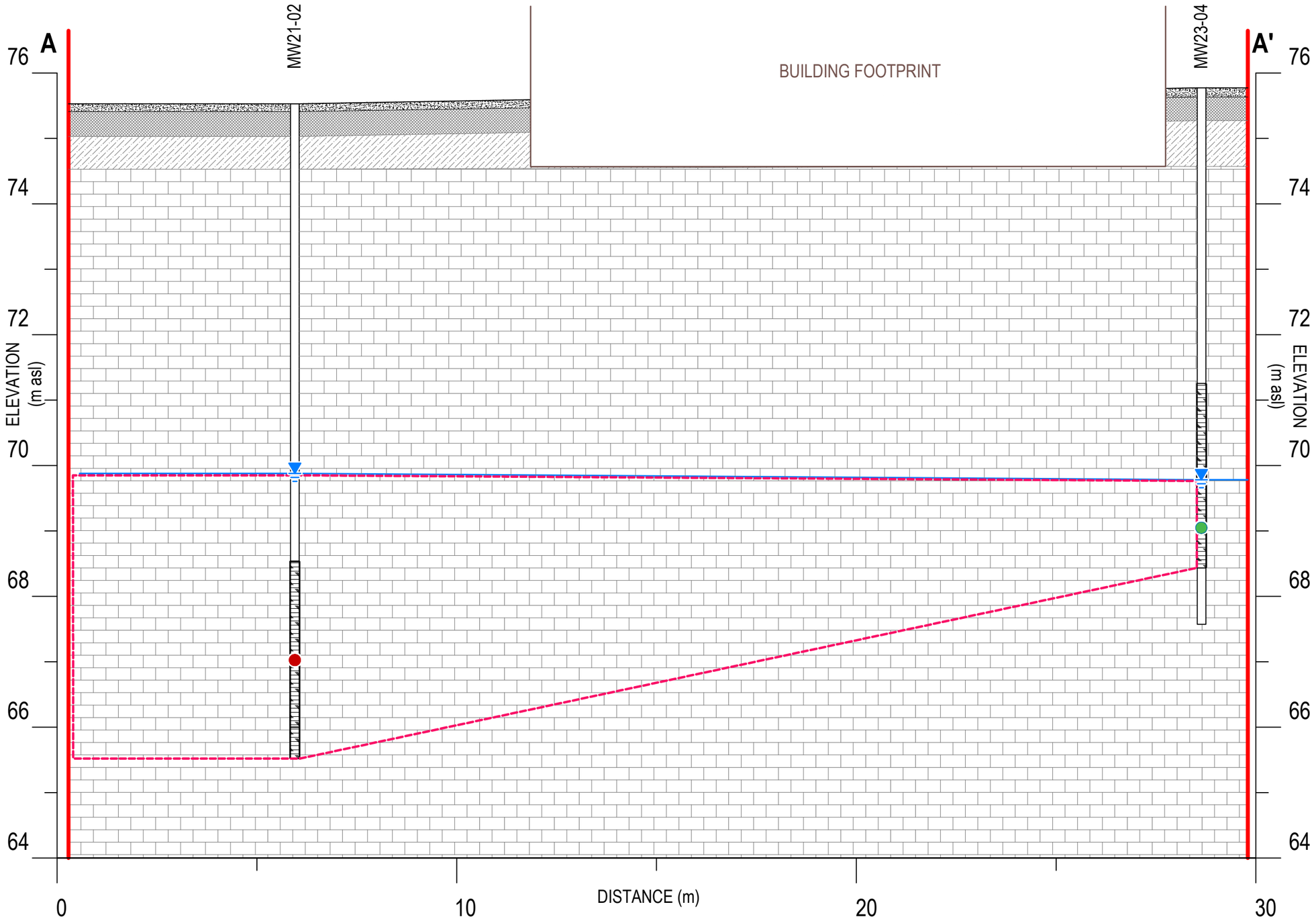
Drawing Title
Cross Section B-B' - PAHs in Soil

Designed By: C.O.	Scale: As shown
Drawn By: K.M.	Date: March 2024
Approved By: A.N.	Project No.: 02103035.000

Figure No. **23**

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com

Drawing: 23 soil PAH B.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:34 by Kris Morin



Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Asphalt
- Fill
- Sandy Silt
- Limestone Bedrock
- Monitoring Well Screened Interval
- Measured Groundwater Level (2023)
- Inferred Groundwater Elevation (2023)
- Groundwater Sample Meets MECP Table 7 SCS for PHCs
- Groundwater Exceeds Meets MECP Table 7 SCS for PHCs
- Inferred Extent of PHC Contamination in Groundwater

Revision	Date	Issue	Approval
0	03/15/2024	Original	AN

Client: **Churchill Properties Inc.**

Site: **424 Churchill Avenue North, Ottawa, ON**

Report Title: **Phase Two Environmental Site Assessment**

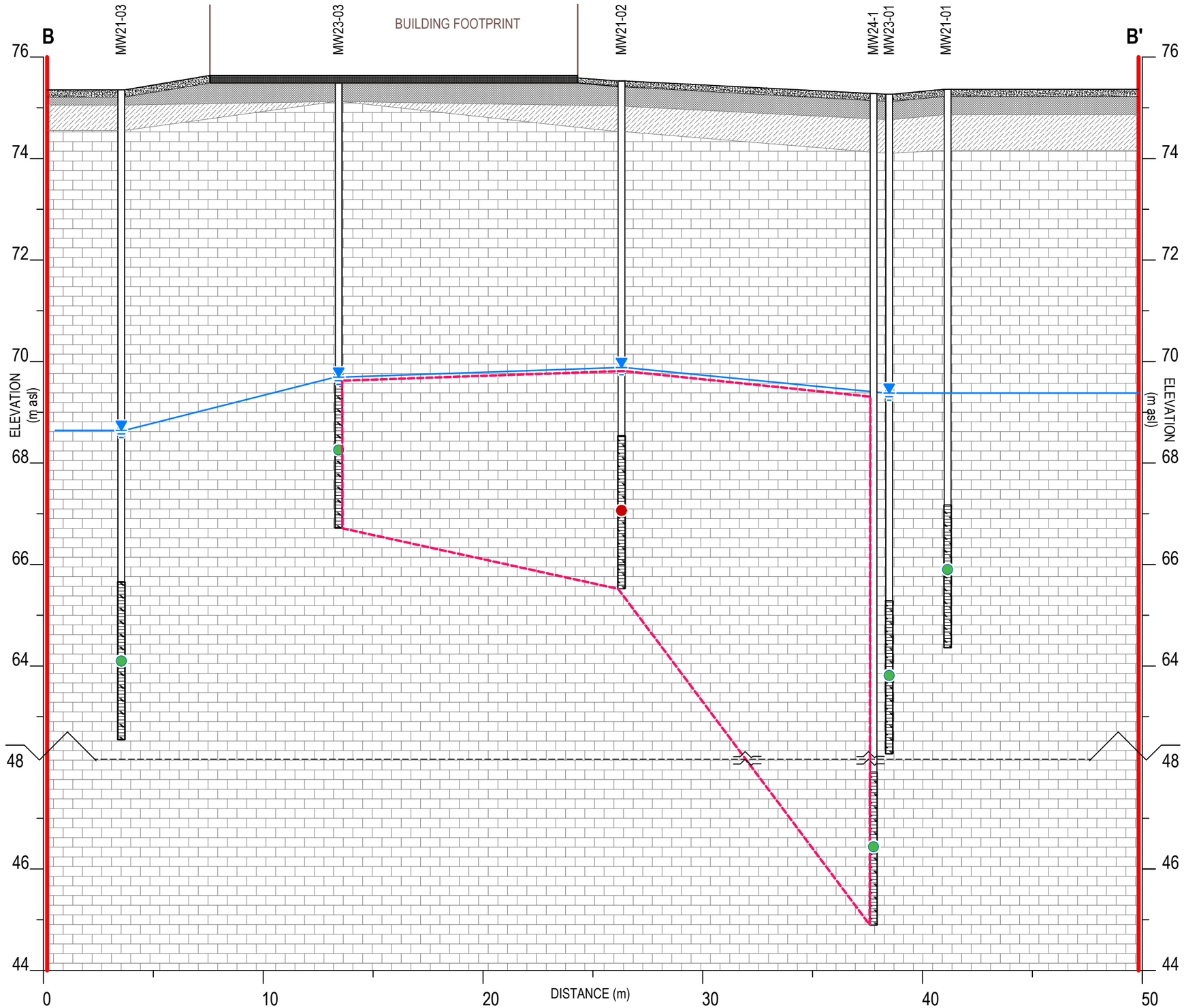
Drawing Title: **Cross Section A-A' - PHCs in Groundwater**

Designed By: C.O.	Scale: As shown
Drawn By: K.M.	Date: March 2024
Approved By: A.N.	Project No.: 02103035.000

Figure No.: **24**

Drawing: 24 GW PHC A.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:35 by Kris Morin

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Asphalt
- Concrete Slab
- Fill
- Sandy Silt / Silty Sand
- Limestone Bedrock
- Monitoring Well Screened Interval
- Measured Groundwater Level (2023)
- Inferred Groundwater Elevation (2023)
- Groundwater Sample Meets MECP Table 7 SCS for PHCs
- Groundwater Exceeds Meets MECP Table 7 SCS for PHCs
- Inferred Extent of PHC Contamination in Groundwater

Revision	Date	Issue	Approval
0	03/15/2024	Original	AN

Client
Churchill Properties Inc.

Site
424 Churchill Avenue North, Ottawa, ON

Report Title
Phase Two Environmental Site Assessment

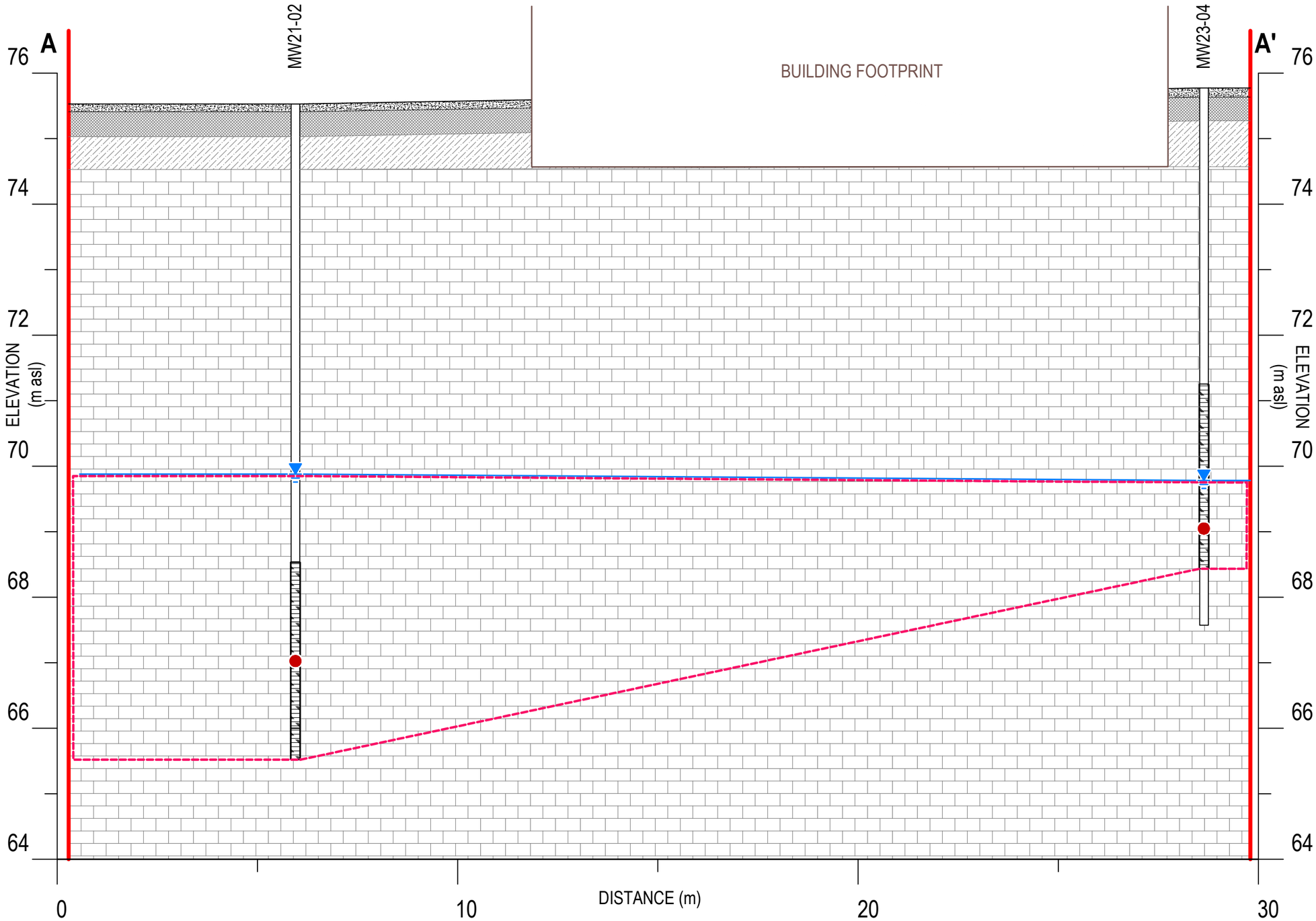
Drawing Title
Cross Section B-B' - PHCs in Groundwater

Designed By: C.O.	Scale: As shown
Drawn By: K.M.	Date: March 2024
Approved By: A.N.	Project No.: 02103035.000

Figure No. **25**

Drawing: 25 GW PHC B.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:37 by Kris Morin

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Asphalt
- Fill
- Sandy Silt
- Limestone Bedrock
- Monitoring Well Screened Interval
- Measured Groundwater Level (2023)
- Inferred Groundwater Elevation (2023)
- Groundwater Sample Meets MECP Table 7 SCS for VOCs
- Groundwater Exceeds Meets MECP Table 7 SCS for VOCs
- Inferred Extent of VOC Contamination in Groundwater

Revision	Date	Issue	Approval
0	03/15/2024	Original	AN

Client: **Churchill Properties Inc.**

Site: **424 Churchill Avenue North, Ottawa, ON**

Report Title: **Phase Two Environmental Site Assessment**

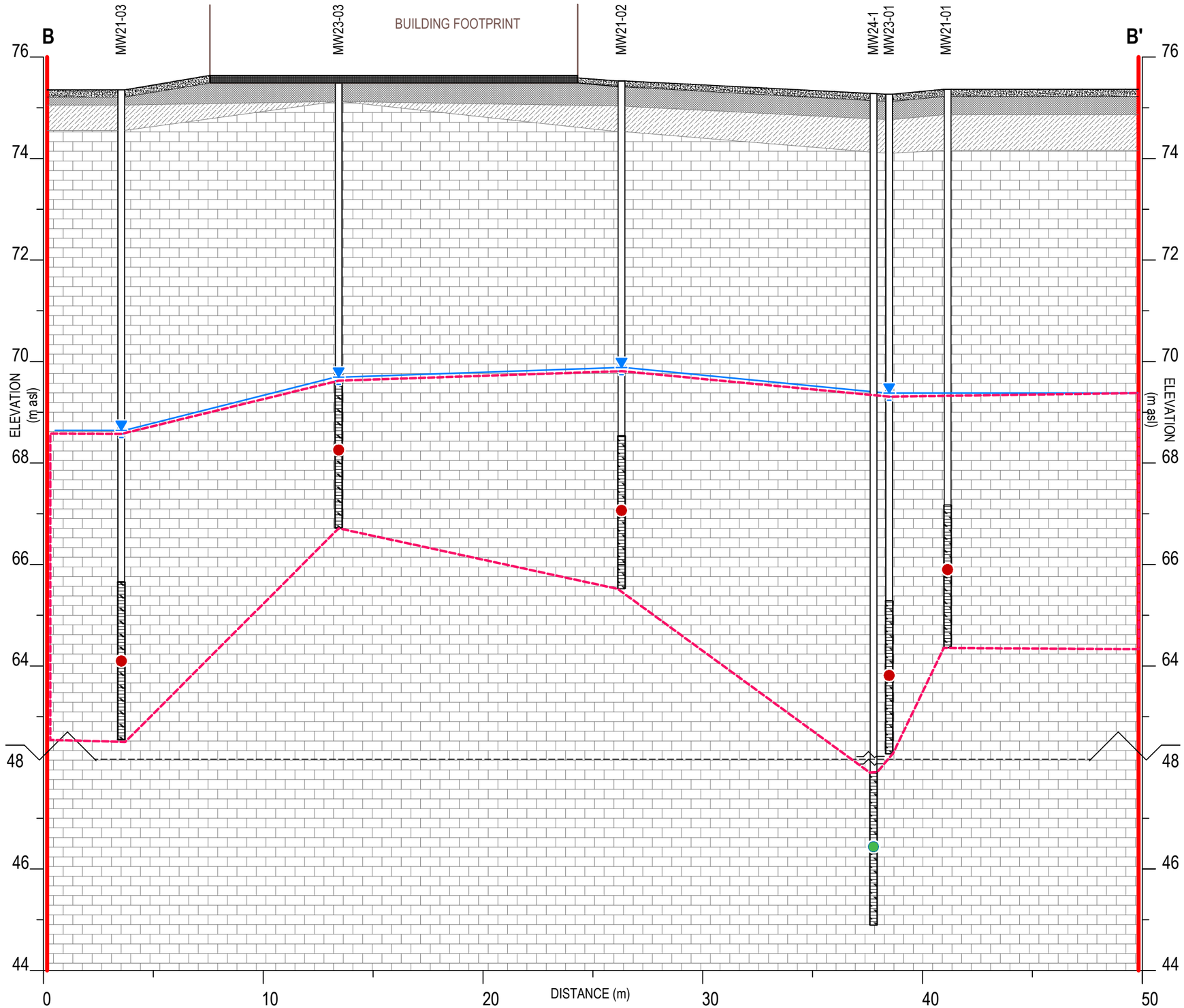
Drawing Title: **Cross Section A-A' - VOCs in Groundwater**

Designed By: C.O.	Scale: As shown
Drawn By: K.M.	Date: March 2024
Approved By: A.N.	Project No.: 02103035.000

Figure No.: **26**

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com

Drawing: 26 GW VOC A.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:39 by Kris Morin



Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Asphalt
- Concrete Slab
- Fill
- Sandy Silt / Silty Sand
- Limestone Bedrock
- Monitoring Well Screened Interval
- Measured Groundwater Level (2023)
- Inferred Groundwater Elevation (2023)
- Groundwater Sample Meets MECP Table 7 SCS for VOCs
- Groundwater Exceeds Meets MECP Table 7 SCS for VOCs
- Inferred Extent of VOC Contamination in Groundwater

Revision	Date	Issue	Approval
0	03/15/2024	Original	AN

Client
Churchill Properties Inc.

Site
424 Churchill Avenue North, Ottawa, ON

Report Title
Phase Two Environmental Site Assessment

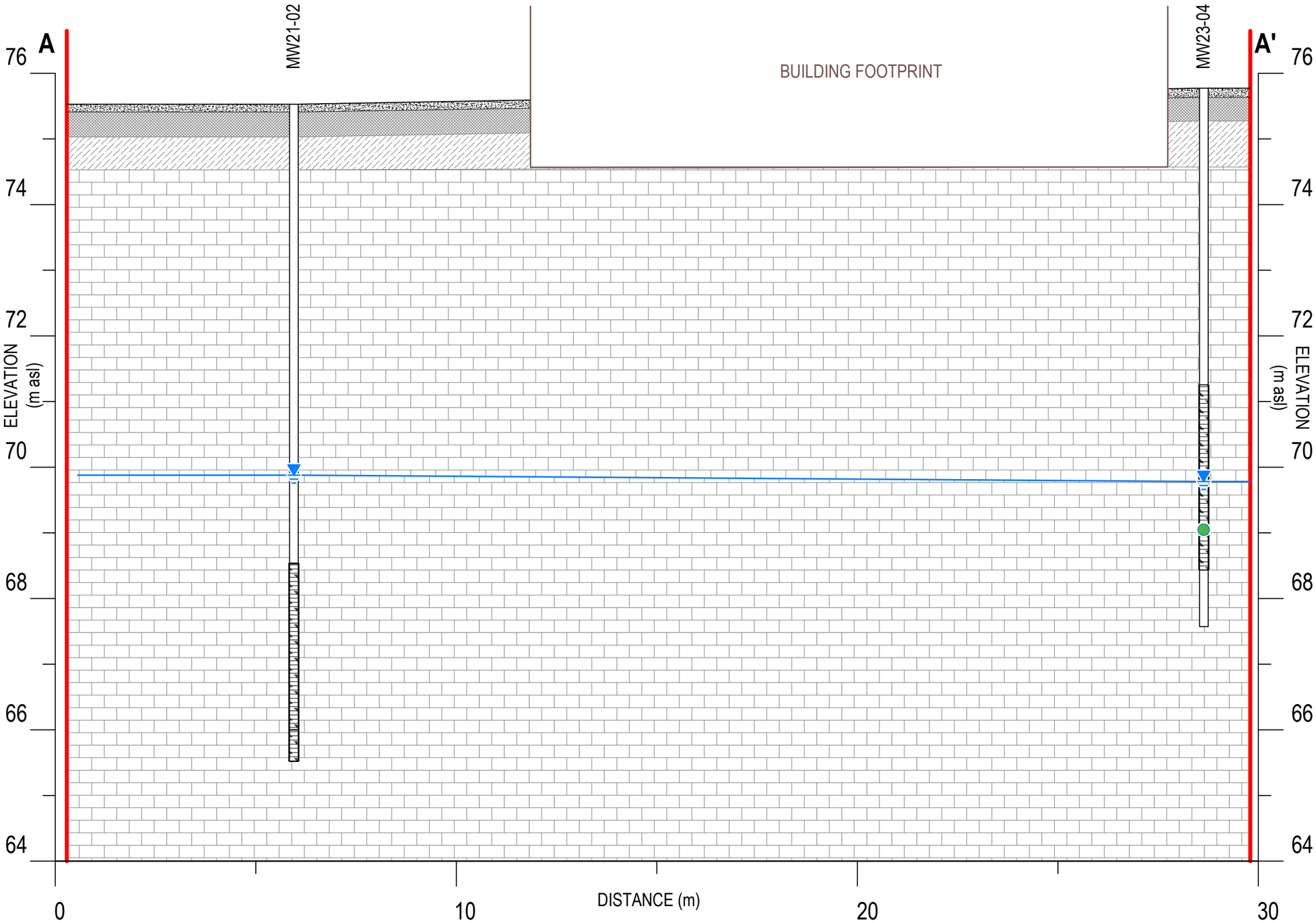
Drawing Title
Cross Section B-B' - VOCs in Groundwater

Designed By: C.O.	Scale: As shown
Drawn By: K.M.	Date: March 2024
Approved By: A.N.	Project No.: 02103035.000

Figure No. **27**

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com

Drawing: 27 GW VOC B.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:40 by Kris Morin



Note

1. This drawing shall be read in conjunction with the associated technical report.
2. Analytical results on this figure include the following method groups: Metals, As, Se, Sb

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Asphalt
- Fill
- Sandy Silt
- Limestone Bedrock
- Monitoring Well Screened Interval
- Measured Groundwater Level (2023)
- Inferred Groundwater Elevation (2023)
- Groundwater Sample Meets MECP Table 7 SCS for Metals

0	03/15/2024	Original	AN
Revision	Date	Issue	Approval

Client
Churchill Properties Inc.

Site
424 Churchill Avenue North, Ottawa, ON

Report Title
Phase Two Environmental Site Assessment

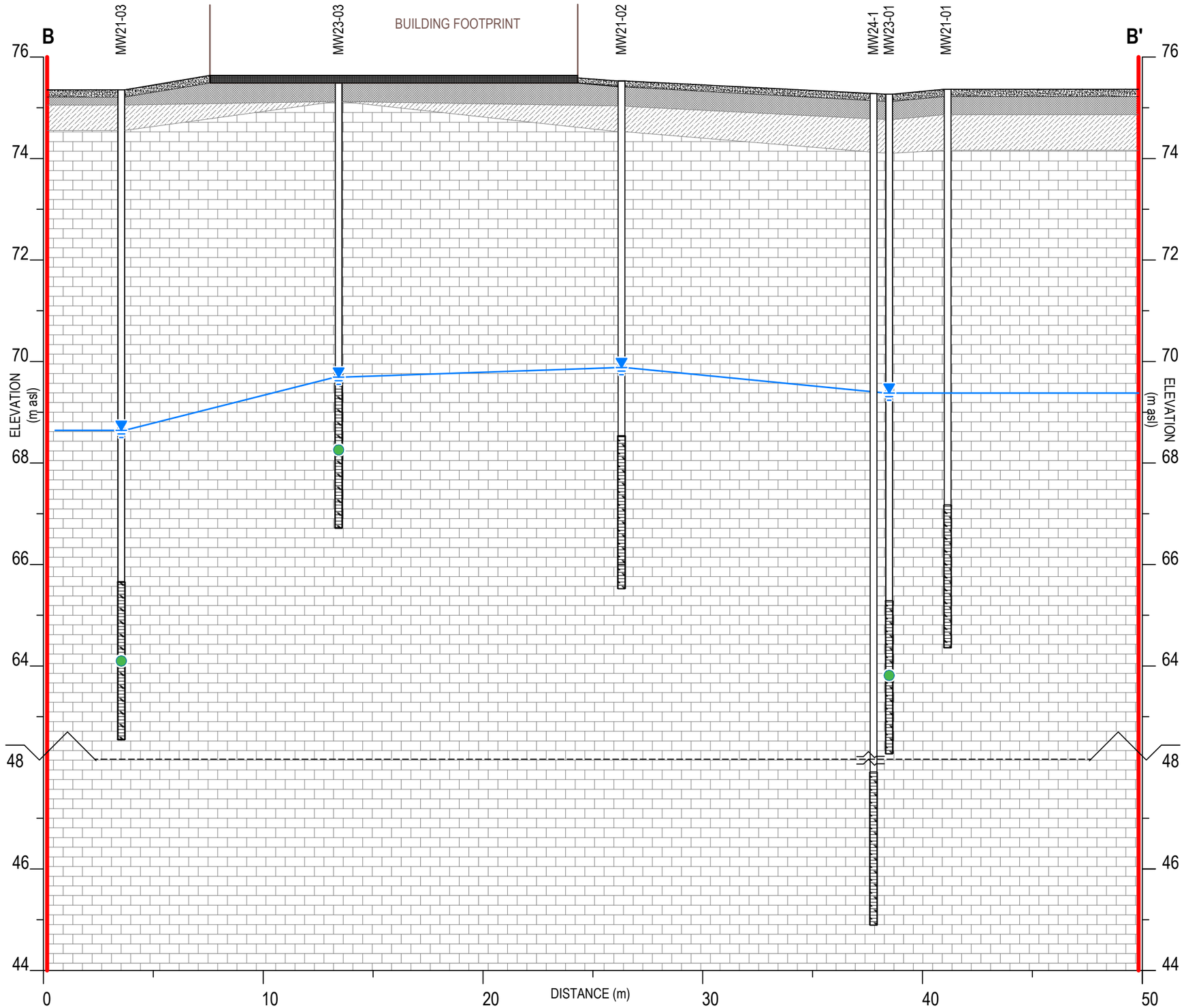
Drawing Title
Cross Section A-A' - Metals in Groundwater

Designed By	Scale
C.O.	As shown
Drawn By	**Date**
K.M.	March 2024
Approved By	**Project No.**
A.N.	02103035.000

Figure No.
28

Drawing: 28 GW Metals A.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:41 by Kris Morin

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



Note

1. This drawing shall be read in conjunction with the associated technical report.
2. Analytical results on this figure include the following method groups: Metals, As, Se, Sb

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Asphalt
- Concrete Slab
- Fill
- Sandy Silt / Silty Sand
- Limestone Bedrock
- Monitoring Well Screened Interval
- Measured Groundwater Level (2023)
- Inferred Groundwater Elevation (2023)
- Groundwater Sample Meets MECP Table 7 SCS for Metals

Revision	Date	Issue	Approval
0	03/15/2024	Original	AN

Client: **Churchill Properties Inc.**

Site: **424 Churchill Avenue North, Ottawa, ON**

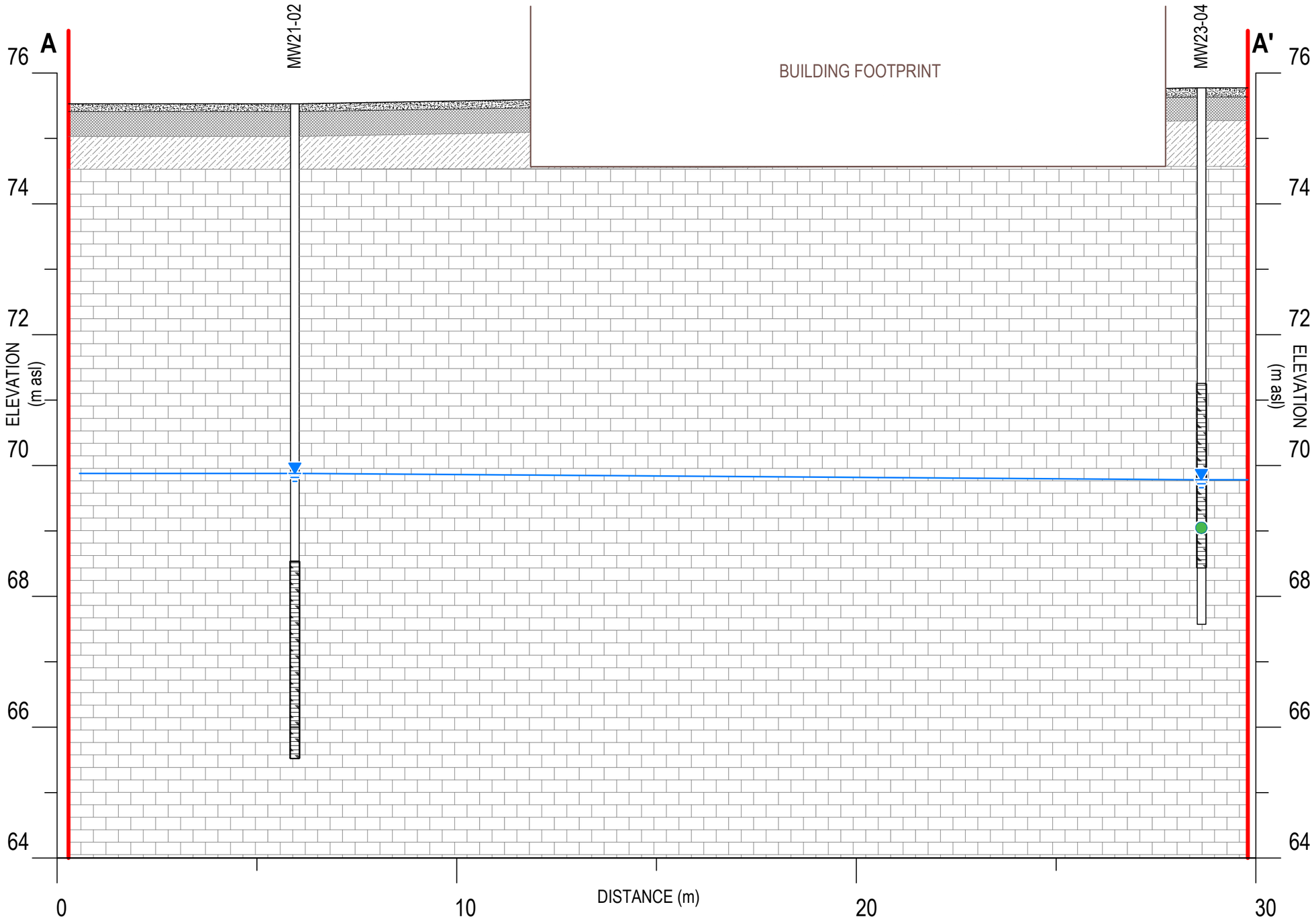
Report Title: **Phase Two Environmental Site Assessment**

Drawing Title: **Cross Section B-B' - Metals in Groundwater**

Designed By: C.O.	Scale: As shown
Drawn By: K.M.	Date: March 2024
Approved By: A.N.	Project No.: 02103035.000

Figure No.: **29**

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Asphalt
- Fill
- Sandy Silt
- Limestone Bedrock
- Monitoring Well Screened Interval
- Measured Groundwater Level (2023)
- Inferred Groundwater Elevation (2023)
- Groundwater Sample Meets MECP Table 7 SCS for PAHs

0	03/15/2024	Original	AN
Revision	Date	Issue	Approval

Client
Churchill Properties Inc.

Site
424 Churchill Avenue North, Ottawa, ON

Report Title
Phase Two Environmental Site Assessment

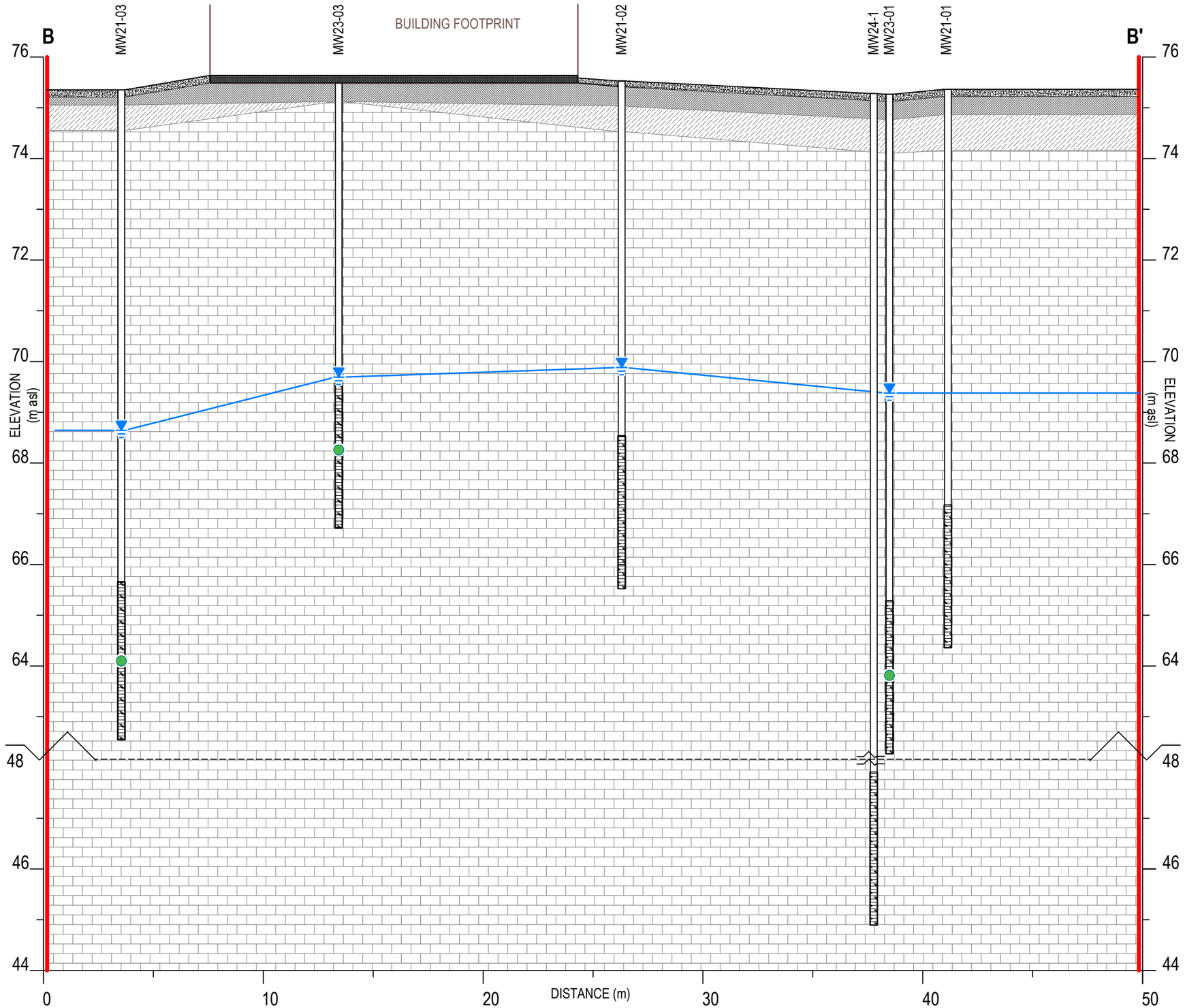
Drawing Title
Cross Section A-A' - PAHs in Groundwater

Designed By	Scale
C.O.	As shown
Drawn By	**Date**
K.M.	March 2024
Approved By	**Project No.**
A.N.	02103035.000

Figure No. **30**

Drawing: 30 GW PAH A.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:42 by Kris Morin

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com



Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Phase One, Phase Two and Record of Site Condition (RSC) Property Boundary
- Asphalt
- Concrete Slab
- Fill
- Sandy Silt / Silty Sand
- Limestone Bedrock
- Monitoring Well Screened Interval
- Measured Groundwater Level (2023)
- Inferred Groundwater Elevation (2023)
- Groundwater Sample Meets MECP Table 7 SCS for PAHs

Revision	Date	Issue	Approval
0	03/15/2024	Original	AN

Client
Churchill Properties Inc.

Site
424 Churchill Avenue North, Ottawa, ON

Report Title
Phase Two Environmental Site Assessment

Drawing Title
Cross Section B-B' - PAHs in Groundwater

Designed By: C.O.	Scale: As shown
Drawn By: K.M.	Date: March 2024
Approved By: A.N.	Project No.: 02103035.000

Figure No. **31**

2713 Lancaster Road Suite 101, Ottawa, Ontario K1B 5R6 Tel: 1-877-300-4800 Website: www.englobecorp.com

Drawing: 31 GW PAH B.dwg Folder: C:\DST\02103035.000 424 Churchill\2023 Phase II ESA\DWGs Tuesday, March 12, 2024 @ 10:42 by Kris Morin

Scale 1 : 150

6 4.5 3.0 1.5 0 3 6 Metres

Metric

DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

TOPOGRAPHICAL PLAN OF SURVEY OF

LOT 1 and PART OF LOT 2 (South Danforth Avenue) REGISTERED PLAN 204 CITY OF OTTAWA

Prepared by Annis, O'Sullivan, Vollebekk Ltd.

AMENDED July 12th, 2022 to illustrate tree sizes & locations, additional street servicing & details, new vertical Benchmark No.1 and updated overhead wire locations & elevations.

JOB BENCHMARK No.2
Fire Hydrant - Top of Spindle
Elev = 70.07

JOB BENCHMARK No.1
MAG nail in West Face of UP
Elev = 73.54

DANFORTH AVENUE (FORMERLY JAMES STREET, INST. NP48636)

PART OF LOT 30 CONCESSION I (OTTAWA FRONT) (NEPEAN)

BYRON AVENUE (FORMERLY OTTAWA ELECTRIC RAILWAY RIGHT-OF-WAY BRITANNIA BRANCH) PIN 04017-0138

CHURCHILL AVENUE NORTH (FORMERLY MAIN STREET) BETWEEN LOTS 30 AND 31 (ROAD ALLOWANCE)

REGISTERED PLAN 3 — LOT 4 — LOT 5 — LOT 1 — LOT 2 — LOT 3 — PART 2 PLAN 4R-22856 — 204

No. 325 — No. 414 — No. 424 I Storey Brick & Concrete Block Building (Foundation Noted) Building Flashing Elev.=82.00 (Brick Noted)

Notes & Legend

Denotes		
—□—	"	Survey Monument Planted
—■—	"	Survey Monument Found
SSIB	"	Short Standard Iron Bar
IB	"	Iron Bar
CC	"	Cut Cross
(WIT)	"	Witness
Meas.	"	Measured
(AOG)	"	Annis, O'Sullivan, Vollebekk Ltd.
(DI)	"	Deed Inst. N632657
(P)	"	Registered Plan 204
(P1)	"	(AOG) Plan dated Dec. 1, 2003
(P2)	"	Plan 4R-22856
(P3)	"	(AOG) Plan dated Sept. 29, 1999
(P4)	"	(AOG) Plan dated June 24, 2020
(P5)	"	(671) Plan dated Feb. 4, 1986
RW-C	"	Concrete Retaining Wall
RW-CB	"	Concrete Block Retaining Wall
○ MH-ST	"	Maintenance Hole (Storm Sewer)
○ MH-S	"	Maintenance Hole (Sanitary)
○ MH-T	"	Maintenance Hole (Traffic)
⊖ VC	"	Valve Chamber (Watermain)
	"	Deciduous Tree
+ 65.00	"	Location of Elevations
+ 65.00	"	Top of Concrete Curb Elevation

—— FO ——	"	Underground Fibre Optic
—— L ——	"	Underground Power (Lighting)
—— W ——	"	Underground Water
—— P ——	"	Underground Power
—— T ——	"	Underground Traffic Cable
—— ST ——	"	Underground Storm Sewer
—— S ——	"	Underground Sanitary Sewer
—— OHW ——	"	Overhead Wires
O UP	"	Utility Pole
∘ AN	"	Anchor
O LS	"	Light Standard
□ CB	"	Catch Basin
◯ FH	"	Fire Hydrant
⊖ WV	"	Water Valve
Inv.	"	Invert
T/G	"	Top of Grate
▭ GM	"	Gas Meter
□ HH	"	Handhole
TSP	"	Traffic Signal Post
○ B	"	Bollard
△ S	"	Sign
RWT	"	Timber Retaining Wall
RWC	"	Concrete Retaining Wall
H-T	"	Hydro Transformer
Ø	"	Diameter
C/L	"	Centreline
	"	Property Line

ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
V-19592

THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY ISSUED BY THE SURVEYOR In accordance with Regulation 1026, Section 29 (3).

SITE AREA = 1009.6 m²

ELEVATION NOTES

1. Elevations shown are geodetic and are referred to the CGVD28 geodetic datum.
2. It is the responsibility of the user of this information to verify that the job benchmark has not been altered or disturbed and that it's relative elevation and description agrees with the information shown on this drawing.

UTILITY NOTES

1. This drawing cannot be accepted as acknowledging all of the utilities and it will be the responsibility of the user to contact the respective utility authorities for confirmation.
2. Only visible surface utilities were located.
3. A field location of underground plant by the pertinent utility authority is mandatory before any work involving breaking ground, probing, excavating etc.
4. Underground servicing information shown are as illustrated on City Of Ottawa plan No.'s ; E-04-23 , ISB08-5000 (Sheets 016, 017), 1772 (Sheet 1).

Surveyor's Certificate

I CERTIFY THAT :

1. This survey and plan are correct and in accordance with the Surveys Act and the Surveyors Act and the regulations made under them.
2. The survey was completed on the 9th day of December, 2021.

December 10, 2021
Date

Andrew Sheiry
Ontario Land Surveyor

Bearings are grid, derived from Can-Net 2016 Real Time Network GPS observations on the northerly boundary of Danforth Avenue having a bearing of N53°00'10"W and are referenced to Specified Control Points 01919680005 and 01919680105, MTM Zone 9 (76°30' West Longitude) NAD-83 (original).

For bearing comparisons, a rotation of 0°42'50" counter-clockwise was applied to bearings on plans (P2) and (P3).

For comparison purposes, bearings shown on Plans (P) and (P5) are astronomic bearings.

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Job No. 22329-2I (Amend) GSI Properties Pt. Lts 1,2 PL204 T F2 ns

Appendix B
Sampling and Analysis Plan

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Sampling and Analysis Plan

Introduction

This Appendix presents the Sampling and Analysis Plan (SAAP) that was developed in support of the Phase Two Environmental Site Assessment (ESA) for the property located at 424 Churchill Avenue North in Ottawa, Ontario (herein referred to as the "Site" or the "Phase Two Property"). The Phase Two ESA will be conducted to evaluate the presence/absence of contamination on Site, in the Areas of Potential Environmental Concern (APECs) that were identified in the Phase One ESA report (Englobe, February 2023) and will be used as supporting documentation for the filing of an RSC for the Site. The SAAP presents the procedures and methodology that will be undertaken during field investigative activities to characterize the Site conditions and meet the data quality objectives of the Phase Two ESA.

The SAAP presents the sampling program proposed for the Site, the recommended procedures and protocols for sampling and related field activities, the data quality objectives, and the quality assurance/quality control measures that will be undertaken to provide for the collection of accurate, reproducible, and representative data.

Field Sampling Program

The field sampling program was developed to provide guidance for the collection of soil and groundwater samples at the Site. Samples of subsurface soil materials will be analyzed for chemical analysis of volatile organic compounds (VOCs), metals, hydride-forming metals (As, Sb, and Se), and polycyclic aromatic hydrocarbons (PAHs). The soil sampling will be location-specific based on the identification of APECs. Vapour readings will be collected in the field to determine which samples shall be submitted for analysis. Soil sample intervals will extend from the surface to the anticipated shallow bedrock (less than 2 mbgs). The groundwater sampling will be location specific to assess for the potential presence of VOCs and PHC F1-F4 based on the identification of APECs.

A total of seven boreholes will be advanced on Site, all of which are to be instrumented with groundwater monitoring wells (MW21-01 through MW21-03 and MW23-01 through MW23-04). Soil and groundwater samples will be collected during the investigation and submitted for laboratory analysis of various Potential Contaminants of Potential Concern (PCOCs).

An elevation survey is to be completed, to obtain surveyed elevations of the boreholes and monitoring wells. Groundwater flow and direction in the water table aquifer will also be determined through groundwater level measurements and the elevations established from the Site elevation survey.

Field Methods

To meet the requirements of the field sampling program, the following field investigative methods will be undertaken:

- Borehole drilling;
- Soil screening and sampling;
- Monitoring well installation;
- Monitoring well development;
- Groundwater level measurements;
- Groundwater sampling; and,
- Elevation survey.

The field investigative methods will be performed following the procedures and protocols set out in Englobe's standard operating procedures and are outlined below:

Borehole Drilling

Boreholes will be advanced at the Site to facilitate the collection of soil samples for chemical analysis and geologic characterization, and for the installation of groundwater monitoring wells. During drilling activities, rigs will be equipped with a soil sampling device, which will allow for soil sampling in the overburden. Decontamination of the split spoons and/or the use of clean soil sample sleeves will be completed between each sample to minimize the potential for cross-contamination. The borehole locations will be selected to determine the presence or absence of impacts in the soils and groundwater on Site in relation to the APECs outlined in Englobe's Phase One ESA report (Englobe, February 2023).

Prior to borehole drilling, utility clearances will be obtained from public and private locators, as required. If any uncertainty regarding the location of a buried utility at a borehole location is encountered, hand augering or digging will be performed beforehand to confirm the presence or absence of the utility.

Soil Screening and Sampling

Soil samples will be collected for chemical analysis and geologic property characterization. Upon retrieval from the boreholes, the split spoons or vinyl sampling tubes will be placed on a flat surface and disassembled by drilling personnel to provide access of the recovered cores. The recovered cores will be logged in the field for texture, odour, moisture, and visual appearance (staining). A RKI Eagle 2 multi-gas detector or similar equipment will be utilized to screen the soil samples for combustible vapour concentrations (CVC). Representative worst-case soil samples from each borehole will be collected and submitted to a certified laboratory for analysis based on CVC field-screening measurements, sample depth, visual and/or olfactory field observations.

Soil samples are to be placed directly into laboratory-supplied sample jars and vials. Samples to be submitted for laboratory analysis of non-volatile parameters are to be placed in unpreserved 120 mL clear glass jars with Teflon lids, while samples to be submitted for laboratory analysis of volatile compounds are to be collected using disposable soil plug sample collectors supplied by the laboratory. The soil plugs are then placed in laboratory-supplied vials that contain measured volumes of methanol for sample preservation. All soil sample containers will be labelled with the Englobe project number and site name, borehole identification, and sampling date. The samples will then be placed in clean laboratory-supplied coolers, to store and maintain the samples at a temperature below 10°C. New powder-free nitrile gloves will be donned by the Englobe technician prior to the handling of each sample, to eliminate cross-contamination.

Based on visual and olfactory observations, CVC field-screening measurements, and the position of the collected soil samples with respect to the inferred groundwater table, select soil samples will be submitted under a Chain of Custody protocol, to an accredited laboratory for chemical analysis of PCOCs.

Monitoring Well Installation

All seven boreholes will be instrumented with groundwater monitoring wells. The wells will be constructed of a 2" diameter polyvinyl chloride (PVC) pipe and a slotted 3 m PVC well screen, placed to intercept the inferred groundwater table. A sand-pack consisting of clean silica sand will be placed within the annular space surrounding the screened section of the wells, and bentonite chips will be added from the top of the sand layer to within approximately 0.3 m of the surface to minimize the potential for cross-contamination. A locking J-Plug cap will be placed at the top of each well pipe and a protective flushmount steel casing will be installed to protect the well.

Monitoring Well Development

Following monitoring well installation activities, the wells will be developed until approximately 3 well volumes of water will be removed and/or until purged dry. Monitoring wells are developed to remove any groundwater impacted by drilling activities and to reduce the amount of sediment within the wells. Additional water will be purged for boreholes where water was introduced during bedrock coring operations. All purge water will be collected and stored in labeled, sealed containers on Site.

Groundwater Level Measurements

Englobe field personnel will collect groundwater level measurements from the installed monitoring wells prior to groundwater sampling activities. The water levels will be measured using a Solinst Canada Ltd. water level meter and/or oil/water interface probe. The electronic water level probe will be decontaminated (washed with Alconox brand phosphorous-free soap and rinsed with distilled water) prior to the collection of each groundwater level measurement.

Field Measurements of Water Quality Parameters

Prior to collecting the groundwater sample, field measurements of water quality parameters will be recorded from the monitoring wells. Field measurements of dissolved oxygen concentration, electrical conductivity, oxidation-reduction potential, pH, temperature, and water levels will be recorded. Equipment used during groundwater monitoring will be thoroughly cleaned and decontaminated between wells.

Groundwater Sampling

All sampling events will be done using low flow sampling techniques, a Horiba™ U52 multi-parameter water quality meter or In-Situ™ Aqua TROLL 400 Multiparameter Probe, submersible pump, and dedicated LDPE tubing. Groundwater samples will be collected directly into laboratory-supplied vials or bottles provided with analytical test group specific preservatives, as required. All groundwater sample containers are to be labelled with the Englobe project number and site name, monitoring well identification, and sampling date, and then placed in clean laboratory-supplied coolers, to store and maintain the samples at a temperature below 10°C.

Prior to the collection of each groundwater sample, the pump and other sampling equipment are to be decontaminated with Alconox brand phosphorous-free soap and distilled water, followed by a distilled water rinse. New powder-free nitrile gloves will be used by the Englobe technician prior to the handling of each sample, to eliminate cross-contamination.

Elevation Survey

An elevation survey will be conducted by Englobe personnel to obtain accurate location and elevation data of the newly installed monitoring wells and boreholes.

Field Quality Assurance/Quality Control Program

Englobe maintains a standard Quality Assurance/ Quality Control (QA/QC) program for environmental investigations. All project documentation will be maintained and controlled by the appointed field supervisor. All borehole advancement and soil and groundwater sampling will be completed in accordance with industry standards, and applicable provincial standards/guidelines.

The objective of the field quality assurance/quality control (QA/QC) program is to obtain soil and groundwater samples and other field measurements that provide data of acceptable quality that meets the objectives of the Phase Two ESA. The objectives of the QA/QC program are achieved through the implementation of procedures for the collection of unbiased (i.e. non-contaminated) samples, sample documentation and the collection of appropriate QC samples to provide a measure of sample reproducibility and accuracy. The field QA/QC measures comprise of:

- Decontamination Protocols;
- Equipment Calibration;
- Sample Preservation;
- Sample Documentation; and,
- Field Quality Control.

Details on the field QA/QC measures are provided below.

Decontamination Protocols

The potential for cross-contamination between samples will be minimized by, where applicable, washing sampling tools with phosphorous-free soap and water, followed by rinsing with distilled water, and by wearing new disposable nitrile gloves prior to the handling of each sample.

Equipment Calibration

All field screening instruments (i.e., RKI Eagle™ vapour meter and the water quality meter) will be calibrated prior to arriving on Site.

Sample Preservation

All soil and groundwater samples are to be preserved using appropriate analytical test group specific reagents, as required, and upon collection were place in ice-packed coolers prior to being shipped, under a Chain of Custody protocol, to an accredited laboratory for chemical analysis.

Sample Documentation

All samples are to be assigned a unique identification number, which is to be recorded along with the date, time, project number, company name, location and requested analysis in a bound field notebook. All samples will be handled and transported following Chain of Custody (COC) protocols.

Field Quality Control

Chemical analyses for specific analytical test groups will be performed in accordance with the MECP 2011 document *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act*. Analytical test group specific quality control samples will be prepared and analyzed by the contractual laboratory including:

- Blind field duplicates to method reproducibility and sample homogeneity;
- Method blanks to evaluate potential bias;
- Spike blanks to evaluate method accuracy and bias; and

— Matrix spikes to evaluate extraction efficiency and matrix interferences.

Quality control results will be evaluated by the contractual laboratory to applicable alert and control criteria.

Appendix C
Borehole Logs

ENGLOBE

Page 1 of 1

MW21-01

Englobe No.	02103035.000	Date	April 21, 2021
Client	Churchill Properties Inc.	Method	Hollow Stem Auger & Air Hammer
Project	Phase Two Environmental Site Assessment	Surface Elevation	75.37 m asl
Address	424 Churchill Avenue North, Ottawa, ON	Coordinates	5026693.517 m N,441011.962 m E

Depth (m)	Elevation (m)	Water level (mREL)	Well construction	Depth (m) Elevation (m)	Symbol	Material Description	Sample #	Sample Type	'N' Value/RQD %	CCGD / PID Reading: CCGD	CCGD / PID Reading: PID	Analysis (Submitted for laboratory analysis): PAHs	PHCs	Metals	VOCs	pH	Remarks
0				0		ASPHALT - (140 mm thickness)	GS1										
				0.1		FILL - Silty sand, trace gravel, loose, brown, damp											
0.5				0.5		SANDY SILT - trace gravel, compact, brown, damp	SS1		6	25 ppm	0 ppm						
1.0							SS2		50+	210 ppm	1 ppm		✓		✓		
1.5				1.2		BEDROCK - Borehole advanced into bedrock using Tri-cone air drilling methods (bedrock type and quality could not be confirmed)											
2.0																	
2.5																	
3.0																	
3.5																	
4.0																	
4.5																	
5.0																	
5.5																	
6.0																	
6.5		▼															Groundwater level at 6.46 mbgs on April 30, 2021.
7.0																	
7.5																	
8.0																	
8.5																	
9.0																	
9.5																	
10.0																	
10.5																	
11.0						End of Borehole at 11.1 m.											
11.5																	
12.0																	
12.5																	

MW21-02

Englobe No.	02103035.000	Date	April 21, 2021
Client	Churchill Properties Inc.	Method	Hollow Stem Auger & Diamond Coring
Project	Phase Two Environmental Site Assessment	Surface Elevation	75.53 m asl
Address	424 Churchill Avenue North, Ottawa, ON	Coordinates	5026686.879 m N, 441001.753 m E

Depth (m)	Material Description	Sample #	Sample Type	'N' Value/RQD %	CCGD / PID Reading: CCGD	CCGD / PID Reading: PID	Analysis: PAHs	Analysis: PHCs	Analysis: Metals	Analysis: VOCs	Analysis: pH	Remarks
0	ASPHALT - (120 mm thickness)	GS1										
0.1	FILL - Sand, some gravel, compact, brown, damp											
0.5	SANDY SILT - trace gravel, compact, brown, damp,	SS1		11	360 ppm	1 ppm						
		SS2		50+	710 ppm	3 ppm		✓		✓	✓	
1	LIMESTONE - highly weathered and fractured, grey Auger refusal encountered at 1.4 mbgs											
1.4	LIMESTONE - poor quality based on RQD, slightly weathered, strong, medium to thickly bedded	RC1		43								
		RC2		37								
3.8	- 0.1m thick shale bed											
4.5	- fair quality based on RQD, fresh	RC3		68								
6.1	- excellent quality based on RQD	RC4		93								Groundwater level at 6.80 mbgs on April 29, 2021.
		RC5		92								
9	- fair quality based on RQD	RC6		50								
10.0	End of Borehole at 10.0 m.											

MW21-03

Englobe No.	02103035.000	Date	April 22, 2021
Client	Churchill Properties Inc.	Method	Hollow Stem Auger & Air Hammer
Project	Phase Two Environmental Site Assessment	Surface Elevation	75.353 m asl
Address	424 Churchill Avenue North, Ottawa, ON	Coordinates	5026664.437 m N, 440991.735 m E

Depth (m)	Elevation (m)	Water level (mREL)	Well construction	Depth (m) Elevation (m)	Symbol	Material Description	Sample #	Sample Type	'N' Value/RQD %	CCGD / PID Reading: CCGD	CCGD / PID Reading: PID	Analysis (Submitted for laboratory analysis): PAHs	PHCs	Metals	VOCs	pH	Remarks
0				0		ASPHALT - (140 mm thickness)	GS1										
0.5				0.1 0.3		FILL - Silty sand, trace gravel, brown, compact, damp SANDY SILT - trace gravel, brown, compact, damp	SS1		50+	5 ppm	0 ppm		✓		✓		
1.0				0.8		BEDROCK - Borehole advanced into bedrock using Tri-cone air drilling methods (bedrock type and quality could not be confirmed)											
6.5		▼															Groundwater level at 6.92 mbgs on April 30, 2021.
12.5						End of Borehole at 12.8 m.											

LOG OF BOREHOLE MW23-01

ENGLOBE REF. No.: **02103035.000**
CLIENT: **Churchill Properties Inc.**
PROJECT: **Phase Two Environmental Site Assessment**
LOCATION: **424 Churchill Ave. N, Ottawa**
SURFACE ELEV.: **75.27 metres**
**Elevations are not geodetic, for reference within this report only.*

Drilling Data
METHOD: **Hollow Stem Auger & Diamond Coring**
START DATE: **07/11/2023**
COMPLETION DATE: **7/11/2023**
COORDINATES: **5026692.732** m N, **441016.497** m E

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE (Wp, W, Wl; 20 40 60 80)	Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE / RECOVERY %	Su (kPa) VANE ✖ PP ✳ (40 80 120 160); SPT (N) □ Blows/0.3m DCPT ◆ (20 40 60 80)	CHVC 1 (ppm)	CHVC 2 (ppm)	REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
0.0	75				**APPROX. 100mm THICK ASPHALT**	GS1		43 %				
					FILL- silty sand, some gravel, loose, brown, damp	SS1		73 83%				
1.0	74				**TILL-** silty sand, some gravel, loose, brown, damp Auger refusal at 0.8 mbgs, continue with rock coring	RC1		50%				RQD= 53%, SCR= 72%, TCR= 100%
2.0	73				**LIMESTONE-** fair quality, grey, weathered Becoming good quality	RC2		100%				RQD= 78%, SCR= 98%, TCR= 100%
3.0	72											
4.0	71					RC3		96%				RQD= 48%, SCR= 94%, TCR= 96%
5.0	70											
6.0	69	▽				RC4		100%				RQD= 86%, SCR= 93%, TCR= 100%
7.0	68					RC5		93%				RQD= 82%, SCR= 92%, TCR= 93%
8.0	67											
9.0	66					RC6		87%				RQD= 69%, SCR= 87%, TCR= 87%
10.0	65				Becoming fair quality							RQD= 71%, SCR= 88%, TCR= 98%
11.0	64					RC7		98%				
12.0	63					RC8		100%				RQD= 89%, SCR= 94%, TCR= 100%
												RQD= 72%,

BOREHOLE (THUNDER BAY) 02103035.000-424 CHURCHILL AVE N.GPJ DATA TEMPLATE.GDT 8/28/23

ENGLOBE
101-2713 LANCASTER ROAD
OTTAWA, ON, K1B 5R6
PH: 1-877-300-4800
FX: 1-888-979-6772
Web: www.englobecorp.com

SAMPLE TYPE LEGEND
Auger Sample; Split Spoon Sample; Bulk Sample; Rock Core; Core Sample; Shelby Tube

WELL LEGEND
Bentonite; Sand; Screen

✖[3] Numbers refers to Sensitivity
PP: Pocket Penetrometer
CHVC: Combustable Headspace Vapor Concentration
NFP: No Further Penetration

LOG OF BOREHOLE MW23-01

ENGLOBE REF. No.: **02103035.000**
CLIENT: **Churchill Properties Inc.**
PROJECT: **Phase Two Environmental Site Assessment**
LOCATION: **424 Churchill Ave. N, Ottawa**
SURFACE ELEV.: **75.27 metres**
**Elevations are not geodetic, for reference within this report only.*

Drilling Data
METHOD: **Hollow Stem Auger & Diamond Coring**
START DATE: **07/11/2023**
COMPLETION DATE: **7/11/2023**
COORDINATES: **5026692.732** m N, **441016.497** m E

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE W_p W W_l (20 40 60 80)	Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE / RECOVERY %	Su (kPa) VANE ✖ PP ✳ (40 80 120 160) SPT (N) □ Blows/0.3m DCPT ◆ (20 40 60 80)	CHVC 1 (ppm)	CHVC 2 (ppm)	REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
	62											SCR= 85%, TCR= 100%
14.0	61				Becoming excellent quality	RC9		100%				RQD= 100%, SCR= 100%, TCR= 100%
15.0	60					RC10		100%				
16.0	59					RC11		100%				RQD= 72%, SCR= 81%, TCR= 100%
17.0	58				End of borehole at approximately 16.8 mbgs (~Elev. 58.7 masl) in limestone. Water level measured in monitoring well was approximatley 5.9 mbgs (~Elev. 69.4 masl) on August 14, 2023.							
18.0	57											
19.0	56											
20.0	55											
21.0	54											
22.0	53											
23.0	52											
24.0	51											
25.0	50											

BOREHOLE (THUNDER BAY) 02103035.000-424 CHURCHILL AVE N.GPJ DATA TEMPLATE.GDT 8/28/23

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OTTAWA, ON, K1B 5R6
PH: 1-877-300-4800
FX: 1-888-979-6772
Web: www.englobecorp.com

SAMPLE TYPE LEGEND
- Auger Sample
- Split Spoon Sample
- Bulk Sample
- Rock Core
- Core Sample
- Shelby Tube

WELL LEGEND
- Bentonite
- Sand
- Screen

✖[3] Numbers refers to Sensitivity
PP: Pocket Penetrometer
CHVC: Combustable Headspace Vapor Concentration
NFP: No Further Penetration

LOG OF BOREHOLE MW23-02

ENGLOBE REF. No.: **02103035.000**
CLIENT: **Churchill Properties Inc.**
PROJECT: **Phase Two Environmental Site Assessment**
LOCATION: **424 Churchill Ave. N, Ottawa**
SURFACE ELEV.: **73.57 metres**
**Elevations are not geodetic, for reference within this report only.*

Drilling Data
METHOD: **Hollow Stem Auger & Diamond Coring**
START DATE: **07/19/2023**
COMPLETION DATE: **7/19/2023**
COORDINATES: **5026684.758** m N, **441023.163** m E

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE W_p W W_l (20 40 60 80)	Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE / RECOVERY %	Su (kPa) VANE ✖ PP ✳ (40 80 120 160) SPT (N) □ Blows/0.3m DCPT ◆ (20 40 60 80)	CHVC 1 (ppm)	CHVC 2 (ppm)	REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
0	73				**APPROX. 25mm THICK CONCRETE SLAB**							
1.0	72				**FILL-** sand and gravel, loose, brown, damp Auger refusal at 0.1 mbgs, continue with rock coring							
2.0	71				**BEDROCK**							
3.0	70	▽										
4.0	69											
5.0	68											
6.0	67											
7.0	66											
8.0	65											
9.0	64				End of borehole at approximately 9.2mbgs (~Elev. 64.4 masl) in bedrock. Water level measured in monitoring well was approximatley 3.9mbgs (~Elev. 69.8masl) on August 14, 2023.							
10.0	63											
11.0	62											
12.0	61											

BOREHOLE (THUNDER BAY) 02103035.000-424 CHURCHILL AVE N.GPJ DATA TEMPLATE.GDT 8/28/23

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SAMPLE TYPE LEGEND
- Auger Sample
- Split Spoon Sample
- Bulk Sample
- Rock Core
- Core Sample
- Shelby Tube

WELL LEGEND
- Bentonite
- Sand
- Screen

✖[3] Numbers refers to Sensitivity
PP: Pocket Penetrometer
CHVC: Combustable Headspace Vapor Concentration
NFP: No Further Penetration

LOG OF BOREHOLE MW23-03

ENGLOBE REF. No.: **02103035.000**
CLIENT: **Churchill Properties Inc.**
PROJECT: **Phase Two Environmental Site Assessment**
LOCATION: **424 Churchill Ave. N, Ottawa**
SURFACE ELEV.: **75.92 metres**
**Elevations are not geodetic, for reference within this report only.*

Drilling Data
METHOD: **Hollow Stem Auger & Diamond Coring**
START DATE: **07/20/2023**
COMPLETION DATE: **7/20/2023**
COORDINATES: **5026673.617** m N, **440996.601** m E

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE W_p W W_l (20 40 60 80)	Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE / RECOVERY %	Su (kPa) VANE ✖ PP ✳ (40 80 120 160) SPT (N) □ Blows/0.3m DCPT ◆ (20 40 60 80)	CHVC 1 (ppm)	CHVC 2 (ppm)	REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
0.0	75.92				**APPROX. 152 mm THICK CONCRETE SLAB**	SS1		100%				
					FILL- gravel base layer followed by SAND, brown, damp	SS2		100%				
1.0	75				Auger refusal at 0.8mbgs, continue with rock coring **BEDROCK**							
2.0	74											
3.0	73											
4.0	72											
5.0	71											
6.0	70											
7.0	69											
8.0	68											
9.0	67				End of borehole at approximately 9.2mbgs (~Elev. 66.7 masl) in Bedrock. Water level measured in monitoring well was approximatley 6.2mbgs (~Elev. 69.7masl) on August 14, 2023.							
10.0	66											
11.0	65											
12.0	64											
	63											

BOREHOLE (THUNDER BAY) 02103035.000-424 CHURCHILL AVE N.GPJ DATA TEMPLATE.GDT 8/28/23

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OTTAWA, ON, K1B 5R6
PH: 1-877-300-4800
FX: 1-888-979-6772
Web: www.englobecorp.com

SAMPLE TYPE LEGEND
Auger Sample
Split Spoon Sample
Bulk Sample
Rock Core
Core Sample
Shelby Tube

WELL LEGEND
Bentonite
Sand
Screen

✖[3] Numbers refers to Sensitivity
PP: Pocket Penetrometer
CHVC: Combustable Headspace Vapor Concentration
NFP: No Further Penetration

LOG OF BOREHOLE MW23-04

ENGLOBE REF. No.: **02103035.000**
CLIENT: **Churchill Properties Inc.**
PROJECT: **Phase Two Environmental Site Assessment**
LOCATION: **424 Churchill Ave. N, Ottawa**
SURFACE ELEV.: **75.77 metres**
**Elevations are not geodetic, for reference within this report only.*

Drilling Data
METHOD: **Direct Push & Air Hammer**
START DATE: **07/12/2023**
COMPLETION DATE: **7/12/2023**
COORDINATES: **5026672.722** m N, **441014.891** m E

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE (W_p — W — W_l) 20 40 60 80	Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE / RECOVERY %	Su (kPa) VANE ✖ PP ✳ 40 80 120 160 / SPT (N) □ Blows/0.3m DCPT ◆ 20 40 60 80	CHVC 1 (ppm)	CHVC 2 (ppm)	REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
0	75.77				**FILL-** sand, trace gravel, brown, damp Auger refusal at 0.2mbgs, continue with air hammering	SS1		50%				
1.0	75				**BEDROCK**							
2.0	74											
3.0	73											
4.0	72											
5.0	71											
6.0	70											
7.0	69											
8.0	68											
9.0	67				End of borehole at approximately 8.2mbgs (~Elev. 67.6 masl) in Bedrock. Water level measured in monitoring well was approximatley 5.9mbgs (~Elev. 69.8masl) on August 14, 2023.							
10.0	66											
11.0	65											
12.0	64											
	63											

BOREHOLE (THUNDER BAY) 02103035.000-424 CHURCHILL AVE N.GPJ DATA TEMPLATE.GDT 8/28/23

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SAMPLE TYPE LEGEND
- Auger Sample
- Split Spoon Sample
- Bulk Sample
- Rock Core
- Core Sample
- Shelby Tube

WELL LEGEND
- Bentonite
- Sand
- Screen

✖[3] Numbers refers to Sensitivity
PP: Pocket Penetrometer
CHVC: Combustable Headspace Vapor Concentration
NFP: No Further Penetration

Page 1 of 1

MW24-1

Project No.	02103035.000	Date	January 8, 2024
Client	Churchill Properties Inc.	Method	Direct Push / Air Hammer
Project	Phase Two Environmental Site Assessment	Surface Elevation	75.268
Address	424 Churchill Ave North, Ottawa, ON	Coordinates	441012.47 m N, 5026689.78 m E

Depth (m)	Elevation (m rab)	Water level (m)	Well construction	Depth (m) / Elevation (m rab)	Symbol	Material Description	Sample #	Sample Type	% Sample Recov.	CHVC / PID: Surface Elevation HEX	CHVC / PID: Surface Elevation ISO	Analysis (Submitted for laboratory analysis): PAHs	PHCs	Metals	VOCs	Others	Remarks
0.5				0		ASPHALT	1		100								
1.0				0.1		SILTY SAND - some gravel, yellowish brown, damp											Air Hammer due to refusal
1.5				0.45		BEDROCK											
2.0																	
2.5																	
3.0																	
3.5																	
4.0																	
4.5																	
5.0																	
5.5																	
6.0																	
6.5																	
7.0																	
7.5																	
8.0																	
8.5																	
9.0																	
9.5																	
10.0																	
10.5																	
11.0																	
11.5																	Groundwater level at 11.44 mbgs on January 24, 2024.
12.0																	
12.5																	
13.0																	
13.5																	
14.0																	
14.5																	
15.0																	
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27.0																	
27.5																	
28.0																	
28.5																	
29.0																	
29.5																	
30.0																	
30.5						End of Borehole at 30.50 m.											

Appendix D
Laboratory Results

ENGLOBE

Table D-1. Summary of Soil Analytical Results.

Sample ID	MECP Table 7 SCS	Units	MW21-01 SS2	MW21-02 SS2	MW21-03 SS1	MW23-01 SS1	MW23-03 SS1	MW23-04 SS1
Sample Depth (mbgs)			0.9 - 1.2	0.9 - 1.0	0.3 - 0.8	0.3 - 0.9	0.15 - 0.45	0 - 0.3
Sample Date (yyyy-mm-dd)			2021-04-21	2021-04-21	2021-04-22	2023-07-11	2023-07-20	2023-07-12
Inorganics								
pH	5 to 9	-	-	7.86	-	-	-	-
Metals and Hydride-Forming Metals								
Antimony	7.5	µg/g	-	-	-	0.25	0.37	0.37
Arsenic	18	µg/g	-	-	-	2	2.2	3
Barium	390	µg/g	-	-	-	630	180	310
Beryllium	5	µg/g	-	-	-	0.32	0.32	0.29
Boron (Total)	120	µg/g	-	-	-	9.8	12	8.4
Cadmium	1.2	µg/g	-	-	-	0.11	0.1	0.18
Chromium	160	µg/g	-	-	-	9	14	13
Cobalt	22	µg/g	-	-	-	5.3	9.4	4.5
Copper	180	µg/g	-	-	-	12	27	44
Lead	120	µg/g	-	-	-	48	46	200
Molybdenum	6.9	µg/g	-	-	-	0.69	1.3	1.7
Nickel	130	µg/g	-	-	-	11	18	11
Selenium	2.4	µg/g	-	-	-	<0.50	<0.50	<0.50
Silver	25	µg/g	-	-	-	<0.20	<0.20	1.3
Thallium	1	µg/g	-	-	-	0.17	0.32	0.15
Uranium	23	µg/g	-	-	-	0.35	0.46	0.36
Vanadium	86	µg/g	-	-	-	16	14	22
Zinc	340	µg/g	-	-	-	25	57	92
Petroleum Hydrocarbons (PHCs)								
F1 (C6-C10)	65	µg/g	<10	<10	<10	<10	<10	<10
F1 (C6-C10) - BTEX	65	µg/g	<10	<10	<10	<10	<10	<10
F2 (C10-C16)	150	µg/g	<10	<10	<10	<10	<10	<10
F3 (C16-C34)	1300	µg/g	<50	100	<50	340	<50	420
F4 (C34-C50)	5,600	µg/g	<50	290	95	1300	170	880
Reached Baseline at C50	NG	µg/g	YES	NO	YES	NO	NO	NO
F4 Gravimetric	5,600	µg/g	-	1100	-	6100	640	3200

Table D-1. Summary of Soil Analytical Results.

Sample ID	MECP Table 7 SCS	Units	MW21-01 SS2	MW21-02 SS2	MW21-03 SS1	MW23-01 SS1	MW23-03 SS1	MW23-04 SS1
Sample Depth (mbgs)			0.9 - 1.2	0.9 - 1.0	0.3 - 0.8	0.3 - 0.9	0.15 - 0.45	0 - 0.3
Sample Date (yyyy-mm-dd)			2021-04-21	2021-04-21	2021-04-22	2023-07-11	2023-07-20	2023-07-12
Volatile Organic Compounds (VOCs)								
Acetone	28	µg/g	<0.50	<0.50	<0.50	<0.49	<0.49	<0.49
Benzene	0.17	µg/g	<0.020	<0.020	<0.020	<0.0060	<0.0060	<0.0060
Bromodichloromethane	13	µg/g	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040
Bromoform	0.26	µg/g	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040
Bromomethane	0.05	µg/g	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040
Carbon Tetrachloride	0.12	µg/g	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040
Chlorobenzene	2.7	µg/g	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040
Chloroform	0.18	µg/g	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040
Dibromochloromethane	9.4	µg/g	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040
1,2-Dichlorobenzene	4.3	µg/g	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040
1,3-Dichlorobenzene	6	µg/g	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040
1,4-Dichlorobenzene	0.097	µg/g	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040
1,1-Dichloroethane	11	µg/g	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040
1,2-Dichloroethane	0.05	µg/g	<0.050	<0.050	<0.050	<0.049	<0.049	<0.049
1,1-Dichloroethylene	0.05	µg/g	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040
Cis-1,2-Dichloroethylene	30	µg/g	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040
Trans-1,2-Dichloroethylene	0.75	µg/g	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040
1,2-Dichloropropane	0.085	µg/g	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040
Cis-1,3-Dichloropropylene	NG	µg/g	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Trans-1,3-Dichloropropylene	NG	µg/g	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Ethylbenzene	15	µg/g	<0.020	<0.020	<0.020	<0.010	<0.010	<0.010
Ethylene Dibromide	0.05	µg/g	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040
Methyl Ethyl Ketone	44	µg/g	<0.5	<0.5	<0.5	<0.40	<0.40	<0.40
Methylene Chloride	0.96	µg/g	<0.05	<0.05	<0.05	<0.049	<0.049	<0.049
Methyl Isobutyl Ketone	4.3	µg/g	<0.5	<0.5	<0.5	<0.40	<0.40	<0.40
Methyl-t-Butyl Ether	1.4	µg/g	<0.05	<0.05	<0.05	<0.040	<0.040	<0.040
Styrene	2.2	µg/g	<0.05	<0.05	<0.05	<0.040	<0.040	<0.040
1,1,1,2-Tetrachloroethane	0.05	µg/g	<0.05	<0.05	<0.05	<0.040	<0.040	<0.040
1,1,2,2-Tetrachloroethane	0.05	µg/g	<0.05	<0.05	<0.05	<0.040	<0.040	<0.040
Toluene	6	µg/g	<0.02	<0.02	<0.02	<0.020	<0.020	<0.020
Volatile Organic Compounds (VOCs)								
Tetrachloroethylene	2.3	µg/g	0.72	0.27	0.32	2	0.23	0.16
1,1,1-Trichloroethane	3.4	µg/g	<0.05	<0.05	<0.05	<0.040	<0.040	<0.040
1,1,2-Trichloroethane	0.05	µg/g	<0.05	<0.05	<0.05	<0.040	<0.040	<0.040
Trichloroethylene	0.52	µg/g	<0.05	<0.05	<0.05	<0.010	<0.010	<0.010
Vinyl Chloride	0.022	µg/g	<0.02	<0.02	<0.02	<0.019	<0.019	<0.019
m-Xylene & p-Xylene	NG	µg/g	<0.02	<0.02	<0.02	0.035	<0.020	<0.020
o-Xylene	NG	µg/g	<0.02	<0.02	<0.02	<0.020	<0.020	<0.020
Total Xylenes	25	µg/g	<0.02	<0.02	<0.02	0.035	<0.020	<0.020
Dichlorodifluoromethane	25	µg/g	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040
Hexane(n)	34	µg/g	<0.050	<0.050	<0.050	0.054	0.062	<0.040
Trichlorofluoromethane	5.8	µg/g	<0.05	<0.05	<0.05	<0.040	<0.040	<0.040
1,3-Dichloropropene (cis + trans)	0.083	µg/g	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Table D-1. Summary of Soil Analytical Results.

Sample ID	MECP Table 7 SCS	Units	MW21-01 SS2	MW21-02 SS2	MW21-03 SS1	MW23-01 SS1	MW23-03 SS1	MW23-04 SS1
Sample Depth (mbgs)			0.9 - 1.2	0.9 - 1.0	0.3 - 0.8	0.3 - 0.9	0.15 - 0.45	0 - 0.3
Sample Date (yyyy-mm-dd)			2021-04-21	2021-04-21	2021-04-22	2023-07-11	2023-07-20	2023-07-12
Polycyclic Aromatic Hydrocarbons (PAHs)								
Acenaphthene	58	µg/g	-	-	-	<0.050	<0.050	0.58
Acenaphthylene	0.17	µg/g	-	-	-	<0.050	<0.050	0.059
Anthracene	0.74	µg/g	-	-	-	<0.050	0.059	**1.2**
Benzo(a)anthracene	0.63	µg/g	-	-	-	0.072	0.21	**3.5**
Benzo(a)pyrene	0.3	µg/g	-	-	-	0.085	0.19	**3**
Benzo(b/j)fluoranthene	0.78	µg/g	-	-	-	0.11	0.26	**4.3**
Benzo(ghi)perylene	7.8	µg/g	-	-	-	0.079	0.12	1.8
Benzo(k)fluoranthene	0.78	µg/g	-	-	-	<0.050	0.095	**1.7**
Chrysene	7.8	µg/g	-	-	-	0.088	0.16	3.3
Dibenzo(a,h)anthracene	0.1	µg/g	-	-	-	<0.050	<0.050	**0.54**
Fluoranthene	0.69	µg/g	-	-	-	0.15	0.41	**8.6**
Fluorene	62	µg/g	-	-	-	<0.050	<0.050	0.63
Indeno(1,2,3-cd)pyrene	0.48	µg/g	-	-	-	0.064	0.12	**2**
1-Methylnaphthalene	NG	µg/g	-	-	-	<0.050	<0.050	0.24
2-Methylnaphthalene	NG	µg/g	-	-	-	<0.050	<0.050	0.24
Naphthalene	0.75	µg/g	-	-	-	<0.050	<0.050	0.45
Phenanthrene	7.8	µg/g	-	-	-	0.1	0.2	7.5
Pyrene	78	µg/g	-	-	-	0.14	0.34	6.6
Methylnaphthalene, 2-(1-)	3.4	µg/g	-	-	-	<0.071	<0.071	0.48

Notes	
MECP Table 7 SCS	Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition for Residential/Parkland/Institutional Property Use, medium-fine textured soil, Ontario Ministry of the ENGironment "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" (MECP July 2011).
NG	No Guideline Available
-	Parameter not Analyzed
<	Less Than Reportable Detection Limit
X	Exceeds MECP Table 7 SCS

Table D-2. Maximum Concentration Data - Soil.

Sample ID	MECP Table 7 SCS	Units	Maximum Concentration
Inorganics			
pH	5 to 9	-	7.86
Metals and Hydride-Forming Metals			
Antimony	7.5	µg/g	0.37
Arsenic	18	µg/g	3
Barium	390	µg/g	630
Beryllium	5	µg/g	0.32
Boron (Total)	120	µg/g	12
Cadmium	1.2	µg/g	0.18
Chromium	160	µg/g	14
Cobalt	22	µg/g	9.4
Copper	180	µg/g	44
Lead	120	µg/g	200
Molybdenum	6.9	µg/g	1.7
Nickel	130	µg/g	18
Selenium	2.4	µg/g	<0.50
Silver	25	µg/g	1.3
Thallium	1	µg/g	0.32
Uranium	23	µg/g	0.46
Vanadium	86	µg/g	22
Zinc	340	µg/g	92
Petroleum Hydrocarbons (PHCs)			
F1 (C6-C10)	65	µg/g	<10
F1 (C6-C10) - BTEX	65	µg/g	<10
F2 (C10-C16)	150	µg/g	<10
F3 (C16-C34)	1300	µg/g	420
F4 (C34-C50)	5,600	µg/g	1300
Reached Baseline at C50	NG	µg/g	-
F4 Gravimetric	5,600	µg/g	6100

Table D-2. Maximum Concentration Data - Soil.

Sample ID	MECP Table 7 SCS	Units	Maximum Concentration
Volatile Organic Compounds (VOCs)			
Acetone	28	µg/g	<0.50
Benzene	0.17	µg/g	<0.020
Bromodichloromethane	13	µg/g	<0.050
Bromoform	0.26	µg/g	<0.050
Bromomethane	0.05	µg/g	<0.050
Carbon Tetrachloride	0.12	µg/g	<0.050
Chlorobenzene	2.7	µg/g	<0.050
Chloroform	0.18	µg/g	<0.050
Dibromochloromethane	9.4	µg/g	<0.050
1,2-Dichlorobenzene	4.3	µg/g	<0.050
1,3-Dichlorobenzene	6	µg/g	<0.050
1,4-Dichlorobenzene	0.097	µg/g	<0.050
1,1-Dichloroethane	11	µg/g	<0.050
1,2-Dichloroethane	0.05	µg/g	<0.050
1,1-Dichloroethylene	0.05	µg/g	<0.050
Cis-1,2-Dichloroethylene	30	µg/g	<0.050
Trans-1,2-Dichloroethylene	0.75	µg/g	<0.050
1,2-Dichloropropane	0.085	µg/g	<0.050
Cis-1,3-Dichloropropylene	NG	µg/g	<0.030
Trans-1,3-Dichloropropylene	NG	µg/g	<0.040
Ethylbenzene	15	µg/g	<0.020
Ethylene Dibromide	0.05	µg/g	<0.050
Methyl Ethyl Ketone	44	µg/g	<0.5
Methylene Chloride	0.96	µg/g	<0.05
Methyl Isobutyl Ketone	4.3	µg/g	<0.5
Methyl-t-Butyl Ether	1.4	µg/g	<0.05
Styrene	2.2	µg/g	<0.05
1,1,1,2-Tetrachloroethane	0.05	µg/g	<0.05
1,1,2,2-Tetrachloroethane	0.05	µg/g	<0.05
Toluene	6	µg/g	<0.02
Tetrachloroethylene	2.3	µg/g	2
1,1,1-Trichloroethane	3.4	µg/g	<0.05

Table D-2. Maximum Concentration Data - Soil.

Sample ID	MECP Table 7 SCS	Units	Maximum Concentration
Volatile Organic Compounds (VOCs)			
1,1,2-Trichloroethane	0.05	µg/g	<0.05
Trichloroethylene	0.52	µg/g	<0.05
Vinyl Chloride	0.022	µg/g	<0.02
m-Xylene & p-Xylene	NG	µg/g	0.035
o-Xylene	NG	µg/g	<0.02
Total Xylenes	25	µg/g	0.035
Dichlorodifluoromethane	25	µg/g	<0.050
Hexane(n)	34	µg/g	0.062
Trichlorofluoromethane	5.8	µg/g	<0.05
1,3-Dichloropropene (cis + trans)	0.083	µg/g	<0.050
Polycyclic Aromatic Hydrocarbons (PAHs)			
Acenaphthene	58	µg/g	0.58
Acenaphthylene	0.17	µg/g	0.059
Anthracene	0.74	µg/g	**1.2**
Benzo(a)anthracene	0.63	µg/g	**3.5**
Benzo(a)pyrene	0.3	µg/g	**3**
Benzo(b/j)fluoranthene	0.78	µg/g	**4.3**
Benzo(ghi)perylene	7.8	µg/g	1.8
Benzo(k)fluoranthene	0.78	µg/g	**1.7**
Chrysene	7.8	µg/g	3.3
Dibenzo(a,h)anthracene	0.1	µg/g	**0.54**
Fluoranthene	0.69	µg/g	**8.6**
Fluorene	62	µg/g	0.63
Indeno(1,2,3-cd)pyrene	0.48	µg/g	**2**
1-Methylnaphthalene	NG	µg/g	0.24
2-Methylnaphthalene	NG	µg/g	0.24
Naphthalene	0.75	µg/g	0.45
Phenanthrene	7.8	µg/g	7.5
Pyrene	78	µg/g	6.6
Methylnaphthalene, 2-(1-)	3.4	µg/g	0.48

Notes	
MECP Table 7 SCS	Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition for Residential/Parkland/Institutional Property Use, medium-fine textured soil, Ontario Ministry of the ENGironment "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" (MECP July 2011).
NG	No Guideline Available
-	Parameter not Analyzed
<	Less Than Reportable Detection Limit
X	Exceeds MECP Table 7 SCS

Table D-3. Summary of Groundwater Analytical Results.

Sample ID	MECP Table 7 SCS	Units	MW21-01	MW21-02	MW21-03	MW21-03	F. BLANK	T. BLANK	MW23-01	MW23-11 (DUP OF MW23-01)	MW23-01	MW23-02	MW23-20 (DUP OF MW23-02)	MW23-02 (2)	MW23-02	MW23-02	MW23-03	MW23-03	T.BLANK	F.BLANK	MW23-04	F. BLANK	T. BLANK	MW24-1
Sample Date (yyyy-mm-dd)			2021-04-30	2021-04-30	2021-04-30	2023-08-15	2023-08-15	2023-08-15	2023-08-28	2023-08-28	2023-11-28	2023-08-28	2023-08-28	2023-09-13	2023-11-29	2024-01-25	2023-08-14	2023-08-28	2023-08-28	2023-08-28	2023-08-14	2023-08-14	2023-08-14	2024-01-25
Inorganics																								
Dissolved Chloride (Cl-)	1800000	µg/L	-	1800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH	NG	µg/L	-	7.92	-	-	-	-	-	-	-	-	-	7.78	-	-	-	-	-	-	-	-	-	-
Metals and Hydride Forming Metals																								
Dissolved Antimony (Sb)	16000	µg/L	-	-	-	<0.50	-	-	<0.50	<0.50	-	-	-	-	-	-	<0.50	-	-	-	<0.50	-	-	-
Dissolved Arsenic (As)	1500	µg/L	-	-	-	<1.0	-	-	1.1	<1.0	-	-	-	-	-	-	<1.0	-	-	-	<1.0	-	-	-
Dissolved Barium (Ba)	23000	µg/L	-	-	-	64	-	-	100	110	-	-	-	-	-	-	65	-	-	-	76	-	-	-
Dissolved Beryllium (Be)	53	µg/L	-	-	-	<0.40	-	-	<0.40	<0.40	-	-	-	-	-	-	<0.40	-	-	-	<0.40	-	-	-
Dissolved Boron (B)	36000	µg/L	-	-	-	250	-	-	220	230	-	-	-	-	-	-	230	-	-	-	95	-	-	-
Dissolved Cadmium (Cd)	2.1	µg/L	-	-	-	<0.090	-	-	<0.090	<0.090	-	-	-	-	-	-	<0.090	-	-	-	<0.090	-	-	-
Dissolved Chromium (Cr)	640	µg/L	-	-	-	<5.0	-	-	<5.0	<5.0	-	-	-	-	-	-	<5.0	-	-	-	<5.0	-	-	-
Dissolved Cobalt (Co)	52	µg/L	-	-	-	<0.50	-	-	<0.50	<0.50	-	-	-	-	-	-	24	-	-	-	0.62	-	-	-
Dissolved Copper (Cu)	69	µg/L	-	-	-	3.4	-	-	<0.90	<0.90	-	-	-	-	-	-	1.4	-	-	-	4.7	-	-	-
Dissolved Lead (Pb)	20	µg/L	-	-	-	<0.50	-	-	<0.50	<0.50	-	-	-	-	-	-	<0.50	-	-	-	<0.50	-	-	-
Dissolved Molybdenum (Mo)	7300	µg/L	-	-	-	8.9	-	-	0.73	<0.50	-	-	-	-	-	-	6.9	-	-	-	1.9	-	-	-
Dissolved Nickel (Ni)	390	µg/L	-	-	-	5.5	-	-	<1.0	1.2	-	-	-	-	-	-	6.8	-	-	-	2.2	-	-	-
Dissolved Selenium (Se)	50	µg/L	-	-	-	<2.0	-	-	<2.0	<2.0	-	-	-	-	-	-	<2.0	-	-	-	<2.0	-	-	-
Dissolved Silver (Ag)	1.2	µg/L	-	-	-	<0.090	-	-	<0.090	<0.090	-	-	-	-	-	-	<0.090	-	-	-	<0.090	-	-	-
Dissolved Sodium (Na)	1800000	µg/L	-	-	-	340000	-	-	550000	540000	-	-	-	-	-	-	410000	-	-	-	490000	-	-	-
Dissolved Thallium (Tl)	400	µg/L	-	-	-	0.38	-	-	<0.050	<0.050	-	-	-	-	-	-	0.18	-	-	-	0.21	-	-	-
Dissolved Uranium (U)	330	µg/L	-	-	-	1.8	-	-	0.48	0.45	-	-	-	-	-	-	0.74	-	-	-	0.82	-	-	-
Dissolved Vanadium (V)	200	µg/L	-	-	-	<0.50	-	-	<0.50	<0.50	-	-	-	-	-	-	<0.50	-	-	-	<0.50	-	-	-
Dissolved Zinc (Zn)	890	µg/L	-	-	-	6.1	-	-	<5.0	<5.0	-	-	-	-	-	-	<5.0	-	-	-	<5.0	-	-	-
Petroleum Hydrocarbons (PHCs)																								
F1 (C6-C10) - BTEX	420	µg/L	320	340	<25	<25	-	-	54	61	<25	**490**	**540**	-	**480 (1)**	-	-	100	<25	<25	<25	-	-	<25
F1 (C6-C10)	420	µg/L	320	340	<25	<25	-	-	54 (1)	61 (1)	<25	**500**	**540**	-	**480**	-	-	100	<25	<25	<25	-	-	<25
F2 (C10-C16 Hydrocarbons)	150	µg/L	<100	**370**	<100	<100	-	-	<100	<100	<100	-	-	-	<100	-	<100	-	-	-	<100	-	-	<100
F3 (C16-C34 Hydrocarbons)	500	µg/L	240	**750**	<200	<200	-	-	<200	<200	<200	-	-	-	<200	-	<200	-	-	-	<200	-	-	<200
F4 (C34-C50 Hydrocarbons)	500	µg/L	<200	<200	<200	<200	-	-	<200	<200	<200	-	-	-	<200	-	<200	-	-	-	<200	-	-	<200
Polycyclic Aromatic Hydrocarbons (PAHs)																								
Acenaphthene	17	µg/L	-	-	-	<0.050	-	-	<0.050	<0.050	-	-	-	-	-	-	<0.050	-	-	-	<0.050	-	-	-
Acenaphthylene	1	µg/L	-	-	-	<0.050	-	-	<0.050	<0.050	-	-	-	-	-	-	<0.050	-	-	-	<0.050	-	-	-
Anthracene	1	µg/L	-	-	-	<0.050	-	-	<0.050	<0.050	-	-	-	<0.2	-	-	<0.050	-	-	-	<0.050	-	-	-
Benzo(a)anthracene	1.8	µg/L	-	-	-	<0.050	-	-	<0.050	<0.050	-	-	-	<0.2	-	-	<0.050	-	-	-	<0.050	-	-	-
Benzo(a)pyrene	0.81	µg/L	-	-	-	<0.0090	-	-	<0.0090	<0.0090	-	-	-	<0.2	-	-	<0.0090	-	-	-	<0.0090	-	-	-
Benzo(b/j)fluoranthene	0.75	µg/L	-	-	-	<0.050	-	-	<0.050	<0.050	-	-	-	<0.2	-	-	<0.050	-	-	-	<0.050	-	-	-
Benzo(g,h,i)perylene	0.2	µg/L	-	-	-	<0.050	-	-	<0.050	<0.050	-	-	-	<0.2	-	-	<0.050	-	-	-	<0.050	-	-	-
Benzo(k)fluoranthene	0.4	µg/L	-	-	-	<0.050	-	-	<0.050	<0.050	-	-	-	<0.2	-	-	<0.050	-	-	-	<0.050	-	-	-
Chrysene	0.7	µg/L	-	-	-	<0.050	-	-	<0.050	<0.050	-	-	-	<0.2	-	-	<0.050	-	-	-	<0.050	-	-	-
Dibenzo(a,h)anthracene	0.4	µg/L	-	-	-	<0.050	-	-	<0.050	<0.050	-	-	-	<0.2	-	-	<0.050	-	-	-	<0.050	-	-	-
Fluoranthene	44	µg/L	-	-	-	<0.050	-	-	<0.050	<0.050	-	-	-	<0.2	-	-	<0.050	-	-	-	<0.050	-	-	-
Fluorene	290	µg/L	-	-	-	<0.050	-	-	<0.050	<0.050	-	-	-	<0.3	-	-	<0.050	-	-	-	<0.050	-	-	-
Indeno(1,2,3-cd)pyrene	0.2	µg/L	-	-	-	<0.050	-	-	<0.050	<0.050	-	-	-	<0.2	-	-	<0.050	-	-	-	<0.050	-	-	-
1-Methylnaphthalene	1500	µg/L	-	-	-	<0.050	-	-	<0.050	<0.050	-	-	-	<0.3	-	-	<0.050	-	-	-	0.12	-	-	-
2-Methylnaphthalene	1500	µg/L	-	-	-	<0.050	-	-	<0.050	<0.050	-	-	-	<0.3	-	-	<0.050	-	-	-	0.16	-	-	-
Methylnaphthalene, 2-(1-)	1500	µg/L	-	-	-	<0.071	-	-	<0.071	<0.071	-	-	-	-	-	-	<0.071	-	-	-	0.28	-	-	-
Naphthalene	7	µg/L	-	-	-	<0.050	-	-	<0.050	<0.050	-	-	-	<0.3	-	-	<0.050	-	-	-	<0.050	-	-	-
Phenanthrene	380	µg/L	-	-	-	<0.030	-	-	<0.030	<0.030	-	-	-	<0.2	-	-	<0.030	-	-	-	0.044	-	-	-
Pyrene	5.7	µg/L	-	-	-	<0.050	-	-	<0.050	<0.050	-	-	-	<0.2	-	-	<0.050	-	-	-	<0.050	-	-	-

Table D-3. Summary of Groundwater Analytical Results.

Sample ID	MECP Table 7 SCS	Units	MW21-01	MW21-02	MW21-03	MW21-03	F. BLANK	T. BLANK	MW23-01	MW23-11 (DUP OF MW23-01)	MW23-01	MW23-02	MW23-20 (DUP OF MW23-02)	MW23-02 (2)	MW23-02	MW23-02	MW23-03	MW23-03	T.BLANK	F.BLANK	MW23-04	F. BLANK	T. BLANK	MW24-1
Sample Date (yyyy-mm-dd)			2021-04-30	2021-04-30	2021-04-30	2023-08-15	2023-08-15	2023-08-15	2023-08-28	2023-08-28	2023-11-28	2023-08-28	2023-08-28	2023-09-13	2023-11-29	2024-01-25	2023-08-14	2023-08-28	2023-08-28	2023-08-28	2023-08-14	2023-08-14	2023-08-14	2024-01-25
Semi-Volatile Organic Compounds (SVOCs)																								
Diethyl phthalate	30	µg/L	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	3700	µg/L	-	-	-	-	-	-	-	-	-	-	-	<0.30	-	-	-	-	-	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	30	µg/L	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (VOCs)																								
Acetone (2-Propanone)	100000	µg/L	<50	<50	<10	<10	<10	<10	<10	<10	<10	-	-	-	<10	<10	<10	-	-	-	<10	<10	<10	<10
Benzene	0.5	µg/L	<0.20	<0.20	<0.20	<0.17	<0.20	<0.20	0.22	0.25	<0.17	0.33	0.38	<0.20	<0.17	<0.20	<0.20	<0.20	<0.20	<0.20	<0.17	<0.20	<0.20	0.39
Bromodichloromethane	67000	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	-	-	<0.50	<0.50	<0.50	<0.50	-	-	-	<0.50	<0.50	<0.50	<0.50
Bromoform	5	µg/L	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	-	-	-	<1.0	<1.0	<1.0	<1.0
Bromomethane	0.89	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	-	-	<0.50	<0.50	<0.50	<0.50	-	-	-	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	0.2	µg/L	<0.20	<0.20	<0.20	<0.20	<0.19	<0.19	<0.20	<0.20	<0.20	-	-	<0.19	<0.20	<0.19	<0.19	-	-	-	<0.20	<0.19	<0.19	<0.20
Chlorobenzene	140	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	-	-	<0.20	<0.20	<0.20	<0.20	-	-	-	<0.20	<0.20	<0.20	<0.20
Chloroform	2	µg/L	<1.0	<1.0	<0.20	0.27	<0.20	<0.20	1	0.96	0.48	-	-	0.82	0.55	0.56	0.45	-	-	-	<0.20	<0.20	<0.20	<0.20
Dibromochloromethane	65000	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	-	-	<0.50	<0.50	<0.50	<0.50	-	-	-	<0.50	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	150	µg/L	<0.50	<0.50	<0.50	<0.50	<0.40	<0.40	<0.50	<0.50	<0.50	-	-	<0.40	<0.50	<0.40	<0.40	-	-	-	<0.50	<0.40	<0.40	<0.50
1,3-Dichlorobenzene	7600	µg/L	<0.50	<0.50	<0.50	<0.50	<0.40	<0.40	<0.50	<0.50	<0.50	-	-	<0.40	<0.50	<0.40	<0.40	-	-	-	<0.50	<0.40	<0.40	<0.50
1,4-Dichlorobenzene	0.5	µg/L	<0.50	<0.50	<0.50	<0.50	<0.40	<0.40	<0.50	<0.50	<0.50	-	-	<0.40	<0.50	<0.40	<0.40	-	-	-	<0.50	<0.40	<0.40	<0.50
Dichlorodifluoromethane (FREON 12)	3500	µg/L	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	-	-	<1.0	<1.0	<1.0	-	-	-	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	11	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	-	-	<0.20	0.26	<0.20	<0.20	-	-	-	<0.20	<0.20	<0.20	<0.20
1,2-Dichloroethane	0.5	µg/L	<0.50	<0.50	<0.50	<0.50	<0.49	<0.49	<0.50	<0.50	<0.50	-	-	<0.49	<0.50	<0.49	<0.49	-	-	-	<0.50	<0.49	<0.49	<0.50
1,1-Dichloroethylene	0.5	µg/L	<0.20	0.66	<0.20	<0.20	<0.20	<0.20	1.2	1.2	<0.20	-	-	<0.20	0.25	<0.20	2	-	-	-	<0.20	<0.20	<0.20	<0.20
cis-1,2-Dichloroethylene	1.6	µg/L	220	860	1.5	<0.50	<0.50	<0.50	630	590	40	-	-	16	33	27	940	-	-	-	<0.50	<0.50	<0.50	<0.50
trans-1,2-Dichloroethylene	1.6	µg/L	3.7	12	<0.50	<0.50	<0.50	<0.50	4.7	4.6	0.69	-	-	1.7	0.94	1.4	14	-	-	-	<0.50	<0.50	<0.50	<0.50
1,2-Dichloropropane	0.58	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	-	-	<0.20	<0.20	<0.20	<0.20	-	-	-	<0.20	<0.20	<0.20	<0.20
cis-1,3-Dichloropropene	NG	µg/L	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	-	-	<0.30	<0.30	<0.30	<0.30	-	-	-	<0.30	<0.30	<0.30	<0.30
trans-1,3-Dichloropropene	NG	µg/L	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	-	-	<0.40	<0.40	<0.40	<0.40	-	-	-	<0.40	<0.40	<0.40	<0.40
1,3-Dichloropropene (cis+trans)	0.5	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	-	-	-	<0.50	<0.50	<0.50	-	-	-	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	54	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylene Dibromide	0.2	µg/L	<0.20	<0.20	<0.20	<0.20	<0.19	<0.19	<0.20	<0.20	<0.20	-	-	<0.19	<0.20	<0.19	<0.19	-	-	-	<0.20	<0.19	<0.19	<0.20
Hexane	5	µg/L	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	-	-	<1.0	<1.0	<1.0	-	-	-	<1.0	<1.0	<1.0	<1.0
Methylene Chloride(Dichloromethane)	26	µg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-	<2.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0
Methyl Ethyl Ketone (2-Butanone)	21000	µg/L	<50	<50	<10	<10	<10	<10	<10	<10	<10	-	-	-	<10	<10	<10	-	-	-	<10	<10	<10	<10
Methyl Isobutyl Ketone	5200	µg/L	<25	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	-	-	-	<5.0	<5.0	<5.0	-	-	-	<5.0	<5.0	<5.0	<5.0
Methyl t-butyl ether (MTBE)	15	µg/L	<2.5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	-	-	-	<0.50	<0.50	<0.50	-	-	-	<0.50	<0.50	<0.50	<0.50
Styrene	43	µg/L	<0.50	<0.50	<0.50	<0.50	<0.40	<0.40	<0.50	<0.50	<0.50	-	-	<0.40	<0.50	<0.40	<0.40	-	-	-	<0.50	<0.40	<0.40	<0.50
1,1,1,2-Tetrachloroethane	1.1	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	-	-	-	<0.50	<0.50	<0.50	-	-	-	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	0.5	µg/L	<0.50	<0.50	<0.50	<0.50	<0.40	<0.40	<0.50	<0.50	<0.50	-	-	<0.40	<0.50	<0.40	<0.40	-	-	-	<0.50	<0.40	<0.40	<0.50
Tetrachloroethylene	0.5	µg/L	930	890	32	2.4	<0.20	<0.20	13	12	0.57	-	-	720	1400	730	9.6	-	-	-	8.4	<0.20	<0.20	<0.20
Toluene	320	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.25	0.27	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.21
1,1,1-Trichloroethane	23	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	-	-	<0.20	<0.20	<0.20	<0.20	-	-	-	<0.20	<0.20	<0.20	<0.20
1,1,2-Trichloroethane	0.5	µg/L	<0.50	<0.50	<0.50	<0.50	<0.40	<0.40	<0.50	<0.50	<0.50	-	-	<0.40	<0.50	<0.40	<0.40	-	-	-	<0.50	<0.40	<0.40	<0.50
Trichloroethylene	0.5	µg/L	100	160	2	0.72	<0.20	<0.20	110	110	1.2	-	-	44	120	51	23	-	-	-	0.65	<0.20	<0.20	<0.20
Trichlorofluoromethane (FREON 11)	2000	µg/L	<2.5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	-	-	<0.50	<0.50	<0.50	<0.50	-	-	-	<0.50	<0.50	<0.50	<0.50
Vinyl Chloride	0.5	µg/L	7	31	<0.20	<0.20	<0.20	<0.20	100	100	7.3	-	-	0.96	4.0	3.2	88	-	-	-	<0.20	<0.20	<0.20	<0.20
p+m-Xylene	NG	µg/L	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.40	<0.40	<0.20	<0.20	<0.20	<0.20	<0.40	<0.40	<0.40	<0.20	<0.20	<0.20	<0.20
o-Xylene	NG	µg/L	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Total Xylenes	72	µg/L	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.40	<0.40	<0.20	<0.20	<0.20	<0.20	<0.40	<0.40	<0.40	<0.20	<0.20	<0.20	<0.20
Organchlorine Pesticides (OCPs)																								
Hexachlorobenzene	3.1	µg/L	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls (PCBs)																								
Total PCBs	0.2	µg/L	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-

Notes	
MECP Table 7 SCS	Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition for all Types of Property Use, medium-fine textured soil, Ontario Ministry of the Environment "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the ENGironmental Protection Act" (MECP July 2011).
NG	No Guideline Available
-	Parameter Not Analyzed
<	Less Than Reportable Detection Limit
X	Exceeds MECP Table 7 SCS
F. Blank	Field Blank
T. Blank	Trip Blank
(1) Result reported was mainly due to chlorinated compounds eluting inside the F1 range.	
(2) Conducted in Support of Evaluating Potential Discharge to Municipal Sewer System for Development Purposes Only.	

Table D-4. Maximum Concentration Data - Groundwater.

Sample ID	MECP Table 7 SCS	Units	Maximum Concentration
Inorganics			
Dissolved Chloride (Cl-)	1800000	µg/L	1800
pH	NG	µg/L	7.92
Metals and Hydride Forming Metals			
Dissolved Antimony (Sb)	16000	µg/L	0.51
Dissolved Arsenic (As)	1500	µg/L	1.1
Dissolved Barium (Ba)	23000	µg/L	110
Dissolved Beryllium (Be)	53	µg/L	<0.40
Dissolved Boron (B)	36000	µg/L	250
Dissolved Cadmium (Cd)	2.1	µg/L	<0.090
Dissolved Chromium (Cr)	640	µg/L	<5.0
Dissolved Cobalt (Co)	52	µg/L	24
Dissolved Copper (Cu)	69	µg/L	4.7
Dissolved Lead (Pb)	20	µg/L	<0.50
Dissolved Molybdenum (Mo)	7300	µg/L	8.9
Dissolved Nickel (Ni)	390	µg/L	6.8
Dissolved Selenium (Se)	50	µg/L	<2.0
Dissolved Silver (Ag)	1.2	µg/L	<0.090
Dissolved Sodium (Na)	1800000	µg/L	570000
Dissolved Thallium (Tl)	400	µg/L	0.38
Dissolved Uranium (U)	330	µg/L	1.8
Dissolved Vanadium (V)	200	µg/L	<0.50
Dissolved Zinc (Zn)	890	µg/L	6.1
Petroleum Hydrocarbons (PHCs)			
F1 (C6-C10) - BTEX	420	µg/L	**540**
F1 (C6-C10)	420	µg/L	**540**
F2 (C10-C16 Hydrocarbons)	150	µg/L	**370**
F3 (C16-C34 Hydrocarbons)	500	µg/L	**750**
F4 (C34-C50 Hydrocarbons)	500	µg/L	<200
Polycyclic Aromatic Hydrocarbons (PAHs)			
Acenaphthene	17	µg/L	<0.050
Acenaphthylene	1	µg/L	<0.050
Anthracene	1	µg/L	<0.2
Benzo(a)anthracene	1.8	µg/L	<0.2
Benzo(a)pyrene	0.81	µg/L	<0.2
Benzo(b/j)fluoranthene	0.75	µg/L	<0.2
Benzo(g,h,i)perylene	0.2	µg/L	<0.2
Benzo(k)fluoranthene	0.4	µg/L	<0.2
Chrysene	0.7	µg/L	<0.2
Dibenzo(a,h)anthracene	0.4	µg/L	<0.2
Fluoranthene	44	µg/L	<0.2

Table D-4. Maximum Concentration Data - Groundwater.

Sample ID	MECP Table 7 SCS	Units	Maximum Concentration
Polycyclic Aromatic Hydrocarbons (PAHs)			
Fluorene	290	µg/L	<0.3
Indeno(1,2,3-cd)pyrene	0.2	µg/L	<0.2
1-Methylnaphthalene	1500	µg/L	0.12
2-Methylnaphthalene	1500	µg/L	0.16
Methylnaphthalene, 2-(1-)	1500	µg/L	0.28
Naphthalene	7	µg/L	<0.3
Phenanthrene	380	µg/L	0.044
Pyrene	5.7	µg/L	<0.2
Semi-Volatile Organic Compounds (SVOCs)			
Diethyl phthalate	30	µg/L	<1.0
2,4-Dichlorophenol	3700	µg/L	<0.30
Bis(2-ethylhexyl)phthalate	30	µg/L	<2
Volatile Organic Compounds (VOCs)			
Acetone (2-Propanone)	100000	µg/L	<10
Benzene	0.5	µg/L	0.38
Bromodichloromethane	67000	µg/L	<0.50
Bromoform	5	µg/L	<5.0
Bromomethane	0.89	µg/L	<0.50
Carbon Tetrachloride	0.2	µg/L	<0.20
Chlorobenzene	140	µg/L	<0.20
Chloroform	2	µg/L	1
Dibromochloromethane	65000	µg/L	<0.50
1,2-Dichlorobenzene	150	µg/L	<0.50
1,3-Dichlorobenzene	7600	µg/L	<0.50
1,4-Dichlorobenzene	0.5	µg/L	<0.50
Dichlorodifluoromethane (FREON 12)	3500	µg/L	1.8
1,1-Dichloroethane	11	µg/L	0.52
1,2-Dichloroethane	0.5	µg/L	<0.50
1,1-Dichloroethylene	0.5	µg/L	2
cis-1,2-Dichloroethylene	1.6	µg/L	940
trans-1,2-Dichloroethylene	1.6	µg/L	14
1,2-Dichloropropane	0.58	µg/L	<0.20
cis-1,3-Dichloropropene	NG	µg/L	<0.30
trans-1,3-Dichloropropene	NG	µg/L	<0.40
1,3-Dichloropropene (cis+trans)	0.5	µg/L	<0.50
Ethylbenzene	54	µg/L	<0.20
Ethylene Dibromide	0.2	µg/L	<0.20
Hexane	5	µg/L	<5.0

Table D-4. Maximum Concentration Data - Groundwater.

Sample ID	MECP Table 7 SCS	Units	Maximum Concentration
Volatile Organic Compounds (VOCs)			
Methylene Chloride(Dichloromethane)	26	µg/L	<2.0
Methyl Ethyl Ketone (2-Butanone)	21000	µg/L	<50
Methyl Isobutyl Ketone	5200	µg/L	<25
Methyl t-butyl ether (MTBE)	15	µg/L	<2.5
Styrene	43	µg/L	<0.50
1,1,1,2-Tetrachloroethane	1.1	µg/L	<0.50
1,1,2,2-Tetrachloroethane	0.5	µg/L	<0.50
Tetrachloroethylene	0.5	µg/L	1400
Toluene	320	µg/L	<0.20
1,1,1-Trichloroethane	23	µg/L	<0.20
1,1,2-Trichloroethane	0.5	µg/L	<0.50
Trichloroethylene	0.5	µg/L	160
Trichlorofluoromethane (FREON 11)	2000	µg/L	<2.5
Vinyl Chloride	0.5	µg/L	100
p+m-Xylene	NG	µg/L	<1.0
o-Xylene	NG	µg/L	<1.0
Total Xylenes	72	µg/L	<1.0
Organchlorine Pesticides (OCPs)			
Hexachlorobenzene	3.1	µg/L	<0.005
Polychlorinated Biphenyls (PCBs)			
Total PCBs	0.2	µg/L	<0.05

Notes	
MECP Table 7 SCS	Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition for all Types of Property Use, medium-fine textured soil, Ontario Ministry of the Environment "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the ENGironmental Protection Act" (MECP July 2011).
NG	No Guideline Available
-	Parameter Not Analyzed
<	Less Than Reportable Detection Limit
X	Exceeds MECP Table 7 SCS
F. Blank	Field Blank
T. Blank	Trip Blank
(1) Result reported was mainly due to chlorinated compounds eluting inside the F1 range.	
(2) Conducted in Support of Evaluating Potential Discharge to Municipal Sewer System for Development Purposes Only.	

Appendix E
Laboratory Certificates of Analysis

ENGLOBE

Your Project #: 2103035
Your C.O.C. #: 157066

Attention: Salim Eid

DST Consulting Engineers Inc
Ottawa - Standing Offer
2150 Thurston Dr
Unit 203
Ottawa, ON
CANADA K1G 5T9

Report Date: 2021/05/03
Report #: R6618976
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1B1260
Received: 2021/04/26, 15:05

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
1,3-Dichloropropene Sum (1)	3	N/A	2021/05/03		EPA 8260C m
Petroleum Hydrocarbons F2-F4 in Soil (1, 2)	3	2021/04/28	2021/04/29	CAM SOP-00316	CCME CWS m
F4G (CCME Hydrocarbons Gravimetric) (1)	1	2021/04/30	2021/04/30	CAM SOP-00316	CCME PHC-CWS m
Moisture (1)	3	N/A	2021/04/27	CAM SOP-00445	Carter 2nd ed 51.2 m
pH CaCl2 EXTRACT (1)	1	2021/04/29	2021/04/29	CAM SOP-00413	EPA 9045 D m
Volatile Organic Compounds and F1 PHCs (1)	3	N/A	2021/05/01	CAM SOP-00230	EPA 8260C m

Remarks:

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

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

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

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Laboratories Mississauga
(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1

Your Project #: 2103035
Your C.O.C. #: 157066

Attention: Salim Eid

DST Consulting Engineers Inc
Ottawa - Standing Offer
2150 Thurston Dr
Unit 203
Ottawa, ON
CANADA K1G 5T9

Report Date: 2021/05/03
Report #: R6618976
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1B1260
Received: 2021/04/26, 15:05
Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Bureau Veritas
03 May 2021 12:45:11

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633
==========
This report has been generated and distributed using a secure automated process.
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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

BV Labs ID		PKN585	PKN586	PKN587		
Sampling Date		2021/04/21	2021/04/21	2021/04/22		
COC Number		157066	157066	157066		
	UNITS	MW21-1,SS2	MW21-2,SS2	MW21-3,SS1	RDL	QC Batch
Inorganics						
Moisture	%	14	8.8	3.5	1.0	7321314
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	<0.050	<0.050	0.050	7320252
Volatile Organics						
Acetone (2-Propanone)	ug/g	<0.50	<0.50	<0.50	0.50	7324273
Benzene	ug/g	<0.020	<0.020	<0.020	0.020	7324273
Bromodichloromethane	ug/g	<0.050	<0.050	<0.050	0.050	7324273
Bromoform	ug/g	<0.050	<0.050	<0.050	0.050	7324273
Bromomethane	ug/g	<0.050	<0.050	<0.050	0.050	7324273
Carbon Tetrachloride	ug/g	<0.050	<0.050	<0.050	0.050	7324273
Chlorobenzene	ug/g	<0.050	<0.050	<0.050	0.050	7324273
Chloroform	ug/g	<0.050	<0.050	<0.050	0.050	7324273
Dibromochloromethane	ug/g	<0.050	<0.050	<0.050	0.050	7324273
1,2-Dichlorobenzene	ug/g	<0.050	<0.050	<0.050	0.050	7324273
1,3-Dichlorobenzene	ug/g	<0.050	<0.050	<0.050	0.050	7324273
1,4-Dichlorobenzene	ug/g	<0.050	<0.050	<0.050	0.050	7324273
Dichlorodifluoromethane (FREON 12)	ug/g	<0.050	<0.050	<0.050	0.050	7324273
1,1-Dichloroethane	ug/g	<0.050	<0.050	<0.050	0.050	7324273
1,2-Dichloroethane	ug/g	<0.050	<0.050	<0.050	0.050	7324273
1,1-Dichloroethylene	ug/g	<0.050	<0.050	<0.050	0.050	7324273
cis-1,2-Dichloroethylene	ug/g	<0.050	<0.050	<0.050	0.050	7324273
trans-1,2-Dichloroethylene	ug/g	<0.050	<0.050	<0.050	0.050	7324273
1,2-Dichloropropane	ug/g	<0.050	<0.050	<0.050	0.050	7324273
cis-1,3-Dichloropropene	ug/g	<0.030	<0.030	<0.030	0.030	7324273
trans-1,3-Dichloropropene	ug/g	<0.040	<0.040	<0.040	0.040	7324273
Ethylbenzene	ug/g	<0.020	<0.020	<0.020	0.020	7324273
Ethylene Dibromide	ug/g	<0.050	<0.050	<0.050	0.050	7324273
Hexane	ug/g	<0.050	<0.050	<0.050	0.050	7324273
Methylene Chloride(Dichloromethane)	ug/g	<0.050	<0.050	<0.050	0.050	7324273
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.50	<0.50	<0.50	0.50	7324273
Methyl Isobutyl Ketone	ug/g	<0.50	<0.50	<0.50	0.50	7324273
Methyl t-butyl ether (MTBE)	ug/g	<0.050	<0.050	<0.050	0.050	7324273
Styrene	ug/g	<0.050	<0.050	<0.050	0.050	7324273
1,1,1,2-Tetrachloroethane	ug/g	<0.050	<0.050	<0.050	0.050	7324273
1,1,2,2-Tetrachloroethane	ug/g	<0.050	<0.050	<0.050	0.050	7324273
Tetrachloroethylene	ug/g	0.72	0.27	0.32	0.050	7324273

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

BV Labs ID		PKN585	PKN586	PKN587		
Sampling Date		2021/04/21	2021/04/21	2021/04/22		
COC Number		157066	157066	157066		
	UNITS	MW21-1,SS2	MW21-2,SS2	MW21-3,SS1	RDL	QC Batch
Toluene	ug/g	<0.020	<0.020	<0.020	0.020	7324273
1,1,1-Trichloroethane	ug/g	<0.050	<0.050	<0.050	0.050	7324273
1,1,2-Trichloroethane	ug/g	<0.050	<0.050	<0.050	0.050	7324273
Trichloroethylene	ug/g	<0.050	<0.050	<0.050	0.050	7324273
Trichlorofluoromethane (FREON 11)	ug/g	<0.050	<0.050	<0.050	0.050	7324273
Vinyl Chloride	ug/g	<0.020	<0.020	<0.020	0.020	7324273
p+m-Xylene	ug/g	<0.020	<0.020	<0.020	0.020	7324273
o-Xylene	ug/g	<0.020	<0.020	<0.020	0.020	7324273
Total Xylenes	ug/g	<0.020	<0.020	<0.020	0.020	7324273
F1 (C6-C10)	ug/g	<10	<10	<10	10	7324273
F1 (C6-C10) - BTEX	ug/g	<10	<10	<10	10	7324273
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	<10	10	7322590
F3 (C16-C34 Hydrocarbons)	ug/g	<50	100	<50	50	7322590
F4 (C34-C50 Hydrocarbons)	ug/g	<50	290	95	50	7322590
Reached Baseline at C50	ug/g	Yes	No	Yes		7322590
Surrogate Recovery (%)						
o-Terphenyl	%	84	91	93		7322590
4-Bromofluorobenzene	%	90	91	91		7324273
D10-o-Xylene	%	81	82	84		7324273
D4-1,2-Dichloroethane	%	115	115	115		7324273
D8-Toluene	%	98	98	98		7324273

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

RESULTS OF ANALYSES OF SOIL

BV Labs ID		PKN586	
Sampling Date		2021/04/21	
COC Number		157066	
	UNITS	MW21-2,SS2	QC Batch
Inorganics			
Available (CaCl2) pH	pH	7.86	7325030
QC Batch = Quality Control Batch			

PETROLEUM HYDROCARBONS (CCME)

BV Labs ID		PKN586		
Sampling Date		2021/04/21		
COC Number		157066		
	UNITS	MW21-2,SS2	RDL	QC Batch
F2-F4 Hydrocarbons				
F4G-sg (Grav. Heavy Hydrocarbons)	ug/g	1100	100	7327230

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

TEST SUMMARY

BV Labs ID: PKN585
Sample ID: MW21-1,SS2
Matrix: Soil

Collected: 2021/04/21
Shipped:
Received: 2021/04/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	7320252	N/A	2021/05/03	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7322590	2021/04/28	2021/04/29	Anna Stuglik Rolland
Moisture	BAL	7321314	N/A	2021/04/27	Manpreet Kaur
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7324273	N/A	2021/05/01	Rebecca McClean

BV Labs ID: PKN586
Sample ID: MW21-2,SS2
Matrix: Soil

Collected: 2021/04/21
Shipped:
Received: 2021/04/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	7320252	N/A	2021/05/03	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7322590	2021/04/28	2021/04/29	Anna Stuglik Rolland
F4G (CCME Hydrocarbons Gravimetric)	BAL	7327230	2021/04/30	2021/04/30	Rashmi Dubey
Moisture	BAL	7321314	N/A	2021/04/27	Manpreet Kaur
pH CaCl2 EXTRACT	AT	7325030	2021/04/29	2021/04/29	Surinder Rai
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7324273	N/A	2021/05/01	Rebecca McClean

BV Labs ID: PKN587
Sample ID: MW21-3,SS1
Matrix: Soil

Collected: 2021/04/22
Shipped:
Received: 2021/04/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	7320252	N/A	2021/05/03	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7322590	2021/04/28	2021/04/29	Anna Stuglik Rolland
Moisture	BAL	7321314	N/A	2021/04/27	Manpreet Kaur
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7324273	N/A	2021/05/01	Rebecca McClean

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.7°C

Results relate only to the items tested.

Bureau Veritas Laboratories 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvlabs.com

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7322590	o-Terphenyl	2021/04/28	98	60 - 130	98	60 - 130	96	%		
7324273	4-Bromofluorobenzene	2021/05/01	98	60 - 140	98	60 - 140	95	%		
7324273	D10-o-Xylene	2021/05/01	87	60 - 130	95	60 - 130	72	%		
7324273	D4-1,2-Dichloroethane	2021/05/01	114	60 - 140	110	60 - 140	116	%		
7324273	D8-Toluene	2021/05/01	104	60 - 140	103	60 - 140	95	%		
7321314	Moisture	2021/04/27							4.3	20
7322590	F2 (C10-C16 Hydrocarbons)	2021/04/28	101	50 - 130	101	80 - 120	<10	ug/g	NC	30
7322590	F3 (C16-C34 Hydrocarbons)	2021/04/28	100	50 - 130	100	80 - 120	<50	ug/g	NC	30
7322590	F4 (C34-C50 Hydrocarbons)	2021/04/28	101	50 - 130	101	80 - 120	<50	ug/g	NC	30
7324273	1,1,1,2-Tetrachloroethane	2021/05/01	105	60 - 140	97	60 - 130	<0.050	ug/g	NC	50
7324273	1,1,1-Trichloroethane	2021/05/01	102	60 - 140	101	60 - 130	<0.050	ug/g	NC	50
7324273	1,1,2,2-Tetrachloroethane	2021/05/01	109	60 - 140	97	60 - 130	<0.050	ug/g	NC	50
7324273	1,1,2-Trichloroethane	2021/05/01	118	60 - 140	105	60 - 130	<0.050	ug/g	NC	50
7324273	1,1-Dichloroethane	2021/05/01	109	60 - 140	103	60 - 130	<0.050	ug/g	NC	50
7324273	1,1-Dichloroethylene	2021/05/01	110	60 - 140	106	60 - 130	<0.050	ug/g	NC	50
7324273	1,2-Dichlorobenzene	2021/05/01	97	60 - 140	89	60 - 130	<0.050	ug/g	NC	50
7324273	1,2-Dichloroethane	2021/05/01	111	60 - 140	102	60 - 130	<0.050	ug/g	NC	50
7324273	1,2-Dichloropropane	2021/05/01	111	60 - 140	104	60 - 130	<0.050	ug/g	NC	50
7324273	1,3-Dichlorobenzene	2021/05/01	98	60 - 140	90	60 - 130	<0.050	ug/g	NC	50
7324273	1,4-Dichlorobenzene	2021/05/01	112	60 - 140	103	60 - 130	<0.050	ug/g	NC	50
7324273	Acetone (2-Propanone)	2021/05/01	120	60 - 140	110	60 - 140	<0.50	ug/g	NC	50
7324273	Benzene	2021/05/01	102	60 - 140	97	60 - 130	<0.020	ug/g	NC	50
7324273	Bromodichloromethane	2021/05/01	110	60 - 140	102	60 - 130	<0.050	ug/g	NC	50
7324273	Bromoform	2021/05/01	106	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
7324273	Bromomethane	2021/05/01	103	60 - 140	96	60 - 140	<0.050	ug/g	NC	50
7324273	Carbon Tetrachloride	2021/05/01	99	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
7324273	Chlorobenzene	2021/05/01	98	60 - 140	90	60 - 130	<0.050	ug/g	NC	50
7324273	Chloroform	2021/05/01	107	60 - 140	102	60 - 130	<0.050	ug/g	NC	50
7324273	cis-1,2-Dichloroethylene	2021/05/01	104	60 - 140	98	60 - 130	<0.050	ug/g	NC	50
7324273	cis-1,3-Dichloropropene	2021/05/01	102	60 - 140	93	60 - 130	<0.030	ug/g	NC	50
7324273	Dibromochloromethane	2021/05/01	105	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
7324273	Dichlorodifluoromethane (FREON 12)	2021/05/01	92	60 - 140	87	60 - 140	<0.050	ug/g	NC	50

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7324273	Ethylbenzene	2021/05/01	92	60 - 140	87	60 - 130	<0.020	ug/g	NC	50
7324273	Ethylene Dibromide	2021/05/01	104	60 - 140	92	60 - 130	<0.050	ug/g	NC	50
7324273	F1 (C6-C10) - BTEX	2021/05/01					<10	ug/g	NC	30
7324273	F1 (C6-C10)	2021/05/01	74	60 - 140	92	80 - 120	<10	ug/g	NC	30
7324273	Hexane	2021/05/01	114	60 - 140	110	60 - 130	<0.050	ug/g	NC	50
7324273	Methyl Ethyl Ketone (2-Butanone)	2021/05/01	130	60 - 140	116	60 - 140	<0.50	ug/g	NC	50
7324273	Methyl Isobutyl Ketone	2021/05/01	129	60 - 140	113	60 - 130	<0.50	ug/g	NC	50
7324273	Methyl t-butyl ether (MTBE)	2021/05/01	99	60 - 140	92	60 - 130	<0.050	ug/g	NC	50
7324273	Methylene Chloride(Dichloromethane)	2021/05/01	115	60 - 140	107	60 - 130	<0.050	ug/g	NC	50
7324273	o-Xylene	2021/05/01	94	60 - 140	89	60 - 130	<0.020	ug/g	NC	50
7324273	p+m-Xylene	2021/05/01	96	60 - 140	91	60 - 130	<0.020	ug/g	NC	50
7324273	Styrene	2021/05/01	107	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
7324273	Tetrachloroethylene	2021/05/01	91	60 - 140	87	60 - 130	<0.050	ug/g	NC	50
7324273	Toluene	2021/05/01	97	60 - 140	91	60 - 130	<0.020	ug/g	NC	50
7324273	Total Xylenes	2021/05/01					<0.020	ug/g	NC	50
7324273	trans-1,2-Dichloroethylene	2021/05/01	104	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
7324273	trans-1,3-Dichloropropene	2021/05/01	112	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
7324273	Trichloroethylene	2021/05/01	102	60 - 140	98	60 - 130	<0.050	ug/g	NC	50
7324273	Trichlorofluoromethane (FREON 11)	2021/05/01	101	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
7324273	Vinyl Chloride	2021/05/01	115	60 - 140	110	60 - 130	<0.020	ug/g	NC	50
7325030	Available (CaCl2) pH	2021/04/29			100	97 - 103			0.38	N/A
7327230	F4G-sg (Grav. Heavy Hydrocarbons)	2021/04/30	94	65 - 135	102	65 - 135	<100	ug/g	8.7	50

N/A = Not Applicable

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

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

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

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

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

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

Bureau Veritas Laboratories 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvlabs.com

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

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

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

Bureau Veritas Laboratories 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvlabs.com

BUREAU VERITAS

6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266
CAM FCD-01191/6

CHAIN OF CUSTODY RECORD 157066 Page 1 of 1

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: DST Group	Company Name:	Quotation #:	[X] Regular TAT (5-7 days) Most analyses
Contact Name: Salim Eid	Contact Name:	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: 2150 Thurston Dr.	Address:	Project #: 2103035	Rush TAT (Surcharges will be applied)
Phone: 613-402-0398	Phone: Fax:	Site Location:	[ ] 1 Day [ ] 2 Days [ ] 3-4 Days
Email: seid@dstgroup.com mtillgart@dstgroup.com	Email:	Site #:	Date Required:
MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS LABORATORIES' DRINKING WATER CHAIN OF CUSTODY		Site Location Province: ON Sampled By: CF	Rush Confirmation #:

Regulation 153: [X] Table 1 [ ] Res/Park [ ] Med/ Fine; [ ] Table 2 [ ] Ind/Comm [ ] Coarse; [ ] Table 3 [ ] Agri/ Other; [ ] Table ____
FOR RSC (PLEASE CIRCLE) Y / N

Other Regulations: [ ] CCME [ ] Sanitary Sewer Bylaw; [ ] MISA [ ] Storm Sewer Bylaw; [ ] PWQO Region ____; [ ] Other (Specify) ____; [ ] REG 558 (MIN. 3 DAY TAT REQUIRED); [ ] REG 406 Table ____

Include Criteria on Certificate of Analysis: Y / N

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

Analysis Requested

	SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	# OF CONTAINERS SUBMITTED	FIELD FILTERED (CIRCLE) Metals / Hg / CrVI	BTEX/ PHC F1	PHCs F2 - F4	VOCs	REG 153 METALS & INORGANICS	REG 153 ICPMS METALS	REG 153 METALS (Hg, Cr VI, ICPMS Metals, HWS - B)	pH								HOLD- DO NOT ANALYZE
1	MW21-1, SS2	2021/04/21		GW	3		X	X	X												
2	MW21-2, SS2	↓		↓	3		X	X	X				X								
3	MW21-3, SS1	2021/04/22		↓	3		X	X	X												
4																					
5																					
6																					
7																					
8																					
9																					
10																					

RECEIVED IN OTTAWA

LABORATORY USE ONLY

CUSTODY SEAL Y / N		COOLER TEMPERATURES
Present	Intact	
Y	Y	5.4.5
		7.6.6

COOLING MEDIA PRESENT: Y / N ON ICE

COMMENTS

ON Ice

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
Cam Fischl	2021/04/26	1500	[illegible]	2021/04/26	15:05
		1500	[illegible]	2021/04/27	08:00

26-Apr-21 15:05
Katherine Szozda
C1B1260
GK1 ENV-584

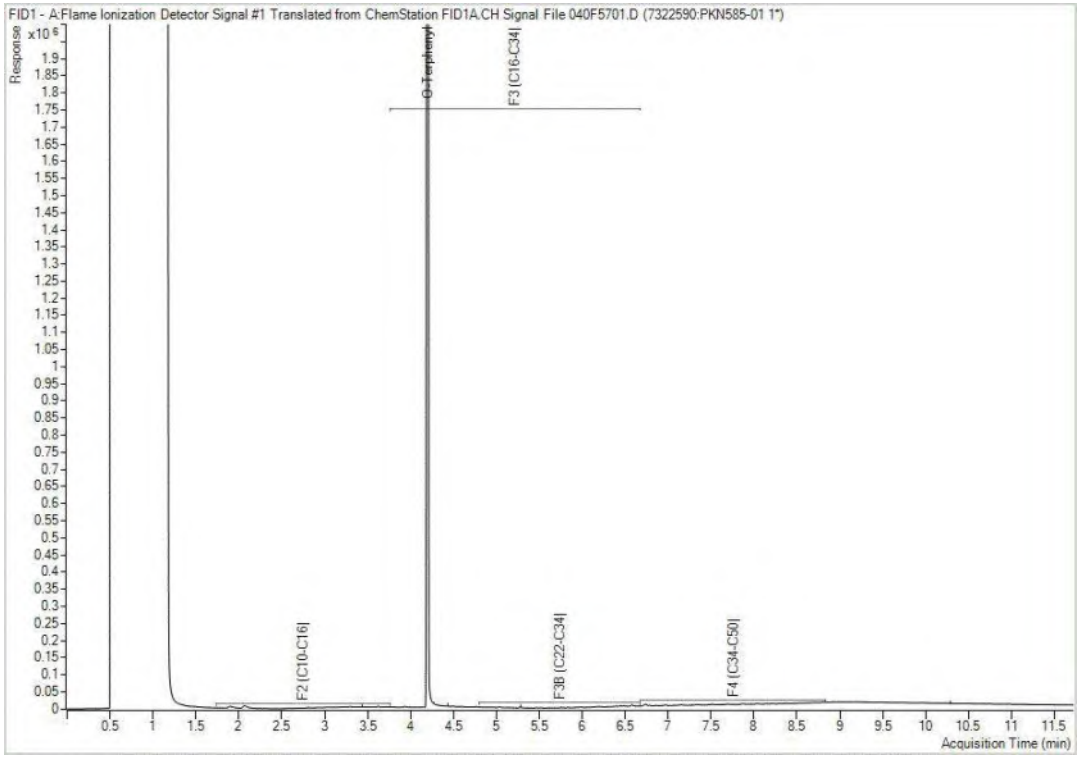
Unless otherwise agreed to in writing, work submitted on this Chain of Custody is subject to Bureau Veritas Laboratories' standard Terms and Conditions. Signing of this Chain of Custody document is acknowledgment and acceptance of [illegible] and-conditions

COC-1004 (06/19)

BV Labs Job #: C1B1260
Report Date: 2021/05/03
BV Labs Sample: PKN585

DST Consulting Engineers Inc
Client Project #: 2103035
Client ID: MW21-1,SS2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

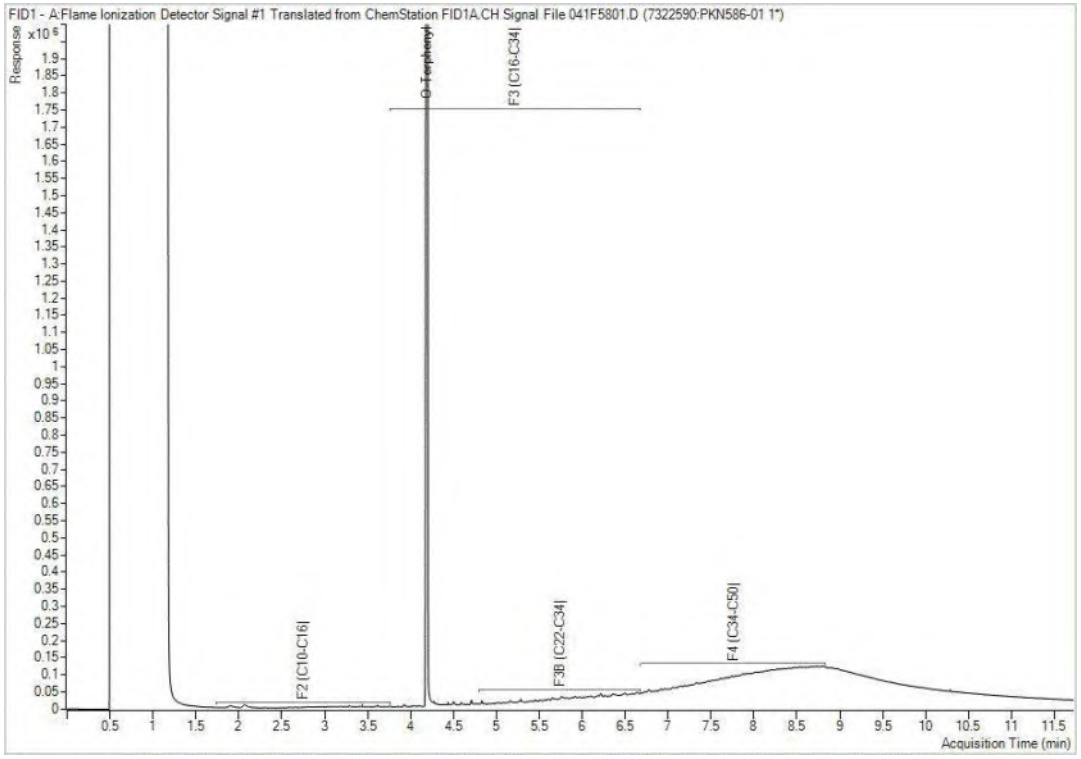


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1B1260
Report Date: 2021/05/03
BV Labs Sample: PKN586

DST Consulting Engineers Inc
Client Project #: 2103035
Client ID: MW21-2,SS2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

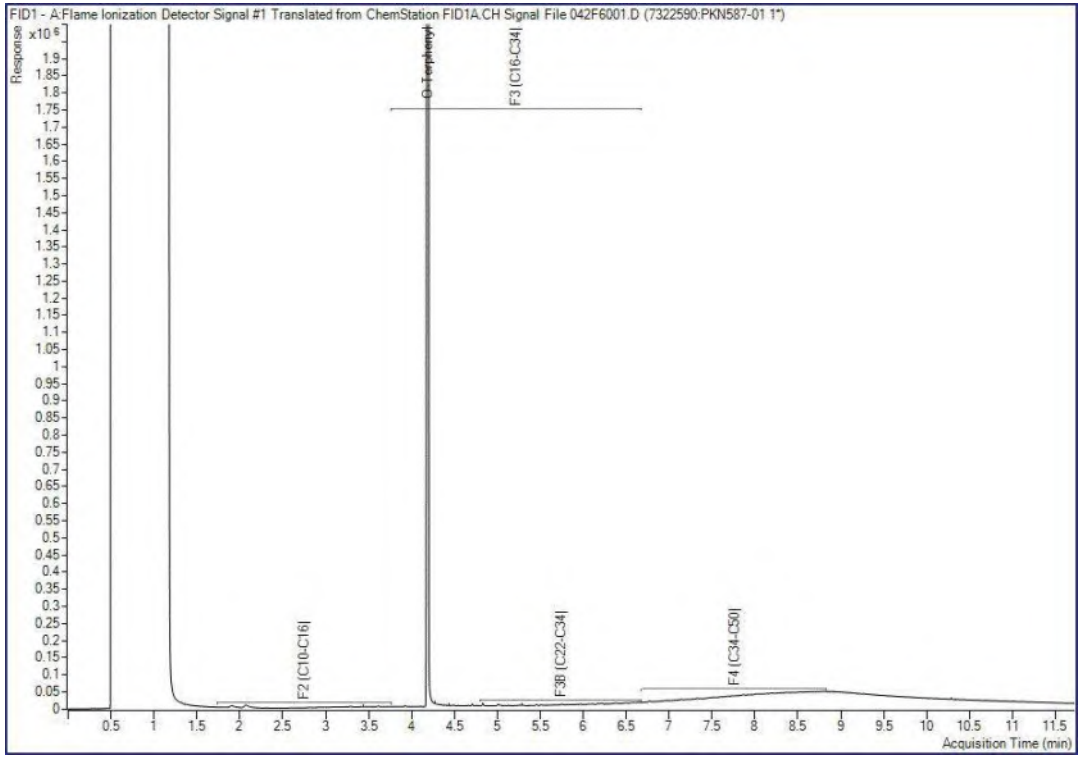


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1B1260
Report Date: 2021/05/03
BV Labs Sample: PKN587

DST Consulting Engineers Inc
Client Project #: 2103035
Client ID: MW21-3,SS1

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Your Project #: 02103035
Your C.O.C. #: 157055

Attention: Ryan Vanden Tillaart

DST Consulting Engineers Inc
Ottawa - Standing Offer
2150 Thurston Dr
Unit 203
Ottawa, ON
CANADA K1G 5T9

Report Date: 2021/05/10
Report #: R6627723
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1C2596
Received: 2021/05/07, 08:54

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Sieve, 75um (1)	2	N/A	2021/05/08	CAM SOP-00467	ASTM D1140 -17 m

Remarks:

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

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

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

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Mississauga

Your Project #: 02103035
Your C.O.C. #: 157055

Attention: Ryan Vanden Tillaart

DST Consulting Engineers Inc
Ottawa - Standing Offer
2150 Thurston Dr
Unit 203
Ottawa, ON
CANADA K1G 5T9

Report Date: 2021/05/10
Report #: R6627723
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1C2596
Received: 2021/05/07, 08:54

Encryption Key

Bureau Veritas
10 May 2021 09:03:02

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633
==========
This report has been generated and distributed using a secure automated process.
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

BV Labs Job #: C1C2596
Report Date: 2021/05/10

DST Consulting Engineers Inc
Client Project #: 02103035
Sampler Initials: RVT

RESULTS OF ANALYSES OF SOIL

BV Labs ID		PMV874	PMV875		
Sampling Date		2021/05/06 17:30	2021/05/06 17:30		
COC Number		157055	157055		
	UNITS	MW21-1 SS2	MW21-3 SS1	RDL	QC Batch
Miscellaneous Parameters					
Grain Size	%	FINE	FINE	N/A	7339480
Sieve - #200 (<0.075mm)	%	78	80	1	7339480
Sieve - #200 (>0.075mm)	%	22	20	1	7339480

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

TEST SUMMARY

BV Labs ID: PMV874
Sample ID: MW21-1 SS2
Matrix: Soil

Collected: 2021/05/06
Shipped:
Received: 2021/05/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Sieve, 75um	SIEV	7339480	N/A	2021/05/08	Prgya Panchal

BV Labs ID: PMV875
Sample ID: MW21-3 SS1
Matrix: Soil

Collected: 2021/05/06
Shipped:
Received: 2021/05/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Sieve, 75um	SIEV	7339480	N/A	2021/05/08	Prgya Panchal

Bureau Veritas Laboratories 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvlabs.com

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.7°C

Results relate only to the items tested.

Bureau Veritas Laboratories 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvlabs.com

BV Labs Job #: C1C2596
Report Date: 2021/05/10

QUALITY ASSURANCE REPORT

DST Consulting Engineers Inc
Client Project #: 02103035
Sampler Initials: RVT

			RPD		QC Standard	
QC Batch	**Parameter**	**Date**	**Value (%)**	**QC Limits**	**% Recovery**	**QC Limits**
7339480	Sieve - #200 (<0.075mm)	2021/05/08	1.0	20	56	53 - 58
7339480	Sieve - #200 (>0.075mm)	2021/05/08	1.7	20	44	42 - 47

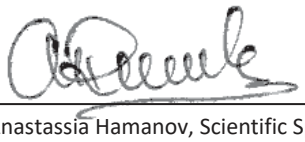
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Bureau Veritas Laboratories 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvlabs.com

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

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

Bureau Veritas Laboratories 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvlabs.com

BUREAU VERITAS

RUSH!

6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266
CAM FCD-01191/6

CHAIN OF CUSTODY RECORD 157055 Page ____ of ____

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: DST	Company Name:	Quotation #:	☐ Regular TAT (5-7 days) Most analyses
Contact Name: Ryan VadeMheen	Contact Name:	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: 2150 Thurston Drive	Address:	Project #: ~~03154~~ 02163035	Rush TAT (Surcharges will be applied)
Phone: 613-462-2756 Fax:	Phone: Fax:	Site Location:	☒ 1 Day ☐ 2 Days ☐ 3-4 Days
Email: rvmheen@dstgroup.com	Email:	Site #:	Date Required:
MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS LABORATORIES' DRINKING WATER CHAIN OF CUSTODY		Site Location Province: Sampled By: RVM	Rush Confirmation #:

Regulation 153	Other Regulations
☐ Table 1 ☐ Res/Park ☐ Med/ Fine	☐ CCME ☐ Sanitary Sewer Bylaw
☐ Table 2 ☐ Ind/Comm ☐ Coarse	☐ MISA ☐ Storm Sewer Bylaw
☐ Table 3 ☐ Agri/ Other	☐ PWQO Region ____
☐ Table ____	☐ Other (Specify) ____
FOR RSC (PLEASE CIRCLE) Y / N	☐ REG 558 (MIN. 3 DAY TAT REQUIRED)
	☐ REG 406 Table ____

Include Criteria on Certificate of Analysis: Y / N

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

Analysis Requested

LABORATORY USE ONLY

CUSTODY SEAL Y / N Present	CUSTODY SEAL Y / N Intact	COOLER TEMPERATURES
✓	—	4.4.3

COOLING MEDIA PRESENT: Y / N

	SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	# OF CONTAINERS SUBMITTED	FIELD FILTERED (CIRCLE) Metals / Hg / CrVI	BTEX/ PHC F1	PHCs F2 - F4	VOCs	REG 153 METALS & INORGANICS	REG 153 ICPMS METALS	REG 153 METALS (Hg, Cr VI, ICPMS Metals, HWS - B)	See TSum							HOLD- DO NOT ANALYZE	COMMENTS
1	MW21-1 SS2	2021/05/06	17:30	S									X								
2	MW21-3 SS1	2021/05/06	17:30	S									X								
3																					
4																					
5																					ON Ice
6																					
7																					
8																					
9																					
10																					

07-May-21 08:54
Katherine Szozda
C1C2596
KJY OTT-001

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	BV JOB #
Ryan VadeMheen	2021/05/06	18:30		2021/05/07	8:54	
				2021/05/08	08:21	

Unless otherwise agreed to in writing, work submitted on this Chain of Custody is subject to Bureau Veritas Laboratories' standard Terms and Conditions. Signing of this Chain of Custody document is acknowledgment and acceptance of our terms available at http://www.bvlabs.com/terms-and-conditions

COC-1004 (06/19)

12/13/11- ON ICE

White: BV Labs - Yellow: Client

Your P.O. #: 2103035
Your Project #: 2103035
Your C.O.C. #: 824243-01-01

Attention: Ryan Vanden Tillaart

DST Consulting Engineers Inc
Ottawa - Standing Offer
2150 Thurston Dr
Unit 203
Ottawa, ON
CANADA K1G 5T9

Report Date: 2021/05/07
Report #: R6625541
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1B9704
Received: 2021/05/04, 09:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
1,3-Dichloropropene Sum (1)	3	N/A	2021/05/07		EPA 8260C m
Chloride by Automated Colourimetry (1)	1	N/A	2021/05/06	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity (1)	1	N/A	2021/05/06	CAM SOP-00414	SM 23 2510 m
Petroleum Hydrocarbons F2-F4 in Water (1, 2)	3	2021/05/06	2021/05/07	CAM SOP-00316	CCME PHC-CWS m
pH (1)	1	2021/05/05	2021/05/06	CAM SOP-00413	SM 4500H+ B m
Resistivity of Water (1)	1	2021/05/05	2021/05/06	CAM SOP-00414	SM 23 2510 m
Sulphate by Automated Colourimetry (1)	1	N/A	2021/05/06	CAM SOP-00464	EPA 375.4 m
Sulphide (1)	1	N/A	2021/05/06	CAM SOP-00455	SM 23 4500-S G m
Volatile Organic Compounds and F1 PHCs (1)	3	N/A	2021/05/07	CAM SOP-00230	EPA 8260C m

Remarks:

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

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

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

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Mississauga

Your P.O. #: 2103035
Your Project #: 2103035
Your C.O.C. #: 824243-01-01

Attention: Ryan Vanden Tillaart

DST Consulting Engineers Inc
Ottawa - Standing Offer
2150 Thurston Dr
Unit 203
Ottawa, ON
CANADA K1G 5T9

Report Date: 2021/05/07
Report #: R6625541
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1B9704
Received: 2021/05/04, 09:00

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

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
07 May 2021 17:08:08

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

==========

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BV Labs Job #: C1B9704
Report Date: 2021/05/07

DST Consulting Engineers Inc
Client Project #: 2103035
Your P.O. #: 2103035
Sampler Initials: CF

RESULTS OF ANALYSES OF WATER

BV Labs ID		PMH109		
Sampling Date		2021/04/30		
COC Number		824243-01-01		
	UNITS	MW21-2	RDL	QC Batch
Calculated Parameters				
Resistivity	ohm-cm	160		7334889
Inorganics				
Conductivity	umho/cm	6100	1.0	7336307
pH	pH	7.92		7336338
Dissolved Sulphate (SO4)	mg/L	210	1.0	7335906
Sulphide	mg/L	<0.020	0.020	7338319
Dissolved Chloride (Cl-)	mg/L	1800	15	7335902

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

BV Labs ID		PMH108	PMH109		PMH110		
Sampling Date		2021/04/30	2021/04/30		2021/04/30		
COC Number		824243-01-01	824243-01-01		824243-01-01		
	UNITS	MW21-1	MW21-2	RDL	MW21-3	RDL	QC Batch
Calculated Parameters							
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	0.50	<0.50	0.50	7334890
Volatile Organics							
Acetone (2-Propanone)	ug/L	<50	<50	50	<10	10	7329955
Benzene	ug/L	<0.20	<0.20	0.20	<0.20	0.20	7329955
Bromodichloromethane	ug/L	<0.50	<0.50	0.50	<0.50	0.50	7329955
Bromoform	ug/L	<5.0	<5.0	5.0	<1.0	1.0	7329955
Bromomethane	ug/L	<0.50	<0.50	0.50	<0.50	0.50	7329955
Carbon Tetrachloride	ug/L	<0.20	<0.20	0.20	<0.20	0.20	7329955
Chlorobenzene	ug/L	<0.20	<0.20	0.20	<0.20	0.20	7329955
Chloroform	ug/L	<1.0	<1.0	1.0	<0.20	0.20	7329955
Dibromochloromethane	ug/L	<0.50	<0.50	0.50	<0.50	0.50	7329955
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	<0.50	0.50	7329955
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	<0.50	0.50	7329955
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	<0.50	0.50	7329955
Dichlorodifluoromethane (FREON 12)	ug/L	<5.0	<5.0	5.0	<1.0	1.0	7329955
1,1-Dichloroethane	ug/L	<0.20	<0.20	0.20	<0.20	0.20	7329955
1,2-Dichloroethane	ug/L	<0.50	<0.50	0.50	<0.50	0.50	7329955
1,1-Dichloroethylene	ug/L	<0.20	0.66	0.20	<0.20	0.20	7329955
cis-1,2-Dichloroethylene	ug/L	220	860	2.5	1.5	0.50	7329955
trans-1,2-Dichloroethylene	ug/L	3.7	12	2.5	<0.50	0.50	7329955
1,2-Dichloropropane	ug/L	<0.20	<0.20	0.20	<0.20	0.20	7329955
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	0.30	<0.30	0.30	7329955
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	0.40	<0.40	0.40	7329955
Ethylbenzene	ug/L	<0.20	<0.20	0.20	<0.20	0.20	7329955
Ethylene Dibromide	ug/L	<0.20	<0.20	0.20	<0.20	0.20	7329955
Hexane	ug/L	<5.0	<5.0	5.0	<1.0	1.0	7329955
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	2.0	<2.0	2.0	7329955
Methyl Ethyl Ketone (2-Butanone)	ug/L	<50	<50	50	<10	10	7329955
Methyl Isobutyl Ketone	ug/L	<25	<25	25	<5.0	5.0	7329955
Methyl t-butyl ether (MTBE)	ug/L	<2.5	<2.5	2.5	<0.50	0.50	7329955
Styrene	ug/L	<0.50	<0.50	0.50	<0.50	0.50	7329955
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	<0.50	0.50	7329955
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	<0.50	0.50	7329955
Tetrachloroethylene	ug/L	930	890	1.0	32	0.20	7329955
Toluene	ug/L	<0.20	<0.20	0.20	<0.20	0.20	7329955

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

BV Labs Job #: C1B9704
Report Date: 2021/05/07

DST Consulting Engineers Inc
Client Project #: 2103035
Your P.O. #: 2103035
Sampler Initials: CF

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

BV Labs ID		PMH108	PMH109		PMH110		
Sampling Date		2021/04/30	2021/04/30		2021/04/30		
COC Number		824243-01-01	824243-01-01		824243-01-01		
	UNITS	MW21-1	MW21-2	RDL	MW21-3	RDL	QC Batch
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	0.20	<0.20	0.20	7329955
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	0.50	<0.50	0.50	7329955
Trichloroethylene	ug/L	100	160	1.0	2.0	0.20	7329955
Trichlorofluoromethane (FREON 11)	ug/L	<2.5	<2.5	2.5	<0.50	0.50	7329955
Vinyl Chloride	ug/L	7.0	31	1.0	<0.20	0.20	7329955
p+m-Xylene	ug/L	<1.0	<1.0	1.0	<0.20	0.20	7329955
o-Xylene	ug/L	<1.0	<1.0	1.0	<0.20	0.20	7329955
Total Xylenes	ug/L	<1.0	<1.0	1.0	<0.20	0.20	7329955
F1 (C6-C10)	ug/L	320	340	130	<25	25	7329955
F1 (C6-C10) - BTEX	ug/L	320	340	130	<25	25	7329955
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/L	<100	370	100	<100	100	7338154
F3 (C16-C34 Hydrocarbons)	ug/L	240	750	200	<200	200	7338154
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	200	<200	200	7338154
Reached Baseline at C50	ug/L	Yes	Yes		Yes		7338154
Surrogate Recovery (%)							
o-Terphenyl	%	98	99		100		7338154
4-Bromofluorobenzene	%	86	86		84		7329955
D4-1,2-Dichloroethane	%	108	108		109		7329955
D8-Toluene	%	97	99		97		7329955

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

BV Labs Job #: C1B9704
Report Date: 2021/05/07

DST Consulting Engineers Inc
Client Project #: 2103035
Your P.O. #: 2103035
Sampler Initials: CF

TEST SUMMARY

BV Labs ID: PMH108
Sample ID: MW21-1
Matrix: Water

Collected: 2021/04/30
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	7334890	N/A	2021/05/07	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	7338154	2021/05/06	2021/05/07	Ksenia Trofimova
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7329955	N/A	2021/05/07	Anna Gabrielyan

BV Labs ID: PMH109
Sample ID: MW21-2
Matrix: Water

Collected: 2021/04/30
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	7334890	N/A	2021/05/07	Automated Statchk
Chloride by Automated Colourimetry	KONE	7335902	N/A	2021/05/06	Deonarine Ramnarine
Conductivity	AT	7336307	N/A	2021/05/06	Yogesh Patel
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	7338154	2021/05/06	2021/05/07	Ksenia Trofimova
pH	AT	7336338	2021/05/05	2021/05/06	Yogesh Patel
Resistivity of Water		7334889	2021/05/06	2021/05/06	Automated Statchk
Sulphate by Automated Colourimetry	KONE	7335906	N/A	2021/05/06	Deonarine Ramnarine
Sulphide	ISE/S	7338319	N/A	2021/05/06	Neil Dassanayake
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7329955	N/A	2021/05/07	Anna Gabrielyan

BV Labs ID: PMH110
Sample ID: MW21-3
Matrix: Water

Collected: 2021/04/30
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	7334890	N/A	2021/05/07	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	7338154	2021/05/06	2021/05/07	Ksenia Trofimova
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7329955	N/A	2021/05/07	Anna Gabrielyan

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	9.0°C

Sample PMH108 [MW21-1] : VOCF1 Analysis: Due to high concentrations of target analytes, sample required dilution. Detection limits were adjusted accordingly. In order to meet required regulatory criteria, results for selected compounds (obtained by a separate analysis using an appropriate low dilution) are included in the report.

Sample PMH109 [MW21-2] : VOCF1 Analysis: Due to high concentrations of target analytes, sample required dilution. Detection limits were adjusted accordingly. In order to meet required regulatory criteria, results for selected compounds (obtained by a separate analysis using an appropriate low dilution) are included in the report.

Results relate only to the items tested.

BV Labs Job #: C1B9704
Report Date: 2021/05/07

QUALITY ASSURANCE REPORT

DST Consulting Engineers Inc
Client Project #: 2103035
Your P.O. #: 2103035
Sampler Initials: CF

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7329955	4-Bromofluorobenzene	2021/05/06	103	70 - 130	103	70 - 130	89	%		
7329955	D4-1,2-Dichloroethane	2021/05/06	101	70 - 130	105	70 - 130	106	%		
7329955	D8-Toluene	2021/05/06	103	70 - 130	102	70 - 130	98	%		
7338154	o-Terphenyl	2021/05/07	105	60 - 130	103	60 - 130	97	%		
7329955	1,1,1,2-Tetrachloroethane	2021/05/07	99	70 - 130	100	70 - 130	<0.50	ug/L	NC	30
7329955	1,1,1-Trichloroethane	2021/05/07	97	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
7329955	1,1,2,2-Tetrachloroethane	2021/05/07	98	70 - 130	102	70 - 130	<0.50	ug/L	NC	30
7329955	1,1,2-Trichloroethane	2021/05/07	98	70 - 130	102	70 - 130	<0.50	ug/L	NC	30
7329955	1,1-Dichloroethane	2021/05/07	91	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
7329955	1,1-Dichloroethylene	2021/05/07	95	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
7329955	1,2-Dichlorobenzene	2021/05/07	97	70 - 130	100	70 - 130	<0.50	ug/L	NC	30
7329955	1,2-Dichloroethane	2021/05/07	91	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
7329955	1,2-Dichloropropane	2021/05/07	94	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
7329955	1,3-Dichlorobenzene	2021/05/07	101	70 - 130	105	70 - 130	<0.50	ug/L	NC	30
7329955	1,4-Dichlorobenzene	2021/05/07	108	70 - 130	113	70 - 130	<0.50	ug/L	NC	30
7329955	Acetone (2-Propanone)	2021/05/07	98	60 - 140	102	60 - 140	<10	ug/L	NC	30
7329955	Benzene	2021/05/07	87	70 - 130	89	70 - 130	<0.20	ug/L	NC	30
7329955	Bromodichloromethane	2021/05/07	97	70 - 130	100	70 - 130	<0.50	ug/L	NC	30
7329955	Bromoform	2021/05/07	97	70 - 130	102	70 - 130	<1.0	ug/L	NC	30
7329955	Bromomethane	2021/05/07	86	60 - 140	90	60 - 140	<0.50	ug/L	NC	30
7329955	Carbon Tetrachloride	2021/05/07	94	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
7329955	Chlorobenzene	2021/05/07	95	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
7329955	Chloroform	2021/05/07	95	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
7329955	cis-1,2-Dichloroethylene	2021/05/07	95	70 - 130	97	70 - 130	<0.50	ug/L	NC	30
7329955	cis-1,3-Dichloropropene	2021/05/07	82	70 - 130	86	70 - 130	<0.30	ug/L	NC	30
7329955	Dibromochloromethane	2021/05/07	95	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
7329955	Dichlorodifluoromethane (FREON 12)	2021/05/07	97	60 - 140	100	60 - 140	<1.0	ug/L	NC	30
7329955	Ethylbenzene	2021/05/07	88	70 - 130	89	70 - 130	<0.20	ug/L	NC	30
7329955	Ethylene Dibromide	2021/05/07	91	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
7329955	F1 (C6-C10) - BTEX	2021/05/07					<25	ug/L	NC	30
7329955	F1 (C6-C10)	2021/05/07	90	60 - 140	88	60 - 140	<25	ug/L	NC	30

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7329955	Hexane	2021/05/07	95	70 - 130	95	70 - 130	<1.0	ug/L	NC	30
7329955	Methyl Ethyl Ketone (2-Butanone)	2021/05/07	101	60 - 140	108	60 - 140	<10	ug/L	NC	30
7329955	Methyl Isobutyl Ketone	2021/05/07	93	70 - 130	101	70 - 130	<5.0	ug/L	NC	30
7329955	Methyl t-butyl ether (MTBE)	2021/05/07	85	70 - 130	88	70 - 130	<0.50	ug/L	NC	30
7329955	Methylene Chloride(Dichloromethane)	2021/05/07	97	70 - 130	100	70 - 130	<2.0	ug/L	NC	30
7329955	o-Xylene	2021/05/07	90	70 - 130	91	70 - 130	<0.20	ug/L	NC	30
7329955	p+m-Xylene	2021/05/07	93	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
7329955	Styrene	2021/05/07	102	70 - 130	106	70 - 130	<0.50	ug/L	NC	30
7329955	Tetrachloroethylene	2021/05/07	91	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
7329955	Toluene	2021/05/07	88	70 - 130	88	70 - 130	<0.20	ug/L	NC	30
7329955	Total Xylenes	2021/05/07					<0.20	ug/L	NC	30
7329955	trans-1,2-Dichloroethylene	2021/05/07	95	70 - 130	96	70 - 130	<0.50	ug/L	NC	30
7329955	trans-1,3-Dichloropropene	2021/05/07	85	70 - 130	89	70 - 130	<0.40	ug/L	NC	30
7329955	Trichloroethylene	2021/05/07	99	70 - 130	100	70 - 130	<0.20	ug/L	NC	30
7329955	Trichlorofluoromethane (FREON 11)	2021/05/07	94	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
7329955	Vinyl Chloride	2021/05/07	93	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
7335902	Dissolved Chloride (Cl-)	2021/05/06	NC	80 - 120	104	80 - 120	<1.0	mg/L	1.2	20
7335906	Dissolved Sulphate (SO4)	2021/05/06	119	75 - 125	103	80 - 120	<1.0	mg/L	NC	20
7336307	Conductivity	2021/05/05			102	85 - 115	<1.0	umho/cm	0.25	25
7336338	pH	2021/05/05			102	98 - 103			0.72	N/A
7338154	F2 (C10-C16 Hydrocarbons)	2021/05/07	123	60 - 130	104	60 - 130	<100	ug/L	2.0	30
7338154	F3 (C16-C34 Hydrocarbons)	2021/05/07	128	60 - 130	117	60 - 130	<200	ug/L	30	30
7338154	F4 (C34-C50 Hydrocarbons)	2021/05/07	129	60 - 130	119	60 - 130	<200	ug/L	NC	30

Bureau Veritas Laboratories 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvlabs.com

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7338319	Sulphide	2021/05/06	90	80 - 120	100	80 - 120	<0.020	mg/L	NC	20

N/A = Not Applicable

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

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

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

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

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

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

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

BV Labs Job #: C1B9704
Report Date: 2021/05/07

DST Consulting Engineers Inc
Client Project #: 2103035
Your P.O. #: 2103035
Sampler Initials: CF

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

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

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

Bureau Veritas Laboratories 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvlabs.com

04-May-21 09:00
Katherine Szozda
C1B9704

J_L ENV-1258

Maxxam Analytics
CAM FCD-01013/5
Page 1 of 1

Presence of Visible Particulate/Sediment

When there is >1cm of visible particulate/sediment, the amount will be recorded in the field below

			Bottle Types																														
			Inorganics					Organics												Hydrocarbons							Volatiles				Other
	Sample ID	All	CrVI	CN	General	Hg	Metals (Diss.)	Organic 1 of 2	Organic 2 of 2	PCB 1 of 2	PCB 2 of 2	Pest/ Herb 1 of 2	Pest/ Herb 2 of 2	SVOC/ ABN 1 of 2	SVOC/ ABN 2 of 2	PAH 1 of 2	PAH 2 of 2	Dioxin /Furan	F1 Vial 1	F1 Vial 2	F1 Vial 3	F1 Vial 4	F2-F4 1 of 2	F2-F4 2 of 2	F4G	VOC Vial 1	VOC Vial 2	VOC Vial 3	VOC Vial 4	
1	MW21-1	TS																															
2	2	↓																															
3	3	↓																															
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	

Comments:

Legend:	
P	Suspended Particulate
TS	Trace Settled Sediment (just covers bottom of container or less)
S	Sediment greater than (>) Trace, but less than (<) 1 cm

Recorded By: (signature/print) J-Y

Bureau Veritas Laboratories
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.bvlabs.com

04-May-21 09:00
Katherine Szozda
C1B9704

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		
Company Name	#3824 DST Consulting Engineers Inc	Company Name		Quotation #	B82715	J L ENV-1258
Attention	Accounts Payable	Attention	Ryan Vanden Tillaart	P.O. #	2103035	Bottle Order #: 824243
Address	2150 Thurston Dr Unit 203 Ottawa ON K1G 5T9	Address		Project	2103035	Project Manager: Katherine Szozda
Tel	(613) 748-1415 Fax (613) 748-1356	Tel	Fax	Project Name		COC #: C#824243-01-01
Email	ap@dstgroup.com	Email	rtillaart@dstgroup.com; seid@dstgroup.com	Site #		
				Sampled By	CF	

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☒ Table 1 ☐ Res/Park ☐ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☐ Table 2 ☐ Ind/Comm ☐ Coarse	☐ Reg 558 ☐ Storm Sewer Bylaw	
☐ Table 3 ☐ Agri/Other ☐ For RSC	☐ MISA Municipality	
☐ Table	☐ PWQO ☐ Reg 406 Table	
	☐ Other	

Include Criteria on Certificate of Analysis (Y/N)?

Turnaround Time (TAT) Required
Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: Time Required: ☐
Rush Confirmation Number: *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle) Metals / Hg / Cr VI	O. Reg 153 VOCs by HS & P+T	PHCs F1-F4	Hydrocarbon Scan	pH	Chloride	Sulphate	Sulphide	Resistivity	Redox Potential			# of Bottles	Comments
1		MW21-1	2021/04/30		GW		X												
2		MW21-2	↓		↓		X			X	X	X	X	X	X				
3		MW21-3	↓		↓		X												
4																			
5																			
6																			
7																			
8																			
9																			ON JCL
10																			

RUSH

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
Cameron Fisch	21/05/04	1600		2021/05/04	9:40	08:30	Time Sensitive	Temperature (°C) on Receipt 10, 9, 8	Custody Seal Present Intact	Yes ☑	No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

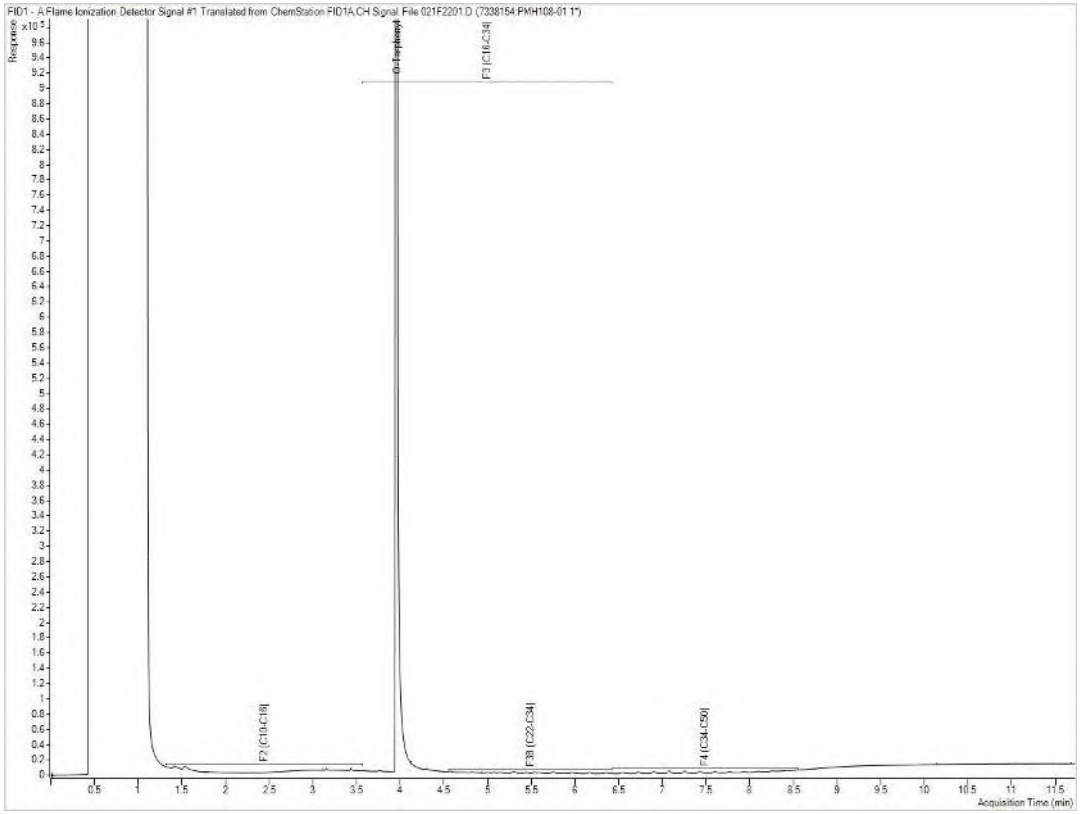
White: BV Labs Yellow: Client

Bureau Veritas Canada (2019) Inc.

BV Labs Job #: C1B9704
Report Date: 2021/05/07
BV Labs Sample: PMH108

DST Consulting Engineers Inc
Client Project #: 2103035
Client ID: MW21-1

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

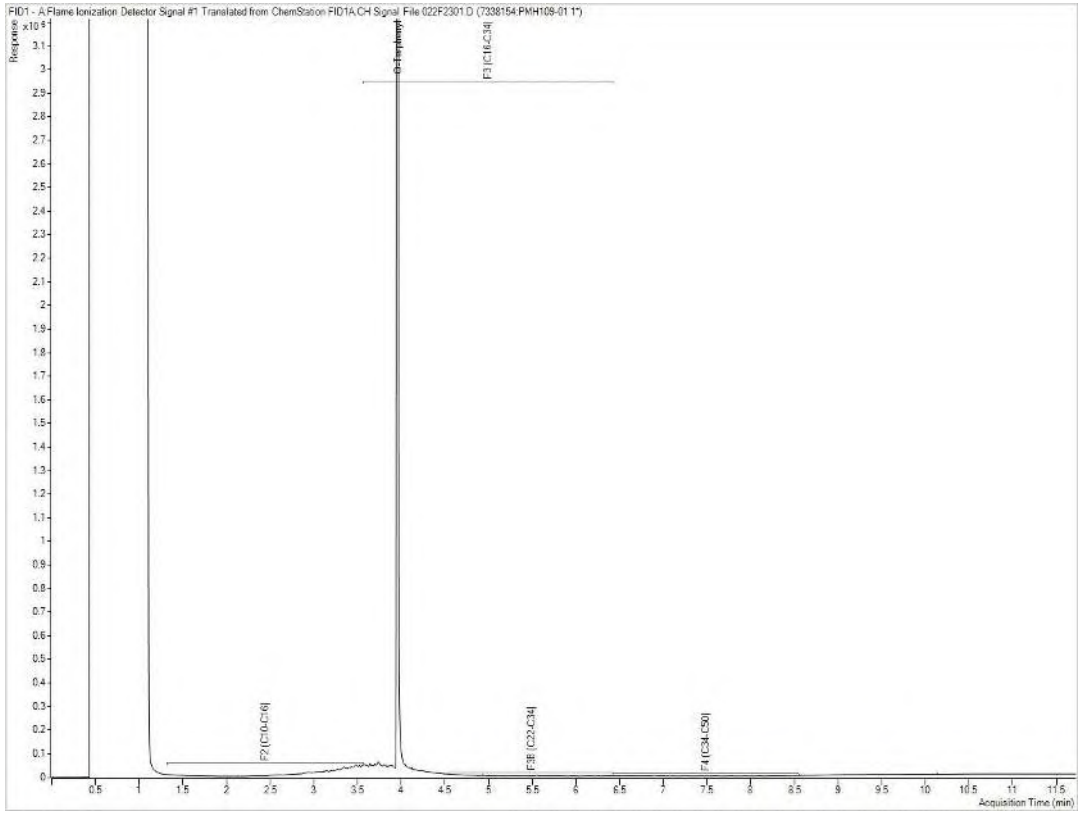


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1B9704
Report Date: 2021/05/07
BV Labs Sample: PMH109

DST Consulting Engineers Inc
Client Project #: 2103035
Client ID: MW21-2

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

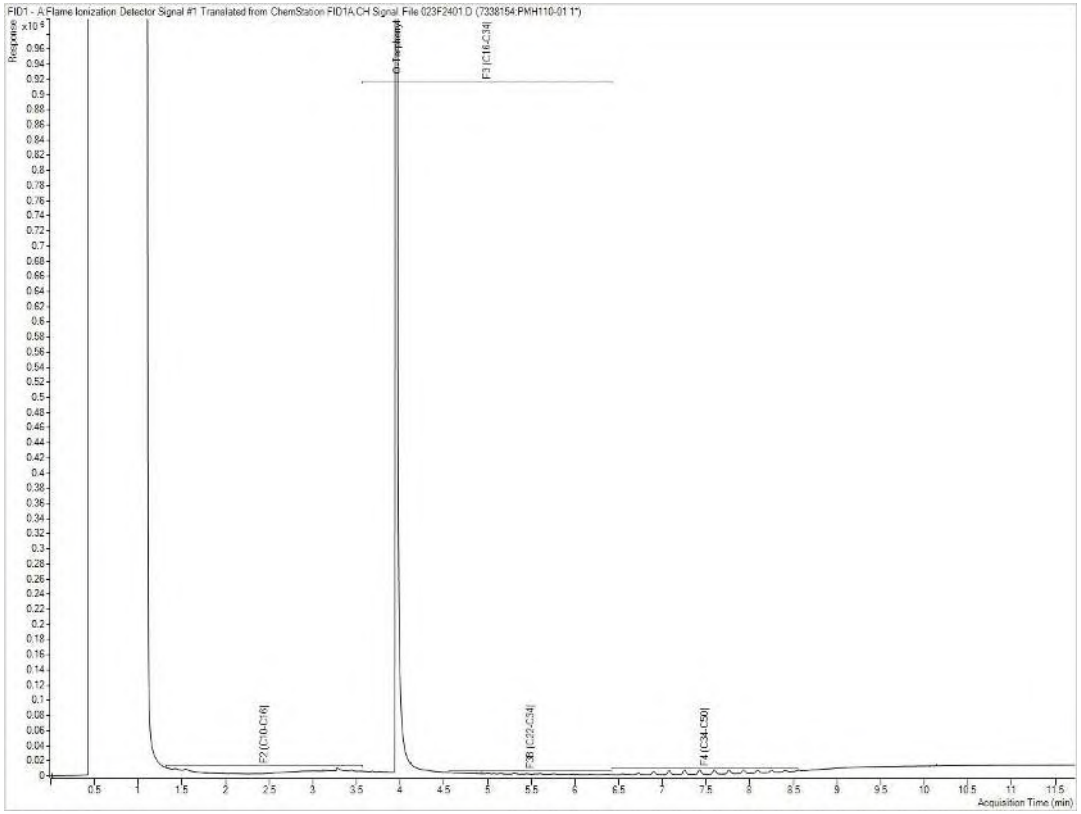


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1B9704
Report Date: 2021/05/07
BV Labs Sample: PMH110

DST Consulting Engineers Inc
Client Project #: 2103035
Client ID: MW21-3

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Your Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Your C.O.C. #: n/a

Attention: Colette Robitaille

Englobe Corp.
Ottawa - Standing Offer
2713 Lancaster Road
Unit 101
Ottawa, ON
CANADA K1B 5R6

Report Date: 2023/07/21
Report #: R7727572
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3K9046
Received: 2023/07/13, 09:11

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum (1)	2	N/A	2023/07/20	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum (1)	2	N/A	2023/07/19		EPA 8260C m
Petroleum Hydro. CCME F1 & BTEX in Soil (1, 2)	2	N/A	2023/07/17	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (1, 3)	2	2023/07/18	2023/07/18	CAM SOP-00316	CCME CWS m
F4G (CCME Hydrocarbons Gravimetric) (1)	2	2023/07/20	2023/07/20	CAM SOP-00316	CCME PHC-CWS m
Acid Extractable Metals by ICPMS (1)	2	2023/07/18	2023/07/18	CAM SOP-00447	EPA 6020B m
Moisture (1)	2	N/A	2023/07/17	CAM SOP-00445	Carter 2nd ed 51.2 m
PAH Compounds in Soil by GC/MS (SIM) (1)	1	2023/07/18	2023/07/18	CAM SOP-00318	EPA 8270E
PAH Compounds in Soil by GC/MS (SIM) (1)	1	2023/07/19	2023/07/20	CAM SOP-00318	EPA 8270E
Volatile Organic Compounds in Soil (1)	2	N/A	2023/07/18	CAM SOP-00228	EPA 8260D

Remarks:

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

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

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

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Your Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Your C.O.C. #: n/a

Attention: Colette Robitaille

Englobe Corp.
Ottawa - Standing Offer
2713 Lancaster Road
Unit 101
Ottawa, ON
CANADA K1B 5R6

Report Date: 2023/07/21
Report #: R7727572
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3K9046
Received: 2023/07/13, 09:11

(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
(2) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.
(3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas Job #: C3K9046
Report Date: 2023/07/21

Englobe Corp.
Client Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

O.REG 153 ICPMS METALS (SOIL)

Bureau Veritas ID		WJT428	WJT430		
Sampling Date		2023/07/11 09:00	2023/07/12 10:00		
COC Number		n/a	n/a		
	UNITS	MW23-1 SS1	MW23-4 SS1	RDL	QC Batch
Metals					
Acid Extractable Antimony (Sb)	ug/g	0.25	0.37	0.20	8795348
Acid Extractable Arsenic (As)	ug/g	2.0	3.0	1.0	8795348
Acid Extractable Barium (Ba)	ug/g	630	310	0.50	8795348
Acid Extractable Beryllium (Be)	ug/g	0.32	0.29	0.20	8795348
Acid Extractable Boron (B)	ug/g	9.8	8.4	5.0	8795348
Acid Extractable Cadmium (Cd)	ug/g	0.11	0.18	0.10	8795348
Acid Extractable Chromium (Cr)	ug/g	9.0	13	1.0	8795348
Acid Extractable Cobalt (Co)	ug/g	5.3	4.5	0.10	8795348
Acid Extractable Copper (Cu)	ug/g	12	44	0.50	8795348
Acid Extractable Lead (Pb)	ug/g	48	200	1.0	8795348
Acid Extractable Molybdenum (Mo)	ug/g	0.69	1.7	0.50	8795348
Acid Extractable Nickel (Ni)	ug/g	11	11	0.50	8795348
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	0.50	8795348
Acid Extractable Silver (Ag)	ug/g	<0.20	1.3	0.20	8795348
Acid Extractable Thallium (Tl)	ug/g	0.17	0.15	0.050	8795348
Acid Extractable Uranium (U)	ug/g	0.35	0.36	0.050	8795348
Acid Extractable Vanadium (V)	ug/g	16	22	5.0	8795348
Acid Extractable Zinc (Zn)	ug/g	25	92	5.0	8795348

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

O.REG 153 PAHS (SOIL)

Bureau Veritas ID		WJT428		WJT430		
Sampling Date		2023/07/11 09:00		2023/07/12 10:00		
COC Number		n/a		n/a		
	UNITS	MW23-1 SS1	QC Batch	MW23-4 SS1	RDL	QC Batch
Calculated Parameters						
Methylnaphthalene, 2-(1-)	ug/g	<0.071	8790977	0.48	0.071	8790977
Polyaromatic Hydrocarbons						
Acenaphthene	ug/g	<0.050	8800292	0.58	0.050	8795165
Acenaphthylene	ug/g	<0.050	8800292	0.059	0.050	8795165
Anthracene	ug/g	<0.050	8800292	1.2	0.050	8795165
Benzo(a)anthracene	ug/g	0.072	8800292	3.5	0.050	8795165
Benzo(a)pyrene	ug/g	0.085	8800292	3.0	0.050	8795165
Benzo(b/j)fluoranthene	ug/g	0.11	8800292	4.3	0.050	8795165
Benzo(g,h,i)perylene	ug/g	0.079	8800292	1.8	0.050	8795165
Benzo(k)fluoranthene	ug/g	<0.050	8800292	1.7	0.050	8795165
Chrysene	ug/g	0.088	8800292	3.3	0.050	8795165
Dibenzo(a,h)anthracene	ug/g	<0.050	8800292	0.54	0.050	8795165
Fluoranthene	ug/g	0.15	8800292	8.6	0.050	8795165
Fluorene	ug/g	<0.050	8800292	0.63	0.050	8795165
Indeno(1,2,3-cd)pyrene	ug/g	0.064	8800292	2.0	0.050	8795165
1-Methylnaphthalene	ug/g	<0.050	8800292	0.24	0.050	8795165
2-Methylnaphthalene	ug/g	<0.050	8800292	0.24	0.050	8795165
Naphthalene	ug/g	<0.050	8800292	0.45	0.050	8795165
Phenanthrene	ug/g	0.10	8800292	7.5	0.050	8795165
Pyrene	ug/g	0.14	8800292	6.6	0.050	8795165
Surrogate Recovery (%)						
D10-Anthracene	%	95	8800292	82		8795165
D14-Terphenyl (FS)	%	88	8800292	82		8795165
D8-Acenaphthylene	%	83	8800292	76		8795165

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas ID		WJT428	WJT430		
Sampling Date		2023/07/11 09:00	2023/07/12 10:00		
COC Number		n/a	n/a		
	UNITS	MW23-1 SS1	MW23-4 SS1	RDL	QC Batch
BTEX & F1 Hydrocarbons					
F1 (C6-C10)	ug/g	<10	<10	10	8792822
F1 (C6-C10) - BTEX	ug/g	<10	<10	10	8792822
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	10	8795173
F3 (C16-C34 Hydrocarbons)	ug/g	340	420	50	8795173
F4 (C34-C50 Hydrocarbons)	ug/g	1300	880	50	8795173
Reached Baseline at C50	ug/g	No	No		8795173
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	97	98		8792822
4-Bromofluorobenzene	%	98	98		8792822
D10-o-Xylene	%	103	103		8792822
D4-1,2-Dichloroethane	%	95	95		8792822
o-Terphenyl	%	82	77		8795173

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

O.REG 153 VOCS BY HS (SOIL)

Bureau Veritas ID		WJT428	WJT430		
Sampling Date		2023/07/11 09:00	2023/07/12 10:00		
COC Number		n/a	n/a		
	UNITS	MW23-1 SS1	MW23-4 SS1	RDL	QC Batch
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	<0.050	0.050	8788991
Volatile Organics					
Acetone (2-Propanone)	ug/g	<0.49	<0.49	0.49	8795479
Benzene	ug/g	<0.0060	<0.0060	0.0060	8795479
Bromodichloromethane	ug/g	<0.040	<0.040	0.040	8795479
Bromoform	ug/g	<0.040	<0.040	0.040	8795479
Bromomethane	ug/g	<0.040	<0.040	0.040	8795479
Carbon Tetrachloride	ug/g	<0.040	<0.040	0.040	8795479
Chlorobenzene	ug/g	<0.040	<0.040	0.040	8795479
Chloroform	ug/g	<0.040	<0.040	0.040	8795479
Dibromochloromethane	ug/g	<0.040	<0.040	0.040	8795479
1,2-Dichlorobenzene	ug/g	<0.040	<0.040	0.040	8795479
1,3-Dichlorobenzene	ug/g	<0.040	<0.040	0.040	8795479
1,4-Dichlorobenzene	ug/g	<0.040	<0.040	0.040	8795479
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	<0.040	0.040	8795479
1,1-Dichloroethane	ug/g	<0.040	<0.040	0.040	8795479
1,2-Dichloroethane	ug/g	<0.049	<0.049	0.049	8795479
1,1-Dichloroethylene	ug/g	<0.040	<0.040	0.040	8795479
cis-1,2-Dichloroethylene	ug/g	<0.040	<0.040	0.040	8795479
trans-1,2-Dichloroethylene	ug/g	<0.040	<0.040	0.040	8795479
1,2-Dichloropropane	ug/g	<0.040	<0.040	0.040	8795479
cis-1,3-Dichloropropene	ug/g	<0.030	<0.030	0.030	8795479
trans-1,3-Dichloropropene	ug/g	<0.040	<0.040	0.040	8795479
Ethylbenzene	ug/g	<0.010	<0.010	0.010	8795479
Ethylene Dibromide	ug/g	<0.040	<0.040	0.040	8795479
Hexane	ug/g	0.054	<0.040	0.040	8795479
Methylene Chloride(Dichloromethane)	ug/g	<0.049	<0.049	0.049	8795479
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	<0.40	0.40	8795479
Methyl Isobutyl Ketone	ug/g	<0.40	<0.40	0.40	8795479
Methyl t-butyl ether (MTBE)	ug/g	<0.040	<0.040	0.040	8795479
Styrene	ug/g	<0.040	<0.040	0.040	8795479
1,1,1,2-Tetrachloroethane	ug/g	<0.040	<0.040	0.040	8795479
1,1,2,2-Tetrachloroethane	ug/g	<0.040	<0.040	0.040	8795479

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

O.REG 153 VOCS BY HS (SOIL)

Bureau Veritas ID		WJT428	WJT430		
Sampling Date		2023/07/11 09:00	2023/07/12 10:00		
COC Number		n/a	n/a		
	UNITS	MW23-1 SS1	MW23-4 SS1	RDL	QC Batch
Tetrachloroethylene	ug/g	2.0	0.16	0.040	8795479
Toluene	ug/g	<0.020	<0.020	0.020	8795479
1,1,1-Trichloroethane	ug/g	<0.040	<0.040	0.040	8795479
1,1,2-Trichloroethane	ug/g	<0.040	<0.040	0.040	8795479
Trichloroethylene	ug/g	<0.010	<0.010	0.010	8795479
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	<0.040	0.040	8795479
Vinyl Chloride	ug/g	<0.019	<0.019	0.019	8795479
p+m-Xylene	ug/g	0.035	<0.020	0.020	8795479
o-Xylene	ug/g	<0.020	<0.020	0.020	8795479
Total Xylenes	ug/g	0.035	<0.020	0.020	8795479
Surrogate Recovery (%)					
4-Bromofluorobenzene	%	96	97		8795479
D10-o-Xylene	%	100	92		8795479
D4-1,2-Dichloroethane	%	105	105		8795479
D8-Toluene	%	101	100		8795479

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas Job #: C3K9046
Report Date: 2023/07/21

Englobe Corp.
Client Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WJT428	WJT430		
Sampling Date		2023/07/11 09:00	2023/07/12 10:00		
COC Number		n/a	n/a		
	UNITS	MW23-1 SS1	MW23-4 SS1	RDL	QC Batch
Inorganics					
Moisture	%	19	14	1.0	8794208

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas Job #: C3K9046
Report Date: 2023/07/21

Englobe Corp.
Client Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WJT428	WJT430		
Sampling Date		2023/07/11 09:00	2023/07/12 10:00		
COC Number		n/a	n/a		
	UNITS	MW23-1 SS1	MW23-4 SS1	RDL	QC Batch
F2-F4 Hydrocarbons					
F4G-sg (Grav. Heavy Hydrocarbons)	ug/g	6100	3200	100	8800541

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas Job #: C3K9046
Report Date: 2023/07/21

Englobe Corp.
Client Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

TEST SUMMARY

Bureau Veritas ID: WJT428
Sample ID: MW23-1 SS1
Matrix: Soil

Collected: 2023/07/11
Shipped:
Received: 2023/07/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8790977	N/A	2023/07/20	Automated Statchk
1,3-Dichloropropene Sum	CALC	8788991	N/A	2023/07/19	Automated Statchk
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	8792822	N/A	2023/07/17	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8795173	2023/07/18	2023/07/18	Jeevaraj Jeevaratrnam
F4G (CCME Hydrocarbons Gravimetric)	BAL	8800541	2023/07/20	2023/07/20	Rashmi Dubey
Acid Extractable Metals by ICPMS	ICP/MS	8795348	2023/07/18	2023/07/18	Daniel Teclu
Moisture	BAL	8794208	N/A	2023/07/17	Simrat Bhathal
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8800292	2023/07/19	2023/07/20	Jonghan Yoon
Volatile Organic Compounds in Soil	GC/MS	8795479	N/A	2023/07/18	Skylar Canning

Bureau Veritas ID: WJT430
Sample ID: MW23-4 SS1
Matrix: Soil

Collected: 2023/07/12
Shipped:
Received: 2023/07/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8790977	N/A	2023/07/20	Automated Statchk
1,3-Dichloropropene Sum	CALC	8788991	N/A	2023/07/19	Automated Statchk
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	8792822	N/A	2023/07/17	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8795173	2023/07/18	2023/07/18	Jeevaraj Jeevaratrnam
F4G (CCME Hydrocarbons Gravimetric)	BAL	8800541	2023/07/20	2023/07/20	Rashmi Dubey
Acid Extractable Metals by ICPMS	ICP/MS	8795348	2023/07/18	2023/07/18	Daniel Teclu
Moisture	BAL	8794208	N/A	2023/07/17	Simrat Bhathal
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8795165	2023/07/18	2023/07/18	Jiaxuan (Simon) Xi
Volatile Organic Compounds in Soil	GC/MS	8795479	N/A	2023/07/18	Skylar Canning

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	7.3°C

Sample WJT428 [MW23-1 SS1] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

PAH ANALYSIS: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Sample WJT430 [MW23-4 SS1] : PAH Anaylsis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Results relate only to the items tested.

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8792822	1,4-Difluorobenzene	2023/07/17	98	60 - 140	98	60 - 140	98	%		
8792822	4-Bromofluorobenzene	2023/07/17	99	60 - 140	98	60 - 140	98	%		
8792822	D10-o-Xylene	2023/07/17	106	60 - 140	93	60 - 140	92	%		
8792822	D4-1,2-Dichloroethane	2023/07/17	95	60 - 140	93	60 - 140	94	%		
8795165	D10-Anthracene	2023/07/18	72	50 - 130	102	50 - 130	98	%		
8795165	D14-Terphenyl (FS)	2023/07/18	69	50 - 130	97	50 - 130	90	%		
8795165	D8-Acenaphthylene	2023/07/18	63	50 - 130	94	50 - 130	86	%		
8795173	o-Terphenyl	2023/07/18	83	60 - 130	81	60 - 130	82	%		
8795479	4-Bromofluorobenzene	2023/07/18	99	60 - 140	101	60 - 140	97	%		
8795479	D10-o-Xylene	2023/07/18	100	60 - 130	90	60 - 130	89	%		
8795479	D4-1,2-Dichloroethane	2023/07/18	103	60 - 140	104	60 - 140	105	%		
8795479	D8-Toluene	2023/07/18	107	60 - 140	105	60 - 140	100	%		
8800292	D10-Anthracene	2023/07/20	93	50 - 130	82	50 - 130	115	%		
8800292	D14-Terphenyl (FS)	2023/07/20	94	50 - 130	82	50 - 130	113	%		
8800292	D8-Acenaphthylene	2023/07/20	87	50 - 130	77	50 - 130	102	%		
8792822	F1 (C6-C10) - BTEX	2023/07/17					<10	ug/g	NC	30
8792822	F1 (C6-C10)	2023/07/17	107	60 - 140	98	80 - 120	<10	ug/g	NC	30
8794208	Moisture	2023/07/17							3.5	20
8795165	1-Methylnaphthalene	2023/07/18	81	50 - 130	103	50 - 130	<0.0050	ug/g	NC	40
8795165	2-Methylnaphthalene	2023/07/18	73	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
8795165	Acenaphthene	2023/07/18	81	50 - 130	99	50 - 130	<0.0050	ug/g	NC	40
8795165	Acenaphthylene	2023/07/18	78	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
8795165	Anthracene	2023/07/18	86	50 - 130	104	50 - 130	<0.0050	ug/g	NC	40
8795165	Benzo(a)anthracene	2023/07/18	83	50 - 130	99	50 - 130	<0.0050	ug/g	NC	40
8795165	Benzo(a)pyrene	2023/07/18	78	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
8795165	Benzo(b/j)fluoranthene	2023/07/18	81	50 - 130	98	50 - 130	<0.0050	ug/g	NC	40
8795165	Benzo(g,h,i)perylene	2023/07/18	83	50 - 130	102	50 - 130	<0.0050	ug/g	NC	40
8795165	Benzo(k)fluoranthene	2023/07/18	79	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
8795165	Chrysene	2023/07/18	83	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
8795165	Dibenzo(a,h)anthracene	2023/07/18	79	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
8795165	Fluoranthene	2023/07/18	84	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
8795165	Fluorene	2023/07/18	81	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8795165	Indeno(1,2,3-cd)pyrene	2023/07/18	80	50 - 130	98	50 - 130	<0.0050	ug/g	NC	40
8795165	Naphthalene	2023/07/18	69	50 - 130	92	50 - 130	<0.0050	ug/g	NC	40
8795165	Phenanthrene	2023/07/18	82	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
8795165	Pyrene	2023/07/18	85	50 - 130	102	50 - 130	<0.0050	ug/g	NC	40
8795173	F2 (C10-C16 Hydrocarbons)	2023/07/18	94	60 - 130	92	80 - 120	<10	ug/g	NC	30
8795173	F3 (C16-C34 Hydrocarbons)	2023/07/18	95	60 - 130	90	80 - 120	<50	ug/g	12	30
8795173	F4 (C34-C50 Hydrocarbons)	2023/07/18	97	60 - 130	85	80 - 120	<50	ug/g	17	30
8795348	Acid Extractable Antimony (Sb)	2023/07/18	90	75 - 125	96	80 - 120	<0.20	ug/g	14	30
8795348	Acid Extractable Arsenic (As)	2023/07/18	98	75 - 125	99	80 - 120	<1.0	ug/g	4.6	30
8795348	Acid Extractable Barium (Ba)	2023/07/18	NC	75 - 125	97	80 - 120	<0.50	ug/g	8.6	30
8795348	Acid Extractable Beryllium (Be)	2023/07/18	96	75 - 125	95	80 - 120	<0.20	ug/g	0.27	30
8795348	Acid Extractable Boron (B)	2023/07/18	89	75 - 125	94	80 - 120	<5.0	ug/g	NC	30
8795348	Acid Extractable Cadmium (Cd)	2023/07/18	95	75 - 125	94	80 - 120	<0.10	ug/g	12	30
8795348	Acid Extractable Chromium (Cr)	2023/07/18	94	75 - 125	96	80 - 120	<1.0	ug/g	2.7	30
8795348	Acid Extractable Cobalt (Co)	2023/07/18	95	75 - 125	96	80 - 120	<0.10	ug/g	10	30
8795348	Acid Extractable Copper (Cu)	2023/07/18	94	75 - 125	97	80 - 120	<0.50	ug/g	0.70	30
8795348	Acid Extractable Lead (Pb)	2023/07/18	NC	75 - 125	98	80 - 120	<1.0	ug/g	27	30
8795348	Acid Extractable Molybdenum (Mo)	2023/07/18	95	75 - 125	94	80 - 120	<0.50	ug/g	4.3	30
8795348	Acid Extractable Nickel (Ni)	2023/07/18	90	75 - 125	95	80 - 120	<0.50	ug/g	5.4	30
8795348	Acid Extractable Selenium (Se)	2023/07/18	97	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
8795348	Acid Extractable Silver (Ag)	2023/07/18	97	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
8795348	Acid Extractable Thallium (Tl)	2023/07/18	96	75 - 125	101	80 - 120	<0.050	ug/g	4.0	30
8795348	Acid Extractable Uranium (U)	2023/07/18	98	75 - 125	100	80 - 120	<0.050	ug/g	1.8	30
8795348	Acid Extractable Vanadium (V)	2023/07/18	NC	75 - 125	94	80 - 120	<5.0	ug/g	0.23	30
8795348	Acid Extractable Zinc (Zn)	2023/07/18	NC	75 - 125	96	80 - 120	<5.0	ug/g	1.7	30
8795479	1,1,1,2-Tetrachloroethane	2023/07/18	109	60 - 140	107	60 - 130	<0.040	ug/g	NC	50
8795479	1,1,1-Trichloroethane	2023/07/18	104	60 - 140	101	60 - 130	<0.040	ug/g	NC	50
8795479	1,1,2,2-Tetrachloroethane	2023/07/18	102	60 - 140	108	60 - 130	<0.040	ug/g	NC	50
8795479	1,1,2-Trichloroethane	2023/07/18	111	60 - 140	112	60 - 130	<0.040	ug/g	NC	50
8795479	1,1-Dichloroethane	2023/07/18	100	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
8795479	1,1-Dichloroethylene	2023/07/18	107	60 - 140	103	60 - 130	<0.040	ug/g	NC	50
8795479	1,2-Dichlorobenzene	2023/07/18	95	60 - 140	95	60 - 130	<0.040	ug/g	NC	50

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8795479	1,2-Dichloroethane	2023/07/18	95	60 - 140	97	60 - 130	<0.049	ug/g	NC	50
8795479	1,2-Dichloropropane	2023/07/18	98	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
8795479	1,3-Dichlorobenzene	2023/07/18	100	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
8795479	1,4-Dichlorobenzene	2023/07/18	115	60 - 140	113	60 - 130	<0.040	ug/g	NC	50
8795479	Acetone (2-Propanone)	2023/07/18	99	60 - 140	102	60 - 140	<0.49	ug/g	NC	50
8795479	Benzene	2023/07/18	94	60 - 140	94	60 - 130	<0.0060	ug/g	NC	50
8795479	Bromodichloromethane	2023/07/18	106	60 - 140	106	60 - 130	<0.040	ug/g	NC	50
8795479	Bromoform	2023/07/18	106	60 - 140	111	60 - 130	<0.040	ug/g	NC	50
8795479	Bromomethane	2023/07/18	111	60 - 140	106	60 - 140	<0.040	ug/g	NC	50
8795479	Carbon Tetrachloride	2023/07/18	107	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
8795479	Chlorobenzene	2023/07/18	99	60 - 140	99	60 - 130	<0.040	ug/g	NC	50
8795479	Chloroform	2023/07/18	104	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
8795479	cis-1,2-Dichloroethylene	2023/07/18	105	60 - 140	104	60 - 130	<0.040	ug/g	NC	50
8795479	cis-1,3-Dichloropropene	2023/07/18	92	60 - 140	95	60 - 130	<0.030	ug/g	NC	50
8795479	Dibromochloromethane	2023/07/18	106	60 - 140	107	60 - 130	<0.040	ug/g	NC	50
8795479	Dichlorodifluoromethane (FREON 12)	2023/07/18	109	60 - 140	104	60 - 140	<0.040	ug/g	NC	50
8795479	Ethylbenzene	2023/07/18	90	60 - 140	89	60 - 130	<0.010	ug/g	NC	50
8795479	Ethylene Dibromide	2023/07/18	98	60 - 140	101	60 - 130	<0.040	ug/g	NC	50
8795479	Hexane	2023/07/18	109	60 - 140	105	60 - 130	<0.040	ug/g	NC	50
8795479	Methyl Ethyl Ketone (2-Butanone)	2023/07/18	101	60 - 140	110	60 - 140	<0.40	ug/g	NC	50
8795479	Methyl Isobutyl Ketone	2023/07/18	95	60 - 140	107	60 - 130	<0.40	ug/g	NC	50
8795479	Methyl t-butyl ether (MTBE)	2023/07/18	88	60 - 140	90	60 - 130	<0.040	ug/g	NC	50
8795479	Methylene Chloride(Dichloromethane)	2023/07/18	108	60 - 140	107	60 - 130	<0.049	ug/g	NC	50
8795479	o-Xylene	2023/07/18	89	60 - 140	90	60 - 130	<0.020	ug/g	NC	50
8795479	p+m-Xylene	2023/07/18	92	60 - 140	91	60 - 130	<0.020	ug/g	NC	50
8795479	Styrene	2023/07/18	104	60 - 140	105	60 - 130	<0.040	ug/g	NC	50
8795479	Tetrachloroethylene	2023/07/18	97	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
8795479	Toluene	2023/07/18	99	60 - 140	97	60 - 130	<0.020	ug/g	NC	50
8795479	Total Xylenes	2023/07/18					<0.020	ug/g	NC	50
8795479	trans-1,2-Dichloroethylene	2023/07/18	104	60 - 140	101	60 - 130	<0.040	ug/g	NC	50
8795479	trans-1,3-Dichloropropene	2023/07/18	103	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
8795479	Trichloroethylene	2023/07/18	104	60 - 140	102	60 - 130	<0.010	ug/g	NC	50

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8795479	Trichlorofluoromethane (FREON 11)	2023/07/18	106	60 - 140	101	60 - 130	<0.040	ug/g	NC	50
8795479	Vinyl Chloride	2023/07/18	114	60 - 140	109	60 - 130	<0.019	ug/g	NC	50
8800292	1-Methylnaphthalene	2023/07/20	104	50 - 130	112	50 - 130	<0.0050	ug/g	NC	40
8800292	2-Methylnaphthalene	2023/07/20	97	50 - 130	105	50 - 130	<0.0050	ug/g	NC	40
8800292	Acenaphthene	2023/07/20	98	50 - 130	106	50 - 130	<0.0050	ug/g	NC	40
8800292	Acenaphthylene	2023/07/20	90	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
8800292	Anthracene	2023/07/20	99	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
8800292	Benzo(a)anthracene	2023/07/20	96	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
8800292	Benzo(a)pyrene	2023/07/20	89	50 - 130	93	50 - 130	<0.0050	ug/g	NC	40
8800292	Benzo(b/j)fluoranthene	2023/07/20	91	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
8800292	Benzo(g,h,i)perylene	2023/07/20	91	50 - 130	97	50 - 130	<0.0050	ug/g	NC	40
8800292	Benzo(k)fluoranthene	2023/07/20	95	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
8800292	Chrysene	2023/07/20	97	50 - 130	102	50 - 130	<0.0050	ug/g	NC	40
8800292	Dibenzo(a,h)anthracene	2023/07/20	85	50 - 130	90	50 - 130	<0.0050	ug/g	NC	40
8800292	Fluoranthene	2023/07/20	99	50 - 130	103	50 - 130	<0.0050	ug/g	NC	40
8800292	Fluorene	2023/07/20	105	50 - 130	108	50 - 130	<0.0050	ug/g	NC	40
8800292	Indeno(1,2,3-cd)pyrene	2023/07/20	87	50 - 130	92	50 - 130	<0.0050	ug/g	NC	40
8800292	Naphthalene	2023/07/20	99	50 - 130	109	50 - 130	<0.0050	ug/g	NC	40
8800292	Phenanthrene	2023/07/20	95	50 - 130	99	50 - 130	<0.0050	ug/g	NC	40
8800292	Pyrene	2023/07/20	99	50 - 130	103	50 - 130	<0.0050	ug/g	NC	40
8800541	F4G-sg (Grav. Heavy Hydrocarbons)	2023/07/20	88	65 - 135	102	65 - 135	<100	ug/g	9.7	50

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

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

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

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

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

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

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

VALIDATION SIGNATURE PAGE

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

Cristina Carriere

Cristina Carriere, Senior Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by {0}, {1} responsible for {2} {3} laboratory operations.

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Your Project #: 2103035
Site Location: 424 CHURCHILL AVENUE
Your C.O.C. #: n/a

Attention: Colette Robitaille

Englobe Corp.
Ottawa - Standing Offer
2713 Lancaster Road
Unit 101
Ottawa, ON
CANADA K1B 5R6

Report Date: 2023/07/31
Report #: R7742659
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3L8902
Received: 2023/07/21, 10:52

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum (1)	1	N/A	2023/07/27	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum (1)	1	N/A	2023/07/28		EPA 8260C m
Petroleum Hydrocarbons F2-F4 in Soil (1, 2)	1	2023/07/26	2023/07/28	CAM SOP-00316	CCME CWS m
F4G (CCME Hydrocarbons Gravimetric) (1)	1	2023/07/29	2023/07/29	CAM SOP-00316	CCME PHC-CWS m
Acid Extractable Metals by ICPMS (1)	1	2023/07/26	2023/07/27	CAM SOP-00447	EPA 6020B m
Moisture (1)	1	N/A	2023/07/26	CAM SOP-00445	Carter 2nd ed 51.2 m
PAH Compounds in Soil by GC/MS (SIM) (1)	1	2023/07/26	2023/07/27	CAM SOP-00318	EPA 8270E
Volatile Organic Compounds and F1 PHCs (1)	1	N/A	2023/07/28	CAM SOP-00230	EPA 8260C m

Remarks:

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

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

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

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the

Your Project #: 2103035
Site Location: 424 CHURCHILL AVENUE
Your C.O.C. #: n/a

Attention: Colette Robitaille

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CANADA K1B 5R6

Report Date: 2023/07/31
Report #: R7742659
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3L8902
Received: 2023/07/21, 10:52

reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633
==========
This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

O.REG 153 ICPMS METALS (SOIL)

Bureau Veritas ID		WLV921		
Sampling Date		2023/07/20 09:00		
COC Number		n/a		
	UNITS	MW23-3 SS1	RDL	QC Batch
Metals				
Acid Extractable Antimony (Sb)	ug/g	0.37	0.20	8814117
Acid Extractable Arsenic (As)	ug/g	2.2	1.0	8814117
Acid Extractable Barium (Ba)	ug/g	180	0.50	8814117
Acid Extractable Beryllium (Be)	ug/g	0.32	0.20	8814117
Acid Extractable Boron (B)	ug/g	12	5.0	8814117
Acid Extractable Cadmium (Cd)	ug/g	0.10	0.10	8814117
Acid Extractable Chromium (Cr)	ug/g	14	1.0	8814117
Acid Extractable Cobalt (Co)	ug/g	9.4	0.10	8814117
Acid Extractable Copper (Cu)	ug/g	27	0.50	8814117
Acid Extractable Lead (Pb)	ug/g	46	1.0	8814117
Acid Extractable Molybdenum (Mo)	ug/g	1.3	0.50	8814117
Acid Extractable Nickel (Ni)	ug/g	18	0.50	8814117
Acid Extractable Selenium (Se)	ug/g	<0.50	0.50	8814117
Acid Extractable Silver (Ag)	ug/g	<0.20	0.20	8814117
Acid Extractable Thallium (Tl)	ug/g	0.32	0.050	8814117
Acid Extractable Uranium (U)	ug/g	0.46	0.050	8814117
Acid Extractable Vanadium (V)	ug/g	14	5.0	8814117
Acid Extractable Zinc (Zn)	ug/g	57	5.0	8814117

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

O.REG 153 PAHS (SOIL)

Bureau Veritas ID		WLV921		
Sampling Date		2023/07/20 09:00		
COC Number		n/a		
	UNITS	MW23-3 SS1	RDL	QC Batch
Calculated Parameters				
Methylnaphthalene, 2-(1-)	ug/g	<0.071	0.071	8807809
Polyaromatic Hydrocarbons				
Acenaphthene	ug/g	<0.050	0.050	8815235
Acenaphthylene	ug/g	<0.050	0.050	8815235
Anthracene	ug/g	0.059	0.050	8815235
Benzo(a)anthracene	ug/g	0.21	0.050	8815235
Benzo(a)pyrene	ug/g	0.19	0.050	8815235
Benzo(b/j)fluoranthene	ug/g	0.26	0.050	8815235
Benzo(g,h,i)perylene	ug/g	0.12	0.050	8815235
Benzo(k)fluoranthene	ug/g	0.095	0.050	8815235
Chrysene	ug/g	0.16	0.050	8815235
Dibenzo(a,h)anthracene	ug/g	<0.050	0.050	8815235
Fluoranthene	ug/g	0.41	0.050	8815235
Fluorene	ug/g	<0.050	0.050	8815235
Indeno(1,2,3-cd)pyrene	ug/g	0.12	0.050	8815235
1-Methylnaphthalene	ug/g	<0.050	0.050	8815235
2-Methylnaphthalene	ug/g	<0.050	0.050	8815235
Naphthalene	ug/g	<0.050	0.050	8815235
Phenanthrene	ug/g	0.20	0.050	8815235
Pyrene	ug/g	0.34	0.050	8815235
Surrogate Recovery (%)				
D10-Anthracene	%	101		8815235
D14-Terphenyl (FS)	%	96		8815235
D8-Acenaphthylene	%	89		8815235

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas ID		WLV921		
Sampling Date		2023/07/20 09:00		
COC Number		n/a		
	UNITS	MW23-3 SS1	RDL	QC Batch
Calculated Parameters				
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	0.050	8807810
Volatile Organics				
Acetone (2-Propanone)	ug/g	<0.49	0.49	8811519
Benzene	ug/g	<0.0060	0.0060	8811519
Bromodichloromethane	ug/g	<0.040	0.040	8811519
Bromoform	ug/g	<0.040	0.040	8811519
Bromomethane	ug/g	<0.040	0.040	8811519
Carbon Tetrachloride	ug/g	<0.040	0.040	8811519
Chlorobenzene	ug/g	<0.040	0.040	8811519
Chloroform	ug/g	<0.040	0.040	8811519
Dibromochloromethane	ug/g	<0.040	0.040	8811519
1,2-Dichlorobenzene	ug/g	<0.040	0.040	8811519
1,3-Dichlorobenzene	ug/g	<0.040	0.040	8811519
1,4-Dichlorobenzene	ug/g	<0.040	0.040	8811519
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	0.040	8811519
1,1-Dichloroethane	ug/g	<0.040	0.040	8811519
1,2-Dichloroethane	ug/g	<0.049	0.049	8811519
1,1-Dichloroethylene	ug/g	<0.040	0.040	8811519
cis-1,2-Dichloroethylene	ug/g	<0.040	0.040	8811519
trans-1,2-Dichloroethylene	ug/g	<0.040	0.040	8811519
1,2-Dichloropropane	ug/g	<0.040	0.040	8811519
cis-1,3-Dichloropropene	ug/g	<0.030	0.030	8811519
trans-1,3-Dichloropropene	ug/g	<0.040	0.040	8811519
Ethylbenzene	ug/g	<0.010	0.010	8811519
Ethylene Dibromide	ug/g	<0.040	0.040	8811519
Hexane	ug/g	0.062	0.040	8811519
Methylene Chloride(Dichloromethane)	ug/g	<0.049	0.049	8811519
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	0.40	8811519
Methyl Isobutyl Ketone	ug/g	<0.40	0.40	8811519
Methyl t-butyl ether (MTBE)	ug/g	<0.040	0.040	8811519
Styrene	ug/g	<0.040	0.040	8811519
1,1,1,2-Tetrachloroethane	ug/g	<0.040	0.040	8811519
1,1,2,2-Tetrachloroethane	ug/g	<0.040	0.040	8811519

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas ID		WLV921		
Sampling Date		2023/07/20 09:00		
COC Number		n/a		
	UNITS	MW23-3 SS1	RDL	QC Batch
Tetrachloroethylene	ug/g	0.23	0.040	8811519
Toluene	ug/g	<0.020	0.020	8811519
1,1,1-Trichloroethane	ug/g	<0.040	0.040	8811519
1,1,2-Trichloroethane	ug/g	<0.040	0.040	8811519
Trichloroethylene	ug/g	<0.010	0.010	8811519
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	0.040	8811519
Vinyl Chloride	ug/g	<0.019	0.019	8811519
p+m-Xylene	ug/g	<0.020	0.020	8811519
o-Xylene	ug/g	<0.020	0.020	8811519
Total Xylenes	ug/g	<0.020	0.020	8811519
F1 (C6-C10)	ug/g	<10	10	8811519
F1 (C6-C10) - BTEX	ug/g	<10	10	8811519
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	8814600
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	8814600
F4 (C34-C50 Hydrocarbons)	ug/g	170	50	8814600
Reached Baseline at C50	ug/g	No		8814600
Surrogate Recovery (%)				
o-Terphenyl	%	105		8814600
4-Bromofluorobenzene	%	94		8811519
D10-o-Xylene	%	100		8811519
D4-1,2-Dichloroethane	%	102		8811519
D8-Toluene	%	95		8811519

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas Job #: C3L8902
Report Date: 2023/07/31

Englobe Corp.
Client Project #: 2103035
Site Location: 424 CHURCHILL AVENUE
Sampler Initials: JB

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WLV921		
Sampling Date		2023/07/20 09:00		
COC Number		n/a		
	UNITS	MW23-3 SS1	RDL	QC Batch
Inorganics				
Moisture	%	8.6	1.0	8813903

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WLV921	WLV921		
Sampling Date		2023/07/20 09:00	2023/07/20 09:00		
COC Number		n/a	n/a		
	UNITS	MW23-3 SS1	MW23-3 SS1 Lab-Dup	RDL	QC Batch
F2-F4 Hydrocarbons					
F4G-sg (Grav. Heavy Hydrocarbons)	ug/g	640	640	100	8820890

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas Job #: C3L8902
Report Date: 2023/07/31

Englobe Corp.
Client Project #: 2103035
Site Location: 424 CHURCHILL AVENUE
Sampler Initials: JB

TEST SUMMARY

Bureau Veritas ID: WLV921
Sample ID: MW23-3 SS1
Matrix: Soil

Collected: 2023/07/20
Shipped:
Received: 2023/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8807809	N/A	2023/07/27	Automated Statchk
1,3-Dichloropropene Sum	CALC	8807810	N/A	2023/07/28	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8814600	2023/07/26	2023/07/28	Agnieszka Brzuzy-Snopko
F4G (CCME Hydrocarbons Gravimetric)	BAL	8820890	2023/07/29	2023/07/29	Alketa Vrapi
Acid Extractable Metals by ICPMS	ICP/MS	8814117	2023/07/26	2023/07/27	Daniel Teclu
Moisture	BAL	8813903	N/A	2023/07/26	Simrat Bhathal
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8815235	2023/07/26	2023/07/27	Mitesh Raj
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8811519	N/A	2023/07/28	Juan Pangilinan

Bureau Veritas ID: WLV921 Dup
Sample ID: MW23-3 SS1
Matrix: Soil

Collected: 2023/07/20
Shipped:
Received: 2023/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
F4G (CCME Hydrocarbons Gravimetric)	BAL	8820890	2023/07/29	2023/07/29	Alketa Vrapi

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	5.7°C

Sample WLV921 [MW23-3 SS1] : PAH ANALYSIS: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Results relate only to the items tested.

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8811519	4-Bromofluorobenzene	2023/07/27	100	60 - 140	99	60 - 140	94	%		
8811519	D10-o-Xylene	2023/07/27	119	60 - 130	99	60 - 130	102	%		
8811519	D4-1,2-Dichloroethane	2023/07/27	98	60 - 140	100	60 - 140	101	%		
8811519	D8-Toluene	2023/07/27	102	60 - 140	101	60 - 140	96	%		
8814600	o-Terphenyl	2023/07/28	105	60 - 130	107	60 - 130	101	%		
8815235	D10-Anthracene	2023/07/27	102	50 - 130	105	50 - 130	106	%		
8815235	D14-Terphenyl (FS)	2023/07/27	98	50 - 130	102	50 - 130	101	%		
8815235	D8-Acenaphthylene	2023/07/27	94	50 - 130	98	50 - 130	97	%		
8811519	1,1,1,2-Tetrachloroethane	2023/07/27	89	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
8811519	1,1,1-Trichloroethane	2023/07/27	91	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
8811519	1,1,2,2-Tetrachloroethane	2023/07/27	86	60 - 140	89	60 - 130	<0.040	ug/g	NC	50
8811519	1,1,2-Trichloroethane	2023/07/27	91	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8811519	1,1-Dichloroethane	2023/07/27	88	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
8811519	1,1-Dichloroethylene	2023/07/27	93	60 - 140	99	60 - 130	<0.040	ug/g	NC	50
8811519	1,2-Dichlorobenzene	2023/07/27	87	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8811519	1,2-Dichloroethane	2023/07/27	84	60 - 140	89	60 - 130	<0.049	ug/g	NC	50
8811519	1,2-Dichloropropane	2023/07/27	86	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
8811519	1,3-Dichlorobenzene	2023/07/27	85	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8811519	1,4-Dichlorobenzene	2023/07/27	97	60 - 140	109	60 - 130	<0.040	ug/g	NC	50
8811519	Acetone (2-Propanone)	2023/07/27	91	60 - 140	98	60 - 140	<0.49	ug/g	NC	50
8811519	Benzene	2023/07/27	84	60 - 140	89	60 - 130	<0.0060	ug/g	NC	50
8811519	Bromodichloromethane	2023/07/27	89	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8811519	Bromoform	2023/07/27	87	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
8811519	Bromomethane	2023/07/27	81	60 - 140	96	60 - 140	<0.040	ug/g	NC	50
8811519	Carbon Tetrachloride	2023/07/27	88	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
8811519	Chlorobenzene	2023/07/27	89	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
8811519	Chloroform	2023/07/27	88	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
8811519	cis-1,2-Dichloroethylene	2023/07/27	88	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
8811519	cis-1,3-Dichloropropene	2023/07/27	62	60 - 140	92	60 - 130	<0.030	ug/g	NC	50
8811519	Dibromochloromethane	2023/07/27	86	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
8811519	Dichlorodifluoromethane (FREON 12)	2023/07/27	96	60 - 140	97	60 - 140	<0.040	ug/g	NC	50
8811519	Ethylbenzene	2023/07/27	81	60 - 140	87	60 - 130	<0.010	ug/g	NC	50

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8811519	Ethylene Dibromide	2023/07/27	86	60 - 140	91	60 - 130	<0.040	ug/g	NC	50
8811519	F1 (C6-C10) - BTEX	2023/07/27					<10	ug/g	NC	30
8811519	F1 (C6-C10)	2023/07/27	87	60 - 140	87	80 - 120	<10	ug/g	NC	30
8811519	Hexane	2023/07/27	95	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
8811519	Methyl Ethyl Ketone (2-Butanone)	2023/07/27	96	60 - 140	102	60 - 140	<0.40	ug/g	NC	50
8811519	Methyl Isobutyl Ketone	2023/07/27	92	60 - 140	100	60 - 130	<0.40	ug/g	NC	50
8811519	Methyl t-butyl ether (MTBE)	2023/07/27	85	60 - 140	91	60 - 130	<0.040	ug/g	NC	50
8811519	Methylene Chloride(Dichloromethane)	2023/07/27	90	60 - 140	96	60 - 130	<0.049	ug/g	NC	50
8811519	o-Xylene	2023/07/27	83	60 - 140	89	60 - 130	<0.020	ug/g	NC	50
8811519	p+m-Xylene	2023/07/27	83	60 - 140	91	60 - 130	<0.020	ug/g	NC	50
8811519	Styrene	2023/07/27	92	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
8811519	Tetrachloroethylene	2023/07/27	79	60 - 140	85	60 - 130	<0.040	ug/g	NC	50
8811519	Toluene	2023/07/27	89	60 - 140	95	60 - 130	<0.020	ug/g	NC	50
8811519	Total Xylenes	2023/07/27					<0.020	ug/g	NC	50
8811519	trans-1,2-Dichloroethylene	2023/07/27	85	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
8811519	trans-1,3-Dichloropropene	2023/07/27	64	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
8811519	Trichloroethylene	2023/07/27	91	60 - 140	99	60 - 130	<0.010	ug/g	NC	50
8811519	Trichlorofluoromethane (FREON 11)	2023/07/27	91	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
8811519	Vinyl Chloride	2023/07/27	95	60 - 140	98	60 - 130	<0.019	ug/g	NC	50
8813903	Moisture	2023/07/26							2.3	20
8814117	Acid Extractable Antimony (Sb)	2023/07/27	97	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
8814117	Acid Extractable Arsenic (As)	2023/07/27	101	75 - 125	98	80 - 120	<1.0	ug/g	2.2	30
8814117	Acid Extractable Barium (Ba)	2023/07/27	NC	75 - 125	94	80 - 120	<0.50	ug/g	0.51	30
8814117	Acid Extractable Beryllium (Be)	2023/07/27	94	75 - 125	93	80 - 120	<0.20	ug/g	5.9	30
8814117	Acid Extractable Boron (B)	2023/07/27	92	75 - 125	91	80 - 120	<5.0	ug/g	5.0	30
8814117	Acid Extractable Cadmium (Cd)	2023/07/27	100	75 - 125	97	80 - 120	<0.10	ug/g	NC	30
8814117	Acid Extractable Chromium (Cr)	2023/07/27	104	75 - 125	97	80 - 120	<1.0	ug/g	5.7	30
8814117	Acid Extractable Cobalt (Co)	2023/07/27	99	75 - 125	97	80 - 120	<0.10	ug/g	6.7	30
8814117	Acid Extractable Copper (Cu)	2023/07/27	93	75 - 125	93	80 - 120	<0.50	ug/g	3.8	30
8814117	Acid Extractable Lead (Pb)	2023/07/27	98	75 - 125	98	80 - 120	<1.0	ug/g	5.5	30
8814117	Acid Extractable Molybdenum (Mo)	2023/07/27	99	75 - 125	94	80 - 120	<0.50	ug/g	NC	30
8814117	Acid Extractable Nickel (Ni)	2023/07/27	101	75 - 125	100	80 - 120	<0.50	ug/g	4.7	30

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8814117	Acid Extractable Selenium (Se)	2023/07/27	103	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
8814117	Acid Extractable Silver (Ag)	2023/07/27	105	75 - 125	102	80 - 120	<0.20	ug/g	NC	30
8814117	Acid Extractable Thallium (Tl)	2023/07/27	102	75 - 125	103	80 - 120	<0.050	ug/g	4.2	30
8814117	Acid Extractable Uranium (U)	2023/07/27	102	75 - 125	99	80 - 120	<0.050	ug/g	5.0	30
8814117	Acid Extractable Vanadium (V)	2023/07/27	106	75 - 125	95	80 - 120	<5.0	ug/g	6.5	30
8814117	Acid Extractable Zinc (Zn)	2023/07/27	99	75 - 125	100	80 - 120	<5.0	ug/g	3.1	30
8814600	F2 (C10-C16 Hydrocarbons)	2023/07/28	116	60 - 130	109	80 - 120	<10	ug/g	NC	30
8814600	F3 (C16-C34 Hydrocarbons)	2023/07/28	119	60 - 130	117	80 - 120	<50	ug/g	NC	30
8814600	F4 (C34-C50 Hydrocarbons)	2023/07/28	117	60 - 130	115	80 - 120	<50	ug/g	NC	30
8815235	1-Methylnaphthalene	2023/07/27	113	50 - 130	117	50 - 130	<0.0050	ug/g	NC	40
8815235	2-Methylnaphthalene	2023/07/27	104	50 - 130	108	50 - 130	<0.0050	ug/g	NC	40
8815235	Acenaphthene	2023/07/27	102	50 - 130	106	50 - 130	<0.0050	ug/g	NC	40
8815235	Acenaphthylene	2023/07/27	100	50 - 130	104	50 - 130	<0.0050	ug/g	NC	40
8815235	Anthracene	2023/07/27	106	50 - 130	110	50 - 130	<0.0050	ug/g	NC	40
8815235	Benzo(a)anthracene	2023/07/27	107	50 - 130	110	50 - 130	<0.0050	ug/g	NC	40
8815235	Benzo(a)pyrene	2023/07/27	100	50 - 130	103	50 - 130	<0.0050	ug/g	NC	40
8815235	Benzo(b/j)fluoranthene	2023/07/27	104	50 - 130	107	50 - 130	<0.0050	ug/g	NC	40
8815235	Benzo(g,h,i)perylene	2023/07/27	110	50 - 130	114	50 - 130	<0.0050	ug/g	NC	40
8815235	Benzo(k)fluoranthene	2023/07/27	101	50 - 130	106	50 - 130	<0.0050	ug/g	NC	40
8815235	Chrysene	2023/07/27	104	50 - 130	108	50 - 130	<0.0050	ug/g	NC	40
8815235	Dibenzo(a,h)anthracene	2023/07/27	106	50 - 130	110	50 - 130	<0.0050	ug/g	NC	40
8815235	Fluoranthene	2023/07/27	105	50 - 130	109	50 - 130	<0.0050	ug/g	NC	40
8815235	Fluorene	2023/07/27	102	50 - 130	105	50 - 130	<0.0050	ug/g	NC	40
8815235	Indeno(1,2,3-cd)pyrene	2023/07/27	105	50 - 130	108	50 - 130	<0.0050	ug/g	NC	40
8815235	Naphthalene	2023/07/27	100	50 - 130	104	50 - 130	<0.0050	ug/g	NC	40
8815235	Phenanthrene	2023/07/27	102	50 - 130	105	50 - 130	<0.0050	ug/g	NC	40
8815235	Pyrene	2023/07/27	105	50 - 130	110	50 - 130	<0.0050	ug/g	NC	40

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8820890	F4G-sg (Grav. Heavy Hydrocarbons)	2023/07/29	73	65 - 135	101	65 - 135	<100	ug/g	0	50

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

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

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

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

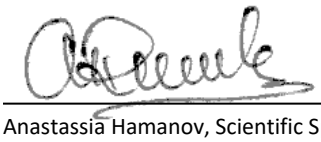
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

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

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

VALIDATION SIGNATURE PAGE

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



Anastassia Hamanov, Scientific Specialist

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Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Your Project #: 02103035.000
Site#: 424 Churchill Avenue North
Site Location: 424 Churchill Avenue North, Otawa
Your C.O.C. #: 947903-02-01

Attention: Colette Robitaille

Englobe Corp.
Ottawa - Standing Offer
2713 Lancaster Road
Unit 101
Ottawa, ON
CANADA K1B 5R6

Report Date: 2023/08/31
Report #: R7790727
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3O7276
Received: 2023/08/15, 14:01

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum (1)	1	N/A	2023/08/28	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum (1)	3	N/A	2023/08/28		EPA 8260C m
Petroleum Hydrocarbons F2-F4 in Water (1, 2)	1	2023/08/24	2023/08/26	CAM SOP-00316	CCME PHC-CWS m
Dissolved Metals by ICPMS (1)	1	N/A	2023/08/29	CAM SOP-00447	EPA 6020B m
PAH Compounds in Water by GC/MS (SIM) (1)	1	2023/08/24	2023/08/26	CAM SOP-00318	EPA 8270E
Volatile Organic Compounds and F1 PHCs (1)	1	N/A	2023/08/25	CAM SOP-00230	EPA 8260C m
Volatile Organic Compounds in Water (1)	2	N/A	2023/08/25	CAM SOP-00228	EPA 8260D

Remarks:

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

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

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

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s

Your Project #: 02103035.000
Site#: 424 Churchill Avenue North
Site Location: 424 Churchill Avenue North, Otawa
Your C.O.C. #: 947903-02-01

Attention: Colette Robitaille

Englobe Corp.
Ottawa - Standing Offer
2713 Lancaster Road
Unit 101
Ottawa, ON
CANADA K1B 5R6

Report Date: 2023/08/31
Report #: R7790727
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3O7276

Received: 2023/08/15, 14:01

Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas Job #: C3O7276
Report Date: 2023/08/31

Englobe Corp.
Client Project #: 02103035.000
Site Location: 424 Churchill Avenue North, Otawa
Sampler Initials: JB

O.REG 153 DISSOLVED ICPMS METALS (WATER)

Bureau Veritas ID		WRW144	WRW144		
Sampling Date		2023/08/15 11:00	2023/08/15 11:00		
COC Number		947903-02-01	947903-02-01		
	UNITS	MW21-3	MW21-3 Lab-Dup	RDL	QC Batch
Metals					
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	0.50	8874818
Dissolved Arsenic (As)	ug/L	<1.0	<1.0	1.0	8874818
Dissolved Barium (Ba)	ug/L	64	63	2.0	8874818
Dissolved Beryllium (Be)	ug/L	<0.40	<0.40	0.40	8874818
Dissolved Boron (B)	ug/L	250	250	10	8874818
Dissolved Cadmium (Cd)	ug/L	<0.090	<0.090	0.090	8874818
Dissolved Chromium (Cr)	ug/L	<5.0	<5.0	5.0	8874818
Dissolved Cobalt (Co)	ug/L	<0.50	<0.50	0.50	8874818
Dissolved Copper (Cu)	ug/L	3.4	3.4	0.90	8874818
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	0.50	8874818
Dissolved Molybdenum (Mo)	ug/L	8.9	8.9	0.50	8874818
Dissolved Nickel (Ni)	ug/L	5.5	5.8	1.0	8874818
Dissolved Selenium (Se)	ug/L	<2.0	<2.0	2.0	8874818
Dissolved Silver (Ag)	ug/L	<0.090	<0.090	0.090	8874818
Dissolved Sodium (Na)	ug/L	340000	360000	100	8874818
Dissolved Thallium (Tl)	ug/L	0.38	0.38	0.050	8874818
Dissolved Uranium (U)	ug/L	1.8	1.8	0.10	8874818
Dissolved Vanadium (V)	ug/L	<0.50	<0.50	0.50	8874818
Dissolved Zinc (Zn)	ug/L	6.1	6.1	5.0	8874818

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

O.REG 153 PAHS (WATER)

Bureau Veritas ID		WRW144		
Sampling Date		2023/08/15 11:00		
COC Number		947903-02-01		
	UNITS	MW21-3	RDL	QC Batch
Calculated Parameters				
Methylnaphthalene, 2-(1-)	ug/L	<0.071	0.071	8870704
Polyaromatic Hydrocarbons				
Acenaphthene	ug/L	<0.050	0.050	8874330
Acenaphthylene	ug/L	<0.050	0.050	8874330
Anthracene	ug/L	<0.050	0.050	8874330
Benzo(a)anthracene	ug/L	<0.050	0.050	8874330
Benzo(a)pyrene	ug/L	<0.0090	0.0090	8874330
Benzo(b/j)fluoranthene	ug/L	<0.050	0.050	8874330
Benzo(g,h,i)perylene	ug/L	<0.050	0.050	8874330
Benzo(k)fluoranthene	ug/L	<0.050	0.050	8874330
Chrysene	ug/L	<0.050	0.050	8874330
Dibenzo(a,h)anthracene	ug/L	<0.050	0.050	8874330
Fluoranthene	ug/L	<0.050	0.050	8874330
Fluorene	ug/L	<0.050	0.050	8874330
Indeno(1,2,3-cd)pyrene	ug/L	<0.050	0.050	8874330
1-Methylnaphthalene	ug/L	<0.050	0.050	8874330
2-Methylnaphthalene	ug/L	<0.050	0.050	8874330
Naphthalene	ug/L	<0.050	0.050	8874330
Phenanthrene	ug/L	<0.030	0.030	8874330
Pyrene	ug/L	<0.050	0.050	8874330
Surrogate Recovery (%)				
D10-Anthracene	%	109		8874330
D14-Terphenyl (FS)	%	94		8874330
D8-Acenaphthylene	%	94		8874330

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas ID		WRW144		
Sampling Date		2023/08/15 11:00		
COC Number		947903-02-01		
	UNITS	MW21-3	RDL	QC Batch
Calculated Parameters				
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	8870701
Volatile Organics				
Acetone (2-Propanone)	ug/L	<10	10	8874251
Benzene	ug/L	<0.17	0.17	8874251
Bromodichloromethane	ug/L	<0.50	0.50	8874251
Bromoform	ug/L	<1.0	1.0	8874251
Bromomethane	ug/L	<0.50	0.50	8874251
Carbon Tetrachloride	ug/L	<0.20	0.20	8874251
Chlorobenzene	ug/L	<0.20	0.20	8874251
Chloroform	ug/L	0.27	0.20	8874251
Dibromochloromethane	ug/L	<0.50	0.50	8874251
1,2-Dichlorobenzene	ug/L	<0.50	0.50	8874251
1,3-Dichlorobenzene	ug/L	<0.50	0.50	8874251
1,4-Dichlorobenzene	ug/L	<0.50	0.50	8874251
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	8874251
1,1-Dichloroethane	ug/L	<0.20	0.20	8874251
1,2-Dichloroethane	ug/L	<0.50	0.50	8874251
1,1-Dichloroethylene	ug/L	<0.20	0.20	8874251
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	8874251
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	8874251
1,2-Dichloropropane	ug/L	<0.20	0.20	8874251
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	8874251
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	8874251
Ethylbenzene	ug/L	<0.20	0.20	8874251
Ethylene Dibromide	ug/L	<0.20	0.20	8874251
Hexane	ug/L	<1.0	1.0	8874251
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	8874251
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	8874251
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	8874251
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	8874251
Styrene	ug/L	<0.50	0.50	8874251
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	8874251
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	8874251

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas ID		WRW144		
Sampling Date		2023/08/15 11:00		
COC Number		947903-02-01		
	UNITS	MW21-3	RDL	QC Batch
Tetrachloroethylene	ug/L	2.4	0.20	8874251
Toluene	ug/L	<0.20	0.20	8874251
1,1,1-Trichloroethane	ug/L	<0.20	0.20	8874251
1,1,2-Trichloroethane	ug/L	<0.50	0.50	8874251
Trichloroethylene	ug/L	0.72	0.20	8874251
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	8874251
Vinyl Chloride	ug/L	<0.20	0.20	8874251
p+m-Xylene	ug/L	<0.20	0.20	8874251
o-Xylene	ug/L	<0.20	0.20	8874251
Total Xylenes	ug/L	<0.20	0.20	8874251
F1 (C6-C10)	ug/L	<25	25	8874251
F1 (C6-C10) - BTEX	ug/L	<25	25	8874251
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	8874333
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	8874333
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	8874333
Reached Baseline at C50	ug/L	Yes		8874333
Surrogate Recovery (%)				
o-Terphenyl	%	100		8874333
4-Bromofluorobenzene	%	98		8874251
D4-1,2-Dichloroethane	%	108		8874251
D8-Toluene	%	92		8874251

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		WRW145	WRW146		
Sampling Date		2023/08/15 11:00	2023/08/15 11:00		
COC Number		947903-02-01	947903-02-01		
	UNITS	F. BLANK	T. BLANK	RDL	QC Batch
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	0.50	8870701
Volatile Organics					
Acetone (2-Propanone)	ug/L	<10	<10	10	8874098
Benzene	ug/L	<0.20	<0.20	0.20	8874098
Bromodichloromethane	ug/L	<0.50	<0.50	0.50	8874098
Bromoform	ug/L	<1.0	<1.0	1.0	8874098
Bromomethane	ug/L	<0.50	<0.50	0.50	8874098
Carbon Tetrachloride	ug/L	<0.19	<0.19	0.19	8874098
Chlorobenzene	ug/L	<0.20	<0.20	0.20	8874098
Chloroform	ug/L	<0.20	<0.20	0.20	8874098
Dibromochloromethane	ug/L	<0.50	<0.50	0.50	8874098
1,2-Dichlorobenzene	ug/L	<0.40	<0.40	0.40	8874098
1,3-Dichlorobenzene	ug/L	<0.40	<0.40	0.40	8874098
1,4-Dichlorobenzene	ug/L	<0.40	<0.40	0.40	8874098
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	1.0	8874098
1,1-Dichloroethane	ug/L	<0.20	<0.20	0.20	8874098
1,2-Dichloroethane	ug/L	<0.49	<0.49	0.49	8874098
1,1-Dichloroethylene	ug/L	<0.20	<0.20	0.20	8874098
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	8874098
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	8874098
1,2-Dichloropropane	ug/L	<0.20	<0.20	0.20	8874098
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	0.30	8874098
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	0.40	8874098
Ethylbenzene	ug/L	<0.20	<0.20	0.20	8874098
Ethylene Dibromide	ug/L	<0.19	<0.19	0.19	8874098
Hexane	ug/L	<1.0	<1.0	1.0	8874098
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	2.0	8874098
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	10	8874098
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	5.0	8874098
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	0.50	8874098
Styrene	ug/L	<0.40	<0.40	0.40	8874098
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	8874098
1,1,2,2-Tetrachloroethane	ug/L	<0.40	<0.40	0.40	8874098

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		WRW145	WRW146		
Sampling Date		2023/08/15 11:00	2023/08/15 11:00		
COC Number		947903-02-01	947903-02-01		
	UNITS	F. BLANK	T. BLANK	RDL	QC Batch
Tetrachloroethylene	ug/L	<0.20	<0.20	0.20	8874098
Toluene	ug/L	<0.20	<0.20	0.20	8874098
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	0.20	8874098
1,1,2-Trichloroethane	ug/L	<0.40	<0.40	0.40	8874098
Trichloroethylene	ug/L	<0.20	<0.20	0.20	8874098
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	0.50	8874098
Vinyl Chloride	ug/L	<0.20	<0.20	0.20	8874098
p+m-Xylene	ug/L	<0.20	<0.20	0.20	8874098
o-Xylene	ug/L	<0.20	<0.20	0.20	8874098
Total Xylenes	ug/L	<0.20	<0.20	0.20	8874098
Surrogate Recovery (%)					
4-Bromofluorobenzene	%	101	100		8874098
D4-1,2-Dichloroethane	%	108	107		8874098
D8-Toluene	%	92	92		8874098

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas Job #: C3O7276
Report Date: 2023/08/31

Englobe Corp.
Client Project #: 02103035.000
Site Location: 424 Churchill Avenue North, Otawa
Sampler Initials: JB

TEST SUMMARY

Bureau Veritas ID: WRW144
Sample ID: MW21-3
Matrix: Water

Collected: 2023/08/15
Shipped:
Received: 2023/08/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8870704	N/A	2023/08/28	Automated Statchk
1,3-Dichloropropene Sum	CALC	8870701	N/A	2023/08/28	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8874333	2023/08/24	2023/08/26	Dennis Ngondu
Dissolved Metals by ICPMS	ICP/MS	8874818	N/A	2023/08/29	Nan Raykha
PAH Compounds in Water by GC/MS (SIM)	GC/MS	8874330	2023/08/24	2023/08/26	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8874251	N/A	2023/08/25	Juan Pangilinan

Bureau Veritas ID: WRW144 Dup
Sample ID: MW21-3
Matrix: Water

Collected: 2023/08/15
Shipped:
Received: 2023/08/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS	ICP/MS	8874818	N/A	2023/08/29	Nan Raykha

Bureau Veritas ID: WRW145
Sample ID: F. BLANK
Matrix: Water

Collected: 2023/08/15
Shipped:
Received: 2023/08/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	8870701	N/A	2023/08/28	Automated Statchk
Volatile Organic Compounds in Water	GC/MS	8874098	N/A	2023/08/25	Gabriella Morrone

Bureau Veritas ID: WRW146
Sample ID: T. BLANK
Matrix: Water

Collected: 2023/08/15
Shipped:
Received: 2023/08/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	8870701	N/A	2023/08/28	Automated Statchk
Volatile Organic Compounds in Water	GC/MS	8874098	N/A	2023/08/25	Gabriella Morrone

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	13.0°C

Results relate only to the items tested.

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8874098	4-Bromofluorobenzene	2023/08/25	100	70 - 130	100	70 - 130	102	%		
8874098	D4-1,2-Dichloroethane	2023/08/25	101	70 - 130	101	70 - 130	105	%		
8874098	D8-Toluene	2023/08/25	103	70 - 130	103	70 - 130	93	%		
8874251	4-Bromofluorobenzene	2023/08/25	99	70 - 130	101	70 - 130	97	%		
8874251	D4-1,2-Dichloroethane	2023/08/25	116	70 - 130	111	70 - 130	104	%		
8874251	D8-Toluene	2023/08/25	103	70 - 130	103	70 - 130	92	%		
8874330	D10-Anthracene	2023/08/25	103	50 - 130	114	50 - 130	115	%		
8874330	D14-Terphenyl (FS)	2023/08/25	107	50 - 130	113	50 - 130	117	%		
8874330	D8-Acenaphthylene	2023/08/25	89	50 - 130	94	50 - 130	92	%		
8874333	o-Terphenyl	2023/08/26	102	60 - 130	99	60 - 130	98	%		
8874098	1,1,1,2-Tetrachloroethane	2023/08/25	97	70 - 130	98	70 - 130	<0.50	ug/L		
8874098	1,1,1-Trichloroethane	2023/08/25	94	70 - 130	95	70 - 130	<0.20	ug/L		
8874098	1,1,2,2-Tetrachloroethane	2023/08/25	101	70 - 130	102	70 - 130	<0.40	ug/L		
8874098	1,1,2-Trichloroethane	2023/08/25	107	70 - 130	108	70 - 130	<0.40	ug/L		
8874098	1,1-Dichloroethane	2023/08/25	99	70 - 130	101	70 - 130	<0.20	ug/L		
8874098	1,1-Dichloroethylene	2023/08/25	97	70 - 130	99	70 - 130	<0.20	ug/L		
8874098	1,2-Dichlorobenzene	2023/08/25	94	70 - 130	96	70 - 130	<0.40	ug/L		
8874098	1,2-Dichloroethane	2023/08/25	98	70 - 130	100	70 - 130	<0.49	ug/L		
8874098	1,2-Dichloropropane	2023/08/25	103	70 - 130	105	70 - 130	<0.20	ug/L		
8874098	1,3-Dichlorobenzene	2023/08/25	94	70 - 130	95	70 - 130	<0.40	ug/L		
8874098	1,4-Dichlorobenzene	2023/08/25	92	70 - 130	94	70 - 130	<0.40	ug/L		
8874098	Acetone (2-Propanone)	2023/08/25	104	60 - 140	108	60 - 140	<10	ug/L		
8874098	Benzene	2023/08/25	95	70 - 130	97	70 - 130	<0.20	ug/L		
8874098	Bromodichloromethane	2023/08/25	95	70 - 130	97	70 - 130	<0.50	ug/L		
8874098	Bromoform	2023/08/25	95	70 - 130	97	70 - 130	<1.0	ug/L		
8874098	Bromomethane	2023/08/25	92	60 - 140	93	60 - 140	<0.50	ug/L		
8874098	Carbon Tetrachloride	2023/08/25	93	70 - 130	93	70 - 130	<0.19	ug/L		
8874098	Chlorobenzene	2023/08/25	95	70 - 130	96	70 - 130	<0.20	ug/L		
8874098	Chloroform	2023/08/25	95	70 - 130	97	70 - 130	<0.20	ug/L		
8874098	cis-1,2-Dichloroethylene	2023/08/25	99	70 - 130	101	70 - 130	<0.50	ug/L		
8874098	cis-1,3-Dichloropropene	2023/08/25	100	70 - 130	100	70 - 130	<0.30	ug/L		
8874098	Dibromochloromethane	2023/08/25	97	70 - 130	98	70 - 130	<0.50	ug/L		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8874098	Dichlorodifluoromethane (FREON 12)	2023/08/25	87	60 - 140	89	60 - 140	<1.0	ug/L		
8874098	Ethylbenzene	2023/08/25	94	70 - 130	95	70 - 130	<0.20	ug/L		
8874098	Ethylene Dibromide	2023/08/25	98	70 - 130	100	70 - 130	<0.19	ug/L		
8874098	Hexane	2023/08/25	104	70 - 130	105	70 - 130	<1.0	ug/L		
8874098	Methyl Ethyl Ketone (2-Butanone)	2023/08/25	116	60 - 140	119	60 - 140	<10	ug/L		
8874098	Methyl Isobutyl Ketone	2023/08/25	117	70 - 130	119	70 - 130	<5.0	ug/L		
8874098	Methyl t-butyl ether (MTBE)	2023/08/25	96	70 - 130	98	70 - 130	<0.50	ug/L		
8874098	Methylene Chloride(Dichloromethane)	2023/08/25	98	70 - 130	99	70 - 130	<2.0	ug/L		
8874098	o-Xylene	2023/08/25	92	70 - 130	96	70 - 130	<0.20	ug/L		
8874098	p+m-Xylene	2023/08/25	95	70 - 130	97	70 - 130	<0.20	ug/L		
8874098	Styrene	2023/08/25	97	70 - 130	100	70 - 130	<0.40	ug/L		
8874098	Tetrachloroethylene	2023/08/25	96	70 - 130	97	70 - 130	<0.20	ug/L		
8874098	Toluene	2023/08/25	97	70 - 130	98	70 - 130	<0.20	ug/L	NC	30
8874098	Total Xylenes	2023/08/25					<0.20	ug/L		
8874098	trans-1,2-Dichloroethylene	2023/08/25	98	70 - 130	99	70 - 130	<0.50	ug/L		
8874098	trans-1,3-Dichloropropene	2023/08/25	106	70 - 130	104	70 - 130	<0.40	ug/L		
8874098	Trichloroethylene	2023/08/25	95	70 - 130	96	70 - 130	<0.20	ug/L		
8874098	Trichlorofluoromethane (FREON 11)	2023/08/25	88	70 - 130	88	70 - 130	<0.50	ug/L		
8874098	Vinyl Chloride	2023/08/25	93	70 - 130	96	70 - 130	<0.20	ug/L		
8874251	1,1,1,2-Tetrachloroethane	2023/08/25	96	70 - 130	101	70 - 130	<0.50	ug/L	NC	30
8874251	1,1,1-Trichloroethane	2023/08/25	95	70 - 130	104	70 - 130	<0.20	ug/L	NC	30
8874251	1,1,2,2-Tetrachloroethane	2023/08/25	99	70 - 130	99	70 - 130	<0.50	ug/L	NC	30
8874251	1,1,2-Trichloroethane	2023/08/25	105	70 - 130	105	70 - 130	<0.50	ug/L	NC	30
8874251	1,1-Dichloroethane	2023/08/25	100	70 - 130	104	70 - 130	<0.20	ug/L	NC	30
8874251	1,1-Dichloroethylene	2023/08/25	96	70 - 130	103	70 - 130	<0.20	ug/L	NC	30
8874251	1,2-Dichlorobenzene	2023/08/25	93	70 - 130	96	70 - 130	<0.50	ug/L	NC	30
8874251	1,2-Dichloroethane	2023/08/25	104	70 - 130	103	70 - 130	<0.50	ug/L	NC	30
8874251	1,2-Dichloropropane	2023/08/25	97	70 - 130	99	70 - 130	<0.20	ug/L	NC	30
8874251	1,3-Dichlorobenzene	2023/08/25	91	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
8874251	1,4-Dichlorobenzene	2023/08/25	92	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
8874251	Acetone (2-Propanone)	2023/08/25	111	60 - 140	108	60 - 140	<10	ug/L	NC	30
8874251	Benzene	2023/08/25	94	70 - 130	99	70 - 130	<0.17	ug/L	NC	30

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8874251	Bromodichloromethane	2023/08/25	96	70 - 130	101	70 - 130	<0.50	ug/L	NC	30
8874251	Bromoform	2023/08/25	89	70 - 130	93	70 - 130	<1.0	ug/L	NC	30
8874251	Bromomethane	2023/08/25	96	60 - 140	97	60 - 140	<0.50	ug/L	NC	30
8874251	Carbon Tetrachloride	2023/08/25	94	70 - 130	105	70 - 130	<0.20	ug/L	NC	30
8874251	Chlorobenzene	2023/08/25	90	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
8874251	Chloroform	2023/08/25	99	70 - 130	103	70 - 130	<0.20	ug/L	NC	30
8874251	cis-1,2-Dichloroethylene	2023/08/25	96	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
8874251	cis-1,3-Dichloropropene	2023/08/25	95	70 - 130	100	70 - 130	<0.30	ug/L	NC	30
8874251	Dibromochloromethane	2023/08/25	93	70 - 130	96	70 - 130	<0.50	ug/L	NC	30
8874251	Dichlorodifluoromethane (FREON 12)	2023/08/25	97	60 - 140	101	60 - 140	<1.0	ug/L	NC	30
8874251	Ethylbenzene	2023/08/25	84	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
8874251	Ethylene Dibromide	2023/08/25	97	70 - 130	98	70 - 130	<0.20	ug/L	NC	30
8874251	F1 (C6-C10) - BTEX	2023/08/25					<25	ug/L	NC	30
8874251	F1 (C6-C10)	2023/08/25	83	60 - 140	94	60 - 140	<25	ug/L	NC	30
8874251	Hexane	2023/08/25	103	70 - 130	109	70 - 130	<1.0	ug/L	NC	30
8874251	Methyl Ethyl Ketone (2-Butanone)	2023/08/25	105	60 - 140	107	60 - 140	<10	ug/L	NC	30
8874251	Methyl Isobutyl Ketone	2023/08/25	100	70 - 130	104	70 - 130	<5.0	ug/L	NC	30
8874251	Methyl t-butyl ether (MTBE)	2023/08/25	89	70 - 130	95	70 - 130	<0.50	ug/L	NC	30
8874251	Methylene Chloride(Dichloromethane)	2023/08/25	97	70 - 130	97	70 - 130	<2.0	ug/L	NC	30
8874251	o-Xylene	2023/08/25	84	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
8874251	p+m-Xylene	2023/08/25	79	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
8874251	Styrene	2023/08/25	64 (1)	70 - 130	72	70 - 130	<0.50	ug/L	NC	30
8874251	Tetrachloroethylene	2023/08/25	92	70 - 130	100	70 - 130	<0.20	ug/L	0.12	30
8874251	Toluene	2023/08/25	87	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
8874251	Total Xylenes	2023/08/25					<0.20	ug/L	NC	30
8874251	trans-1,2-Dichloroethylene	2023/08/25	96	70 - 130	102	70 - 130	<0.50	ug/L	NC	30
8874251	trans-1,3-Dichloropropene	2023/08/25	100	70 - 130	103	70 - 130	<0.40	ug/L	NC	30
8874251	Trichloroethylene	2023/08/25	91	70 - 130	98	70 - 130	<0.20	ug/L	1.4	30
8874251	Trichlorofluoromethane (FREON 11)	2023/08/25	93	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
8874251	Vinyl Chloride	2023/08/25	94	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
8874330	1-Methylnaphthalene	2023/08/25	113	50 - 130	117	50 - 130	<0.050	ug/L	NC	30
8874330	2-Methylnaphthalene	2023/08/25	102	50 - 130	106	50 - 130	<0.050	ug/L	NC	30

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8874330	Acenaphthene	2023/08/25	102	50 - 130	105	50 - 130	<0.050	ug/L	NC	30
8874330	Acenaphthylene	2023/08/25	97	50 - 130	99	50 - 130	<0.050	ug/L	NC	30
8874330	Anthracene	2023/08/25	108	50 - 130	111	50 - 130	<0.050	ug/L	NC	30
8874330	Benzo(a)anthracene	2023/08/25	101	50 - 130	101	50 - 130	<0.050	ug/L	NC	30
8874330	Benzo(a)pyrene	2023/08/25	94	50 - 130	92	50 - 130	<0.0090	ug/L	NC	30
8874330	Benzo(b/j)fluoranthene	2023/08/25	99	50 - 130	97	50 - 130	<0.050	ug/L	NC	30
8874330	Benzo(g,h,i)perylene	2023/08/25	101	50 - 130	98	50 - 130	<0.050	ug/L	NC	30
8874330	Benzo(k)fluoranthene	2023/08/25	93	50 - 130	93	50 - 130	<0.050	ug/L	NC	30
8874330	Chrysene	2023/08/25	99	50 - 130	98	50 - 130	<0.050	ug/L	NC	30
8874330	Dibenzo(a,h)anthracene	2023/08/25	94	50 - 130	90	50 - 130	<0.050	ug/L	NC	30
8874330	Fluoranthene	2023/08/25	112	50 - 130	116	50 - 130	<0.050	ug/L	NC	30
8874330	Fluorene	2023/08/25	101	50 - 130	104	50 - 130	<0.050	ug/L	NC	30
8874330	Indeno(1,2,3-cd)pyrene	2023/08/25	102	50 - 130	99	50 - 130	<0.050	ug/L	NC	30
8874330	Naphthalene	2023/08/25	97	50 - 130	99	50 - 130	<0.050	ug/L	NC	30
8874330	Phenanthrene	2023/08/25	103	50 - 130	106	50 - 130	<0.030	ug/L	NC	30
8874330	Pyrene	2023/08/25	111	50 - 130	114	50 - 130	<0.050	ug/L	NC	30
8874333	F2 (C10-C16 Hydrocarbons)	2023/08/26	102	60 - 130	100	60 - 130	<100	ug/L	NC	30
8874333	F3 (C16-C34 Hydrocarbons)	2023/08/26	100	60 - 130	100	60 - 130	<200	ug/L	NC	30
8874333	F4 (C34-C50 Hydrocarbons)	2023/08/26	88	60 - 130	85	60 - 130	<200	ug/L	NC	30
8874818	Dissolved Antimony (Sb)	2023/08/29	118	80 - 120	105	80 - 120	<0.50	ug/L	NC	20
8874818	Dissolved Arsenic (As)	2023/08/29	107	80 - 120	99	80 - 120	<1.0	ug/L	NC	20
8874818	Dissolved Barium (Ba)	2023/08/29	110	80 - 120	103	80 - 120	<2.0	ug/L	1.5	20
8874818	Dissolved Beryllium (Be)	2023/08/29	108	80 - 120	101	80 - 120	<0.40	ug/L	NC	20
8874818	Dissolved Boron (B)	2023/08/29	103	80 - 120	99	80 - 120	<10	ug/L	0.085	20
8874818	Dissolved Cadmium (Cd)	2023/08/29	110	80 - 120	99	80 - 120	<0.090	ug/L	NC	20
8874818	Dissolved Chromium (Cr)	2023/08/29	107	80 - 120	101	80 - 120	<5.0	ug/L	NC	20
8874818	Dissolved Cobalt (Co)	2023/08/29	107	80 - 120	100	80 - 120	<0.50	ug/L	NC	20
8874818	Dissolved Copper (Cu)	2023/08/29	114	80 - 120	101	80 - 120	<0.90	ug/L	0.59	20
8874818	Dissolved Lead (Pb)	2023/08/29	102	80 - 120	99	80 - 120	<0.50	ug/L	NC	20
8874818	Dissolved Molybdenum (Mo)	2023/08/29	122 (2)	80 - 120	105	80 - 120	<0.50	ug/L	0.41	20
8874818	Dissolved Nickel (Ni)	2023/08/29	101	80 - 120	97	80 - 120	<1.0	ug/L	5.1	20
8874818	Dissolved Selenium (Se)	2023/08/29	106	80 - 120	100	80 - 120	<2.0	ug/L	NC	20

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8874818	Dissolved Silver (Ag)	2023/08/29	110	80 - 120	101	80 - 120	<0.090	ug/L	NC	20
8874818	Dissolved Sodium (Na)	2023/08/29	NC	80 - 120	100	80 - 120	<100	ug/L	3.4	20
8874818	Dissolved Thallium (Tl)	2023/08/29	103	80 - 120	100	80 - 120	<0.050	ug/L	0.53	20
8874818	Dissolved Uranium (U)	2023/08/29	106	80 - 120	99	80 - 120	<0.10	ug/L	1.1	20
8874818	Dissolved Vanadium (V)	2023/08/29	111	80 - 120	100	80 - 120	<0.50	ug/L	NC	20
8874818	Dissolved Zinc (Zn)	2023/08/29	104	80 - 120	98	80 - 120	<5.0	ug/L	0.67	20

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

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

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

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

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

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

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

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(2) Matrix Spike exceeds acceptance limits, probable matrix interference

Bureau Veritas Job #: C3O7276
Report Date: 2023/08/31

Englobe Corp.
Client Project #: 02103035.000
Site Location: 424 Churchill Avenue North, Otawa
Sampler Initials: JB

VALIDATION SIGNATURE PAGE

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

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

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by {0}, {1} responsible for {2} {3} laboratory operations.

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Your Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Your C.O.C. #: n/a

Attention: Salim Eid

Englobe Corp.
Ottawa - Standing Offer
2713 Lancaster Road
Unit 101
Ottawa, ON
CANADA K1B 5R6

Report Date: 2023/12/07
Report #: R7944562
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3AQ664
Received: 2023/11/29, 18:49

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
1,3-Dichloropropene Sum (1)	2	N/A	2023/12/07		EPA 8260C m
Petroleum Hydrocarbons F2-F4 in Water (1, 2)	2	2023/12/03	2023/12/04	CAM SOP-00316	CCME PHC-CWS m
Volatile Organic Compounds and F1 PHCs (1)	2	N/A	2023/12/04	CAM SOP-00230	EPA 8260C m

Remarks:

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

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

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

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Your Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Your C.O.C. #: n/a

Attention: Salim Eid

Englobe Corp.
Ottawa - Standing Offer
2713 Lancaster Road
Unit 101
Ottawa, ON
CANADA K1B 5R6

Report Date: 2023/12/07
Report #: R7944562
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3AQ664
Received: 2023/11/29, 18:49

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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

Bureau Veritas ID		XTI651		XTI652		
Sampling Date		2023/11/28 16:00		2023/11/29 16:00		
COC Number		n/a		n/a		
	UNITS	MW 23-1	RDL	MW 23-2	RDL	QC Batch
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	<0.50	0.50	9084432
Volatile Organics						
Acetone (2-Propanone)	ug/L	<10	10	<10	10	9087630
Benzene	ug/L	<0.17	0.17	<0.17	0.17	9087630
Bromodichloromethane	ug/L	<0.50	0.50	<0.50	0.50	9087630
Bromoform	ug/L	<1.0	1.0	<1.0	1.0	9087630
Bromomethane	ug/L	<0.50	0.50	<0.50	0.50	9087630
Carbon Tetrachloride	ug/L	<0.20	0.20	<0.20	0.20	9087630
Chlorobenzene	ug/L	<0.20	0.20	<0.20	0.20	9087630
Chloroform	ug/L	0.48	0.20	0.55	0.20	9087630
Dibromochloromethane	ug/L	<0.50	0.50	<0.50	0.50	9087630
1,2-Dichlorobenzene	ug/L	<0.50	0.50	<0.50	0.50	9087630
1,3-Dichlorobenzene	ug/L	<0.50	0.50	<0.50	0.50	9087630
1,4-Dichlorobenzene	ug/L	<0.50	0.50	<0.50	0.50	9087630
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	<1.0	1.0	9087630
1,1-Dichloroethane	ug/L	<0.20	0.20	0.26	0.20	9087630
1,2-Dichloroethane	ug/L	<0.50	0.50	<0.50	0.50	9087630
1,1-Dichloroethylene	ug/L	<0.20	0.20	0.25	0.20	9087630
cis-1,2-Dichloroethylene	ug/L	40	0.50	33	0.50	9087630
trans-1,2-Dichloroethylene	ug/L	0.69	0.50	0.94	0.50	9087630
1,2-Dichloropropane	ug/L	<0.20	0.20	<0.20	0.20	9087630
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	<0.30	0.30	9087630
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	<0.40	0.40	9087630
Ethylbenzene	ug/L	<0.20	0.20	<0.20	0.20	9087630
Ethylene Dibromide	ug/L	<0.20	0.20	<0.20	0.20	9087630
Hexane	ug/L	<1.0	1.0	<1.0	1.0	9087630
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	<2.0	2.0	9087630
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	<10	10	9087630
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	<5.0	5.0	9087630
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	<0.50	0.50	9087630
Styrene	ug/L	<0.50	0.50	<0.50	0.50	9087630

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas ID		XTI651		XTI652		
Sampling Date		2023/11/28 16:00		2023/11/29 16:00		
COC Number		n/a		n/a		
	UNITS	MW 23-1	RDL	MW 23-2	RDL	QC Batch
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	<0.50	0.50	9087630
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	<0.50	0.50	9087630
Tetrachloroethylene	ug/L	0.57	0.20	1400	1.0	9087630
Toluene	ug/L	<0.20	0.20	<0.20	0.20	9087630
1,1,1-Trichloroethane	ug/L	<0.20	0.20	<0.20	0.20	9087630
1,1,2-Trichloroethane	ug/L	<0.50	0.50	<0.50	0.50	9087630
Trichloroethylene	ug/L	1.2	0.20	120	0.20	9087630
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	<0.50	0.50	9087630
Vinyl Chloride	ug/L	7.3	0.20	4.0	0.20	9087630
p+m-Xylene	ug/L	<0.20	0.20	<0.20	0.20	9087630
o-Xylene	ug/L	<0.20	0.20	<0.20	0.20	9087630
Total Xylenes	ug/L	<0.20	0.20	<0.20	0.20	9087630
F1 (C6-C10)	ug/L	<25	25	480 (1)	130	9087630
F1 (C6-C10) - BTEX	ug/L	<25	25	480	130	9087630
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	<100	100	9087970
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	<200	200	9087970
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	<200	200	9087970
Reached Baseline at C50	ug/L	Yes		Yes		9087970
Surrogate Recovery (%)						
o-Terphenyl	%	102		100		9087970
4-Bromofluorobenzene	%	89		84		9087630
D4-1,2-Dichloroethane	%	109		110		9087630
D8-Toluene	%	86		84		9087630

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Result reported was due to chlorinated compounds eluting inside the F1 range.

Bureau Veritas Job #: C3AQ664
Report Date: 2023/12/07

Englobe Corp.
Client Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

TEST SUMMARY

Bureau Veritas ID: XTI651
Sample ID: MW 23-1
Matrix: Water

Collected: 2023/11/28
Shipped:
Received: 2023/11/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9084432	N/A	2023/12/07	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9087970	2023/12/03	2023/12/04	Jeevaraj Jeevaratrnam
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9087630	N/A	2023/12/04	Gladys Guerrero

Bureau Veritas ID: XTI652
Sample ID: MW 23-2
Matrix: Water

Collected: 2023/11/29
Shipped:
Received: 2023/11/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9084432	N/A	2023/12/07	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9087970	2023/12/03	2023/12/04	Jeevaraj Jeevaratrnam
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9087630	N/A	2023/12/04	Gladys Guerrero

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	5.7°C

Sample XTI652 [MW 23-2] : VOC/F1 Analysis: Due to high concentrations of target analytes, sample required dilution. Detection limits were adjusted accordingly. In order to achieve lower reporting limits, results for selected compounds (obtained by a separate analysis using an appropriate low dilution) are included in the report.

Results relate only to the items tested.

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Bureau Veritas Job #: C3AQ664
Report Date: 2023/12/07

QUALITY ASSURANCE REPORT

Englobe Corp.
Client Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9087630	4-Bromofluorobenzene	2023/12/04	96	70 - 130	97	70 - 130	92	%		
9087630	D4-1,2-Dichloroethane	2023/12/04	103	70 - 130	96	70 - 130	99	%		
9087630	D8-Toluene	2023/12/04	104	70 - 130	106	70 - 130	90	%		
9087970	o-Terphenyl	2023/12/04	102	60 - 130	104	60 - 130	101	%		
9087630	1,1,1,2-Tetrachloroethane	2023/12/04	99	70 - 130	92	70 - 130	<0.50	ug/L	NC	30
9087630	1,1,1-Trichloroethane	2023/12/04	97	70 - 130	86	70 - 130	<0.20	ug/L	NC	30
9087630	1,1,2,2-Tetrachloroethane	2023/12/04	105	70 - 130	99	70 - 130	<0.50	ug/L	NC	30
9087630	1,1,2-Trichloroethane	2023/12/04	102	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
9087630	1,1-Dichloroethane	2023/12/04	101	70 - 130	89	70 - 130	<0.20	ug/L	NC	30
9087630	1,1-Dichloroethylene	2023/12/04	98	70 - 130	87	70 - 130	<0.20	ug/L	NC	30
9087630	1,2-Dichlorobenzene	2023/12/04	102	70 - 130	101	70 - 130	<0.50	ug/L	NC	30
9087630	1,2-Dichloroethane	2023/12/04	99	70 - 130	86	70 - 130	<0.50	ug/L	NC	30
9087630	1,2-Dichloropropane	2023/12/04	102	70 - 130	91	70 - 130	<0.20	ug/L	NC	30
9087630	1,3-Dichlorobenzene	2023/12/04	101	70 - 130	100	70 - 130	<0.50	ug/L	NC	30
9087630	1,4-Dichlorobenzene	2023/12/04	112	70 - 130	111	70 - 130	<0.50	ug/L	NC	30
9087630	Acetone (2-Propanone)	2023/12/04	106	60 - 140	96	60 - 140	<10	ug/L	NC	30
9087630	Benzene	2023/12/04	93	70 - 130	82	70 - 130	<0.17	ug/L	NC	30
9087630	Bromodichloromethane	2023/12/04	106	70 - 130	95	70 - 130	<0.50	ug/L	NC	30
9087630	Bromoform	2023/12/04	92	70 - 130	86	70 - 130	<1.0	ug/L	NC	30
9087630	Bromomethane	2023/12/04	101	60 - 140	86	60 - 140	<0.50	ug/L	NC	30
9087630	Carbon Tetrachloride	2023/12/04	94	70 - 130	84	70 - 130	<0.20	ug/L	NC	30
9087630	Chlorobenzene	2023/12/04	103	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
9087630	Chloroform	2023/12/04	103	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
9087630	cis-1,2-Dichloroethylene	2023/12/04	102	70 - 130	90	70 - 130	<0.50	ug/L	NC	30
9087630	cis-1,3-Dichloropropene	2023/12/04	106	70 - 130	95	70 - 130	<0.30	ug/L	NC	30
9087630	Dibromochloromethane	2023/12/04	98	70 - 130	90	70 - 130	<0.50	ug/L	NC	30
9087630	Dichlorodifluoromethane (FREON 12)	2023/12/04	92	60 - 140	80	60 - 140	<1.0	ug/L	NC	30
9087630	Ethylbenzene	2023/12/04	90	70 - 130	86	70 - 130	<0.20	ug/L	NC	30
9087630	Ethylene Dibromide	2023/12/04	103	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9087630	F1 (C6-C10) - BTEX	2023/12/04					<25	ug/L	NC	30
9087630	F1 (C6-C10)	2023/12/04	103	60 - 140	95	60 - 140	<25	ug/L	NC	30
9087630	Hexane	2023/12/04	94	70 - 130	85	70 - 130	<1.0	ug/L	NC	30

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9087630	Methyl Ethyl Ketone (2-Butanone)	2023/12/04	113	60 - 140	104	60 - 140	<10	ug/L	NC	30
9087630	Methyl Isobutyl Ketone	2023/12/04	89	70 - 130	85	70 - 130	<5.0	ug/L	NC	30
9087630	Methyl t-butyl ether (MTBE)	2023/12/04	102	70 - 130	95	70 - 130	<0.50	ug/L	NC	30
9087630	Methylene Chloride(Dichloromethane)	2023/12/04	119	70 - 130	102	70 - 130	<2.0	ug/L	NC	30
9087630	o-Xylene	2023/12/04	85	70 - 130	82	70 - 130	<0.20	ug/L	NC	30
9087630	p+m-Xylene	2023/12/04	95	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
9087630	Styrene	2023/12/04	76	70 - 130	74	70 - 130	<0.50	ug/L	NC	30
9087630	Tetrachloroethylene	2023/12/04	97	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
9087630	Toluene	2023/12/04	94	70 - 130	87	70 - 130	<0.20	ug/L	NC	30
9087630	Total Xylenes	2023/12/04					<0.20	ug/L	NC	30
9087630	trans-1,2-Dichloroethylene	2023/12/04	97	70 - 130	87	70 - 130	<0.50	ug/L	NC	30
9087630	trans-1,3-Dichloropropene	2023/12/04	118	70 - 130	108	70 - 130	<0.40	ug/L	NC	30
9087630	Trichloroethylene	2023/12/04	99	70 - 130	89	70 - 130	<0.20	ug/L	NC	30
9087630	Trichlorofluoromethane (FREON 11)	2023/12/04	96	70 - 130	85	70 - 130	<0.50	ug/L	NC	30
9087630	Vinyl Chloride	2023/12/04	95	70 - 130	82	70 - 130	<0.20	ug/L	NC	30
9087970	F2 (C10-C16 Hydrocarbons)	2023/12/04	104	60 - 130	107	60 - 130	<100	ug/L	NC	30
9087970	F3 (C16-C34 Hydrocarbons)	2023/12/04	103	60 - 130	108	60 - 130	<200	ug/L	NC	30
9087970	F4 (C34-C50 Hydrocarbons)	2023/12/04	104	60 - 130	108	60 - 130	<200	ug/L	NC	30

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

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

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

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

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

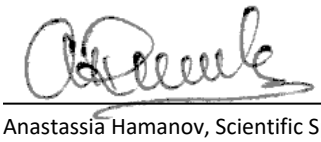
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

Bureau Veritas Job #: C3AQ664
Report Date: 2023/12/07

Englobe Corp.
Client Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

VALIDATION SIGNATURE PAGE

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



Anastassia Hamanov, Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Your Project #: 02203035
Site Location: 424 CHURCHILL AVE N
Your C.O.C. #: N/A

Attention: Colette Robitaille

Englobe Corp.
Ottawa - Standing Offer
2713 Lancaster Road
Unit 101
Ottawa, ON
CANADA K1B 5R6

Report Date: 2023/09/06
Report #: R7799130
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3Q4727
Received: 2023/08/29, 17:06

Sample Matrix: Water
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum (1)	2	N/A	2023/09/03	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum (1)	2	N/A	2023/09/05		EPA 8260C m
Petroleum Hydro. CCME F1 & BTEX in Water (1)	5	N/A	2023/09/01	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1, 2)	2	2023/09/02	2023/09/05	CAM SOP-00316	CCME PHC-CWS m
Dissolved Metals by ICPMS (1)	2	N/A	2023/09/05	CAM SOP-00447	EPA 6020B m
PAH Compounds in Water by GC/MS (SIM) (1)	2	2023/09/02	2023/09/02	CAM SOP-00318	EPA 8270E
Volatile Organic Compounds and F1 PHCs (1)	2	N/A	2023/09/01	CAM SOP-00230	EPA 8260C m

Remarks:

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

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

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

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s

Your Project #: 02203035
Site Location: 424 CHURCHILL AVE N
Your C.O.C. #: N/A

Attention: Colette Robitaille

Englobe Corp.
Ottawa - Standing Offer
2713 Lancaster Road
Unit 101
Ottawa, ON
CANADA K1B 5R6

Report Date: 2023/09/06
Report #: R7799130
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3Q4727

Received: 2023/08/29, 17:06

Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

==========

This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas Job #: C3Q4727
Report Date: 2023/09/06

Englobe Corp.
Client Project #: 02203035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WVM781	WVM781	WVM782	WVM784	WVM785	WVM786		
Sampling Date		2023/08/28 15:00	2023/08/28 15:00	2023/08/28 15:30	2023/08/28 19:00	2023/08/28 16:30	2023/08/28 16:30		
COC Number		N/A	N/A	N/A	N/A	N/A	N/A		
	UNITS	**MW23-2**	**MW23-2 Lab-Dup**	**MW23-3**	**MW23-20**	**T.BLANK**	**F.BLANK**	**RDL**	**QC Batch**
BTEX & F1 Hydrocarbons									
Benzene	ug/L	0.33	0.30	<0.20	0.38	<0.20	<0.20	0.20	8892291
Toluene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8892291
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8892291
o-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8892291
p+m-Xylene	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	8892291
Total Xylenes	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	8892291
F1 (C6-C10)	ug/L	500	480	100	540	<25	<25	25	8892291
F1 (C6-C10) - BTEX	ug/L	490	480	100	540	<25	<25	25	8892291
Surrogate Recovery (%)									
1,4-Difluorobenzene	%	100	100	106	101	110	106		8892291
4-Bromofluorobenzene	%	81	105	85	100	78	108		8892291
D10-o-Xylene	%	87	89	94	87	92	91		8892291
D4-1,2-Dichloroethane	%	109	109	121	108	110	113		8892291

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

O.REG 153 DISSOLVED ICPMS METALS (WATER)

Bureau Veritas ID		WVM780	WVM783		
Sampling Date		2023/08/28 16:50	2023/08/28 13:00		
COC Number		N/A	N/A		
	UNITS	MW23-1	MW23-11	RDL	QC Batch
Metals					
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	0.50	8891614
Dissolved Arsenic (As)	ug/L	1.1	<1.0	1.0	8891614
Dissolved Barium (Ba)	ug/L	100	110	2.0	8891614
Dissolved Beryllium (Be)	ug/L	<0.40	<0.40	0.40	8891614
Dissolved Boron (B)	ug/L	220	230	10	8891614
Dissolved Cadmium (Cd)	ug/L	<0.090	<0.090	0.090	8891614
Dissolved Chromium (Cr)	ug/L	<5.0	<5.0	5.0	8891614
Dissolved Cobalt (Co)	ug/L	<0.50	<0.50	0.50	8891614
Dissolved Copper (Cu)	ug/L	<0.90	<0.90	0.90	8891614
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	0.50	8891614
Dissolved Molybdenum (Mo)	ug/L	0.73	<0.50	0.50	8891614
Dissolved Nickel (Ni)	ug/L	<1.0	1.2	1.0	8891614
Dissolved Selenium (Se)	ug/L	<2.0	<2.0	2.0	8891614
Dissolved Silver (Ag)	ug/L	<0.090	<0.090	0.090	8891614
Dissolved Sodium (Na)	ug/L	550000	540000	100	8891614
Dissolved Thallium (Tl)	ug/L	<0.050	<0.050	0.050	8891614
Dissolved Uranium (U)	ug/L	0.48	0.45	0.10	8891614
Dissolved Vanadium (V)	ug/L	<0.50	<0.50	0.50	8891614
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	5.0	8891614

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas Job #: C3Q4727
Report Date: 2023/09/06

Englobe Corp.
Client Project #: 02203035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

O.REG 153 PAHS (WATER)

Bureau Veritas ID		WVM780	WVM783		
Sampling Date		2023/08/28 16:50	2023/08/28 13:00		
COC Number		N/A	N/A		
	UNITS	MW23-1	MW23-11	RDL	QC Batch
Calculated Parameters					
Methylnaphthalene, 2-(1-)	ug/L	<0.071	<0.071	0.071	8885751
Polyaromatic Hydrocarbons					
Acenaphthene	ug/L	<0.050	<0.050	0.050	8894215
Acenaphthylene	ug/L	<0.050	<0.050	0.050	8894215
Anthracene	ug/L	<0.050	<0.050	0.050	8894215
Benzo(a)anthracene	ug/L	<0.050	<0.050	0.050	8894215
Benzo(a)pyrene	ug/L	<0.0090	<0.0090	0.0090	8894215
Benzo(b/j)fluoranthene	ug/L	<0.050	<0.050	0.050	8894215
Benzo(g,h,i)perylene	ug/L	<0.050	<0.050	0.050	8894215
Benzo(k)fluoranthene	ug/L	<0.050	<0.050	0.050	8894215
Chrysene	ug/L	<0.050	<0.050	0.050	8894215
Dibenzo(a,h)anthracene	ug/L	<0.050	<0.050	0.050	8894215
Fluoranthene	ug/L	<0.050	<0.050	0.050	8894215
Fluorene	ug/L	<0.050	<0.050	0.050	8894215
Indeno(1,2,3-cd)pyrene	ug/L	<0.050	<0.050	0.050	8894215
1-Methylnaphthalene	ug/L	<0.050	<0.050	0.050	8894215
2-Methylnaphthalene	ug/L	<0.050	<0.050	0.050	8894215
Naphthalene	ug/L	<0.050	<0.050	0.050	8894215
Phenanthrene	ug/L	<0.030	<0.030	0.030	8894215
Pyrene	ug/L	<0.050	<0.050	0.050	8894215
Surrogate Recovery (%)					
D10-Anthracene	%	96	101		8894215
D14-Terphenyl (FS)	%	102	107		8894215
D8-Acenaphthylene	%	84	88		8894215

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas ID		WVM780	WVM783		
Sampling Date		2023/08/28 16:50	2023/08/28 13:00		
COC Number		N/A	N/A		
	UNITS	MW23-1	MW23-11	RDL	QC Batch
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	0.50	8885752
Volatile Organics					
Acetone (2-Propanone)	ug/L	<10	<10	10	8890975
Benzene	ug/L	0.22	0.25	0.17	8890975
Bromodichloromethane	ug/L	<0.50	<0.50	0.50	8890975
Bromoform	ug/L	<1.0	<1.0	1.0	8890975
Bromomethane	ug/L	<0.50	<0.50	0.50	8890975
Carbon Tetrachloride	ug/L	<0.20	<0.20	0.20	8890975
Chlorobenzene	ug/L	<0.20	<0.20	0.20	8890975
Chloroform	ug/L	1.0	0.96	0.20	8890975
Dibromochloromethane	ug/L	<0.50	<0.50	0.50	8890975
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	8890975
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	8890975
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	8890975
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	1.0	8890975
1,1-Dichloroethane	ug/L	<0.20	<0.20	0.20	8890975
1,2-Dichloroethane	ug/L	<0.50	<0.50	0.50	8890975
1,1-Dichloroethylene	ug/L	1.2	1.2	0.20	8890975
cis-1,2-Dichloroethylene	ug/L	630	590	1.0	8890975
trans-1,2-Dichloroethylene	ug/L	4.7	4.6	0.50	8890975
1,2-Dichloropropane	ug/L	<0.20	<0.20	0.20	8890975
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	0.30	8890975
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	0.40	8890975
Ethylbenzene	ug/L	<0.20	<0.20	0.20	8890975
Ethylene Dibromide	ug/L	<0.20	<0.20	0.20	8890975
Hexane	ug/L	<1.0	<1.0	1.0	8890975
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	2.0	8890975
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	10	8890975
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	5.0	8890975
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	0.50	8890975
Styrene	ug/L	<0.50	<0.50	0.50	8890975
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	8890975
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	8890975

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas ID		WVM780	WVM783		
Sampling Date		2023/08/28 16:50	2023/08/28 13:00		
COC Number		N/A	N/A		
	UNITS	MW23-1	MW23-11	RDL	QC Batch
Tetrachloroethylene	ug/L	13	12	0.20	8890975
Toluene	ug/L	0.25	0.27	0.20	8890975
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	0.20	8890975
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	0.50	8890975
Trichloroethylene	ug/L	110	110	0.20	8890975
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	0.50	8890975
Vinyl Chloride	ug/L	100	100	0.20	8890975
p+m-Xylene	ug/L	<0.20	<0.20	0.20	8890975
o-Xylene	ug/L	<0.20	<0.20	0.20	8890975
Total Xylenes	ug/L	<0.20	<0.20	0.20	8890975
F1 (C6-C10)	ug/L	54 (1)	61 (1)	25	8890975
F1 (C6-C10) - BTEX	ug/L	54	61	25	8890975
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	100	8894217
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	200	8894217
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	200	8894217
Reached Baseline at C50	ug/L	Yes	Yes		8894217
Surrogate Recovery (%)					
o-Terphenyl	%	103	103		8894217
4-Bromofluorobenzene	%	99	98		8890975
D4-1,2-Dichloroethane	%	96	96		8890975
D8-Toluene	%	98	98		8890975

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Result reported was mainly due to chlorinated compounds eluting inside the F1 range.

Bureau Veritas Job #: C3Q4727
Report Date: 2023/09/06

Englobe Corp.
Client Project #: 02203035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

TEST SUMMARY

Bureau Veritas ID: WVM780 **Collected:** 2023/08/28
Sample ID: MW23-1 **Shipped:**
Matrix: Water **Received:** 2023/08/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8885751	N/A	2023/09/03	Automated Statchk
1,3-Dichloropropene Sum	CALC	8885752	N/A	2023/09/05	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8894217	2023/09/02	2023/09/05	Anna Stuglik-Rolland
Dissolved Metals by ICPMS	ICP/MS	8891614	N/A	2023/09/05	Arefa Dabhad
PAH Compounds in Water by GC/MS (SIM)	GC/MS	8894215	2023/09/02	2023/09/02	Jayoda Perera
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8890975	N/A	2023/09/01	Jett Wu

Bureau Veritas ID: WVM781 **Collected:** 2023/08/28
Sample ID: MW23-2 **Shipped:**
Matrix: Water **Received:** 2023/08/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	8892291	N/A	2023/09/01	Georgeta Rusu

Bureau Veritas ID: WVM781 Dup **Collected:** 2023/08/28
Sample ID: MW23-2 **Shipped:**
Matrix: Water **Received:** 2023/08/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	8892291	N/A	2023/09/01	Georgeta Rusu

Bureau Veritas ID: WVM782 **Collected:** 2023/08/28
Sample ID: MW23-3 **Shipped:**
Matrix: Water **Received:** 2023/08/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	8892291	N/A	2023/09/01	Georgeta Rusu

Bureau Veritas ID: WVM783 **Collected:** 2023/08/28
Sample ID: MW23-11 **Shipped:**
Matrix: Water **Received:** 2023/08/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8885751	N/A	2023/09/03	Automated Statchk
1,3-Dichloropropene Sum	CALC	8885752	N/A	2023/09/05	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8894217	2023/09/02	2023/09/05	Anna Stuglik-Rolland
Dissolved Metals by ICPMS	ICP/MS	8891614	N/A	2023/09/05	Arefa Dabhad
PAH Compounds in Water by GC/MS (SIM)	GC/MS	8894215	2023/09/02	2023/09/02	Jayoda Perera
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8890975	N/A	2023/09/01	Jett Wu

Bureau Veritas ID: WVM784 **Collected:** 2023/08/28
Sample ID: MW23-20 **Shipped:**
Matrix: Water **Received:** 2023/08/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	8892291	N/A	2023/09/01	Georgeta Rusu

Bureau Veritas Job #: C3Q4727
Report Date: 2023/09/06

Englobe Corp.
Client Project #: 02203035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

TEST SUMMARY

Bureau Veritas ID: WVM785
Sample ID: T.BLANK
Matrix: Water

Collected: 2023/08/28
Shipped:
Received: 2023/08/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	8892291	N/A	2023/09/01	Georgeta Rusu

Bureau Veritas ID: WVM786
Sample ID: F.BLANK
Matrix: Water

Collected: 2023/08/28
Shipped:
Received: 2023/08/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	8892291	N/A	2023/09/01	Georgeta Rusu

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	1.3°C
Package 2	2.3°C

Sample WVM780 [MW23-1] : VOC/F1 Analysis: Due to high concentrations of target analytes, sample required dilution. Detection limits were adjusted accordingly. In order to achieve lower reporting limits, results for selected compounds (obtained by a separate analysis using an appropriate low dilution) are included in the report.

Sample WVM783 [MW23-11] : VOC/F1 Analysis: Due to high concentrations of target analytes, sample required dilution. Detection limits were adjusted accordingly. In order to achieve lower reporting limits, results for selected compounds (obtained by a separate analysis using an appropriate low dilution) are included in the report.

Results relate only to the items tested.

Bureau Veritas Job #: C3Q4727
Report Date: 2023/09/06

QUALITY ASSURANCE REPORT

Englobe Corp.
Client Project #: 02203035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8890975	4-Bromofluorobenzene	2023/09/01	100	70 - 130	101	70 - 130	101	%		
8890975	D4-1,2-Dichloroethane	2023/09/01	92	70 - 130	102	70 - 130	103	%		
8890975	D8-Toluene	2023/09/01	102	70 - 130	99	70 - 130	96	%		
8892291	1,4-Difluorobenzene	2023/09/01	96	70 - 130	98	70 - 130	106	%		
8892291	4-Bromofluorobenzene	2023/09/01	87	70 - 130	90	70 - 130	106	%		
8892291	D10-o-Xylene	2023/09/01	97	70 - 130	93	70 - 130	92	%		
8892291	D4-1,2-Dichloroethane	2023/09/01	105	70 - 130	107	70 - 130	108	%		
8894215	D10-Anthracene	2023/09/02	99	50 - 130	95	50 - 130	96	%		
8894215	D14-Terphenyl (FS)	2023/09/02	104	50 - 130	102	50 - 130	102	%		
8894215	D8-Acenaphthylene	2023/09/02	90	50 - 130	86	50 - 130	84	%		
8894217	o-Terphenyl	2023/09/05	102	60 - 130	104	60 - 130	102	%		
8890975	1,1,1,2-Tetrachloroethane	2023/09/01	91	70 - 130	94	70 - 130	<0.50	ug/L		
8890975	1,1,1-Trichloroethane	2023/09/01	89	70 - 130	89	70 - 130	<0.20	ug/L		
8890975	1,1,2,2-Tetrachloroethane	2023/09/01	85	70 - 130	100	70 - 130	<0.50	ug/L	NC	30
8890975	1,1,2-Trichloroethane	2023/09/01	84	70 - 130	94	70 - 130	<0.50	ug/L		
8890975	1,1-Dichloroethane	2023/09/01	89	70 - 130	91	70 - 130	<0.20	ug/L		
8890975	1,1-Dichloroethylene	2023/09/01	88	70 - 130	87	70 - 130	<0.20	ug/L		
8890975	1,2-Dichlorobenzene	2023/09/01	93	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
8890975	1,2-Dichloroethane	2023/09/01	84	70 - 130	94	70 - 130	<0.50	ug/L		
8890975	1,2-Dichloropropane	2023/09/01	87	70 - 130	95	70 - 130	<0.20	ug/L		
8890975	1,3-Dichlorobenzene	2023/09/01	95	70 - 130	93	70 - 130	<0.50	ug/L		
8890975	1,4-Dichlorobenzene	2023/09/01	95	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
8890975	Acetone (2-Propanone)	2023/09/01	82	60 - 140	96	60 - 140	<10	ug/L		
8890975	Benzene	2023/09/01	90	70 - 130	93	70 - 130	<0.17	ug/L	NC	30
8890975	Bromodichloromethane	2023/09/01	86	70 - 130	93	70 - 130	<0.50	ug/L		
8890975	Bromoform	2023/09/01	87	70 - 130	99	70 - 130	<1.0	ug/L		
8890975	Bromomethane	2023/09/01	84	60 - 140	85	60 - 140	<0.50	ug/L		
8890975	Carbon Tetrachloride	2023/09/01	89	70 - 130	88	70 - 130	<0.20	ug/L		
8890975	Chlorobenzene	2023/09/01	93	70 - 130	95	70 - 130	<0.20	ug/L		
8890975	Chloroform	2023/09/01	88	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
8890975	cis-1,2-Dichloroethylene	2023/09/01	90	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
8890975	cis-1,3-Dichloropropene	2023/09/01	88	70 - 130	98	70 - 130	<0.30	ug/L		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8890975	Dibromochloromethane	2023/09/01	89	70 - 130	97	70 - 130	<0.50	ug/L		
8890975	Dichlorodifluoromethane (FREON 12)	2023/09/01	76	60 - 140	75	60 - 140	<1.0	ug/L		
8890975	Ethylbenzene	2023/09/01	93	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
8890975	Ethylene Dibromide	2023/09/01	89	70 - 130	102	70 - 130	<0.20	ug/L		
8890975	F1 (C6-C10) - BTEX	2023/09/01					<25	ug/L	NC	30
8890975	F1 (C6-C10)	2023/09/01	97	60 - 140	87	60 - 140	<25	ug/L	NC	30
8890975	Hexane	2023/09/01	92	70 - 130	89	70 - 130	<1.0	ug/L		
8890975	Methyl Ethyl Ketone (2-Butanone)	2023/09/01	84	60 - 140	106	60 - 140	<10	ug/L		
8890975	Methyl Isobutyl Ketone	2023/09/01	79	70 - 130	106	70 - 130	<5.0	ug/L		
8890975	Methyl t-butyl ether (MTBE)	2023/09/01	86	70 - 130	97	70 - 130	<0.50	ug/L		
8890975	Methylene Chloride(Dichloromethane)	2023/09/01	86	70 - 130	91	70 - 130	<2.0	ug/L	NC	30
8890975	o-Xylene	2023/09/01	92	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
8890975	p+m-Xylene	2023/09/01	92	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
8890975	Styrene	2023/09/01	93	70 - 130	97	70 - 130	<0.50	ug/L		
8890975	Tetrachloroethylene	2023/09/01	94	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
8890975	Toluene	2023/09/01	90	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
8890975	Total Xylenes	2023/09/01					<0.20	ug/L	NC	30
8890975	trans-1,2-Dichloroethylene	2023/09/01	92	70 - 130	91	70 - 130	<0.50	ug/L		
8890975	trans-1,3-Dichloropropene	2023/09/01	88	70 - 130	97	70 - 130	<0.40	ug/L	NC	30
8890975	Trichloroethylene	2023/09/01	92	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
8890975	Trichlorofluoromethane (FREON 11)	2023/09/01	83	70 - 130	81	70 - 130	<0.50	ug/L		
8890975	Vinyl Chloride	2023/09/01	82	70 - 130	81	70 - 130	<0.20	ug/L		
8891614	Dissolved Antimony (Sb)	2023/09/05	108	80 - 120	105	80 - 120	<0.50	ug/L		
8891614	Dissolved Arsenic (As)	2023/09/05	101	80 - 120	101	80 - 120	<1.0	ug/L		
8891614	Dissolved Barium (Ba)	2023/09/05	100	80 - 120	100	80 - 120	<2.0	ug/L		
8891614	Dissolved Beryllium (Be)	2023/09/05	98	80 - 120	97	80 - 120	<0.40	ug/L		
8891614	Dissolved Boron (B)	2023/09/05	96	80 - 120	97	80 - 120	<10	ug/L		
8891614	Dissolved Cadmium (Cd)	2023/09/05	101	80 - 120	99	80 - 120	<0.090	ug/L		
8891614	Dissolved Chromium (Cr)	2023/09/05	96	80 - 120	97	80 - 120	<5.0	ug/L		
8891614	Dissolved Cobalt (Co)	2023/09/05	98	80 - 120	99	80 - 120	<0.50	ug/L		
8891614	Dissolved Copper (Cu)	2023/09/05	95	80 - 120	93	80 - 120	<0.90	ug/L		
8891614	Dissolved Lead (Pb)	2023/09/05	99	80 - 120	99	80 - 120	<0.50	ug/L	NC	20

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8891614	Dissolved Molybdenum (Mo)	2023/09/05	102	80 - 120	99	80 - 120	<0.50	ug/L		
8891614	Dissolved Nickel (Ni)	2023/09/05	95	80 - 120	100	80 - 120	<1.0	ug/L		
8891614	Dissolved Selenium (Se)	2023/09/05	102	80 - 120	100	80 - 120	<2.0	ug/L		
8891614	Dissolved Silver (Ag)	2023/09/05	98	80 - 120	98	80 - 120	<0.090	ug/L		
8891614	Dissolved Sodium (Na)	2023/09/05	NC	80 - 120	99	80 - 120	<100	ug/L		
8891614	Dissolved Thallium (Tl)	2023/09/05	103	80 - 120	104	80 - 120	<0.050	ug/L		
8891614	Dissolved Uranium (U)	2023/09/05	102	80 - 120	100	80 - 120	<0.10	ug/L		
8891614	Dissolved Vanadium (V)	2023/09/05	96	80 - 120	97	80 - 120	<0.50	ug/L		
8891614	Dissolved Zinc (Zn)	2023/09/05	96	80 - 120	101	80 - 120	<5.0	ug/L		
8892291	Benzene	2023/09/01	91	50 - 140	88	50 - 140	<0.20	ug/L	8.3	30
8892291	Ethylbenzene	2023/09/01	100	50 - 140	99	50 - 140	<0.20	ug/L	NC	30
8892291	F1 (C6-C10) - BTEX	2023/09/01					<25	ug/L	2.7	30
8892291	F1 (C6-C10)	2023/09/01	99	60 - 140	93	60 - 140	<25	ug/L	2.7	30
8892291	o-Xylene	2023/09/01	99	50 - 140	98	50 - 140	<0.20	ug/L	NC	30
8892291	p+m-Xylene	2023/09/01	94	50 - 140	93	50 - 140	<0.40	ug/L	NC	30
8892291	Toluene	2023/09/01	89	50 - 140	88	50 - 140	<0.20	ug/L	NC	30
8892291	Total Xylenes	2023/09/01					<0.40	ug/L	NC	30
8894215	1-Methylnaphthalene	2023/09/02	102	50 - 130	97	50 - 130	<0.050	ug/L		
8894215	2-Methylnaphthalene	2023/09/02	91	50 - 130	85	50 - 130	<0.050	ug/L		
8894215	Acenaphthene	2023/09/02	102	50 - 130	97	50 - 130	<0.050	ug/L		
8894215	Acenaphthylene	2023/09/02	98	50 - 130	95	50 - 130	<0.050	ug/L		
8894215	Anthracene	2023/09/02	109	50 - 130	106	50 - 130	<0.050	ug/L		
8894215	Benzo(a)anthracene	2023/09/02	117	50 - 130	114	50 - 130	<0.050	ug/L		
8894215	Benzo(a)pyrene	2023/09/02	110	50 - 130	109	50 - 130	<0.0090	ug/L	NC	30
8894215	Benzo(b/j)fluoranthene	2023/09/02	104	50 - 130	105	50 - 130	<0.050	ug/L		
8894215	Benzo(g,h,i)perylene	2023/09/02	116	50 - 130	115	50 - 130	<0.050	ug/L	NC	30
8894215	Benzo(k)fluoranthene	2023/09/02	112	50 - 130	112	50 - 130	<0.050	ug/L	NC	30
8894215	Chrysene	2023/09/02	111	50 - 130	110	50 - 130	<0.050	ug/L		
8894215	Dibenzo(a,h)anthracene	2023/09/02	115	50 - 130	112	50 - 130	<0.050	ug/L		
8894215	Fluoranthene	2023/09/02	119	50 - 130	117	50 - 130	<0.050	ug/L		
8894215	Fluorene	2023/09/02	109	50 - 130	106	50 - 130	<0.050	ug/L		
8894215	Indeno(1,2,3-cd)pyrene	2023/09/02	110	50 - 130	109	50 - 130	<0.050	ug/L		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8894215	Naphthalene	2023/09/02	82	50 - 130	80	50 - 130	<0.050	ug/L	38 (1)	30
8894215	Phenanthrene	2023/09/02	106	50 - 130	104	50 - 130	<0.030	ug/L	47 (1)	30
8894215	Pyrene	2023/09/02	118	50 - 130	117	50 - 130	<0.050	ug/L		
8894217	F2 (C10-C16 Hydrocarbons)	2023/09/05	107	60 - 130	106	60 - 130	<100	ug/L	28	30
8894217	F3 (C16-C34 Hydrocarbons)	2023/09/05	106	60 - 130	106	60 - 130	<200	ug/L	NC	30
8894217	F4 (C34-C50 Hydrocarbons)	2023/09/05	105	60 - 130	104	60 - 130	<200	ug/L	NC	30

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

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

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

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

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

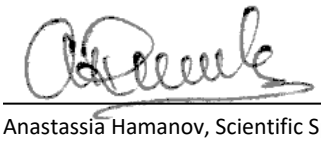
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

VALIDATION SIGNATURE PAGE

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



Anastassia Hamanov, Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by {0}, {1} responsible for {2} {3} laboratory operations.

Your Project #: 02103035.000
Site Location: 424 Churchill Ave North
Your C.O.C. #: 953656-01-01

Attention: Colette Ogilvie

Englobe Corp.
Ottawa - Standing Offer
2713 Lancaster Road
Unit 101
Ottawa, ON
CANADA K1B 5R6

Report Date: 2023/09/18
Report #: R7819659
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3S1843
Received: 2023/09/13, 15:59

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
ABN Compounds in Water by GC/MS (1)	1	2023/09/15	2023/09/15	CAM SOP-00301	EPA 8270 m
Sewer Use By-Law Semivolatile Organics (1)	1	2023/09/16	2023/09/18	CAM SOP 00301	EPA 8270 m
Total Cyanide (1)	1	2023/09/15	2023/09/15	CAM SOP-00457	OMOE E3015 5 m
Fluoride (1)	1	2023/09/14	2023/09/15	CAM SOP-00449	SM 23 4500-F C m
Mercury in Water by CVAA (1)	1	2023/09/15	2023/09/18	CAM SOP-00453	EPA 7470A m
Total Metals Analysis by ICPMS (1)	1	2023/09/18	2023/09/18	CAM SOP-00447	EPA 6020B m
E.coli, (CFU/100mL) (1)	1	N/A	2023/09/14	CAM SOP-00552	MECP E3371
Animal and Vegetable Oil and Grease (1)	1	N/A	2023/09/18	CAM SOP-00326	EPA1664B m,SM5520B m
Total Oil and Grease (1)	1	2023/09/17	2023/09/17	CAM SOP-00326	EPA1664B m,SM5520B m
OC Pesticides (Selected) & PCB (1, 2)	1	2023/09/15	2023/09/17	CAM SOP-00307	EPA 8081B/ 8082A
OC Pesticides Summed Parameters (1)	1	N/A	2023/09/15	CAM SOP-00307	EPA 8081B/ 8082A
pH (1)	1	2023/09/14	2023/09/15	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP) (1)	1	N/A	2023/09/15	CAM SOP-00444	OMOE E3179 m
Sulphate by Automated Turbidimetry (1)	1	N/A	2023/09/15	CAM SOP-00464	SM 23 4500-SO42- E m
Sulphide (1)	1	N/A	2023/09/15	CAM SOP-00455	SM 23 4500-S G m
Total Kjeldahl Nitrogen in Water (1)	1	2023/09/14	2023/09/18	CAM SOP-00938	OMOE E3516 m
Total PAHs (Hamilton, Ottawa S.U.B.) (1, 3)	1	N/A	2023/09/18	CAM SOP - 00301	
Mineral/Synthetic O & G (TPH Heavy Oil) (1, 4)	1	2023/09/17	2023/09/17	CAM SOP-00326	EPA1664B m,SM5520F m
Total Suspended Solids (1)	1	2023/09/15	2023/09/18	CAM SOP-00428	SM 23 2540D m
Volatile Organic Compounds in Water (1)	1	N/A	2023/09/15	CAM SOP-00228	EPA 8260D
Non-Routine Volatile Organic Compounds (1)	1	N/A	2023/09/15	CAM SOP-00226	EPA 8260D m

Remarks:

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

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

Your Project #: 02103035.000
Site Location: 424 Churchill Ave North
Your C.O.C. #: 953656-01-01

Attention: Colette Ogilvie

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2713 Lancaster Road
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Report Date: 2023/09/18
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CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3S1843
Received: 2023/09/13, 15:59

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

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
(2) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane
(3) Total PAHs include only those PAHs specified in the sewer use by-by-law.
(4) Note: TPH (Heavy Oil) is equivalent to Mineral / Synthetic Oil & Grease

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633
==========
This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas Job #: C3S1843
Report Date: 2023/09/18

Englobe Corp.
Client Project #: 02103035.000
Site Location: 424 Churchill Ave North
Sampler Initials: JB

OTTAWA SAN&STORM SEWER BYLAW (2003-514)

Bureau Veritas ID		WZE422			WZE422		
Sampling Date		2023/09/13 13:00			2023/09/13 13:00		
COC Number		953656-01-01			953656-01-01		
	UNITS	MW23-2	RDL	QC Batch	MW23-2 Lab-Dup	RDL	QC Batch
Calculated Parameters							
Total Animal/Vegetable Oil and Grease	mg/L	<0.50	0.50	8916468			
Inorganics							
Total Kjeldahl Nitrogen (TKN)	mg/L	0.15	0.10	8915997			
pH	pH	7.78		8918550			
Phenols-4AAP	mg/L	<0.0010	0.0010	8919650	<0.0010	0.0010	8919650
Total Suspended Solids	mg/L	<10	10	8919511	<10	10	8919511
Petroleum Hydrocarbons							
Total Oil & Grease	mg/L	<0.50	0.50	8922558			
Total Oil & Grease Mineral/Synthetic	mg/L	<0.50	0.50	8922560			
Metals							
Mercury (Hg)	mg/L	<0.00010	0.00010	8919601			
Total Aluminum (Al)	ug/L	16	4.9	8922919			
Total Antimony (Sb)	ug/L	<0.50	0.50	8922919			
Total Arsenic (As)	ug/L	<1.0	1.0	8922919			
Total Bismuth (Bi)	ug/L	<1.0	1.0	8922919			
Total Boron (B)	ug/L	200	10	8922919			
Total Cadmium (Cd)	ug/L	<0.090	0.090	8922919			
Total Chromium (Cr)	ug/L	<5.0	5.0	8922919			
Total Cobalt (Co)	ug/L	1.2	0.50	8922919			
Total Copper (Cu)	ug/L	3.4	0.90	8922919			
Total Lead (Pb)	ug/L	<0.50	0.50	8922919			
Total Manganese (Mn)	ug/L	18	2.0	8922919			
Total Molybdenum (Mo)	ug/L	1.7	0.50	8922919			
Total Nickel (Ni)	ug/L	3.0	1.0	8922919			
Total Phosphorus (P)	ug/L	<100	100	8922919			
Total Selenium (Se)	ug/L	<2.0	2.0	8922919			
Total Silver (Ag)	ug/L	<0.090	0.090	8922919			
Total Tin (Sn)	ug/L	<1.0	1.0	8922919			
Total Titanium (Ti)	ug/L	<5.0	5.0	8922919			
Total Vanadium (V)	ug/L	<0.50	0.50	8922919			
Total Zinc (Zn)	ug/L	6.5	5.0	8922919			
Semivolatile Organics							
1-Methylnaphthalene	ug/L	<0.3	0.3	8921699			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

OTTAWA SAN&STORM SEWER BYLAW (2003-514)

Bureau Veritas ID		WZE422			WZE422		
Sampling Date		2023/09/13 13:00			2023/09/13 13:00		
COC Number		953656-01-01			953656-01-01		
	UNITS	MW23-2	RDL	QC Batch	MW23-2 Lab-Dup	RDL	QC Batch
2-Methylnaphthalene	ug/L	<0.3	0.3	8921699			
Fluorene	ug/L	<0.3	0.3	8921699			
Naphthalene	ug/L	<0.3	0.3	8921699			
Di-N-butyl phthalate	ug/L	<2	2	8921699			
Bis(2-ethylhexyl)phthalate	ug/L	<2	2	8921699			
Phenanthrene	ug/L	<0.2	0.2	8921699			
Anthracene	ug/L	<0.2	0.2	8921699			
Fluoranthene	ug/L	<0.2	0.2	8921699			
Pyrene	ug/L	<0.2	0.2	8921699			
Benzo(a)anthracene	ug/L	<0.2	0.2	8921699			
Chrysene	ug/L	<0.2	0.2	8921699			
Benzo(b/j)fluoranthene	ug/L	<0.2	0.2	8921699			
Benzo(k)fluoranthene	ug/L	<0.2	0.2	8921699			
Benzo(a)pyrene	ug/L	<0.2	0.2	8921699			
Indeno(1,2,3-cd)pyrene	ug/L	<0.2	0.2	8921699			
Dibenzo(a,h)anthracene	ug/L	<0.2	0.2	8921699			
Benzo(g,h,i)perylene	ug/L	<0.2	0.2	8921699			
Dibenzo(a,i)pyrene	ug/L	<0.2	0.2	8921699			
Benzo(e)pyrene	ug/L	<0.2	0.2	8921699			
Perylene	ug/L	<0.2	0.2	8921699			
Dibenzo(a,j) acridine	ug/L	<0.4	0.4	8921699			
7H-Dibenzo(c,g) Carbazole	ug/L	<0.4	0.4	8921699			
2,4-Dichlorophenol	ug/L	<0.30	0.30	8918819			
Benzyl butyl phthalate	ug/L	<0.50	0.50	8918819			
Bis(2-chloroethoxy)methane	ug/L	<0.50	0.50	8918819			
di-n-octyl phthalate	ug/L	<0.80	0.80	8918819			
Diethyl phthalate	ug/L	<1.0	1.0	8918819			
Indole	ug/L	<1.0	1.0	8918819			
Calculated Parameters							
Total PAHs (18 PAHs)	ug/L	<0.96	0.96	8916470			
Volatile Organics							
Benzene	ug/L	<0.20	0.20	8916724			
Bromodichloromethane	ug/L	<0.50	0.50	8916724			
Bromoform	ug/L	<1.0	1.0	8916724			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

OTTAWA SAN&STORM SEWER BYLAW (2003-514)

Bureau Veritas ID		WZE422			WZE422		
Sampling Date		2023/09/13 13:00			2023/09/13 13:00		
COC Number		953656-01-01			953656-01-01		
	UNITS	MW23-2	RDL	QC Batch	MW23-2 Lab-Dup	RDL	QC Batch
Bromomethane	ug/L	<0.50	0.50	8916724			
Carbon Tetrachloride	ug/L	<0.19	0.19	8916724			
Chlorobenzene	ug/L	<0.20	0.20	8916724			
Chloroethane	ug/L	<1.0	1.0	8916724			
Chloroform	ug/L	0.82	0.20	8916724			
Chloromethane	ug/L	<5.0	5.0	8916724			
Dibromochloromethane	ug/L	<0.50	0.50	8916724			
1,2-Dichlorobenzene	ug/L	<0.40	0.40	8916724			
1,3-Dichlorobenzene	ug/L	<0.40	0.40	8916724			
1,4-Dichlorobenzene	ug/L	<0.40	0.40	8916724			
1,1-Dichloroethane	ug/L	<0.20	0.20	8916724			
1,2-Dichloroethane	ug/L	<0.49	0.49	8916724			
1,1-Dichloroethylene	ug/L	<0.20	0.20	8916724			
cis-1,2-Dichloroethylene	ug/L	16	0.50	8916724			
trans-1,2-Dichloroethylene	ug/L	1.7	0.50	8916724			
1,2-Dichloropropane	ug/L	<0.20	0.20	8916724			
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	8916724			
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	8916724			
Ethylbenzene	ug/L	<0.20	0.20	8916724			
Ethylene Dibromide	ug/L	<0.19	0.19	8916724			
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	8916724			
Styrene	ug/L	<0.40	0.40	8916724			
1,1,2,2-Tetrachloroethane	ug/L	<0.40	0.40	8916724			
Tetrachloroethylene	ug/L	720	0.40	8916724			
1,3,5-Trimethylbenzene	ug/L	<0.20	0.20	8911263			
Toluene	ug/L	<0.20	0.20	8916724			
1,1,1-Trichloroethane	ug/L	<0.20	0.20	8916724			
1,1,2-Trichloroethane	ug/L	<0.40	0.40	8916724			
Trichloroethylene	ug/L	44	0.20	8916724			
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	8916724			
Vinyl Chloride	ug/L	0.96	0.20	8916724			
p+m-Xylene	ug/L	<0.20	0.20	8916724			
o-Xylene	ug/L	<0.20	0.20	8916724			
Total Xylenes	ug/L	<0.20	0.20	8916724			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas Job #: C3S1843
Report Date: 2023/09/18

Englobe Corp.
Client Project #: 02103035.000
Site Location: 424 Churchill Ave North
Sampler Initials: JB

OTTAWA SAN&STORM SEWER BYLAW (2003-514)

Bureau Veritas ID		WZE422			WZE422		
Sampling Date		2023/09/13 13:00			2023/09/13 13:00		
COC Number		953656-01-01			953656-01-01		
	UNITS	MW23-2	RDL	QC Batch	MW23-2 Lab-Dup	RDL	QC Batch
Calculated Parameters							
Total PCB	ug/L	<0.05	0.05	8916469			
Pesticides & Herbicides							
Hexachlorobenzene	ug/L	<0.005	0.005	8918788			
Microbiological							
Escherichia coli	CFU/100mL	<10	10	8917776			
Surrogate Recovery (%)							
2,4,6-Tribromophenol	%	71		8918819			
2-Fluorobiphenyl	%	85		8918819			
2-Fluorophenol	%	37		8918819			
D14-Terphenyl	%	89		8918819			
D5-Nitrobenzene	%	94		8918819			
D5-Phenol	%	27		8918819			
2,4,6-Tribromophenol	%	57		8921699			
2-Fluorobiphenyl	%	79		8921699			
D14-Terphenyl (FS)	%	101		8921699			
D5-Nitrobenzene	%	99		8921699			
D8-Acenaphthylene	%	75		8921699			
2,4,5,6-Tetrachloro-m-xylene	%	66		8918788			
Decachlorobiphenyl	%	72		8918788			
4-Bromofluorobenzene	%	96		8916724			
D4-1,2-Dichloroethane	%	109		8916724			
D8-Toluene	%	94		8916724			
4-Bromofluorobenzene	%	114		8911263			
D4-1,2-Dichloroethane	%	87		8911263			
D8-Toluene	%	111		8911263			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas Job #: C3S1843
Report Date: 2023/09/18

Englobe Corp.
Client Project #: 02103035.000
Site Location: 424 Churchill Ave North
Sampler Initials: JB

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		WZE422			WZE422		
Sampling Date		2023/09/13 13:00			2023/09/13 13:00		
COC Number		953656-01-01			953656-01-01		
	UNITS	MW23-2	RDL	QC Batch	MW23-2 Lab-Dup	RDL	QC Batch
Inorganics							
Fluoride (F-)	mg/L	0.30	0.10	8918551			
Dissolved Sulphate (SO4)	mg/L	130	1.0	8918530			
Sulphide	mg/L	<0.020	0.020	8919642	<0.020	0.020	8919642
Total Cyanide (CN)	mg/L	<0.0050	0.0050	8918822			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas Job #: C3S1843
Report Date: 2023/09/18

Englobe Corp.
Client Project #: 02103035.000
Site Location: 424 Churchill Ave North
Sampler Initials: JB

TEST SUMMARY

Bureau Veritas ID: WZE422
Sample ID: MW23-2
Matrix: Water

Collected: 2023/09/13
Shipped:
Received: 2023/09/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by GC/MS	GC/MS	8918819	2023/09/15	2023/09/15	Kathy Horvat
Sewer Use By-Law Semivolatile Organics	GC/MS	8921699	2023/09/16	2023/09/18	Kathy Horvat
Total Cyanide	SKAL/CN	8918822	2023/09/15	2023/09/15	Prgya Panchal
Fluoride	ISE	8918551	2023/09/14	2023/09/15	Nachiketa Gohil
Mercury in Water by CVAA	CV/AA	8919601	2023/09/15	2023/09/18	Thuy Linh Nguyen
Total Metals Analysis by ICPMS	ICP/MS	8922919	2023/09/18	2023/09/18	Arefa Dabhad
E.coli, (CFU/100mL)	PL	8917776	N/A	2023/09/14	Soham Patel
Animal and Vegetable Oil and Grease	BAL	8916468	N/A	2023/09/18	Automated Statchk
Total Oil and Grease	BAL	8922558	2023/09/17	2023/09/17	Navneet Singh
OC Pesticides (Selected) & PCB	GC/ECD	8918788	2023/09/15	2023/09/17	Li Peng
OC Pesticides Summed Parameters	CALC	8916469	N/A	2023/09/15	Automated Statchk
pH	AT	8918550	2023/09/14	2023/09/15	Nachiketa Gohil
Phenols (4AAP)	TECH/PHEN	8919650	N/A	2023/09/15	Chloe Pollock
Sulphate by Automated Turbidimetry	KONE	8918530	N/A	2023/09/15	Massarat Jan
Sulphide	ISE/S	8919642	N/A	2023/09/15	Taslima Aktar
Total Kjeldahl Nitrogen in Water	SKAL	8915997	2023/09/14	2023/09/18	Rajni Tyagi
Total PAHs (Hamilton, Ottawa S.U.B.)	CALC	8916470	N/A	2023/09/18	Automated Statchk
Mineral/Synthetic O & G (TPH Heavy Oil)	BAL	8922560	2023/09/17	2023/09/17	Navneet Singh
Total Suspended Solids	BAL	8919511	2023/09/15	2023/09/18	Razieh Tabesh
Volatile Organic Compounds in Water	GC/MS	8916724	N/A	2023/09/15	Narayan Ghimire
Non-Routine Volatile Organic Compounds	P&T/MS	8911263	N/A	2023/09/15	Zi Wang

Bureau Veritas ID: WZE422 Dup
Sample ID: MW23-2
Matrix: Water

Collected: 2023/09/13
Shipped:
Received: 2023/09/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Phenols (4AAP)	TECH/PHEN	8919650	N/A	2023/09/15	Chloe Pollock
Sulphide	ISE/S	8919642	N/A	2023/09/15	Taslima Aktar
Total Suspended Solids	BAL	8919511	2023/09/15	2023/09/18	Razieh Tabesh

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.3°C

Sample WZE422 [MW23-2] : VOC Analysis: Due to high concentrations of target analytes, sample required dilution. Detection limits were adjusted accordingly. In order to meet required regulatory criteria or to achieve lower reporting limits, results for selected compounds (obtained by a separate analysis using an appropriate low dilution) are included in the report.

Results relate only to the items tested.

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8911263	4-Bromofluorobenzene	2023/09/15	114	70 - 130	118	70 - 130	108	%				
8911263	D4-1,2-Dichloroethane	2023/09/15	81	70 - 130	87	70 - 130	86	%				
8911263	D8-Toluene	2023/09/15	108	70 - 130	104	70 - 130	108	%				
8916724	4-Bromofluorobenzene	2023/09/15	99	70 - 130	98	70 - 130	98	%				
8916724	D4-1,2-Dichloroethane	2023/09/15	109	70 - 130	106	70 - 130	103	%				
8916724	D8-Toluene	2023/09/15	97	70 - 130	97	70 - 130	99	%				
8918788	2,4,5,6-Tetrachloro-m-xylene	2023/09/17	72	50 - 130	71	50 - 130	74	%				
8918788	Decachlorobiphenyl	2023/09/17	122	50 - 130	105	50 - 130	112	%				
8918819	2,4,6-Tribromophenol	2023/09/15	89	10 - 130	91	10 - 130	68	%				
8918819	2-Fluorobiphenyl	2023/09/15	80	30 - 130	77	30 - 130	78	%				
8918819	2-Fluorophenol	2023/09/15	46	10 - 130	48	10 - 130	40	%				
8918819	D14-Terphenyl	2023/09/15	95	30 - 130	93	30 - 130	89	%				
8918819	D5-Nitrobenzene	2023/09/15	91	30 - 130	93	30 - 130	87	%				
8918819	D5-Phenol	2023/09/15	30	10 - 130	32	10 - 130	27	%				
8921699	2,4,6-Tribromophenol	2023/09/18	88	10 - 130	82	10 - 130	55	%				
8921699	2-Fluorobiphenyl	2023/09/18	72	30 - 130	71	30 - 130	83	%				
8921699	D14-Terphenyl (FS)	2023/09/18	103	30 - 130	100	30 - 130	100	%				
8921699	D5-Nitrobenzene	2023/09/18	98	30 - 130	98	30 - 130	98	%				
8921699	D8-Acenaphthylene	2023/09/18	76	30 - 130	76	30 - 130	77	%				
8911263	1,3,5-Trimethylbenzene	2023/09/15	114	60 - 140	108	60 - 140	<0.20	ug/L	NC	30		
8915997	Total Kjeldahl Nitrogen (TKN)	2023/09/18	NC	80 - 120	98	80 - 120	<0.10	mg/L	20	20	96	N/A
8916724	1,1,1-Trichloroethane	2023/09/15	94	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
8916724	1,1,2,2-Tetrachloroethane	2023/09/15	103	70 - 130	93	70 - 130	<0.40	ug/L	NC	30		
8916724	1,1,2-Trichloroethane	2023/09/15	98	70 - 130	90	70 - 130	<0.40	ug/L	NC	30		
8916724	1,1-Dichloroethane	2023/09/15	98	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
8916724	1,1-Dichloroethylene	2023/09/15	96	70 - 130	97	70 - 130	<0.20	ug/L	5.0	30		
8916724	1,2-Dichlorobenzene	2023/09/15	92	70 - 130	87	70 - 130	<0.40	ug/L	NC	30		
8916724	1,2-Dichloroethane	2023/09/15	95	70 - 130	92	70 - 130	<0.49	ug/L	4.8	30		
8916724	1,2-Dichloropropane	2023/09/15	97	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
8916724	1,3-Dichlorobenzene	2023/09/15	92	70 - 130	90	70 - 130	<0.40	ug/L	NC	30		
8916724	1,4-Dichlorobenzene	2023/09/15	104	70 - 130	98	70 - 130	<0.40	ug/L	NC	30		
8916724	Benzene	2023/09/15	87	70 - 130	87	70 - 130	<0.20	ug/L	NC	30		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8916724	Bromodichloromethane	2023/09/15	103	70 - 130	101	70 - 130	<0.50	ug/L	NC	30		
8916724	Bromoform	2023/09/15	89	70 - 130	80	70 - 130	<1.0	ug/L	NC	30		
8916724	Bromomethane	2023/09/15	95	60 - 140	94	60 - 140	<0.50	ug/L	NC	30		
8916724	Carbon Tetrachloride	2023/09/15	91	70 - 130	91	70 - 130	<0.19	ug/L	NC	30		
8916724	Chlorobenzene	2023/09/15	98	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
8916724	Chloroethane	2023/09/15	94	70 - 130	94	70 - 130	<1.0	ug/L				
8916724	Chloroform	2023/09/15	101	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
8916724	Chloromethane	2023/09/15	96	60 - 140	91	60 - 140	<5.0	ug/L				
8916724	cis-1,2-Dichloroethylene	2023/09/15	93	70 - 130	92	70 - 130	<0.50	ug/L	NC	30		
8916724	cis-1,3-Dichloropropene	2023/09/15	101	70 - 130	99	70 - 130	<0.30	ug/L	NC	30		
8916724	Dibromochloromethane	2023/09/15	94	70 - 130	87	70 - 130	<0.50	ug/L	NC	30		
8916724	Ethylbenzene	2023/09/15	89	70 - 130	85	70 - 130	<0.20	ug/L	NC	30		
8916724	Ethylene Dibromide	2023/09/15	96	70 - 130	89	70 - 130	<0.19	ug/L	NC	30		
8916724	Methylene Chloride(Dichloromethane)	2023/09/15	95	70 - 130	93	70 - 130	<2.0	ug/L	NC	30		
8916724	o-Xylene	2023/09/15	83	70 - 130	80	70 - 130	<0.20	ug/L	NC	30		
8916724	p+m-Xylene	2023/09/15	96	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
8916724	Styrene	2023/09/15	98	70 - 130	93	70 - 130	<0.40	ug/L	NC	30		
8916724	Tetrachloroethylene	2023/09/15	88	70 - 130	85	70 - 130	<0.20	ug/L	NC	30		
8916724	Toluene	2023/09/15	88	70 - 130	86	70 - 130	<0.20	ug/L	3.0	30		
8916724	Total Xylenes	2023/09/15					<0.20	ug/L	NC	30		
8916724	trans-1,2-Dichloroethylene	2023/09/15	90	70 - 130	91	70 - 130	<0.50	ug/L	NC	30		
8916724	trans-1,3-Dichloropropene	2023/09/15	96	70 - 130	102	70 - 130	<0.40	ug/L	NC	30		
8916724	Trichloroethylene	2023/09/15	91	70 - 130	91	70 - 130	<0.20	ug/L	NC	30		
8916724	Trichlorofluoromethane (FREON 11)	2023/09/15	95	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
8916724	Vinyl Chloride	2023/09/15	NC	70 - 130	93	70 - 130	<0.20	ug/L	1.3	30		
8918530	Dissolved Sulphate (SO4)	2023/09/15	NC	75 - 125	101	80 - 120	<1.0	mg/L	0.63	20		
8918550	pH	2023/09/15			103	98 - 103			0.35	N/A		
8918551	Fluoride (F-)	2023/09/15	101	80 - 120	103	80 - 120	<0.10	mg/L	NC	20		
8918788	Hexachlorobenzene	2023/09/17	70	50 - 130	78	50 - 130	<0.005	ug/L	2.8	30		
8918819	2,4-Dichlorophenol	2023/09/15	85	10 - 130	86	10 - 130	<0.30	ug/L	2.1	40		
8918819	Benzyl butyl phthalate	2023/09/15	84	30 - 130	84	30 - 130	<0.50	ug/L	1.6	40		
8918819	Bis(2-chloroethoxy)methane	2023/09/15	75	30 - 130	76	30 - 130	<0.50	ug/L	1.6	40		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8918819	Diethyl phthalate	2023/09/15	81	30 - 130	83	30 - 130	<1.0	ug/L	2.5	40		
8918819	di-n-octyl phthalate	2023/09/15	84	30 - 130	78	30 - 130	<0.80	ug/L	1.3	40		
8918819	Indole	2023/09/15	35	30 - 130	45	30 - 130	<1.0	ug/L	3.5	40		
8918822	Total Cyanide (CN)	2023/09/15	107	80 - 120	103	80 - 120	<0.0050	mg/L	NC	20		
8919511	Total Suspended Solids	2023/09/18			101	85 - 115	<10	mg/L	NC	20		
8919601	Mercury (Hg)	2023/09/18	98	75 - 125	98	80 - 120	<0.00010	mg/L	NC	20		
8919642	Sulphide	2023/09/15	87	80 - 120	87	80 - 120	<0.020	mg/L	NC	20		
8919650	Phenols-4AAP	2023/09/15	104	80 - 120	103	80 - 120	<0.0010	mg/L	NC	20		
8921699	1-Methylnaphthalene	2023/09/18	70	30 - 130	77	30 - 130	<0.3	ug/L				
8921699	2-Methylnaphthalene	2023/09/18	61	30 - 130	68	30 - 130	<0.3	ug/L				
8921699	7H-Dibenzo(c,g) Carbazole	2023/09/18	86	30 - 130	80	30 - 130	<0.4	ug/L	NC	40		
8921699	Anthracene	2023/09/18	86	30 - 130	86	30 - 130	<0.2	ug/L	NC	40		
8921699	Benzo(a)anthracene	2023/09/18	102	30 - 130	102	30 - 130	<0.2	ug/L	NC	40		
8921699	Benzo(a)pyrene	2023/09/18	107	30 - 130	107	30 - 130	<0.2	ug/L	NC	40		
8921699	Benzo(b/j)fluoranthene	2023/09/18	105	30 - 130	103	30 - 130	<0.2	ug/L	NC	40		
8921699	Benzo(e)pyrene	2023/09/18	103	30 - 130	104	30 - 130	<0.2	ug/L	NC	40		
8921699	Benzo(g,h,i)perylene	2023/09/18	105	30 - 130	106	30 - 130	<0.2	ug/L	NC	40		
8921699	Benzo(k)fluoranthene	2023/09/18	101	30 - 130	98	30 - 130	<0.2	ug/L	NC	40		
8921699	Bis(2-ethylhexyl)phthalate	2023/09/18	119	30 - 130	115	30 - 130	<2	ug/L	NC	40		
8921699	Chrysene	2023/09/18	98	30 - 130	99	30 - 130	<0.2	ug/L	NC	40		
8921699	Dibenzo(a,h)anthracene	2023/09/18	93	30 - 130	95	30 - 130	<0.2	ug/L	NC	40		
8921699	Dibenzo(a,i)pyrene	2023/09/18	45	30 - 130	58	30 - 130	<0.2	ug/L	NC	40		
8921699	Dibenzo(a,j) acridine	2023/09/18	89	30 - 130	90	30 - 130	<0.4	ug/L	NC	40		
8921699	Di-N-butyl phthalate	2023/09/18	97	30 - 130	93	30 - 130	<2	ug/L	NC	40		
8921699	Fluoranthene	2023/09/18	101	30 - 130	98	30 - 130	<0.2	ug/L	NC	40		
8921699	Fluorene	2023/09/18	88	30 - 130	90	30 - 130	<0.3	ug/L				
8921699	Indeno(1,2,3-cd)pyrene	2023/09/18	108	30 - 130	115	30 - 130	<0.2	ug/L	NC	40		
8921699	Naphthalene	2023/09/18	64	30 - 130	69	30 - 130	<0.3	ug/L	NC	40		
8921699	Perylene	2023/09/18	99	30 - 130	99	30 - 130	<0.2	ug/L	NC	40		
8921699	Phenanthrene	2023/09/18	86	30 - 130	87	30 - 130	<0.2	ug/L	NC	40		
8921699	Pyrene	2023/09/18	102	30 - 130	100	30 - 130	<0.2	ug/L	NC	40		
8922558	Total Oil & Grease	2023/09/17			99	85 - 115	<0.50	mg/L	0.51	25		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8922560	Total Oil & Grease Mineral/Synthetic	2023/09/17			97	85 - 115	<0.50	mg/L	0.52	25		
8922919	Total Aluminum (Al)	2023/09/18	97	80 - 120	105	80 - 120	<4.9	ug/L	NC	20		
8922919	Total Antimony (Sb)	2023/09/18	106	80 - 120	104	80 - 120	<0.50	ug/L	NC	20		
8922919	Total Arsenic (As)	2023/09/18	102	80 - 120	99	80 - 120	<1.0	ug/L	NC	20		
8922919	Total Bismuth (Bi)	2023/09/18	98	80 - 120	96	80 - 120	<1.0	ug/L	NC	20		
8922919	Total Boron (B)	2023/09/18	97	80 - 120	97	80 - 120	<10	ug/L	NC	20		
8922919	Total Cadmium (Cd)	2023/09/18	100	80 - 120	98	80 - 120	<0.090	ug/L	NC	20		
8922919	Total Chromium (Cr)	2023/09/18	99	80 - 120	95	80 - 120	<5.0	ug/L	NC	20		
8922919	Total Cobalt (Co)	2023/09/18	98	80 - 120	93	80 - 120	<0.50	ug/L	NC	20		
8922919	Total Copper (Cu)	2023/09/18	105	80 - 120	100	80 - 120	<0.90	ug/L	NC	20		
8922919	Total Lead (Pb)	2023/09/18	102	80 - 120	102	80 - 120	<0.50	ug/L	NC	20		
8922919	Total Manganese (Mn)	2023/09/18	100	80 - 120	98	80 - 120	<2.0	ug/L	2.2	20		
8922919	Total Molybdenum (Mo)	2023/09/18	110	80 - 120	101	80 - 120	<0.50	ug/L	NC	20		
8922919	Total Nickel (Ni)	2023/09/18	97	80 - 120	96	80 - 120	<1.0	ug/L	NC	20		
8922919	Total Phosphorus (P)	2023/09/18	99	80 - 120	94	80 - 120	<100	ug/L				
8922919	Total Selenium (Se)	2023/09/18	102	80 - 120	104	80 - 120	<2.0	ug/L	NC	20		
8922919	Total Silver (Ag)	2023/09/18	103	80 - 120	98	80 - 120	<0.090	ug/L	NC	20		
8922919	Total Tin (Sn)	2023/09/18	104	80 - 120	100	80 - 120	<1.0	ug/L	NC	20		
8922919	Total Titanium (Ti)	2023/09/18	101	80 - 120	101	80 - 120	<5.0	ug/L	NC	20		
8922919	Total Vanadium (V)	2023/09/18	96	80 - 120	93	80 - 120	<0.50	ug/L	NC	20		
8922919	Total Zinc (Zn)	2023/09/18	101	80 - 120	99	80 - 120	<5.0	ug/L	NC	20		

N/A = Not Applicable

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

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

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

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

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

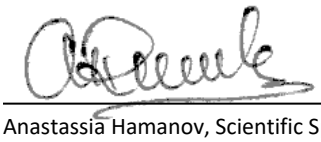
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

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

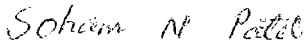
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

VALIDATION SIGNATURE PAGE

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



Anastassia Hamanov, Scientific Specialist



Soham Patel, Senior Analyst

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Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Your Project #: 02103035.000
Site Location: 424 Churchill Avenue North, Otawa
Your C.O.C. #: 947903-01-01

Attention: Colette Robitaille

Englobe Corp.
Ottawa - Standing Offer
2713 Lancaster Road
Unit 101
Ottawa, ON
CANADA K1B 5R6

Report Date: 2024/02/27
Report #: R8043629
Version: 7 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C3O5376
Received: 2023/08/14, 16:49

Sample Matrix: Ground Water
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	2	N/A	2023/08/28	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum	2	N/A	2023/08/17		EPA 8260C m
1,3-Dichloropropene Sum	1	N/A	2023/08/21		EPA 8260C m
1,3-Dichloropropene Sum	1	N/A	2023/08/28		EPA 8260C m
Total Chloramines in Water	2	N/A	2023/08/15		
Free Residual Chlorine	2	2023/08/15	2023/08/15	CAM SOP 00425	SM 23 4500-CL G m
Total Residual Chlorine	2	2023/08/15	2023/08/15	CAM SOP 00425	SM 23 4500-CL G m
Petroleum Hydrocarbons F2-F4 in Water (1)	2	2023/08/24	2023/08/26	CAM SOP-00316	CCME PHC-CWS m
Dissolved Metals by ICPMS	2	N/A	2023/08/26	CAM SOP-00447	EPA 6020B m
PAH Compounds in Water by GC/MS (SIM)	1	2023/08/24	2023/08/25	CAM SOP-00318	EPA 8270E
PAH Compounds in Water by GC/MS (SIM)	1	2023/08/24	2023/08/26	CAM SOP-00318	EPA 8270E
Volatile Organic Compounds and F1 PHCs	1	N/A	2023/08/25	CAM SOP-00230	EPA 8260C m
Volatile Organic Compounds in Water	2	N/A	2023/08/16	CAM SOP-00228	EPA 8260D
Volatile Organic Compounds in Water	1	N/A	2023/08/19	CAM SOP-00228	EPA 8260D

Remarks:

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

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

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

Your Project #: 02103035.000
Site Location: 424 Churchill Avenue North, Otawa
Your C.O.C. #: 947903-01-01

Attention: Colette Robitaille

Englobe Corp.
Ottawa - Standing Offer
2713 Lancaster Road
Unit 101
Ottawa, ON
CANADA K1B 5R6

Report Date: 2024/02/27
Report #: R8043629
Version: 7 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C3O5376
Received: 2023/08/14, 16:49

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

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

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

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

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

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Bureau Veritas Job #: C3O5376
Report Date: 2024/02/27

Englobe Corp.
Client Project #: 02103035.000
Site Location: 424 Churchill Avenue North, Otawa
Sampler Initials: JB

RESULTS OF ANALYSES OF GROUND WATER

Bureau Veritas ID		WRL909			WRL909			WRL912		
Sampling Date		2023/08/14 11:00			2023/08/14 11:00			2023/08/14 15:00		
COC Number		947903-01-01			947903-01-01			947903-01-01		
	UNITS	MW23-3	RDL	QC Batch	MW23-3 Lab-Dup	RDL	QC Batch	MW23-11	RDL	QC Batch
CONVENTIONALS										
Total Chloramines	mg/L	<0.1	0.1	8852865				<0.1	0.1	8852865
Inorganics										
Free Chlorine	mg/L	<0.1	0.1	8854599				<0.1	0.1	8854599
Total Chlorine	mg/L	<0.1	0.1	8854534	<0.1	0.1	8854534	<0.1	0.1	8854534

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

ELEMENTS BY ATOMIC SPECTROSCOPY (GROUND WATER)

Bureau Veritas ID		WRL909	WRL913		
Sampling Date		2023/08/14 11:00	2023/08/14 11:00		
COC Number		947903-01-01	947903-01-01		
	UNITS	MW23-3	MW23-4	RDL	QC Batch
Metals					
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	0.50	8872531
Dissolved Arsenic (As)	ug/L	<1.0	<1.0	1.0	8872531
Dissolved Barium (Ba)	ug/L	65	76	2.0	8872531
Dissolved Beryllium (Be)	ug/L	<0.40	<0.40	0.40	8872531
Dissolved Boron (B)	ug/L	230	95	10	8872531
Dissolved Cadmium (Cd)	ug/L	<0.090	<0.090	0.090	8872531
Dissolved Chromium (Cr)	ug/L	<5.0	<5.0	5.0	8872531
Dissolved Cobalt (Co)	ug/L	24	0.62	0.50	8872531
Dissolved Copper (Cu)	ug/L	1.4	4.7	0.90	8872531
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	0.50	8872531
Dissolved Molybdenum (Mo)	ug/L	6.9	1.9	0.50	8872531
Dissolved Nickel (Ni)	ug/L	6.8	2.2	1.0	8872531
Dissolved Selenium (Se)	ug/L	<2.0	<2.0	2.0	8872531
Dissolved Silver (Ag)	ug/L	<0.090	<0.090	0.090	8872531
Dissolved Sodium (Na)	ug/L	410000	490000	100	8872531
Dissolved Thallium (Tl)	ug/L	0.18	0.21	0.050	8872531
Dissolved Uranium (U)	ug/L	0.74	0.82	0.10	8872531
Dissolved Vanadium (V)	ug/L	<0.50	<0.50	0.50	8872531
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	5.0	8872531

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

SEMI-VOLATILE ORGANICS BY GC-MS (GROUND WATER)

Bureau Veritas ID		WRL909	WRL913		
Sampling Date		2023/08/14 11:00	2023/08/14 11:00		
COC Number		947903-01-01	947903-01-01		
	UNITS	MW23-3	MW23-4	RDL	QC Batch
Calculated Parameters					
Methylnaphthalene, 2-(1-)	ug/L	<0.071	0.28	0.071	8870704
Polyaromatic Hydrocarbons					
Acenaphthene	ug/L	<0.050	<0.050	0.050	8874330
Acenaphthylene	ug/L	<0.050	<0.050	0.050	8874330
Anthracene	ug/L	<0.050	<0.050	0.050	8874330
Benzo(a)anthracene	ug/L	<0.050	<0.050	0.050	8874330
Benzo(a)pyrene	ug/L	<0.0090	<0.0090	0.0090	8874330
Benzo(b/j)fluoranthene	ug/L	<0.050	<0.050	0.050	8874330
Benzo(g,h,i)perylene	ug/L	<0.050	<0.050	0.050	8874330
Benzo(k)fluoranthene	ug/L	<0.050	<0.050	0.050	8874330
Chrysene	ug/L	<0.050	<0.050	0.050	8874330
Dibenzo(a,h)anthracene	ug/L	<0.050	<0.050	0.050	8874330
Fluoranthene	ug/L	<0.050	<0.050	0.050	8874330
Fluorene	ug/L	<0.050	<0.050	0.050	8874330
Indeno(1,2,3-cd)pyrene	ug/L	<0.050	<0.050	0.050	8874330
1-Methylnaphthalene	ug/L	<0.050	0.12	0.050	8874330
2-Methylnaphthalene	ug/L	<0.050	0.16	0.050	8874330
Naphthalene	ug/L	<0.050	<0.050	0.050	8874330
Phenanthrene	ug/L	<0.030	0.044	0.030	8874330
Pyrene	ug/L	<0.050	<0.050	0.050	8874330
Surrogate Recovery (%)					
D10-Anthracene	%	111	112		8874330
D14-Terphenyl (FS)	%	98	111		8874330
D8-Acenaphthylene	%	89	96		8874330

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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VOLATILE ORGANICS BY GC/MS (GROUND WATER)

Bureau Veritas ID		WRL909			WRL913			WRL913		
Sampling Date		2023/08/14 11:00			2023/08/14 11:00			2023/08/14 11:00		
COC Number		947903-01-01			947903-01-01			947903-01-01		
	UNITS	MW23-3	RDL	QC Batch	MW23-4	RDL	QC Batch	MW23-4 Lab-Dup	RDL	QC Batch
Calculated Parameters										
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	8861371	<0.50	0.50	8870701			
Volatile Organics										
Acetone (2-Propanone)	ug/L	<10	10	8861208	<10	10	8874251	<10	10	8874251
Benzene	ug/L	<0.20	0.20	8861208	<0.17	0.17	8874251	<0.17	0.17	8874251
Bromodichloromethane	ug/L	<0.50	0.50	8861208	<0.50	0.50	8874251	<0.50	0.50	8874251
Bromoform	ug/L	<1.0	1.0	8861208	<1.0	1.0	8874251	<1.0	1.0	8874251
Bromomethane	ug/L	<0.50	0.50	8861208	<0.50	0.50	8874251	<0.50	0.50	8874251
Carbon Tetrachloride	ug/L	<0.19	0.19	8861208	<0.20	0.20	8874251	<0.20	0.20	8874251
Chlorobenzene	ug/L	<0.20	0.20	8861208	<0.20	0.20	8874251	<0.20	0.20	8874251
Chloroform	ug/L	0.45	0.20	8861208	<0.20	0.20	8874251	<0.20	0.20	8874251
Dibromochloromethane	ug/L	<0.50	0.50	8861208	<0.50	0.50	8874251	<0.50	0.50	8874251
1,2-Dichlorobenzene	ug/L	<0.40	0.40	8861208	<0.50	0.50	8874251	<0.50	0.50	8874251
1,3-Dichlorobenzene	ug/L	<0.40	0.40	8861208	<0.50	0.50	8874251	<0.50	0.50	8874251
1,4-Dichlorobenzene	ug/L	<0.40	0.40	8861208	<0.50	0.50	8874251	<0.50	0.50	8874251
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	8861208	<1.0	1.0	8874251	<1.0	1.0	8874251
1,1-Dichloroethane	ug/L	<0.20	0.20	8861208	<0.20	0.20	8874251	<0.20	0.20	8874251
1,2-Dichloroethane	ug/L	<0.49	0.49	8861208	<0.50	0.50	8874251	<0.50	0.50	8874251
1,1-Dichloroethylene	ug/L	2.0	0.20	8861208	<0.20	0.20	8874251	<0.20	0.20	8874251
cis-1,2-Dichloroethylene	ug/L	940	1.0	8861208	<0.50	0.50	8874251	<0.50	0.50	8874251
trans-1,2-Dichloroethylene	ug/L	14	0.50	8861208	<0.50	0.50	8874251	<0.50	0.50	8874251
1,2-Dichloropropane	ug/L	<0.20	0.20	8861208	<0.20	0.20	8874251	<0.20	0.20	8874251
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	8861208	<0.30	0.30	8874251	<0.30	0.30	8874251
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	8861208	<0.40	0.40	8874251	<0.40	0.40	8874251
Ethylbenzene	ug/L	<0.20	0.20	8861208	<0.20	0.20	8874251	<0.20	0.20	8874251
Ethylene Dibromide	ug/L	<0.19	0.19	8861208	<0.20	0.20	8874251	<0.20	0.20	8874251
Hexane	ug/L	<1.0	1.0	8861208	<1.0	1.0	8874251	<1.0	1.0	8874251
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	8861208	<2.0	2.0	8874251	<2.0	2.0	8874251
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	8861208	<10	10	8874251	<10	10	8874251
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	8861208	<5.0	5.0	8874251	<5.0	5.0	8874251
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	8861208	<0.50	0.50	8874251	<0.50	0.50	8874251

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C3O5376
Report Date: 2024/02/27

Englobe Corp.
Client Project #: 02103035.000
Site Location: 424 Churchill Avenue North, Otawa
Sampler Initials: JB

VOLATILE ORGANICS BY GC/MS (GROUND WATER)

Bureau Veritas ID		WRL909			WRL913			WRL913		
Sampling Date		2023/08/14 11:00			2023/08/14 11:00			2023/08/14 11:00		
COC Number		947903-01-01			947903-01-01			947903-01-01		
	UNITS	MW23-3	RDL	QC Batch	MW23-4	RDL	QC Batch	MW23-4 Lab-Dup	RDL	QC Batch
Styrene	ug/L	<0.40	0.40	8861208	<0.50	0.50	8874251	<0.50	0.50	8874251
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	8861208	<0.50	0.50	8874251	<0.50	0.50	8874251
1,1,2,2-Tetrachloroethane	ug/L	<0.40	0.40	8861208	<0.50	0.50	8874251	<0.50	0.50	8874251
Tetrachloroethylene	ug/L	9.6	0.20	8861208	8.4	0.20	8874251	8.4	0.20	8874251
Toluene	ug/L	<0.20	0.20	8861208	<0.20	0.20	8874251	<0.20	0.20	8874251
1,1,1-Trichloroethane	ug/L	<0.20	0.20	8861208	<0.20	0.20	8874251	<0.20	0.20	8874251
1,1,2-Trichloroethane	ug/L	<0.40	0.40	8861208	<0.50	0.50	8874251	<0.50	0.50	8874251
Trichloroethylene	ug/L	23	0.20	8861208	0.65	0.20	8874251	0.64	0.20	8874251
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	8861208	<0.50	0.50	8874251	<0.50	0.50	8874251
Vinyl Chloride	ug/L	88	0.20	8861208	<0.20	0.20	8874251	<0.20	0.20	8874251
p+m-Xylene	ug/L	<0.20	0.20	8861208	<0.20	0.20	8874251	<0.20	0.20	8874251
o-Xylene	ug/L	<0.20	0.20	8861208	<0.20	0.20	8874251	<0.20	0.20	8874251
Total Xylenes	ug/L	<0.20	0.20	8861208	<0.20	0.20	8874251	<0.20	0.20	8874251
Total Trihalomethanes	ug/L	<1.0	1.0	8861208						
F1 (C6-C10)	ug/L				<25	25	8874251	<25	25	8874251
F1 (C6-C10) - BTEX	ug/L				<25	25	8874251	<25	25	8874251
Surrogate Recovery (%)										
4-Bromofluorobenzene	%				97		8874251	97		8874251
D4-1,2-Dichloroethane	%				112		8874251	111		8874251
D8-Toluene	%				90		8874251	92		8874251
4-Bromofluorobenzene	%	110		8861208						
D4-1,2-Dichloroethane	%	106		8861208						
D8-Toluene	%	97		8861208						

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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VOLATILE ORGANICS BY GC/MS (GROUND WATER)

Bureau Veritas ID		WRL914	WRL915		
Sampling Date		2023/08/14 11:00	2023/08/14 16:00		
COC Number		947903-01-01	947903-01-01		
	UNITS	F. BLANK	T. BLANK	RDL	QC Batch
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	0.50	8852864
Volatile Organics					
Acetone (2-Propanone)	ug/L	<10	<10	10	8854281
Benzene	ug/L	<0.20	<0.20	0.20	8854281
Bromodichloromethane	ug/L	<0.50	<0.50	0.50	8854281
Bromoform	ug/L	<1.0	<1.0	1.0	8854281
Bromomethane	ug/L	<0.50	<0.50	0.50	8854281
Carbon Tetrachloride	ug/L	<0.19	<0.19	0.19	8854281
Chlorobenzene	ug/L	<0.20	<0.20	0.20	8854281
Chloroform	ug/L	<0.20	<0.20	0.20	8854281
Dibromochloromethane	ug/L	<0.50	<0.50	0.50	8854281
1,2-Dichlorobenzene	ug/L	<0.40	<0.40	0.40	8854281
1,3-Dichlorobenzene	ug/L	<0.40	<0.40	0.40	8854281
1,4-Dichlorobenzene	ug/L	<0.40	<0.40	0.40	8854281
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	1.0	8854281
1,1-Dichloroethane	ug/L	<0.20	<0.20	0.20	8854281
1,2-Dichloroethane	ug/L	<0.49	<0.49	0.49	8854281
1,1-Dichloroethylene	ug/L	<0.20	<0.20	0.20	8854281
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	8854281
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	8854281
1,2-Dichloropropane	ug/L	<0.20	<0.20	0.20	8854281
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	0.30	8854281
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	0.40	8854281
Ethylbenzene	ug/L	<0.20	<0.20	0.20	8854281
Ethylene Dibromide	ug/L	<0.19	<0.19	0.19	8854281
Hexane	ug/L	<1.0	<1.0	1.0	8854281
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	2.0	8854281
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	10	8854281
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	5.0	8854281
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	0.50	8854281
Styrene	ug/L	<0.40	<0.40	0.40	8854281

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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VOLATILE ORGANICS BY GC/MS (GROUND WATER)

Bureau Veritas ID		WRL914	WRL915		
Sampling Date		2023/08/14 11:00	2023/08/14 16:00		
COC Number		947903-01-01	947903-01-01		
	UNITS	F. BLANK	T. BLANK	RDL	QC Batch
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	8854281
1,1,2,2-Tetrachloroethane	ug/L	<0.40	<0.40	0.40	8854281
Tetrachloroethylene	ug/L	<0.20	<0.20	0.20	8854281
Toluene	ug/L	<0.20	<0.20	0.20	8854281
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	0.20	8854281
1,1,2-Trichloroethane	ug/L	<0.40	<0.40	0.40	8854281
Trichloroethylene	ug/L	<0.20	<0.20	0.20	8854281
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	0.50	8854281
Vinyl Chloride	ug/L	<0.20	<0.20	0.20	8854281
p+m-Xylene	ug/L	<0.20	<0.20	0.20	8854281
o-Xylene	ug/L	<0.20	<0.20	0.20	8854281
Total Xylenes	ug/L	<0.20	<0.20	0.20	8854281
Surrogate Recovery (%)					
4-Bromofluorobenzene	%	97	97		8854281
D4-1,2-Dichloroethane	%	97	98		8854281
D8-Toluene	%	100	100		8854281

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WRL909	WRL913		
Sampling Date		2023/08/14 11:00	2023/08/14 11:00		
COC Number		947903-01-01	947903-01-01		
	UNITS	MW23-3	MW23-4	RDL	QC Batch
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	100	8874333
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	200	8874333
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	200	8874333
Reached Baseline at C50	ug/L	Yes	Yes		8874333
Surrogate Recovery (%)					
o-Terphenyl	%	99	98		8874333

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Bureau Veritas Job #: C3O5376
Report Date: 2024/02/27

Englobe Corp.
Client Project #: 02103035.000
Site Location: 424 Churchill Avenue North, Otawa
Sampler Initials: JB

TEST SUMMARY

Bureau Veritas ID: WRL909
Sample ID: MW23-3
Matrix: Ground Water
Collected: 2023/08/14
Shipped:
Received: 2023/08/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8870704	N/A	2023/08/28	Automated Statchk
1,3-Dichloropropene Sum	CALC	8861371	N/A	2023/08/21	Automated Statchk
Total Chloramines in Water		8852865	N/A	2023/08/15	Automated Statchk
Free Residual Chlorine	SPEC	8854599	2023/08/15	2023/08/15	Leily Karimi
Total Residual Chlorine	SPEC	8854534	2023/08/15	2023/08/15	Leily Karimi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8874333	2023/08/24	2023/08/26	Dennis Ngondu
Dissolved Metals by ICPMS	ICP/MS	8872531	N/A	2023/08/26	Azita Fazaeli
PAH Compounds in Water by GC/MS (SIM)	GC/MS	8874330	2023/08/24	2023/08/25	Jonghan Yoon
Volatile Organic Compounds in Water	GC/MS	8861208	N/A	2023/08/19	Narayan Ghimire

Bureau Veritas ID: WRL909 Dup
Sample ID: MW23-3
Matrix: Ground Water
Collected: 2023/08/14
Shipped:
Received: 2023/08/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Residual Chlorine	SPEC	8854534	2023/08/15	2023/08/15	Leily Karimi

Bureau Veritas ID: WRL912
Sample ID: MW23-11
Matrix: Ground Water
Collected: 2023/08/14
Shipped:
Received: 2023/08/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Chloramines in Water		8852865	N/A	2023/08/15	Automated Statchk
Free Residual Chlorine	SPEC	8854599	2023/08/15	2023/08/15	Leily Karimi
Total Residual Chlorine	SPEC	8854534	2023/08/15	2023/08/15	Leily Karimi

Bureau Veritas ID: WRL913
Sample ID: MW23-4
Matrix: Ground Water
Collected: 2023/08/14
Shipped:
Received: 2023/08/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8870704	N/A	2023/08/28	Automated Statchk
1,3-Dichloropropene Sum	CALC	8870701	N/A	2023/08/28	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8874333	2023/08/24	2023/08/26	Dennis Ngondu
Dissolved Metals by ICPMS	ICP/MS	8872531	N/A	2023/08/26	Azita Fazaeli
PAH Compounds in Water by GC/MS (SIM)	GC/MS	8874330	2023/08/24	2023/08/26	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8874251	N/A	2023/08/25	Juan Pangilinan

Bureau Veritas ID: WRL913 Dup
Sample ID: MW23-4
Matrix: Ground Water
Collected: 2023/08/14
Shipped:
Received: 2023/08/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8874251	N/A	2023/08/25	Juan Pangilinan

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Bureau Veritas Job #: C3O5376
Report Date: 2024/02/27

Englobe Corp.
Client Project #: 02103035.000
Site Location: 424 Churchill Avenue North, Otawa
Sampler Initials: JB

TEST SUMMARY

Bureau Veritas ID: WRL914
Sample ID: F. BLANK
Matrix: Ground Water

Collected: 2023/08/14
Shipped:
Received: 2023/08/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	8852864	N/A	2023/08/17	Automated Statchk
Volatile Organic Compounds in Water	GC/MS	8854281	N/A	2023/08/16	Skylar Canning

Bureau Veritas ID: WRL915
Sample ID: T. BLANK
Matrix: Ground Water

Collected: 2023/08/14
Shipped:
Received: 2023/08/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	8852864	N/A	2023/08/17	Automated Statchk
Volatile Organic Compounds in Water	GC/MS	8854281	N/A	2023/08/16	Skylar Canning

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	16.0°C

Revised Report [2024/02/27]: Split report requested without MW23-2.
Revised Report [2023/10/02]: Split report requested without MW23-1
Revised Report [2023/08/30]: Additional analysis added as per client request.
Revised Report [2023/08/21]: VOC analysis added to samples MW23-2 and MW23-3 per client request

Sample WRL909 [MW23-3] : Sample# WRL909, Job# C3O5376
VOC Analysis: Due to high concentrations of target analytes, sample required dilution. Detection limits were adjusted accordingly. In order to meet required regulatory criteria or to achieve lower reporting limits, results for selected compounds (obtained by a separate analysis using an appropriate low dilution) are included in the report.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8854281	4-Bromofluorobenzene	2023/08/16	98	70 - 130	98	70 - 130	97	%		
8854281	D4-1,2-Dichloroethane	2023/08/16	97	70 - 130	96	70 - 130	97	%		
8854281	D8-Toluene	2023/08/16	101	70 - 130	102	70 - 130	100	%		
8861208	4-Bromofluorobenzene	2023/08/18	108	70 - 130	109	70 - 130	110	%		
8861208	D4-1,2-Dichloroethane	2023/08/18	102	70 - 130	103	70 - 130	98	%		
8861208	D8-Toluene	2023/08/18	97	70 - 130	97	70 - 130	97	%		
8874251	4-Bromofluorobenzene	2023/08/25	99	70 - 130	101	70 - 130	97	%		
8874251	D4-1,2-Dichloroethane	2023/08/25	116	70 - 130	111	70 - 130	104	%		
8874251	D8-Toluene	2023/08/25	103	70 - 130	103	70 - 130	92	%		
8874330	D10-Anthracene	2023/08/25	103	50 - 130	114	50 - 130	115	%		
8874330	D14-Terphenyl (FS)	2023/08/25	107	50 - 130	113	50 - 130	117	%		
8874330	D8-Acenaphthylene	2023/08/25	89	50 - 130	94	50 - 130	92	%		
8874333	o-Terphenyl	2023/08/26	102	60 - 130	99	60 - 130	98	%		
8854281	1,1,1,2-Tetrachloroethane	2023/08/16	112	70 - 130	111	70 - 130	<0.50	ug/L	NC	30
8854281	1,1,1-Trichloroethane	2023/08/16	103	70 - 130	101	70 - 130	<0.20	ug/L	0	30
8854281	1,1,2,2-Tetrachloroethane	2023/08/16	105	70 - 130	102	70 - 130	<0.40	ug/L	NC	30
8854281	1,1,2-Trichloroethane	2023/08/16	99	70 - 130	97	70 - 130	<0.40	ug/L	NC	30
8854281	1,1-Dichloroethane	2023/08/16	99	70 - 130	98	70 - 130	<0.20	ug/L	0.23	30
8854281	1,1-Dichloroethylene	2023/08/16	99	70 - 130	99	70 - 130	<0.20	ug/L	NC	30
8854281	1,2-Dichlorobenzene	2023/08/16	99	70 - 130	98	70 - 130	<0.40	ug/L	NC	30
8854281	1,2-Dichloroethane	2023/08/16	96	70 - 130	94	70 - 130	<0.49	ug/L	NC	30
8854281	1,2-Dichloropropane	2023/08/16	99	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
8854281	1,3-Dichlorobenzene	2023/08/16	102	70 - 130	102	70 - 130	<0.40	ug/L	NC	30
8854281	1,4-Dichlorobenzene	2023/08/16	105	70 - 130	104	70 - 130	<0.40	ug/L	NC	30
8854281	Acetone (2-Propanone)	2023/08/16	96	60 - 140	95	60 - 140	<10	ug/L	0	30
8854281	Benzene	2023/08/16	NC	70 - 130	97	70 - 130	<0.20	ug/L	1.0	30
8854281	Bromodichloromethane	2023/08/16	111	70 - 130	108	70 - 130	<0.50	ug/L	NC	30
8854281	Bromoform	2023/08/16	128	70 - 130	125	70 - 130	<1.0	ug/L	NC	30
8854281	Bromomethane	2023/08/16	109	60 - 140	105	60 - 140	<0.50	ug/L	NC	30
8854281	Carbon Tetrachloride	2023/08/16	112	70 - 130	112	70 - 130	<0.19	ug/L	NC	30
8854281	Chlorobenzene	2023/08/16	101	70 - 130	101	70 - 130	<0.20	ug/L	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8854281	Chloroform	2023/08/16	100	70 - 130	98	70 - 130	<0.20	ug/L	0.68	30
8854281	cis-1,2-Dichloroethylene	2023/08/16	99	70 - 130	97	70 - 130	<0.50	ug/L	NC	30
8854281	cis-1,3-Dichloropropene	2023/08/16	107	70 - 130	101	70 - 130	<0.30	ug/L	NC	30
8854281	Dibromochloromethane	2023/08/16	123	70 - 130	121	70 - 130	<0.50	ug/L	NC	30
8854281	Dichlorodifluoromethane (FREON 12)	2023/08/16	101	60 - 140	100	60 - 140	<1.0	ug/L	NC	30
8854281	Ethylbenzene	2023/08/16	100	70 - 130	99	70 - 130	<0.20	ug/L	1.1	30
8854281	Ethylene Dibromide	2023/08/16	102	70 - 130	99	70 - 130	<0.19	ug/L	NC	30
8854281	Hexane	2023/08/16	101	70 - 130	100	70 - 130	<1.0	ug/L	0.51	30
8854281	Methyl Ethyl Ketone (2-Butanone)	2023/08/16	100	60 - 140	99	60 - 140	<10	ug/L	NC	30
8854281	Methyl Isobutyl Ketone	2023/08/16	95	70 - 130	93	70 - 130	<5.0	ug/L	NC	30
8854281	Methyl t-butyl ether (MTBE)	2023/08/16	95	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
8854281	Methylene Chloride(Dichloromethane)	2023/08/16	94	70 - 130	92	70 - 130	<2.0	ug/L	NC	30
8854281	o-Xylene	2023/08/16	100	70 - 130	98	70 - 130	<0.20	ug/L	1.1	30
8854281	p+m-Xylene	2023/08/16	NC	70 - 130	98	70 - 130	<0.20	ug/L	1.0	30
8854281	Styrene	2023/08/16	103	70 - 130	101	70 - 130	<0.40	ug/L	NC	30
8854281	Tetrachloroethylene	2023/08/16	97	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
8854281	Toluene	2023/08/16	NC	70 - 130	99	70 - 130	<0.20	ug/L	0.60	30
8854281	Total Xylenes	2023/08/16					<0.20	ug/L	1.1	30
8854281	trans-1,2-Dichloroethylene	2023/08/16	99	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
8854281	trans-1,3-Dichloropropene	2023/08/16	115	70 - 130	105	70 - 130	<0.40	ug/L	NC	30
8854281	Trichloroethylene	2023/08/16	99	70 - 130	98	70 - 130	<0.20	ug/L	0.78	30
8854281	Trichlorofluoromethane (FREON 11)	2023/08/16	102	70 - 130	102	70 - 130	<0.50	ug/L	NC	30
8854281	Vinyl Chloride	2023/08/16	105	70 - 130	104	70 - 130	<0.20	ug/L	NC	30
8854534	Total Chlorine	2023/08/15	86	85 - 115	105	85 - 115	<0.1	mg/L	NC	25
8854599	Free Chlorine	2023/08/15	45 (1)	85 - 115	96	85 - 115	<0.1	mg/L	NC	25
8861208	1,1,1,2-Tetrachloroethane	2023/08/18	97	70 - 130	96	70 - 130	<0.50	ug/L		
8861208	1,1,1-Trichloroethane	2023/08/18	104	70 - 130	106	70 - 130	<0.20	ug/L		
8861208	1,1,2,2-Tetrachloroethane	2023/08/18	98	70 - 130	92	70 - 130	<0.40	ug/L	NC	30
8861208	1,1,2-Trichloroethane	2023/08/18	101	70 - 130	100	70 - 130	<0.40	ug/L		
8861208	1,1-Dichloroethane	2023/08/18	101	70 - 130	102	70 - 130	<0.20	ug/L		
8861208	1,1-Dichloroethylene	2023/08/18	101	70 - 130	104	70 - 130	<0.20	ug/L		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8861208	1,2-Dichlorobenzene	2023/08/18	95	70 - 130	89	70 - 130	<0.40	ug/L	NC	30
8861208	1,2-Dichloroethane	2023/08/18	104	70 - 130	104	70 - 130	<0.49	ug/L		
8861208	1,2-Dichloropropane	2023/08/18	100	70 - 130	98	70 - 130	<0.20	ug/L		
8861208	1,3-Dichlorobenzene	2023/08/18	97	70 - 130	91	70 - 130	<0.40	ug/L		
8861208	1,4-Dichlorobenzene	2023/08/18	93	70 - 130	88	70 - 130	<0.40	ug/L	NC	30
8861208	Acetone (2-Propanone)	2023/08/18	105	60 - 140	105	60 - 140	<10	ug/L		
8861208	Benzene	2023/08/18	101	70 - 130	101	70 - 130	<0.20	ug/L	NC	30
8861208	Bromodichloromethane	2023/08/18	104	70 - 130	103	70 - 130	<0.50	ug/L		
8861208	Bromoform	2023/08/18	96	70 - 130	91	70 - 130	<1.0	ug/L		
8861208	Bromomethane	2023/08/18	103	60 - 140	105	60 - 140	<0.50	ug/L		
8861208	Carbon Tetrachloride	2023/08/18	104	70 - 130	106	70 - 130	<0.19	ug/L		
8861208	Chlorobenzene	2023/08/18	98	70 - 130	96	70 - 130	<0.20	ug/L		
8861208	Chloroform	2023/08/18	105	70 - 130	106	70 - 130	<0.20	ug/L	NC	30
8861208	cis-1,2-Dichloroethylene	2023/08/18	104	70 - 130	104	70 - 130	<0.50	ug/L	NC	30
8861208	cis-1,3-Dichloropropene	2023/08/18	95	70 - 130	97	70 - 130	<0.30	ug/L		
8861208	Dibromochloromethane	2023/08/18	95	70 - 130	93	70 - 130	<0.50	ug/L		
8861208	Dichlorodifluoromethane (FREON 12)	2023/08/18	102	60 - 140	102	60 - 140	<1.0	ug/L		
8861208	Ethylbenzene	2023/08/18	94	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
8861208	Ethylene Dibromide	2023/08/18	99	70 - 130	96	70 - 130	<0.19	ug/L		
8861208	Hexane	2023/08/18	103	70 - 130	102	70 - 130	<1.0	ug/L		
8861208	Methyl Ethyl Ketone (2-Butanone)	2023/08/18	110	60 - 140	110	60 - 140	<10	ug/L		
8861208	Methyl Isobutyl Ketone	2023/08/18	102	70 - 130	100	70 - 130	<5.0	ug/L		
8861208	Methyl t-butyl ether (MTBE)	2023/08/18	100	70 - 130	101	70 - 130	<0.50	ug/L		
8861208	Methylene Chloride(Dichloromethane)	2023/08/18	96	70 - 130	95	70 - 130	<2.0	ug/L	NC	30
8861208	o-Xylene	2023/08/18	95	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
8861208	p+m-Xylene	2023/08/18	96	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
8861208	Styrene	2023/08/18	96	70 - 130	95	70 - 130	<0.40	ug/L		
8861208	Tetrachloroethylene	2023/08/18	95	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
8861208	Toluene	2023/08/18	92	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
8861208	Total Trihalomethanes	2023/08/18					<1.0	ug/L		
8861208	Total Xylenes	2023/08/18					<0.20	ug/L	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8861208	trans-1,2-Dichloroethylene	2023/08/18	103	70 - 130	104	70 - 130	<0.50	ug/L		
8861208	trans-1,3-Dichloropropene	2023/08/18	83	70 - 130	85	70 - 130	<0.40	ug/L	NC	30
8861208	Trichloroethylene	2023/08/18	103	70 - 130	104	70 - 130	<0.20	ug/L	NC	30
8861208	Trichlorofluoromethane (FREON 11)	2023/08/18	110	70 - 130	112	70 - 130	<0.50	ug/L		
8861208	Vinyl Chloride	2023/08/18	100	70 - 130	101	70 - 130	<0.20	ug/L		
8872531	Dissolved Antimony (Sb)	2023/08/25	114	80 - 120	100	80 - 120	<0.50	ug/L		
8872531	Dissolved Arsenic (As)	2023/08/25	107	80 - 120	97	80 - 120	<1.0	ug/L	3.8	20
8872531	Dissolved Barium (Ba)	2023/08/25	107	80 - 120	98	80 - 120	<2.0	ug/L	3.9	20
8872531	Dissolved Beryllium (Be)	2023/08/25	107	80 - 120	97	80 - 120	<0.40	ug/L		
8872531	Dissolved Boron (B)	2023/08/25	NC	80 - 120	96	80 - 120	<10	ug/L	0.17	20
8872531	Dissolved Cadmium (Cd)	2023/08/25	108	80 - 120	96	80 - 120	<0.090	ug/L	NC	20
8872531	Dissolved Chromium (Cr)	2023/08/25	104	80 - 120	94	80 - 120	<5.0	ug/L	NC	20
8872531	Dissolved Cobalt (Co)	2023/08/25	104	80 - 120	94	80 - 120	<0.50	ug/L		
8872531	Dissolved Copper (Cu)	2023/08/25	107	80 - 120	97	80 - 120	<0.90	ug/L	NC	20
8872531	Dissolved Lead (Pb)	2023/08/25	102	80 - 120	92	80 - 120	<0.50	ug/L	NC	20
8872531	Dissolved Molybdenum (Mo)	2023/08/25	114	80 - 120	101	80 - 120	<0.50	ug/L		
8872531	Dissolved Nickel (Ni)	2023/08/25	103	80 - 120	95	80 - 120	<1.0	ug/L		
8872531	Dissolved Selenium (Se)	2023/08/25	105	80 - 120	97	80 - 120	<2.0	ug/L		
8872531	Dissolved Silver (Ag)	2023/08/25	51 (1)	80 - 120	98	80 - 120	<0.090	ug/L		
8872531	Dissolved Sodium (Na)	2023/08/25	NC	80 - 120	95	80 - 120	<100	ug/L	1.6	20
8872531	Dissolved Thallium (Tl)	2023/08/25	103	80 - 120	94	80 - 120	<0.050	ug/L		
8872531	Dissolved Uranium (U)	2023/08/25	105	80 - 120	103	80 - 120	<0.10	ug/L		
8872531	Dissolved Vanadium (V)	2023/08/25	108	80 - 120	96	80 - 120	<0.50	ug/L		
8872531	Dissolved Zinc (Zn)	2023/08/25	104	80 - 120	94	80 - 120	<5.0	ug/L	NC	20
8874251	1,1,1,2-Tetrachloroethane	2023/08/25	96	70 - 130	101	70 - 130	<0.50	ug/L	NC	30
8874251	1,1,1-Trichloroethane	2023/08/25	95	70 - 130	104	70 - 130	<0.20	ug/L	NC	30
8874251	1,1,2,2-Tetrachloroethane	2023/08/25	99	70 - 130	99	70 - 130	<0.50	ug/L	NC	30
8874251	1,1,2-Trichloroethane	2023/08/25	105	70 - 130	105	70 - 130	<0.50	ug/L	NC	30
8874251	1,1-Dichloroethane	2023/08/25	100	70 - 130	104	70 - 130	<0.20	ug/L	NC	30
8874251	1,1-Dichloroethylene	2023/08/25	96	70 - 130	103	70 - 130	<0.20	ug/L	NC	30
8874251	1,2-Dichlorobenzene	2023/08/25	93	70 - 130	96	70 - 130	<0.50	ug/L	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8874251	1,2-Dichloroethane	2023/08/25	104	70 - 130	103	70 - 130	<0.50	ug/L	NC	30
8874251	1,2-Dichloropropane	2023/08/25	97	70 - 130	99	70 - 130	<0.20	ug/L	NC	30
8874251	1,3-Dichlorobenzene	2023/08/25	91	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
8874251	1,4-Dichlorobenzene	2023/08/25	92	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
8874251	Acetone (2-Propanone)	2023/08/25	111	60 - 140	108	60 - 140	<10	ug/L	NC	30
8874251	Benzene	2023/08/25	94	70 - 130	99	70 - 130	<0.17	ug/L	NC	30
8874251	Bromodichloromethane	2023/08/25	96	70 - 130	101	70 - 130	<0.50	ug/L	NC	30
8874251	Bromoform	2023/08/25	89	70 - 130	93	70 - 130	<1.0	ug/L	NC	30
8874251	Bromomethane	2023/08/25	96	60 - 140	97	60 - 140	<0.50	ug/L	NC	30
8874251	Carbon Tetrachloride	2023/08/25	94	70 - 130	105	70 - 130	<0.20	ug/L	NC	30
8874251	Chlorobenzene	2023/08/25	90	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
8874251	Chloroform	2023/08/25	99	70 - 130	103	70 - 130	<0.20	ug/L	NC	30
8874251	cis-1,2-Dichloroethylene	2023/08/25	96	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
8874251	cis-1,3-Dichloropropene	2023/08/25	95	70 - 130	100	70 - 130	<0.30	ug/L	NC	30
8874251	Dibromochloromethane	2023/08/25	93	70 - 130	96	70 - 130	<0.50	ug/L	NC	30
8874251	Dichlorodifluoromethane (FREON 12)	2023/08/25	97	60 - 140	101	60 - 140	<1.0	ug/L	NC	30
8874251	Ethylbenzene	2023/08/25	84	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
8874251	Ethylene Dibromide	2023/08/25	97	70 - 130	98	70 - 130	<0.20	ug/L	NC	30
8874251	F1 (C6-C10) - BTEX	2023/08/25					<25	ug/L	NC	30
8874251	F1 (C6-C10)	2023/08/25	83	60 - 140	94	60 - 140	<25	ug/L	NC	30
8874251	Hexane	2023/08/25	103	70 - 130	109	70 - 130	<1.0	ug/L	NC	30
8874251	Methyl Ethyl Ketone (2-Butanone)	2023/08/25	105	60 - 140	107	60 - 140	<10	ug/L	NC	30
8874251	Methyl Isobutyl Ketone	2023/08/25	100	70 - 130	104	70 - 130	<5.0	ug/L	NC	30
8874251	Methyl t-butyl ether (MTBE)	2023/08/25	89	70 - 130	95	70 - 130	<0.50	ug/L	NC	30
8874251	Methylene Chloride(Dichloromethane)	2023/08/25	97	70 - 130	97	70 - 130	<2.0	ug/L	NC	30
8874251	o-Xylene	2023/08/25	84	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
8874251	p+m-Xylene	2023/08/25	79	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
8874251	Styrene	2023/08/25	64 (1)	70 - 130	72	70 - 130	<0.50	ug/L	NC	30
8874251	Tetrachloroethylene	2023/08/25	92	70 - 130	100	70 - 130	<0.20	ug/L	0.12	30
8874251	Toluene	2023/08/25	87	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
8874251	Total Xylenes	2023/08/25					<0.20	ug/L	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8874251	trans-1,2-Dichloroethylene	2023/08/25	96	70 - 130	102	70 - 130	<0.50	ug/L	NC	30
8874251	trans-1,3-Dichloropropene	2023/08/25	100	70 - 130	103	70 - 130	<0.40	ug/L	NC	30
8874251	Trichloroethylene	2023/08/25	91	70 - 130	98	70 - 130	<0.20	ug/L	1.4	30
8874251	Trichlorofluoromethane (FREON 11)	2023/08/25	93	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
8874251	Vinyl Chloride	2023/08/25	94	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
8874330	1-Methylnaphthalene	2023/08/25	113	50 - 130	117	50 - 130	<0.050	ug/L	NC	30
8874330	2-Methylnaphthalene	2023/08/25	102	50 - 130	106	50 - 130	<0.050	ug/L	NC	30
8874330	Acenaphthene	2023/08/25	102	50 - 130	105	50 - 130	<0.050	ug/L	NC	30
8874330	Acenaphthylene	2023/08/25	97	50 - 130	99	50 - 130	<0.050	ug/L	NC	30
8874330	Anthracene	2023/08/25	108	50 - 130	111	50 - 130	<0.050	ug/L	NC	30
8874330	Benzo(a)anthracene	2023/08/25	101	50 - 130	101	50 - 130	<0.050	ug/L	NC	30
8874330	Benzo(a)pyrene	2023/08/25	94	50 - 130	92	50 - 130	<0.0090	ug/L	NC	30
8874330	Benzo(b/j)fluoranthene	2023/08/25	99	50 - 130	97	50 - 130	<0.050	ug/L	NC	30
8874330	Benzo(g,h,i)perylene	2023/08/25	101	50 - 130	98	50 - 130	<0.050	ug/L	NC	30
8874330	Benzo(k)fluoranthene	2023/08/25	93	50 - 130	93	50 - 130	<0.050	ug/L	NC	30
8874330	Chrysene	2023/08/25	99	50 - 130	98	50 - 130	<0.050	ug/L	NC	30
8874330	Dibenzo(a,h)anthracene	2023/08/25	94	50 - 130	90	50 - 130	<0.050	ug/L	NC	30
8874330	Fluoranthene	2023/08/25	112	50 - 130	116	50 - 130	<0.050	ug/L	NC	30
8874330	Fluorene	2023/08/25	101	50 - 130	104	50 - 130	<0.050	ug/L	NC	30
8874330	Indeno(1,2,3-cd)pyrene	2023/08/25	102	50 - 130	99	50 - 130	<0.050	ug/L	NC	30
8874330	Naphthalene	2023/08/25	97	50 - 130	99	50 - 130	<0.050	ug/L	NC	30
8874330	Phenanthrene	2023/08/25	103	50 - 130	106	50 - 130	<0.030	ug/L	NC	30
8874330	Pyrene	2023/08/25	111	50 - 130	114	50 - 130	<0.050	ug/L	NC	30
8874333	F2 (C10-C16 Hydrocarbons)	2023/08/26	102	60 - 130	100	60 - 130	<100	ug/L	NC	30
8874333	F3 (C16-C34 Hydrocarbons)	2023/08/26	100	60 - 130	100	60 - 130	<200	ug/L	NC	30

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8874333	F4 (C34-C50 Hydrocarbons)	2023/08/26	88	60 - 130	85	60 - 130	<200	ug/L	NC	30

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

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

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

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

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

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

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

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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Bureau Veritas Job #: C3O5376
Report Date: 2024/02/27

Englobe Corp.
Client Project #: 02103035.000
Site Location: 424 Churchill Avenue North, Otawa
Sampler Initials: JB

VALIDATION SIGNATURE PAGE

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

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

Cristina Carriere, Senior Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Your Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Your C.O.C. #: n/a

Attention: Salim Eid

Englobe Corp.
Ottawa - Standing Offer
2713 Lancaster Road
Unit 101
Ottawa, ON
CANADA K1B 5R6

Report Date: 2023/12/07
Report #: R7944562
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3AQ664
Received: 2023/11/29, 18:49

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
1,3-Dichloropropene Sum (1)	2	N/A	2023/12/07		EPA 8260C m
Petroleum Hydrocarbons F2-F4 in Water (1, 2)	2	2023/12/03	2023/12/04	CAM SOP-00316	CCME PHC-CWS m
Volatile Organic Compounds and F1 PHCs (1)	2	N/A	2023/12/04	CAM SOP-00230	EPA 8260C m

Remarks:

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

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

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

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Your Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Your C.O.C. #: n/a

Attention: Salim Eid

Englobe Corp.
Ottawa - Standing Offer
2713 Lancaster Road
Unit 101
Ottawa, ON
CANADA K1B 5R6

Report Date: 2023/12/07
Report #: R7944562
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3AQ664
Received: 2023/11/29, 18:49

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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

Bureau Veritas ID		XTI651		XTI652		
Sampling Date		2023/11/28 16:00		2023/11/29 16:00		
COC Number		n/a		n/a		
	UNITS	MW 23-1	RDL	MW 23-2	RDL	QC Batch
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	<0.50	0.50	9084432
Volatile Organics						
Acetone (2-Propanone)	ug/L	<10	10	<10	10	9087630
Benzene	ug/L	<0.17	0.17	<0.17	0.17	9087630
Bromodichloromethane	ug/L	<0.50	0.50	<0.50	0.50	9087630
Bromoform	ug/L	<1.0	1.0	<1.0	1.0	9087630
Bromomethane	ug/L	<0.50	0.50	<0.50	0.50	9087630
Carbon Tetrachloride	ug/L	<0.20	0.20	<0.20	0.20	9087630
Chlorobenzene	ug/L	<0.20	0.20	<0.20	0.20	9087630
Chloroform	ug/L	0.48	0.20	0.55	0.20	9087630
Dibromochloromethane	ug/L	<0.50	0.50	<0.50	0.50	9087630
1,2-Dichlorobenzene	ug/L	<0.50	0.50	<0.50	0.50	9087630
1,3-Dichlorobenzene	ug/L	<0.50	0.50	<0.50	0.50	9087630
1,4-Dichlorobenzene	ug/L	<0.50	0.50	<0.50	0.50	9087630
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	<1.0	1.0	9087630
1,1-Dichloroethane	ug/L	<0.20	0.20	0.26	0.20	9087630
1,2-Dichloroethane	ug/L	<0.50	0.50	<0.50	0.50	9087630
1,1-Dichloroethylene	ug/L	<0.20	0.20	0.25	0.20	9087630
cis-1,2-Dichloroethylene	ug/L	40	0.50	33	0.50	9087630
trans-1,2-Dichloroethylene	ug/L	0.69	0.50	0.94	0.50	9087630
1,2-Dichloropropane	ug/L	<0.20	0.20	<0.20	0.20	9087630
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	<0.30	0.30	9087630
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	<0.40	0.40	9087630
Ethylbenzene	ug/L	<0.20	0.20	<0.20	0.20	9087630
Ethylene Dibromide	ug/L	<0.20	0.20	<0.20	0.20	9087630
Hexane	ug/L	<1.0	1.0	<1.0	1.0	9087630
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	<2.0	2.0	9087630
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	<10	10	9087630
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	<5.0	5.0	9087630
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	<0.50	0.50	9087630
Styrene	ug/L	<0.50	0.50	<0.50	0.50	9087630

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas ID		XTI651		XTI652		
Sampling Date		2023/11/28 16:00		2023/11/29 16:00		
COC Number		n/a		n/a		
	UNITS	MW 23-1	RDL	MW 23-2	RDL	QC Batch
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	<0.50	0.50	9087630
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	<0.50	0.50	9087630
Tetrachloroethylene	ug/L	0.57	0.20	1400	1.0	9087630
Toluene	ug/L	<0.20	0.20	<0.20	0.20	9087630
1,1,1-Trichloroethane	ug/L	<0.20	0.20	<0.20	0.20	9087630
1,1,2-Trichloroethane	ug/L	<0.50	0.50	<0.50	0.50	9087630
Trichloroethylene	ug/L	1.2	0.20	120	0.20	9087630
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	<0.50	0.50	9087630
Vinyl Chloride	ug/L	7.3	0.20	4.0	0.20	9087630
p+m-Xylene	ug/L	<0.20	0.20	<0.20	0.20	9087630
o-Xylene	ug/L	<0.20	0.20	<0.20	0.20	9087630
Total Xylenes	ug/L	<0.20	0.20	<0.20	0.20	9087630
F1 (C6-C10)	ug/L	<25	25	480 (1)	130	9087630
F1 (C6-C10) - BTEX	ug/L	<25	25	480	130	9087630
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	<100	100	9087970
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	<200	200	9087970
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	<200	200	9087970
Reached Baseline at C50	ug/L	Yes		Yes		9087970
Surrogate Recovery (%)						
o-Terphenyl	%	102		100		9087970
4-Bromofluorobenzene	%	89		84		9087630
D4-1,2-Dichloroethane	%	109		110		9087630
D8-Toluene	%	86		84		9087630

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Result reported was due to chlorinated compounds eluting inside the F1 range.

Bureau Veritas Job #: C3AQ664
Report Date: 2023/12/07

Englobe Corp.
Client Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

TEST SUMMARY

Bureau Veritas ID: XTI651
Sample ID: MW 23-1
Matrix: Water

Collected: 2023/11/28
Shipped:
Received: 2023/11/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9084432	N/A	2023/12/07	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9087970	2023/12/03	2023/12/04	Jeevaraj Jeevaratrnam
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9087630	N/A	2023/12/04	Gladys Guerrero

Bureau Veritas ID: XTI652
Sample ID: MW 23-2
Matrix: Water

Collected: 2023/11/29
Shipped:
Received: 2023/11/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9084432	N/A	2023/12/07	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9087970	2023/12/03	2023/12/04	Jeevaraj Jeevaratrnam
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9087630	N/A	2023/12/04	Gladys Guerrero

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	5.7°C

Sample XTI652 [MW 23-2] : VOC/F1 Analysis: Due to high concentrations of target analytes, sample required dilution. Detection limits were adjusted accordingly. In order to achieve lower reporting limits, results for selected compounds (obtained by a separate analysis using an appropriate low dilution) are included in the report.

Results relate only to the items tested.

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Bureau Veritas Job #: C3AQ664
Report Date: 2023/12/07

QUALITY ASSURANCE REPORT

Englobe Corp.
Client Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9087630	4-Bromofluorobenzene	2023/12/04	96	70 - 130	97	70 - 130	92	%		
9087630	D4-1,2-Dichloroethane	2023/12/04	103	70 - 130	96	70 - 130	99	%		
9087630	D8-Toluene	2023/12/04	104	70 - 130	106	70 - 130	90	%		
9087970	o-Terphenyl	2023/12/04	102	60 - 130	104	60 - 130	101	%		
9087630	1,1,1,2-Tetrachloroethane	2023/12/04	99	70 - 130	92	70 - 130	<0.50	ug/L	NC	30
9087630	1,1,1-Trichloroethane	2023/12/04	97	70 - 130	86	70 - 130	<0.20	ug/L	NC	30
9087630	1,1,2,2-Tetrachloroethane	2023/12/04	105	70 - 130	99	70 - 130	<0.50	ug/L	NC	30
9087630	1,1,2-Trichloroethane	2023/12/04	102	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
9087630	1,1-Dichloroethane	2023/12/04	101	70 - 130	89	70 - 130	<0.20	ug/L	NC	30
9087630	1,1-Dichloroethylene	2023/12/04	98	70 - 130	87	70 - 130	<0.20	ug/L	NC	30
9087630	1,2-Dichlorobenzene	2023/12/04	102	70 - 130	101	70 - 130	<0.50	ug/L	NC	30
9087630	1,2-Dichloroethane	2023/12/04	99	70 - 130	86	70 - 130	<0.50	ug/L	NC	30
9087630	1,2-Dichloropropane	2023/12/04	102	70 - 130	91	70 - 130	<0.20	ug/L	NC	30
9087630	1,3-Dichlorobenzene	2023/12/04	101	70 - 130	100	70 - 130	<0.50	ug/L	NC	30
9087630	1,4-Dichlorobenzene	2023/12/04	112	70 - 130	111	70 - 130	<0.50	ug/L	NC	30
9087630	Acetone (2-Propanone)	2023/12/04	106	60 - 140	96	60 - 140	<10	ug/L	NC	30
9087630	Benzene	2023/12/04	93	70 - 130	82	70 - 130	<0.17	ug/L	NC	30
9087630	Bromodichloromethane	2023/12/04	106	70 - 130	95	70 - 130	<0.50	ug/L	NC	30
9087630	Bromoform	2023/12/04	92	70 - 130	86	70 - 130	<1.0	ug/L	NC	30
9087630	Bromomethane	2023/12/04	101	60 - 140	86	60 - 140	<0.50	ug/L	NC	30
9087630	Carbon Tetrachloride	2023/12/04	94	70 - 130	84	70 - 130	<0.20	ug/L	NC	30
9087630	Chlorobenzene	2023/12/04	103	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
9087630	Chloroform	2023/12/04	103	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
9087630	cis-1,2-Dichloroethylene	2023/12/04	102	70 - 130	90	70 - 130	<0.50	ug/L	NC	30
9087630	cis-1,3-Dichloropropene	2023/12/04	106	70 - 130	95	70 - 130	<0.30	ug/L	NC	30
9087630	Dibromochloromethane	2023/12/04	98	70 - 130	90	70 - 130	<0.50	ug/L	NC	30
9087630	Dichlorodifluoromethane (FREON 12)	2023/12/04	92	60 - 140	80	60 - 140	<1.0	ug/L	NC	30
9087630	Ethylbenzene	2023/12/04	90	70 - 130	86	70 - 130	<0.20	ug/L	NC	30
9087630	Ethylene Dibromide	2023/12/04	103	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9087630	F1 (C6-C10) - BTEX	2023/12/04					<25	ug/L	NC	30
9087630	F1 (C6-C10)	2023/12/04	103	60 - 140	95	60 - 140	<25	ug/L	NC	30
9087630	Hexane	2023/12/04	94	70 - 130	85	70 - 130	<1.0	ug/L	NC	30

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9087630	Methyl Ethyl Ketone (2-Butanone)	2023/12/04	113	60 - 140	104	60 - 140	<10	ug/L	NC	30
9087630	Methyl Isobutyl Ketone	2023/12/04	89	70 - 130	85	70 - 130	<5.0	ug/L	NC	30
9087630	Methyl t-butyl ether (MTBE)	2023/12/04	102	70 - 130	95	70 - 130	<0.50	ug/L	NC	30
9087630	Methylene Chloride(Dichloromethane)	2023/12/04	119	70 - 130	102	70 - 130	<2.0	ug/L	NC	30
9087630	o-Xylene	2023/12/04	85	70 - 130	82	70 - 130	<0.20	ug/L	NC	30
9087630	p+m-Xylene	2023/12/04	95	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
9087630	Styrene	2023/12/04	76	70 - 130	74	70 - 130	<0.50	ug/L	NC	30
9087630	Tetrachloroethylene	2023/12/04	97	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
9087630	Toluene	2023/12/04	94	70 - 130	87	70 - 130	<0.20	ug/L	NC	30
9087630	Total Xylenes	2023/12/04					<0.20	ug/L	NC	30
9087630	trans-1,2-Dichloroethylene	2023/12/04	97	70 - 130	87	70 - 130	<0.50	ug/L	NC	30
9087630	trans-1,3-Dichloropropene	2023/12/04	118	70 - 130	108	70 - 130	<0.40	ug/L	NC	30
9087630	Trichloroethylene	2023/12/04	99	70 - 130	89	70 - 130	<0.20	ug/L	NC	30
9087630	Trichlorofluoromethane (FREON 11)	2023/12/04	96	70 - 130	85	70 - 130	<0.50	ug/L	NC	30
9087630	Vinyl Chloride	2023/12/04	95	70 - 130	82	70 - 130	<0.20	ug/L	NC	30
9087970	F2 (C10-C16 Hydrocarbons)	2023/12/04	104	60 - 130	107	60 - 130	<100	ug/L	NC	30
9087970	F3 (C16-C34 Hydrocarbons)	2023/12/04	103	60 - 130	108	60 - 130	<200	ug/L	NC	30
9087970	F4 (C34-C50 Hydrocarbons)	2023/12/04	104	60 - 130	108	60 - 130	<200	ug/L	NC	30

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

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

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

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

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

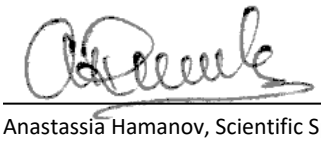
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

Bureau Veritas Job #: C3AQ664
Report Date: 2023/12/07

Englobe Corp.
Client Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

VALIDATION SIGNATURE PAGE

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



Anastassia Hamanov, Scientific Specialist

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Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Your Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Your C.O.C. #: N/A

Attention: Salim Eid

Englobe Corp.
2713 Lancaster Road
Unit 101
Ottawa, ON
CANADA K1B5R6

Report Date: 2024/01/31
Report #: R8010450
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C425636
Received: 2024/01/25, 13:49

Sample Matrix: Ground Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
1,3-Dichloropropene Sum (1)	1	N/A	2024/01/30		EPA 8260C m
Petroleum Hydrocarbons F2-F4 in Water (1, 2)	1	2024/01/30	2024/01/30	CAM SOP-00316	CCME PHC-CWS m
Volatile Organic Compounds and F1 PHCs (1)	1	N/A	2024/01/29	CAM SOP-00230	EPA 8260C m

Remarks:

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

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

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Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Your Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Your C.O.C. #: N/A

Attention: Salim Eid

Englobe Corp.
2713 Lancaster Road
Unit 101
Ottawa, ON
CANADA K1B5R6

Report Date: 2024/01/31
Report #: R8010450
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C425636
Received: 2024/01/25, 13:49

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

==========

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

Bureau Veritas ID		YFH789		
Sampling Date		2024/01/25 13:00		
COC Number		N/A		
	UNITS	MW24-1	RDL	QC Batch
Calculated Parameters				
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	9184432
Volatile Organics				
Acetone (2-Propanone)	ug/L	<10	10	9187056
Benzene	ug/L	0.39	0.17	9187056
Bromodichloromethane	ug/L	<0.50	0.50	9187056
Bromoform	ug/L	<1.0	1.0	9187056
Bromomethane	ug/L	<0.50	0.50	9187056
Carbon Tetrachloride	ug/L	<0.20	0.20	9187056
Chlorobenzene	ug/L	<0.20	0.20	9187056
Chloroform	ug/L	<0.20	0.20	9187056
Dibromochloromethane	ug/L	<0.50	0.50	9187056
1,2-Dichlorobenzene	ug/L	<0.50	0.50	9187056
1,3-Dichlorobenzene	ug/L	<0.50	0.50	9187056
1,4-Dichlorobenzene	ug/L	<0.50	0.50	9187056
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	9187056
1,1-Dichloroethane	ug/L	<0.20	0.20	9187056
1,2-Dichloroethane	ug/L	<0.50	0.50	9187056
1,1-Dichloroethylene	ug/L	<0.20	0.20	9187056
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	9187056
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	9187056
1,2-Dichloropropane	ug/L	<0.20	0.20	9187056
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	9187056
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	9187056
Ethylbenzene	ug/L	<0.20	0.20	9187056
Ethylene Dibromide	ug/L	<0.20	0.20	9187056
Hexane	ug/L	<1.0	1.0	9187056
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	9187056
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	9187056
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	9187056
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	9187056
Styrene	ug/L	<0.50	0.50	9187056
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	9187056
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	9187056

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Englobe Corp.
Client Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

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

Bureau Veritas ID		YFH789		
Sampling Date		2024/01/25 13:00		
COC Number		N/A		
	UNITS	**MW24-1**	**RDL**	**QC Batch**
Tetrachloroethylene	ug/L	<0.20	0.20	9187056
Toluene	ug/L	0.21	0.20	9187056
1,1,1-Trichloroethane	ug/L	<0.20	0.20	9187056
1,1,2-Trichloroethane	ug/L	<0.50	0.50	9187056
Trichloroethylene	ug/L	<0.20	0.20	9187056
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	9187056
Vinyl Chloride	ug/L	<0.20	0.20	9187056
p+m-Xylene	ug/L	<0.20	0.20	9187056
o-Xylene	ug/L	<0.20	0.20	9187056
Total Xylenes	ug/L	<0.20	0.20	9187056
F1 (C6-C10)	ug/L	<25	25	9187056
F1 (C6-C10) - BTEX	ug/L	<25	25	9187056
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	9189744
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	9189744
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	9189744
Reached Baseline at C50	ug/L	Yes		9189744
Surrogate Recovery (%)				
o-Terphenyl	%	101		9189744
4-Bromofluorobenzene	%	98		9187056
D4-1,2-Dichloroethane	%	107		9187056
D8-Toluene	%	96		9187056

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas Job #: C425636
Report Date: 2024/01/31

Englobe Corp.
Client Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

TEST SUMMARY

Bureau Veritas ID: YFH789
Sample ID: MW24-1
Matrix: Ground Water

Collected: 2024/01/25
Shipped:
Received: 2024/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9184432	N/A	2024/01/30	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9189744	2024/01/30	2024/01/30	Agnieszka Brzuzy-Snopko
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9187056	N/A	2024/01/29	Blair Gannon

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	9.7°C

Results relate only to the items tested.

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9187056	4-Bromofluorobenzene	2024/01/29	98	70 - 130	100	70 - 130	99	%		
9187056	D4-1,2-Dichloroethane	2024/01/29	101	70 - 130	101	70 - 130	104	%		
9187056	D8-Toluene	2024/01/29	100	70 - 130	100	70 - 130	97	%		
9189744	o-Terphenyl	2024/01/30	101	60 - 130	103	60 - 130	102	%		
9187056	1,1,1,2-Tetrachloroethane	2024/01/29	94	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
9187056	1,1,1-Trichloroethane	2024/01/29	92	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9187056	1,1,2,2-Tetrachloroethane	2024/01/29	97	70 - 130	96	70 - 130	<0.50	ug/L	NC	30
9187056	1,1,2-Trichloroethane	2024/01/29	98	70 - 130	97	70 - 130	<0.50	ug/L	NC	30
9187056	1,1-Dichloroethane	2024/01/29	94	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
9187056	1,1-Dichloroethylene	2024/01/29	92	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
9187056	1,2-Dichlorobenzene	2024/01/29	92	70 - 130	92	70 - 130	<0.50	ug/L	NC	30
9187056	1,2-Dichloroethane	2024/01/29	92	70 - 130	92	70 - 130	<0.50	ug/L	NC	30
9187056	1,2-Dichloropropane	2024/01/29	92	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9187056	1,3-Dichlorobenzene	2024/01/29	95	70 - 130	96	70 - 130	<0.50	ug/L	NC	30
9187056	1,4-Dichlorobenzene	2024/01/29	103	70 - 130	103	70 - 130	<0.50	ug/L	NC	30
9187056	Acetone (2-Propanone)	2024/01/29	96	60 - 140	95	60 - 140	<10	ug/L	NC	30
9187056	Benzene	2024/01/29	86	70 - 130	90	70 - 130	<0.17	ug/L	NC	30
9187056	Bromodichloromethane	2024/01/29	100	70 - 130	102	70 - 130	<0.50	ug/L	NC	30
9187056	Bromoform	2024/01/29	87	70 - 130	87	70 - 130	<1.0	ug/L	NC	30
9187056	Bromomethane	2024/01/29	79	60 - 140	81	60 - 140	<0.50	ug/L	NC	30
9187056	Carbon Tetrachloride	2024/01/29	88	70 - 130	91	70 - 130	<0.20	ug/L	NC	30
9187056	Chlorobenzene	2024/01/29	94	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9187056	Chloroform	2024/01/29	96	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
9187056	cis-1,2-Dichloroethylene	2024/01/29	94	70 - 130	96	70 - 130	<0.50	ug/L	NC	30
9187056	cis-1,3-Dichloropropene	2024/01/29	94	70 - 130	93	70 - 130	<0.30	ug/L	NC	30
9187056	Dibromochloromethane	2024/01/29	94	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
9187056	Dichlorodifluoromethane (FREON 12)	2024/01/29	65	60 - 140	69	60 - 140	<1.0	ug/L	NC	30
9187056	Ethylbenzene	2024/01/29	85	70 - 130	87	70 - 130	<0.20	ug/L	NC	30
9187056	Ethylene Dibromide	2024/01/29	96	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
9187056	F1 (C6-C10) - BTEX	2024/01/29					<25	ug/L	NC	30
9187056	F1 (C6-C10)	2024/01/29	85	60 - 140	87	60 - 140	<25	ug/L	NC	30
9187056	Hexane	2024/01/29	85	70 - 130	89	70 - 130	<1.0	ug/L	NC	30

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9187056	Methyl Ethyl Ketone (2-Butanone)	2024/01/29	99	60 - 140	101	60 - 140	<10	ug/L	NC	30
9187056	Methyl Isobutyl Ketone	2024/01/29	94	70 - 130	99	70 - 130	<5.0	ug/L	NC	30
9187056	Methyl t-butyl ether (MTBE)	2024/01/29	97	70 - 130	100	70 - 130	<0.50	ug/L	NC	30
9187056	Methylene Chloride(Dichloromethane)	2024/01/29	90	70 - 130	93	70 - 130	<2.0	ug/L	NC	30
9187056	o-Xylene	2024/01/29	79	70 - 130	82	70 - 130	<0.20	ug/L	NC	30
9187056	p+m-Xylene	2024/01/29	89	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
9187056	Styrene	2024/01/29	97	70 - 130	101	70 - 130	<0.50	ug/L	NC	30
9187056	Tetrachloroethylene	2024/01/29	89	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
9187056	Toluene	2024/01/29	86	70 - 130	88	70 - 130	<0.20	ug/L	NC	30
9187056	Total Xylenes	2024/01/29					<0.20	ug/L	NC	30
9187056	trans-1,2-Dichloroethylene	2024/01/29	90	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
9187056	trans-1,3-Dichloropropene	2024/01/29	98	70 - 130	96	70 - 130	<0.40	ug/L	NC	30
9187056	Trichloroethylene	2024/01/29	93	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9187056	Trichlorofluoromethane (FREON 11)	2024/01/29	90	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
9187056	Vinyl Chloride	2024/01/29	82	70 - 130	88	70 - 130	<0.20	ug/L	NC	30
9189744	F2 (C10-C16 Hydrocarbons)	2024/01/30	98	60 - 130	101	60 - 130	<100	ug/L	10	30
9189744	F3 (C16-C34 Hydrocarbons)	2024/01/30	90	60 - 130	108	60 - 130	<200	ug/L	NC	30
9189744	F4 (C34-C50 Hydrocarbons)	2024/01/30	105	60 - 130	109	60 - 130	<200	ug/L	8.6	30

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

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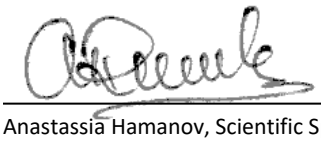
Bureau Veritas Job #: C425636
Report Date: 2024/01/31

Englobe Corp.
Client Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

VALIDATION SIGNATURE PAGE

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



Anastassia Hamanov, Scientific Specialist

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Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Your Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Your C.O.C. #: N/A

Attention: Salim Eid

Englobe Corp.
2713 Lancaster Road
Unit 101
Ottawa, ON
CANADA K1B5R6

Report Date: 2024/02/01
Report #: R8011417
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C425648
Received: 2024/01/25, 13:49

Sample Matrix: Ground Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
1,3-Dichloropropene Sum (1)	1	N/A	2024/02/01		EPA 8260C m
Volatile Organic Compounds in Water (1)	1	N/A	2024/02/01	CAM SOP-00228	EPA 8260D

Remarks:

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

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

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8

Your Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Your C.O.C. #: N/A

Attention: Salim Eid

Englobe Corp.
2713 Lancaster Road
Unit 101
Ottawa, ON
CANADA K1B5R6

Report Date: 2024/02/01
Report #: R8011417
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C425648
Received: 2024/01/25, 13:49

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

==========

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O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		YFH862		
Sampling Date		2024/01/25 12:00		
COC Number		N/A		
	UNITS	MW23-2	RDL	QC Batch
Calculated Parameters				
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	9184432
Volatile Organics				
Acetone (2-Propanone)	ug/L	<10	10	9187120
Benzene	ug/L	<0.20	0.20	9187120
Bromodichloromethane	ug/L	<0.50	0.50	9187120
Bromoform	ug/L	<1.0	1.0	9187120
Bromomethane	ug/L	<0.50	0.50	9187120
Carbon Tetrachloride	ug/L	<0.19	0.19	9187120
Chlorobenzene	ug/L	<0.20	0.20	9187120
Chloroform	ug/L	0.56	0.20	9187120
Dibromochloromethane	ug/L	<0.50	0.50	9187120
1,2-Dichlorobenzene	ug/L	<0.40	0.40	9187120
1,3-Dichlorobenzene	ug/L	<0.40	0.40	9187120
1,4-Dichlorobenzene	ug/L	<0.40	0.40	9187120
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	9187120
1,1-Dichloroethane	ug/L	<0.20	0.20	9187120
1,2-Dichloroethane	ug/L	<0.49	0.49	9187120
1,1-Dichloroethylene	ug/L	<0.20	0.20	9187120
cis-1,2-Dichloroethylene	ug/L	27	0.50	9187120
trans-1,2-Dichloroethylene	ug/L	1.4	0.50	9187120
1,2-Dichloropropane	ug/L	<0.20	0.20	9187120
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	9187120
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	9187120
Ethylbenzene	ug/L	<0.20	0.20	9187120
Ethylene Dibromide	ug/L	<0.19	0.19	9187120
Hexane	ug/L	<1.0	1.0	9187120
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	9187120
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	9187120
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	9187120
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	9187120
Styrene	ug/L	<0.40	0.40	9187120
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	9187120
1,1,2,2-Tetrachloroethane	ug/L	<0.40	0.40	9187120

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		YFH862		
Sampling Date		2024/01/25 12:00		
COC Number		N/A		
	UNITS	MW23-2	RDL	QC Batch
Tetrachloroethylene	ug/L	730	0.40	9187120
Toluene	ug/L	<0.20	0.20	9187120
1,1,1-Trichloroethane	ug/L	<0.20	0.20	9187120
1,1,2-Trichloroethane	ug/L	<0.40	0.40	9187120
Trichloroethylene	ug/L	51	0.20	9187120
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	9187120
Vinyl Chloride	ug/L	3.2	0.20	9187120
p+m-Xylene	ug/L	<0.20	0.20	9187120
o-Xylene	ug/L	<0.20	0.20	9187120
Total Xylenes	ug/L	<0.20	0.20	9187120
Surrogate Recovery (%)				
4-Bromofluorobenzene	%	102		9187120
D4-1,2-Dichloroethane	%	102		9187120
D8-Toluene	%	96		9187120

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas Job #: C425648
Report Date: 2024/02/01

Englobe Corp.
Client Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

TEST SUMMARY

Bureau Veritas ID: YFH862
Sample ID: MW23-2
Matrix: Ground Water

Collected: 2024/01/25
Shipped:
Received: 2024/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9184432	N/A	2024/02/01	Automated Statchk
Volatile Organic Compounds in Water	GC/MS	9187120	N/A	2024/02/01	Narayan Ghimire

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	9.7°C

Sample YFH862 [MW23-2] : VOC Analysis: Due to high concentrations of target analytes, sample required dilution. Detection limits were adjusted accordingly. In order to meet required regulatory criteria or to achieve lower reporting limits, results for selected compounds (obtained by a separate analysis using an appropriate low dilution) are included in the report.

Results relate only to the items tested.

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Bureau Veritas Job #: C425648
Report Date: 2024/02/01

QUALITY ASSURANCE REPORT

Englobe Corp.
Client Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9187120	4-Bromofluorobenzene	2024/01/31	104	70 - 130	102	70 - 130	103	%		
9187120	D4-1,2-Dichloroethane	2024/01/31	99	70 - 130	101	70 - 130	98	%		
9187120	D8-Toluene	2024/01/31	97	70 - 130	99	70 - 130	96	%		
9187120	1,1,1,2-Tetrachloroethane	2024/01/31	103	70 - 130	102	70 - 130	<0.50	ug/L		
9187120	1,1,1-Trichloroethane	2024/01/31	100	70 - 130	100	70 - 130	<0.20	ug/L		
9187120	1,1,2,2-Tetrachloroethane	2024/01/31	101	70 - 130	101	70 - 130	<0.40	ug/L		
9187120	1,1,2-Trichloroethane	2024/01/31	98	70 - 130	98	70 - 130	<0.40	ug/L		
9187120	1,1-Dichloroethane	2024/01/31	96	70 - 130	97	70 - 130	<0.20	ug/L		
9187120	1,1-Dichloroethylene	2024/01/31	94	70 - 130	97	70 - 130	<0.20	ug/L		
9187120	1,2-Dichlorobenzene	2024/01/31	99	70 - 130	100	70 - 130	<0.40	ug/L		
9187120	1,2-Dichloroethane	2024/01/31	95	70 - 130	95	70 - 130	<0.49	ug/L		
9187120	1,2-Dichloropropane	2024/01/31	95	70 - 130	94	70 - 130	<0.20	ug/L		
9187120	1,3-Dichlorobenzene	2024/01/31	102	70 - 130	101	70 - 130	<0.40	ug/L		
9187120	1,4-Dichlorobenzene	2024/01/31	111	70 - 130	115	70 - 130	<0.40	ug/L		
9187120	Acetone (2-Propanone)	2024/01/31	97	60 - 140	99	60 - 140	<10	ug/L		
9187120	Benzene	2024/01/31	93	70 - 130	92	70 - 130	<0.20	ug/L		
9187120	Bromodichloromethane	2024/01/31	104	70 - 130	103	70 - 130	<0.50	ug/L		
9187120	Bromoform	2024/01/31	91	70 - 130	91	70 - 130	<1.0	ug/L		
9187120	Bromomethane	2024/01/31	81	60 - 140	84	60 - 140	<0.50	ug/L		
9187120	Carbon Tetrachloride	2024/01/31	101	70 - 130	102	70 - 130	<0.19	ug/L		
9187120	Chlorobenzene	2024/01/31	104	70 - 130	103	70 - 130	<0.20	ug/L		
9187120	Chloroform	2024/01/31	100	70 - 130	99	70 - 130	<0.20	ug/L		
9187120	cis-1,2-Dichloroethylene	2024/01/31	97	70 - 130	96	70 - 130	<0.50	ug/L		
9187120	cis-1,3-Dichloropropene	2024/01/31	95	70 - 130	95	70 - 130	<0.30	ug/L		
9187120	Dibromochloromethane	2024/01/31	99	70 - 130	98	70 - 130	<0.50	ug/L		
9187120	Dichlorodifluoromethane (FREON 12)	2024/01/31	77	60 - 140	80	60 - 140	<1.0	ug/L		
9187120	Ethylbenzene	2024/01/31	93	70 - 130	93	70 - 130	<0.20	ug/L		
9187120	Ethylene Dibromide	2024/01/31	99	70 - 130	100	70 - 130	<0.19	ug/L		
9187120	Hexane	2024/01/31	87	70 - 130	87	70 - 130	<1.0	ug/L		
9187120	Methyl Ethyl Ketone (2-Butanone)	2024/01/31	104	60 - 140	105	60 - 140	<10	ug/L		
9187120	Methyl Isobutyl Ketone	2024/01/31	94	70 - 130	94	70 - 130	<5.0	ug/L		
9187120	Methyl t-butyl ether (MTBE)	2024/01/31	102	70 - 130	103	70 - 130	<0.50	ug/L		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9187120	Methylene Chloride(Dichloromethane)	2024/01/31	98	70 - 130	99	70 - 130	<2.0	ug/L		
9187120	o-Xylene	2024/01/31	87	70 - 130	87	70 - 130	<0.20	ug/L	0.46	30
9187120	p+m-Xylene	2024/01/31	98	70 - 130	98	70 - 130	<0.20	ug/L	6.6	30
9187120	Styrene	2024/01/31	102	70 - 130	101	70 - 130	<0.40	ug/L		
9187120	Tetrachloroethylene	2024/01/31	101	70 - 130	101	70 - 130	<0.20	ug/L		
9187120	Toluene	2024/01/31	92	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
9187120	Total Xylenes	2024/01/31					<0.20	ug/L	4.5	30
9187120	trans-1,2-Dichloroethylene	2024/01/31	96	70 - 130	97	70 - 130	<0.50	ug/L		
9187120	trans-1,3-Dichloropropene	2024/01/31	100	70 - 130	102	70 - 130	<0.40	ug/L		
9187120	Trichloroethylene	2024/01/31	105	70 - 130	104	70 - 130	<0.20	ug/L		
9187120	Trichlorofluoromethane (FREON 11)	2024/01/31	100	70 - 130	103	70 - 130	<0.50	ug/L		
9187120	Vinyl Chloride	2024/01/31	84	70 - 130	87	70 - 130	<0.20	ug/L		

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

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

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

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

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

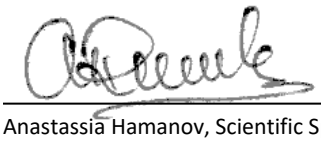
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

Bureau Veritas Job #: C425648
Report Date: 2024/02/01

Englobe Corp.
Client Project #: 02103035
Site Location: 424 CHURCHILL AVE N
Sampler Initials: JB

VALIDATION SIGNATURE PAGE

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



Anastassia Hamanov, Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Appendix F
Phase Two CSM

ENGLOBE

Phase Two Conceptual Site Model

This Phase Two Conceptual Site Model (Phase Two CSM) is prepared as a section of the Phase Two Environmental Site Assessment (ESA) conducted by Englobe Corp. (Englobe) in support of filing a Record of Site Condition (RSC) for the property located at the municipal address of 424 Churchill Avenue North in Ottawa, Ontario (hereinafter referred to as the "Site", "Phase One Property", "Phase Two Property", "RSC Property" or "RA Property").

The location of the Site is shown on the Figure 1 Property Location Map, Attachment A. The format of this Phase Two CSM is consistent with the requirements of the Ontario Regulation 153/04, as amended.

This Phase Two CSM is prepared based on the findings of the Phase One ESA (February 2023) and the Phase Two ESA conducted by Englobe for the RSC Property.

1 Description and Assessment

The Site consists of an irregularly shaped parcel of land that covers an area of approximately 1,000 m^2. It is developed with a single-storey, one underground basement level, single-tenant commercial building and an asphalt parking lot. The building, which has a footprint area of approximately 350 m^2, is now vacant but formerly operated as a dry cleaner and laundromat (Laundry Land).

The Site is bordered to the North by Danforth Avenue, to the East by Churchill Avenue North, to the South by Byron Avenue, and to the West by 352 Danforth Avenue. The Site and the surrounding properties are shown on Figure 2.

At the time of Englobe's assessment, the Site was owned and managed by Churchill Properties Inc.

A summary of the Site details is presented below.

Table 1. Site detail summary

Item	Detail
Municipal Address	424 Churchill Avenue North, Ottawa,
Site Area	1,006.76 m^2
Property Identification No.	04017-0158
Legal Description	LT 1 & PT LT 2, PL 204, S/S OF DANFORTH AV; ALL AS IN N632657 ; OTTAWA/NEPEAN

Item	Detail
Site Centroid	441001.74 m E, 5026679.72 m N (UTM NAD83-18)

i. Areas Where Potentially Contaminating Activities Have Occurred (PCAs)

Based on the Englobe Phase One ESA report, the following list provides both the description and assessment of identified Potentially Contaminating Activities (PCAs) within the Phase One Study Area (description based on the O. Reg. 153/04, as amended – Table 2: Potentially Contaminating Activities):

Table 2. PCAs identified on the Site and Surrounding Properties within the Phase One Study Area

PCA No.	Potentially Contaminating Activity (PCA)			Location of PCA				Source of Information	Potentially Impacted Media (Groundwater, Soil and/or Sediment)	Considered an APEC (Yes/No)
	O.Reg. 153/04 PCA Item No.	Property Address	Historical and/or Current Activities	On/Off Site	Up-gradient (Yes/No)	Proximity to Site (m)	Relative Direction to the Site			
PCA 1	37. Operation of Dry Cleaning Equipment (where chemicals are used)	424 Churchill Avenue North	Laundromat and dry cleaning facility	On Site	NA	On Site	NA	City Directories, Site Reconnaissance, ERIS Database Report, Interview, HLUI	Soil and Groundwater	Yes
PCA 2	Undefined No. 1. Application of salt for de-icing purposes for the safety of vehicular or pedestrian traffic	424 Churchill Avenue North	Application of salt for de-icing purposes for the safety of vehicular or pedestrian traffic	On Site	NA	On Site	NA	Aerial Photographs, Site Reconnaissance	Soil and Groundwater	Yes
PCA 3	46. Rail Yards, Tracks and Spurs	Byron Avenue	Historical presence of an electric rail line right of way	Off Site	Yes	10	South	FIPs, Aerial photographs, HLUI	Groundwater	No
PCA 4	31. Ink Manufacturing, Processing and Bulk Storage	412 Churchill Avenue North	Historical presence of commercial printers (Westboro Printers Ltd. from 1965 to 1996)	Off Site	No	30	North	City Directories, HLUI	Groundwater	No
PCA 5	33. Metal Treatment, Coating, Plating and Finishing	412 Churchill Avenue North	Historical presence of a plate making and engraver	Off Site	No	30	North	ERIS Database Report	Groundwater	No

PCA No.	Potentially Contaminating Activity (PCA)			Location of PCA				Source of Information	Potentially Impacted Media (Groundwater, Soil and/or Sediment)	Considered an APEC (Yes/No)
	O.Reg. 153/04 PCA Item No.	Property Address	Historical and/or Current Activities	On/Off Site	Up-gradient (Yes/No)	Proximity to Site (m)	Relative Direction to the Site			
			workshop (Albert & Son Engravers)							
PCA 6	28. Gasoline and Associated Products Storage in Fixed Tanks	408 Churchill Avenue North	Record of 3000 gallon fuel oil UST in 1958	Off Site	No	50	North	HLUI	Groundwater	No
PCA 7	37. Operation of Dry Cleaning Equipment (where chemicals are used)	354 Richmond Road	Historic Dry Cleaners	Off Site	No	65	North	City Directory, HLUI, ERIS Database Report	Groundwater	No
PCA 8	28. Gasoline and Associated Products Storage in Fixed Tanks	345 Ravenhill Avenue	Record of 3000 gallon bunker oil UST in 1951	Off Site	No	70	Southwest	HLUI	Groundwater	No
PCA 9	Undefined No. 2 - Spill	518 Byron Avenue	Historic 400 L furnace oil spill	Off Site	No	80	Southwest	ERIS Database Report	Groundwater	No
PCA 10	31. Ink Manufacturing, Processing and Bulk Storage	322 Richmond Road	Valberg Imaging	Off Site	No	80	Southwest	ERIS Database Report	Groundwater	No
PCA 11	10. Commercial Autobody Shops	337 Richmond Road	Record of Motor Vehicle Repair Shops (Westboro Police Village)	Off Site	No	90	North	HLUI	Groundwater	No

PCA No.	Potentially Contaminating Activity (PCA)			Location of PCA				Source of Information	Potentially Impacted Media (Groundwater, Soil and/or Sediment)	Considered an APEC (Yes/No)
	O.Reg. 153/04 PCA Item No.	Property Address	Historical and/or Current Activities	On/Off Site	Up-gradient (Yes/No)	Proximity to Site (m)	Relative Direction to the Site			
			including record of heavy equipment storage							
PCA 12	Undefined No. 3 - Salt Storage	337 Richmond Road	Record of salt and sand storage,	Off Site	No	90	North	HLUI	Groundwater	No
PCA 13	28. Gasoline and Associated Products Storage in Fixed Tanks	449 Churchill Avenue North	Record of historic fuel oil UST in 1973	Off Site	Yes	100	South	HLUI	Groundwater	No
PCA 14	37. Operation of Dry Cleaning Equipment (where chemicals are used)	357 Richmond Road	Record of laundries and cleaners (superior services stores)	Off Site	No	100	Northwest	HLIU	Groundwater	No
PCA 15	28. Gasoline and Associated Products Storage in Fixed Tanks	450 Churchill Avenue	Record of 3000 gallon fuel oil UST in 1958	Off Site	Yes	105	South	HLUI	Groundwater	No
PCA 16	28. Gasoline and Associated Products Storage in Fixed Tanks	347 Richmond Road	Record of 1000 gallon fuel oil AST in concrete bunker in 1953	Off Site	No	105	North	HLUI	Groundwater	No

PCA No.	Potentially Contaminating Activity (PCA)			Location of PCA				Source of Information	Potentially Impacted Media (Groundwater, Soil and/or Sediment)	Considered an APEC (Yes/No)
	O.Reg. 153/04 PCA Item No.	Property Address	Historical and/or Current Activities	On/Off Site	Up-gradient (Yes/No)	Proximity to Site (m)	Relative Direction to the Site			
PCA 17	28. Gasoline and Associated Products Storage in Fixed Tanks	372 Richmond Road	Historic gasoline service station including 3 USTs	Off Site	No	110	West	ERIS Report, HLUI	Groundwater	No
PCA 18	37. Operation of Dry Cleaning Equipment (where chemicals are used)	312 Richmond Road	Record of laundries and cleaners (Corley Cleaners)	Off Site	No	110	Northeast	HLUI	Groundwater	No
PCA 19	10. Commercial Autobody Shops	300 Richmond Road	Historic records of auto body garages	Off Site	No	110	Northeast	HLUI	Groundwater	No
PCA 20	54. Textile Manufacturing and Processing	314 Richmond Road	Cut and sew clothing manufacturing	Off Site	No	110	Northeast	ERIS Database Report, HLUI	Groundwater	No
PCA 21	37. Operation of Dry Cleaning Equipment (where chemicals are used)	384 Richmond Road	Record of laundries and cleaners (Palmer Cleaners)	Off Site	No	130	West	HLUI	Groundwater	No
PCA 22	10. Commercial Autobody Shops	371 Richmond Road	Record of Motor Vehicle Repair Shops (Westboro Motor Sales Ltd.)	Off Site	No	130	Northwest	HLUI	Groundwater	No

PCA No.	Potentially Contaminating Activity (PCA)			Location of PCA				Source of Information	Potentially Impacted Media (Groundwater, Soil and/or Sediment)	Considered an APEC (Yes/No)
	O.Reg. 153/04 PCA Item No.	Property Address	Historical and/or Current Activities	On/Off Site	Up-gradient (Yes/No)	Proximity to Site (m)	Relative Direction to the Site			
PCA 23	Undefined No. 4 - Spill	388 Richmond Road	Historic records of fuel spills	Off Site	No	135	West	ERIS Database Report	Groundwater	No
PCA 24	28. Gasoline and Associated Products Storage in Fixed Tanks	319 Richmond Road	Historic gasoline service station with USTs	Off Site	No	150	North	FIPs, HLUI	Groundwater	No
PCA 25	10. Commercial Autobody Shops	319 Richmond Road	General Automotive Repair shop in 2013 (Avenues Garage Ltd.)	Off Site	No	150	North	ERIS, FIPs, HLUI	Groundwater	No
PCA 26	Undefined No. 5 - Spill	389 Danforth Avenue	Historic record of fuel spill (unknown volume)	Off Site	No	155	West	ERIS	Groundwater	No
PCA 27	28. Gasoline and Associated Products Storage in Fixed Tanks	298 Richmond Road	Two records of 2 fuel oil USTs	Off Site	No	160	Northeast	HLUI, FIPs	Groundwater	No
PCA 28	10. Commercial Autobody Shops	298 Richmond Road	Record of motor vehicle repair shop (Elgin Motors)	Off Site	No	160	Northeast	HLUI	Groundwater	No
PCA 29	31. Ink Manufacturing, Processing and Bulk Storage	383 Winona Avenue	Commercial printing	Off Site	No	160	Northeast	HLUI	Groundwater	No

PCA No.	Potentially Contaminating Activity (PCA)			Location of PCA				Source of Information	Potentially Impacted Media (Groundwater, Soil and/or Sediment)	Considered an APEC (Yes/No)
	O.Reg. 153/04 PCA Item No.	Property Address	Historical and/or Current Activities	On/Off Site	Up-gradient (Yes/No)	Proximity to Site (m)	Relative Direction to the Site			
PCA 30	31. Ink Manufacturing, Processing and Bulk Storage	311 Richmond Road	Commercial printing	Off Site	No	160	Northeast	HLUI	Groundwater	No
PCA 31	10. Commercial Autobody Shops	394 Richmond Road	Record of motor vehicle repair shops	Off Site	No	170	West	HLUI	Groundwater	No
PCA 32	10. Commercial Autobody Shops	376 Madison Avenue	Record of motor vehicle repair shop (Lytle Roboring Service Ltd.)	Off Site	No	170	Northwest	HLUI	Groundwater	No
PCA 33	28. Gasoline and Associated Products Storage in Fixed Tanks	376 Churchill Avenue	Record of oil UST	Off Site	No	170	North	HLUI	Groundwater	No
PCA 34	31. Ink Manufacturing, Processing and Bulk Storage	376 Churchill Avenue	Records of publishing and commercial printing industries	Off Site	No	170	North	HLUI	Groundwater	No
PCA 35	Undefined No. 6 - Manufacturing	376 Churchill Avenue	Record of industrial machinery manufacturing	Off Site	No	175	Northwest	ERIS Database Report, HLUI	Groundwater	No
PCA 36	28. Gasoline and Associated Products	307/307 A Richmond Road	Record of fuel oil UST in 1963 and fuel oil AST in 1953	Off Site	No	175	Northeast	HLUI	Groundwater	No

PCA No.	Potentially Contaminating Activity (PCA)			Location of PCA				Source of Information	Potentially Impacted Media (Groundwater, Soil and/or Sediment)	Considered an APEC (Yes/No)
	O.Reg. 153/04 PCA Item No.	Property Address	Historical and/or Current Activities	On/Off Site	Up-gradient (Yes/No)	Proximity to Site (m)	Relative Direction to the Site			
	Storage in Fixed Tanks									
PCA 37	10. Commercial Autobody Shops	307 Richmond Road	Record of motor vehicle repair shops (unnamed auto body repairs)	Off Site	No	175	Northeast	HLUI	Groundwater	No
PCA 38	34. Metal Fabrication	377 Churchill Avenue	Record of jewellry and silverware manufacturing	Off Site	No	180	North	ERIS Database Report HLUI	Groundwater	No
PCA 39	54. Textile Manufacturing and Processing	375 Churchill Avenue	Cut and sew clothing manufacturing	Off Site	No	185	North	ERIS Database Report	Groundwater	No
PCA 40	Undefined No. 8 - Manufacturing	393 Richmond Road	Wood counter manufacturing	Off Site	No	195	West	ERIS Database Report	Groundwater	No
PCA 41	10. Commercial Autobody Shops	433 Roosevelt Avenue	Record of motor vehicle repair shop (The registered trimmer)	Off Site	No	200	Southwest	HLUI	Groundwater	No
PCA 42	39. Paints Manufacturing, Processing and Bulk Storage	397 Richmond Road	Record of paint storage (Stained glass stuff)	Off Site	No	200	West	HLUI	Groundwater	No
PCA 43	10. Commercial Autobody Shops	277 Richmond Road	Record of motor vehicle repair shops (unnamed auto body repairs)	Off Site	No	215	Northeast	HLUI	Groundwater	No
PCA 44	Undefined No. 9 - Spill	348 Whitby Avenue	Record of historic furnace oil spill of unknown quantity	Off Site	No	210	North	ERIS Database Report	Groundwater	No

PCA No.	Potentially Contaminating Activity (PCA)			Location of PCA				Source of Information	Potentially Impacted Media (Groundwater, Soil and/or Sediment)	Considered an APEC (Yes/No)
	O.Reg. 153/04 PCA Item No.	Property Address	Historical and/or Current Activities	On/Off Site	Up-gradient (Yes/No)	Proximity to Site (m)	Relative Direction to the Site			
PCA 45	31. Ink Manufacturing, Processing and Bulk Storage	363 Churchill Avenue	Record of combined publishing and printing (Saratime Publishings Inc.)	Off Site	No	220	Northeast	HLUI	Groundwater	No
PCA 46	Undefined No. 10 - Spill	363 Churchill Avenue	Record of historic 140 L hydraulic fluid spill	Off Site	No	220	Northeast	ERIS Database Report	Groundwater	No
PCA 47	31. Ink Manufacturing, Processing and Bulk Storage	364 Churchill Avenue	Historic record of platemaking, typesetting and bindery industry operations (Metrotype Graphics Ltd.)	Off Site	No	220	North	HLUI	Groundwater	No
PCA 48	10. Commercial Autobody Shops Storage in Fixed Tanks	276 Richmond Road	Unnamed gas and auto repair centre	Off Site	No	230	West	FIP	Groundwater	No
PCA 49	37. Operation of Dry Cleaning Equipment (where chemicals are used)	282 Richmond Road	Record of Laundries and Cleaners (Sparkle Cleaners)	Off Site	No	240	Northeast	HLUI	Groundwater	No
PCA 50	43. Plastics (including Fibreglass) Manufacturing	290 Picton Avenue	Historic plastic product manufacturing	Off Site	No	240	Northeast	ERIS Database Report, HLUI	Groundwater	No

PCA No.	Potentially Contaminating Activity (PCA)			Location of PCA				Source of Information	Potentially Impacted Media (Groundwater, Soil and/or Sediment)	Considered an APEC (Yes/No)
	O.Reg. 153/04 PCA Item No.	Property Address	Historical and/or Current Activities	On/Off Site	Up-gradient (Yes/No)	Proximity to Site (m)	Relative Direction to the Site			
	and Processing									
PCA 51	Undefined No. 11 - Spill	400 Athlone Avenue	Record of historic hydraulic fluid spill of unknown quantity	Off Site	No	250	Northeast	ERIS Database Report	Groundwater	No
PCA 52	31.Ink Manufacturing, Processing and Bulk Storage	416 Richmond Rd	Historic commercial printing operations	Off Site	No	250	West	ERIS Database Report	Groundwater	No
PCA 53	28. Gasoline and Associated Products Storage in Fixed Tanks	416 Richmond Road	Historic record of UST	Off Site	No	230	West	FIPs	Groundwater	No
PCA 54	30. Importation of Fill Material of Unknown Quality	424 Churchill Avenue North	Potential historical importation of fill material of unknown quality on Site	On Site	NA	On Site	NA	Site Reconnaissance	Soil	Yes

The locations of the above-noted PCAs are shown on Figure 2.

ii. Areas of Potential Environmental Concern (APECs)

The following PCAs resulting in APECs were identified as part of the Phase One ESA completed at the Phase Two Property and documented in the Englobe Phase One ESA (February 2023). The APECs are listed in the table below.

Table 3. APECs identified at the Phase One Study Area

PCA							APEC			
PCA No.	O. Reg. 153/04 PCA Item No.	PCA Location (On/Off Site)	Historical and/or Current Activities	PCA Proximity to Site (m)	PCA Relative Direction to the Site	Up-gradient (Yes/No)	APEC No.	Location of APEC on the Site	Contaminants of Potential Concern (COCs)	Potentially Impacted Media (Groundwater, Soil, and/or Sediment)
PCA 1	37. Operation of Dry Cleaning Equipment (where chemicals are used)	On Site	Laundromat and dry cleaning facility	N/A	N/A	N/A	APEC 1	Entire Site	VOCs	Soil and Groundwater
PCA 2	Undefined No. 1. Application of salt for de-icing purposes for the safety of vehicular or pedestrian traffic	On Site	Application of salt for de-icing purposes for the safety of vehicular or pedestrian traffic	N/A	N/A	N/A	APEC 2[1]	Parking Area and Driving Laneway	EC, SAR, Cl^-, Na	Soil and Groundwater
PCA 54	30. Importation of Fill Material of Unknown Quality	On-Site	Potential historical importation of fill material of unknown quality on Site	N/A	N/A	N/A	APEC 3	Entire Site	PAHs, Metals, As, Se, Sb	Soil

[1] Road salt and/or de-icing substances have likely been applied to the surface of the driveway/parking areas of the Site for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both, thus, it is the QP's opinion that this PCA and associated APEC are exempted, and no soil and groundwater samples were collected and submitted for laboratory analyses for related parameters.

Note:
Cl^- = Chloride
EC = Electrical conductivity
Na = Sodium
PAH = Polycyclic aromatic hydrocarbons
SAR = Sodium adsorption ratio
VOCs = Volatile organic compounds

The locations of the APECs associated with on-Site PCAs, as well as a Site plan showing the locations of boreholes and monitoring wells advanced at the Phase Two Property, are included in Figure 3.

iii. Subsurface Structures and Utilities On, In, or Under the Phase Two Property That May Affect Contamination Distribution and Transport

Below-ground utilities on Site include municipal servicing for water, sewer, and natural gas. Current subsurface structures and utilities at the Phase Two Property may provide pathways that affect contaminant distribution and/or transport.

Historic subsurface structures and utilities associated with the building on the Phase Two Property may have consisted of abandoned municipal water, sewer, and/or natural gas services. Potential historic and subsurface structures and utilities at the Phase Two Property may have provided pathways that previously affected contaminant distribution and/or transport.

2 A Description of and, as Appropriate, Figures Illustrating, the Physical Setting of the Phase Two Property and Any Areas Under It

i. Stratigraphy from Ground Surface to the Deepest Aquifer or Aquitard Investigated

Topographic information obtained from available Ministry of Natural Resources and Forestry mapping shows the Site elevation ranging from approximately 68 – 70 masl. The ground surface at the Phase Two Property was generally observed to be flat. The nearest major surface water body is the Ottawa River (approximately 650 m northwest of the Site), which flows in a north-easterly/easterly direction.

Based on a review of the Ontario Geological Survey (OGS), Bedrock Geology Map (Ministry of Natural Resources and Forestry, 2000), the bedrock at the Site consists of limestone, dolostone, shale, and sandstone of the Simcoe Group, Gull River Formation. Based on a review of the OGS Quaternary Geology Map (Ministry of Natural Resources and Forestry, 2000), the Site consists of till which contains stone poor, sandy silty to silty sand-textured till on Paleozoic terrain.

Based on the soil data collected during the advancement of the boreholes, the general soil stratigraphy at the Site is characterized as a thin layer of fill material, mainly consisting of silty sand with trace to some gravel (0.1 to 0.5 m thick), occasionally followed by a layer of sandy silt (0.5 to 0.7 m thick) or glacial till (0.5 m thick), underlain by limestone bedrock (encountered between 0.8 to 1 m bgs), to the extent of the advanced boreholes (9.2 to 30.5 m bgs). At MW23-02 and MW23-03 (interior boreholes), a sand and gravel or gravel base layer (0.1 to 0.6 m thick) was observed beneath the concrete slab (0.03 to 0.15 m thick) prior to encountering bedrock. The Site is largely asphalt covered.

The geological cross-sections A-A’ and B-B’ are shown on Figure 14 and Figure 15, respectively.

ii. Hydrogeological Characteristics

A total of eight boreholes (MW21-01 through MW21-03, MW23-01 through MW23-04, and MW24-1) were advanced and instrumented with groundwater monitoring wells between 2021 and 2024. Based on measured groundwater elevation data, the apparent highest groundwater elevation is present in the central

area of the Site, with the inferred local groundwater flow direction at the Phase Two Property being both to the southwest and east/northeast.

A groundwater contour and interpreted local groundwater flow direction plan based on measured groundwater elevations is provided on Figure 4.

The horizontal hydraulic gradients for the Phase Two Property were calculated to be 0.0316 m/m in the east/northeast direction (calculated from groundwater elevations in MW21-02 and MW23-01) and 0.0541 in the southwest direction (calculated from groundwater elevations in MW21-02 and MW21-03).

Groundwater depth and elevation data is provided in Table 4.

iii. Approximate Depth to Bedrock

Based on the Ontario Geological Survey database, the Phase Two Property is assumed to be underlain by limestone, dolostone, shale, and sandstone of the Simcoe Group, Gull River Formation (OGS, 2014a). Limestone bedrock was confirmed at borehole locations MW21-02 and MW23-01 through coring of the bedrock. Bedrock at the Site was encountered at depths ranging from 0.2 (MW23-04) to 1.4 m bgs (MW21-02).

iv. Approximate Depth to Water Table

The Site is characterized by having shallow and deep groundwater aquifers. Approximate depths to the shallow groundwater table ranged from 5.65 m bgs (in monitoring well MW21-02) to 6.71 m bgs (in monitoring well MW21-03). The measured depth to the deep groundwater table was 11.44 m bgs (in monitoring well MW24-1).

Geological cross-sections (A-A' to B-B') are shown on Figures 14 and 15, which include soil stratigraphy and depths to groundwater at the Phase Two Property.

v. Any Respect in Which Section 35, 41 or 43.1 of the Regulation Applies to the Property

Section 35 of the Regulation dictates restrictions and requirements for application of non-potable site condition standards and applies to the Phase Two Property. The Phase Two Property is serviced by the City of Ottawa water distribution system and located within the City of Ottawa Intake Protection Zone (IPZ) 2. Based on Englobe's background search, all properties within 250 m of the Phase Two Property are serviced by the municipal water supply (i.e., there are no potable water supply wells located within the Phase One Study Area). Therefore, non-potable groundwater site condition standards have been applied to the Phase Two Property.

Section 41 of the Regulation does not apply to the Phase Two Property based on the following rationale:

- The Phase Two Property is not located within an area of natural significance;
- The Phase Two Property does not include or is not adjacent to an area of natural significance or part of such an area;
- The Phase Two Property does not include land that is within 30 m of an area of natural significance or part of such an area;

– Based on the analytical results of soil samples collected from the Phase Two Property during the investigation, the surface and subsurface soil at the Phase Two Property has a pH value between 5 and 9 (surficial soil) (no subsurface soil present – shallow bedrock conditions).

Section 43.1 of the Regulation does apply to the Phase Two Property based on the following rationale:

– The Phase Two Property is considered a shallow soil property as bedrock was encountered within 2 m bgs at all borehole locations during the Phase Two ESA investigation; and

– The Phase Two Property does not include all or part of a water body and is not adjacent to a water body and does not include land that is within 30 m of a water body.

Based on the above, the Ministry of the Environment, Conservation and Parks (MECP) Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition (Residential/Parkland/Institutional Property Use, medium-fine textured soils) under Part XV.1 of the Environmental Protection Act (MECP Table 7 Standards) has been selected for assessing the soil conditions at the Phase Two Property. Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition (All Types of Property Use, medium-fine textured soils). under Part XV.1 of the Environmental Protection Act (MECP Table 9 Standards) has been selected for assessing groundwater conditions at the Phase Two Property.

Site Conditions Standards for medium-fine textured soils were considered applicable to the Site based on grain size analysis results completed as part of Englobe's Phase Two ESA.

vi. Areas on, in, or under the Phase Two Property where Excess Soil is Finally Placed

No excess soils have been placed at the Site.

vii. Approximate Locations, if Known, of Any Proposed Buildings or Other Structures

Current development plans for the Site include a new 58 unit mid-rise residential apartment building with an underground parking garage.

The proposed building will cover an approximate area of 882.3 m^2 and will be comprised of a seven-storey multi-unit residential building with three basement levels to be used for parking. Based on the architectural and civil Site plans available to Englobe, the ground floor of the building will be at an approximate elevation of 75.92 metres above sea level (masl). Therefore, the B3 basement level will be approximately 10.6 meters deeper, at an approximate elevation of 65.32 masl. The completed building will have a finished average grade of approximately 73.10 masl. Due to the split grade of the Site, the top two basement levels will be partially exposed along the north perimeter of the proposed building.

3 Provide, Where A Contaminant Is Present On, In or Under the Phase Two Property at A Concentration Greater Than the Applicable Site Condition Standard

Soil sample results were compared to the MECP Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition (Residential/Parkland/Institutional Property Use, medium-

fine textured soil as per “Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act”, April 15, 2011.

Metals and PHC soil impacts were observed at MW23-01, at a depth of 0.3 to 0.9 m bgs. Metals and PAH soil impacts were observed at MW23-04, at a depth of 0 to 0.3 m bgs.

Groundwater sample results were compared to the MECP Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition (All Types of Property Use, medium-fine textured soils) as per “Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act", April 2011.

VOC groundwater impacts were observed within all monitoring wells on Site, with the exception of deep groundwater monitoring well MW24-1. PHC groundwater impacts were observed at monitoring well locations MW21-02 and MW23-02.

i. Each Area Where a Contaminant is Present on, in or under the Phase Two Property at a Concentration Greater than the Applicable Site Condition Standard

Based on the laboratory analytical results, all sampling locations were observed to have soil and/or groundwater impacts above the Table 7 SCS, with the exception of MW24-1 where the groundwater sample collected met the Table 7 SCS. No soil sampling was conducted at MW24-1.

All sampling locations are depicted on Figure 3.

ii. The Contaminants Associated with Each of the Areas Referred to in Subparagraph i

Soil contaminants above applicable MECP Table 7 standards, identified in 3.1.i, include barium, lead, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b/j)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, fluoranthene, and indeno(1,2,3-cd)pyrene.

Groundwater contaminants above applicable MECP Table 7 standards, identified in 3.1.i, include various chlorinated ethenes (VOCs) and PHC parameters, including 1,1- dichloroethylene, 1,2-dichloroethylene (cis), 1,2-dichloroethylene (trans), tetrachloroethylene, trichloroethylene, vinyl chloride, and petroleum hydrocarbons fractions F1, F2, and F3.

Refer to Figures 6 through 13 for a plan view of all soil groundwater sampling locations and parameter-specific sampling maps.

iii. Each Medium in Which a Contaminant Associated with an Area Referred to in Subparagraph i is Present

The contaminated media at the Phase Two Property include both soil and groundwater. In soil, concentrations of PAHs, PHCs, and metals exceed the applicable Table 7 SCS. In groundwater, concentrations of PHCs and VOCs exceed the applicable Table 7 SCS.

It should be noted that no sediments are present on the Phase Two Property. Therefore, sediment is excluded as a medium of analysis for this Phase Two ESA.

iv. A Description and Assessment of what is Known About Each of the Areas Referred to in Subparagraph i

As noted above, soil and groundwater contamination was identified at the Phase Two Property.

Soil sample results were compared to the MECP Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition (Residential/Parkland/Institutional Property Use, medium-fine textured soil as per "Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act", April 15, 2011.

Based on the laboratory analytical results, concentrations of all analyzed parameters (PHCs F1 – F4 and VOCs) in the laboratory-submitted soil samples met the applicable MECP Table 7 SCS with the exception of:

- Concentrations of PHC F4 gravimetric (6,100 µg/g) and barium (630 µg/g) at MW23-01 at a depth of 0.3 to 0.9 m bgs; and,
- Concentrations of lead (200 µg/g), anthracene (1.2 µg/g), benzo(a)anthracene (3.5 µg/g), benzo(a)pyrene (3 µg/g), benzo(b/j) fluoranthene (4.3 µg/g), benzo(k)fluoranthene (1.7 µg/g), dibenzo(a,h)anthracene (0.54 µg/g), fluoranthene (8.6 µg/g), and indeno(1,2,3-cd)pyrene (2 µg/g) at MW23-04 at a depth of 0 to 0.3 m bgs.

Concentrations of all other analyzed parameters in soil were below the MECP Table 7 SCS.

Groundwater sample results were compared to the MECP Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition (All Types of Property Use, medium-fine textured soils) as per "Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act", April 2011.

Based on the laboratory analytical results, the following exceedances of the applicable MECP Table 7 were detected in the groundwater samples collected:

- Concentrations of 1,1- dichloroethylene in the groundwater sample collected from monitoring well MW21-02 (0.66 µg/L), MW23-01 (as well as field duplicate MW23-11) (1.2 µg/L), and MW23-03 (2 µg/L) exceeded the applicable MECP Table 7 standard (0.5 µg/L);
- Concentrations of 1,2-dichloroethylene (cis) in the groundwater samples collected from monitoring wells MW21-01 (220 µg/L), MW21-02 (860 µg/L), MW23-01 (as well as field duplicate MW23-11) (max. 630 µg/L in August 2023 and 40 µg/L in November 2023), MW23-02 (16 µg/L in September 2023, 33 µg/L in November 2023, and 27 µg/L in January 2024), and MW23-03 (940 µg/L) exceeded the applicable MECP Table 7 standard (1.6 µg/L);
- Concentrations of 1,2-dichloroethylene (trans) in the groundwater samples collected from monitoring wells MW21-01 (3.7 µg/L), MW21-02 (12 µg/L), MW23-01 (as well as field duplicate MW23-11) (max. 4.7 µg/L), MW23-02 (1.7 µg/L), and MW23-03 (14 µg/L) exceeded the applicable MECP Table 7 standard (1.6 µg/L);
- Concentrations of tetrachloroethylene in the groundwater samples collected from monitoring wells MW21-01 (930 µg/L), MW21-02 (890 µg/L), MW21-03 (32 µg/L in April 2021 and 2.4 µg/L in August 2023), MW23-01 (as well as field duplicate MW23-11) (max. 13 µg/L) in August 2023 and 0.57 µg/L in November 2023, MW23-02 (720 µg/L in September 2023, 1,400 µg/L in November 2023, and 730 µg/L in January 2024), MW23-03 (9.6 µg/L), and MW23-04 (8.4 µg/L) exceeded the applicable MECP Table 7 standard (0.5 µg/L);
- Concentrations of trichloroethylene in the groundwater samples collected from monitoring wells MW21-01 (100 µg/L), MW21-02 (160 µg/L), MW21-03 (2 µg/L in April 2021 and 0.72 in August 2023), MW23-01 (as well as field duplicate MW23-11) (110 µg/L) in August 2023 and 1.2 µg/L in November 2023, MW23-02 (44 µg/L in September 2023, 120 µg/L in November 2023, and 51 µg/L in January 2024),

MW23-03 (23 µg/L), and MW23-04 (0.65 µg/L) exceeded the applicable MECP Table 7 standard (0.5 µg/L);

- Concentrations of vinyl chloride in the groundwater samples collected from monitoring wells MW21-01 (7 µg/L), MW21-02 (31 µg/L), MW23-01 (as well as field duplicate MW23-11) (100 µg/L) in August 2023 and 7.3 µg/L in November 2023, MW23-02 (0.96 µg/L in September 2023, 4.0 µg/L in November 2023, and 3.2 µg/L in January 2024), and MW23-03 (88 µg/L) exceeded the applicable MECP Table 7 standard (0.5 µg/L);
- Concentrations of PHC F1 in the groundwater samples collected from monitoring wells MW23-02 (as well as field duplicate MW23-20) (max. 540 µg/L) in August 2023 as well as November 2023 (480 µg/L) exceeded the applicable MECP Table 7 standard (420 µg/L); and
- Concentrations of PHC F2 (370 µg/L) and PHC F3 (750 µg/L) in the groundwater sample collected from monitoring well MW21-02 exceeded the applicable MECP Table 7 standards (150 µg/L and 500 µg/L, respectively).

It is recommended that the identified soil and groundwater contamination (exceeding the applicable MECP Table 7 standards) on Site be addressed through the completion of a Risk Assessment, in support of a Record of Site Condition, in accordance with O. Reg. 153/04 (as amended). Any excess soils generated during the re-development of the Site must be managed in accordance with O. Reg. 406/19.

v. The Distribution, in Each of the Areas Referred to in Subparagraph i, of Each Contaminant Present in the Area at a Concentration Greater than the Applicable Site Condition Standard, for Each Medium in which the Contaminant is Present, Together with Drawings Showing the Distribution

Lateral and vertical delineation of soil and groundwater impacts has been achieved.

Figures 6 through 13 provide a plan view of all known sampling locations and exceedances, as well as the inferred lateral extent of contamination. Figures 16 through 31 provide a cross-sectional view of exceedances, as well as the inferred vertical extent of contamination.

vi. Anything Known About the Reason for the Discharge of Contaminants Present on, in or Under the Phase Two Property at a Concentration Greater than the Applicable Site Condition Standard into the Natural Environment

Groundwater contamination with various VOC and PHC parameters as well as PHC F4 gravimetric soil contamination are likely the result of historical on-Site activities, including a former dry-cleaning facility.

Soil contamination with various metal and PAH parameters are likely the result of imported fill historically imported to Site during its development.

vii. Anything Known About Migration of the Contaminants Present On, In or Under the Phase Two Property at a Concentration Greater than the Applicable Site Condition Standard Away from Any Area of Potential Environmental Concern, Including the Identification of any Preferential Pathways

Groundwater contamination with various VOC and PHC parameters as well as soil contamination with PHC F4 gravimetric ($F4_G$) are likely the result of historical on-Site activities, including a former dry-cleaning facility. Soil contamination with various metal and PAH parameters are likely the result of imported fill historically brought to Site.

Due to the immobility and semi-volatility of the metals, PAHs, and PHC $F4_G$ in soil, the possible migration of these contaminants in soil is through on-Site construction activities, soil disturbances, and leaching through to groundwater or air exposure pathways. Migration of such contaminants in soils from the Phase Two Property into the natural environment is not expected as there was no groundwater contamination for such parameters identified at the locations where these exceedances were noted in soil.

The possible migration of the contaminants in groundwater (i.e., VOCs, PHCs) may occur through the bulk movement of groundwater flow, absorption, biodegradation and/or natural attenuation. Migration of contaminants in groundwater from the Phase Two Property into the natural environment is expected through the groundwater movement/migration at the Phase Two Property.

No preferential pathways were identified for soil contamination migrating away from any area of potential environmental concern identified at the Phase Two Property. However, migration of groundwater contamination away from the Phase Two Property is expected through the groundwater movement/migration.

viii. Climatic or Meteorological Conditions that May Have Influence on Distribution and Migration of the Contaminant, Such as Temporal Fluctuations in Groundwater Levels

Temporal fluctuations in the groundwater levels and other climatic or meteorological conditions are not expected to have had a discernable impact on the distribution or migration of the contaminants identified in soils at the Phase Two Property.

Climatic or meteorological conditions may have influenced the distribution and migration of the VOC and PHC contaminants identified in groundwater as the bedrock at the Phase Two Property is shallow, approximately 1 m bgs, and the measured groundwater table ranged from 3.90 – 11.44 mbgs. The temporal fluctuation in groundwater levels may influence contaminant migration at the Phase Two Property.

ix. If Applicable, Information Concerning Soil Vapour Intrusion of the Contaminants into the Buildings including,

From a pre-remedial context, contaminants of concern include PHCs, PAHs, and metals in soil, as well as PHCs, and VOCs in groundwater. The nature of these COCs may present a concern for vapour intrusion into buildings.

A. Relevant construction features of a building, such as basement or crawl space,

The existing on-Site building has a basement level. Proposed future development plans include a new 58 dwelling unit mid-rise apartment building, with an underground parking garage with an approximate elevation of 65.32 masl (10.6 m bgs).

B. Building heating, ventilating and air conditioning design and operation,

The current on-Site building is heated by a natural gas fired furnace, located in the basement of the building, and is cooled via an HVAC unit located on the roof of the building. Detailed HVAC design for the proposed future building is not available at this time.

C. Subsurface utilities.

Subsurface utilities are anticipated beneath the on-Site building which may affect contaminant transport. The proposed location details of any future subsurface utilities are not available at this time, but is expected to include sanitary sewer, storm sewer, and watermain services.

4. Provide, where contaminants on, in or under the phase two property are present at concentrations greater than the applicable site condition standard, two or more cross-sections showing, by parameter group as defined in the Analytical Protocol for which a contaminant has been analysed

Figures 16 through 31 provide a cross-section view showing known contamination under the Phase Two Property for all parameter groups.

i. The Lateral and Vertical Distribution of Each Contaminant in Each Area Where the Contaminant is Present at a Concentration Greater than the Applicable Site Condition Standard in Soil, Ground Water and Sediment,

Lateral and vertical delineation of soil and groundwater impacts has been achieved. Figures 6 through 13 provide a plan view of all sampling locations and exceedances by parameter group.

ii. Approximate Depth to Water Table in Each Area Referred to in Subparagraph i,

The approximate depth to the measured groundwater table ranged from 3.90 mbgs (MW23-02) to 11.44 mbgs (MW24-1) across the RSC Property.

Table 4. Groundwater Elevation Data.

Sample Location	Easting (m)	Northing (m)	Elevation at ground surface (masl)	Screened Interval (mbgs)	Sampling Date (dd/mm/yyyy)	Groundwater Depth (mbgs)	Groundwater Elevation (masl)
MW21-01	5026693.517	441011.962	75.365	8.1 - 11.1	04/29/2021	6.46	68.905
MW21-02	5026686.879	441001.753	75.530	7 - 10	04/30/2021	6.80	68.73
					15/08/2023	5.65	69.88
MW21-03	5026664.437	440991.735	75.353	9.8 - 12.8	04/29/2021	6.92	68.433
					15/08/2023	6.71	68.643
MW23-01	5026690.656	441013.409	75.268	13.5 - 16.5	15/08/2023	5.89	69.378
MW23-02	5026692.766	441009.374	73.571	6 - 9	15/08/2023	6.25	69.671
MW23-03	5026685.848	441000.022	75.923	6 - 9	15/08/2023	6.23	69.693
MW23-04	5026692.732	441016.497	75.773	4.5- 7.5	15/08/2023	5.99	69.783
MW24-1	5026689.78	441012.47	75.268	27.5 - 30.5	25/01/2024	11.44	63.828

iii. Stratigraphy from Ground Surface to the Deepest Aquifer or Aquitard Investigated, and

Based on the soil data collected during the advancement of the boreholes, the general soil stratigraphy at the Site is characterized as a thin layer of fill material, mainly consisting of silty sand with trace to some gravel (0.1 to 0.5 m thick), occasionally followed by a layer of sandy silt (0.5 to 0.7 m thick) or glacial till (0.5 m thick), underlain by limestone bedrock (encountered between 0.8 to 1 m bgs), to the extent of the advanced boreholes (9.2 to 30.5 m bgs). At MW23-02 and MW23-03 (interior boreholes), a sand and gravel or gravel base layer (0.1 to 0.6 m thick) was observed beneath the concrete slab (0.03 to 0.15 m thick) prior to encountering bedrock. The bedrock was confirmed at the MW21-02 and MW23-01 locations as limestone bedrock. The remainder of the boreholes were advanced using air drilling techniques; therefore, the bedrock type could not be verified at these locations.

Locations of geological cross-sections (A-A' to B-B') are shown on Figure 5. The geological cross-sections A-A' and B-B' are shown on Figures 14 and 15, respectively.

iv. Any Subsurface Structures and Utilities that may Affect Contaminant Distribution and Transport in Each Area Referred to in Subparagraph i

Assumed below-ground structures on Site include municipal servicing for water, sewer, and natural gas. Current subsurface structures and utilities at the RSC Property may provide pathways that affect contaminant distribution and/or transport.

Historic subsurface structures and utilities associated with the building on the Phase One Property may have consisted of abandoned municipal water, sewer, and/or natural gas services. Potential historic and subsurface structures and utilities at the RSC Property may have provided pathways that affect contaminant distribution and/or transport.

5. For Each Area Where Contaminant is Present, On, In or Under the Phase Two Property at a Concentration Greater Than the Applicable Site Condition Standard for the Contaminant, a Diagram Identifying, With Narrative Explanatory Notes

The identified PHC, VOC, PAH, metals contamination in soil and groundwater, where applicable, is expected to have several release mechanisms via soil and air exposure pathways to human and ecological receptors at or in the vicinity of the RA Property. The contaminant exposure/transport pathways are discussed below.

i. The Release Mechanisms

Groundwater contamination with various VOC and PHC parameters as well as soil contamination with PHC F4 gravimetric ($F4_G$) are likely the result of historical on-Site activities, including a former dry-cleaning facility. Soil contamination with various metal and PAH parameters are likely the result of imported fill materials historically brought to Site during development.

ii. Contaminant Transport Pathway

Due to the immobility and semi-volatility of the metals, PAHs, and PHC F4G in soil, the possible migration of these contaminants in soil is through on-Site construction activities, soil disturbances, and leaching through to groundwater or air exposure pathways. Migration of such contaminants in soils from the Phase Two Property into the natural environment is not expected as there was no groundwater contamination for such parameters identified at the locations where these exceedances were noted in soil.

The possible migration of the contaminants in groundwater (i.e., VOCs, PHCs) may occur through the bulk movement of groundwater flow, absorption, biodegradation and/or natural attenuation. Migration of contaminants in groundwater from the Phase Two Property into the natural environment is expected through the groundwater movement/migration at the Phase Two Property.

No preferential pathways were identified for soil contamination migrating away from any area of potential environmental concern identified at the Phase Two Property. However, migration of groundwater

contamination away from the Phase Two Property is expected through the groundwater movement/migration.

iii. The Human and Ecological Receptors Located On, In or Under the Phase Two Property

Potential human receptors on the property include property residents, property visitors, on-Site workers (indoor and outdoor) and construction workers (i.e., subsurface workers).

Ecological receptors include plants and soil invertebrates, birds and mammals. It should be noted that the Phase Two Property was not known to be habitat for any species considered “threatened” or “endangered”.

iv. Receptor Exposure Points

Receptor exposure points for human receptors include any worker on-Site (construction worker, etc.) who may contact the soil during remediation, construction, or development of the Site.

Receptor exposure points for ecological receptors include root zones of plants and burrowing wildlife.

Note there are no active potable groundwater sources on the Property.

v. Routes of Exposure

The routes of exposure for human receptors include dermal (skin) contact, ingestion and inhalation.

The routes of exposure for ecological receptors include root uptake, ingestion, inhalation, dermal (skin) contact, stem and foliar deposition.

Workers may come into contact with the impacted soil and/or groundwater during future construction work, but this is expected to be minimal as workers will wear appropriate personal protective equipment (PPE) when handling impacted soil and/or groundwater.

6. If a Non-standard Delineation was Conducted in Accordance with Section 7.1 of this Schedule as Part of Preparing the Phase Two Environmental Site Assessment Report, Provide a Narrative Description of How the Non-standard Delineation Satisfies the Requirements in that Section

Not applicable. Non-standard delineation was not relied upon.

7. If the Exemption Set out in Paragraph 1, 1.1 or 2 of section 49.1 of the Regulation is Being Relied Upon, Provide a Statement as to the Reliance Upon the Exemption and a Narrative Description of the Rationale for Relying upon the Exemption

It is highly possible that the application of road salt or de-icing substances along the Phase One Property driveway and parking area has occurred during the winter seasons. This represents a potential environmental concern to the Phase One Property. However, as road salt and de-icing substances on the driveway and parking area was applied for the purposes of keeping these areas safe for traffic and pedestrians under conditions of snow or ice or both, exemptions for potential road salt and/or de-icing substance impacts to the Phase One Property, provided for under Paragraph 1 of Section 49.1 of O. Reg. 153/04, as amended, apply.

Englobe intends to rely upon the exemption set out in Paragraph 1 of Section 49.1 of O. Reg. 153/04, as amended, to exempt road salt and/or de-icing substance impacts to the Phase One Property in the area of the driveway and parking area, specific to impacts of electrical conductivity and SAR, in soil, and sodium and chloride, in groundwater.

Englobe does not intend to rely upon the exemption set out in Paragraph 1.1 or 2 of Section 49.1 of O. Reg. 153/04, as amended, as Englobe is not aware of any previously identified exceedances at the Site to which this exemption would apply.

8. If the Exemption Set Out in Paragraph 3 of section 49.1 of the Regulation, is Being Relied Upon, provide a Statement of the Rationale for Relying on the Exemption, One or More Cross-Sections and One or More Figures in Plan View that Demonstrate, the Distribution of the Contaminant in Question Laterally and Vertically an the Range of Concentrations of that Contaminant on, in, or under the Phase Two Property.

Englobe does not intend to rely upon the exemption set out in Paragraph 3 of Section 49.1 of O. Reg. 153/04, as amended, as Englobe is not aware of any previously identified exceedances at the Site to which this exemption would apply.

9. If the Exemption Set Out subsection 6 (2) this Schedule is Being Relied Upon, Provide a Narrative Description in Accordance with subsections 43 (3) and (4) of this Schedule.

Englobe does not intend to rely upon the exemption (to not sample and analyze groundwater due to shallow bedrock) set out in Subsection 6 (2) of Schedule E of O. Reg. 153/04, as amended.

Appendix G
Qualifications of the Assessors

ENGLOBE

Qualifications of the Assessors

Salim Eid, P.Eng., is a Senior Project Manager with Englobe Corp. Mr. Salim Eid is responsible for project management, including budget control, staff scheduling and client liaison, as well as engineering investigations and field work. Mr. Eid has managed and worked on various types of environmental projects, including Phase I-III ESAs throughout Canada, Remediation Programs, Risk Assessments, Remedial Action Plans, Landfill Monitoring Programs and Demolitions.

Andrew Naoum, P.Eng., QP_{ESA} is the Senior Director of Operations for Engineering for Englobe's Ontario north/southeast region. Andrew Naoum has over 12 years of experience in the environmental consulting industry. His experience includes but is not limited to instrumentation and monitoring, site remediation, decommissioning, and demolition consulting expertise. Mr. Naoum has comprehensive experience coordinating staff, managing projects, and interpreting results.