



T. HARRIS
ENVIRONMENTAL MANAGEMENT
since 1979

93 Skyway Avenue, Suite 101
Toronto, Ontario M9W 6N6
Tel. (416) 679-8914
Fax. (416) 679-8915
1-888-ASK-THEM

**LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT
SUB-SURFACE SOIL AND GROUNDWATER
SAMPLING AND ANALYSIS**

Vacant Lands

**Pin #s: 442530718 & 442530514
Gananoque, Ontario**

May 14, 2021

THEM Project # T21-17975-01

Submitted to:

**Horizon Legacy
300 – 60 St. Clair Avenue E.
Toronto, Ontario
M4T 1N5**

**Prepared By:
T. Harris Environmental Management Inc.
Per:**

**Alexis Teohari, B.Sc., G.I.T.
Sr. Environmental/OH&S Technician**

**Dennis Hsu, M.A.Sc., P.Eng.
Project Manager**



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- APPENDIX II – Laboratory Certificates of Analysis
- APPENDIX III – Borehole Logs

EXECUTIVE SUMMARY

In May 2021, T. Harris Environmental Management Inc. (THEM) was retained by Mr. Frank Belerique, of Horizon Legacy, to conduct a limited Phase II Environmental Site Assessment (ESA) for the vacant lands with the pin numbers 442530718 & 442530514 in Gananoque, Ontario, hereafter referred to as the 'Site'. The Site consists of two vacant lands, described as 'Main Lot' (Pin# 442530718) and 'Bonus Lot' (Pin # 442530514). Mr. Frank Belerique commissioned this assessment for due diligence purposes. The Site is located immediately south of Fourth Street, in an agricultural/residential setting. The Main Lot is a U-shaped polygon consisting of approximately 89,308 square feet (8,296.9 square meters) in area. The bonus lot is a trapezoidal in shape and consists of approximately 6,938.2 square feet (644.58 square meters). Both lots are currently vacant and are covered with moderate vegetation such as tall grasses and low trees.

This Limited Phase II ESA was conducted to reduce uncertainties associated with the sub-surface conditions at the Site. The scope of this Limited Phase II ESA was based on the following reports:

- Phase I Environmental Site Assessment – Two Vacant Lands in Gananoque, Ontario; prepared by THEM, April 15, 2021, THEM # T21-17975-00.

Upon review of the above-noted report, the scope of work focused on the following potentially contaminating activities (PCAs) identified at the Site and surrounding properties.

Table A1: PCA Table Correspond to Boreholes/Monitoring Well Delineation

Observed Activity – Impact to the Site	Location	Description and Comments	Possible Contaminant of Concerns	Source/ Section	Environmental Risk and Potentially Contaminating Activity Code*	Delineation Borehole
Railyards, Tracks and Spurs	Immediately east of Bonus Lot	Historical presence of railway before 1989 Impact to the Bonus Lot, negligible impact anticipated at the main lot.	Metals & Inorganics PAHs	Aerial Photographs	46 High for Bonus Lot	BHMW3 BH4
Farmland	303-301 Third Street, immediately south of Main Lot	Suspected historical application of pesticides	OC/Pesticides	Aerial Photographs ERIS	40 High for southern section of Main Lot	BHMW 1 BH2

* - Potentially contaminating activities code referenced from Table 3 of O. Reg. 153/04: Records of Site Condition

The Limited Phase II ESA was conducted to address the uncertainty from the historical railway adjacent to the Bonus Lot, and the suspected use of pesticides adjacent to the Main Lot, associated with sub-surface conditions. Based on the information obtained during this Limited Phase II ESA, THEM concludes the following.

It should be noted that detectable level of various parameters was observed in the soil throughout the Site in low level including numerous metals (arsenic, barium, beryllium, boron, chromium, cobalt, copper, lead, mercury, nickel, vanadium, and zinc) at BHMW3-2 and 4-2. The parameters for PAHs analyzed in the Bonus Lot were found to be below the level of detection limits for the laboratory methods used. The parameters for OC/Pesticides in BHMW1-4, BH2-3, BH2-5, and BH2-6 were all found to be below the level of detection limits for the laboratory methods used.

Groundwater samples collected from the two newly installed groundwater monitoring wells, BHMW1, BHMW3, were analyzed for OC/Pesticides, Metals & Inorganics, and PAHs. Groundwater samples were noted to be fairly turbid, however no odour or sheen was noted at the time of sampling. Detectable levels of various parameters were



observed in the groundwater throughout the Site in low level including numerous metals (antimony, arsenic, barium, boron, chromium, cobalt, copper, lead, molybdenum, nickel, selenium, thallium, uranium, vanadium, zinc) at BHMW3. In BHMW1, the parameters analyzed, OC/Pesticides, were all found to be below the level of detection limits for the laboratory methods used.

Based on the findings of this assessment as presented in this report, no significant impacts to the soil or groundwater were found at the locations tested at the Site. No further delineation of the activities to the Site is recommended at this time.

When the groundwater monitoring wells are not to be used for additional groundwater monitoring, they should be decommissioned by a licensed well installer as outlined in R.R.O. 1990, Regulation 903: Wells.

This Executive Summary represents the highlights of findings obtained during our investigation. The entire report must be reviewed before making any decisions regarding the evaluation of potential environmental liabilities associated with the Site.



1.0 INTRODUCTION

In May 2021, T. Harris Environmental Management Inc. (THEM) was retained by Mr. Frank Belerique, of Horizon Legacy, to conduct a limited Phase II Environmental Site Assessment (ESA) for the vacant lands with the pin numbers 442530718 & 442530514 in Gananoque, Ontario, hereafter referred to as the 'Site'. The Site consists of two vacant lands, described as 'Main Lot' (Pin# 442530718) and 'Bonus Lot' (Pin # 442530514). Mr. Frank Belerique commissioned this assessment for due diligence purposes. The Site is located immediately south of Fourth Street, in an agricultural/residential setting. The Main Lot is a U-shaped polygon consisting of approximately 89,308 square feet (8,296.9 square meters) in area. The bonus lot is a trapezoidal in shape and consists of approximately 6,938.2 square feet (644.58 square meters). Both lots are currently vacant and are covered with moderate vegetation such as tall grasses and low trees.

The Site plan in *Appendix I* illustrates the location of the Site and the Site boundary.

1.1 Background

This Limited Phase II ESA was conducted to reduce uncertainties associated with the sub-surface conditions at the Site. The scope of this Limited Phase II ESA was based on the following report:

- Phase I Environmental Site Assessment – Two Vacant Lands in Gananoque, Ontario; prepared by THEM, April 15, 2021, THEM # T21-17975-00.

Upon review of the above-noted report, the scope of work focused on the following potentially contaminating activities (PCAs) identified at the Site and surrounding properties.



Table A1: PCA Table Correspond to Boreholes/Monitoring Well Delineation

Observed Activity – Impact to the Site	Location	Description and Comments	Possible Contaminant of Concerns	Source/ Section	Environmental Risk and Potentially Contaminating Activity Code*	Delineation Borehole
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Farmland	303-301 Third Street, immediately south of Main Lot	Suspected historical application of pesticides	OC/Pesticides	Aerial Photographs ERIS	40 High for southern section of Main Lot	BHMW 1 BH2

* - Potentially contaminating activities code referenced from Table 3 of O. Reg. 153/04: Records of Site Condition

1.2 Scope of Work

Based on the Phase I report prepared by THEM dated April 15, 2021, there were historic activities that contribute to environmental uncertainties for each parcel of land. The scope of the Phase II was to address the main concerns for each parcel of land.

Four (4) boreholes (two for each parcel of land) were advanced to investigate the potential impact from each potentially contaminating activity with ‘high’ risk for the respective vacant land. In addition, two (2) groundwater monitoring wells (one for each parcel of land) were installed in selected borehole locations.

For Bonus Lot, testing of the soil and groundwater was focused on analysis of polycyclic aromatic hydrocarbons (PAHs) and Metals & Inorganics in order to address the former railway immediately to the east of the Site.

For Main Lot, testing of the soil and groundwater was focused on analysis of organochlorine pesticides (OC pesticides) to address the historical storage of pesticides and suspected farmland found to the south.



The locations of the boreholes/monitoring wells are indicated on Drawing #2 & #4 – Borehole and Monitoring Well Locations Plan attached in *Appendix I*. A report was then compiled summarizing methodology and presenting analytical results with discussion of findings.

1.3 Site Description

The Site is located immediately south of Fourth Street, in an agricultural/residential setting. The Main Lot is a U-shaped polygon consisting of approximately 89,308 square feet (8,296.9 square meters) in area. The bonus lot is a trapezoidal in shape and consists of approximately 6,938.2 square feet (644.58 square meters). Both lots are currently vacant and are covered with moderate vegetation such as tall grasses and low trees.

1.4 Regional Geology

Geological information from several sources was reviewed. Bedrock information was obtained from Ontario Geological Survey of 1991. Soil information was obtained from the Ministry of Natural Resources – Ontario Geological Survey Map P. 2715, Physiography of Southern Ontario.

The underlying bedrock in the area is described as '2b Bedrock – drift complex in Precambrian terrain; primarily stratified drift cover.

1.5 Topography, Hydrology and Hydrogeology

The topography of the Site is predominantly flat, with a significant depression found in Bonus Lot (approximately 45° slope) found on the east side. Bonus Lot and the north side of Main Lot consist of wetland with some minor changes in surface level.



Gananoque River is located approximately 250 m northeast of the Site. Surface water flows in a southeast direction towards the St. Lawrence River.

A review of the MECP well records indicated that eighteen (18) water wells are located on the Site and within the 0.25 km radius of the Site. The composition of the soil was fill material, clayey silt, and clay down to approximately 25 feet below grade.

1.6 Regulatory Framework

The generic site condition standards for soil and groundwater quality criteria are referenced in Ontario Regulation 153/04 that was enacted under the Ontario Environmental Protection Act. The standards were developed to provide protection against the potential for adverse effects to human health, ecological health, and the natural environment. Discrete criteria applicable to agricultural, residential/parkland/institutional, and industrial/commercial/community property uses are specified as generic soil standards in the publication entitled Soil, Ground Water and Sediment Standards for Use Under part XV.1 of the Environmental Protection Act, dated April 15, 2011. These Standards provide for two depths of soil restoration for either potable (Tables 2 and 4) or non-potable (Tables 3 and 5) groundwater usage. Tables 2 and 3 involve the use of the same generic Standards to the full extent of the contamination (full depth), if present. When the contamination is present deeper than 1.5 m below the surface (i.e. subsurface soil), a stratified restoration strategy using different generic Standards can be used (Tables 4 and 5). The Ministry of Environment (MOE) suggests, and also has the power to enforce, registration on land title of the nature and extent of contamination if the stratified approach is used.

In order to utilize the generic or stratified Standards, the Regulation stipulates that the site must not be considered sensitive according to the conditions listed in the Regulation. These conditions, including but not limited to specific soil pH values, shallow bedrock, and distance to a water body or area of natural significance, are not applicable to the Site.



Sampling results were compared to the values presented in Table 3 of the regulatory Standards, as groundwater is not considered to be used as a potable source of water in the vicinity of the Site. As the site under investigation is considered industrial, sample results were compared to the standards specified for residential/parkland/institutional (RPI) property use.

The texture (particle size) of the subsurface material can influence the numerical value of the Standards and different values are provided for coarse, and medium and fine textured soils for some parameters. Medium and fine textured soils typically have more liberal criteria. The application of the medium and fine textured criteria would require laboratory analysis for soil particle size distribution to confirm that the soil meets the fine to medium texture criteria.

Based on the Site conditions as outlined above, the standards deemed to be applicable to the Site are Table 3, Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition, Residential/Parkland/Institutional property use, coarse-textured soil (the “applicable standards”).

2.0 METHODOLOGY

2.1 Drilling Investigation

The borehole drilling program was conducted on May 7 and 10, 2021, under the supervision of THEM. Canadian Environmental Drilling of Iverary, Ontario, advanced two (2) boreholes, BHMW1, BH2, using CME 55 LC, in the Main Lot. In addition, two (2) boreholes, BHMW3, BH4 were advanced using Geoprobe 6620DT in the Bonus Lot. Prior to conducting the sub-surface investigation, underground services were staked out using the services of Ontario One-Call. Stakeout locations were confirmed and double-checked by using an independent contractor, RW Electrics.



2.2 Soil Sampling

Soil samples were visually logged for grain size, colour, density and moisture content, generally following the *Unified Soil Classification* system. The presence of contaminant staining or obvious odours was indicated where observed.

CME 55 LC Split Spoon system was used for BHMW1 and BH2, in the southern section of the Main Lot. For these two boreholes, the split spoon system collects a core of soil from the borehole in 0.6 metres (2 ft) lengths. This system effectively seals the soil sample within a clear core tube liner and minimizes the possibility of cross-contamination. All drilling equipment was cleaned prior to arrival on site and a clean, new, sample tube was used for each sample. Each clear tube lining containing the sample was cut into halves to allow access to the soil sample. Soil samples were manually collected from the sample tubing using a stainless-steel knife or trowel. The knife/trowel was cleaned prior to use on Site and manually cleaned between soil samples. New, disposable medical grade gloves were used during soil sampling to minimize the potential for cross-contamination between samples.

GeoProbe 6620 Direct Push System was used for BHMW3 and BH4, in the eastern section of the Bonus Lot. For these boreholes, the direct push system collects a continuous core of soil from the borehole in 1.5 metres (5 ft) lengths of clear, liner tubing. This system effectively seals the soil sample and minimizes the possibility of cross-contamination. The sample core from this machine is taken from within the outer extension, which is driven continuously and remains in place, acting as a casing and preventing downward migration of soil and groundwater. All drilling equipment was cleaned prior to arrival on site and a clean, new, sample tube was used for each sample. Each clear tube lining containing the sample was cut into halves to allow access to the soil sample. Soil samples were manually collected from the sample tubing using a stainless-steel knife or trowel. The knife/trowel was cleaned prior to use on Site and manually cleaned between soil samples. New, disposable medical grade gloves



were used during soil sampling to minimize the potential for cross-contamination between samples.

Following logging and sample collection, a portion of each sample was placed into a sealable polyethylene bag for headspace organic vapour analysis with a photoionization detector (PID). Each sample was allowed to equilibrate at approximately room temperature (20 degrees Celsius) before the concentration of organic vapours in the headspace in the sample bag was measured. The headspace was measured using a RKI GX-6000 air monitor, calibrated to isobutylene and adjusted to a response factor of 0.5 (indicative of higher carbon chain compounds such as VOCs) with a 10.6 eV lamp rating. Organic vapour measurements from the field screening were recorded in parts per billion (ppb).

Based on the results of field observations, sample locations, and field screening results, selected representative samples were submitted for laboratory testing. Soil samples were submitted to ALS Environmental, of Mississauga, Ontario, with corresponding chain-of-custody documentation. All samples were kept cool, on ice, until arrival at the laboratory. The laboratory results were compared to the applicable Standard specified in the *“Soil, Ground Water and Sediment Standards for Use Under part XV.1 of the Environmental Protection Act”* dated April 15, 2011 (as referenced in Ontario Regulation 153/04, as amended).

2.3 Groundwater Investigation

Two (2) boreholes, BHMW1 (Main Lot) and BHMW3 (Bonus Lot) were instrumented as groundwater monitoring wells. The purpose of the installation of these monitoring wells was to allow the collection of groundwater samples for chemical analyses.



2.3.1 Monitoring Well Installation

Monitoring wells were constructed with threaded PVC pipe (riser) and slotted well screens. Approximately 3.0 m of the 2.0-inch-diameter well screen was used in the exterior monitoring wells to allow for the measurement of groundwater levels. Commercially available #2 silica sand pack was used as a filter pack. A Wyoming bentonite seal (pellets) was placed as a surface seal grout in the well to minimize the possibility of surface water from entering the well screen by way of the borehole annulus. Following the installation of the monitoring well, a monument casing was installed to protect the PVC tubing. A dedicated sampling mechanism comprised of a disposable bailer was installed in the monitoring wells for the purpose of purging and groundwater sampling.

2.3.2 Groundwater Sampling and Measurements

After water level in the wells was allowed to stabilize, the depth of the groundwater within the newly installed monitoring wells was measured using an electronic water level meter. The monitoring wells were purged before samples were collected. Water was observed and any odours, staining or sheens were noted when observed. Details of groundwater sampling, measurements, and dates of sampling are presented in tabular form in section 3.2.

The monitoring wells, BHMW1, BHMW3 were purged for approximately three casing volumes before collection of the water samples for chemical analyses to ensure an influx of fresh formation water for sampling. Water samples were collected and placed in sterile containers supplied by the analyzing laboratory. Appropriate preservatives and sampling techniques were employed, when required. All samples were kept in a cooler with ice until their arrival at the laboratory. Water samples, along with corresponding chain-of-custody documentation, were submitted to the laboratory.



2.4 Quality Control (QA/QC Protocols)

Quality control procedures included, the use of laboratory-provided sampling containers, dedicated samplers for each sample location, use of clean, nitrile gloves at each sampling location and preservation and cooling of samples immediately upon collection.

ALS has a corporate laboratory QA/QC program. Acceptable limits of variability, as well as minimum detection limits, are given on Certificates of Analysis attached in *Appendix II*.

3.0 FINDINGS

It should be noted that soil and groundwater conditions were confirmed at borehole locations only and may vary at other locations.

3.1 Geology

Soil conditions at the four (4) borehole locations were fairly consistent. Soil consisted primarily of topsoil up 0.3 meters in depth. The topsoil is underlain by brown/grey clay to a maximum depth of approximately 7.6 meter below ground level. BHMW1 was advanced to 4.3 m below surface and stopped at refusal. Additional details of soil types are given in borehole logs in *Appendix III*.

Levels of organic vapours, as determined with a PID (Photo Ionization Detector), were measured in the soil samples collected from the boreholes. The headspace vapour readings in the soil samples were found to be in the range of 0 – 338 ppb. Refer to Borehole Logs in *Appendix III*.



3.2 Hydrogeology

Two (2) monitoring wells, BHMW1, BHMW 3, were installed as part of this assessment. Groundwater measurements and observation data have been summarized in Table A, below.

Table A
Groundwater Measurements and Observations

Borehole/ Well #	Date (2021)	Water Depth Measurement Below Surface (Meters)	Depth of Well Below Surface (Meters)	Activity	Free-Phase Product, Sheen or Odour
BHMW1	May 7	0.42	4.18	Measurement & Purging ~30 L) & Sampling	Not Detected
BHMW3	May 11	2.49	7.82	Measurement & Purging 28 L) & Sampling	Not Detected

3.3 Soil Chemistry Analytical Results

Soil samples were collected and examined from boreholes BHMW1, BH2, BHMW3, and BH4 at varying depths. No odour or significant readings of PID were reported during the field sampling. Analytical results for parameters tested, including OC/Pesticides, Metals & Inorganics, and PAHs, indicated no exceedances for either Bonus Lot or Main Lot.

Analytical results for soil samples, together with the relevant soil quality criteria, have been summarized in Tables 1 and 2 are attached in *Appendix II*. Detailed analytical reports (laboratory certificates of analysis), which provide additional information on the laboratory methodology and limits of detection, have also been provided in *Appendix II*.

3.4 Groundwater Chemistry Analytical Results

Groundwater samples collected from the two newly installed groundwater monitoring wells. BHMW1 and BHMW3, were analyzed. BHMW1, corresponding to the Main Lot,



was analyzed for OC/Pesticides, and BHMW3, corresponding to the Bonus Lot, was analyzed for Metals & Inorganics and PAHs.

Groundwater samples were noted to be clear and no odour or sheen was noted at the time of sampling. No detectable levels of any of the parameters analyzed were found in the samples tested.

Analytical results for groundwater samples, together with the relevant water quality Standard have been summarized in Tables 1 and 2 in Appendix II. Detailed laboratory certificates of analysis have also been provided in Appendix II.

3.5 Quality Control

No deviations from the ALS QA/QC programs that could have resulted in poor data quality were recorded during this project.

4.0 EVALUATION OF FINDINGS AND CONCLUSIONS

The Limited Phase II ESA was conducted to address the uncertainty from the historical railway adjacent to the Bonus Lot, and the suspected use of pesticides adjacent to the Main Lot, associated with sub-surface conditions. Based on the information obtained during this Limited Phase II ESA, THEM concludes the following.

It should be noted that detectable level of various parameters was observed in the soil throughout the Site in low level including numerous metals (arsenic, barium, beryllium, boron, chromium, cobalt, copper, lead, mercury, nickel, vanadium, and zinc) at BHMW3-2 and 4-2. The parameters for PAHs analyzed in the Bonus Lot were found to be below the level of detection limits for the laboratory methods used. The parameters for OC/Pesticides in BHMW1-4, BH2-3, BH2-5, and BH2-6 were all found to be below the level of detection limits for the laboratory methods used.



Groundwater samples collected from the two newly installed groundwater monitoring wells, BHMW1, BHMW3, were analyzed for OC/Pesticides, Metals & Inorganics, and PAHs. Groundwater samples were noted to be fairly turbid, however no odour or sheen was noted at the time of sampling. Detectable levels of various parameters were observed in the groundwater throughout the Site in low level including numerous metals (antimony, arsenic, barium, boron, chromium, cobalt, copper, lead, molybdenum, nickel, selenium, thallium, uranium, vanadium, zinc) at BHMW3. In BHMW1, the parameters analyzed, OC/Pesticides, were all found to be below the level of detection limits for the laboratory methods used.

Based on the findings of this assessment as presented in this report, no significant impacts to the soil or groundwater were found at the locations tested at the Site. No further delineation of the activities to the Site is recommended at this time.

When the groundwater monitoring wells are not to be used for additional groundwater monitoring, they should be decommissioned by a licensed well installer as outlined in R.R.O. 1990, Regulation 903: Wells.



5.0 LIMITATIONS

In this statement of limitations, the “Client” refers to the persons or entities to whom this report is addressed. “THEM” refers to T. Harris Environmental Management Inc.

This report is subject to the limitations set out below, and any other limitations set out in the body of this report or in the Scope of Work between THEM and the Client.

Except as otherwise noted in this report or in the Scope of Work, this report has been prepared in accordance with the standards set out in CAN/CSA-Z769-00 published by the Canadian Standards Association and dated March 2000. The investigation and assessment described in this report were conducted in accordance with the Scope of Work agreed upon by the Client in a manner consistent with a reasonable level of care and skill normally exercised by members of the environmental consulting profession currently practising under similar conditions in the Province of Ontario.

The number of sample locations, and the scope of analysis of samples at the site are in accordance with the Scope of Work agreed upon by the Client. Conditions between sample locations (including the presence of contamination) may differ from those indicated in this report.

The assessment in this report has been made in the context of regulations which were in force and effect at the time of the assessment and which are specified in this report. The assessment did not take into account any regulations which were not in effect at the date of the assessments, or any guideline or standard not specified in this report.

This report is intended solely for the use or uses specified in this report and/or the Scope of Work. Use of this report for purposes other than those set out in this report and/or the Scope of Work will be at the sole risk of the Client.



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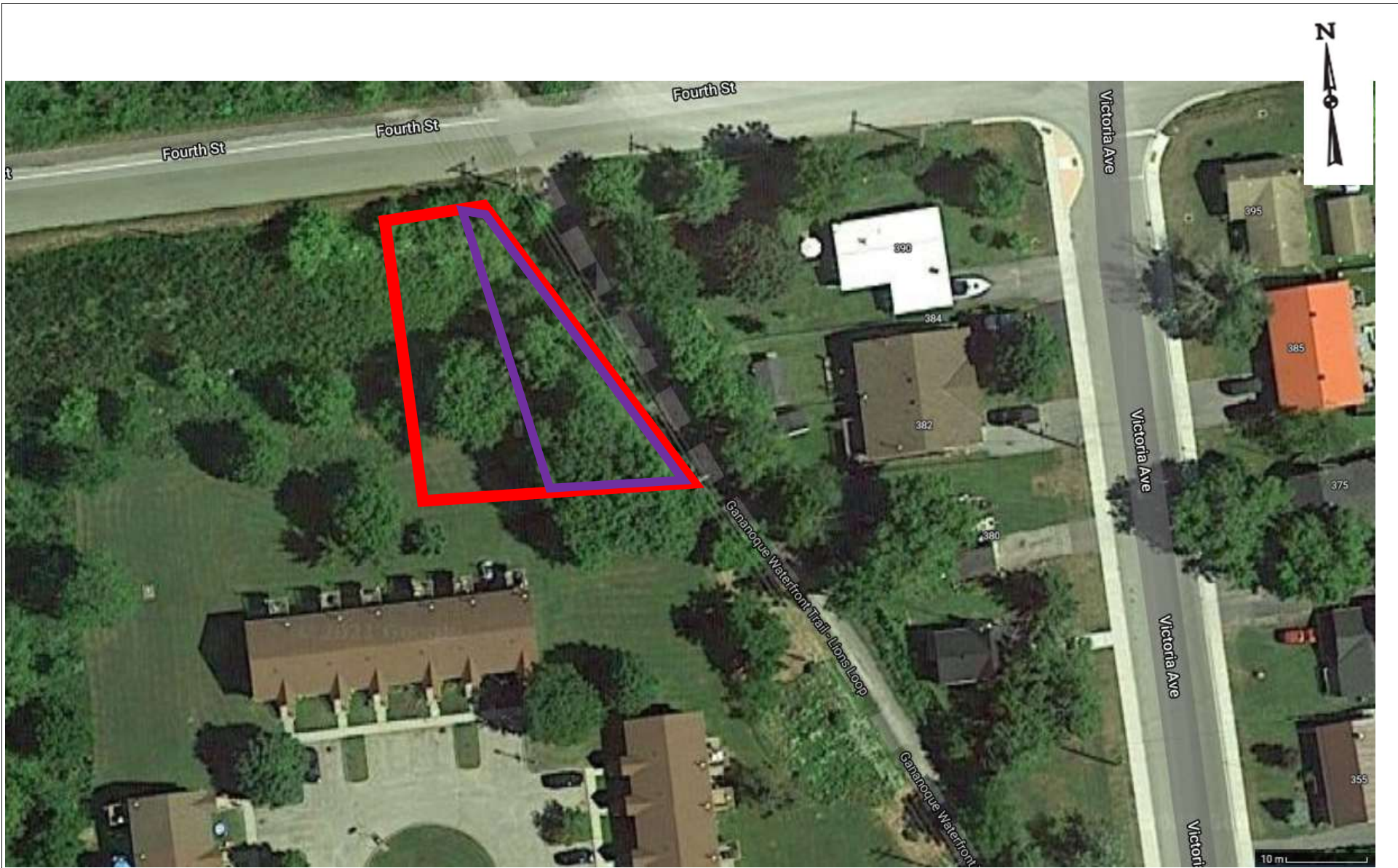
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In no event shall THEM be liable for any indirect, incidental, special or consequential damages, or damages from loss of profits, revenue, or use, incurred by either the Client or any third party, whether in an action in tort or contract, even if THEM has been advised of the possibility of such damages. THEM's liability for damages shall in no event exceed the limit of available insurance coverage.


If new information concerning the subject matter of this report arises, THEM should be contacted to re-evaluate the conclusions of this report and to provide amendments as required.

APPENDIX I

Drawings #1 - #4



Legend

 Approx. Site Boundary

 APEC#1: Former Railway



Environmental Consultants
93 Skyway Ave., Suite 101,
Toronto, ON, M9W 6N6

Project Name: : Phase II ESA - Main Lot & Bonus Lot, Gananoque, ON

Drawing: Site Location Plan

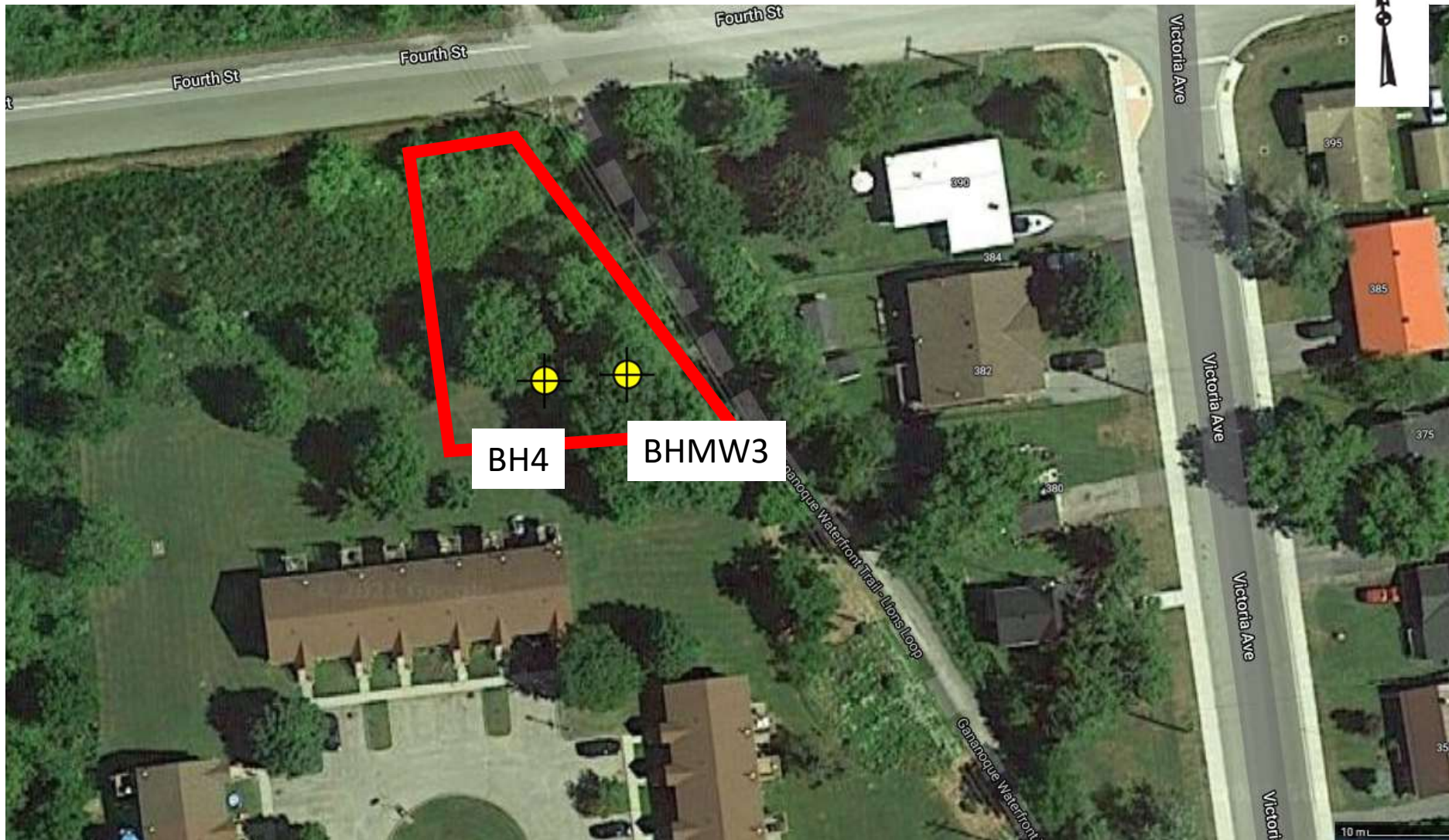
Floor: N/A

THEM Project No: T21- 17975-01


Drawing # 1


Date: 11/05/2021

Drawn by: AT



Legend

 Approx. Site Boundary

 Approx. Location of Borehole/
Monitoring Well



Environmental Consultants
93 Skyway Ave., Suite 101,
Toronto, ON, M9W 6N6

Project Name: : Phase II ESA - Main Lot & Bonus Lot, Gananoque, ON

Drawing: Site Location Plan

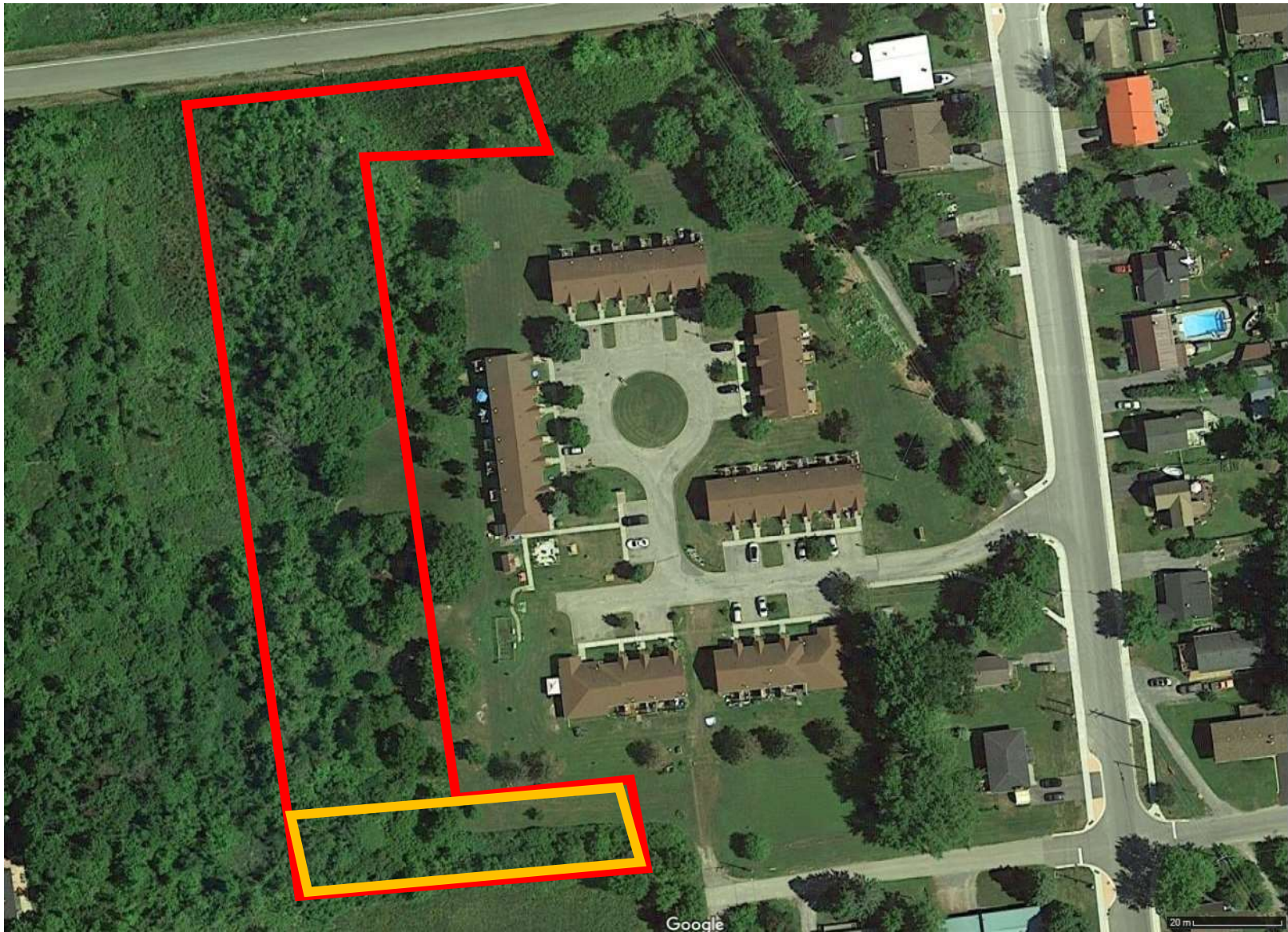
Floor: N/A

THEM Project No: T21- 17975-01


Drawing # 2

Date: 11/05/2021

Drawn by: AT



Legend

 Approx. Site Boundary

 APEC#1:
Farmland with
historic pesticide
use



Environmental Consultants
93 Skyway Ave., Suite 101,
Toronto, ON, M9W 6N6

Project Name: Phase II ESA - Main Lot & Bonus Lot, Ganoque, ON

Drawing: Site Location Plan

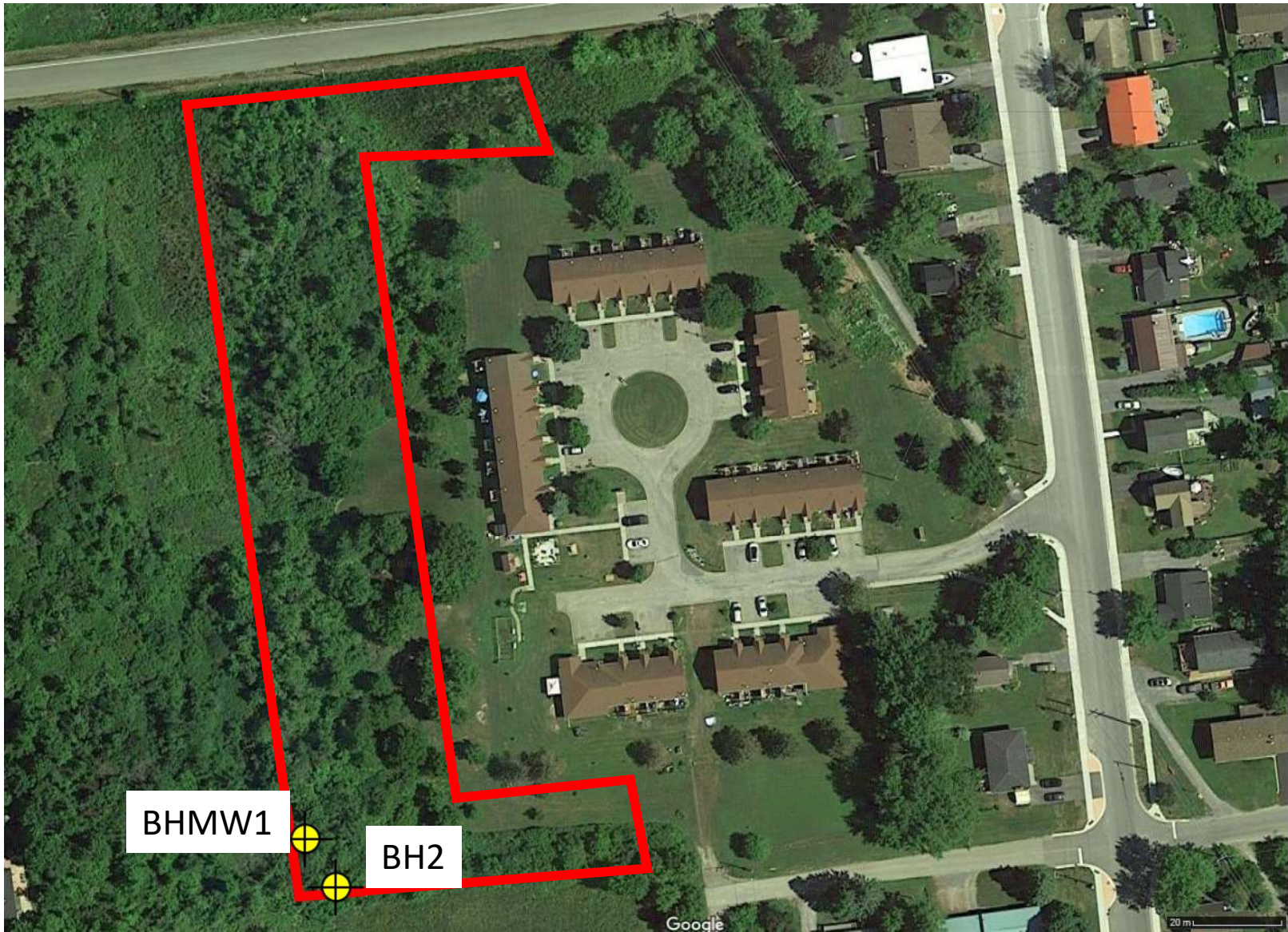
Floor: N/A

THEM Project No: T21- 17975-1

Drawing # 3

Date: 11/05/2021


Drawn by: AT




BHMW1

BH2

Legend

 Approx. Site Boundary

 Approx. Location of Borehole/
Monitoring Well



Environmental Consultants
93 Skyway Ave., Suite 101,
Toronto, ON, M9W 6N6

Project Name: Phase II ESA - Main Lot & Bonus Lot, Ganoque, ON		
Drawing: Site Location Plan	Floor: N/A	
THEM Project No: T21- 17975-1	Drawing # 4	
Date: 11/05/2021	Drawn by: AT	

APPENDIX II

LABORATORY CERTIFICATES OF ANALYSIS



T.HARRIS ENVIRONMENTAL
MANAGEMENT INC
ATTN: Dennis Hsu / Alexis Teohari
93 Skyway Ave.
Etobicoke ON M9W 6N6

Date Received: 11-MAY-21
Report Date: 13-MAY-21 14:57 (MT)
Version: FINAL

Client Phone: 416-523-8729

Certificate of Analysis

Lab Work Order #: L2586345
Project P.O. #: NOT SUBMITTED
Job Reference:
C of C Numbers:
Legal Site Desc:

Amanda Overholster
Account Manager

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ADDRESS: 5730 Coopers Avenue, Unit #26, Mississauga, ON L4Z 2E9 Canada | Phone: +1 905 507 6910 | Fax: +1 905 507 6927
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Summary of Guideline Exceedances

Guideline							
ALS ID	Client ID	Grouping	Analyte	Result	Guideline Limit	Unit	
Ontario Regulation 153/04 - April 15, 2011 Standards - T3-Soil-Res/Park/Inst. Property Use (Coarse)							
(No parameter exceedances)							



ANALYTICAL REPORT

Physical Tests - SOIL

Lab ID	L2586345-1	L2586345-2	L2586345-3
Sample Date	10-MAY-21	10-MAY-21	10-MAY-21
Sample ID	BHMW3-2	BHMW3-3	BH4-2

Analyte	Unit	Guide Limits				
		#1	#2			
Conductivity	mS/cm	0.7	-	0.169		0.0894
% Moisture	%	-	-	20.7	18.0	21.8
pH	pH units	-	-	7.48		6.98

Guide Limit #1: T3-Soil-Res/Park/Inst. Property Use (Coarse)

-  Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
-  Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

ANALYTICAL REPORT

Cyanides - SOIL

	Lab ID	L2586345-1	L2586345-3
Sample Date	10-MAY-21	10-MAY-21	
Sample ID	BHMW3-2	BH4-2	

Analyte	Unit	Guide Limits		#1	#2
		#1	#2		
Cyanide, Weak Acid Diss	ug/g	0.051	-	<0.050	<0.050

Guide Limit #1: T3-Soil-Res/Park/Inst. Property Use (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
- Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.



ANALYTICAL REPORT

Saturated Paste Extractables - SOIL

	Lab ID	L2586345-1	L2586345-3
Sample Date	10-MAY-21	10-MAY-21	
Sample ID	BHMW3-2	BH4-2	

Analyte	Unit	Guide Limits			
		#1	#2		
SAR	SAR	5	-	0.23	0.35
Calcium (Ca)	mg/L	-	-	20.4	7.24
Magnesium (Mg)	mg/L	-	-	5.64	3.31
Sodium (Na)	mg/L	-	-	4.54	4.51

Guide Limit #1: T3-Soil-Res/Park/Inst. Property Use (Coarse)

-  Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
-  Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

ANALYTICAL REPORT

Metals - SOIL

Analyte	Unit	Guide Limits			
		#1	#2		
		Lab ID	L2586345-1	L2586345-3	
		Sample Date	10-MAY-21	10-MAY-21	
		Sample ID	BHMW3-2	BH4-2	
Antimony (Sb)	ug/g	7.5	-	<1.0	<1.0
Arsenic (As)	ug/g	18	-	3.6	3.9
Barium (Ba)	ug/g	390	-	366	351
Beryllium (Be)	ug/g	4	-	1.17	1.21
Boron (B)	ug/g	120	-	13.1	9.6
Boron (B), Hot Water Ext.	ug/g	1.5	-	<0.10	<0.10
Cadmium (Cd)	ug/g	1.2	-	<0.50	<0.50
Chromium (Cr)	ug/g	160	-	62.0	59.4
Cobalt (Co)	ug/g	22	-	19.9	18.6
Copper (Cu)	ug/g	140	-	37.2	36.5
Lead (Pb)	ug/g	120	-	11.1	9.2
Mercury (Hg)	ug/g	0.27	-	0.0077	0.0135
Molybdenum (Mo)	ug/g	6.9	-	<1.0	<1.0
Nickel (Ni)	ug/g	100	-	41.8	43.1
Selenium (Se)	ug/g	2.4	-	<1.0	<1.0
Silver (Ag)	ug/g	20	-	<0.20	<0.20
Thallium (Tl)	ug/g	1	-	<0.50	<0.50
Uranium (U)	ug/g	23	-	<1.0	<1.0
Vanadium (V)	ug/g	86	-	84.1	79.8
Zinc (Zn)	ug/g	340	-	103	97.5

Guide Limit #1: T3-Soil-Res/Park/Inst. Property Use (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
- Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

ANALYTICAL REPORT

Speciated Metals - SOIL

	Lab ID	L2586345-1	L2586345-3
Sample Date	10-MAY-21	10-MAY-21	
Sample ID	BHMW3-2	BH4-2	

Analyte	Unit	Guide Limits		0.37	0.87
		#1	#2		
Chromium, Hexavalent	ug/g	8	-		

Guide Limit #1: T3-Soil-Res/Park/Inst. Property Use (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
- Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

ANALYTICAL REPORT

Polycyclic Aromatic Hydrocarbons - SOIL

Analyte	Unit	Guide Limits		Lab ID	L2586345-1	L2586345-2	L2586345-3
		#1	#2	Sample Date	10-MAY-21	10-MAY-21	10-MAY-21
				Sample ID	BHMW3-2	BHMW3-3	BH4-2
Acenaphthene	ug/g	7.9	-	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	ug/g	0.15	-	<0.050	<0.050	<0.050	<0.050
Anthracene	ug/g	0.67	-	<0.050	<0.050	<0.050	<0.050
Benzo(a)anthracene	ug/g	0.5	-	<0.050	<0.050	<0.050	<0.050
Benzo(a)pyrene	ug/g	0.3	-	<0.050	<0.050	<0.050	<0.050
Benzo(b&j)fluoranthene	ug/g	0.78	-	<0.050	<0.050	<0.050	<0.050
Benzo(g,h,i)perylene	ug/g	6.6	-	<0.050	<0.050	<0.050	<0.050
Benzo(k)fluoranthene	ug/g	0.78	-	<0.050	<0.050	<0.050	<0.050
Chrysene	ug/g	7	-	<0.050	<0.050	<0.050	<0.050
Dibenz(a,h)anthracene	ug/g	0.1	-	<0.050	<0.050	<0.050	<0.050
Fluoranthene	ug/g	0.69	-	<0.050	<0.050	<0.050	<0.050
Fluorene	ug/g	62	-	<0.050	<0.050	<0.050	<0.050
Indeno(1,2,3-cd)pyrene	ug/g	0.38	-	<0.050	<0.050	<0.050	<0.050
1+2-Methylnaphthalenes	ug/g	0.99	-	<0.042	<0.042	<0.042	<0.042
1-Methylnaphthalene	ug/g	0.99	-	<0.030	<0.030	<0.030	<0.030
2-Methylnaphthalene	ug/g	0.99	-	<0.030	<0.030	<0.030	<0.030
Naphthalene	ug/g	0.6	-	<0.013	<0.013	<0.013	<0.013
Phenanthrene	ug/g	6.2	-	<0.046	<0.046	<0.046	<0.046
Pyrene	ug/g	78	-	<0.050	<0.050	<0.050	<0.050
Surrogate: 2-Fluorobiphenyl	%	-	-	90.3	93.8	90.5	
Surrogate: d14-Terphenyl	%	-	-	89.1	94.7	88.4	

Guide Limit #1: T3-Soil-Res/Park/Inst. Property Use (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
- Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
B-HWS-R511-WT	Soil	Boron-HWE-O.Reg 153/04 (July 2011)	HW EXTR, EPA 6010B
<p>A dried solid sample is extracted with calcium chloride, the sample undergoes a heating process. After cooling the sample is filtered and analyzed by ICP/OES.</p> <p>Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).</p>			
CN-WAD-R511-WT	Soil	Cyanide (WAD)-O.Reg 153/04 (July 2011)	MOE 3015/APHA 4500CN I-WAD
<p>The sample is extracted with a strong base for 16 hours, and then filtered. The filtrate is then distilled where the cyanide is converted to cyanogen chloride by reacting with chloramine-T, the cyanogen chloride then reacts with a combination of barbituric acid and isonicotinic acid to form a highly colored complex.</p> <p>Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).</p>			
CR-CR6-IC-WT	Soil	Hexavalent Chromium in Soil	SW846 3060A/7199
<p>This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Method 7199, published by the United States Environmental Protection Agency (EPA). The procedure involves analysis for chromium (VI) by ion chromatography using diphenylcarbazide in a sulphuric acid solution.</p> <p>Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).</p>			
EC-WT	Soil	Conductivity (EC)	MOEE E3138
<p>A representative subsample is tumbled with de-ionized (DI) water. The ratio of water to soil is 2:1 v/w. After tumbling the sample is then analyzed by a conductivity meter.</p> <p>Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).</p>			
HG-200.2-CVAA-WT	Soil	Mercury in Soil by CVAAS	EPA 200.2/1631E (mod)
<p>Soil samples are digested with nitric and hydrochloric acids, followed by analysis by CVAAS.</p> <p>Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).</p>			
MET-200.2-CCMS-WT	Soil	Metals in Soil by CRC ICPMS	EPA 200.2/6020B (mod)
<p>Soil/sediment is dried, disaggregated, and sieved (2 mm). For tests intended to support Ontario regulations, the <2mm fraction is ground to pass through a 0.355 mm sieve. Strong Acid Leachable Metals in the <2mm fraction are solubilized by heated digestion with nitric and hydrochloric acids. Instrumental analysis is by Collision / Reaction Cell ICPMS.</p> <p>Limitations: This method is intended to liberate environmentally available metals. Silicate minerals are not solubilized. Some metals may be only partially recovered (matrix dependent), including Al, Ba, Be, Cr, S, Sr, Ti, Tl, V, W, and Zr. Elemental Sulfur may be poorly recovered by this method. Volatile forms of sulfur (e.g. sulfide, H₂S) may be excluded if lost during sampling, storage, or digestion.</p> <p>Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).</p>			
METHYLNAPS-CALC-WT	Soil	ABN-Calculated Parameters	SW846 8270
MOISTURE-WT	Soil	% Moisture	CCME PHC in Soil - Tier 1 (mod)
PAH-511-WT	Soil	PAH-O.Reg 153/04 (July 2011)	SW846 3510/8270

A representative sub-sample of soil is fortified with deuterium-labelled surrogates and a mechanical shaking technique is used to extract the sample with a mixture of methanol and toluene. The extracts are concentrated and analyzed by GC/MS. Results for benzo(b)fluoranthene may include contributions from benzo(j)fluoranthene, if also present in the sample.

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
		Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).	
PH-WT	Soil	pH	MOEE E3137A
		A minimum 10g portion of the sample is extracted with 20mL of 0.01M calcium chloride solution by shaking for at least 30 minutes. The aqueous layer is separated from the soil and then analyzed using a pH meter and electrode.	
		Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).	
SAR-R511-WT	Soil	SAR-O.Reg 153/04 (July 2011)	SW846 6010C
		A dried, disaggregated solid sample is extracted with deionized water, the aqueous extract is separated from the solid, acidified and then analyzed using a ICP/OES. The concentrations of Na, Ca and Mg are reported as per CALA requirements for calculated parameters. These individual parameters are not for comparison to any guideline.	
		Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).	

**ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody Numbers:

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information. Guideline limits are not adjusted for the hardness, pH or temperature of the sample (the most conservative values are used). Measurement uncertainty is not applied to test results prior to comparison with specified criteria values.



Quality Control Report

Workorder: L2586345

Report Date: 13-MAY-21

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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

Contact: Dennis Hsu / Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
B-HWS-R511-WT								
	Soil							
Batch	R5457082							
WG3533775-4	DUP	L2586345-1						
Boron (B), Hot Water Ext.		<0.10	<0.10	RPD-NA	ug/g	N/A	30	13-MAY-21
WG3533775-2	IRM	WT SAR4						
Boron (B), Hot Water Ext.			107.3		%		70-130	13-MAY-21
WG3533775-3	LCS							
Boron (B), Hot Water Ext.			102.0		%		70-130	13-MAY-21
WG3533775-1	MB							
Boron (B), Hot Water Ext.			<0.10		ug/g		0.1	13-MAY-21
CN-WAD-R511-WT								
	Soil							
Batch	R5457113							
WG3532946-3	DUP	L2585927-20						
Cyanide, Weak Acid Diss		<0.050	<0.050	RPD-NA	ug/g	N/A	35	13-MAY-21
WG3532946-2	LCS							
Cyanide, Weak Acid Diss			92.5		%		80-120	13-MAY-21
WG3532946-1	MB							
Cyanide, Weak Acid Diss			<0.050		ug/g		0.05	13-MAY-21
WG3532946-4	MS	L2585927-20						
Cyanide, Weak Acid Diss			107.7		%		70-130	13-MAY-21
CR-CR6-IC-WT								
	Soil							
Batch	R5456538							
WG3532929-4	CRM	WT-SQC012						
Chromium, Hexavalent			111.8		%		70-130	12-MAY-21
WG3532929-3	DUP	L2585927-29						
Chromium, Hexavalent		0.21	<0.20	RPD-NA	ug/g	N/A	35	12-MAY-21
WG3532929-2	LCS							
Chromium, Hexavalent			99.0		%		80-120	12-MAY-21
WG3532929-1	MB							
Chromium, Hexavalent			<0.20		ug/g		0.2	12-MAY-21
EC-WT								
	Soil							
Batch	R5457001							
WG3533776-4	DUP	WG3533776-3						
Conductivity		0.209	0.216		mS/cm	3.3	20	13-MAY-21
WG3533776-2	IRM	WT SAR4						
Conductivity			100.4		%		70-130	13-MAY-21
WG3534026-1	LCS							
Conductivity			103.8		%		90-110	13-MAY-21
WG3533776-1	MB							



Environmental

Quality Control Report

Workorder: L2586345

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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
 93 Skyway Ave.
 Etobicoke ON M9W 6N6

Contact: Dennis Hsu / Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
EC-WT	Soil							
Batch	R5457001							
WG3533776-1	MB							
Conductivity			<0.0040		mS/cm		0.004	13-MAY-21
HG-200.2-CVAA-WT	Soil							
Batch	R5456854							
WG3533774-2	CRM	WT-SS-2						
Mercury (Hg)			105.6		%		70-130	13-MAY-21
WG3533774-6	DUP	WG3533774-5						
Mercury (Hg)		0.0077	0.0114		ug/g	39	40	13-MAY-21
WG3533774-3	LCS							
Mercury (Hg)			106.5		%		80-120	13-MAY-21
WG3533774-1	MB							
Mercury (Hg)			<0.0050		mg/kg		0.005	13-MAY-21
MET-200.2-CCMS-WT	Soil							
Batch	R5457071							
WG3533774-2	CRM	WT-SS-2						
Antimony (Sb)			97.8		%		70-130	13-MAY-21
Arsenic (As)			105.6		%		70-130	13-MAY-21
Barium (Ba)			107.5		%		70-130	13-MAY-21
Beryllium (Be)			112.6		%		70-130	13-MAY-21
Boron (B)			10.0		mg/kg		3.5-13.5	13-MAY-21
Cadmium (Cd)			122.5		%		70-130	13-MAY-21
Chromium (Cr)			105.8		%		70-130	13-MAY-21
Cobalt (Co)			103.9		%		70-130	13-MAY-21
Copper (Cu)			105.4		%		70-130	13-MAY-21
Lead (Pb)			104.4		%		70-130	13-MAY-21
Molybdenum (Mo)			104.7		%		70-130	13-MAY-21
Nickel (Ni)			105.9		%		70-130	13-MAY-21
Selenium (Se)			0.12		mg/kg		0-0.34	13-MAY-21
Silver (Ag)			100.8		%		70-130	13-MAY-21
Thallium (Tl)			0.073		mg/kg		0.029-0.129	13-MAY-21
Uranium (U)			101.3		%		70-130	13-MAY-21
Vanadium (V)			108.2		%		70-130	13-MAY-21
Zinc (Zn)			105.1		%		70-130	13-MAY-21
WG3533774-6	DUP	WG3533774-5						
Antimony (Sb)		<0.10	0.13	RPD-NA	ug/g	N/A	30	13-MAY-21



Quality Control Report

Workorder: L2586345

Report Date: 13-MAY-21

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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
 93 Skyway Ave.
 Etobicoke ON M9W 6N6

Contact: Dennis Hsu / Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT								
	Soil							
Batch	R5457071							
WG3533774-6	DUP	WG3533774-5						
Arsenic (As)		3.65	3.44		ug/g	5.8	30	13-MAY-21
Barium (Ba)		366	335		ug/g	9.1	40	13-MAY-21
Beryllium (Be)		1.17	1.15		ug/g	1.4	30	13-MAY-21
Boron (B)		13.1	12.6		ug/g	4.3	30	13-MAY-21
Cadmium (Cd)		0.107	0.108		ug/g	1.4	30	13-MAY-21
Chromium (Cr)		62.0	57.1		ug/g	8.1	30	13-MAY-21
Cobalt (Co)		19.9	18.2		ug/g	8.7	30	13-MAY-21
Copper (Cu)		37.2	34.8		ug/g	6.6	30	13-MAY-21
Lead (Pb)		11.1	10.6		ug/g	4.5	40	13-MAY-21
Molybdenum (Mo)		0.55	0.49		ug/g	12	40	13-MAY-21
Nickel (Ni)		41.8	38.9		ug/g	7.2	30	13-MAY-21
Selenium (Se)		<0.20	<0.20	RPD-NA	ug/g	N/A	30	13-MAY-21
Silver (Ag)		<0.10	<0.10	RPD-NA	ug/g	N/A	40	13-MAY-21
Thallium (Tl)		0.373	0.396		ug/g	6.1	30	13-MAY-21
Uranium (U)		0.678	0.629		ug/g	7.4	30	13-MAY-21
Vanadium (V)		84.1	78.4		ug/g	7.0	30	13-MAY-21
Zinc (Zn)		103	96.9		ug/g	5.9	30	13-MAY-21
WG3533774-4	LCS							
Antimony (Sb)			114.7		%		80-120	13-MAY-21
Arsenic (As)			112.2		%		80-120	13-MAY-21
Barium (Ba)			108.0		%		80-120	13-MAY-21
Beryllium (Be)			109.2		%		80-120	13-MAY-21
Boron (B)			106.7		%		80-120	13-MAY-21
Cadmium (Cd)			104.9		%		80-120	13-MAY-21
Chromium (Cr)			109.3		%		80-120	13-MAY-21
Cobalt (Co)			108.0		%		80-120	13-MAY-21
Copper (Cu)			106.0		%		80-120	13-MAY-21
Lead (Pb)			108.3		%		80-120	13-MAY-21
Molybdenum (Mo)			110.5		%		80-120	13-MAY-21
Nickel (Ni)			107.7		%		80-120	13-MAY-21
Selenium (Se)			110.3		%		80-120	13-MAY-21
Silver (Ag)			110.8		%		80-120	13-MAY-21
Thallium (Tl)			107.1		%		80-120	13-MAY-21



Quality Control Report

Workorder: L2586345

Report Date: 13-MAY-21

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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

Contact: Dennis Hsu / Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT								
	Soil							
Batch	R5457071							
WG3533774-4	LCS							
Uranium (U)			105.5		%		80-120	13-MAY-21
Vanadium (V)			111.6		%		80-120	13-MAY-21
Zinc (Zn)			106.4		%		80-120	13-MAY-21
WG3533774-1	MB							
Antimony (Sb)			<0.10		mg/kg		0.1	13-MAY-21
Arsenic (As)			<0.10		mg/kg		0.1	13-MAY-21
Barium (Ba)			<0.50		mg/kg		0.5	13-MAY-21
Beryllium (Be)			<0.10		mg/kg		0.1	13-MAY-21
Boron (B)			<5.0		mg/kg		5	13-MAY-21
Cadmium (Cd)			<0.020		mg/kg		0.02	13-MAY-21
Chromium (Cr)			<0.50		mg/kg		0.5	13-MAY-21
Cobalt (Co)			<0.10		mg/kg		0.1	13-MAY-21
Copper (Cu)			<0.50		mg/kg		0.5	13-MAY-21
Lead (Pb)			<0.50		mg/kg		0.5	13-MAY-21
Molybdenum (Mo)			<0.10		mg/kg		0.1	13-MAY-21
Nickel (Ni)			<0.50		mg/kg		0.5	13-MAY-21
Selenium (Se)			<0.20		mg/kg		0.2	13-MAY-21
Silver (Ag)			<0.10		mg/kg		0.1	13-MAY-21
Thallium (Tl)			<0.050		mg/kg		0.05	13-MAY-21
Uranium (U)			<0.050		mg/kg		0.05	13-MAY-21
Vanadium (V)			<0.20		mg/kg		0.2	13-MAY-21
Zinc (Zn)			<2.0		mg/kg		2	13-MAY-21
MOISTURE-WT								
	Soil							
Batch	R5456100							
WG3533037-3	DUP	L2586405-6						
% Moisture		15.3	15.9		%	3.6	20	12-MAY-21
WG3533037-2	LCS							
% Moisture			99.9		%		90-110	12-MAY-21
WG3533037-1	MB							
% Moisture			<0.25		%		0.25	12-MAY-21
PAH-511-WT								
	Soil							
Batch	R5456757							
WG3532996-3	DUP	WG3532996-5						
1-Methylnaphthalene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	13-MAY-21



Quality Control Report

Workorder: L2586345

Report Date: 13-MAY-21

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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

Contact: Dennis Hsu / Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT								
	Soil							
Batch	R5456757							
WG3532996-3	DUP	WG3532996-5						
2-Methylnaphthalene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	13-MAY-21
Acenaphthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Acenaphthylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Benzo(a)anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Benzo(a)pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Benzo(b&j)fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Benzo(g,h,i)perylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Benzo(k)fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Chrysene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Dibenz(a,h)anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Fluorene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Indeno(1,2,3-cd)pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Naphthalene		<0.013	<0.013	RPD-NA	ug/g	N/A	40	13-MAY-21
Phenanthrene		<0.046	<0.046	RPD-NA	ug/g	N/A	40	13-MAY-21
Pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
WG3532996-2	LCS							
1-Methylnaphthalene			91.3		%		50-140	13-MAY-21
2-Methylnaphthalene			88.5		%		50-140	13-MAY-21
Acenaphthene			87.7		%		50-140	13-MAY-21
Acenaphthylene			83.3		%		50-140	13-MAY-21
Anthracene			76.2		%		50-140	13-MAY-21
Benzo(a)anthracene			86.5		%		50-140	13-MAY-21
Benzo(a)pyrene			75.4		%		50-140	13-MAY-21
Benzo(b&j)fluoranthene			82.1		%		50-140	13-MAY-21
Benzo(g,h,i)perylene			85.9		%		50-140	13-MAY-21
Benzo(k)fluoranthene			86.5		%		50-140	13-MAY-21
Chrysene			87.5		%		50-140	13-MAY-21
Dibenz(a,h)anthracene			83.8		%		50-140	13-MAY-21
Fluoranthene			84.8		%		50-140	13-MAY-21
Fluorene			85.1		%		50-140	13-MAY-21
Indeno(1,2,3-cd)pyrene			82.4		%		50-140	13-MAY-21



Quality Control Report

Workorder: L2586345

Report Date: 13-MAY-21

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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
 93 Skyway Ave.
 Etobicoke ON M9W 6N6

Contact: Dennis Hsu / Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	Soil							
Batch	R5456757							
WG3532996-2	LCS							
Naphthalene			85.6		%		50-140	13-MAY-21
Phenanthrene			88.1		%		50-140	13-MAY-21
Pyrene			84.3		%		50-140	13-MAY-21
WG3532996-1	MB							
1-Methylnaphthalene			<0.030		ug/g		0.03	13-MAY-21
2-Methylnaphthalene			<0.030		ug/g		0.03	13-MAY-21
Acenaphthene			<0.050		ug/g		0.05	13-MAY-21
Acenaphthylene			<0.050		ug/g		0.05	13-MAY-21
Anthracene			<0.050		ug/g		0.05	13-MAY-21
Benzo(a)anthracene			<0.050		ug/g		0.05	13-MAY-21
Benzo(a)pyrene			<0.050		ug/g		0.05	13-MAY-21
Benzo(b&j)fluoranthene			<0.050		ug/g		0.05	13-MAY-21
Benzo(g,h,i)perylene			<0.050		ug/g		0.05	13-MAY-21
Benzo(k)fluoranthene			<0.050		ug/g		0.05	13-MAY-21
Chrysene			<0.050		ug/g		0.05	13-MAY-21
Dibenz(a,h)anthracene			<0.050		ug/g		0.05	13-MAY-21
Fluoranthene			<0.050		ug/g		0.05	13-MAY-21
Fluorene			<0.050		ug/g		0.05	13-MAY-21
Indeno(1,2,3-cd)pyrene			<0.050		ug/g		0.05	13-MAY-21
Naphthalene			<0.013		ug/g		0.013	13-MAY-21
Phenanthrene			<0.046		ug/g		0.046	13-MAY-21
Pyrene			<0.050		ug/g		0.05	13-MAY-21
Surrogate: 2-Fluorobiphenyl			88.0		%		50-140	13-MAY-21
Surrogate: d14-Terphenyl			83.8		%		50-140	13-MAY-21
WG3532996-4	MS	WG3532996-5						
1-Methylnaphthalene			94.5		%		50-140	13-MAY-21
2-Methylnaphthalene			91.6		%		50-140	13-MAY-21
Acenaphthene			92.4		%		50-140	13-MAY-21
Acenaphthylene			86.7		%		50-140	13-MAY-21
Anthracene			80.6		%		50-140	13-MAY-21
Benzo(a)anthracene			93.4		%		50-140	13-MAY-21
Benzo(a)pyrene			81.2		%		50-140	13-MAY-21
Benzo(b&j)fluoranthene			90.7		%		50-140	13-MAY-21
Benzo(g,h,i)perylene			91.1		%		50-140	13-MAY-21



Quality Control Report

Workorder: L2586345

Report Date: 13-MAY-21

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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

Contact: Dennis Hsu / Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	Soil							
Batch	R5456757							
WG3532996-4 MS		WG3532996-5						
Benzo(k)fluoranthene			90.7		%		50-140	13-MAY-21
Chrysene			92.1		%		50-140	13-MAY-21
Dibenz(a,h)anthracene			90.8		%		50-140	13-MAY-21
Fluoranthene			89.5		%		50-140	13-MAY-21
Fluorene			90.7		%		50-140	13-MAY-21
Indeno(1,2,3-cd)pyrene			86.6		%		50-140	13-MAY-21
Naphthalene			87.2		%		50-140	13-MAY-21
Phenanthrene			92.0		%		50-140	13-MAY-21
Pyrene			88.9		%		50-140	13-MAY-21
PH-WT	Soil							
Batch	R5456379							
WG3533325-1 LCS								
pH			6.97		pH units		6.9-7.1	12-MAY-21
SAR-R511-WT	Soil							
Batch	R5457090							
WG3533776-4 DUP		WG3533776-3						
Calcium (Ca)		39.4	38.5		mg/L	2.3	30	13-MAY-21
Sodium (Na)		1.59	1.56		mg/L	1.9	30	13-MAY-21
Magnesium (Mg)		1.28	1.16		mg/L	9.8	30	13-MAY-21
WG3533776-2 IRM		WT SAR4						
Calcium (Ca)			95.6		%		70-130	13-MAY-21
Sodium (Na)			97.7		%		70-130	13-MAY-21
Magnesium (Mg)			98.3		%		70-130	13-MAY-21
WG3533776-5 LCS								
Calcium (Ca)			106.7		%		80-120	13-MAY-21
Sodium (Na)			100.0		%		80-120	13-MAY-21
Magnesium (Mg)			101.4		%		80-120	13-MAY-21
WG3533776-1 MB								
Calcium (Ca)			<0.50		mg/L		0.5	13-MAY-21
Sodium (Na)			<0.50		mg/L		0.5	13-MAY-21
Magnesium (Mg)			<0.50		mg/L		0.5	13-MAY-21

Quality Control Report

Workorder: L2586345

Report Date: 13-MAY-21

Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

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Contact: Dennis Hsu / Alexis Teohari

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



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Chain of



L2586345-COFC

COC Number: 20 - 888364

Page of

Report To Contact and company name below will appear on the final report			Reports / Recipients			Turnaround Time (TAT) Requested				AFFIX ALS BARCODE LABEL HERE (ALS use only)													
Company:	T. Harris Environmental		Select Report Format:	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)		<input type="checkbox"/> Routine [R] if received by 3pm M-F - no surcharges apply																	
Contact:	Dennis Hsu Alexis Techari		Merge QC/QCI Reports with COA	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A		<input type="checkbox"/> 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum																	
Phone:	416 435 1164		<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			<input checked="" type="checkbox"/> 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum																	
Company address below will appear on the final report			Select Distribution:	<input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX		<input checked="" type="checkbox"/> 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum																	
Street:	93 Skyway Ave, Toronto, ON		Email 1 or Fax:	dhsu@tharris.ca		<input checked="" type="checkbox"/> 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum																	
City/Province:			Email 2:	atechari@tharris.ca		<input type="checkbox"/> Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush requests on weekends, statutory holidays and non-routine tests																	
Postal Code:	M9W 6N6		Email 3:			Date and Time Required for all E&P TATs:																	
Invoice To:	Same as Report To <input type="checkbox"/> YES <input type="checkbox"/> NO		Invoice Recipients			For all tests with rush TATs requested, please contact your AM to confirm availability.																	
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO		Select Invoice Distribution:	<input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			Analysis Request																
Company:			Email 1 or Fax:				Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																
Contact:			Email 2:				NUMBER OF CONTAINERS	Metals/Inorganics	PAHs	OC Hydrocarbons	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)										
Project Information			Oil and Gas Required Fields (client use)																				
ALS Account # / Quote #:			AFE/Cost Center:	PO#																			
Job #:			Major/Minor Code:	Routing Code:																			
PO / AFE:			Requisitioner:																				
LSD:	SOIL		Location:																				
ALS Lab Work Order # (ALS use only):	L2586345		ALS Contact:	Sampler:																			
ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)			Date (dd-mmm-yy)	Time (hh:mm)	Sample Type																	
	BHMW3-2			10-05-21	01:00	Soil	2	✓	✓														
	BHMW3-3					"	2	✓	✓														
	BHMW3			↓	↓	Brown water	2	✓	✓														
	BH4-2			↓	↓	Soil	2	✓	✓														
	BMMW1			↓	↓	Groundwater	2	✓	✓														
Drinking Water (DW) Samples¹ (client use)			Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)			SAMPLE RECEIPT DETAILS (ALS use only)																	
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO			O. Reg. 113/04, Table 3, Res course.			Cooling Method: <input type="checkbox"/> NONE <input type="checkbox"/> ICE <input checked="" type="checkbox"/> ICE PACKS <input type="checkbox"/> FROZEN <input type="checkbox"/> COOLING INITIATED																	
Are samples for human consumption/ use? <input type="checkbox"/> YES <input type="checkbox"/> NO						Submission Comments identified on Sample Receipt Notification: <input type="checkbox"/> YES <input type="checkbox"/> NO																	
						Cooler Custody Seals Intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A Sample Custody Seals Intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A																	
						INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C														
						9.5																	
SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)																	
Released by:	Alexis Techari		Date:	11/05/21		Time:	Received by:	eg		Date:	05/11/21		Time:	17:00									



T.HARRIS ENVIRONMENTAL
MANAGEMENT INC
ATTN: Dennis Hsu/ Alexis Teohari
93 Skyway Ave.
Etobicoke ON M9W 6N6

Date Received: 11-MAY-21
Report Date: 13-MAY-21 15:00 (MT)
Version: FINAL

Client Phone: 416-523-8729

Certificate of Analysis

Lab Work Order #: L2586364
Project P.O. #: NOT SUBMITTED
Job Reference:
C of C Numbers:
Legal Site Desc:

Amanda Overholster
Account Manager

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ADDRESS: 5730 Coopers Avenue, Unit #26 , Mississauga, ON L4Z 2E9 Canada | Phone: +1 905 507 6910 | Fax: +1 905 507 6927
ALS CANADA LTD Part of the ALS Group An ALS Limited Company

Summary of Guideline Exceedances

Guideline							
ALS ID	Client ID	Grouping	Analyte	Result	Guideline Limit	Unit	
Ontario Regulation 153/04 - April 15, 2011 Standards - T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)							
(No parameter exceedances)							

* Please refer to the Reference Information section for an explanation of any qualifiers noted.

ANALYTICAL REPORT

Physical Tests - WATER

Lab ID	L2586364-1
Sample Date	10-MAY-21
Sample ID	BHMW3

Analyte	Unit	Guide Limits		
		#1	#2	
Conductivity	mS/cm	-	-	0.618
pH	pH units	-	-	7.73

Guide Limit #1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
- Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.



ANALYTICAL REPORT

Anions and Nutrients - WATER

Lab ID L2586364-1
Sample Date 10-MAY-21
Sample ID BHMW3

Analyte	Unit	Guide Limits	
		#1	#2
Chloride (Cl)	mg/L	2300	- 15.0

Guide Limit #1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
 Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

ANALYTICAL REPORT

Cyanides - WATER

Lab ID	L2586364-1
Sample Date	10-MAY-21
Sample ID	BHMW3

Analyte	Unit	Guide Limits		
		#1	#2	
Cyanide, Weak Acid Diss	ug/L	66	-	<2.0

Guide Limit #1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
- Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.



ANALYTICAL REPORT

Dissolved Metals - WATER

Lab ID L2586364-1
Sample Date 10-MAY-21
Sample ID BHMW3

Analyte	Unit	Guide Limits		
		#1	#2	
Dissolved Mercury Filtration Location	-	-	-	FIELD
Dissolved Metals Filtration Location	-	-	-	FIELD
Antimony (Sb)-Dissolved	ug/L	20000	-	0.20
Arsenic (As)-Dissolved	ug/L	1900	-	4.15
Barium (Ba)-Dissolved	ug/L	29000	-	159
Beryllium (Be)-Dissolved	ug/L	67	-	<0.10
Boron (B)-Dissolved	ug/L	45000	-	12
Cadmium (Cd)-Dissolved	ug/L	2.7	-	<0.010
Chromium (Cr)-Dissolved	ug/L	810	-	1.76
Cobalt (Co)-Dissolved	ug/L	66	-	0.93
Copper (Cu)-Dissolved	ug/L	87	-	5.14
Lead (Pb)-Dissolved	ug/L	25	-	0.766
Mercury (Hg)-Dissolved	ug/L	0.29	-	<0.0050 ^{PDM}
Molybdenum (Mo)-Dissolved	ug/L	9200	-	0.721
Nickel (Ni)-Dissolved	ug/L	490	-	2.15
Selenium (Se)-Dissolved	ug/L	63	-	0.060
Silver (Ag)-Dissolved	ug/L	1.5	-	<0.050
Sodium (Na)-Dissolved	ug/L	2300000	-	8360
Thallium (Tl)-Dissolved	ug/L	510	-	0.022
Uranium (U)-Dissolved	ug/L	420	-	1.06
Vanadium (V)-Dissolved	ug/L	250	-	4.03
Zinc (Zn)-Dissolved	ug/L	1100	-	6.1

Guide Limit #1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
 Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

* Please refer to the Reference Information section for an explanation of any qualifiers noted.

ANALYTICAL REPORT

Speciated Metals - WATER

Lab ID	L2586364-1
Sample Date	10-MAY-21
Sample ID	BHMW3

Analyte	Unit	Guide Limits		
		#1	#2	
Chromium, Hexavalent	ug/L	140	-	<0.50

Guide Limit #1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
- Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

ANALYTICAL REPORT

Polycyclic Aromatic Hydrocarbons - WATER

Lab ID L2586364-1
Sample Date 10-MAY-21
Sample ID BHMW3

Analyte	Unit	Guide Limits		
		#1	#2	
Acenaphthene	ug/L	600	-	<0.020
Acenaphthylene	ug/L	1.8	-	<0.020
Anthracene	ug/L	2.4	-	<0.020
Benzo(a)anthracene	ug/L	4.7	-	<0.020
Benzo(a)pyrene	ug/L	0.81	-	<0.010
Benzo(b&j)fluoranthene	ug/L	0.75	-	<0.020
Benzo(g,h,i)perylene	ug/L	0.2	-	<0.020
Benzo(k)fluoranthene	ug/L	0.4	-	<0.020
Chrysene	ug/L	1	-	<0.020
Dibenz(a,h)anthracene	ug/L	0.52	-	<0.020
Fluoranthene	ug/L	130	-	<0.020
Fluorene	ug/L	400	-	<0.020
Indeno(1,2,3-cd)pyrene	ug/L	0.2	-	<0.020
1+2-Methylnaphthalenes	ug/L	1800	-	<0.028
1-Methylnaphthalene	ug/L	1800	-	<0.020
2-Methylnaphthalene	ug/L	1800	-	<0.020
Naphthalene	ug/L	1400	-	<0.050
Phenanthrene	ug/L	580	-	0.046
Pyrene	ug/L	68	-	0.029
Surrogate: Acenaphthene d10	%	-	-	64.5
Surrogate: Chrysene d12	%	-	-	62.1
Surrogate: Naphthalene d8	%	-	-	60.2
Surrogate: Phenanthrene d10	%	-	-	83.8

Guide Limit #1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
- Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

* Please refer to the Reference Information section for an explanation of any qualifiers noted.

ANALYTICAL REPORT

Organochlorine Pesticides - WATER

Analyte	Unit	Guide Limits		
		#1	#2	
Lab ID L2586364-2 Sample Date 10-MAY-21 Sample ID BHMW1				
Aldrin	ug/L	8.5	-	<0.0080
gamma-hexachlorocyclohexane	ug/L	1.2	-	<0.0080
a-chlordane	ug/L	-	-	<0.0080
Chlordane (Total)	ug/L	28	-	<0.011
g-chlordane	ug/L	-	-	<0.0080
o,p-DDD	ug/L	-	-	<0.0040
pp-DDD	ug/L	-	-	<0.0040
Total DDD	ug/L	45	-	<0.0057
o,p-DDE	ug/L	-	-	<0.0040
pp-DDE	ug/L	-	-	<0.0040
Total DDE	ug/L	20	-	<0.0057
op-DDT	ug/L	-	-	<0.0040
pp-DDT	ug/L	-	-	<0.0040
Total DDT	ug/L	2.8	-	<0.0057
DDT+Metabolites	ug/L	-	-	<0.0098
Dieldrin	ug/L	0.75	-	<0.0080
Endosulfan I	ug/L	-	-	<0.0070
Endosulfan II	ug/L	-	-	<0.0070
Endosulfan (Total)	ug/L	1.5	-	<0.0099
Endrin	ug/L	0.48	-	<0.010
Heptachlor	ug/L	2.5	-	<0.0080
Heptachlor Epoxide	ug/L	0.048	-	<0.0080
Hexachlorobenzene	ug/L	3.1	-	<0.0080
Hexachlorobutadiene	ug/L	0.44	-	<0.0080
Hexachloroethane	ug/L	94	-	<0.0080
Methoxychlor	ug/L	6.5	-	<0.0080
Surrogate: Decachlorobiphenyl	%	-	-	96.7
Surrogate: Tetrachloro-m-xylene	%	-	-	92.4

Guide Limit #1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
 Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

* Please refer to the Reference Information section for an explanation of any qualifiers noted.

Reference Information

Qualifiers for Individual Parameters Listed:

Qualifier	Description
PDM	Particulate was observed in preserved Dissolved Metals sample. Associated results may be biased low.

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
CHLORDANE-T-CALC-WT	Water	Chlordane Total sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
CL-IC-N-WT	Water	Chloride by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).			
CN-WAD-R511-WT	Water	Cyanide (WAD)-O.Reg 153/04	APHA 4500CN I-Weak acid Dist Colorimet
Weak acid dissociable cyanide (WAD) is determined by undergoing a distillation procedure. Cyanide is converted to cyanogen chloride by reacting with chloramine-T, the cyanogen chloride then reacts with a combination of barbituric acid and isonicotinic acid to form a highly colored complex.			
Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).			
CR-CR6-IC-R511-WT	Water	Hex Chrom-O.Reg 153/04 (July 2011)	EPA 7199
This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Method 7199, published by the United States Environmental Protection Agency (EPA). The procedure involves analysis for chromium (VI) by ion chromatography using diphenylcarbazide in a sulphuric acid solution. Chromium (III) is calculated as the difference between the total chromium and the chromium (VI) results.			
Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).			
DDD-DDE-DDT-CALC-WT	Water	DDD, DDE, DDT sums	CALCULATION
Calculation of Total DDD, Total DDE and Total DDT			
EC-R511-WT	Water	Conductivity-O.Reg 153/04 (July 2011)	APHA 2510 B
Water samples can be measured directly by immersing the conductivity cell into the sample.			
Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).			
EC-SCREEN-WT	Water	Conductivity Screen (Internal Use Only)	APHA 2510
Qualitative analysis of conductivity where required during preparation of other tests - e.g. TDS, metals, etc.			
ENDOSULFAN-T-CALC-WT	Water	Endosulfan Total sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
HG-D-UG/L-CVAA-WT	Water	Diss. Mercury in Water by CVAAS (ug/L)	EPA 1631E (mod)
Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.			

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
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Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

MET-D-UG/L-MS-WT Water Diss. Metals in Water by ICPMS (ug/L) EPA 200.8

The metal constituents of a non-acidified sample that pass through a membrane filter prior to ICP/MS analysis.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

METHYLNAPS-CALC-WT Water PAH-Calculated Parameters SW846 8270

OCP-ROUTINE-WT Water Pesticides, Organochlorine in Water SW846 8270

Samples are extracted using a solvent mixture and the resulting extracts are analyzed on GC/MSD

PAH-511-WT Water PAH-O. Reg 153/04 (July 2011) SW846 3510/8270

Aqueous samples, fortified with surrogates, are extracted using liquid/liquid extraction technique. The sample extracts are concentrated and then analyzed using GC/MS. Results for benzo(b) fluoranthene may include contributions from benzo(j)fluoranthene, if also present in the sample.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

PH-WT Water pH APHA 4500 H-Electrode

Water samples are analyzed directly by a calibrated pH meter.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011). Holdtime for samples under this regulation is 28 days

**ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody Numbers:

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA

Reference Information

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information. Guideline limits are not adjusted for the hardness, pH or temperature of the sample (the most conservative values are used). Measurement uncertainty is not applied to test results prior to comparison with specified criteria values.



Quality Control Report

Workorder: L2586364

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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.

Etobicoke ON M9W 6N6

Contact: Dennis Hsu/ Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CL-IC-N-WT		Water						
Batch	R5457074							
WG3533741-19	DUP	WG3533741-18						
Chloride (Cl)		6.18	6.16		mg/L	0.3	20	12-MAY-21
WG3533741-17	LCS							
Chloride (Cl)			100.8		%		90-110	12-MAY-21
WG3533741-16	MB							
Chloride (Cl)			<0.50		mg/L		0.5	12-MAY-21
WG3533741-20	MS	WG3533741-18						
Chloride (Cl)			102.3		%		75-125	12-MAY-21
CN-WAD-R511-WT		Water						
Batch	R5456317							
WG3533337-3	DUP	WG3533337-5						
Cyanide, Weak Acid Diss		<2.0	<2.0	RPD-NA	ug/L	N/A	20	12-MAY-21
WG3533337-2	LCS							
Cyanide, Weak Acid Diss			87.1		%		80-120	12-MAY-21
WG3533337-1	MB							
Cyanide, Weak Acid Diss			<2.0		ug/L		2	12-MAY-21
WG3533337-4	MS	WG3533337-5						
Cyanide, Weak Acid Diss			107.8		%		75-125	12-MAY-21
CR-CR6-IC-R511-WT		Water						
Batch	R5457159							
WG3533638-4	DUP	WG3533638-3						
Chromium, Hexavalent		2.54	2.50		ug/L	1.5	20	12-MAY-21
WG3533638-2	LCS							
Chromium, Hexavalent			103.0		%		80-120	12-MAY-21
WG3533638-1	MB							
Chromium, Hexavalent			<0.50		ug/L		0.5	12-MAY-21
WG3533638-5	MS	WG3533638-3						
Chromium, Hexavalent			103.2		%		70-130	12-MAY-21
EC-R511-WT		Water						
Batch	R5456465							
WG3533131-4	DUP	WG3533131-3						
Conductivity		0.926	0.927		mS/cm	0.1	10	12-MAY-21
WG3533131-2	LCS							
Conductivity			103.1		%		90-110	12-MAY-21
WG3533131-1	MB							
Conductivity			<0.0030		mS/cm		0.003	12-MAY-21
HG-D-UG/L-CVAA-WT		Water						



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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

Contact: Dennis Hsu/ Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-D-UG/L-CVAA-WT								
	Water							
Batch	R5456861							
WG3533937-3	DUP	L2586364-1						
Mercury (Hg)-Dissolved		<0.0050	<0.0050	RPD-NA	ug/L	N/A	20	13-MAY-21
WG3533937-2	LCS							
Mercury (Hg)-Dissolved			108.0		%		80-120	13-MAY-21
WG3533937-1	MB							
Mercury (Hg)-Dissolved			<0.0050		ug/L		0.005	13-MAY-21
WG3533937-4	MS	L2586713-2						
Mercury (Hg)-Dissolved			98.5		%		70-130	13-MAY-21
MET-D-UG/L-MS-WT								
	Water							
Batch	R5456049							
WG3532928-4	DUP	WG3532928-3						
Antimony (Sb)-Dissolved		<0.10	<0.10	RPD-NA	ug/L	N/A	20	11-MAY-21
Arsenic (As)-Dissolved		0.45	0.45		ug/L	1.3	20	11-MAY-21
Barium (Ba)-Dissolved		64.4	64.4		ug/L	0.1	20	11-MAY-21
Beryllium (Be)-Dissolved		<0.10	<0.10	RPD-NA	ug/L	N/A	20	11-MAY-21
Boron (B)-Dissolved		12	12		ug/L	0.8	20	11-MAY-21
Cadmium (Cd)-Dissolved		<0.0050	<0.0050	RPD-NA	ug/L	N/A	20	11-MAY-21
Chromium (Cr)-Dissolved		0.57	0.55		ug/L	3.1	20	11-MAY-21
Cobalt (Co)-Dissolved		0.21	0.20		ug/L	2.3	20	11-MAY-21
Copper (Cu)-Dissolved		1.40	1.43		ug/L	2.2	20	11-MAY-21
Lead (Pb)-Dissolved		<0.050	<0.050	RPD-NA	ug/L	N/A	20	11-MAY-21
Molybdenum (Mo)-Dissolved		4.71	4.77		ug/L	1.3	20	11-MAY-21
Nickel (Ni)-Dissolved		0.74	0.78		ug/L	5.0	20	11-MAY-21
Selenium (Se)-Dissolved		0.407	0.421		ug/L	3.5	20	11-MAY-21
Silver (Ag)-Dissolved		<0.050	<0.050	RPD-NA	ug/L	N/A	20	11-MAY-21
Sodium (Na)-Dissolved		65700	65700		ug/L	0.0	20	11-MAY-21
Thallium (Tl)-Dissolved		<0.010	<0.010	RPD-NA	ug/L	N/A	20	11-MAY-21
Uranium (U)-Dissolved		1.24	1.23		ug/L	0.5	20	11-MAY-21
Vanadium (V)-Dissolved		0.60	0.57		ug/L	5.5	20	11-MAY-21
Zinc (Zn)-Dissolved		1.1	1.1		ug/L	3.7	20	11-MAY-21
WG3532928-2	LCS							
Antimony (Sb)-Dissolved			104.5		%		80-120	11-MAY-21
Arsenic (As)-Dissolved			100.6		%		80-120	11-MAY-21
Barium (Ba)-Dissolved			101.1		%		80-120	11-MAY-21
Beryllium (Be)-Dissolved			98.3		%		80-120	11-MAY-21



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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

Contact: Dennis Hsu/ Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT		Water						
Batch	R5456049							
WG3532928-2 LCS								
Boron (B)-Dissolved			94.1		%		80-120	11-MAY-21
Cadmium (Cd)-Dissolved			101.4		%		80-120	11-MAY-21
Chromium (Cr)-Dissolved			96.1		%		80-120	11-MAY-21
Cobalt (Co)-Dissolved			99.1		%		80-120	11-MAY-21
Copper (Cu)-Dissolved			98.4		%		80-120	11-MAY-21
Lead (Pb)-Dissolved			108.8		%		80-120	11-MAY-21
Molybdenum (Mo)-Dissolved			103.2		%		80-120	11-MAY-21
Nickel (Ni)-Dissolved			97.9		%		80-120	11-MAY-21
Selenium (Se)-Dissolved			97.0		%		80-120	11-MAY-21
Silver (Ag)-Dissolved			107.7		%		80-120	11-MAY-21
Sodium (Na)-Dissolved			96.1		%		80-120	11-MAY-21
Thallium (Tl)-Dissolved			108.3		%		80-120	11-MAY-21
Uranium (U)-Dissolved			110.5		%		80-120	11-MAY-21
Vanadium (V)-Dissolved			99.6		%		80-120	11-MAY-21
Zinc (Zn)-Dissolved			102.6		%		80-120	11-MAY-21
WG3532928-1 MB								
Antimony (Sb)-Dissolved			<0.10		ug/L		0.1	11-MAY-21
Arsenic (As)-Dissolved			<0.10		ug/L		0.1	11-MAY-21
Barium (Ba)-Dissolved			<0.10		ug/L		0.1	11-MAY-21
Beryllium (Be)-Dissolved			<0.10		ug/L		0.1	11-MAY-21
Boron (B)-Dissolved			<10		ug/L		10	11-MAY-21
Cadmium (Cd)-Dissolved			<0.0050		ug/L		0.005	11-MAY-21
Chromium (Cr)-Dissolved			<0.50		ug/L		0.5	11-MAY-21
Cobalt (Co)-Dissolved			<0.10		ug/L		0.1	11-MAY-21
Copper (Cu)-Dissolved			<0.20		ug/L		0.2	11-MAY-21
Lead (Pb)-Dissolved			<0.050		ug/L		0.05	11-MAY-21
Molybdenum (Mo)-Dissolved			<0.050		ug/L		0.05	11-MAY-21
Nickel (Ni)-Dissolved			<0.50		ug/L		0.5	11-MAY-21
Selenium (Se)-Dissolved			<0.050		ug/L		0.05	11-MAY-21
Silver (Ag)-Dissolved			<0.050		ug/L		0.05	11-MAY-21
Sodium (Na)-Dissolved			<50		ug/L		50	11-MAY-21
Thallium (Tl)-Dissolved			<0.010		ug/L		0.01	11-MAY-21
Uranium (U)-Dissolved			<0.010		ug/L		0.01	11-MAY-21
Vanadium (V)-Dissolved			<0.50		ug/L		0.5	11-MAY-21



Environmental

Quality Control Report

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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.

Etobicoke ON M9W 6N6

Contact: Dennis Hsu/ Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT								
	Water							
Batch	R5456049							
WG3532928-1 MB								
Zinc (Zn)-Dissolved			<1.0		ug/L		1	11-MAY-21
WG3532928-5 MS		WG3532928-6						
Antimony (Sb)-Dissolved			105.5		%		70-130	11-MAY-21
Arsenic (As)-Dissolved			126.9		%		70-130	12-MAY-21
Barium (Ba)-Dissolved			N/A	MS-B	%		-	11-MAY-21
Beryllium (Be)-Dissolved			107.9		%		70-130	11-MAY-21
Boron (B)-Dissolved			95.3		%		70-130	11-MAY-21
Cadmium (Cd)-Dissolved			106.7		%		70-130	11-MAY-21
Chromium (Cr)-Dissolved			109.1		%		70-130	11-MAY-21
Cobalt (Co)-Dissolved			107.0		%		70-130	11-MAY-21
Copper (Cu)-Dissolved			101.4		%		70-130	11-MAY-21
Lead (Pb)-Dissolved			100.6		%		70-130	11-MAY-21
Molybdenum (Mo)-Dissolved			108.7		%		70-130	11-MAY-21
Nickel (Ni)-Dissolved			102.4		%		70-130	11-MAY-21
Selenium (Se)-Dissolved			136.5	MES	%		70-130	12-MAY-21
Silver (Ag)-Dissolved			99.6		%		70-130	11-MAY-21
Sodium (Na)-Dissolved			N/A	MS-B	%		-	11-MAY-21
Thallium (Tl)-Dissolved			100.6		%		70-130	11-MAY-21
Uranium (U)-Dissolved			N/A	MS-B	%		-	11-MAY-21
Vanadium (V)-Dissolved			114.6		%		70-130	11-MAY-21
Zinc (Zn)-Dissolved			111.5		%		70-130	11-MAY-21
OCP-ROUTINE-WT								
	Water							
Batch	R5456405							
WG3533114-2 LCS								
Aldrin			128.7		%		50-150	12-MAY-21
gamma-hexachlorocyclohexane			117.1		%		50-150	12-MAY-21
a-chlordane			122.3		%		50-150	12-MAY-21
g-chlordane			122.4		%		50-150	12-MAY-21
o,p-DDD			111.4		%		50-150	12-MAY-21
pp-DDD			116.6		%		50-150	12-MAY-21
o,p-DDE			105.4		%		50-150	12-MAY-21
pp-DDE			109.6		%		50-150	12-MAY-21
op-DDT			113.6		%		50-150	12-MAY-21
pp-DDT			98.4		%		50-150	12-MAY-21



Quality Control Report

Workorder: L2586364

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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

Contact: Dennis Hsu/ Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
OCP-ROUTINE-WT		Water						
Batch	R5456405							
WG3533114-2	LCS							
Dieldrin			112.1		%		50-150	12-MAY-21
Endosulfan I			122.9		%		50-150	12-MAY-21
Endosulfan II			115.1		%		50-150	12-MAY-21
Endrin			78.2		%		50-150	12-MAY-21
Heptachlor			107.6		%		50-150	12-MAY-21
Heptachlor Epoxide			126.1		%		50-150	12-MAY-21
Hexachlorobenzene			106.3		%		50-150	12-MAY-21
Hexachlorobutadiene			99.3		%		50-150	12-MAY-21
Hexachloroethane			106.9		%		50-150	12-MAY-21
Methoxychlor			123.7		%		50-150	12-MAY-21
WG3533114-1	MB							
Aldrin			<0.0080		ug/L		0.008	12-MAY-21
gamma-hexachlorocyclohexane			<0.0080		ug/L		0.008	12-MAY-21
a-chlordane			<0.0080		ug/L		0.008	12-MAY-21
g-chlordane			<0.0080		ug/L		0.008	12-MAY-21
o,p-DDD			<0.0040		ug/L		0.004	12-MAY-21
pp-DDD			<0.0040		ug/L		0.004	12-MAY-21
o,p-DDE			<0.0040		ug/L		0.004	12-MAY-21
pp-DDE			<0.0040		ug/L		0.004	12-MAY-21
op-DDT			<0.0040		ug/L		0.004	12-MAY-21
pp-DDT			<0.0040		ug/L		0.004	12-MAY-21
Dieldrin			<0.0080		ug/L		0.008	12-MAY-21
Endosulfan I			<0.0070		ug/L		0.007	12-MAY-21
Endosulfan II			<0.0070		ug/L		0.007	12-MAY-21
Endrin			<0.010		ug/L		0.01	12-MAY-21
Heptachlor			<0.0080		ug/L		0.008	12-MAY-21
Heptachlor Epoxide			<0.0080		ug/L		0.008	12-MAY-21
Hexachlorobenzene			<0.0080		ug/L		0.008	12-MAY-21
Hexachlorobutadiene			<0.0080		ug/L		0.008	12-MAY-21
Hexachloroethane			<0.0080		ug/L		0.008	12-MAY-21
Methoxychlor			<0.0080		ug/L		0.008	12-MAY-21
Surrogate: Decachlorobiphenyl			138.2	SURQC	%		40-130	12-MAY-21
Surrogate: Tetrachloro-m-xylene			88.5		%		40-130	12-MAY-21
PAH-511-WT	Water							



Quality Control Report

Workorder: L2586364

Report Date: 13-MAY-21

Page 6 of 8

Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

Contact: Dennis Hsu/ Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	Water							
Batch	R5456186							
WG3532757-2 LCS								
1-Methylnaphthalene			99.0		%		50-140	12-MAY-21
2-Methylnaphthalene			92.0		%		50-140	12-MAY-21
Acenaphthene			101.1		%		50-140	12-MAY-21
Acenaphthylene			99.0		%		50-140	12-MAY-21
Anthracene			99.9		%		50-140	12-MAY-21
Benzo(a)anthracene			104.2		%		50-140	12-MAY-21
Benzo(a)pyrene			101.7		%		50-140	12-MAY-21
Benzo(b&j)fluoranthene			109.4		%		50-140	12-MAY-21
Benzo(g,h,i)perylene			116.2		%		50-140	12-MAY-21
Benzo(k)fluoranthene			104.7		%		50-140	12-MAY-21
Chrysene			101.3		%		50-140	12-MAY-21
Dibenz(a,h)anthracene			102.8		%		50-140	12-MAY-21
Fluoranthene			104.2		%		50-140	12-MAY-21
Fluorene			100.6		%		50-140	12-MAY-21
Indeno(1,2,3-cd)pyrene			122.9		%		50-140	12-MAY-21
Naphthalene			89.4		%		50-140	12-MAY-21
Phenanthrene			107.2		%		50-140	12-MAY-21
Pyrene			104.3		%		50-140	12-MAY-21
WG3532757-1 MB								
1-Methylnaphthalene			<0.020		ug/L		0.02	12-MAY-21
2-Methylnaphthalene			<0.020		ug/L		0.02	12-MAY-21
Acenaphthene			<0.020		ug/L		0.02	12-MAY-21
Acenaphthylene			<0.020		ug/L		0.02	12-MAY-21
Anthracene			<0.020		ug/L		0.02	12-MAY-21
Benzo(a)anthracene			<0.020		ug/L		0.02	12-MAY-21
Benzo(a)pyrene			<0.010		ug/L		0.01	12-MAY-21
Benzo(b&j)fluoranthene			<0.020		ug/L		0.02	12-MAY-21
Benzo(g,h,i)perylene			<0.020		ug/L		0.02	12-MAY-21
Benzo(k)fluoranthene			<0.020		ug/L		0.02	12-MAY-21
Chrysene			<0.020		ug/L		0.02	12-MAY-21
Dibenz(a,h)anthracene			<0.020		ug/L		0.02	12-MAY-21
Fluoranthene			<0.020		ug/L		0.02	12-MAY-21
Fluorene			<0.020		ug/L		0.02	12-MAY-21
Indeno(1,2,3-cd)pyrene			<0.020		ug/L		0.02	12-MAY-21



Quality Control Report

Workorder: L2586364

Report Date: 13-MAY-21

Page 7 of 8

Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

Contact: Dennis Hsu/ Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT		Water						
Batch	R5456186							
WG3532757-1	MB							
Naphthalene			<0.050		ug/L		0.05	12-MAY-21
Phenanthrene			<0.020		ug/L		0.02	12-MAY-21
Pyrene			<0.020		ug/L		0.02	12-MAY-21
Surrogate: Naphthalene d8			89.2		%		60-140	12-MAY-21
Surrogate: Phenanthrene d10			97.3		%		60-140	12-MAY-21
PH-WT		Water						
Batch	R5456465							
WG3533131-4	DUP	WG3533131-3						
pH		7.95	7.98	J	pH units	0.03	0.2	12-MAY-21
WG3533131-2	LCS							
pH			6.96		pH units		6.9-7.1	12-MAY-21

Quality Control Report

Workorder: L2586364

Report Date: 13-MAY-21

Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

Page 8 of 8

Contact: Dennis Hsu/ Alexis Teohari

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.
SURQC	Surrogate recovery marginally exceeded DQO in QC sample (MB, LCS, RM, or MS). Surrogates are less important for QC samples than for test samples. Refer to regular (non-surrogate) analyte results in affected QC sample for assessment of potential impacts to those analytes.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



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Chain of Custody (COC) / A



L2586364-COFC

Number: 20 - 888364

Handwritten initials 'C6'

Canada Toll Free:

Page of

Report To Contact and company name below will appear on the final report		Reports / Recipients			Turnaround Time (TAT) Requested			AFFIX ALS BARCODE LABEL HERE (ALS use only)																																																																		
Company:	T. Harris Environmental	Select Report Format:	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)	<input type="checkbox"/> Routine [R] if received by 3pm M-F - no surcharges apply <input type="checkbox"/> 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum <input type="checkbox"/> 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum <input checked="" type="checkbox"/> 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum <input checked="" type="checkbox"/> Same day [E] if received by 3pm M-F - 100% rush surcharge minimum <input type="checkbox"/> Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush requests on weekends, statutory holidays and non-routine tests																																																																						
Contact:	Dennis Hsu Alexis Teohari	Merge QC/QCI Reports with COA	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A																																																																							
Phone:	416 435 1164	Compare Results to Criteria on Report - provide details below if box checked	<input type="checkbox"/>																																																																							
Company address below will appear on the final report		Select Distribution:	<input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX	Date and Time Required for all E&P TATs:			M-F 10am - 5pm																																																																			
Street:	93 Skyway Ave, Toronto, ON	Email 1 or Fax:	dhhsu@tharris.ca	For all tests with rush TATs requested, please contact your AM to confirm availability.																																																																						
City/Province:		Email 2:	ateohari@tharris.ca	Analysis Request																																																																						
Postal Code:	M9W 1N6	Email 3:		Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																																																																						
Invoice To	Same as Report To <input type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Recipients			<table border="1"> <tr> <th rowspan="10">NUMBER OF CONTAINERS</th> <th rowspan="10">Metals/Inorganics</th> <th rowspan="10">PAHs</th> <th rowspan="10">OC Hydrocarbons</th> <th colspan="10">SAMPLES ON HOLD</th> <th colspan="10">EXTENDED STORAGE REQUIRED</th> <th colspan="10">SUSPECTED HAZARD (see notes)</th> </tr> <tr> <td colspan="30"></td> </tr> </table>						NUMBER OF CONTAINERS	Metals/Inorganics	PAHs	OC Hydrocarbons	SAMPLES ON HOLD										EXTENDED STORAGE REQUIRED										SUSPECTED HAZARD (see notes)																																							
NUMBER OF CONTAINERS	Metals/Inorganics	PAHs	OC Hydrocarbons	SAMPLES ON HOLD											EXTENDED STORAGE REQUIRED										SUSPECTED HAZARD (see notes)																																																	
				Copy of Invoice with Report											<input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution:	<input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX																																																									
				Company:												Email 1 or Fax:																																																										
				Contact:												Email 2:																																																										
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				ALS Account # / Quote #:												AFE/Cost Center:		PO#:																																																								
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				LSD:		Location:																																																																				
ALS Lab Work Order # (ALS use only): L2586304		ALS Contact:		Sampler:																																																																						
ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type																																																																						
	BHMW3-2	10-05-21	01:00	Soil	2	✓	✓	✓																																																																		
	BHMW3-3	↓	↓	"	2	✓	✓	✓																																																																		
1	BHMW3	↓	↓	Groundwater	2	✓	✓	✓																																																																		
	BH4-2	↓	↓	Soil	2	✓	✓	✓																																																																		
2	BMMW1	↓	↓	Groundwater	2	✓	✓	✓																																																																		
Drinking Water (DW) Samples¹ (client use)		Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)			SAMPLE RECEIPT DETAILS (ALS use only)																																																																					
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		O. Reg. 113/04, Table 3, Res Course.			Cooling Method: <input type="checkbox"/> NONE <input type="checkbox"/> ICE <input checked="" type="checkbox"/> ICE PACKS <input type="checkbox"/> FROZEN <input type="checkbox"/> COOLING INITIATED																																																																					
Are samples for human consumption/ use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Submission Comments identified on Sample Receipt Notification: <input type="checkbox"/> YES <input type="checkbox"/> NO																																																																					
					Cooler Custody Seals Intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A Sample Custody Seals Intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A																																																																					
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SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)																																																																					
Released by:	Alexis Teohari	Date:	11/05/21	Time:		Received by:		Date:	08/11/21	Time:	1:00																																																															

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

ALS 21-05 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.



T.HARRIS ENVIRONMENTAL
MANAGEMENT INC
ATTN: Dennis Hsu / Alexis Teohari
93 Skyway Ave.
Etobicoke ON M9W 6N6

Date Received: 11-MAY-21
Report Date: 13-MAY-21 14:57 (MT)
Version: FINAL

Client Phone: 416-523-8729

Certificate of Analysis

Lab Work Order #: L2586345
Project P.O. #: NOT SUBMITTED
Job Reference:
C of C Numbers:
Legal Site Desc:

Amanda Overholster
Account Manager

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ADDRESS: 5730 Coopers Avenue, Unit #26, Mississauga, ON L4Z 2E9 Canada | Phone: +1 905 507 6910 | Fax: +1 905 507 6927
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Summary of Guideline Exceedances

Guideline							
ALS ID	Client ID	Grouping	Analyte	Result	Guideline Limit	Unit	
Ontario Regulation 153/04 - April 15, 2011 Standards - T3-Soil-Res/Park/Inst. Property Use (Coarse)							
(No parameter exceedances)							



ANALYTICAL REPORT

Physical Tests - SOIL

Lab ID	L2586345-1	L2586345-2	L2586345-3
Sample Date	10-MAY-21	10-MAY-21	10-MAY-21
Sample ID	BHMW3-2	BHMW3-3	BH4-2

Analyte	Unit	Guide Limits				
		#1	#2			
Conductivity	mS/cm	0.7	-	0.169		0.0894
% Moisture	%	-	-	20.7	18.0	21.8
pH	pH units	-	-	7.48		6.98

Guide Limit #1: T3-Soil-Res/Park/Inst. Property Use (Coarse)

-  Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
-  Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

ANALYTICAL REPORT

Cyanides - SOIL

	Lab ID	L2586345-1	L2586345-3
Sample Date	10-MAY-21	10-MAY-21	10-MAY-21
Sample ID	BHMW3-2	BH4-2	

Analyte	Unit	Guide Limits		#1	#2
		#1	#2		
Cyanide, Weak Acid Diss	ug/g	0.051	-	<0.050	<0.050

Guide Limit #1: T3-Soil-Res/Park/Inst. Property Use (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
- Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.



ANALYTICAL REPORT

Saturated Paste Extractables - SOIL

	Lab ID	L2586345-1	L2586345-3
Sample Date	10-MAY-21	10-MAY-21	
Sample ID	BHMW3-2	BH4-2	

Analyte	Unit	Guide Limits			
		#1	#2		
SAR	SAR	5	-	0.23	0.35
Calcium (Ca)	mg/L	-	-	20.4	7.24
Magnesium (Mg)	mg/L	-	-	5.64	3.31
Sodium (Na)	mg/L	-	-	4.54	4.51

Guide Limit #1: T3-Soil-Res/Park/Inst. Property Use (Coarse)

-  Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
-  Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

ANALYTICAL REPORT

Metals - SOIL

Analyte	Unit	Guide Limits			
		#1	#2		
Antimony (Sb)	ug/g	7.5	-	<1.0	<1.0
Arsenic (As)	ug/g	18	-	3.6	3.9
Barium (Ba)	ug/g	390	-	366	351
Beryllium (Be)	ug/g	4	-	1.17	1.21
Boron (B)	ug/g	120	-	13.1	9.6
Boron (B), Hot Water Ext.	ug/g	1.5	-	<0.10	<0.10
Cadmium (Cd)	ug/g	1.2	-	<0.50	<0.50
Chromium (Cr)	ug/g	160	-	62.0	59.4
Cobalt (Co)	ug/g	22	-	19.9	18.6
Copper (Cu)	ug/g	140	-	37.2	36.5
Lead (Pb)	ug/g	120	-	11.1	9.2
Mercury (Hg)	ug/g	0.27	-	0.0077	0.0135
Molybdenum (Mo)	ug/g	6.9	-	<1.0	<1.0
Nickel (Ni)	ug/g	100	-	41.8	43.1
Selenium (Se)	ug/g	2.4	-	<1.0	<1.0
Silver (Ag)	ug/g	20	-	<0.20	<0.20
Thallium (Tl)	ug/g	1	-	<0.50	<0.50
Uranium (U)	ug/g	23	-	<1.0	<1.0
Vanadium (V)	ug/g	86	-	84.1	79.8
Zinc (Zn)	ug/g	340	-	103	97.5

Guide Limit #1: T3-Soil-Res/Park/Inst. Property Use (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
 Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

ANALYTICAL REPORT

Speciated Metals - SOIL

	Lab ID	L2586345-1	L2586345-3
Sample Date	10-MAY-21	10-MAY-21	
Sample ID	BHMW3-2	BH4-2	

Analyte	Unit	Guide Limits		0.37	0.87
		#1	#2		
Chromium, Hexavalent	ug/g	8	-		

Guide Limit #1: T3-Soil-Res/Park/Inst. Property Use (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
- Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

ANALYTICAL REPORT

Polycyclic Aromatic Hydrocarbons - SOIL

Analyte	Unit	Guide Limits		Lab ID	L2586345-1	L2586345-2	L2586345-3
		#1	#2	Sample Date	10-MAY-21	10-MAY-21	10-MAY-21
				Sample ID	BHMW3-2	BHMW3-3	BH4-2
Acenaphthene	ug/g	7.9	-	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	ug/g	0.15	-	<0.050	<0.050	<0.050	<0.050
Anthracene	ug/g	0.67	-	<0.050	<0.050	<0.050	<0.050
Benzo(a)anthracene	ug/g	0.5	-	<0.050	<0.050	<0.050	<0.050
Benzo(a)pyrene	ug/g	0.3	-	<0.050	<0.050	<0.050	<0.050
Benzo(b&j)fluoranthene	ug/g	0.78	-	<0.050	<0.050	<0.050	<0.050
Benzo(g,h,i)perylene	ug/g	6.6	-	<0.050	<0.050	<0.050	<0.050
Benzo(k)fluoranthene	ug/g	0.78	-	<0.050	<0.050	<0.050	<0.050
Chrysene	ug/g	7	-	<0.050	<0.050	<0.050	<0.050
Dibenz(a,h)anthracene	ug/g	0.1	-	<0.050	<0.050	<0.050	<0.050
Fluoranthene	ug/g	0.69	-	<0.050	<0.050	<0.050	<0.050
Fluorene	ug/g	62	-	<0.050	<0.050	<0.050	<0.050
Indeno(1,2,3-cd)pyrene	ug/g	0.38	-	<0.050	<0.050	<0.050	<0.050
1+2-Methylnaphthalenes	ug/g	0.99	-	<0.042	<0.042	<0.042	<0.042
1-Methylnaphthalene	ug/g	0.99	-	<0.030	<0.030	<0.030	<0.030
2-Methylnaphthalene	ug/g	0.99	-	<0.030	<0.030	<0.030	<0.030
Naphthalene	ug/g	0.6	-	<0.013	<0.013	<0.013	<0.013
Phenanthrene	ug/g	6.2	-	<0.046	<0.046	<0.046	<0.046
Pyrene	ug/g	78	-	<0.050	<0.050	<0.050	<0.050
Surrogate: 2-Fluorobiphenyl	%	-	-	90.3	93.8	90.5	
Surrogate: d14-Terphenyl	%	-	-	89.1	94.7	88.4	

Guide Limit #1: T3-Soil-Res/Park/Inst. Property Use (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
- Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
B-HWS-R511-WT	Soil	Boron-HWE-O.Reg 153/04 (July 2011)	HW EXTR, EPA 6010B
<p>A dried solid sample is extracted with calcium chloride, the sample undergoes a heating process. After cooling the sample is filtered and analyzed by ICP/OES.</p> <p>Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).</p>			
CN-WAD-R511-WT	Soil	Cyanide (WAD)-O.Reg 153/04 (July 2011)	MOE 3015/APHA 4500CN I-WAD
<p>The sample is extracted with a strong base for 16 hours, and then filtered. The filtrate is then distilled where the cyanide is converted to cyanogen chloride by reacting with chloramine-T, the cyanogen chloride then reacts with a combination of barbituric acid and isonicotinic acid to form a highly colored complex.</p> <p>Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).</p>			
CR-CR6-IC-WT	Soil	Hexavalent Chromium in Soil	SW846 3060A/7199
<p>This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Method 7199, published by the United States Environmental Protection Agency (EPA). The procedure involves analysis for chromium (VI) by ion chromatography using diphenylcarbazide in a sulphuric acid solution.</p> <p>Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).</p>			
EC-WT	Soil	Conductivity (EC)	MOEE E3138
<p>A representative subsample is tumbled with de-ionized (DI) water. The ratio of water to soil is 2:1 v/w. After tumbling the sample is then analyzed by a conductivity meter.</p> <p>Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).</p>			
HG-200.2-CVAA-WT	Soil	Mercury in Soil by CVAAS	EPA 200.2/1631E (mod)
<p>Soil samples are digested with nitric and hydrochloric acids, followed by analysis by CVAAS.</p> <p>Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).</p>			
MET-200.2-CCMS-WT	Soil	Metals in Soil by CRC ICPMS	EPA 200.2/6020B (mod)
<p>Soil/sediment is dried, disaggregated, and sieved (2 mm). For tests intended to support Ontario regulations, the <2mm fraction is ground to pass through a 0.355 mm sieve. Strong Acid Leachable Metals in the <2mm fraction are solubilized by heated digestion with nitric and hydrochloric acids. Instrumental analysis is by Collision / Reaction Cell ICPMS.</p> <p>Limitations: This method is intended to liberate environmentally available metals. Silicate minerals are not solubilized. Some metals may be only partially recovered (matrix dependent), including Al, Ba, Be, Cr, S, Sr, Ti, Tl, V, W, and Zr. Elemental Sulfur may be poorly recovered by this method. Volatile forms of sulfur (e.g. sulfide, H₂S) may be excluded if lost during sampling, storage, or digestion.</p> <p>Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).</p>			
METHYLNAPS-CALC-WT	Soil	ABN-Calculated Parameters	SW846 8270
MOISTURE-WT	Soil	% Moisture	CCME PHC in Soil - Tier 1 (mod)
PAH-511-WT	Soil	PAH-O.Reg 153/04 (July 2011)	SW846 3510/8270

A representative sub-sample of soil is fortified with deuterium-labelled surrogates and a mechanical shaking technique is used to extract the sample with a mixture of methanol and toluene. The extracts are concentrated and analyzed by GC/MS. Results for benzo(b) fluoranthene may include contributions from benzo(j)fluoranthene, if also present in the sample.

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
		Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).	
PH-WT	Soil	pH	MOEE E3137A
		A minimum 10g portion of the sample is extracted with 20mL of 0.01M calcium chloride solution by shaking for at least 30 minutes. The aqueous layer is separated from the soil and then analyzed using a pH meter and electrode.	
		Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).	
SAR-R511-WT	Soil	SAR-O.Reg 153/04 (July 2011)	SW846 6010C
		A dried, disaggregated solid sample is extracted with deionized water, the aqueous extract is separated from the solid, acidified and then analyzed using a ICP/OES. The concentrations of Na, Ca and Mg are reported as per CALA requirements for calculated parameters. These individual parameters are not for comparison to any guideline.	
		Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).	

**ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody Numbers:

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information. Guideline limits are not adjusted for the hardness, pH or temperature of the sample (the most conservative values are used). Measurement uncertainty is not applied to test results prior to comparison with specified criteria values.



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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

Contact: Dennis Hsu / Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
B-HWS-R511-WT								
	Soil							
Batch	R5457082							
WG3533775-4	DUP	L2586345-1						
Boron (B), Hot Water Ext.		<0.10	<0.10	RPD-NA	ug/g	N/A	30	13-MAY-21
WG3533775-2	IRM	WT SAR4						
Boron (B), Hot Water Ext.			107.3		%		70-130	13-MAY-21
WG3533775-3	LCS							
Boron (B), Hot Water Ext.			102.0		%		70-130	13-MAY-21
WG3533775-1	MB							
Boron (B), Hot Water Ext.			<0.10		ug/g		0.1	13-MAY-21
CN-WAD-R511-WT								
	Soil							
Batch	R5457113							
WG3532946-3	DUP	L2585927-20						
Cyanide, Weak Acid Diss		<0.050	<0.050	RPD-NA	ug/g	N/A	35	13-MAY-21
WG3532946-2	LCS							
Cyanide, Weak Acid Diss			92.5		%		80-120	13-MAY-21
WG3532946-1	MB							
Cyanide, Weak Acid Diss			<0.050		ug/g		0.05	13-MAY-21
WG3532946-4	MS	L2585927-20						
Cyanide, Weak Acid Diss			107.7		%		70-130	13-MAY-21
CR-CR6-IC-WT								
	Soil							
Batch	R5456538							
WG3532929-4	CRM	WT-SQC012						
Chromium, Hexavalent			111.8		%		70-130	12-MAY-21
WG3532929-3	DUP	L2585927-29						
Chromium, Hexavalent		0.21	<0.20	RPD-NA	ug/g	N/A	35	12-MAY-21
WG3532929-2	LCS							
Chromium, Hexavalent			99.0		%		80-120	12-MAY-21
WG3532929-1	MB							
Chromium, Hexavalent			<0.20		ug/g		0.2	12-MAY-21
EC-WT								
	Soil							
Batch	R5457001							
WG3533776-4	DUP	WG3533776-3						
Conductivity		0.209	0.216		mS/cm	3.3	20	13-MAY-21
WG3533776-2	IRM	WT SAR4						
Conductivity			100.4		%		70-130	13-MAY-21
WG3534026-1	LCS							
Conductivity			103.8		%		90-110	13-MAY-21
WG3533776-1	MB							



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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
 93 Skyway Ave.
 Etobicoke ON M9W 6N6

Contact: Dennis Hsu / Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
EC-WT Soil								
Batch	R5457001							
WG3533776-1 MB								
Conductivity			<0.0040		mS/cm		0.004	13-MAY-21
HG-200.2-CVAA-WT Soil								
Batch	R5456854							
WG3533774-2 CRM		WT-SS-2						
Mercury (Hg)			105.6		%		70-130	13-MAY-21
WG3533774-6 DUP		WG3533774-5						
Mercury (Hg)		0.0077	0.0114		ug/g	39	40	13-MAY-21
WG3533774-3 LCS								
Mercury (Hg)			106.5		%		80-120	13-MAY-21
WG3533774-1 MB								
Mercury (Hg)			<0.0050		mg/kg		0.005	13-MAY-21
MET-200.2-CCMS-WT Soil								
Batch	R5457071							
WG3533774-2 CRM		WT-SS-2						
Antimony (Sb)			97.8		%		70-130	13-MAY-21
Arsenic (As)			105.6		%		70-130	13-MAY-21
Barium (Ba)			107.5		%		70-130	13-MAY-21
Beryllium (Be)			112.6		%		70-130	13-MAY-21
Boron (B)			10.0		mg/kg		3.5-13.5	13-MAY-21
Cadmium (Cd)			122.5		%		70-130	13-MAY-21
Chromium (Cr)			105.8		%		70-130	13-MAY-21
Cobalt (Co)			103.9		%		70-130	13-MAY-21
Copper (Cu)			105.4		%		70-130	13-MAY-21
Lead (Pb)			104.4		%		70-130	13-MAY-21
Molybdenum (Mo)			104.7		%		70-130	13-MAY-21
Nickel (Ni)			105.9		%		70-130	13-MAY-21
Selenium (Se)			0.12		mg/kg		0-0.34	13-MAY-21
Silver (Ag)			100.8		%		70-130	13-MAY-21
Thallium (Tl)			0.073		mg/kg		0.029-0.129	13-MAY-21
Uranium (U)			101.3		%		70-130	13-MAY-21
Vanadium (V)			108.2		%		70-130	13-MAY-21
Zinc (Zn)			105.1		%		70-130	13-MAY-21
WG3533774-6 DUP		WG3533774-5						
Antimony (Sb)		<0.10	0.13	RPD-NA	ug/g	N/A	30	13-MAY-21



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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
 93 Skyway Ave.
 Etobicoke ON M9W 6N6

Contact: Dennis Hsu / Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT								
	Soil							
Batch	R5457071							
WG3533774-6	DUP	WG3533774-5						
Arsenic (As)		3.65	3.44		ug/g	5.8	30	13-MAY-21
Barium (Ba)		366	335		ug/g	9.1	40	13-MAY-21
Beryllium (Be)		1.17	1.15		ug/g	1.4	30	13-MAY-21
Boron (B)		13.1	12.6		ug/g	4.3	30	13-MAY-21
Cadmium (Cd)		0.107	0.108		ug/g	1.4	30	13-MAY-21
Chromium (Cr)		62.0	57.1		ug/g	8.1	30	13-MAY-21
Cobalt (Co)		19.9	18.2		ug/g	8.7	30	13-MAY-21
Copper (Cu)		37.2	34.8		ug/g	6.6	30	13-MAY-21
Lead (Pb)		11.1	10.6		ug/g	4.5	40	13-MAY-21
Molybdenum (Mo)		0.55	0.49		ug/g	12	40	13-MAY-21
Nickel (Ni)		41.8	38.9		ug/g	7.2	30	13-MAY-21
Selenium (Se)		<0.20	<0.20	RPD-NA	ug/g	N/A	30	13-MAY-21
Silver (Ag)		<0.10	<0.10	RPD-NA	ug/g	N/A	40	13-MAY-21
Thallium (Tl)		0.373	0.396		ug/g	6.1	30	13-MAY-21
Uranium (U)		0.678	0.629		ug/g	7.4	30	13-MAY-21
Vanadium (V)		84.1	78.4		ug/g	7.0	30	13-MAY-21
Zinc (Zn)		103	96.9		ug/g	5.9	30	13-MAY-21
WG3533774-4	LCS							
Antimony (Sb)			114.7		%		80-120	13-MAY-21
Arsenic (As)			112.2		%		80-120	13-MAY-21
Barium (Ba)			108.0		%		80-120	13-MAY-21
Beryllium (Be)			109.2		%		80-120	13-MAY-21
Boron (B)			106.7		%		80-120	13-MAY-21
Cadmium (Cd)			104.9		%		80-120	13-MAY-21
Chromium (Cr)			109.3		%		80-120	13-MAY-21
Cobalt (Co)			108.0		%		80-120	13-MAY-21
Copper (Cu)			106.0		%		80-120	13-MAY-21
Lead (Pb)			108.3		%		80-120	13-MAY-21
Molybdenum (Mo)			110.5		%		80-120	13-MAY-21
Nickel (Ni)			107.7		%		80-120	13-MAY-21
Selenium (Se)			110.3		%		80-120	13-MAY-21
Silver (Ag)			110.8		%		80-120	13-MAY-21
Thallium (Tl)			107.1		%		80-120	13-MAY-21



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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

Contact: Dennis Hsu / Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT								
	Soil							
Batch	R5457071							
WG3533774-4	LCS							
Uranium (U)			105.5		%		80-120	13-MAY-21
Vanadium (V)			111.6		%		80-120	13-MAY-21
Zinc (Zn)			106.4		%		80-120	13-MAY-21
WG3533774-1	MB							
Antimony (Sb)			<0.10		mg/kg		0.1	13-MAY-21
Arsenic (As)			<0.10		mg/kg		0.1	13-MAY-21
Barium (Ba)			<0.50		mg/kg		0.5	13-MAY-21
Beryllium (Be)			<0.10		mg/kg		0.1	13-MAY-21
Boron (B)			<5.0		mg/kg		5	13-MAY-21
Cadmium (Cd)			<0.020		mg/kg		0.02	13-MAY-21
Chromium (Cr)			<0.50		mg/kg		0.5	13-MAY-21
Cobalt (Co)			<0.10		mg/kg		0.1	13-MAY-21
Copper (Cu)			<0.50		mg/kg		0.5	13-MAY-21
Lead (Pb)			<0.50		mg/kg		0.5	13-MAY-21
Molybdenum (Mo)			<0.10		mg/kg		0.1	13-MAY-21
Nickel (Ni)			<0.50		mg/kg		0.5	13-MAY-21
Selenium (Se)			<0.20		mg/kg		0.2	13-MAY-21
Silver (Ag)			<0.10		mg/kg		0.1	13-MAY-21
Thallium (Tl)			<0.050		mg/kg		0.05	13-MAY-21
Uranium (U)			<0.050		mg/kg		0.05	13-MAY-21
Vanadium (V)			<0.20		mg/kg		0.2	13-MAY-21
Zinc (Zn)			<2.0		mg/kg		2	13-MAY-21
MOISTURE-WT								
	Soil							
Batch	R5456100							
WG3533037-3	DUP	L2586405-6						
% Moisture		15.3	15.9		%	3.6	20	12-MAY-21
WG3533037-2	LCS							
% Moisture			99.9		%		90-110	12-MAY-21
WG3533037-1	MB							
% Moisture			<0.25		%		0.25	12-MAY-21
PAH-511-WT								
	Soil							
Batch	R5456757							
WG3532996-3	DUP	WG3532996-5						
1-Methylnaphthalene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	13-MAY-21



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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

Contact: Dennis Hsu / Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT								
	Soil							
Batch	R5456757							
WG3532996-3 DUP		WG3532996-5						
2-Methylnaphthalene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	13-MAY-21
Acenaphthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Acenaphthylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Benzo(a)anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Benzo(a)pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Benzo(b&j)fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Benzo(g,h,i)perylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Benzo(k)fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Chrysene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Dibenz(a,h)anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Fluorene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Indeno(1,2,3-cd)pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
Naphthalene		<0.013	<0.013	RPD-NA	ug/g	N/A	40	13-MAY-21
Phenanthrene		<0.046	<0.046	RPD-NA	ug/g	N/A	40	13-MAY-21
Pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-MAY-21
WG3532996-2 LCS								
1-Methylnaphthalene			91.3		%		50-140	13-MAY-21
2-Methylnaphthalene			88.5		%		50-140	13-MAY-21
Acenaphthene			87.7		%		50-140	13-MAY-21
Acenaphthylene			83.3		%		50-140	13-MAY-21
Anthracene			76.2		%		50-140	13-MAY-21
Benzo(a)anthracene			86.5		%		50-140	13-MAY-21
Benzo(a)pyrene			75.4		%		50-140	13-MAY-21
Benzo(b&j)fluoranthene			82.1		%		50-140	13-MAY-21
Benzo(g,h,i)perylene			85.9		%		50-140	13-MAY-21
Benzo(k)fluoranthene			86.5		%		50-140	13-MAY-21
Chrysene			87.5		%		50-140	13-MAY-21
Dibenz(a,h)anthracene			83.8		%		50-140	13-MAY-21
Fluoranthene			84.8		%		50-140	13-MAY-21
Fluorene			85.1		%		50-140	13-MAY-21
Indeno(1,2,3-cd)pyrene			82.4		%		50-140	13-MAY-21



Quality Control Report

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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
 93 Skyway Ave.
 Etobicoke ON M9W 6N6

Contact: Dennis Hsu / Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	Soil							
Batch	R5456757							
WG3532996-2	LCS							
Naphthalene			85.6		%		50-140	13-MAY-21
Phenanthrene			88.1		%		50-140	13-MAY-21
Pyrene			84.3		%		50-140	13-MAY-21
WG3532996-1	MB							
1-Methylnaphthalene			<0.030		ug/g		0.03	13-MAY-21
2-Methylnaphthalene			<0.030		ug/g		0.03	13-MAY-21
Acenaphthene			<0.050		ug/g		0.05	13-MAY-21
Acenaphthylene			<0.050		ug/g		0.05	13-MAY-21
Anthracene			<0.050		ug/g		0.05	13-MAY-21
Benzo(a)anthracene			<0.050		ug/g		0.05	13-MAY-21
Benzo(a)pyrene			<0.050		ug/g		0.05	13-MAY-21
Benzo(b&j)fluoranthene			<0.050		ug/g		0.05	13-MAY-21
Benzo(g,h,i)perylene			<0.050		ug/g		0.05	13-MAY-21
Benzo(k)fluoranthene			<0.050		ug/g		0.05	13-MAY-21
Chrysene			<0.050		ug/g		0.05	13-MAY-21
Dibenz(a,h)anthracene			<0.050		ug/g		0.05	13-MAY-21
Fluoranthene			<0.050		ug/g		0.05	13-MAY-21
Fluorene			<0.050		ug/g		0.05	13-MAY-21
Indeno(1,2,3-cd)pyrene			<0.050		ug/g		0.05	13-MAY-21
Naphthalene			<0.013		ug/g		0.013	13-MAY-21
Phenanthrene			<0.046		ug/g		0.046	13-MAY-21
Pyrene			<0.050		ug/g		0.05	13-MAY-21
Surrogate: 2-Fluorobiphenyl			88.0		%		50-140	13-MAY-21
Surrogate: d14-Terphenyl			83.8		%		50-140	13-MAY-21
WG3532996-4	MS	WG3532996-5						
1-Methylnaphthalene			94.5		%		50-140	13-MAY-21
2-Methylnaphthalene			91.6		%		50-140	13-MAY-21
Acenaphthene			92.4		%		50-140	13-MAY-21
Acenaphthylene			86.7		%		50-140	13-MAY-21
Anthracene			80.6		%		50-140	13-MAY-21
Benzo(a)anthracene			93.4		%		50-140	13-MAY-21
Benzo(a)pyrene			81.2		%		50-140	13-MAY-21
Benzo(b&j)fluoranthene			90.7		%		50-140	13-MAY-21
Benzo(g,h,i)perylene			91.1		%		50-140	13-MAY-21



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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

Contact: Dennis Hsu / Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	Soil							
Batch R5456757								
WG3532996-4 MS		WG3532996-5						
Benzo(k)fluoranthene			90.7		%		50-140	13-MAY-21
Chrysene			92.1		%		50-140	13-MAY-21
Dibenz(a,h)anthracene			90.8		%		50-140	13-MAY-21
Fluoranthene			89.5		%		50-140	13-MAY-21
Fluorene			90.7		%		50-140	13-MAY-21
Indeno(1,2,3-cd)pyrene			86.6		%		50-140	13-MAY-21
Naphthalene			87.2		%		50-140	13-MAY-21
Phenanthrene			92.0		%		50-140	13-MAY-21
Pyrene			88.9		%		50-140	13-MAY-21
PH-WT	Soil							
Batch R5456379								
WG3533325-1 LCS								
pH			6.97		pH units		6.9-7.1	12-MAY-21
SAR-R511-WT	Soil							
Batch R5457090								
WG3533776-4 DUP		WG3533776-3						
Calcium (Ca)		39.4	38.5		mg/L	2.3	30	13-MAY-21
Sodium (Na)		1.59	1.56		mg/L	1.9	30	13-MAY-21
Magnesium (Mg)		1.28	1.16		mg/L	9.8	30	13-MAY-21
WG3533776-2 IRM		WT SAR4						
Calcium (Ca)			95.6		%		70-130	13-MAY-21
Sodium (Na)			97.7		%		70-130	13-MAY-21
Magnesium (Mg)			98.3		%		70-130	13-MAY-21
WG3533776-5 LCS								
Calcium (Ca)			106.7		%		80-120	13-MAY-21
Sodium (Na)			100.0		%		80-120	13-MAY-21
Magnesium (Mg)			101.4		%		80-120	13-MAY-21
WG3533776-1 MB								
Calcium (Ca)			<0.50		mg/L		0.5	13-MAY-21
Sodium (Na)			<0.50		mg/L		0.5	13-MAY-21
Magnesium (Mg)			<0.50		mg/L		0.5	13-MAY-21

Quality Control Report

Workorder: L2586345

Report Date: 13-MAY-21

Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

Page 8 of 8

Contact: Dennis Hsu / Alexis Teohari

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



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Chain o



L2586345-COFC



COC Number: 20 - 888364

Page of

Report To Contact and company name below will appear on the final report		Reports / Recipients			Turnaround Time (TAT) Requested				AFFIX ALS BARCODE LABEL HERE (ALS use only)																																																									
Company:	T. Harris Environmental	Select Report Format:	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)	<input type="checkbox"/> Routine [R] if received by 3pm M-F - no surcharges apply <input type="checkbox"/> 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum <input checked="" type="checkbox"/> 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum <input checked="" type="checkbox"/> 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum <input type="checkbox"/> Same day [E] if received by 3pm M-F - 100% rush surcharge minimum <input type="checkbox"/> Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush requests on weekends, statutory holidays and non-routine tests																																																														
Contact:	Dennis Hsu Alexis Teohari	Merge QC/QCI Reports with COA	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked Select Distribution: <input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX																																																														
Phone:	416 435 1164	Select Distribution:		Email 1 or Fax: dhsu@tharris.ca Email 2: alexh@tharris.ca Email 3:																																																														
Company address below will appear on the final report					Date and Time Required for all E&P TATs: <u>Thursday May 13, 2010</u>																																																													
Street:	93 Skyway Ave, Toronto, ON	Invoice To			For all tests with rush TATs requested, please contact your AM to confirm availability.																																																													
City/Province:		Same as Report To	<input type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Recipients			Analysis Request																																																											
Postal Code:	M9W 6N6	Copy of Invoice with Report	<input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution:	<input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																																																												
Project Information		Oil and Gas Required Fields (client use)			<table border="1"> <tr> <th rowspan="4">NUMBER OF CONTAINERS</th> <th colspan="10"></th> <th rowspan="4">SAMPLES ON HOLD</th> <th rowspan="4">EXTENDED STORAGE REQUIRED</th> <th rowspan="4">SUSPECTED HAZARD (see notes)</th> </tr> <tr> <td rowspan="4">Metals/Inorganics</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td rowspan="3">PAHs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td rowspan="2">OC Hydrocarbons</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>							NUMBER OF CONTAINERS											SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)	Metals/Inorganics											PAHs										OC Hydrocarbons																			
NUMBER OF CONTAINERS													SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)																																																			
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LSD:	SOIL	Location:																																																																
ALS Lab Work Order # (ALS use only): L2586345		ALS Contact:		Sampler:																																																														
ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type																																																														
	BHMW3-2	10-05-21	01:00	Soil	2	✓	✓	✓																																																										
	BHMW3-3	↓	↓	"	2	✓	✓	✓																																																										
	BHMW3	↓	↓	Brown water	2	✓	✓	✓																																																										
	BH4-2	↓	↓	Soil	2	✓	✓	✓																																																										
	BMMW1	↓	↓	Groundwater	2	✓	✓	✓																																																										
Drinking Water (DW) Samples¹ (client use)		Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)			SAMPLE RECEIPT DETAILS (ALS use only)																																																													
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		O. Reg. 113/04. Table 3. Res course.			Cooling Method: <input type="checkbox"/> NONE <input type="checkbox"/> ICE <input checked="" type="checkbox"/> ICE PACKS <input type="checkbox"/> FROZEN <input type="checkbox"/> COOLING INITIATED																																																													
Are samples for human consumption/ use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Submission Comments identified on Sample Receipt Notification: <input type="checkbox"/> YES <input type="checkbox"/> NO																																																													
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SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)																																																													
Released by:	Alexis Teohari	Date:	11/05/21	Time:		Received by:		Date:	05/11/21	Time:	17:00																																																							

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2010 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.



T.HARRIS ENVIRONMENTAL
MANAGEMENT INC
ATTN: Dennis Hsu/ Alexis Teohari
93 Skyway Ave.
Etobicoke ON M9W 6N6

Date Received: 11-MAY-21
Report Date: 13-MAY-21 15:00 (MT)
Version: FINAL

Client Phone: 416-523-8729

Certificate of Analysis

Lab Work Order #: L2586364
Project P.O. #: NOT SUBMITTED
Job Reference:
C of C Numbers:
Legal Site Desc:

Amanda Overholster
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 5730 Coopers Avenue, Unit #26 , Mississauga, ON L4Z 2E9 Canada | Phone: +1 905 507 6910 | Fax: +1 905 507 6927
ALS CANADA LTD Part of the ALS Group An ALS Limited Company

Summary of Guideline Exceedances

Guideline							
ALS ID	Client ID	Grouping	Analyte	Result	Guideline Limit	Unit	
Ontario Regulation 153/04 - April 15, 2011 Standards - T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)							
(No parameter exceedances)							

* Please refer to the Reference Information section for an explanation of any qualifiers noted.

ANALYTICAL REPORT

Physical Tests - WATER

Lab ID	L2586364-1
Sample Date	10-MAY-21
Sample ID	BHMW3

Analyte	Unit	Guide Limits		
		#1	#2	
Conductivity	mS/cm	-	-	0.618
pH	pH units	-	-	7.73

Guide Limit #1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
- Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.



ANALYTICAL REPORT

Anions and Nutrients - WATER

Lab ID	L2586364-1
Sample Date	10-MAY-21
Sample ID	BHMW3

Analyte	Unit	Guide Limits	
		#1	#2
Chloride (Cl)	mg/L	2300	15.0

Guide Limit #1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
- Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

ANALYTICAL REPORT

Cyanides - WATER

Lab ID	L2586364-1
Sample Date	10-MAY-21
Sample ID	BHMW3

Analyte	Unit	Guide Limits		
		#1	#2	
Cyanide, Weak Acid Diss	ug/L	66	-	<2.0

Guide Limit #1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
- Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.



ANALYTICAL REPORT

Dissolved Metals - WATER

Lab ID L2586364-1
Sample Date 10-MAY-21
Sample ID BHMW3

Analyte	Unit	Guide Limits		
		#1	#2	
Dissolved Mercury Filtration Location		-	-	FIELD
Dissolved Metals Filtration Location		-	-	FIELD
Antimony (Sb)-Dissolved	ug/L	20000	-	0.20
Arsenic (As)-Dissolved	ug/L	1900	-	4.15
Barium (Ba)-Dissolved	ug/L	29000	-	159
Beryllium (Be)-Dissolved	ug/L	67	-	<0.10
Boron (B)-Dissolved	ug/L	45000	-	12
Cadmium (Cd)-Dissolved	ug/L	2.7	-	<0.010
Chromium (Cr)-Dissolved	ug/L	810	-	1.76
Cobalt (Co)-Dissolved	ug/L	66	-	0.93
Copper (Cu)-Dissolved	ug/L	87	-	5.14
Lead (Pb)-Dissolved	ug/L	25	-	0.766
Mercury (Hg)-Dissolved	ug/L	0.29	-	<0.0050 ^{PDM}
Molybdenum (Mo)-Dissolved	ug/L	9200	-	0.721
Nickel (Ni)-Dissolved	ug/L	490	-	2.15
Selenium (Se)-Dissolved	ug/L	63	-	0.060
Silver (Ag)-Dissolved	ug/L	1.5	-	<0.050
Sodium (Na)-Dissolved	ug/L	2300000	-	8360
Thallium (Tl)-Dissolved	ug/L	510	-	0.022
Uranium (U)-Dissolved	ug/L	420	-	1.06
Vanadium (V)-Dissolved	ug/L	250	-	4.03
Zinc (Zn)-Dissolved	ug/L	1100	-	6.1

Guide Limit #1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
- Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

* Please refer to the Reference Information section for an explanation of any qualifiers noted.

ANALYTICAL REPORT

Speciated Metals - WATER

Lab ID L2586364-1
Sample Date 10-MAY-21
Sample ID BHMW3

Analyte	Unit	Guide Limits		
		#1	#2	
Chromium, Hexavalent	ug/L	140	-	<0.50

Guide Limit #1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
- Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.



ANALYTICAL REPORT

Polycyclic Aromatic Hydrocarbons - WATER

Lab ID L2586364-1
Sample Date 10-MAY-21
Sample ID BHMW3

Analyte	Unit	Guide Limits		
		#1	#2	
Acenaphthene	ug/L	600	-	<0.020
Acenaphthylene	ug/L	1.8	-	<0.020
Anthracene	ug/L	2.4	-	<0.020
Benzo(a)anthracene	ug/L	4.7	-	<0.020
Benzo(a)pyrene	ug/L	0.81	-	<0.010
Benzo(b&j)fluoranthene	ug/L	0.75	-	<0.020
Benzo(g,h,i)perylene	ug/L	0.2	-	<0.020
Benzo(k)fluoranthene	ug/L	0.4	-	<0.020
Chrysene	ug/L	1	-	<0.020
Dibenz(a,h)anthracene	ug/L	0.52	-	<0.020
Fluoranthene	ug/L	130	-	<0.020
Fluorene	ug/L	400	-	<0.020
Indeno(1,2,3-cd)pyrene	ug/L	0.2	-	<0.020
1+2-Methylnaphthalenes	ug/L	1800	-	<0.028
1-Methylnaphthalene	ug/L	1800	-	<0.020
2-Methylnaphthalene	ug/L	1800	-	<0.020
Naphthalene	ug/L	1400	-	<0.050
Phenanthrene	ug/L	580	-	0.046
Pyrene	ug/L	68	-	0.029
Surrogate: Acenaphthene d10	%	-	-	64.5
Surrogate: Chrysene d12	%	-	-	62.1
Surrogate: Naphthalene d8	%	-	-	60.2
Surrogate: Phenanthrene d10	%	-	-	83.8

Guide Limit #1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
 Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

* Please refer to the Reference Information section for an explanation of any qualifiers noted.

ANALYTICAL REPORT

Organochlorine Pesticides - WATER

Analyte	Unit	Guide Limits		
		#1	#2	
				Lab ID L2586364-2
				Sample Date 10-MAY-21
				Sample ID BHMW1
Aldrin	ug/L	8.5	-	<0.0080
gamma-hexachlorocyclohexane	ug/L	1.2	-	<0.0080
a-chlordane	ug/L	-	-	<0.0080
Chlordane (Total)	ug/L	28	-	<0.011
g-chlordane	ug/L	-	-	<0.0080
o,p-DDD	ug/L	-	-	<0.0040
pp-DDD	ug/L	-	-	<0.0040
Total DDD	ug/L	45	-	<0.0057
o,p-DDE	ug/L	-	-	<0.0040
pp-DDE	ug/L	-	-	<0.0040
Total DDE	ug/L	20	-	<0.0057
op-DDT	ug/L	-	-	<0.0040
pp-DDT	ug/L	-	-	<0.0040
Total DDT	ug/L	2.8	-	<0.0057
DDT+Metabolites	ug/L	-	-	<0.0098
Dieldrin	ug/L	0.75	-	<0.0080
Endosulfan I	ug/L	-	-	<0.0070
Endosulfan II	ug/L	-	-	<0.0070
Endosulfan (Total)	ug/L	1.5	-	<0.0099
Endrin	ug/L	0.48	-	<0.010
Heptachlor	ug/L	2.5	-	<0.0080
Heptachlor Epoxide	ug/L	0.048	-	<0.0080
Hexachlorobenzene	ug/L	3.1	-	<0.0080
Hexachlorobutadiene	ug/L	0.44	-	<0.0080
Hexachloroethane	ug/L	94	-	<0.0080
Methoxychlor	ug/L	6.5	-	<0.0080
Surrogate: Decachlorobiphenyl	%	-	-	96.7
Surrogate: Tetrachloro-m-xylene	%	-	-	92.4

Guide Limit #1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
- Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

* Please refer to the Reference Information section for an explanation of any qualifiers noted.

Reference Information

Qualifiers for Individual Parameters Listed:

Qualifier	Description
PDM	Particulate was observed in preserved Dissolved Metals sample. Associated results may be biased low.

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
CHLORDANE-T-CALC-WT	Water	Chlordane Total sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
CL-IC-N-WT	Water	Chloride by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).			
CN-WAD-R511-WT	Water	Cyanide (WAD)-O.Reg 153/04	APHA 4500CN I-Weak acid Dist Colorimet
Weak acid dissociable cyanide (WAD) is determined by undergoing a distillation procedure. Cyanide is converted to cyanogen chloride by reacting with chloramine-T, the cyanogen chloride then reacts with a combination of barbituric acid and isonicotinic acid to form a highly colored complex.			
Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).			
CR-CR6-IC-R511-WT	Water	Hex Chrom-O.Reg 153/04 (July 2011)	EPA 7199
This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Method 7199, published by the United States Environmental Protection Agency (EPA). The procedure involves analysis for chromium (VI) by ion chromatography using diphenylcarbazide in a sulphuric acid solution. Chromium (III) is calculated as the difference between the total chromium and the chromium (VI) results.			
Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).			
DDD-DDE-DDT-CALC-WT	Water	DDD, DDE, DDT sums	CALCULATION
Calculation of Total DDD, Total DDE and Total DDT			
EC-R511-WT	Water	Conductivity-O.Reg 153/04 (July 2011)	APHA 2510 B
Water samples can be measured directly by immersing the conductivity cell into the sample.			
Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).			
EC-SCREEN-WT	Water	Conductivity Screen (Internal Use Only)	APHA 2510
Qualitative analysis of conductivity where required during preparation of other tests - e.g. TDS, metals, etc.			
ENDOSULFAN-T-CALC-WT	Water	Endosulfan Total sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
HG-D-UG/L-CVAA-WT	Water	Diss. Mercury in Water by CVAAS (ug/L)	EPA 1631E (mod)
Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.			

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
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Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

MET-D-UG/L-MS-WT Water Diss. Metals in Water by ICPMS (ug/L) EPA 200.8

The metal constituents of a non-acidified sample that pass through a membrane filter prior to ICP/MS analysis.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

METHYLNAPS-CALC-WT Water PAH-Calculated Parameters SW846 8270

OCP-ROUTINE-WT Water Pesticides, Organochlorine in Water SW846 8270

Samples are extracted using a solvent mixture and the resulting extracts are analyzed on GC/MSD

PAH-511-WT Water PAH-O. Reg 153/04 (July 2011) SW846 3510/8270

Aqueous samples, fortified with surrogates, are extracted using liquid/liquid extraction technique. The sample extracts are concentrated and then analyzed using GC/MS. Results for benzo(b) fluoranthene may include contributions from benzo(j)fluoranthene, if also present in the sample.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

PH-WT Water pH APHA 4500 H-Electrode

Water samples are analyzed directly by a calibrated pH meter.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011). Holdtime for samples under this regulation is 28 days

**ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody Numbers:

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA

Reference Information

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information. Guideline limits are not adjusted for the hardness, pH or temperature of the sample (the most conservative values are used). Measurement uncertainty is not applied to test results prior to comparison with specified criteria values.



Environmental

Quality Control Report

Workorder: L2586364

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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.

Etobicoke ON M9W 6N6

Contact: Dennis Hsu/ Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CL-IC-N-WT		Water						
Batch	R5457074							
WG3533741-19	DUP	WG3533741-18						
Chloride (Cl)		6.18	6.16		mg/L	0.3	20	12-MAY-21
WG3533741-17	LCS							
Chloride (Cl)			100.8		%		90-110	12-MAY-21
WG3533741-16	MB							
Chloride (Cl)			<0.50		mg/L		0.5	12-MAY-21
WG3533741-20	MS	WG3533741-18						
Chloride (Cl)			102.3		%		75-125	12-MAY-21
CN-WAD-R511-WT		Water						
Batch	R5456317							
WG3533337-3	DUP	WG3533337-5						
Cyanide, Weak Acid Diss		<2.0	<2.0	RPD-NA	ug/L	N/A	20	12-MAY-21
WG3533337-2	LCS							
Cyanide, Weak Acid Diss			87.1		%		80-120	12-MAY-21
WG3533337-1	MB							
Cyanide, Weak Acid Diss			<2.0		ug/L		2	12-MAY-21
WG3533337-4	MS	WG3533337-5						
Cyanide, Weak Acid Diss			107.8		%		75-125	12-MAY-21
CR-CR6-IC-R511-WT		Water						
Batch	R5457159							
WG3533638-4	DUP	WG3533638-3						
Chromium, Hexavalent		2.54	2.50		ug/L	1.5	20	12-MAY-21
WG3533638-2	LCS							
Chromium, Hexavalent			103.0		%		80-120	12-MAY-21
WG3533638-1	MB							
Chromium, Hexavalent			<0.50		ug/L		0.5	12-MAY-21
WG3533638-5	MS	WG3533638-3						
Chromium, Hexavalent			103.2		%		70-130	12-MAY-21
EC-R511-WT		Water						
Batch	R5456465							
WG3533131-4	DUP	WG3533131-3						
Conductivity		0.926	0.927		mS/cm	0.1	10	12-MAY-21
WG3533131-2	LCS							
Conductivity			103.1		%		90-110	12-MAY-21
WG3533131-1	MB							
Conductivity			<0.0030		mS/cm		0.003	12-MAY-21
HG-D-UG/L-CVAA-WT		Water						



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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

Contact: Dennis Hsu/ Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-D-UG/L-CVAA-WT								
Water								
Batch	R5456861							
WG3533937-3	DUP	L2586364-1						
Mercury (Hg)-Dissolved		<0.0050	<0.0050	RPD-NA	ug/L	N/A	20	13-MAY-21
WG3533937-2	LCS							
Mercury (Hg)-Dissolved			108.0		%		80-120	13-MAY-21
WG3533937-1	MB							
Mercury (Hg)-Dissolved			<0.0050		ug/L		0.005	13-MAY-21
WG3533937-4	MS	L2586713-2						
Mercury (Hg)-Dissolved			98.5		%		70-130	13-MAY-21
MET-D-UG/L-MS-WT								
Water								
Batch	R5456049							
WG3532928-4	DUP	WG3532928-3						
Antimony (Sb)-Dissolved		<0.10	<0.10	RPD-NA	ug/L	N/A	20	11-MAY-21
Arsenic (As)-Dissolved		0.45	0.45		ug/L	1.3	20	11-MAY-21
Barium (Ba)-Dissolved		64.4	64.4		ug/L	0.1	20	11-MAY-21
Beryllium (Be)-Dissolved		<0.10	<0.10	RPD-NA	ug/L	N/A	20	11-MAY-21
Boron (B)-Dissolved		12	12		ug/L	0.8	20	11-MAY-21
Cadmium (Cd)-Dissolved		<0.0050	<0.0050	RPD-NA	ug/L	N/A	20	11-MAY-21
Chromium (Cr)-Dissolved		0.57	0.55		ug/L	3.1	20	11-MAY-21
Cobalt (Co)-Dissolved		0.21	0.20		ug/L	2.3	20	11-MAY-21
Copper (Cu)-Dissolved		1.40	1.43		ug/L	2.2	20	11-MAY-21
Lead (Pb)-Dissolved		<0.050	<0.050	RPD-NA	ug/L	N/A	20	11-MAY-21
Molybdenum (Mo)-Dissolved		4.71	4.77		ug/L	1.3	20	11-MAY-21
Nickel (Ni)-Dissolved		0.74	0.78		ug/L	5.0	20	11-MAY-21
Selenium (Se)-Dissolved		0.407	0.421		ug/L	3.5	20	11-MAY-21
Silver (Ag)-Dissolved		<0.050	<0.050	RPD-NA	ug/L	N/A	20	11-MAY-21
Sodium (Na)-Dissolved		65700	65700		ug/L	0.0	20	11-MAY-21
Thallium (Tl)-Dissolved		<0.010	<0.010	RPD-NA	ug/L	N/A	20	11-MAY-21
Uranium (U)-Dissolved		1.24	1.23		ug/L	0.5	20	11-MAY-21
Vanadium (V)-Dissolved		0.60	0.57		ug/L	5.5	20	11-MAY-21
Zinc (Zn)-Dissolved		1.1	1.1		ug/L	3.7	20	11-MAY-21
WG3532928-2	LCS							
Antimony (Sb)-Dissolved			104.5		%		80-120	11-MAY-21
Arsenic (As)-Dissolved			100.6		%		80-120	11-MAY-21
Barium (Ba)-Dissolved			101.1		%		80-120	11-MAY-21
Beryllium (Be)-Dissolved			98.3		%		80-120	11-MAY-21



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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

Contact: Dennis Hsu/ Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT								
	Water							
Batch	R5456049							
WG3532928-2	LCS							
Boron (B)-Dissolved			94.1		%		80-120	11-MAY-21
Cadmium (Cd)-Dissolved			101.4		%		80-120	11-MAY-21
Chromium (Cr)-Dissolved			96.1		%		80-120	11-MAY-21
Cobalt (Co)-Dissolved			99.1		%		80-120	11-MAY-21
Copper (Cu)-Dissolved			98.4		%		80-120	11-MAY-21
Lead (Pb)-Dissolved			108.8		%		80-120	11-MAY-21
Molybdenum (Mo)-Dissolved			103.2		%		80-120	11-MAY-21
Nickel (Ni)-Dissolved			97.9		%		80-120	11-MAY-21
Selenium (Se)-Dissolved			97.0		%		80-120	11-MAY-21
Silver (Ag)-Dissolved			107.7		%		80-120	11-MAY-21
Sodium (Na)-Dissolved			96.1		%		80-120	11-MAY-21
Thallium (Tl)-Dissolved			108.3		%		80-120	11-MAY-21
Uranium (U)-Dissolved			110.5		%		80-120	11-MAY-21
Vanadium (V)-Dissolved			99.6		%		80-120	11-MAY-21
Zinc (Zn)-Dissolved			102.6		%		80-120	11-MAY-21
WG3532928-1	MB							
Antimony (Sb)-Dissolved			<0.10		ug/L		0.1	11-MAY-21
Arsenic (As)-Dissolved			<0.10		ug/L		0.1	11-MAY-21
Barium (Ba)-Dissolved			<0.10		ug/L		0.1	11-MAY-21
Beryllium (Be)-Dissolved			<0.10		ug/L		0.1	11-MAY-21
Boron (B)-Dissolved			<10		ug/L		10	11-MAY-21
Cadmium (Cd)-Dissolved			<0.0050		ug/L		0.005	11-MAY-21
Chromium (Cr)-Dissolved			<0.50		ug/L		0.5	11-MAY-21
Cobalt (Co)-Dissolved			<0.10		ug/L		0.1	11-MAY-21
Copper (Cu)-Dissolved			<0.20		ug/L		0.2	11-MAY-21
Lead (Pb)-Dissolved			<0.050		ug/L		0.05	11-MAY-21
Molybdenum (Mo)-Dissolved			<0.050		ug/L		0.05	11-MAY-21
Nickel (Ni)-Dissolved			<0.50		ug/L		0.5	11-MAY-21
Selenium (Se)-Dissolved			<0.050		ug/L		0.05	11-MAY-21
Silver (Ag)-Dissolved			<0.050		ug/L		0.05	11-MAY-21
Sodium (Na)-Dissolved			<50		ug/L		50	11-MAY-21
Thallium (Tl)-Dissolved			<0.010		ug/L		0.01	11-MAY-21
Uranium (U)-Dissolved			<0.010		ug/L		0.01	11-MAY-21
Vanadium (V)-Dissolved			<0.50		ug/L		0.5	11-MAY-21



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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.

Etobicoke ON M9W 6N6

Contact: Dennis Hsu/ Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT								
	Water							
Batch	R5456049							
WG3532928-1 MB								
Zinc (Zn)-Dissolved			<1.0		ug/L		1	11-MAY-21
WG3532928-5 MS		WG3532928-6						
Antimony (Sb)-Dissolved			105.5		%		70-130	11-MAY-21
Arsenic (As)-Dissolved			126.9		%		70-130	12-MAY-21
Barium (Ba)-Dissolved			N/A	MS-B	%		-	11-MAY-21
Beryllium (Be)-Dissolved			107.9		%		70-130	11-MAY-21
Boron (B)-Dissolved			95.3		%		70-130	11-MAY-21
Cadmium (Cd)-Dissolved			106.7		%		70-130	11-MAY-21
Chromium (Cr)-Dissolved			109.1		%		70-130	11-MAY-21
Cobalt (Co)-Dissolved			107.0		%		70-130	11-MAY-21
Copper (Cu)-Dissolved			101.4		%		70-130	11-MAY-21
Lead (Pb)-Dissolved			100.6		%		70-130	11-MAY-21
Molybdenum (Mo)-Dissolved			108.7		%		70-130	11-MAY-21
Nickel (Ni)-Dissolved			102.4		%		70-130	11-MAY-21
Selenium (Se)-Dissolved			136.5	MES	%		70-130	12-MAY-21
Silver (Ag)-Dissolved			99.6		%		70-130	11-MAY-21
Sodium (Na)-Dissolved			N/A	MS-B	%		-	11-MAY-21
Thallium (Tl)-Dissolved			100.6		%		70-130	11-MAY-21
Uranium (U)-Dissolved			N/A	MS-B	%		-	11-MAY-21
Vanadium (V)-Dissolved			114.6		%		70-130	11-MAY-21
Zinc (Zn)-Dissolved			111.5		%		70-130	11-MAY-21
OCP-ROUTINE-WT								
	Water							
Batch	R5456405							
WG3533114-2 LCS								
Aldrin			128.7		%		50-150	12-MAY-21
gamma-hexachlorocyclohexane			117.1		%		50-150	12-MAY-21
a-chlordane			122.3		%		50-150	12-MAY-21
g-chlordane			122.4		%		50-150	12-MAY-21
o,p-DDD			111.4		%		50-150	12-MAY-21
pp-DDD			116.6		%		50-150	12-MAY-21
o,p-DDE			105.4		%		50-150	12-MAY-21
pp-DDE			109.6		%		50-150	12-MAY-21
op-DDT			113.6		%		50-150	12-MAY-21
pp-DDT			98.4		%		50-150	12-MAY-21



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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

Contact: Dennis Hsu/ Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
OCP-ROUTINE-WT		Water						
Batch	R5456405							
WG3533114-2	LCS							
Dieldrin			112.1		%		50-150	12-MAY-21
Endosulfan I			122.9		%		50-150	12-MAY-21
Endosulfan II			115.1		%		50-150	12-MAY-21
Endrin			78.2		%		50-150	12-MAY-21
Heptachlor			107.6		%		50-150	12-MAY-21
Heptachlor Epoxide			126.1		%		50-150	12-MAY-21
Hexachlorobenzene			106.3		%		50-150	12-MAY-21
Hexachlorobutadiene			99.3		%		50-150	12-MAY-21
Hexachloroethane			106.9		%		50-150	12-MAY-21
Methoxychlor			123.7		%		50-150	12-MAY-21
WG3533114-1	MB							
Aldrin			<0.0080		ug/L		0.008	12-MAY-21
gamma-hexachlorocyclohexane			<0.0080		ug/L		0.008	12-MAY-21
a-chlordane			<0.0080		ug/L		0.008	12-MAY-21
g-chlordane			<0.0080		ug/L		0.008	12-MAY-21
o,p-DDD			<0.0040		ug/L		0.004	12-MAY-21
pp-DDD			<0.0040		ug/L		0.004	12-MAY-21
o,p-DDE			<0.0040		ug/L		0.004	12-MAY-21
pp-DDE			<0.0040		ug/L		0.004	12-MAY-21
op-DDT			<0.0040		ug/L		0.004	12-MAY-21
pp-DDT			<0.0040		ug/L		0.004	12-MAY-21
Dieldrin			<0.0080		ug/L		0.008	12-MAY-21
Endosulfan I			<0.0070		ug/L		0.007	12-MAY-21
Endosulfan II			<0.0070		ug/L		0.007	12-MAY-21
Endrin			<0.010		ug/L		0.01	12-MAY-21
Heptachlor			<0.0080		ug/L		0.008	12-MAY-21
Heptachlor Epoxide			<0.0080		ug/L		0.008	12-MAY-21
Hexachlorobenzene			<0.0080		ug/L		0.008	12-MAY-21
Hexachlorobutadiene			<0.0080		ug/L		0.008	12-MAY-21
Hexachloroethane			<0.0080		ug/L		0.008	12-MAY-21
Methoxychlor			<0.0080		ug/L		0.008	12-MAY-21
Surrogate: Decachlorobiphenyl			138.2	SURQC	%		40-130	12-MAY-21
Surrogate: Tetrachloro-m-xylene			88.5		%		40-130	12-MAY-21
PAH-511-WT	Water							



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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

Contact: Dennis Hsu/ Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT		Water						
Batch	R5456186							
WG3532757-2	LCS							
1-Methylnaphthalene			99.0		%		50-140	12-MAY-21
2-Methylnaphthalene			92.0		%		50-140	12-MAY-21
Acenaphthene			101.1		%		50-140	12-MAY-21
Acenaphthylene			99.0		%		50-140	12-MAY-21
Anthracene			99.9		%		50-140	12-MAY-21
Benzo(a)anthracene			104.2		%		50-140	12-MAY-21
Benzo(a)pyrene			101.7		%		50-140	12-MAY-21
Benzo(b&j)fluoranthene			109.4		%		50-140	12-MAY-21
Benzo(g,h,i)perylene			116.2		%		50-140	12-MAY-21
Benzo(k)fluoranthene			104.7		%		50-140	12-MAY-21
Chrysene			101.3		%		50-140	12-MAY-21
Dibenz(a,h)anthracene			102.8		%		50-140	12-MAY-21
Fluoranthene			104.2		%		50-140	12-MAY-21
Fluorene			100.6		%		50-140	12-MAY-21
Indeno(1,2,3-cd)pyrene			122.9		%		50-140	12-MAY-21
Naphthalene			89.4		%		50-140	12-MAY-21
Phenanthrene			107.2		%		50-140	12-MAY-21
Pyrene			104.3		%		50-140	12-MAY-21
WG3532757-1	MB							
1-Methylnaphthalene			<0.020		ug/L		0.02	12-MAY-21
2-Methylnaphthalene			<0.020		ug/L		0.02	12-MAY-21
Acenaphthene			<0.020		ug/L		0.02	12-MAY-21
Acenaphthylene			<0.020		ug/L		0.02	12-MAY-21
Anthracene			<0.020		ug/L		0.02	12-MAY-21
Benzo(a)anthracene			<0.020		ug/L		0.02	12-MAY-21
Benzo(a)pyrene			<0.010		ug/L		0.01	12-MAY-21
Benzo(b&j)fluoranthene			<0.020		ug/L		0.02	12-MAY-21
Benzo(g,h,i)perylene			<0.020		ug/L		0.02	12-MAY-21
Benzo(k)fluoranthene			<0.020		ug/L		0.02	12-MAY-21
Chrysene			<0.020		ug/L		0.02	12-MAY-21
Dibenz(a,h)anthracene			<0.020		ug/L		0.02	12-MAY-21
Fluoranthene			<0.020		ug/L		0.02	12-MAY-21
Fluorene			<0.020		ug/L		0.02	12-MAY-21
Indeno(1,2,3-cd)pyrene			<0.020		ug/L		0.02	12-MAY-21



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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

Contact: Dennis Hsu/ Alexis Teohari

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT		Water						
Batch	R5456186							
WG3532757-1	MB							
Naphthalene			<0.050		ug/L		0.05	12-MAY-21
Phenanthrene			<0.020		ug/L		0.02	12-MAY-21
Pyrene			<0.020		ug/L		0.02	12-MAY-21
Surrogate: Naphthalene d8			89.2		%		60-140	12-MAY-21
Surrogate: Phenanthrene d10			97.3		%		60-140	12-MAY-21
PH-WT		Water						
Batch	R5456465							
WG3533131-4	DUP	WG3533131-3						
pH		7.95	7.98	J	pH units	0.03	0.2	12-MAY-21
WG3533131-2	LCS							
pH			6.96		pH units		6.9-7.1	12-MAY-21

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Client: T.HARRIS ENVIRONMENTAL MANAGEMENT INC
93 Skyway Ave.
Etobicoke ON M9W 6N6

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Contact: Dennis Hsu/ Alexis Teohari

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.
SURQC	Surrogate recovery marginally exceeded DQO in QC sample (MB, LCS, RM, or MS). Surrogates are less important for QC samples than for test samples. Refer to regular (non-surrogate) analyte results in affected QC sample for assessment of potential impacts to those analytes.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



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Chain of Custody (COC) / A



L2586364-COFC

Number: 20 - 888364

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Page of

Report To Contact and company name below will appear on the final report		Reports / Recipients			Turnaround Time (TAT) Requested			AFFIX ALS BARCODE LABEL HERE (ALS use only)																																																																																																							
Company:	T. Harris Environmental	Select Report Format:	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)	<input type="checkbox"/> Routine [R] if received by 3pm M-F - no surcharges apply <input type="checkbox"/> 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum <input type="checkbox"/> 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum <input checked="" type="checkbox"/> 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum <input checked="" type="checkbox"/> Same day [E] if received by 3pm M-F - 100% rush surcharge minimum <input type="checkbox"/> Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush requests on weekends, statutory holidays and non-routine tests																																																																																																											
Contact:	Dennis Hsu Alexis Teohari	Merge QC/QCI Reports with COA	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A																																																																																																												
Phone:	416 435 1164	Compare Results to Criteria on Report - provide details below if box checked	<input type="checkbox"/>																																																																																																												
Company address below will appear on the final report		Select Distribution:	<input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX	Date and Time Required for all E&P TATs:			M-F 10am - 12:00																																																																																																								
Street:	93 Skyway Ave, Toronto, ON	Email 1 or Fax:	dhhsu@tharris.ca	For all tests with rush TATs requested, please contact your AM to confirm availability.																																																																																																											
City/Province:		Email 2:	ateohari@tharris.ca	Analysis Request																																																																																																											
Postal Code:	M9W 1N6	Email 3:		Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																																																																																																											
Invoice To	Same as Report To <input type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Recipients			<table border="1"> <tr> <th rowspan="10">NUMBER OF CONTAINERS</th> <th colspan="10">Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below</th> <th rowspan="10">SAMPLES ON HOLD</th> <th rowspan="10">EXTENDED STORAGE REQUIRED</th> <th rowspan="10">SUSPECTED HAZARD (see notes)</th> </tr> <tr> <td>2</td><td>2</td><td>2</td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>2</td><td>2</td><td>2</td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>2</td><td>2</td><td>2</td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>2</td><td>2</td><td>2</td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>2</td><td>2</td><td>2</td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>2</td><td>2</td><td>2</td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>2</td><td>2</td><td>2</td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>2</td><td>2</td><td>2</td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>2</td><td>2</td><td>2</td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>			NUMBER OF CONTAINERS	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below										SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)	2	2	2	2							2	2	2	2							2	2	2	2							2	2	2	2							2	2	2	2							2	2	2	2							2	2	2	2							2	2	2	2							2	2	2	2						
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ALS Lab Work Order # (ALS use only):	L2586304	ALS Contact:		Sampler:																																																																																																											
ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type																																																																																																											
	BHMW3-2	10-05-21	01:00	Soil	2	✓	✓	✓																																																																																																							
	BHMW3-3	↓	↓	"	2	✓	✓	✓																																																																																																							
1	BHMW3	↓	↓	Groundwater	2	✓	✓	✓																																																																																																							
	BH4-2	↓	↓	Soil	2	✓	✓	✓																																																																																																							
2	BMMW1	↓	↓	Groundwater	2	✓	✓	✓																																																																																																							
Drinking Water (DW) Samples¹ (client use)		Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)			SAMPLE RECEIPT DETAILS (ALS use only)																																																																																																										
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		O. Reg. 113/04, Table 3, Res Course.			Cooling Method: <input type="checkbox"/> NONE <input type="checkbox"/> ICE <input checked="" type="checkbox"/> ICE PACKS <input type="checkbox"/> FROZEN <input type="checkbox"/> COOLING INITIATED																																																																																																										
Are samples for human consumption/ use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Submission Comments identified on Sample Receipt Notification: <input type="checkbox"/> YES <input type="checkbox"/> NO																																																																																																										
					Cooler Custody Seals Intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A Sample Custody Seals Intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A																																																																																																										
					INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C																																																																																																							
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SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)																																																																																																										
Released by:	Alexis Teohari	Date:	11/05/21	Time:		Received by:		Date:	08/11/21	Time:	1:00																																																																																																				

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

ALS 21-05 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

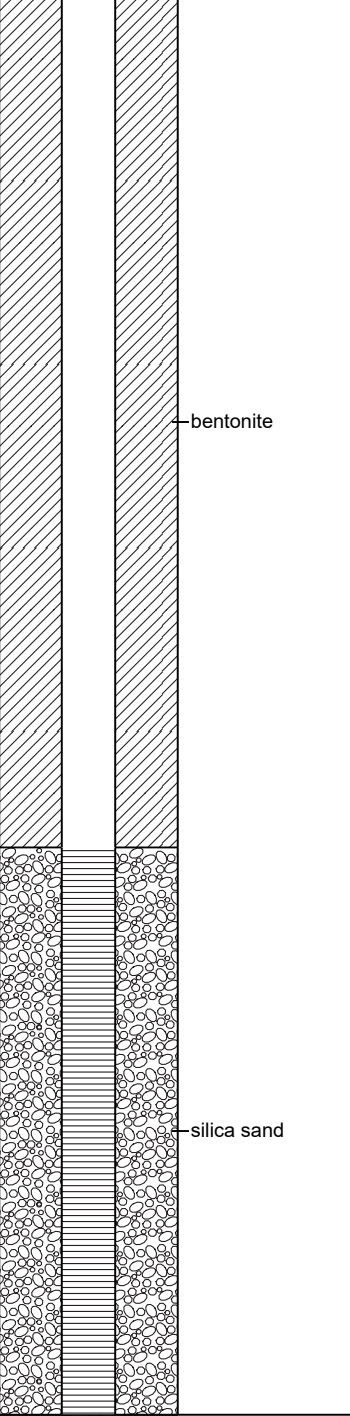
1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

APPENDIX III
BOREHOLE LOGS

BOREHOLE LOG

PROJECT NUMBER 17975-01 PROJECT NAME Phase II ESA CLIENT Horizon Legacy ADDRESS Vacant Lands near 334 Victoria Avenue, Gananoque, ON - Bonus Lot	DRILLING DATE 11/05/2021 TOTAL DEPTH 25 DIAMETER 15 cm Drilled by: Canadian Environmental Drilling Drill Method: Direct Push
---	---

Borehole name: BHMW3 **LOGGED BY** AT
CHECKED BY DH

PID	Samples	Analysed	% Recovery	Depth (ft)	Graphic Log	Moisture	Material Description	Well Diagram
0	BHMW3-1	N		1		D	TOPSOIL: Brown, with cobbles	 <p style="text-align: right; margin-right: 50px;">bentonite</p> <p style="text-align: right; margin-right: 50px;">silica sand</p>
				2				
				3				
				4				
				5				
0	BHMW3-2	Y		6			CLAY: Brown/grey, dense	
				7				
				8				
				9				
				10				
0	BHMW3-3	Y		11			CLAY: Grey, dense	
				12				
				13				
				14		W	CLAY: Grey, dense Intermittent transition to brown, medium dense every 1'	
				15				
0	BHMW3-4	N		16				
				17				
				18				
				19				
				20				
0	BHMW3-5	N		21				
				22				
				23				
				24				
				25			Termination Depth at: 25 ft	
				26				

BOREHOLE LOG

PROJECT NUMBER 17975-01 PROJECT NAME Phase II ESA CLIENT Horizon Legacy ADDRESS Vacant Lands near 334 Victoria Avenue, Gananoque, ON - Bonus Lot	DRILLING DATE 11/05/2021 TOTAL DEPTH 20 DIAMETER 15 cm Drilled by: Canadian Environmental Drilling Drill Method: Direct Push
---	---

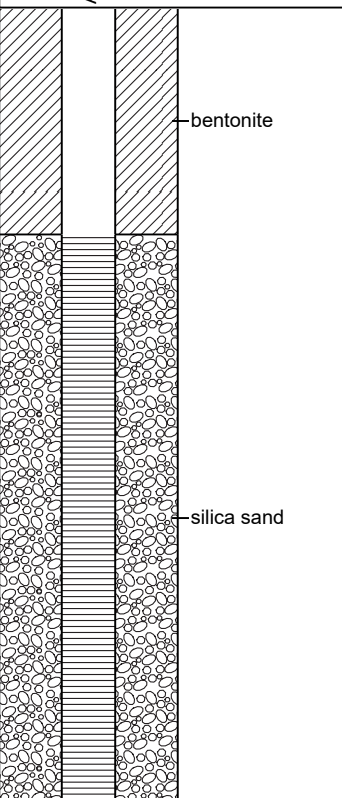
Borehole name: BH4 **LOGGED BY** AT
CHECKED BY DH

PID	Samples	Analysed	% Recovery	Depth (ft)	Graphic Log	Moisture	Material Description	Well Diagram
0	BH4-1	N		1		D	TOPSOIL: Brown, loose, with pebbles	
				2				
				3				
				4				
				5				
0	BH4-2	Y		6			SILTY CLAY: Brown, medium dense	
				7				
				8				
				9				
				10				
0	BH4-3	N		11		W	SANDY CLAY: Brown, loose	
				12			CLAY: Brown/gray, dense	
				13				
				14				
				15				
0	BH4-4	N		16		D	CLAY: Grey,dense	
				17				
				18				
				19		W	CLAY: Brown, medium dense	
				20				
				21				
				22				
				23				
				24				
				25			Termination Depth at: 20 ft	
				26				

BOREHOLE LOG

PROJECT NUMBER 17975-01 PROJECT NAME Phase II ESA CLIENT Horizon Legacy ADDRESS Vacant Lands near 334 Victoria Avenue, Gananoque, ON - Main Lot	DRILLING DATE 11/05/2021 TOTAL DEPTH 14 DIAMETER 15 cm Drilled by: Canadian Environmental Drilling Drill Method: Split Spoon
--	---

Borehole name: BHMW1 **LOGGED BY** AT
CHECKED BY DH

PID	Samples	Analysed	% Recovery	Depth (ft)	Graphic Log	Moisture	Material Description	Well Diagram
				1		D	Topsoil	
0	BHMW1-1	N		2		W	CLAY: Brown, dense	
	BHMW1-2	N		4			CLAY: Grey, dense	
92				5				
				6				
				7				
	BHMW1-3	N		8			CLAY: Grey, , dense	
313				9				
				10				
				11				
	BHMW1-4	Y		12			SANDY SILT: Brown, loose	
338				13				
				14				
				15				
				16				
				17				
				18				
				19				
				20				
				21				
				22				
				23				
				24				
				25				
				26			Termination Depth at: 14 ft (refusal)	

BOREHOLE LOG

PROJECT NUMBER 17975-01 PROJECT NAME Phase II ESA CLIENT Horizon Legacy ADDRESS Vacant Lands near 334 Victoria Avenue, Gananoque, ON - Main Lot	DRILLING DATE 11/05/2021 TOTAL DEPTH 20 DIAMETER 15 cm Drilled by: Canadian Environmental Drilling Drill Method: Split Spoon
--	---

Borehole name: BH2 **LOGGED BY** AT
CHECKED BY DH

PID	Samples	Analysed	% Recovery	Depth (ft)	Graphic Log	Moisture	Material Description	Well Diagram
				1				
				2				
				3				
				4				
				5				
				6				
0	BH2-1	N		6		D	CLAY: Grey, dense	
				7				
0	BH2-2	N		8		W		
				9				
	BH2-3	Y		10			CLAY: Grey, medium dense	
150 ppb				11				
	BH2-4	N		12			CLAY: Grey, dense	
0				13				
	BH2-5	Y		14				
98 ppb				15				
	BH2-6	N		16				
				17			SANDY CLAY: Grey, medium dense	
0				18				
				19				
				20			CLAY: Grey, dense SAND: Grey, loose	
				21				
				22				
				23				
				24				
				25			Termination Depth at: 20 ft 8 inches	
				26				