



LANKOR HORIZONS INC.  
**Soil Characterization Report**

0 Wyandotte Street East, Windsor, Ontario



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# Executive Summary

Dillon Consulting Limited (Dillon) was retained by Lankor Horizons Inc. (Lankor) to complete a Soil Characterization Program for the excess soils expected to be generated as part of construction activities for a multi-unit residential building located at 0 Wyandotte Street East, in Windsor, Ontario (the “Project Area”). The location of the Project Area is shown on Figure 1.

The Soil Characterization Program was carried out to provide excess soil reuse options for the building construction project based on the general requirements of *Ontario Regulation 406/19 – On-Site and Excess Soil Management* (O.Reg. 406/19), of which certain requirements were phased-in on January 1, 2021. The objective of this task is to ensure the project complies with the January 1, 2021 requirements and that excess soil management information has been included in the tender/contract documents to allow for the efficient management of associated project costs.

A Phase I Environmental Site Assessment (ESA) was completed for the Project Area by Dillon in July 2021. The purpose of the Phase I ESA was to assess for evidence of potential or actual environmental contamination, as a result of current or past activities, and to utilize this information for the preparation of a Sampling and Analysis Plan and Soil Characterization Program. Aerial photographs and interview comments appear to indicate that the Project Area previously operated as an orchard, from approximately the 1940s to the early 2000s. The historical use of the Project Area as an orchard represents a potential for environmental concern, as pesticides use (containing arsenic and lead) has the potential to impact soil quality at the property.

The purpose of the Soil Characterization Program was to characterize the soils to meet the requirements of O. Reg 406/19 and potential receiving sites and outline the soil reuse requirements and excess soil management information to be included in the tender/contract documents for the project.

Wood was retained by Lankor to complete a geotechnical assessment for the proposed development at the Project Area. Wood was responsible for obtain public utility locates, drilling, sample collection and laboratory analysis of the selected samples.

A total of 10 boreholes were advanced to a maximum depth of 2.1 up to 9.6 m below ground surface (bgs). The locations of each borehole are presented in Figure 2. A total of 18 soil samples (including two field duplicates) were collected and analyzed for bulk analysis of inorganics, metals, petroleum hydrocarbons (PHCs) and benzene, toluene, ethylbenzene and xylene (BTEX).

Based on the findings of the Soil Characterization Program, the soil is deemed to meet Table 1 Residential Excess Soil Quality Standards (ESQSS, Table 2.1 Agricultural and Other (AgO) ESQS, and Table 3.1 Residential, Parkland and Institutional (RPI) ESQS and Table 3.1 Industrial, Commercial and Community (ICC) ESQS. Noted Table 1 Residential ESQS exceedances for molybdenum are considered to meet the Table 1 Residential ESQS based on the local background concentration review summarized in **Section 4.3.1**.

1.0

# Introduction

Dillon Consulting Limited (Dillon) was retained by Lankor Horizons Inc. (Lankor) to complete a Soil Characterization Program for the excess soils expected to be generated as part of construction activities for a multi-unit residential building located at 0 Wyandotte Street East, in Windsor, Ontario (the “Project Area”). The location of the Project Area is shown on Figure 1.

The Soil Characterization Program was carried out to provide excess soil reuse options for the building construction project based on the general requirements of *Ontario Regulation 406/19 – On-Site and Excess Soil Management* (O.Reg. 406/19), of which certain requirements were phased-in on January 1, 2021. The objective of this task is to ensure the project complies with the January 1, 2021 requirements and that excess soil management information has been included in the tender/contract documents to allow for the efficient management of associated project costs.

1.1

## Background

A Phase I Environmental Site Assessment (ESA) was completed for the Project Area by Dillon in July 2021. The purpose of the Phase I ESA was to assess for evidence of potential or actual environmental contamination, as a result of current or past activities, and to utilize this information for the preparation of a Sampling and Analysis Plan and Soil Characterization Program.

Aerial photographs and interview comments appear to indicate that the site previously operated as an orchard, from approximately the 1940s to the early 2000s. The historical use of the site as an orchard represents a potential for environmental concern, as pesticides use (containing arsenic and lead) has the potential to impact soil quality at the site.

1.2

## Objective and Scope of Work

The purpose of the Soil Characterization Program was to characterize the soils to meet the requirements of O.Reg 406/19 and potential receiving sites. The scope of work for the Soil Characterization Program is based on knowledge of the Project Area obtained from the Phase I ESA (Dillon, July 2021) and includes:

- Soil investigation program;
- Data evaluation; and
- Report preparation.

2.0

# Project Area Description

2.1

## General Location

The Project Area is located at 0 Wyandotte Street East, at the intersection of Wyandotte Street East and Florence Avenue. The site consists of an irregularly-shaped 3.4 hectare parcel of vacant/overgrown land. The Project Area is presented on Figure 1. The site is owned by Ganatchio Gardens Inc. (a subsidiary of Lankor).

Properties located adjacent to the site currently include:

- North: Wyandotte Street East, followed by residential, park and institutional land use.
- East: Residential land use, followed by agricultural land use.
- South: Park (Little River Corridor), followed by residential land use.
- West: Park (Ganatchio Trail – Little River), agricultural land and Little River Pollution Control Plant (located 1.0 km west of property).

2.2

## Description of Proposed Works

The work proposed in the Project Area includes the construction of four multi-residential buildings, eight parking buildings and a paved parking lot.

As part of the construction project, it is assumed that approximately 11,750 m<sup>3</sup> of excess soil will need to be removed from the Project Area during construction.

2.3

## Physiography, Regional Geology/Hydrogeology

To describe the regional physiography and expected hydrogeological conditions beneath the Project Area, the following documents were reviewed:

- Ministry of the Environment, Conservation and Parks (MECP) Water Well Record Database;
- Essex Region/Chatham-Kent Regional Groundwater Study;
- Soil Map of Essex County, Soil Survey Report No. 11;
- Chapman and Putnam for The Physiography of Southern Ontario; and
- Google OGS Earth.

The site lies within the physiographic region of Southern Ontario known as the St. Clair Clay Plains. The surficial geology of the area interpreted to be till, consisting of silt and clay massive to well laminated with minor sand and gravel. Soils in the area of the site consist of Clyde Clay, poorly drained, stone free, consisting of a deep black clay over mottled glue-grey clay, slightly acidic to slightly alkaline. The thickness of overburden in the vicinity of the site is inferred to be approximately 35 to 45 m thick. Bedrock geology mapping for the area indicates that the site is underlain by Devonian aged limestone, dolostone and shale of the Hamilton Group.

The topographic gradient of the land in proximity to the site suggests that the regional groundwater flow direction is likely to the north to northwest towards Little River and the Detroit River. Local shallow groundwater flow is interpreted to be influenced by topography and local drainage features such as storm sewers and ditches. As there are no well records for the Project Area, the water level of the uppermost aquifer is assumed to be relatively similar to the nearest local surface water bodies (i.e. Little River and Detroit River).

According to the MECP Well Record Database, there are no wells located within or near the Project Area.

3.0

# Methodology

3.1

## Borehole Layout

Wood was retained by Lankor to complete a geotechnical assessment for the proposed development at the Project Area. Wood was responsible for obtain public utility locates, drilling, sample collection and laboratory analysis of the selected samples.

A soil Sampling and Analysis Plan was prepared by Dillon following the guidelines set out in O.Reg 406/19 and the associated document *Rules for Soil Management and Excess Soil Quality Standards* (Soil Rules) with one modification, the frequency of samples collected. Requirements for testing under O.Reg 406/19 will go into effect starting January 1, 2022 and are considered guidelines until this time. For the estimated volume of excess soils, the guidelines suggest:

- One soil sample per 200 m<sup>3</sup> for the first 10,000 m<sup>3</sup>;
- One soil sample per 450 m<sup>3</sup> after the first 10,000 m<sup>3</sup>; and
- One sample per 2,000 m<sup>3</sup> after the first 40,000 m<sup>3</sup>.

It was determined by the Qualified Person (QP) that based on the history of the Project Area, its location in an agricultural area, the following scope of work would be sufficient to characterize these soils:

- Eighteen soil samples (including duplicates) collected from 10 boreholes and submitted for bulk analysis (this equates to approximately 30% of the samples required following the MECP guidelines);
- All samples analyzed for inorganics, metals, petroleum hydrocarbons (PHCs) and benzene, toluene, ethylbenzene and xylene (BTEX), as per the Soil Rules; and
- Additional parameters not included for analysis as no additional potential contaminants of concern were identified.

Borehole locations were selected to provide coverage across the Project Area.

3.2

## Borehole Drilling and Soil Sampling

The field sampling program was completed on June 2, 2021. Henderson Drilling was retained by Wood to complete the drilling program using a truck mounted CME55 drill rig. Ten boreholes (identified as BH-101 to BH-110) were advanced to a depth of 2.1 up to 9.6 mbgs. Boreholes were advanced relatively equidistantly to provide coverage across the property and are shown in Figure 2.

Representative soil samples were collected and placed laboratory-supplied jars. QA/QC measures such as soil handling, equipment decontamination, PID calibration and sample temperature were completed by Wood. All samples were screened using a photoionization detector (PID) for the presence of petroleum hydrocarbon and VOC indicators to further assist in submitting the samples for proper analysis.

Soil stratigraphy was continuously logged and field borehole log notes were prepared by Wood, documenting the encountered soil conditions, with descriptions indicating soil type, texture, colour, structure, consistency, moisture content and other observations (such as sample recovery, weathering features, staining and odours). Wood's borehole field notes are presented in Appendix A.

**3.3**

### Soil Headspace Screening

Soil samples from the boreholes were recovered for headspace screening and for potential submission to the laboratory. Headspace readings and probes were conducted by Wood at the time of the drilling program.

**3.4**

### Sample Handling, Custody and Analysis

Samples for laboratory analyses were packed, and shipped by Wood. Sample temperatures were relatively within the laboratory-suggested temperatures between 4°C and 10°C, in the Chain of Custody forms.

Soil samples were submitted to Paracel Laboratories Limited located in Hamilton, Ontario for bulk analysis of inorganics, metals, PHCs and BTEX. Paracel is accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for each of the analytical methods utilized, and have in-house quality assurance/quality control (QA/QC) programs to govern sample analysis and analytical data quality assurance.

One to two soil samples were obtained from each borehole and submitted for contaminants of concern. A total of 18 soil samples (including two field duplicates) were collected and sent for laboratory analysis.

**3.5**

### Quality Assurance and Quality Control

Quality assurance and quality control (QA/QC) procedures were implemented in the field (completed by Wood) and laboratory to demonstrate that the data generated were of a level of quality suitable for their intended purposes. Laboratory QA/QC procedures included following internal protocols and analysis of a laboratory blank sample and laboratory reference standards. In addition, duplicate/replicate soil samples were collected, and submitted for laboratory analysis.

The data received from the laboratory were compiled and input into spreadsheets. After checking the spreadsheet entries, the compiled data was reviewed to confirm satisfactory quality. Sample chain-of-custody, holding times, dilution factors, surrogate recoveries, replicate analyses, analytical quantitation limits and blank analyses were reviewed, and compared to applicable quality control acceptance criteria. The process by which Dillon evaluated the quality of the analytical data is presented in Appendix C, together with the results of the QA/QC program.

4.0

# Results

4.1

## Borehole Drilling

A total of 10 boreholes were advanced to a maximum depth of 2.1 up to 9.6 mbgs. The locations of each borehole are presented in Figure 2. Most boreholes were advanced to approximately 2.1 and 6.5 mbgs, with two advanced to 4.0 mbgs and two advanced to 9.6 mbgs.

Throughout the Project Area, soils were generally consistent and were predominately silty clay. The subsurface stratigraphy comprised of topsoil, followed by a brown-grey silty clay up to 1.2 m in thickness with some sand and trace gravel, followed by a brown silty clay up to 2.7 m in thickness, and followed by a grey silty clay. The grey silty clay was observed past 3.0 mbgs and persisted down to the terminal depth of the boreholes. Within this layer, some exceptions were noted at approximately 6.0 mbgs, where a grey silty sand is noted in 0.15 m lenses up to 2.0 m thick layers.

Bedrock was not encountered at the maximum drilled depth of 9.6 mbgs.

The field borehole logs completed by Wood are included in Appendix A.

4.2

## Soil Headspace Screening

During the drilling activities, soil samples were screened for total hydrocarbon gases using a hydrocarbon meter. Soil headspace screening results are included on the borehole logs presented in Appendix A.

4.3

## Soil Analytical Results

Soils within the Project Area have been evaluated for potential reuse, generally following the guidelines for sampling under O.Reg. 406/19 and the associated Soil Rules, with some modifications. The estimated volume of excess soils intended for removal from the Project Area are 11,750 m<sup>3</sup>, and thus the Volume Independent Excess Soil Quality Standards (ESQS) were determined to be appropriate. As a result, soil quality has been compared to the following standards to evaluate their potential reuse:

- ESQS Table 1: Full Depth Background Site Condition Standards for Residential Property Use;
- ESQS Table 2.1: Full Depth Excess Soil Quality Standards in a Potable Ground Water Condition for Agricultural (AGO) Property Use;
- ESQS Table 3.1: Full Depth Excess Soil Quality Standards in a Non-Potable Ground Water Condition for Residential, Parkland and Institutional (RPI) Property Use; and
- ESQS Table 3.1: Full Depth Excess Soil Quality Standards in a Non-Potable Ground Water Condition for Industrial, Commercial and Community (ICC) Property Use.

Wood collected 18 soil samples (including two field duplicates) which were submitted to Paracel for bulk analysis of inorganics, metals, PHCs and BTEX.

A summary of soil sample IDs and depths is provided below.

Sample ID	Sample Depth Range (mbgs)
BH-101 SS1	0.9-1.2
BH-101 SS2	1.5-1.8
BH-102 SS1	0.7-0.9
BH-103 SS1	0.7-0.9
BH-103 SS2	1.8-2.1
BH-104 SS1	0.9-1.2
BH-105 SS1	1.2-1.5
BH-106 SS1	0.9-1.2
BH-106 SS5	4.0-4.3
BH-107 SS1	0.9-1.2
BH-107 SS2	1.5-1.8
BH-108 SS1	0.9-1.2
BH-108 SS3	2.7-3.0
BH-109 SS1	1.2-1.5
BH-109 SS4	3.3-3.6
BH-110 SS1	1.5-1.7
BH-110 SS2	0.4-0.7

The soil samples were below the applicable Table 1 Residential ESQS, Table 2.1 AgO ESQS, Table 3.1 RPI ESQS and Table 3.1 ICC ESQS, with the exception of eight exceedances of Table 1 Residential ESQS for molybdenum.

The laboratory analytical results are presented in Table 1A to 1D.

Laboratory certificates for the analyzed samples are attached in Appendix B.

#### 4.3.1

#### Local Background Concentration Review

Based on a review of the soil quality results, the elevated concentrations of molybdenum were identified as being representative of local background concentrations. The following comments are provided to support this position:

- There are no suspected anthropogenic sources of molybdenum in the Project Area;
- Elevated concentrations are present across the Project Area at varying depths; and
- Elevated concentrations of molybdenum (similar to the ranges identified in the Project Area) have been documented to be present in the local area (*Managing Natural Soils from Construction and Importation of Quarry Rehabilitation Fill in Ontario, Golder Associates Ltd., 2016*).

As a result, the elevated concentrations of molybdenum are deemed to meet the Table 1 residential ESQS. Note that reuse sites may have their own soil acceptance requirements that will also need to be met.

#### 4.3.2 Leachate Screening Review

Five soil samples were submitted to Paracel for leachate analysis of metals using mSPLP, in response to exceedances of the Table 1 Residential ESQS for molybdenum. The sample concentrations were in compliance with the Table 1 Residential ESQS, Table 2.1 AgO ESQS, Table 3.1 RPI ESQS and Table 3.1 ICC ESQS leachate screening levels.

#### 4.3.3 Quality Assurance and Quality Control Results

Two field duplicates were taken as part of the QA/QC program, which included DUP-1 (from parent sample BH102 SS1), DUP-2 (from parent sample BH105 SS1). All parameters satisfied the relative percent difference (RPD) threshold of fifty percent, RPD calculations for the field duplicates are summarized in Appendix C.

5.0

## Conclusion

Based on the findings of the Soil Characterization Program, the soil is deemed to meet Table 1 Residential ESQS, Table 2.1 AgO ESQS, and Table 3.1 RPI ESQS and Table 3.1 ICC ESQS. Noted Table 1 Residential ESQS exceedances for molybdenum are considered to meet the Table 1 Residential ESQS based on the local background concentration review summarized in **Section 4.3.1**.

The project leader or operator of the Project Area has informed the reuse site owner or operator that the excess soil is from a location that may be expected to contain the chemical and, if sampling and analysis has been conducted in accordance with the Regulation, the project leader or operator of the Project Area has provided relevant sampling results to the reuse site owner or operator, including the soil characterization report if prepared, and identified and communicated any potential risks to surface water and ground water to the reuse site owner or operator.

6.0

## Disclaimer and Limiting Conditions

This report was prepared exclusively for the purposes, project and site location(s) outlined in the report. The report is based on information provided to, or obtained by Dillon Consulting Limited ("Dillon") as indicated in the report, and applies solely to site conditions existing at the time of the Site investigation(s). Although a reasonable investigation was conducted by Dillon, Dillon's investigation was by no means exhaustive and cannot be construed as a certification of the absence of any contaminants from the Site(s). Rather, Dillon's report represents a reasonable review of available information within an agreed work scope, schedule and budget. It is therefore possible that currently unrecognized contamination or potentially hazardous materials may exist at the Site(s), and that the levels of contamination or hazardous materials may vary across the Site(s). Further review and updating of the report may be required as local and site conditions, and the regulatory and planning frameworks, change over time.

This report was prepared by Dillon for the sole benefit of our Client, Lankor Horizons Inc. The material in it reflects Dillon's best judgment in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Dillon accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

DILLON CONSULTING LIMITED  
WINDSOR, ONTARIO



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Environmental Scientist



J.P. Baillargeon, P.Eng., QP<sub>ESA</sub>  
Associate

7.0

## References

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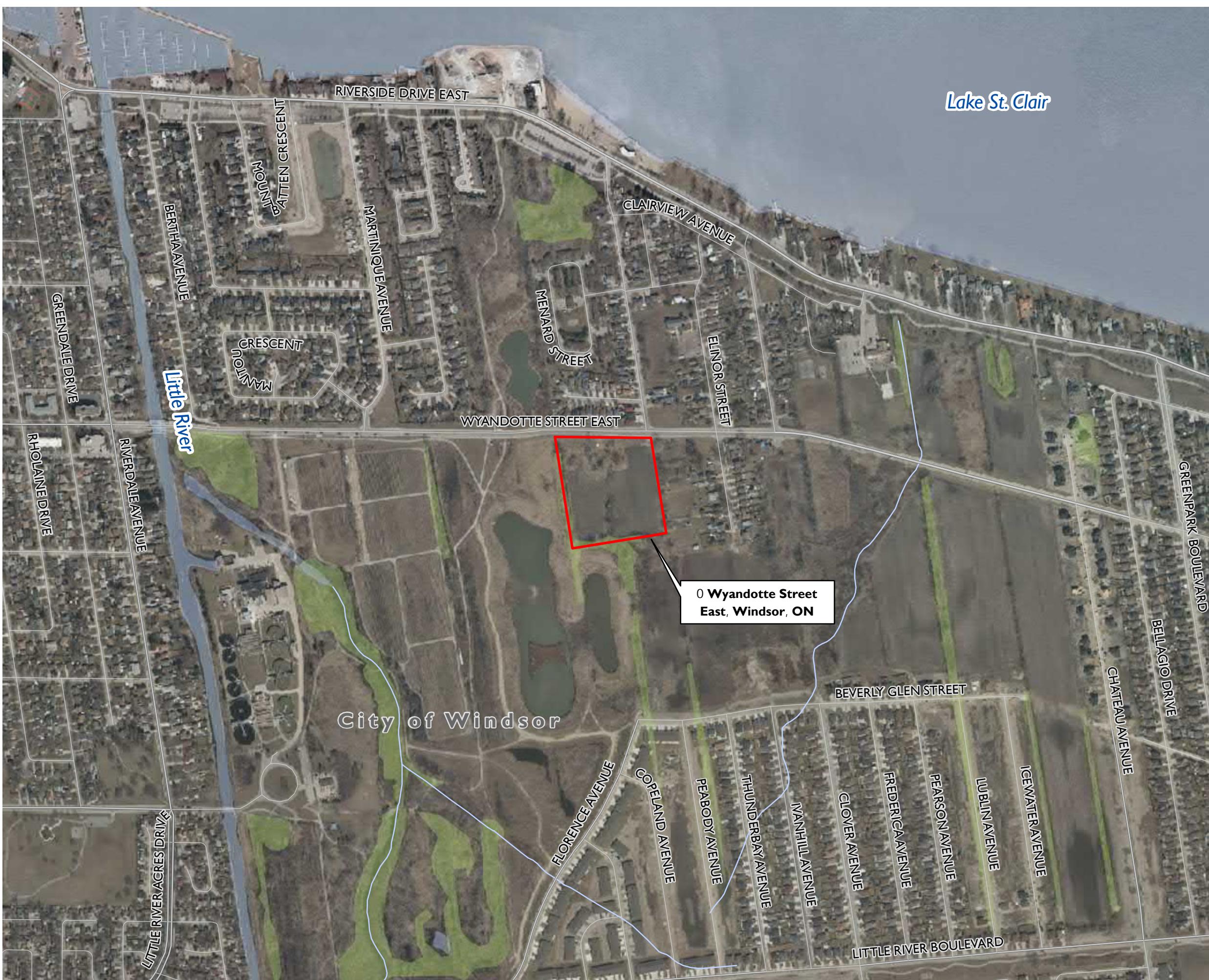
# Figures

**LANKOR HORIZONS INC.**  
SOIL CHARACTERIZATION

0 WYANDOTTE STREET EAST, WINDSOR  
ONTARIO

**FIGURE I  
SITE LOCATION**

- Project Area
- Watercourse
- Wooded Area
- Roads
  - Arterial
  - Collector
  - Local



1:6,750  
0 100 200 400 m  
N S E W

MAP DRAWING INFORMATION:  
DATA PROVIDED BY CITY OF WINDSOR, ESRI, MNRF, & DILLON CONSULTING  
MAP CREATED BY 44PMH  
MAP CHECKED BY MA  
MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT:211691  
STATUS: FINAL  
DATE: 2021-07



LANKOR HORIZONS INC.  
 SOIL CHARACTERIZATION

0 WYANDOTTE STREET EAST, WINDSOR  
 ONTARIO

**FIGURE 2**  
**SITE PLAN AND SAMPLE LOCATIONS**

- Boreholes
  - Project Area
  - Study Area (250 m buffer)
  - Parcels
  - Watercourse
  - Wooded Area
- Roads**
- Arterial
  - Collector
  - Local

Sampling and laboratory submission was completed by Wood

I:2,750  
 0 25 50 100 m  
 N S E W

# Tables

## soil\_results

TABLE 1A - Soil Quality Results (O.Reg. 406/19 - Table 1 Residential ESQS)												
Soil Characterization Program - 0 Wyandotte Street East, Windsor, ON												
Lankor Horizons Inc.												
Parameter	Units	MDL	Regulation									
			BH-101 SS1 2123488-01	BH-101 SS2 2123488-02	BH-102 SS1 2123488-04	BH-103 SS1 2123488-06	BH-103 SS2 2123488-07	BH-104 SS1 2123488-09	BH-105 SS1 2123488-11	BH-106 SS1 2123488-13	BH-106 SS5 2123488-15	San
Sample Date (m/d/y)		Reg 406/19-Table 1 Residential/Parkland/ Institutional/ Industrial/ Commercial	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021
<i>Physical Characteristics</i>												
% Solids	% by Wt.	0.1		81.3	88.9	87.0	87.0	88.6	81.3	87.8	80.7	86.5
<i>General Inorganics</i>												
SAR	N/A	0.01	2.4 ug/g (2.4 N/A)	0.61	0.39	0.18	0.17	0.19	0.23	0.20	0.27	0.61
Conductivity	uS/cm	5	0.57 mS/cm (570 uS/cm)	199	183	147	145	135	100	160	103	236
Cyanide, free	ug/g dry	0.03	0.051 ug/g (0.051 ug/g dry)	ND (0.03)	ND (0.03)							
pH	pH Units	0.05		7.13	7.45	7.41	7.43	7.54	7.19	7.44	7.06	7.86
<i>Metals</i>												
Boron, available	ug/g dry	0.5		ND (0.5)	0.6							
Chromium (VI)	ug/g dry	0.2	0.66 ug/g (0.66 ug/g dry)	0.3	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)	0.2	ND (0.2)	0.4	ND (0.2)
Mercury	ug/g dry	0.1	0.27 ug/g (0.27 ug/g dry)	ND (0.1)	ND (0.1)							
Antimony	ug/g dry	1.0	1.3 ug/g (1.3 ug/g dry)	ND (1.0)	ND (1.0)							
Arsenic	ug/g dry	1.0	18 ug/g (18 ug/g dry)	7.9	7.7	6.5	8.5	7.0	5.0	7.1	8.3	4.6
Barium	ug/g dry	1.0	220 ug/g (220 ug/g dry)	74.9	44.2	50.1	51.4	54.9	70.4	53.6	69.7	52.4
Beryllium	ug/g dry	0.5	2.5 ug/g (2.5 ug/g dry)	0.6	ND (0.5)	ND (0.5)	ND (0.5)	0.5	1.0	0.5	0.7	ND (0.5)
Boron	ug/g dry	5.0	36 ug/g (36 ug/g dry)	9.8	9.0	12.4	11.0	13.5	11.6	10.7	7.4	13.4
Cadmium	ug/g dry	0.5	1.2 ug/g (1.2 ug/g dry)	ND (0.5)	ND (0.5)							
Chromium	ug/g dry	5.0	70 ug/g (70 ug/g dry)	19.7	14.4	16.1	14.2	16.1	20.3	14.9	20.1	15.5
Cobalt	ug/g dry	1.0	21 ug/g (21 ug/g dry)	8.5	6.3	7.0	7.2	7.5	6.1	6.7	8.4	6.5
Copper	ug/g dry	5.0	92 ug/g (92 ug/g dry)	14.1	14.4	14.0	13.1	13.6	17.5	13.8	17.1	13.0
Lead	ug/g dry	1.0	120 ug/g (120 ug/g dry)	11.6	7.5	8.3	9.6	8.2	14.6	7.5	10.4	7.0
Molybdenum	ug/g dry	1.0	2 ug/g (2 ug/g dry)	2.0	2.2	2.0	1.4	2.0	ND (1.0)	1.7	2.4	2.5
Nickel	ug/g dry	5.0	82 ug/g (82 ug/g dry)	24.5	18.3	20.7	18.3	20.4	18.6	19.5	24.8	18.6
Selenium	ug/g dry	1.0	1.5 ug/g (1.5 ug/g dry)	ND (1.0)	ND (1.0)							
Silver	ug/g dry	0.3	0.5 ug/g (0.5 ug/g dry)	ND (0.3)	ND (0.3)							
Thallium	ug/g dry	1.0	1 ug/g (1 ug/g dry)	ND (1.0)	ND (1.0)							
Uranium	ug/g dry	1.0	2.5 ug/g (2.5 ug/g dry)	ND (1.0)	ND (1.0)							
Vanadium	ug/g dry	10.0	86 ug/g (86 ug/g dry)	32.0	23.6	26.2	24.1	27.0	29.9	24.8	33.5	23.8
Zinc	ug/g dry	20.0	290 ug/g (290 ug/g dry)	50.9	35.2	38.1	33.5	41.3	55.2	36.5	50.3	34.4
<i>Volatiles</i>												
Benzene	ug/g dry	0.02	0.02 ug/g (0.02 ug/g dry)	ND (0.02)	ND (0.02)							
Ethylbenzene	ug/g dry	0.05	0.05 ug/g (0.05 ug/g dry)	ND (0.05)	ND (0.05)							
Toluene	ug/g dry	0.05	0.2 ug/g (0.2 ug/g dry)	ND (0.05)	ND (0.05)							
m/p-Xylene	ug/g dry	0.05		ND (0.05)	ND (0.05)							
o-Xylene	ug/g dry	0.05		ND (0.05)	ND (0.05)							
Xylenes, total	ug/g dry	0.05	0.05 ug/g (0.05 ug/g dry)	ND (0.05)	ND (0.05)							
<i>Hydrocarbons</i>												
F1 PHCs (C6-C10)	ug/g dry	7	25 ug/g (25 ug/g dry)	ND (7)	ND (7)							
F2 PHCs (C10-C16)	ug/g dry	4	10 ug/g (10 ug/g dry)	ND (4)	ND (4)							
F3 PHCs (C16-C34)	ug/g dry	8	240 ug/g (240 ug/g dry)	33	ND (8)	ND (8)						
F4 PHCs (C34-C50)	ug/g dry	6	120 ug/g (120 ug/g dry)	33	ND (6)	ND (6)						

## soil\_results

TABLE 1A - Soil Quality Results (O.Reg. 406/19 - Table 1 Residential ESQS)			Regulation	Sample	BH-107 SS1 2123488-16	BH-107 SS2 2123488-17	BH-108 SS1 2123488-19	BH-108 SS3 2123488-20	BH-109 SS1 2123488-22	BH-109 SS4 2123488-24	BH-110 SS1 2123488-25	DUP-1 2123488-27	DUP-2 2123488-28
Parameter	Units	MDL											
Sample Date (m/d/y)			Reg 406/19-Table 1 Residential/Parkland/ Institutional/ Industrial/ Commercial	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021
<i>Physical Characteristics</i>													
% Solids	% by Wt.	0.1			81.0	88.2	86.4	88.2	81.6	87.8	83.5	87.0	83.1
<i>General Inorganics</i>													
SAR	N/A	0.01	2.4 ug/g (2.4 N/A)		0.32	0.16	0.20	0.55	0.26	0.44	0.23	0.17	0.22
Conductivity	uS/cm	5	0.57 mS/cm (570 uS/cm)		110	139	170	376	198	265	179	163	190
Cyanide, free	ug/g dry	0.03	0.051 ug/g (0.051 ug/g dry)		ND (0.03)	ND (0.03)	ND (0.03)						
pH	pH Units	0.05			7.08	7.04	7.17	6.92	7.01	7.30	7.34	7.35	7.33
<i>Metals</i>													
Boron, available	ug/g dry	0.5			ND (0.5)	ND (0.5)	ND (0.5)						
Chromium (VI)	ug/g dry	0.2	0.66 ug/g (0.66 ug/g dry)		0.3	ND (0.2)	ND (0.2)	ND (0.2)	0.4	ND (0.2)	ND (0.2)	ND (0.2)	0.3
Mercury	ug/g dry	0.1	0.27 ug/g (0.27 ug/g dry)		ND (0.1)	ND (0.1)	ND (0.1)						
Antimony	ug/g dry	1.0	1.3 ug/g (1.3 ug/g dry)		ND (1.0)	ND (1.0)	ND (1.0)						
Arsenic	ug/g dry	1.0	18 ug/g (18 ug/g dry)		8.5	6.2	9.4	7.8	8.7	8.7	10.1	9.6	7.2
Barium	ug/g dry	1.0	220 ug/g (220 ug/g dry)		87.9	47.7	67.0	66.4	111	56.9	92.1	74.1	75.7
Beryllium	ug/g dry	0.5	2.5 ug/g (2.5 ug/g dry)		0.8	ND (0.5)	0.7	ND (0.5)	1.0	0.5	0.5	0.6	0.7
Boron	ug/g dry	5.0	36 ug/g (36 ug/g dry)		11.6	11.7	13.7	14.3	11.7	13.7	13.2	12.5	11.2
Cadmium	ug/g dry	0.5	1.2 ug/g (1.2 ug/g dry)		ND (0.5)	ND (0.5)	ND (0.5)						
Chromium	ug/g dry	5.0	70 ug/g (70 ug/g dry)		25.6	14.9	17.6	19.0	27.4	15.6	18.8	18.5	21.6
Cobalt	ug/g dry	1.0	21 ug/g (21 ug/g dry)		9.6	7.1	9.0	7.3	11.3	7.9	10.9	10.2	7.6
Copper	ug/g dry	5.0	92 ug/g (92 ug/g dry)		17.0	12.3	14.7	14.1	23.1	13.8	16.9	17.0	15.6
Lead	ug/g dry	1.0	120 ug/g (120 ug/g dry)		12.7	7.3	9.8	9.1	15.8	7.3	11.2	10.3	11.5
Molybdenum	ug/g dry	1.0	2 ug/g (2 ug/g dry)		1.4	2.0	2.3	4.1	1.9	2.9	3.3	2.6	1.2
Nickel	ug/g dry	5.0	82 ug/g (82 ug/g dry)		26.9	19.0	22.8	20.7	28.7	19.8	28.9	27.6	22.9
Selenium	ug/g dry	1.0	1.5 ug/g (1.5 ug/g dry)		ND (1.0)	ND (1.0)	ND (1.0)						
Silver	ug/g dry	0.3	0.5 ug/g (0.5 ug/g dry)		ND (0.3)	ND (0.3)	ND (0.3)						
Thallium	ug/g dry	1.0	1 ug/g (1 ug/g dry)		ND (1.0)	ND (1.0)	ND (1.0)						
Uranium	ug/g dry	1.0	2.5 ug/g (2.5 ug/g dry)		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	1.0	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Vanadium	ug/g dry	10.0	86 ug/g (86 ug/g dry)		43.6	23.7	29.9	27.4	45.5	24.9	32.2	32.4	35.0
Zinc	ug/g dry	20.0	290 ug/g (290 ug/g dry)		59.3	38.0	42.8	58.7	74.7	42.5	43.9	47.4	47.6
<i>Volatiles</i>													
Benzene	ug/g dry	0.02	0.02 ug/g (0.02 ug/g dry)		ND (0.02)	ND (0.02)	ND (0.02)						
Ethylbenzene	ug/g dry	0.05	0.05 ug/g (0.05 ug/g dry)		ND (0.05)	ND (0.05)	ND (0.05)						
Toluene	ug/g dry	0.05	0.2 ug/g (0.2 ug/g dry)		ND (0.05)	ND (0.05)	ND (0.05)						
m/p-Xylene	ug/g dry	0.05			ND (0.05)	ND (0.05)	ND (0.05)						
o-Xylene	ug/g dry	0.05			ND (0.05)	ND (0.05)	ND (0.05)						
Xylenes, total	ug/g dry	0.05	0.05 ug/g (0.05 ug/g dry)		ND (0.05)	ND (0.05)	ND (0.05)						
<i>Hydrocarbons</i>													
F1 PHCs (C6-C10)	ug/g dry	7	25 ug/g (25 ug/g dry)		ND (7)	ND (7)	ND (7)						
F2 PHCs (C10-C16)	ug/g dry	4	10 ug/g (10 ug/g dry)		ND (4)	ND (4)	ND (4)						
F3 PHCs (C16-C34)	ug/g dry	8	240 ug/g (240 ug/g dry)		ND (8)	ND (8)	ND (8)						
F4 PHCs (C34-C50)	ug/g dry	6	120 ug/g (120 ug/g dry)		ND (6)	ND (6)	ND (6)						

## soil\_results

TABLE 1B - Soil Quality Results (O.Reg. 406/19 - Table 2.1 AgO ESQS)												
Soil Characterization Program - 0 Wyandotte Street East, Windsor, ON												
Lankor Horizons Inc.												
Parameter	Units	MDL	Regulation									
			BH-101 SS1 2123488-01	BH-101 SS2 2123488-02	BH-102 SS1 2123488-04	BH-103 SS1 2123488-06	BH-103 SS2 2123488-07	BH-104 SS1 2123488-09	BH-105 SS1 2123488-11	BH-106 SS1 2123488-13	BH-106 SS5 2123488-15	San
Sample Date (m/d/y)			Reg 406/19-Table 2.1 Agricultural									
<i>Physical Characteristics</i>												
% Solids	% by Wt.	0.1		81.3	88.9	87.0	87.0	88.6	81.3	87.8	80.7	86.5
<i>General Inorganics</i>												
SAR	N/A	0.01	5 ug/g (5 N/A)	0.61	0.39	0.18	0.17	0.19	0.23	0.20	0.27	0.61
Conductivity	uS/cm	5	0.7 mS/cm (700 uS/cm)	199	183	147	145	135	100	160	103	236
Cyanide, free	ug/g dry	0.03	0.051 ug/g (0.051 ug/g dry)	ND (0.03)	ND (0.03)							
pH	pH Units	0.05	5 pH units (5 pH Units)	7.13	7.45	7.41	7.43	7.54	7.19	7.44	7.06	7.86
<i>Metals</i>												
Boron, available	ug/g dry	0.5	1.5 ug/g (1.5 ug/g dry)	ND (0.5)	0.6							
Chromium (VI)	ug/g dry	0.2	8 ug/g (8 ug/g dry)	0.3	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)	0.2	ND (0.2)	0.4	ND (0.2)
Mercury	ug/g dry	0.1	0.24 ug/g (0.24 ug/g dry)	ND (0.1)	ND (0.1)							
Antimony	ug/g dry	1.0	7.5 ug/g (7.5 ug/g dry)	ND (1.0)	ND (1.0)							
Arsenic	ug/g dry	1.0	11 ug/g (11 ug/g dry)	7.9	7.7	6.5	8.5	7.0	5.0	7.1	8.3	4.6
Barium	ug/g dry	1.0	390 ug/g (390 ug/g dry)	74.9	44.2	50.1	51.4	54.9	70.4	53.6	69.7	52.4
Beryllium	ug/g dry	0.5	4 ug/g (4 ug/g dry)	0.6	ND (0.5)	ND (0.5)	ND (0.5)	0.5	1.0	0.5	0.7	ND (0.5)
Boron	ug/g dry	5.0	120 ug/g (120 ug/g dry)	9.8	9.0	12.4	11.0	13.5	11.6	10.7	7.4	13.4
Cadmium	ug/g dry	0.5	1 ug/g (1 ug/g dry)	ND (0.5)	ND (0.5)							
Chromium	ug/g dry	5.0	160 ug/g (160 ug/g dry)	19.7	14.4	16.1	14.2	16.1	20.3	14.9	20.1	15.5
Cobalt	ug/g dry	1.0	22 ug/g (22 ug/g dry)	8.5	6.3	7.0	7.2	7.5	6.1	6.7	8.4	6.5
Copper	ug/g dry	5.0	140 ug/g (140 ug/g dry)	14.1	14.4	14.0	13.1	13.6	17.5	13.8	17.1	13.0
Lead	ug/g dry	1.0	45 ug/g (45 ug/g dry)	11.6	7.5	8.3	9.6	8.2	14.6	7.5	10.4	7.0
Molybdenum	ug/g dry	1.0	6.9 ug/g (6.9 ug/g dry)	2.0	2.2	2.0	1.4	2.0	ND (1.0)	1.7	2.4	2.5
Nickel	ug/g dry	5.0	100 ug/g (100 ug/g dry)	24.5	18.3	20.7	18.3	20.4	18.6	19.5	24.8	18.6
Selenium	ug/g dry	1.0	2.4 ug/g (2.4 ug/g dry)	ND (1.0)	ND (1.0)							
Silver	ug/g dry	0.3	20 ug/g (20 ug/g dry)	ND (0.3)	ND (0.3)							
Thallium	ug/g dry	1.0	1 ug/g (1 ug/g dry)	ND (1.0)	ND (1.0)							
Uranium	ug/g dry	1.0	23 ug/g (23 ug/g dry)	ND (1.0)	ND (1.0)							
Vanadium	ug/g dry	10.0	86 ug/g (86 ug/g dry)	32.0	23.6	26.2	24.1	27.0	29.9	24.8	33.5	23.8
Zinc	ug/g dry	20.0	340 ug/g (340 ug/g dry)	50.9	35.2	38.1	33.5	41.3	55.2	36.5	50.3	34.4
<i>Volatiles</i>												
Benzene	ug/g dry	0.02	0.02 ug/g (0.02 ug/g dry)	ND (0.02)								
Ethylbenzene	ug/g dry	0.05	0.05 ug/g (0.05 ug/g dry)	ND (0.05)								
Toluene	ug/g dry	0.05	0.2 ug/g (0.2 ug/g dry)	ND (0.05)								
m/p-Xylene	ug/g dry	0.05		ND (0.05)								
o-Xylene	ug/g dry	0.05		ND (0.05)								
Xylenes, total	ug/g dry	0.05	0.091 ug/g (0.091 ug/g dry)	ND (0.05)								
<i>Hydrocarbons</i>												
F1 PHCs (C6-C10)	ug/g dry	7	17 ug/g (17 ug/g dry)	ND (7)								
F2 PHCs (C10-C16)	ug/g dry	4	10 ug/g (10 ug/g dry)	ND (4)								
F3 PHCs (C16-C34)	ug/g dry	8	240 ug/g (240 ug/g dry)	33	ND (8)							
F4 PHCs (C34-C50)	ug/g dry	6	2800 ug/g (2800 ug/g dry)	33	ND (6)							

## soil\_results

TABLE 2A - Soil Quality Results (O.Reg. 406/19 - Table 2 AgO ESQS)			Regulation	Sample	BH-107 SS1 2123488-16	BH-107 SS2 2123488-17	BH-108 SS1 2123488-19	BH-108 SS3 2123488-20	BH-109 SS1 2123488-22	BH-109 SS4 2123488-24	BH-110 SS1 2123488-25	DUP-1 2123488-27	DUP-2 2123488-28
Parameter	Units	MDL											
Sample Date (m/d/y)			Reg 406/19-Table 2.1 Agricultural	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021
<i>Physical Characteristics</i>													
% Solids	% by Wt.	0.1			81.0	88.2	86.4	88.2	81.6	87.8	83.5	87.0	83.1
<i>General Inorganics</i>													
SAR	N/A	0.01	5 ug/g (5 N/A)		0.32	0.16	0.20	0.55	0.26	0.44	0.23	0.17	0.22
Conductivity	uS/cm	5	0.7 mS/cm (700 uS/cm)		110	139	170	376	198	265	179	163	190
Cyanide, free	ug/g dry	0.03	0.051 ug/g (0.051 ug/g dry)		ND (0.03)	ND (0.03)	ND (0.03)						
pH	pH Units	0.05	5 pH units (5 pH Units)		7.08	7.04	7.17	6.92	7.01	7.30	7.34	7.35	7.33
<i>Metals</i>													
Boron, available	ug/g dry	0.5	1.5 ug/g (1.5 ug/g dry)		ND (0.5)	ND (0.5)	ND (0.5)						
Chromium (VI)	ug/g dry	0.2	8 ug/g (8 ug/g dry)		0.3	ND (0.2)	ND (0.2)	ND (0.2)	0.4	ND (0.2)	ND (0.2)	ND (0.2)	0.3
Mercury	ug/g dry	0.1	0.24 ug/g (0.24 ug/g dry)		ND (0.1)	ND (0.1)	ND (0.1)						
Antimony	ug/g dry	1.0	7.5 ug/g (7.5 ug/g dry)		ND (1.0)	ND (1.0)	ND (1.0)						
Arsenic	ug/g dry	1.0	11 ug/g (11 ug/g dry)		8.5	6.2	9.4	7.8	8.7	8.7	10.1	9.6	7.2
Barium	ug/g dry	1.0	390 ug/g (390 ug/g dry)		87.9	47.7	67.0	66.4	111	56.9	92.1	74.1	75.7
Beryllium	ug/g dry	0.5	4 ug/g (4 ug/g dry)		0.8	ND (0.5)	0.7	ND (0.5)	1.0	0.5	0.5	0.6	0.7
Boron	ug/g dry	5.0	120 ug/g (120 ug/g dry)		11.6	11.7	13.7	14.3	11.7	13.7	13.2	12.5	11.2
Cadmium	ug/g dry	0.5	1 ug/g (1 ug/g dry)		ND (0.5)	ND (0.5)	ND (0.5)						
Chromium	ug/g dry	5.0	160 ug/g (160 ug/g dry)		25.6	14.9	17.6	19.0	27.4	15.6	18.8	18.5	21.6
Cobalt	ug/g dry	1.0	22 ug/g (22 ug/g dry)		9.6	7.1	9.0	7.3	11.3	7.9	10.9	10.2	7.6
Copper	ug/g dry	5.0	140 ug/g (140 ug/g dry)		17.0	12.3	14.7	14.1	23.1	13.8	16.9	17.0	15.6
Lead	ug/g dry	1.0	45 ug/g (45 ug/g dry)		12.7	7.3	9.8	9.1	15.8	7.3	11.2	10.3	11.5
Molybdenum	ug/g dry	1.0	6.9 ug/g (6.9 ug/g dry)		1.4	2.0	2.3	4.1	1.9	2.9	3.3	2.6	1.2
Nickel	ug/g dry	5.0	100 ug/g (100 ug/g dry)		26.9	19.0	22.8	20.7	28.7	19.8	28.9	27.6	22.9
Selenium	ug/g dry	1.0	2.4 ug/g (2.4 ug/g dry)		ND (1.0)	ND (1.0)	ND (1.0)						
Silver	ug/g dry	0.3	20 ug/g (20 ug/g dry)		ND (0.3)	ND (0.3)	ND (0.3)						
Thallium	ug/g dry	1.0	1 ug/g (1 ug/g dry)		ND (1.0)	ND (1.0)	ND (1.0)						
Uranium	ug/g dry	1.0	23 ug/g (23 ug/g dry)		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	1.0	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Vanadium	ug/g dry	10.0	86 ug/g (86 ug/g dry)		43.6	23.7	29.9	27.4	45.5	24.9	32.2	32.4	35.0
Zinc	ug/g dry	20.0	340 ug/g (340 ug/g dry)		59.3	38.0	42.8	58.7	74.7	42.5	43.9	47.4	47.6
<i>Volatiles</i>													
Benzene	ug/g dry	0.02	0.02 ug/g (0.02 ug/g dry)		ND (0.02)	ND (0.02)	ND (0.02)						
Ethylbenzene	ug/g dry	0.05	0.05 ug/g (0.05 ug/g dry)		ND (0.05)	ND (0.05)	ND (0.05)						
Toluene	ug/g dry	0.05	0.2 ug/g (0.2 ug/g dry)		ND (0.05)	ND (0.05)	ND (0.05)						
m/p-Xylene	ug/g dry	0.05			ND (0.05)	ND (0.05)	ND (0.05)						
o-Xylene	ug/g dry	0.05			ND (0.05)	ND (0.05)	ND (0.05)						
Xylenes, total	ug/g dry	0.05	0.091 ug/g (0.091 ug/g dry)		ND (0.05)	ND (0.05)	ND (0.05)						
<i>Hydrocarbons</i>													
F1 PHCs (C6-C10)	ug/g dry	7	17 ug/g (17 ug/g dry)		ND (7)	ND (7)	ND (7)						
F2 PHCs (C10-C16)	ug/g dry	4	10 ug/g (10 ug/g dry)		ND (4)	ND (4)	ND (4)						
F3 PHCs (C16-C34)	ug/g dry	8	240 ug/g (240 ug/g dry)		ND (8)	ND (8)	ND (8)						
F4 PHCs (C34-C50)	ug/g dry	6	2800 ug/g (2800 ug/g dry)		ND (6)	ND (6)	ND (6)						

## soil\_results

TABLE 1C - Soil Quality Results (O.Reg. 406/19 - Table 3.1 RPI ESQS)												
Soil Characterization Program - 0 Wyandotte Street East, Windsor, ON												
Lankor Horizons Inc.												
Parameter	Units	MDL	Regulation									
			BH-101 SS1 2123488-01	BH-101 SS2 2123488-02	BH-102 SS1 2123488-04	BH-103 SS1 2123488-06	BH-103 SS2 2123488-07	BH-104 SS1 2123488-09	BH-105 SS1 2123488-11	BH-106 SS1 2123488-13	BH-106 SS5 2123488-15	San
Sample Date (m/d/y)			Reg 406/19-Table 3.1 Residential/Parkland									
<i>Physical Characteristics</i>												
% Solids	% by Wt.	0.1		81.3	88.9	87.0	87.0	88.6	81.3	87.8	80.7	86.5
<i>General Inorganics</i>												
SAR	N/A	0.01	5 ug/g (5 N/A)	0.61	0.39	0.18	0.17	0.19	0.23	0.20	0.27	0.61
Conductivity	uS/cm	5	0.7 mS/cm (700 uS/cm)	199	183	147	145	135	100	160	103	236
Cyanide, free	ug/g dry	0.03	0.051 ug/g (0.051 ug/g dry)	ND (0.03)	ND (0.03)							
pH	pH Units	0.05	5 pH units (5 pH Units)	7.13	7.45	7.41	7.43	7.54	7.19	7.44	7.06	7.86
<i>Metals</i>												
Boron, available	ug/g dry	0.5	1.5 ug/g (1.5 ug/g dry)	ND (0.5)	0.6							
Chromium (VI)	ug/g dry	0.2	8 ug/g (8 ug/g dry)	0.3	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)	0.2	ND (0.2)	0.4	ND (0.2)
Mercury	ug/g dry	0.1	0.27 ug/g (0.27 ug/g dry)	ND (0.1)	ND (0.1)							
Antimony	ug/g dry	1.0	7.5 ug/g (7.5 ug/g dry)	ND (1.0)	ND (1.0)							
Arsenic	ug/g dry	1.0	18 ug/g (18 ug/g dry)	7.9	7.7	6.5	8.5	7.0	5.0	7.1	8.3	4.6
Barium	ug/g dry	1.0	390 ug/g (390 ug/g dry)	74.9	44.2	50.1	51.4	54.9	70.4	53.6	69.7	52.4
Beryllium	ug/g dry	0.5	4 ug/g (4 ug/g dry)	0.6	ND (0.5)	ND (0.5)	ND (0.5)	0.5	1.0	0.5	0.7	ND (0.5)
Boron	ug/g dry	5.0	120 ug/g (120 ug/g dry)	9.8	9.0	12.4	11.0	13.5	11.6	10.7	7.4	13.4
Cadmium	ug/g dry	0.5	1.2 ug/g (1.2 ug/g dry)	ND (0.5)	ND (0.5)							
Chromium	ug/g dry	5.0	160 ug/g (160 ug/g dry)	19.7	14.4	16.1	14.2	16.1	20.3	14.9	20.1	15.5
Cobalt	ug/g dry	1.0	22 ug/g (22 ug/g dry)	8.5	6.3	7.0	7.2	7.5	6.1	6.7	8.4	6.5
Copper	ug/g dry	5.0	140 ug/g (140 ug/g dry)	14.1	14.4	14.0	13.1	13.6	17.5	13.8	17.1	13.0
Lead	ug/g dry	1.0	120 ug/g (120 ug/g dry)	11.6	7.5	8.3	9.6	8.2	14.6	7.5	10.4	7.0
Molybdenum	ug/g dry	1.0	6.9 ug/g (6.9 ug/g dry)	2.0	2.2	2.0	1.4	2.0	ND (1.0)	1.7	2.4	2.5
Nickel	ug/g dry	5.0	100 ug/g (100 ug/g dry)	24.5	18.3	20.7	18.3	20.4	18.6	19.5	24.8	18.6
Selenium	ug/g dry	1.0	2.4 ug/g (2.4 ug/g dry)	ND (1.0)	ND (1.0)							
Silver	ug/g dry	0.3	20 ug/g (20 ug/g dry)	ND (0.3)	ND (0.3)							
Thallium	ug/g dry	1.0	1 ug/g (1 ug/g dry)	ND (1.0)	ND (1.0)							
Uranium	ug/g dry	1.0	23 ug/g (23 ug/g dry)	ND (1.0)	ND (1.0)							
Vanadium	ug/g dry	10.0	86 ug/g (86 ug/g dry)	32.0	23.6	26.2	24.1	27.0	29.9	24.8	33.5	23.8
Zinc	ug/g dry	20.0	340 ug/g (340 ug/g dry)	50.9	35.2	38.1	33.5	41.3	55.2	36.5	50.3	34.4
<i>Volatiles</i>												
Benzene	ug/g dry	0.02	0.02 ug/g (0.02 ug/g dry)	ND (0.02)								
Ethylbenzene	ug/g dry	0.05	1.9 ug/g (1.9 ug/g dry)	ND (0.05)								
Toluene	ug/g dry	0.05	0.99 ug/g (0.99 ug/g dry)	ND (0.05)								
m/p-Xylene	ug/g dry	0.05		ND (0.05)								
o-Xylene	ug/g dry	0.05		ND (0.05)								
Xylenes, total	ug/g dry	0.05	0.9 ug/g (0.9 ug/g dry)	ND (0.05)								
<i>Hydrocarbons</i>												
F1 PHCs (C6-C10)	ug/g dry	7	25 ug/g (25 ug/g dry)	ND (7)								
F2 PHCs (C10-C16)	ug/g dry	4	10 ug/g (10 ug/g dry)	ND (4)								
F3 PHCs (C16-C34)	ug/g dry	8	300 ug/g (300 ug/g dry)	33	ND (8)							
F4 PHCs (C34-C50)	ug/g dry	6	2800 ug/g (2800 ug/g dry)	33	ND (6)							

## soil\_results

TABLE 1C - Soil Quality Results (O.Reg. 406/19 - Table 3.1 RPI ESQS)			Regulation	Sample	BH-107 SS1 2123488-16	BH-107 SS2 2123488-17	BH-108 SS1 2123488-19	BH-108 SS3 2123488-20	BH-109 SS1 2123488-22	BH-109 SS4 2123488-24	BH-110 SS1 2123488-25	DUP-1 2123488-27	DUP-2 2123488-28
Parameter	Units	MDL											
Sample Date (m/d/y)			Reg 406/19-Table 3.1 Residential/Parkland	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	
<i>Physical Characteristics</i>													
% Solids	% by Wt.	0.1			81.0	88.2	86.4	88.2	81.6	87.8	83.5	87.0	83.1
<i>General Inorganics</i>													
SAR	N/A	0.01	5 ug/g (5 N/A)		0.32	0.16	0.20	0.55	0.26	0.44	0.23	0.17	0.22
Conductivity	uS/cm	5	0.7 mS/cm (700 uS/cm)		110	139	170	376	198	265	179	163	190
Cyanide, free	ug/g dry	0.03	0.051 ug/g (0.051 ug/g dry)		ND (0.03)	ND (0.03)	ND (0.03)						
pH	pH Units	0.05	5 pH units (5 pH Units)		7.08	7.04	7.17	6.92	7.01	7.30	7.34	7.35	7.33
<i>Metals</i>													
Boron, available	ug/g dry	0.5	1.5 ug/g (1.5 ug/g dry)		ND (0.5)	ND (0.5)	ND (0.5)						
Chromium (VI)	ug/g dry	0.2	8 ug/g (8 ug/g dry)		0.3	ND (0.2)	ND (0.2)	ND (0.2)	0.4	ND (0.2)	ND (0.2)	ND (0.2)	0.3
Mercury	ug/g dry	0.1	0.27 ug/g (0.27 ug/g dry)		ND (0.1)	ND (0.1)	ND (0.1)						
Antimony	ug/g dry	1.0	7.5 ug/g (7.5 ug/g dry)		ND (1.0)	ND (1.0)	ND (1.0)						
Arsenic	ug/g dry	1.0	18 ug/g (18 ug/g dry)		8.5	6.2	9.4	7.8	8.7	8.7	10.1	9.6	7.2
Barium	ug/g dry	1.0	390 ug/g (390 ug/g dry)		87.9	47.7	67.0	66.4	111	56.9	92.1	74.1	75.7
Beryllium	ug/g dry	0.5	4 ug/g (4 ug/g dry)		0.8	ND (0.5)	0.7	ND (0.5)	1.0	0.5	0.5	0.6	0.7
Boron	ug/g dry	5.0	120 ug/g (120 ug/g dry)		11.6	11.7	13.7	14.3	11.7	13.7	13.2	12.5	11.2
Cadmium	ug/g dry	0.5	1.2 ug/g (1.2 ug/g dry)		ND (0.5)	ND (0.5)	ND (0.5)						
Chromium	ug/g dry	5.0	160 ug/g (160 ug/g dry)		25.6	14.9	17.6	19.0	27.4	15.6	18.8	18.5	21.6
Cobalt	ug/g dry	1.0	22 ug/g (22 ug/g dry)		9.6	7.1	9.0	7.3	11.3	7.9	10.9	10.2	7.6
Copper	ug/g dry	5.0	140 ug/g (140 ug/g dry)		17.0	12.3	14.7	14.1	23.1	13.8	16.9	17.0	15.6
Lead	ug/g dry	1.0	120 ug/g (120 ug/g dry)		12.7	7.3	9.8	9.1	15.8	7.3	11.2	10.3	11.5
Molybdenum	ug/g dry	1.0	6.9 ug/g (6.9 ug/g dry)		1.4	2.0	2.3	4.1	1.9	2.9	3.3	2.6	1.2
Nickel	ug/g dry	5.0	100 ug/g (100 ug/g dry)		26.9	19.0	22.8	20.7	28.7	19.8	28.9	27.6	22.9
Selenium	ug/g dry	1.0	2.4 ug/g (2.4 ug/g dry)		ND (1.0)	ND (1.0)	ND (1.0)						
Silver	ug/g dry	0.3	20 ug/g (20 ug/g dry)		ND (0.3)	ND (0.3)	ND (0.3)						
Thallium	ug/g dry	1.0	1 ug/g (1 ug/g dry)		ND (1.0)	ND (1.0)	ND (1.0)						
Uranium	ug/g dry	1.0	23 ug/g (23 ug/g dry)		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	1.0	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Vanadium	ug/g dry	10.0	86 ug/g (86 ug/g dry)		43.6	23.7	29.9	27.4	45.5	24.9	32.2	32.4	35.0
Zinc	ug/g dry	20.0	340 ug/g (340 ug/g dry)		59.3	38.0	42.8	58.7	74.7	42.5	43.9	47.4	47.6
<i>Volatiles</i>													
Benzene	ug/g dry	0.02	0.02 ug/g (0.02 ug/g dry)		ND (0.02)	ND (0.02)	ND (0.02)						
Ethylbenzene	ug/g dry	0.05	1.9 ug/g (1.9 ug/g dry)		ND (0.05)	ND (0.05)	ND (0.05)						
Toluene	ug/g dry	0.05	0.99 ug/g (0.99 ug/g dry)		ND (0.05)	ND (0.05)	ND (0.05)						
m/p-Xylene	ug/g dry	0.05			ND (0.05)	ND (0.05)	ND (0.05)						
o-Xylene	ug/g dry	0.05			ND (0.05)	ND (0.05)	ND (0.05)						
Xylenes, total	ug/g dry	0.05	0.9 ug/g (0.9 ug/g dry)		ND (0.05)	ND (0.05)	ND (0.05)						
<i>Hydrocarbons</i>													
F1 PHCs (C6-C10)	ug/g dry	7	25 ug/g (25 ug/g dry)		ND (7)	ND (7)	ND (7)						
F2 PHCs (C10-C16)	ug/g dry	4	10 ug/g (10 ug/g dry)		ND (4)	ND (4)	ND (4)						
F3 PHCs (C16-C34)	ug/g dry	8	300 ug/g (300 ug/g dry)		ND (8)	ND (8)	ND (8)						
F4 PHCs (C34-C50)	ug/g dry	6	2800 ug/g (2800 ug/g dry)		ND (6)	ND (6)	ND (6)						

## soil\_results

TABLE 1D - Soil Quality Results (O.Reg. 406/19 - Table 3.1 ICC ESQS)												
Soil Characterization Program - 0 Wyandotte Street East, Windsor, ON												
Lankor Horizons Inc.												
Parameter	Units	MDL	Regulation	BH-101 SS1 2123488-01	BH-101 SS2 2123488-02	BH-102 SS1 2123488-04	BH-103 SS1 2123488-06	BH-103 SS2 2123488-07	BH-104 SS1 2123488-09	BH-105 SS1 2123488-11	BH-106 SS1 2123488-13	San 2123488-15
Sample Date (m/d/y)			Reg 406/19-Table 3.1 Industrial/Commercial	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021
<i>Physical Characteristics</i>												
% Solids	% by Wt.	0.1		81.3	88.9	87.0	87.0	88.6	81.3	87.8	80.7	86.5
<i>General Inorganics</i>												
SAR	N/A	0.01	12 ug/g (12 N/A)	0.61	0.39	0.18	0.17	0.19	0.23	0.20	0.27	0.61
Conductivity	uS/cm	5	1.4 mS/cm (1400 uS/cm)	199	183	147	145	135	100	160	103	236
Cyanide, free	ug/g dry	0.03	0.051 ug/g (0.051 ug/g dry)	ND (0.03)	ND (0.03)							
pH	pH Units	0.05	5 pH units (5 pH Units)	7.13	7.45	7.41	7.43	7.54	7.19	7.44	7.06	7.86
<i>Metals</i>												
Boron, available	ug/g dry	0.5	2 ug/g (2 ug/g dry)	ND (0.5)	0.6							
Chromium (VI)	ug/g dry	0.2	8 ug/g (8 ug/g dry)	0.3	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)	0.2	ND (0.2)	0.4	ND (0.2)
Mercury	ug/g dry	0.1	0.27 ug/g (0.27 ug/g dry)	ND (0.1)	ND (0.1)							
Antimony	ug/g dry	1.0	40 ug/g (40 ug/g dry)	ND (1.0)	ND (1.0)							
Arsenic	ug/g dry	1.0	18 ug/g (18 ug/g dry)	7.9	7.7	6.5	8.5	7.0	5.0	7.1	8.3	4.6
Barium	ug/g dry	1.0	670 ug/g (670 ug/g dry)	74.9	44.2	50.1	51.4	54.9	70.4	53.6	69.7	52.4
Beryllium	ug/g dry	0.5	8 ug/g (8 ug/g dry)	0.6	ND (0.5)	ND (0.5)	0.5	1.0	0.5	0.5	0.7	ND (0.5)
Boron	ug/g dry	5.0	120 ug/g (120 ug/g dry)	9.8	9.0	12.4	11.0	13.5	11.6	10.7	7.4	13.4
Cadmium	ug/g dry	0.5	1.9 ug/g (1.9 ug/g dry)	ND (0.5)	ND (0.5)							
Chromium	ug/g dry	5.0	160 ug/g (160 ug/g dry)	19.7	14.4	16.1	14.2	16.1	20.3	14.9	20.1	15.5
Cobalt	ug/g dry	1.0	80 ug/g (80 ug/g dry)	8.5	6.3	7.0	7.2	7.5	6.1	6.7	8.4	6.5
Copper	ug/g dry	5.0	230 ug/g (230 ug/g dry)	14.1	14.4	14.0	13.1	13.6	17.5	13.8	17.1	13.0
Lead	ug/g dry	1.0	120 ug/g (120 ug/g dry)	11.6	7.5	8.3	9.6	8.2	14.6	7.5	10.4	7.0
Molybdenum	ug/g dry	1.0	40 ug/g (40 ug/g dry)	2.0	2.2	2.0	1.4	2.0	ND (1.0)	1.7	2.4	2.5
Nickel	ug/g dry	5.0	270 ug/g (270 ug/g dry)	24.5	18.3	20.7	18.3	20.4	18.6	19.5	24.8	18.6
Selenium	ug/g dry	1.0	5.5 ug/g (5.5 ug/g dry)	ND (1.0)	ND (1.0)							
Silver	ug/g dry	0.3	40 ug/g (40 ug/g dry)	ND (0.3)	ND (0.3)							
Thallium	ug/g dry	1.0	3.3 ug/g (3.3 ug/g dry)	ND (1.0)	ND (1.0)							
Uranium	ug/g dry	1.0	33 ug/g (33 ug/g dry)	ND (1.0)	ND (1.0)							
Vanadium	ug/g dry	10.0	86 ug/g (86 ug/g dry)	32.0	23.6	26.2	24.1	27.0	29.9	24.8	33.5	23.8
Zinc	ug/g dry	20.0	340 ug/g (340 ug/g dry)	50.9	35.2	38.1	33.5	41.3	55.2	36.5	50.3	34.4
<i>Volatiles</i>												
Benzene	ug/g dry	0.02	0.034 ug/g (0.034 ug/g dry)	ND (0.02)	ND (0.02)							
Ethylbenzene	ug/g dry	0.05	1.9 ug/g (1.9 ug/g dry)	ND (0.05)	ND (0.05)							
Toluene	ug/g dry	0.05	7.8 ug/g (7.8 ug/g dry)	ND (0.05)	ND (0.05)							
m/p-Xylene	ug/g dry	0.05		ND (0.05)	ND (0.05)							
o-Xylene	ug/g dry	0.05		ND (0.05)	ND (0.05)							
Xylenes, total	ug/g dry	0.05	3 ug/g (3 ug/g dry)	ND (0.05)	ND (0.05)							
<i>Hydrocarbons</i>												
F1 PHCs (C6-C10)	ug/g dry	7	25 ug/g (25 ug/g dry)	ND (7)	ND (7)							
F2 PHCs (C10-C16)	ug/g dry	4	26 ug/g (26 ug/g dry)	ND (4)	ND (4)							
F3 PHCs (C16-C34)	ug/g dry	8	1700 ug/g (1700 ug/g dry)	33	ND (8)	ND (8)						
F4 PHCs (C34-C50)	ug/g dry	6	3300 ug/g (3300 ug/g dry)	33	ND (6)	ND (6)						

## soil\_results

TABLE 1D - Soil Quality Results (O.Reg. 406/19 - Table 3.1 ICC ESQS)													
Soil Characterization Program - 0 Wyandotte Street East, Windsor, ON													
Lankor Horizons Inc.													
Parameter	Units	MDL	Regulation	Sample	BH-107 SS1 2123488-16	BH-107 SS2 2123488-17	BH-108 SS1 2123488-19	BH-108 SS3 2123488-20	BH-109 SS1 2123488-22	BH-109 SS4 2123488-24	BH-110 SS1 2123488-25	DUP-1 2123488-27	DUP-2 2123488-28
Sample Date (m/d/y)			Reg 406/19-Table 3.1 Industrial/Commercial	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	06/02/2021	
<i>Physical Characteristics</i>													
% Solids	% by Wt.	0.1			81.0	88.2	86.4	88.2	81.6	87.8	83.5	87.0	83.1
<i>General Inorganics</i>													
SAR	N/A	0.01	12 ug/g (12 N/A)		0.32	0.16	0.20	0.55	0.26	0.44	0.23	0.17	0.22
Conductivity	uS/cm	5	1.4 mS/cm (1400 uS/cm)		110	139	170	376	198	265	179	163	190
Cyanide, free	ug/g dry	0.03	0.051 ug/g (0.051 ug/g dry)		ND (0.03)	ND (0.03)	ND (0.03)						
pH	pH Units	0.05	5 pH units (5 pH Units)		7.08	7.04	7.17	6.92	7.01	7.30	7.34	7.35	7.33
<i>Metals</i>													
Boron, available	ug/g dry	0.5	2 ug/g (2 ug/g dry)		ND (0.5)	ND (0.5)	ND (0.5)						
Chromium (VI)	ug/g dry	0.2	8 ug/g (8 ug/g dry)		0.3	ND (0.2)	ND (0.2)	ND (0.2)	0.4	ND (0.2)	ND (0.2)	ND (0.2)	0.3
Mercury	ug/g dry	0.1	0.27 ug/g (0.27 ug/g dry)		ND (0.1)	ND (0.1)	ND (0.1)						
Antimony	ug/g dry	1.0	40 ug/g (40 ug/g dry)		ND (1.0)	ND (1.0)	ND (1.0)						
Arsenic	ug/g dry	1.0	18 ug/g (18 ug/g dry)		8.5	6.2	9.4	7.8	8.7	8.7	10.1	9.6	7.2
Barium	ug/g dry	1.0	670 ug/g (670 ug/g dry)		87.9	47.7	67.0	66.4	111	56.9	92.1	74.1	75.7
Beryllium	ug/g dry	0.5	8 ug/g (8 ug/g dry)		0.8	ND (0.5)	0.7	ND (0.5)	1.0	0.5	0.5	0.6	0.7
Boron	ug/g dry	5.0	120 ug/g (120 ug/g dry)		11.6	11.7	13.7	14.3	11.7	13.7	13.2	12.5	11.2
Cadmium	ug/g dry	0.5	1.9 ug/g (1.9 ug/g dry)		ND (0.5)	ND (0.5)	ND (0.5)						
Chromium	ug/g dry	5.0	160 ug/g (160 ug/g dry)		25.6	14.9	17.6	19.0	27.4	15.6	18.8	18.5	21.6
Cobalt	ug/g dry	1.0	80 ug/g (80 ug/g dry)		9.6	7.1	9.0	7.3	11.3	7.9	10.9	10.2	7.6
Copper	ug/g dry	5.0	230 ug/g (230 ug/g dry)		17.0	12.3	14.7	14.1	23.1	13.8	16.9	17.0	15.6
Lead	ug/g dry	1.0	120 ug/g (120 ug/g dry)		12.7	7.3	9.8	9.1	15.8	7.3	11.2	10.3	11.5
Molybdenum	ug/g dry	1.0	40 ug/g (40 ug/g dry)		1.4	2.0	2.3	4.1	1.9	2.9	3.3	2.6	1.2
Nickel	ug/g dry	5.0	270 ug/g (270 ug/g dry)		26.9	19.0	22.8	20.7	28.7	19.8	28.9	27.6	22.9
Selenium	ug/g dry	1.0	5.5 ug/g (5.5 ug/g dry)		ND (1.0)	ND (1.0)	ND (1.0)						
Silver	ug/g dry	0.3	40 ug/g (40 ug/g dry)		ND (0.3)	ND (0.3)	ND (0.3)						
Thallium	ug/g dry	1.0	3.3 ug/g (3.3 ug/g dry)		ND (1.0)	ND (1.0)	ND (1.0)						
Uranium	ug/g dry	1.0	33 ug/g (33 ug/g dry)		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	1.0	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Vanadium	ug/g dry	10.0	86 ug/g (86 ug/g dry)		43.6	23.7	29.9	27.4	45.5	24.9	32.2	32.4	35.0
Zinc	ug/g dry	20.0	340 ug/g (340 ug/g dry)		59.3	38.0	42.8	58.7	74.7	42.5	43.9	47.4	47.6
<i>Volatiles</i>													
Benzene	ug/g dry	0.02	0.034 ug/g (0.034 ug/g dry)		ND (0.02)	ND (0.02)	ND (0.02)						
Ethylbenzene	ug/g dry	0.05	1.9 ug/g (1.9 ug/g dry)		ND (0.05)	ND (0.05)	ND (0.05)						
Toluene	ug/g dry	0.05	7.8 ug/g (7.8 ug/g dry)		ND (0.05)	ND (0.05)	ND (0.05)						
m/p-Xylene	ug/g dry	0.05			ND (0.05)	ND (0.05)	ND (0.05)						
o-Xylene	ug/g dry	0.05			ND (0.05)	ND (0.05)	ND (0.05)						
Xylenes, total	ug/g dry	0.05	3 ug/g (3 ug/g dry)		ND (0.05)	ND (0.05)	ND (0.05)						
<i>Hydrocarbons</i>													
F1 PHCs (C6-C10)	ug/g dry	7	25 ug/g (25 ug/g dry)		ND (7)	ND (7)	ND (7)						
F2 PHCs (C10-C16)	ug/g dry	4	26 ug/g (26 ug/g dry)		ND (4)	ND (4)	ND (4)						
F3 PHCs (C16-C34)	ug/g dry	8	1700 ug/g (1700 ug/g dry)		ND (8)	30	ND (8)	ND (8)	ND (8)				
F4 PHCs (C34-C50)	ug/g dry	6	3300 ug/g (3300 ug/g dry)		ND (6)	ND (6)	ND (6)						

## Appendix A

### *Borehole Logs*

2.5.5, 7.5

## Borehole Log

Job Number: OGTW2137 Technician: Steve.S Driller: Henderson  
 Client: Ganatchio Gardens Inc. Rig: Truck Mount CME55  
 Project: Wyandotte and Florence Developme Start Time Finish Time  
 GPS: N E Boring Date (s) 2/6/21  
 Elevation: m

Borehole BH- 101  
 Auger Type/Size 180mm O.D.H.S  
 Water Level  
 Sheet: 1 of 1

DESCRIPTION OF SOIL	DEPTH (ft)	SAMPLE			N' or CONE (blows)	N' VANE (lbs-ft)		Well	ENGINEER COMMENTS (Leave Blank)
		TYPE	No.	REC		BLOWS 6"	in-situ		
T-reqd DL Br sandy	0 - 2'								
	2								
	3								
Br Grz Mortl sct	3 - 3.5'	SS	1	20	2	6		ENV	OPPM
	3.5				2				
	4				9				
	4.5				3				
	5								
3'A	3"								
Br Grz S:3n		SS	2	23	2	9		ENV	20 ppm
	6				3				
	7				6				
	8				4				
6" Br S:3n		SS	3	24	3	20		ENV	0 ppm
	9				11				
	10				16				
Br S:3n s:3n - S:7-C:		SS	4	18	4				
	11				70				
	12				14				
	13								
Gry S:3-C: s:3n S:7 Gr		SS	5	18	2	8			
	14				4				
	15								
	16								
S:3A		SS	6	18	1				
	17				2				
	18				3				
VANE							2100		
	19								
3" G: S:3C: S:3n S:3n		SS	7	18	5				
	20				9				
6" G: S:3C: S:3n S:3n		SS	8	18	6	15			
	21								
	22								

REMARKS (ie weather, materials used such as bags of grout/hole plug, standby time etc.)

Sheet \_\_\_\_\_ of \_\_\_\_\_

Measured Topsoil: 2 feet inches OR Measured Asphalt / Concrete: \_\_\_\_\_ inches  
 Measured Granular Fill: \_\_\_\_\_ feet inches Borehole Dry:  Y /  N If N enter depths below  
 Groundwater Depth: \_\_\_\_\_ feet inches and/or Cave In Depth:  open feet inches  
 Well Installed:  Y /  N If Y enter details of Well Installation in well column above

25', 5'

## Borehole Log

Technician: Steve.S Driller: Henderson Borehole BH-102  
 Rig: Truck Mount CME55 Auger Type/Size 180mm D H S  
 Start Time \_\_\_\_\_ Finish Time \_\_\_\_\_ Water Level \_\_\_\_\_  
 Boring Date (s) 2-6-21 Sheet: 1 of 1  
 N E Elevation: m

SECTION OF SOIL	DEPTH (ft)	SAMPLE			N' or CONE (blows)	N' VANE (lbs-ft)		Well	ENGINEER COMMENTS (Leave Blank)
		TYPE	No.	REC		in-situ	re-mold		
1-18"	1								
	2								
Mineral Soil Sand Tr Gr	3				1				
	4	SS	1	22	2	4		ENV DMR-1	0 ppm
					3				
Br S.C. T-3.3C	5				4				
	6	SS	2	24	5			ENV	0 ppm
					10				
END BH G 25'	7				12	22			
	8				13				
	9								
	10								
	11								
	12								
	13								
	14								
	15								
	16								
	17								
	18								
	19								
	20								
	21								
	22								

REMARKS (ie weather, materials used such as bags of grout/hole plug, standby time etc.)

Sheet of

Measured Topsoil: feet 18 inches OR Measured Asphalt / Concrete: inches  
 Measured Granular Fill: feet inches Borehole Dry: Y/N If N enter depths below  
 Groundwater Depth: feet inches and/or Cave In Depth: open feet inches  
 Well Installed: Y/N If Y enter details of Well Installation in well column above

2.5, 5, 7.5

### Borehole Log

137 Technician: Steve.S Driller: Henderson Borehole BH-103  
 Gardens Inc. Rig: Truck Mount CME55 Auger Type/Size 180mm D.H.S  
 and Florence Developme Start Time Finish Time Water Level  
 N Boring Date (s) 2-6-21 Sheet: 1 of 1  
 E Elevation: m

DESCRIPTION OF SOIL	DEPTH (ft)	SAMPLE				N or CONE (blows)	N' VANE (lbs-ft)		Well	ENGINEER COMMENTS (Leave Blank)
		TYPE	No.	REC	BLOWS 6"		in-situ	re-mold		
0 - 18"	1									
	2									
Br-Gv Scl S	3	S	1	24	1 2 2 4				ENV	5 ppm
3 - 5 Tr Gv	4	S	2	24	6 8 4				ENV	0 ppm
Br Scl S	5									
34a	6	S	2	24	3				ENV	0 ppm
Trip Br Scl S	7	S	3	24	10 11 21				ENV	0 ppm
Br Scl Sone S Tr Gv	8	S	3	24	3					
	9	S	4	18	11 14	25				
	10									
Gry Scl Tr S - 3 Gr	1	S	5	18	21 3	7				
	2									
34a	3	S	6	18	1	3				
	4									
VANE	5						85 65			
	6									
Gry Scl S	7	S	7	18	3 8 7	17				
END BH @ 21.53 ft	8									

REMARKS (ie weather, materials used such as bags of grout/hole plug, standby time etc.)

Sheet \_\_\_\_\_ of \_\_\_\_\_

Measured Topsoil: 18 inches OR Measured Asphalt / Concrete: \_\_\_\_\_ inches  
 Measured Granular Fill: \_\_\_\_\_ feet \_\_\_\_\_ inches Borehole Dry: Y/N If N enter depths below  
 Groundwater Depth: \_\_\_\_\_ feet \_\_\_\_\_ inches and/or Cave In Depth: \_\_\_\_\_ feet \_\_\_\_\_ inches  
 Well Installed: Y/N If Y enter details of Well Installation in well column above

### Borehole Log

Technician: Steve S Driller: Henderson  
 Rig: Truck Mount CME55  
 Start Time \_\_\_\_\_ Finish Time \_\_\_\_\_  
 Boring Date (s) 2-6-21  
 Elevation: m  
 Sheet: / of ,

DESCRIPTION OF SOIL	DEPTH (ft)	SAMPLE				N' or CONE (blows)	N' VANE (lbs-ft) in-situ      re-mold	Well	ENGINEER COMMENTS (Leave Blank)
		TYPE	No.	REC	BLOWS 6"				
0-	1								
0-1	2								
0-1	3								
0-1	4	SS	1	24	1 2 3			ENV DUR-3	Oppm
0-1	5								
0-1	6	SS	2	24	1 2 3 4			Env	Oppm
0-1	7								
0-1	8								
0-1	9								
0-1	0								
0-1	1								
0-1	2								
0-1	3								
0-1	4								
0-1	5								
0-1	6								
0-1	7								
0-1	8								
0-1	9								
0-1	0								
0-1	1								
0-1	2								

REMARKS (ie weather, materials used such as bags of grout/hole plug, standby time etc.)

Sheet / of

Measured Topsoil: feet      inches      OR      Measured Asphalt / Concrete:      inches  
 Measured Granular Fill: feet      inches      Borehole Dry: Y / N      If N enter depths below  
 Groundwater Depth: feet      inches      and/or      Cave In Depth:      feet      inches  
 Well Installed: Y / N      If Y enter details of Well Installation in well column above

## Borehole Log

W2137 Technician: Steve.S Driller: Henderson  
 Garden Inc. Rig: Truck Mount CME55 Borehole BH-105  
 otte and Florence Developme Start Time Finish Time Auger Type/Size 180mm D.H.S.  
 N Boring Date (s) 2-6-21 Water Level  
 E Elevation: Sheet: 1 of 1

DESCRIPTION OF SOIL	DEPTH (ft)	SAMPLE			N' or CONE (blows)	N' VANE (lbs-ft) in-situ re-mold	Well	ENGINEER COMMENTS (Leave Blank)
		TYPE	No.	REC				
0-13	1.							
	2.							
Gr S, cl s.s. -	3.							
	4.	SS	1	24	3			ENV
					4	7		DWP-2
					5			
Br S, cl s.s. -	6.	SS	2	24	8			Oppm
					7	16		
					9			
ENV BH @ 7 ft	7.				10			
	8.							
	9.							
	0.							
	1.							
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	0.							
	1.							
	2.							

REMARKS (ie weather, materials used such as bags of grout/hole plug, standby time etc.)

Sheet of

Measured Topsoil: 1 feet 17 inches OR Measured Asphalt / Concrete: inches  
 Measured Granular Fill: 1 feet inches Borehole Dry: Ø 1 N If N enter depths below  
 Groundwater Depth: 1 feet inches and/or Cave In Depth: open feet inches  
 Well Installed: Y/N If Y enter details of Well Installation in well column above

## Borehole Log

TW2137 Technician: Steve.S Driller: Henderson Borehole BH- 106  
 Garden Inc. Rig: Truck Mount CME55 Auger Type/Size 180mm O.D H.S.  
 Lotte and Florence Developme Start Time Finish Time Water Level  
 N Boring Date (s) 2 - 6 - 21 Sheet: 1 of 1  
 E Elevation: m

DESCRIPTION OF SOIL	DEPTH (ft)	SAMPLE			N' or CONE (blows)	N' VANE (lbs-ft) in-situ re-mold	Well	ENGINEER COMMENTS (Leave Blank)
		TYPE	No.	REC				
Soil 0 - 19	1							
Gry sct 2 - 5 - 7c	2							
SAC	3							
Br sct 5 - 7c	4	SS	1	24	3 3 3	6	ENV 106-1	5 ppm
Br sct 5 - 7c	5							
Br sct 5 - 7c	6	SS	2	20	7 5 4	9		
Br sct 5 - 7c	7							
Br sct 5 - 7c	8							
Br sct 5 - 7c	9	SS	3	24	6 11 17	17	ENV 106-3	Open
Br sct 5 - 7c	10							
Br sct 5 - 7c	11	SS	4	24	2 8 16 11	24		
Br sct 5 - 7c	12							
Br sct 5 - 7c	13							
Br sct 5 - 7c	14	SS	5	18	4 5 5	9	ENV 106-5	Open
Br sct 5 - 7c	15							
Br sct 5 - 7c	16							
Br sct 5 - 7c	17							
Br sct 5 - 7c	18							
Br sct 5 - 7c	19							
Br sct 5 - 7c	20							

REMARKS (ie weather, materials used such as bags of grout/hole plug, standby time etc.)

Sheet \_\_\_\_\_ of \_\_\_\_\_  
 Measured Topsoil: feet 19 inches OR Measured Asphalt / Concrete: \_\_\_\_\_ inches  
 Measured Granular Fill: feet \_\_\_\_\_ inches Borehole Dry:  N If N enter depths below  
 Groundwater Depth: feet \_\_\_\_\_ inches and/or Cave In Depth: \_\_\_\_\_ feet inches  
 Well Installed: Y /  If Y enter details of Well Installation in well column above

2.5, 5, 10

## Borehole Log

GTW2137  
Ohio Gardens Inc.  
Madotte and Florence

Technician: Steve.S Driller: Henderson  
Rig: Truck Mount CME55  
Start Time \_\_\_\_\_ Finish Time \_\_\_\_\_  
Boring Date (s) 2-6-21  
Elevation:

Borehole BH- 107  
Auger Type/Size 180mm O.D.H.S  
Water Level \_\_\_\_\_  
Sheet: 1 of 2

DESCRIPTION OF SOIL	DEPTH (ft)	SAMPLE			N' or CONE (blows)	N' VANE (lbs-ft)	Well	ENGINEER COMMENTS (Leave Blank)
		TYPE	No.	REC	BLOWS 6"			
0 - 18	1							
Br Gry S, cl some Soil Tr Gr	2							
Br S, cl some Tr Gr	3							
SS 1 24	4				3	4	ENV 107-1	Open
SS 2 24	5				2			
SS 2 24	6				3		ENV 107-2	Open
SS 3 18	7				4	11		
SS 3 18	8				7			
SS 3 18	9				8			
SS 3 18	10							
SS 4 24	1						ENV 107-4	Open
SS 4 24	2							
SS 5 18	3							
SS 5 18	4							
SS 6 18	5							
SS 6 18	6							
SS 6 18	7							
VANE	8							
VANE	9							
Gry sicc some Tr S	10							
Gry sicc some Tr S	11							
SS 7 18	12							
SS 7 18	13							

REMARKS (ie weather, materials used such as bags of grout/hole plug, standby time etc.)

Measured Topsoil:   feet   18   inches OR Measured Asphalt / Concrete:                          inches  
Measured Granular Fill:   feet    inches Borehole Dry: Y/N If N enter depths below  
Groundwater Depth:   feet    inches and/or Cave In Depth:   0'   feet inches  
Well Installed:   Y/N   If Y enter details of Well Installation in well column above

## Borehole Log

STW2137 \_\_\_\_\_ Technician: Steve S Driller: Henderson  
 St. Mario Gardens Inc. \_\_\_\_\_ Rig: Truck Mount CME55 \_\_\_\_\_ Borehole BH-107  
 Lotte and Florence Developme Start Time \_\_\_\_\_ Auger Type/Size 180mm D H.S  
 N Boring Date (s) \_\_\_\_\_ Finish Time \_\_\_\_\_ Water Level \_\_\_\_\_  
 E Elevation: \_\_\_\_\_ Sheet: 2 of 2

DESCRIPTION OF SOIL	DEPTH (ft)	SAMPLE				N' or CONE (blows)	m		Well	ENGINEER COMMENTS (Leave Blank)
		TYPE	No.	REC	BLOWS 6"		in-situ	re-mold		
	20									
	1									
	2									
	3									
	4									
	5									
Gy 5cl	6	SS	8	18	3 4 8					
Gy 5s/a	7									
	8									
	9									
	30									
Sandy till ss9A	1	SS	9	18	3 4 4					
3cl	2									
END B/H G 31.5 ft	3									
	4									
	5									
	6									
	7									
	8									
	9									
	0									
	1									
	2									

MARKS (ie weather, materials used such as bags of grout/hole plug, standby time etc.)

Measured Topsoil: feet 18 inches OR Measured Asphalt / Concrete: inches  
 Measured Granular Fill: feet inches Borehole Dry: Y / N If N enter depths below  
 Groundwater Depth: feet inches and/or Cave In Depth: feet inches  
 Installed: Y / N If Y enter details of Well Installation in well column above

Sheet    of

501 503 505  
 2.5, 7.5, 12.5

### Borehole Log

Project ID: GTW2137  
 Client: Echo Gardens Inc.  
 Location: Endotte and Florence Development  
 Technician: Steve S. Driller: Henderson  
 Rig: Truck Mount CME55  
 Start Time: Finish Time:  
 N Boring Date (s) 2-6-21  
 E Elevation:

Borehole BH- 108  
 Auger Type/Size 180mm O.D.H.S  
 Water Level  
 Sheet: 1 of 2

DESCRIPTION OF SOIL	DEPTH (ft)	SAMPLE			N' or CONE (blows)	N' VANE (lbs-ft) in-situ re-mold	Well	ENGINEER COMMENTS (Leave Blank)
		TYPE	No.	REC				
Soil 0 - 10	1							
	2							
B/Gv Scl Ssm S Tr Gv	3							
	4	Ss	1	24	7	ENV	108-1	5 ppm
	5							
B/Gv Scl Ssm S Tr Gv	6	Ss	2	24	9			
	7							
SAA	8							
	9	Ss	3	24	21	ENV	108-3	0 ppm
	10							
SAA	11	Ss	4	24	23			
	12							
Gr Scl Tr S - Gv	13	Ss	5	20	5	ENV	108-5	0 ppm
	14							
SAA	15	Ss	6	18	3			
	16							
VANE	17							
	18							
SAA	19	Ss	7	1	2			
	20							

REMARKS (ie weather, materials used such as bags of grout/hole plug, standby time etc.)

Sheet of

Measured Topsoil: feet / inches OR Measured Asphalt / Concrete: inches  
 Measured Granular Fill: feet / inches Borehole Dry:   If N enter depths below 30  
 Groundwater Depth: feet / inches and/or Cave In Depth: open 30 feet / inches  
 Well Installed: Y /  If Y enter details of Well Installation in well column above

### Borehole Log

Technician: Steve.S Driller: Henderson  
 Rig: Truck Mount CME55  
 Start Time: Finish Time:  
 Boring Date(s): 2-6-21  
 Elevation:

Borehole BH-108  
 Auger Type/Size 180mmx0.0 H.S.  
 Water Level  
 Sheet: 2 of 2

DESCRIPTION OF SOIL	DEPTH (ft)	SAMPLE			N' or CONE (blows)	m	Well	ENGINEER COMMENTS (Leave Blank)
		TYPE	No.	REC				
	1							
	2	VANE						
	3					85	42	
	4							
	5							
Gr. 3 - 4%	6	SS	8	18	10 21 23	44		
	7							
	8							
	9							
Gr. 5-5% wet	10	SS	9	18	10 21 23	44		
END BIT 6 31.5 TX	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							
	26							
	27							
	28							
	29							
	30							

REMARKS (ie weather, materials used such as bags of grout/hole plug, standby time etc.)

Sheet of

Measured Topsoil: 10 feet 10 inches OR Measured Asphalt / Concrete: \_\_\_\_\_ inches  
 Measured Granular Filt: 1 feet 1 inches Borehole Dry: Y N If N enter depths below 30'  
 Groundwater Depth: \_\_\_\_\_ feet \_\_\_\_\_ inches and/or Cave In Depth: 30' feet inches  
 Well Installed: Y (ND) If Y enter details of Well Installation in well column above

25, 5, 10  
 Borehole Log

Technician: Steve S Driller: Henderson  
 Rig: Truck Mount CME55  
 Start Time: Finish Time:  
 N Boring Date (s) 2-6-21  
 E Elevation:

Borehole BH- 109  
 Auger Type/Size 180mm D.H.S.  
 Water Level  
 Sheet: 1 of 1

DESCRIPTION OF SOIL	DEPTH (ft)	SAMPLE			N' or CONE (blows)	N' VANE (lbs-ft) in-situ	Well	ENGINEER COMMENTS (Leave Blank)
		TYPE	No.	REC				
Soil 0-	1							
Br Gr - SIC 1 to LFG	2							
Sand T/G	3							
D/ SIC 3 to BG	4	SS	1	18	2	5	ENV 109-1	5 ppm
	5				3			
	6	SS	2	24	2		ENV 109-2	5 ppm
	7				6	10		
	8				8			
	9	SS	3	24	7	23		
	10				16			
Soil ~ rock	11	SS	4	24	10		ENV 109-4	0 ppm
	12				21			
	13				16			
	14				17			
END S 12 J4	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							

REMARKS (ie weather, materials used such as bags of grout/hole plug, standby time etc.)

Sheet of

Measured Topsoil: feet inches OR Measured Asphalt / Concrete: inches  
 Measured Granular Fill: feet inches Borehole Dry:  N If N enter depths below  
 Groundwater Depth: feet inches and/or Cave In Depth:  feet inches  
 Well Installed: Y /  If Y enter details of Well Installation in well column above

### Borehole Log

Technician: Steve S Driller: Henderson  
 Rig: Truck Mount CME55  
 Start Time: \_\_\_\_\_ Finish Time: \_\_\_\_\_  
 Boring Date (s): 2-6-2021  
 Elevation: \_\_\_\_\_  
 Borehole BH- 110  
 Auger Type/Size 180mmOD x 5m  
 Water Level: \_\_\_\_\_  
 Sheet: 1 of 1

DESCRIPTION OF SOIL	DEPTH (ft)	SAMPLE				N' or CONE (blows)	N' VANE (lbs-ft) in-situ      re-mold	Well	ENGINEER COMMENTS (Leave Blank)
		TYPE	No.	REC	BLOWS 6"				
	1								
	2								
	3								
	4	SS	1	24		2		EW	Oppn
	5					3			
	6	SS	2	19		4		EW	Oppn
	7					5			
	8					6			
	9					7			
	0					8			
	1					9			
	2					0			
	3					1			
	4					2			
	5					3			
	6					4			
	7					5			
	8					6			
	9					7			
	0					8			
	1					9			
	2					0			

REMARKS (ie weather, materials used such as bags of grout/hole plug, standby time etc.)

Sheet \_\_\_\_\_ of \_\_\_\_\_

Measured Topsoil: feet 15 inches OR Measured Asphalt / Concrete: \_\_\_\_\_ inches  
 Measured Granular Fill: feet \_\_\_\_\_ inches Borehole Dry: Ø 1 N If N enter depths below  
 Groundwater Depth: feet \_\_\_\_\_ inches and/or Cave In Depth: \_\_\_\_\_ feet inches  
 Well Installed: Y / N If Y enter details of Well Installation in well column above

## Appendix B

### *Laboratory Certificates of Analysis*

## Certificate of Analysis

### Wood Environment & Infrastructure (Windsor)

11865 County Road 42  
Tecumseh, ON N8N 2M1  
Attn: Cindy McKee

Client PO: OGTW2118.2000  
Project: OGTW2118.2000  
Custody:

Report Date: 9-Jun-2021  
Order Date: 3-Jun-2021

**Order #: 2123488**

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

Paracel ID	Client ID
2123488-01	BH-101 SS1
2123488-02	BH-101 SS2
2123488-04	BH-102 SS1
2123488-06	BH-103 SS1
2123488-07	BH-103 SS2
2123488-09	BH-104 SS1
2123488-11	BH-105 SS1
2123488-13	BH-106 SS1
2123488-15	BH-106 SS5
2123488-16	BH-107 SS1
2123488-17	BH-107 SS2
2123488-19	BH-108 SS1
2123488-20	BH-108 SS3
2123488-22	BH-109 SS1
2123488-24	BH-109 SS4
2123488-25	BH-110 SS1
2123488-27	DUP-1
2123488-28	DUP-2

Approved By:



Alex Enfield, MSc  
Lab Manager

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

Certificate of Analysis

Report Date: 09-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2118.2000

Project Description: OGTW2118.2000

### Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Boron, available	MOE (HWE), EPA 200.8 - ICP-MS	7-Jun-21	7-Jun-21
BTEX by P&T GC-MS	EPA 8260 - P&T GC-MS	3-Jun-21	7-Jun-21
Chromium, hexavalent - soil	MOE E3056 - Extraction, colourimetric	4-Jun-21	8-Jun-21
Conductivity	MOE E3138 - probe @25 °C, water ext	5-Jun-21	5-Jun-21
Cyanide, free	MOE E3015 - Auto Colour, water extraction	4-Jun-21	4-Jun-21
Mercury by CVAA	EPA 7471B - CVAA, digestion	5-Jun-21	8-Jun-21
pH, soil	EPA 150.1 - pH probe @ 25 °C, CaCl buffered ext.	7-Jun-21	7-Jun-21
PHC F1	CWS Tier 1 - P&T GC-FID	3-Jun-21	7-Jun-21
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	7-Jun-21	8-Jun-21
REG 153: Metals by ICP/MS, soil	EPA 6020 - Digestion - ICP-MS	7-Jun-21	7-Jun-21
SAR	Calculated	7-Jun-21	7-Jun-21
Solids, %	Gravimetric, calculation	4-Jun-21	7-Jun-21

Certificate of Analysis

Report Date: 09-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2118.2000

Project Description: OGTW2118.2000

Client ID:	BH-101 SS1	BH-101 SS2	BH-102 SS1	BH-103 SS1
Sample Date:	02-Jun-21 00:00	02-Jun-21 00:00	02-Jun-21 00:00	02-Jun-21 00:00
Sample ID:	2123488-01	2123488-02	2123488-04	2123488-06
MDL/Units	Soil	Soil	Soil	Soil

**Physical Characteristics**

% Solids	0.1 % by Wt.	81.3	88.9	87.0	87.0
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**General Inorganics**

SAR	0.01 N/A	0.61	0.39	0.18	0.17
Conductivity	5 uS/cm	199	183	147	145
Cyanide, free	0.03 ug/g dry	<0.03	<0.03	<0.03	<0.03
pH	0.05 pH Units	7.13	7.45	7.41	7.43

**Metals**

Antimony	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Arsenic	1.0 ug/g dry	7.9	7.7	6.5	8.5
Barium	1.0 ug/g dry	74.9	44.2	50.1	51.4
Beryllium	0.5 ug/g dry	0.6	<0.5	<0.5	<0.5
Boron	5.0 ug/g dry	9.8	9.0	12.4	11.0
Boron, available	0.5 ug/g dry	<0.5	<0.5	<0.5	<0.5
Cadmium	0.5 ug/g dry	<0.5	<0.5	<0.5	<0.5
Chromium	5.0 ug/g dry	19.7	14.4	16.1	14.2
Chromium (VI)	0.2 ug/g dry	0.3	<0.2	<0.2	<0.2
Cobalt	1.0 ug/g dry	8.5	6.3	7.0	7.2
Copper	5.0 ug/g dry	14.1	14.4	14.0	13.1
Lead	1.0 ug/g dry	11.6	7.5	8.3	9.6
Mercury	0.1 ug/g dry	<0.1	<0.1	<0.1	<0.1
Molybdenum	1.0 ug/g dry	2.0	2.2	2.0	1.4
Nickel	5.0 ug/g dry	24.5	18.3	20.7	18.3
Selenium	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Silver	0.3 ug/g dry	<0.3	<0.3	<0.3	<0.3
Thallium	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Uranium	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Vanadium	10.0 ug/g dry	32.0	23.6	26.2	24.1
Zinc	20.0 ug/g dry	50.9	35.2	38.1	33.5

**Volatiles**

Benzene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Ethylbenzene	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
Toluene	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
m,p-Xylenes	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
o-Xylene	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
Xylenes, total	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05

Certificate of Analysis

Report Date: 09-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2118.2000

Project Description: OGTW2118.2000

	Client ID: Sample Date: Sample ID: <b>MDL/Units</b>	BH-101 SS1 02-Jun-21 00:00 2123488-01 Soil	BH-101 SS2 02-Jun-21 00:00 2123488-02 Soil	BH-102 SS1 02-Jun-21 00:00 2123488-04 Soil	BH-103 SS1 02-Jun-21 00:00 2123488-06 Soil
Toluene-d8	Surrogate	107%	107%	107%	107%

**Hydrocarbons**

F1 PHCs (C6-C10)	7 ug/g dry	<7	<7	<7	<7
F2 PHCs (C10-C16)	4 ug/g dry	<4	<4	<4	<4
F3 PHCs (C16-C34)	8 ug/g dry	33	<8	<8	<8
F4 PHCs (C34-C50)	6 ug/g dry	33	<6	<6	<6

Certificate of Analysis

Report Date: 09-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2118.2000

Project Description: OGTW2118.2000

Client ID:	BH-103 SS2	BH-104 SS1	BH-105 SS1	BH-106 SS1
Sample Date:	02-Jun-21 00:00	02-Jun-21 00:00	02-Jun-21 00:00	02-Jun-21 00:00
Sample ID:	2123488-07	2123488-09	2123488-11	2123488-13
MDL/Units	Soil	Soil	Soil	Soil

**Physical Characteristics**

% Solids	0.1 % by Wt.	88.6	81.3	87.8	80.7
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**General Inorganics**

SAR	0.01 N/A	0.19	0.23	0.20	0.27
Conductivity	5 uS/cm	135	100	160	103
Cyanide, free	0.03 ug/g dry	<0.03	<0.03	<0.03	<0.03
pH	0.05 pH Units	7.54	7.19	7.44	7.06

**Metals**

Antimony	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Arsenic	1.0 ug/g dry	7.0	5.0	7.1	8.3
Barium	1.0 ug/g dry	54.9	70.4	53.6	69.7
Beryllium	0.5 ug/g dry	0.5	1.0	0.5	0.7
Boron	5.0 ug/g dry	13.5	11.6	10.7	7.4
Boron, available	0.5 ug/g dry	<0.5	<0.5	<0.5	<0.5
Cadmium	0.5 ug/g dry	<0.5	<0.5	<0.5	<0.5
Chromium	5.0 ug/g dry	16.1	20.3	14.9	20.1
Chromium (VI)	0.2 ug/g dry	<0.2	0.2	<0.2	0.4
Cobalt	1.0 ug/g dry	7.5	6.1	6.7	8.4
Copper	5.0 ug/g dry	13.6	17.5	13.8	17.1
Lead	1.0 ug/g dry	8.2	14.6	7.5	10.4
Mercury	0.1 ug/g dry	<0.1	<0.1	<0.1	<0.1
Molybdenum	1.0 ug/g dry	2.0	<1.0	1.7	2.4
Nickel	5.0 ug/g dry	20.4	18.6	19.5	24.8
Selenium	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Silver	0.3 ug/g dry	<0.3	<0.3	<0.3	<0.3
Thallium	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Uranium	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Vanadium	10.0 ug/g dry	27.0	29.9	24.8	33.5
Zinc	20.0 ug/g dry	41.3	55.2	36.5	50.3

**Volatiles**

Benzene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Ethylbenzene	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
Toluene	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
m,p-Xylenes	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
o-Xylene	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
Xylenes, total	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05

Certificate of Analysis

Report Date: 09-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2118.2000

Project Description: OGTW2118.2000

	Client ID: Sample Date: Sample ID: MDL/Units	BH-103 SS2 02-Jun-21 00:00 2123488-07 Soil	BH-104 SS1 02-Jun-21 00:00 2123488-09 Soil	BH-105 SS1 02-Jun-21 00:00 2123488-11 Soil	BH-106 SS1 02-Jun-21 00:00 2123488-13 Soil
Toluene-d8	Surrogate	106%	105%	107%	102%
<b>Hydrocarbons</b>					
F1 PHCs (C6-C10)	7 ug/g dry	<7	<7	<7	<7
F2 PHCs (C10-C16)	4 ug/g dry	<4	<4	<4	<4
F3 PHCs (C16-C34)	8 ug/g dry	<8	<8	<8	<8
F4 PHCs (C34-C50)	6 ug/g dry	<6	<6	<6	<6

Certificate of Analysis

Report Date: 09-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2118.2000

Project Description: OGTW2118.2000

Client ID:	BH-106 SS5	BH-107 SS1	BH-107 SS2	BH-108 SS1
Sample Date:	02-Jun-21 00:00	02-Jun-21 00:00	02-Jun-21 00:00	02-Jun-21 00:00
Sample ID:	2123488-15	2123488-16	2123488-17	2123488-19
MDL/Units	Soil	Soil	Soil	Soil

**Physical Characteristics**

% Solids	0.1 % by Wt.	86.5	81.0	88.2	86.4
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**General Inorganics**

SAR	0.01 N/A	0.61	0.32	0.16	0.20
Conductivity	5 uS/cm	236	110	139	170
Cyanide, free	0.03 ug/g dry	<0.03	<0.03	<0.03	<0.03
pH	0.05 pH Units	7.86	7.08	7.04	7.17

**Metals**

Antimony	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Arsenic	1.0 ug/g dry	4.6	8.5	6.2	9.4
Barium	1.0 ug/g dry	52.4	87.9	47.7	67.0
Beryllium	0.5 ug/g dry	<0.5	0.8	<0.5	0.7
Boron	5.0 ug/g dry	13.4	11.6	11.7	13.7
Boron, available	0.5 ug/g dry	0.6	<0.5	<0.5	<0.5
Cadmium	0.5 ug/g dry	<0.5	<0.5	<0.5	<0.5
Chromium	5.0 ug/g dry	15.5	25.6	14.9	17.6
Chromium (VI)	0.2 ug/g dry	<0.2	0.3	<0.2	<0.2
Cobalt	1.0 ug/g dry	6.5	9.6	7.1	9.0
Copper	5.0 ug/g dry	13.0	17.0	12.3	14.7
Lead	1.0 ug/g dry	7.0	12.7	7.3	9.8
Mercury	0.1 ug/g dry	<0.1	<0.1	<0.1	<0.1
Molybdenum	1.0 ug/g dry	2.5	1.4	2.0	2.3
Nickel	5.0 ug/g dry	18.6	26.9	19.0	22.8
Selenium	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Silver	0.3 ug/g dry	<0.3	<0.3	<0.3	<0.3
Thallium	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Uranium	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Vanadium	10.0 ug/g dry	23.8	43.6	23.7	29.9
Zinc	20.0 ug/g dry	34.4	59.3	38.0	42.8

**Volatiles**

Benzene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Ethylbenzene	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
Toluene	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
m,p-Xylenes	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
o-Xylene	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
Xylenes, total	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05

Certificate of Analysis

Report Date: 09-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2118.2000

Project Description: OGTW2118.2000

	<b>Client ID:</b> BH-106 SS5	<b>Sample Date:</b> 02-Jun-21 00:00	<b>BH-107 SS1</b>	<b>BH-107 SS2</b>	<b>BH-108 SS1</b>
	<b>Sample ID:</b> 2123488-15		02-Jun-21 00:00 2123488-16	02-Jun-21 00:00 2123488-17	02-Jun-21 00:00 2123488-19
	<b>MDL/Units</b>	Soil	Soil	Soil	Soil
Toluene-d8	Surrogate	105%	102%	104%	107%

**Hydrocarbons**

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

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Report Date: 09-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2118.2000

Project Description: OGTW2118.2000

Client ID:	BH-108 SS3	BH-109 SS1	BH-109 SS4	BH-110 SS1
Sample Date:	02-Jun-21 00:00	02-Jun-21 00:00	02-Jun-21 00:00	02-Jun-21 00:00
Sample ID:	2123488-20	2123488-22	2123488-24	2123488-25
MDL/Units	Soil	Soil	Soil	Soil

**Physical Characteristics**

% Solids	0.1 % by Wt.	88.2	81.6	87.8	83.5
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**General Inorganics**

SAR	0.01 N/A	0.55	0.26	0.44	0.23
Conductivity	5 uS/cm	376	198	265	179
Cyanide, free	0.03 ug/g dry	<0.03	<0.03	<0.03	<0.03
pH	0.05 pH Units	6.92	7.01	7.30	7.34

**Metals**

Antimony	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Arsenic	1.0 ug/g dry	7.8	8.7	8.7	10.1
Barium	1.0 ug/g dry	66.4	111	56.9	92.1
Beryllium	0.5 ug/g dry	<0.5	1.0	0.5	0.5
Boron	5.0 ug/g dry	14.3	11.7	13.7	13.2
Boron, available	0.5 ug/g dry	<0.5	0.6	<0.5	<0.5
Cadmium	0.5 ug/g dry	<0.5	<0.5	<0.5	<0.5
Chromium	5.0 ug/g dry	19.0	27.4	15.6	18.8
Chromium (VI)	0.2 ug/g dry	<0.2	0.4	<0.2	<0.2
Cobalt	1.0 ug/g dry	7.3	11.3	7.9	10.9
Copper	5.0 ug/g dry	14.1	23.1	13.8	16.9
Lead	1.0 ug/g dry	9.1	15.8	7.3	11.2
Mercury	0.1 ug/g dry	<0.1	<0.1	<0.1	<0.1
Molybdenum	1.0 ug/g dry	4.1	1.9	2.9	3.3
Nickel	5.0 ug/g dry	20.7	28.7	19.8	28.9
Selenium	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Silver	0.3 ug/g dry	<0.3	<0.3	<0.3	<0.3
Thallium	1.0 ug/g dry	<1.0	<1.0	<1.0	<1.0
Uranium	1.0 ug/g dry	<1.0	1.0	<1.0	<1.0
Vanadium	10.0 ug/g dry	27.4	45.5	24.9	32.2
Zinc	20.0 ug/g dry	58.7	74.7	42.5	43.9

**Volatiles**

Benzene	0.02 ug/g dry	<0.02	<0.02	<0.02	<0.02
Ethylbenzene	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
Toluene	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
m,p-Xylenes	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
o-Xylene	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05
Xylenes, total	0.05 ug/g dry	<0.05	<0.05	<0.05	<0.05

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Report Date: 09-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2118.2000

Project Description: OGTW2118.2000

	Client ID: Sample Date: Sample ID: MDL/Units	BH-108 SS3 02-Jun-21 00:00 2123488-20 Soil	BH-109 SS1 02-Jun-21 00:00 2123488-22 Soil	BH-109 SS4 02-Jun-21 00:00 2123488-24 Soil	BH-110 SS1 02-Jun-21 00:00 2123488-25 Soil
Toluene-d8	Surrogate	107%	106%	102%	104%
<b>Hydrocarbons</b>					
F1 PHCs (C6-C10)	7 ug/g dry	<7	<7	<7	<7
F2 PHCs (C10-C16)	4 ug/g dry	<4	<4	<4	<4
F3 PHCs (C16-C34)	8 ug/g dry	<8	<8	30	<8
F4 PHCs (C34-C50)	6 ug/g dry	<6	<6	<6	<6

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Report Date: 09-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2118.2000

Project Description: OGTW2118.2000

Client ID:	DUP-1	DUP-2	-	-
Sample Date:	02-Jun-21 00:00	02-Jun-21 00:00	-	-
Sample ID:	2123488-27	2123488-28	-	-
MDL/Units	Soil	Soil	-	-

**Physical Characteristics**

% Solids	0.1 % by Wt.	87.0	83.1	-	-
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**General Inorganics**

SAR	0.01 N/A	0.17	0.22	-	-
Conductivity	5 uS/cm	163	190	-	-
Cyanide, free	0.03 ug/g dry	<0.03	<0.03	-	-
pH	0.05 pH Units	7.35	7.33	-	-

**Metals**

Antimony	1.0 ug/g dry	<1.0	<1.0	-	-
Arsenic	1.0 ug/g dry	9.6	7.2	-	-
Barium	1.0 ug/g dry	74.1	75.7	-	-
Beryllium	0.5 ug/g dry	0.6	0.7	-	-
Boron	5.0 ug/g dry	12.5	11.2	-	-
Boron, available	0.5 ug/g dry	<0.5	<0.5	-	-
Cadmium	0.5 ug/g dry	<0.5	<0.5	-	-
Chromium	5.0 ug/g dry	18.5	21.6	-	-
Chromium (VI)	0.2 ug/g dry	<0.2	0.3	-	-
Cobalt	1.0 ug/g dry	10.2	7.6	-	-
Copper	5.0 ug/g dry	17.0	15.6	-	-
Lead	1.0 ug/g dry	10.3	11.5	-	-
Mercury	0.1 ug/g dry	<0.1	<0.1	-	-
Molybdenum	1.0 ug/g dry	2.6	1.2	-	-
Nickel	5.0 ug/g dry	27.6	22.9	-	-
Selenium	1.0 ug/g dry	<1.0	<1.0	-	-
Silver	0.3 ug/g dry	<0.3	<0.3	-	-
Thallium	1.0 ug/g dry	<1.0	<1.0	-	-
Uranium	1.0 ug/g dry	<1.0	<1.0	-	-
Vanadium	10.0 ug/g dry	32.4	35.0	-	-
Zinc	20.0 ug/g dry	47.4	47.6	-	-

**Volatiles**

Benzene	0.02 ug/g dry	<0.02	<0.02	-	-
Ethylbenzene	0.05 ug/g dry	<0.05	<0.05	-	-
Toluene	0.05 ug/g dry	<0.05	<0.05	-	-
m,p-Xylenes	0.05 ug/g dry	<0.05	<0.05	-	-
o-Xylene	0.05 ug/g dry	<0.05	<0.05	-	-
Xylenes, total	0.05 ug/g dry	<0.05	<0.05	-	-

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Report Date: 09-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2118.2000

Project Description: OGTW2118.2000

	Client ID: Sample Date: Sample ID: MDL/Units	DUP-1 02-Jun-21 00:00 2123488-27 Soil	DUP-2 02-Jun-21 00:00 2123488-28 Soil	-	-
Toluene-d8	Surrogate	107%	101%	-	-

**Hydrocarbons**

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

Certificate of Analysis

Report Date: 09-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2118.2000

Project Description: OGTW2118.2000

**Method Quality Control: Blank**

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>General Inorganics</b>									
Conductivity	ND	5	uS/cm						
Cyanide, free	ND	0.03	ug/g						
<b>Hydrocarbons</b>									
F1 PHCs (C6-C10)	ND	7	ug/g						
F2 PHCs (C10-C16)	ND	4	ug/g						
F3 PHCs (C16-C34)	ND	8	ug/g						
F4 PHCs (C34-C50)	ND	6	ug/g						
<b>Metals</b>									
Antimony	ND	1.0	ug/g						
Arsenic	ND	1.0	ug/g						
Barium	ND	1.0	ug/g						
Beryllium	ND	0.5	ug/g						
Boron, available	ND	0.5	ug/g						
Boron	ND	5.0	ug/g						
Cadmium	ND	0.5	ug/g						
Chromium (VI)	ND	0.2	ug/g						
Chromium	ND	5.0	ug/g						
Cobalt	ND	1.0	ug/g						
Copper	ND	5.0	ug/g						
Lead	ND	1.0	ug/g						
Mercury	ND	0.1	ug/g						
Molybdenum	ND	1.0	ug/g						
Nickel	ND	5.0	ug/g						
Selenium	ND	1.0	ug/g						
Silver	ND	0.3	ug/g						
Thallium	ND	1.0	ug/g						
Uranium	ND	1.0	ug/g						
Vanadium	ND	10.0	ug/g						
Zinc	ND	20.0	ug/g						
<b>Volatiles</b>									
Benzene	ND	0.02	ug/g						
Ethylbenzene	ND	0.05	ug/g						
Toluene	ND	0.05	ug/g						
m,p-Xylenes	ND	0.05	ug/g						
o-Xylene	ND	0.05	ug/g						
Xylenes, total	ND	0.05	ug/g						
Surrogate: Toluene-d8	9.01		ug/g		112	50-140			

Certificate of Analysis

Report Date: 09-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2118.2000

Project Description: OGTW2118.2000

**Method Quality Control: Duplicate**

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>General Inorganics</b>									
SAR	0.18	0.01	N/A	0.17			5.7	30	
Conductivity	145	5	uS/cm	145			0.0	5	
Cyanide, free	ND	0.03	ug/g dry	ND			NC	35	
pH	7.12	0.05	pH Units	7.13			0.1	10	
<b>Hydrocarbons</b>									
F1 PHCs (C6-C10)	ND	7	ug/g dry	ND			NC	40	
F2 PHCs (C10-C16)	ND	4	ug/g dry	ND			NC	30	
F3 PHCs (C16-C34)	ND	8	ug/g dry	ND			NC	30	
F4 PHCs (C34-C50)	ND	6	ug/g dry	ND			NC	30	
<b>Metals</b>									
Antimony	ND	1.0	ug/g dry	ND			NC	30	
Arsenic	9.5	1.0	ug/g dry	7.9			18.0	30	
Barium	93.7	1.0	ug/g dry	74.9			22.3	30	
Beryllium	0.8	0.5	ug/g dry	0.6			26.1	30	
Boron, available	ND	0.5	ug/g dry	ND			NC	35	
Boron	13.2	5.0	ug/g dry	9.8			29.9	30	
Cadmium	ND	0.5	ug/g dry	ND			NC	30	
Chromium (VI)	0.4	0.2	ug/g dry	0.3			28.6	35	
Chromium	24.6	5.0	ug/g dry	19.7			22.1	30	
Cobalt	10.8	1.0	ug/g dry	8.5			24.7	30	
Copper	17.4	5.0	ug/g dry	14.1			20.6	30	
Lead	14.0	1.0	ug/g dry	11.6			19.1	30	
Mercury	ND	0.1	ug/g dry	ND			NC	30	
Molybdenum	2.6	1.0	ug/g dry	2.0			26.1	30	
Nickel	30.0	5.0	ug/g dry	24.5			20.0	30	
Selenium	ND	1.0	ug/g dry	ND			NC	30	
Silver	ND	0.3	ug/g dry	ND			NC	30	
Thallium	ND	1.0	ug/g dry	ND			NC	30	
Uranium	ND	1.0	ug/g dry	ND			NC	30	
Vanadium	39.8	10.0	ug/g dry	32.0			21.7	30	
Zinc	61.4	20.0	ug/g dry	50.9			18.6	30	
<b>Physical Characteristics</b>									
% Solids	92.3	0.1	% by Wt.	91.5			0.9	25	
<b>Volatiles</b>									
Benzene	ND	0.02	ug/g dry	ND			NC	50	
Ethylbenzene	ND	0.05	ug/g dry	ND			NC	50	
Toluene	ND	0.05	ug/g dry	ND			NC	50	
m,p-Xylenes	ND	0.05	ug/g dry	ND			NC	50	
o-Xylene	ND	0.05	ug/g dry	ND			NC	50	
Surrogate: Toluene-d8	6.79		ug/g dry		107	50-140			

Certificate of Analysis

Report Date: 09-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2118.2000

Project Description: OGTW2118.2000

**Method Quality Control: Spike**

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>General Inorganics</b>									
Cyanide, free	0.791	0.03	ug/g	ND	79.1	70-130			
<b>Hydrocarbons</b>									
F1 PHCs (C6-C10)	58	7	ug/g	ND	82.0	80-120			
F2 PHCs (C10-C16)	94	4	ug/g	ND	99.4	60-140			
F3 PHCs (C16-C34)	213	8	ug/g	ND	101	60-140			
F4 PHCs (C34-C50)	190	6	ug/g	ND	125	60-140			
<b>Metals</b>									
Antimony	118	1.0	ug/g	ND	94.7	70-130			
Arsenic	137	1.0	ug/g	7.9	104	70-130			
Barium	197	1.0	ug/g	74.9	98.1	70-130			
Beryllium	114	0.5	ug/g	0.6	91.1	70-130			
Boron, available	4.21	0.5	ug/g	ND	84.2	70-122			
Boron	119	5.0	ug/g	9.8	87.3	70-130			
Cadmium	123	0.5	ug/g	ND	98.1	70-130			
Chromium (VI)	5.0	0.2	ug/g	0.3	77.5	70-130			
Chromium	135	5.0	ug/g	19.7	91.9	70-130			
Cobalt	125	1.0	ug/g	8.5	92.9	70-130			
Copper	137	5.0	ug/g	14.1	98.1	70-130			
Lead	126	1.0	ug/g	11.6	91.6	70-130			
Mercury	1.56	0.1	ug/g	ND	104	70-130			
Molybdenum	127	1.0	ug/g	2.0	99.8	70-130			
Nickel	147	5.0	ug/g	24.5	98.3	70-130			
Selenium	117	1.0	ug/g	ND	93.8	70-130			
Silver	119	0.3	ug/g	ND	95.6	70-130			
Thallium	118	1.0	ug/g	ND	94.2	70-130			
Uranium	113	1.0	ug/g	ND	90.5	70-130			
Vanadium	147	10.0	ug/g	32.0	92.2	70-130			
Zinc	172	20.0	ug/g	50.9	97.1	70-130			
<b>Volatiles</b>									
Benzene	7.85	0.02	ug/g	ND	97.6	60-130			
Ethylbenzene	7.67	0.05	ug/g	ND	95.4	60-130			
Toluene	7.72	0.05	ug/g	ND	96.5	60-130			
m,p-Xylenes	15.3	0.05	ug/g	ND	95.3	60-130			
o-Xylene	7.60	0.05	ug/g	ND	94.6	60-130			
<i>Surrogate: Toluene-d8</i>	15.7		ug/g		97.6	50-140			

Certificate of Analysis

Report Date: 09-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2118.2000

Project Description: OGTW2118.2000

**Qualifier Notes:**

None

**Sample Data Revisions**

None

**Work Order Revisions / Comments:**

None

**Other Report Notes:**

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

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

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

Soil results are reported on a dry weight basis when the units are denoted with 'dry'.

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

***CCME PHC additional information:***

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



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Page 1 of 3

TAT:  Regular  3 Day  
 2 Day  1 Day

Date Required: \_\_\_\_\_

Client Name: Wood E&I Solutions	Project Reference: OGTW2118.2000
Contact Name: Cindy McKee	Quote #: 20-268
Address: 11865 County Road 42, Tecumseh, Ontario, N8N 2M1	PO # OGTW2118.2000
Telephone: 519-735-2499	Email Address: cindy.mckee@woodplc.com terry.glendenning@woodplc.com
Criteria: <input type="checkbox"/> O. Reg. 153/04 (As Amended) Table <input type="checkbox"/> RSC Filing <input type="checkbox"/> O. Reg. 558/00 <input type="checkbox"/> PWQO <input type="checkbox"/> CCME <input type="checkbox"/> SUB (Storm) <input type="checkbox"/> SUB (Sanitary) Municipality: _____	<input checked="" type="checkbox"/> Other: O.Reg. 406/19

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)				Required Analyses														
Paracel Order Number:				Matrix	Air Volume	# of Containers	Sample Taken		PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	EC, SAR, pH	O.Reg. 406 Metals	O.Reg. 406 VOCs
Sample ID/Location Name							Date	Time										
1	BH-101 SS1	S	3	2-June-21	--													
2	BH-101 SS2	S	3	2-June-21	--													
3	BH-101 SS3	S	3	2-June-21	--													
4	BH-102 SS1	S	3	2-June-21	--													
5	BH-102 SS2	S	3	2-June-21	--													
6	BH-103 SS1	S	3	2-June-21	--													
7	BH-103 SS2	S	3	2-June-21	--													
8	BH-103 SS3	S	3	2-June-21	--													
9	BH-104 SS1	S	3	2-June-21	--													
10	BH-104 SS2	S	3	2-June-21	--													

Comments: Use COC sample ID if difference between COC and soil jar

Method of Delivery: Walk in

Compare to Table 1 SCS and Table 3.1

Relinquished By (Sign):	Received by Driver/Depot: <i>Pt</i>	Received at Lab: <i>AeB</i>	Verified By: <i>AeB</i>
Relinquished By (Print):	Date/Time: <i>June 3/21 /2021</i>	Date/Time: <i>4-June-21 11:33</i>	Date/Time: <i>4-June-21 11:33</i>
Date/Time: June 3, 2021	Temperature: <i>19</i> °C	Temperature: <i>31</i> °C	pH Verified [ ] By: _____



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Client Name: Wood E&I Solutions	Project Reference: OGTW2118.2000	TAT: <input checked="" type="checkbox"/> Regular <input type="checkbox"/> 3 Day
Contact Name: Cindy McKee	Quote #: 20-268	<input type="checkbox"/> 2 Day <input type="checkbox"/> 1 Day
Address: 11865 County Road 42, Tecumseh, Ontario, N8N 2M1	PO #: OGTW2118.2000	Date Required: _____
Telephone: 519-735-2499	Email Address: cindy.mckee@woodplc.com terry.glendenning@woodplc.com	
Criteria: <input type="checkbox"/> O. Reg. 153/04 (As Amended) Table <input type="checkbox"/> RSC Filing <input type="checkbox"/> O. Reg. 558/00 <input type="checkbox"/> PWQO <input type="checkbox"/> CCME <input type="checkbox"/> SUB (Storm) <input type="checkbox"/> SUB (Sanitary) Municipality: _____		<input checked="" type="checkbox"/> Other: O. Reg. 406/19

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)					Required Analyses																
Paracel Order Number:			Matrix	Air Volume	# of Containers	Sample Taken		PHCs F1-F4+B+TEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	EC, SAR, pH		O. Reg. 406 Metals	O. Reg. 406 VOCs			
						Date	Time														
1	BH-105 SS1	S	S	3	3	2-June-21	-	<input type="checkbox"/>													
2	BH-105 SS2	S	S	3	3	2-June-21	-	<input type="checkbox"/>													
3	BH-106 SS1	S	S	3	3	2-June-21	-	<input type="checkbox"/>													
4	BH-106 SS3	S	S	3	3	2-June-21	-	<input type="checkbox"/>													
5	BH-106 SS5	S	S	3	3	2-June-21	-	<input type="checkbox"/>													
6	BH-107 SS1	S	S	3	3	2-June-21	-	<input type="checkbox"/>													
7	BH-107 SS2	S	S	3	3	2-June-21	-	<input type="checkbox"/>													
8	BH-107 SS4	S	S	3	3	2-June-21	-	<input type="checkbox"/>													
9	BH-108 SS1	S	S	3	3	2-June-21	-	<input type="checkbox"/>													
10	BH-108 SS3	S	S	3	3	2-June-21	-	<input type="checkbox"/>													

Comments: Use COC sample ID if difference between COC and soil jar

Method of Delivery: *Will In*

Compare to Table 1 SCS and Table 3.1

Relinquished By (Sign): <i>[Signature]</i>	Received by Driver/Depot: <i>[Signature]</i>	Received at Lab: <i>Aer</i>	Verified By: <i>Aer</i>
Relinquished By (Print): Terry Glendenning	Date/Time: June 3/21 17:02	Date/Time: June 4/21 11:33	Date/Time: June 21/21 11:33
Date/Time: June 3, 2021	Temperature: 5.9 °C	Temperature: 3.4 °C	pH Verified [ ] By: _____



Paracel ID: 2123488



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Page 1 of 3

Client Name: Wood E&I Solutions	Project Reference: OGTW2118.2000	TAT: <input checked="" type="checkbox"/> Regular <input type="checkbox"/> 3 Day
Contact Name: Cindy McKee	Quote #: 20-268	<input type="checkbox"/> 2 Day <input type="checkbox"/> 1 Day
Address: 11865 County Road 42, Tecumseh, Ontario, N8N 2M1	PO #: OGTW2118.2000	Date Required: _____
Telephone: 519-735-2499	Email Address: cindy.mckee@woodplc.com terry.glenning@woodplc.com	
Criteria: <input type="checkbox"/> O. Reg. 153/04 (As Amended) Table <input type="checkbox"/> RSC Filing <input type="checkbox"/> O. Reg. 558/00 <input type="checkbox"/> PWQO <input type="checkbox"/> CCME <input type="checkbox"/> SUB (Storm) <input type="checkbox"/> SUB (Sanitary) Municipality: <input type="checkbox"/> Other: O. Reg. 406/19		

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)				Required Analyses										HOLD									
Paracel Order Number:				Sample Taken										HOLD									
Sample ID/Location Name				Matrix	Air Volume	# of Containers	Date		Time		PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	EC, SAR, pH	O. Reg. 406 Metals	O. Reg. 406 VOCs			
1	BH-101 SS1	S	3		3	3	2-June-21	-				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
2	BH-101 SS2	S	3	S	3	3	2-June-21	-			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	BH-101 SS3	S	3	S	3	3	2-June-21	-			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	BH-102 SS1	S	3	S	3	3	2-June-21	-			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	BH-102 SS2	S	3	S	3	3	2-June-21	-			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	BH-103 SS1	S	3	S	3	3	2-June-21	-			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	BH-103 SS2	S	3	S	3	3	2-June-21	-			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	BH-103 SS3	S	3	S	3	3	2-June-21	-			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	BH-104 SS1	S	3	S	3	3	2-June-21	-			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	BH-104 SS2	S	3	S	3	3	2-June-21	-			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments: Use COC sample ID if difference between COC and soil jar Method of Delivery:

Compare to Table 1 SCS and Table 3.1

Relinquished By (Sign):	Received by Driver/Depot:	Received at Lab: <i>AEB</i>	Verified By: <i>AES</i>
Relinquished By (Print):	Date/Time:	Date/Time: 4-June-21 11:33	Date/Time: 4-June-21 11:33
Date/Time: June 3, 2021	Temperature: 31 °C	Temperature: 31 °C	pH Verified [ ] By:

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TAT:  Regular  3 Day

2 Day  1 Day

Date Required:

Client Name: Wood E&I Solutions	Project Reference: OGTW2118.2000	
Contact Name: Cindy McKee	Quote #: 20-268	
Address: 11865 County Road 42, Tecumseh, Ontario, N8N 2M1	PO #: OGTW2118.2000	
Telephone: 519-735-2499	Email Address: cindy.mckee@woodplc.com terry.glenedenning@woodplc.com	
Criteria: <input type="checkbox"/> O. Reg. 153/04 (As Amended) Table <input type="checkbox"/> RSC Filing <input type="checkbox"/> O. Reg. 558/00 <input type="checkbox"/> PWQO <input type="checkbox"/> CCME <input type="checkbox"/> SUB (Storm) <input type="checkbox"/> SUB (Sanitary) Municipality.		<input checked="" type="checkbox"/> Other: O.Reg. 406/19

				Sample Taken		Required Analyses											
				Date	Time	PHCs F1-F4+B+TEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (IIWS)	EC, SAR, pH	O. Reg. 406 Metals	O. Reg. 406 VOCs	HOLD	
Paracel Order Number:				Matrix	Air Volume	# of Containers											
Sample ID/Location Name																	
1	BH-105 SS1	S		3	2-June-21	-	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2	BH-105 SS2	S		3	2-June-21	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	BH-106 SS1	S		3	2-June-21	-	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	BH-106 SS3	S		3	2-June-21	-	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	BH-106 SS5	S		3	2-June-21	-	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	BH-107 SS1	S		3	2-June-21	-	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	BH-107 SS2	S		3	2-June-21	-	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	BH-107 SS4	S		3	2-June-21	-	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	BH-108 SS1	S		3	2-June-21	-	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	BH-108 SS3	S		3	2-June-21	-	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: Use COC sample ID if difference between COC and soil jar

Compare to Table 1 SCS and Table 3.1

Relinquished By (Sign):	Received by Driver/Depot:	Received at Lab: <i>Aer</i>	Verified By: <i>Aer</i>
Relinquished By (Print):	Date/Time:	Date/Time: <i>4-June-21 11:33</i>	Date/Time: <i>June-4-21 11:33</i>
Date/Time: June 3, 2021	Temperature: _____ °C	Temperature: <i>31</i> °C	pH Verified [ ] By: _____



Paracel ID: 2123488



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Page 3 of 3

Client Name: Wood E&I Solutions		Project Reference: OGTW2118.2000		TAT: <input checked="" type="checkbox"/> Regular <input type="checkbox"/> 3 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 1 Day Date Required: _____
Contact Name: Cindy McKee		Quote # 20-268		
Address: 11865 County Road 42, Tecumseh, Ontario, N8N 2M1		PO # OGTW2118.2000		
Telephone: 519-735-2499		Email Address: cindy.mckee@woodplc.com terry.glenning@woodplc.com		
Criteria: <input type="checkbox"/> O. Reg. 153/04 (As Amended) Table <input type="checkbox"/> RSC Filing <input type="checkbox"/> O. Reg. 558/00 <input type="checkbox"/> PWQO <input type="checkbox"/> CCME <input type="checkbox"/> SUB (Storm) <input type="checkbox"/> SUB (Sanitary) Municipality: _____				<input checked="" type="checkbox"/> Other: O.Reg. 406/19

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)				Required Analyses																						
Paracel Order Number:				Sample Taken																						
Sample ID/Location Name				Matrix	Air Volume	# of Containers	Date	Time	PHCs F1-F4+BT/EX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	EC, SAR, pH	O.Reg. 406 Metals	O.Reg. 406 VOCs				HOLD				
1	BH-108 SS5	S	3				2-June-21	-																		
2	BH-109 SS1	S	3	S	3	3	2-June-21	-	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
3	BH-109 SS2	S	3	S	3	3	2-June-21	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
4	BH-109 SS4	S	3	S	3	3	2-June-21	-	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>													
5	BH-110 SS1	S	3	S	3	3	2-June-21	-	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>													
6	BH-110 SS2	S	3	S	3	3	2-June-21	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7	DUP-1	S	3	S	3	3	2-June-21	-	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>													
8	DUP-2	S	3	S	3	3	2-June-21	-	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>													
9	DUP-3	S	3	S	3	3	2-June-21	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
10									<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: Use COC sample ID if difference between COC and soil jar	Method of Delivery:
Compare to Table 1 SCS and Table 3.1	

Relinquished By (Sign):	Received by Driver/Depot:	Received at Lab:	Verified By:
Relinquished By (Print):	Date/Time:	Date/Time: June 21 11:33	Date/Time: June 21 11:33
Date/Time: June 3, 2021	Temperature: 31 °C	Temperature: 31 °C	pH Verified [ ] By:

## Certificate of Analysis

### Wood Environment & Infrastructure (Windsor)

11865 County Road 42  
Tecumseh, ON N8N 2M1  
Attn: Cindy McKee

Client PO: OGTW2137.2000  
Project: OGTW2137.2000  
Custody:

Report Date: 17-Jun-2021  
Order Date: 3-Jun-2021

**Order #: 2124624**

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

Paracel ID	Client ID
2124624-01	BH-101 SS2
2124624-02	BH-106 SS5
2124624-03	BH-108 SS3
2124624-04	BH-109 SS4
2124624-05	BH-110 SS1

Approved By:



Alex Enfield, MSc  
Lab Manager

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

Certificate of Analysis

Report Date: 17-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2137.2000

Project Description: OGTW2137.2000

### Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
REG 406: Leachate - ABNs	mSPLP EPA 625 - GC-MS	16-Jun-21	16-Jun-21
REG 406: Leachate - Metals by ICP-MS	mSPLP EPA 6020 - Digestion - ICP-MS	15-Jun-21	15-Jun-21
REG 406: Leachate - VOCs	mSPLP EPA 624 - P&T GC-MS	15-Jun-21	16-Jun-21
Solids, %	Gravimetric, calculation	16-Jun-21	17-Jun-21

Certificate of Analysis

Report Date: 17-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2137.2000

Project Description: OGTW2137.2000

Client ID:	BH-101 SS2	BH-106 SS5	BH-108 SS3	BH-109 SS4
Sample Date:	02-Jun-21 00:00	02-Jun-21 00:00	02-Jun-21 00:00	02-Jun-21 00:00
Sample ID:	2124624-01	2124624-02	2124624-03	2124624-04
MDL/Units	Soil	Soil	Soil	Soil

**Physical Characteristics**

% Solids	0.1 % by Wt.	86.3	87.0	88.1	87.2
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**mSPLP Leachate Metals**

Antimony	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Arsenic	1.0 ug/L	<1.0	2.2	<1.0	<1.0
Barium	1.0 ug/L	3.0	10.3	9.5	7.0
Beryllium	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Boron	10.0 ug/L	10.6	23.1	11.4	13.7
Cadmium	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chromium	1.0 ug/L	<1.0	<1.0	8.7	<1.0
Cobalt	0.5 ug/L	<0.5	0.5	<0.5	<0.5
Copper	0.5 ug/L	<0.5	1.1	0.6	<0.5
Lead	0.2 ug/L	<0.2	0.2	<0.2	<0.2
Molybdenum	0.5 ug/L	12.4	6.5	19.8	19.7
Nickel	1.0 ug/L	<1.0	<1.0	4.0	<1.0
Selenium	1.0 ug/L	<1.0	2.4	<1.0	1.7
Silver	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Thallium	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Uranium	0.2 ug/L	<0.2	0.5	0.5	0.3
Vanadium	0.5 ug/L	<0.5	9.7	1.5	0.6
Zinc	5.0 ug/L	<5.0	<5.0	<5.0	<5.0

**mSPLP Leachate VOCs**

Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylene dibromide (dibromoethane, 1,2-)	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis

Report Date: 17-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2137.2000

Project Description: OGTW2137.2000

	Client ID: Sample Date: Sample ID: MDL/Units	BH-101 SS2 02-Jun-21 00:00 2124624-01 Soil	BH-106 SS5 02-Jun-21 00:00 2124624-02 Soil	BH-108 SS3 02-Jun-21 00:00 2124624-03 Soil	BH-109 SS4 02-Jun-21 00:00 2124624-04 Soil
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
4-Bromofluorobenzene	Surrogate	91.4%	89.2%	90.8%	90.0%
Dibromofluoromethane	Surrogate	63.5%	61.8%	60.0%	61.4%
Toluene-d8	Surrogate	99.4%	99.3%	100%	99.8%

**mSPLP Leachate SVOCs**

Bis(2-Chloroethyl)ether	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Bis(2-chloroisopropyl)ether	4.0 ug/L	<4.0	<4.0	<4.0	<4.0
4-Chloroaniline	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
3,3'-Dichlorobenzidine	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Diethylphthalate	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Dimethylphthalate	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
2,4-Dinitrophenol	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
2,4-Dinitrotoluene	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
2,6-Dinitrotoluene	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Dinitrotoluene (2,4 & 2,6)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
2,4,6-Trichlorophenol	0.2 ug/L	<0.2	<0.2	<0.2	<0.2

Certificate of Analysis

Report Date: 17-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2137.2000

Project Description: OGTW2137.2000

Client ID:	BH-110 SS1	-	-	-
Sample Date:	02-Jun-21 00:00	-	-	-
Sample ID:	2124624-05	-	-	-
MDL/Units	Soil	-	-	-

**Physical Characteristics**

% Solids	0.1 % by Wt.	87.0	-	-	-
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**mSPLP Leachate Metals**

Antimony	0.5 ug/L	<0.5	-	-	-
Arsenic	1.0 ug/L	<1.0	-	-	-
Barium	1.0 ug/L	5.8	-	-	-
Beryllium	0.5 ug/L	<0.5	-	-	-
Boron	10.0 ug/L	10.7	-	-	-
Cadmium	0.2 ug/L	<0.2	-	-	-
Chromium	1.0 ug/L	<1.0	-	-	-
Cobalt	0.5 ug/L	<0.5	-	-	-
Copper	0.5 ug/L	<0.5	-	-	-
Lead	0.2 ug/L	<0.2	-	-	-
Molybdenum	0.5 ug/L	0.5	-	-	-
Nickel	1.0 ug/L	<1.0	-	-	-
Selenium	1.0 ug/L	<1.0	-	-	-
Silver	0.2 ug/L	<0.2	-	-	-
Thallium	0.5 ug/L	<0.5	-	-	-
Uranium	0.2 ug/L	<0.2	-	-	-
Vanadium	0.5 ug/L	0.7	-	-	-
Zinc	5.0 ug/L	<5.0	-	-	-

**mSPLP Leachate VOCs**

Bromomethane	0.5 ug/L	<0.5	-	-	-
Carbon Tetrachloride	0.2 ug/L	<0.2	-	-	-
Chloroform	0.5 ug/L	<0.5	-	-	-
1,2-Dichlorobenzene	0.5 ug/L	<0.5	-	-	-
Ethylene dibromide (dibromoethane, 1,2-dibromoethane)	0.2 ug/L	<0.2	-	-	-
1,4-Dichlorobenzene	0.5 ug/L	<0.5	-	-	-
1,2-Dichloroethane	0.2 ug/L	<0.2	-	-	-
1,1-Dichloroethane	0.5 ug/L	<0.5	-	-	-
1,1-Dichloroethylene	0.5 ug/L	<0.5	-	-	-
cis-1,2-Dichloroethylene	0.2 ug/L	<0.2	-	-	-
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	-	-	-
1,2-Dichloropropane	0.5 ug/L	<0.5	-	-	-
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	-	-	-
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	-	-	-

Certificate of Analysis

Report Date: 17-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2137.2000

Project Description: OGTW2137.2000

	Client ID:	BH-110 SS1	-	-	-
	Sample Date:	02-Jun-21 00:00	-	-	-
	Sample ID:	2124624-05	-	-	-
	MDL/Units	Soil	-	-	-
1,3-Dichloropropene, total	0.5 ug/L	<0.5	-	-	-
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	-	-	-
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	-	-	-
Tetrachloroethylene	0.5 ug/L	<0.5	-	-	-
1,1,2-Trichloroethane	0.5 ug/L	<0.5	-	-	-
Trichloroethylene	0.5 ug/L	<0.5	-	-	-
4-Bromofluorobenzene	Surrogate	94.5%	-	-	-
Dibromofluoromethane	Surrogate	50.0%	-	-	-
Toluene-d8	Surrogate	101%	-	-	-

**mSPLP Leachate SVOCs**

Bis(2-Chloroethyl)ether	5.0 ug/L	<5.0	-	-	-
Bis(2-chloroisopropyl)ether	4.0 ug/L	<4.0	-	-	-
4-Chloroaniline	10.0 ug/L	<10.0	-	-	-
3,3'-Dichlorobenzidine	0.5 ug/L	<0.5	-	-	-
Diethylphthalate	2.0 ug/L	<2.0	-	-	-
Dimethylphthalate	2.0 ug/L	<2.0	-	-	-
2,4-Dinitrophenol	10.0 ug/L	<10.0	-	-	-
2,4-Dinitrotoluene	5.0 ug/L	<5.0	-	-	-
2,6-Dinitrotoluene	5.0 ug/L	<5.0	-	-	-
Dinitrotoluene (2,4 & 2,6)	5.0 ug/L	<5.0	-	-	-
2,4,6-Trichlorophenol	0.2 ug/L	<0.2	-	-	-

Certificate of Analysis

Report Date: 17-Jun-2021

Client: Wood Environment & Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2137.2000

Project Description: OGTW2137.2000

### Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>mSPLP Leachate Metals</b>									
Antimony	ND	0.5	ug/L						
Arsenic	ND	1.0	ug/L						
Barium	ND	1.0	ug/L						
Beryllium	ND	0.5	ug/L						
Boron	ND	10.0	ug/L						
Cadmium	ND	0.2	ug/L						
Chromium	ND	1.0	ug/L						
Cobalt	ND	0.5	ug/L						
Copper	ND	0.5	ug/L						
Lead	ND	0.2	ug/L						
Molybdenum	ND	0.5	ug/L						
Nickel	ND	1.0	ug/L						
Selenium	ND	1.0	ug/L						
Silver	ND	0.2	ug/L						
Thallium	ND	0.5	ug/L						
Uranium	ND	0.2	ug/L						
Vanadium	ND	0.5	ug/L						
Zinc	ND	5.0	ug/L						
<b>mSPLP Leachate SVOCs</b>									
Bis(2-Chloroethyl)ether	ND	5.0	ug/L						
Bis(2-chloroisopropyl)ether	ND	4.0	ug/L						
4-Chloroaniline	ND	10.0	ug/L						
3,3'-Dichlorobenzidine	ND	0.5	ug/L						
Diethylphthalate	ND	2.0	ug/L						
Dimethylphthalate	ND	2.0	ug/L						
2,4-Dinitrophenol	ND	10.0	ug/L						
2,4-Dinitrotoluene	ND	5.0	ug/L						
2,6-Dinitrotoluene	ND	5.0	ug/L						
Dinitrotoluene (2,4 & 2,6)	ND	5.0	ug/L						
2,4,6-Trichlorophenol	ND	0.2	ug/L						
Surrogate: 2-Fluorobiphenyl	7.6		ug/L		75.8		40-150		
Surrogate: 2-Fluorophenol	4.3		ug/L		43.4		40-150		
Surrogate: Nitrobenzene-d5	8.8		ug/L		87.8		40-150		
Surrogate: Phenol-d6	2.6		ug/L		26.3		40-150		S-GC
Surrogate: Terphenyl-d14	7.2		ug/L		71.6		40-150		
<b>mSPLP Leachate VOCs</b>									
Bromomethane	ND	0.5	ug/L						
Carbon Tetrachloride	ND	0.2	ug/L						
Chloroform	ND	0.5	ug/L						
1,2-Dichlorobenzene	ND	0.5	ug/L						
Ethylene dibromide (dibromoethane, 1,2-	ND	0.2	ug/L						
1,4-Dichlorobenzene	ND	0.5	ug/L						
1,2-Dichloroethane	ND	0.2	ug/L						
1,1-Dichloroethane	ND	0.5	ug/L						
1,1-Dichloroethylene	ND	0.5	ug/L						
cis-1,2-Dichloroethylene	ND	0.2	ug/L						
trans-1,2-Dichloroethylene	ND	0.5	ug/L						
1,2-Dichloropropane	ND	0.5	ug/L						
cis-1,3-Dichloropropylene	ND	0.5	ug/L						
trans-1,3-Dichloropropylene	ND	0.5	ug/L						
1,3-Dichloropropene, total	ND	0.5	ug/L						
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L						
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L						
Tetrachloroethylene	ND	0.5	ug/L						
1,1,2-Trichloroethane	ND	0.5	ug/L						
Trichloroethylene	ND	0.5	ug/L						
Surrogate: 4-Bromofluorobenzene	78.1		ug/L		97.2		50-140		
Surrogate: Dibromofluoromethane	44.4		ug/L		55.1		50-140		

Certificate of Analysis

Report Date: 17-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2137.2000

Project Description: OGTW2137.2000

**Method Quality Control: Blank**

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Surrogate: Toluene-d8	81.0		ug/L		100	50-140			

Certificate of Analysis

Report Date: 17-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2137.2000

Project Description: OGTW2137.2000

**Method Quality Control: Duplicate**

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>mSPLP Leachate Metals</b>									
Antimony	ND	0.5	ug/L	ND			NC	50	
Arsenic	ND	1.0	ug/L	ND			NC	50	
Barium	8.94	1.0	ug/L	8.59			4.0	50	
Beryllium	ND	0.5	ug/L	ND			NC	50	
Boron	17.3	10.0	ug/L	ND			NC	50	
Cadmium	ND	0.2	ug/L	ND			NC	50	
Chromium	1.56	1.0	ug/L	1.35			14.3	50	
Cobalt	0.742	0.5	ug/L	ND			NC	50	
Copper	1.27	0.5	ug/L	1.02			22.4	50	
Lead	ND	0.2	ug/L	ND			NC	50	
Molybdenum	1.60	0.5	ug/L	1.21			27.1	50	
Nickel	1.09	1.0	ug/L	ND			NC	50	
Selenium	ND	1.0	ug/L	ND			NC	50	
Silver	ND	0.2	ug/L	ND			NC	50	
Thallium	ND	0.5	ug/L	ND			NC	50	
Uranium	0.375	0.2	ug/L	0.301			22.0	50	
Vanadium	3.46	0.5	ug/L	3.19			8.1	50	
Zinc	ND	5.0	ug/L	ND			NC	50	
<b>Physical Characteristics</b>									
% Solids	83.3	0.1	% by Wt.	82.2			1.3	25	

Certificate of Analysis

Report Date: 17-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2137.2000

Project Description: OGTW2137.2000

**Method Quality Control: Spike**

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>mSPLP Leachate Metals</b>									
Antimony	44.9	0.5	ug/L	ND	89.7	70-130			
Arsenic	51.4	1.0	ug/L	ND	103	70-130			
Barium	55.8	1.0	ug/L	8.59	94.5	70-130			
Beryllium	44.8	0.5	ug/L	ND	89.6	70-130			
Boron	51.2	10.0	ug/L	ND	102	70-130			
Cadmium	47.1	0.2	ug/L	ND	94.1	70-130			
Chromium	48.3	1.0	ug/L	1.35	93.8	70-130			
Cobalt	48.6	0.5	ug/L	ND	97.1	70-130			
Copper	50.1	0.5	ug/L	1.02	98.1	70-130			
Lead	38.6	0.2	ug/L	ND	77.3	70-130			
Molybdenum	54.8	0.5	ug/L	1.21	107	70-130			
Nickel	48.5	1.0	ug/L	ND	97.0	70-130			
Selenium	47.7	1.0	ug/L	ND	95.4	70-130			
Silver	37.7	0.2	ug/L	ND	75.5	70-130			
Thallium	38.7	0.5	ug/L	ND	77.5	70-130			
Uranium	48.2	0.2	ug/L	0.301	95.9	70-130			
Vanadium	52.1	0.5	ug/L	3.19	97.8	70-130			
Zinc	47.5	5.0	ug/L	ND	95.0	70-130			
<b>mSPLP Leachate SVOCs</b>									
Bis(2-Chloroethyl)ether	9.2	5.0	ug/L	ND	92.5	50-140			
Bis(2-chloroisopropyl)ether	9.0	4.0	ug/L	ND	90.5	50-140			
4-Chloroaniline	ND	10.0	ug/L	ND		30-130			QS-01
3,3'-Dichlorobenzidine	5.7	0.5	ug/L	ND	56.7	30-130			
Diethylphthalate	9.1	2.0	ug/L	ND	91.3	50-140			
Dimethylphthalate	8.8	2.0	ug/L	ND	87.6	50-140			
2,4-Dinitrophenol	174	10.0	ug/L	ND	86.9	30-130			
2,4-Dinitrotoluene	9.0	5.0	ug/L	ND	89.6	50-140			
2,6-Dinitrotoluene	9.3	5.0	ug/L	ND	92.5	50-140			
2,4,6-Trichlorophenol	9.6	0.2	ug/L	ND	96.0	50-140			
Surrogate: 2-Fluorobiphenyl	7.5		ug/L		75.1	40-150			
Surrogate: 2-Fluorophenol	3.9		ug/L		38.6	40-150			S-GC
Surrogate: Nitrobenzene-d5	8.2		ug/L		82.2	40-150			
Surrogate: Phenol-d6	2.4		ug/L		23.6	40-150			S-GC
Surrogate: Terphenyl-d14	6.7		ug/L		66.7	40-150			
<b>mSPLP Leachate VOCs</b>									
Bromomethane	36.0	0.5	ug/L	ND	90.0	50-140			
Carbon Tetrachloride	32.4	0.2	ug/L	ND	80.9	50-140			
Chloroform	35.2	0.5	ug/L	ND	87.7	50-140			
1,2-Dichlorobenzene	35.8	0.5	ug/L	ND	89.6	50-140			
Ethylene dibromide (dibromoethane, 1,2-	35.0	0.2	ug/L	ND	87.1	50-140			
1,4-Dichlorobenzene	35.4	0.5	ug/L	ND	87.9	50-140			
1,2-Dichloroethane	32.0	0.2	ug/L	ND	79.5	50-140			
1,1-Dichloroethane	35.7	0.5	ug/L	ND	89.3	50-140			
1,1-Dichloroethylene	33.9	0.5	ug/L	ND	84.8	50-140			
cis-1,2-Dichloroethylene	32.8	0.2	ug/L	ND	81.6	50-140			
trans-1,2-Dichloroethylene	32.1	0.5	ug/L	ND	79.9	50-140			
1,2-Dichloropropane	35.6	0.5	ug/L	ND	88.9	50-140			
cis-1,3-Dichloropropylene	33.6	0.5	ug/L	ND	84.0	50-140			

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Certificate of Analysis

Report Date: 17-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2137.2000

**Project Description: OGTW2137.2000**
**Method Quality Control: Spike**

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
trans-1,3-Dichloropropylene	33.7	0.5	ug/L	ND	83.9	50-140			
1,1,1,2-Tetrachloroethane	37.3	0.5	ug/L	ND	93.3	50-140			
1,1,2,2-Tetrachloroethane	35.8	0.5	ug/L	ND	89.0	50-140			
Tetrachloroethylene	35.6	0.5	ug/L	ND	88.6	50-140			
1,1,2-Trichloroethane	36.2	0.5	ug/L	ND	90.0	50-140			
Trichloroethylene	36.5	0.5	ug/L	ND	90.7	50-140			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>82.6</i>		<i>ug/L</i>		<i>103</i>	<i>50-140</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>79.0</i>		<i>ug/L</i>		<i>98.0</i>	<i>50-140</i>			
<i>Surrogate: Toluene-d8</i>	<i>79.8</i>		<i>ug/L</i>		<i>99.0</i>	<i>50-140</i>			

Certificate of Analysis

Report Date: 17-Jun-2021

Client: Wood Environment &amp; Infrastructure (Windsor)

Order Date: 3-Jun-2021

Client PO: OGTW2137.2000

Project Description: OGTW2137.2000

**Qualifier Notes:*****QC Qualifiers :***

QS-01 : Spike Level is less than the reporting MDL, however, recovery was acceptable.

S-GC : Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

**Sample Data Revisions**

None

**Work Order Revisions / Comments:**

None

**Other Report Notes:**

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

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

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

Soil results are reported on a dry weight basis when the units are denoted with 'dry'.

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

**Paracel ID: 2124624**



OSHA	Chain of Custody
FRTS Laboratory	(Lab Use Only)
Printed Date: 07/15/2021	Entered Date: 07/15/2021
Page 1 of 3	

Customer Name: Vlado ESU Solutions	Project Reference: OGTW2137-2000
Customer Name: Greg Madsen	Order # 20-Reg
Address: 11850 County Road 42, Tecumseh, Ontario, N8N 2A1	PO #: OGTW2137-2000
Telephone: 519-735-2699	Email Address: Greg.madsen@vlosolutions.com
Comments: <input type="checkbox"/> Reg 2135.04 (As Assembled) Table <input type="checkbox"/> RSC Filing <input type="checkbox"/> O. Reg. SSSCs <input type="checkbox"/> PAHO <input type="checkbox"/> ICOME <input type="checkbox"/> SLB (Summary) <input type="checkbox"/> Municipality <input checked="" type="checkbox"/> Other O. Reg. 406-19	

Paracel Order Number: <b>2124624</b>	Required Analyses							
Sample ID/Location Name 1 BH-021 SSS1	Matrix	Air Volume	# of Containers	Sample Taken	PHCs F1-F4+BTEN VOCs PAHs Metals by ICP Hg CrVI B (IHWs)	EC, SAR, pH	O. Reg. 406 Metals O. Reg. 406 VOCs	D SPLP VOC, ABN, ICP Metals
	Date			Time				
2 BH-021 SSS2	\$	3	2-June-21	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3 BH-107 SSS3	\$	3	2-June-21	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4 BH-021 SSS1	\$	3	2-June-21	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5 BH-021 SSS2	\$	3	2-June-21	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6 BH-031 SSS1	\$	3	2-June-21	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
7 BH-031 SSS2	\$	3	2-June-21	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
8 BH-021 SSS3	\$	3	2-June-21	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9 BH-024 SSS1	\$	3	2-June-21	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
10 BH-024 SSS2	\$	3	2-June-21	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Comments: Use COC sample ID if difference between COC and soil jar

Compare to Table 1 SCS and Table 3.1

Received (In-Site)	Received by Direct Deposit:	Received as Job:	Verified By:
Refrigerated Bin (Prelim)	Date/Time:	Disc 1 Date - J-SCE-21 11:33	Date/Time: 4-J-SCE-21 11:30
Date/TIME: June 3, 2021	Temperature: °C	Temperature: 3.1 °C	Initial Verified By:

OPARA



Paracel ID: 2124624

**PARACE**

**Paracel ID: 2124624**



Chain of Custody  
(Click to see chain)

Client Name: Woods E&I Solutions	Parcel Reference: OGTVW2137.2000	Page: 2 of 2
Customer Name: OGTV Microsite	Issue #: 20-058	Lab:
Address: 7165 Country Road 42, Tewksbury, Ontario N0N 2A1	PO# OGTVW2137.2000	<input type="checkbox"/> Regular
Telephone: 519-735-2459	Email Address: <a href="mailto:OGTVMicrosite@wesolutions.com">OGTVMicrosite@wesolutions.com</a>	<input type="checkbox"/> 2 Day
Comments: <input type="checkbox"/> Reg 19(1)(b) LSO Analytical Table <input type="checkbox"/> Non Fungi <input type="checkbox"/> O. Reg. SS/SSO <input type="checkbox"/> PA/QC <input type="checkbox"/> VME <input type="checkbox"/> SRI (Soil) <input type="checkbox"/> NLB (Sampling Municipality: _____)		<input type="checkbox"/> 1 Day
Matrix: 1 part Soil/Soil + 40% (diluted Water) SW (Surface Water) SS (Soil Surface Sealer P/Paste) A/Air O (Other)		Other Requested _____

Paracel Order Number:

Sample ID/Location Name	Matrix	Air Volume	# of Containers	Required Analyses												VOCs			PAHs			Metals by ICP			Hg	Cr(VI)	B(HWS)	EC, SAR, pH	O Reg. 406 Metals	O Reg. 406 VOCs	SPL/P VOC, ABN, ICP	LD
				Date	Time	Sample Taken			PHCs F1-F4+BTEN			VOCs			PAHs			Metals by ICP			Hg	Cr(VI)	B(HWS)	EC, SAR, pH	O Reg. 406 Metals	O Reg. 406 VOCs	SPL/P VOC, ABN, ICP	LD				
1 BB-105-SS1	Soil	5	2	2-June-21	-	<input type="checkbox"/>																										
2 BB-105-SS1	Soil	5	2	2-June-21	-	<input type="checkbox"/>																										
3 BB-105-SS2	Soil	5	3	2-June-21	-	<input type="checkbox"/>																										
4 BB-105-SS4	Soil	5	3	2-June-21	-	<input type="checkbox"/>																										
5 BB-105-SS1	Soil	5	3	2-June-21	-	<input type="checkbox"/>																										
6 BB-105-SS2	Soil	5	3	2-June-21	-	<input type="checkbox"/>																										
7 DDP-1	Soil	5	3	2-June-21	-	<input type="checkbox"/>																										
8 DDP-2	Soil	5	3	2-June-21	-	<input type="checkbox"/>																										
9 DDP-3	Soil	5	3	2-June-21	-	<input type="checkbox"/>																										
10 DDP-3	Soil	5	3	2-June-21	-	<input type="checkbox"/>																										

Comments: Use COC sample ID if difference between COC and soil jar

Method of Delivery

Received by Driver/Agent	Received at Lab	Verified By:
Reinhardt B (Pm)	4ec	4ec
Date/Time: June 2, 2021	Date/Time: 2021-06-02 11:33	Date/Time: June, 21 11:33
Temperature: °C	Temperature: 34 °C	Temp Verified 1 B.

## Appendix C

### *Data Validation*

Appendix C: Soil Data Validation  
 Soil Characterization Program - 0 Wyandotte Street East, Windsor, Ontario  
 Lankor Horizons Inc.

Parameter	Units	Inferred Laboratory Detection Limit	Soil Field Duplicate BH-102 SS1 & DUP-1			Soil Field Duplicate BH-105 SS1 & DUP-2		
			Result 1	Result 2	RPD %	Result 1	Result 2	RPD %
% Solids	% by Wt.	0.1	87	87	0.0	87.8	83.1	5.5
pH (Lab)	pH Units	0.05	7.41	7.35	0.8	7.44	7.33	1.5
Cyanide, free	ug/g dry	0.03	ND (0.03)	ND (0.03)	-	ND (0.03)	ND (0.03)	-
Electrical Conductivity (Lab)	uS/cm	5	147	163	10.3	160	190	17.1
Sodium Absorption Ratio	N/A	0.01	0.18	0.17	5.7	0.2	0.22	9.5
Benzene	ug/g dry	0.02	ND (0.02)	ND (0.02)	-	ND (0.02)	ND (0.02)	-
Toluene	ug/g dry	0.05	ND (0.05)	ND (0.05)	-	ND (0.05)	ND (0.05)	-
Ethylbenzene	ug/g dry	0.05	ND (0.05)	ND (0.05)	-	ND (0.05)	ND (0.05)	-
Xylene (m & p)	ug/g dry	0.05	ND (0.05)	ND (0.05)	-	ND (0.05)	ND (0.05)	-
Xylene (o)	ug/g dry	0.05	ND (0.05)	ND (0.05)	-	ND (0.05)	ND (0.05)	-
Xylene Total	ug/g dry	0.05	ND (0.05)	ND (0.05)	-	ND (0.05)	ND (0.05)	-
PHC F1 (C6-C10)	ug/g dry	7	ND (7)	ND (7)	-	ND (7)	ND (7)	-
PHC F2 (>C10-C16)	ug/g dry	4	ND (4)	ND (4)	-	ND (4)	ND (4)	-
PHC F3 (>C16-C34)	ug/g dry	8	ND (8)	ND (8)	-	ND (8)	ND (8)	-
PHC F4 (>C34-C50)	ug/g dry	6	ND (6)	ND (6)	-	ND (6)	ND (6)	-
Antimony	ug/g dry	1	ND (1.0)	ND (1.0)	-	ND (1.0)	ND (1.0)	-
Arsenic	ug/g dry	1	6.5	9.6	38.5	7.1	7.2	1.4
Barium	ug/g dry	1	50.1	74.1	38.6	53.6	75.7	34.2
Beryllium	ug/g dry	0.5	ND (0.5)	0.6	-	0.5	0.7	33.3
Boron	ug/g dry	5	12.4	12.5	0.8	10.7	11.2	4.6
Cadmium	ug/g dry	0.5	ND (0.5)	ND (0.5)	-	ND (0.5)	ND (0.5)	-
Chromium (Hexavalent)	ug/g dry	0.2	ND (0.2)	ND (0.2)	-	ND (0.2)	0.3	-
Chromium (Total, III+VI)	ug/g dry	5	16.1	18.5	13.9	14.9	21.6	36.7
Cobalt	ug/g dry	1	7	10.2	37.2	6.7	7.6	12.6
Copper	ug/g dry	5	14	17	19.4	13.8	15.6	12.2
Lead	ug/g dry	1	8.3	10.3	21.5	7.5	11.5	42.1
Mercury	ug/g dry	0.1	ND (0.1)	ND (0.1)	-	ND (0.1)	ND (0.1)	-
Molybdenum	ug/g dry	1	2	2.6	26.1	1.7	1.2	34.5
Nickel	ug/g dry	5	20.7	27.6	28.6	19.5	22.9	16.0
Selenium	ug/g dry	1	ND (1.0)	ND (1.0)	-	ND (1.0)	ND (1.0)	-
Silver	ug/g dry	0.3	ND (0.3)	ND (0.3)	-	ND (0.3)	ND (0.3)	-
Thallium	ug/g dry	1	ND (1.0)	ND (1.0)	-	ND (1.0)	ND (1.0)	-
Uranium	ug/g dry	1	ND (1.0)	ND (1.0)	-	ND (1.0)	ND (1.0)	-
Vanadium	ug/g dry	10	26.2	32.4	21.2	24.8	35	-
Zinc	ug/g dry	20	38.1	47.4	21.8	36.5	47.6	-

Notes:

1. Red fill and text indicate a calculated RPD of greater than 50% (the Dillon Quality Objective target), where applicable.
2. Laboratory detection limits were inferred from the lowest significant digit in the analyzed parameter.
3. 'ND' denotes 'no data', as the result was below the laboratory's method detection limit.
4. Soil sampling and lab submission was completed by Wood.