

**DRAFT Phase II Environmental Site Assessment at  
No Municipal Address, Darcy Drive,  
Strathroy, Ontario**

**Report #8714 – Tadgell Strathroy  
May 7, 2025**

**Prepared for:**

Justin Tadgell  
Southwest Investments  
T: 519-878-2336  
E: [justintadgell@gmail.com](mailto:justintadgell@gmail.com)

**Prepared by:**

A & A Environmental Consultants Inc.  
16 Young Street  
Woodstock, ON N4S 3L4  
Tel: 519-266-4680  
Fax: 519-266-3666  
[www.aaenvironmental.ca](http://www.aaenvironmental.ca)





16 Young Street  
Woodstock, ON N4S 3L4  
Tel: (519) 266-4680 Fax: (519) 266-3666  
Webpage: [www.AAenvironmental.ca](http://www.AAenvironmental.ca)

Offices in: Woodstock North Bay Toronto Simcoe

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Justin Tadgell  
Southwest Investments  
T: 519-878-2336  
E: [justintadgell@gmail.com](mailto:justintadgell@gmail.com)

Dear Justin Tadgell,

**Re: Phase II Environmental Site Assessment at No Municipal Address, Darcy Drive, Strathroy, Ontario**

Please find enclosed our Phase 2 ESA report completed in accordance with O. Reg. 153/04 as amended. Our investigation identified a potentially contaminating activity that would be expected to create an area of potential environmental concern for the site with No Municipal Address, Darcy Drive, Strathroy, Ontario.

Based on the findings of the Phase 2 investigation, no further environmental assessments are recommended at the subject site prior to filing for a record of site condition.

Sincerely,

A handwritten signature in black ink, appearing to be "A. Rasoul", written over a light grey circular stamp.

Dr. Ali Rasoul, Ph.D., P. Geo, Q.P.  
Senior Environmental Consultant

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## **1.0 EXECUTIVE SUMMARY**

Justin Tadgell (the client), retained the services of A & A Environmental Consultants Inc. (A&A) to conduct a Phase II Environmental Site Assessment (ESA) at a property located at No Municipal Address, Darcy Drive, Strathroy, Ontario. This was completed to identify if the “Areas of Potential Environmental Concern” (APECs) identified in the phase I report had potentially impacted the site’s soil and/or groundwater. It is understood the client wishes to ensure any future development of the property would be permitted by the Ministry of the Environment, Conservation and Parks (MECP), a Record of Site Condition in accordance with Ontario Regulation 153/04 (revised December 2009 and implemented July 1<sup>st</sup>, 2011) will be required. This report has been prepared to meet the requirements of this Regulation.

The Phase II property consists of two (2) parcels of land consisting of a total area of approximately 3.476 hectares. The site has no municipal address, located on Darcy Drive, in Strathroy, Ontario. The site is bounded by residential land use to the east, and commercial land to the north, south, and west. The site is located in an urban area and is currently owned by Justin Tadgell.

Two PCAs as defined in Table 2 of Schedule D of O. Reg. 153/04 (as amended) were identified on the Phase I property, and several within the Phase I study area. Of these PCAs, the two on-site PCAs, and an additional two off-site PCAs identified would create three APECs on the subject site (Table 1). The APECs on site has been investigated through a borehole drilling program involving a total of fifteen test pits and sampling ten existing groundwater monitoring well. Additional analysis from the previous report completed by MTE in 2019/2021, were also relied upon for this report. Samples for laboratory analysis of the contaminants of potential concern in the soil and groundwater were collected and compared with the “Site Condition Standards” (SCS) as described in Table 2 (Residential/Parkland/Institutional) criteria of “Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act” (April, 2011) in a potable groundwater condition for coarse-textured soil.

**Table 1 – Description of PCAs and the APECs Created By Them**

Location of PCA	PCA	APEC Number	Justification
Entire subject site	PCA #30 – Importation of Fill Material of Unknown Quality	APEC 1	The previous reports indicate that pre-existing fill material was present in stockpiles and buried within the southwest portion of the site.
Southern area of the site	PCA #N/A – Known Contamination	APEC 2	The previous reports indicate previous soil contamination from the fill materials in stockpile SP202-21 and SP203-21, and at a depth of 1.2-1.8 mbgs in test pit TP104-19.
Northwest corner of the site	PCA #52 – Storage, maintenance, fuelling and repair of equipment, vehicles and material used to maintain transportation systems PCA#50 – Soap and Detergent Manufacturing, Processing and Bulk Storage	APEC 3	The 1999 city directory listing indicates Tuffin Ray Pontiac Buick Ltd. With the 2017 city directory indicating Detail First Car wash, and the 2012-2023 directories listing the site as Dale Wurfel Chrysler Dodge Jeep. Located 100 m upgradient of the subject site.

This report meets the requirements under Schedule E of O. Reg 153/04 as amended December, 2009 and implemented, July 1<sup>st</sup>, 2011. Based on the findings of the Phase 2 investigation, no further environmental assessments are required at the subject site prior to filing for a record of site condition.

## 2.0 INTRODUCTION

Justin Tadgell (the client) retained the services of A & A Environmental Consultants Inc. (A&A) to conduct a Phase II Environmental Site Assessment (ESA) for No Municipal Address, Darcy Drive, Strathroy, Ontario which is to be developed. It is understood that the client wants to ensure that future development would be permitted by the Ministry of the Environment, Conservation and Parks (MECP), therefore a Record of Site Condition under Ontario Regulation 153/04 (revised December 2009 and implemented July 1<sup>st</sup>, 2011) is required. This report has been prepared to meet the requirements of the regulation. This report describes the Phase II ESA activities and is of a legal and confidential nature and its use by third parties is discouraged.

There is no relationship between the client and A&A other than third party independent assessor.

## 2.1 Site Description

The Phase II property consists of two (2) parcels of land consisting of a total area of approximately 3.476 hectares. The site has no municipal address, located on Darcy Drive, in Strathroy, Ontario. The site is bounded by residential land use to the east, and commercial land to the north, south, and west. The site is located in an urban area and is currently owned by Justin Tadgell. Pertinent details of the Phase 2 Property are provided in the table below. A site location diagram is shown in Figure 1 and a subject study area is provided in Figure 2.

**Table 2 – Phase II Property Information**

<b>Municipal Address</b>	No Municipal Address, Darcy Drive, Strathroy, Ontario
<b>Current Land Use</b>	Vacant Undeveloped
<b>Proposed Land Use</b>	Residential
<b>Legal Description</b>	PART LOT 22 CONCESSION 3 SER ADELAIDE, PART 2 33R19421 SAVE AND EXCEPT PARTS 4 AND 5 33R20387; MUNICIPALITY OF STRATHROY-CARADOC PART LOT 98 PLAN 33M390, PART 3 33R20387; MUNICIPALITY OF STRATHROY-CARADOC
<b>Property Identification Number (PIN)</b>	08594-0599 (LT) 08594-0601 (LT)

Site Area	3.476 Ha (34,760 m <sup>2</sup> )
UTM (NAD 83) at mid-point	Zone 17T; 448826 m Easting and 4758338 m Northing
Property Owner	Justin Tadgell
Owners Representative and Contact Information	Justin Tadgell Southwest Investments 519-878-2336 <a href="mailto:justintadgell@gmail.com">justintadgell@gmail.com</a>

## 2.2 Applicable Site Condition Standards (SCS)

A “Generic Site Sensitivity Analysis” was conducted to determine the applicable site condition standards for the subject property. This examines the subject site location, its stratigraphy, its proximity to environmentally sensitive areas, the use of the groundwater and other factors.

The subject site is located in Strathroy, Ontario, and it is supplied with drinking water from the municipality. The subject site is not within a wellhead protected area. Seven well records exist on the subject site itself. No current or former domestic wells exist on the subject site, however, multiple exist within the subject study area. Therefore, the subject site would be considered to have potable groundwater. There are no environmentally sensitive areas on site or within the subject study area and the subject site is not located within 30 m of a waterfront; therefore, the subject site is not considered a sensitive site under O. Reg. 153/04. Bedrock was not encountered at depths of less than 2 m. The soil type is considered mainly silty sand material. Therefore, the coarse-textured soil criteria were used to interpret the results of soil analysis. For the interpretation of the soil and groundwater analysis data in this report, the “Generic” option will be used so the subject site falls under Table 2 (Residential/Parkland/Institutional) criteria of “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act” (April, 2011).

## 2.3 Enhanced Investigation Property

A site is considered an enhanced investigation property if it is being used or has been used, in whole or in part, in a manner described in clause 32 (1) (b) to which subsection 32 (2) does not

apply. Under O. Reg. 153/04, an “enhanced investigation property” means a property that is being used or has been used, in whole or in part, in a manner described in clause 32 (1) (b) to which subsection 32 (2) does not apply. Clause 32 (1) (b) states:

(1) For the purposes of submitting a record of site condition for filing under subsection 168.4(1) of the Act in respect of a property, a phase two environmental site assessment is required,

(b) If the property is used, or has ever been used, in whole or in part for an industrial use or for any of the following commercial uses,

- (i) As a garage,
- (ii) As a bulk liquid dispensing facility, including a gasoline outlet, or
- (iii) For the operation of dry-cleaning equipment. O. Reg. 511/09, s. 14.

Subsection 32 (2) states:

Clause (1) (b) does not apply if,

- (a) The property is currently used for an agricultural or other use, or a community use, an institutional use, a parkland use or a residential use; and
- (b) Since the latest date on which the property stopped being used for any of the types of property uses described in clause (1) (b), a record of site condition has been filed in the Registry under section 168.4 of the Act for the use described in clause (a). O. Reg. 511/09, s. 14.

Section 32 (1) does not apply to the property; therefore, it is not considered an Enhanced Investigation Property.

### 3.0 BACKGROUND INFORMATION

#### 3.1 Physical Setting

The subject site is located at No Municipal Address, Darcy Drive, Strathroy, Ontario bounded by residential land use to the east, and commercial land to the north, south, and west. The subject site has an area of 3.476 hectares. The subject study area is mixed commercial/residential area.

##### 3.1.1 Water Bodies and Areas of Natural Significance

The closest surface water body in the area is an un-named tributary of Sydenham River located on site. Sydenham River is located approximately 1.5 km to the south of the subject site. There was no standing water noted on site during the site inspection. According to the ANSI report compiled by the Ministry of Natural Resources and Forestry GIS Imaging and provided by Ecolog ERIS, there are no ANSI units within 2 km of the Subject Site, and no other areas of natural significance as defined in Subsection 1(1) of O. Reg. 153/04.

##### 3.1.2 Topography and Surface Water Drainage

The topography on the Phase I property was observed to have a slight slope to the southeast. The Phase I property is recorded at approximately 235 metres above sea level (masl) on the topographic map. The surrounding study area is sloping south towards Sydenham River (Figure 4). Surface water on the subject site and surrounding properties is expected to flow to the catchment basins located on the surrounding roadways, and infiltrate the permeable ground surface.

#### 3.2 Past Investigations

Two previous reports and an Environmental Assessment Update Letter were provided to A&A as outlined below.

<b>Report Date</b>	December 21, 2022
<b>Project Number</b>	45102-800
<b>Report Title</b>	Environmental Site Assessment Update Darcy Drive, Strathroy, ON
<b>Author</b>	MTE Consultants

<b>Results</b>	<p>The site consists of two contiguous land parcels. The western parcel was severed from a larger commercial property at 28444 Centre Road in 2017. The Phase I report indicated the following PCAs:</p> <ul style="list-style-type: none"> <li>• On-site PCA #30- Importation of Fill Material of Unknown Quality</li> <li>• Off-site PCA #28- Gasoline and Associated Products Storage in Fixed Tanks</li> <li>• Off-site PCA #30- Importation of Fill Material of Unknown Quality</li> <li>• Off-site PCA #52- Storage Maintenance, Fuelling and Repair of Equipment, Vehicles, and Materials used to Maintain Transportation Systems</li> </ul> <p>Phase II activities to date have included drilling 11 boreholes, installing 5 monitoring wells, excavating 4 test pits, and stockpile sampling of pre-existing fill material. In total 42 soil samples and 15 groundwater samples have been analyzed at the laboratory for contaminants of concern associated with the PCAs. The results have shown no groundwater impacts to date. Soil impacts were identified in the fill and debris in the southwest portion of the site, both buried and stockpiled.</p>
<b>Recommendation</b>	<p>The approximate volume of impacted materials at the south portion of the site is 2500 m<sup>3</sup> which would require excavation and off-site disposal prior to filing for an RSC. The program would include additional soil sampling from various areas of the site including confirmatory samples from the remedial excavation.</p>

<b>Report Date</b>	April 29, 2019
<b>Project Number</b>	45102-700
<b>Report Title</b>	Geotechnical Investigation Report
<b>Author</b>	MTE Consultants
<b>Results</b>	<p>Six boreholes from 6.6-8.1 mbgs in depth, with three monitoring wells installed on site. Surficial organic fill (top-soil) was encountered at the ground surface in all boreholes to about 150-800 mm. Variable fill material was encountered beneath the topsoil in all boreholes except BH105-19 and was 0.1-1.3m thick. The fill ranged in composition of silt to sandy silt with varying amounts of organics. Silt clayey sand, sandy silt, and silty sand, and sand were encountered beneath the fill material in all boreholes. This layer was around 4.6-6.4 m thick and continued to the termination of the boreholes. Groundwater was found in April 2019 at a depth of around 4.0-7.6 mbgs.</p>
<b>Recommendation</b>	N/A

<b>Report Date</b>	November 2, 2022
<b>Project Number</b>	45102-800
<b>Report Title</b>	Centre Road Subdivision Darcy Drive Phase II Environmental Site Assessment Report
<b>Author</b>	MTE Consultants
<b>Results</b>	<p>Eleven boreholes and five monitoring wells were advanced on site to a maximum depth of 9.1 mbgs. Based on the results of the initial drilling four test pits were</p>

	<p>complete along the southern boundary of the property to evaluate buried fill. The test pits were dug to a maximum of 4.6 mbgs and backfilled using the excavated materials. Stockpile sampling from four stockpiles on site was also completed. In total 43 soil samples were submitted for analysis. Three historic wells were present on site believed to be associated with the 2008 AMEC Phase II ESA investigation at 16<sup>th</sup> Second Street. Three existing monitoring wells were installed by MTE during the 2019 geotechnical investigation, and five additional monitoring wells were installed as part of this Phase II investigation. A total of 13 groundwater samples were submitted for analysis. The inferred groundwater flow direction was to the south. There were no exceedances of the Table 2 SCS for VOCs in soil or for any of the parameters in the groundwater samples. The following exceedances were noted in the soil:</p> <ul style="list-style-type: none"><li>• SP203-21-4 for PHC F3</li><li>• SP202-21-5 for PAH parameters and lead</li><li>• SP202-21-12 for PAH parameters</li><li>• SP202-21-16 for PAH parameters and lead</li><li>• SP202-21-25 for lead</li><li>• SP203-21-7 for PAH parameters and lead</li><li>• TP104-19-2 (1.2-1.8 mbgs) for lead</li></ul>
<b>Recommendation</b>	To obtain an RSC for the site, further subsurface investigations would be required, along with soil remedial activities.

## **4.0 SCOPE OF THE PHASE II INVESTIGATION**

### **4.1 Overview of the Site Investigation**

The following tasks were completed for the purposes of this report:

#### **4.1.1 Determine The Location And Concentration Of Potential Contaminants In The Land Or Water On, In Or Under The Phase Two Property**

The phase I ESA highlighted three (3) APECs on site resulting from four (4) PCAs so fifteen (15) test pits were advanced to a maximum depth of 1.8 m within the area of potential environmental concern at the site. Soil samples were collected during the subsurface program for examination using an organic vapour meter to determine the levels of hydrocarbon vapours in the soils. Regulation 153/04 specifies that vapour readings can only be used as a guide but decisions must be based on laboratory determination of the concentrations of BTEX components or VOCs in the soil, so a sampling and analysis plan was prepared which included at least one sample from each borehole being further tested at the laboratory for these components along with the other contaminants of concern. Ten (10) previously installed groundwater monitoring wells across the entire property and within the APECs were used to determine the groundwater flow direction through the site and was sample and analyze for contaminants of concern. Additional borehole analytics from seventeen (17) boreholes, three (3) test pits, and nineteen (19) stockpile samples; and groundwater monitoring wells already existing on site were also used to aid in the investigation.

#### **4.1.2 Develop An Understanding Of The Geological And Hydrogeological Conditions At The Phase Two Property**

This objective was achieved in the borehole drilling program which logged the soil stratigraphy in the borehole to estimate possible migration pathways for contaminants and examine the levels of such contaminants that may be present. The hydrogeological conditions were also investigated by using ten existing monitoring wells across the site to intercept the near-surface aquifer and plot the groundwater flow direction.

#### **4.1.3 Conduct One Or More Rounds Of Field Sampling For All Contaminants Associated With Any Area Of Potential Environmental Concern (APEC)**

The APECs described in the phase two sampling and analysis plan was investigated through the sampling and analysis program which included any such contaminants identified during subsequent phase two activities and analyses of environmental conditions at the phase two property.

#### **4.2 Media Investigated**

In order to investigate the APECs identified on site, the quality of the soil and groundwater was investigated through a subsurface investigation. Fifteen (15) test pits were advanced on site, and ten (10) existing groundwater monitoring wells were used to complete this investigation. Additional borehole analytics from seventeen (17) boreholes, three (3) test pits, and nineteen (19) stockpile samples; and groundwater monitoring wells already existing on site were also used to aid in the investigation.

#### **4.3 Phase I Conceptual Site Model**

The phase I conceptual site model is shown in Figure 5. Possible contaminant migration pathways are also shown along with the locations of the PCAs. The closest surface water body in the area is Sydenham River is located approximately 1.5 km to the south of the subject site. There was no standing water on the site at the time of the Phase I environmental site assessment. According to the ANSI report compiled by the Ministry of Natural Resources and Forestry GIS Imaging and provided by Ecolog ERIS, there are no ANSI units within 2 km of the Subject Site, and no other areas of natural significance as defined in Subsection 1(1) of O. Reg. 153/04.

#### **4.4 Sampling and Analysis Plan**

A sampling and analysis plan is presented in Appendix 11.1. The investigation of the subject property saw the advancement of fifteen (15) test pits and use of ten (10) existing monitoring wells. Additional borehole analytics from seventeen (17) boreholes, three (3) test pits, and

nineteen (19) stockpile samples; and groundwater monitoring wells already existing on site were also used to aid in the investigation.

#### **4.4.1 Deviations From the Sampling and Analysis Plan**

There were no deviations from the sampling and analysis plan.

#### **4.5 Contaminants of Concern**

The contaminants of concern are listed in the APEC Table (Table 6).

#### **4.6 Impediments**

No impediments were occurred during the Phase II ESA.

## 5.0 INVESTIGATION METHOD

### 5.1 General

A test pit exploration plan was drawn up and implemented. A&A's standard operating procedures were followed in implementing the subsurface program and a total of 15 test pits were advanced on the subject site. Prior to excavating, utility line locates for both private and public utilities were obtained and a tailgate safety meeting held prior to commencement of the work. Soil samples were collected for vapour testing and laboratory analysis and submitted the same day in ice-cooled coolers to an accredited laboratory for analysis of the contaminants of concern. Ten existing groundwater monitoring wells were used to collect a sample for laboratory analysis.

### 5.2 Drilling Program

The client obtained an excavator to advance the test pits, while a consultant from A&A supervised and retrieve undisturbed soil samples for vapour testing and laboratory analysis. Field staff used disposable nitrile gloves when handling equipment and all samples were placed in laboratory-supplied containers pre-charged with preservative where appropriate. There were no deviations from A&A's standard operating procedures.

#### 5.2.1 Rationale For Borehole Locations

Previous investigations completed by MTE in 2019 included the advancement of eleven monitoring wells, six boreholes, three test pits, and stockpile sampling. The Phase II ESA complete by A&A was conducted to address the identified PCAs and associated APECs by advancing six test pits in January 2025 and an additional nine test pits in February 2025, with two stockpile samples also being collected. The following tables summarize the sampling details of the Phase II ESA complete by A&A, with the locations being depicted in CSM Figure 5.

**Table 3 – MTE Soil Sampling Details 2019/2021**

Sample ID	Sample Depth (mbgs)	Parameters Sampled	Comments
MW208-19	1.5-2.3	PHC, BTEX, VOC	• Within APEC 1 and 3, however cannot be

Sample ID	Sample Depth (mbgs)	Parameters Sampled	Comments
	6.9-7.6	Metals, As, Se, Sb, PHC, BTEX, VOC, PAH, pH	used for either of the APECs as APEC 3 is an off-site source with groundwater as the potentially contaminated medium and APEC 1 is from imported fill material which was not found at a depth of 6.9-7.6 mbgs.
MW211-19	6.1-6.7	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1 and 3, however cannot be used for either of the APECs as APEC 3 is an off-site source with groundwater as the potentially contaminated medium and APEC 1 is from imported fill material which was not found at a depth of 6.1-6.7mbgs.</li> </ul>
SP-101-21-5N	0.70	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
SP-101-21-7NE	0.32	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
SP-101-21-15E	0.87	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
SP-101-21-24SE	0.55	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
SP-101-21-28S	0.32	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
SP-101-21-32SW	0.37	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
SP-101-21-36SW	0.55	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
SP-101-21-41W	0.45	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
SP-101-21-45NW	0.60	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
SP-101-21-50T	1.27	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
BH209-19	0.3-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
BH210-19	0.0-0.08	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
MW203-19	2.3-3.0	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
BH204-19	0.8-1.5	Metals, As, Se, Sb, PHC, BTEX, PAH, pH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
BH205-19	0.1-0.8	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>

Sample ID	Sample Depth (mbgs)	Parameters Sampled	Comments
BH206-19	1.0-1.5	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
BH207-19	0.9-1.5	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
MW201-19	1.5-2.5	Metals, As, Se, Sb, PHC, BTEX	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
	2.5-3.0	Metals, As, Se, Sb, PHC, BTEX, PAH, pH	<ul style="list-style-type: none"> <li>• Within APEC 1, however cannot be used, as APEC 1 is from imported fill material which was not found at a depth of 2.5-3.8 mbgs.</li> </ul>
	3.0-3.8	Metals, As, Se, Sb, PAH	
MW202-19	1.5-2.3	Metals, As, Se, Sb, PHC, BTEX	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
	2.0-5.0	pH	<ul style="list-style-type: none"> <li>• Used to confirm pH levels of subsurface soils</li> </ul>
	2.3-3.0	Metals, As, Se, Sb, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
TP101-19	1.8-2.7	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Created APEC 2, as the sample identified metal contamination within this area.</li> </ul>
TP102-19	0.3-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• This test pit is identified in the certificates and within the report, however, the location of the test pit nor a description of its location is indicated on any of the figures. Therefore, A&amp;A cannot use the results of analysis within this report. It should be noted however, that no exceedances of the parameters sampled were identified.</li> </ul>
TP103-19	2.1-2.8	Metals, As, Se, Sb, PHC, BTEX, PAH, VOC	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Delineated the northwest extent of APEC 2, as the sample identified no contamination within this area.</li> </ul>
TP104-19	1.2-1.8	Metals, As, Se, Sb	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Created APEC 2, as the sample identified metal and PAH contamination within this area.</li> </ul>
	2.3-2.8	Metals, As, Se, Sb, PHC, BTEX	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
	2.8-3.7	Metals, As, Se, Sb	<ul style="list-style-type: none"> <li>• Delineated APEC 2 vertically, as the sample identified no contamination at</li> </ul>

Sample ID	Sample Depth (mbgs)	Parameters Sampled	Comments
			this depth.
SP201-21-2	0.6-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Delineated APEC 2 to the western extent, as the sample identified no contamination within this area.</li> </ul>
SP202-21-5	0.6-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Created APEC 2, as the sample identified metal and PAH contamination within this area.</li> </ul>
SP202-21-12	0.6-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Created APEC 2, as the sample identified PAH contamination within this area.</li> </ul>
SP202-21-14	0.6-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Delineated APEC 2, as the sample identified no contamination within this area.</li> </ul>
SP202-21-16	0.6-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Created APEC 2, as the sample identified metal and PAH contamination within this area.</li> </ul>
SP202-21-25	0.6-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Created APEC 2, as the sample identified metal contamination within this area.</li> </ul>
SP203-21-2	0.6-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Delineated APEC 2, as the sample no identified contamination within this area.</li> </ul>
SP203-21-4	0.6-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Created APEC 2, as the sample identified PHC contamination within this area.</li> </ul>
SP203-21-7	0.6-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Created APEC 2, as the sample identified metal and PAH contamination within this area.</li> </ul>

**NOTES:**

PHC – petroleum hydrocarbons

PAH – polycyclic aromatic hydrocarbons

BTEX – benzene, toluene, ethylbenzene, xylene

VOC – volatile organic compounds

**Table 4 – A&A Soil Sampling Details 2025**

Sample ID	Sample Depth (mbgs)	Parameters Sampled	Comments
TP1	1.2-1.8	Metals, As, Se, Sb, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 2</li> <li>• To potentially delineate to the southwest the exceedance found at TP1041-19 by MTE if the averages proved the exceedance to exist.</li> <li>• Also confirming no impacts below surface from the removal the stockpile identified as SP203-21 from the MTE Report</li> </ul>
TP2	1.2-1.8	Metals, As, Se, Sb, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 2</li> <li>• Used as a sampling point at the same sampling location and depth as TP1041-19 to determine if the average sampling results meet the standards</li> <li>• Also confirming no impacts below surface from the removal the stockpile identified as SP203-21 from the MTE Report</li> </ul>
TP3	1.2-1.8	Metals, As, Se, Sb, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 2</li> <li>• Used as a sampling point at the same sampling location and depth as TP1041-19 to determine if the average sampling results meet the standards</li> <li>• Also confirming no impacts below surface from the removal the stockpile identified as SP203-21 from the MTE Report</li> </ul>
TP4	1.2-1.8	Metals, As, Se, Sb, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 2</li> <li>• To potentially delineate to the southwest the exceedance found at TP1041-19 by MTE if the averages proved the exceedance to exist.</li> <li>• Also confirming no impacts below surface from the removal the stockpile identified as SP202-21 from the MTE Report</li> </ul>

Sample ID	Sample Depth (mbgs)	Parameters Sampled	Comments
TP5	1.2-1.8	Metals, As, Se, Sb, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 2</li> <li>• Used as a sampling point at the same sampling location and depth as TP1041-19 to determine if the average sampling results meet the standards</li> </ul>
TP6	1.2-1.8	Metals, As, Se, Sb, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 2</li> <li>• Used as a sampling point at the same sampling location and depth as TP1041-19 to determine if the average sampling results meet the standards</li> </ul>
SP1	0.0-0.6	Metals, As, Se, Sb, HWS-B, Cr(Vi), Cn-, Hg, electrical conductivity, SAR, pH, PAH, PHC, BTEX	<ul style="list-style-type: none"> <li>• To confirm if the soil removed from TP1-6 was within the SCS to be replaced in the test pits.</li> </ul>
TP7	1.5-2.0	Metals, As, Se, Sb, HWS-B, Cr(Vi), Cn-, Hg, electrical conductivity, SAR, pH, PAH, PHC, BTEX	<ul style="list-style-type: none"> <li>• Within APEC 1 to evaluate the fill material on site.</li> </ul>
TP8	0.5-1.0	Metals, As, Se, Sb, HWS-B, Cr(Vi), Cn-, Hg, electrical conductivity, SAR, pH, PAH, PHC, BTEX	<ul style="list-style-type: none"> <li>• Within APEC 1 to evaluate the fill material on site.</li> </ul>
TP9	0.5-1.0	Metals, As, Se, Sb, HWS-B, Cr(Vi), Cn-, Hg, electrical conductivity, SAR, pH, PAH, PHC, BTEX	<ul style="list-style-type: none"> <li>• Within APEC 1 to evaluate the fill material on site.</li> </ul>
TP10	0.5-1.0	Metals, As, Se, Sb, PAH, PHC, BTEX	<ul style="list-style-type: none"> <li>• To confirm if the soil removed from this area and stockpiled (SP1) was suitable to refill the previously dug test pits (TP1-6).</li> </ul>
TP11	0.0-0.5	Metals, As, Se, Sb, PAH, PHC, BTEX	<ul style="list-style-type: none"> <li>• To confirm if the soil removed from this area and stockpiled (SP1) was suitable to refill the previously dug test pits (TP1-6).</li> </ul>
TP12	0.5-1.0	Metals, As, Se, Sb, PAH, PHC, BTEX	<ul style="list-style-type: none"> <li>• To confirm if the soil removed from this area and stockpiled (SP1) was suitable to refill the previously dug test pits (TP1-6).</li> </ul>
TP13	0.0-0.5	Metals, As, Se, Sb, PAH, PHC, BTEX	<ul style="list-style-type: none"> <li>• To confirm if the soil removed from this area and stockpiled (SP1) was suitable to refill the previously dug test pits (TP1-6).</li> </ul>
TP14	1.2-1.8	Metals, As, Se, Sb, PAH, PHC, BTEX	<ul style="list-style-type: none"> <li>• Used as a sampling point at the same sampling location and depth as TP1041-</li> </ul>

Sample ID	Sample Depth (mbgs)	Parameters Sampled	Comments
			19 to determine if the average sampling results meet the standards
TP15	1.2-1.8	Metals, As, Se, Sb, PAH, PHC, BTEX	<ul style="list-style-type: none"> <li>Used as a sampling point at the same sampling location and depth as TP1041-19 to determine if the average sampling results meet the standards</li> </ul>

**NOTES:**

PHC – petroleum hydrocarbons  
 PAH – polycyclic aromatic hydrocarbons  
 HWS-B – Hot Water-Soluble Boron  
 SAR – Sodium Adsorption Ratio  
 BTEX – Benzene, Toluene, Ethylbenzene, Xylene

**Table 5 – MTE Groundwater Sampling Details 2019/2021**

Sample ID	Sample Depth (mbgs)	Parameters Sampled	Comments
MW201-19	6.70-7.6	Metals, As, Se, Sb, PHC, BTEX	<ul style="list-style-type: none"> <li>Within APEC 1</li> </ul>
MW202-19	6.50-7.6	Metals, As, Se, Sb, PHC, BTEX, VOC	<ul style="list-style-type: none"> <li>Within APEC 1</li> </ul>
MWOLD-E	5.85-8.1	Metals, As, Se, Sb, PHC, BTEX	<ul style="list-style-type: none"> <li>Within APEC 1</li> </ul>
MW208-19	7.08-9.1	Metals, As, Se, Sb, PHC, BTEX, VOC, PAH	<ul style="list-style-type: none"> <li>Within APECs 1 and 3</li> </ul>
MW211-19	7.12-8.2	Metals, As, Se, Sb, PHC, BTEX, VOC, PAH	<ul style="list-style-type: none"> <li>Within APECs 1 and 3</li> </ul>
MW103-19	5.26-6.1	Metals, As, Se, Sb, PHC, BTEX, VOC	<ul style="list-style-type: none"> <li>Within APEC 1</li> </ul>
MW104-19	5.06-6.1	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>Within APEC 1</li> </ul>
MW106-19	7.18-7.6	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>Within APECs 1 and 3</li> </ul>
MW203-19	6.59-7.6	Metals, As, Se, Sb, PHC, BTEX, VOC, PAH	<ul style="list-style-type: none"> <li>Within APEC 1</li> </ul>

**NOTES:**

PHC – petroleum hydrocarbons

VOCs – volatile organic compounds  
BTEX – Benzene, Toluene, Ethylbenzene, Xylene Mixture  
PAH – polycyclic aromatic hydrocarbons

**Table 6 – A&A Groundwater Sampling Details 2025**

Sample ID	Sample Depth (mbs)	Parameters Sampled	Comments
MW103-19	5.152-6.198	Metals, As, Se, Sb, Hg, Cr(VI), Cn-, Na. Cl-, pH, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 1</li> </ul>
MW208-19	7.574-8.903	Metals, As, Se, Sb, Hg, Cr(VI), Cn-, Na. Cl-, pH, PAH, BTEX, PHC, VOC	<ul style="list-style-type: none"> <li>• Within APECs 1 and 3</li> </ul>
MW211-19	7.564-8.107	Metals, As, Se, Sb, Hg, Cr(VI), Cn-, Na. Cl-, pH, PAH, BTEX, PHC, VOC	<ul style="list-style-type: none"> <li>• Within APECs 1 and 3</li> </ul>
MW106-19	7.566-7.613	N/A	<ul style="list-style-type: none"> <li>• Within APECs 1 and 3</li> <li>• Limited volume of water, was unable to collect a sample for analysis</li> </ul>
MW104-19	5.396-5.624	Metals, As, Se, Sb, Hg, Cr(VI), Cn-, Na. Cl-, pH, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 1</li> </ul>
MW203-19	6.45-7.48	Metals, As, Se, Sb, Hg, Cr(VI), Cn-, Na. Cl-, pH, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 1</li> </ul>
MWOLD-N	6.572-8.172	Metals, As, Se, Sb, Hg, Cr(VI), Cn-, Na. Cl-, pH, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 1</li> </ul>
MWOLD-NW	6.916-8.377	Metals, As, Se, Sb, Hg, Cr(VI), Cn-, Na. Cl-, pH, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 1</li> </ul>
MW201-19	6.765-7.338	Metals, As, Se, Sb, Hg, Cr(VI), Cn-, Na. Cl-, pH, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 1</li> </ul>
MW202-19	6.825-7.592	Metals, As, Se, Sb, Hg, Cr(VI), Cn-, Na. Cl-, pH, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 1</li> </ul>

**NOTES:**

PHC – petroleum hydrocarbons  
VOCs – volatile organic compounds  
BTEX – Benzene, Toluene, Ethylbenzene, Xylene Mixture  
PAH – polycyclic aromatic hydrocarbons

### **5.2.2 Soil Sampling**

Undisturbed soil from the bottom of the test pit was retrieved from a clean trowel. Each test pit was examined for visual/olfactory signs of contamination and some of the samples were placed in a 1 L “Ziploc” bag for hydrocarbon vapour testing using a PID meter to measure the head-space vapour in the bag after a suitable equilibration time. The remainder of the sample was used to collect a laboratory sample into the lab-supplied containers and immediately placed in an ice-cooled cooler and shipped the same day to an accredited laboratory (Agat Laboratories). Samples for BTEX analysis were collected using disposable hypodermic syringes with the end cut off to extract a 1-2 cc plug of soil from the split spoon. The plug was immediately injected into a BTEX septum vial containing appropriate preservative, shaken and placed in the cooler.

### **5.2.3 Soil Stratigraphy to Bedrock**

The site is located in the physiographic region of the sand plains landform in the Caradoc Sand Plains and London Annex region, consisting mainly of sand, silt and clay, with low permeability. The bedrock in the general area of the site is part of a group belonging to the Hamilton Group, consisting of limestone, dolostone, and shale.

Based on the investigation conducted at the site, the stratigraphy was found to be fairly consistent across the site. A layer of topsoil was found at all boreholes to a maximum depth of 1.0 m except for MW203-19 which found topsoil extending to 2.5 mbgs. A fill material containing clayey silt some sand and gravel was found in all boreholes extending on average to 2.5 mbgs with the maximum being 4.0 mbgs in BH204-19. Underlying the fill material was a mixture of native silty sand, sand, and silt to the termination of the boreholes.

Bedrock was not encountered during the current subsurface investigation, or the previous Phase II investigation completed by MTE in 2019. Based on the MNRF Ontario Geological Survey, Bedrock Topography Map (Map P. 1564), depicts the average depth of bedrock at approximately 171 mbgs to bedrock in the subject study area.

#### **5.2.4 Field Screening**

The soil retrieved from the test pits was examined by sight and smell for any signs of impairment as noted in the borehole logs. A portion of the sample was placed in a 1L “Ziploc” bag, then mixed in the bag to break up any lumps and the bag headspace was allowed to equilibrate for a suitable time before the bag wall was pierced with the probe tip of an RKI Eagle organic vapour meter calibrated against n-hexane and the head-space vapour reading was recorded after 15 seconds. Soils which showed significant vapour readings were chosen for laboratory analysis but at least one soil sample from ten boreholes were submitted for laboratory analysis of the contaminants of concern.

#### **5.2.5 Groundwater Monitoring Well Installation and Development**

Groundwater monitoring wells were previously installed on site during the MTE 2019/2021 investigation. The wells were constructed from 51 mm diameter Schedule 40 PVC screens and risers, each fitted with a drive-point end cap at the bottom and a lockable end cap at the top. The annulus around the screened interval was filled with clean well sand and sealed above the interval with bentonite with a second bentonite seal at the surface. The wells were fitted with a dedicated watterra pump to allow the well to be purged and sampled. The top of each well was protected with a monument casing. The wells were surveyed as to location and elevation relative to a legal bench-mark. Care was taken to ensure the groundwater surface fell within the screened interval and to purge at least three well volumes from the well prior to collecting a sample for laboratory analysis.

#### **5.2.6 Field Measurement of Water Quality Parameters**

A YSI NIST-calibrated pH/Temp. meter (Ser. # JC02437) was used to record the groundwater temperature and pH.

#### **5.2.7 Groundwater Sampling**

Upon arrival at each well, the protective cover was removed and the locked cap inspected for any interference and then opened. The depth to the water surface and total depth of well to the

top-of-pipe was measured with a Solinst depth meter to the nearest mm. The dedicated water inertial pump was then used to purge at least three well volumes from the well before withdrawing a sample for analysis. Samples for metals analysis were field-filtered through a 0.8 µ field filter. Sample vials for BTEX were filled to the brim creating a positive meniscus and sealed tightly to prevent any head space air in the vial.

### **5.2.8 Analytical Laboratory**

All laboratory samples were submitted in ice-cooled containers to Agat Laboratories Ltd., in Mississauga, Ontario who are accredited by CALA for all the tests performed.

### **5.2.9 Residue Management Procedures**

Test pits were backfilled with its existing soil. Purged groundwater was stored in drums on site until the end of the program and until the laboratory analyses were completed. Proceeding the results, the drums were shipped to a licensed waste site for disposal.

### **5.2.10 Borehole Survey**

The location and elevation of each borehole was surveyed using a calibrated laser level relative to a legal benchmark.

### **5.2.11 Quality Assurance/Quality Control**

Quality was assured by the use of A&A's standard operating procedures for all tasks performed. Quality was controlled in the field by collecting two duplicate soil sample, one duplicate groundwater sample, and a field blank. These were labeled, placed in laboratory-approved containers with appropriate preservatives as needed and shipped in ice-cooled coolers to the laboratory under a chain of custody.

### **5.2.12 Data Quality Objectives for Soils**

The current recommended MECP protocols for collecting and analyzing field samples for laboratory analysis are severely flawed and frequently result in the collection of non-representative samples due to the small samples sizes collected and the even smaller size of sub-

sample taken from the sample bottle and used for laboratory analysis. Soils are typically non-homogeneous, especially when a contaminant is present in particulate form such as metals, coal particles (PAHs) etc. In the absence of any detailed prior knowledge of the distribution of the contaminants in the soil, it becomes impractical to obtain meaningful analysis results when the laboratory only analyses less than a gram or so of the field sample submitted to the laboratory (typically around 100 grams) which itself is supposed to be representative of an area of the site containing many millions of grams. For metal analysis, the lab typically uses <0.5 grams of sample.

If the allowable limit for a contaminant in soil is low (several are in the <1 to 10 parts-per-million range) and it is present in the soil as discrete particles such as coal dust or lead paint flakes, etc., *then a soil will exceed the allowable limit when it contains more than 1 to 10 contaminant particles per million particles of soil.* However, there are only a few thousand soil particles in the laboratory sub-sample taken from the sample bottle and the chances of finding *any* contaminant in this very small lab sub-sample are remote. Thus, the certificate of analysis shows the sample to be contaminant-free (“non-detect”) and this area of the site is deemed to show no evidence of contaminant impact---*despite the fact that it exceeds the site condition standard!* However, if one or more contaminant particles do happen to be picked up in the lab sub-sample, the certificate of analysis will show that the allowable limit is greatly exceeded and the site needs to be remediated. This is why duplicate samples analyzed for trace organics (PAHs, etc.) frequently produce relative % differences (RPDs) well over 100% and co-located samples from a site can jump from “non-detect” in the one sample to many times the allowable limit in the duplicate, all because the small samples collected and even smaller sub-sample analyzed cannot represent the actual field distribution. The RPD is defined as follows:

$$\text{RPD} = \frac{S1 - S2}{\frac{(S1 + S2)}{2}} \times 100\% \text{ where } S1 \text{ and } S2 \text{ are the sample and duplicate}$$

Based on the discussion above, the data quality objectives for soil for the purposes of this report are as follows:

1. Duplicate analysis results at levels >100 mg/Kg are deemed to be acceptable if the original and duplicate samples exhibit a % relative standard deviation (RSD) within  $\pm 50\%$ ;
2. Duplicate analysis results at levels between >10<100 mg/Kg, a % RSD of  $\pm 100\%$  is acceptable;
3. Duplicate analysis results at levels between <10 mg/Kg, a % RSD of  $\pm 200\%$  is acceptable.

No deviations from the soil-sampling protocols were necessary.

### **5.2.13 Data Quality Objectives for Groundwater**

Groundwater samples are typically much more homogeneous than soils and it is much easier to obtain representative field samples, so the data quality objectives for groundwater samples are as follows:

1. Duplicate analysis results at levels >100 mg/Kg are deemed to be acceptable if the original and duplicate samples exhibit a % relative standard deviation (RSD) within  $\pm 10\%$ ;
2. Duplicate analysis results at levels between >10<100 mg/Kg, a % RSD of  $\pm 15\%$  is acceptable;
3. Duplicate analysis results at levels between <10 mg/Kg, a % RSD of  $\pm 25\%$  is acceptable.

## **6.0 REVIEW AND EVALUATION**

### **6.1 Geology**

#### **6.1.1 Surface Geology and Soil Stratigraphy**

As described in the phase I report on the subject property, the surface deposit in this region, like all of Ontario, was once covered by massive glaciers during the late Wisconsin glacial period. The grinding action of the moving ice masses produced a considerable amount of rock materials, ranging in size from boulders to rock flour which was distributed over the landscape. Based on the investigation conducted at the site, the stratigraphy was found to be fairly consistent across the site. A layer of topsoil was found at all boreholes to a maximum depth of 1.0 m except for MW203-19 which found topsoil extending to 2.5 mbgs. A fill material containing clayey silt some sand and gravel was found in all boreholes extending on average to 2.5 mbgs with the maximum being 4.0 mbgs in BH204-19. Underlying the fill material was a mixture of native silty sand, sand, and silt to the termination of the boreholes.

#### **6.1.2 Bedrock Geology and Depth to Bedrock**

As described in the phase I report, the Bedrock Geology of Ontario Map shows the subject site within the Hamilton Group, consisting of limestone, dolostone, and shale. Bedrock was not encountered during the current subsurface investigation, or the previous Phase II investigation completed by MTE in 2019/2021. Based on the MNR Ontario Geological Survey, Bedrock Topography Map (Map P. 1564), depicts the average depth of bedrock at approximately 171 mbgs to bedrock in the subject study area.

### **6.2 Hydrogeological Characteristics**

Groundwater and surface water is expected to flow toward the natural slope of the ground surface. Although the surface topography typically has great influence on the groundwater flow it has been observed in several areas that bedrock topography also has a significant influence on the flow, in some cases more so than surface topography. In the latter case, this is believed to be due to relatively impermeable bedrock underlying a much more permeable sand overburden. Based on the regional topography, groundwater is inferred to be flowing south toward Sydenham

---

River, but the groundwater flow direction may also be influenced by utility trenches and other subsurface structures and may migrate in the bedding stone of the subsurface utility trenches. Groundwater flow direction can only be confirmed with the measurement of groundwater elevation through the subject site. The groundwater elevations are shown in the well logs (Appendix 11.3). The groundwater surface elevations in the monitoring wells varied from 229.945 masl (metres above sea level) in MW106-19, to 229.465 masl in both MWOLD-N and MW201-19.

### 6.2.1 Horizontal Hydraulic Gradient and Groundwater Flow Direction

The seasonal changes in groundwater hydraulic gradient due to rainfall and spring runoff have a significant influence on the groundwater flow velocities, so the groundwater flow velocity was calculated using a horizontal hydraulic gradient of 0.0025 m/m (MW106-19 to MWOLD-N) with an estimated hydraulic conductivity of  $1.0 \times 10^{-4}$  cm/s, applied to a silty sand substrate, with an estimated porosity of 35% (Fetter 2001). The average linear velocity can thus be calculated using the following equation:

$$v = \frac{ki}{n}$$

Where “k” is the hydraulic conductivity, “i” is the hydraulic gradient, and “n” the porosity. By using the above information, the average linear velocities for the silty sand material are estimated to be 0.225 m/year in a southeast-south direction.

### 6.3 Groundwater Conditions

The subject site is not within a wellhead protected area. No current or former domestic wells exist on the subject site; however, multiple exist within the subject study area. Therefore, the subject site would be considered to have potable groundwater.

### 6.4 Soil Texture

The soil type is considered mainly silty sand material. A grain size analysis was conducted that confirmed the soil type to be classified as coarse-textured soils.

---

## **6.5 Field Screening of Soil Samples**

An RKI Eagle organic vapour meter calibrated against n-Hexane was used to check the head-space hydrocarbon vapour levels in the bagged soil samples by using the probe-tip to pierce the wall of the bag and taking the reading after 15 seconds. The vapour readings are recorded and none showed any cause for concern.

## **6.6 Contaminants of Concern and Soil Quality**

A detailed discussion of the soil quality is given in the Phase II conceptual site model in the Appendix. The contaminants of concern identified in the phase I report are identified in the APEC table.

## 7.0 PHASE II CONCEPTUAL SITE MODEL

This section has been moved to Section 11 in the Appendix.

## **8.0 CONCLUSIONS**

The APECs identified on the subject site in the Phase I environmental site assessment have been examined under a Phase II site investigation employing a total of 15 test pits and sampling 10 existing groundwater monitoring wells to establish the quality of the soil and groundwater on site, along with using previous analytical results from MTE in 2019 and 2021. The results of analysis have been interpreted under the site condition standards (SCS) described in Table 2 (Residential/Parkland/Institutional) criteria of “Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act” (April, 2011) in a potable groundwater condition for coarse-textured soil, and found all samples to be below the SCS for soil and groundwater.

This report meets the requirements under Schedule E of O. Reg 153/04 as amended December, 2009 and implemented, July 1<sup>st</sup>, 2011. Based on the findings of the Phase 2 investigation, no further environmental site assessments are required at the subject site prior to filing for a record of site condition.

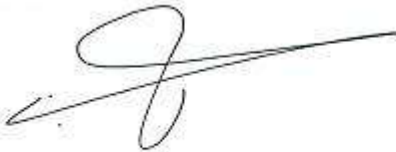
8.1 Signatures



Victoria Sowden, HBSc. (Geo), Cert. Env. Mgt.  
Senior Project Manager

I have reviewed Report #8714 – Tadgell Strathroy and concur with the findings therein.

SIGNED:



Dr. Ali Rasoul, Ph.D., EP, P. Geo., Q.P.  
Principal Consultant

## **9.0 REFERENCES**

1. Ontario Regulation 153/04, as amended December, 2009 and implemented on July 1<sup>st</sup>, 2011
2. "Phase I ESA", Canadian Standards Association, Z-768-01 (2012)
3. Guide for Completing Phase One Environmental Site Assessments under Ontario Regulation 153/04.
4. Guide for Completing Phase Two Environmental Site Assessments under Ontario Regulation 153/04.
5. "Soil Analysis - What the Lab Certificate Doesn't Tell you." Duncan, G., "Environmental Science and Engineering", March/April 2014, page 28.

## **9.1 Authors' Background**

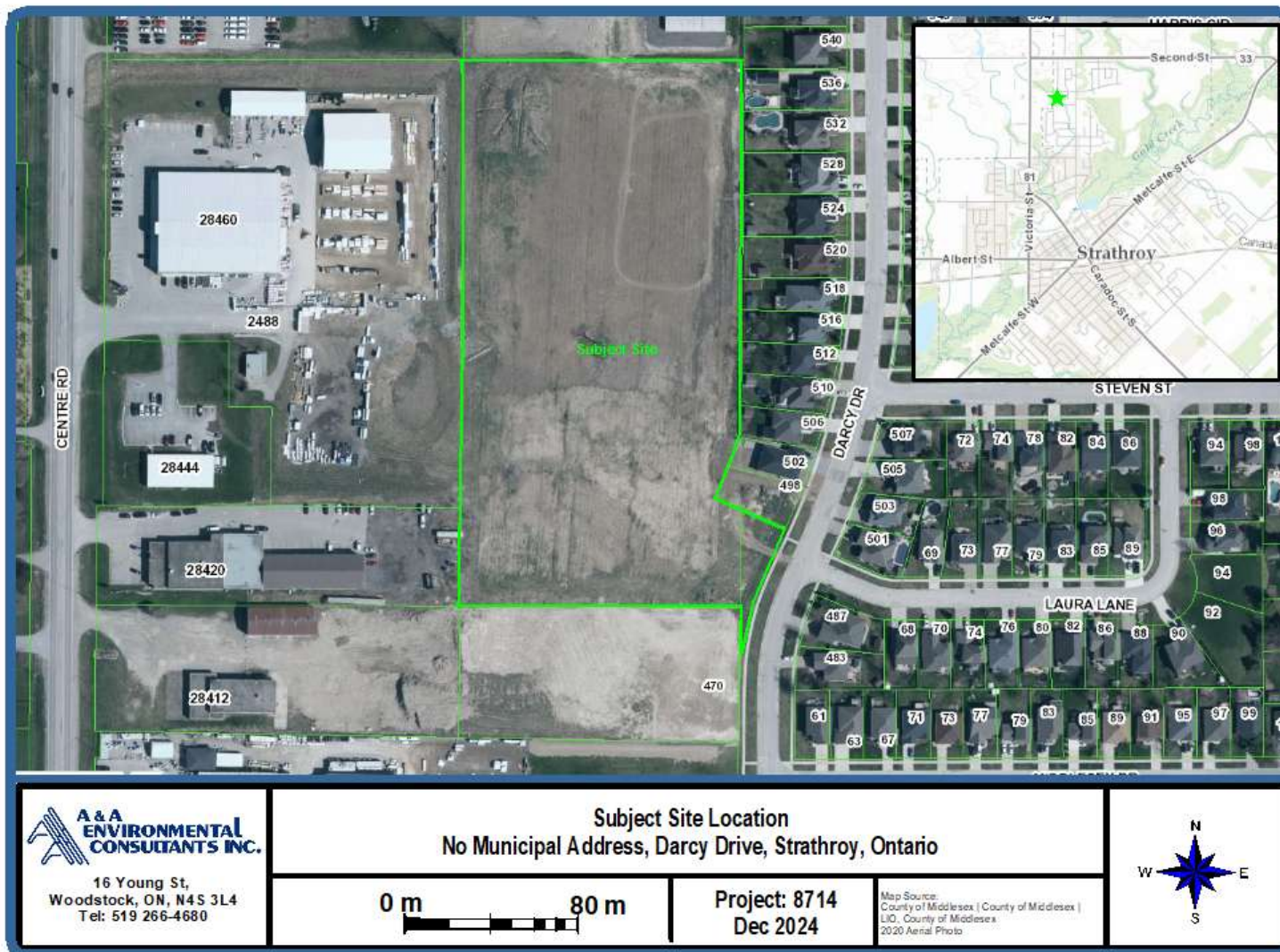
### **Dr. Ali A. Rasoul, Ph.D., EP, P. Geo., QP**

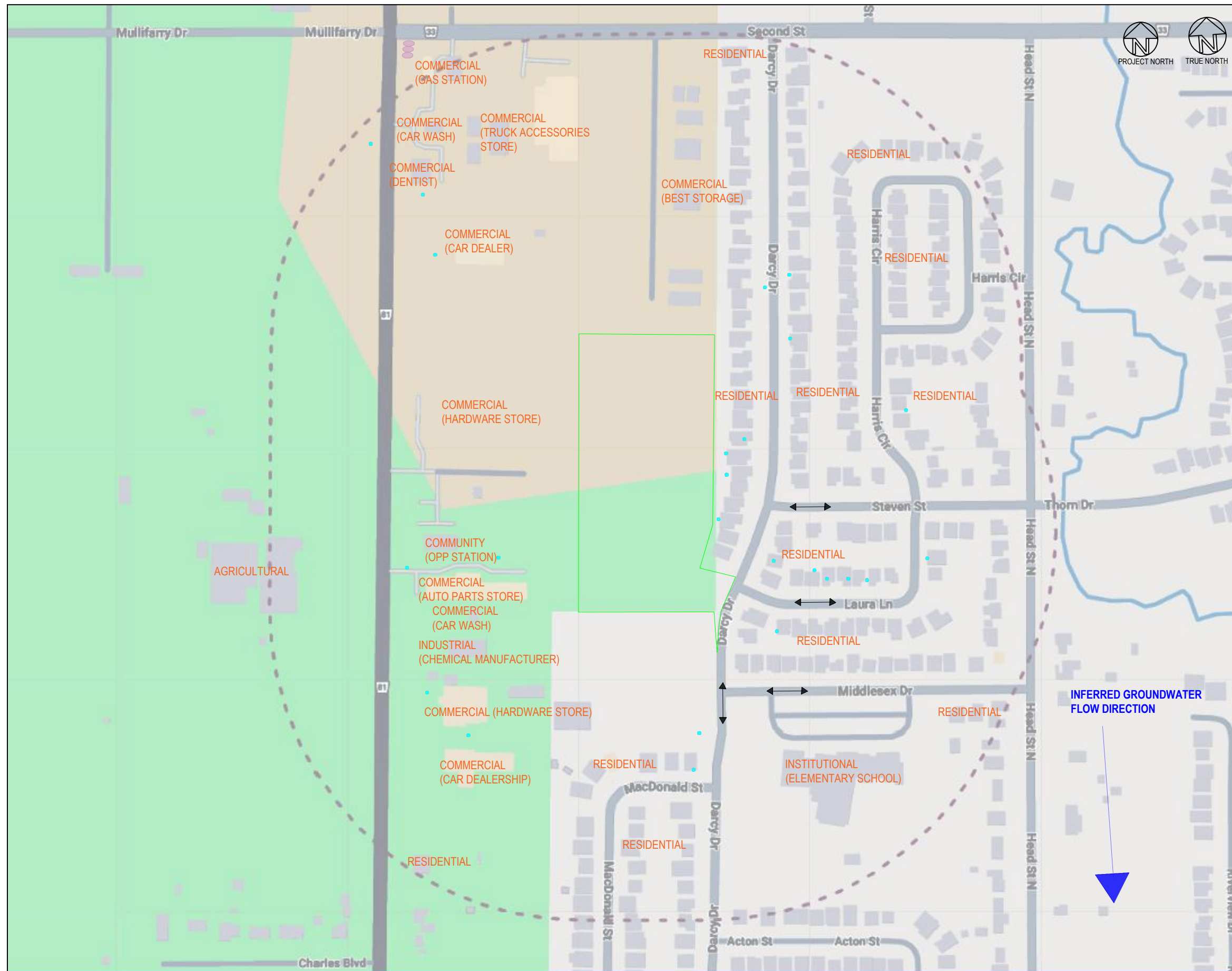
Dr. Ali A. Rasoul is a Senior Environmental Consultant and water resources specialist with A & A Environmental Consultants Inc. He has over twenty years experience in his field. He has completed hundreds of environmental projects including Phase I/II/III Environmental Site Assessments, mould assessments, hydrogeological investigations and water management plans. Dr. Rasoul is licensed by the Ministry of the Environment as a well contractor (License #7324). He is a licensed Professional Geoscientist with the Association of Professional Geoscientists of Ontario and a licensed Well Technician in the Province of Ontario (Ministry of the Environment). He is registered as a "Qualified Person" for conducting environmental site assessments as defined under Ontario Regulation 153/04.

## 10.0 Figures and Tables

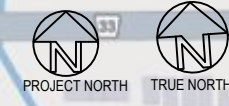
## 10.1 Figures

Figure 1 – Site Location Map





- LEGEND:**
- SUBJECT SITE BOUNDARY
  - - - SUBJECT STUDY AREA
  - UNDERGROUND FUEL TANK
  - ↔ PUBLIC UTILITY LINE CORRIDORS
  - POTABLE WATER WELL



**A & A ENVIRONMENTAL CONSULTANTS INC.**  
 16 YOUNG STREET, WOODSTOCK, ONTARIO, N4S 3L4  
 TELEPHONE: 519-266-4680  
 FAX: 519-266-3666

**PROJECT # :** 8714

**PROJECT TITLE:** NO MUNICIPAL ADDRESS, DARCY DRIVE, ONTARIO

**DRAWING TITLE:**  
 FIGURE 2: PHYSICAL SETTING OF THE SUBJECT STUDY AREA

**SCALE:**  
 ALL SCALE NOTATIONS ARE BASED ON 11" x 17" FORMAT DRAWINGS

- REFERENCES:**
- [www.eriinfo.com](http://www.eriinfo.com)
  - [www.google.com/earth](http://www.google.com/earth)

**DATE:** April 2025

**REVISION #:** -

Figure 3 – Site Sensitivity Analysis

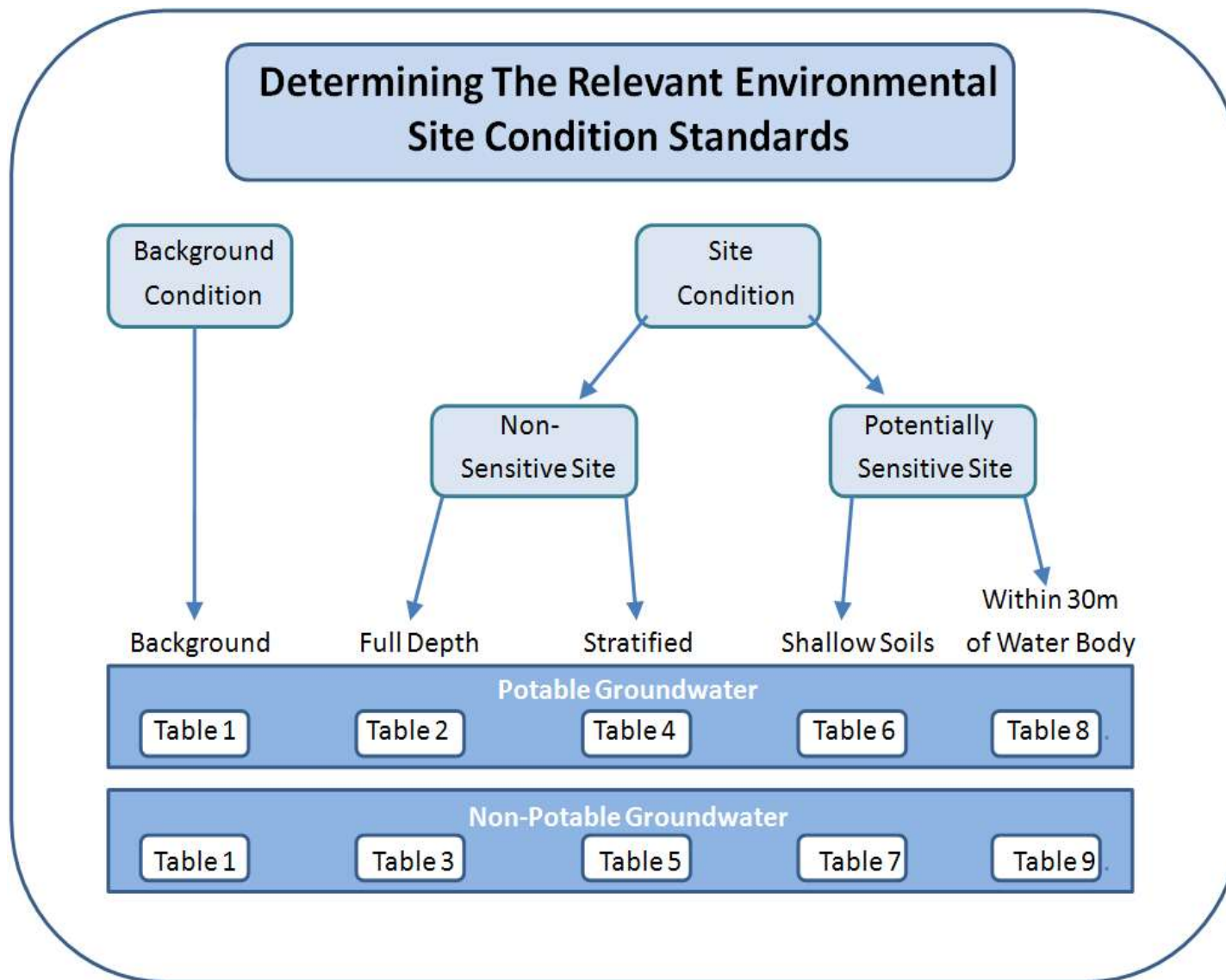
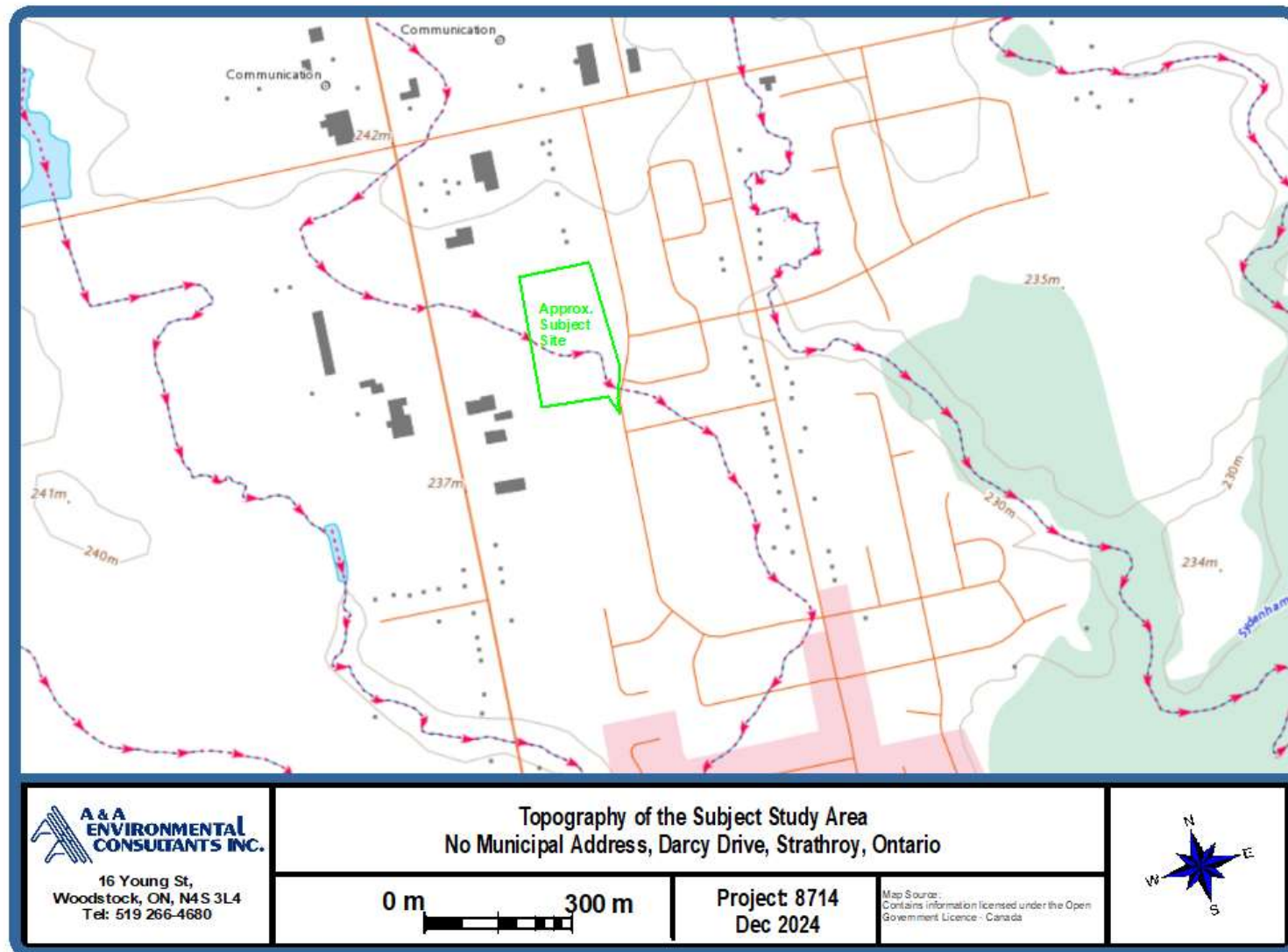
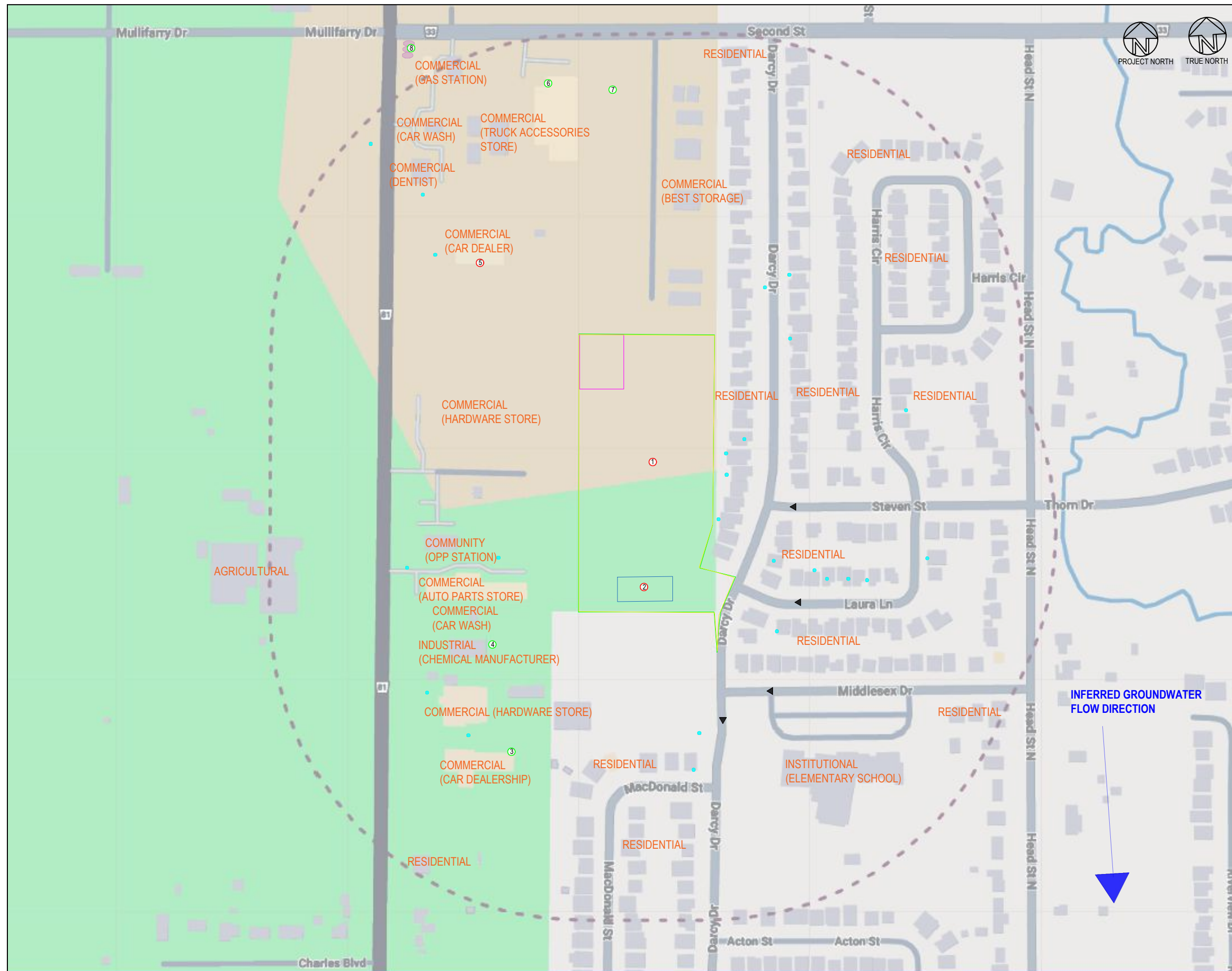


Figure 4 –Topography of the Subject Study Area





- LEGEND:**
- SUBJECT SITE BOUNDARY
  - SUBJECT STUDY AREA
  - UNDERGROUND FUEL TANK
  - PUBLIC UTILITY LINE CORRIDORS
  - POTABLE WATER WELL
  - ① POTENTIALLY CONTAMINATING ACTIVITY (PCA) ASSOCIATED WITH AN AREA OF POTENTIAL ENVIRONMENTAL CONCERN (APEC)
  - ⑦ PCA NOT ASSOCIATED WITH AN APEC

PCA FIGURE ID	PCA (O. REG. 153/04 SCHEDULE D, TABLE 2)
1	PCA #30 - Importation of Fill Material of Unknown Quality
2	PCA #N/A - Known Contamination
3	PCA #52 - Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems PCA #34 - Metal Fabrication
4	PCA #8 - Chemical Manufacturing Processing and Bulk Storage
5	PCA #52 - Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems PCA #50 - Soap and Detergent Manufacturing, Processing and Bulk Storage PCA #39 - Paints Manufacturing, Processing and Bulk Storage
6	PCA #28 - Gasoline and Associated Products Storage in Fixed Tanks PCA #57 - Vehicle and Associated Parts Manufacturing PCA #52 - Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems PCA #N/A - Diesel Spill
7	PCA #28 - Gasoline and Associated Products Storage in Fixed Tanks
8	PCA #28 - Gasoline and Associated Products Storage in Fixed Tanks

- APEC 1 (PCA #30)
- APEC 2 (PCA # N/A - KNOWN CONTAMINATION)
- APEC 3 (PCA #52, PCA#50)

**A & A ENVIRONMENTAL CONSULTANTS INC.**  
 16 YOUNG STREET, WOODSTOCK,  
 ONTARIO, N4S 3L4  
 TELEPHONE: 519-266-4680  
 FAX: 519-266-3666

**PROJECT # :** 8714

**PROJECT TITLE:** NO MUNICIPAL ADDRESS, DARCY DRIVE, ONTARIO

**DRAWING TITLE:**  
FIGURE 5: CONCEPTUAL SITE MODEL

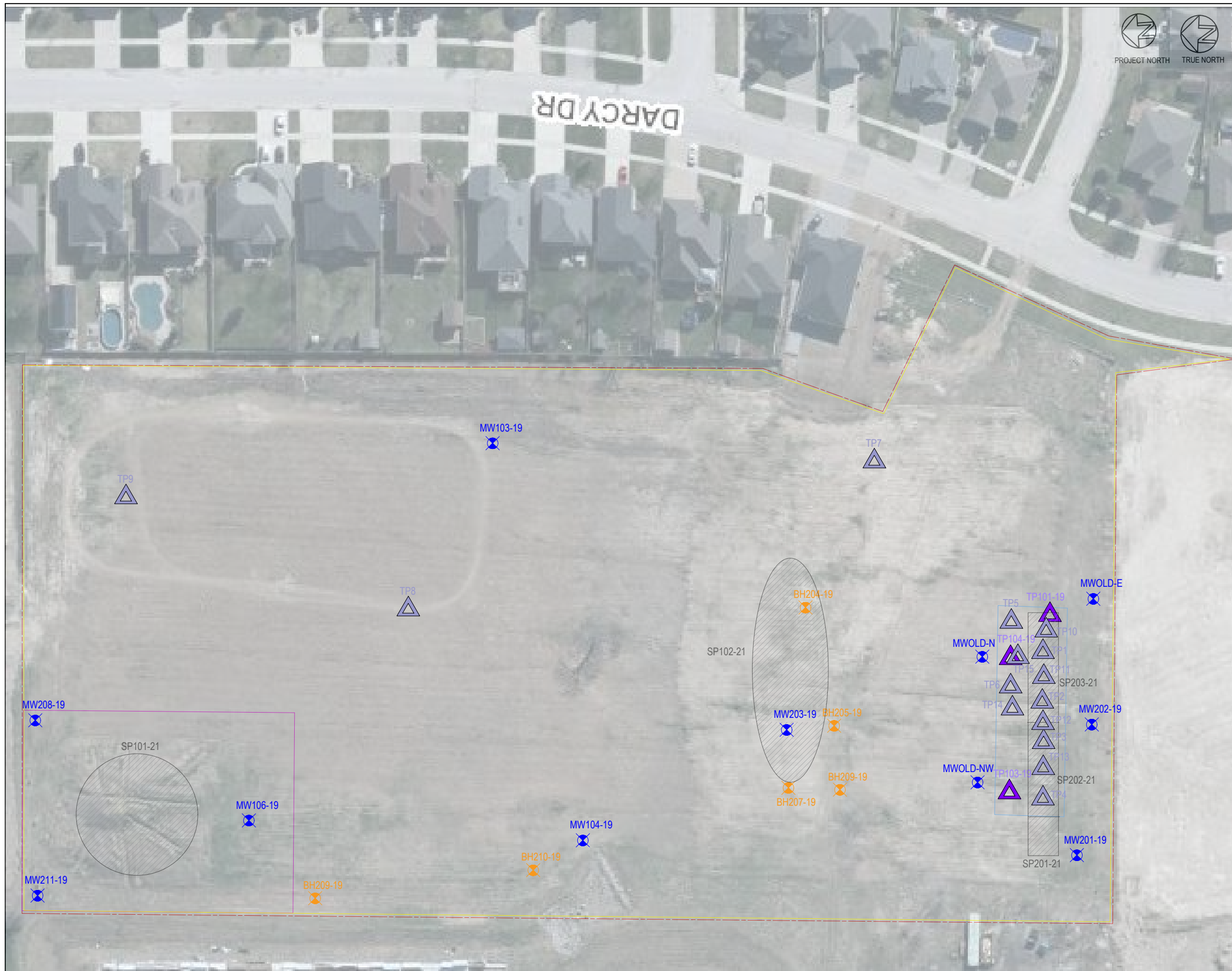
**SCALE:**  
ALL SCALE NOTATIONS ARE BASED ON 11" x 17" FORMAT DRAWINGS

**REFERENCES:**

- [www.ertinfo.com](http://www.ertinfo.com)
- [www.google.com/earth](http://www.google.com/earth)

**DATE:** April 2025

**REVISION #:** -



**LEGEND:**

- SUBJECT SITE BOUNDARY
- APEC 1 (PCA#30)
- APEC 2 (PCA #N/A - Known Contamination)
- APEC 3 (PCA #52 & PCA #50 - offsite sources)
- ✕ BOREHOLES (BH) INSTALLED BY MTE 2019
- ✕ MONITORING WELL (MW) INSTALLED BY MTE IN 2019 AND OTHERS
- ▲ TEST PITS EXCAVATED BY MTE IN 2019
- STOCKPILES NOTED BY MTE IN 2021
- ▲ TEST PITS EXCAVATED BY A&A IN 2025

**NOTE:** MTE did not provide SP sampling locations in their Phase II ESA report; therefore, A&A is relying on the results as a picture of the entire stockpile identified and not individual locations within the stockpiles.

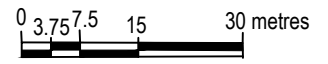
	<p>A &amp; A ENVIRONMENTAL CONSULTANTS INC.          16 YOUNG STREET, WOODSTOCK,          ONTARIO, N4S 3L4          TELEPHONE: 519-266-4680          FAX: 519-266-3666</p>
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**PROJECT # :** 8714

**PROJECT TITLE:** NO MUNICIPAL ADDRESS, DARCY DRIVE, STRATHROY, ONTARIO

**DRAWING TITLE:**  
 FIGURE 6: BOREHOLE, MONITORING WELLS, TEST PIT AND STOCKPILE LOCATIONS WITHIN THE APECS

**SCALE:**  
 ALL SCALE NOTATIONS ARE BASED ON 11" x 17" FORMAT DRAWINGS

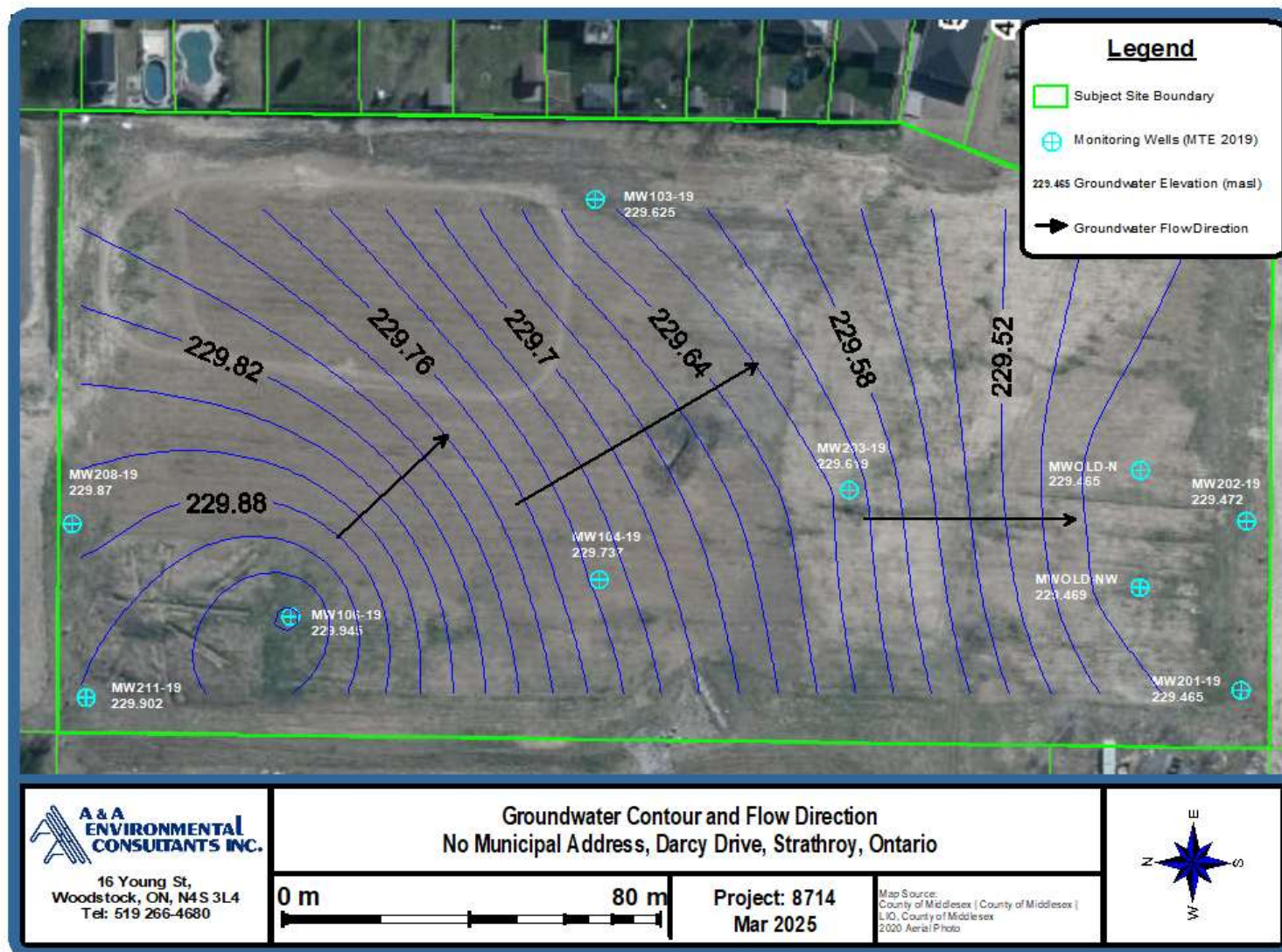


**REFERENCES:**

- [www.erisinfo.com](http://www.erisinfo.com)
- [www.google.com/earth](http://www.google.com/earth)
- County of Middlesex | County of Middlesex | LIO, County of Middlesex | Middlesex County, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, AAFC, NRCan

<b>DATE:</b> FEB 2025	<b>REVISION #:</b> -
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Figure 7 – Groundwater Flow Direction



## **10.2 Tables**

**Table 7 – “TABLE OF AREAS OF POTENTIAL ENVIRONMENTAL CONCERN”**

(Refer to clause 16(2)(a), Schedule D, O. Reg. 153/04)

Area of Potential Environmental Concern <sup>1</sup>	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity <sup>2</sup>	Location of PCA (on-site or off-site)	Contaminants of Potential Concern <sup>3</sup>	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC 1	Entire subject site	PCA #30 – Importation of Fill Material of Unknown Quality	On-site	Soil: As, Se, Sb, metals, Hg, Cr(VI), Cn-, SAR, electrical conductivity, pH, PAH, PHC  GW: As, Se, Sb, metals, Hg, Cr(VI), Cn-, Na, Cl-, PAH, PHC	Soil and Groundwater
APEC 2	Southern area of the site	PCA # N/A – Known Contamination	On-site	Soil: PAH, As, Se, Sb, metals, PHC	Soil
APEC 3	Northwester corner of the subject site	PCA #52 – Storage, maintenance, fuelling and repair of equipment, vehicles and material used to maintain transportation systems  PCA#50 – Soap and Detergent Manufacturing, Processing and Bulk Storage	Off-site	GW: VOC, Cl-, BTEX, PHC, As, Se, Sb, metals	Groundwater

*Notes:*

1 - Area of Potential Environmental Concern means the area on, in or under a phase one property where one or more contaminants are potentially present, as determined through the phase one environmental site assessment, including through,  
 (a) identification of past or present uses on, in or under the phase one property, and

(b) identification of potentially contaminating activity.

2 - Potentially Contaminating Activity means a use or activity set out in Column A of Table 2 of Schedule D that is occurring or has occurred in a phase one study area

3 - when completing this column, identify all contaminants of potential concern using the Method Groups as identified in the "Protocol for in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, March 9, 2004, amended as of July 1, 2011, as specified below:

ABNs	PCBs	Metals	Electrical Conductivity	SAR
CPs	PAHs	As, Sb, Se	Cr (VI)	
1,4-Dioxane	THMs	Na	Hg	
Dioxins/Furans,PCDDs/PCDFs	VOCs	B-HWS	Methyl Mercury	
OCs	BTEX	Cl-	high pH	
PHCs	Ca, Mg	CN-	low pH	

4 - when submitting a record of site condition for filing, a copy of this table must be attached

\*\*Cette publication hautement spécialisée n'est disponible qu'en anglais en vertu du règlement 671/92, qui en exempte l'application de la Loi sur les services en français. Pour obtenir de l'aide en français, veuillez communiquer avec le ministère de l'Environnement au 1-800-461-6290 .





Table 9 - Groundwater Results

Date Sampled		2019-08-06	2025-02-25	2025-02-25	2022-10-20	2025-02-25	2019-08-06	2025-02-25	2019-08-06	2019-08-06	2022-10-20	2025-02-25	2019-08-06	2022-10-20	2025-02-25	2019-08-06	2022-10-20	2025-02-25	2019-08-06	2025-02-25	2019-07-31	2022-10-20	2025-02-25	2025-02-25	2025-02-25
Sample Description		MWOLD-E	MWOLD-N	MWOLD-NW	MW103-19	MW104-19	MW106-19	MW201-19	MW202-19	MW203-19	MW208-19	MW211-19	Duplicate	Field Blank											
Sample Depth (mbgs)		5.85-8.1	6.572-8.172	6.916-8.377	5.152-6.198	5.396-5.624	7.18-7.60	6.765-7.338	6.825-7.592	6.45-7.48	7.574-8.903	7.564-8.107	6.572-8.172	N/A											
Parameter Name	Unit	RDL	G / S																						
Trichlorofluoromethane	µg/L	0.4	150		<0.40			<0.40	<0.40		<0.40	<0.40	<0.40	<0.40											
Acetone	µg/L	1	2700		<1.0			<1.0	<1.0		<1.0	<1.0	<1.0	<1.0											
1,1-Dichloroethylene	µg/L	0.3	1.6		<0.30			<0.30	<0.30		<0.30	<0.30	<0.30	<0.30											
Methylene Chloride	µg/L	0.3	50		<0.30			<0.30	<0.30		<0.30	<0.30	<0.30	<0.30											
trans-1,2-Dichloroethylene	µg/L	0.2	1.6		<0.20			<0.20	<0.20		<0.20	<0.20	<0.20	<0.20											
Methyl tert-butyl ether	µg/L	0.2	15		<0.20			<0.20	<0.20		<0.20	<0.20	<0.20	<0.20											
1,1-Dichloroethane	µg/L	0.3	5		<0.30			<0.30	<0.30		<0.30	<0.30	<0.30	<0.30											
Methyl Ethyl Ketone	µg/L	1	1800		<1.0			<1.0	<1.0		<1.0	<1.0	<1.0	<1.0											
cis-1,2-Dichloroethylene	µg/L	0.2	1.6		<0.20			<0.20	<0.20		<0.20	<0.20	<0.20	<0.20											
Chloroform	µg/L	0.2	2.4		<0.20			<0.20	<0.20		<0.20	<0.20	<0.20	<0.20											
1,2-Dichloroethane	µg/L	0.2	1.6		<0.20			<0.20	<0.20		<0.20	<0.20	<0.20	<0.20											
1,1,1-Trichloroethane	µg/L	0.3	200		<0.30			<0.30	<0.30		<0.30	<0.30	<0.30	<0.30											
Carbon Tetrachloride	µg/L	0.2	0.79		<0.20			<0.20	<0.20		<0.20	<0.20	<0.20	<0.20											
Benzene	µg/L	0.2	5	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20											
1,2-Dichloropropane	µg/L	0.2	5		<0.20			<0.20	<0.20		<0.20	<0.20	<0.20	<0.20											
Trichloroethylene	µg/L	0.2	1.6		<0.20			<0.20	<0.20		<0.20	<0.20	<0.20	<0.20											
Bromodichloromethane	µg/L	0.2	16		<0.20			<0.20	<0.20		<0.20	<0.20	<0.20	<0.20											
Methyl Isobutyl Ketone	µg/L	1	640		<1.0			<1.0	<1.0		<1.0	<1.0	<1.0	<1.0											
1,1,2-Trichloroethane	µg/L	0.2	4.7		<0.20			<0.20	<0.20		<0.20	<0.20	<0.20	<0.20											
Toluene	µg/L	0.2	24	<0.20	<0.20	<0.20	<0.20	0.64	<0.20	<0.20	<0.20	<0.20	0.42	0.4											
Dibromochloromethane	µg/L	0.1	25		<0.10			<0.10	<0.10		<0.10	<0.10	<0.10	<0.10											
Ethylene Dibromide	µg/L	0.1	0.2		<0.10			<0.10	<0.10		<0.10	<0.10	<0.10	<0.10											
Tetrachloroethylene	µg/L	0.2	1.6		<0.20			<0.20	<0.20		<0.20	<0.20	<0.20	<0.20											
1,1,1,2-Tetrachloroethane	µg/L	0.1	1.1		<0.10			<0.10	<0.10		<0.10	<0.10	<0.10	<0.10											
Chlorobenzene	µg/L	0.1	30		<0.10			<0.10	<0.10		<0.10	<0.10	<0.10	<0.10											
Ethylbenzene	µg/L	0.1	2.4	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10											
m & p-Xylene	µg/L	0.2		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20											
Bromoform	µg/L	0.1	25		<0.10			<0.10	<0.10		<0.10	<0.10	<0.10	<0.10											
Styrene	µg/L	0.1	5.4		<0.10			<0.10	<0.10		<0.10	<0.10	<0.10	<0.10											
1,1,2,2-Tetrachloroethane	µg/L	0.1	1		<0.10			<0.10	<0.10		<0.10	<0.10	<0.10	<0.10											
o-Xylene	µg/L	0.1		<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10											
1,3-Dichlorobenzene	µg/L	0.1	59		<0.10			<0.10	<0.10		<0.10	<0.10	<0.10	<0.10											
1,4-Dichlorobenzene	µg/L	0.1	1		<0.10			<0.10	<0.10		<0.10	<0.10	<0.10	<0.10											
1,2-Dichlorobenzene	µg/L	0.1	3		<0.10			<0.10	<0.10		<0.10	<0.10	<0.10	<0.10											
1,3-Dichloropropene	µg/L	0.3	0.5		<0.30			<0.30	<0.30		<0.30	<0.30	<0.30	<0.30											
Xylenes (Total)	µg/L	0.2	300	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20											
n-Hexane	µg/L	0.2	51		<0.20			<0.20	<0.20		<0.20	<0.20	<0.20	<0.20											
Toluene-d8	% Recovery	1											102												
4-Bromofluorobenzene	% Recovery	1												100											
														80											
														69											
														78											

## 11.0 APPENDICES

**Appendix 11.1 – Sampling and Analysis Plan**

Sampling and Analysis Program for Phase II ESA at No Municipal Address, Darcy Drive, Strathroy, Ont.

APEC	Method	Rationale	Sample Media	Analysis Performed and # Samples Analyzed						
				Metals	Inorganics	VOC	PHC	PAH	BTEX	# Samples
APEC #1	Test pit exploration and previous analysis from MTE 2019/2021	Investigate imported fill material identified in the previous reports	Soil	X	X		X	X		49
			GW	X	X		X	X		19
APEC #2	Test pit exploration and previous analysis from MTE 2019/2021	Investigate the contamination identified in TP104-19, and below the previous stockpiles SP202-21 and SP203-21	Soil	X			X	X		23
APEC #3	Test pit exploration and previous analysis from MTE 2019/2021	Investigate the car dealership garage and carwash located upgradient off site	GW	X	X	X	X		X	5
Total # soil samples										58
Total # GW samples										22
Total # QA soil samples										6
Total # QA GW samples										3

**Appendix 11.2 – Borehole Logs**

**ID Number: BH101-19**

**Project:** Proposed Residential Development

**Project No:** 45102-700

**Client:** Turner Homes Ltd.

**Site Location:** Darcy Drive, Strathroy, ON

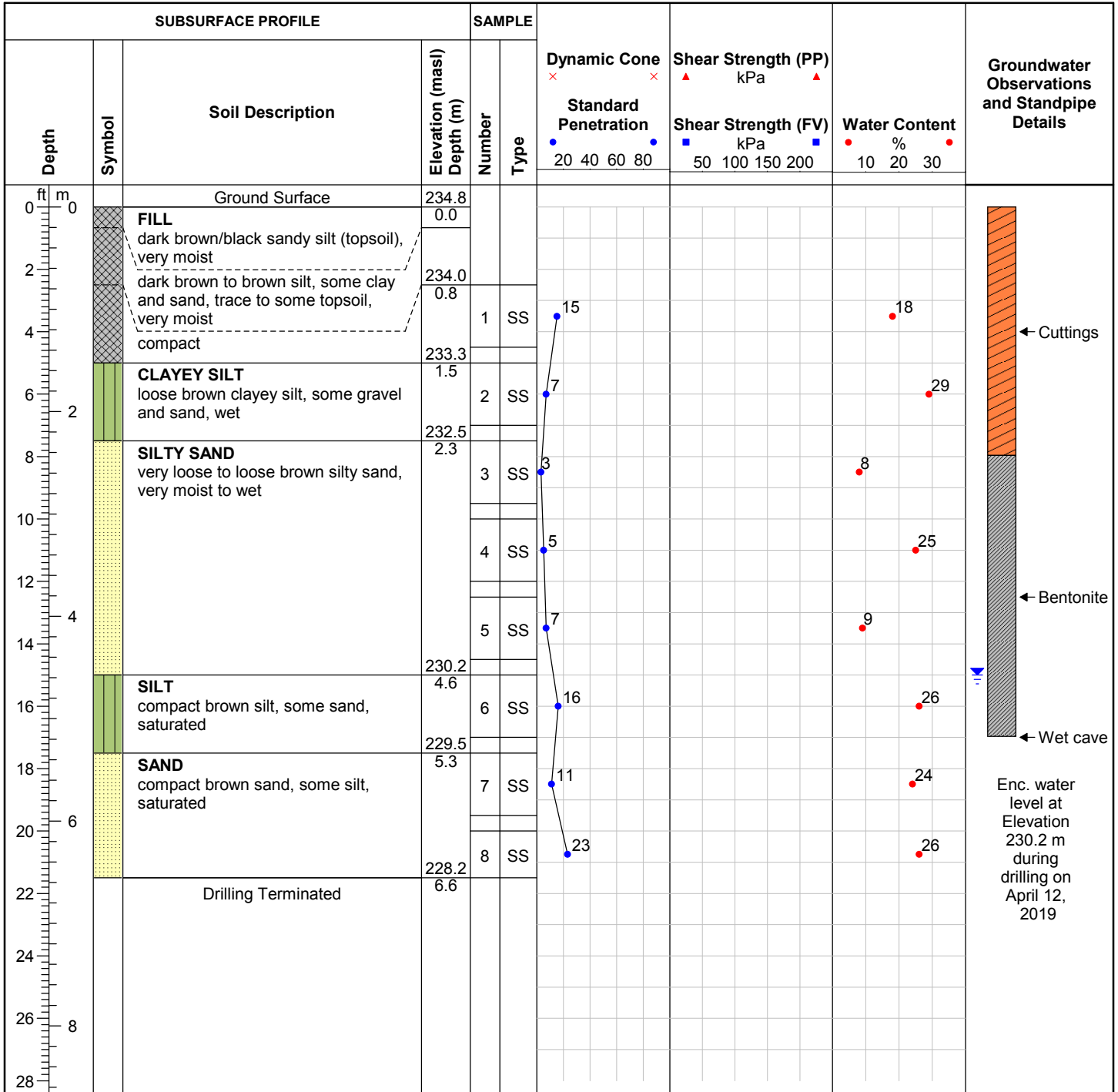
**Drill Date:** 4/12/2019

**Drilling Contractor:** London Soil Test Ltd.

**Drill Rig:** D50T Track

**Drill Method:** Soild Stem Augers

**Protective Cover:** N/A



**Field Technician:** M. Dalgliesh

**Drafted by:** B. Heinbuch

**Reviewed by:** B. Thorner



# ID Number: BH102-19

Project: Proposed Residential Development

Project No: 45102-700

Client: Turner Homes Ltd.

Site Location: Darcy Drive, Strathroy, ON

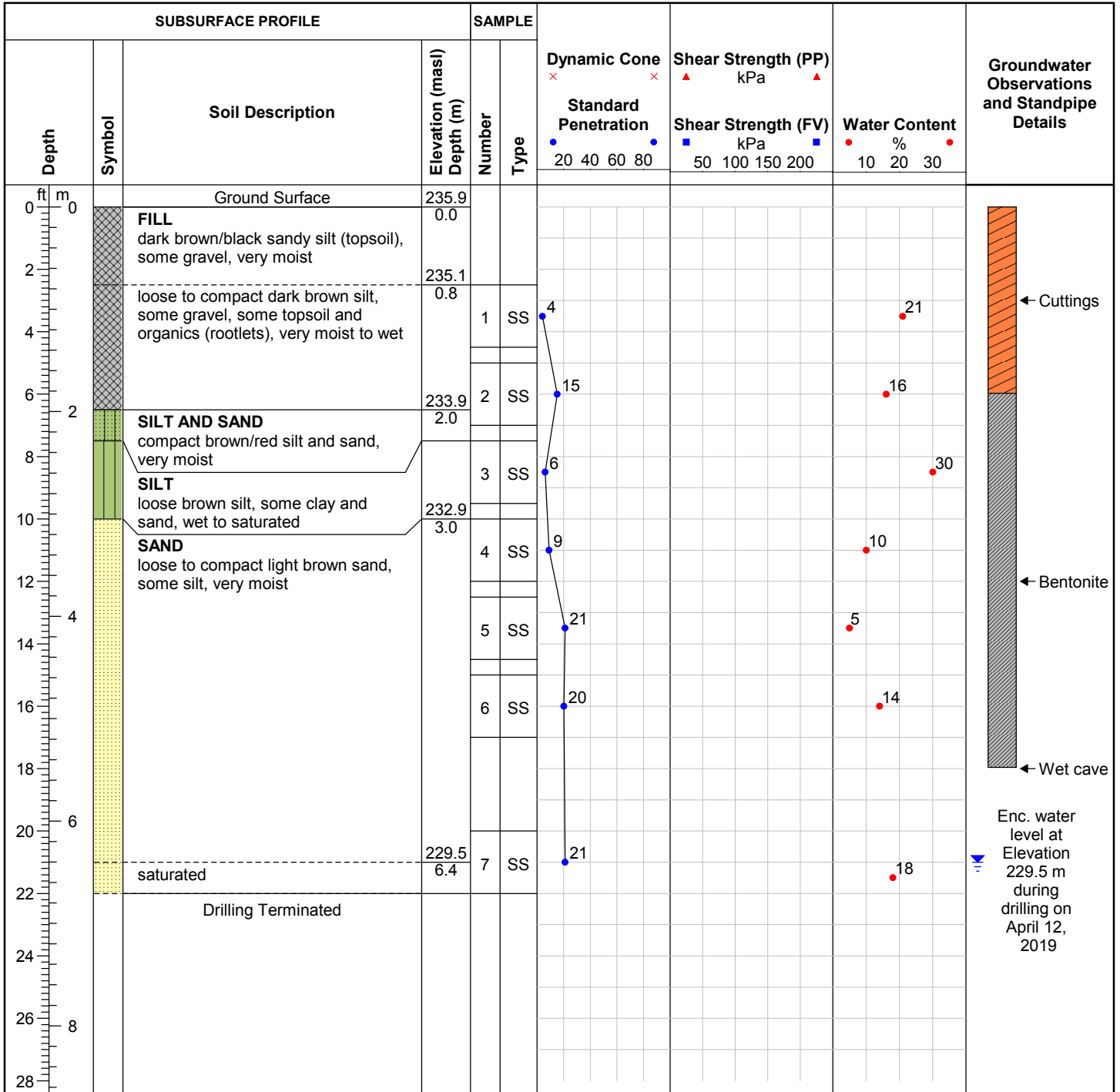
Drill Date: 4/12/2019

Drilling Contractor: London Soil Test Ltd.

Drill Rig: D50T Track

Drill Method: Soild Stem Augers

Protective Cover: N/A



Field Technician: M. Dalgliesh

Drafted by: B. Heinbuch

Reviewed by: B. Thorne



**ID Number: MW103-19**

**Project:** Proposed Residential Development

**Project No:** 45102-700

**Client:** Turner Homes Ltd.

**Site Location:** Darcy Drive, Strathroy, ON

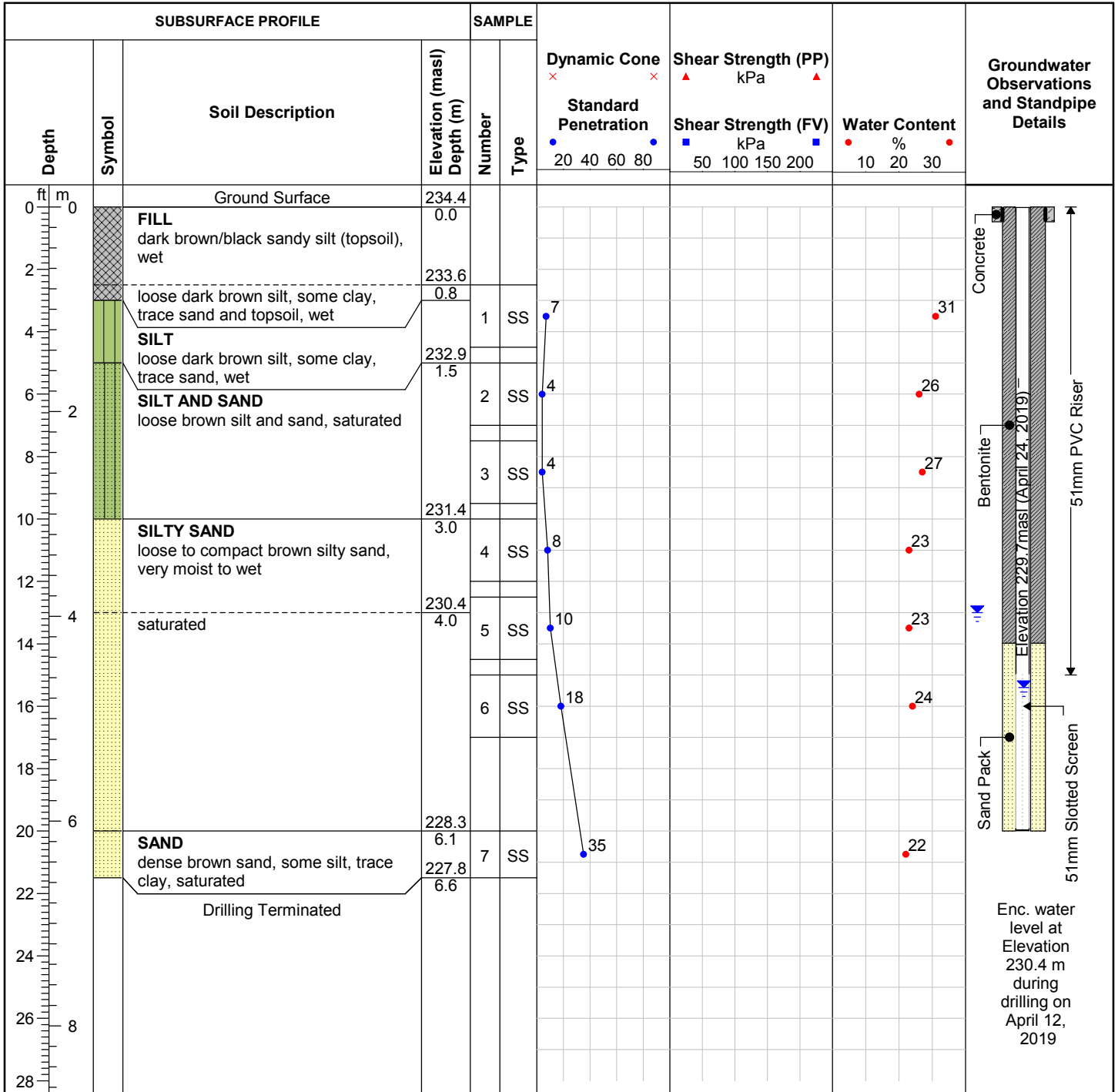
**Drill Date:** 4/12/2019

**Drilling Contractor:** London Soil Test Ltd.

**Drill Rig:** D50T Track

**Drill Method:** Soild Stem Augers

**Protective Cover:** Monument Casing



**Field Technician:** M. Dalgliesh

**Drafted by:** B. Heinbuch

**Reviewed by:** B. Thorner



**ID Number: MW104-19**

**Project:** Proposed Residential Development

**Project No:** 45102-700

**Client:** Turner Homes Ltd.

**Site Location:** Darcy Drive, Strathroy, ON

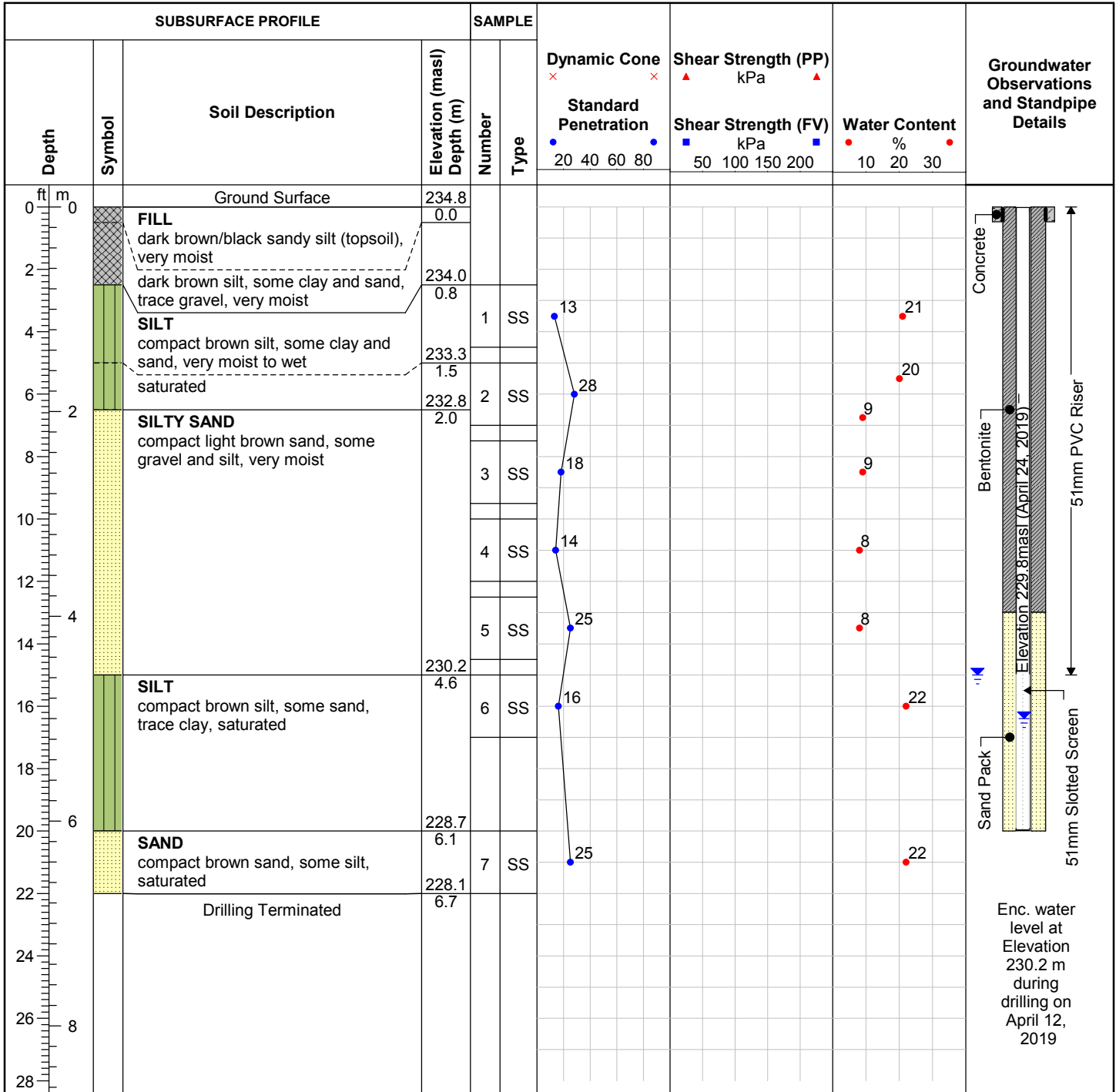
**Drill Date:** 4/12/2019

**Drilling Contractor:** London Soil Test Ltd.

**Drill Rig:** D50T Track

**Drill Method:** Soild Stem Augers

**Protective Cover:** Monument Casing



**Field Technician:** M. Dalglish

**Drafted by:** B. Heinbuch

**Reviewed by:** B. Thorne



**ID Number: BH105-19**

**Project:** Proposed Residential Development

**Project No:** 45102-700

**Client:** Turner Homes Ltd.

**Site Location:** Darcy Drive, Strathroy, ON

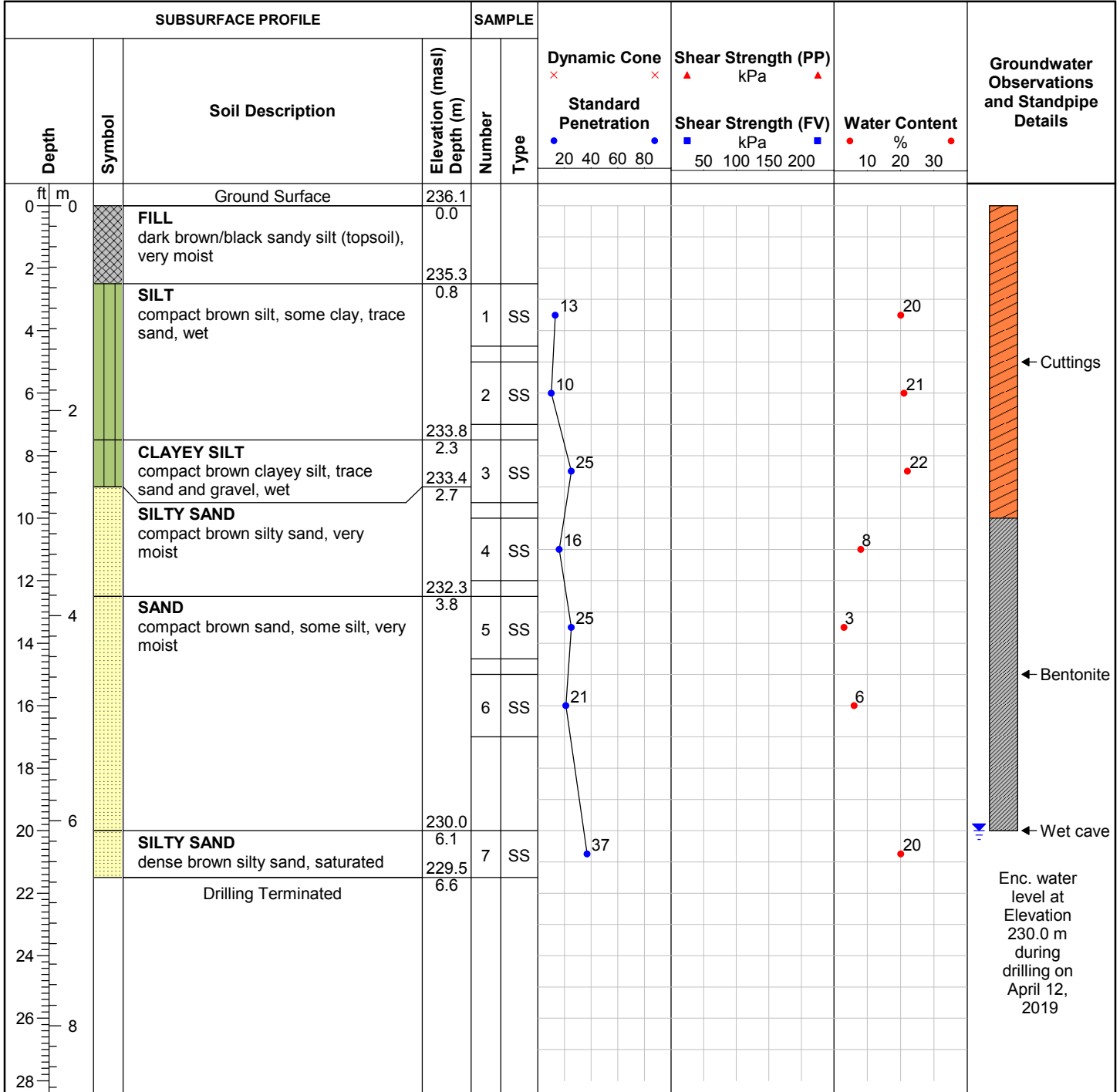
**Drill Date:** 4/12/2019

**Drilling Contractor:** London Soil Test Ltd.

**Drill Rig:** D50T Track

**Drill Method:** Soil Stem Augers

**Protective Cover:** N/A



**Field Technician:** M. Dalgliesh

**Drafted by:** B. Heinbuch

**Reviewed by:** B. Thorner



**ID Number: MW106-19**

**Project:** Proposed Residential Development

**Project No:** 45102-700

**Client:** Turner Homes Ltd.

**Site Location:** Darcy Drive, Strathroy, ON

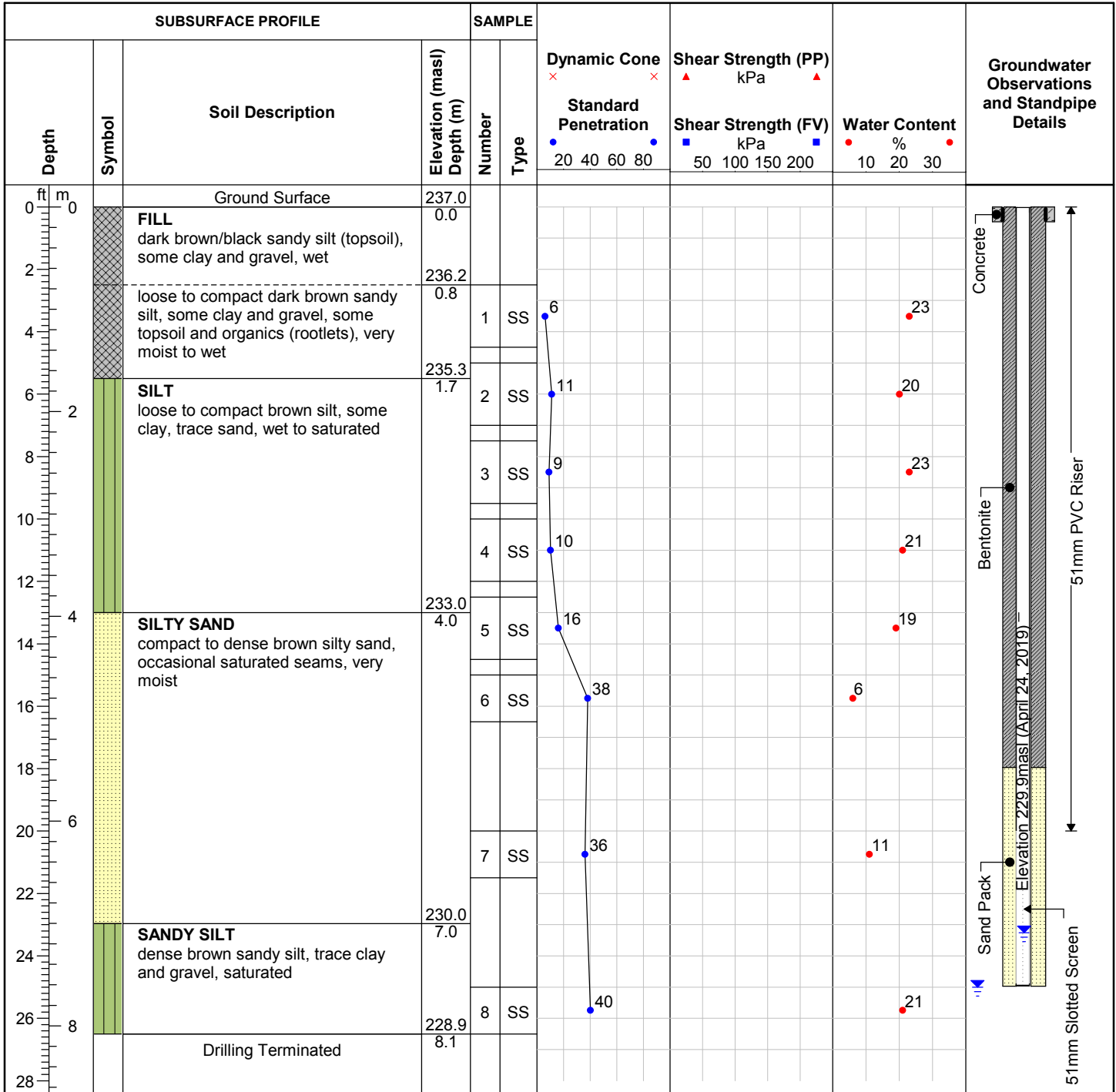
**Drill Date:** 4/12/2019

**Drilling Contractor:** London Soil Test Ltd.

**Drill Rig:** D50T Track

**Drill Method:** Soild Stem Augers

**Protective Cover:** Monument Casing



**Field Technician:** M. Dalgliesh

**Drafted by:** B. Heinbuch

**Reviewed by:** B. Thorner



**Notes:**

Enc. water level at Elevation 229.4 m during drilling on April 12, 2019

**ID Number: MW201-19**

**Project: 45102-800**

**Project No: 45102-800**

**Client: Turner Homes**

**Site Location: Darcy Drive, Strathroy**

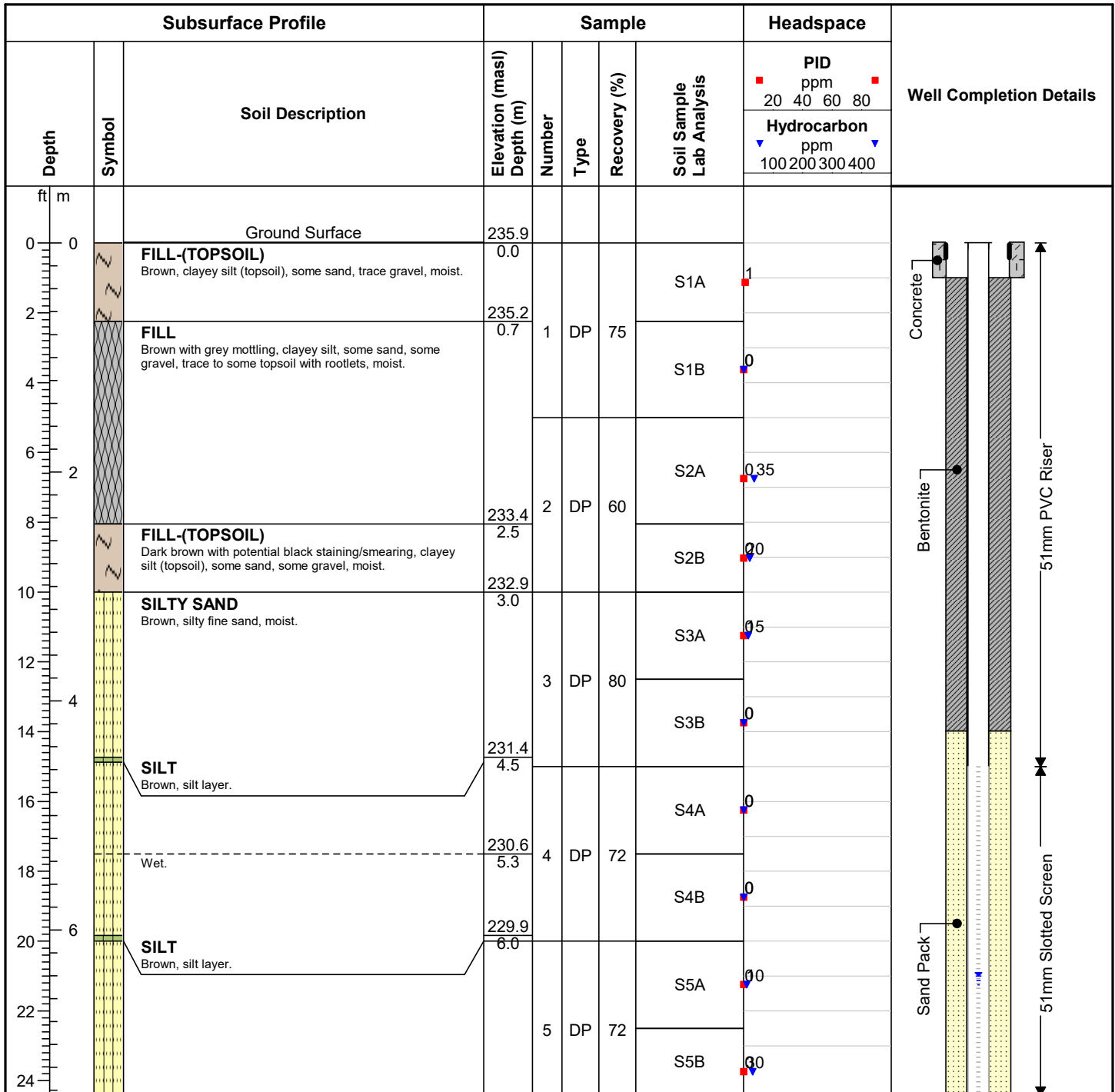
**Drill Date: 7/9/2019**

**Drilling Contractor: Direct Environmental Drilling Ltd**

**Drill Rig: Geoprobe 7822**

**Drill Method: Direct Push/Dual Tube**

**Protective Cover: Monument Casing**



**Field Technician: M. Costello**

**Drafted by: M. Costello**

**Reviewed by: R. Fedy**



S2A: Metals, PHCs and BTEX  
S2B: Metals, PHCs and BTEX, PAHs, pH

**ID Number: MW201-19**

**Project: 45102-104**

**Project No: 45102-104**

**Client: Turner Homes**

**Site Location: Darcy Drive, Strathroy**

**Drill Date: 7/9/2019**


**Drilling Contractor: Direct Environmental Drilling Ltd**

**Drill Rig: Geoprobe 7822**

**Drill Method: Direct Push/Dual Tube**

**Protective Cover: Monument Casing**

Subsurface Profile			Sample				Headspace	Well Completion Details	
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis		PID ppm
									20 40 60 80
								Hydrocarbon ppm	
								100 200 300 400	
26	8	Drilling Terminated							
28									
30									
32	10								
34									
36									
38									
40	12								
42									
44									
46	14								
48									



Water level measured at Elevation 229.6 on July 23, 2019.

**Field Technician: M. Costello**

**Drafted by: M. Costello**

**Reviewed by: R. Fedy**



S2A: Metals, PHCs and BTEX  
 S2B: Metals, PHCs and BTEX, PAHs, pH

**ID Number: MW202-19**

**Project: 45102-800**

**Project No: 45102-800**

**Client: Turner Homes**

**Site Location: Darcy Drive, Strathroy**

**Drill Date: 7/9/2019**

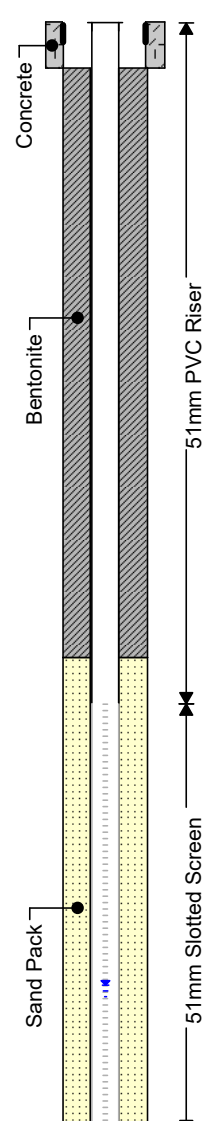
**Drilling Contractor: Direct Environmental Drilling Ltd**

**Drill Rig: Geoprobe 7822**

**Drill Method: Direct Push/Dual Tube**

**Protective Cover: Monument Casing**

Subsurface Profile			Sample				Headspace	Well Completion Details	
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis		PID ppm
									20 40 60 80
								Hydrocarbon ppm	
								100 200 300 400	
0		Ground Surface	235.9						
0	ZZ	<b>FILL-(TOPSOIL)</b> Brown, clayey silt (topsoil), some sand, trace gravel, moist.	0.0				S1A	0 60	
2	XX	<b>FILL</b> Brown, clayey silt, some sand, some gravel, trace to some topsoil with rootlets, moist.	235.3	1	DP	68	S1B	0 5	
4		Brown with grey mottling.	234.4				S2A	0 5	
6			1.5				S2B	0 0	
8				2	DP	75	S3A	0 5	
10		<b>SILTY SAND</b> Brown, silty fine sand, trace clay, moist.	232.8				S3B	0 5	
12			3.1				S4A	0 0	
14				3	DP	62	S4B	0 5	
16		<b>SILT</b> Brown, silt, trace sand, wet.	231.3				S4C	0 0	
18		<b>SILTY SAND</b> Brown, silty fine sand, some silt layers, moist.	230.8				S5A	0 45	
20		Wet.	229.8				S5B	0 0	
22			6.1						
24				4	DP	83			
				5	DP	87			



**Field Technician: M. Costello**

**Drafted by: M. Costello**

**Reviewed by: R. Fedy**



S1B: pH  
S2A: Metals, PHCs and BTEX

**ID Number: MW202-19**

**Project: 45102-800**

**Project No: 45102-800**

**Client: Turner Homes**

**Site Location: Darcy Drive, Strathroy**

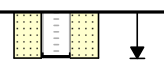
**Drill Date: 7/9/2019**

**Drilling Contractor: Direct Environmental Drilling Ltd**

**Drill Rig: Geoprobe 7822**

**Drill Method: Direct Push/Dual Tube**

**Protective Cover: Monument Casing**

Subsurface Profile			Sample				Headspace	Well Completion Details
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	
								PID ppm 20 40 60 80 Hydrocarbon ppm 100 200 300 400
26	8	Drilling Terminated	228.3 7.6					 <p>Water level measured at Elevation 229.5 on July 23, 2019</p>
28								
30								
32	10							
34								
36								
38								
40	12							
42								
44								
46	14							
48								

**Field Technician: M. Costello**

**Drafted by: M. Costello**

**Reviewed by: R. Fedy**



S1B: pH  
S2A: Metals, PHCs and BTEX

**ID Number: MW203-19**

**Project: 45102-800**

**Project No: 45102-800**

**Client: Turner Homes**

**Site Location: Darcy Drive, Strathroy**

**Drill Date: 7/9/2019**

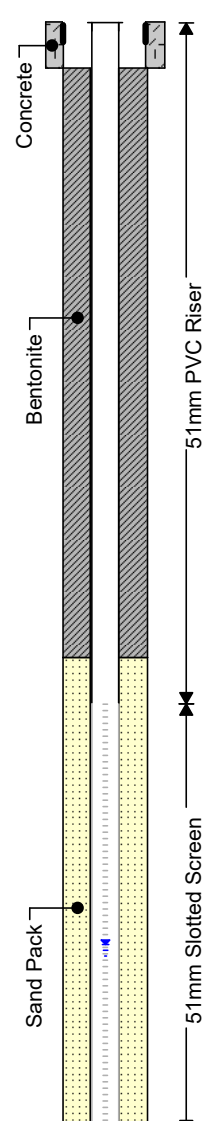
**Drilling Contractor: Direct Environmental Drilling Ltd**

**Drill Rig: Geoprobe 7822**

**Drill Method: Direct Push/Dual Tube**

**Protective Cover: Monument Casing**

Subsurface Profile			Sample				Headspace	Well Completion Details
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	
0		Ground Surface	235.8					
0		<b>FILL-(TOPSOIL)</b> Brown, clayey silt (topsoil), some sand, trace to some gravel with rootlets and wood pieces, moist.	0.0					
2		Dark brown.	234.9	1	DP	73	S1A	0
4			0.9				S1B	0
6							S2A	0
8		<b>FILL</b> Brown, sandy silt, some clay, with grey mottling and oxidation, moist.	233.5	2	DP	90	S2B	6
10			2.3				S3A	0
12		<b>SILTY SAND</b> Dark brown, silty fine sand, moist.	232.3	3	DP	67	S3B	0
14			3.5				S3C	0
16							S4A	0
18		<b>SILT</b> Brown, silt, some sand, trace clay, wet.	230.7	4	DP	85	S4B	0
20		<b>SILTY SAND</b> Brown, silty fine sand, wet.	230.2				S4C	0
22		<b>SILT</b> Brown, wet.	229.8				S5A	6
24		<b>SAND</b> Brown, sand, wet.	6.0	5	DP	62	S5B	0



**Field Technician: M. Costello**

**Drafted by: M. Costello**

**Reviewed by: R. Fedy**



**S2B: Metals, PAHs, PHCs and BTEX**

**ID Number: MW203-19**

**Project: 45102-800**

**Project No: 45102-800**

**Client: Turner Homes**

**Site Location: Darcy Drive, Strathroy**


**Drill Date: 7/9/2019**

**Drilling Contractor: Direct Environmental Drilling Ltd**

**Drill Rig: Geoprobe 7822**

**Drill Method: Direct Push/Dual Tube**

**Protective Cover: Monument Casing**

Subsurface Profile			Sample				Headspace	Well Completion Details
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	
							PID ppm 20 40 60 80 Hydrocarbon ppm 100 200 300 400	
26		Drilling Terminated	228.2 7.6					 <p>Water level measured at Elevation 229.7 on July 23, 2019</p>
28								
30								
32								
34								
36								
38								
40								
42								
44								
46								
48								

**Field Technician: M. Costello**

**Drafted by: M. Costello**

**Reviewed by: R. Fedy**



S2B: Metals, PAHs, PHCs and BTEX

**ID Number: BH204-19**

**Project: 45102-104**

**Project No: 45102-104**

**Client: Turner Homes**

**Site Location: Darcy Drive, Strathroy**

**Drill Date: 7/9/2019**

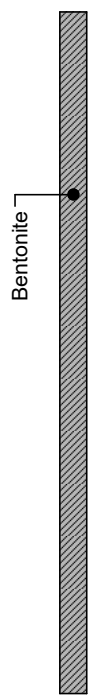
**Drilling Contractor: Direct Environmental Drilling Ltd**

**Drill Rig: Geoprobe 7822**

**Drill Method: Direct Push/Dual Tube**

**Protective Cover: N/A**

Subsurface Profile			Sample				Headspace	Well Completion Details
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	
ft m								
0		Ground Surface	236.2					
0		<b>FILL-(TOPSOIL)</b> Brown, clayey silt (topsoil), some sand, trace gravel with rootlets, moist.	0.0					
2		<b>FILL</b> Brown, clayey silt, some sand with wood pieces, moist.	235.4	1	DP	78	S1A	0
4		transitioning to dark brown.	0.8				S1B	0
6			234.6				S2A	0
2			1.5	2	DP	88	S2B	0
8							S3A	0
10							S3B	0
12			232.4					
4		<b>SANDY SILT</b> Brown, sandy silt, some clay, moist.	3.8	3	DP	93	S3A	0
14							S3B	0
16		Drilling Terminated	231.6					
4.6								
18								
20								
6								
22								
24								



**Field Technician: M. Costello**

**Drafted by: M. Costello**

**Reviewed by: R. Fedy**



S1B: Metals, PAHS, pH, PHCs and BTEX

**ID Number: BH205-19**

**Project: 45102-104**

**Project No: 45102-104**

**Client: Turner Homes**

**Site Location: Darcy Drive, Strathroy**

**Drill Date: 7/9/2019**

**Drilling Contractor: Direct Environmental Drilling Ltd**

**Drill Rig: Geoprobe 7822**

**Drill Method: Direct Push/Dual Tube**

**Protective Cover: N/A**

Subsurface Profile			Sample				Headspace	Well Completion Details
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	
ft m		Ground Surface	235.9					
0		<b>FILL-(TOPSOIL)</b> Brown, clayey silt (topsoil), some sand, trace gravel with rootlets, moist.	0.0					
2		<b>FILL</b> Brown, clayey silt, some sand, trace gravel, moist.		1	DP	78	S1B	
4							S1C	
6			234.0				S2A	
2		<b>SANDY SILT</b> Brown, sandy silt, moist.	1.8				S2B	
8		<b>CLAYEY SILT</b> Brown, clayey silt, moist.	2.2	2	DP	73	S2C	
10		<b>SANDY SILT</b> Brown, sandy silt, moist.	2.9					
12		Drilling Terminated						
4								
6								
24								

**Field Technician: M. Costello**

**Drafted by: M. Costello**

**Reviewed by: R. Fedy**



S1B: Metals, PAHS, PHCs and BTEX

**ID Number: BH206-19**

**Project: 45102-104**

**Project No: 45102-104**

**Client: Turner Homes**

**Site Location: Darcy Drive, Strathroy**

**Drill Date: 7/9/2019**

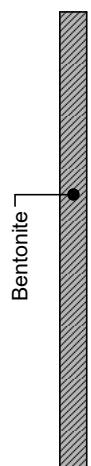
**Drilling Contractor: Direct Environmental Drilling Ltd**

**Drill Rig: Geoprobe 7822**

**Drill Method: Direct Push/Dual Tube**

**Protective Cover: N/A**

Subsurface Profile			Sample				Headspace	Well Completion Details
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	
ft m		Ground Surface	235.3					
0		<b>FILL-(TOPSOIL)</b> Brown, clayey silt (topsoil), some sand, trace gravel with rootlets, moist.	0.0				S1A	0
2		<b>FILL</b> Brown, clayey silt, some sand, trace gravel, moist.	234.8	1	DP	78	S1B	0
4			0.5				S1C	0
6							S2A	0
2		<b>SANDY SILT</b> Brown, sandy silt, trace clay, moist.	233.0	2	DP	73	S2B	0
8			2.3					
10		Drilling Terminated	232.2					
3.0								
12								
4								
14								
16								
18								
6								
20								
22								
24								



**Field Technician: M. Costello**

**Drafted by: M. Costello**

**Reviewed by: R. Fedy**



S1C: Metals, PAHS, PHCs and BTEX

**ID Number: BH207-19**

**Project: 45102-104**

**Project No: 45102-104**

**Client: Turner Homes**

**Site Location: Darcy Drive, Strathroy**





**Drill Date: 7/9/2019**

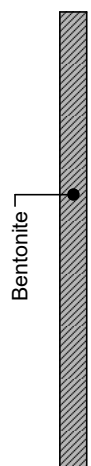
**Drilling Contractor: Direct Environmental Drilling Ltd**

**Drill Rig: Geoprobe 7822**

**Drill Method: Direct Push/Dual Tube**

**Protective Cover: N/A**

Subsurface Profile			Sample				Headspace	Well Completion Details
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	
ft m		Ground Surface	235.0					<div style="text-align: center;"> <b>PID</b>                      ppm                      20 40 60 80  <b>Hydrocarbon</b>                      ppm                      100 200 300 400                 </div>
0		<b>FILL-(TOPSOIL)</b> Brown, clayey silt (topsoil), some sand, trace gravel with rootlets, moist.	0.0				S1A	
2		<b>FILL</b> Dark brown, clayey silt, some sand with topsoil, moist.	234.1	1	DP	72	S1B	
4		<b>POSSIBLE FILL-(CLAYEY SILT)</b> Brown, clayey silt, some sand, moist.	233.5				S2A	
6		<b>SANDY SILT</b> Brown, sandy silt, moist.	232.4	2	DP	73	S2B	
8		Drilling Terminated	231.9					
10			3.0					
12								
14								
16								
18								
20								
22								
24								



**Field Technician: M. Costello**

**Drafted by: M. Costello**

**Reviewed by: R. Fedy**



S1B: Metals, PAHS, PHCs and BTEX

**ID Number: MW208-19**

**Project: 45102-104**

**Project No: 45102-104**

**Client: Turner Homes**

**Site Location: Darcy Drive, Strathroy**

**Drill Date: 7/10/2019**

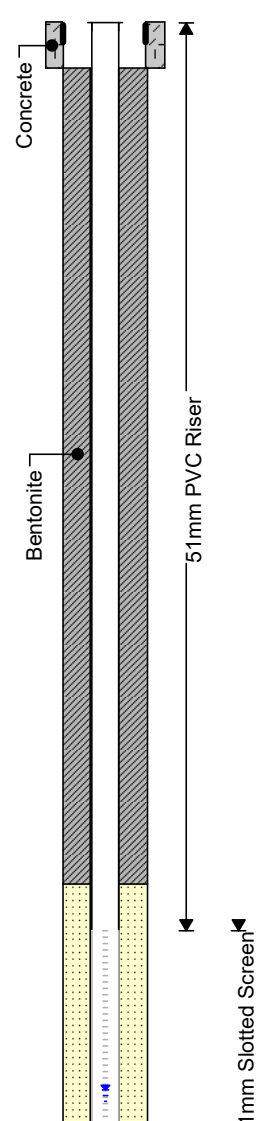
**Drilling Contractor: Direct Environmental Drilling Ltd**

**Drill Rig: Geoprobe 7822**

**Drill Method: Direct Push/Dual Tube**

**Protective Cover: Monument Casing**

Subsurface Profile			Sample				Headspace	Well Completion Details				
Depth ft m	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis		PID ppm			
									20	40	60	80
								Hydrocarbon ppm				
								100	200	300	400	
0		Ground Surface	237.0									
0		<b>FILL-(TOPSOIL)</b> Brown, clayey silt (topsoil), some sand with some organics, moist.	0.0				S1A	0				
0.3			236.7				S1B	0	45			
2		<b>FILL</b> Brown, clayey silt, some sand, trace gravel, with some organics, moist.	0.3	1	DP	87	S1C	0				
4			235.5									
6		<b>CLAYEY SILT</b> Brown, clayey silt, some sand, moist to very moist.	1.5	2	DP	100	S2A	0	55			
8							S2B	0				
10												
12							S3A	0				
14			232.9	3	DP	100	S3B	0				
14		<b>SILTY SAND</b> Brown, silty fine sand, moist.	4.1				S3C	0				
16							S4	0				
18				4	DP	25						
20			230.9									
20		<b>SAND</b> Brown, sand, some silt, moist.	6.1				S5A	0				
22			230.1	5	DP	73						
22		<b>SILTY SAND</b> Brown, silty sand, wet.	6.9				S5B	0				
24												



**Field Technician: M. Costello**

**Drafted by: M. Costello**

**Reviewed by: R. Fedy**



S2A: PHCs and VOCs  
S5B: Metals, PHCs, VOCs, PAHs and pH

**ID Number: MW208-19**

**Project: 45102-800**

**Project No: 45102-800**

**Client: Turner Homes**

**Site Location: Darcy Drive, Strathroy**

**Drill Date: 7/10/2019**

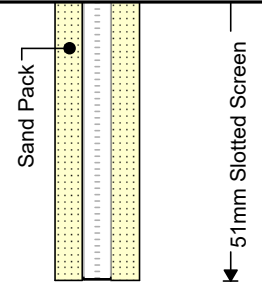
**Drilling Contractor: Direct Environmental Drilling Ltd**

**Drill Rig: Geoprobe 7822**

**Drill Method: Direct Push/Dual Tube**

**Protective Cover: Monument Casing**

Subsurface Profile			Sample				Headspace	Well Completion Details
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	
26	8			6	AS	-	S6	PID ppm 20 40 60 80
28								0
30		Drilling Terminated	227.9 9.1					
32	10							
34								
36	12							
38								
40	14							
42								
44								
46								
48								



Water level measured at Elevation 229.9 on July 23, 2019

**Field Technician: M. Costello**

**Drafted by: M. Costello**

**Reviewed by: R. Fedy**



S2A: PHCs and VOCs  
 S5B: Metals, PHCs, VOCs, PAHs and pH

**ID Number: BH209-10**

**Project: 45102-800**

**Project No: 45102-800**

**Client: Turner Homes**

**Site Location: Darcy Drive, Strathroy**

**Drill Date: 7/12/2019**

**Drilling Contractor: Direct Environmental Drilling Ltd**

**Drill Rig: Geoprobe 7822**

**Drill Method: Direct Push/Dual Tube**

**Protective Cover: N/A**

Subsurface Profile			Sample				Headspace	Well Completion Details
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	
0		Ground Surface	235.5					
0		<b>FILL-(TOPSOIL)</b> Brown, clayey silt (topsoil), some sand, some gravel with rootlets, moist.	0.0	1	DP	90	S1A	0
2		<b>FILL</b> Brown, clayey silt, some sand, moist.	234.7				S1B	0
4		<b>CLAYEY SILT</b> Brown, clayey silt, some sand, moist.	0.9				S1C	0
6		<b>SANDY SILT</b> Brown, sandy silt, moist.	233.0	2	DP	77	S2A	0
8							S2B	0
10							S2C	0
10		Drilling Terminated	232.5					
12			3.0					
14								
16								
18								
20								
22								
24								



**Field Technician: M. Costello**

**Drafted by: M. Costello**

**Reviewed by: R. Fedy**



S1B: Metals, PAHS, PHCs and BTEX

**ID Number: BH210-19**

**Project: 45102-800**

**Project No: 45102-800**

**Client: Turner Homes**

**Site Location: Darcy Drive, Strathroy**

**Drill Date: 7/12/2019**

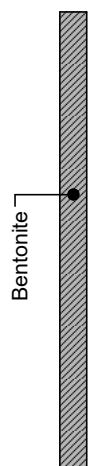
**Drilling Contractor: Direct Environmental Drilling Ltd**

**Drill Rig: Geoprobe 7822**

**Drill Method: Direct Push/Dual Tube**

**Protective Cover: N/A**

Subsurface Profile			Sample				Headspace	Well Completion Details
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	
ft m								
0		Ground Surface	234.7					
0	ZZ	<b>FILL-(TOPSOIL)</b> Brown, clayey silt (topsoil), some sand, with rootlets, moist.	0.0					
2	ZZ		233.9	1	DP	85	S1A	0
	ZZ	<b>POSSIBLE FILL</b> Brown, silt, some clay, moist.	0.8				S1B	0
4	ZZ	<b>POSSIBLE FILL</b> Brown, clayey silt, some sand, moist.	233.1				S1C	0
6	ZZ	<b>SILTY SAND</b> Brown, silty fine sand, moist.	1.5				S2A	0
8	ZZ			2	DP	65	S2B	0
10		Drilling Terminated	231.6					
3.0			3.0					
12								
14								
16								
18								
20								
22								
24								



**Field Technician: M. Costello**

**Drafted by: M. Costello**

**Reviewed by: R. Fedy**



S1A: Metals, PAHs, PHCs and BTEX

**ID Number: MW211-19**

**Project: 45102-800**

**Project No: 45102-800**

**Client: Turner Homes**

**Site Location: Darcy Drive, Strathroy**

**Drill Date: 7/10/2019**

**Drilling Contractor: Direct Environmental Drilling Ltd**

**Drill Rig: Geoprobe 7822**

**Drill Method: Direct Push/Dual Tube**

**Protective Cover: Monument Casing**

Subsurface Profile			Sample				Headspace	Well Completion Details	
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis		PID ppm 20 40 60 80 Hydrocarbon ppm 100 200 300 400
0		Ground Surface	237.0						
0		<b>FILL-(TOPSOIL)</b> Brown, clayey silt (topsoil), some sand with rootlets, moist.	0.0				S1A	0	
2		<b>FILL</b> Brown, clayey silt, some sand, trace gravel, with some organics, moist.		1	DP	83	S1B	0	
4							S1C	0	
6							S2A	0	
8		<b>CLAYEY SILT</b> Brown, clayey silt, some sand with grey silt seams moist to very moist.	234.7 2.3	2	DP	85	S2B	0	
10							S3A	0	
12							S3B	0	
14		<b>SILTY SAND</b> Brown, silty fine sand, trace gravel, moist.	232.7 4.3	3	DP	92	S3C	0	
16							S4A	0	
18		<b>SAND</b> Brown, sand, some silt, moist.	231.7 5.3	4	DP	83	S4B	0, 45	
20		<b>SILTY SAND</b> Brown, silty sand, trace clay with sandy silt layers, moist.	230.9 6.1				S5A	0, 60	
22		<b>SILT</b> Brown, silt, some sand, wet.	230.3 6.7	5	DP	100	S5B	0, 25	
24									

**Field Technician: M. Costello**

**Drafted by: M. Costello**

**Reviewed by: R. Fedy**



S5A: Metals, PHCs, VOCs, PAHs and pH

**ID Number: MW211-19**

**Project: 45102-800**

**Project No: 45102-800**

**Client: Turner Homes**

**Site Location: Darcy Drive, Strathroy**

**Drill Date: 7/10/2019**

**Drilling Contractor: Direct Environmental Drilling Ltd**

**Drill Rig: Geoprobe 7822**

**Drill Method: Direct Push/Dual Tube**

**Protective Cover: Monument Casing**

Subsurface Profile			Sample				Headspace	Well Completion Details	
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis		PID ppm 20 40 60 80 Hydrocarbon ppm 100 200 300 400
26	8		228.8	6	AS	100	S6A	1.50	<p>Backfill</p> <p>Water level measured at Elevation 229.9 on July 23, 2019</p>
28		<b>SAND</b> Brown, sand, some silt, wet.	8.2				S6B	0.35	
30		Drilling Terminated	227.8						
32	10		9.1						
34									
36									
38									
40	12								
42									
44									
46	14								
48									

**Field Technician: M. Costello**

**Drafted by: M. Costello**

**Reviewed by: R. Fedy**



S5A: Metals, PHCs, VOCs, PAHs and pH

**Appendix 11.3 – Well Logs**

**Table 10 – Groundwater Monitoring Well Log**

Project #: 8714 – Tadgell Strathroy			Project Name: Phase II ESA at No Municipal Address, Darcy Drive, Strathroy, Ontario				
Date: February 18, 2025			Completed By: J Osborne & V Sowden				
MW#	Pipe Size (mm)	Water Level (m)	Total Depth (m)	Well Volume (L)	Screened Interval (masl)	T.O.P Elev. (masl)	Water Level (masl)
MW103-19	51	5.152	6.198	2.092	231.629-228.579	234.777	229.625
MW208-19	51	7.574	8.903	2.658	231.591-228.541	237.444	229.870
MW211-19	51	7.564	8.107	1.086	232.409-229.359	237.466	229.902
MW106-19	51	7.566	7.613	0.094	232.948-229.898	237.511	229.945
MW104-19	51	5.396	5.624	0.456	232.559-229.509	235.133	229.737
MW203-19	51	6.45	7.48	2.060	231.693-228.589	236.069	229.619
MWOLD-N	51	6.572	8.172	3.200	230.+26-227.865	236.037	229.465
MWOLD-NW	51	6.916	8.377	2.922	231.058-228.008	236.385	229.469
MW201-19	51	6.765	7.338	1.146	231.942-228.892	236.23	229.465
MW202-19	51	6.825	7.592	1.534	231.755-228.705	236.297	229.472

**Appendix 11.4 – Certificate of Analysis**



CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
16 Young Street  
WOODSTOCK, ON N4S3L4  
(519) 266-4680

ATTENTION TO: Ali Rasoul  
PROJECT: 8714-Tadgell Strathroy

AGAT WORK ORDER: 25T247123

SOIL ANALYSIS REVIEWED BY: Nivine Basily, Inorganic Team Lead

TRACE ORGANICS REVIEWED BY: Oksana Gushyla, Trace Organics Lab Supervisor

DATE REPORTED: Feb 18, 2025

PAGES (INCLUDING COVER): 12

VERSION\*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

\*Notes

**Disclaimer:**

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.
- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.



## Certificate of Analysis

AGAT WORK ORDER: 25T247123

PROJECT: 8714-Tadgell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
SAMPLING SITE: Strathroy

ATTENTION TO: Ali Rasoul  
SAMPLED BY: SS

### O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2025-02-12

DATE REPORTED: 2025-02-18

Parameter	Unit	SAMPLE DESCRIPTION: SP1		
		G / S	RDL	6520310
Antimony	µg/g	7.5	0.8	<0.8
Arsenic	µg/g	18	1	5
Barium	µg/g	390	2.0	95.3
Beryllium	µg/g	4	0.5	0.8
Boron	µg/g	120	5	16
Boron (Hot Water Soluble)	µg/g	1.5	0.10	0.20
Cadmium	µg/g	1.2	0.5	<0.5
Chromium	µg/g	160	5	29
Cobalt	µg/g	22	0.8	11.2
Copper	µg/g	140	1.0	20.3
Lead	µg/g	120	1	11
Molybdenum	µg/g	6.9	0.5	<0.5
Nickel	µg/g	100	1	23
Selenium	µg/g	2.4	0.8	<0.8
Silver	µg/g	20	0.5	<0.5
Thallium	µg/g	1	0.5	<0.5
Uranium	µg/g	23	0.50	0.69
Vanadium	µg/g	86	2.0	38.6
Zinc	µg/g	340	5	64
Chromium, Hexavalent	µg/g	8	0.2	<0.2
Cyanide, WAD	µg/g	0.051	0.040	<0.040
Mercury	µg/g	0.27	0.10	<0.10
Electrical Conductivity (2:1)	mS/cm	0.7	0.005	0.156
Sodium Adsorption Ratio (2:1) (Calc.)	N/A	5	N/A	0.379
pH, 2:1 CaCl2 Extraction	pH Units	5.0-9.0	NA	7.25

Certified By:



*Ali Rasoul*



**AGAT** Laboratories

# Certificate of Analysis

AGAT WORK ORDER: 25T247123

PROJECT: 8714-Tadgell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC

ATTENTION TO: Ali Rasoul

SAMPLING SITE: Strathroy

SAMPLED BY: SS

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2025-02-12

DATE REPORTED: 2025-02-18

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils \*\*pH range listed applies to surface soil only\*\*  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.  
6520310 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio. SAR is a calculated parameter.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



*Ali Rasoul*



## Certificate of Analysis

AGAT WORK ORDER: 25T247123

PROJECT: 8714-Tadgell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
SAMPLING SITE: Strathroy

ATTENTION TO: Ali Rasoul  
SAMPLED BY: SS

### O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2025-02-12

DATE REPORTED: 2025-02-18

SAMPLE DESCRIPTION:		SP1		
SAMPLE TYPE:		Soil		
DATE SAMPLED:		2025-02-12		
Parameter	Unit	G / S	RDL	6520310
Naphthalene	µg/g	0.6	0.05	<0.05
Acenaphthylene	µg/g	0.15	0.05	<0.05
Acenaphthene	µg/g	7.9	0.05	<0.05
Fluorene	µg/g	62	0.05	<0.05
Phenanthrene	µg/g	6.2	0.05	<0.05
Anthracene	µg/g	0.67	0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05
Pyrene	µg/g	78	0.05	<0.05
Benzo(a)anthracene	µg/g	0.5	0.05	<0.05
Chrysene	µg/g	7	0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.78	0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.78	0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.38	0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05
Benzo(g,h,i)perylene	µg/g	6.6	0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.99	0.05	<0.05
Moisture Content	%		0.1	22.2
Surrogate	Unit	Acceptable Limits		
Naphthalene-d8	%	50-140		75
Acridine-d9	%	50-140		100
Terphenyl-d14	%	50-140		105

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils \*\*pH range listed applies to surface soil only\*\*  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

6520310 Results are based on the dry weight of the soil.  
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.  
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 25T247123  
PROJECT: 8714-Tadgell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
SAMPLING SITE: Strathroy

ATTENTION TO: Ali Rasoul  
SAMPLED BY: SS

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)

DATE RECEIVED: 2025-02-12

DATE REPORTED: 2025-02-18

		SAMPLE DESCRIPTION:		SP1
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2025-02-12
Parameter	Unit	G / S	RDL	6520310
Benzene	µg/g	0.21	0.02	<0.02
Toluene	µg/g	2.3	0.05	<0.05
Ethylbenzene	µg/g	1.1	0.05	<0.05
m & p-Xylene	µg/g		0.05	<0.05
o-Xylene	µg/g		0.05	<0.05
Xylenes (Total)	µg/g	3.1	0.05	<0.05
F1 (C6 to C10)	µg/g	55	5	<5
F1 (C6 to C10) minus BTEX	µg/g	55	5	<5
F2 (C10 to C16)	µg/g	98	10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10
F3 (C16 to C34)	µg/g	300	50	<50
F3 (C16 to C34) minus PAHs	µg/g		50	<50
F4 (C34 to C50)	µg/g	2800	50	<50
Gravimetric Heavy Hydrocarbons	µg/g	2800	50	NA
Moisture Content	%		0.1	22.2
Surrogate	Unit	Acceptable Limits		
Toluene-d8	% Recovery	60-140		71
Terphenyl	%	60-140		72

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 25T247123

PROJECT: 8714-Tadgell Strathroy

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CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC

ATTENTION TO: Ali Rasoul

SAMPLING SITE: Strathroy

SAMPLED BY: SS

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)

DATE RECEIVED: 2025-02-12

DATE REPORTED: 2025-02-18

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils \*\*pH range listed applies to surface soil only\*\*  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

6520310 Results are based on sample dry weight.  
The C6-C10 fraction is calculated using toluene response factor.  
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.  
C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.  
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.  
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.  
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.  
The chromatogram has returned to baseline by the retention time of nC50.  
Total C6 - C50 results are corrected for BTEX and PAH contributions.  
C>10 - C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.  
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).  
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.  
nC10, nC16 and nC34 response factors are within 10% of their average.  
C50 response factor is within 70% of nC10 + nC16 + nC34 average.  
Linearity is within 15%.  
Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:

## Quality Assurance

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
 PROJECT: 8714-Tadgell Strathroy  
 SAMPLING SITE: Strathroy

AGAT WORK ORDER: 25T247123  
 ATTENTION TO: Ali Rasoul  
 SAMPLED BY: SS

Soil Analysis															
RPT Date: Feb 18, 2025			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE		MATRIX SPIKE			
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

**O. Reg. 153(511) - Metals & Inorganics (Soil)**

Antimony	6520078		<0.8	<0.8	NA	< 0.8	108%	70%	130%	91%	80%	120%	91%	70%	130%
Arsenic	6520078		3	3	NA	< 1	111%	70%	130%	100%	80%	120%	104%	70%	130%
Barium	6520078		37.6	38.2	1.5%	< 2.0	79%	70%	130%	108%	80%	120%	106%	70%	130%
Beryllium	6520078		<0.5	<0.5	NA	< 0.5	97%	70%	130%	97%	80%	120%	96%	70%	130%
Boron	6520078		<5	<5	NA	< 5	82%	70%	130%	99%	80%	120%	92%	70%	130%
Boron (Hot Water Soluble)	6466872		3.68	3.57	3.1%	< 0.10	87%	60%	140%	93%	70%	130%	NA	60%	140%
Cadmium	6520078		<0.5	<0.5	NA	< 0.5	107%	70%	130%	92%	80%	120%	97%	70%	130%
Chromium	6520078		13	13	NA	< 5	119%	70%	130%	103%	80%	120%	108%	70%	130%
Cobalt	6520078		4.2	4.0	4.7%	< 0.8	106%	70%	130%	95%	80%	120%	99%	70%	130%
Copper	6520078		13.3	13.3	0.2%	< 1.0	111%	70%	130%	102%	80%	120%	106%	70%	130%
Lead	6520078		22	25	11.8%	< 1	108%	70%	130%	99%	80%	120%	96%	70%	130%
Molybdenum	6520078		0.6	0.6	NA	< 0.5	112%	70%	130%	96%	80%	120%	100%	70%	130%
Nickel	6520078		9	9	0.4%	< 1	110%	70%	130%	95%	80%	120%	100%	70%	130%
Selenium	6520078		<0.8	<0.8	NA	< 0.8	129%	70%	130%	107%	80%	120%	109%	70%	130%
Silver	6520078		<0.5	<0.5	NA	< 0.5	106%	70%	130%	90%	80%	120%	97%	70%	130%
Thallium	6520078		<0.5	<0.5	NA	< 0.5	110%	70%	130%	108%	80%	120%	103%	70%	130%
Uranium	6520078		<0.50	<0.50	NA	< 0.50	106%	70%	130%	106%	80%	120%	101%	70%	130%
Vanadium	6520078		20.9	21.3	1.7%	< 2.0	123%	70%	130%	97%	80%	120%	102%	70%	130%
Zinc	6520078		60	61	2.0%	< 5	118%	70%	130%	105%	80%	120%	120%	70%	130%
Chromium, Hexavalent	6520305		<0.2	<0.2	NA	< 0.2	106%	70%	130%	88%	80%	120%	74%	70%	130%
Cyanide, WAD	6513400		<0.040	<0.040	NA	< 0.040	104%	70%	130%	92%	80%	120%	96%	70%	130%
Mercury	6520078		<0.10	<0.10	NA	< 0.10	108%	70%	130%	96%	80%	120%	94%	70%	130%
Electrical Conductivity (2:1)	6520078		0.140	0.163	15.2%	< 0.005	103%	80%	120%						
Sodium Adsorption Ratio (2:1) (Calc.)	6520673		10.7	10.5	1.1%	NA									
pH, 2:1 CaCl2 Extraction	6520078		6.48	6.79	4.6%	NA	100%	80%	120%						

Comments: NA signifies Not Applicable.

pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.

Duplicate NA: results are under 5X the RDL and will not be calculated.

Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.

Certified By:



*Nivine Basily*

## Quality Assurance

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
 PROJECT: 8714-Tadgell Strathroy  
 SAMPLING SITE: Strathroy

AGAT WORK ORDER: 25T247123  
 ATTENTION TO: Ali Rasoul  
 SAMPLED BY: SS

### Trace Organics Analysis

RPT Date: Feb 18, 2025			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
<b>O. Reg. 153(511) - PAHs (Soil)</b>															
Naphthalene	6517725		<0.05	<0.05	NA	< 0.05	99%	50%	140%	100%	50%	140%	103%	50%	140%
Acenaphthylene	6520310		NA	NA	NA	< 0.05	98%	50%	140%	83%	50%	140%	NA	50%	140%
Acenaphthene	6520310		NA	NA	NA	< 0.05	103%	50%	140%	83%	50%	140%	NA	50%	140%
Fluorene	6520310		NA	NA	NA	< 0.05	105%	50%	140%	80%	50%	140%	NA	50%	140%
Phenanthrene	6517725		<0.05	<0.05	NA	< 0.05	96%	50%	140%	93%	50%	140%	80%	50%	140%
Anthracene	6520310		NA	NA	NA	< 0.05	107%	50%	140%	85%	50%	140%	NA	50%	140%
Fluoranthene	6517725		<0.05	<0.05	NA	< 0.05	104%	50%	140%	78%	50%	140%	80%	50%	140%
Pyrene	6517725		<0.05	<0.05	NA	< 0.05	102%	50%	140%	83%	50%	140%	78%	50%	140%
Benzo(a)anthracene	6517725		<0.05	<0.05	NA	< 0.05	73%	50%	140%	75%	50%	140%	95%	50%	140%
Chrysene	6520310		NA	NA	NA	< 0.05	122%	50%	140%	83%	50%	140%	NA	50%	140%
Benzo(b)fluoranthene	6517725		<0.05	<0.05	NA	< 0.05	102%	50%	140%	80%	50%	140%	75%	50%	140%
Benzo(k)fluoranthene	6517725		<0.05	<0.05	NA	< 0.05	104%	50%	140%	88%	50%	140%	85%	50%	140%
Benzo(a)pyrene	6517725		<0.05	<0.05	NA	< 0.05	72%	50%	140%	88%	50%	140%	80%	50%	140%
Indeno(1,2,3-cd)pyrene	6517725		<0.05	<0.05	NA	< 0.05	71%	50%	140%	78%	50%	140%	80%	50%	140%
Dibenz(a,h)anthracene	6517725		<0.05	<0.05	NA	< 0.05	78%	50%	140%	73%	50%	140%	75%	50%	140%
Benzo(g,h,i)perylene	6520310		NA	NA	NA	< 0.05	88%	50%	140%	75%	50%	140%	NA	50%	140%
<b>O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)</b>															
Benzene	6517548		<0.02	<0.02	NA	< 0.02	64%	60%	140%	85%	60%	140%	71%	60%	140%
Toluene	6517548		<0.05	<0.05	NA	< 0.05	60%	60%	140%	65%	60%	140%	63%	60%	140%
Ethylbenzene	6517548		<0.05	<0.05	NA	< 0.05	72%	60%	140%	68%	60%	140%	84%	60%	140%
m & p-Xylene	6517548		<0.05	<0.05	NA	< 0.05	92%	60%	140%	98%	60%	140%	87%	60%	140%
o-Xylene	6517548		<0.05	<0.05	NA	< 0.05	71%	60%	140%	62%	60%	140%	62%	60%	140%
F1 (C6 to C10)	6517548		<5	<5	NA	< 5	103%	60%	140%	108%	60%	140%	100%	60%	140%
F2 (C10 to C16)	6514718		< 10	< 10	NA	< 10	105%	60%	140%	76%	60%	140%	87%	60%	140%
F3 (C16 to C34)	6514718		< 50	< 50	NA	< 50	105%	60%	140%	67%	60%	140%	79%	60%	140%
F4 (C34 to C50)	6514718		< 50	< 50	NA	< 50	80%	60%	140%	84%	60%	140%	97%	60%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: \_\_\_\_\_





## Method Summary

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
PROJECT: 8714-Tadgell Strathroy  
SAMPLING SITE: Strathroy

AGAT WORK ORDER: 25T247123  
ATTENTION TO: Ali Rasoul  
SAMPLED BY: SS

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Arsenic	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Barium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Beryllium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	modified from EPA 6010D and MSA PART 3, CH 21	ICP/OES
Cadmium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Cobalt	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Copper	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Lead	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Molybdenum	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Nickel	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Selenium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Silver	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Thallium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Uranium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Vanadium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Zinc	MET 93 -6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium, Hexavalent	INOR-93-6068	modified from EPA 3060 and EPA 7196	SPECTROPHOTOMETER
Cyanide, WAD	INOR-93-6052	modified from ON MOECC E3015, SM 4500-CN- I, G-387	SEGMENTED FLOW ANALYSIS
Mercury	MET-93-6103	modified from EPA 7471B and SM 3112 B	ICP-MS
Electrical Conductivity (2:1)	INOR-93-6075	modified from MSA PART 3, CH 14 and SM 2510 B	PC TITRATE
Sodium Adsorption Ratio (2:1) (Calc.)	INOR-93-6007	modified from EPA 6010D & Analytical Protocol	ICP/OES
pH, 2:1 CaCl <sub>2</sub> Extraction	INOR-93-6075	modified from EPA 9045D, MCKEAGUE 3.11 E3137	PC TITRATE



## Method Summary

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
 PROJECT: 8714-Tadgell Strathroy  
 SAMPLING SITE: Strathroy

AGAT WORK ORDER: 25T247123  
 ATTENTION TO: Ali Rasoul  
 SAMPLED BY: SS

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluorene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Phenanthrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(a)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Chrysene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Naphthalene-d8	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acridine-d9	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Terphenyl-d14	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Moisture Content	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Benzene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
Toluene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
Ethylbenzene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
m & p-Xylene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
o-Xylene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
Xylenes (Total)	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
F1 (C6 to C10)	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	modified from CCME Tier 1 Method	P&T GC/FID
Toluene-d8	VOL-91-5009	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
F2 (C10 to C16)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID



## Method Summary

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC

AGAT WORK ORDER: 25T247123

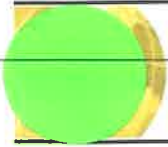
PROJECT: 8714-Tadgell Strathroy

ATTENTION TO: Ali Rasoul

SAMPLING SITE: Strathroy

SAMPLED BY: SS

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
F3 (C16 to C34) minus PAHs	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID



### Laboratory Use Only

Work Order #: 257247123

Cooler Quantity: 1 Scott Med

Arrival Temperatures: 3.1 3.5 3.3

Custody Seal Intact:  Yes  No  N/A

Notes: LIT

### Chain of Custody Record If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

**Report Information:**  
 Company: A & A Environmental Consultants Inc.  
 Contact: Dr. Ali Rasoul  
 Address: 16 Young St  
Woodstock, ON  
 Phone: 519-266-4680 Fax: 519-266-3666  
 Reports to be sent to: arasoul@aaenvironmental.ca, vsowden@  
 1. Email: arasoul@aaenvironmental.ca, vsowden@  
 2. Email: sscott@; tdemers@; ckennedy@

**Project Information:**  
 Project: 8714-Tadgell Strathroy  
 Site Location: Strathroy  
 Sampled By: SS  
 AGAT Quote #: 16288129079 PO: 8714-Tadgell Strathroy  
Please note: If quotation number is not provided, client will be billed full price for analysis.

**Invoice Information:** Bill To Same: Yes  No

Company: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Email: \_\_\_\_\_

**Regulatory Requirements:**  No Regulatory Requirement  
(Please check all applicable boxes)

Regulation 153/04  Sewer Use  Regulation 558  
 Table 2  Sanitary  CCME  
Indicate One  
 Ind/Com  Storm  Prov. Water Quality Objectives (PWQO)  
 Res/Park  Agriculture  Other  
 Soil Texture (Check One) Region Indicate One  
 Coarse  MISA  Fine Indicate One

Is this submission for a Record of Site Condition?  Yes  No

Report Guideline on Certificate of Analysis  Yes  No

**Turnaround Time (TAT) Required:**  
 Regular TAT  5 to 7 Business Days  
 Rush TAT (Rush Surcharges Apply)  
 3 Business Days  2 Business Days  Next Business Day  
 OR Date Required (Rush Surcharges May Apply): \_\_\_\_\_  
Please provide prior notification for rush TAT  
 \*TAT is exclusive of weekends and statutory holidays  
**For 'Same Day' analysis, please contact your AGAT CPM**

**Sample Matrix Legend**

B Biota  
 GW Ground Water  
 O Oil  
 P Paint  
 S Soil  
 SD Sediment  
 SW Surface Water

Field Filtered - Metals, Hg, CVI	0. Reg 153	Metals and Inorganics	Regulation/Custom Metals	Nutrients	Volatiles	PHCs F1-F4	ABNS	PAHs	PCBs: Total	Organochlorine Pesticides	TCLP: M&I, ABNS, VOCs, B(a)P, PCBs	Sewer Use	Metals Soil 93-101	Metals Water 93-196	CCME F1-F4/VOCs Soil 91-248	CCME F1-F4/VOCs Water 91-249	CCME F1-F4/BTEX Water 91-315	Sieve & texture (75 Micron)
	<input type="checkbox"/> All Metals <input type="checkbox"/> 153 Metals (excl. Hydrides) <input type="checkbox"/> Hydride Metals <input type="checkbox"/> 153 Metals (incl. Hydrides)	ORPs: <input type="checkbox"/> B-HWS <input type="checkbox"/> Cl <input type="checkbox"/> CN <input type="checkbox"/> Cr <sup>6+</sup> <input type="checkbox"/> EC <input type="checkbox"/> FOC <input type="checkbox"/> Hg <input checked="" type="checkbox"/> pH <input type="checkbox"/> SAR	<input type="checkbox"/> TP <input type="checkbox"/> NH <sub>4</sub> <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> NO <sub>x</sub> +NO <sub>2</sub>	<input type="checkbox"/> VOC <input type="checkbox"/> BTEX <input type="checkbox"/> THM	PHCs F1-F4	ABNS	PAHs	PCBs: <input type="checkbox"/> Total <input type="checkbox"/> Aroclors	Organochlorine Pesticides	TCLP: <input type="checkbox"/> M&I <input type="checkbox"/> ABNS <input type="checkbox"/> VOCs <input type="checkbox"/> B(a)P <input type="checkbox"/> PCBs	Sewer Use	Metals Soil 93-101	Metals Water 93-196	CCME F1-F4/VOCs Soil 91-248	CCME F1-F4/VOCs Water 91-249	CCME F1-F4/BTEX Water 91-315	Sieve & texture (75 Micron)	
	<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>									<input checked="" type="checkbox"/>	

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y/N
SP1	Feb 12		4	S		
					**please adjust soil texture to results of sieve analysis	

Samples Relinquished By (Print Name and Sign): <u>Steve Scott</u>	Date: <u>Feb 12</u>	Time:	Samples Received By (Print Name and Sign): <u>[Signature]</u>	Date: <u>Feb 12</u>	Time: <u>2:19P</u>
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:



CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
16 Young Street  
WOODSTOCK, ON N4S3L4  
(519) 266-4680

ATTENTION TO: Ali Rasoul  
PROJECT: 8714 - Tadjell Strathroy

AGAT WORK ORDER: 25T248720

SOIL ANALYSIS REVIEWED BY: Nivine Basily, Inorganic Team Lead  
TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

DATE REPORTED: Feb 26, 2025

PAGES (INCLUDING COVER): 15

VERSION\*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

\*Notes

**Disclaimer:**

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.
- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.



## Certificate of Analysis

AGAT WORK ORDER: 25T248720

PROJECT: 8714 - Tadjell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC

SAMPLING SITE: 502 Darcey Drive, Strathroy

ATTENTION TO: Ali Rasoul

SAMPLED BY: J. Osborne & J. Allen

### O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2025-02-19

DATE REPORTED: 2025-02-26

Parameter	Unit	SAMPLE DESCRIPTION:		TP1	TP2	TP3
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2025-02-18	2025-02-18	2025-02-18
		G / S	RDL	6530533	6530535	6530536
Antimony	µg/g	7.5	0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	6	7	5
Barium	µg/g	390	2.0	124	157	107
Beryllium	µg/g	4	0.5	1.0	1.3	0.8
Boron	µg/g	120	5	18	21	20
Boron (Hot Water Soluble)	µg/g	1.5	0.10	0.20	0.16	<0.10
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5
Chromium	µg/g	160	5	34	45	28
Cobalt	µg/g	22	0.8	13.8	17.4	11.5
Copper	µg/g	140	1.0	23.1	30.5	19.3
Lead	µg/g	120	1	18	18	10
Molybdenum	µg/g	6.9	0.5	<0.5	<0.5	<0.5
Nickel	µg/g	100	1	30	41	27
Selenium	µg/g	2.4	0.8	<0.8	<0.8	<0.8
Silver	µg/g	20	0.5	<0.5	<0.5	<0.5
Thallium	µg/g	1	0.5	<0.5	<0.5	<0.5
Uranium	µg/g	23	0.50	0.75	0.80	0.68
Vanadium	µg/g	86	2.0	45.1	53.4	36.4
Zinc	µg/g	340	5	70	85	50
Chromium, Hexavalent	µg/g	8	0.2	<0.2	<0.2	<0.2
Cyanide, WAD	µg/g	0.051	0.040	<0.040	<0.040	<0.040
Mercury	µg/g	0.27	0.10	<0.10	<0.10	<0.10
Electrical Conductivity (2:1)	mS/cm	0.7	0.005	0.189	0.064	0.110
Sodium Adsorption Ratio (2:1) (Calc.)	N/A	5	N/A	0.193	0.115	0.110
pH, 2:1 CaCl2 Extraction	pH Units	5.0-9.0	NA	7.76	7.48	7.40

Certified By:



*Ali Rasoul*



**AGAT** Laboratories

# Certificate of Analysis

AGAT WORK ORDER: 25T248720  
PROJECT: 8714 - Tadgell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
SAMPLING SITE: 502 Darcey Drive, Strathroy

ATTENTION TO: Ali Rasoul  
SAMPLED BY: J. Osborne & J. Allen

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2025-02-19

DATE REPORTED: 2025-02-26

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils \*\*pH range listed applies to surface soil only\*\*  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.  
6530533-6530536 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio. SAR is a calculated parameter.  
Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



*Ali Rasoul*



## Certificate of Analysis

AGAT WORK ORDER: 25T248720

PROJECT: 8714 - Tadjell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
SAMPLING SITE: 502 Darcey Drive, Strathroy

ATTENTION TO: Ali Rasoul  
SAMPLED BY: J. Osborne & J. Allen

### O. Reg. 153(511) - Metals (Including Hydrides) (Soil)

DATE RECEIVED: 2025-02-19

DATE REPORTED: 2025-02-26

Parameter	Unit	SAMPLE DESCRIPTION:		TP4	TP5	TP6	TP7	TP8	TP9	DUP	
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2025-02-18	2025-02-18	2025-02-18	2025-02-18	2025-02-18	2025-02-18	2025-02-18	2025-02-18
		G / S	RDL	6530537	6530538	6530539	6530540	6530541	6530542	6530543	
Antimony	µg/g	7.5	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	
Arsenic	µg/g	18	1	5	6	5	5	5	4	4	
Barium	µg/g	390	2.0	106	107	106	103	111	56.0	94.3	
Beryllium	µg/g	4	0.5	0.9	0.8	0.8	0.8	0.8	0.5	0.7	
Boron	µg/g	120	5	13	21	21	21	21	16	22	
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Chromium	µg/g	160	5	29	30	29	28	28	19	26	
Cobalt	µg/g	22	0.8	12.7	10.7	11.4	10.8	10.7	6.7	9.4	
Copper	µg/g	140	1.0	19.8	19.7	20.6	18.0	19.4	14.5	16.7	
Lead	µg/g	120	1	17	11	17	19	10	8	14	
Molybdenum	µg/g	6.9	0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	
Nickel	µg/g	100	1	26	26	27	28	24	17	23	
Selenium	µg/g	2.4	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	
Silver	µg/g	20	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Thallium	µg/g	1	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Uranium	µg/g	23	0.50	0.71	0.72	0.76	0.71	0.69	0.71	0.73	
Vanadium	µg/g	86	2.0	38.7	40.3	37.4	35.5	37.4	28.6	34.0	
Zinc	µg/g	340	5	69	54	63	63	50	36	54	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils \*\*pH range listed applies to surface soil only\*\*  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.  
Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



*Ali Rasoul*



## Certificate of Analysis

AGAT WORK ORDER: 25T248720

PROJECT: 8714 - Tadjell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
SAMPLING SITE: 502 Darcey Drive, Strathroy

ATTENTION TO: Ali Rasoul  
SAMPLED BY: J. Osborne & J. Allen

### O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2025-02-19

DATE REPORTED: 2025-02-26

Parameter	Unit	SAMPLE DESCRIPTION:		TP1	TP2	TP3	TP4	TP5	TP6	TP7	TP8
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2025-02-18	2025-02-18	2025-02-18	2025-02-18	2025-02-18	2025-02-18	2025-02-18	2025-02-18
		G / S	RDL	6530533	6530535	6530536	6530537	6530538	6530539	6530540	6530541
Naphthalene	µg/g	0.6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.15	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthene	µg/g	7.9	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluorene	µg/g	62	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Phenanthrene	µg/g	6.2	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Anthracene	µg/g	0.67	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Pyrene	µg/g	78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)anthracene	µg/g	0.5	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chrysene	µg/g	7	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.38	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	6.6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.99	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	19.7	20.3	16.2	18.1	18.7	18.1	14.5	17.4
Surrogate	Unit	Acceptable Limits									
Naphthalene-d8	%	50-140		65	70	65	65	65	65	70	70
Acridine-d9	%	50-140		100	90	80	85	80	100	110	90
Terphenyl-d14	%	50-140		80	75	75	100	65	85	65	70

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 25T248720

PROJECT: 8714 - Tadjell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
SAMPLING SITE: 502 Darcey Drive, Strathroy

ATTENTION TO: Ali Rasoul  
SAMPLED BY: J. Osborne & J. Allen

### O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2025-02-19

DATE REPORTED: 2025-02-26

Parameter	Unit	SAMPLE DESCRIPTION:		TP9	DUP
		G / S	RDL	6530542	6530543
Naphthalene	µg/g	0.6	0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.15	0.05	<0.05	<0.05
Acenaphthene	µg/g	7.9	0.05	<0.05	<0.05
Fluorene	µg/g	62	0.05	<0.05	<0.05
Phenanthrene	µg/g	6.2	0.05	<0.05	<0.05
Anthracene	µg/g	0.67	0.05	<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05	<0.05
Pyrene	µg/g	78	0.05	<0.05	<0.05
Benzo(a)anthracene	µg/g	0.5	0.05	<0.05	<0.05
Chrysene	µg/g	7	0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.38	0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	6.6	0.05	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.99	0.05	<0.05	<0.05
Moisture Content	%		0.1	23.1	14.4
Surrogate	Unit	Acceptable Limits			
Naphthalene-d8	%	50-140		70	65
Acridine-d9	%	50-140		85	90
Terphenyl-d14	%	50-140		100	80

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils \*\*pH range listed applies to surface soil only\*\*  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

6530533-6530543 Results are based on the dry weight of the soil.

Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.  
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

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5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
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CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC

SAMPLING SITE: 502 Darcey Drive, Strathroy

ATTENTION TO: Ali Rasoul

SAMPLED BY: J. Osborne & J. Allen

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)

DATE RECEIVED: 2025-02-19

DATE REPORTED: 2025-02-26

Parameter	Unit	SAMPLE DESCRIPTION:		TP1	TP2	TP3	TP4	TP5	TP6	TP7	TP8
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2025-02-18	2025-02-18	2025-02-18	2025-02-18	2025-02-18	2025-02-18	2025-02-18	2025-02-18
		G / S	RDL	6530533	6530535	6530536	6530537	6530538	6530539	6530540	6530541
Benzene	µg/g	0.21	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Toluene	µg/g	2.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	µg/g	1.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
m & p-Xylene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
o-Xylene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylenes (Total)	µg/g	3.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g	55	5	<5	<5	<5	<5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	55	5	<5	<5	<5	<5	<5	<5	<5	<5
F2 (C10 to C16)	µg/g	98	10	<10	<10	<10	<10	<10	<10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10	<10	<10	<10	<10	<10	<10	<10
F3 (C16 to C34)	µg/g	300	50	<50	<50	<50	<50	<50	<50	68	<50
F3 (C16 to C34) minus PAHs	µg/g		50	<50	<50	<50	<50	<50	<50	68	<50
F4 (C34 to C50)	µg/g	2800	50	<50	<50	<50	<50	<50	<50	136	<50
Gravimetric Heavy Hydrocarbons	µg/g	2800	50	NA	NA	NA	NA	NA	NA	NA	NA
Moisture Content	%		0.1	19.7	20.3	16.2	18.1	18.7	18.1	14.5	17.4
Surrogate	Unit	Acceptable Limits									
Toluene-d8	% Recovery	60-140		106	112	100	107	109	109	113	106
Terphenyl	%	60-140		84	78	86	74	86	104	92	81

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5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
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### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)

DATE RECEIVED: 2025-02-19

DATE REPORTED: 2025-02-26

Parameter	Unit	SAMPLE DESCRIPTION:		TP9	DUP
		G / S	RDL	6530542	6530543
Benzene	µg/g	0.21	0.02	<0.02	<0.02
Toluene	µg/g	2.3	0.05	<0.05	<0.05
Ethylbenzene	µg/g	1.1	0.05	<0.05	<0.05
m & p-Xylene	µg/g		0.05	<0.05	<0.05
o-Xylene	µg/g		0.05	<0.05	<0.05
Xylenes (Total)	µg/g	3.1	0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g	55	5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	55	5	<5	<5
F2 (C10 to C16)	µg/g	98	10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10	<10
F3 (C16 to C34)	µg/g	300	50	<50	<50
F3 (C16 to C34) minus PAHs	µg/g		50	<50	<50
F4 (C34 to C50)	µg/g	2800	50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	2800	50	NA	NA
Moisture Content	%		0.1	23.1	14.4
Surrogate	Unit	Acceptable Limits			
Toluene-d8	% Recovery	60-140		114	110
Terphenyl	%	60-140		113	100

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ATTENTION TO: Ali Rasoul

SAMPLED BY: J. Osborne & J. Allen

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)

DATE RECEIVED: 2025-02-19

DATE REPORTED: 2025-02-26

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils \*\*pH range listed applies to surface soil only\*\*  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

6530533-6530543 Results are based on sample dry weight.  
The C6-C10 fraction is calculated using toluene response factor.  
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.  
C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.  
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.  
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.  
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.  
The chromatogram has returned to baseline by the retention time of nC50.  
Total C6 - C50 results are corrected for BTEX and PAH contributions.  
C>10 - C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.  
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).  
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.  
nC10, nC16 and nC34 response factors are within 10% of their average.  
C50 response factor is within 70% of nC10 + nC16 + nC34 average.  
Linearity is within 15%.  
Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:

## Quality Assurance

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
 PROJECT: 8714 - Tadjell Strathroy  
 SAMPLING SITE: 502 Darcey Drive, Strathroy

AGAT WORK ORDER: 25T248720  
 ATTENTION TO: Ali Rasoul  
 SAMPLED BY: J. Osborne & J. Allen

Soil Analysis															
RPT Date: Feb 26, 2025			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE		MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

O. Reg. 153(511) - Metals & Inorganics (Soil)															
Antimony	6530533	6530533	<0.8	<0.8	NA	< 0.8	123%	70%	130%	101%	80%	120%	103%	70%	130%
Arsenic	6530533	6530533	6	5	5.7%	< 1	113%	70%	130%	85%	80%	120%	94%	70%	130%
Barium	6530533	6530533	124	121	3.1%	< 2.0	110%	70%	130%	97%	80%	120%	124%	70%	130%
Beryllium	6530533	6530533	1.0	1.0	NA	< 0.5	98%	70%	130%	107%	80%	120%	121%	70%	130%
Boron	6530533	6530533	18	15	NA	< 5	79%	70%	130%	94%	80%	120%	98%	70%	130%
Boron (Hot Water Soluble)	6530533	6530533	0.20	0.19	NA	< 0.10	117%	60%	140%	106%	70%	130%	102%	60%	140%
Cadmium	6530533	6530533	<0.5	<0.5	NA	< 0.5	112%	70%	130%	93%	80%	120%	114%	70%	130%
Chromium	6530533	6530533	34	32	5.3%	< 5	101%	70%	130%	100%	80%	120%	NA	70%	130%
Cobalt	6530533	6530533	13.8	13.1	5.1%	< 0.8	104%	70%	130%	100%	80%	120%	106%	70%	130%
Copper	6530533	6530533	23.1	21.7	6.1%	< 1.0	96%	70%	130%	103%	80%	120%	105%	70%	130%
Lead	6530533	6530533	18	17	2.9%	< 1	113%	70%	130%	107%	80%	120%	125%	70%	130%
Molybdenum	6530533	6530533	<0.5	<0.5	NA	< 0.5	113%	70%	130%	98%	80%	120%	114%	70%	130%
Nickel	6530533	6530533	30	29	2.7%	< 1	103%	70%	130%	100%	80%	120%	105%	70%	130%
Selenium	6530533	6530533	<0.8	<0.8	NA	< 0.8	101%	70%	130%	92%	80%	120%	113%	70%	130%
Silver	6530533	6530533	<0.5	<0.5	NA	< 0.5	114%	70%	130%	99%	80%	120%	114%	70%	130%
Thallium	6530533	6530533	<0.5	<0.5	NA	< 0.5	108%	70%	130%	94%	80%	120%	112%	70%	130%
Uranium	6530533	6530533	0.75	0.71	NA	< 0.50	109%	70%	130%	94%	80%	120%	116%	70%	130%
Vanadium	6530533	6530533	45.1	41.5	8.3%	< 2.0	108%	70%	130%	97%	80%	120%	103%	70%	130%
Zinc	6530533	6530533	70	68	2.9%	< 5	106%	70%	130%	98%	80%	120%	NA	70%	130%
Chromium, Hexavalent	6529886		<0.2	<0.2	NA	< 0.2	102%	70%	130%	90%	80%	120%	89%	70%	130%
Cyanide, WAD	6496086		<0.040	<0.040	NA	< 0.040	87%	70%	130%	93%	80%	120%	98%	70%	130%
Mercury	6530533	6530533	<0.10	<0.10	NA	< 0.10	103%	70%	130%	105%	80%	120%	102%	70%	130%
Electrical Conductivity (2:1)	6530533	6530533	0.189	0.156	18.9%	< 0.005	100%	80%	120%						
Sodium Adsorption Ratio (2:1) (Calc.)	6530533	6530533	0.193	0.179	7.3%	NA									
pH, 2:1 CaCl2 Extraction	6529886		6.39	6.67	4.2%	NA	100%	80%	120%						

Comments: NA signifies Not Applicable.  
 pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.  
 Duplicate NA: results are under 5X the RDL and will not be calculated.

Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.

Certified By:



*Nivine Basily*

## Quality Assurance

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
 PROJECT: 8714 - Tadjell Strathroy  
 SAMPLING SITE: 502 Darcey Drive, Strathroy

AGAT WORK ORDER: 25T248720  
 ATTENTION TO: Ali Rasoul  
 SAMPLED BY: J. Osborne & J. Allen

### Trace Organics Analysis

RPT Date: Feb 26, 2025			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)															
Benzene	6530653		<0.02	<0.02	NA	< 0.02	104%	60%	140%	93%	60%	140%	90%	60%	140%
Toluene	6530653		<0.05	<0.05	NA	< 0.05	110%	60%	140%	117%	60%	140%	111%	60%	140%
Ethylbenzene	6530653		<0.05	<0.05	NA	< 0.05	104%	60%	140%	119%	60%	140%	111%	60%	140%
m & p-Xylene	6530653		<0.05	<0.05	NA	< 0.05	96%	60%	140%	101%	60%	140%	98%	60%	140%
o-Xylene	6530653		<0.05	<0.05	NA	< 0.05	94%	60%	140%	114%	60%	140%	110%	60%	140%
F1 (C6 to C10)	6530653		<5	<5	NA	< 5	110%	60%	140%	90%	60%	140%	89%	60%	140%
F2 (C10 to C16)	6530537 6530537		< 10	< 10	NA	< 10	114%	60%	140%	116%	60%	140%	115%	60%	140%
F3 (C16 to C34)	6530537 6530537		< 50	< 50	NA	< 50	105%	60%	140%	115%	60%	140%	111%	60%	140%
F4 (C34 to C50)	6530537 6530537		< 50	< 50	NA	< 50	68%	60%	140%	96%	60%	140%	97%	60%	140%
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	6531769		<0.05	<0.05	NA	< 0.05	109%	50%	140%	80%	50%	140%	75%	50%	140%
Acenaphthylene	6531769		<0.05	<0.05	NA	< 0.05	109%	50%	140%	85%	50%	140%	95%	50%	140%
Acenaphthene	6531769		<0.05	<0.05	NA	< 0.05	106%	50%	140%	93%	50%	140%	78%	50%	140%
Fluorene	6531769		<0.05	<0.05	NA	< 0.05	109%	50%	140%	90%	50%	140%	83%	50%	140%
Phenanthrene	6531769		<0.05	<0.05	NA	< 0.05	111%	50%	140%	90%	50%	140%	80%	50%	140%
Anthracene	6531769		<0.05	<0.05	NA	< 0.05	99%	50%	140%	80%	50%	140%	88%	50%	140%
Fluoranthene	6531769		<0.05	<0.05	NA	< 0.05	108%	50%	140%	78%	50%	140%	88%	50%	140%
Pyrene	6531769		0.08	0.07	NA	< 0.05	104%	50%	140%	78%	50%	140%	86%	50%	140%
Benzo(a)anthracene	6531769		<0.05	<0.05	NA	< 0.05	78%	50%	140%	78%	50%	140%	85%	50%	140%
Chrysene	6531769		<0.05	<0.05	NA	< 0.05	109%	50%	140%	75%	50%	140%	95%	50%	140%
Benzo(b)fluoranthene	6531769		<0.05	<0.05	NA	< 0.05	79%	50%	140%	85%	50%	140%	76%	50%	140%
Benzo(k)fluoranthene	6531769		<0.05	<0.05	NA	< 0.05	92%	50%	140%	75%	50%	140%	83%	50%	140%
Benzo(a)pyrene	6531769		<0.05	<0.05	NA	< 0.05	94%	50%	140%	93%	50%	140%	100%	50%	140%
Indeno(1,2,3-cd)pyrene	6531769		<0.05	<0.05	NA	< 0.05	89%	50%	140%	85%	50%	140%	80%	50%	140%
Dibenz(a,h)anthracene	6531769		<0.05	<0.05	NA	< 0.05	72%	50%	140%	85%	50%	140%	88%	50%	140%
Benzo(g,h,i)perylene	6531769		<0.05	<0.05	NA	< 0.05	93%	50%	140%	83%	50%	140%	88%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: 



## Method Summary

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
PROJECT: 8714 - Tadgell Strathroy  
SAMPLING SITE: 502 Darcey Drive, Strathroy

AGAT WORK ORDER: 25T248720  
ATTENTION TO: Ali Rasoul  
SAMPLED BY: J. Osborne & J. Allen

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Arsenic	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Barium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Beryllium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	modified from EPA 6010D and MSA PART 3, CH 21	ICP/OES
Cadmium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Cobalt	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Copper	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Lead	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Molybdenum	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Nickel	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Selenium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Silver	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Thallium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Uranium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Vanadium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Zinc	MET 93 -6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium, Hexavalent	INOR-93-6068	modified from EPA 3060 and EPA 7196	SPECTROPHOTOMETER
Cyanide, WAD	INOR-93-6052	modified from ON MOECC E3015, SM 4500-CN- I, G-387	SEGMENTED FLOW ANALYSIS
Mercury	MET-93-6103	modified from EPA 7471B and SM 3112 B	ICP-MS
Electrical Conductivity (2:1)	INOR-93-6075	modified from MSA PART 3, CH 14 and SM 2510 B	PC TITRATE
Sodium Adsorption Ratio (2:1) (Calc.)	INOR-93-6007	modified from EPA 6010D & Analytical Protocol	ICP/OES
pH, 2:1 CaCl <sub>2</sub> Extraction	INOR-93-6075	modified from EPA 9045D, MCKEAGUE 3.11 E3137	PC TITRATE

## Method Summary

CLIENT NAME: A &amp; A ENVIRONMENTAL CONSULTANTS INC

AGAT WORK ORDER: 25T248720

PROJECT: 8714 - Tadgell Strathroy

ATTENTION TO: Ali Rasoul

SAMPLING SITE: 502 Darcey Drive, Strathroy

SAMPLED BY: J. Osborne &amp; J. Allen

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluorene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Phenanthrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(a)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Chrysene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Naphthalene-d8	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acridine-d9	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Terphenyl-d14	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Moisture Content	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Benzene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
Toluene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
Ethylbenzene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
m & p-Xylene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
o-Xylene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
Xylenes (Total)	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
F1 (C6 to C10)	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	modified from CCME Tier 1 Method	P&T GC/FID
Toluene-d8	VOL-91-5009	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
F2 (C10 to C16)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID



## Method Summary

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC

AGAT WORK ORDER: 25T248720

PROJECT: 8714 - Tadgell Strathroy

ATTENTION TO: Ali Rasoul

SAMPLING SITE: 502 Darcey Drive, Strathroy

SAMPLED BY: J. Osborne & J. Allen

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
F3 (C16 to C34) minus PAHs	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID



# AGAT Laboratories

5835 Coopers Avenue  
Mississauga, Ontario L4Z 1Y2  
Ph: 905.712.5100 Fax: 905.712.5122  
webearth.agatlabs.com

### Laboratory Use Only

Work Order #: 25T248720

Cooler Quantity: 11g  
Arrival Temperatures: 5.0 15.2 15.3

Custody Seal Intact:  Yes  No  N/A  
Notes: LI

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

### Report Information:

Company: A & A Environmental Consultants Inc.  
Contact: Dr. Ali Rasoul  
Address: 16 Young St  
Woodstock, ON  
Phone: 519-266-4680 Fax: 519-266-3666  
Reports to be sent to: arasoul@aaenvironmental.ca, vsowden@  
1. Email: sscott@; tdemers@; ckennedy@  
2. Email:

### Regulatory Requirements: No Regulatory Requirement

(Please check all applicable boxes)  
 Regulation 153/04  
Table 2 Indicate One  
 Ind/Com  
 Res/Park  
 Agriculture  
 Sewer Use  
 Sanitary  
 Storm  
 Regulation 558  
 CCME  
 Prov. Water Quality Objectives (PWQO)  
 Other  
Soil Texture (Check One)  
 Coarse  
 Fine  
Region                      Indicate One  
 MISA Indicate One

### Project Information:

Project: 8714 - Tadgell Strathroy  
Site Location: 502 Darcy Drive, Strathroy  
Sampled By: J. Osborne & J. Allen  
AGAT Quote #: 16288129079 PO: 8714  
Please note: If quotation number is not provided, client will be billed full price for analysis.

### Is this submission for a Record of Site Condition?

Yes  No

### Report Guideline on Certificate of Analysis

Yes  No

### Turnaround Time (TAT) Required:

Regular TAT  5 to 7 Business Days  
Rush TAT (Rush Surcharges Apply)  
 3 Business Days  2 Business Days  Next Business Day  
OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT  
\*TAT is exclusive of weekends and statutory holidays

For 'Same Day' analysis, please contact your AGAT CPM

### Invoice Information:

Bill To Same: Yes  No   
Company: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Email: \_\_\_\_\_

### Sample Matrix Legend

**B** Biota  
**GW** Ground Water  
**O** Oil  
**P** Paint  
**S** Soil  
**SD** Sediment  
**SW** Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N	Field Filtered - Metals, Hg, CrVI	O. Reg 153	Metals and Inorganics	Full Metals Scan	Regulation/Custom Metals	Nutrients: TP NH <sub>3</sub> TKN NO <sub>3</sub> NO <sub>2</sub> NO <sub>3</sub> +NO <sub>2</sub>	Volatiles: VOC BTEX THM	PHCs F1 - F4	ABNs	PAHs	PCBs: Total Aroclors	Organochlorine Pesticides	TCLP: M&I VOCs ABNs BOP PCBs	Sewer Use	Metals Soil 93-101	Metals Water 93-196	CCME F1-F4/VOCs Soil 91-248	CCME F1-F4/VOCs Water 91-249	CCME F1-F4/BTEX Water 91-315	Sieve & texture (75 Micron)
TP1	02/18/2025		4	S				<input checked="" type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>							
TP2	02/18/2025		4	S				<input checked="" type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>							
TP3	02/18/2025		4	S				<input checked="" type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>							
TP4	02/18/2025		4	S					<input type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>							
TP5	02/18/2025		4	S					<input type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>							
TP6	02/18/2025		4	S					<input type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>							
TP7	02/18/2025		4	S					<input type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>							
TP8	02/18/2025		4	S					<input type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>							
TP9	02/18/2025		4	S					<input type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>							
DUP	02/18/2025		4	S					<input type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>							

Samples Relinquished By (Print Name and Sign): Jason Allen <u>Allen</u>	Date: 02/19/2025	Time: 11:00 AM	Samples Received By (Print Name and Sign): <u>T. Allen</u>	Date: Feb 19 2025	Time: 2:29 PM
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:



CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
16 Young Street  
WOODSTOCK, ON N4S3L4  
(519) 266-4680

ATTENTION TO: Ali Rasoul  
PROJECT: 8714 Tadgell Strathroy

AGAT WORK ORDER: 25T243243

SOIL ANALYSIS REVIEWED BY: Nivine Basily, Inorganic Team Lead  
TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

DATE REPORTED: Feb 07, 2025

PAGES (INCLUDING COVER): 18

VERSION\*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

\*Notes

**Disclaimer:**

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.
- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.



## Certificate of Analysis

AGAT WORK ORDER: 25T243243

PROJECT: 8714 Tadjell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
SAMPLING SITE: 502 Darcy Drive, Strathroy, ON

ATTENTION TO: Ali Rasoul  
SAMPLED BY: J. Allen

### O. Reg. 153(511) - Metals (Including Hydrides) (Soil)

DATE RECEIVED: 2025-01-30

DATE REPORTED: 2025-02-07

Parameter	Unit	SAMPLE DESCRIPTION:		TP1	TP2	TP3	TP4	TP5	TP6
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2025-01-29	2025-01-29	2025-01-29	2025-01-29	2025-01-29	2025-01-29
	G / S	RDL	6492878	6492885	6492886	6492887	6492888	6492889	
Antimony	µg/g	7.5	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	4	6	4	5	3	4
Barium	µg/g	390	2.0	57.4	97.6	77.1	99.6	45.3	60.0
Beryllium	µg/g	4	0.5	0.5	0.8	0.6	0.8	<0.5	<0.5
Boron	µg/g	120	5	11	18	14	15	10	12
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	160	5	18	30	21	29	16	18
Cobalt	µg/g	22	0.8	7.3	13.0	8.3	11.2	5.6	8.8
Copper	µg/g	140	1.0	15.8	22.3	15.9	19.6	12.2	16.2
Lead	µg/g	120	1	8	11	15	11	7	9
Molybdenum	µg/g	6.9	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel	µg/g	100	1	17	29	19	26	12	18
Selenium	µg/g	2.4	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Silver	µg/g	20	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Thallium	µg/g	1	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Uranium	µg/g	23	0.50	0.57	0.69	0.68	0.70	0.56	0.54
Vanadium	µg/g	86	2.0	26.7	39.0	28.8	35.7	27.1	29.2
Zinc	µg/g	340	5	39	59	50	53	35	43

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils \*\*pH range listed applies to surface soil only\*\*  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



*Ali Rasoul*



## Certificate of Analysis

AGAT WORK ORDER: 25T243243  
PROJECT: 8714 Tadjell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
SAMPLING SITE: 502 Darcy Drive, Strathroy, ON

ATTENTION TO: Ali Rasoul  
SAMPLED BY: J. Allen

### O. Reg. 558 - Metals & Inorganics

DATE RECEIVED: 2025-01-30

DATE REPORTED: 2025-02-07

		SAMPLE DESCRIPTION: SP1	
		SAMPLE TYPE: Soil	
		DATE SAMPLED: 2025-01-29	
Parameter	Unit	G / S	RDL
			6492899
Arsenic Leachate	mg/L	0.010	<0.010
Barium Leachate	mg/L	0.020	0.222
Boron Leachate	mg/L	0.050	0.051
Cadmium Leachate	mg/L	0.010	<0.010
Chromium Leachate	mg/L	0.050	<0.050
Lead Leachate	mg/L	0.010	<0.010
Mercury Leachate	mg/L	0.01	<0.01
Selenium Leachate	mg/L	0.020	<0.020
Silver Leachate	mg/L	0.010	<0.010
Uranium Leachate	mg/L	0.050	<0.050
Fluoride Leachate	mg/L	0.10	<0.10
Cyanide Leachate	mg/L	0.05	<0.05
(Nitrate + Nitrite) as N Leachate	mg/L	0.70	<0.70

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils \*\*pH range listed applies to surface soil only\*\*  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



*Ali Rasoul*



## Certificate of Analysis

AGAT WORK ORDER: 25T243243

PROJECT: 8714 Tadjell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
SAMPLING SITE: 502 Darcy Drive, Strathroy, ON

ATTENTION TO: Ali Rasoul  
SAMPLED BY: J. Allen

### O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2025-01-30

DATE REPORTED: 2025-02-07

Parameter	Unit	SAMPLE DESCRIPTION:		TP1	TP2	TP3	TP4	TP5	TP6
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2025-01-29	2025-01-29	2025-01-29	2025-01-29	2025-01-29	2025-01-29
		G / S	RDL	6492878	6492885	6492886	6492887	6492888	6492889
Naphthalene	µg/g	0.6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.15	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthene	µg/g	7.9	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluorene	µg/g	62	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Phenanthrene	µg/g	6.2	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Anthracene	µg/g	0.67	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Pyrene	µg/g	78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)anthracene	µg/g	0.5	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chrysene	µg/g	7	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.38	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	6.6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.99	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	24.5	33.9	23.4	15.9	28.7	28.8
Surrogate	Unit	Acceptable Limits							
Naphthalene-d8	%	50-140		80	75	70	75	70	75
Acridine-d9	%	50-140		95	75	95	100	95	75
Terphenyl-d14	%	50-140		100	75	85	75	95	95

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils \*\*pH range listed applies to surface soil only\*\*  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

6492878-6492889 Results are based on the dry weight of the soil.

Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.  
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 25T243243

PROJECT: 8714 Tadgell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
SAMPLING SITE: 502 Darcy Drive, Strathroy, ON

ATTENTION TO: Ali Rasoul  
SAMPLED BY: J. Allen

### O. Reg. 153(511) - PHCs F1 - F4 (Soil)

DATE RECEIVED: 2025-01-30

DATE REPORTED: 2025-02-07

Parameter	Unit	SAMPLE DESCRIPTION:		TP1	TP2	TP3	TP4	TP5	TP6
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2025-01-29	2025-01-29	2025-01-29	2025-01-29	2025-01-29	2025-01-29
		G / S	RDL	6492878	6492885	6492886	6492887	6492888	6492889
Benzene	µg/g	0.21	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Toluene	µg/g	2.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	µg/g	1.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
m & p-Xylene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
o-Xylene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylenes (Total)	µg/g	3.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g	55	5	<5	<5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	55	5	<5	<5	<5	<5	<5	<5
F2 (C10 to C16)	µg/g	98	10	<10	<10	<10	<10	<10	<10
F3 (C16 to C34)	µg/g	300	50	<50	<50	<50	<50	<50	<50
F4 (C34 to C50)	µg/g	2800	50	<50	<50	<50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	2800	50	NA	NA	NA	NA	NA	NA
Moisture Content	%		0.1	24.5	33.9	23.4	15.9	28.7	28.8
Surrogate	Unit	Acceptable Limits							
Toluene-d8	% Recovery	60-140		74	71	88	72	71	69
Terphenyl	%	60-140		95	91	92	101	89	86

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 25T243243

PROJECT: 8714 Tadjell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC

SAMPLING SITE: 502 Darcy Drive, Strathroy, ON

ATTENTION TO: Ali Rasoul

SAMPLED BY: J. Allen

### O. Reg. 153(511) - PHCs F1 - F4 (Soil)

DATE RECEIVED: 2025-01-30

DATE REPORTED: 2025-02-07

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils \*\*pH range listed applies to surface soil only\*\*  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

6492878-6492889 Results are based on sample dry weight.  
The C6-C10 fraction is calculated using Toluene response factor.  
Xylenes is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.  
C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.  
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.  
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.  
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.  
The chromatogram has returned to baseline by the retention time of nC50.  
Total C6 - C50 results are corrected for BTEX contribution.  
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.  
nC6 and nC10 response factors are within 30% of Toluene response factor.  
nC10, nC16 and nC34 response factors are within 10% of their average.  
C50 response factor is within 70% of nC10 + nC16 + nC34 average.  
Linearity is within 15%.  
Extraction and holding times were met for this sample.  
Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.  
Quality Control Data is available upon request.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 25T243243

PROJECT: 8714 Tadjell Strathroy

5835 COOPERS AVENUE  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1Y2  
 TEL (905)712-5100  
 FAX (905)712-5122  
<http://www.agatlabs.com>

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 SAMPLING SITE: 502 Darcy Drive, Strathroy, ON

ATTENTION TO: Ali Rasoul  
 SAMPLED BY: J. Allen

### O. Reg. 558 - PCBs

DATE RECEIVED: 2025-01-30

DATE REPORTED: 2025-02-07

SAMPLE DESCRIPTION:		SP1		
SAMPLE TYPE:		Soil		
DATE SAMPLED:		2025-01-29		
Parameter	Unit	G / S	RDL	6492899
PCB's Leachate	mg/L		0.005	<0.005
Surrogate	Unit	Acceptable Limits		
Decachlorobiphenyl	%	50-140		98

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils \*\*pH range listed applies to surface soil only\*\*  
 Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

6492899 The soil sample was leached using the Regulation 558 procedure. Analysis was performed on the leachate.  
 PCB total is a calculated parameter. The calculated value is the sum of Aroclor 1242, Aroclor 1248, Aroclor 1254 and Aroclor 1260.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 25T243243

PROJECT: 8714 Tadjell Strathroy

5835 COOPERS AVENUE  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1Y2  
 TEL (905)712-5100  
 FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
 SAMPLING SITE: 502 Darcy Drive, Strathroy, ON

ATTENTION TO: Ali Rasoul  
 SAMPLED BY: J. Allen

### O. Reg. 558 - SVOCs

DATE RECEIVED: 2025-01-30

DATE REPORTED: 2025-02-07

SAMPLE DESCRIPTION:		SP1	
SAMPLE TYPE:		Soil	
DATE SAMPLED:		2025-01-29	
Parameter	Unit	G / S	RDL
			6492899
Pyridine Leachate	mg/L	0.010	<0.010
Cresols Leachate	mg/L	0.012	<0.012
o-Cresol Leachate	mg/L	0.004	<0.004
Meta & Para-Cresol Leachate	mg/L	0.008	<0.008
Hexachloroethane Leachate	mg/L	0.004	<0.004
Nitrobenzene Leachate	mg/L	0.004	<0.004
Hexachlorobutadiene Leachate	mg/L	0.004	<0.004
2,4,6-Trichlorophenol Leachate	mg/L	0.05	<0.05
2,4,5-Trichlorophenol Leachate	mg/L	0.004	<0.004
2,4-Dinitrotoluene Leachate	mg/L	0.004	<0.004
2,3,4,6-Tetrachlorophenol Leachate	mg/L	0.004	<0.004
Hexachlorobenzene Leachate	mg/L	0.004	<0.004
Dinoseb Leachate	mg/L	0.004	<0.004
Benzo(a)pyrene Leachate	mg/L	0.001	<0.001
Pentachlorophenol Leachate	mg/L	0.006	<0.006
Surrogate	Unit	Acceptable Limits	
2-Fluorophenol	%	50-140	74
Phenol-d6	%	50-140	85
2,4,6-Tribromophenol	%	50-140	99
Chrysene-d12	%	50-140	85

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils \*\*pH range listed applies to surface soil only\*\*  
 Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

6492899 The sample was leached according to Regulation 558 protocol. Analysis was performed on the leachate. This is an unaccredited procedure.  
 Cresols total is a calculated parameter. The calculated value is the sum o-Cresol and m&p-Cresol.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:





## Certificate of Analysis

AGAT WORK ORDER: 25T243243  
PROJECT: 8714 Tadjell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
SAMPLING SITE: 502 Darcy Drive, Strathroy, ON

ATTENTION TO: Ali Rasoul  
SAMPLED BY: J. Allen

### O. Reg. 558 - VOCs

DATE RECEIVED: 2025-01-30

DATE REPORTED: 2025-02-07

SAMPLE DESCRIPTION:		SP1	
SAMPLE TYPE:		Soil	
DATE SAMPLED:		2025-01-29	
Parameter	Unit	G / S	RDL
			6492899
Vinyl Chloride Leachate	mg/L	0.030	<0.030
1,1 Dichloroethene Leachate	mg/L	0.020	<0.020
Dichloromethane Leachate	mg/L	0.030	<0.030
Methyl Ethyl Ketone Leachate	mg/L	0.090	<0.090
Chloroform Leachate	mg/L	0.020	<0.020
1,2-Dichloroethane Leachate	mg/L	0.020	<0.020
Carbon Tetrachloride Leachate	mg/L	0.020	<0.020
Benzene Leachate	mg/L	0.020	<0.020
Trichloroethene Leachate	mg/L	0.020	<0.020
Tetrachloroethene Leachate	mg/L	0.050	<0.050
Chlorobenzene Leachate	mg/L	0.010	<0.010
1,2-Dichlorobenzene Leachate	mg/L	0.010	<0.010
1,4-Dichlorobenzene Leachate	mg/L	0.010	<0.010
Surrogate	Unit	Acceptable Limits	
Toluene-d8	% Recovery	50-140	94
4-Bromofluorobenzene	% Recovery	50-140	89

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils \*\*pH range listed applies to surface soil only\*\*  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

6492899 Sample was prepared using Regulation 558 protocol and a zero headspace extractor.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:

## Quality Assurance

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
 PROJECT: 8714 Tadjell Strathroy  
 SAMPLING SITE: 502 Darcy Drive, Strathroy, ON

AGAT WORK ORDER: 25T243243  
 ATTENTION TO: Ali Rasoul  
 SAMPLED BY: J. Allen

Soil Analysis														
RPT Date: Feb 07, 2025			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE		MATRIX SPIKE	
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits
							Lower	Upper	Lower		Upper	Lower		Upper

O. Reg. 153(511) - Metals (Including Hydrides) (Soil)															
Antimony	6492878	6492878	<0.8	<0.8	NA	< 0.8	101%	70%	130%	82%	80%	120%	78%	70%	130%
Arsenic	6492878	6492878	4	4	NA	< 1	114%	70%	130%	99%	80%	120%	103%	70%	130%
Barium	6492878	6492878	57.4	59.3	3.3%	< 2.0	117%	70%	130%	99%	80%	120%	121%	70%	130%
Beryllium	6492878	6492878	0.5	0.5	NA	< 0.5	108%	70%	130%	110%	80%	120%	117%	70%	130%
Boron	6492878	6492878	11	11	NA	< 5	86%	70%	130%	94%	80%	120%	91%	70%	130%
Cadmium	6492878	6492878	<0.5	<0.5	NA	< 0.5	115%	70%	130%	106%	80%	120%	117%	70%	130%
Chromium	6492878	6492878	18	19	NA	< 5	110%	70%	130%	110%	80%	120%	117%	70%	130%
Cobalt	6492878	6492878	7.3	7.4	1.5%	< 0.8	101%	70%	130%	109%	80%	120%	107%	70%	130%
Copper	6492878	6492878	15.8	15.6	1.7%	< 1.0	95%	70%	130%	105%	80%	120%	97%	70%	130%
Lead	6492878	6492878	8	8	2.7%	< 1	107%	70%	130%	104%	80%	120%	109%	70%	130%
Molybdenum	6492878	6492878	<0.5	<0.5	NA	< 0.5	115%	70%	130%	107%	80%	120%	122%	70%	130%
Nickel	6492878	6492878	17	17	3.1%	< 1	105%	70%	130%	106%	80%	120%	104%	70%	130%
Selenium	6492878	6492878	<0.8	<0.8	NA	< 0.8	103%	70%	130%	99%	80%	120%	113%	70%	130%
Silver	6492878	6492878	<0.5	<0.5	NA	< 0.5	113%	70%	130%	103%	80%	120%	112%	70%	130%
Thallium	6492878	6492878	<0.5	<0.5	NA	< 0.5	117%	70%	130%	100%	80%	120%	105%	70%	130%
Uranium	6492878	6492878	0.57	0.59	NA	< 0.50	115%	70%	130%	93%	80%	120%	109%	70%	130%
Vanadium	6492878	6492878	26.7	27.0	1.0%	< 2.0	108%	70%	130%	107%	80%	120%	110%	70%	130%
Zinc	6492878	6492878	39	40	2.3%	< 5	101%	70%	130%	106%	80%	120%	107%	70%	130%

Comments: NA Signifies Not Applicable.  
 Duplicate NA: results are under 5X the RDL and will not be calculated.

O. Reg. 558 - Metals & Inorganics

Arsenic Leachate	6496816		<0.010	<0.010	NA	< 0.010	106%	70%	130%	114%	80%	120%	118%	70%	130%
Barium Leachate	6496816		0.314	0.317	1.0%	< 0.020	107%	70%	130%	110%	80%	120%	120%	70%	130%
Boron Leachate	6496816		<0.050	<0.050	NA	< 0.050	94%	70%	130%	103%	80%	120%	104%	70%	130%
Cadmium Leachate	6496816		<0.010	<0.010	NA	< 0.010	103%	70%	130%	109%	80%	120%	116%	70%	130%
Chromium Leachate	6496816		<0.050	<0.050	NA	< 0.050	107%	70%	130%	117%	80%	120%	112%	70%	130%
Lead Leachate	6496816		<0.010	<0.010	NA	< 0.010	99%	70%	130%	108%	80%	120%	104%	70%	130%
Mercury Leachate	6496816		<0.01	<0.01	NA	< 0.01	99%	70%	130%	99%	80%	120%	93%	70%	130%
Selenium Leachate	6496816		<0.020	<0.020	NA	0.133	107%	70%	130%	117%	80%	120%	116%	70%	130%
Silver Leachate	6496816		<0.010	<0.010	NA	< 0.010	105%	70%	130%	104%	80%	120%	109%	70%	130%
Uranium Leachate	6496816		<0.050	<0.050	NA	< 0.050	100%	70%	130%	117%	80%	120%	110%	70%	130%
Fluoride Leachate	6496816		0.12	0.10	NA	< 0.10	95%	90%	110%	93%	90%	110%	74%	70%	130%
Cyanide Leachate	6496816		<0.05	<0.05	NA	< 0.05	80%	70%	130%	93%	80%	120%	111%	70%	130%
(Nitrate + Nitrite) as N Leachate	6496816		<0.70	<0.70	NA	< 0.70	98%	80%	120%	94%	80%	120%	116%	70%	130%

Comments: NA signifies Not Applicable.  
 Duplicate NA: results are under 5X the RDL and will not be calculated.

## Quality Assurance

 CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
 PROJECT: 8714 Tadjell Strathroy  
 SAMPLING SITE: 502 Darcy Drive, Strathroy, ON

 AGAT WORK ORDER: 25T243243  
 ATTENTION TO: Ali Rasoul  
 SAMPLED BY: J. Allen

### Soil Analysis (Continued)

RPT Date: Feb 07, 2025			DUPLICATE			Method Blank	REFERENCE MATERIAL		METHOD BLANK SPIKE		MATRIX SPIKE				
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

Certified By: \_\_\_\_\_



*Nivine Basily*

## Quality Assurance

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
PROJECT: 8714 Tadjell Strathroy  
SAMPLING SITE: 502 Darcy Drive, Strathroy, ON

AGAT WORK ORDER: 25T243243  
ATTENTION TO: Ali Rasoul  
SAMPLED BY: J. Allen

### Trace Organics Analysis

RPT Date: Feb 07, 2025			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

**O. Reg. 153(511) - PAHs (Soil)**

Naphthalene	6492889	6492889	<0.05	<0.05	NA	< 0.05	99%	50%	140%	90%	50%	140%	75%	50%	140%
Acenaphthylene	6492889	6492889	<0.05	<0.05	NA	< 0.05	100%	50%	140%	83%	50%	140%	75%	50%	140%
Acenaphthene	6492889	6492889	<0.05	<0.05	NA	< 0.05	103%	50%	140%	85%	50%	140%	83%	50%	140%
Fluorene	6492889	6492889	<0.05	<0.05	NA	< 0.05	112%	50%	140%	78%	50%	140%	103%	50%	140%
Phenanthrene	6492889	6492889	<0.05	<0.05	NA	< 0.05	79%	50%	140%	80%	50%	140%	78%	50%	140%
Anthracene	6492889	6492889	<0.05	<0.05	NA	< 0.05	113%	50%	140%	88%	50%	140%	88%	50%	140%
Fluoranthene	6492889	6492889	<0.05	<0.05	NA	< 0.05	122%	50%	140%	80%	50%	140%	100%	50%	140%
Pyrene	6492889	6492889	<0.05	<0.05	NA	< 0.05	113%	50%	140%	80%	50%	140%	100%	50%	140%
Benzo(a)anthracene	6492889	6492889	<0.05	<0.05	NA	< 0.05	96%	50%	140%	78%	50%	140%	78%	50%	140%
Chrysene	6492889	6492889	<0.05	<0.05	NA	< 0.05	111%	50%	140%	88%	50%	140%	98%	50%	140%
Benzo(b)fluoranthene	6492889	6492889	<0.05	<0.05	NA	< 0.05	105%	50%	140%	90%	50%	140%	90%	50%	140%
Benzo(k)fluoranthene	6492889	6492889	<0.05	<0.05	NA	< 0.05	113%	50%	140%	85%	50%	140%	95%	50%	140%
Benzo(a)pyrene	6492889	6492889	<0.05	<0.05	NA	< 0.05	85%	50%	140%	90%	50%	140%	85%	50%	140%
Indeno(1,2,3-cd)pyrene	6492889	6492889	<0.05	<0.05	NA	< 0.05	83%	50%	140%	90%	50%	140%	73%	50%	140%
Dibenz(a,h)anthracene	6492889	6492889	<0.05	<0.05	NA	< 0.05	93%	50%	140%	88%	50%	140%	75%	50%	140%
Benzo(g,h,i)perylene	6492889	6492889	<0.05	<0.05	NA	< 0.05	105%	50%	140%	83%	50%	140%	95%	50%	140%

**O. Reg. 153(511) - PHCs F1 - F4 (Soil)**

Benzene	6495755		<0.02	<0.02	NA	< 0.02	83%	60%	140%	110%	60%	140%	75%	60%	140%
Toluene	6495755		<0.05	<0.05	NA	< 0.05	77%	60%	140%	108%	60%	140%	70%	60%	140%
Ethylbenzene	6495755		<0.05	<0.05	NA	< 0.05	111%	60%	140%	110%	60%	140%	106%	60%	140%
m & p-Xylene	6495755		<0.05	<0.05	NA	< 0.05	85%	60%	140%	99%	60%	140%	89%	60%	140%
o-Xylene	6495755		<0.05	<0.05	NA	< 0.05	65%	60%	140%	103%	60%	140%	68%	60%	140%
F1 (C6 to C10)	6495755		<5	<5	NA	< 5	113%	60%	140%	85%	60%	140%	89%	60%	140%
F2 (C10 to C16)	6492889	6492889	< 10	< 10	NA	< 10	113%	60%	140%	101%	60%	140%	95%	60%	140%
F3 (C16 to C34)	6492889	6492889	< 50	< 50	NA	< 50	113%	60%	140%	107%	60%	140%	87%	60%	140%
F4 (C34 to C50)	6492889	6492889	< 50	< 50	NA	< 50	92%	60%	140%	82%	60%	140%	74%	60%	140%

**O. Reg. 558 - VOCs**

Vinyl Chloride Leachate	6323433		<0.030	<0.030	NA	< 0.030	105%	50%	140%	112%	50%	140%	113%	50%	140%
1,1 Dichloroethene Leachate	6323433		<0.020	<0.020	NA	< 0.020	67%	50%	140%	69%	60%	130%	89%	50%	140%
Dichloromethane Leachate	6323433		<0.030	<0.030	NA	< 0.030	95%	50%	140%	90%	60%	130%	98%	50%	140%
Methyl Ethyl Ketone Leachate	6323433		<0.090	<0.090	NA	< 0.090	100%	50%	140%	111%	50%	140%	96%	50%	140%
Chloroform Leachate	6323433		<0.020	<0.020	NA	< 0.020	83%	50%	140%	108%	60%	130%	72%	50%	140%
1,2-Dichloroethane Leachate	6323433		<0.020	<0.020	NA	< 0.020	72%	50%	140%	97%	60%	130%	110%	50%	140%
Carbon Tetrachloride Leachate	6323433		<0.020	<0.020	NA	< 0.020	88%	50%	140%	91%	60%	130%	93%	50%	140%
Benzene Leachate	6323433		<0.020	<0.020	NA	< 0.020	89%	50%	140%	111%	60%	130%	112%	50%	140%
Trichloroethene Leachate	6323433		<0.020	<0.020	NA	< 0.020	85%	50%	140%	107%	60%	130%	107%	50%	140%
Tetrachloroethene Leachate	6323433		<0.050	<0.050	NA	< 0.050	102%	50%	140%	102%	60%	130%	100%	50%	140%
Chlorobenzene Leachate	6323433		<0.010	<0.010	NA	< 0.010	100%	50%	140%	106%	60%	130%	100%	50%	140%

## Quality Assurance

 CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
 PROJECT: 8714 Tadjell Strathroy  
 SAMPLING SITE: 502 Darcy Drive, Strathroy, ON

 AGAT WORK ORDER: 25T243243  
 ATTENTION TO: Ali Rasoul  
 SAMPLED BY: J. Allen

### Trace Organics Analysis (Continued)

RPT Date: Feb 07, 2025			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
1,2-Dichlorobenzene Leachate	6323433		<0.010	<0.010	NA	< 0.010	102%	50%	140%	86%	60%	130%	102%	50%	140%
1,4-Dichlorobenzene Leachate	6323433		<0.010	<0.010	NA	< 0.010	106%	50%	140%	82%	60%	130%	99%	50%	140%
O. Reg. 558 - SVOCs															
Pyridine Leachate	6491807		< 0.010	< 0.010	NA	< 0.010	97%	50%	140%	88%	50%	140%	79%	50%	140%
o-Cresol Leachate	6491807		< 0.004	< 0.004	NA	< 0.004	96%	50%	140%	97%	50%	140%	80%	50%	140%
Meta & Para-Cresol Leachate	6491807		< 0.008	< 0.008	NA	< 0.008	65%	50%	140%	80%	50%	140%	77%	50%	140%
Hexachloroethane Leachate	6491807		< 0.004	< 0.004	NA	< 0.004	90%	50%	140%	120%	50%	140%	102%	50%	140%
Nitrobenzene Leachate	6491807		< 0.004	< 0.004	NA	< 0.004	100%	50%	140%	106%	50%	140%	107%	50%	140%
Hexachlorobutadiene Leachate	6491807		< 0.004	< 0.004	NA	< 0.004	91%	50%	140%	103%	50%	140%	101%	50%	140%
2,4,6-Trichlorophenol Leachate	6491807		< 0.05	< 0.05	NA	< 0.05	80%	50%	140%	105%	50%	140%	68%	50%	140%
2,4,5-Trichlorophenol Leachate	6491807		< 0.004	< 0.004	NA	< 0.004	103%	50%	140%	101%	50%	140%	94%	50%	140%
2,4-Dinitrotoluene Leachate	6491807		< 0.004	< 0.004	NA	< 0.004	79%	50%	140%	111%	50%	140%	99%	50%	140%
2,3,4,6-Tetrachlorophenol Leachate	6491807		< 0.004	< 0.004	NA	< 0.004	106%	50%	140%	70%	50%	140%	65%	50%	140%
Hexachlorobenzene Leachate	6491807		< 0.004	< 0.004	NA	< 0.004	101%	50%	140%	62%	50%	140%	83%	50%	140%
Dinoseb Leachate	6491807		< 0.004	< 0.004	NA	< 0.004	103%	50%	140%	77%	50%	140%	103%	50%	140%
Benzo(a)pyrene Leachate	6491807		< 0.001	< 0.001	NA	< 0.001	79%	50%	140%	85%	50%	140%	82%	50%	140%
Pentachlorophenol Leachate	6491807		< 0.006	< 0.006	NA	< 0.006	82%	50%	140%	101%	50%	140%	98%	50%	140%
O. Reg. 558 - PCBs															
PCB's Leachate	6454698		< 0.005	< 0.005	NA	< 0.005	106%	50%	140%	89%	50%	140%	86%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By:





## Method Summary

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
 PROJECT: 8714 Tadjell Strathroy  
 SAMPLING SITE: 502 Darcy Drive, Strathroy, ON

AGAT WORK ORDER: 25T243243  
 ATTENTION TO: Ali Rasoul  
 SAMPLED BY: J. Allen

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Arsenic	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Barium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Beryllium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Cadmium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Cobalt	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Copper	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Lead	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Molybdenum	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Nickel	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Selenium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Silver	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Thallium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Uranium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Vanadium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Zinc	MET 93 -6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Arsenic Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B	ICP-MS
Barium Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B	ICP-MS
Boron Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B	ICP-MS
Cadmium Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B	ICP-MS
Chromium Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B	ICP-MS
Lead Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B	ICP-MS
Mercury Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B	ICP-MS
Selenium Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B	ICP-MS
Silver Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B	ICP-MS
Uranium Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B	ICP-MS
Fluoride Leachate	INOR-93-6000	EPA SW 846-1311; SM 4500F-C	ION SELECTIVE ELECTRODE
Cyanide Leachate	INOR-93-6052	EPA 1311 modified from MOE 3015 SM 4500 CN-I,G387	SEGMENTED FLOW ANALYSIS
(Nitrate + Nitrite) as N Leachate	INOR-93-6053	EPA SW 846-1311 & modified from SM 4500 - NO3- I	LACHAT FIA



## Method Summary

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
 PROJECT: 8714 Tadjell Strathroy  
 SAMPLING SITE: 502 Darcy Drive, Strathroy, ON

AGAT WORK ORDER: 25T243243  
 ATTENTION TO: Ali Rasoul  
 SAMPLED BY: J. Allen

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluorene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Phenanthrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(a)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Chrysene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Naphthalene-d8	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acridine-d9	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Terphenyl-d14	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Moisture Content	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Benzene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
Toluene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
Ethylbenzene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
m & p-Xylene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
o-Xylene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
Xylenes (Total)	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
F1 (C6 to C10)	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	modified from CCME Tier 1 Method	P&T GC/FID
Toluene-d8	VOL-91-5009	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
F2 (C10 to C16)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID

## Method Summary

CLIENT NAME: A &amp; A ENVIRONMENTAL CONSULTANTS INC

AGAT WORK ORDER: 25T243243

PROJECT: 8714 Tadjell Strathroy

ATTENTION TO: Ali Rasoul

SAMPLING SITE: 502 Darcy Drive, Strathroy, ON

SAMPLED BY: J. Allen

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Gravimetric Heavy Hydrocarbons	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
PCB's Leachate	ORG-91-5112	Regulation 558, EPA SW846 3510C/8082	GC/ECD
Decachlorobiphenyl	ORG-91-5112	EPA SW846 3510C/8082	GC/ECD
Pyridine Leachate	ORG-91-5114	modified from EPA 3510C, 8270E & ON MOECC E3265	GC/MS
Cresols Leachate	ORG-91-5114	modified from EPA 3510C, 8270E & ON MOECC E3265	CALCULATION
o-Cresol Leachate	ORG-91-5114	modified from EPA 3510C, 8270E & ON MOECC E3265	GC/MS
Meta & Para-Cresol Leachate	ORG-91-5114	modified from EPA 3510C, 8270E & ON MOECC E3265	GC/MS
Hexachloroethane Leachate	ORG-91-5114	modified from EPA 3510C, 8270E & ON MOECC E3265	GC/MS
Nitrobenzene Leachate	ORG-91-5114	modified from EPA 3510C, 8270E & ON MOECC E3265	GC/MS
Hexachlorobutadiene Leachate	ORG-91-5114	modified from EPA 3510C, 8270E & ON MOECC E3265	GC/MS
2,4,6-Trichlorophenol Leachate	ORG-91-5114	modified from EPA 3510C, 8270E & ON MOECC E3265	GC/MS
2,4,5-Trichlorophenol Leachate	ORG-91-5114	modified from EPA 3510C, 8270E & ON MOECC E3265	GC/MS
2,4-Dinitrotoluene Leachate	ORG-91-5114	modified from EPA 3510C, 8270E & ON MOECC E3265	GC/MS
2,3,4,6-Tetrachlorophenol Leachate	ORG-91-5114	modified from EPA 3510C, 8270E & ON MOECC E3265	GC/MS
Hexachlorobenzene Leachate	ORG-91-5114	modified from EPA 3510C, 8270E & ON MOECC E3265	GC/MS
Dinoseb Leachate	ORG-91-5114	modified from EPA 3510C, 8270E & ON MOECC E3265	GC/MS
Benzo(a)pyrene Leachate	ORG-91-5114	modified from EPA 3510C, 8270E & ON MOECC E3265	GC/MS
Pentachlorophenol Leachate	ORG-91-5114	modified from EPA 3510C, 8270E & ON MOECC E3265	GC/MS
2-Fluorophenol	ORG-91-5114	modified from EPA 3510C, 8270E & ON MOECC E3265	GC/MS
Phenol-d6	ORG-91-5114	modified from EPA 3510C, 8270E & ON MOECC E3265	GC/MS
2,4,6-Tribromophenol	ORG-91-5114	modified from EPA 3510C, 8270E & ON MOECC E3265	GC/MS
Chrysene-d12	ORG-91-5114	modified from EPA 3510C, 8270E & ON MOECC E3265	GC/MS
Vinyl Chloride Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
1,1 Dichloroethene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Dichloromethane Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Methyl Ethyl Ketone Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Chloroform Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
1,2-Dichloroethane Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS

## Method Summary

CLIENT NAME: A &amp; A ENVIRONMENTAL CONSULTANTS INC

AGAT WORK ORDER: 25T243243

PROJECT: 8714 Tadgell Strathroy

ATTENTION TO: Ali Rasoul

SAMPLING SITE: 502 Darcy Drive, Strathroy, ON

SAMPLED BY: J. Allen

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Carbon Tetrachloride Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Benzene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Trichloroethene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Tetrachloroethene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Chlorobenzene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
1,2-Dichlorobenzene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
1,4-Dichlorobenzene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91- 5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS



# AGAT Laboratories

5835 Coopers Avenue  
Mississauga, Ontario L4Z 1Y2  
Ph: 905.712.5100 Fax: 905.712.5122  
webearth.agatlabs.com

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

### Report Information:

Company: A & A Environmental Consultants Inc.  
Contact: Dr. Ali Rasoul  
Address: 16 Young St  
Woodstock, ON  
Phone: 519-266-4680 Fax: 519-266-3666  
Reports to be sent to: arasoul@aaenvironmental.ca, vsowden@  
1. Email: sscott@"; tdemers@"; ckennedy@  
2. Email:

### Regulatory Requirements:

No Regulatory Requirement  
(Please check all applicable boxes)  
 Regulation 153/04  
Table 2 Indicate One  
 Ind/Com  
 Res/Park  
 Agriculture  
Soil Texture (Check One)  
 Coarse  
 Fine  
Region                      Indicate One  
 Sewer Use  
 Sanitary  
 Storm  
 MISA  
 Regulation 558  
 CCME  
 Prov. Water Quality Objectives (PWQO)  
 Other Indicate One

### Project Information:

Project: 8714 Tadgeil Strathroy  
Site Location: 502 Darcy Drive, Strathroy, ON  
Sampled By: J. Allen  
AGAT Quote #: 16288129079 PO:                       
Please note: If quotation number is not provided, client will be billed full price for analysis.

### Is this submission for a Record of Site Condition?

Yes  No

### Report Guideline on Certificate of Analysis

Yes  No

### Invoice Information:

Company:                       
Contact:                       
Address:                       
Email:                       
Bill To Same: Yes  No

### Sample Matrix Legend

**B** Biota  
**GW** Ground Water  
**O** Oil  
**P** Paint  
**S** Soil  
**SD** Sediment  
**SW** Surface Water

Field Filtered - Metals, Hg, CVI	O. Reg 153	Metals and Inorganics	ORPs	Full Metals Scan	Regulatory/Custom Metals	Nutrients	Volatiles	PHCs Fl - F4	ABNS	PAHs	PCBs: Total	Organochlorine Pesticides	TOLP: M&I	Sewer Use	Metals Soil 93-101	Metals Water 93-196	CCME Fl-F4/VOCs Soil 91-248	CCME Fl-F4/VOCs Water 91-249	CCME Fl-F4/BTEX Water 91-315	Sieve & texture (75 Micron)	
		<input type="checkbox"/> All Metals <input type="checkbox"/> 153 Metals (excl. Hydrides)	<input type="checkbox"/> B-HWS <input type="checkbox"/> Cl <input type="checkbox"/> CN			<input type="checkbox"/> TP <input type="checkbox"/> NH <sub>3</sub> <input type="checkbox"/> TKN	<input type="checkbox"/> VOC <input type="checkbox"/> BTEX <input type="checkbox"/> THM				<input type="checkbox"/> Total <input type="checkbox"/> Aroclors		<input type="checkbox"/> M&I <input type="checkbox"/> VOCs <input type="checkbox"/> ABNS <input type="checkbox"/> B(a)P <input type="checkbox"/> PCBs		<input type="checkbox"/> 93-101						
		<input type="checkbox"/> Hydride Metals <input type="checkbox"/> 153 Metals (incl. Hydrides)	<input type="checkbox"/> EC <input type="checkbox"/> FO <input type="checkbox"/> Hg			<input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> N <sub>2</sub> <input type="checkbox"/> N <sub>2</sub> O		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> Cd <input type="checkbox"/> Pb <input type="checkbox"/> Zn					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> Cu <input type="checkbox"/> Ni <input type="checkbox"/> Cr					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> Mn <input type="checkbox"/> Fe					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> As <input type="checkbox"/> Se					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> Mo <input type="checkbox"/> Ag					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> Au <input type="checkbox"/> Hg					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> Bi <input type="checkbox"/> Pb					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> Cr <input type="checkbox"/> Ni					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> Cu <input type="checkbox"/> Zn					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> Cd <input type="checkbox"/> Ni					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> Cr <input type="checkbox"/> Pb					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> As <input type="checkbox"/> Se					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> Mo <input type="checkbox"/> Ag					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> Au <input type="checkbox"/> Hg					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> Bi <input type="checkbox"/> Pb					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> Cr <input type="checkbox"/> Ni					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> Cu <input type="checkbox"/> Zn					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> Cd <input type="checkbox"/> Ni					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> Cr <input type="checkbox"/> Pb					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> As <input type="checkbox"/> Se					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> Mo <input type="checkbox"/> Ag					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> Au <input type="checkbox"/> Hg					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
			<input type="checkbox"/> Bi <input type="checkbox"/> Pb					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						

Samples Relinquished By (Print Name and Sign) Jason Allen <u>Allen</u>	Date 01/29/2025	Time 4:30 PM	Samples Received By (Print Name and Sign) <u>John</u>	Date Jan 30	Time 2:40 PM
Samples Relinquished By (Print Name and Sign)	Date	Time	Samples Received By (Print Name and Sign)	Date	Time
Samples Relinquished By (Print Name and Sign)	Date	Time	Samples Received By (Print Name and Sign)	Date	Time

**Laboratory Use Only**  
Work Order #: 25T243243  
Cooler Quantity: 119  
Arrival Temperatures: 3.3 | 3.8 | 4.0  
Custody Seal Intact:  Yes  No  N/A  
Notes: #1 L 04

**Turnaround Time (TAT) Required:**  
**Regular TAT**  5 to 7 Business Days  
**Rush TAT (Rush Surcharges Apply)**  
 3 Business Days  2 Business Days  Next Business Day  
**OR** Date Required (Rush Surcharges May Apply):  
                      
Please provide prior notification for rush TAT  
\*TAT is exclusive of weekends and statutory holidays  
**For 'Same Day' analysis, please contact your AGAT CPM**



CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
16 Young Street  
WOODSTOCK, ON N4S3L4  
(519) 266-4680

ATTENTION TO: Ali Rasoul  
PROJECT: 8714 - Tadjell Strathroy

AGAT WORK ORDER: 25T251960

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist  
WATER ANALYSIS REVIEWED BY: Nivine Basily, Inorganic Team Lead

DATE REPORTED: Mar 03, 2025

PAGES (INCLUDING COVER): 20

VERSION\*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

\*Notes

**Disclaimer:**

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.
- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.



## Certificate of Analysis

AGAT WORK ORDER: 25T251960

PROJECT: 8714 - Tadjell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
SAMPLING SITE: 502 Darcy Drive, Strathroy

ATTENTION TO: Ali Rasoul  
SAMPLED BY: J.O.

### O. Reg. 153(511) - PAHs (Water)

DATE RECEIVED: 2025-02-25

DATE REPORTED: 2025-03-03

Parameter	Unit	SAMPLE DESCRIPTION:		MWOLD-N	MWOLD-NW	MW202-19	MW201-19	MW203-19	MW104-19	MW211-19	MW208-19
		SAMPLE TYPE:		Water	Water	Water	Water	Water	Water	Water	Water
		DATE SAMPLED:		2025-02-25	2025-02-25	2025-02-25	2025-02-25	2025-02-25	2025-02-25	2025-02-25	2025-02-25
		G / S	RDL	6544572	6544573	6544574	6544575	6544576	6544577	6544578	6544579
Naphthalene	µg/L	11	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Acenaphthylene	µg/L	1	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Acenaphthene	µg/L	4.1	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Fluorene	µg/L	120	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Phenanthrene	µg/L	1	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Anthracene	µg/L	2.4	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Fluoranthene	µg/L	0.41	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Pyrene	µg/L	4.1	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzo(a)anthracene	µg/L	1	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chrysene	µg/L	0.1	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo(b)fluoranthene	µg/L	0.1	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo(k)fluoranthene	µg/L	0.1	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo(a)pyrene	µg/L	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno(1,2,3-cd)pyrene	µg/L	0.2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dibenz(a,h)anthracene	µg/L	0.2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzo(g,h,i)perylene	µg/L	0.2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
2-and 1-methyl Naphthalene	µg/L	3.2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Sediment				1	1	1	1	1	1	3	1
Surrogate	Unit	Acceptable Limits									
Naphthalene-d8	%	50-140		77	70	112	97	119	99	103	82
Acridine-d9	%	50-140		80	86	101	111	82	97	101	115
Terphenyl-d14	%	50-140		76	71	108	82	93	86	84	80

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 25T251960

PROJECT: 8714 - Tadjell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
SAMPLING SITE: 502 Darcy Drive, Strathroy

ATTENTION TO: Ali Rasoul  
SAMPLED BY: J.O.

### O. Reg. 153(511) - PAHs (Water)

DATE RECEIVED: 2025-02-25

DATE REPORTED: 2025-03-03

Parameter	Unit	SAMPLE DESCRIPTION:		MW103-19	Duplicate	Field Blank
		G / S	RDL	2025-02-25	2025-02-25	2025-02-25
Naphthalene	µg/L	11	0.20	<0.20	<0.20	<0.20
Acenaphthylene	µg/L	1	0.20	<0.20	<0.20	<0.20
Acenaphthene	µg/L	4.1	0.20	<0.20	<0.20	<0.20
Fluorene	µg/L	120	0.20	<0.20	<0.20	<0.20
Phenanthrene	µg/L	1	0.10	<0.10	<0.10	<0.10
Anthracene	µg/L	2.4	0.10	<0.10	<0.10	<0.10
Fluoranthene	µg/L	0.41	0.20	<0.20	<0.20	<0.20
Pyrene	µg/L	4.1	0.20	<0.20	<0.20	<0.20
Benzo(a)anthracene	µg/L	1	0.20	<0.20	<0.20	<0.20
Chrysene	µg/L	0.1	0.10	<0.10	<0.10	<0.10
Benzo(b)fluoranthene	µg/L	0.1	0.10	<0.10	<0.10	<0.10
Benzo(k)fluoranthene	µg/L	0.1	0.10	<0.10	<0.10	<0.10
Benzo(a)pyrene	µg/L	0.01	0.01	<0.01	<0.01	<0.01
Indeno(1,2,3-cd)pyrene	µg/L	0.2	0.20	<0.20	<0.20	<0.20
Dibenz(a,h)anthracene	µg/L	0.2	0.20	<0.20	<0.20	<0.20
Benzo(g,h,i)perylene	µg/L	0.2	0.20	<0.20	<0.20	<0.20
2-and 1-methyl Naphthalene	µg/L	3.2	0.20	<0.20	<0.20	<0.20
Sediment				1	1	1
Surrogate	Unit	Acceptable Limits				
Naphthalene-d8	%	50-140		103	100	74
Acridine-d9	%	50-140		96	83	113
Terphenyl-d14	%	50-140		83	76	72

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Potable Ground Water - All Types of Property Uses - Coarse Textured Soils

Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

6544572-6544582 Sediment parameter is comment only based on visual inspection of the sample prior to extraction and is not an accredited test.

Legend: 1 = no sediment present; 2 = sediment present; 3 = sediment present in trace amount

Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&(j)Fluoranthene isomers because the isomers co-elute on the GC column.

2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 25T251960

PROJECT: 8714 - Tadjell Strathroy

5835 COOPERS AVENUE  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1Y2  
 TEL (905)712-5100  
 FAX (905)712-5122  
<http://www.agatlabs.com>

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 SAMPLING SITE: 502 Darcy Drive, Strathroy

ATTENTION TO: Ali Rasoul  
 SAMPLED BY: J.O.

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Water)

DATE RECEIVED: 2025-02-25

DATE REPORTED: 2025-03-03

Parameter	Unit	SAMPLE DESCRIPTION:		MW211-19	MW208-19	Field Blank
		G / S	RDL	6544578	6544579	6544582
F1 (C6 to C10)	µg/L	750	25	<25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L	750	25	<25	<25	<25
F2 (C10 to C16)	µg/L	150	100	<100	<100	<100
F2 (C10 to C16) minus Naphthalene	µg/L		100	<100	<100	<100
F3 (C16 to C34)	µg/L	500	100	<100	<100	<100
F3 (C16 to C34) minus PAHs	µg/L		100	<100	<100	<100
F4 (C34 to C50)	µg/L	500	100	<100	<100	<100
Gravimetric Heavy Hydrocarbons	µg/L		500	NA	NA	NA
Sediment				3	1	1
Surrogate	Unit	Acceptable Limits				
Toluene-d8	%	50-140		100	102	99
Terphenyl	% Recovery	60-140		78	75	94

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5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
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CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC

ATTENTION TO: Ali Rasoul

SAMPLING SITE: 502 Darcy Drive, Strathroy

SAMPLED BY: J.O.

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Water)

DATE RECEIVED: 2025-02-25

DATE REPORTED: 2025-03-03

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Potable Ground Water - All Types of Property Uses - Coarse Textured Soils

Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

6544578-6544582 The C6-C10 fraction is calculated using toluene response factor.

C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.

Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.

The chromatogram has returned to baseline by the retention time of nC50.

Total C6 - C50 results are corrected for BTEX and PAH contributions.

C>10 - C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.

C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).

This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.

nC10, nC16 and nC34 response factors are within 10% of their average.

C50 response factor is within 70% of nC10 + nC16 + nC34 average.

Linearity is within 15%.

Extraction and holding times were met for this sample.

Sediment parameter is comment only based on visual inspection of the sample prior to extraction and is not an accredited test.

Legend: 1 = no sediment present; 2 = sediment present; 3 = sediment present in trace amounts

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

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PROJECT: 8714 - Tadjell Strathroy

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CANADA L4Z 1Y2  
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ATTENTION TO: Ali Rasoul

SAMPLING SITE: 502 Darcy Drive, Strathroy

SAMPLED BY: J.O.

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Water)

DATE RECEIVED: 2025-02-25

DATE REPORTED: 2025-03-03

Parameter	Unit	SAMPLE DESCRIPTION:		MWOLD-N	MWOLD-NW	MW202-19	MW201-19	MW203-19	MW104-19	MW103-19	Duplicate
		SAMPLE TYPE:		Water	Water	Water	Water	Water	Water	Water	Water
		G / S	RDL	2025-02-25	2025-02-25	2025-02-25	2025-02-25	2025-02-25	2025-02-25	2025-02-25	2025-02-25
Benzene	µg/L	5.0	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	µg/L	24	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene	µg/L	2.4	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
o-Xylene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Xylenes (Total)	µg/L	300	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
F1 (C6 to C10)	µg/L	750	25	<25	<25	<25	<25	<25	<25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L	750	25	<25	<25	<25	<25	<25	<25	<25	<25
F2 (C10 to C16)	µg/L	150	100	<100	<100	<100	<100	<100	<100	<100	<100
F2 (C10 to C16) minus Naphthalene	µg/L		100	<100	<100	<100	<100	<100	<100	<100	<100
F3 (C16 to C34)	µg/L	500	100	<100	<100	<100	<100	<100	<100	<100	<100
F3 (C16 to C34) minus PAHs	µg/L		100	<100	<100	<100	<100	<100	<100	<100	<100
F4 (C34 to C50)	µg/L	500	100	<100	<100	<100	<100	<100	<100	<100	<100
Gravimetric Heavy Hydrocarbons	µg/L		500	NA	NA	NA	NA	NA	NA	NA	NA
Sediment				1	1	1	1	1	1	1	1
Surrogate	Unit	Acceptable Limits									
Toluene-d8	% Recovery	60-140		100	106	106	99	102	106	109	108
Terphenyl	% Recovery	60-140		88	97	84	74	83	97	98	75

Certified By:



## Certificate of Analysis

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### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Water)

DATE RECEIVED: 2025-02-25

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Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Potable Ground Water - All Types of Property Uses - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

6544572-6544581 Sediment parameter is comment only based on visual inspection of the sample prior to extraction and is not an accredited test.  
Legend: 1 = no sediment present; 2 = sediment present; 3 = sediment present in trace amount  
The C6-C10 fraction is calculated using toluene response factor.  
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.  
C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.  
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.  
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.  
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.  
The chromatogram has returned to baseline by the retention time of nC50.  
Total C6 - C50 results are corrected for BTEX and PAH contributions.  
C>10 - C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.  
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).  
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.  
nC10, nC16 and nC34 response factors are within 10% of their average.  
C50 response factor is within 70% of nC10 + nC16 + nC34 average.  
Linearity is within 15%.  
Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 25T251960

PROJECT: 8714 - Tadjell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC

SAMPLING SITE: 502 Darcy Drive, Strathroy

ATTENTION TO: Ali Rasoul

SAMPLED BY: J.O.

### O. Reg. 153(511) - VOCs (with PHC) (Water)

DATE RECEIVED: 2025-02-25

DATE REPORTED: 2025-03-03

Parameter	Unit	SAMPLE DESCRIPTION:		MW211-19	MW208-19	Field Blank
		SAMPLE TYPE:		Water	Water	Water
		DATE SAMPLED:		2025-02-25	2025-02-25	2025-02-25
	G / S	RDL	6544578	6544579	6544582	
Dichlorodifluoromethane	µg/L	590	0.40	<0.40	<0.40	<0.40
Vinyl Chloride	µg/L	0.5	0.17	<0.17	<0.17	<0.17
Bromomethane	µg/L	0.89	0.20	<0.20	<0.20	<0.20
Trichlorofluoromethane	µg/L	150	0.40	<0.40	<0.40	<0.40
Acetone	µg/L	2700	1.0	<1.0	<1.0	<1.0
1,1-Dichloroethylene	µg/L	1.6	0.30	<0.30	<0.30	<0.30
Methylene Chloride	µg/L	50	0.30	<0.30	<0.30	<0.30
trans- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20
Methyl tert-butyl ether	µg/L	15	0.20	<0.20	<0.20	<0.20
1,1-Dichloroethane	µg/L	5	0.30	<0.30	<0.30	<0.30
Methyl Ethyl Ketone	µg/L	1800	1.0	<1.0	<1.0	<1.0
cis- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20
Chloroform	µg/L	2.4	0.20	<0.20	<0.20	<0.20
1,2-Dichloroethane	µg/L	1.6	0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	µg/L	200	0.30	<0.30	<0.30	<0.30
Carbon Tetrachloride	µg/L	0.79	0.20	<0.20	<0.20	<0.20
Benzene	µg/L	5.0	0.20	<0.20	<0.20	<0.20
1,2-Dichloropropane	µg/L	5	0.20	<0.20	<0.20	<0.20
Trichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20
Bromodichloromethane	µg/L	16	0.20	<0.20	<0.20	<0.20
Methyl Isobutyl Ketone	µg/L	640	1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	µg/L	4.7	0.20	<0.20	<0.20	<0.20
Toluene	µg/L	24	0.20	<0.20	<0.20	<0.20
Dibromochloromethane	µg/L	25	0.10	<0.10	<0.10	<0.10
Ethylene Dibromide	µg/L	0.2	0.10	<0.10	<0.10	<0.10
Tetrachloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20
1,1,1,2-Tetrachloroethane	µg/L	1.1	0.10	<0.10	<0.10	<0.10
Chlorobenzene	µg/L	30	0.10	<0.10	<0.10	<0.10
Ethylbenzene	µg/L	2.4	0.10	<0.10	<0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20	<0.20	<0.20

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 25T251960

PROJECT: 8714 - Tadjell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
SAMPLING SITE: 502 Darcy Drive, Strathroy

ATTENTION TO: Ali Rasoul  
SAMPLED BY: J.O.

### O. Reg. 153(511) - VOCs (with PHC) (Water)

DATE RECEIVED: 2025-02-25

DATE REPORTED: 2025-03-03

Parameter	Unit	SAMPLE DESCRIPTION:				
		MW211-19		MW208-19		Field Blank
		G / S	RDL	G / S	RDL	
				6544578	6544579	6544582
				2025-02-25	2025-02-25	2025-02-25
				Water	Water	Water
Bromoform	µg/L	25	0.10	<0.10	<0.10	<0.10
Styrene	µg/L	5.4	0.10	<0.10	<0.10	<0.10
1,1,2,2-Tetrachloroethane	µg/L	1	0.10	<0.10	<0.10	<0.10
o-Xylene	µg/L		0.10	<0.10	<0.10	<0.10
1,3-Dichlorobenzene	µg/L	59	0.10	<0.10	<0.10	<0.10
1,4-Dichlorobenzene	µg/L	1	0.10	<0.10	<0.10	<0.10
1,2-Dichlorobenzene	µg/L	3	0.10	<0.10	<0.10	<0.10
1,3-Dichloropropene	µg/L	0.5	0.30	<0.30	<0.30	<0.30
Xylenes (Total)	µg/L	300	0.20	<0.20	<0.20	<0.20
n-Hexane	µg/L	51	0.20	<0.20	<0.20	<0.20
Surrogate	Unit	Acceptable Limits				
Toluene-d8	% Recovery	50-140		100	102	99
4-Bromofluorobenzene	% Recovery	50-140		69	80	78

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Potable Ground Water - All Types of Property Uses - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

6544578-6544582 Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.  
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.  
The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 25T251960

PROJECT: 8714 - Tadjell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
SAMPLING SITE: 502 Darcy Drive, Strathroy

ATTENTION TO: Ali Rasoul  
SAMPLED BY: J.O.

### O. Reg. 153(511) - Metals & Inorganics (Water)

DATE RECEIVED: 2025-02-25

DATE REPORTED: 2025-03-03

Parameter	Unit	SAMPLE DESCRIPTION:		MWOLD-N	MWOLD-NW	MW202-19	MW201-19	MW203-19	MW104-19	MW211-19	MW208-19
		SAMPLE TYPE:		Water	Water	Water	Water	Water	Water	Water	Water
		G / S	RDL	2025-02-25	2025-02-25	2025-02-25	2025-02-25	2025-02-25	2025-02-25	2025-02-25	2025-02-25
Dissolved Antimony	µg/L	6	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Arsenic	µg/L	25	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Barium	µg/L	1000	2.0	15.8	26.1	80.8	57.2	10.5	16.4	39.4	64.8
Dissolved Beryllium	µg/L	4	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Boron	µg/L	5000	10.0	22.9	20.0	270	121	21.9	11.7	10.5	19.9
Dissolved Cadmium	µg/L	2.7	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Chromium	µg/L	50	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	2.4
Dissolved Cobalt	µg/L	3.8	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Copper	µg/L	87	1.0	<1.0	1.6	1.6	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Lead	µg/L	10	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Molybdenum	µg/L	70	0.50	<0.50	<0.50	<0.50	0.95	<0.50	<0.50	<0.50	<0.50
Dissolved Nickel	µg/L	100	1.0	<1.0	<1.0	1.1	1.1	<1.0	<1.0	1.5	<1.0
Dissolved Selenium	µg/L	10	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Silver	µg/L	1.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Thallium	µg/L	2	0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Dissolved Uranium	µg/L	20	0.50	<0.50	<0.50	1.69	0.82	0.71	<0.50	<0.50	0.67
Dissolved Vanadium	µg/L	6.2	0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	0.49	<0.40
Dissolved Zinc	µg/L	1100	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Mercury	µg/L	0.29	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Chromium VI	µg/L	25	2.000	<2.000	<2.000	<2.000	<2.000	<2.000	<2.000	<2.000	<2.000
Cyanide, WAD	µg/L	66	2	<2	<2	<2	<2	<2	<2	<2	<2
Dissolved Sodium	µg/L	490000	50	7160	28600	26900	63100	13200	4450	11100	22700
Chloride	µg/L	790000	100	8620	16900	12300	83000	7240	6270	7490	46400
pH	pH Units		NA	7.22	7.37	7.17	7.32	7.21	7.40	7.49	7.50

Certified By:



*Ali Rasoul*



## Certificate of Analysis

AGAT WORK ORDER: 25T251960

PROJECT: 8714 - Tadjell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
SAMPLING SITE: 502 Darcy Drive, Strathroy

ATTENTION TO: Ali Rasoul  
SAMPLED BY: J.O.

### O. Reg. 153(511) - Metals & Inorganics (Water)

DATE RECEIVED: 2025-02-25

DATE REPORTED: 2025-03-03

Parameter	Unit	SAMPLE DESCRIPTION:		MW103-19	Duplicate	Field Blank
		SAMPLE TYPE:		Water	Water	Water
		DATE SAMPLED:		2025-02-25	2025-02-25	2025-02-25
		G / S	RDL	6544580	6544581	6544582
Dissolved Antimony	µg/L	6	1.0	<1.0	<1.0	<1.0
Dissolved Arsenic	µg/L	25	1.0	<1.0	<1.0	<1.0
Dissolved Barium	µg/L	1000	2.0	9.8	14.8	<2.0
Dissolved Beryllium	µg/L	4	0.50	<0.50	<0.50	<0.50
Dissolved Boron	µg/L	5000	10.0	17.1	20.9	<10.0
Dissolved Cadmium	µg/L	2.7	0.20	<0.20	<0.20	<0.20
Dissolved Chromium	µg/L	50	2.0	<2.0	<2.0	2.5
Dissolved Cobalt	µg/L	3.8	0.50	<0.50	<0.50	<0.50
Dissolved Copper	µg/L	87	1.0	<1.0	<1.0	<1.0
Dissolved Lead	µg/L	10	0.50	<0.50	<0.50	<0.50
Dissolved Molybdenum	µg/L	70	0.50	<0.50	<0.50	<0.50
Dissolved Nickel	µg/L	100	1.0	<1.0	<1.0	<1.0
Dissolved Selenium	µg/L	10	1.0	<1.0	<1.0	<1.0
Dissolved Silver	µg/L	1.5	0.20	<0.20	<0.20	<0.20
Dissolved Thallium	µg/L	2	0.30	<0.30	<0.30	<0.30
Dissolved Uranium	µg/L	20	0.50	<0.50	<0.50	<0.50
Dissolved Vanadium	µg/L	6.2	0.40	<0.40	<0.40	<0.40
Dissolved Zinc	µg/L	1100	5.0	<5.0	<5.0	<5.0
Mercury	µg/L	0.29	0.02	<0.02	<0.02	<0.02
Chromium VI	µg/L	25	2.000	<2.000	<2.000	<2.000
Cyanide, WAD	µg/L	66	2	<2	<2	<2
Dissolved Sodium	µg/L	490000	50	17000	6560	586
Chloride	µg/L	790000	100	42200	8490	<100
pH	pH Units		NA	7.27	7.23	6.49

Certified By:



*Ali Rasoul*



## Certificate of Analysis

AGAT WORK ORDER: 25T251960

PROJECT: 8714 - Tadgell Strathroy

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC

ATTENTION TO: Ali Rasoul

SAMPLING SITE: 502 Darcy Drive, Strathroy

SAMPLED BY: J.O.

### O. Reg. 153(511) - Metals & Inorganics (Water)

DATE RECEIVED: 2025-02-25

DATE REPORTED: 2025-03-03

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Potable Ground Water - All Types of Property Uses - Coarse Textured Soils

Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

6544572-6544581 Metals analysis completed on a filtered sample.

pH is a recommended field analysis taken within 15 minutes of sample collection. Due to the potential for rapid change in sample equilibrium chemistry laboratory results may differ from field measured results

6544582 Metals analysis completed on a filtered sample.

pH is a recommended field analysis taken within 15 minutes of sample collection. Due to the potential for rapid change in sample equilibrium chemistry laboratory results may differ from field measured results

Dissolved Chromium & Dissolved Sodium data reported were confirmed by re-analysis.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



*Ali Rasoul*

## Quality Assurance

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
 PROJECT: 8714 - Tadgell Strathroy  
 SAMPLING SITE: 502 Darcy Drive, Strathroy

AGAT WORK ORDER: 25T251960  
 ATTENTION TO: Ali Rasoul  
 SAMPLED BY: J.O.

### Trace Organics Analysis

RPT Date: Mar 03, 2025			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

O. Reg. 153(511) - PAHs (Water)

Naphthalene	6533300		<0.20	<0.20	NA	< 0.20	108%	50%	140%	77%	50%	140%	104%	50%	140%
Acenaphthylene	6533300		<0.20	<0.20	NA	< 0.20	108%	50%	140%	82%	50%	140%	98%	50%	140%
Acenaphthene	6533300		<0.20	<0.20	NA	< 0.20	108%	50%	140%	78%	50%	140%	103%	50%	140%
Fluorene	6533300		<0.20	<0.20	NA	< 0.20	109%	50%	140%	82%	50%	140%	107%	50%	140%
Phenanthrene	6533300		<0.10	<0.10	NA	< 0.10	112%	50%	140%	83%	50%	140%	109%	50%	140%
Anthracene	6533300		<0.10	<0.10	NA	< 0.10	98%	50%	140%	84%	50%	140%	71%	50%	140%
Fluoranthene	6533300		<0.20	<0.20	NA	< 0.20	110%	50%	140%	84%	50%	140%	110%	50%	140%
Pyrene	6533300		<0.20	<0.20	NA	< 0.20	107%	50%	140%	84%	50%	140%	108%	50%	140%
Benzo(a)anthracene	6533300		<0.20	<0.20	NA	< 0.20	79%	50%	140%	85%	50%	140%	79%	50%	140%
Chrysene	6533300		<0.10	<0.10	NA	< 0.10	110%	50%	140%	74%	50%	140%	117%	50%	140%
Benzo(b)fluoranthene	6533300		<0.10	<0.10	NA	< 0.10	77%	50%	140%	95%	50%	140%	96%	50%	140%
Benzo(k)fluoranthene	6533300		<0.10	<0.10	NA	< 0.10	117%	50%	140%	106%	50%	140%	120%	50%	140%
Benzo(a)pyrene	6533300		<0.01	<0.01	NA	< 0.01	92%	50%	140%	91%	50%	140%	111%	50%	140%
Indeno(1,2,3-cd)pyrene	6533300		<0.20	<0.20	NA	< 0.20	85%	50%	140%	112%	50%	140%	72%	50%	140%
Dibenz(a,h)anthracene	6533300		<0.20	<0.20	NA	< 0.20	77%	50%	140%	73%	50%	140%	72%	50%	140%
Benzo(g,h,i)perylene	6533300		<0.20	<0.20	NA	< 0.20	82%	50%	140%	78%	50%	140%	79%	50%	140%

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Water)

F1 (C6 to C10)	6537488		<25	<25	NA	< 25	94%	60%	140%	82%	60%	140%	81%	60%	140%
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O. Reg. 153(511) - VOCs (with PHC) (Water)

Dichlorodifluoromethane	6537488		<0.40	<0.40	NA	< 0.40	102%	50%	140%	68%	50%	140%	83%	50%	140%
Vinyl Chloride	6537488		<0.17	<0.17	NA	< 0.17	91%	50%	140%	68%	50%	140%	101%	50%	140%
Bromomethane	6537488		<0.20	<0.20	NA	< 0.20	72%	50%	140%	81%	50%	140%	93%	50%	140%
Trichlorofluoromethane	6537488		<0.40	<0.40	NA	< 0.40	98%	50%	140%	62%	50%	140%	116%	50%	140%
Acetone	6537488		<1.0	<1.0	NA	< 1.0	117%	50%	140%	76%	50%	140%	82%	50%	140%
1,1-Dichloroethylene	6537488		<0.30	<0.30	NA	< 0.30	80%	50%	140%	60%	60%	130%	87%	50%	140%
Methylene Chloride	6537488		<0.30	<0.30	NA	< 0.30	96%	50%	140%	70%	60%	130%	79%	50%	140%
trans- 1,2-Dichloroethylene	6537488		<0.20	<0.20	NA	< 0.20	93%	50%	140%	63%	60%	130%	103%	50%	140%
Methyl tert-butyl ether	6537488		<0.20	<0.20	NA	< 0.20	83%	50%	140%	67%	60%	130%	94%	50%	140%
1,1-Dichloroethane	6537488		<0.30	<0.30	NA	< 0.30	104%	50%	140%	64%	60%	130%	94%	50%	140%
Methyl Ethyl Ketone	6537488		<1.0	<1.0	NA	< 1.0	80%	50%	140%	86%	50%	140%	75%	50%	140%
cis- 1,2-Dichloroethylene	6537488		<0.20	<0.20	NA	< 0.20	96%	50%	140%	77%	60%	130%	87%	50%	140%
Chloroform	6537488		<0.20	<0.20	NA	< 0.20	112%	50%	140%	76%	60%	130%	82%	50%	140%
1,2-Dichloroethane	6537488		<0.20	<0.20	NA	< 0.20	118%	50%	140%	92%	60%	130%	116%	50%	140%
1,1,1-Trichloroethane	6537488		<0.30	<0.30	NA	< 0.30	106%	50%	140%	93%	60%	130%	108%	50%	140%
Carbon Tetrachloride	6537488		<0.20	<0.20	NA	< 0.20	99%	50%	140%	60%	60%	130%	105%	50%	140%
Benzene	6537488		<0.20	<0.20	NA	< 0.20	101%	50%	140%	68%	60%	130%	101%	50%	140%
1,2-Dichloropropane	6537488		<0.20	<0.20	NA	< 0.20	87%	50%	140%	79%	60%	130%	90%	50%	140%
Trichloroethylene	6537488		<0.20	<0.20	NA	< 0.20	91%	50%	140%	61%	60%	130%	102%	50%	140%

## Quality Assurance

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
 PROJECT: 8714 - Tadgell Strathroy  
 SAMPLING SITE: 502 Darcy Drive, Strathroy

AGAT WORK ORDER: 25T251960  
 ATTENTION TO: Ali Rasoul  
 SAMPLED BY: J.O.

### Trace Organics Analysis (Continued)

RPT Date: Mar 03, 2025			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Bromodichloromethane	6537488		<0.20	<0.20	NA	< 0.20	100%	50%	140%	71%	60%	130%	97%	50%	140%
Methyl Isobutyl Ketone	6537488		<1.0	<1.0	NA	< 1.0	91%	50%	140%	79%	50%	140%	85%	50%	140%
1,1,2-Trichloroethane	6537488		<0.20	<0.20	NA	< 0.20	119%	50%	140%	113%	60%	130%	96%	50%	140%
Toluene	6537488		<0.20	<0.20	NA	< 0.20	95%	50%	140%	73%	60%	130%	95%	50%	140%
Dibromochloromethane	6537488		<0.10	<0.10	NA	< 0.10	115%	50%	140%	91%	60%	130%	109%	50%	140%
Ethylene Dibromide	6537488		<0.10	<0.10	NA	< 0.10	101%	50%	140%	92%	60%	130%	107%	50%	140%
Tetrachloroethylene	6537488		<0.20	<0.20	NA	< 0.20	69%	50%	140%	72%	60%	130%	98%	50%	140%
1,1,1,2-Tetrachloroethane	6537488		<0.10	<0.10	NA	< 0.10	97%	50%	140%	73%	60%	130%	110%	50%	140%
Chlorobenzene	6537488		<0.10	<0.10	NA	< 0.10	116%	50%	140%	99%	60%	130%	93%	50%	140%
Ethylbenzene	6537488		<0.10	<0.10	NA	< 0.10	100%	50%	140%	62%	60%	130%	76%	50%	140%
m & p-Xylene	6537488		<0.20	<0.20	NA	< 0.20	117%	50%	140%	71%	60%	130%	92%	50%	140%
Bromoform	6537488		<0.10	<0.10	NA	< 0.10	98%	50%	140%	89%	60%	130%	109%	50%	140%
Styrene	6537488		<0.10	<0.10	NA	< 0.10	105%	50%	140%	60%	60%	130%	106%	50%	140%
1,1,2,2-Tetrachloroethane	6537488		<0.10	<0.10	NA	< 0.10	118%	50%	140%	107%	60%	130%	106%	50%	140%
o-Xylene	6537488		<0.10	<0.10	NA	< 0.10	108%	50%	140%	65%	60%	130%	97%	50%	140%
1,3-Dichlorobenzene	6537488		<0.10	<0.10	NA	< 0.10	113%	50%	140%	93%	60%	130%	109%	50%	140%
1,4-Dichlorobenzene	6537488		<0.10	<0.10	NA	< 0.10	101%	50%	140%	91%	60%	130%	71%	50%	140%
1,2-Dichlorobenzene	6537488		<0.10	<0.10	NA	< 0.10	111%	50%	140%	86%	60%	130%	96%	50%	140%
n-Hexane	6537488		<0.20	<0.20	NA	< 0.20	60%	50%	140%	74%	60%	130%	87%	50%	140%
O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Water)															
Benzene	6512259		<0.20	<0.20	NA	< 0.20	76%	60%	140%	80%	60%	140%	92%	60%	140%
Toluene	6512259		<0.20	<0.20	NA	< 0.20	74%	60%	140%	72%	60%	140%	96%	60%	140%
Ethylbenzene	6512259		<0.10	<0.10	NA	< 0.10	79%	60%	140%	108%	60%	140%	84%	60%	140%
m & p-Xylene	6512259		<0.20	<0.20	NA	< 0.20	90%	60%	140%	95%	60%	140%	85%	60%	140%
o-Xylene	6512259		<0.10	<0.10	NA	< 0.10	101%	60%	140%	97%	60%	140%	88%	60%	140%
F1 (C6 to C10)	6512259		<25	<25	NA	< 25	95%	60%	140%	105%	60%	140%	115%	60%	140%
F2 (C10 to C16)	6544575 6544575		< 100	< 100	NA	< 100	93%	60%	140%	90%	60%	140%	71%	60%	140%
F3 (C16 to C34)	6544575 6544575		< 100	< 100	NA	< 100	107%	60%	140%	98%	60%	140%	70%	60%	140%
F4 (C34 to C50)	6544575 6544575		< 100	< 100	NA	< 100	74%	60%	140%	88%	60%	140%	83%	60%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: \_\_\_\_\_



## Quality Assurance

CLIENT NAME: A &amp; A ENVIRONMENTAL CONSULTANTS INC

AGAT WORK ORDER: 25T251960

PROJECT: 8714 - Tadgell Strathroy

ATTENTION TO: Ali Rasoul

SAMPLING SITE: 502 Darcy Drive, Strathroy

SAMPLED BY: J.O.

Water Analysis															
RPT Date: Mar 03, 2025			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE		MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

**O. Reg. 153(511) - Metals & Inorganics (Water)**

Dissolved Antimony	6544572	6544572	<1.0	<1.0	NA	< 1.0	106%	70%	130%	96%	80%	120%	98%	70%	130%
Dissolved Arsenic	6544572	6544572	<1.0	<1.0	NA	< 1.0	103%	70%	130%	97%	80%	120%	101%	70%	130%
Dissolved Barium	6544572	6544572	15.8	16.3	3.1%	< 2.0	108%	70%	130%	98%	80%	120%	102%	70%	130%
Dissolved Beryllium	6544572	6544572	<0.50	<0.50	NA	< 0.50	99%	70%	130%	100%	80%	120%	101%	70%	130%
Dissolved Boron	6544572	6544572	22.9	23.9	NA	< 10.0	98%	70%	130%	103%	80%	120%	103%	70%	130%
Dissolved Cadmium	6544572	6544572	<0.20	<0.20	NA	< 0.20	102%	70%	130%	98%	80%	120%	103%	70%	130%
Dissolved Chromium	6544572	6544572	<2.0	<2.0	NA	< 2.0	102%	70%	130%	99%	80%	120%	100%	70%	130%
Dissolved Cobalt	6544572	6544572	<0.50	<0.50	NA	< 0.50	101%	70%	130%	98%	80%	120%	96%	70%	130%
Dissolved Copper	6544572	6544572	<1.0	<1.0	NA	< 1.0	101%	70%	130%	96%	80%	120%	94%	70%	130%
Dissolved Lead	6544572	6544572	<0.50	<0.50	NA	< 0.50	97%	70%	130%	91%	80%	120%	92%	70%	130%
Dissolved Molybdenum	6544572	6544572	<0.50	<0.50	NA	< 0.50	106%	70%	130%	104%	80%	120%	111%	70%	130%
Dissolved Nickel	6544572	6544572	<1.0	<1.0	NA	< 1.0	102%	70%	130%	98%	80%	120%	96%	70%	130%
Dissolved Selenium	6544572	6544572	<1.0	<1.0	NA	< 1.0	107%	70%	130%	101%	80%	120%	113%	70%	130%
Dissolved Silver	6544572	6544572	<0.20	<0.20	NA	< 0.20	102%	70%	130%	97%	80%	120%	102%	70%	130%
Dissolved Thallium	6544572	6544572	<0.30	<0.30	NA	< 0.30	100%	70%	130%	96%	80%	120%	98%	70%	130%
Dissolved Uranium	6544572	6544572	<0.50	<0.50	NA	< 0.50	103%	70%	130%	95%	80%	120%	97%	70%	130%
Dissolved Vanadium	6544572	6544572	<0.40	<0.40	NA	< 0.40	100%	70%	130%	100%	80%	120%	100%	70%	130%
Dissolved Zinc	6544572	6544572	<5.0	<5.0	NA	< 5.0	102%	70%	130%	96%	80%	120%	97%	70%	130%
Mercury	6543347		<0.02	<0.02	NA	< 0.02	98%	70%	130%	102%	80%	120%	102%	70%	130%
Chromium VI	6545126		<2.000	<2.000	NA	< 2	102%	70%	130%	101%	80%	120%	96%	70%	130%
Cyanide, WAD	6540750		<2	<2	NA	< 2	89%	70%	130%	92%	80%	120%	102%	70%	130%
Dissolved Sodium	6544572	6544572	7160	7460	4.1%	< 50	101%	70%	130%	99%	80%	120%	95%	70%	130%
Chloride	6544579	6544579	46400	46100	0.6%	< 100	92%	70%	130%	98%	80%	120%	102%	70%	130%
pH	6544245		7.87	8.00	1.6%	NA	100%	90%	110%						

Comments: NA signifies Not Applicable.

Duplicate NA: results are under 5X the RDL and will not be calculated.

### Certified By:






## Method Summary

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
 PROJECT: 8714 - Tadgell Strathroy  
 SAMPLING SITE: 502 Darcy Drive, Strathroy

AGAT WORK ORDER: 25T251960  
 ATTENTION TO: Ali Rasoul  
 SAMPLED BY: J.O.

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Acenaphthylene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Acenaphthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Fluorene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Phenanthrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Anthracene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Fluoranthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Pyrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(a)anthracene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Chrysene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Dibenz(a,h)anthracene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(g,h,i)perylene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Naphthalene-d8	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Acridine-d9	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Terphenyl-d14	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Sediment			N/A
F1 (C6 to C10)	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	modified from MOE PHC-E3421	P&T GC/FID
Toluene-d8	VOL-91- 5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
F2 (C10 to C16)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F3 (C16 to C34)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F4 (C34 to C50)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5010	modified from MOE PHC-E3421	BALANCE
Terphenyl	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
Benzene	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
Toluene	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS

## Method Summary

CLIENT NAME: A &amp; A ENVIRONMENTAL CONSULTANTS INC

AGAT WORK ORDER: 25T251960

PROJECT: 8714 - Tadgell Strathroy

ATTENTION TO: Ali Rasoul

SAMPLING SITE: 502 Darcy Drive, Strathroy

SAMPLED BY: J.O.

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Ethylbenzene	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
m & p-Xylene	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
o-Xylene	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
Xylenes (Total)	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
F1 (C6 to C10)	VOL-91- 5010	modified from MOE PHC-E3421	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	modified from MOE PHC-E3421	P&T GC/FID
Toluene-d8	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
F2 (C10 to C16)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F3 (C16 to C34)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F4 (C34 to C50)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5010	modified from MOE PHC-E3421	BALANCE
Terphenyl	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
Dichlorodifluoromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Acetone	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
trans- 1,2-Dichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methyl tert-butyl ether	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
cis- 1,2-Dichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Chloroform	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Benzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS



## Method Summary

CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
 PROJECT: 8714 - Tadgell Strathroy  
 SAMPLING SITE: 502 Darcy Drive, Strathroy

AGAT WORK ORDER: 25T251960  
 ATTENTION TO: Ali Rasoul  
 SAMPLED BY: J.O.

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Methyl Isobutyl Ketone	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Toluene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Bromoform	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Styrene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Xylenes (Total)	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS

## Method Summary

 CLIENT NAME: A & A ENVIRONMENTAL CONSULTANTS INC  
 PROJECT: 8714 - Tadjell Strathroy  
 SAMPLING SITE: 502 Darcy Drive, Strathroy

 AGAT WORK ORDER: 25T251960  
 ATTENTION TO: Ali Rasoul  
 SAMPLED BY: J.O.

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Dissolved Antimony	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Arsenic	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Barium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Beryllium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Boron	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Cadmium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Chromium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Cobalt	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Copper	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Lead	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Molybdenum	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Nickel	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Selenium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Silver	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Thallium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Uranium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Vanadium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Zinc	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Mercury	MET-93-6100	modified from EPA 245.2 and SM 3112 B	CVAAS
Chromium VI	INOR-93-6073	modified from SM 3500-CR B	LACHAT FIA
Cyanide, WAD	INOR-93-6052	modified from ON MOECC E3015, SM 4500-CN- I, G-387	SEGMENTED FLOW ANALYSIS
Dissolved Sodium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP/MS
Chloride	INOR-93-6004	modified from SM 4110 B	ION CHROMATOGRAPH
pH	INOR-93-6000	modified from SM 4500-H+ B	PC TITRATE

**Laboratory Use Only**

Work Order #: 25T251960  
Cooler Quantity: 319  
Arrival Temperatures: 3.9 | 4.0 | 4.2  
2.1 | 2.5 | 2.9  
Custody Seal Intact:  Yes  No  N/A  
Notes: 05.3.5.1.5.0/LIE

**Chain of Custody Record** If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

**Report Information:**

Company: A & A Environmental Consultants Inc.  
Contact: Dr. Ali Rasoul  
Address: 16 Young St  
Woodstock, ON  
Phone: 519-266-4680 Fax: 519-266-3666  
Reports to be sent to: arasoul@aaenvironmental.ca, vsowden@  
1. Email: arasoul@aaenvironmental.ca, vsowden@  
2. Email: sscott@; tdemers@; ckennedy@

**Regulatory Requirements:**  No Regulatory Requirement

*(Please check all applicable boxes)*  
 Regulation 153/04 Table 2  
 Ind/Com  
 Res/Park  
 Agriculture  
 Sewer Use  
 Sanitary  
 Storm  
 Regulation 558  
 CCME  
 Prov. Water Quality Objectives (PWQO)  
 Other  
Soil Texture *(Check One)*  Coarse  Fine  
Region                      *Indicate One*  
 MISA *Indicate One*

**Turnaround Time (TAT) Required:**

**Regular TAT**  5 to 7 Business Days  
**Rush TAT** *(Rush Surcharges Apply)*  
 3 Business Days  2 Business Days  Next Business Day  
**OR** Date Required *(Rush Surcharges May Apply):*  
*Please provide prior notification for rush TAT*  
*\*TAT is exclusive of weekends and statutory holidays*

**Is this submission for a Record of Site Condition?**

Yes  No

**Report Guideline on Certificate of Analysis**

Yes  No

**Project Information:**

Project: 8714-Tadgell Strathroy  
Site Location: 502 Darcy Drive, Strathroy  
Sampled By: J.O.  
AGAT Quote #: 16288129079 PO: 8714

**Invoice Information:**

Bill To Same: Yes  No   
Company:                       
Contact:                       
Address:                       
Email:                     

**Sample Matrix Legend**

**B** Biota  
**GW** Ground Water  
**O** Oil  
**P** Paint  
**S** Soil  
**SD** Sediment  
**SW** Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N	Field Filtered - Metals, Hg, CrVI	O. Reg 153	Metals and Inorganics	Full Metals Scan	Regulation/Custom Metals	Nutrients: TP, NH <sub>4</sub> , TKN, NO <sub>3</sub> , NO <sub>2</sub> , NO <sub>3</sub> +NO <sub>2</sub>	Volatiles: VOC, BTEX, THM	PHCs F1 - F4	ABNS	PAHs	PCBs: Total, Aroclors	Organochlorine Pesticides	TCLP: M&I, VOCs, ABNS, B(a)P, PCBs	Sewer Use	Metals Soil 93-101	Metals Water 93-196	CCME F1-F4/VOCs Soil 91-248	CCME F1-F4/VOCs Water 91-249	CCME F1-F4/BTEX Water 91-315	Sieve & texture (75 Micron)		
MWOLD-N	2025-02-25		13	GW		Y	<input checked="" type="checkbox"/>	<input type="checkbox"/> All Metals <input type="checkbox"/> 153 Metals (excl. Hydrides) <input type="checkbox"/> Hydride Metals <input type="checkbox"/> 153 Metals (incl. Hydrides)	ORPs: <input type="checkbox"/> B-HWS <input type="checkbox"/> Cl <input type="checkbox"/> CN <input type="checkbox"/> C* <input checked="" type="checkbox"/> EC <input type="checkbox"/> FOC <input type="checkbox"/> Hg <input checked="" type="checkbox"/> pH <input type="checkbox"/> SAR			<input type="checkbox"/> TP <input type="checkbox"/> NH <sub>4</sub> <input type="checkbox"/> TKN <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> NO <sub>3</sub> +NO <sub>2</sub>	<input type="checkbox"/> VOC <input type="checkbox"/> BTEX <input type="checkbox"/> THM				<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>	
MWOLD-NW	2025-02-25		13	GW		Y	<input checked="" type="checkbox"/>																				<input checked="" type="checkbox"/>	
MW202-19	2025-02-25		13	GW		Y	<input checked="" type="checkbox"/>																				<input checked="" type="checkbox"/>	
MW201-19	2025-02-25		13	GW		Y	<input checked="" type="checkbox"/>																				<input checked="" type="checkbox"/>	
MW203-19	2025-02-25		13	GW		Y	<input checked="" type="checkbox"/>																				<input checked="" type="checkbox"/>	
MW104-19	2025-02-25		13	GW		Y	<input checked="" type="checkbox"/>																				<input checked="" type="checkbox"/>	
MW211-19	2025-02-25		13	GW		Y	<input checked="" type="checkbox"/>																				<input checked="" type="checkbox"/>	
MW208-19	2025-02-25		13	GW		Y	<input checked="" type="checkbox"/>																			<input checked="" type="checkbox"/>		
MW103-19	2025-02-25		13	GW		Y	<input checked="" type="checkbox"/>																				<input checked="" type="checkbox"/>	
Duplicate	2025-02-25		13	GW		Y	<input checked="" type="checkbox"/>																				<input checked="" type="checkbox"/>	
Field Blank	2025-02-25		13	GW		Y	<input checked="" type="checkbox"/>																				<input checked="" type="checkbox"/>	

Samples Relinquished By (Print Name and Sign): <u>J. Osborne</u>	Date: <u>2025-02-25</u>	Time: <u>11:00</u>	Samples Received By (Print Name and Sign): <u>[Signature]</u>	Date: <u>Feb 25</u>	Time: <u>3:15 PM</u>
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:



**CLIENT NAME: MTE CONSULTANTS Inc.  
123ST GEORGE STREET  
LONDON, ON N6A 3A1  
519-204-6510**

**ATTENTION TO: Mike Fabro**

**PROJECT: 45102-104**

**AGAT WORK ORDER: 19L490827**

**SOIL ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Supervisor**

**TRACE ORGANICS REVIEWED BY: Pinkal Patel, Report Reviewer**

**DATE REPORTED: Aug 20, 2019**

**PAGES (INCLUDING COVER): 33**

**VERSION\*: 1**

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

**\*NOTES**

Empty box for notes.

**All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.**



## Certificate of Analysis

AGAT WORK ORDER: 19L490827

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - All Metals (Soil)

DATE RECEIVED: 2019-07-10

DATE REPORTED: 2019-08-20

Parameter	Unit	SAMPLE DESCRIPTION:		MW202-19-2A	MW202-19-2B	MW201-19-2A	MW201-19-2B	MW201-19-3A	DUP01-2A	MW203-19-2B	MW208-19-5B
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2019-07-09	2019-07-09	2019-07-09	2019-07-09	2019-07-09	2019-07-09	2019-07-09	2019-07-09
		G / S	RDL	360724	360777	360823	360824	360849	360859	360876	360907
Antimony	µg/g	7.5	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	5	5	6	4	3	5	3	2
Barium	µg/g	390	2	96	85	88	66	9	94	42	14
Beryllium	µg/g	4	0.5	0.9	0.7	0.9	<0.5	<0.5	0.9	<0.5	<0.5
Boron	µg/g	120	5	17	6	18	8	<5	18	7	<5
Boron (Hot Water Soluble)	µg/g	1.5	0.10	0.22	0.30	0.19	0.51	0.15	0.16	0.13	<0.10
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	160	2	28	31	27	14	5	28	18	5
Cobalt	µg/g	22	0.5	12.7	13.3	12.7	5.5	2.5	12.7	8.0	2.4
Copper	µg/g	140	1	17	16	17	24	9	18	12	8
Lead	µg/g	120	1	11	12	11	96	4	11	9	4
Molybdenum	µg/g	6.9	0.5	0.6	0.6	0.6	0.6	<0.5	0.6	<0.5	<0.5
Nickel	µg/g	100	1	33	29	33	15	5	35	18	7
Selenium	µg/g	2.4	0.4	<0.4	0.4	<0.4	0.4	<0.4	<0.4	<0.4	<0.4
Silver	µg/g	20	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Uranium	µg/g	23	0.5	0.7	0.5	0.6	<0.5	<0.5	0.6	<0.5	<0.5
Vanadium	µg/g	86	1	33	31	31	18	9	31	24	10
Zinc	µg/g	340	5	56	60	57	296	27	55	36	25
Chromium VI	µg/g	8	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Mercury	µg/g	0.27	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

Certified By:

*Anamjot Bhela*  




## Certificate of Analysis

AGAT WORK ORDER: 19L490827

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - All Metals (Soil)

DATE RECEIVED: 2019-07-10

DATE REPORTED: 2019-08-20

SAMPLE DESCRIPTION: MW211-19-5A

SAMPLE TYPE: Soil

DATE SAMPLED: 2019-07-09

360962

Parameter	Unit	G / S	RDL	360962
Antimony	µg/g	7.5	0.8	<0.8
Arsenic	µg/g	18	1	1
Barium	µg/g	390	2	8
Beryllium	µg/g	4	0.5	<0.5
Boron	µg/g	120	5	<5
Boron (Hot Water Soluble)	µg/g	1.5	0.10	<0.10
Cadmium	µg/g	1.2	0.5	<0.5
Chromium	µg/g	160	2	4
Cobalt	µg/g	22	0.5	1.7
Copper	µg/g	140	1	6
Lead	µg/g	120	1	3
Molybdenum	µg/g	6.9	0.5	<0.5
Nickel	µg/g	100	1	5
Selenium	µg/g	2.4	0.4	<0.4
Silver	µg/g	20	0.2	<0.2
Thallium	µg/g	1	0.4	<0.4
Uranium	µg/g	23	0.5	<0.5
Vanadium	µg/g	86	1	9
Zinc	µg/g	340	5	18
Chromium VI	µg/g	8	0.2	<0.2
Mercury	µg/g	0.27	0.10	<0.10

**Comments:** RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

**360777** As per Client's request, samples were analyzed beyond recommended hold times for Chromium VI and Mercury analyses.

**360849** As per Client's request, samples were analyzed beyond recommended hold times for Chromium VI and Mercury analyses.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:

*Anamjot Bhela*  




## Certificate of Analysis

AGAT WORK ORDER: 19L490827

PROJECT: 45102-104

5835 COOPERS AVENUE  
 MISSISSAUGA, ONTARIO  
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 FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - ORPs (Soil)

DATE RECEIVED: 2019-07-10

DATE REPORTED: 2019-08-20

Parameter	Unit	SAMPLE DESCRIPTION:			
		G / S	RDL	360723	360824
		MW202-19-1B	MW201-19-2B	MW208-19-5B	MW211-19-5A
		Soil	Soil	Soil	Soil
		DATE SAMPLED:	2019-07-09	2019-07-09	2019-07-09
		360723	360824	360907	360962
pH, 2:1 CaCl <sub>2</sub> Extraction	pH Units	NA	7.75	7.57	7.94
			7.93		

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard  
 Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:

*Anamjot Bhella*  




## Certificate of Analysis

AGAT WORK ORDER: 19L490827

PROJECT: 45102-104

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CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2019-07-10

DATE REPORTED: 2019-08-20

Parameter	Unit	SAMPLE DESCRIPTION:							
		SAMPLE TYPE:		MW202-19-2B	MW201-19-2B	MW201-19-3A	MW203-19-2B	MW208-19-5B	MW211-19-5A
		Soil		Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2019-07-09	2019-07-09	2019-07-09	2019-07-09	2019-07-09	2019-07-09
		G / S	RDL	360777	360824	360849	360876	360907	360962
Naphthalene	µg/g	0.6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.15	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthene	µg/g	7.9	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluorene	µg/g	62	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Phenanthrene	µg/g	6.2	0.05	<0.05	0.07	<0.05	<0.05	<0.05	<0.05
Anthracene	µg/g	0.67	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05	0.15	<0.05	<0.05	<0.05	<0.05
Pyrene	µg/g	78	0.05	<0.05	0.14	<0.05	<0.05	<0.05	<0.05
Benz(a)anthracene	µg/g	0.5	0.05	<0.05	0.07	<0.05	<0.05	<0.05	<0.05
Chrysene	µg/g	7	0.05	<0.05	0.07	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.38	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	6.6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.99	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	5.9	21.5	9.3	16.5	17.4	19.4
<b>Surrogate</b>	<b>Unit</b>	<b>Acceptable Limits</b>							
Chrysene-d12	%	50-140	84	89	88	81	98	105	

**Comments:** RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

**360777-360962** Results are based on the dry weight of the soil.  
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.  
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L490827

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)

DATE RECEIVED: 2019-07-10

DATE REPORTED: 2019-08-20

SAMPLE DESCRIPTION: MW208-19-2A

SAMPLE TYPE: Soil

DATE SAMPLED: 2019-07-09

Parameter	Unit	G / S	RDL	360893
F1 (C6 to C10)	µg/g	55	5	<5
F1 (C6 to C10) minus BTEX	µg/g	55	5	<5
F2 (C10 to C16)	µg/g	98	10	<10
F3 (C16 to C34)	µg/g	300	50	<50
F4 (C34 to C50)	µg/g	2800	50	<50
Gravimetric Heavy Hydrocarbons	µg/g	2800	50	NA
Moisture Content	%		0.1	19.8
Surrogate	Unit	Acceptable Limits		
Terphenyl	%	60-140		107

**Comments:** RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

**360893**  
Results are based on sample dry weight.  
The C6-C10 fraction is calculated using toluene response factor.  
C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.  
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.  
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.  
The chromatogram has returned to baseline by the retention time of nC50.  
Total C6 - C50 results are corrected for BTEX contribution.  
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.  
nC6 and nC10 response factors are within 30% of Toluene response factor.  
nC10, nC16 and nC34 response factors are within 10% of their average.  
C50 response factor is within 70% of nC10 + nC16 + nC34 average.  
Linearity is within 15%.  
Extraction and holding times were met for this sample.  
Fractions 1-4 are quantified without the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L490827

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
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CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - PHCs F1 - F4 (Soil)

DATE RECEIVED: 2019-07-10

DATE REPORTED: 2019-08-20

Parameter	Unit	SAMPLE DESCRIPTION: MW202-19-2A    MW201-19-2A    DUP01-2A				
		G / S	RDL	360724	360823	360859
Benzene	µg/g	0.21	0.02	<0.02	<0.02	<0.02
Toluene	µg/g	2.3	0.05	<0.05	<0.05	<0.05
Ethylbenzene	µg/g	1.1	0.05	<0.05	<0.05	<0.05
Xylene Mixture	µg/g	3.1	0.05	<0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g	55	5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	55	5	<5	<5	<5
F2 (C10 to C16)	µg/g	98	10	<10	<10	<10
F3 (C16 to C34)	µg/g	300	50	<50	<50	<50
F4 (C34 to C50)	µg/g	2800	50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	2800	50	NA	NA	NA
Moisture Content	%		0.1	17.3	20.7	20.4
<b>Surrogate</b>	<b>Unit</b>	<b>Acceptable Limits</b>				
Terphenyl	%	60-140		97	76	96

**Comments:** RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

**360724-360859** Results are based on sample dry weight.  
The C6-C10 fraction is calculated using Toluene response factor.  
Xylenes is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.  
C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.  
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.  
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.  
The chromatogram has returned to baseline by the retention time of nC50.  
Total C6 - C50 results are corrected for BTEX contribution.  
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.  
nC6 and nC10 response factors are within 30% of Toluene response factor.  
nC10, nC16 and nC34 response factors are within 10% of their average.  
C50 response factor is within 70% of nC10 + nC16 + nC34 average.  
Linearity is within 15%.  
Extraction and holding times were met for this sample.  
Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.  
Quality Control Data is available upon request.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By: \_\_\_\_\_



## Certificate of Analysis

AGAT WORK ORDER: 19L490827

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Soil)

DATE RECEIVED: 2019-07-10

DATE REPORTED: 2019-08-20

Parameter	Unit	SAMPLE DESCRIPTION: MW208-19-5B		MW211-19-5A	
		G / S	RDL	360907	360962
F1 (C6 to C10)	µg/g	55	5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	55	5	<5	<5
F2 (C10 to C16)	µg/g	98	10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10	<10
F3 (C16 to C34)	µg/g	300	50	<50	<50
F3 (C16 to C34) minus PAHs	µg/g		50	<50	<50
F4 (C34 to C50)	µg/g	2800	50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	2800	50	NA	NA
Moisture Content	%		0.1	17.4	19.4
Surrogate	Unit	Acceptable Limits			
Terphenyl	%	60-140		112	98

**Comments:** RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

**360907-360962** Results are based on sample dry weight.  
The C6-C10 fraction is calculated using toluene response factor.  
C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.  
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.  
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.  
The chromatogram has returned to baseline by the retention time of nC50.  
Total C6 - C50 results are corrected for BTEX and PAH contributions.  
C>10 - C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.  
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).  
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.  
nC10, nC16 and nC34 response factors are within 10% of their average.  
C50 response factor is within 70% of nC10 + nC16 + nC34 average.  
Linearity is within 15%.  
Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L490827

PROJECT: 45102-104

5835 COOPERS AVENUE  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1Y2  
 TEL (905)712-5100  
 FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)

DATE RECEIVED: 2019-07-10

DATE REPORTED: 2019-08-20

Parameter	Unit	SAMPLE DESCRIPTION:		MW201-19-2B	MW203-19-2B
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-07-09	2019-07-09
		G / S	RDL	360824	360876
Benzene	µg/g	0.21	0.02	<0.02	<0.02
Toluene	µg/g	2.3	0.05	<0.05	<0.05
Ethylbenzene	µg/g	1.1	0.05	<0.05	<0.05
Xylene Mixture	µg/g	3.1	0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g	55	5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	55	5	<5	<5
F2 (C10 to C16)	µg/g	98	10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10	<10
F3 (C16 to C34)	µg/g	300	50	<50	<50
F3 (C16 to C34) minus PAHs	µg/g		50	<50	<50
F4 (C34 to C50)	µg/g	2800	50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	2800	50	NA	NA
Moisture Content	%		0.1	21.5	16.5
Surrogate	Unit	Acceptable Limits			
Terphenyl	%	60-140		102	92

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## Certificate of Analysis

AGAT WORK ORDER: 19L490827

PROJECT: 45102-104

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MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
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CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)

DATE RECEIVED: 2019-07-10

DATE REPORTED: 2019-08-20

**Comments:** RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

**360824-360876** Results are based on sample dry weight.  
The C6-C10 fraction is calculated using toluene response factor.  
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.  
C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.  
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.  
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.  
The chromatogram has returned to baseline by the retention time of nC50.  
Total C6 - C50 results are corrected for BTEX and PAH contributions.  
C>10 - C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.  
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).  
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.  
nC10, nC16 and nC34 response factors are within 10% of their average.  
C50 response factor is within 70% of nC10 + nC16 + nC34 average.  
Linearity is within 15%.  
Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L490827

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
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CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2019-07-10

DATE REPORTED: 2019-08-20

Parameter	Unit	SAMPLE DESCRIPTION:				
		MW208-19-2A		MW208-19-5B	MW211-19-5A	
		SAMPLE TYPE:	Soil	Soil	Soil	
		DATE SAMPLED:	2019-07-09	2019-07-09	2019-07-09	
		G / S	RDL	360893	360907	360962
Dichlorodifluoromethane	µg/g	16	0.05	<0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	4	0.05	<0.05	<0.05	<0.05
Acetone	ug/g	16	0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Methylene Chloride	ug/g	0.1	0.05	<0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.084	0.05	<0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.75	0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	0.47	0.02	<0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	16	0.50	<0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	1.9	0.02	<0.02	<0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.38	0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Benzene	ug/g	0.21	0.02	<0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.061	0.03	<0.03	<0.03	<0.03
Bromodichloromethane	ug/g	1.5	0.05	<0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	1.7	0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04
Toluene	ug/g	2.3	0.05	<0.05	<0.05	<0.05
Dibromochloromethane	ug/g	2.3	0.05	<0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	0.28	0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.058	0.04	<0.04	<0.04	<0.04
Chlorobenzene	ug/g	2.4	0.05	<0.05	<0.05	<0.05
Ethylbenzene	ug/g	1.1	0.05	<0.05	<0.05	<0.05
m & p-Xylene	ug/g		0.05	<0.05	<0.05	<0.05

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L490827

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2019-07-10

DATE REPORTED: 2019-08-20

Parameter	Unit	SAMPLE DESCRIPTION: MW208-19-2A    MW208-19-5B    MW211-19-5A				
		SAMPLE TYPE: Soil			Soil	Soil
		DATE SAMPLED: 2019-07-09			2019-07-09	2019-07-09
		G / S	RDL	360893	360907	360962
Bromoform	ug/g	0.27	0.05	<0.05	<0.05	<0.05
Styrene	ug/g	0.7	0.05	<0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05
o-Xylene	ug/g		0.05	<0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	4.8	0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.083	0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	1.2	0.05	<0.05	<0.05	<0.05
Xylene Mixture	ug/g	3.1	0.05	<0.05	<0.05	<0.05
1,3-Dichloropropene	µg/g	0.05	0.04	<0.04	<0.04	<0.04
n-Hexane	µg/g	2.8	0.05	<0.05	<0.05	<0.05
Surrogate	Unit	Acceptable Limits				
Toluene-d8	% Recovery	50-140	114	86	107	
4-Bromofluorobenzene	% Recovery	50-140	87	85	85	

**Comments:** RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils

Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

**360893-360962** The sample was analyzed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.

Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.

1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:

## Quality Assurance

**CLIENT NAME:** MTE CONSULTANTS Inc.  
**PROJECT:** 45102-104  
**SAMPLING SITE:** Darcy Drive, Strathroy

**AGAT WORK ORDER:** 19L490827  
**ATTENTION TO:** Mike Fabro  
**SAMPLED BY:** Mackenzie Costello

Soil Analysis															
RPT Date: Aug 20, 2019			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE		MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

**O. Reg. 153(511) - ORPs (Soil)**

pH, 2:1 CaCl2 Extraction	356627		7.33	7.34	0.1%	NA	NA	90%	110%	NA			NA	
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Comments: NA signifies Not Applicable.  
 pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.

**O. Reg. 153(511) - All Metals (Soil)**

Antimony	359915		<0.8	<0.8	NA	< 0.8	124%	70%	130%	91%	80%	120%	87%	70%	130%
Arsenic	359915		3	3	NA	< 1	103%	70%	130%	104%	80%	120%	106%	70%	130%
Barium	359915		11	12	8.7%	< 2	104%	70%	130%	103%	80%	120%	104%	70%	130%
Beryllium	359915		<0.5	<0.5	NA	< 0.5	108%	70%	130%	115%	80%	120%	111%	70%	130%
Boron	359915		7	7	NA	< 5	87%	70%	130%	114%	80%	120%	106%	70%	130%
Boron (Hot Water Soluble)	360724	360724	0.22	0.22	NA	< 0.10	106%	60%	140%	97%	70%	130%	95%	60%	140%
Cadmium	359915		<0.5	<0.5	NA	< 0.5	108%	70%	130%	100%	80%	120%	97%	70%	130%
Chromium	359915		5	4	NA	< 2	90%	70%	130%	103%	80%	120%	101%	70%	130%
Cobalt	359915		1.9	2.0	NA	< 0.5	89%	70%	130%	104%	80%	120%	102%	70%	130%
Copper	359915		9	9	0.0%	< 1	92%	70%	130%	105%	80%	120%	95%	70%	130%
Lead	359915		40	51	24.2%	< 1	102%	70%	130%	98%	80%	120%	95%	70%	130%
Molybdenum	359915		<0.5	<0.5	NA	< 0.5	88%	70%	130%	98%	80%	120%	105%	70%	130%
Nickel	359915		8	9	11.8%	< 1	100%	70%	130%	113%	80%	120%	106%	70%	130%
Selenium	359915		<0.4	<0.4	NA	< 0.4	113%	70%	130%	94%	80%	120%	99%	70%	130%
Silver	359915		<0.2	<0.2	NA	< 0.2	112%	70%	130%	108%	80%	120%	95%	70%	130%
Thallium	359915		<0.4	<0.4	NA	< 0.4	96%	70%	130%	106%	80%	120%	100%	70%	130%
Uranium	359915		<0.5	<0.5	NA	< 0.5	95%	70%	130%	98%	80%	120%	97%	70%	130%
Vanadium	359915		9	9	0.0%	< 1	86%	70%	130%	98%	80%	120%	98%	70%	130%
Zinc	359915		203	205	1.0%	< 5	95%	70%	130%	105%	80%	120%	101%	70%	130%
Chromium VI	360691		<0.2	<0.2	NA	< 0.2	111%	70%	130%	104%	80%	120%	105%	70%	130%
Mercury	359915		<0.10	<0.10	NA	< 0.10	99%	70%	130%	93%	80%	120%	91%	70%	130%

Comments: NA signifies Not Applicable.  
 Duplicate Qualifier: As the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL

**O. Reg. 153(511) - All Metals (Soil)**

Antimony	360777	360777	<0.8	<0.8	NA	< 0.8	123%	70%	130%	95%	80%	120%	97%	70%	130%
Arsenic	360777	360777	5	5	0.0%	< 1	102%	70%	130%	95%	80%	120%	95%	70%	130%
Barium	360777	360777	85	86	1.2%	< 2	104%	70%	130%	99%	80%	120%	81%	70%	130%
Beryllium	360777	360777	0.7	0.7	NA	< 0.5	72%	70%	130%	102%	80%	120%	92%	70%	130%
Boron	360777	360777	6	6	NA	< 5	85%	70%	130%	105%	80%	120%	97%	70%	130%
Boron (Hot Water Soluble)	360777	360777	0.30	0.30	NA	< 0.10	106%	60%	140%	106%	70%	130%	96%	60%	140%
Cadmium	360777	360777	<0.5	<0.5	NA	< 0.5	101%	70%	130%	102%	80%	120%	95%	70%	130%
Chromium	360777	360777	31	31	0.0%	< 2	72%	70%	130%	99%	80%	120%	99%	70%	130%
Cobalt	360777	360777	13.3	12.9	3.1%	< 0.5	78%	70%	130%	100%	80%	120%	94%	70%	130%

## Quality Assurance

CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE: Darcy Drive, Strathroy

AGAT WORK ORDER: 19L490827  
 ATTENTION TO: Mike Fabro  
 SAMPLED BY: Mackenzie Costello

### Soil Analysis (Continued)

RPT Date: Aug 20, 2019			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	
Copper	360777	360777	16	16	0.0%	< 1	88%	70%	130%	97%	80%	120%	80%	70%	130%	
Lead	360777	360777	12	12	0.0%	< 1	95%	70%	130%	84%	80%	120%	81%	70%	130%	
Molybdenum	360777	360777	0.6	0.6	NA	< 0.5	100%	70%	130%	101%	80%	120%	97%	70%	130%	
Nickel	360777	360777	29	28	3.5%	< 1	88%	70%	130%	97%	80%	120%	91%	70%	130%	
Selenium	360777	360777	0.4	0.4	NA	< 0.4	71%	70%	130%	93%	80%	120%	90%	70%	130%	
Silver	360777	360777	<0.2	<0.2	NA	< 0.2	113%	70%	130%	93%	80%	120%	88%	70%	130%	
Thallium	360777	360777	<0.4	<0.4	NA	< 0.4	70%	70%	130%	94%	80%	120%	91%	70%	130%	
Uranium	360777	360777	0.5	0.5	NA	< 0.5	82%	70%	130%	81%	80%	120%	81%	70%	130%	
Vanadium	360777	360777	31	30	3.3%	< 1	80%	70%	130%	99%	80%	120%	97%	70%	130%	
Zinc	360777	360777	60	60	0.0%	< 5	96%	70%	130%	101%	80%	120%	93%	70%	130%	
Mercury	360777	360777	<0.10	<0.10	NA	< 0.10	98%	70%	130%	99%	80%	120%	95%	70%	130%	

Comments: NA signifies Not Applicable.

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

Certified By: \_\_\_\_\_



## Quality Assurance

**CLIENT NAME:** MTE CONSULTANTS Inc.  
**PROJECT:** 45102-104  
**SAMPLING SITE:** Darcy Drive, Strathroy

**AGAT WORK ORDER:** 19L490827  
**ATTENTION TO:** Mike Fabro  
**SAMPLED BY:** Mackenzie Costello

### Trace Organics Analysis

RPT Date: Aug 20, 2019			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

**O. Reg. 153(511) - PHCs F1 - F4 (Soil)**

Benzene	356671		< 0.02	< 0.02	NA	< 0.02	73%	60%	130%	86%	60%	130%	93%	60%	130%
Toluene	356671		< 0.05	< 0.05	NA	< 0.05	73%	60%	130%	85%	60%	130%	93%	60%	130%
Ethylbenzene	356671		< 0.05	< 0.05	NA	< 0.05	71%	60%	130%	84%	60%	130%	91%	60%	130%
Xylene Mixture	356671		< 0.05	< 0.05	NA	< 0.05	76%	60%	130%	84%	60%	130%	97%	60%	130%
F1 (C6 to C10)	356671		< 5	< 5	NA	< 5	103%	60%	130%	90%	85%	115%	87%	70%	130%
F2 (C10 to C16)	349623		< 10	< 10	NA	< 10	93%	60%	130%	82%	80%	120%	81%	70%	130%
F3 (C16 to C34)	349623		< 50	< 50	NA	< 50	93%	60%	130%	81%	80%	120%	87%	70%	130%
F4 (C34 to C50)	349623		< 50	< 50	NA	< 50	91%	60%	130%	98%	80%	120%	109%	70%	130%

**O. Reg. 153(511) - PAHs (Soil)**

Naphthalene	348439		< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	77%	50%	140%	75%	50%	140%
Acenaphthylene	348439		< 0.05	< 0.05	NA	< 0.05	110%	50%	140%	84%	50%	140%	81%	50%	140%
Acenaphthene	348439		< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	82%	50%	140%	80%	50%	140%
Fluorene	348439		< 0.05	< 0.05	NA	< 0.05	114%	50%	140%	88%	50%	140%	85%	50%	140%
Phenanthrene	348439		< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	85%	50%	140%	86%	50%	140%
Anthracene	348439		< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	86%	50%	140%	87%	50%	140%
Fluoranthene	348439		< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	95%	50%	140%	97%	50%	140%
Pyrene	348439		< 0.05	< 0.05	NA	< 0.05	115%	50%	140%	95%	50%	140%	97%	50%	140%
Benz(a)anthracene	348439		< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	89%	50%	140%	90%	50%	140%
Chrysene	348439		< 0.05	< 0.05	NA	< 0.05	100%	50%	140%	87%	50%	140%	92%	50%	140%
Benzo(b)fluoranthene	348439		< 0.05	< 0.05	NA	< 0.05	97%	50%	140%	91%	50%	140%	91%	50%	140%
Benzo(k)fluoranthene	348439		< 0.05	< 0.05	NA	< 0.05	115%	50%	140%	104%	50%	140%	96%	50%	140%
Benzo(a)pyrene	348439		< 0.05	< 0.05	NA	< 0.05	110%	50%	140%	93%	50%	140%	92%	50%	140%
Indeno(1,2,3-cd)pyrene	348439		< 0.05	< 0.05	NA	< 0.05	80%	50%	140%	64%	50%	140%	63%	50%	140%
Dibenz(a,h)anthracene	348439		< 0.05	< 0.05	NA	< 0.05	92%	50%	140%	63%	50%	140%	63%	50%	140%
Benzo(g,h,i)perylene	348439		< 0.05	< 0.05	NA	< 0.05	88%	50%	140%	65%	50%	140%	62%	50%	140%

**O. Reg. 153(511) - VOCs (Soil)**

Dichlorodifluoromethane	345722		< 0.05	< 0.05	NA	< 0.05	85%	50%	140%	75%	50%	140%	74%	50%	140%
Vinyl Chloride	345722		< 0.02	< 0.02	NA	< 0.02	81%	50%	140%	80%	50%	140%	83%	50%	140%
Bromomethane	345722		< 0.05	< 0.05	NA	< 0.05	88%	50%	140%	87%	50%	140%	76%	50%	140%
Trichlorofluoromethane	345722		< 0.05	< 0.05	NA	< 0.05	81%	50%	140%	81%	50%	140%	100%	50%	140%
Acetone	345722		< 0.50	< 0.50	NA	< 0.50	101%	50%	140%	95%	50%	140%	98%	50%	140%
1,1-Dichloroethylene	345722		< 0.05	< 0.05	NA	< 0.05	95%	50%	140%	87%	60%	130%	83%	50%	140%
Methylene Chloride	345722		< 0.05	< 0.05	NA	< 0.05	86%	50%	140%	86%	60%	130%	80%	50%	140%
Trans- 1,2-Dichloroethylene	345722		< 0.05	< 0.05	NA	< 0.05	104%	50%	140%	98%	60%	130%	94%	50%	140%
Methyl tert-butyl Ether	345722		< 0.05	< 0.05	NA	< 0.05	97%	50%	140%	107%	60%	130%	80%	50%	140%
1,1-Dichloroethane	345722		< 0.02	< 0.02	NA	< 0.02	83%	50%	140%	97%	60%	130%	91%	50%	140%
Methyl Ethyl Ketone	345722		< 0.50	< 0.50	NA	< 0.50	71%	50%	140%	72%	50%	140%	71%	50%	140%
Cis- 1,2-Dichloroethylene	345722		< 0.02	< 0.02	NA	< 0.02	98%	50%	140%	91%	60%	130%	102%	50%	140%

## Quality Assurance

**CLIENT NAME: MTE CONSULTANTS Inc.**
**AGAT WORK ORDER: 19L490827**
**PROJECT: 45102-104**
**ATTENTION TO: Mike Fabro**
**SAMPLING SITE: Darcy Drive, Strathroy**
**SAMPLED BY: Mackenzie Costello**

### Trace Organics Analysis (Continued)

RPT Date: Aug 20, 2019			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Chloroform	345722		< 0.04	< 0.04	NA	< 0.04	83%	50%	140%	83%	60%	130%	94%	50%	140%
1,2-Dichloroethane	345722		< 0.03	< 0.03	NA	< 0.03	70%	50%	140%	77%	60%	130%	70%	50%	140%
1,1,1-Trichloroethane	345722		< 0.05	< 0.05	NA	< 0.05	85%	50%	140%	115%	60%	130%	91%	50%	140%
Carbon Tetrachloride	345722		< 0.05	< 0.05	NA	< 0.05	80%	50%	140%	91%	60%	130%	91%	50%	140%
Benzene	345722		< 0.02	< 0.02	NA	< 0.02	95%	50%	140%	84%	60%	130%	100%	50%	140%
1,2-Dichloropropane	345722		< 0.03	< 0.03	NA	< 0.03	80%	50%	140%	89%	60%	130%	91%	50%	140%
Trichloroethylene	345722		< 0.03	< 0.03	NA	< 0.03	70%	50%	140%	83%	60%	130%	73%	50%	140%
Bromodichloromethane	345722		< 0.05	< 0.05	NA	< 0.05	74%	50%	140%	85%	60%	130%	72%	50%	140%
Methyl Isobutyl Ketone	345722		< 0.50	< 0.50	NA	< 0.50	94%	50%	140%	99%	50%	140%	93%	50%	140%
1,1,2-Trichloroethane	345722		< 0.04	< 0.04	NA	< 0.04	88%	50%	140%	101%	60%	130%	92%	50%	140%
Toluene	345722		< 0.05	< 0.05	NA	< 0.05	90%	50%	140%	70%	60%	130%	82%	50%	140%
Dibromochloromethane	345722		< 0.05	< 0.05	NA	< 0.05	87%	50%	140%	94%	60%	130%	107%	50%	140%
Ethylene Dibromide	345722		< 0.04	< 0.04	NA	< 0.04	75%	50%	140%	85%	60%	130%	76%	50%	140%
Tetrachloroethylene	345722		< 0.05	< 0.05	NA	< 0.05	100%	50%	140%	115%	60%	130%	111%	50%	140%
1,1,1,2-Tetrachloroethane	345722		< 0.04	< 0.04	NA	< 0.04	100%	50%	140%	95%	60%	130%	88%	50%	140%
Chlorobenzene	345722		< 0.05	< 0.05	NA	< 0.05	96%	50%	140%	78%	60%	130%	71%	50%	140%
Ethylbenzene	345722		< 0.05	< 0.05	NA	< 0.05	86%	50%	140%	70%	60%	130%	71%	50%	140%
m & p-Xylene	345722		< 0.05	< 0.05	NA	< 0.05	102%	50%	140%	75%	60%	130%	76%	50%	140%
Bromoform	345722		< 0.05	< 0.05	NA	< 0.05	102%	50%	140%	88%	60%	130%	81%	50%	140%
Styrene	345722		< 0.05	< 0.05	NA	< 0.05	97%	50%	140%	70%	60%	130%	80%	50%	140%
1,1,2,2-Tetrachloroethane	345722		< 0.05	< 0.05	NA	< 0.05	101%	50%	140%	112%	60%	130%	100%	50%	140%
o-Xylene	345722		< 0.05	< 0.05	NA	< 0.05	93%	50%	140%	75%	60%	130%	106%	50%	140%
1,3-Dichlorobenzene	345722		< 0.05	< 0.05	NA	< 0.05	109%	50%	140%	99%	60%	130%	116%	50%	140%
1,4-Dichlorobenzene	345722		< 0.05	< 0.05	NA	< 0.05	109%	50%	140%	113%	60%	130%	115%	50%	140%
1,2-Dichlorobenzene	345722		< 0.05	< 0.05	NA	< 0.05	84%	50%	140%	87%	60%	130%	75%	50%	140%
1,3-Dichloropropene	345722		< 0.04	< 0.04	NA	< 0.04	82%	50%	140%	97%	60%	130%	97%	50%	140%
n-Hexane	345722		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	87%	60%	130%	81%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

**O. Reg. 153(511) - PAHs (Soil)**

Naphthalene	441543		< 0.05	< 0.05	NA	< 0.05	100%	50%	140%	85%	50%	140%	85%	50%	140%
Acenaphthylene	441543		< 0.05	< 0.05	NA	< 0.05	107%	50%	140%	88%	50%	140%	88%	50%	140%
Acenaphthene	441543		< 0.05	< 0.05	NA	< 0.05	113%	50%	140%	97%	50%	140%	93%	50%	140%
Fluorene	441543		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	102%	50%	140%	101%	50%	140%
Phenanthrene	441543		< 0.05	< 0.05	NA	< 0.05	90%	50%	140%	86%	50%	140%	88%	50%	140%
Anthracene	441543		< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	95%	50%	140%	93%	50%	140%
Fluoranthene	441543		< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	90%	50%	140%	99%	50%	140%
Pyrene	441543		< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	99%	50%	140%	103%	50%	140%
Benz(a)anthracene	441543		< 0.05	< 0.05	NA	< 0.05	78%	50%	140%	75%	50%	140%	86%	50%	140%

## Quality Assurance

CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE: Darcy Drive, Strathroy

AGAT WORK ORDER: 19L490827  
 ATTENTION TO: Mike Fabro  
 SAMPLED BY: Mackenzie Costello

### Trace Organics Analysis (Continued)

RPT Date: Aug 20, 2019			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	
Chrysene	441543		< 0.05	< 0.05	NA	< 0.05	117%	50%	140%	99%	50%	140%	93%	50%	140%	
Benzo(b)fluoranthene	441543		< 0.05	< 0.05	NA	< 0.05	79%	50%	140%	88%	50%	140%	95%	50%	140%	
Benzo(k)fluoranthene	441543		< 0.05	< 0.05	NA	< 0.05	104%	50%	140%	99%	50%	140%	99%	50%	140%	
Benzo(a)pyrene	441543		< 0.05	< 0.05	NA	< 0.05	107%	50%	140%	93%	50%	140%	94%	50%	140%	
Indeno(1,2,3-cd)pyrene	441543		< 0.05	< 0.05	NA	< 0.05	79%	50%	140%	77%	50%	140%	74%	50%	140%	
Dibenz(a,h)anthracene	441543		< 0.05	< 0.05	NA	< 0.05	89%	50%	140%	75%	50%	140%	79%	50%	140%	
Benzo(g,h,i)perylene	441543		< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	75%	50%	140%	75%	50%	140%	

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: \_\_\_\_\_





## Method Summary

CLIENT NAME: MTE CONSULTANTS Inc.

AGAT WORK ORDER: 19L490827

PROJECT: 45102-104

ATTENTION TO: Mike Fabro

SAMPLING SITE: Darcy Drive, Strathroy

SAMPLED BY: Mackenzie Costello

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
<b>Soil Analysis</b>			
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	EPA SW 846 6010C; MSA, Part 3, Ch.21	ICP/OES
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium VI	INOR-93-6029	SM 3500 B; MSA Part 3, Ch. 25	SPECTROPHOTOMETER
Mercury	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
pH, 2:1 CaCl <sub>2</sub> Extraction	INOR-93-6031	MSA part 3 & SM 4500-H+ B	pH METER

## Method Summary

**CLIENT NAME: MTE CONSULTANTS Inc.**
**AGAT WORK ORDER: 19L490827**
**PROJECT: 45102-104**
**ATTENTION TO: Mike Fabro**
**SAMPLING SITE: Darcy Drive, Strathroy**
**SAMPLED BY: Mackenzie Costello**

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
<b>Trace Organics Analysis</b>			
Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluorene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Phenanthrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benz(a)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Chrysene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(a)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Moisture Content	ORG-91-5106	EPA SW-846 3541 & 8270D	BALANCE
Chrysene-d12	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P&T GC/FID
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	BALANCE
Moisture Content	VOL-91-5009	CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	CCME Tier 1 Method	GC/FID
Benzene	VOL-91-5009	EPA SW-846 5035 & 8260D	P&T GC/MS
Toluene	VOL-91-5009	EPA SW-846 5035 & 8260D	P&T GC/MS
Ethylbenzene	VOL-91-5009	EPA SW-846 5035 & 8260D	P&T GC/MS
Xylene Mixture	VOL-91-5009	EPA SW-846 5035 & 8260D	P&T GC/MS
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method	P&T GC/FID
Terphenyl	VOL-91-5009		GC/FID
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method	P&T GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5009	CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5009	CCME Tier 1 Method	GC/FID
Benzene	VOL-91-5009	EPA SW-846 5035 & 8260	P&T GC/MS
Toluene	VOL-91-5009	EPA SW-846 5035 & 8260	P&T GC/MS
Ethylbenzene	VOL-91-5009	EPA SW-846 5035 & 8260	P&T GC/MS
Xylene Mixture	VOL-91-5009	EPA SW-846 5035 & 8260	P&T GC/MS
Dichlorodifluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Acetone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS

## Method Summary

**CLIENT NAME: MTE CONSULTANTS Inc.**
**AGAT WORK ORDER: 19L490827**
**PROJECT: 45102-104**
**ATTENTION TO: Mike Fabro**
**SAMPLING SITE: Darcy Drive, Strathroy**
**SAMPLED BY: Mackenzie Costello**

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trans- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Chloroform	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Benzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Toluene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromoform	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Styrene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Xylene Mixture	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS

**Laboratory Use Only**

Work Order #: 19L490827  
Cooler Quantity: 19L490827  
Arrival Temperatures: \_\_\_\_\_  
Custody Seal Intact:  Yes  No  N/A  
Notes: \_\_\_\_\_

**Chain of Custody Record**

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

**Report Information:**  
Company: MTE Consultants  
Contact: Mike Fabro  
Address: 123 St George St., London, Ontario N6A 3A1  
Phone: 519-204-6510 x2233 Fax: \_\_\_\_\_  
Reports to be sent to: MFabro@mte85.com  
1. Email: \_\_\_\_\_  
2. Email: mcostello@mte85.com

**Regulatory Requirements:**  No Regulatory Requirement  
*(Please check all applicable boxes)*  
 Regulation 153/04  
Table 2 Indicate One  
 Ind/Com  
 Res/Park  
 Agriculture  
Soil Texture (Check One)  
 Coarse  
 Fine  
Region \_\_\_\_\_ Indicate One  
 Sewer Use  
 Sanitary  
 Storm  
 MISA  
 Regulation 558  
 CCME  
 Prov. Water Quality Objectives (PWQO)  
 Other  
**Is this submission for a Record of Site Condition?**  
 Yes  No  
**Report Guideline on Certificate of Analysis**  
 Yes  No

**Project Information:**  
Project: 45102-104  
Site Location: Darcy Drive, Stratroy  
Sampled By: Mackenzie Costello  
AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_  
*Please note: If quotation number is not provided, client will be billed full price for analysis.*

**Invoice Information:** Bill To Same: Yes  No   
Company: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Email: \_\_\_\_\_

- Sample Matrix Legend**  
B Blota  
GW Ground Water  
O Oil  
P Paint  
S Soil  
SD Sediment  
SW Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y/N	Field Filtered - Metals, Hg, CrVI	0. Reg 153	Metals and Inorganics	Full Metals Scan	Regulation/Custom Metals	Nutrients: TP, NH <sub>4</sub> , TN, NO <sub>3</sub> , NO <sub>2</sub>	Volatiles: VOC, BTEX, THM	PHCs F1-F4 + BTEX	ABNS	PAHS	PCBs: Total, Aroclors	Organochlorine Pesticides	TCLP: M&I, VOCs, ABNS, B(a)P, PCBs	Sewer Use	Potentially Hazardous or High Concentration (Y/N)		
MW202-19-1A	11/9/19	9:25	3	S					<input checked="" type="checkbox"/> All Metals <input type="checkbox"/> 153 Metals (excl. Hydrides) <input type="checkbox"/> Hydride Metals <input type="checkbox"/> 153 Metals (incl. Hydrides)														
MW202-19-1B		9:36																					
MW202-19-2A		9:45						X						X									
MW202-19-2B		9:52																					
MW202-19-3A		10:00																					
MW202-19-3B		10:08																					
MW202-19-4A		10:16																					
MW202-19-4B		10:28																					
MW202-19-4C		10:32																					
MW202-19-5A		10:35																					
MW202-19-5B		10:39																					

Samples Relinquished By (Print Name and Sign): Mackenzie Costello Date: 11/07/10 Time: 15:20  
Samples Received By (Print Name and Sign): J. Smith Date: 11/07/10 Time: 3:20  
Page 1 of 6



# AGAT Laboratories

5835 Coopers Avenue  
Mississauga, Ontario L4Z 1Y2  
Ph: 905.712.5100 Fax: 905.712.5122  
webearth.agatlabs.com

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

### Report Information:

Company: MTE Consultants  
Contact: Mike Fabro  
Address: 123 St George St., London, Ontario N6A 3A1  
Phone: 519-204-6510 x2233 Fax: \_\_\_\_\_  
Reports to be sent to: MFabro@mte85.com  
1. Email: \_\_\_\_\_  
2. Email: mcastello@mte85.com

### Regulatory Requirements: No Regulatory Requirement

(Please check all applicable boxes)

Regulation 153/04  
 Table 2  
 Ind/Com  
 Res/Park  
 Agriculture  
 Sewer Use  
 Sanitary  
 Storm  
 Regulation 558  
 CCME  
 Prov. Water Quality Objectives (PWQO)  
 Other  
 Soil Texture (check One)  Coarse  Fine  
 Region \_\_\_\_\_ Indicate One  
 MISA \_\_\_\_\_ Indicate One

Is this submission for a Record of Site Condition?  
 Yes  No

Report Guideline on Certificate of Analysis  
 Yes  No

### Project Information:

Project: 45102-104  
Site Location: Dairy Drive, Stratford  
Sampled By: Marcosie Castello  
AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_  
Please note: If quotation number is not provided, client will be billed full price for analysis.

### Invoice Information:

Bill To Same: Yes  No

Company: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Email: \_\_\_\_\_

### Sample Matrix Legend

**B** Biota  
**GW** Ground Water  
**O** Oil  
**P** Paint  
**S** Soil  
**SD** Sediment  
**SW** Surface Water

Field Filtered - Metals, Hg, CYI

0. Reg 153		Metals and Inorganics		Nutrients		Volatiles		PHCs F1-F4		ABNS		PAHS		PCBS		Organochlorine Pesticides		TCLP		Sewer Use		Potentially Hazardous or High Concentration (Y/N)		
<input checked="" type="checkbox"/>	All Metals	<input type="checkbox"/>	153 Metals (excl. Hydrides)	<input type="checkbox"/>	TP	<input type="checkbox"/>	NH <sub>3</sub>	<input type="checkbox"/>	THM	<input type="checkbox"/>	PHCs F1-F4	<input type="checkbox"/>	ABNS	<input type="checkbox"/>	PAHS	<input type="checkbox"/>	PCBS	<input type="checkbox"/>	Organochlorine Pesticides	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Sewer Use	
<input type="checkbox"/>	Hydride Metals	<input type="checkbox"/>	153 Metals (incl. Hydrides)	<input type="checkbox"/>	NO <sub>2</sub>	<input type="checkbox"/>	NO <sub>3</sub>	<input type="checkbox"/>	BTEX	<input checked="" type="checkbox"/>	PHCs F1-F4	<input type="checkbox"/>	ABNS	<input type="checkbox"/>	PAHS	<input type="checkbox"/>	PCBS	<input type="checkbox"/>	Organochlorine Pesticides	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Sewer Use	
<input type="checkbox"/>	ORPs	<input type="checkbox"/>	B-HWS	<input type="checkbox"/>	Cr <sup>6+</sup>	<input type="checkbox"/>	EC	<input type="checkbox"/>	FOC	<input type="checkbox"/>	Hg	<input type="checkbox"/>	ABNS	<input type="checkbox"/>	PAHS	<input type="checkbox"/>	PCBS	<input type="checkbox"/>	Organochlorine Pesticides	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Sewer Use	
<input type="checkbox"/>	CN <sup>-</sup>	<input type="checkbox"/>	PH	<input type="checkbox"/>	SAR	<input type="checkbox"/>	Full Metals Scan	<input type="checkbox"/>	Regulation/Custom Metals	<input type="checkbox"/>	PHCs F1-F4	<input type="checkbox"/>	ABNS	<input type="checkbox"/>	PAHS	<input type="checkbox"/>	PCBS	<input type="checkbox"/>	Organochlorine Pesticides	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Sewer Use	
<input type="checkbox"/>	Full Metals Scan	<input type="checkbox"/>	Regulation/Custom Metals	<input type="checkbox"/>	TP	<input type="checkbox"/>	NH <sub>3</sub>	<input type="checkbox"/>	THM	<input type="checkbox"/>	PHCs F1-F4	<input type="checkbox"/>	ABNS	<input type="checkbox"/>	PAHS	<input type="checkbox"/>	PCBS	<input type="checkbox"/>	Organochlorine Pesticides	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Sewer Use	
<input type="checkbox"/>	NO <sub>2</sub>	<input type="checkbox"/>	NO <sub>3</sub>	<input type="checkbox"/>	NO <sub>2</sub>	<input type="checkbox"/>	NO <sub>3</sub>	<input type="checkbox"/>	BTEX	<input checked="" type="checkbox"/>	PHCs F1-F4	<input type="checkbox"/>	ABNS	<input type="checkbox"/>	PAHS	<input type="checkbox"/>	PCBS	<input type="checkbox"/>	Organochlorine Pesticides	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Sewer Use	
<input type="checkbox"/>	PHCs F1-F4	<input type="checkbox"/>	ABNS	<input type="checkbox"/>	PAHS	<input type="checkbox"/>	PCBS	<input type="checkbox"/>	Organochlorine Pesticides	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Sewer Use	<input checked="" type="checkbox"/>	On hold	<input checked="" type="checkbox"/>	PH	<input checked="" type="checkbox"/>	Extract + hold					
<input type="checkbox"/>	ABNS	<input type="checkbox"/>	PAHS	<input type="checkbox"/>	PCBS	<input type="checkbox"/>	Organochlorine Pesticides	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Sewer Use													
<input type="checkbox"/>	Organochlorine Pesticides	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Sewer Use																			
<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Sewer Use																					
<input type="checkbox"/>	Sewer Use																							
<input type="checkbox"/>	Potentially Hazardous or High Concentration (Y/N)																							

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/Special Instructions	Y/N
MW201-19-1A	Jul 19/10	12:16	3	S		
MW201-19-1B		12:25				
MW201-19-2A		12:32				
MW201-19-2B		12:39			PAH jar not submitted, take from PHC?	
MW201-19-3A		12:45				
MW201-19-3B		12:49				
MW201-19-4A		12:57				
MW201-19-4B		12:59				
MW201-19-5A		13:08				
MW201-19-5B		13:16				
DUP01-2A	Jul 19/10	12:00	3	S		

Samples Relinquished By (Print Name and Sign): <u>Marcosie Castello</u>	Date: <u>9/07/10</u>	Time: <u>15:20</u>	Samples Received By (Print Name and Sign): <u>J. Smith</u>	Date: <u>19/7/10</u>	Time: <u>3:20</u>
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:

### Laboratory Use Only

Work Order #: \_\_\_\_\_  
Cooler Quantity: \_\_\_\_\_  
Arrival Temperatures: \_\_\_\_\_  
Custody Seal Intact:  Yes  No  N/A  
Notes: \_\_\_\_\_

### Turnaround Time (TAT) Required:

Regular TAT  5 to 7 Business Days  
Rush TAT (Rush Surcharges Apply)  
 3 Business Days  2 Business Days  Next Business Day

OR Date Required (Rush Surcharges May Apply):

MTE Standard 3-day TAT

Please provide prior notification for rush TAT  
\*TAT is exclusive of weekends and statutory holidays

For 'Same Day' analysis, please contact your AGAT CPM



# AGAT Laboratories

5835 Coopers Avenue  
 Mississauga, Ontario L4Z 1Y2  
 Ph: 905.712.5100 Fax: 905.712.5122  
 webearth.agatlabs.com

## Laboratory Use Only

Work Order #: \_\_\_\_\_

Cooler Quantity: \_\_\_\_\_

Arrival Temperatures: \_\_\_\_\_

Custody Seal Intact:  Yes  No  N/A

Notes: \_\_\_\_\_

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

### Report Information:

Company: MTE Consultants  
 Contact: Mike Fabro  
 Address: 123 St. George St., London, ON  
 Phone: (519) 204-6510 Fax: \_\_\_\_\_  
 Reports to be sent to: MFabro@nte85.com  
 1. Email: MFabro@nte85.com  
 2. Email: mcostello@nte85.com

### Regulatory Requirements: No Regulatory Requirement

(Please check all applicable boxes)

Regulation 153/04  Sewer Use  Regulation 558  
 Table 2  Sanitary  CCME  
 Ind./Com  Storm  Prov. Water Quality Objectives (PWQO)  
 Res/Park  Agriculture  Other  
 Agriculture  
 Soil Texture (Check One) Region \_\_\_\_\_  
 Coarse  MISA  Fine  
 Indicate One

### Project Information:

Project: 45102-104  
 Site Location: Darcy Drive Strathroy  
 Sampled By: Mackenzie Costello  
 AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_  
*Please note: If quotation number is not provided, client will be billed full price for analysis.*

### Is this submission for a Record of Site Condition?

Yes  No

### Report Guideline on Certificate of Analysis

Yes  No

### Turnaround Time (TAT) Required:

Regular TAT  5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

3 Business Days  2 Business Days  Next Business Day

OR Date Required (Rush Surcharges May Apply): \_\_\_\_\_

Please provide prior notification for rush TAT  
 \*TAT is exclusive of weekends and statutory holidays

For 'Same Day' analysis, please contact your AGAT CPM

### Invoice Information:

Bill To Same: Yes  No

Company: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Email: \_\_\_\_\_

### Sample Matrix Legend

**B** Biota  
**GW** Ground Water  
**O** Oil  
**P** Paint  
**S** Soil  
**SD** Sediment  
**SW** Surface Water

Metals and Inorganics	D. Reg 153		Full Metals Scan	Regulation/Custom Metals	Nutrients: <input type="checkbox"/> TP <input type="checkbox"/> NH <sub>3</sub> <input type="checkbox"/> TKN <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> NO <sub>x</sub> +NO <sub>2</sub>	Volatiles: <input type="checkbox"/> VOC <input type="checkbox"/> BTEX <input type="checkbox"/> THM	PHCS F1 - F4 + <b>STEX</b>	ABNS	PAHs	PCBS: <input type="checkbox"/> Total <input type="checkbox"/> Aroclors	Organochlorine Pesticides	TCP: <input type="checkbox"/> M&I <input type="checkbox"/> VOCs <input type="checkbox"/> ABNS <input type="checkbox"/> B(a)P <input type="checkbox"/> PCBs	Sewer Use
	All Metals <input type="checkbox"/> 153 Metals (excl. Hydrides) <input type="checkbox"/> Hydride Metals <input type="checkbox"/> 153 Metals (incl. Hydrides)	ORPs: <input type="checkbox"/> B-HWS <input type="checkbox"/> Cl <input type="checkbox"/> CN <input type="checkbox"/> Cr <sup>6+</sup> <input type="checkbox"/> EC <input type="checkbox"/> FOC <input type="checkbox"/> Hg <input type="checkbox"/> pH <input type="checkbox"/> SAR											
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>											

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y/N
DUP01-4B	1/7/10	2:50	3	S		
DUP01-5B		13:30	3	S		
MW203-19-1A		11:35	4			
MW203-19-1B		11:46				
MW203-19-2A		11:51				
MW203-19-2B		11:57				
MW203-19-3A		5:03				
MW203-19-3B		5:06				
MW203-19-3C		5:14				
MW203-19-4A		5:26				
MW203-19-4B		5:20				

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
<u>Mackenzie Costello/MCF</u>	<u>1/7/10</u>	<u>13:20</u>	<u>J. Smith</u>	<u>1/7/10</u>	<u>3:20</u>
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

### Laboratory Use Only

Work Order #: \_\_\_\_\_

Cooler Quantity: \_\_\_\_\_

Arrival Temperatures: \_\_\_\_\_

Custody Seal Intact:  Yes  No  N/A

Notes: \_\_\_\_\_

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

**Report Information:**  
 Company: MTE Consultants  
 Contact: Mike Fahro  
 Address: 123 St. George St. London, ON  
 Phone: (519) 204-6510 Fax: \_\_\_\_\_  
 Reports to be sent to:  
 1. Email: MFahro@mte85.com  
 2. Email: mcastello@mte85.com

**Regulatory Requirements:**  No Regulatory Requirement  
(Please check all applicable boxes)

<input type="checkbox"/> Regulation 153/04	<input type="checkbox"/> Sewer Use	<input type="checkbox"/> Regulation 558
Table _____ <small>Indicate One</small>	<input type="checkbox"/> Sanitary	<input type="checkbox"/> CCME
<input type="checkbox"/> Ind/Com	<input type="checkbox"/> Storm	<input type="checkbox"/> Prov. Water Quality Objectives (PWQO)
<input checked="" type="checkbox"/> Res/Park	Region _____ <small>Indicate One</small>	<input type="checkbox"/> Other
<input type="checkbox"/> Agriculture		
Soil Texture (Check One)		
<input type="checkbox"/> Coarse		
<input type="checkbox"/> Fine	<input type="checkbox"/> MISA	_____ <small>Indicate One</small>

### Turnaround Time (TAT) Required:

**Regular TAT**  5 to 7 Business Days

**Rush TAT** (Rush Surcharges Apply)

3 Business Days  2 Business Days  Next Business Day

OR Date Required (Rush Surcharges May Apply): \_\_\_\_\_

*Please provide prior notification for rush TAT  
\*TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

**Project Information:**  
 Project: 75102-104  
 Site Location: Dara Drive, Stratford  
 Sampled By: Michael Castello  
 AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_

Is this submission for a Record of Site Condition?

Yes  No

Report Guideline on Certificate of Analysis

Yes  No

**Invoice Information:** Bill To Same: Yes  No

Company: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Email: \_\_\_\_\_

### Sample Matrix Legend

- B** Biota
- GW** Ground Water
- O** Oil
- P** Paint
- S** Soil
- SD** Sediment
- SW** Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y/N	Field Filtered - Metals, Hg, CrVI	Metals and Inorganics	O. Reg 153	Full Metals Scan	Regulation/Custom Metals	Nutrients: <input type="checkbox"/> TP <input type="checkbox"/> NH <sub>3</sub> <input type="checkbox"/> TKN <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> NO <sub>x</sub> +NO <sub>2</sub>	Volatiles: <input checked="" type="checkbox"/> VOC <input type="checkbox"/> BTEX <input type="checkbox"/> THM	PHCs F1 - F4	ABNS	PAHS	PCBS: <input type="checkbox"/> Total <input type="checkbox"/> Aroclors	Organochlorine Pesticides	TCLP: <input type="checkbox"/> M&I <input type="checkbox"/> VOCs <input type="checkbox"/> ABNS <input type="checkbox"/> B(a)P <input type="checkbox"/> PCBs	Sewer Use	
MW203-19-5A	4/19/19	15:37	4	S																	
MW203-19-5B	↓	15:42	1																		
DUPO3-5B	↓	15:50	1																		
MW203-19-4C	↓	15:35	↓																		
MW208-19-1A	4/19/19	9:05	3																		
MW208-19-1B	↓	9:11	4																		
MW208-19-1C	↓	9:18	1																		
MW208-19-2A	↓	9:27	1																		
MW208-19-2B	↓	9:33	1																		
MW208-19-3A	↓	9:42	1																		
MW208-19-3B	↓	9:46	1																		

Samples Relinquished By (Print Name and Sign): <u>Michael Castello</u>	Date: <u>4/10/20</u>	Time: <u>15:20</u>	Samples Received By (Print Name and Sign): <u>J. Smith</u>	Date: <u>4/10/20</u>	Time: <u>15:20</u>
Samples Relinquished By (Print Name and Sign): _____	Date: _____	Time: _____	Samples Received By (Print Name and Sign): _____	Date: _____	Time: _____
Samples Relinquished By (Print Name and Sign): _____	Date: _____	Time: _____	Samples Received By (Print Name and Sign): _____	Date: _____	Time: _____

## Laboratory Use Only

Work Order #: \_\_\_\_\_

Cooler Quantity: \_\_\_\_\_

Arrival Temperatures: \_\_\_\_\_

Custody Seal Intact:  Yes  No  N/A

Notes: \_\_\_\_\_

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

### Report Information:

Company: MTE Consultants  
Contact: MIKE FABRO  
Address: 123 St. George St, London, ON  
Phone: (519) 704-6510 Fax: \_\_\_\_\_  
Reports to be sent to: \_\_\_\_\_  
1. Email: mfabro@mte85.com  
2. Email: mcostello@mte85.com

### Regulatory Requirements: No Regulatory Requirement

(Please check all applicable boxes)

Regulation 153/04  Sewer Use  Regulation 558  
 Ind/Com  Sanitary  CCME  
 Res/Park  Storm  Prov. Water Quality Objectives (PWQO)  
 Agriculture  Other  
Soil Texture (Check One) Region \_\_\_\_\_ Indicate One  
 Coarse  Fine  MISA \_\_\_\_\_ Indicate One

### Turnaround Time (TAT) Required:

Regular TAT  5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

3 Business Days  2 Business Days  Next Business Day

OR Date Required (Rush Surcharges May Apply): \_\_\_\_\_

Please provide prior notification for rush TAT  
\*TAT is exclusive of weekends and statutory holidays

For 'Same Day' analysis, please contact your AGAT CPM

### Project Information:

Project: 45102-104  
Site Location: Dogwood Drive, Stratford  
Sampled By: Mackenzie Costello  
AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_

Please note: If quotation number is not provided, client will be billed full price for analysis.

### Invoice Information:

Bill To Same: Yes  No

Company: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Email: \_\_\_\_\_

### Is this submission for a Record of Site Condition?

Yes  No

### Report Guideline on Certificate of Analysis

Yes  No

### Sample Matrix Legend

**B** Biota  
**GW** Ground Water  
**O** Oil  
**P** Paint  
**S** Soil  
**SD** Sediment  
**SW** Surface Water

Field Filtered - Metals, Hg, CrVI

O. Reg 153

Metals and Inorganics

All Metals  153 Metals (excl. Hydrides)  
 Hydride Metals  153 Metals (Incl. Hydrides)

ORPs:  B-HWS  Cl<sup>-</sup>  CN  
 Cp<sup>-</sup>  EC  FOC  Hg  
 pH  SAR

Full Metals Scan

Regulation/Custom Metals

Nutrients:  TP  NH<sub>3</sub>  TKN  
 NO<sub>2</sub>  NO<sub>3</sub>  NO<sub>2</sub>+NO<sub>3</sub>

Volatiles:  VOC  BTEX  THM

PHCs F1 - F4 + BTEX

ABNs

PAHs

PCBs:  Total  Aroclors

Organochlorine Pesticides

TCLP:  M&I  VOCs  ABNs  B(e)P  PCBs

Sewer Use

On hold

PH

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y/N	Metals and Inorganics	ORPs	Full Metals Scan	Regulation/Custom Metals	Nutrients	Volatiles	PHCs F1 - F4 + BTEX	ABNs	PAHs	PCBs	Organochlorine Pesticides	TCLP	Sewer Use	Other
MW208-19-2C	10/99	51	4	S																
MW208-19-4		9:57																		
MW208-19-5A		10:03																		
MW208-19-5B		10:11					X					X X			X					X
MW208-19-6		10:27																		
DUP08-5B		10:35																		
MW211-19-1A		11:44	3																	
MW211-19-1B		11:49	4																	
MW211-19-1C		11:54																		
MW211-19-2A		12:00																		
MW211-19-2B		12:09																		

Samples Relinquished By (Print Name and Sign): <u>Mackenzie Costello</u>	Date: <u>9/07/10</u>	Time: <u>15:20</u>	Samples Received By (Print Name and Sign): <u>[Signature]</u>	Date: <u>11/17/10</u>	Time: <u>13:20</u>
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:

Page 5 of 6

No: T086609

### Laboratory Use Only

Work Order #: \_\_\_\_\_  
Cooler Quantity: \_\_\_\_\_  
Arrival Temperatures: \_\_\_\_\_  
Custody Seal Intact:  Yes  No  N/A  
Notes: \_\_\_\_\_

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

<b>Report Information:</b> Company: <u>MTE Consultants</u> Contact: <u>Mike Fano</u> Address: <u>123 St George St, London, ON</u> Phone: <u>(519) 04-6510</u> Fax: _____ Reports to be sent to: 1. Email: <u>mfano@mte85.com</u> 2. Email: <u>mte5tello@mte85.com</u>		<b>Regulatory Requirements:</b> <input type="checkbox"/> No Regulatory Requirement <i>(Please check all applicable boxes)</i> <input type="checkbox"/> Regulation 153/04 <input type="checkbox"/> Sewer Use <input type="checkbox"/> Regulation 558 Table <u>2</u> <input type="checkbox"/> Sanitary <input type="checkbox"/> CCME <input type="checkbox"/> Ind/Com <input type="checkbox"/> Storm <input type="checkbox"/> Prov. Water Quality Objectives (PWQO) <input type="checkbox"/> Res/Park <input type="checkbox"/> Agriculture <input type="checkbox"/> Other Soil Texture (Check One)    Region _____ <i>Indicate One</i> <input type="checkbox"/> Coarse <input type="checkbox"/> MISA <input type="checkbox"/> Fine    _____ <i>Indicate One</i>	
--	--	---	--

**Turnaround Time (TAT) Required:**

**Regular TAT**  5 to 7 Business Days

**Rush TAT (Rush Surcharges Apply)**

3 Business Days     2 Business Days     Next Business Day

**OR Date Required (Rush Surcharges May Apply):** \_\_\_\_\_

*Please provide prior notification for rush TAT  
\*TAT is exclusive of weekends and statutory holidays*

**For 'Same Day' analysis, please contact your AGAT CPM**

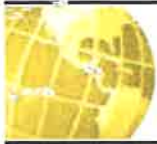
<b>Project Information:</b> Project: <u>45102 104</u> Site Location: <u>Dorval Drive, Stratford</u> Sampled By: <u>Michael Fano</u> AGAT Quote #: _____ PO: _____ <i>Please note: If quotation number is not provided, client will be billed full price for analysis.</i>		<b>Is this submission for a Record of Site Condition?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>Report Guideline on Certificate of Analysis</b> <input type="checkbox"/> Yes <input type="checkbox"/> No	
--	--	---	--	--	--

<b>Invoice Information:</b> Bill To Same: Yes <input type="checkbox"/> No <input type="checkbox"/> Company: _____ Contact: _____ Address: _____ Email: _____		<b>Sample Matrix Legend</b> B Biota GW Ground Water O Oil P Paint S Soil SD Sediment SW Surface Water		<b>Field Filtered - Metals, Hg, CrVI</b> Metals and Inorganics <input checked="" type="checkbox"/> All Metals <input type="checkbox"/> 153 Metals (exc. Hydrides) <input type="checkbox"/> Hydride Metals <input type="checkbox"/> 153 Metals (incl. Hydrides) ORPs: <input type="checkbox"/> B-HWS <input type="checkbox"/> Cr <input type="checkbox"/> CN <input type="checkbox"/> Cr* <input type="checkbox"/> EC <input type="checkbox"/> FOC <input type="checkbox"/> Hg <input type="checkbox"/> pH <input type="checkbox"/> SAR Full Metals Scan Regulation/Custom Metals Nutrients: <input type="checkbox"/> TP <input type="checkbox"/> NH <sub>3</sub> <input type="checkbox"/> TRN <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> NO <sub>2</sub> +NO <sub>3</sub> Volatiles: <input checked="" type="checkbox"/> Avoc <input type="checkbox"/> BTEX <input type="checkbox"/> THM PHCs F1 - F4 + BTEX ABNs PAHs PCBs: <input type="checkbox"/> Total <input type="checkbox"/> Aroclors Organochlorine Pesticides TCLP: <input type="checkbox"/> M&I <input type="checkbox"/> VOCs <input type="checkbox"/> ABNs <input type="checkbox"/> B(a)P <input type="checkbox"/> PCBs Sewer Use <u>On hold</u> <u>pH</u>	
---	--	--	--	--	--

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N	Field Filtered - Metals, Hg, CrVI	Metals and Inorganics	ORPs	Full Metals Scan	Regulation/Custom Metals	Nutrients	Volatiles	PHCs F1 - F4 + BTEX	ABNs	PAHs	PCBs	Organochlorine Pesticides	TCLP	Sewer Use
MW211-19-3A	6/10/19	1217	4	S																
MW211-19-3B		1220																		
MW211-19-3C		1223																		
MW211-19-4A		1225																		
MW211-19-4B		1229																		
MW211-19-5A		1233						X					X	X	X					X
MW211-19-5B		1240																		
MW211-19-6A		1247																		
MW211-19-6B	↓	1252	↓	↓																X
DUP11-6B	↓	1300	↓	↓																X

Samples Relinquished By (Print Name and Sign): <u>Madame Corbett</u>	Date: <u>7/10/19</u>	Time: <u>5:20</u>	Samples Received By (Print Name and Sign): <u>J. Smith</u>	Date: <u>7/17/19</u>	Time: <u>5:20</u>
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:





# AGAT Laboratories

5835 Coopers Avenue  
Mississauga, Ontario L4Z 1Y2  
Ph: 905.712.5100 Fax: 905.712.5122  
webearth.agatlabs.com

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

### Report Information:

Company: MTE Consultants  
Contact: Mike Fabro  
Address: 123 St George St., London, Ontario N6A 3A1  
Phone: 519-204-6510 x2233 Fax: \_\_\_\_\_  
Reports to be sent to: MFabro@mte85.com  
1. Email: \_\_\_\_\_  
2. Email: mcostello@mte85.com

### Project Information:

Project: 45102-104  
Site Location: Darcy Drive, Strathroy  
Sampled By: Mackenzie Costello  
AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_  
Please note: If quotation number is not provided, client will be billed full price for analysis.

### Invoice Information:

Company: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Email: \_\_\_\_\_  
Bill To Same: Yes  No

### Regulatory Requirements:

(Please check all applicable boxes)

Regulation 153/04  
 Sewer Use  
 Regulation 558  
 Ind/Com  
 Sanitary  
 CCME  
 Res/Park  
 Storm  
 Prov. Water Quality Objectives (PWQO)  
 Agriculture  
 Other  
Soil Texture (Check One)  
 Coarse  
 Fine  
Region: \_\_\_\_\_  
 MISA  
Indicate One

### Is this submission for a Record of Site Condition?

Yes  No

### Report Guideline on Certificate of Analysis

Yes  No

### Sample Matrix Legend

**B** Biota  
**GW** Ground Water  
**O** Oil  
**P** Paint  
**S** Soil  
**SD** Sediment  
**SW** Surface Water

Field Filtered - Metals, Hg, CrVI

### O. Reg 153

Metals and Inorganics	<input type="checkbox"/> All Metals <input type="checkbox"/> 153 Metals (excl. Hydrides)	Full Metals Scan	Regulation/Custom Metals	Nutrients: <input type="checkbox"/> TP <input type="checkbox"/> NH <sub>3</sub> <input type="checkbox"/> TN <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> NO <sub>x</sub>	Volatiles: <input type="checkbox"/> VOC <input type="checkbox"/> BTEX <input type="checkbox"/> THM	PHCs F1 - F4	ABNS	PAHS	PCBs: <input type="checkbox"/> Total <input type="checkbox"/> Aroclors	Organochlorine Pesticides	TCLP: <input type="checkbox"/> M&I <input type="checkbox"/> VOCs <input type="checkbox"/> ABNS <input type="checkbox"/> B(a)P <input type="checkbox"/> PCBs	Sewer Use	Potentially Hazardous or High Concentration (Y/N)
<input type="checkbox"/> Hydride Metals <input type="checkbox"/> 153 Metals (incl. Hydrides)	ORPs: <input type="checkbox"/> B-HWS <input type="checkbox"/> Cl <input type="checkbox"/> CN <input type="checkbox"/> Cr <sup>6+</sup> <input type="checkbox"/> EC <input type="checkbox"/> FOC <input type="checkbox"/> Hg <input type="checkbox"/> pH <input type="checkbox"/> SAR												

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y/N
MW201-19-1A	Jul 9/19	12:16	3	S		
MW201-19-1B		12:25				
MW201-19-2A		12:32				
MW201-19-2B		12:39				
MW201-19-3A		12:45				
MW201-19-3B		12:49				
MW201-19-4A		12:57				
MW201-19-4B		12:59				
MW201-19-5A		13:08				
MW201-19-5B		13:16				
DUP01-2A	Jul 9/19	12:00	3	S		

Samples Relinquished By (Print Name and Sign): <u>Mackenzie Costello</u>	Date: <u>19/07/10</u>	Time: <u>15:20</u>	Samples Received By (Print Name and Sign): <u>J. Smith</u>	Date: <u>19/7/10</u>	Time: <u>3:20</u>
Samples Relinquished By (Print Name and Sign): <u>J. Smith</u>	Date: <u>19/07/11</u>	Time: <u>3:00</u>	Samples Received By (Print Name and Sign): _____	Date: _____	Time: _____
Samples Relinquished By (Print Name and Sign): _____	Date: _____	Time: _____	Samples Received By (Print Name and Sign): _____	Date: _____	Time: _____

### Laboratory Use Only

Work Order #: 19L490827  
Cooler Quantity: 5 1rg 1med  
Arrival Temperatures: \_\_\_\_\_  
Custody Seal Intact:  Yes  No  N/A  
Notes: \_\_\_\_\_

### Turnaround Time (TAT) Required:

**Regular TAT**  5 to 7 Business Days  
**Rush TAT** (Rush Surcharges Apply)  
 3 Business Days  2 Business Days  Next Business Day  
**OR** Date Required (Rush Surcharges May Apply):  
MTE Standard 3-day TAT  
*Please provide prior notification for rush TAT*  
*\*TAT is exclusive of weekends and statutory holidays*  
**For 'Same Day' analysis, please contact your AGAT CPM**



# AGAT Laboratories

5835 Coopers Avenue  
Mississauga, Ontario L4Z 1Y2  
Ph: 905.712.5100 Fax: 905.712.5122  
webearth.agatlabs.com

## Laboratory Use Only

Work Order #: 19L490827  
Cooler Quantity: 5 lrg 1 med  
Arrival Temperatures: \_\_\_\_\_  
Custody Seal Intact:  Yes  No  N/A  
Notes:

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

### Report Information:

Company: MTE Consultants  
Contact: Mike Fabro  
Address: 123 St. George St., London, ON  
Phone: (519) 204-6510 Fax: \_\_\_\_\_  
Reports to be sent to:  
1. Email: MFabro@MTE85.com  
2. Email: mcastello@mte85.com

### Regulatory Requirements: No Regulatory Requirement

(Please check all applicable boxes)

Regulation 153/04  
Table 2 Indicate One  
 Ind/Com  
 Res/Park  
 Agriculture  
Soil Texture (Check One)  
 Coarse  
 Fine  
Region \_\_\_\_\_ Indicate One  
 Sewer Use  
 Sanitary  
 Storm  
 Regulation 558  
 CCME  
 Prov. Water Quality Objectives (PWQO)  
 Other  
 MISA Indicate One

### Project Information:

Project: 45102-104  
Site Location: Darav Drive, Strathroy  
Sampled By: Mackenzie Castello  
AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_

Please note: If quotation number is not provided, client will be billed full price for analysis.

### Is this submission for a Record of Site Condition?

Yes  No

### Report Guideline on Certificate of Analysis

Yes  No

### Turnaround Time (TAT) Required:

**Regular TAT**  5 to 7 Business Days  
**Rush TAT** (Rush Surcharges Apply)  
 3 Business Days  2 Business Days  Next Business Day  
**OR** Date Required (Rush Surcharges May Apply): \_\_\_\_\_

Please provide prior notification for rush TAT  
\*TAT is exclusive of weekends and statutory holidays

For 'Same Day' analysis, please contact your AGAT CPM

### Invoice Information:

Bill To Same: Yes  No

Company: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Email: \_\_\_\_\_

### Sample Matrix Legend

**B** Biota  
**GW** Ground Water  
**O** Oil  
**P** Paint  
**S** Soil  
**SD** Sediment  
**SW** Surface Water

Field Filtered - Metals, Hg, CrVI

Metals and Inorganics	0. Reg 153		Nutrients: <input type="checkbox"/> TP <input type="checkbox"/> NH <sub>4</sub> <input type="checkbox"/> TKN <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> NO <sub>3</sub> +NO <sub>2</sub>	Volatiles: <input type="checkbox"/> VOC <input type="checkbox"/> BTEX <input type="checkbox"/> THM	PHCs F1 - F4	ABNS	PAHs	PCBs: <input type="checkbox"/> Total <input type="checkbox"/> Aroclors	Organochlorine Pesticides	TCLP: <input type="checkbox"/> M&I <input type="checkbox"/> VOCs <input type="checkbox"/> ABNS <input type="checkbox"/> B(a)P <input type="checkbox"/> PCBs	Sewer Use
	All Metals <input type="checkbox"/> 153 Metals (excl. Hydrides) <input type="checkbox"/> Hydride Metals <input type="checkbox"/> 153 Metals (incl. Hydrides)	ORPs: <input type="checkbox"/> B-HWS <input type="checkbox"/> Cr <input type="checkbox"/> CN <input type="checkbox"/> Cr <sup>6+</sup> <input type="checkbox"/> EOC <input type="checkbox"/> FOC <input type="checkbox"/> Hg <input type="checkbox"/> pH <input type="checkbox"/> SAR									
											<input checked="" type="checkbox"/>
											<input checked="" type="checkbox"/>
											<input checked="" type="checkbox"/>
											<input checked="" type="checkbox"/>
											<input checked="" type="checkbox"/>
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											<input checked="" type="checkbox"/>
											<input checked="" type="checkbox"/>
											<input checked="" type="checkbox"/>

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N
DUP01-4B	Jul 19/19	12:50	3	S		
DUP01-5B		13:30	3	S		
MW203-19-1A		14:35	4			
MW203-19-1B		14:46				
MW203-19-2A		14:51				
MW203-19-2B		14:57				
MW203-19-3A		15:03				
MW203-19-3B		15:06				
MW203-19-3C		15:14				
MW203-19-4A		15:26				
MW203-19-4B		15:30				

Samples Relinquished By (Print Name and Sign): <u>Mackenzie Castello</u>	Date: <u>19/7/10</u>	Time: <u>15:20</u>	Samples Received By (Print Name and Sign): <u>J. Smith</u>	Date: <u>19/7/10</u>	Time: <u>3:20</u>	
Samples Relinquished By (Print Name and Sign): <u>J. Smith</u>	Date: <u>19/7/11</u>	Time: <u>3:00</u>	Samples Received By (Print Name and Sign): <u>[Signature]</u>	Date: <u>7/11/19</u>	Time: <u>7:00</u>	
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:	Page <u>3</u> of <u>6</u> N#: <u>T 086602</u>



### Laboratory Use Only

Work Order #: 19L490827  
Cooler Quantity: 5 lrg 1 med  
Arrival Temperatures: \_\_\_\_\_  
Custody Seal Intact:  Yes  No  N/A  
Notes: \_\_\_\_\_

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

### Report Information:

Company: MTE Consultants  
Contact: Mike Fabro  
Address: 123 St. George St., London, ON  
Phone: (519) 204-6510 Fax: \_\_\_\_\_  
Reports to be sent to:  
1. Email: MFabro@mte85.com  
2. Email: mcostello@mte85.com

### Regulatory Requirements: No Regulatory Requirement

(Please check all applicable boxes)

Regulation 153/04  
 Sewer Use  
 Regulation 558  
 Ind/Com  
 Sanitary  
 CCME  
 Res/Park  
 Storm  
 Prov. Water Quality Objectives (PWQO)  
 Agriculture  
 Other  
 Soil Texture (Check One)  
 Coarse  
 Fine  
 Region \_\_\_\_\_ Indicate One  
 MISA \_\_\_\_\_ Indicate One

### Turnaround Time (TAT) Required:

**Regular TAT**  5 to 7 Business Days  
**Rush TAT (Rush Surcharges Apply)**  
 3 Business Days  2 Business Days  Next Business Day  
 OR Date Required (Rush Surcharges May Apply): \_\_\_\_\_

### Project Information:

Project: 45102-104  
Site Location: Darcy Drive, Strathroy  
Sampled By: Mackenzie Costello  
AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_

### Is this submission for a Record of Site Condition?

Yes  No

### Report Guideline on Certificate of Analysis

Yes  No

Please provide prior notification for rush TAT  
\*TAT is exclusive of weekends and statutory holidays

For 'Same Day' analysis, please contact your AGAT CPM

### Invoice Information:

Bill To Same: Yes  No

Company: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Email: \_\_\_\_\_

### Sample Matrix Legend

**B** Biota  
**GW** Ground Water  
**O** Oil  
**P** Paint  
**S** Soil  
**SD** Sediment  
**SW** Surface Water

Field Filtered - Metals, Hg, CrVI

### O. Reg 153

Metals and Inorganics  
 All Metals  153 Metals (excl. Hydrides)  
 Hydride Metals  153 Metals (Incl. Hydrides)  
 ORPs:  B-HWS  Cl  CN  
 Cr<sup>6+</sup>  EC  FOC  Hg  
 pH  SAR

Full Metals Scan

Regulation/Custom Metals

Nutrients:  TP  NH<sub>3</sub>  TKN  
 NO<sub>3</sub>  NO<sub>2</sub>  NO<sub>3</sub>+NO<sub>2</sub>

Volatiles:  VOC  BTEX  THM

PHCs F1 - F4

ABNs

PAHs

PCBs:  Total  Aroclors

Organochlorine Pesticides

TCLP:  M&I  VOCs  ABNs  B(a)P  PCBs

Sewer Use

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N	Metals and Inorganics	Full Metals Scan	Regulation/Custom Metals	Nutrients	Volatiles	PHCs F1 - F4	ABNs	PAHs	PCBs: Total Aroclors	Organochlorine Pesticides	TCLP: M&I VOCs ABNs B(a)P PCBs	Sewer Use	
MW203-19-5A	6/19/19	15:57	4	S															
MW203-19-5B	↓	15:52	↓	↓															
DU03-5B	↓	15:50	↓	↓															
MW203-19-4C	↓	15:35	↓	↓															
MW208-19-1A	6/10/19	9:05	3																
MW208-19-1B	↓	9:11	4																
MW208-19-1C	↓	9:18	↓	↓															
MW208-19-2A	↓	9:27	↓	↓															
MW208-19-2B	↓	9:33	↓	↓															
MW208-19-3A	↓	9:42	↓	↓															
MW208-19-3B	↓	9:46	↓	↓															

Samples Relinquished By (Print Name and Sign): <u>Mackenzie Costello</u>	Date: <u>19/07/10</u>	Time: <u>15:20</u>	Samples Received By (Print Name and Sign): <u>J. Smith</u>	Date: <u>19/7/10</u>	Time: <u>3:20</u>
Samples Relinquished By (Print Name and Sign): <u>J. Smith</u>	Date: <u>19/7/11</u>	Time: <u>3:00</u>	Samples Received By (Print Name and Sign): <u>[Signature]</u>	Date: <u>7/11/19</u>	Time: <u>7:00</u>

Page 4 of 6

No: **T 086601**



# AGAT Laboratories

5835 Coopers Avenue  
Mississauga, Ontario L4Z 1Y2  
Ph: 905.712.5100 Fax: 905.712.5122  
webearth.agatlabs.com

### Laboratory Use Only

Work Order #: 19L490827  
Cooler Quantity: 5 lrg 1 mod  
Arrival Temperatures: \_\_\_\_\_  
Custody Seal Intact:  Yes  No  N/A  
Notes: \_\_\_\_\_

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

**Report Information:**  
Company: MTE Consultants  
Contact: Mike Fabio  
Address: 123 St. George St., London, ON  
Phone: (519) 204-6510 Fax: \_\_\_\_\_  
Reports to be sent to: mfabro@mte85.com  
1. Email: mfabro@mte85.com  
2. Email: mcostello@mte85.com

**Regulatory Requirements:**  No Regulatory Requirement  
(Please check all applicable boxes)

Regulation 153/04  
Table 2 Indicate One  
 Ind/Com  
 Res/Park  
 Agriculture  
Soil Texture (Check One)  
 Coarse  
 Fine  
 Sewer Use  
 Sanitary  
 Storm  
 Regulation 558  
 CCME  
 Prov. Water Quality Objectives (PWQO)  
 Other  
Region \_\_\_\_\_ Indicate One  
 MISA \_\_\_\_\_ Indicate One

### Turnaround Time (TAT) Required:

**Regular TAT**  5 to 7 Business Days  
**Rush TAT** (Rush Surcharges Apply)  
 3 Business Days  2 Business Days  Next Business Day  
OR Date Required (Rush Surcharges May Apply): \_\_\_\_\_

Please provide prior notification for rush TAT  
\*TAT is exclusive of weekends and statutory holidays  
For 'Same Day' analysis, please contact your AGAT CPM

**Project Information:**  
Project: 45102-104  
Site Location: Darcy Drive, Strathroy  
Sampled By: Mackenzie Costello  
AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_  
*Please note: If quotation number is not provided, client will be billed full price for analysis.*

Is this submission for a Record of Site Condition?  Yes  No  
Report Guideline on Certificate of Analysis  Yes  No

**Invoice Information:** Bill To Same: Yes  No   
Company: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Email: \_\_\_\_\_

### Sample Matrix Legend

- B Biota
- GW Ground Water
- O Oil
- P Paint
- S Soil
- SD Sediment
- SW Surface Water

Field Filtered - Metals Hgr, CrVI	O. Reg 153	Metals and Inorganics	Full Metals Scan	Regulation/Custom Metals	Nutrients: TP NH <sub>3</sub> TKN NO <sub>3</sub> NO <sub>2</sub> NO <sub>3</sub> +NO <sub>2</sub>	Volatiles: VOC BTEX THM	PHCs F1 - F4	ABNS	PAHS	PCBS: Total Aroclors	Organochlorine Pesticides	TCLP: M&I VOCs ABNS B(a)P PCBs	Sewer Use
		<input type="checkbox"/> All Metals <input type="checkbox"/> 153 Metals (excl. Hydrides) <input type="checkbox"/> Hydride Metals <input type="checkbox"/> 153 Metals (incl. Hydrides)			ORPs: B-HWS C: CN Cr <sup>6+</sup> EC FOC Hg pH SAR								
													X
													X
													X
													X
													X
													X
													X
													X
													X
													X
													X
													X

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/Special Instructions	Y/N
MW208-19-3C	Jul 10/10	9:51	4	S		
MW208-19-4		9:57				
MW208-19-5A		10:03				
MW208-19-5B		10:11				
MW208-19-6		10:27				
DUPO8-5B		10:35				
MW211-19-1A		11:44	3			
MW211-19-1B		11:49	4			
MW211-19-1C		11:54				
MW211-19-2A		12:00				
MW211-19-2B		12:09				

Samples Relinquished By (Print Name and Sign): <u>Mackenzie Costello</u>	Date: <u>19/07/10</u>	Time: <u>15:20</u>	Samples Received By (Print Name and Sign): <u>J. Smith</u>	Date: <u>19/7/10</u>	Time: <u>3:20</u>
Samples Relinquished By (Print Name and Sign): <u>J. Smith</u>	Date: <u>19/7/11</u>	Time: <u>3:00</u>	Samples Received By (Print Name and Sign):	Date: <u>7/11/19</u>	Time: <u>7:00</u>
Page <u>5</u> of <u>6</u>					N#: <u>T 086609</u>



# AGAT Laboratories

5835 Coopers Avenue  
Mississauga, Ontario L4Z 1Y2  
Ph: 905.712.5100 Fax: 905.712.5122  
webearth.agatlabs.com

### Laboratory Use Only

Work Order #: 19L490827  
Cooler Quantity: 5 large med.  
Arrival Temperatures: \_\_\_\_\_  
Custody Seal Intact:  Yes  No  N/A  
Notes:

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

### Report Information:

Company: MTE Consultants  
Contact: Mike Fabro  
Address: 123 St. George St., London, ON  
Phone: (519) 704-6510 Fax: \_\_\_\_\_  
Reports to be sent to: mfabro@mte85.com  
1. Email: mfabro@mte85.com  
2. Email: mcostello@mte85.com

### Regulatory Requirements:

No Regulatory Requirement  
(Please check all applicable boxes)  
 Regulation 153/04  
Table 2  
 Ind./Com  
 Res./Park  
 Agriculture  
Soil Texture (Check One)  
 Coarse  
 Fine  
Region \_\_\_\_\_  
 Sewer Use  
 Sanitary  
 Storm  
 MISA  
 Regulation 558  
 CCME  
 Prov. Water Quality Objectives (PWQO)  
 Other

### Project Information:

Project: 45102-104  
Site Location: Darcy Drive, Strathroy  
Sampled By: Mackenzie Costello  
AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_  
Please note: if quotation number is not provided, client will be billed full price for analysis.

### Is this submission for a Record of Site Condition?

Yes  No

### Report Guideline on Certificate of Analysis

Yes  No

### Turnaround Time (TAT) Required:

Regular TAT  5 to 7 Business Days  
Rush TAT (Rush Surcharges Apply)  
 3 Business Days  2 Business Days  Next Business Day  
OR Date Required (Rush Surcharges May Apply): \_\_\_\_\_

Please provide prior notification for rush TAT  
\*TAT is exclusive of weekends and statutory holidays

For 'Same Day' analysis, please contact your AGAT CPM

### Invoice Information:

Bill To Same: Yes  No   
Company: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Email: \_\_\_\_\_

### Sample Matrix Legend

- B Biota
- GW Ground Water
- O Oil
- P Paint
- S Soil
- SD Sediment
- SW Surface Water

Field Filtered - Metals, Hg, CVI

Metals and Inorganics	0. Reg 153	Field Filtered - Metals, Hg, CVI	Regulation/Custom Metals	Volatiles	PHCs F1 - F4	ABNS	PAHS	PCBs: Total	Organochlorine Pesticides	TCLP: M&I	VOCs	ABNS	B(a)P	PCBs	Sewer Use
<input type="checkbox"/> All Metals <input type="checkbox"/> 153 Metals (excl. Hydrides) <input type="checkbox"/> Hydride Metals <input type="checkbox"/> 153 Metals (Incl. Hydrides)	ORPs: <input type="checkbox"/> B-HWS <input type="checkbox"/> C: <input type="checkbox"/> CN <input type="checkbox"/> Cr <sup>6+</sup> <input type="checkbox"/> EC <input type="checkbox"/> FOC <input type="checkbox"/> Hg <input type="checkbox"/> pH <input type="checkbox"/> SAR		<input type="checkbox"/> TP <input type="checkbox"/> NH <sub>4</sub> <input type="checkbox"/> TKN <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> NO <sub>3</sub> +NO <sub>2</sub>	<input type="checkbox"/> VOC <input type="checkbox"/> BTEX <input type="checkbox"/> THM				<input type="checkbox"/> Total <input type="checkbox"/> Aroclors		<input type="checkbox"/> M&I <input type="checkbox"/> VOCs <input type="checkbox"/> ABNS <input type="checkbox"/> B(a)P <input type="checkbox"/> PCBs					<input checked="" type="checkbox"/> Sewer Use
															<u>On hold</u>

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N
MW211-19-3A	<u>11/10/19</u>	<u>1217</u>	<u>4</u>	<u>S</u>		
MW211-19-3B		<u>1220</u>				
MW211-19-3C		<u>1223</u>				
MW211-19-4A		<u>1225</u>				
MW211-19-4B		<u>1229</u>				
MW211-19-5A		<u>1233</u>				
MW211-19-5B		<u>1240</u>				
MW211-19-6A		<u>1247</u>				
MW211-19-6B		<u>1252</u>				
DUP11-6B		<u>1300</u>				

Samples Relinquished By (Print Name and Sign): <u>Mackenzie Costello</u>	Date: <u>11/07/10</u>	Time: <u>15:20</u>	Samples Received By (Print Name and Sign): <u>J. Smith</u>	Date: <u>11/17/10</u>	Time: <u>3:20</u>
Samples Relinquished By (Print Name and Sign): <u>J. Smith</u>	Date: <u>11/17/11</u>	Time: <u>3:00</u>	Samples Received By (Print Name and Sign): <u>[Signature]</u>	Date: <u>11/19</u>	Time: <u>7:00</u>

Page 6 of 6  
N#: T 086610



## Sample Temperature Log

Client: MTE Consultants

COC# or Work Order #: 19L490827

# of Coolers: 5 large 1 med

# of Submissions: \_\_\_\_\_

**Arrival Temperatures - Branch/Driver**

**Arrival Temperatures - Laboratory**

Cooler #1: 2.2 / 6.4 / 4.3

Cooler #1: 1.0 / 5.2 / 3.1

Cooler #2: 10.8 / 4.2 / 7.6

Cooler #2: 5.3 / 2.1 / 4.6

Cooler #3: 9.3 / 9.1 / 7.4

Cooler #3: 5.3 / 2.0 / 6.0

Cooler #4: 5.8 / 3.4 / 7.3

Cooler #4: 2.1 / 4.9 / 5.0

Cooler #5: 6.0 / 6.4 / 9.5

Cooler #5: 2.0 / 3.7 / 6.6

Cooler #6: 9.0 / 6.1 / 6.2

Cooler #6: 1.7 / 4.3 / 3.7

Cooler #7: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Cooler #7: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Cooler #8: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Cooler #8: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Cooler #9: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Cooler #9: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Cooler #10: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Cooler #10: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

IR Gun ID: \_\_\_\_\_

IR Gun ID: \_\_\_\_\_

Taken By: Jessica Smith

Taken By: CHRIS RAMANAN

Date (yyyy/mm/dd): 2019/7/10 Time: 3:55 AM / PM

Date (yyyy/mm/dd): 2019/7/11 Time: 7:00 AM / PM

**Instructions for use of this form:** 1) complete all fields of info including total # of coolers and # of submissions rec'd, 2) photocopy and place in each submission prior to giving a WO#, 3) Proceed as normal, write the WO# and scan ( please make sure to scan along with the COC)



CLIENT NAME: MTE CONSULTANTS Inc.  
123ST GEORGE STREET  
LONDON, ON N6A 3A1  
519-204-6510

ATTENTION TO: Mike Fabro

PROJECT: 45102-104

AGAT WORK ORDER: 19L492031

SOIL ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Supervisor

TRACE ORGANICS REVIEWED BY: Oksana Gushyla, Trace Organics Lab Supervisor

DATE REPORTED: Jul 22, 2019

PAGES (INCLUDING COVER): 15

VERSION\*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

\*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.



## Certificate of Analysis

AGAT WORK ORDER: 19L492031

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - All Metals (Soil)

DATE RECEIVED: 2019-07-12

DATE REPORTED: 2019-07-22

Parameter	Unit	SAMPLE DESCRIPTION:								
		SAMPLE TYPE:		BH204-19-1B	BH205-19-1B	DUP05-1B	BH206-19-1C	BH207-19-1B	BH210-19-1A	BH209-19-1B
		G / S	RDL	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2019-07-12	2019-07-12	2019-07-12	2019-07-12	2019-07-12	2019-07-12	2019-07-12
		358423	358431	358436	358439	358472	358489	358565		
Antimony	µg/g	7.5	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	5	5	5	4	5	5	6
Barium	µg/g	390	2	84	71	74	55	73	65	92
Beryllium	µg/g	4	0.5	1.0	0.8	0.9	0.5	0.9	0.7	1.0
Boron	µg/g	120	5	8	7	7	8	6	8	10
Boron (Hot Water Soluble)	µg/g	1.5	0.10	0.48	0.44	0.39	0.14	0.41	0.26	0.17
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	160	2	27	24	25	17	24	22	30
Cobalt	µg/g	22	0.5	12.7	10.9	11.6	7.2	11.2	9.4	12.7
Copper	µg/g	140	1	17	16	17	14	16	17	20
Lead	µg/g	120	1	14	14	14	6	15	10	11
Molybdenum	µg/g	6.9	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel	µg/g	100	1	26	23	24	19	23	23	32
Selenium	µg/g	2.4	0.4	0.7	0.6	0.6	0.5	0.7	0.6	0.4
Silver	µg/g	20	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Uranium	µg/g	23	0.5	0.7	0.6	0.6	0.5	0.6	0.6	0.6
Vanadium	µg/g	86	1	36	32	32	24	32	31	37
Zinc	µg/g	340	5	61	61	60	36	65	48	58
Chromium VI	µg/g	8	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Mercury	µg/g	0.27	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:

*Ananjot Bhela*  




## Certificate of Analysis

AGAT WORK ORDER: 19L492031

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### pH in Soil

DATE RECEIVED: 2019-07-12

DATE REPORTED: 2019-07-19

SAMPLE DESCRIPTION: BH204-19-1B

SAMPLE TYPE: Soil

DATE SAMPLED: 2019-07-12

Parameter	Unit	G / S	RDL	358423
pH, 2:1 CaCl <sub>2</sub> Extraction	pH Units	NA	7.14	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard  
358423 pH was determined on the 0.01M CaCl<sub>2</sub> extract prepared at 2:1 ratio (2 parts extraction fluid : 1 part soil).  
Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:

*Anamjot Bhela*



## Certificate of Analysis

AGAT WORK ORDER: 19L492031

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2019-07-12

DATE REPORTED: 2019-07-19

Parameter	Unit	SAMPLE DESCRIPTION:								
		DATE SAMPLED:		BH204-19-1B	BH205-19-1B	DUP05-1B	BH206-19-1C	BH207-19-1B	BH210-19-1A	BH209-19-1B
		G / S	RDL	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		2019-07-12	2019-07-12	2019-07-12	2019-07-12	2019-07-12	2019-07-12	2019-07-12	2019-07-12	2019-07-12
		358423	358431	358436	358439	358472	358489	358565		
Naphthalene	µg/g	0.6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.15	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthene	µg/g	7.9	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluorene	µg/g	62	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Phenanthrene	µg/g	6.2	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Anthracene	µg/g	0.67	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Pyrene	µg/g	78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benz(a)anthracene	µg/g	0.5	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chrysene	µg/g	7	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.38	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	6.6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.99	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	18.0	16.1	16.8	18.0	15.2	12.2	18.0
Surrogate	Unit	Acceptable Limits								
Chrysene-d12	%	50-140	90	89	74	110	80	88	119	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

358423-358565 Results are based on the dry weight of the soil.

Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.  
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L492031

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)

DATE RECEIVED: 2019-07-12

DATE REPORTED: 2019-07-19

Parameter	Unit	SAMPLE DESCRIPTION:								
		G / S		BH204-19-1B	BH205-19-1B	DUP05-1B	BH206-19-1C	BH207-19-1B	BH210-19-1A	BH209-19-1B
		RDL	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
DATE SAMPLED:	2019-07-12		2019-07-12	2019-07-12	2019-07-12	2019-07-12	2019-07-12	2019-07-12	2019-07-12	
Benzene	µg/g	0.21	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Toluene	µg/g	2.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	µg/g	1.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylene Mixture	µg/g	3.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g	55	5	<5	<5	<5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	55	5	<5	<5	<5	<5	<5	<5	<5
F2 (C10 to C16)	µg/g	98	10	<10	<10	<10	<10	<10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10	<10	<10	<10	<10	<10	<10
F3 (C16 to C34)	µg/g	300	50	<50	<50	<50	<50	<50	<50	<50
F3 (C16 to C34) minus PAHs	µg/g		50	<50	<50	<50	<50	<50	<50	<50
F4 (C34 to C50)	µg/g	2800	50	<50	<50	<50	<50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	2800	50	NA	NA	NA	NA	NA	NA	NA
Moisture Content	%		0.1	18.0	16.1	16.8	18.0	15.2	12.2	18.0
Surrogate	Unit	Acceptable Limits								
Terphenyl	%	60-140		96	101	119	77	77	93	76

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L492031

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

ATTENTION TO: Mike Fabro

SAMPLING SITE: Darcy Drive, Strathroy

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)

DATE RECEIVED: 2019-07-12

DATE REPORTED: 2019-07-19

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

358423-358565 Results are based on sample dry weight.  
The C6-C10 fraction is calculated using toluene response factor.  
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.  
C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.  
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.  
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.  
The chromatogram has returned to baseline by the retention time of nC50.  
Total C6 - C50 results are corrected for BTEX and PAH contributions.  
C>10 - C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.  
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).  
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.  
nC10, nC16 and nC34 response factors are within 10% of their average.  
C50 response factor is within 70% of nC10 + nC16 + nC34 average.  
Linearity is within 15%.  
Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:

## Quality Assurance

CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE: Darcy Drive, Strathroy

AGAT WORK ORDER: 19L492031  
 ATTENTION TO: Mike Fabro  
 SAMPLED BY: Mackenzie Costello

Soil Analysis															
RPT Date:			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE		MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

**O. Reg. 153(511) - All Metals (Soil)**

Antimony	361204		<0.8	<0.8	NA	< 0.8	111%	70%	130%	94%	80%	120%	78%	70%	130%
Arsenic	361204		3	3	NA	< 1	102%	70%	130%	104%	80%	120%	106%	70%	130%
Barium	361204		50	49	2.0%	< 2	100%	70%	130%	99%	80%	120%	96%	70%	130%
Beryllium	361204		<0.5	<0.5	NA	< 0.5	84%	70%	130%	105%	80%	120%	110%	70%	130%
Boron	361204		5	5	NA	< 5	78%	70%	130%	110%	80%	120%	86%	70%	130%
Boron (Hot Water Soluble)	360717		1.60	1.58	1.3%	< 0.10	113%	60%	140%	98%	70%	130%	99%	60%	140%
Cadmium	361204		<0.5	<0.5	NA	< 0.5	113%	70%	130%	102%	80%	120%	102%	70%	130%
Chromium	361204		13	13	0.0%	< 2	89%	70%	130%	106%	80%	120%	105%	70%	130%
Cobalt	361204		4.7	4.6	2.2%	< 0.5	90%	70%	130%	105%	80%	120%	99%	70%	130%
Copper	361204		10	10	0.0%	< 1	89%	70%	130%	106%	80%	120%	83%	70%	130%
Lead	361204		8	8	0.0%	< 1	102%	70%	130%	101%	80%	120%	93%	70%	130%
Molybdenum	361204		<0.5	<0.5	NA	< 0.5	93%	70%	130%	106%	80%	120%	108%	70%	130%
Nickel	361204		11	11	0.0%	< 1	94%	70%	130%	109%	80%	120%	99%	70%	130%
Selenium	361204		0.6	0.7	NA	< 0.4	125%	70%	130%	102%	80%	120%	105%	70%	130%
Silver	361204		<0.2	<0.2	NA	< 0.2	91%	70%	130%	102%	80%	120%	92%	70%	130%
Thallium	361204		<0.4	<0.4	NA	< 0.4	90%	70%	130%	102%	80%	120%	98%	70%	130%
Uranium	361204		0.5	<0.5	NA	< 0.5	100%	70%	130%	102%	80%	120%	100%	70%	130%
Vanadium	361204		22	22	0.0%	< 1	89%	70%	130%	104%	80%	120%	101%	70%	130%
Zinc	361204		429	435	1.4%	< 5	94%	70%	130%	103%	80%	120%	101%	70%	130%
Chromium VI	360691		<0.2	<0.2	NA	< 0.2	111%	70%	130%	104%	80%	120%	105%	70%	130%
Mercury	361204		<0.10	<0.10	NA	< 0.10	99%	70%	130%	96%	80%	120%	94%	70%	130%

Comments: NA signifies Not Applicable.

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

**pH in Soil**

pH, 2:1 CaCl2 Extraction	350723		7.61	7.64	0.4%	NA	101%	80%	120%	NA		NA			
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Comments: NA signifies Not Applicable.

pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.

Certified By:




## Quality Assurance

 CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE: Darcy Drive, Strathroy

 AGAT WORK ORDER: 19L492031  
 ATTENTION TO: Mike Fabro  
 SAMPLED BY: Mackenzie Costello

### Trace Organics Analysis

RPT Date:			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

**O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)**

Benzene	356671		< 0.02	< 0.02	NA	< 0.02	73%	60%	130%	86%	60%	130%	93%	60%	130%
Toluene	356671		< 0.05	< 0.05	NA	< 0.05	73%	60%	130%	85%	60%	130%	93%	60%	130%
Ethylbenzene	356671		< 0.05	< 0.05	NA	< 0.05	71%	60%	130%	84%	60%	130%	91%	60%	130%
Xylene Mixture	356671		< 0.05	< 0.05	NA	< 0.05	76%	60%	130%	84%	60%	130%	97%	60%	130%
F1 (C6 to C10)	356671		< 5	< 5	NA	< 5	103%	60%	130%	90%	85%	115%	87%	70%	130%
F2 (C10 to C16)	353153		< 10	< 10	NA	< 10	94%	60%	130%	86%	80%	120%	72%	70%	130%
F3 (C16 to C34)	353153		< 50	< 50	NA	< 50	95%	60%	130%	89%	80%	120%	76%	70%	130%
F4 (C34 to C50)	353153		< 50	< 50	NA	< 50	91%	60%	130%	86%	80%	120%	79%	70%	130%

**O. Reg. 153(511) - PAHs (Soil)**

Naphthalene	348439	358439	< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	77%	50%	140%	75%	50%	140%
Acenaphthylene	348439	358439	< 0.05	< 0.05	NA	< 0.05	110%	50%	140%	84%	50%	140%	81%	50%	140%
Acenaphthene	348439	358439	< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	82%	50%	140%	80%	50%	140%
Fluorene	348439	358439	< 0.05	< 0.05	NA	< 0.05	114%	50%	140%	88%	50%	140%	85%	50%	140%
Phenanthrene	348439	358439	< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	85%	50%	140%	86%	50%	140%
Anthracene	348439	358439	< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	86%	50%	140%	87%	50%	140%
Fluoranthene	348439	358439	< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	95%	50%	140%	97%	50%	140%
Pyrene	348439	358439	< 0.05	< 0.05	NA	< 0.05	115%	50%	140%	95%	50%	140%	97%	50%	140%
Benz(a)anthracene	348439	358439	< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	89%	50%	140%	90%	50%	140%
Chrysene	348439	358439	< 0.05	< 0.05	NA	< 0.05	100%	50%	140%	87%	50%	140%	92%	50%	140%
Benzo(b)fluoranthene	348439	358439	< 0.05	< 0.05	NA	< 0.05	97%	50%	140%	91%	50%	140%	91%	50%	140%
Benzo(k)fluoranthene	348439	358439	< 0.05	< 0.05	NA	< 0.05	115%	50%	140%	104%	50%	140%	96%	50%	140%
Benzo(a)pyrene	348439	358439	< 0.05	< 0.05	NA	< 0.05	110%	50%	140%	93%	50%	140%	92%	50%	140%
Indeno(1,2,3-cd)pyrene	348439	358439	< 0.05	< 0.05	NA	< 0.05	80%	50%	140%	64%	50%	140%	63%	50%	140%
Dibenz(a,h)anthracene	348439	358439	< 0.05	< 0.05	NA	< 0.05	92%	50%	140%	63%	50%	140%	63%	50%	140%
Benzo(g,h,i)perylene	348439	358439	< 0.05	< 0.05	NA	< 0.05	88%	50%	140%	65%	50%	140%	62%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: \_\_\_\_\_





## Method Summary

CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE: Darcy Drive, Strathroy

AGAT WORK ORDER: 19L492031  
 ATTENTION TO: Mike Fabro  
 SAMPLED BY: Mackenzie Costello

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	EPA SW 846 6010C; MSA, Part 3, Ch.21	ICP/OES
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium VI	INOR-93-6029	SM 3500 B; MSA Part 3, Ch. 25	SPECTROPHOTOMETER
Mercury	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
pH, 2:1 CaCl2 Extraction	INOR-93-6031	MSA part 3 & SM 4500-H+ B	PH METER



## Method Summary

CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE: Darcy Drive, Strathroy

AGAT WORK ORDER: 19L492031  
 ATTENTION TO: Mike Fabro  
 SAMPLED BY: Mackenzie Costello

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluorene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Phenanthrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benz(a)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Chrysene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(a)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Moisture Content	ORG-91-5106	EPA SW-846 3541 & 8270D	BALANCE
Chrysene-d12	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzene	VOL-91-5009	EPA SW-846 5035 & 8260	P&T GC/MS
Toluene	VOL-91-5009	EPA SW-846 5035 & 8260	P&T GC/MS
Ethylbenzene	VOL-91-5009	EPA SW-846 5035 & 8260	P&T GC/MS
Xylene Mixture	VOL-91-5009	EPA SW-846 5035 & 8260	P&T GC/MS
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method	P&T GC/FID
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5009	CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5009	CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	BALANCE
Moisture Content	VOL-91-5009	CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009		GC/FID



## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

### Report Information:

Company: MTE Consultants  
Contact: Mike Fabro  
Address: 123 St George St., London, Ontario N6A 3A1  
  
Phone: 519-204-6510 x2233 Fax: \_\_\_\_\_  
Reports to be sent to: MFabro@mte85.com  
1. Email: \_\_\_\_\_  
2. Email: Mcostello@mte85.com

### Project Information:

Project: 45102-104  
Site Location: Darcy Drive, Strathroy  
Sampled By: Mackenzie Costello  
AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_  
*Please note: If quotation number is not provided, client will be billed full price for analysis.*

### Invoice Information:

Company: \_\_\_\_\_ Bill To Same: Yes  No   
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Email: \_\_\_\_\_

### Regulatory Requirements: No Regulatory Requirement

*(Please check all applicable boxes)*

<input checked="" type="checkbox"/> Regulation 153/04	<input type="checkbox"/> Sewer Use	<input type="checkbox"/> Regulation 558
<input type="checkbox"/> Ind/Com	<input type="checkbox"/> Sanitary	<input type="checkbox"/> CCME
<input checked="" type="checkbox"/> Res/Park	<input type="checkbox"/> Storm	<input type="checkbox"/> Prov. Water Quality Objectives (PWQO)
<input type="checkbox"/> Agriculture	Region: _____	<input type="checkbox"/> Other
Soil Texture (Check One)	Indicate One	
<input checked="" type="checkbox"/> Coarse		
<input type="checkbox"/> Fine	<input type="checkbox"/> MISA	

### Is this submission for a Record of Site Condition?

Yes  No

### Report Guideline on Certificate of Analysis

Yes  No

### Sample Matrix Legend

**B** Biota  
**GW** Ground Water  
**O** Oil  
**P** Paint  
**S** Soil  
**SD** Sediment  
**SW** Surface Water

Field Filtered - Metals, Hg, CrVI

### O. Reg 153

Metals and Inorganics  
 All Metals  153 Metals (excl. Hydrides)  
 Hydride Metals  153 Metals (incl. Hydrides)

ORPs:  B-HWS  Cl  CN  
 Cr<sup>6+</sup>  EC  FOC  Hg  
 pH  SAR

Full Metals Scan

Regulation/Custom Metals  
Nutrients:  TP  NH<sub>3</sub>  TKN  
 NO<sub>2</sub>  NO<sub>3</sub>  NO<sub>3</sub>+NO<sub>2</sub>

Volatiles:  VOC  BTEX  THM

PHCs F1 - F4

ABNS

PAHs

PCBs:  Total  Aroclors

Organochlorine Pesticides

TCLP:  M&I  VOCs  ABNS  Biop  PCBs

Sewer Use

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y/N	Metals and Inorganics	ORPs	Full Metals Scan	Regulation/Custom Metals	Nutrients	Volatiles	PHCs F1 - F4	ABNS	PAHs	PCBs	Organochlorine Pesticides	TCLP	Sewer Use	Potentially Hazardous or High Concentration (Y/N)
BH204-19-1A	Jul 12/19	9:25	4	S															<input checked="" type="checkbox"/>	
BH204-19-1B		9:30	↓																<input checked="" type="checkbox"/>	
BH204-19-2A		9:37	↓																<input checked="" type="checkbox"/>	
BH204-19-2B		9:42	↓																<input checked="" type="checkbox"/>	
BH204-19-3A		9:47	↓																<input checked="" type="checkbox"/>	
BH204-19-3B		9:50	↓																<input checked="" type="checkbox"/>	
DU04-3A		10:00	↓																<input checked="" type="checkbox"/>	
BH205-19-1A		10:16	2																<input checked="" type="checkbox"/>	
BH205-19-1B		10:20	4																<input checked="" type="checkbox"/>	
BH205-19-1C		10:26	↓																<input checked="" type="checkbox"/>	
BH205-19-2A		10:34	↓																<input checked="" type="checkbox"/>	

Samples Relinquished By (Print Name and Sign): <u>Mackenzie Costello</u>	Date: <u>Jul 12/19</u>	Time: <u>15:25</u>	Samples Received By (Print Name and Sign): <u>Jessica Smith</u>	Date: <u>19/7/12</u>	Time: <u>3:30</u>
Samples Relinquished By (Print Name and Sign): <u>J Smith</u>	Date: <u>19/7/15</u>	Time: <u>11 AM</u>	Samples Received By (Print Name and Sign): <u>[Signature]</u>	Date: <u>19/7/15</u>	Time: <u>3:30</u>



### Laboratory Use Only

Work Order #: 19L 492081

Cooler Quantity: 4 large

Arrival Temperatures: \_\_\_\_\_

Custody Seal Intact:  Yes  No  N/A

Notes: \_\_\_\_\_

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

**Report Information:**  
 Company: MTE Consultants  
 Contact: Mike Fabro  
 Address: 123 St George St., London, Ontario N6A 3A1  
 Phone: 519-204-6510 x2233 Fax: \_\_\_\_\_  
 Reports to be sent to: MFabro@mte85.com  
 1. Email: \_\_\_\_\_  
 2. Email: Mcostello@mte85.com

**Regulatory Requirements:**  No Regulatory Requirement  
*(Please check all applicable boxes)*

Regulation 153/04  Sewer Use  Regulation 558

*Table - Indicate One*  
 Ind/Com  Sanitary  CCME  
 Res/Park  Storm  Prov. Water Quality Objectives (PWQO)  
 Agriculture  Other

Soil Texture (Check One)  Coarse  Fine  MISA *Indicate One*

Region \_\_\_\_\_ *Indicate One*

Is this submission for a Record of Site Condition?  Yes  No

Report Guideline on Certificate of Analysis  Yes  No

**Turnaround Time (TAT) Required:**

Regular TAT  5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)  
 3 Business Days  2 Business Days  Next Business Day

OR Date Required (Rush Surcharges May Apply):  
MTE 4- DAY TAT  
 Please provide prior notification for rush TAT  
 \*TAT is exclusive of weekends and statutory holidays

For 'Same Day' analysis, please contact your AGAT CPM

**Project Information:**  
 Project: 45102-104  
 Site Location: Darcy Drive, Strathroy  
 Sampled By: Mackenzie Costello  
 AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_  
 Please note: If quotation number is not provided, client will be billed full price for analysis.

**Invoice Information:** Bill To Same: Yes  No

Company: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Email: \_\_\_\_\_

**Sample Matrix Legend**

**B** Biota  
**GW** Ground Water  
**O** Oil  
**P** Paint  
**S** Soil  
**SD** Sediment  
**SW** Surface Water

Metals and Inorganics	0. Reg 153		Field Filtered - Metals, Hg, CrVI	Y / N	Potentially Hazardous or High Concentration (Y/N)
	All Metals	Hydride Metals			
<input type="checkbox"/> All Metals <input type="checkbox"/> 153 Metals (excl. Hydrides)	<input type="checkbox"/> 153 Metals (incl. Hydrides)				
<b>ORPs:</b> <input type="checkbox"/> B-HWS <input type="checkbox"/> Cl <input type="checkbox"/> CN <input type="checkbox"/> Cr* <input type="checkbox"/> EC <input type="checkbox"/> FOC <input type="checkbox"/> Hg <input type="checkbox"/> pH <input type="checkbox"/> SAR					
Full Metals Scan					
Regulation/Custom Metals					
Nutrients: <input type="checkbox"/> TP <input type="checkbox"/> NH <sub>3</sub> <input type="checkbox"/> TKN <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> NO <sub>x</sub> + NO <sub>2</sub>					
Volatiles: <input type="checkbox"/> VOC <input type="checkbox"/> BTEX <input type="checkbox"/> THM					
PHCs F1 - F4					
ABNs					
PAHs					
PCBs: <input type="checkbox"/> Total <input type="checkbox"/> Aroclors					
Organochlorine Pesticides					
TCLP: <input type="checkbox"/> M&I <input type="checkbox"/> VOCs <input type="checkbox"/> ABNs <input type="checkbox"/> B(a)P <input type="checkbox"/> PCBs					
Sewer Use					

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions
BH205-19-2B	Jul 12/19	10:38	4	S	
BH205-19-2C		10:40			
BH205-DUPO5-1B		10:50			
BH206-19-1A		10:56			
BH206-19-1B		11:00			
BH206-19-1C		11:07			
BH206-19-2A		11:15			
BH206-19-2B		11:20			
DUPO6-2A		11:30			
BH207-19-1A		11:33			
BH207-19-1B		11:42			

Samples Relinquished By (Print Name and Sign): <u>Mackenzie Costello</u>	Date: <u>12/07/19</u> Time: <u>1525</u>	Samples Received By (Print Name and Sign): <u>Jessica Smith</u>	Date: <u>19/7/12</u> Time: <u>3:30</u>
Samples Relinquished By (Print Name and Sign): <u>J. Smith</u>	Date: <u>19/7/15</u> Time: <u>11 Am</u>	Samples Received By (Print Name and Sign): <u>Jessica Smith</u>	Date: <u>19/7/15</u> Time: <u>3:30</u>

Page 2 of 4



# AGAT Laboratories

5835 Coopers Avenue  
Mississauga, Ontario L4Z 1Y2  
Ph: 905.712.5100 Fax: 905.712.5122  
webearth.agatlabs.com

### Laboratory Use Only

Work Order #: 19L492031  
Cooler Quantity: 4 large  
Arrival Temperatures: \_\_\_\_\_  
Custody Seal Intact:  Yes  No  N/A  
Notes: \_\_\_\_\_

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

**Report Information:**  
Company: MTE Consultants  
Contact: Mike Fabro  
Address: 123 St George St., London, Ontario N6A 3A1  
Phone: 519-204-6510 x2233 Fax: \_\_\_\_\_  
Reports to be sent to: MFabro@mte85.com  
1. Email: \_\_\_\_\_  
2. Email: Mcostello@mte85.com

**Regulatory Requirements:**  No Regulatory Requirement  
*(Please check all applicable boxes)*

Regulation 153/04  Sewer Use  Regulation 558  
*Table - Indicate One*  
 Ind/Com  Sanitary  CCME  
 Res/Park  Storm  Prov. Water Quality Objectives (PWQO)  
 Agriculture  Other  
Soil Texture (Check One) Region: \_\_\_\_\_  
 Coarse  Fine  MISA *Indicate One*

Is this submission for a Record of Site Condition?

Yes  No

Report Guideline on Certificate of Analysis

Yes  No

**Project Information:**  
Project: 45102-104  
Site Location: Darcy Drive, Strathroy  
Sampled By: Mackenzie Costello  
AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_  
*Please note: if quotation number is not provided, client will be billed full price for analysis.*

**Invoice Information:** Bill To Same: Yes  No   
Company: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Email: \_\_\_\_\_

**Sample Matrix Legend**

- B Biota
- GW Ground Water
- O Oil
- P Paint
- S Soil
- SD Sediment
- SW Surface Water

Field Filtered - Metals, Hg, CrVI

O. Reg 153	
Metals and Inorganics	<input type="checkbox"/> All Metals <input type="checkbox"/> 153 Metals (excl. Hydrides) <input type="checkbox"/> Hydride Metals <input type="checkbox"/> 153 Metals (incl. Hydrides)
ORPs:	<input type="checkbox"/> B-HWS <input type="checkbox"/> Cl <input type="checkbox"/> CN <input type="checkbox"/> Cr <sup>6+</sup> <input type="checkbox"/> EC <input type="checkbox"/> FOC <input type="checkbox"/> Hg <input type="checkbox"/> pH <input type="checkbox"/> SAR
Full Metals Scan	<input type="checkbox"/> Full Metals Scan
Regulatory/Custom Metals	Nutrients: <input type="checkbox"/> TP <input type="checkbox"/> NH <sub>3</sub> <input type="checkbox"/> TKN <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> NO <sub>3</sub> +NO <sub>2</sub>
Volatiles:	<input type="checkbox"/> VOC <input type="checkbox"/> BTEX <input type="checkbox"/> THM
PHCs F1 - F4	
ABNs	
PAHs	
PCBs:	<input type="checkbox"/> Total <input type="checkbox"/> Aroclors
Organochlorine Pesticides	
TCLP:	<input type="checkbox"/> M&I <input type="checkbox"/> VOCs <input type="checkbox"/> ABNs <input type="checkbox"/> B(a)P <input type="checkbox"/> PCBs
Sewer Use	<input type="checkbox"/> Sewer Use

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N
BH207-19-2A	Jul 12/19	11:51	4	S		
BH207-19-2B		11:51	↓	↓		
BH210-19-1A		12:23	↓	↓		
BH210-19-1B		12:28	3	↓		
BH210-19-1C		12:32	4	↓		
BH210-19-2A		12:36	↓	↓		
BH210-19-2B		12:41	↓	↓		
BH209-19-1A		12:50	↓	↓		
BH209-19-1B		12:59	↓	↓		
BH209-19-1C		13:03	↓	↓		
BH209-19-2A		13:22	↓	↓		

Samples Relinquished By (Print Name and Sign): <u>Mackenzie Costello</u>	Date: <u>12/07/19</u>	Time: <u>1525</u>	Samples Received By (Print Name and Sign): <u>Jessica Smith</u>	Date: <u>19/7/12</u>	Time: <u>3:30</u>
Samples Relinquished By (Print Name and Sign): <u>J. Smith</u>	Date: <u>19/7/15</u>	Time: <u>11 AM</u>	Samples Received By (Print Name and Sign): <u>[Signature]</u>	Date: <u>19/7/15</u>	Time: <u>3:30</u>



**Laboratory Use Only**

Work Order #: 19L492031  
 Cooler Quantity: 4 large  
 Arrival Temperatures: \_\_\_\_\_  
 Custody Seal Intact:  Yes  No  N/A  
 Notes: \_\_\_\_\_

**Chain of Custody Record** If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

**Report Information:**  
 Company: MTE Consultants  
 Contact: Mike Fabro  
 Address: 123 St George St., London, Ontario N6A 3A1  
 Phone: 519-204-6510 x2233 Fax: \_\_\_\_\_  
 Reports to be sent to: MFabro@mte85.com  
 1. Email: \_\_\_\_\_  
 2. Email: Mcostello@mte85.com

**Regulatory Requirements:**  No Regulatory Requirement  
*(Please check all applicable boxes)*

<input checked="" type="checkbox"/> Regulation 153/04 <small>Table <u>2</u> Indicate One</small> <input type="checkbox"/> Ind/Com <input checked="" type="checkbox"/> Res/Park <input type="checkbox"/> Agriculture Soil Texture (Check One) <input checked="" type="checkbox"/> Coarse <input type="checkbox"/> Fine	<input type="checkbox"/> Sewer Use <input type="checkbox"/> Sanitary <input type="checkbox"/> Storm Region: _____ <input type="checkbox"/> MISA <small>Indicate One</small>	<input type="checkbox"/> Regulation 558 <input type="checkbox"/> CCME <input type="checkbox"/> Prov. Water Quality Objectives (PWQO) <input type="checkbox"/> Other <small>Indicate One</small>
--	--	---

Is this submission for a Record of Site Condition?  
 Yes  No

Report Guideline on Certificate of Analysis  
 Yes  No

**Project Information:**  
 Project: 45102-104  
 Site Location: Darcy Drive, Strathroy  
 Sampled By: Mackenzie Costello  
 AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_  
Please note: If quotation number is not provided, client will be billed full price for analysis.

**Turnaround Time (TAT) Required:**

Regular TAT  5 to 7 Business Days  
 Rush TAT (Rush Surcharges Apply)  
 3 Business Days  2 Business Days  Next Business Day  
 OR Date Required (Rush Surcharges May Apply):  
MTE 4-DAY TAT  
Please provide prior notification for rush TAT  
 \*TAT is exclusive of weekends and statutory holidays

For 'Same Day' analysis, please contact your AGAT CPM

**Invoice Information:** Bill To Same: Yes  No

Company: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Email: \_\_\_\_\_

**Sample Matrix Legend**

**B** Biota  
**GW** Ground Water  
**O** Oil  
**P** Paint  
**S** Soil  
**SD** Sediment  
**SW** Surface Water

Field Filtered - Metals, Hg, CrVI	O. Reg 153	Potentially Hazardous or High Concentration (Y/N)
Metals and Inorganics	<input type="checkbox"/> All Metals <input type="checkbox"/> 153 Metals (excl. Hydrides)	Nutrients: <input type="checkbox"/> TP <input type="checkbox"/> NH <sub>3</sub> <input type="checkbox"/> TN <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> NO <sub>3</sub> +NO <sub>2</sub>
	<input type="checkbox"/> Hydride Metals <input type="checkbox"/> 153 Metals (Incl. Hydrides)	
Full Metals Scan	ORPs: <input type="checkbox"/> B-HWS <input type="checkbox"/> Cl <input type="checkbox"/> CN <sup>-</sup>	Volatiles: <input type="checkbox"/> VOC <input type="checkbox"/> BTEX <input type="checkbox"/> THM PHCs Fl - F4
	<input type="checkbox"/> Cr <sup>6+</sup> <input type="checkbox"/> EC <input type="checkbox"/> FOC <input type="checkbox"/> Hg	
Regulation/Custom Metals	<input type="checkbox"/> pH <input type="checkbox"/> SAR	ABNs
		PAHs
		PCBs: <input type="checkbox"/> Total <input type="checkbox"/> Aroclors
		Organochlorine Pesticides
		TCLP: <input type="checkbox"/> M&I <input type="checkbox"/> VOCs <input type="checkbox"/> ABNs <input type="checkbox"/> B(a)P <input type="checkbox"/> PCBs
		Sewer Use
		<u>4500 hold</u>

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N
BH209-19-2B	<u>Jul 12/19</u>	<u>13:27</u>	<u>4</u>	<u>S</u>		
BH209-19-2C	<u>↓</u>	<u>13:30</u>	<u>↓</u>	<u>↓</u>		
DU209-2A	<u>↓</u>	<u>13:40</u>	<u>↓</u>	<u>↓</u>		

Samples Relinquished By (Print Name and Sign): <u>Mackenzie Costello</u>	Date: <u>12/07/19</u>	Time: <u>15:25</u>	Samples Received By (Print Name and Sign): <u>Jessica Smith</u>	Date: <u>19/7/12</u>	Time: <u>3:30</u>
Samples Relinquished By (Print Name and Sign): <u>J. Smith</u>	Date: <u>19/7/15</u>	Time: <u>11AM</u>	Samples Received By (Print Name and Sign):	Date: <u>19/7/15</u>	Time: <u>3:30</u>



## Sample Temperature Log

Client: MTE

COC# or Work Order #: 192492031

# of Coolers: 4

# of Submissions: 1

### Arrival Temperatures - Branch/Driver

### Arrival Temperatures - Laboratory

Cooler #1: 7.6 / 9.4 / 9.2

Cooler #1: 4.3 / 4.6 / 2.1

Cooler #2: 8.7 / 5.4 / 9.1

Cooler #2: 3.7 / 4.0 / 4.7

Cooler #3: 4.6 / 4.7 / 8.7

Cooler #3: 4.1 / 3.2 / 2.3

Cooler #4: 9.1 / 3.6 / 4.2

Cooler #4: 4.6 / 2.9 / 2.6

Cooler #5: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Cooler #5: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Cooler #6: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Cooler #6: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Cooler #7: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Cooler #7: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Cooler #8: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Cooler #8: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Cooler #9: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Cooler #9: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Cooler #10: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Cooler #10: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

IR Gun ID: \_\_\_\_\_

IR Gun ID: \_\_\_\_\_

Taken By: Jessica Smith

Taken By: \_\_\_\_\_

Date (yyyy/mm/dd): 2019/07/12 Time: 5:00 AM / PM

Date (yyyy/mm/dd): 2019/07/15 Time: 3:30 AM / PM

Instructions for use of this form: 1) complete all fields of info including total # of coolers and # of submissions rec'd, 2) photocopy and place in each submission prior to giving a WO#, 3) Proceed as normal, write the WO# and scan ( please make sure to scan along with the COC)



CLIENT NAME: MTE CONSULTANTS Inc.  
123ST GEORGE STREET  
LONDON, ON N6A 3A1  
519-204-6510

ATTENTION TO: Mike Fabro

PROJECT: 45102-104

AGAT WORK ORDER: 19L510987

SOIL ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Supervisor

TRACE ORGANICS REVIEWED BY: Oksana Gushyla, Trace Organics Lab Supervisor

DATE REPORTED: Sep 03, 2019

PAGES (INCLUDING COVER): 17

VERSION\*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

\*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.



## Certificate of Analysis

AGAT WORK ORDER: 19L510987

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

ATTENTION TO: Mike Fabro

SAMPLING SITE:

SAMPLED BY:

### O. Reg. 153(511) - All Metals (Soil)

DATE RECEIVED: 2019-08-28

DATE REPORTED: 2019-09-03

Parameter	Unit	SAMPLE DESCRIPTION:		TP101-19-3	TP102-19-2	TP103-19-3	TP104-19-2	TP1104-19-2	TP104-19-4	TP104-19-5
		G / S	RDL	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2019-08-28	2019-08-28	2019-08-28	2019-08-28	2019-08-28	2019-08-28	2019-08-28
Antimony	µg/g	7.5	0.8	<0.8	<0.8	<0.8	0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	6	4	5	5	6	5	2
Barium	µg/g	390	2	99	42	75	72	72	89	10
Beryllium	µg/g	4	0.5	0.9	<0.5	<0.5	0.6	0.5	<0.5	<0.5
Boron	µg/g	120	5	10	7	9	9	8	10	<5
Boron (Hot Water Soluble)	µg/g	1.5	0.10	0.26	<0.10	1.46	1.03	1.13	0.66	0.11
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	160	2	28	13	16	20	39	22	7
Cobalt	µg/g	22	0.5	14.3	6.3	6.5	7.5	7.4	10.2	2.2
Copper	µg/g	140	1	19	15	22	23	21	17	7
Lead	µg/g	120	1	14	7	102	123	117	66	4
Molybdenum	µg/g	6.9	0.5	0.6	<0.5	0.6	0.5	0.6	<0.5	<0.5
Nickel	µg/g	100	1	31	15	15	18	19	22	5
Selenium	µg/g	2.4	0.4	0.4	<0.4	0.4	0.5	0.4	<0.4	<0.4
Silver	µg/g	20	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Uranium	µg/g	23	0.5	0.7	0.6	<0.5	0.5	0.5	0.6	<0.5
Vanadium	µg/g	86	1	34	21	22	25	24	29	18
Zinc	µg/g	340	5	62	35	162	167	159	121	22
Chromium VI	µg/g	8	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Mercury	µg/g	0.27	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:

*Anamjot Bhela*  




## Certificate of Analysis

AGAT WORK ORDER: 19L510987

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

ATTENTION TO: Mike Fabro

SAMPLING SITE:

SAMPLED BY:

### O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2019-08-28

DATE REPORTED: 2019-09-03

Parameter	Unit	SAMPLE DESCRIPTION:		TP101-19-3	TP102-19-2	TP103-19-3	TP104-19-2	TP1104-19-2
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2019-08-28	2019-08-28	2019-08-28	2019-08-28	2019-08-28
		G / S	RDL	479866	479872	479875	479878	479879
Naphthalene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthylene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluorene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Phenanthrene	µg/g		0.05	<0.05	<0.05	0.15	0.08	0.12
Anthracene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoranthene	µg/g		0.05	<0.05	<0.05	0.30	0.17	0.19
Pyrene	µg/g		0.05	<0.05	<0.05	0.26	0.14	0.15
Benz(a)anthracene	µg/g		0.05	<0.05	<0.05	0.12	0.07	0.08
Chrysene	µg/g		0.05	<0.05	<0.05	0.16	0.10	0.10
Benzo(b)fluoranthene	µg/g		0.05	<0.05	<0.05	0.17	0.07	0.08
Benzo(k)fluoranthene	µg/g		0.05	<0.05	<0.05	0.06	<0.05	<0.05
Benzo(a)pyrene	µg/g		0.05	<0.05	<0.05	0.12	0.06	0.06
Indeno(1,2,3-cd)pyrene	µg/g		0.05	<0.05	<0.05	0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g		0.05	<0.05	<0.05	0.06	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	18.1	15.3	17.8	18.9	17.8
Surrogate	Unit	Acceptable Limits						
Chrysene-d12	%	50-140		98	116	102	117	95

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

479866-479879 Results are based on the dry weight of the soil.

Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b&j)Fluoranthene isomers because the isomers co-elute on the GC column.  
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L510987

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

ATTENTION TO: Mike Fabro

SAMPLING SITE:

SAMPLED BY:

### O. Reg. 153(511) - PHCs F1 - F4 (Soil)

DATE RECEIVED: 2019-08-28

DATE REPORTED: 2019-09-03

SAMPLE DESCRIPTION:		TP104-19-4		
SAMPLE TYPE:		Soil		
DATE SAMPLED:		2019-08-28		
Parameter	Unit	G / S	RDL	479880
Benzene	µg/g	0.21	0.02	<0.02
Toluene	µg/g	2.3	0.05	<0.05
Ethylbenzene	µg/g	1.1	0.05	<0.05
Xylene Mixture	µg/g	3.1	0.05	<0.05
F1 (C6 to C10)	µg/g	55	5	<5
F1 (C6 to C10) minus BTEX	µg/g	55	5	<5
F2 (C10 to C16)	µg/g	98	10	<10
F3 (C16 to C34)	µg/g	300	50	<50
F4 (C34 to C50)	µg/g	2800	50	<50
Gravimetric Heavy Hydrocarbons	µg/g	2800	50	NA
Moisture Content	%		0.1	15.4
Surrogate	Unit	Acceptable Limits		
Terphenyl	%	60-140		86

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

479880 Results are based on sample dry weight.  
The C6-C10 fraction is calculated using Toluene response factor.  
Xylenes is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.  
C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.  
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.  
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.  
The chromatogram has returned to baseline by the retention time of nC50.  
Total C6 - C50 results are corrected for BTEX contribution.  
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.  
nC6 and nC10 response factors are within 30% of Toluene response factor.  
nC10, nC16 and nC34 response factors are within 10% of their average.  
C50 response factor is within 70% of nC10 + nC16 + nC34 average.  
Linearity is within 15%.  
Extraction and holding times were met for this sample.  
Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.  
Quality Control Data is available upon request.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L510987

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

ATTENTION TO: Mike Fabro

SAMPLING SITE:

SAMPLED BY:

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Soil)

DATE RECEIVED: 2019-08-28

DATE REPORTED: 2019-09-03

Parameter	Unit	SAMPLE DESCRIPTION:				
		G / S	RDL	TP103-19-3	TP104-19-2	TP1104-19-2
				Soil	Soil	Soil
				2019-08-28	2019-08-28	2019-08-28
				479875	479878	479879
F1 (C6 to C10)	µg/g		5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g		5	<5	<5	<5
F2 (C10 to C16)	µg/g		10	<10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10	<10	<10
F3 (C16 to C34)	µg/g		50	140	78	77
F3 (C16 to C34) minus PAHs	µg/g		50	140	77	76
F4 (C34 to C50)	µg/g		50	<50	72	75
Gravimetric Heavy Hydrocarbons	µg/g		50	NA	NA	NA
Moisture Content	%		0.1	17.8	18.9	17.8
Surrogate	Unit	Acceptable Limits				
Terphenyl	%		60-140	100	110	86

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

479875-479879

Results are based on sample dry weight.  
The C6-C10 fraction is calculated using toluene response factor.  
C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.  
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.  
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.  
The chromatogram has returned to baseline by the retention time of nC50.  
Total C6 - C50 results are corrected for BTEX and PAH contributions.  
C>10 - C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.  
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).  
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.  
nC10, nC16 and nC34 response factors are within 10% of their average.  
C50 response factor is within 70% of nC10 + nC16 + nC34 average.  
Linearity is within 15%.  
Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L510987

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

ATTENTION TO: Mike Fabro

SAMPLING SITE:

SAMPLED BY:

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)

DATE RECEIVED: 2019-08-28

DATE REPORTED: 2019-09-03

Parameter	Unit	SAMPLE DESCRIPTION:		TP101-19-3	TP102-19-2
		G / S	RDL	479866	479872
Benzene	µg/g	0.02	<0.02	<0.02	<0.02
Toluene	µg/g	0.05	<0.05	<0.05	<0.05
Ethylbenzene	µg/g	0.05	<0.05	<0.05	<0.05
Xylene Mixture	µg/g	0.05	<0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g	5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	5	<5	<5	<5
F2 (C10 to C16)	µg/g	10	<10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g	10	<10	<10	<10
F3 (C16 to C34)	µg/g	50	<50	<50	<50
F3 (C16 to C34) minus PAHs	µg/g	50	<50	<50	<50
F4 (C34 to C50)	µg/g	50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	50	NA	NA	NA
Moisture Content	%	0.1	18.1	15.3	
Surrogate	Unit	Acceptable Limits			
Terphenyl	%	60-140	100	113	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

479866-479872

Results are based on sample dry weight.  
 The C6-C10 fraction is calculated using toluene response factor.  
 Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.  
 C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.  
 The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.  
 Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.  
 The chromatogram has returned to baseline by the retention time of nC50.  
 Total C6 - C50 results are corrected for BTEX and PAH contributions.  
 C>10 - C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.  
 C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).  
 This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.  
 nC10, nC16 and nC34 response factors are within 10% of their average.  
 C50 response factor is within 70% of nC10 + nC16 + nC34 average.  
 Linearity is within 15%.  
 Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L510987

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

ATTENTION TO: Mike Fabro

SAMPLING SITE:

SAMPLED BY:

### O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2019-08-28

DATE REPORTED: 2019-09-03

Parameter	Unit	SAMPLE DESCRIPTION:		TP103-19-3	TP104-19-2	TP1104-19-2
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2019-08-28	2019-08-28	2019-08-28
		G / S	RDL	479875	479878	479879
Dichlorodifluoromethane	µg/g		0.05	<0.05	<0.05	<0.05
Vinyl Chloride	ug/g		0.02	<0.02	<0.02	<0.02
Bromomethane	ug/g		0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g		0.05	<0.05	<0.05	<0.05
Acetone	ug/g		0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g		0.05	<0.05	<0.05	<0.05
Methylene Chloride	ug/g		0.05	<0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g		0.05	<0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g		0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g		0.02	<0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g		0.50	<0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g		0.02	<0.02	<0.02	<0.02
Chloroform	ug/g		0.04	<0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g		0.03	<0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g		0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g		0.05	<0.05	<0.05	<0.05
Benzene	ug/g		0.02	<0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g		0.03	<0.03	<0.03	<0.03
Trichloroethylene	ug/g		0.03	<0.03	<0.03	<0.03
Bromodichloromethane	ug/g		0.05	<0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g		0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g		0.04	<0.04	<0.04	<0.04
Toluene	ug/g		0.05	<0.05	<0.05	<0.05
Dibromochloromethane	ug/g		0.05	<0.05	<0.05	<0.05
Ethylene Dibromide	ug/g		0.04	<0.04	<0.04	<0.04
Tetrachloroethylene	ug/g		0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g		0.04	<0.04	<0.04	<0.04
Chlorobenzene	ug/g		0.05	<0.05	<0.05	<0.05
Ethylbenzene	ug/g		0.05	0.18	<0.05	<0.05
m & p-Xylene	ug/g		0.05	0.10	<0.05	<0.05

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L510987

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

ATTENTION TO: Mike Fabro

SAMPLING SITE:

SAMPLED BY:

### O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2019-08-28

DATE REPORTED: 2019-09-03

Parameter	Unit	SAMPLE DESCRIPTION:				
		G / S	RDL	TP103-19-3	TP104-19-2	TP1104-19-2
				Soil	Soil	Soil
				2019-08-28	2019-08-28	2019-08-28
				479875	479878	479879
Bromoform	ug/g		0.05	<0.05	<0.05	<0.05
Styrene	ug/g		0.05	<0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g		0.05	<0.05	<0.05	<0.05
o-Xylene	ug/g		0.05	0.22	<0.05	<0.05
1,3-Dichlorobenzene	ug/g		0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g		0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g		0.05	<0.05	<0.05	<0.05
Xylene Mixture	ug/g		0.05	0.32	<0.05	<0.05
1,3-Dichloropropene	µg/g		0.04	<0.04	<0.04	<0.04
n-Hexane	µg/g		0.05	<0.05	<0.05	<0.05
Surrogate	Unit	Acceptable Limits				
Toluene-d8	% Recovery	50-140	96	98	88	
4-Bromofluorobenzene	% Recovery	50-140	114	109	111	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

479875-479879 The sample was analyzed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.

Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.

1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:

## Quality Assurance

CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE:

AGAT WORK ORDER: 19L510987  
 ATTENTION TO: Mike Fabro  
 SAMPLED BY:

Soil Analysis															
RPT Date: Sep 03, 2019			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE	
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

O. Reg. 153(511) - All Metals (Soil)

Antimony	482153		<0.8	<0.8	NA	< 0.8	100%	70%	130%	97%	80%	120%	85%	70%	130%
Arsenic	482153		4	4	NA	< 1	110%	70%	130%	102%	80%	120%	104%	70%	130%
Barium	482153		50	49	0.5%	< 2	106%	70%	130%	100%	80%	120%	98%	70%	130%
Beryllium	482153		<0.5	<0.5	NA	< 0.5	109%	70%	130%	116%	80%	120%	98%	70%	130%
Boron	482153		6	6	NA	< 5	98%	70%	130%	112%	80%	120%	87%	70%	130%
Boron (Hot Water Soluble)	479866	479866	0.26	0.25	NA	< 0.10	114%	60%	140%	102%	70%	130%	100%	60%	140%
Cadmium	482153		<0.5	<0.5	NA	< 0.5	111%	70%	130%	102%	80%	120%	102%	70%	130%
Chromium	482153		14	15	2.6%	< 2	93%	70%	130%	103%	80%	120%	101%	70%	130%
Cobalt	482153		7.6	7.6	0.2%	< 0.5	96%	70%	130%	104%	80%	120%	100%	70%	130%
Copper	482153		21	21	0.1%	< 1	95%	70%	130%	109%	80%	120%	96%	70%	130%
Lead	482153		9	10	6.5%	< 1	108%	70%	130%	104%	80%	120%	97%	70%	130%
Molybdenum	482153		<0.5	<0.5	NA	< 0.5	110%	70%	130%	106%	80%	120%	108%	70%	130%
Nickel	482153		17	17	0.4%	< 1	100%	70%	130%	107%	80%	120%	100%	70%	130%
Selenium	482153		<0.4	<0.4	NA	< 0.4	118%	70%	130%	99%	80%	120%	102%	70%	130%
Silver	482153		<0.2	<0.2	NA	< 0.2	105%	70%	130%	103%	80%	120%	98%	70%	130%
Thallium	482153		<0.4	<0.4	NA	< 0.4	92%	70%	130%	105%	80%	120%	101%	70%	130%
Uranium	482153		<0.5	<0.5	NA	< 0.5	106%	70%	130%	101%	80%	120%	101%	70%	130%
Vanadium	482153		22	22	1.9%	< 1	93%	70%	130%	102%	80%	120%	101%	70%	130%
Zinc	482153		48	49	1.4%	< 5	99%	70%	130%	108%	80%	120%	97%	70%	130%
Chromium VI	484675		<0.2	<0.2	NA	< 0.2	82%	70%	130%	103%	80%	120%	99%	70%	130%
Mercury	482153		<0.10	<0.10	NA	< 0.10	102%	70%	130%	101%	80%	120%	103%	70%	130%

Comments: NA signifies Not Applicable.

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

O. Reg. 153(511) - All Metals (Soil)

Antimony	488096		<0.8	<0.8	NA	< 0.8	100%	70%	130%	94%	80%	120%	93%	70%	130%
Arsenic	488096		<1	1	NA	< 1	108%	70%	130%	102%	80%	120%	104%	70%	130%
Barium	488096		18	17	5.7%	< 2	109%	70%	130%	101%	80%	120%	103%	70%	130%
Beryllium	488096		<0.5	<0.5	NA	< 0.5	71%	70%	130%	96%	80%	120%	91%	70%	130%
Boron	488096		<5	<5	NA	< 5	85%	70%	130%	92%	80%	120%	87%	70%	130%
Cadmium	488096		<0.5	<0.5	NA	< 0.5	109%	70%	130%	101%	80%	120%	104%	70%	130%
Chromium	488096		6	6	NA	< 2	91%	70%	130%	99%	80%	120%	102%	70%	130%
Cobalt	488096		1.7	1.7	NA	< 0.5	97%	70%	130%	103%	80%	120%	102%	70%	130%
Copper	488096		2	2	NA	< 1	91%	70%	130%	102%	80%	120%	94%	70%	130%
Lead	488096		1	1	NA	< 1	104%	70%	130%	100%	80%	120%	94%	70%	130%
Molybdenum	488096		<0.5	<0.5	NA	< 0.5	110%	70%	130%	103%	80%	120%	105%	70%	130%
Nickel	488096		3	3	NA	< 1	101%	70%	130%	107%	80%	120%	106%	70%	130%
Selenium	488096		<0.4	<0.4	NA	< 0.4	108%	70%	130%	101%	80%	120%	103%	70%	130%

## Quality Assurance

CLIENT NAME: MTE CONSULTANTS Inc.

AGAT WORK ORDER: 19L510987

PROJECT: 45102-104

ATTENTION TO: Mike Fabro

SAMPLING SITE:

SAMPLED BY:

### Soil Analysis (Continued)

RPT Date: Sep 03, 2019			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Silver	488096		<0.2	<0.2	NA	< 0.2	94%	70%	130%	101%	80%	120%	96%	70%	130%
Thallium	488096		<0.4	<0.4	NA	< 0.4	100%	70%	130%	102%	80%	120%	99%	70%	130%
Uranium	488096		<0.5	<0.5	NA	< 0.5	100%	70%	130%	100%	80%	120%	100%	70%	130%
Vanadium	488096		16	17	6.1%	< 1	89%	70%	130%	97%	80%	120%	101%	70%	130%
Zinc	488096		7	7	NA	< 5	99%	70%	130%	99%	80%	120%	97%	70%	130%
Mercury	488096		<0.10	<0.10	NA	< 0.10	100%	70%	130%	101%	80%	120%	98%	70%	130%

Comments: NA signifies Not Applicable.

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

Certified By:




## Quality Assurance

CLIENT NAME: MTE CONSULTANTS Inc.

AGAT WORK ORDER: 19L510987

PROJECT: 45102-104

ATTENTION TO: Mike Fabro

SAMPLING SITE:

SAMPLED BY:

Trace Organics Analysis															
RPT Date: Sep 03, 2019			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
						Lower		Upper	Lower		Upper	Lower		Upper	

**O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)**

Benzene	479162		< 0.02	< 0.02	NA	< 0.02	78%	60%	130%	74%	60%	130%	80%	60%	130%
Toluene	479162		< 0.05	< 0.05	NA	< 0.05	70%	60%	130%	74%	60%	130%	81%	60%	130%
Ethylbenzene	479162		< 0.05	< 0.05	NA	< 0.05	77%	60%	130%	76%	60%	130%	83%	60%	130%
Xylene Mixture	479162		< 0.05	< 0.05	NA	< 0.05	77%	60%	130%	77%	60%	130%	81%	60%	130%
F1 (C6 to C10)	479162		< 5	< 5	NA	< 5	83%	60%	130%	85%	85%	115%	90%	70%	130%
F2 (C10 to C16)	468553		< 10	< 10	NA	< 10	90%	60%	130%	85%	80%	120%	81%	70%	130%
F3 (C16 to C34)	468553		< 50	< 50	NA	< 50	94%	60%	130%	82%	80%	120%	88%	70%	130%
F4 (C34 to C50)	468553		< 50	< 50	NA	< 50	90%	60%	130%	93%	80%	120%	112%	70%	130%

**O. Reg. 153(511) - PAHs (Soil)**

Naphthalene	463322		< 0.05	< 0.05	NA	< 0.05	89%	50%	140%	96%	50%	140%	89%	50%	140%
Acenaphthylene	463322		< 0.05	< 0.05	NA	< 0.05	107%	50%	140%	109%	50%	140%	104%	50%	140%
Acenaphthene	463322		< 0.05	< 0.05	NA	< 0.05	105%	50%	140%	107%	50%	140%	103%	50%	140%
Fluorene	463322		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	115%	50%	140%	109%	50%	140%
Phenanthrene	463322		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	111%	50%	140%	103%	50%	140%
Anthracene	463322		< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	111%	50%	140%	106%	50%	140%
Fluoranthene	463322		< 0.05	< 0.05	NA	< 0.05	114%	50%	140%	114%	50%	140%	108%	50%	140%
Pyrene	463322		< 0.05	< 0.05	NA	< 0.05	118%	50%	140%	113%	50%	140%	106%	50%	140%
Benz(a)anthracene	463322		< 0.05	< 0.05	NA	< 0.05	101%	50%	140%	105%	50%	140%	102%	50%	140%
Chrysene	463322		< 0.05	< 0.05	NA	< 0.05	117%	50%	140%	107%	50%	140%	101%	50%	140%
Benzo(b)fluoranthene	463322		< 0.05	< 0.05	NA	< 0.05	89%	50%	140%	93%	50%	140%	89%	50%	140%
Benzo(k)fluoranthene	463322		< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	114%	50%	140%	106%	50%	140%
Benzo(a)pyrene	463322		< 0.05	< 0.05	NA	< 0.05	100%	50%	140%	103%	50%	140%	95%	50%	140%
Indeno(1,2,3-cd)pyrene	463322		< 0.05	< 0.05	NA	< 0.05	74%	50%	140%	81%	50%	140%	79%	50%	140%
Dibenz(a,h)anthracene	463322		< 0.05	< 0.05	NA	< 0.05	83%	50%	140%	79%	50%	140%	79%	50%	140%
Benzo(g,h,i)perylene	463322		< 0.05	< 0.05	NA	< 0.05	85%	50%	140%	73%	50%	140%	74%	50%	140%

**O. Reg. 153(511) - VOCs (Soil)**

Dichlorodifluoromethane	479055		< 0.05	< 0.05	NA	< 0.05	92%	50%	140%	85%	50%	140%	85%	50%	140%
Vinyl Chloride	479055		< 0.02	< 0.02	NA	< 0.02	100%	50%	140%	111%	50%	140%	121%	50%	140%
Bromomethane	479055		< 0.05	< 0.05	NA	< 0.05	107%	50%	140%	108%	50%	140%	98%	50%	140%
Trichlorofluoromethane	479055		< 0.05	< 0.05	NA	< 0.05	102%	50%	140%	109%	50%	140%	114%	50%	140%
Acetone	479055		< 0.50	< 0.50	NA	< 0.50	102%	50%	140%	108%	50%	140%	104%	50%	140%
1,1-Dichloroethylene	479055		< 0.05	< 0.05	NA	< 0.05	97%	50%	140%	99%	60%	130%	86%	50%	140%
Methylene Chloride	479055		< 0.05	< 0.05	NA	< 0.05	87%	50%	140%	98%	60%	130%	101%	50%	140%
Trans- 1,2-Dichloroethylene	479055		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	99%	60%	130%	84%	50%	140%
Methyl tert-butyl Ether	479055		< 0.05	< 0.05	NA	< 0.05	81%	50%	140%	82%	60%	130%	86%	50%	140%
1,1-Dichloroethane	479055		< 0.02	< 0.02	NA	< 0.02	90%	50%	140%	100%	60%	130%	80%	50%	140%
Methyl Ethyl Ketone	479055		< 0.50	< 0.50	NA	< 0.50	102%	50%	140%	112%	50%	140%	80%	50%	140%
Cis- 1,2-Dichloroethylene	479055		< 0.02	< 0.02	NA	< 0.02	75%	50%	140%	83%	60%	130%	75%	50%	140%

## Quality Assurance

CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE:

AGAT WORK ORDER: 19L510987  
 ATTENTION TO: Mike Fabro  
 SAMPLED BY:

### Trace Organics Analysis (Continued)

RPT Date: Sep 03, 2019			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Chloroform	479055		< 0.04	< 0.04	NA	< 0.04	82%	50%	140%	84%	60%	130%	101%	50%	140%
1,2-Dichloroethane	479055		< 0.03	< 0.03	NA	< 0.03	105%	50%	140%	91%	60%	130%	99%	50%	140%
1,1,1-Trichloroethane	479055		< 0.05	< 0.05	NA	< 0.05	79%	50%	140%	79%	60%	130%	88%	50%	140%
Carbon Tetrachloride	479055		< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	111%	60%	130%	98%	50%	140%
Benzene	479055		< 0.02	< 0.02	NA	< 0.02	96%	50%	140%	82%	60%	130%	85%	50%	140%
1,2-Dichloropropane	479055		< 0.03	< 0.03	NA	< 0.03	79%	50%	140%	77%	60%	130%	89%	50%	140%
Trichloroethylene	479055		< 0.03	< 0.03	NA	< 0.03	94%	50%	140%	86%	60%	130%	89%	50%	140%
Bromodichloromethane	479055		< 0.05	< 0.05	NA	< 0.05	82%	50%	140%	89%	60%	130%	94%	50%	140%
Methyl Isobutyl Ketone	479055		< 0.50	< 0.50	NA	< 0.50	87%	50%	140%	80%	50%	140%	91%	50%	140%
1,1,2-Trichloroethane	479055		< 0.04	< 0.04	NA	< 0.04	93%	50%	140%	103%	60%	130%	95%	50%	140%
Toluene	479055		< 0.05	< 0.05	NA	< 0.05	109%	50%	140%	97%	60%	130%	88%	50%	140%
Dibromochloromethane	479055		< 0.05	< 0.05	NA	< 0.05	98%	50%	140%	102%	60%	130%	86%	50%	140%
Ethylene Dibromide	479055		< 0.04	< 0.04	NA	< 0.04	101%	50%	140%	87%	60%	130%	87%	50%	140%
Tetrachloroethylene	479055		< 0.05	< 0.05	NA	< 0.05	104%	50%	140%	87%	60%	130%	90%	50%	140%
1,1,1,2-Tetrachloroethane	479055		< 0.04	< 0.04	NA	< 0.04	97%	50%	140%	104%	60%	130%	92%	50%	140%
Chlorobenzene	479055		< 0.05	< 0.05	NA	< 0.05	109%	50%	140%	118%	60%	130%	95%	50%	140%
Ethylbenzene	479055		< 0.05	< 0.05	NA	< 0.05	99%	50%	140%	107%	60%	130%	91%	50%	140%
m & p-Xylene	479055		< 0.05	< 0.05	NA	< 0.05	118%	50%	140%	118%	60%	130%	107%	50%	140%
Bromoform	479055		< 0.05	< 0.05	NA	< 0.05	105%	50%	140%	92%	60%	130%	97%	50%	140%
Styrene	479055		< 0.05	< 0.05	NA	< 0.05	84%	50%	140%	118%	60%	130%	83%	50%	140%
1,1,2,2-Tetrachloroethane	479055		< 0.05	< 0.05	NA	< 0.05	102%	50%	140%	93%	60%	130%	113%	50%	140%
o-Xylene	479055		< 0.05	< 0.05	NA	< 0.05	118%	50%	140%	87%	60%	130%	104%	50%	140%
1,3-Dichlorobenzene	479055		< 0.05	< 0.05	NA	< 0.05	118%	50%	140%	113%	60%	130%	105%	50%	140%
1,4-Dichlorobenzene	479055		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	114%	60%	130%	105%	50%	140%
1,2-Dichlorobenzene	479055		< 0.05	< 0.05	NA	< 0.05	107%	50%	140%	99%	60%	130%	99%	50%	140%
1,3-Dichloropropene	479055		< 0.04	< 0.04	NA	< 0.04	87%	50%	140%	98%	60%	130%	78%	50%	140%
n-Hexane	479055		< 0.05	< 0.05	NA	< 0.05	117%	50%	140%	114%	60%	130%	114%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: \_\_\_\_\_





## Method Summary

CLIENT NAME: MTE CONSULTANTS Inc.

AGAT WORK ORDER: 19L510987

PROJECT: 45102-104

ATTENTION TO: Mike Fabro

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	EPA SW 846 6010C; MSA, Part 3, Ch.21	ICP/OES
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium VI	INOR-93-6029	SM 3500 B; MSA Part 3, Ch. 25	SPECTROPHOTOMETER
Mercury	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS

## Method Summary

CLIENT NAME: MTE CONSULTANTS Inc.

AGAT WORK ORDER: 19L510987

PROJECT: 45102-104

ATTENTION TO: Mike Fabro

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluorene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Phenanthrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benz(a)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Chrysene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(a)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Moisture Content	ORG-91-5106	EPA SW-846 3541 & 8270D	BALANCE
Chrysene-d12	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzene	VOL-91-5009	EPA SW-846 5035 & 8260D	P&T GC/MS
Toluene	VOL-91-5009	EPA SW-846 5035 & 8260D	P&T GC/MS
Ethylbenzene	VOL-91-5009	EPA SW-846 5035 & 8260D	P&T GC/MS
Xylene Mixture	VOL-91-5009	EPA SW-846 5035 & 8260D	P&T GC/MS
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method	P&T GC/FID
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	BALANCE
Moisture Content	VOL-91-5009	CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009		GC/FID
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method	P&T GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5009	CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5009	CCME Tier 1 Method	GC/FID
Benzene	VOL-91-5009	EPA SW-846 5035 & 8260	P&T GC/MS
Toluene	VOL-91-5009	EPA SW-846 5035 & 8260	P&T GC/MS
Ethylbenzene	VOL-91-5009	EPA SW-846 5035 & 8260	P&T GC/MS
Xylene Mixture	VOL-91-5009	EPA SW-846 5035 & 8260	P&T GC/MS
Dichlorodifluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Acetone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS

## Method Summary

CLIENT NAME: MTE CONSULTANTS Inc.

AGAT WORK ORDER: 19L510987

PROJECT: 45102-104

ATTENTION TO: Mike Fabro

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Methyl Ethyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Chloroform	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Benzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Toluene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromoform	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Styrene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Xylene Mixture	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS



# AGAT

## Laboratories

2 large ~~bx~~ LT-① 7.4/6.0/6.6  
② 5.3/5.9/4.7

5835 Coopers Avenue  
Mississauga, Ontario L4Z 1Y2  
Ph: 905.712.5100 Fax: 905.712.5122  
webearth.agatlabs.com

### Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

#### Report Information:

Company: MTE Consultants  
Contact: Mike Fabro  
Address: 123 St. George St. London, ON  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
Reports to be sent to:  
1. Email: mfabro@mte85.com  
2. Email: mcostello@mte85.com

#### Regulatory Requirements:

No Regulatory Requirement  
 Regulation 153/04  
 Sewer Use  
 Regulation 558  
Table Indicate One  
 Ind/Com  
 Res/Park  
 Agriculture  
 Sanitary  
 Storm  
 CCME  
Soil Texture (Check One)  
 Coarse  
 Fine  
Region Indicate One  
 MISA  
 Prov. Water Quality Objectives (PWQO)  
 Other

#### Laboratory Use Only

Work Order #: 19L510987  
Cooler Quantity: 2 large  
Arrival Temperatures: 11.6 | 9.9 | 13.4  
5.7 | 7.2 | 7.3  
Custody Seal Intact:  Yes  No  N/A  
Notes: on ice

#### Turnaround Time (TAT) Required:

Regular TAT  5 to 7 Business Days  
Rush TAT (Rush Surcharges Apply)  
 3 Business Days  2 Business Days  Next Business Day  
OR Date Required (Rush Surcharges May Apply):  
MTE - 4 Days  
Please provide prior notification for rush TAT  
\*TAT is exclusive of weekends and statutory holidays

#### Project Information:

Project: 45102-104  
Site Location: Darcy Drive, Strathroy  
Sampled By: Mackenzie Costello  
AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_

#### Is this submission for a Record of Site Condition?

Yes  No

#### Report Guideline on Certificate of Analysis

Yes  No

For 'Same Day' analysis, please contact your AGAT CPM

#### Invoice Information:

Company: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Email: \_\_\_\_\_  
Bill To Same: Yes  No

#### Sample Matrix Legend

B Biota  
GW Ground Water  
O Oil  
P Paint  
S Soil  
SD Sediment  
SW Surface Water

Metals and Inorganics	O. Reg 153		Full Metals Scan	Regulation/Custom Metals	Nutrients: <input type="checkbox"/> TP <input type="checkbox"/> NH <sub>3</sub> <input type="checkbox"/> TKN <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> NO <sub>x</sub> +NO <sub>2</sub>	Volatiles: <input checked="" type="checkbox"/> VOC <input type="checkbox"/> BTEX <input type="checkbox"/> THM	PHCs F1 - F4 + BTEX	ABNS	PAHS	PCBS: <input type="checkbox"/> Total <input type="checkbox"/> Aroclors	Organochlorine Pesticides	TCIP: <input type="checkbox"/> M&I <input type="checkbox"/> VOCs <input type="checkbox"/> ABNS <input type="checkbox"/> BOP <input type="checkbox"/> PCBs	Sewer Use
	<input checked="" type="checkbox"/> All Metals <input type="checkbox"/> 153 Metals (excl. Hydrides)	<input type="checkbox"/> Hydride Metals <input type="checkbox"/> 153 Metals (incl. Hydrides)											
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N
TP101-19-3	Aug 18/19	11:00	4	S		
T1101-19-3		10:30	4	S		
T101-19-4		11:08	4	S		
TP102-19-2		10:03	4	S		
TP102-19-4		10:12	4	S		
TP103-19-2		12:43	4	S		
TP103-19-3		12:51	4	S		
TP103-19-4		12:58	4	S		
TP103-19-5		13:01	4	S		
TP104-19-2		11:41	4	S		
TP1104-19-2		13:41	4	S		

Samples Relinquished By (Print Name and Sign): <u>Mackenzie Costello</u>	Date: <u>Aug 28/19</u> Time: <u>15:45</u>	Samples Received By (Print Name and Sign): <u>J. Smith</u>	Date: <u>Aug 28/19</u> Time: <u>3:45</u>
Samples Relinquished By (Print Name and Sign): <u>J. Smith</u>	Date: <u>Aug 28/19</u> Time: <u>4:00</u>	Samples Received By (Print Name and Sign): <u>Sharmin</u>	Date: <u>Aug 29/19</u> Time: <u>9:20am</u>
Samples Relinquished By (Print Name and Sign):	Date:	Samples Received By (Print Name and Sign):	Date:

Page 1 of 2  
N#: **T086701**



# AGAT Laboratories

5835 Coopers Avenue  
Mississauga, Ontario L4Z 1Y2  
Ph: 905.712.5100 Fax: 905.712.5122  
webearth.agatlabs.com

### Laboratory Use Only

Work Order #: 19L510987  
Cooler Quantity: 2 large  
Arrival Temperatures: 11.6 | 9.9 | 13.4  
5.7 | 7.2 | 7.3  
Custody Seal Intact:  Yes  No  N/A  
Notes: on ice

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

### Report Information:

Company: MTE consultants  
Contact: Mike Fabro  
Address: 123 St. George St, London, ON  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
Reports to be sent to: mfabro@mte85.com  
1. Email: mcostello@mte85.com  
2. Email: \_\_\_\_\_

### Regulatory Requirements:

No Regulatory Requirement  
(Please check all applicable boxes)  
 Regulation 153/04  
Table 2 Indicate One  
 Ind/Com  
 Res/Park  
 Agriculture  
Sewer Use  Sanitary  Storm  
Region \_\_\_\_\_ Indicate One  
Soil Texture (Check One)  
 Coarse  
 Fine  
 MISA Indicate One  
 Regulation 558  
 CCME  
 Prov. Water Quality Objectives (PWQO)  
 Other

### Is this submission for a Record of Site Condition?

Yes  No

### Report Guideline on Certificate of Analysis

Yes  No

### Project Information:

Project: 45102-104  
Site Location: Doray Drive, Strathroy  
Sampled By: Mackenzie Costello  
AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_  
Please note: if quotation number is not provided, client will be billed full price for analysis.

### Invoice Information:

Bill To Same: Yes  No   
Company: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Email: \_\_\_\_\_

### Sample Matrix Legend

**B** Biota  
**GW** Ground Water  
**O** Oil  
**P** Paint  
**S** Soil  
**SD** Sediment  
**SW** Surface Water

Field Filtered - Metals, Hg, CrVI

O. Reg 153		Metals and Inorganics		Nutrients		Volatiles		PCBs		PAHs		Organochlorine Pesticides		TCLP		Sewer Use	
<input checked="" type="checkbox"/> All Metals	<input type="checkbox"/> 153 Metals (excl. Hydrides)	<input type="checkbox"/> B-HWS	<input type="checkbox"/> Cl	<input type="checkbox"/> NH <sub>3</sub>	<input type="checkbox"/> TKN	<input type="checkbox"/> VOC	<input type="checkbox"/> BTEX	<input type="checkbox"/> F-4	<input type="checkbox"/> ABNS	<input type="checkbox"/> Total	<input type="checkbox"/> Aroclors	<input type="checkbox"/> Im&I	<input type="checkbox"/> VOCs	<input type="checkbox"/> ABNS	<input type="checkbox"/> B(e)P	<input type="checkbox"/> PCBs	<input type="checkbox"/> Sewer Use
<input type="checkbox"/> Hydride Metals	<input type="checkbox"/> 153 Metals (incl. Hydrides)	<input type="checkbox"/> Cr <sup>6+</sup>	<input type="checkbox"/> EOC	<input type="checkbox"/> NO <sub>2</sub>	<input type="checkbox"/> NO <sub>3</sub> +NO <sub>x</sub>	<input type="checkbox"/> Full Metals Scan	<input type="checkbox"/> Full Metals Scan	<input type="checkbox"/> PHCs	<input type="checkbox"/> PAHs	<input type="checkbox"/> Organochlorine Pesticides	<input type="checkbox"/> Organochlorine Pesticides	<input type="checkbox"/> TCLP	<input type="checkbox"/> VOCs	<input type="checkbox"/> ABNS	<input type="checkbox"/> B(e)P	<input type="checkbox"/> PCBs	<input type="checkbox"/> Sewer Use
<input type="checkbox"/> ORPs	<input type="checkbox"/> B-HWS	<input type="checkbox"/> FOC	<input type="checkbox"/> Hg	<input type="checkbox"/> TP	<input type="checkbox"/> NH <sub>3</sub>	<input type="checkbox"/> Regulation/Custom Metals	<input type="checkbox"/> Regulation/Custom Metals	<input type="checkbox"/> PHCs	<input type="checkbox"/> PAHs	<input type="checkbox"/> Organochlorine Pesticides	<input type="checkbox"/> Organochlorine Pesticides	<input type="checkbox"/> TCLP	<input type="checkbox"/> VOCs	<input type="checkbox"/> ABNS	<input type="checkbox"/> B(e)P	<input type="checkbox"/> PCBs	<input type="checkbox"/> Sewer Use
<input type="checkbox"/> Cr <sup>6+</sup>	<input type="checkbox"/> EOC	<input type="checkbox"/> FOC	<input type="checkbox"/> Hg	<input type="checkbox"/> NO <sub>2</sub>	<input type="checkbox"/> NO <sub>3</sub> +NO <sub>x</sub>	<input type="checkbox"/> Volatiles	<input type="checkbox"/> Volatiles	<input type="checkbox"/> PHCs	<input type="checkbox"/> PAHs	<input type="checkbox"/> Organochlorine Pesticides	<input type="checkbox"/> Organochlorine Pesticides	<input type="checkbox"/> TCLP	<input type="checkbox"/> VOCs	<input type="checkbox"/> ABNS	<input type="checkbox"/> B(e)P	<input type="checkbox"/> PCBs	<input type="checkbox"/> Sewer Use
<input type="checkbox"/> pH	<input type="checkbox"/> SAR	<input type="checkbox"/> Full Metals Scan	<input type="checkbox"/> Full Metals Scan	<input type="checkbox"/> PHCs	<input type="checkbox"/> PAHs	<input type="checkbox"/> Organochlorine Pesticides	<input type="checkbox"/> Organochlorine Pesticides	<input type="checkbox"/> TCLP	<input type="checkbox"/> VOCs	<input type="checkbox"/> ABNS	<input type="checkbox"/> B(e)P	<input type="checkbox"/> PCBs	<input type="checkbox"/> Sewer Use	<input type="checkbox"/> Sewer Use	<input type="checkbox"/> Sewer Use	<input type="checkbox"/> Sewer Use	<input type="checkbox"/> Sewer Use

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N
<u>TP104-19-4</u>	<u>Aug 28/19</u>	<u>12:03</u>	<u>4</u>	<u>S</u>		
<u>TP104-19-5</u>	<u>Aug 28/19</u>	<u>12:10</u>	<u>4</u>	<u>S</u>		

Samples Relinquished By (Print Name and Sign): <u>Mackenzie Costello</u>	Date: <u>Aug 28/19</u>	Time: _____	Samples Received By (Print Name and Sign): <u>J. Smith</u>	Date: <u>Aug 28/19</u>	Time: <u>3:45</u>
Samples Relinquished By (Print Name and Sign): <u>J. Smith</u>	Date: <u>Aug 28/19</u>	Time: <u>4:00</u>	Samples Received By (Print Name and Sign): _____	Date: _____	Time: _____
Samples Relinquished By (Print Name and Sign): _____	Date: _____	Time: _____	Samples Received By (Print Name and Sign): _____	Date: _____	Time: _____



CLIENT NAME: MTE CONSULTANTS Inc.  
123ST GEORGE STREET  
LONDON, ON N6A 3A1  
519-204-6510

ATTENTION TO: Mike Fabro

PROJECT: 45102-104

AGAT WORK ORDER: 19L492594

SOIL ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Supervisor

TRACE ORGANICS REVIEWED BY: Pinkal Patel, Report Reviewer

DATE REPORTED: Jul 19, 2019

PAGES (INCLUDING COVER): 13

VERSION\*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

\*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.



## Certificate of Analysis

AGAT WORK ORDER: 19L492594

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - All Metals (Soil)

DATE RECEIVED: 2019-07-15

DATE REPORTED: 2019-07-19

Parameter	Unit	SAMPLE DESCRIPTION:		SP-101-5N	SP-101-7NE	SP-101-15E	SP-101-24SE	SP-101-28S	SP-101-32SW	SP-101-36SW	SP-101-41W
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2019-07-15	2019-07-15	2019-07-15	2019-07-15	2019-07-15	2019-07-15	2019-07-15	2019-07-15
		G / S	RDL	349500	349503	349504	349505	349506	349507	349508	349509
Antimony	µg/g	7.5	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	6	6	5	6	5	6	6	6
Barium	µg/g	390	2	101	110	93	94	90	107	91	98
Beryllium	µg/g	4	0.5	1.0	1.0	0.8	0.8	0.8	0.9	0.8	0.8
Boron	µg/g	120	5	12	12	9	9	10	12	9	9
Boron (Hot Water Soluble)	µg/g	1.5	0.10	0.29	0.31	0.33	0.36	0.34	0.30	0.45	0.29
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	160	2	27	29	25	24	23	27	23	25
Cobalt	µg/g	22	0.5	12.7	13.3	11.8	11.5	11.4	12.6	11.9	12.3
Copper	µg/g	140	1	19	20	19	18	18	20	18	18
Lead	µg/g	120	1	16	15	16	17	32	15	16	16
Molybdenum	µg/g	6.9	0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5
Nickel	µg/g	100	1	29	33	27	26	27	31	26	28
Selenium	µg/g	2.4	0.4	0.6	0.6	0.5	0.7	0.7	0.6	0.6	0.6
Silver	µg/g	20	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Uranium	µg/g	23	0.5	0.7	0.7	0.6	0.7	0.6	0.7	0.7	0.7
Vanadium	µg/g	86	1	34	35	32	31	30	34	31	32
Zinc	µg/g	340	5	68	69	73	77	77	67	69	67
Chromium VI	µg/g	8	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Mercury	µg/g	0.27	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

Certified By:





## Certificate of Analysis

AGAT WORK ORDER: 19L492594

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - All Metals (Soil)

DATE RECEIVED: 2019-07-15

DATE REPORTED: 2019-07-19

Parameter	Unit	SAMPLE DESCRIPTION:		SP-101-45NW	SP-101-50T
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-07-15	2019-07-15
		G / S	RDL	349510	349511
Antimony	µg/g	7.5	0.8	<0.8	<0.8
Arsenic	µg/g	18	1	6	5
Barium	µg/g	390	2	100	100
Beryllium	µg/g	4	0.5	0.8	0.8
Boron	µg/g	120	5	9	9
Boron (Hot Water Soluble)	µg/g	1.5	0.10	0.39	0.34
Cadmium	µg/g	1.2	0.5	<0.5	<0.5
Chromium	µg/g	160	2	25	24
Cobalt	µg/g	22	0.5	12.7	12.1
Copper	µg/g	140	1	18	18
Lead	µg/g	120	1	17	15
Molybdenum	µg/g	6.9	0.5	<0.5	<0.5
Nickel	µg/g	100	1	28	28
Selenium	µg/g	2.4	0.4	0.7	0.6
Silver	µg/g	20	0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4
Uranium	µg/g	23	0.5	0.7	0.6
Vanadium	µg/g	86	1	32	31
Zinc	µg/g	340	5	70	66
Chromium VI	µg/g	8	0.2	<0.2	<0.2
Mercury	µg/g	0.27	0.10	<0.10	<0.10

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:





## Certificate of Analysis

AGAT WORK ORDER: 19L492594

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2019-07-15

DATE REPORTED: 2019-07-18

Parameter	Unit	SAMPLE DESCRIPTION:		SP-101-5N	SP-101-7NE	SP-101-15E	SP-101-24SE	SP-101-28S	SP-101-32SW	SP-101-36SW	SP-101-41W
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2019-07-15	2019-07-15	2019-07-15	2019-07-15	2019-07-15	2019-07-15	2019-07-15	2019-07-15
		G / S	RDL	349500	349503	349504	349505	349506	349507	349508	349509
Naphthalene	µg/g	0.6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.15	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthene	µg/g	7.9	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluorene	µg/g	62	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Phenanthrene	µg/g	6.2	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Anthracene	µg/g	0.67	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Pyrene	µg/g	78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benz(a)anthracene	µg/g	0.5	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chrysene	µg/g	7	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.38	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	6.6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.99	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	14.4	13.9	13.7	10.3	15.5	14.2	13.5	15.1
Surrogate	Unit	Acceptable Limits									
Chrysene-d12	%	50-140		70	63	62	67	66	69	72	69

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L492594

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2019-07-15

DATE REPORTED: 2019-07-18

Parameter	Unit	SAMPLE DESCRIPTION:		SP-101-45NW	SP-101-50T
		G / S	RDL	349510	349511
Naphthalene	µg/g	0.6	0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.15	0.05	<0.05	<0.05
Acenaphthene	µg/g	7.9	0.05	<0.05	<0.05
Fluorene	µg/g	62	0.05	<0.05	<0.05
Phenanthrene	µg/g	6.2	0.05	<0.05	<0.05
Anthracene	µg/g	0.67	0.05	<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05	<0.05
Pyrene	µg/g	78	0.05	<0.05	<0.05
Benz(a)anthracene	µg/g	0.5	0.05	<0.05	<0.05
Chrysene	µg/g	7	0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.38	0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	6.6	0.05	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.99	0.05	<0.05	<0.05
Moisture Content	%		0.1	14.3	15.3
Surrogate	Unit	Acceptable Limits			
Chrysene-d12	%	50-140		69	69

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

349500-349511 Results are based on the dry weight of the soil.  
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.  
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L492594

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)

DATE RECEIVED: 2019-07-15

DATE REPORTED: 2019-07-18

Parameter	Unit	SAMPLE DESCRIPTION:		SP-101-5N	SP-101-7NE	SP-101-15E	SP-101-24SE	SP-101-28S	SP-101-32SW	SP-101-36SW	SP-101-41W
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2019-07-15	2019-07-15	2019-07-15	2019-07-15	2019-07-15	2019-07-15	2019-07-15	2019-07-15
		G / S	RDL	349500	349503	349504	349505	349506	349507	349508	349509
Benzene	µg/g	0.21	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Toluene	µg/g	2.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	µg/g	1.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylene Mixture	µg/g	3.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g	55	5	<5	<5	<5	<5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	55	5	<5	<5	<5	<5	<5	<5	<5	<5
F2 (C10 to C16)	µg/g	98	10	<10	<10	<10	<10	<10	<10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10	<10	<10	<10	<10	<10	<10	<10
F3 (C16 to C34)	µg/g	300	50	<50	<50	<50	<50	<50	<50	<50	<50
F3 (C16 to C34) minus PAHs	µg/g		50	<50	<50	<50	<50	<50	<50	<50	<50
F4 (C34 to C50)	µg/g	2800	50	<50	<50	86	<50	<50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	2800	50	NA	NA	NA	NA	NA	NA	NA	NA
Moisture Content	%		0.1	14.4	13.9	13.7	10.3	15.5	14.2	13.5	15.1
Surrogate	Unit	Acceptable Limits									
Terphenyl	%	60-140		109	76	100	82	82	89	77	70

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L492594

PROJECT: 45102-104

5835 COOPERS AVENUE  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1Y2  
 TEL (905)712-5100  
 FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)

DATE RECEIVED: 2019-07-15

DATE REPORTED: 2019-07-18

Parameter	Unit	SAMPLE DESCRIPTION:		SP-101-45NW	SP-101-50T
		G / S	RDL	349510	349511
Benzene	µg/g	0.21	0.02	<0.02	<0.02
Toluene	µg/g	2.3	0.05	<0.05	<0.05
Ethylbenzene	µg/g	1.1	0.05	<0.05	<0.05
Xylene Mixture	µg/g	3.1	0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g	55	5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	55	5	<5	<5
F2 (C10 to C16)	µg/g	98	10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10	<10
F3 (C16 to C34)	µg/g	300	50	<50	<50
F3 (C16 to C34) minus PAHs	µg/g		50	<50	<50
F4 (C34 to C50)	µg/g	2800	50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	2800	50	NA	NA
Moisture Content	%		0.1	14.3	15.3
Surrogate	Unit	Acceptable Limits			
Terphenyl	%	60-140	94	73	

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L492594

PROJECT: 45102-104

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CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)

DATE RECEIVED: 2019-07-15

DATE REPORTED: 2019-07-18

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils  
Guideline values are for general reference use only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

349500-349511 Results are based on sample dry weight.  
The C6-C10 fraction is calculated using toluene response factor.  
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.  
C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.  
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.  
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.  
The chromatogram has returned to baseline by the retention time of nC50.  
Total C6 - C50 results are corrected for BTEX and PAH contributions.  
C>10 - C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.  
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).  
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.  
nC10, nC16 and nC34 response factors are within 10% of their average.  
C50 response factor is within 70% of nC10 + nC16 + nC34 average.  
Linearity is within 15%.  
Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:

## Quality Assurance

CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE: Darcy Drive, Strathroy

AGAT WORK ORDER: 19L492594  
 ATTENTION TO: Mike Fabro  
 SAMPLED BY: Mackenzie Costello

Soil Analysis															
RPT Date:			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE		MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

O. Reg. 153(511) - All Metals (Soil)

Antimony	349623		<0.8	<0.8	NA	< 0.8	124%	70%	130%	100%	80%	120%	101%	70%	130%
Arsenic	349623		5	5	0.0%	< 1	99%	70%	130%	102%	80%	120%	101%	70%	130%
Barium	349623		96	93	3.2%	< 2	104%	70%	130%	99%	80%	120%	95%	70%	130%
Beryllium	349623		0.7	0.7	NA	< 0.5	101%	70%	130%	112%	80%	120%	116%	70%	130%
Boron	349623		11	11	NA	< 5	84%	70%	130%	115%	80%	120%	101%	70%	130%
Boron (Hot Water Soluble)	349500	349500	0.29	0.39	NA	< 0.10	99%	60%	140%	105%	70%	130%	103%	60%	140%
Cadmium	349623		<0.5	<0.5	NA	< 0.5	106%	70%	130%	103%	80%	120%	102%	70%	130%
Chromium	349623		20	19	5.1%	< 2	87%	70%	130%	99%	80%	120%	96%	70%	130%
Cobalt	349623		10.6	10.2	3.8%	< 0.5	89%	70%	130%	102%	80%	120%	97%	70%	130%
Copper	349623		55	52	5.6%	< 1	86%	70%	130%	107%	80%	120%	97%	70%	130%
Lead	349623		9	9	0.0%	< 1	104%	70%	130%	102%	80%	120%	93%	70%	130%
Molybdenum	349623		<0.5	<0.5	NA	< 0.5	92%	70%	130%	104%	80%	120%	103%	70%	130%
Nickel	349623		27	26	3.8%	< 1	99%	70%	130%	112%	80%	120%	103%	70%	130%
Selenium	349623		<0.4	<0.4	NA	< 0.4	128%	70%	130%	102%	80%	120%	100%	70%	130%
Silver	349623		<0.2	<0.2	NA	< 0.2	104%	70%	130%	110%	80%	120%	102%	70%	130%
Thallium	349623		<0.4	<0.4	NA	< 0.4	98%	70%	130%	107%	80%	120%	102%	70%	130%
Uranium	349623		0.5	0.5	NA	< 0.5	101%	70%	130%	99%	80%	120%	97%	70%	130%
Vanadium	349623		28	27	3.6%	< 1	85%	70%	130%	99%	80%	120%	95%	70%	130%
Zinc	349623		57	57	0.0%	< 5	98%	70%	130%	109%	80%	120%	98%	70%	130%
Chromium VI	349871		<0.2	<0.2	NA	< 0.2	109%	70%	130%	103%	80%	120%	98%	70%	130%
Mercury	349623		<0.10	<0.10	NA	< 0.10	107%	70%	130%	100%	80%	120%	100%	70%	130%

Comments: NA signifies Not Applicable.

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

Certified By:

*Amanjot Bhella*  




## Quality Assurance

CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE: Darcy Drive, Strathroy

AGAT WORK ORDER: 19L492594  
 ATTENTION TO: Mike Fabro  
 SAMPLED BY: Mackenzie Costello

### Trace Organics Analysis

RPT Date:			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)

Benzene	352286		< 0.02	< 0.02	NA	< 0.02	88%	60%	130%	89%	60%	130%	102%	60%	130%
Toluene	352286		< 0.05	< 0.05	NA	< 0.05	82%	60%	130%	85%	60%	130%	99%	60%	130%
Ethylbenzene	352286		< 0.05	< 0.05	NA	< 0.05	84%	60%	130%	85%	60%	130%	98%	60%	130%
Xylene Mixture	352286		< 0.05	< 0.05	NA	< 0.05	90%	60%	130%	81%	60%	130%	103%	60%	130%
F1 (C6 to C10)	352286		< 5	< 5	NA	< 5	98%	60%	130%	105%	85%	115%	93%	70%	130%
F2 (C10 to C16)	345722		< 10	< 10	NA	< 10	93%	60%	130%	82%	80%	120%	81%	70%	130%
F3 (C16 to C34)	345722		< 50	< 50	NA	< 50	93%	60%	130%	81%	80%	120%	87%	70%	130%
F4 (C34 to C50)	345722		< 50	< 50	NA	< 50	91%	60%	130%	98%	80%	120%	109%	70%	130%

O. Reg. 153(511) - PAHs (Soil)

Naphthalene	349507	349507	< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	88%	50%	140%	72%	50%	140%
Acenaphthylene	349507	349507	< 0.05	< 0.05	NA	< 0.05	113%	50%	140%	92%	50%	140%	73%	50%	140%
Acenaphthene	349507	349507	< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	92%	50%	140%	74%	50%	140%
Fluorene	349507	349507	< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	89%	50%	140%	75%	50%	140%
Phenanthrene	349507	349507	< 0.05	< 0.05	NA	< 0.05	107%	50%	140%	80%	50%	140%	67%	50%	140%
Anthracene	349507	349507	< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	81%	50%	140%	67%	50%	140%
Fluoranthene	349507	349507	< 0.05	< 0.05	NA	< 0.05	119%	50%	140%	98%	50%	140%	79%	50%	140%
Pyrene	349507	349507	< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	99%	50%	140%	77%	50%	140%
Benz(a)anthracene	349507	349507	< 0.05	< 0.05	NA	< 0.05	62%	50%	140%	101%	50%	140%	68%	50%	140%
Chrysene	349507	349507	< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	101%	50%	140%	73%	50%	140%
Benzo(b)fluoranthene	349507	349507	< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	70%	50%	140%	72%	50%	140%
Benzo(k)fluoranthene	349507	349507	< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	70%	50%	140%	65%	50%	140%
Benzo(a)pyrene	349507	349507	< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	78%	50%	140%	61%	50%	140%
Indeno(1,2,3-cd)pyrene	349507	349507	< 0.05	< 0.05	NA	< 0.05	74%	50%	140%	86%	50%	140%	69%	50%	140%
Dibenz(a,h)anthracene	349507	349507	< 0.05	< 0.05	NA	< 0.05	66%	50%	140%	85%	50%	140%	66%	50%	140%
Benzo(g,h,i)perylene	349507	349507	< 0.05	< 0.05	NA	< 0.05	105%	50%	140%	88%	50%	140%	71%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: \_\_\_\_\_

*Jinkal Patel*



## Method Summary

CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE: Darcy Drive, Strathroy

AGAT WORK ORDER: 19L492594  
 ATTENTION TO: Mike Fabro  
 SAMPLED BY: Mackenzie Costello

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	EPA SW 846 6010C; MSA, Part 3, Ch.21	ICP/OES
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium VI	INOR-93-6029	SM 3500 B; MSA Part 3, Ch. 25	SPECTROPHOTOMETER
Mercury	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS

## Method Summary

CLIENT NAME: MTE CONSULTANTS Inc.

AGAT WORK ORDER: 19L492594

PROJECT: 45102-104

ATTENTION TO: Mike Fabro

SAMPLING SITE: Darcy Drive, Strathroy

SAMPLED BY: Mackenzie Costello

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluorene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Phenanthrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benz(a)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Chrysene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(a)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Moisture Content	ORG-91-5106	EPA SW-846 3541 & 8270D	BALANCE
Chrysene-d12	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzene	VOL-91-5009	EPA SW-846 5035 & 8260	P&T GC/MS
Toluene	VOL-91-5009	EPA SW-846 5035 & 8260	P&T GC/MS
Ethylbenzene	VOL-91-5009	EPA SW-846 5035 & 8260	P&T GC/MS
Xylene Mixture	VOL-91-5009	EPA SW-846 5035 & 8260	P&T GC/MS
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method	P&T GC/FID
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5009	CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5009	CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	BALANCE
Moisture Content	VOL-91-5009	CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009		GC/FID



# AGAT Laboratories

5835 Coopers Avenue  
Mississauga, Ontario L4Z 1Y2  
Ph: 905.712.5100 Fax: 905.712.5122  
webearth.agatlabs.com

### Laboratory Use Only

Work Order #: 19L492594  
Cooler Quantity: 1 large  
Arrival Temperatures: 7.7 19.9 17.3  
7-916-1 17-1  
Custody Seal Intact:  Yes  No  N/A  
Notes: \_\_\_\_\_

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

**Report Information:**  
Company: MTE Consultants  
Contact: Mike Fabro  
Address: 123 St. George St., Toronto, Ontario, M6A 3A1  
Phone: 519-204-6510 x2233 Fax: \_\_\_\_\_  
Reports to be sent to: MFabro@mte85.com  
1. Email: \_\_\_\_\_  
2. Email: Mcostello@mte85.com

**Regulatory Requirements:**  No Regulatory Requirement  
*(Please check all applicable boxes)*

Regulation 153/04  Sewer Use  Regulation 558  
 Ind/Com  Sanitary  CCME  
 Res/Park  Storm  Prov. Water Quality Objectives (PWQO)  
 Agriculture  Other  
Soil Texture (Check One) Region: \_\_\_\_\_  
 Coarse  MISA  Fine  \_\_\_\_\_  
*Indicate One*

**Turnaround Time (TAT) Required:**

**Regular TAT**  5 to 7 Business Days

**Rush TAT** (Rush Surcharges Apply)

3 Business Days  2 Business Days  Next Business Day

**OR** Date Required (Rush Surcharges May Apply):

MTE 4- DAY TAT

*Please provide prior notification for rush TAT  
\*TAT is exclusive of weekends and statutory holidays*

**For 'Same Day' analysis, please contact your AGAT CPM**

**Project Information:**  
Project: 45102-104  
Site Location: Darcy Drive, Strathroy  
Sampled By: Mackenzie Costello  
AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_  
*Please note: If quotation number is not provided, client will be billed full price for analysis.*

**Is this submission for a Record of Site Condition?**  
 Yes  No

**Report Guideline on Certificate of Analysis**  
 Yes  No

**Invoice Information:** Bill To Same: Yes  No   
Company: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Email: \_\_\_\_\_

**Sample Matrix Legend**

- B** Biota
- GW** Ground Water
- O** Oil
- P** Paint
- S** Soil
- SD** Sediment
- SW** Surface Water

Field Filtered - Metals, Hg, CrVI

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y/N	O. Reg 153													Potentially Hazardous or High Concentration (Y/N)					
							Metals and Inorganics	ORPs: <input type="checkbox"/> B-HWS <input type="checkbox"/> Cl- <input type="checkbox"/> CN <input type="checkbox"/> Cr+ <input type="checkbox"/> EC <input type="checkbox"/> FOC <input type="checkbox"/> Hg <input type="checkbox"/> pH <input type="checkbox"/> SAR	Full Metals Scan	Regulation/Custom Metals	Nutrients: <input type="checkbox"/> TP <input type="checkbox"/> NH <sub>3</sub> <input type="checkbox"/> TKN <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> NO <sub>x</sub>	Volatiles: <input type="checkbox"/> VOC <input type="checkbox"/> BTEX <input type="checkbox"/> THM	PHCs F1 - F4	ABNs	PAHs	PCBs: <input type="checkbox"/> Total <input type="checkbox"/> Aroclors	Organochlorine Pesticides	TCLP: <input type="checkbox"/> M&I <input type="checkbox"/> VOCs <input type="checkbox"/> ABNS <input type="checkbox"/> B(a)P <input type="checkbox"/> PCBs	Sewer Use						
SP-101-5N	Jul 15/19	9:27	4	S			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
SP-101-7NE		9:32					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
SP-101-15E		9:48					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
SP-101-24SE		10:02					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
SP-101-28S		10:27			10:27		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
SP-101-32SW		10:47					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
SP-101-36SW		10:54					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
SP-101-41W		11:05					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
SP-101-45N W		11:15					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
SP-101-50T		11:27					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											

Samples Relinquished By (Print Name and Sign): <u>Mackenzie Costello</u>	Date: <u>15/07/19</u>	Time: <u>13:37</u>	Samples Received By (Print Name and Sign): <u>Jessica Smith</u>	Date: <u>19/7/15</u>	Time: <u>1:40</u>
Samples Relinquished By (Print Name and Sign): <u>Jessica Smith</u>	Date: <u>19/7/16</u>	Time: <u>11 AM</u>	Samples Received By (Print Name and Sign): <u>[Signature]</u>	Date: <u>19/7/16</u>	Time: <u>2:30</u>
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:



CLIENT NAME: MTE CONSULTANTS Inc.  
123ST GEORGE STREET  
LONDON, ON N6A 3A1  
519-204-6510

ATTENTION TO: Mike Fabro

PROJECT: 45102-104

AGAT WORK ORDER: 19L496183

SOIL ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Supervisor

TRACE ORGANICS REVIEWED BY: Pinkal Patel, Report Reviewer

DATE REPORTED: Jul 26, 2019

PAGES (INCLUDING COVER): 10

VERSION\*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

\*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.



## Certificate of Analysis

AGAT WORK ORDER: 19L496183

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - All Metals (Soil)

DATE RECEIVED: 2019-07-23

DATE REPORTED: 2019-07-26

Parameter	Unit	SAMPLE DESCRIPTION:		SP-DUP
		G / S	RDL	372670
Antimony	µg/g	7.5	0.8	<0.8
Arsenic	µg/g	18	1	5
Barium	µg/g	390	2	104
Beryllium	µg/g	4	0.5	1.1
Boron	µg/g	120	5	12
Boron (Hot Water Soluble)	µg/g	1.5	0.10	0.32
Cadmium	µg/g	1.2	0.5	<0.5
Chromium	µg/g	160	2	29
Cobalt	µg/g	22	0.5	12.6
Copper	µg/g	140	1	21
Lead	µg/g	120	1	16
Molybdenum	µg/g	6.9	0.5	<0.5
Nickel	µg/g	100	1	27
Selenium	µg/g	2.4	0.4	<0.4
Silver	µg/g	20	0.2	<0.2
Thallium	µg/g	1	0.4	<0.4
Uranium	µg/g	23	0.5	0.7
Vanadium	µg/g	86	1	34
Zinc	µg/g	340	5	72
Chromium VI	µg/g	8	0.2	<0.2
Mercury	µg/g	0.27	0.10	<0.10

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:

*Anamjot Bhela*  




## Certificate of Analysis

AGAT WORK ORDER: 19L496183

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
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<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2019-07-23

DATE REPORTED: 2019-07-26

Parameter	Unit	SAMPLE DESCRIPTION:		SP-DUP
		G / S	RDL	372670
Naphthalene	µg/g	0.6	0.05	<0.05
Acenaphthylene	µg/g	0.15	0.05	<0.05
Acenaphthene	µg/g	7.9	0.05	<0.05
Fluorene	µg/g	62	0.05	<0.05
Phenanthrene	µg/g	6.2	0.05	<0.05
Anthracene	µg/g	0.67	0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05
Pyrene	µg/g	78	0.05	<0.05
Benz(a)anthracene	µg/g	0.5	0.05	<0.05
Chrysene	µg/g	7	0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.78	0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.78	0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.38	0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05
Benzo(g,h,i)perylene	µg/g	6.6	0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.99	0.05	<0.05
Surrogate	Unit	Acceptable Limits		
Chrysene-d12	%	50-140		89

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

372670 Results are based on the dry weight of the soil.  
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.  
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L496183

PROJECT: 45102-104

5835 COOPERS AVENUE  
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 CANADA L4Z 1Y2  
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CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Drive, Strathroy

ATTENTION TO: Mike Fabro

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)

DATE RECEIVED: 2019-07-23

DATE REPORTED: 2019-07-26

		SAMPLE DESCRIPTION:		SP-DUP
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2019-07-23
Parameter	Unit	G / S	RDL	372670
Benzene	µg/g	0.21	0.02	<0.02
Toluene	µg/g	2.3	0.05	<0.05
Ethylbenzene	µg/g	1.1	0.05	<0.05
Xylene Mixture	µg/g	3.1	0.05	<0.05
F1 (C6 to C10)	µg/g	55	5	<5
F1 (C6 to C10) minus BTEX	µg/g	55	5	<5
F2 (C10 to C16)	µg/g	98	10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10
F3 (C16 to C34)	µg/g	300	50	<50
F3 (C16 to C34) minus PAHs	µg/g		50	<50
F4 (C34 to C50)	µg/g	2800	50	<50
Gravimetric Heavy Hydrocarbons	µg/g	2800	50	NA
Moisture Content	%		0.1	18.7
Surrogate	Unit	Acceptable Limits		
Terphenyl	%	60-140		79

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L496183

PROJECT: 45102-104

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TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

ATTENTION TO: Mike Fabro

SAMPLING SITE: Darcy Drive, Strathroy

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)

DATE RECEIVED: 2019-07-23

DATE REPORTED: 2019-07-26

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils  
Guideline values are for general reference use only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

372670 Results are based on sample dry weight.  
The C6-C10 fraction is calculated using toluene response factor.  
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.  
C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.  
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.  
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.  
The chromatogram has returned to baseline by the retention time of nC50.  
Total C6 - C50 results are corrected for BTEX and PAH contributions.  
C>10 - C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.  
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).  
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.  
nC10, nC16 and nC34 response factors are within 10% of their average.  
C50 response factor is within 70% of nC10 + nC16 + nC34 average.  
Linearity is within 15%.  
Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:

## Quality Assurance

CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE: Darcy Drive, Strathroy

AGAT WORK ORDER: 19L496183  
 ATTENTION TO: Mike Fabro  
 SAMPLED BY: Mackenzie Costello

Soil Analysis															
RPT Date: Jul 26, 2019			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE		MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - All Metals (Soil)															
Antimony	369231		<0.8	<0.8	NA	< 0.8	128%	70%	130%	88%	80%	120%	88%	70%	130%
Arsenic	369231		3	3	NA	< 1	101%	70%	130%	104%	80%	120%	107%	70%	130%
Barium	369231		30	31	3.3%	< 2	100%	70%	130%	100%	80%	120%	101%	70%	130%
Beryllium	369231		<0.5	0.5	NA	< 0.5	99%	70%	130%	114%	80%	120%	114%	70%	130%
Boron	369231		15	15	NA	< 5	86%	70%	130%	104%	80%	120%	103%	70%	130%
Boron (Hot Water Soluble)	369270		0.12	0.11	NA	< 0.10	104%	60%	140%	103%	70%	130%	102%	60%	140%
Cadmium	369231		<0.5	<0.5	NA	< 0.5	109%	70%	130%	102%	80%	120%	98%	70%	130%
Chromium	369231		20	19	5.1%	< 2	94%	70%	130%	110%	80%	120%	108%	70%	130%
Cobalt	369231		3.4	3.3	3.0%	< 0.5	90%	70%	130%	106%	80%	120%	103%	70%	130%
Copper	369231		24	30	22.2%	< 1	91%	70%	130%	114%	80%	120%	104%	70%	130%
Lead	369231		21	21	0.0%	< 1	101%	70%	130%	100%	80%	120%	96%	70%	130%
Molybdenum	369231		0.5	0.5	NA	< 0.5	101%	70%	130%	107%	80%	120%	106%	70%	130%
Nickel	369231		10	10	0.0%	< 1	93%	70%	130%	108%	80%	120%	102%	70%	130%
Selenium	369231		<0.4	<0.4	NA	< 0.4	107%	70%	130%	104%	80%	120%	102%	70%	130%
Silver	369231		<0.2	<0.2	NA	< 0.2	104%	70%	130%	105%	80%	120%	88%	70%	130%
Thallium	369231		<0.4	<0.4	NA	< 0.4	89%	70%	130%	99%	80%	120%	96%	70%	130%
Uranium	369231		0.6	0.6	NA	< 0.5	96%	70%	130%	95%	80%	120%	97%	70%	130%
Vanadium	369231		18	18	0.0%	< 1	89%	70%	130%	102%	80%	120%	101%	70%	130%
Zinc	369231		109	110	0.9%	< 5	94%	70%	130%	111%	80%	120%	105%	70%	130%
Chromium VI	372882		<0.2	<0.2	NA	< 0.2	86%	70%	130%	105%	80%	120%	106%	70%	130%
Mercury	369231		<0.10	<0.10	NA	< 0.10	95%	70%	130%	93%	80%	120%	88%	70%	130%

Comments: NA signifies Not Applicable.

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

Certified By:

*Amanjot Bhella*  


## Quality Assurance

 CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE: Darcy Drive, Strathroy

 AGAT WORK ORDER: 19L496183  
 ATTENTION TO: Mike Fabro  
 SAMPLED BY: Mackenzie Costello

### Trace Organics Analysis

RPT Date: Jul 26, 2019			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

**O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)**

Benzene	372798	< 0.02	< 0.02	NA	< 0.02	75%	60%	130%	86%	60%	130%	72%	60%	130%
Toluene	372798	< 0.05	< 0.05	NA	< 0.05	74%	60%	130%	84%	60%	130%	79%	60%	130%
Ethylbenzene	372798	< 0.05	< 0.05	NA	< 0.05	76%	60%	130%	84%	60%	130%	79%	60%	130%
Xylene Mixture	372798	< 0.05	< 0.05	NA	< 0.05	76%	60%	130%	82%	60%	130%	74%	60%	130%
F1 (C6 to C10)	372798	< 5	< 5	NA	< 5	80%	60%	130%	89%	85%	115%	82%	70%	130%
F2 (C10 to C16)	356671	< 10	< 10	NA	< 10	93%	60%	130%	82%	80%	120%	81%	70%	130%
F3 (C16 to C34)	356671	< 50	< 50	NA	< 50	93%	60%	130%	81%	80%	120%	87%	70%	130%
F4 (C34 to C50)	356671	< 50	< 50	NA	< 50	91%	60%	130%	98%	80%	120%	109%	70%	130%

**O. Reg. 153(511) - PAHs (Soil)**

Naphthalene	372123	< 0.05	< 0.05	NA	< 0.05	99%	50%	140%	77%	50%	140%	67%	50%	140%
Acenaphthylene	372123	< 0.05	< 0.05	NA	< 0.05	104%	50%	140%	84%	50%	140%	74%	50%	140%
Acenaphthene	372123	< 0.05	< 0.05	NA	< 0.05	103%	50%	140%	85%	50%	140%	75%	50%	140%
Fluorene	372123	< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	89%	50%	140%	80%	50%	140%
Phenanthrene	372123	< 0.05	< 0.05	NA	< 0.05	115%	50%	140%	93%	50%	140%	87%	50%	140%
Anthracene	372123	< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	95%	50%	140%	87%	50%	140%
Fluoranthene	372123	< 0.05	< 0.05	NA	< 0.05	117%	50%	140%	100%	50%	140%	95%	50%	140%
Pyrene	372123	< 0.05	< 0.05	NA	< 0.05	119%	50%	140%	104%	50%	140%	100%	50%	140%
Benz(a)anthracene	372123	< 0.05	< 0.05	NA	< 0.05	119%	50%	140%	115%	50%	140%	112%	50%	140%
Chrysene	372123	< 0.05	< 0.05	NA	< 0.05	115%	50%	140%	101%	50%	140%	95%	50%	140%
Benzo(b)fluoranthene	372123	< 0.05	< 0.05	NA	< 0.05	117%	50%	140%	110%	50%	140%	109%	50%	140%
Benzo(k)fluoranthene	372123	< 0.05	< 0.05	NA	< 0.05	100%	50%	140%	70%	50%	140%	67%	50%	140%
Benzo(a)pyrene	372123	< 0.05	< 0.05	NA	< 0.05	83%	50%	140%	105%	50%	140%	97%	50%	140%
Indeno(1,2,3-cd)pyrene	372123	< 0.05	< 0.05	NA	< 0.05	107%	50%	140%	80%	50%	140%	68%	50%	140%
Dibenz(a,h)anthracene	372123	< 0.05	< 0.05	NA	< 0.05	105%	50%	140%	95%	50%	140%	82%	50%	140%
Benzo(g,h,i)perylene	372123	< 0.05	< 0.05	NA	< 0.05	98%	50%	140%	69%	50%	140%	72%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: \_\_\_\_\_





## Method Summary

CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE: Darcy Drive, Strathroy

AGAT WORK ORDER: 19L496183  
 ATTENTION TO: Mike Fabro  
 SAMPLED BY: Mackenzie Costello

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	EPA SW 846 6010C; MSA, Part 3, Ch.21	ICP/OES
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium VI	INOR-93-6029	SM 3500 B; MSA Part 3, Ch. 25	SPECTROPHOTOMETER
Mercury	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS



## Method Summary

CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE: Darcy Drive, Strathroy

AGAT WORK ORDER: 19L496183  
 ATTENTION TO: Mike Fabro  
 SAMPLED BY: Mackenzie Costello

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluorene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Phenanthrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benz(a)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Chrysene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(a)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Chrysene-d12	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzene	VOL-91-5009	EPA SW-846 5035 & 8260	P&T GC/MS
Toluene	VOL-91-5009	EPA SW-846 5035 & 8260	P&T GC/MS
Ethylbenzene	VOL-91-5009	EPA SW-846 5035 & 8260	P&T GC/MS
Xylene Mixture	VOL-91-5009	EPA SW-846 5035 & 8260	P&T GC/MS
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method	P&T GC/FID
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5009	CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5009	CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	BALANCE
Moisture Content	VOL-91-5009	CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009		GC/FID



# AGAT Laboratories

5835 Coopers Avenue  
Mississauga, Ontario L4Z 1Y2  
Ph: 905.712.5100 Fax: 905.712.5122  
webearth.agatlabs.com

**Laboratory Use Only**

Work Order #: 19L 49618.3

Cooler Quantity: \_\_\_\_\_

Arrival Temperatures: 6.7 15.3 17.1  
once

Custody Seal Intact:  Yes  No  N/A

Notes: \_\_\_\_\_

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

### Report Information:

Company: MTE Consultants Inc.

Contact: Mike Fabro

Address: 123 St. George St, London, ON

Phone: (519) 204 6510 Fax: \_\_\_\_\_

Reports to be sent to: mFabro@mte85.com

1. Email: mFabro@mte85.com

2. Email: mcostello@mte85.com

### Regulatory Requirements:

No Regulatory Requirement

(Please check all applicable boxes)

Regulation 153/04  Sewer Use  Regulation 558

Table 2  Sanitary  CCME

Ind/Com  Storm  Prov. Water Quality Objectives (PWQO)

Res/Park  Agriculture  Other

Soil Texture (Check One) Region \_\_\_\_\_

Coarse  Fine  MISA

### Turnaround Time (TAT) Required:

Regular TAT  5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

3 Business Days  2 Business Days  Next Business Day

OR Date Required (Rush Surcharges May Apply):

MTE - 4 DAY TAT

Please provide prior notification for rush TAT

\*TAT is exclusive of weekends and statutory holidays

### Project Information:

Project: 45102-104

Site Location: Darcy Drive, Strathroy

Sampled By: Nackenzie Costello

AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_

Please note: If quotation number is not provided, client will be billed full price for analysis.

### Is this submission for a Record of Site Condition?

Yes  No

### Report Guideline on Certificate of Analysis

Yes  No

### Sample Matrix Legend

**B** Biota  
**GW** Ground Water  
**O** Oil  
**P** Paint  
**S** Soil  
**SD** Sediment  
**SW** Surface Water

### Invoice Information:

Bill To Same: Yes  No

Company: \_\_\_\_\_

Contact: \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N	Field Filtered - Metals, Hg, CrVI	Metals and Inorganics	Full Metals Scan	Regulation/Custom Metals	Volatiles	PHCs F1 - F4	ABNS	PAHS	PCBS: Total Aroclors	Organochlorine Pesticides	TCLP: M&I VOCs ABNS B(a)P PCBs	Sewer Use
SP-DUP	23/07/19	1430	4	S				<input checked="" type="checkbox"/> All Metals <input type="checkbox"/> 153 Metals (exc. Hydrides) <input type="checkbox"/> Hydride Metals <input type="checkbox"/> 153 Metals (incl. Hydrides)		<input type="checkbox"/> TP <input type="checkbox"/> NH <sub>4</sub> <input type="checkbox"/> TKN <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> NO <sub>3</sub> +NO <sub>2</sub>	<input checked="" type="checkbox"/> VOC <input checked="" type="checkbox"/> BTEX <input type="checkbox"/> THM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				

Samples Relinquished By (Print Name and Sign): <u>Nackenzie Costello mfc</u>	Date: <u>23/07/19</u>	Time: <u>1518</u>	Samples Received By (Print Name and Sign): <u>Laura Robinson</u>	Date: <u>July 23, 19</u>	Time: <u>3:20pm</u>
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date: <u>7/23/19</u>	Time: <u>6:45</u>

Page \_\_\_\_\_ of \_\_\_\_\_

N: **T 096638**



CLIENT NAME: MTE CONSULTANTS Inc.  
123ST GEORGE STREET  
LONDON, ON N6A 3A1  
519-204-6510

ATTENTION TO: Mackenzie Costello

PROJECT: 45102-104

AGAT WORK ORDER: 19L499484

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

WATER ANALYSIS REVIEWED BY: Parvathi Malemath, Data Reviewer

DATE REPORTED: Aug 06, 2019

PAGES (INCLUDING COVER): 12

VERSION\*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

\*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.



## Certificate of Analysis

AGAT WORK ORDER: 19L499484

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Dr.

ATTENTION TO: Mackenzie Costello

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - PAHs (Water)

DATE RECEIVED: 2019-07-31

DATE REPORTED: 2019-08-06

		SAMPLE DESCRIPTION:		MW211-19	
		SAMPLE TYPE:		Water	
		DATE SAMPLED:		2019-07-31	
Parameter	Unit	G / S	RDL	396549	
Naphthalene	µg/L	11	0.20	<0.20	
Acenaphthylene	µg/L	1	0.20	<0.20	
Acenaphthene	µg/L	4.1	0.20	<0.20	
Fluorene	µg/L	120	0.20	<0.20	
Phenanthrene	µg/L	1	0.10	<0.10	
Anthracene	µg/L	2.4	0.10	<0.10	
Fluoranthene	µg/L	0.41	0.20	<0.20	
Pyrene	µg/L	4.1	0.20	<0.20	
Benz(a)anthracene	µg/L	1	0.20	<0.20	
Chrysene	µg/L	0.1	0.10	<0.10	
Benzo(b)fluoranthene	µg/L	0.1	0.10	<0.10	
Benzo(k)fluoranthene	µg/L	0.1	0.10	<0.10	
Benzo(a)pyrene	µg/L	0.01	0.01	<0.01	
Indeno(1,2,3-cd)pyrene	µg/L	0.2	0.20	<0.20	
Dibenz(a,h)anthracene	µg/L	0.2	0.20	<0.20	
Benzo(g,h,i)perylene	µg/L	0.2	0.20	<0.20	
2-and 1-methyl Naphthalene	µg/L	3.2	0.20	<0.20	
Surrogate	Unit	Acceptable Limits			
Chrysene-d12	%	50-140	90		

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Potable Ground Water - All Types of Property Uses - Coarse Textured Soils

Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

396549 Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&(j)Fluoranthene isomers because the isomers co-elute on the GC column.

2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L499484

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Dr.

ATTENTION TO: Mackenzie Costello

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Water)

DATE RECEIVED: 2019-07-31

DATE REPORTED: 2019-08-06

SAMPLE DESCRIPTION:		MW211-19		
SAMPLE TYPE:		Water		
DATE SAMPLED:		2019-07-31		
Parameter	Unit	G / S	RDL	396549
F1 (C6-C10)	µg/L	750	25	<25
F1 (C6 to C10) minus BTEX	µg/L	750	25	<25
F2 (C10 to C16)	µg/L	150	100	<100
F2 (C10 to C16) minus Naphthalene	µg/L		100	<100
F3 (C16 to C34)	µg/L	500	100	<100
F3 (C16 to C34) minus PAHs	µg/L		100	<100
F4 (C34 to C50)	µg/L	500	100	<100
Gravimetric Heavy Hydrocarbons	µg/L	500	500	NA
Surrogate	Unit	Acceptable Limits		
Terphenyl	%	60-140		89

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Potable Ground Water - All Types of Property Uses - Coarse Textured Soils

Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

396549

The C6-C10 fraction is calculated using toluene response factor.

C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.

The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.

Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.

The chromatogram has returned to baseline by the retention time of nC50.

Total C6 - C50 results are corrected for BTEX and PAH contributions.

C>10 - C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.

C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).

This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.

nC10, nC16 and nC34 response factors are within 10% of their average.

C50 response factor is within 70% of nC10 + nC16 + nC34 average.

Linearity is within 15%.

Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L499484

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Dr.

ATTENTION TO: Mackenzie Costello

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2019-07-31

DATE REPORTED: 2019-08-06

Parameter	Unit	SAMPLE DESCRIPTION: MW211-19		
		G / S	RDL	396549
Dichlorodifluoromethane	µg/L	590	0.20	<0.20
Vinyl Chloride	µg/L	0.5	0.17	<0.17
Bromomethane	µg/L	0.89	0.20	<0.20
Trichlorofluoromethane	µg/L	150	0.40	<0.40
Acetone	µg/L	2700	1.0	<1.0
1,1-Dichloroethylene	µg/L	1.6	0.30	<0.30
Methylene Chloride	µg/L	50	0.30	<0.30
trans- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20
Methyl tert-butyl ether	µg/L	15	0.20	<0.20
1,1-Dichloroethane	µg/L	5	0.30	<0.30
Methyl Ethyl Ketone	µg/L	1800	1.0	<1.0
cis- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20
Chloroform	µg/L	2.4	0.20	<0.20
1,2-Dichloroethane	µg/L	1.6	0.20	<0.20
1,1,1-Trichloroethane	µg/L	200	0.30	<0.30
Carbon Tetrachloride	µg/L	0.79	0.20	<0.20
Benzene	µg/L	5.0	0.20	<0.20
1,2-Dichloropropane	µg/L	5	0.20	<0.20
Trichloroethylene	µg/L	1.6	0.20	<0.20
Bromodichloromethane	µg/L	16	0.20	<0.20
Methyl Isobutyl Ketone	µg/L	640	1.0	<1.0
1,1,2-Trichloroethane	µg/L	4.7	0.20	<0.20
Toluene	µg/L	24	0.20	0.42
Dibromochloromethane	µg/L	25	0.10	<0.10
Ethylene Dibromide	µg/L	0.2	0.10	<0.10
Tetrachloroethylene	µg/L	1.6	0.20	<0.20
1,1,1,2-Tetrachloroethane	µg/L	1.1	0.10	<0.10
Chlorobenzene	µg/L	30	0.10	<0.10
Ethylbenzene	µg/L	2.4	0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L499484

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Dr.

ATTENTION TO: Mackenzie Costello

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2019-07-31

DATE REPORTED: 2019-08-06

		SAMPLE DESCRIPTION: MW211-19			
		SAMPLE TYPE: Water			
		DATE SAMPLED: 2019-07-31			
Parameter	Unit	G / S	RDL	396549	
Bromoform	µg/L	25	0.10	<0.10	
Styrene	µg/L	5.4	0.10	<0.10	
1,1,2,2-Tetrachloroethane	µg/L	1	0.10	<0.10	
o-Xylene	µg/L		0.10	<0.10	
1,3-Dichlorobenzene	µg/L	59	0.10	<0.10	
1,4-Dichlorobenzene	µg/L	1	0.10	<0.10	
1,2-Dichlorobenzene	µg/L	3	0.10	<0.10	
1,3-Dichloropropene	µg/L	0.5	0.30	<0.30	
Xylene Mixture	µg/L	300	0.20	<0.20	
n-Hexane	µg/L	51	0.20	<0.20	
Surrogate	Unit	Acceptable Limits			
Toluene-d8	% Recovery	50-140		121	
4-Bromofluorobenzene	% Recovery	50-140		92	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Potable Ground Water - All Types of Property Uses - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

396549 Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.  
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L499484

PROJECT: 45102-104

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MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
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CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darcy Dr.

ATTENTION TO: Mackenzie Costello

SAMPLED BY: Mackenzie Costello

### O. Reg. 153(511) - Metals (Including Hydrides) (Water)

DATE RECEIVED: 2019-07-31

DATE REPORTED: 2019-08-06

Parameter	Unit	SAMPLE DESCRIPTION: MW211-19		
		G / S	RDL	396549
Antimony	µg/L	6	1.0	<1.0
Arsenic	µg/L	25	1.0	<1.0
Barium	µg/L	1000	2.0	39.7
Beryllium	µg/L	4.0	0.5	<0.5
Boron	µg/L	5000	10.0	12.3
Cadmium	µg/L	2.7	0.2	<0.2
Chromium	µg/L	50	2.0	2.6
Cobalt	µg/L	3.8	0.5	<0.5
Copper	µg/L	87	1.0	1.1
Lead	µg/L	10	0.5	<0.5
Molybdenum	µg/L	70	0.5	2.3
Nickel	µg/L	100	1.0	1.8
Selenium	µg/L	10	1.0	<1.0
Silver	µg/L	1.5	0.2	<0.2
Thallium	µg/L	2	0.3	<0.3
Uranium	µg/L	20	0.5	<0.5
Vanadium	µg/L	6.2	0.4	0.7
Zinc	µg/L	1100	5.0	<5.0

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Potable Ground Water - All Types of Property Uses - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Quality Assurance

CLIENT NAME: MTE CONSULTANTS Inc.

AGAT WORK ORDER: 19L499484

PROJECT: 45102-104

ATTENTION TO: Mackenzie Costello

SAMPLING SITE: Darcy Dr.

SAMPLED BY: Mackenzie Costello

Trace Organics Analysis																
RPT Date: Aug 06, 2019			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	
O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Water)																
F1 (C6-C10)	403153		< 25	< 25	NA	< 25	93%	60%	140%	90%	60%	140%	93%	60%	140%	
F2 (C10 to C16)		TW	< 100	< 100	NA	< 100	99%	60%	140%	97%	60%	140%	87%	60%	140%	
F3 (C16 to C34)		TW	< 100	< 100	NA	< 100	103%	60%	140%	119%	60%	140%	106%	60%	140%	
F4 (C34 to C50)		TW	< 100	< 100	NA	< 100	84%	60%	140%	88%	60%	140%	80%	60%	140%	
O. Reg. 153(511) - VOCs (Water)																
Dichlorodifluoromethane	392938		< 0.20	< 0.20	NA	< 0.20	107%	50%	140%	79%	50%	140%	79%	50%	140%	
Vinyl Chloride	392938		< 0.17	< 0.17	NA	< 0.17	114%	50%	140%	107%	50%	140%	106%	50%	140%	
Bromomethane	392938		< 0.20	< 0.20	NA	< 0.20	80%	50%	140%	88%	50%	140%	83%	50%	140%	
Trichlorofluoromethane	392938		< 0.40	< 0.40	NA	< 0.40	118%	50%	140%	109%	50%	140%	114%	50%	140%	
Acetone	392938		< 1.0	< 1.0	NA	< 1.0	90%	50%	140%	111%	50%	140%	93%	50%	140%	
1,1-Dichloroethylene	392938		< 0.30	< 0.30	NA	< 0.30	95%	50%	140%	98%	60%	130%	104%	50%	140%	
Methylene Chloride	392938		< 0.30	< 0.30	NA	< 0.30	102%	50%	140%	111%	60%	130%	89%	50%	140%	
trans- 1,2-Dichloroethylene	392938		< 0.20	< 0.20	NA	< 0.20	99%	50%	140%	100%	60%	130%	110%	50%	140%	
Methyl tert-butyl ether	392938		< 0.20	< 0.20	NA	< 0.20	91%	50%	140%	79%	60%	130%	87%	50%	140%	
1,1-Dichloroethane	392938		< 0.30	< 0.30	NA	< 0.30	112%	50%	140%	89%	60%	130%	113%	50%	140%	
Methyl Ethyl Ketone	392938		< 1.0	< 1.0	NA	< 1.0	81%	50%	140%	86%	50%	140%	85%	50%	140%	
cis- 1,2-Dichloroethylene	392938		< 0.20	< 0.20	NA	< 0.20	74%	50%	140%	101%	60%	130%	81%	50%	140%	
Chloroform	392938		< 0.20	< 0.20	NA	< 0.20	82%	50%	140%	106%	60%	130%	90%	50%	140%	
1,2-Dichloroethane	392938		< 0.20	< 0.20	NA	< 0.20	77%	50%	140%	85%	60%	130%	91%	50%	140%	
1,1,1-Trichloroethane	392938		< 0.30	< 0.30	NA	< 0.30	82%	50%	140%	83%	60%	130%	89%	50%	140%	
Carbon Tetrachloride	392938		< 0.20	< 0.20	NA	< 0.20	83%	50%	140%	104%	60%	130%	113%	50%	140%	
Benzene	392938		< 0.20	< 0.20	NA	< 0.20	73%	50%	140%	97%	60%	130%	102%	50%	140%	
1,2-Dichloropropane	392938		< 0.20	< 0.20	NA	< 0.20	89%	50%	140%	90%	60%	130%	82%	50%	140%	
Trichloroethylene	392938		< 0.20	< 0.20	NA	< 0.20	73%	50%	140%	110%	60%	130%	103%	50%	140%	
Bromodichloromethane	392938		< 0.20	< 0.20	NA	< 0.20	76%	50%	140%	93%	60%	130%	93%	50%	140%	
Methyl Isobutyl Ketone	392938		< 1.0	< 1.0	NA	< 1.0	88%	50%	140%	87%	50%	140%	93%	50%	140%	
1,1,2-Trichloroethane	392938		< 0.20	< 0.20	NA	< 0.20	109%	50%	140%	96%	60%	130%	100%	50%	140%	
Toluene	392938		< 0.20	< 0.20	NA	< 0.20	99%	50%	140%	103%	60%	130%	110%	50%	140%	
Dibromochloromethane	392938		< 0.10	< 0.10	NA	< 0.10	104%	50%	140%	100%	60%	130%	93%	50%	140%	
Ethylene Dibromide	392938		< 0.10	< 0.10	NA	< 0.10	103%	50%	140%	100%	60%	130%	105%	50%	140%	
Tetrachloroethylene	392938		< 0.20	< 0.20	NA	< 0.20	97%	50%	140%	114%	60%	130%	119%	50%	140%	
1,1,1,2-Tetrachloroethane	392938		< 0.10	< 0.10	NA	< 0.10	95%	50%	140%	92%	60%	130%	83%	50%	140%	
Chlorobenzene	392938		< 0.10	< 0.10	NA	< 0.10	108%	50%	140%	109%	60%	130%	119%	50%	140%	
Ethylbenzene	392938		< 0.10	< 0.10	NA	< 0.10	90%	50%	140%	100%	60%	130%	92%	50%	140%	
m & p-Xylene	392938		< 0.20	< 0.20	NA	< 0.20	98%	50%	140%	111%	60%	130%	106%	50%	140%	
Bromoform	392938		< 0.10	< 0.10	NA	< 0.10	103%	50%	140%	106%	60%	130%	109%	50%	140%	
Styrene	392938		< 0.10	< 0.10	NA	< 0.10	89%	50%	140%	97%	60%	130%	96%	50%	140%	
1,1,2,2-Tetrachloroethane	392938		< 0.10	< 0.10	NA	< 0.10	117%	50%	140%	92%	60%	130%	91%	50%	140%	
o-Xylene	392938		< 0.10	< 0.10	NA	< 0.10	103%	50%	140%	96%	60%	130%	95%	50%	140%	

## Quality Assurance

 CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE: Darcy Dr.

 AGAT WORK ORDER: 19L499484  
 ATTENTION TO: Mackenzie Costello  
 SAMPLED BY: Mackenzie Costello

### Trace Organics Analysis (Continued)

RPT Date: Aug 06, 2019			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
1,3-Dichlorobenzene	392938		< 0.10	< 0.10	NA	< 0.10	108%	50%	140%	109%	60%	130%	119%	50%	140%
1,4-Dichlorobenzene	392938		< 0.10	< 0.10	NA	< 0.10	91%	50%	140%	107%	60%	130%	117%	50%	140%
1,2-Dichlorobenzene	392938		< 0.10	< 0.10	NA	< 0.10	106%	50%	140%	103%	60%	130%	107%	50%	140%
1,3-Dichloropropene	392938		< 0.30	< 0.30	NA	< 0.30	83%	50%	140%	89%	60%	130%	84%	50%	140%
n-Hexane	392938		< 0.20	< 0.20	NA	< 0.20	109%	50%	140%	104%	60%	130%	103%	50%	140%
O. Reg. 153(511) - PAHs (Water)															
Naphthalene		TW	< 0.20	< 0.20	NA	< 0.20	99%	50%	140%	81%	50%	140%	78%	50%	140%
Acenaphthylene		TW	< 0.20	< 0.20	NA	< 0.20	105%	50%	140%	88%	50%	140%	87%	50%	140%
Acenaphthene		TW	< 0.20	< 0.20	NA	< 0.20	104%	50%	140%	87%	50%	140%	85%	50%	140%
Fluorene		TW	< 0.20	< 0.20	NA	< 0.20	111%	50%	140%	97%	50%	140%	95%	50%	140%
Phenanthrene		TW	< 0.10	< 0.20	NA	< 0.10	116%	50%	140%	101%	50%	140%	102%	50%	140%
Anthracene		TW	< 0.10	< 0.20	NA	< 0.10	116%	50%	140%	101%	50%	140%	104%	50%	140%
Fluoranthene		TW	< 0.20	< 0.20	NA	< 0.20	117%	50%	140%	105%	50%	140%	111%	50%	140%
Pyrene		TW	< 0.20	< 0.20	NA	< 0.20	116%	50%	140%	110%	50%	140%	113%	50%	140%
Benz(a)anthracene		TW	< 0.20	< 0.20	NA	< 0.20	117%	50%	140%	108%	50%	140%	116%	50%	140%
Chrysene		TW	< 0.10	< 0.20	NA	< 0.10	113%	50%	140%	94%	50%	140%	99%	50%	140%
Benzo(b)fluoranthene		TW	< 0.10	< 0.20	NA	< 0.10	100%	50%	140%	103%	50%	140%	101%	50%	140%
Benzo(k)fluoranthene		TW	< 0.10	< 0.20	NA	< 0.10	104%	50%	140%	87%	50%	140%	82%	50%	140%
Benzo(a)pyrene		TW	< 0.01	< 0.20	NA	< 0.01	85%	50%	140%	110%	50%	140%	93%	50%	140%
Indeno(1,2,3-cd)pyrene		TW	< 0.20	< 0.20	NA	< 0.20	99%	50%	140%	66%	50%	140%	69%	50%	140%
Dibenz(a,h)anthracene		TW	< 0.20	< 0.20	NA	< 0.20	95%	50%	140%	76%	50%	140%	73%	50%	140%
Benzo(g,h,i)perylene		TW	< 0.20	< 0.20	NA	< 0.20	94%	50%	140%	67%	50%	140%	65%	50%	140%

Comments: Tap water analysis has been performed as QC sample testing for duplicate and matrix spike due to insufficient sample volume. When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By:



## Quality Assurance

CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE: Darcy Dr.

AGAT WORK ORDER: 19L499484  
 ATTENTION TO: Mackenzie Costello  
 SAMPLED BY: Mackenzie Costello

Water Analysis															
RPT Date: Aug 06, 2019			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE		MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

**O. Reg. 153(511) - Metals (Including Hydrides) (Water)**

Antimony	396549	396549	< 1.0	<1.0	NA	< 1.0	102%	70%	130%	100%	80%	120%	99%	70%	130%
Arsenic	396549	396549	< 1.0	<1.0	NA	< 1.0	98%	70%	130%	103%	80%	120%	104%	70%	130%
Barium	396549	396549	39.7	39.3	1.0%	< 2.0	104%	70%	130%	99%	80%	120%	101%	70%	130%
Beryllium	396549	396549	< 0.5	<0.5	NA	< 0.5	100%	70%	130%	109%	80%	120%	109%	70%	130%
Boron	396549	396549	12.3	11.9	NA	< 10.0	98%	70%	130%	105%	80%	120%	105%	70%	130%
Cadmium	396549	396549	< 0.2	<0.2	NA	< 0.2	100%	70%	130%	103%	80%	120%	101%	70%	130%
Chromium	396549	396549	2.6	2.7	NA	< 2.0	97%	70%	130%	100%	80%	120%	84%	70%	130%
Cobalt	396549	396549	< 0.5	<0.5	NA	< 0.5	94%	70%	130%	89%	80%	120%	85%	70%	130%
Copper	396549	396549	1.1	1.1	NA	< 1.0	93%	70%	130%	99%	80%	120%	91%	70%	130%
Lead	396549	396549	< 0.44	<0.5	NA	< 0.5	92%	70%	130%	98%	80%	120%	87%	70%	130%
Molybdenum	396549	396549	2.3	2.4	NA	< 0.5	103%	70%	130%	103%	80%	120%	103%	70%	130%
Nickel	396549	396549	1.8	2.0	NA	< 1.0	96%	70%	130%	99%	80%	120%	93%	70%	130%
Selenium	396549	396549	< 1.0	<1.0	NA	< 1.0	95%	70%	130%	95%	80%	120%	102%	70%	130%
Silver	396549	396549	< 0.2	<0.2	NA	< 0.2	96%	70%	130%	107%	80%	120%	102%	70%	130%
Thallium	396549	396549	< 0.3	<0.3	NA	< 0.3	94%	70%	130%	105%	80%	120%	97%	70%	130%
Uranium	396549	396549	< 0.5	<0.5	NA	< 0.5	95%	70%	130%	102%	80%	120%	96%	70%	130%
Vanadium	396549	396549	0.7	0.6	NA	< 0.4	100%	70%	130%	99%	80%	120%	84%	70%	130%
Zinc	396549	396549	< 5.0	<5.0	NA	< 5.0	100%	70%	130%	103%	80%	120%	100%	70%	130%

Comments: NA signifies Not Applicable.

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

Certified By: \_\_\_\_\_



## Method Summary

CLIENT NAME: MTE CONSULTANTS Inc.

AGAT WORK ORDER: 19L499484

PROJECT: 45102-104

ATTENTION TO: Mackenzie Costello

SAMPLING SITE: Darcy Dr.

SAMPLED BY: Mackenzie Costello

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Acenaphthylene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Acenaphthene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Fluorene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Phenanthrene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Anthracene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Pyrene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benz(a)anthracene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Chrysene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzo(b)fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzo(k)fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzo(a)pyrene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Dibenz(a,h)anthracene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzo(g,h,i)perylene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Chrysene-d12	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
F1 (C6-C10)	VOL-91- 5010	MOE PHC-E3421	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	MOE PHC E3421	P&T GC/FID
F2 (C10 to C16)	VOL-91-5010	MOE PHC E3421	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5010	MOE PHC E3421	GC/FID
F3 (C16 to C34)	VOL-91-5010	MOE PHC E3421	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5010	MOE PHC E3421	GC/FID
F4 (C34 to C50)	VOL-91-5010	MOE PHC E3421	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5010	MOE PHC E3421	BALANCE
Terphenyl	VOL-91-5010		GC/FID
Dichlorodifluoromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Acetone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
trans- 1,2-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl tert-butyl ether	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
cis- 1,2-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Chloroform	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Benzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS

## Method Summary

CLIENT NAME: MTE CONSULTANTS Inc.

AGAT WORK ORDER: 19L499484

PROJECT: 45102-104

ATTENTION TO: Mackenzie Costello

SAMPLING SITE: Darcy Dr.

SAMPLED BY: Mackenzie Costello

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Toluene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromoform	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Styrene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Xylene Mixture	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Water Analysis			
Antimony	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Barium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Boron	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Cadmium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Chromium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Copper	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Lead	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Nickel	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Selenium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Silver	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Thallium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Uranium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Zinc	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS



# AGAT

## Laboratories

*1 med blue*

5835 Coopers Avenue  
Mississauga, Ontario L4Z 1Y2  
Ph: 905.712.5100 Fax: 905.712.5122  
webearth.agatlabs.com

### Laboratory Use Only

Work Order #: 19L499484

Cooler Quantity: 1 med

Arrival Temperatures: 19.6 9.1 8.9

LT = 7416.917.0

Custody Seal Intact:  Yes  No  N/A

Notes: (on ice)

### Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

#### Report Information:

Company: MTE Consultants  
Contact: Mackenzie Castello  
Address: 123 St. George St., London, ON  
Phone: (226) 234-4146 Fax: \_\_\_\_\_  
Reports to be sent to:  
1. Email: mcastello@mte85.com  
2. Email: mfabro@mte85.com

#### Regulatory Requirements:

No Regulatory Requirement  
(Please check all applicable boxes)  
 Regulation 153/04  
Table - Indicate One  
 Ind./Com  
 Res./Park  
 Agriculture  
Soil Texture (Check One)  
 Coarse  
 Fine  
 Sewer Use  
 Sanitary  
 Storm  
 Regulation 558  
 CCME  
 Prov. Water Quality Objectives (PWQO)  
 Other  
Region: \_\_\_\_\_ Indicate One  
 MISA \_\_\_\_\_ Indicate One

#### Project Information:

Project: 45102-104  
Site Location: Darcy Dr.  
Sampled By: Mackenzie Castello  
AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_  
Please note: If quotation number is not provided, client will be billed full price for analysis.

#### Is this submission for a Record of Site Condition?

Yes  No

#### Report Guideline on Certificate of Analysis

Yes  No

#### Turnaround Time (TAT) Required:

Regular TAT  5 to 7 Business Days

#### Rush TAT (Rush Surcharges Apply)

3 Business Days  2 Business Days  Next Business Day

OR Date Required (Rush Surcharges May Apply):

MTE - 4 Day

*Please provide prior notification for rush TAT  
\*TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

#### Invoice Information:

Bill To Same: Yes  No

Company: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Email: \_\_\_\_\_

#### Sample Matrix Legend

**B** Biota  
**GW** Ground Water  
**O** Oil  
**P** Paint  
**S** Soil  
**SD** Sediment  
**SW** Surface Water

Field Filtered - Metals, Hg, CrVI

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	0. Reg 153	Metals and Inorganics	Hydride Metals	ORPs	pH	Full Metals Scan	Regulation/Custom Metals	Nutrients	Volatiles	PHCs F1 - F4	ABNs	PAHs	PCBs: Total	Aroclors	Organochlorine Pesticides	TCLP: M&I	VOCs	ABNs	B(e)P	PCBs	Sewer Use	
MW211-19	19/07/19	10:10	9	GW			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>										

Samples Relinquished By (Print Name and Sign): <u>Mackenzie Castello</u>	Date: <u>19/07/19</u>	Time: <u>12:40</u>	Samples Received By (Print Name and Sign): <u>J. Smith</u>	Date: <u>July 31/19</u>	Time: <u>12:40</u>
Samples Relinquished By (Print Name and Sign): <u>Jessica Smith</u>	Date: <u>July 31/19</u>	Time: <u>Aug 1/19 3pm</u>	Samples Received By (Print Name and Sign): <u>Shawrin</u>	Date: <u>Aug 1/2019</u>	Time: <u>8:35 am</u>

Page 1 of 1  
N°: **T 086653**



CLIENT NAME: MTE CONSULTANTS Inc.  
123ST GEORGE STREET  
LONDON, ON N6A 3A1  
519-204-6510

ATTENTION TO: Mackenzie Costello

PROJECT: 45102-104

AGAT WORK ORDER: 19L501537

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

WATER ANALYSIS REVIEWED BY: Yris Verastegui, Report Reviewer

DATE REPORTED: Aug 09, 2019

PAGES (INCLUDING COVER): 15

VERSION\*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

\*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.



## Certificate of Analysis

AGAT WORK ORDER: 19L501537

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

ATTENTION TO: Mackenzie Costello

SAMPLING SITE:

SAMPLED BY:

### O. Reg. 153(511) - PAHs (Water)

DATE RECEIVED: 2019-08-06

DATE REPORTED: 2019-08-09

Parameter	Unit	SAMPLE DESCRIPTION:		MW203-19	MW104-19	MW106-19	MW208-19	MW1208-19
		SAMPLE TYPE:		Water	Water	Water	Water	Water
		DATE SAMPLED:		2019-08-06	2019-08-06	2019-08-06	2019-08-06	2019-08-06
		G / S	RDL	416529	416530	416531	416532	416533
Naphthalene	µg/L	11	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Acenaphthylene	µg/L	1	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Acenaphthene	µg/L	4.1	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Fluorene	µg/L	120	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Phenanthrene	µg/L	1	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Anthracene	µg/L	2.4	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Fluoranthene	µg/L	0.41	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Pyrene	µg/L	4.1	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benz(a)anthracene	µg/L	1	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chrysene	µg/L	0.1	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo(b)fluoranthene	µg/L	0.1	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo(k)fluoranthene	µg/L	0.1	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo(a)pyrene	µg/L	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno(1,2,3-cd)pyrene	µg/L	0.2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dibenz(a,h)anthracene	µg/L	0.2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzo(g,h,i)perylene	µg/L	0.2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
2-and 1-methyl Naphthalene	µg/L	3.2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Surrogate	Unit	Acceptable Limits						
Chrysene-d12	%	50-140		67	69	64	66	70

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Potable Ground Water - All Types of Property Uses - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

416529-416533 Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&(j)Fluoranthene isomers because the isomers co-elute on the GC column.  
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L501537

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

ATTENTION TO: Mackenzie Costello

SAMPLING SITE:

SAMPLED BY:

### O. Reg. 153(511) - PHCs F1 - F4 (Water)

DATE RECEIVED: 2019-08-06

DATE REPORTED: 2019-08-09

Parameter	Unit	SAMPLE DESCRIPTION:		MW0LD-E	MW201-19	MW202-19
		G / S	RDL	416526	416527	416528
Benzene	µg/L	5.0	0.20	<0.20	<0.20	<0.20
Toluene	µg/L	24	0.20	<0.20	<0.20	<0.20
Ethylbenzene	µg/L	2.4	0.10	<0.10	<0.10	<0.10
Xylene Mixture	µg/L	300	0.20	<0.20	<0.20	<0.20
F1 (C6 - C10)	µg/L	750	25	<25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L	750	25	<25	<25	<25
F2 (C10 to C16)	µg/L	150	100	<100	<100	<100
F3 (C16 to C34)	µg/L	500	100	<100	<100	<100
F4 (C34 to C50)	µg/L	500	100	<100	<100	<100
Gravimetric Heavy Hydrocarbons	µg/L	500	500	NA	NA	NA
Surrogate	Unit	Acceptable Limits				
Terphenyl	%	60-140		114	87	74

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Potable Ground Water - All Types of Property Uses - Coarse Textured Soils

416526-416528

Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

The C6-C10 fraction is calculated using Toluene response factor.  
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.  
C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.  
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and nC34.  
Gravimetric Heavy Hydrocarbons are not included in the Total C16 - C50 and are only determined if the chromatogram of the C34 - C50 Hydrocarbons indicated that hydrocarbons >C50 are present.  
The chromatogram has returned to baseline by the retention time of nC50.  
Total C6-C50 results are corrected for BTEX contribution.  
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.  
nC6 and nC10 response factors are within 30% of Toluene response factor.  
nC10, nC16 and nC34 response factors are within 10% of their average.  
C50 response factor is within 70% of nC10 + nC16 nC34 average.  
Linearity is within 15%.  
Extraction and holding times were met for this sample.  
Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153/04, results are considered valid without determining the PAH contribution if not requested by the client.  
NA = Not Applicable

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L501537

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

ATTENTION TO: Mackenzie Costello

SAMPLING SITE:

SAMPLED BY:

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Water)

DATE RECEIVED: 2019-08-06

DATE REPORTED: 2019-08-09

Parameter	Unit	SAMPLE DESCRIPTION:		MW208-19	MW1208-19
		G / S	RDL	416532	416533
F1 (C6-C10)	µg/L	750	25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L	750	25	<25	<25
F2 (C10 to C16)	µg/L	150	100	<100	<100
F2 (C10 to C16) minus Naphthalene	µg/L		100	<100	<100
F3 (C16 to C34)	µg/L	500	100	<100	<100
F3 (C16 to C34) minus PAHs	µg/L		100	<100	<100
F4 (C34 to C50)	µg/L	500	100	<100	<100
Gravimetric Heavy Hydrocarbons	µg/L	500	500	NA	NA
Surrogate	Unit	Acceptable Limits			
Terphenyl	%	60-140		98	89

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Potable Ground Water - All Types of Property Uses - Coarse Textured Soils

Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

416532-416533

The C6-C10 fraction is calculated using toluene response factor.

C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.

The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.

Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.

The chromatogram has returned to baseline by the retention time of nC50.

Total C6 - C50 results are corrected for BTEX and PAH contributions.

C>10 - C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.

C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).

This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.

nC10, nC16 and nC34 response factors are within 10% of their average.

C50 response factor is within 70% of nC10 + nC16 + nC34 average.

Linearity is within 15%.

Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19L501537

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

ATTENTION TO: Mackenzie Costello

SAMPLING SITE:

SAMPLED BY:

### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Water)

DATE RECEIVED: 2019-08-06

DATE REPORTED: 2019-08-09

Parameter	Unit	SAMPLE DESCRIPTION:				
		G / S	RDL	MW203-19	MW104-19	MW106-19
				Water	Water	Water
				2019-08-06	2019-08-06	2019-08-06
				416529	416530	416531
Benzene	µg/L	5.0	0.20	<0.20	<0.20	<0.20
Toluene	µg/L	24	0.20	<0.20	<0.20	<0.20
Ethylbenzene	µg/L	2.4	0.10	<0.10	<0.10	<0.10
Xylene Mixture	µg/L	300	0.20	<0.20	<0.20	<0.20
F1 (C6-C10)	µg/L	750	25	<25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L	750	25	<25	<25	<25
F2 (C10 to C16)	µg/L	150	100	<100	<100	<100
F2 (C10 to C16) minus Naphthalene	µg/L		100	<100	<100	<100
F3 (C16 to C34)	µg/L	500	100	<100	<100	<100
F3 (C16 to C34) minus PAHs	µg/L		100	<100	<100	<100
F4 (C34 to C50)	µg/L	500	100	<100	<100	<100
Gravimetric Heavy Hydrocarbons	µg/L	500	500	NA	NA	NA
Surrogate	Unit	Acceptable Limits				
Terphenyl	%	60-140		119	70	84

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Potable Ground Water - All Types of Property Uses - Coarse Textured Soils

Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

416529-416531 The C6-C10 fraction is calculated using toluene response factor.

Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.

C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.

The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.

Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.

The chromatogram has returned to baseline by the retention time of nC50.

Total C6 - C50 results are corrected for BTEX and PAH contributions.

C>10 - C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.

C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene,

Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).

This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.

nC10, nC16 and nC34 response factors are within 10% of their average.

C50 response factor is within 70% of nC10 + nC16 + nC34 average.

Linearity is within 15%.

Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by \*)

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AGAT WORK ORDER: 19L501537

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

ATTENTION TO: Mackenzie Costello

SAMPLING SITE:

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### O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2019-08-06

DATE REPORTED: 2019-08-09

Parameter	Unit	SAMPLE DESCRIPTION:		MW208-19	MW1208-19
		G / S	RDL	416532	416533
Dichlorodifluoromethane	µg/L	590	0.20	<0.20	<0.20
Vinyl Chloride	µg/L	0.5	0.17	<0.17	<0.17
Bromomethane	µg/L	0.89	0.20	<0.20	<0.20
Trichlorofluoromethane	µg/L	150	0.40	<0.40	<0.40
Acetone	µg/L	2700	1.0	<1.0	<1.0
1,1-Dichloroethylene	µg/L	1.6	0.30	<0.30	<0.30
Methylene Chloride	µg/L	50	0.30	<0.30	<0.30
trans- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20
Methyl tert-butyl ether	µg/L	15	0.20	<0.20	<0.20
1,1-Dichloroethane	µg/L	5	0.30	<0.30	<0.30
Methyl Ethyl Ketone	µg/L	1800	1.0	<1.0	<1.0
cis- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20
Chloroform	µg/L	2.4	0.20	<0.20	<0.20
1,2-Dichloroethane	µg/L	1.6	0.20	<0.20	<0.20
1,1,1-Trichloroethane	µg/L	200	0.30	<0.30	<0.30
Carbon Tetrachloride	µg/L	0.79	0.20	<0.20	<0.20
Benzene	µg/L	5.0	0.20	<0.20	<0.20
1,2-Dichloropropane	µg/L	5	0.20	<0.20	<0.20
Trichloroethylene	µg/L	1.6	0.20	<0.20	<0.20
Bromodichloromethane	µg/L	16	0.20	<0.20	<0.20
Methyl Isobutyl Ketone	µg/L	640	1.0	<1.0	<1.0
1,1,2-Trichloroethane	µg/L	4.7	0.20	<0.20	<0.20
Toluene	µg/L	24	0.20	<0.20	<0.20
Dibromochloromethane	µg/L	25	0.10	<0.10	<0.10
Ethylene Dibromide	µg/L	0.2	0.10	<0.10	<0.10
Tetrachloroethylene	µg/L	1.6	0.20	<0.20	<0.20
1,1,1,2-Tetrachloroethane	µg/L	1.1	0.10	<0.10	<0.10
Chlorobenzene	µg/L	30	0.10	<0.10	<0.10
Ethylbenzene	µg/L	2.4	0.10	<0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20	<0.20

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AGAT WORK ORDER: 19L501537

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

ATTENTION TO: Mackenzie Costello

SAMPLING SITE:

SAMPLED BY:

### O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2019-08-06

DATE REPORTED: 2019-08-09

Parameter	Unit	SAMPLE DESCRIPTION:		MW208-19	MW1208-19
		G / S	RDL	416532	416533
Bromoform	µg/L	25	0.10	<0.10	<0.10
Styrene	µg/L	5.4	0.10	<0.10	<0.10
1,1,2,2-Tetrachloroethane	µg/L	1	0.10	<0.10	<0.10
o-Xylene	µg/L		0.10	<0.10	<0.10
1,3-Dichlorobenzene	µg/L	59	0.10	<0.10	<0.10
1,4-Dichlorobenzene	µg/L	1	0.10	<0.10	<0.10
1,2-Dichlorobenzene	µg/L	3	0.10	<0.10	<0.10
1,3-Dichloropropene	µg/L	0.5	0.30	<0.30	<0.30
Xylene Mixture	µg/L	300	0.20	<0.20	<0.20
n-Hexane	µg/L	51	0.20	<0.20	<0.20
Surrogate	Unit	Acceptable Limits			
Toluene-d8	% Recovery	50-140		101	97
4-Bromofluorobenzene	% Recovery	50-140		87	86

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Potable Ground Water - All Types of Property Uses - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

416532-416533 Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.  
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by \*)

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## Certificate of Analysis

AGAT WORK ORDER: 19L501537

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

ATTENTION TO: Mackenzie Costello

SAMPLING SITE:

SAMPLED BY:

### O. Reg. 153(511) - Metals (Including Hydrides) (Water)

DATE RECEIVED: 2019-08-06

DATE REPORTED: 2019-08-09

Parameter	Unit	SAMPLE DESCRIPTION:		MW0LD-E	MW201-19	MW202-19	MW203-19	MW104-19	MW106-19	MW208-19	MW1208-19
		SAMPLE TYPE:		Water	Water	Water	Water	Water	Water	Water	Water
		DATE SAMPLED:		2019-08-06	2019-08-06	2019-08-06	2019-08-06	2019-08-06	2019-08-06	2019-08-06	2019-08-06
		G / S	RDL	416526	416527	416528	416529	416530	416531	416532	416533
Antimony	µg/L	6	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Arsenic	µg/L	25	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Barium	µg/L	1000	2.0	16.5	76.6	85.2	18.1	12.0	33.9	60.6	62.9
Beryllium	µg/L	4.0	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Boron	µg/L	5000	10.0	12.0	204	154	18.9	<10.0	<10.0	<10.0	<10.0
Cadmium	µg/L	2.7	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chromium	µg/L	50	2.0	<2.0	2.4	2.1	<2.0	<2.0	<2.0	<2.0	2.4
Cobalt	µg/L	3.8	0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Copper	µg/L	87	1.0	1.0	2.0	2.0	1.1	<1.0	1.4	<1.0	<1.0
Lead	µg/L	10	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum	µg/L	70	0.5	<0.5	0.6	0.7	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel	µg/L	100	1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0
Selenium	µg/L	10	1.0	1.4	1.8	2.2	1.1	<1.0	1.1	<1.0	<1.0
Silver	µg/L	1.5	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	2	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Uranium	µg/L	20	0.5	<0.5	1.8	1.6	<0.5	<0.5	0.7	0.7	0.8
Vanadium	µg/L	6.2	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Zinc	µg/L	1100	5.0	5.8	5.1	5.6	<5.0	<5.0	<5.0	<5.0	<5.0

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Potable Ground Water - All Types of Property Uses - Coarse Textured Soils  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:

*Jris Veraestegui*

## Quality Assurance

CLIENT NAME: MTE CONSULTANTS Inc.

AGAT WORK ORDER: 19L501537

PROJECT: 45102-104

ATTENTION TO: Mackenzie Costello

SAMPLING SITE:

SAMPLED BY:

### Trace Organics Analysis

RPT Date: Aug 09, 2019			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - VOCs (Water)															
Dichlorodifluoromethane	412612		< 0.20	< 0.20	NA	< 0.20	90%	50%	140%	100%	50%	140%	107%	50%	140%
Vinyl Chloride	412612		< 0.17	< 0.17	NA	< 0.17	95%	50%	140%	112%	50%	140%	108%	50%	140%
Bromomethane	412612		< 0.20	< 0.20	NA	< 0.20	108%	50%	140%	87%	50%	140%	107%	50%	140%
Trichlorofluoromethane	412612		< 0.40	< 0.40	NA	< 0.40	84%	50%	140%	99%	50%	140%	103%	50%	140%
Acetone	412612		< 1.0	< 1.0	NA	< 1.0	94%	50%	140%	110%	50%	140%	101%	50%	140%
1,1-Dichloroethylene	412612		< 0.30	< 0.30	NA	< 0.30	94%	50%	140%	99%	60%	130%	103%	50%	140%
Methylene Chloride	412612		< 0.30	< 0.30	NA	< 0.30	73%	50%	140%	78%	60%	130%	79%	50%	140%
trans- 1,2-Dichloroethylene	412612		< 0.20	< 0.20	NA	< 0.20	104%	50%	140%	109%	60%	130%	105%	50%	140%
Methyl tert-butyl ether	412612		< 0.20	< 0.20	NA	< 0.20	85%	50%	140%	110%	60%	130%	106%	50%	140%
1,1-Dichloroethane	412612		< 0.30	< 0.30	NA	< 0.30	88%	50%	140%	107%	60%	130%	107%	50%	140%
Methyl Ethyl Ketone	412612		< 1.0	< 1.0	NA	< 1.0	109%	50%	140%	112%	50%	140%	105%	50%	140%
cis- 1,2-Dichloroethylene	412612		< 0.20	< 0.20	NA	< 0.20	93%	50%	140%	101%	60%	130%	105%	50%	140%
Chloroform	412612		< 0.20	< 0.20	NA	< 0.20	91%	50%	140%	101%	60%	130%	110%	50%	140%
1,2-Dichloroethane	412612		< 0.20	< 0.20	NA	< 0.20	98%	50%	140%	103%	60%	130%	103%	50%	140%
1,1,1-Trichloroethane	412612		< 0.30	< 0.30	NA	< 0.30	82%	50%	140%	102%	60%	130%	96%	50%	140%
Carbon Tetrachloride	412612		< 0.20	< 0.20	NA	< 0.20	96%	50%	140%	108%	60%	130%	109%	50%	140%
Benzene	412612		< 0.20	< 0.20	NA	< 0.20	101%	50%	140%	111%	60%	130%	107%	50%	140%
1,2-Dichloropropane	412612		< 0.20	< 0.20	NA	< 0.20	94%	50%	140%	103%	60%	130%	105%	50%	140%
Trichloroethylene	412612		< 0.20	< 0.20	NA	< 0.20	86%	50%	140%	93%	60%	130%	101%	50%	140%
Bromodichloromethane	412612		< 0.20	< 0.20	NA	< 0.20	87%	50%	140%	95%	60%	130%	100%	50%	140%
Methyl Isobutyl Ketone	412612		< 1.0	< 1.0	NA	< 1.0	89%	50%	140%	115%	50%	140%	114%	50%	140%
1,1,2-Trichloroethane	412612		< 0.20	< 0.20	NA	< 0.20	118%	50%	140%	116%	60%	130%	106%	50%	140%
Toluene	412612		6.3	6.6	4.7%	< 0.20	115%	50%	140%	103%	60%	130%	100%	50%	140%
Dibromochloromethane	412612		< 0.10	< 0.10	NA	< 0.10	108%	50%	140%	103%	60%	130%	110%	50%	140%
Ethylene Dibromide	412612		< 0.10	< 0.10	NA	< 0.10	107%	50%	140%	116%	60%	130%	117%	50%	140%
Tetrachloroethylene	412612		< 0.20	< 0.20	NA	< 0.20	106%	50%	140%	115%	60%	130%	103%	50%	140%
1,1,1,2-Tetrachloroethane	412612		< 0.10	< 0.10	NA	< 0.10	104%	50%	140%	109%	60%	130%	115%	50%	140%
Chlorobenzene	412612		< 0.10	< 0.10	NA	< 0.10	110%	50%	140%	117%	60%	130%	99%	50%	140%
Ethylbenzene	412612		< 0.10	< 0.10	NA	< 0.10	106%	50%	140%	117%	60%	130%	92%	50%	140%
m & p-Xylene	412612		< 0.20	< 0.20	NA	< 0.20	113%	50%	140%	118%	60%	130%	109%	50%	140%
Bromoform	412612		< 0.10	< 0.10	NA	< 0.10	110%	50%	140%	104%	60%	130%	107%	50%	140%
Styrene	412612		< 0.10	< 0.10	NA	< 0.10	108%	50%	140%	111%	60%	130%	111%	50%	140%
1,1,2,2-Tetrachloroethane	412612		< 0.10	< 0.10	NA	< 0.10	93%	50%	140%	107%	60%	130%	103%	50%	140%
o-Xylene	412612		< 0.10	< 0.10	NA	< 0.10	112%	50%	140%	98%	60%	130%	94%	50%	140%
1,3-Dichlorobenzene	412612		< 0.10	< 0.10	NA	< 0.10	115%	50%	140%	111%	60%	130%	113%	50%	140%
1,4-Dichlorobenzene	412612		< 0.10	< 0.10	NA	< 0.10	115%	50%	140%	97%	60%	130%	106%	50%	140%
1,2-Dichlorobenzene	412612		< 0.10	< 0.10	NA	< 0.10	114%	50%	140%	108%	60%	130%	113%	50%	140%
1,3-Dichloropropene	412612		< 0.30	< 0.30	NA	< 0.30	95%	50%	140%	102%	60%	130%	98%	50%	140%
n-Hexane	412612		< 0.20	< 0.20	NA	< 0.20	110%	50%	140%	109%	60%	130%	105%	50%	140%

## Quality Assurance

 CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE:

 AGAT WORK ORDER: 19L501537  
 ATTENTION TO: Mackenzie Costello  
 SAMPLED BY:

### Trace Organics Analysis (Continued)

RPT Date: Aug 09, 2019			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE	
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

Comments: Tap water analysis has been performed as QC sample testing for duplicate and matrix spike due to insufficient sample volume. When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

**O. Reg. 153(511) - PHCs F1 - F4 (Water)**

Benzene	416526	416526	< 0.20	< 0.20	NA	< 0.20	83%	50%	140%	92%	60%	130%	85%	50%	140%
Toluene	416526	416526	< 0.20	< 0.20	NA	< 0.20	85%	50%	140%	97%	60%	130%	88%	50%	140%
Ethylbenzene	416526	416526	< 0.10	< 0.10	NA	< 0.10	85%	50%	140%	97%	60%	130%	87%	50%	140%
Xylene Mixture	416526	416526	< 0.20	< 0.20	NA	< 0.20	82%	50%	140%	92%	60%	130%	87%	50%	140%
F1 (C6 - C10)	416526	416526	< 25	< 25	NA	< 25	90%	60%	140%	98%	60%	140%	94%	60%	140%
F2 (C10 to C16)		TW	< 100	< 100	NA	< 100	83%	60%	140%	102%	60%	140%	93%	60%	140%
F3 (C16 to C34)		TW	< 100	< 100	NA	< 100	90%	60%	140%	96%	60%	140%	119%	60%	140%
F4 (C34 to C50)		TW	< 100	< 100	NA	< 100	90%	60%	140%	80%	60%	140%	104%	60%	140%

**O. Reg. 153(511) - PAHs (Water)**

Naphthalene		TW	< 0.20	< 0.20	NA	< 0.20	107%	50%	140%	102%	50%	140%	75%	50%	140%
Acenaphthylene		TW	< 0.20	< 0.20	NA	< 0.20	115%	50%	140%	115%	50%	140%	87%	50%	140%
Acenaphthene		TW	< 0.20	< 0.20	NA	< 0.20	112%	50%	140%	112%	50%	140%	84%	50%	140%
Fluorene		TW	< 0.20	< 0.20	NA	< 0.20	116%	50%	140%	119%	50%	140%	90%	50%	140%
Phenanthrene		TW	< 0.10	< 0.10	NA	< 0.10	116%	50%	140%	118%	50%	140%	89%	50%	140%
Anthracene		TW	< 0.10	< 0.10	NA	< 0.10	114%	50%	140%	117%	50%	140%	90%	50%	140%
Fluoranthene		TW	< 0.20	< 0.20	NA	< 0.20	111%	50%	140%	112%	50%	140%	87%	50%	140%
Pyrene		TW	< 0.20	< 0.20	NA	< 0.20	105%	50%	140%	107%	50%	140%	84%	50%	140%
Benz(a)anthracene		TW	< 0.20	< 0.20	NA	< 0.20	83%	50%	140%	92%	50%	140%	72%	50%	140%
Chrysene		TW	< 0.10	< 0.10	NA	< 0.10	96%	50%	140%	92%	50%	140%	75%	50%	140%
Benzo(b)fluoranthene		TW	< 0.10	< 0.10	NA	< 0.10	106%	50%	140%	98%	50%	140%	73%	50%	140%
Benzo(k)fluoranthene		TW	< 0.10	< 0.10	NA	< 0.10	116%	50%	140%	100%	50%	140%	78%	50%	140%
Benzo(a)pyrene		TW	< 0.01	< 0.01	NA	< 0.01	112%	50%	140%	97%	50%	140%	76%	50%	140%
Indeno(1,2,3-cd)pyrene		TW	< 0.20	< 0.20	NA	< 0.20	113%	50%	140%	94%	50%	140%	74%	50%	140%
Dibenz(a,h)anthracene		TW	< 0.20	< 0.20	NA	< 0.20	118%	50%	140%	97%	50%	140%	78%	50%	140%
Benzo(g,h,i)perylene		TW	< 0.20	< 0.20	NA	< 0.20	119%	50%	140%	94%	50%	140%	75%	50%	140%

Certified By:



## Quality Assurance

 CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE:

 AGAT WORK ORDER: 19L501537  
 ATTENTION TO: Mackenzie Costello  
 SAMPLED BY:

Water Analysis															
RPT Date: Aug 09, 2019			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE		MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

**O. Reg. 153(511) - Metals (Including Hydrides) (Water)**

Antimony	416526	416526	<1.0	<1.0	NA	< 1.0	100%	70%	130%	94%	80%	120%	97%	70%	130%
Arsenic	416526	416526	<1.0	<1.0	NA	< 1.0	107%	70%	130%	97%	80%	120%	126%	70%	130%
Barium	416526	416526	16.5	16.4	0.6%	< 2.0	99%	70%	130%	98%	80%	120%	91%	70%	130%
Beryllium	416526	416526	<0.5	<0.5	NA	< 0.5	92%	70%	130%	110%	80%	120%	99%	70%	130%
Boron	416526	416526	12.0	12.9	NA	< 10.0	101%	70%	130%	109%	80%	120%	91%	70%	130%
Cadmium	416526	416526	<0.2	<0.2	NA	< 0.2	106%	70%	130%	98%	80%	120%	123%	70%	130%
Chromium	416526	416526	<2.0	<2.0	NA	< 2.0	99%	70%	130%	99%	80%	120%	97%	70%	130%
Cobalt	416526	416526	<0.5	<0.5	NA	< 0.5	97%	70%	130%	97%	80%	120%	94%	70%	130%
Copper	416526	416526	1.0	<1.0	NA	< 1.0	98%	70%	130%	100%	80%	120%	91%	70%	130%
Lead	416526	416526	<0.5	<0.5	NA	< 0.5	97%	70%	130%	101%	80%	120%	96%	70%	130%
Molybdenum	416526	416526	<0.5	<0.5	NA	< 0.5	106%	70%	130%	101%	80%	120%	114%	70%	130%
Nickel	416526	416526	<1.0	<1.0	NA	< 1.0	103%	70%	130%	99%	80%	120%	97%	70%	130%
Selenium	416526	416526	1.4	1.7	NA	< 1.0	109%	70%	130%	101%	80%	120%	125%	70%	130%
Silver	416526	416526	<0.2	<0.2	NA	< 0.2	107%	70%	130%	106%	80%	120%	111%	70%	130%
Thallium	416526	416526	<0.3	<0.3	NA	< 0.3	102%	70%	130%	107%	80%	120%	102%	70%	130%
Uranium	416526	416526	<0.5	<0.5	NA	< 0.5	98%	70%	130%	102%	80%	120%	97%	70%	130%
Vanadium	416526	416526	<0.4	<0.4	NA	< 0.4	97%	70%	130%	93%	80%	120%	94%	70%	130%
Zinc	416526	416526	5.8	5.4	NA	< 5.0	101%	70%	130%	98%	80%	120%	101%	70%	130%

Comments: NA signifies Not Applicable.

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

Certified By:



## Method Summary

CLIENT NAME: MTE CONSULTANTS Inc.

AGAT WORK ORDER: 19L501537

PROJECT: 45102-104

ATTENTION TO: Mackenzie Costello

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Acenaphthylene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Acenaphthene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Fluorene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Phenanthrene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Anthracene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Pyrene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benz(a)anthracene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Chrysene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzo(b)fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzo(k)fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzo(a)pyrene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Dibenz(a,h)anthracene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzo(g,h,i)perylene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Chrysene-d12	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzene	VOL-91-5010	MOE PHC-E3421	P&T GC/MS
Toluene	VOL-91-5010	MOE PHC-E3421	P&T GC/MS
Ethylbenzene	VOL-91-5010	MOE PHC-E3421	P&T GC/MS
Xylene Mixture	VOL-91-5010	MOE PHC-E3421	P&T GC/MS
F1 (C6 - C10)	VOL-91- 5010	MOE PHC-E3421	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	MOE PHC-E3421	P&T GC/FID
F2 (C10 to C16)	VOL-91-5010	MOE PHC-E3421	GC/FID
F3 (C16 to C34)	VOL-91-5010	MOE PHC-E3421	GC/FID
F4 (C34 to C50)	VOL-91-5010	MOE PHC-E3421	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5010	MOE PHC-E3421	BALANCE
Terphenyl	VOL-91-5010	MOE PHC-E3421	GC/FID
F1 (C6-C10)	VOL-91- 5010	MOE PHC-E3421	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	MOE PHC E3421	P&T GC/FID
F2 (C10 to C16)	VOL-91-5010	MOE PHC E3421	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5010	MOE PHC E3421	GC/FID
F3 (C16 to C34)	VOL-91-5010	MOE PHC E3421	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5010	MOE PHC E3421	GC/FID
F4 (C34 to C50)	VOL-91-5010	MOE PHC E3421	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5010	MOE PHC E3421	BALANCE
Terphenyl	VOL-91-5010		GC/FID
Benzene	VOL-91-5010	MOE PHC E3421	P&T GC/MS
Toluene	VOL-91-5010	MOE PHC E3421	P&T GC/MS
Ethylbenzene	VOL-91-5010	MOE PHC E3421	P&T GC/MS
Xylene Mixture	VOL-91-5010	MOE PHC E3421	P&T GC/MS
Dichlorodifluoromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Acetone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS

## Method Summary

CLIENT NAME: MTE CONSULTANTS Inc.

AGAT WORK ORDER: 19L501537

PROJECT: 45102-104

ATTENTION TO: Mackenzie Costello

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
trans- 1,2-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl tert-butyl ether	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
cis- 1,2-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Chloroform	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Benzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Toluene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromoform	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Styrene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Xylene Mixture	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS



## Method Summary

CLIENT NAME: MTE CONSULTANTS Inc.

AGAT WORK ORDER: 19L501537

PROJECT: 45102-104

ATTENTION TO: Mackenzie Costello

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Antimony	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Barium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Boron	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Cadmium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Chromium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Copper	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Lead	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Nickel	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Selenium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Silver	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Thallium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Uranium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Zinc	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS



# AGAT Laboratories

5835 Coopers Avenue  
Mississauga, Ontario L4Z 1Y2  
Ph: 905.712.5100 Fax: 905.712.5122  
webearth.agatlabs.com

### Laboratory Use Only

Work Order #: 192501537  
Cooler Quantity: 2 large  
Arrival Temperatures: 76/8 82  
79/8 176  
Custody Seal Intact:  Yes  No  N/A  
Notes: alice

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

### Report Information:

Company: MTE Consultants  
Contact: Mackenzie Castello  
Address: 123 St. George St., London, ON  
Phone: (226) 234-4146 Fax: \_\_\_\_\_  
Reports to be sent to: mcastello@mte85.com  
1. Email: mcastello@mte85.com  
2. Email: mfabro@mte85.com

### Regulatory Requirements:

No Regulatory Requirement  
(Please check all applicable boxes)  
 Regulation 153/04  
Table 2 Indicate One  
 Ind./Com  
 Res./Park  
 Agriculture  
Soil Texture (Check One)  
 Coarse  
 Fine  
 Sewer Use  
 Sanitary  
 Storm  
 MISA  
 Regulation 558  
 CCME  
 Prov. Water Quality Objectives (PWQO)  
 Other  
Region \_\_\_\_\_ Indicate One

### Project Information:

Project: 45102-104  
Site Location: Darcy Drive  
Sampled By: Mackenzie Castello  
AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_  
Please note: if quotation number is not provided, client will be billed full price for analysis.

### Is this submission for a Record of Site Condition?

Yes  No

### Report Guideline on Certificate of Analysis

Yes  No

### Turnaround Time (TAT) Required:

Regular TAT  5 to 7 Business Days  
Rush TAT (Rush Surcharges Apply)  
 3 Business Days  2 Business Days  Next Business Day

OR Date Required (Rush Surcharges May Apply):

MTE - 4 DAY  
Please provide prior notification for rush TAT  
\*TAT is exclusive of weekends and statutory holidays

For 'Same Day' analysis, please contact your AGAT CPM

### Invoice Information:

Bill To Same: Yes  No

Company: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Email: \_\_\_\_\_

### Sample Matrix Legend

**B** Biota  
**GW** Ground Water  
**O** Oil  
**P** Paint  
**S** Soil  
**SD** Sediment  
**SW** Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI	Metals and Inorganics	0. Reg 153	Full Metals Scan	Regulation/Custom Metals	Nutrients: TP, NH <sub>3</sub> , TKN, NO <sub>3</sub> , NO <sub>2</sub> , NO <sub>3</sub> +NO <sub>2</sub>	Volatiles: VOC, BTEX, THM	PHCs F1 - F4 + BTEX	ABNS	PAHS	PCBS: Total, Aroclors	Organochlorine Pesticides	TCLP: M&I, VOCs, ABNS, B(a)P, PCBs	Sewer Use
MW01-D-E	19/08/06	13:56	5	GW		Y	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						
MW201-19	↓	12:37	5	↓			<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>						
MW202-19	↓	13:15	5	↓			<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>						
MW203-19	↓	11:55	6	↓			<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				
MW104-19	↓	10:35	6	↓			<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				
MW106-19	↓	14:25	6	↓			<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				
MW208-19	↓	8:50	9	↓			<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
MW208-19	↓	8:00	9	↓			<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
TRIP BLANK	-	-	3	-															<input checked="" type="checkbox"/>

Samples Relinquished By (Print Name and Sign): <u>Mackenzie Castello</u>	Date: <u>Aug 6/19</u>	Time: <u>15:28</u>	Samples Received By (Print Name and Sign): <u>J. Smith</u>	Date: <u>19-8-16</u>	Time: <u>13:25</u>
Samples Relinquished By (Print Name and Sign): _____	Date: _____	Time: _____	Samples Received By (Print Name and Sign): <u>Sima</u>	Date: <u>19/8/17</u>	Time: <u>1:50</u>
Samples Relinquished By (Print Name and Sign): _____	Date: _____	Time: _____	Samples Received By (Print Name and Sign): _____	Date: _____	Time: _____

Page 1 of 1  
N#: **T 086665**



CLIENT NAME: MTE CONSULTANTS Inc.  
123ST GEORGE STREET  
LONDON, ON N6A 3A1  
519-204-6510

ATTENTION TO: Bansari Vatiya

PROJECT: 45102-104

AGAT WORK ORDER: 22T960474

SOIL ANALYSIS REVIEWED BY: Jacky Zhu, Spectroscopy Technician

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

WATER ANALYSIS REVIEWED BY: Nivine Basily, Inorganics Report Writer

DATE REPORTED: Nov 01, 2022

PAGES (INCLUDING COVER): 15

VERSION\*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

\*Notes

Disclaimer:

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.
- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.



## Certificate of Analysis

AGAT WORK ORDER: 22T960474

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darey Drive

ATTENTION TO: Bansari Vatiya

SAMPLED BY: BVV

### O. Reg. 153(511) - PHCs F1 - F4 (with VOC) (Water)

DATE RECEIVED: 2022-10-21

DATE REPORTED: 2022-11-01

Parameter	Unit	SAMPLE DESCRIPTION:		MW 103-19	MW 211-19	MW 203-19	MW 201-19	MW 202-19
		G / S	RDL	4442666	4442670	4442671	4442673	4442674
F1 (C6 - C10)	µg/L	420	25	<25	<25	<25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L	420	25	<25	<25	<25	<25	<25
F2 (C10 to C16)	µg/L	150	100	<100	<100	<100	<100	<100
F3 (C16 to C34)	µg/L	500	100	<100	<100	<100	<100	<100
F4 (C34 to C50)	µg/L	500	100	<100	<100	<100	<100	<100
Gravimetric Heavy Hydrocarbons	µg/L		500	NA	NA	NA	NA	NA
Sediment				1	1	1	1	1
Surrogate	Unit	Acceptable Limits						
Toluene-d8	%	50-140		104	104	105	117	103
Terphenyl	% Recovery	60-140		92	80	75	81	64

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Ground Water - All Types of Property Uses  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

4442666-4442674 The C6-C10 fraction is calculated using Toluene response factor.  
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.  
C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.  
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.  
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.  
Gravimetric Heavy Hydrocarbons are not included in the Total C16 - C50 and are only determined if the chromatogram of the C34 - C50 Hydrocarbons indicated that hydrocarbons >C50 are present.  
The chromatogram has returned to baseline by the retention time of nC50.  
Total C6-C50 results are corrected for BTEX contribution.  
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.  
nC6 and nC10 response factors are within 30% of Toluene response factor.  
nC10, nC16 and nC34 response factors are within 10% of their average.  
C50 response factor is within 70% of nC10 + nC16 nC34 average.  
Linearity is within 15%.  
Extraction and holding times were met for this sample.  
Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153/04, results are considered valid without determining the PAH contribution if not requested by the client.  
NA = Not Applicable

Sediment parameter is comment only based on visual inspection of the sample prior to extraction and is not an accredited test.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 22T960474

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darey Drive

ATTENTION TO: Bansari Vatiya

SAMPLED BY: BVV

### O. Reg. 153(511) - VOCs (with PHC) (Water)

DATE RECEIVED: 2022-10-21

DATE REPORTED: 2022-11-01

Parameter	Unit	SAMPLE DESCRIPTION:		MW 103-19	MW 211-19	MW 203-19	MW 201-19	MW 202-19
		SAMPLE TYPE:		Water	Water	Water	Water	Water
		DATE SAMPLED:		2022-10-20	2022-10-20	2022-10-20	2022-10-20	2022-10-20
		G / S	RDL	4442666	4442670	4442671	4442673	4442674
Dichlorodifluoromethane	µg/L	590	0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Vinyl Chloride	µg/L	0.5	0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Bromomethane	µg/L	0.89	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichlorofluoromethane	µg/L	150	0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Acetone	µg/L	2700	1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethylene	µg/L	0.5	0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Methylene Chloride	µg/L	5	0.30	<0.30	<0.30	<0.30	<0.30	<0.30
trans- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Methyl tert-butyl ether	µg/L	15	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1-Dichloroethane	µg/L	0.5	0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Methyl Ethyl Ketone	µg/L	400	1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chloroform	µg/L	2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloroethane	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	µg/L	0.5	0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Carbon Tetrachloride	µg/L	0.2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloropropane	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethylene	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Bromodichloromethane	µg/L	2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Methyl Isobutyl Ketone	µg/L	640	1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	µg/L	0.8	0.20	<0.20	0.40	<0.20	0.64	<0.20
Dibromochloromethane	µg/L	2	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Ethylene Dibromide	µg/L	0.2	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Tetrachloroethylene	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,1,2-Tetrachloroethane	µg/L	1.1	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorobenzene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Ethylbenzene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 22T960474

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darey Drive

ATTENTION TO: Bansari Vatiya

SAMPLED BY: BVV

### O. Reg. 153(511) - VOCs (with PHC) (Water)

DATE RECEIVED: 2022-10-21

DATE REPORTED: 2022-11-01

Parameter	Unit	SAMPLE DESCRIPTION:		MW 103-19	MW 211-19	MW 203-19	MW 201-19	MW 202-19
		SAMPLE TYPE:		Water	Water	Water	Water	Water
		DATE SAMPLED:		2022-10-20	2022-10-20	2022-10-20	2022-10-20	2022-10-20
		G / S	RDL	4442666	4442670	4442671	4442673	4442674
Bromoform	µg/L	5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Styrene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,1,2,2-Tetrachloroethane	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
o-Xylene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,3-Dichlorobenzene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,4-Dichlorobenzene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,2-Dichlorobenzene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,3-Dichloropropene	µg/L	0.5	0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Xylenes (Total)	µg/L	72	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
n-Hexane	µg/L	5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Surrogate	Unit	Acceptable Limits						
Toluene-d8	% Recovery	50-140		104	104	105	117	103
4-Bromofluorobenzene	% Recovery	50-140		97	99	91	90	93

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Ground Water - All Types of Property Uses  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

4442666-4442674 Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.  
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.  
The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 22T960474

PROJECT: 45102-104

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: MTE CONSULTANTS Inc.

SAMPLING SITE: Darey Drive

ATTENTION TO: Bansari Vatiya

SAMPLED BY: BVV

### O. Reg. 153(511) - Metals (Including Hydrides) (Water)

DATE RECEIVED: 2022-10-21

DATE REPORTED: 2022-11-01

Parameter	Unit	SAMPLE DESCRIPTION:		MW 103-19	MW 211-19	MW 203-19	MW 1211-19	MW 201-19	MW 202-19
		SAMPLE TYPE:		Water	Water	Water	Water	Water	Water
		DATE SAMPLED:		2022-10-20	2022-10-20	2022-10-20	2022-10-20	2022-10-20	2022-10-20
		G / S	RDL	4442666	4442670	4442671	4442672	4442673	4442674
Dissolved Antimony	µg/L	1.5	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Arsenic	µg/L	13	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Barium	µg/L	610	2.0	11.8	42.0	8.2	40.1	10.4	8.4
Dissolved Beryllium	µg/L	0.5	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Boron	µg/L	1700	10.0	19.0	13.1	16.8	11.2	14.4	15.1
Dissolved Cadmium	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Chromium	µg/L	11	2.0	<2.0	<2.0	<2.0	2.3	3.6	2.2
Dissolved Cobalt	µg/L	3.8	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Copper	µg/L	5	1.0	1.5	1.0	1.0	<1.0	2.0	1.1
Dissolved Lead	µg/L	1.9	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Molybdenum	µg/L	23	0.50	<0.50	<0.50	0.63	<0.50	<0.50	<0.50
Dissolved Nickel	µg/L	14	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Selenium	µg/L	5	1.0	<1.0	1.8	1.2	<1.0	<1.0	<1.0
Dissolved Silver	µg/L	0.3	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Thallium	µg/L	0.5	0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Dissolved Uranium	µg/L	8.9	0.50	<0.50	<0.50	0.65	<0.50	0.52	0.63
Dissolved Vanadium	µg/L	3.9	0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Dissolved Zinc	µg/L	160	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Ground Water - All Types of Property Uses  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

4442666-4442674 Metals analysis completed on a filtered sample.

Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



*Nancy Basch*

## Quality Assurance

CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE: Darey Drive

AGAT WORK ORDER: 22T960474  
 ATTENTION TO: Bansari Vatiya  
 SAMPLED BY: BVV

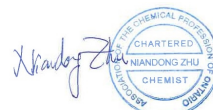
Soil Analysis															
RPT Date: Nov 01, 2022			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE		MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

**O. Reg. 558 Metals and Inorganics**

Arsenic Leachate	4463227		<0.010	<0.010	NA	< 0.010	99%	70%	130%	104%	80%	120%	113%	70%	130%
Barium Leachate	4463227		0.374	0.355	5.2%	< 0.010	100%	70%	130%	100%	80%	120%	99%	70%	130%
Boron Leachate	4463227		0.067	0.063	NA	< 0.050	101%	70%	130%	103%	80%	120%	106%	70%	130%
Cadmium Leachate	4463227		<0.010	<0.010	NA	< 0.010	101%	70%	130%	103%	80%	120%	108%	70%	130%
Chromium Leachate	4463227		<0.050	<0.050	NA	< 0.050	101%	70%	130%	112%	80%	120%	113%	70%	130%
Lead Leachate	4463227		<0.010	<0.010	NA	< 0.010	100%	70%	130%	109%	80%	120%	100%	70%	130%
Mercury Leachate	4463227		<0.01	<0.01	NA	< 0.01	100%	70%	130%	103%	80%	120%	101%	70%	130%
Selenium Leachate	4463227		<0.010	<0.010	NA	< 0.010	100%	70%	130%	101%	80%	120%	106%	70%	130%
Silver Leachate	4463227		<0.010	<0.010	NA	< 0.010	103%	70%	130%	112%	80%	120%	102%	70%	130%
Uranium Leachate	4463227		<0.050	<0.050	NA	< 0.050	95%	70%	130%	109%	80%	120%	111%	70%	130%
Fluoride Leachate	4463227		0.19	0.18	NA	< 0.10	93%	90%	110%	103%	90%	110%	95%	70%	130%
Cyanide Leachate	4463227		<0.05	<0.05	NA	< 0.05	92%	70%	130%	106%	80%	120%	110%	70%	130%
(Nitrate + Nitrite) as N Leachate	4463227		<0.70	<0.70	NA	< 0.70	98%	80%	120%	98%	80%	120%	85%	70%	130%

Comments: NA signifies Not Applicable.  
 Duplicate NA: results are under 5X the RDL and will not be calculated.

Certified By:



## Quality Assurance

CLIENT NAME: MTE CONSULTANTS Inc.

AGAT WORK ORDER: 22T960474

PROJECT: 45102-104

ATTENTION TO: Bansari Vatiya

SAMPLING SITE: Darey Drive

SAMPLED BY: BVV

Trace Organics Analysis															
RPT Date: Nov 01, 2022			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE	
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PHCs F1 - F4 (with VOC) (Water)															
F1 (C6 - C10)	4440464		<25	<25	NA	< 25	85%	60%	140%	66%	60%	140%	81%	60%	140%
F2 (C10 to C16)	4442666	4442666	<100	<100	NA	< 100	114%	60%	140%	69%	60%	140%	68%	60%	140%
F3 (C16 to C34)	4442666	4442666	<100	<100	NA	< 100	118%	60%	140%	82%	60%	140%	80%	60%	140%
F4 (C34 to C50)	4442666	4442666	<100	<100	NA	< 100	90%	60%	140%	67%	60%	140%	71%	60%	140%
O. Reg. 153(511) - VOCs (with PHC) (Water)															
Dichlorodifluoromethane	4440464		<0.40	<0.40	NA	< 0.40	70%	50%	140%	100%	50%	140%	103%	50%	140%
Vinyl Chloride	4440464		<0.17	<0.17	NA	< 0.17	117%	50%	140%	80%	50%	140%	93%	50%	140%
Bromomethane	4440464		<0.20	<0.20	NA	< 0.20	82%	50%	140%	82%	50%	140%	113%	50%	140%
Trichlorofluoromethane	4440464		<0.40	<0.40	NA	< 0.40	74%	50%	140%	106%	50%	140%	105%	50%	140%
Acetone	4440464		<1.0	<1.0	NA	< 1.0	82%	50%	140%	110%	50%	140%	95%	50%	140%
1,1-Dichloroethylene	4440464		<0.30	<0.30	NA	< 0.30	75%	50%	140%	96%	60%	130%	92%	50%	140%
Methylene Chloride	4440464		<0.30	<0.30	NA	< 0.30	116%	50%	140%	105%	60%	130%	109%	50%	140%
trans- 1,2-Dichloroethylene	4440464		<0.20	<0.20	NA	< 0.20	71%	50%	140%	102%	60%	130%	103%	50%	140%
Methyl tert-butyl ether	4440464		<0.20	<0.20	NA	< 0.20	99%	50%	140%	100%	60%	130%	75%	50%	140%
1,1-Dichloroethane	4442666		<0.20	<0.20	NA	< 0.30	76%	50%	140%	104%	60%	130%	100%	50%	140%
Methyl Ethyl Ketone	4440464		<1.0	<1.0	NA	< 1.0	99%	50%	140%	84%	50%	140%	97%	50%	140%
cis- 1,2-Dichloroethylene	4440464		<0.20	<0.20	NA	< 0.20	74%	50%	140%	95%	60%	130%	88%	50%	140%
Chloroform	4440464		<0.20	<0.20	NA	< 0.20	99%	50%	140%	111%	60%	130%	114%	50%	140%
1,2-Dichloroethane	4440464		<0.20	<0.20	NA	< 0.20	86%	50%	140%	96%	60%	130%	95%	50%	140%
1,1,1-Trichloroethane	4440464		<0.30	<0.30	NA	< 0.30	79%	50%	140%	87%	60%	130%	78%	50%	140%
Carbon Tetrachloride	4440464		<0.20	<0.20	NA	< 0.20	79%	50%	140%	106%	60%	130%	83%	50%	140%
Benzene	4440464		0.32	0.32	NA	< 0.20	79%	50%	140%	85%	60%	130%	81%	50%	140%
1,2-Dichloropropane	4440464		<0.20	<0.20	NA	< 0.20	73%	50%	140%	78%	60%	130%	77%	50%	140%
Trichloroethylene	4440464		<0.20	<0.20	NA	< 0.20	118%	50%	140%	95%	60%	130%	119%	50%	140%
Bromodichloromethane	4440464		<0.20	<0.20	NA	< 0.20	88%	50%	140%	99%	60%	130%	98%	50%	140%
Methyl Isobutyl Ketone	4440464		<1.0	<1.0	NA	< 1.0	80%	50%	140%	91%	50%	140%	109%	50%	140%
1,1,2-Trichloroethane	4440464		<0.20	<0.20	NA	< 0.20	98%	50%	140%	105%	60%	130%	99%	50%	140%
Toluene	4440464		0.86	0.90	NA	< 0.20	70%	50%	140%	91%	60%	130%	82%	50%	140%
Dibromochloromethane	4440464		<0.10	<0.10	NA	< 0.10	106%	50%	140%	115%	60%	130%	105%	50%	140%
Ethylene Dibromide	4440464		<0.10	<0.10	NA	< 0.10	103%	50%	140%	107%	60%	130%	101%	50%	140%
Tetrachloroethylene	4440464		<0.20	<0.20	NA	< 0.20	76%	50%	140%	107%	60%	130%	94%	50%	140%
1,1,1,2-Tetrachloroethane	4440464		<0.10	<0.10	NA	< 0.10	96%	50%	140%	100%	60%	130%	88%	50%	140%
Chlorobenzene	4440464		<0.10	<0.10	NA	< 0.10	81%	50%	140%	98%	60%	130%	88%	50%	140%
Ethylbenzene	4440464		<0.10	<0.10	NA	< 0.10	77%	50%	140%	86%	60%	130%	77%	50%	140%
m & p-Xylene	4440464		0.96	0.95	NA	< 0.20	108%	50%	140%	91%	60%	130%	82%	50%	140%
Bromoform	4440464		<0.10	<0.10	NA	< 0.10	117%	50%	140%	118%	60%	130%	111%	50%	140%
Styrene	4440464		<0.10	<0.10	NA	< 0.10	78%	50%	140%	83%	60%	130%	76%	50%	140%
1,1,2,2-Tetrachloroethane	4440464		<0.10	<0.10	NA	< 0.10	108%	50%	140%	108%	60%	130%	87%	50%	140%
o-Xylene	4440464		<0.10	<0.10	NA	< 0.10	73%	50%	140%	92%	60%	130%	83%	50%	140%

## Quality Assurance

 CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE: Darey Drive

 AGAT WORK ORDER: 22T960474  
 ATTENTION TO: Bansari Vatiya  
 SAMPLED BY: BVV

### Trace Organics Analysis (Continued)

RPT Date: Nov 01, 2022			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
1,3-Dichlorobenzene	4440464		<0.10	<0.10	NA	< 0.10	89%	50%	140%	107%	60%	130%	101%	50%	140%
1,4-Dichlorobenzene	4440464		<0.10	<0.10	NA	< 0.10	92%	50%	140%	108%	60%	130%	101%	50%	140%
1,2-Dichlorobenzene	4440464		<0.10	<0.10	NA	< 0.10	101%	50%	140%	105%	60%	130%	102%	50%	140%
n-Hexane	4440464		<0.20	<0.20	NA	< 0.20	82%	50%	140%	86%	60%	130%	75%	50%	140%
O. Reg. 558 - VOCs															
Vinyl Chloride Leachate	4461863		< 0.030	< 0.030	NA	< 0.030	81%	50%	140%	108%	50%	140%	94%	50%	140%
1,1 Dichloroethene Leachate	4461863		< 0.020	< 0.020	NA	< 0.020	80%	50%	140%	88%	60%	130%	94%	50%	140%
Dichloromethane Leachate	4461863		< 0.030	< 0.030	NA	< 0.030	101%	50%	140%	92%	60%	130%	76%	50%	140%
Methyl Ethyl Ketone Leachate	4461863		< 0.090	< 0.090	NA	< 0.090	74%	50%	140%	79%	50%	140%	78%	50%	140%
Chloroform Leachate	4461863		< 0.020	< 0.020	NA	< 0.020	96%	50%	140%	88%	60%	130%	102%	50%	140%
1,2-Dichloroethane Leachate	4461863		< 0.020	< 0.020	NA	< 0.020	87%	50%	140%	89%	60%	130%	97%	50%	140%
Carbon Tetrachloride Leachate	4461863		< 0.020	< 0.020	NA	< 0.020	79%	50%	140%	95%	60%	130%	71%	50%	140%
Benzene Leachate	4461863		< 0.020	< 0.020	NA	< 0.020	90%	50%	140%	102%	60%	130%	108%	50%	140%
Trichloroethene Leachate	4461863		< 0.020	< 0.020	NA	< 0.020	118%	50%	140%	111%	60%	130%	101%	50%	140%
Tetrachloroethene Leachate	4461863		< 0.050	< 0.050	NA	< 0.050	108%	50%	140%	119%	60%	130%	120%	50%	140%
Chlorobenzene Leachate	4461863		< 0.010	< 0.010	NA	< 0.010	108%	50%	140%	114%	60%	130%	116%	50%	140%
1,2-Dichlorobenzene Leachate	4461863		< 0.010	< 0.010	NA	< 0.010	101%	50%	140%	112%	60%	130%	98%	50%	140%
1,4-Dichlorobenzene Leachate	4461863		< 0.010	< 0.010	NA	< 0.010	97%	50%	140%	110%	60%	130%	90%	50%	140%
O. Reg. 558 - Benzo(a) pyrene															
Benzo(a)pyrene Leachate	444652		< 0.001	< 0.001	NA	< 0.001	78%	50%	140%	82%	50%	140%	80%	50%	140%
O. Reg. 558 - PCBs															
PCB's Leachate	4431617		< 0.005	< 0.005	NA	< 0.005	103%	50%	140%	90%	50%	140%	85%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By:



## Quality Assurance

 CLIENT NAME: MTE CONSULTANTS Inc.  
 PROJECT: 45102-104  
 SAMPLING SITE: Darey Drive

 AGAT WORK ORDER: 22T960474  
 ATTENTION TO: Bansari Vatiya  
 SAMPLED BY: BVV

Water Analysis														
RPT Date: Nov 01, 2022			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE		MATRIX SPIKE	
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits
							Lower	Upper	Lower		Upper	Lower		Upper

**O. Reg. 153(511) - Metals (Including Hydrides) (Water)**

Dissolved Antimony	4445726		<1.0	<1.0	NA	< 1.0	101%	70%	130%	99%	80%	120%	97%	70%	130%
Dissolved Arsenic	4445726		<1.0	<1.0	NA	< 1.0	107%	70%	130%	106%	80%	120%	114%	70%	130%
Dissolved Barium	4445726		31.0	31.2	0.6%	< 2.0	103%	70%	130%	100%	80%	120%	107%	70%	130%
Dissolved Beryllium	4445726		<0.50	<0.50	NA	< 0.50	94%	70%	130%	98%	80%	120%	99%	70%	130%
Dissolved Boron	4445726		<10.0	<10.0	NA	< 10.0	96%	70%	130%	100%	80%	120%	97%	70%	130%
Dissolved Cadmium	4445726		<0.20	<0.20	NA	< 0.20	99%	70%	130%	101%	80%	120%	101%	70%	130%
Dissolved Chromium	4445726		<2.0	<2.0	NA	< 2.0	98%	70%	130%	100%	80%	120%	105%	70%	130%
Dissolved Cobalt	4445726		<0.50	<0.50	NA	< 0.50	101%	70%	130%	101%	80%	120%	105%	70%	130%
Dissolved Copper	4445726		1.9	1.5	NA	< 1.0	100%	70%	130%	100%	80%	120%	98%	70%	130%
Dissolved Lead	4445726		<0.50	<0.50	NA	< 0.50	99%	70%	130%	92%	80%	120%	99%	70%	130%
Dissolved Molybdenum	4445726		0.56	0.52	NA	< 0.50	102%	70%	130%	99%	80%	120%	108%	70%	130%
Dissolved Nickel	4445726		<1.0	<1.0	NA	< 1.0	101%	70%	130%	98%	80%	120%	101%	70%	130%
Dissolved Selenium	4445726		1.2	<1.0	NA	< 1.0	106%	70%	130%	106%	80%	120%	112%	70%	130%
Dissolved Silver	4445726		<0.20	<0.20	NA	< 0.20	99%	70%	130%	99%	80%	120%	98%	70%	130%
Dissolved Thallium	4445726		<0.30	<0.30	NA	< 0.30	103%	70%	130%	101%	80%	120%	104%	70%	130%
Dissolved Uranium	4445726		0.56	0.54	NA	< 0.50	107%	70%	130%	102%	80%	120%	108%	70%	130%
Dissolved Vanadium	4445726		1.65	1.60	NA	< 0.40	103%	70%	130%	106%	80%	120%	110%	70%	130%
Dissolved Zinc	4445726		<5.0	<5.0	NA	< 5.0	100%	70%	130%	98%	80%	120%	105%	70%	130%

 Comments: NA signifies Not Applicable.  
 Duplicate NA: results are under 5X the RDL and will not be calculated.

Certified By:





## Method Summary

CLIENT NAME: MTE CONSULTANTS Inc.  
PROJECT: 45102-104  
SAMPLING SITE: Darey Drive

AGAT WORK ORDER: 22T960474  
ATTENTION TO: Bansari Vatiya  
SAMPLED BY: BVV

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Arsenic Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B ICP-MS	
Barium Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B ICP-MS	
Boron Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B ICP-MS	
Cadmium Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B ICP-MS	
Chromium Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B ICP-MS	
Lead Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B ICP-MS	
Mercury Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B ICP-MS	
Selenium Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B ICP-MS	
Silver Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B ICP-MS	
Uranium Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B ICP-MS	
Fluoride Leachate	INOR-93-6018	EPA 1311 & modified from SM4500-F-C	ION SELECTIVE ELECTRODE
Cyanide Leachate	INOR-93-6052	EPA 1311 modified from MOE 3015 SM 4500 CN-I,G387	TECHNICON AUTO ANALYZER
(Nitrate + Nitrite) as N Leachate	INOR-93-6053	EPA SW 846-1311 & modified from SM 4500 - NO3- I	LACHAT FIA



## Method Summary

CLIENT NAME: MTE CONSULTANTS Inc.  
PROJECT: 45102-104  
SAMPLING SITE: Darey Drive

AGAT WORK ORDER: 22T960474  
ATTENTION TO: Bansari Vatiya  
SAMPLED BY: BVV

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
F1 (C6 - C10)	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/FID
Toluene-d8	VOL-91- 5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
F2 (C10 to C16)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F3 (C16 to C34)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F4 (C34 to C50)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5010	modified from MOE PHC-E3421	BALANCE
Terphenyl	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
Sediment			N/A
Dichlorodifluoromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Acetone	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
trans- 1,2-Dichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methyl tert-butyl ether	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
cis- 1,2-Dichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Chloroform	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Benzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS

## Method Summary

CLIENT NAME: MTE CONSULTANTS Inc.

AGAT WORK ORDER: 22T960474

PROJECT: 45102-104

ATTENTION TO: Bansari Vatiya

SAMPLING SITE: Darey Drive

SAMPLED BY: BVV

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Toluene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Bromoform	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Styrene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Xylenes (Total)	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Benzo(a)pyrene Leachate	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Acridine-d9	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Naphthalene-d8	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Terphenyl-d14	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
PCB's Leachate	ORG-91-5112	Regulation 558, EPA SW846 3510C/8082	GC/ECD
Decachlorobiphenyl	ORG-91-5112	EPA SW846 3510C/8082	GC/ECD
Vinyl Chloride Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
1,1 Dichloroethene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS

## Method Summary

CLIENT NAME: MTE CONSULTANTS Inc.

AGAT WORK ORDER: 22T960474

PROJECT: 45102-104

ATTENTION TO: Bansari Vatiya

SAMPLING SITE: Darey Drive

SAMPLED BY: BVV

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Dichloromethane Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Methyl Ethyl Ketone Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Chloroform Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
1,2-Dichloroethane Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Carbon Tetrachloride Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Benzene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Trichloroethene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Tetrachloroethene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Chlorobenzene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
1,2-Dichlorobenzene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
1,4-Dichlorobenzene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91- 5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS

## Method Summary

CLIENT NAME: MTE CONSULTANTS Inc.

AGAT WORK ORDER: 22T960474

PROJECT: 45102-104

ATTENTION TO: Bansari Vatiya

SAMPLING SITE: Darey Drive

SAMPLED BY: BVV

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Dissolved Antimony	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Arsenic	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Barium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Beryllium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Boron	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Cadmium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Chromium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Cobalt	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Copper	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Lead	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Molybdenum	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Nickel	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Selenium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Silver	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Thallium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Uranium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Vanadium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Zinc	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS



### Laboratory Use Only

Work Order #: 227960474

Cooler Quantity: 1 large  
Arrival Temperatures: 4.2 | 4.5 | 4.8

Custody Seal Intact:  Yes  No  N/A  
Notes: free ice

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

### Report Information:

Company: MTE CONSULTANTS INC  
Contact: BANSARI JATTA, ALEX MARSHALL  
Address: 123 St George St.  
London, ON  
Phone: 519 204 6510 Fax: \_\_\_\_\_  
Reports to be sent to:  
1. Email: bvatiya@mte85.com  
amarshall@mte85.com  
2. Email: \_\_\_\_\_

### Regulatory Requirements:

(Please check all applicable boxes)

Regulation 153/04  Excess Soils R406  Sewer Use  
 Sanitary  Storm

Table 1 Indicate One  
 Ind/Com  
 Res/Park  
 Agriculture

Table \_\_\_\_\_ Indicate One  
Region \_\_\_\_\_

Regulation 558  Prov. Water Quality Objectives (PWQO)  
 Other

Soil Texture (Check One)  
 Coarse  CCME  
 Fine

Indicate One

### Project Information:

Project: 45102-104  
Site Location: Darcy Drive  
Sampled By: BRV  
AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_  
Please note: If quotation number is not provided, client will be billed full price for analysis.

### Is this submission for a Record of Site Condition?

Yes  No

### Report Guideline on Certificate of Analysis

Yes  No

### Invoice Information:

Bill To Same: Yes  No

Company: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Email: \_\_\_\_\_

### Sample Matrix Legend

**B** Biota  
**GW** Ground Water  
**O** Oil  
**P** Paint  
**S** Soil  
**SD** Sediment  
**SW** Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y/N	Field Filtered - Metals, Hg, CrVI, DOC										Potentially Hazardous or High Concentration (Y/N)				
							Metals & Inorganics	Metals: <input checked="" type="checkbox"/> CrVI, <input checked="" type="checkbox"/> Hg, <input checked="" type="checkbox"/> HWSB	BTEX, F1-F4	PHAs	PCBs	VOC	Aroclors	Landfill Disposal Characterization TCLP: <input type="checkbox"/> M&I <input type="checkbox"/> VOCs <input type="checkbox"/> ABNS <input type="checkbox"/> B(a)P <input type="checkbox"/> PCBs	Excess Soils SPLP Rainwater Leach SPLP: <input type="checkbox"/> Metals <input type="checkbox"/> VOCs <input type="checkbox"/> SVOCs	Excess Soils Characterization Package pH, IC/PMS Metals, BTEX, F1-F4		Corrosivity: include Moisture <input type="checkbox"/> Sulphide <input type="checkbox"/>			
MW103-19	20 Oct '22	10:58 AM	6	GW		X	X	X													
MW211-19		12:30 PM	6			X	X	X													
MW203-19		2:05 PM	6			X	X	X													
MW121-19		12:35 PM	1			X	X	X													
MW201-19		3:10 AM	6			X	X	X													
MW202-19		4:05 AM	6			X	X	X													
SP-1 TCLP		5:09 AM	3	Soil		X															
		AM																			
		PM																			
		AM																			
		PM																			

Samples Relinquished By (Print Name and Sign): <u>Bansari Jatta</u>	Date: <u>20 Oct '22</u>	Time:	Samples Received By (Print Name and Sign): <u>Anthony</u>	Date:	Time:
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:

**Appendix 11.5 – Phase II Conceptual Site Model**

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**Phase II Environmental Site Assessment**  
**No Municipal Address, Darcy Drive, Strathroy, Ontario**

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## 1.0 PHASE II CONCEPTUAL SITE MODEL

This Phase II Conceptual Site Model (CSM) has been prepared in accordance with Schedule E of O. Reg. 153/04 (December 2009 and implemented July, 2011), Table 1, Report Section 6 (x). The Phase II CSM has been developed to;

1. *Provide a narrative description and assessment of,*
  - i. *areas where potentially contaminating activity has occurred,*
  - ii. *areas of potential environmental concern, and*
  - iii. *any subsurface structures and utilities on, in or under the phase two property that may affect contaminant distribution and transport.*

The aforementioned is further described in the CSM figures and tables below.

### 1.1 Phase II Property Information

The Phase I property consists of one (1) parcel of land consisting of an area of approximately 3.476 hectares. The site does not have a municipal address and is located on Darcy Drive, in Strathroy, Ontario. The site is bounded by residential land use to the east, and commercial land use to the north, south, and west. The site is located in an urban area and is currently owned by Justin Tadgell. A site location diagram is shown in CSM Figure 1 and a physical setting plan is provided in CSM Figure 2.

<b>Municipal Address</b>	No Municipal Address, Darcy Drive, Strathroy, ON
<b>Current Land use</b>	Agricultural or Other Use
<b>Proposed Land use</b>	Residential
<b>Legal Description</b>	PART LOT 22 CONCESSION 3 SER ADELAIDE, PART 2 33R19421 SAVE AND EXCEPT PARTS 4 AND 5 33R20387; MUNICIPALITY OF STRATHROY-CARADOC  PART LOT 98 PLAN 33M390, PART 3 33R20387; MUNICIPALITY OF STRATHROY-CARADOC
<b>Property Identification Number (PIN)</b>	08594-0599 (LT)  085494-0601 (LT)
<b>Site Area</b>	3.746 Ha (34,760 m <sup>2</sup> )

<b>UTM (NAD 83) at mid-point</b>	Zone 17T; 448826 m Easting and 4758338 m Northing
<b>Registered Property Owners</b>	Justin Tadgell
<b>Owners Representative and Contact Information</b>	Justin Tadgell Southwest Investments 519-878-2336 <a href="mailto:justintadgell@gmail.com">justintadgell@gmail.com</a>

### 1.1.1 Previous Investigations

Two previous reports and an Environmental Assessment Update Letter were provided to A&A as outlined below.

<b>Report Date</b>	December 21, 2022
<b>Project Number</b>	45102-800
<b>Report Title</b>	Environmental Site Assessment Update Darcy Drive, Strathroy, ON
<b>Author</b>	MTE Consultants
<b>Results</b>	<p>The site consists of two contiguous land parcels. The western parcel was severed from a larger commercial property at 28444 Centre Road in 2017. The Phase I report indicated the following PCAs:</p> <ul style="list-style-type: none"> <li>• On-site PCA #30- Importation of Fill Material of Unknown Quality</li> <li>• Off-site PCA #28- Gasoline and Associated Products Storage in Fixed Tanks</li> <li>• Off-site PCA #30- Importation of Fill Material of Unknown Quality</li> <li>• Off-site PCA #52- Storage Maintenance, Fuelling and Repair of Equipment, Vehicles, and Materials used to Maintain Transportation Systems</li> </ul> <p>Phase II activities to date have included drilling 11 boreholes, installing 5 monitoring wells, excavating 4 test pits, and stockpile sampling of pre-existing fill material. In total 42 soil samples and 15 groundwater samples have been analyzed at the laboratory for contaminants of concern associated with the PCAs. The results have shown no groundwater impacts to date. Soil impacts were identified in the fill and debris in the southwest portion of the site, both buried and stockpiled.</p>
<b>Recommendation</b>	The approximate volume of impacted materials at the south portion of the site is 2500 m <sup>3</sup> which would require excavation and off-site disposal prior to filling for an RSC. The program would include additional soil sampling from various areas of the site including confirmatory samples from the remedial excavation.

<b>Report Date</b>	April 29, 2019
<b>Project Number</b>	45102-700
<b>Report Title</b>	Geotechnical Investigation Report
<b>Author</b>	MTE Consultants
<b>Results</b>	Six boreholes from 6.6-8.1 mbgs in depth, with three monitoring wells installed on site. Surficial organic fill (top-soil) was encountered at the ground surface in all boreholes to about 150-800 mm. Variable fill material was encountered beneath the topsoil in all boreholes except BH105-19 and was 0.1-1.3m thick. The fill ranged in composition of silt to sandy silt with varying amounts of organics. Silt clayey sand, sandy silt, and silty sand, and sand were encountered beneath the fill material in all boreholes. This layer was around 4.6-6.4 m thick and continued to the termination of the boreholes. Groundwater was found in April 2019 at a depth of around 4.0-7.6 mbgs.
<b>Recommendation</b>	N/A

<b>Report Date</b>	November 2, 2022
<b>Project Number</b>	45102-800
<b>Report Title</b>	Centre Road Subdivision Darcy Drive Phase II Environmental Site Assessment Report
<b>Author</b>	MTE Consultants
<b>Results</b>	<p>Eleven boreholes and five monitoring wells were advanced on site to a maximum depth of 9.1 mbgs. Based on the results of the initial drilling four test pits were complete along the southern boundary of the property to evaluate buried fill. The test pits were dug to a maximum of 4.6 mbgs and backfilled using the excavated materials. Stockpile sampling from four stockpiles on site was also completed. In total 43 soil samples were submitted for analysis. Three historic wells were present on site believed to be associated with the 2008 AMEC Phase II ESA investigation at 16<sup>th</sup> Second Street. Three existing monitoring wells were installed by MTE during the 2019 geotechnical investigation, and five additional monitoring wells were installed as part of this Phase II investigation. A total of 13 groundwater samples were submitted for analysis. The inferred groundwater flow direction was to the south. There were no exceedances of the Table 2 SCS for VOCs in soil or for any of the parameters in the groundwater samples. The following exceedances were noted in the soil:</p> <ul style="list-style-type: none"> <li>• SP203-21-4 for PHC F3</li> <li>• SP202-21-5 for PAH parameters and lead</li> <li>• SP202-21-12 for PAH parameters</li> <li>• SP202-21-16 for PAH parameters and lead</li> <li>• SP202-21-25 for lead</li> <li>• SP203-21-7 for PAH parameters and lead</li> <li>• TP104-19-2 (1.2-1.8 mbgs) for lead</li> </ul>
<b>Recommendation</b>	To obtain an RSC for the site, further subsurface investigations would be required, along with soil remedial activities.

### 1.1.2 Areas Where Potentially Contaminating Activity Has Occurred

Under O. Reg. 153/04, a potentially contaminating activity is defined as follows: a potentially contaminating activity (PCA) means a use or activity set out in Column A of Table 2 of Schedule D that is occurring or has occurred in a subject study area. The following PCAs were identified as relating to the subject site and are shown in CSM Figure 3;

Location of PCA	PCA	Potential APEC (yes/no)	Justification
Entirety of the subject site	PCA #30 – Importation of Fill Material of Unknown Quality	Yes (APEC 1)	The previous reports indicate that pre-existing fill material was present in stockpiles and buried within the southwest portion of the site.
Southern site boundary	PCA #N/A – Known Contamination	Yes (APEC 2)	The previous reports indicate previous soil contamination from the fill materials in stockpile SP202-21 and SP203-21, and at a depth of 1.2-1.8 mbgs in test pit TP104-19.
28380 Centre Road	PCA #52 – Storage, maintenance, fuelling and repair of equipment, vehicles and material used to maintain transportation systems	No	The 1999-2023 city directory records indicate Larry MacDonald Chevrolet at this location. This address is located over 1702 m cross gradient of the subject site.
28412 Centre Road	PCA #34 – Metal Fabrication	No	The 2012-2023 city directory records indicate Linker Fabricating & Machining located 127 m cross gradient from the subject site.
	PCA #8 – Chemical Manufacturing Processing and Bulk Storage		Registered as Wilson Chemical Innovations Inc. located 127 m cross gradient from the subject site.
28478 Centre Road	PCA #52 – Storage, maintenance, fuelling and repair of equipment, vehicles and material used to maintain transportation systems	Yes (APEC 3)	The 1999 city directory listing indicates Tuffin Ray Pontiac Buick Ltd. With the 2017 city directory indicating Detail First Car wash, and the 2012-2023 directories listing the site as Dale Wurfel Chrysler Dodge Jeep. Located 100 m upgradient of the subject site.

Location of PCA	PCA	Potential APEC (yes/no)	Justification
	PCA#50 – Soap and Detergent Manufacturing, Processing and Bulk Storage		
16 Second Street	PCA #39 – Paints Manufacturing, Processing and Bulk Storage	No	Records indicate a paint spray booth that has been in operation since 1973 at this location. This address is 200 m upgradient of the subject site.
	PCA #28 – Gasoline and Associated Products Storage in Fixed Tanks		Expired full-service gasoline station. 25,000 L steel gasoline tank and 50,000 L steel diesel tank installed in 1990. This address is 200 m upgradient of the subject site.
	PCA #57 – Vehicle and Associated Parts Manufacturing		Registered as Commercial Babcock Inc, from 2002-2003 and as Commander Industries Inc, in 2004-2022, both for motor vehicle parts manufacturing. This address is 200 m upgradient of the subject site.
	PCA #52 – Storage, maintenance, fuelling and repair of equipment, vehicles and material used to maintain transportation systems		Registered as Pollock Rentals Limited from 1992-2008 as a general repair garage. This address is 200 m upgradient of the subject site.
	PCA #N/A – Diesel Spill		30-40 L diesel spill to the ground at Pollock Rental in 2004. Environmental impacts were confirmed in the soil and groundwater. This address is 200 m upgradient of the subject site.
30 Second Street	PCA #28 – Gasoline and Associated Products Storage in Fixed Tanks	No	Expired private self-serve fuel outlet. 22,730 L steel gasoline UST and 45,460 L steel diesel UST both installed in 1990. Over 200 m upgradient from the subject site.
28508 Centre Road	PCA #28 – Gasoline and Associated Products Storage in Fixed Tanks	No	Two active 50,000 L double wall fiberglass UST for fuel installed in 2017 and a 40,500 L double wall fiberglass UST for diesel and premium

Location of PCA	PCA	Potential APEC (yes/no)	Justification
			gasoline installed in 2017. Located over 265 m upgradient of the subject site.

### 1.1.3 Areas of Potential Environmental Concern on the Subject Site

The following Areas of Potential Environmental Concern (APECs) resulting from the aforementioned PCAs were identified by the QP in the Phase I ESA. The location of the APEC, the Potential Contaminants of Concern (PCoCs), and the media affected are described below. The specific locations of the APECs are shown in CSM Figure 4.

APEC	Location of APEC on the Property	Details	Potential Contaminants of Concern (PCoCs)	Media Potentially Impacted
APEC 1	Entire subject site	PCA #30 – Importation of Fill Material of Unknown Quality	Soil: As, Se, Sb, metals, Hg, Cr(VI), Cn-, SAR, electrical conductivity, pH, PAH, PHC GW: As, Se, Sb, metals, Hg, Cr(VI), Cn-, Na, Cl-, PAH, PHC	Soil & Groundwater
APEC 2	Southern area of the site	PCA #N/A – Known Contamination	Soil: PAH, As, Se, Sb, metals, PHC	Soil
APEC 3	Northwest corner of the site	PCA #52 – Storage, maintenance, fuelling and repair of equipment, vehicles and material used to maintain transportation systems PCA#50 – Soap and Detergent Manufacturing, Processing and Bulk Storage	GW: VOC, Cl-, BTEX, PHC, As, Se, Sb, metals	Groundwater

### 1.1.4 Subsurface Structures and Utilities On, In or Under the Phase II Property

U Underground utility lines are present running north-south along Darcy Drive. No underground

utility lines are present on the subject site. The underground utility lines surrounding the Phase II property can alter local contaminant migration. Groundwater is inferred to flow south; no PCAs were observed in a location at which utility line locations would be expected to create increased migration of potential contamination from off-site sources.

### 1.1.5 Previous Environmental Reports

Two previous reports and an Environmental Assessment Update Letter were provided to A&A as outlined below.

<b>Report Date</b>	December 21, 2022
<b>Project Number</b>	45102-800
<b>Report Title</b>	Environmental Site Assessment Update Darcy Drive, Strathroy, ON
<b>Author</b>	MTE Consultants
<b>Results</b>	<p>The site consists of two contiguous land parcels. The western parcel was severed from a larger commercial property at 28444 Centre Road in 2017. The Phase I report indicated the following PCAs:</p> <ul style="list-style-type: none"> <li>• On-site PCA #30- Importation of Fill Material of Unknown Quality</li> <li>• Off-site PCA #28- Gasoline and Associated Products Storage in Fixed Tanks</li> <li>• Off-site PCA #30- Importation of Fill Material of Unknown Quality</li> <li>• Off-site PCA #52- Storage Maintenance, Fuelling and Repair of Equipment, Vehicles, and Materials used to Maintain Transportation Systems</li> </ul> <p>Phase II activities to date have included drilling 11 boreholes, installing 5 monitoring wells, excavating 4 test pits, and stockpile sampling of pre-existing fill material. In total 42 soil samples and 15 groundwater samples have been analyzed at the laboratory for contaminants of concern associated with the PCAs. The results have shown no groundwater impacts to date. Soil impacts were identified in the fill and debris in the southwest portion of the site, both buried and stockpiled.</p>
<b>Recommendation</b>	The approximate volume of impacted materials at the south portion of the site is 2500 m <sup>3</sup> which would require excavation and off-site disposal prior to filing for an RSC. The program would include additional soil sampling from various areas of the site including confirmatory samples from the remedial excavation.

<b>Report Date</b>	April 29, 2019
<b>Project Number</b>	45102-700
<b>Report Title</b>	Geotechnical Investigation Report
<b>Author</b>	MTE Consultants

<b>Results</b>	Six boreholes from 6.6-8.1 mbgs in depth, with three monitoring wells installed on site. Surficial organic fill (top-soil) was encountered at the ground surface in all boreholes to about 150-800 mm. Variable fill material was encountered beneath the topsoil in all boreholes except BH105-19 and was 0.1-1.3m thick. The fill ranged in composition of silt to sandy silt with varying amounts of organics. Silt clayey sand, sandy silt, and silty sand, and sand were encountered beneath the fill material in all boreholes. This layer was around 4.6-6.4 m thick and continued to the termination of the boreholes. Groundwater was found in April 2019 at a depth of around 4.0-7.6 mbgs.
<b>Recommendation</b>	N/A

<b>Report Date</b>	November 2, 2022
<b>Project Number</b>	45102-800
<b>Report Title</b>	Centre Road Subdivision Darcy Drive Phase II Environmental Site Assessment Report
<b>Author</b>	MTE Consultants
<b>Results</b>	<p>Eleven boreholes and five monitoring wells were advanced on site to a maximum depth of 9.1 mbgs. Based on the results of the initial drilling four test pits were complete along the southern boundary of the property to evaluate buried fill. The test pits were dug to a maximum of 4.6 mbgs and backfilled using the excavated materials. Stockpile sampling from four stockpiles on site was also completed. In total 43 soil samples were submitted for analysis. Three historic wells were present on site believed to be associated with the 2008 AMEC Phase II ESA investigation at 16<sup>th</sup> Second Street. Three existing monitoring wells were installed by MTE during the 2019 geotechnical investigation, and five additional monitoring wells were installed as part of this Phase II investigation. A total of 13 groundwater samples were submitted for analysis. The inferred groundwater flow direction was to the south. There were no exceedances of the Table 2 SCS for VOCs in soil or for any of the parameters in the groundwater samples. The following exceedances were noted in the soil:</p> <ul style="list-style-type: none"> <li>• SP203-21-4 for PHC F3</li> <li>• SP202-21-5 for PAH parameters and lead</li> <li>• SP202-21-12 for PAH parameters</li> <li>• SP202-21-16 for PAH parameters and lead</li> <li>• SP202-21-25 for lead</li> <li>• SP203-21-7 for PAH parameters and lead</li> <li>• TP104-19-2 (1.2-1.8 mbgs) for lead</li> </ul>
<b>Recommendation</b>	To obtain an RSC for the site, further subsurface investigations would be required, along with soil remedial activities.

### 1.1.6 Sampling Details

Previous investigations completed by MTE in 2019 included the advancement of eleven monitoring wells, six boreholes, three test pits, and stockpile sampling. The Phase II ESA complete by A&A was conducted to address the identified PCAs and associated APECs by advancing six test pits in January 2025 and an additional nine test pits in February 2025, with two stockpile samples also being collected. The following tables summarize the sampling details of the Phase II ESA complete by A&A, with the locations being depicted in CSM Figure 5.

**MTE Soil Sampling Details 2019**

Sample ID	Sample Depth (mbgs)	Parameters Sampled	Comments
MW208-19	1.5-2.3	PHC, BTEX, VOC	<ul style="list-style-type: none"> <li>Within APEC 1 and 3, however cannot be used for either of the APECs as APEC 3 is an off-site source with groundwater as the potentially contaminated medium and APEC 1 is from imported fill material which was not found at a depth of 6.9-7.6 mbgs.</li> </ul>
	6.9-7.6	Metals, As, Se, Sb, PHC, BTEX, VOC, PAH, pH	
MW211-19	6.1-6.7	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>Within APEC 1 and 3, however cannot be used for either of the APECs as APEC 3 is an off-site source with groundwater as the potentially contaminated medium and APEC 1 is from imported fill material which was not found at a depth of 6.1-6.7mbgs.</li> </ul>
SP-101-21-5N	0.70	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
SP-101-21-7NE	0.32	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
SP-101-21-15E	0.87	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
SP-101-21-24SE	0.55	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
SP-101-21-28S	0.32	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
SP-101-21-32SW	0.37	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
SP-101-21-36SW	0.55	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>Within APEC 1, used for the analysis of imported fill material to site</li> </ul>

Sample ID	Sample Depth (mbgs)	Parameters Sampled	Comments
SP-101-21-41W	0.45	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
SP-101-21-45NW	0.60	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
SP-101-21-50T	1.27	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
BH209-19	0.3-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
BH210-19	0.0-0.08	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
MW203-19	2.3-3.0	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
BH204-19	0.8-1.5	Metals, As, Se, Sb, PHC, BTEX, PAH, pH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
BH205-19	0.1-0.8	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
BH206-19	1.0-1.5	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
BH207-19	0.9-1.5	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
MW201-19	1.5-2.5	Metals, As, Se, Sb, PHC, BTEX	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
	2.5-3.0	Metals, As, Se, Sb, PHC, BTEX, PAH, pH	<ul style="list-style-type: none"> <li>• Within APEC 1, however cannot be used, as APEC 1 is from imported fill material which was not found at a depth of 2.5-3.8 mbgs.</li> </ul>
	3.0-3.8	Metals, As, Se, Sb, PAH	
MW202-19	1.5-2.3	Metals, As, Se, Sb, PHC, BTEX	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
	2.0-5.0	pH	<ul style="list-style-type: none"> <li>• Used to confirm pH levels of subsurface soils</li> </ul>
	2.3-3.0	Metals, As, Se, Sb, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
TP101-19	1.8-2.7	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Created APEC 2, as the sample identified metal contamination within this area.</li> </ul>
TP102-19	0.3-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• This test pit is identified in the certificates and within the report, however, the location of the test pit nor a description of its location is indicated on any of the figures. Therefore, A&amp;A</li> </ul>

Sample ID	Sample Depth (mbs)	Parameters Sampled	Comments
			cannot use the results of analysis within this report. It should be noted however, that no exceedances of the parameters sampled were identified.
TP103-19	2.1-2.8	Metals, As, Se, Sb, PHC, BTEX, PAH, VOC	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Delineated the northwest extent of APEC 2, as the sample identified no contamination within this area.</li> </ul>
TP104-19	1.2-1.8	Metals, As, Se, Sb	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Created APEC 2, as the sample identified metal and PAH contamination within this area.</li> </ul>
	2.3-2.8	Metals, As, Se, Sb, PHC, BTEX	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> </ul>
	2.8-3.7	Metals, As, Se, Sb	<ul style="list-style-type: none"> <li>• Delineated APEC 2 vertically, as the sample identified no contamination at this depth.</li> </ul>
SP201-21-2	0.6-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Delineated APEC 2 to the western extent, as the sample identified no contamination within this area.</li> </ul>
SP202-21-5	0.6-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Created APEC 2, as the sample identified metal and PAH contamination within this area.</li> </ul>
SP202-21-12	0.6-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Created APEC 2, as the sample identified PAH contamination within this area.</li> </ul>
SP202-21-14	0.6-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Delineated APEC 2, as the sample identified no contamination within this area.</li> </ul>
SP202-21-16	0.6-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Created APEC 2, as the sample identified metal and PAH contamination within this</li> </ul>

Sample ID	Sample Depth (mbgs)	Parameters Sampled	Comments
			area.
SP202-21-25	0.6-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Created APEC 2, as the sample identified metal contamination within this area.</li> </ul>
SP203-21-2	0.6-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Delineated APEC 2, as the sample no identified contamination within this area.</li> </ul>
SP203-21-4	0.6-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Created APEC 2, as the sample identified PHC contamination within this area.</li> </ul>
SP203-21-7	0.6-0.9	Metals, As, Se, Sb, PHC, BTEX, PAH	<ul style="list-style-type: none"> <li>• Within APEC 1, used for the analysis of imported fill material to site</li> <li>• Created APEC 2, as the sample identified metal and PAH contamination within this area.</li> </ul>

**NOTES:**

PHC – petroleum hydrocarbons  
 PAH – polycyclic aromatic hydrocarbons  
 BTEX – benzene, toluene, ethylbenzene, xylene  
 VOC – volatile organic compounds

**A&A Soil Sampling Details**

Sample ID	Sample Depth (mbgs)	Parameters Sampled	Comments
TP1	1.2-1.8	Metals, As, Se, Sb, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 2</li> <li>• To potentially delineate to the southwest the exceedance found at TP1041-19 by MTE if the averages proved the exceedance to exist.</li> <li>• Also confirming no impacts below surface from the removal the stockpile identified as SP203-21 from the MTE Report</li> </ul>
TP2	1.2-1.8	Metals, As, Se, Sb, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 2</li> <li>• Used as a sampling point at the same sampling location and depth as TP1041-19 to determine if the average sampling</li> </ul>

Sample ID	Sample Depth (mbs)	Parameters Sampled	Comments
			<p>results meet the standards</p> <ul style="list-style-type: none"> <li>Also confirming no impacts below surface from the removal the stockpile identified as SP203-21 from the MTE Report</li> </ul>
TP3	1.2-1.8	Metals, As, Se, Sb, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>Within APEC 2</li> <li>Used as a sampling point at the same sampling location and depth as TP1041-19 to determine if the average sampling results meet the standards</li> <li>Also confirming no impacts below surface from the removal the stockpile identified as SP203-21 from the MTE Report</li> </ul>
TP4	1.2-1.8	Metals, As, Se, Sb, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>Within APEC 2</li> <li>To potentially delineate to the southwest the exceedance found at TP1041-19 by MTE if the averages proved the exceedance to exist.</li> <li>Also confirming no impacts below surface from the removal the stockpile identified as SP202-21 from the MTE Report</li> </ul>
TP5	1.2-1.8	Metals, As, Se, Sb, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>Within APEC 2</li> <li>Used as a sampling point at the same sampling location and depth as TP1041-19 to determine if the average sampling results meet the standards</li> </ul>
TP6	1.2-1.8	Metals, As, Se, Sb, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>Within APEC 2</li> <li>Used as a sampling point at the same sampling location and depth as TP1041-19 to determine if the average sampling results meet the standards</li> </ul>
SP1	0.0-0.6	Metals, As, Se, Sb, HWS-B, Cr(Vi), Cn-, Hg, electrical conductivity, SAR, pH, PAH, PHC, BTEX	<ul style="list-style-type: none"> <li>To confirm if the soil removed from TP1-6 was within the SCS to be replaced in the test pits.</li> </ul>
TP7	1.5-2.0	Metals, As, Se, Sb, HWS-B, Cr(Vi), Cn-, Hg, electrical conductivity, SAR, pH, PAH, PHC,	<ul style="list-style-type: none"> <li>Within APEC 1 to evaluate the fill material on site.</li> </ul>

Sample ID	Sample Depth (mbs)	Parameters Sampled	Comments
		BTEX	
TP8	0.5-1.0	Metals, As, Se, Sb, HWS-B, Cr(Vi), Cn-, Hg, electrical conductivity, SAR, pH, PAH, PHC, BTEX	<ul style="list-style-type: none"> <li>• Within APEC 1 to evaluate the fill material on site.</li> </ul>
TP9	0.5-1.0	Metals, As, Se, Sb, HWS-B, Cr(Vi), Cn-, Hg, electrical conductivity, SAR, pH, PAH, PHC, BTEX	<ul style="list-style-type: none"> <li>• Within APEC 1 to evaluate the fill material on site.</li> </ul>
TP10	0.5-1.0	Metals, As, Se, Sb, PAH, PHC, BTEX	<ul style="list-style-type: none"> <li>• To confirm if the soil removed from this area and stockpiled (SP1) was suitable to refill the previously dug test pits (TP1-6).</li> </ul>
TP11	0.0-0.5	Metals, As, Se, Sb, PAH, PHC, BTEX	<ul style="list-style-type: none"> <li>• To confirm if the soil removed from this area and stockpiled (SP1) was suitable to refill the previously dug test pits (TP1-6).</li> </ul>
TP12	0.5-1.0	Metals, As, Se, Sb, PAH, PHC, BTEX	<ul style="list-style-type: none"> <li>• To confirm if the soil removed from this area and stockpiled (SP1) was suitable to refill the previously dug test pits (TP1-6).</li> </ul>
TP13	0.0-0.5	Metals, As, Se, Sb, PAH, PHC, BTEX	<ul style="list-style-type: none"> <li>• To confirm if the soil removed from this area and stockpiled (SP1) was suitable to refill the previously dug test pits (TP1-6).</li> </ul>
TP14	1.2-1.8	Metals, As, Se, Sb, PAH, PHC, BTEX	<ul style="list-style-type: none"> <li>• Used as a sampling point at the same sampling location and depth as TP1041-19 to determine if the average sampling results meet the standards</li> </ul>
TP15	1.2-1.8	Metals, As, Se, Sb, PAH, PHC, BTEX	<ul style="list-style-type: none"> <li>• Used as a sampling point at the same sampling location and depth as TP1041-19 to determine if the average sampling results meet the standards</li> </ul>

**NOTES:**

PHC – petroleum hydrocarbons  
 PAH – polycyclic aromatic hydrocarbons  
 HWS-B – Hot Water-Soluble Boron  
 SAR – Sodium Adsorption Ratio  
 BTEX – Benzene, Toluene, Ethylbenzene, Xylene

MTE Groundwater Sampling Details 2019

Sample ID	Sample Depth (mbs)	Parameters Sampled	Comments
MW201-19	6.70-7.6	Metals, As, Se, Sb, PHC, BTEX	• Within APEC 1
MW202-19	6.50-7.6	Metals, As, Se, Sb, PHC, BTEX, VOC	• Within APEC 1
MWOLD-E	5.85-8.1	Metals, As, Se, Sb, PHC, BTEX	• Within APEC 1
MW208-19	7.08-9.1	Metals, As, Se, Sb, PHC, BTEX, VOC, PAH	• Within APECs 1 and 3
MW211-19	7.12-8.2	Metals, As, Se, Sb, PHC, BTEX, VOC, PAH	• Within APECs 1 and 3
MW103-19	5.26-6.1	Metals, As, Se, Sb, PHC, BTEX, VOC	• Within APEC 1
MW104-19	5.06-6.1	Metals, As, Se, Sb, PHC, BTEX, PAH	• Within APEC 1
MW106-19	7.18-7.6	Metals, As, Se, Sb, PHC, BTEX, PAH	• Within APECs 1 and 3
MW203-19	6.59-7.6	Metals, As, Se, Sb, PHC, BTEX, VOC, PAH	• Within APEC 1

**NOTES:**

PHC – petroleum hydrocarbons

VOCs – volatile organic compounds

BTEX – Benzene, Toluene, Ethylbenzene, Xylene Mixture

PAH – polycyclic aromatic hydrocarbons

A&A Groundwater Sampling Details

Sample ID	Sample Depth (mbs)	Parameters Sampled	Comments
MW103-19	5.152-6.198	Metals, As, Se, Sb, Hg, Cr(VI), Cn-, Na. Cl-, pH, PAH, BTEX, PHC	• Within APEC 1
MW208-19	7.574-8.903	Metals, As, Se, Sb, Hg, Cr(VI), Cn-, Na. Cl-, pH,	• Within APECs 1 and 3

Sample ID	Sample Depth (mbs)	Parameters Sampled	Comments
		PAH, BTEX, PHC, VOC	
MW211-19	7.564-8.107	Metals, As, Se, Sb, Hg, Cr(VI), Cn-, Na. Cl-, pH, PAH, BTEX, PHC, VOC	<ul style="list-style-type: none"> <li>• Within APECs 1 and 3</li> </ul>
MW106-19	7.566-7.613	N/A	<ul style="list-style-type: none"> <li>• Within APECs 1 and 3</li> <li>• Limited volume of water, was unable to collect a sample for analysis</li> </ul>
MW104-19	5.396-5.624	Metals, As, Se, Sb, Hg, Cr(VI), Cn-, Na. Cl-, pH, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 1</li> </ul>
MW203-19	6.45-7.48	Metals, As, Se, Sb, Hg, Cr(VI), Cn-, Na. Cl-, pH, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 1</li> </ul>
MWOLD-N	6.572-8.172	Metals, As, Se, Sb, Hg, Cr(VI), Cn-, Na. Cl-, pH, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 1</li> </ul>
MWOLD-NW	6.916-8.377	Metals, As, Se, Sb, Hg, Cr(VI), Cn-, Na. Cl-, pH, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 1</li> </ul>
MW201-19	6.765-7.338	Metals, As, Se, Sb, Hg, Cr(VI), Cn-, Na. Cl-, pH, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 1</li> </ul>
MW202-19	6.825-7.592	Metals, As, Se, Sb, Hg, Cr(VI), Cn-, Na. Cl-, pH, PAH, BTEX, PHC	<ul style="list-style-type: none"> <li>• Within APEC 1</li> </ul>

**NOTES:**

PHC – petroleum hydrocarbons

VOCs – volatile organic compounds

BTEX – Benzene, Toluene, Ethylbenzene, Xylene Mixture

PAH – polycyclic aromatic hydrocarbons

## 2.0 PHYSICAL SETTING

*Provide a narrative description of and, as appropriate, figures illustrating, the physical setting of the phase two property and any areas under it including,*

- i. stratigraphy from ground surface to the deepest aquifer or aquitard investigated,*
- ii. hydrogeological characteristics, including aquifers, aquitards and, in each hydrostratigraphic unit where one or more contaminants are present at concentrations above the applicable site condition standards, lateral and vertical hydraulic gradients,*
- iii. approximate depth to bedrock,*
- iv. approximate depth to water table,*
- v. any respect in which section 41 or 43.1 of the regulation applies to the property,*
- vi. areas where soil has been brought from another property and placed on, in or under the phase two property, and*
- vii. approximate locations, if known, of any proposed buildings and other structures.*

### 2.1 Stratigraphy from the Ground Surface to the Deepest Aquifer or Aquitard Investigated

The site is located in the physiographic region of the sand plains landform in the Caradoc Sand Plains and London Annex region, consisting mainly of sand, silt and clay, with low permeability. The bedrock in the general area of the site is part of a group belonging to the Hamilton Group, consisting of limestone, dolostone, and shale.

Based on the investigation conducted at the site, the stratigraphy was found to be fairly consistent across the site. A layer of topsoil was found at all boreholes to a maximum depth of 1.0 m except for MW203-19 which found topsoil extending to 2.5 mbgs. A fill material containing clayey silt some sand and gravel was found in all boreholes extending on average to 2.5 mbgs

with the maximum being 4.0 mbgs in BH204-19. Underlying the fill material was a mixture of native silty sand, sand, and silt to the termination of the boreholes.

Bedrock was not encountered during the current subsurface investigation, or the previous Phase II investigation completed by MTE in 2019. Based on the MNRF Ontario Geological Survey, Bedrock Topography Map (Map P. 1564), depicts the average depth of bedrock at approximately 171 mbgs to bedrock in the subject study area.

## **2.2 Hydrogeological characteristics, including aquifers, aquitards and, in each hydrostratigraphic unit where one or more contaminants are present at concentrations above the applicable site condition standards, lateral and vertical hydraulic gradients**

An unconfined aquifer exists on the subject site within the native sand some silt overburden materials at an average depth of 7.49 mbgs. Monitoring wells were drilled into the native soil to a maximum depth of 8.903 mbgs to identify the unconfined aquifer. No contaminants were reported above the site condition standards within the unconfined aquifer.

Based on the well records for the area an unconfined aquifer exists at an approximately depth of 6.86 mbgs, from wells drilled into the unconfined aquifer. The database also indicates that a confined aquifer is located at approximately 13.87 mbgs below a clay aquifer located between approximately 4.88 mbgs and 10.67 mbgs. The database does not indicate a depth of a bedrock aquifer within the subject study area.

### **2.2.1 Hydrogeological Characteristics**

Groundwater and surface water are expected to flow towards the natural slope of the ground surface. Although the surface topography typically has great influence on the groundwater flow it has been observed in several areas that bedrock topography also has a significant influence on the flow, in some cases more so than surface topography. In the latter case, this is believed to be due to relatively impermeable bedrock underlying a much more permeable sand overburden.

Based on the regional topography, groundwater is inferred to be flowing south toward Sydenham River, located approximately 1.5 km south of the subject site.

Additionally, groundwater flow direction can be influenced by utility trenches and other subsurface structures; migrating in the bedding stone of the subsurface utility trenches. Groundwater flow direction can only be confirmed with the measurement of groundwater elevations through the subject. The groundwater elevations for three monitoring wells used to characterize the local hydrology are shown in the table below and depicted in CSM Figure 6.

**Groundwater Monitoring Well Details**

Project #: 8714-Tadgell Strathroy			Project Name: Phase II ESA on Darcy Drive, Strathroy, Ontario				
Date: February 18, 2025			Completed By: J. Osborne & V Sowden				
MW#	Pipe Size (mm)	Water Level (m)	Total Depth (m)	Well Volume (L)	Screened Interval (masl)	T.O.P Elev. (masl)	Water Level (masl)
MW103-19	51	5.152	6.198	2.092	231.629-228.579	234.777	229.625
MW208-19	51	7.574	8.903	2.658	231.591-228.541	237.444	229.870
MW211-19	51	7.564	8.107	1.086	232.409-229.359	237.466	229.902
MW106-19	51	7.566	7.613	0.094	232.948-229.898	237.511	229.945
MW104-19	51	5.396	5.624	0.456	232.559-229.509	235.133	229.737
MW203-19	51	6.45	7.48	2.060	231.693-228.589	236.069	229.619
MWOLD-N	51	6.572	8.172	3.200	230.+26-227.865	236.037	229.465
MWOLD-NW	51	6.916	8.377	2.922	231.058-228.008	236.385	229.469
MW201-19	51	6.765	7.338	1.146	231.942-228.892	236.23	229.465
MW202.19	51	6.825	7.592	1.534	231.755-228.705	236.297	229.472

### 2.2.2 Groundwater Flow Direction

CSM Figure 6 shows the direction of the groundwater in general flows through the unconfined aquifer of the Phase II Property in a southeast-south direction.

### 2.2.3 Horizontal Groundwater Gradients

The seasonal changes in groundwater hydraulic gradient due to rainfall and spring runoff have a significant influence on the groundwater flow velocities, so the groundwater flow velocity was calculated using a horizontal hydraulic gradient of 0.0025 m/m (MW106-19 to MWOLD-N) with an estimated hydraulic conductivity of  $1.0 \times 10^{-4}$  cm/s, applied to a silty sand substrate, with an estimated porosity of 35% (Fetter 2001). The average linear velocity can thus be calculated using the following equation:

$$v = \frac{ki}{n}$$

Where “k” is the hydraulic conductivity, “i” is the hydraulic gradient, and “n” the porosity. By using the above information, the average linear velocities for the silty sand materials are estimated to be 0.225 m/year in a southeast-south direction.

### 2.2.4 Groundwater Condition

The subject site is not within a wellhead protected area. No current or former domestic wells exist on the subject site; however, multiple exist within the subject study area. Therefore, the subject site would be considered to have potable groundwater.

### 2.2.5 Drinking Wells at or Near the Subject Property

The MECP’s WWIS was searched for any drinking wells at or near the subject property. The database identified 25 domestic use wells within 500 m of the Phase II Property.

Based on the MECP WWIS record, seven wells were identified on the subject site, as seen in the table below.

On-Site WWIS Records

Well ID	Install Date	Use	Water Level (m)	Total Depth (m)
7333263	2019	Monitoring Test Hole	7.62	7.62
7333265	2019	Monitoring Test Hole	3.96	6.10
7333264	2019	Monitoring Test Hole	4.57	6.10
7343663	2019	Monitoring Test Hole	-	7.62
7343665	2019	Monitoring Test Hole	-	7.62
7343664	2019	Monitoring Test Hole	-	7.62
7104599	2007	Test Hole	7.32	9.14

### 2.3 Approximate Depth to Bedrock

The MECP WWIS database does not identify the depth of bedrock. The MNRF Ontario Geological Survey, Bedrock Topography Map (Map P. 1564), depicts the average depth of bedrock at approximately 171 mbgs.

### 2.4 Approximate Depth to Water Table

The MECP WWIS database indicated that groundwater was reported from wells drilled into the unconfined aquifer to average a depth of 6.86 mbgs. The database also indicates that a confined aquifer is located at approximately 13.87 mbgs below a clay aquifer located between approximately 4.88 mbgs and 10.67 mbgs. The database does not indicate a depth of a bedrock aquifer within the subject study area.

The unconfined aquifer was confirmed on site during the Phase II investigation, with depths ranging between 5.152-7.574 mbgs. The confined and bedrock aquifer were not investigated during the sub-surface program, as this was beyond the scope of work.

### 2.5 Application of Section 35, 41, or 43.1 of O. Reg. 153/04 to the Subject Property

The site sensitivity classification with respect to the conditions set out under Section 35, 41, and 43.1 of O. Reg. 153/04 were evaluated to determine if the site is sensitive, as present in the table below.

Sensitivity Table

Sensitivity	Classification	Does Sensitivity Apply to Site?
Section 35 applies if	(i) The property, and all other properties located, in whole or in part, within 250 m of the boundaries of the property, as supplied by a municipal drinking water system	No
	(ii) The RSC states agricultural or other use as the type of property use for which the RSC is filed	No
	(iii) The property is located in an area designated in the municipal official plan as a well-head protection area or other designation identified by the municipality for the protection of groundwater	No
	(iv) The property or one of the properties in the study area has a well used or intended for use as a source of water for human consumption or agriculture	Yes
Section 41 applies if	(i) Property is within an area of natural significance	No
	(v) Property includes or is adjacent to an area of natural significance or part of such an area	No
	(vi) Property includes land that is within 30 m of an area of natural significance or part of such an area	No
	(vii) Soil at property has a pH value for surface soil less than 5 or greater than 9	No
	(viii) Soil at property has a pH for sub-surface soil less than 5 or greater than 11	No
(ix) A qualified person is of the opinion that given the characteristics of the property and the certifications the qualified person would be required to make in a record of site condition in relation to the property as specified in Schedule A, it is appropriate to apply this section to the property	No	
Section 43.1 applies if	(i) Property is a shallow soil property	No
	(ii) Property includes all or part of a water body or is adjacent to a water body or includes land that is within 30 m of a water body	No

Based on the sensitivity table above it can be determined that Section 35, Section 41, and Section 43.1 do not apply; meaning the site is considered to have potable water standards. Therefore, applicable full-depth generic potable site condition standards must be used.

## 2.6 Soil Brought From another Property

No soils have been imported or placed on, in or under the Phase II property since the start of the environmental investigations on the property.

## 2.7 Proposed Buildings

It is understood that the client is seeking to develop the property with a proposed residential subdivision. Under O. Reg. 153/04, the future land use of the property would be considered residential land use. No further detailed designs have been reviewed by A&A.

## 2.8 Applicable Site Condition Standard

A “Generic Site Sensitivity Analysis” was conducted to determine the applicable site condition standards for the subject property. This examines the subject site location, its stratigraphy, its proximity to environmentally sensitive areas, the use of the groundwater and other factors.

The subject site is located in Strathroy, Ontario, and it is supplied with drinking water from the municipality. The subject site is not within a wellhead protected area. Seven well records exist on the subject site itself. No current or former domestic wells exist on the subject site, however, multiple exist within the subject study area. Therefore, the subject site would be considered to have potable groundwater. There are no environmentally sensitive areas on site or within the subject study area and the subject site is not located within 30 m of a waterfront; therefore, the subject site is not considered a sensitive site under O. Reg. 153/04. Bedrock was not encountered at depths of less than 2 m. The soil type is considered mainly silty sand material. Therefore, the coarse-textured soil criteria were used to interpret the results of soil analysis. For the interpretation of the soil and groundwater analysis data in this report, the “Generic” option will be used so the subject site falls under Table 2 (Residential/Parkland/Institutional) criteria of “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act” (April, 2011).

## 2.9 Remediation and Management Activities

Based on the results of analysis no groundwater remediation activities were necessary prior to applying for a record of site condition. Previous soil analysis in the Phase II ESA completed by MTE in 2019, indicated exceedances in metals, PHC, and PAH parameters in two of the stockpiles (SP202-21 and SP203-21). The stockpiles had been removed previously and the area under stockpiles was analyzed to ensure no contamination was present under the former stockpiles. See the tables below for the exceedances identified in the soil at SP202-21 and SP203-21 samples, which were previously removed.

**Metal Exceedances at Sampling Location SP202-21 and SP203-21**

Sample ID	Lead (µg/g)	Site Condition Standard (µg/g) <sup>(1)</sup>	Maximum Concentration Above Applicable SCS?
SP202-21-5 @0.6-0.9 m	129	120	Yes
SP202-21-16 @ 0.6-0.9 m	125		Yes
SP202-21-25 @0.6-0.9 m	174		Yes
SP203-21-7 @0.6-0.9 m	129		Yes

<sup>(1)</sup> Table 2 RPI Land Use, CT soil

**PHC Exceedances at Sampling Location SP203-21**

Sample ID	PHC F3 (C16 to C34) (µg/g)	Site Condition Standard (µg/g) <sup>(1)</sup>	Maximum Concentration Above Applicable SCS?
SP203-21-4 @0.6-0.9 m	368	368	Yes

<sup>(1)</sup> Table 2 RPI Land Use, CT soil

PAH Exceedances at Sampling Location SP202-21 and SP203-21

Parameter	SP202-21-5 @ 0.6-0.9 m (µg/g)	SP202-21-12 @ 0.6-0.9 m (µg/g)	SP202-21-16 @ 0.6-0.9 m (µg/g)	SP203-21-7 @ 0.6-0.9 m (µg/g)	Site Condition Standard (µg/g) <sup>(1)</sup>	Maximum Concentration Above Applicable SCS?
Anthracene	0.07	0.16	0.89	1.42	0.67	Yes
Benz(a)anthracene	0.26	0.5	1.55	1.31	0.5	Yes
Benzo(a)pyrene	0.22	0.38	1.12	0.90	0.3	Yes
Benzo(b)fluoranthene	0.17	0.29	1.40	1.11	0.78	Yes
Dibenz(a,h)anthracene	<0.05	0.07	0.13	0.14	0.1	Yes
Fluoranthene	0.76	1.23	6.11	5.44	0.69	Yes
Indeno(1,2,3-cd)pyrene	0.18	0.29	0.89	0.73	0.38	Yes

<sup>(1)</sup> Table 2 RPI Land Use, CT soil

During the Phase II ESA investigation completed by A&A in 2025, the area located under SP202-21 and SP203-21 was investigated through eight test pits to ensure the none of the stockpile material had been left behind, or contaminated the topsoil within their former area (APEC 2). See the tables below for the confirmation sampling results.

Confirmation Sampling Results Post-Remediation of SP202-21 and SP203-21

Date Sampled				2025-01-29	2025-01-29	2025-01-29	2025-01-29	2025-02-18	2025-02-18	2025-02-18	2025-02-18
Sample Description				TP1	TP2	TP3	TP4	TP10	TP11	TP12	TP13
Sample Depth (mbgs)				1.2-1.8	1.2-1.8	1.2-1.8	1.2-1.8	0.5-1.0	0.0-0.5	0.5-1.0	0.0-0.5
Parameter Name	Unit	RDL	G / S <sup>(1)</sup>								
<b>O. Reg. 153(511) - Metals &amp; Inorganics (Soil)</b>											
Antimony	µg/g	0.8	7.5	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	1	18	4	6	4	5	5	6	5	5
Barium	µg/g	2	390	57.4	97.6	77.1	99.6	106	107	106	103
Beryllium	µg/g	0.5	4	0.5	0.8	0.6	0.8	0.9	0.8	0.8	0.8
Boron	µg/g	5	120	11	18	14	15	13	21	21	21
Cadmium	µg/g	0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	5	160	18	30	21	29	29	30	29	28
Cobalt	µg/g	0.8	22	7.3	13	8.3	11.2	12.7	10.7	11.4	10.8
Copper	µg/g	1	140	15.8	22.3	15.9	19.6	19.8	19.7	20.6	18
Lead	µg/g	1	120	8	11	15	11	17	11	17	19
Molybdenum	µg/g	0.5	6.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5
Nickel	µg/g	1	100	17	29	19	26	26	26	27	28
Selenium	µg/g	0.8	2.4	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Silver	µg/g	0.5	20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Thallium	µg/g	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Uranium	µg/g	0.5	23	0.57	0.69	0.68	0.7	0.71	0.72	0.76	0.71
Vanadium	µg/g	2	86	26.7	39	28.8	35.7	38.7	40.3	37.4	35.5
Zinc	µg/g	5	340	39	59	50	53	69	54	63	63
<b>O. Reg. 153(511) - PAHs (Soil)</b>											
Naphthalene	µg/g	0.05	0.6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.05	0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthene	µg/g	0.05	7.9	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluorene	µg/g	0.05	62	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Phenanthrene	µg/g	0.05	6.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Date Sampled				2025-01-29	2025-01-29	2025-01-29	2025-01-29	2025-02-18	2025-02-18	2025-02-18	2025-02-18
Sample Description				TP1	TP2	TP3	TP4	TP10	TP11	TP12	TP13
Sample Depth (mbgs)				1.2-1.8	1.2-1.8	1.2-1.8	1.2-1.8	0.5-1.0	0.0-0.5	0.5-1.0	0.0-0.5
Parameter Name	Unit	RDL	G / S <sup>(1)</sup>								
Anthracene	µg/g	0.05	0.67	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoranthene	µg/g	0.05	0.69	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Pyrene	µg/g	0.05	78	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)anthracene	µg/g	0.05	0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chrysene	µg/g	0.05	7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.05	0.78	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.05	0.78	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.05	0.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.05	0.38	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.05	0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	0.05	6.6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.05	0.99	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Naphthalene-d8	%	1		80	75	70	75	65	65	65	70
Acridine-d9	%	1		95	75	95	100	85	80	100	110
Terphenyl-d14	%	1		100	75	85	75	100	65	85	65
Moisture Content	%	0.1		24.5	33.9	23.4	15.9	18.1	18.7	18.1	14.5
<b>O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)</b>											
Benzene	µg/g	0.02	0.21	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Toluene	µg/g	0.05	2.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	µg/g	0.05	1.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
m & p-Xylene	µg/g	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
o-Xylene	µg/g	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylenes (Total)	µg/g	0.05	3.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g	5	55	<5	<5	<5	<5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	5	55	<5	<5	<5	<5	<5	<5	<5	<5
Toluene-d8	% Recovery	1		74	71	88	72	107	109	109	113

Date Sampled				2025-01-29	2025-01-29	2025-01-29	2025-01-29	2025-02-18	2025-02-18	2025-02-18	2025-02-18
Sample Description				TP1	TP2	TP3	TP4	TP10	TP11	TP12	TP13
Sample Depth (mbgs)				1.2-1.8	1.2-1.8	1.2-1.8	1.2-1.8	0.5-1.0	0.0-05	0.5-1.0	0.0-0.5
Parameter Name	Unit	RDL	G / S <sup>(1)</sup>								
F2 (C10 to C16)	µg/g	10	98	<10	<10	<10	<10	<10	<10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g	10						<10	<10	<10	<10
F3 (C16 to C34)	µg/g	50	300	<50	<50	<50	<50	<50	<50	<50	68
F3 (C16 to C34) minus PAHs	µg/g	50						<50	<50	<50	68
F4 (C34 to C50)	µg/g	50	2800	<50	<50	<50	<50	<50	<50	<50	136
Gravimetric Heavy Hydrocarbons	µg/g	50	2800	NA	NA	NA	NA	NA	NA	NA	NA
Moisture Content	%	0.1		24.5	33.9	23.4	15.9	18.1	18.7	18.1	14.5
Terphenyl	%	1		95	91	92	101	74	86	104	92
<b>Guideline Legend:</b>		Exceeds Guideline				Within Guideline				Below RDL	

<sup>(1)</sup> Table 2 RPI Land Use, CT soil

The previous Phase II ESA by MTE in 2019 also indicated that TP104-19 exceeded the SCS for metal parameter Lead. See the table below for the exceedance identified in the soil at TP104-19, which has since been re-assessed.

**Metal Exceedances at Sampling Location TP104-19**

Parameter	TP104-19 @ 1.2-1.8 mbgs (µg/g)	Site Condition Standard (µg/g) <sup>(1)</sup>	Maximum Concentration Above Applicable SCS?
Lead	123	120	Yes

<sup>(2)</sup> Table 2 RPI Land Use, CT soil

Due to the very slight exceedance, A&A collected additional soil samples taken from sampling points at the same sampling location (within 2 m TP104-19) and the same depth to calculate the average of the sampling results. If the average of the sampling results meets the SCS then the previous exceedance would be deemed to have met the applicable SCS. See the table below for the additional sample point analysis and averaging results.

**Sampling Points at Sampling Location TP104-19 Metal Results and Average**

Sampling Point	Lead (µg/g)	Site Condition Standard (µg/g) <sup>(1)</sup>	Maximum Concentration Above Applicable SCS?
TP104-19 @1.2-1.8 mbgs	123	120	Yes
TP2 @1.2-1.8 mbgs	11		No
TP3 @1.2-1.8 mbgs	15		No
TP5 @1.2-1.8 mbgs	7		No
TP6 @1.2-1.8 mbgs	9		No
TP14 @1.2-1.8 mbgs	10		No
TP15 @1.2-1.8 mbgs	8		No
<b>Average Result</b>	<b>26.14</b>		

<sup>(1)</sup> Table 2 RPI Land Use, CT soil

The concentrations of metal parameter, lead, in the additional soil samples analyzed were below the Table 2 SCS. Based on the above, soil containing metal parameter, lead, in exceedance of the MECP Table 2 SCS at TP104-19 were averaged to determine that the sample met the applicable SCS.

### 3.0 CONTAMINANTS OF CONCERN

*Provide, where a contaminant is present on, in or under the phase two property at a concentration greater than the applicable site condition standard, identification of,*

- i. each area where a contaminant is present on, in or under the phase two property at a concentration greater than the applicable site condition standard,*
- ii. the contaminants associated with each of the areas referred to in subparagraph i,*
- iii. each medium in which a contaminant associated with an area referred to in subparagraph i is present,*
- iv. a description and assessment of what is known about each of the areas referred to in subparagraph i,*
- v. the distribution, in each of the areas referred to in subparagraph i, of each contaminant present in the area at a concentration greater than the applicable site condition standard, for each medium in which the contaminant is present, together with figures showing the distribution,*
- vi. anything known about the reason for the discharge of the contaminants present on, in or under the phase two property at a concentration greater than the applicable site condition standard into the natural environment,*
- vii. anything known about migration of the contaminants present on, in or under the phase two property at a concentration greater than the applicable site condition standard away from any area of potential environmental concern, including the identification of any preferential pathways,*
- viii. climatic or meteorological conditions that may have influenced distribution and migration of the contaminants, such as temporal fluctuations in ground water levels, and*
- ix. if applicable, information concerning soil vapour intrusion of the contaminants into buildings including,*
  - A. relevant construction features of a building, such as a basement or crawl space,*
  - B. building heating, ventilating*

**3.1 Each area where a contaminant is present on, in or under the phase two property at a concentration greater than the applicable site condition standards**

No exceedances of the applicable Table 2 SCS were identified at the site for groundwater. One area of soil contamination was noted on site. The area was located in the southern portion of the site from two stockpiles labelled SP202-21 and SP203-21 in MTE’s 2019 Phase II ESA. All other soil samples collected from the test pits, boreholes, and other stockpiles were found to be within the SCS. All soil contaminants were previously removed from the subject site, with confirmation sampling complying with the applicable Table 2 SCS.

**3.2 Contaminants associated with each of the areas referred to in subparagraph i**

No exceedances of the applicable Table 2 SCS were identified at the site for groundwater. The contaminants associated within the stockpile area are presented in the table below.

Parameter Group	Parameter	Media Impacted
Metals	Lead	Soil
PHC	F3 (C16 to C34)	
PAH	Anthracene	
	Benz(a)anthracene	
	Benzo(a)pyrene	
	Benzo(b)fluoranthene	
	Dibenz(a,h)anthracene	
	Fluoranthene	
	Indeno(1,2,3-cd) pyrene	

**3.3 Medium in which a contaminant associated with an area referred to in subparagraph I is present**

No exceedances of the applicable Table 2 SCS were identified at the site for groundwater. Exceedances within the area were found within the stockpile soil and were confirmed to not impact the soil on or below the ground surface. All soil contaminants had been removed from the subject site, with confirmation sampling complying with the applicable Table 2 SCS.

**3.4 Description and assessment of what is known about each of the areas referred to in subparagraph i,**

No exceedances of the applicable Table 2 SCS were identified at the site for groundwater. The area is located in the southern portion of the subject site, within APEC 2. The metal, PHC, and PAH contamination within the stockpiled soil materials, is believed to be from poor quality of imported materials previously placed on the subject site (APEC 2).

**3.5 Distribution, in each of the areas referred to in subparagraph i, of each contaminant present in the area at a concentration greater than the applicable site condition standard, for each medium in which the contaminant is present, together with figures showing the distribution**

No exceedances of the applicable Table 2 SCS were identified at the site for groundwater. The soil within the area was localized to the southern portion of the subject site. Following the initial exceedance within SP202-21 and SP203-21, the stockpiles had been removed from the site. Confirmation sampling was completed under the former footprint of SP202-21 and SP203-21 to ensure that the impacts were not present within the soil on or below the ground surface. All confirmation soil samples were within the Table 2 SCS.

**3.6 The reason for the discharge of the contaminants present on, in or under the phase two property at a concentration greater than the applicable site condition standard into the natural environment**

No exceedances of the applicable Table 2 SCS were identified at the site for groundwater. In the area metal, PHC, and PAH impacts were found within the stockpile material that were previously identified along the southern site boundary by MTE in their 2019 Phase II ESA. Metal, PHC, and PAH contaminants are commonly found in imported fill materials, and therefore, this area of contamination are contributed to APEC 2 for the placement of fill material in stockpiles on site.

**3.7 Migration of the contaminants present on, in or under the phase two property at a concentration greater than the applicable site condition standard away from any area of potential environmental concern, including the identification of any preferential pathways,**

Based on the groundwater table at an average of 6.86 mbgs, no contaminants are anticipated to migrate off-site through the groundwater. This was further confirmed as no exceedances of the applicable Table 2 SCS were identified at the site for groundwater. All soil contaminants were previously removed from the subject site, with confirmation sampling complying with the applicable Table 2 SCS.

**3.8 Climatic or meteorological conditions that may have influenced distribution and migration of the contaminants, such as temporal fluctuations in ground water levels,**

It is noted that climatic or meteorological conditions may influence the distribution and migration of contaminants at the site. Seasonal fluctuations in groundwater due to cyclic increases and decreases in precipitation can affect groundwater recharge. Groundwater levels may be elevated in the spring and fall due to snow melt and/or increases in precipitation; and groundwater levels may be lowered in the winter and summer due to snow storage and/or increased evaporation. Such fluctuations can increase the vertical distribution into the sub-soil and carry contaminants downwards into the groundwater. There is no evidence of this based on the groundwater samples all being within the Table 2 SCS. All soil contaminants were previously removed from the subject site, with confirmation sampling complying with the applicable Table 2 SCS.

**3.9 Applicable, information concerning soil vapour intrusion of the contaminants into buildings including,**

The metal, PHC, and PAH parameters that was found to be contaminating the stockpiled soil are considered volatile, except for lead. Therefore, there are volatile contaminants on site. All soil contaminants had previously been removed from the subject site, with confirmation sampling

complying with the applicable Table 2 SCS. Soil vapour intrusion for future residential buildings is unlikely.

## 4.0 RELEASE MECHANISMS, CONTAMINANT TRANSPORT, APPLICABLE RECEPTORS & ROUTES OF EXPOSURE

*Provide, for each area where a contaminant is present on, in or under the property at a concentration greater than the applicable site condition standard for the contaminant, a diagram identifying, with narrative explanatory notes,*

- i. the release mechanisms,*
- ii. contaminant transport pathway,*
- iii. the human and ecological receptors located on, in or under the phase two property,*
- iv. receptor exposure points, and*
- v. routes of exposure.*

The site is currently vacant land. The proposed future use of the site is as residential lands. The potential on-site human receptors comprise subsurface workers, construction workers, residents, and visitors. There is a potential for select on-site receptors to come in direct contact with soil media during any subsurface work. Refer to CSM Figure 16 for the human health conceptual exposure model. Given that no soil impacts remain on site, all on-site human receptors have no complete exposure pathways and are thus considered not to be at risk from exposure to on-site media (CSM Figure 17).

Relevant terrestrial ecological receptors include, terrestrial vegetation, such as trees, grasses and weeds, soil invertebrates, terrestrial birds, terrestrial mammals. Given that the shallowest depth to groundwater at the site is approximately 5.152 mbgs and contaminants of concern were not identified, the exposure pathways relevant to groundwater COCs are incomplete (CSM Figure 18). Furthermore, it is noted that the MECP evaluates exposure to aquatic receptors at properties within 5 km of a surface water body. Given that the closest water body (Sydenham River) is located approximately 1.5 km east of the subject site, aquatic receptors are also considered. All on-site ecological receptors have no complete exposure pathways and are thus considered not to be a risk from exposure to on-site media. In addition, off-site aquatic receptors in Sydenham

River do not have complete exposure pathways to on-site media and are thus considered not to be a risk from exposure to on-site media (CSM Figure 19).

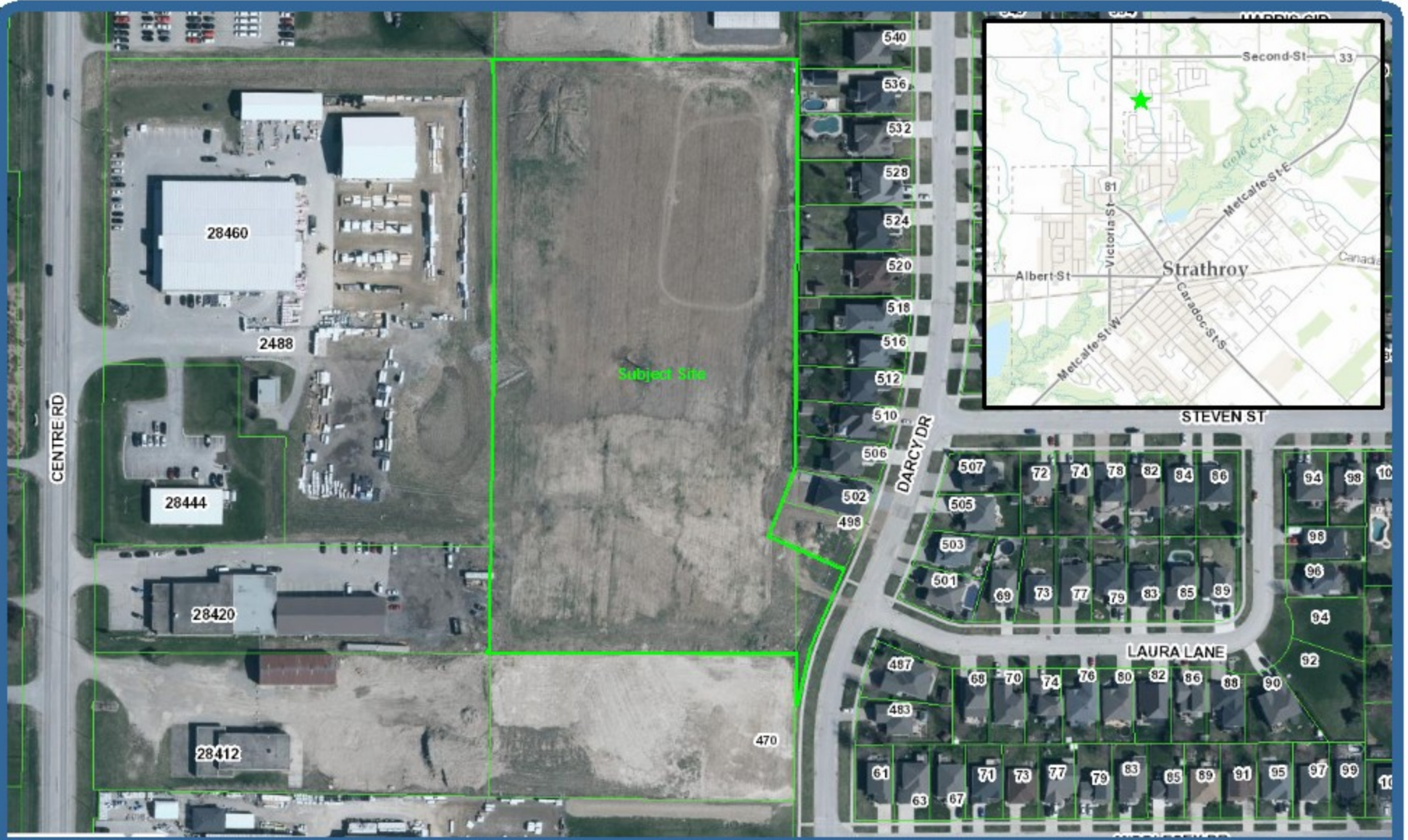
## 5.0 SUMMARY OF FINDINGS

The Phase II ESA conducted on the subject site included the advancement of test pits (as described above) to confirm both the physical characteristics and quality of the media, as relevant to the Phase II Property and subsequent RSC submission under O. Reg. 153/04 (December 2009 and implemented July 2011).

This investigation has confirmed that both soil and groundwater tested, satisfies Table 2 RPI criteria of “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act” (April, 2011), for a site with potable groundwater conditions and coarse textured soil. As per Subsection 43(3) of O. Reg. 153/04, the QP is of the opinion that a Risk Assessment is not necessary in order to complete the certifications of the RSC as prescribed by Schedule A.

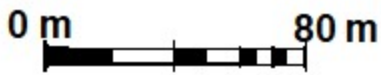
This report meets the requirements of O. Reg. 153/04 (December 2009 and implemented July 2011).

## 6.0 CSM Figures



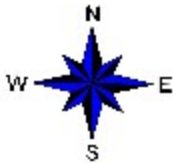
**A & A  
ENVIRONMENTAL  
CONSULTANTS INC.**  
16 Young St,  
Woodstock, ON, N4S 3L4  
Tel: 519 266-4680

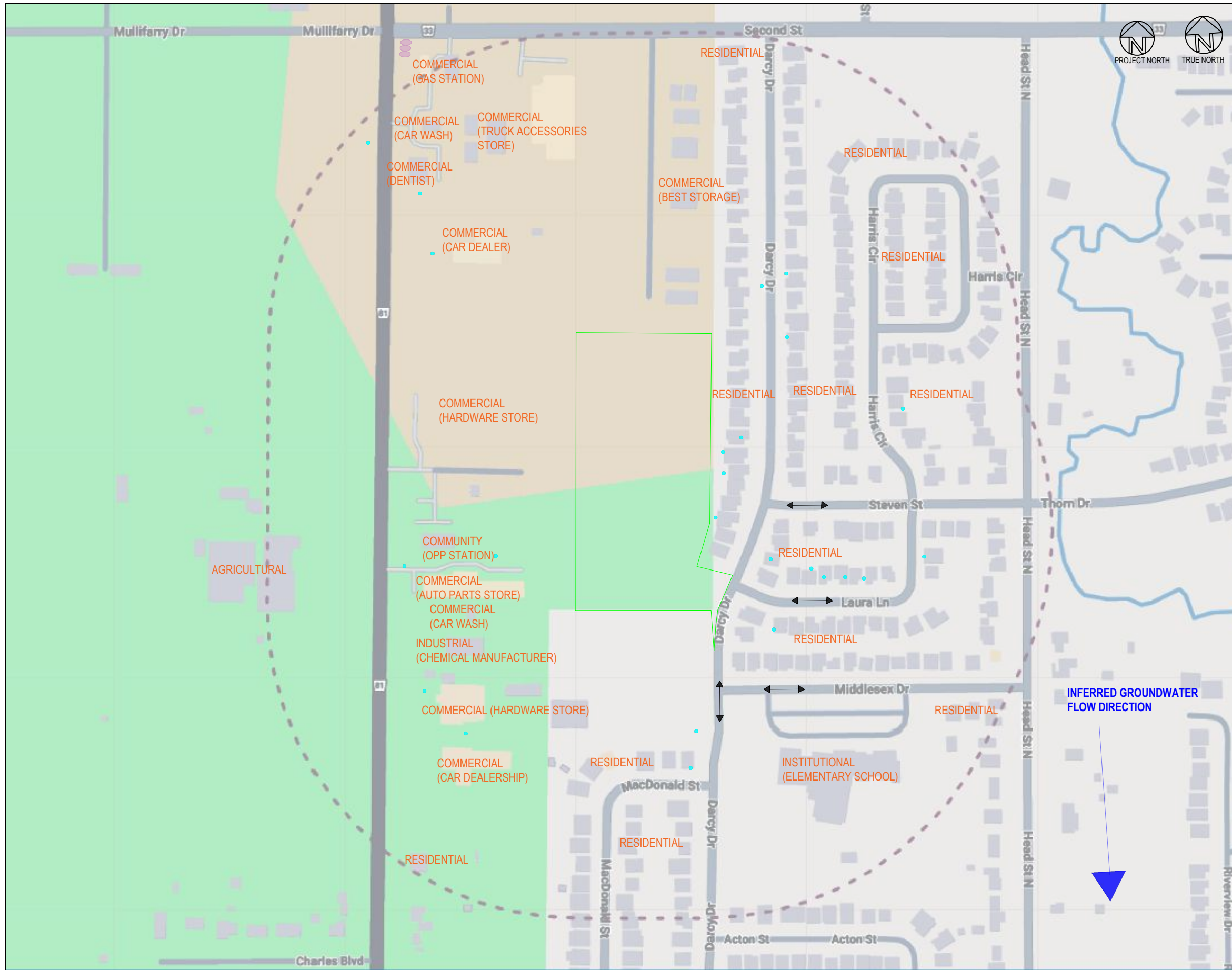
**CSM Figure 1: Subject Site Location**  
No Municipal Address, Darcy Drive, Strathroy, Ontario



**Project: 8714**  
**Dec 2024**

Map Source:  
County of Middlesex | County of Middlesex |  
LJO, County of Middlesex  
2020 Aerial Photo





**LEGEND:**

- SUBJECT SITE BOUNDARY
- - - SUBJECT STUDY AREA
- UNDERGROUND FUEL TANK
- ↔ PUBLIC UTILITY LINE CORRIDORS
- POTABLE WATER WELL

**A & A ENVIRONMENTAL CONSULTANTS INC.**  
 16 YOUNG STREET, WOODSTOCK, ONTARIO, N4S 3L4  
 TELEPHONE: 519-266-4680  
 FAX: 519-266-3666

**PROJECT # :** 8714

**PROJECT TITLE:** NO MUNICIPAL ADDRESS, DARCY DRIVE, ONTARIO

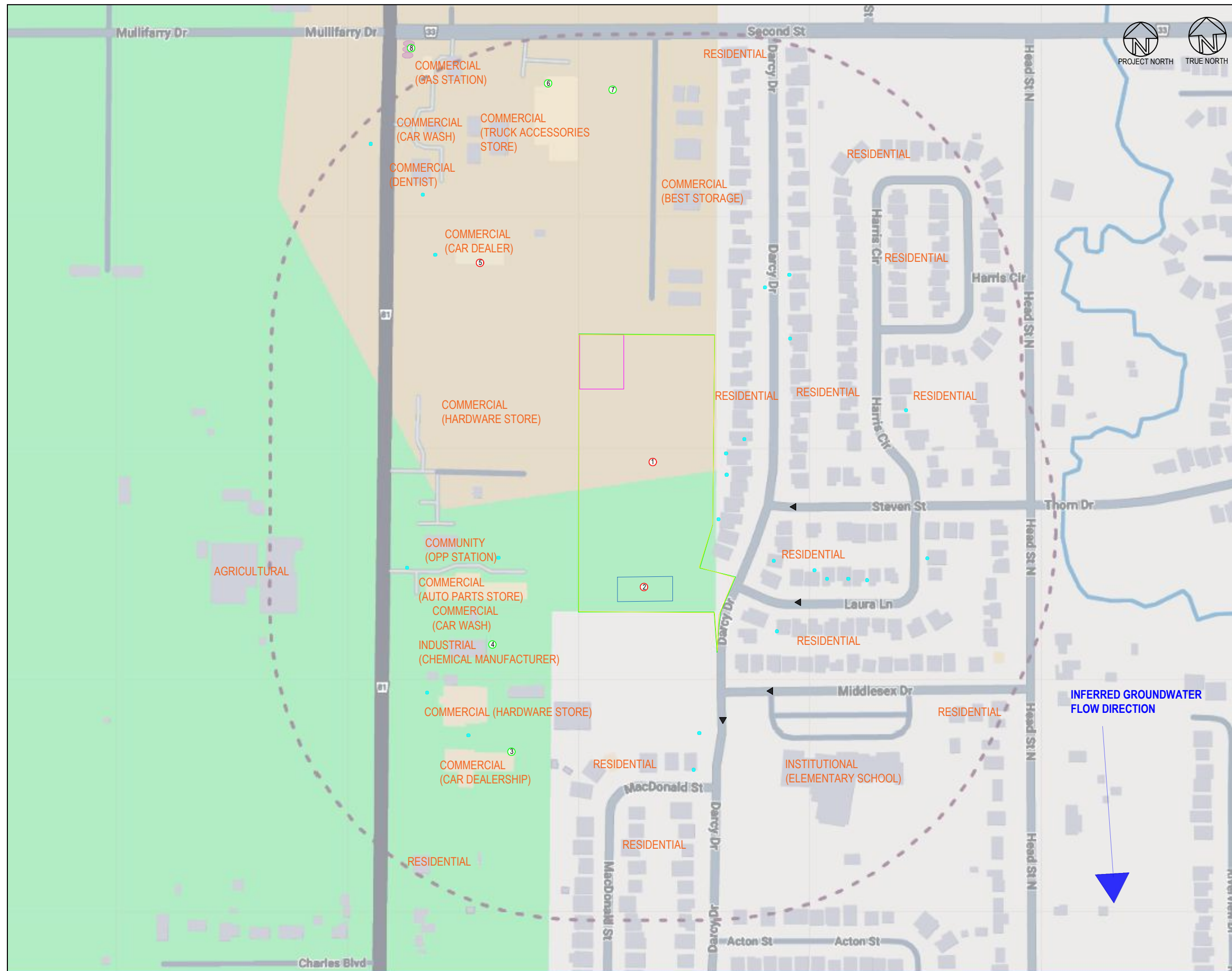
**DRAWING TITLE:**  
 FIGURE 2: PHYSICAL SETTING OF THE SUBJECT STUDY AREA

**SCALE:**  
 ALL SCALE NOTATIONS ARE BASED ON 11" x 17" FORMAT DRAWINGS

**REFERENCES:**

- [www.ertinfo.com](http://www.ertinfo.com)
- [www.google.com/earth](http://www.google.com/earth)

**DATE:** April 2025      **REVISION #:** -



- LEGEND:**
- SUBJECT SITE BOUNDARY
  - SUBJECT STUDY AREA
  - UNDERGROUND FUEL TANK
  - ←→ PUBLIC UTILITY LINE CORRIDORS
  - POTABLE WATER WELL
  - ① POTENTIALLY CONTAMINATING ACTIVITY (PCA) ASSOCIATED WITH AN AREA OF POTENTIAL ENVIRONMENTAL CONCERN (APEC)
  - ⑦ PCA NOT ASSOCIATED WITH AN APEC

PCA FIGURE ID	PCA (O. REG. 153/04 SCHEDULE D, TABLE 2)
1	PCA #30 - Importation of Fill Material of Unknown Quality
2	PCA #N/A - Known Contamination
3	PCA #52 - Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems PCA #34 - Metal Fabrication
4	PCA #8 - Chemical Manufacturing Processing and Bulk Storage
5	PCA #52 - Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems PCA #50 - Soap and Detergent Manufacturing, Processing and Bulk Storage PCA #39 - Paints Manufacturing, Processing and Bulk Storage
6	PCA #28 - Gasoline and Associated Products Storage in Fixed Tanks PCA #57 - Vehicle and Associated Parts Manufacturing PCA #52 - Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems PCA #N/A - Diesel Spill
7	PCA #28 - Gasoline and Associated Products Storage in Fixed Tanks
8	PCA #28 - Gasoline and Associated Products Storage in Fixed Tanks

- APEC 1 (PCA #30)
- APEC 2 (PCA # N/A - KNOWN CONTAMINATION)
- APEC 3 (PCA #52, PCA#50)

A & A ENVIRONMENTAL CONSULTANTS INC.  
16 YOUNG STREET, WOODSTOCK,  
ONTARIO, N4S 3L4  
TELEPHONE: 519-266-4680  
FAX: 519-266-3666

**PROJECT # :** 8714

**PROJECT TITLE:** NO MUNICIPAL ADDRESS, DARCY DRIVE, ONTARIO

**DRAWING TITLE:**  
CSM FIGURE 3: CONCEPTUAL SITE MODEL

**SCALE:**  
ALL SCALE NOTATIONS ARE BASED ON 11" x 17" FORMAT DRAWINGS

**REFERENCES:**

- www.ertinfo.com
- www.google.com/earth

**DATE:** April 2025      **REVISION #:** -



**LEGEND:**

- SUBJECT SITE BOUNDARY
- APEC 1 (PCA#30)
- APEC 2 (PCA #N/A - Known Contamination)
- APEC 3 (PCA #52 & PCA #50 - offsite sources)
- 1 PCA #30 - Importation of Fill Material of Unknown Quality
- 2 PCA #N/A - Known Contamination

**NOTE:** MTE did not provide SP sampling locations in their Phase II ESA report; therefore, A&A is relying on the results as a picture of the entire stockpile identified and not individual locations within the stockpiles.

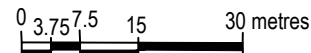
	<p>A &amp; A ENVIRONMENTAL CONSULTANTS INC.          16 YOUNG STREET, WOODSTOCK,          ONTARIO, N4S 3L4          TELEPHONE: 519-266-4680          FAX: 519-266-3666</p>
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**PROJECT # :** 8714

**PROJECT TITLE:** NO MUNICIPAL ADDRESS, DARCY DRIVE, STRATHROY, ONTARIO

**DRAWING TITLE:**  
CSM FIGURE 4: AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

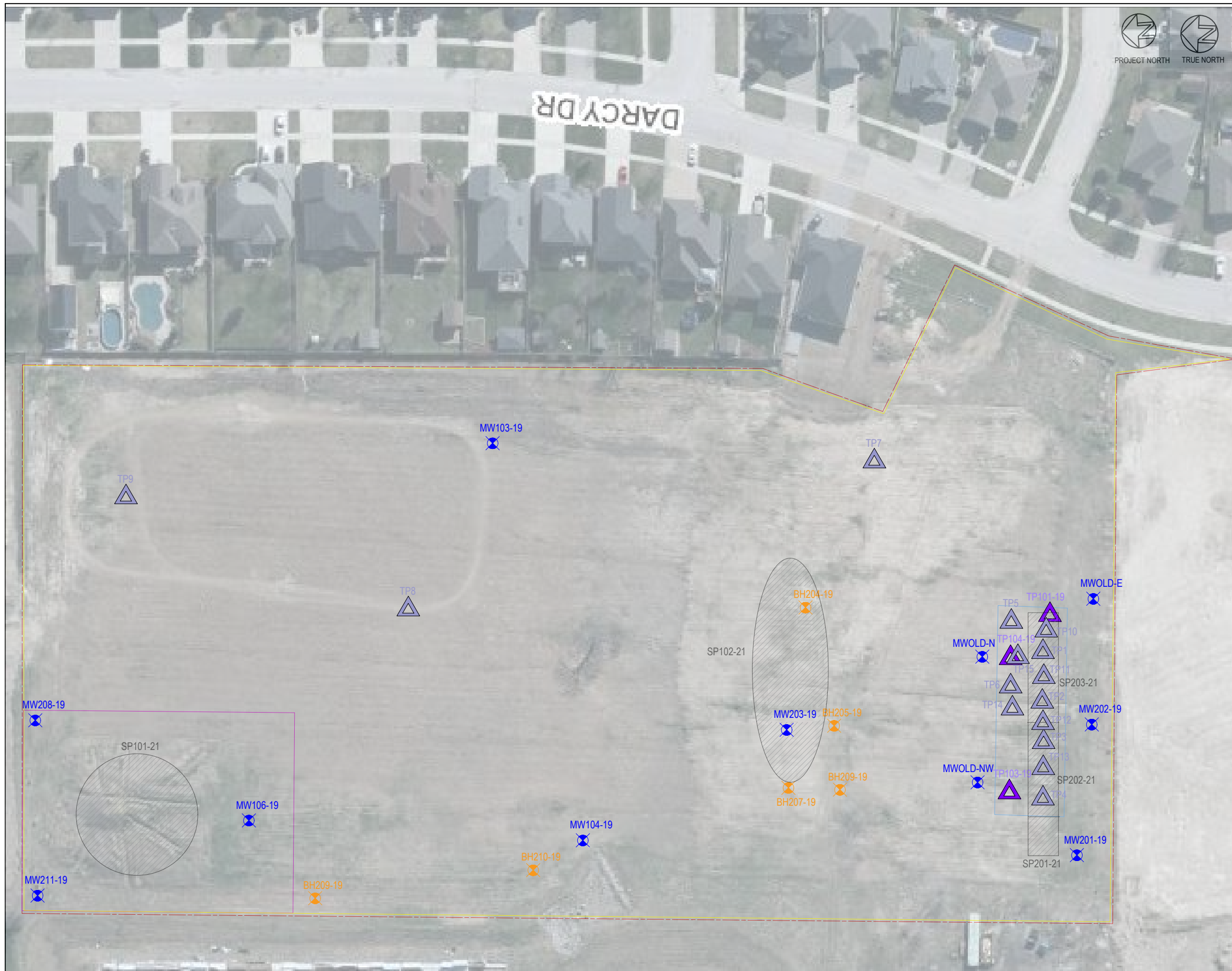
**SCALE:**  
ALL SCALE NOTATIONS ARE BASED ON 11" x 17" FORMAT DRAWINGS



**REFERENCES:**

- [www.erisinfo.com](http://www.erisinfo.com)
- [www.google.com/earth](http://www.google.com/earth)
- County of Middlesex | County of Middlesex | LIO, County of Middlesex | Middlesex County, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, AAFC, NRCan

<b>DATE:</b> FEB 2025	<b>REVISION #:</b> -
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- LEGEND:**
- SUBJECT SITE BOUNDARY
  - APEC 1 (PCA#30)
  - APEC 2 (PCA #N/A - Known Contamination)
  - APEC 3 (PCA #52 & PCA #50 - offsite sources)
  - ✕ BOREHOLES (BH) INSTALLED BY MTE 2019
  - ✕ MONITORING WELL (MW) INSTALLED BY MTE IN 2019 AND OTHERS
  - △ TEST PITS EXCAVATED BY MTE IN 2019
  - STOCKPILES NOTED BY MTE IN 2021
  - △ TEST PITS EXCAVATED BY A&A IN 2025

**NOTE:** MTE did not provide SP sampling locations in their Phase II ESA report; therefore, A&A is relying on the results as a picture of the entire stockpile identified and not individual locations within the stockpiles.

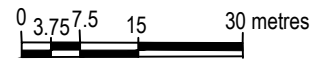
	<p>A &amp; A ENVIRONMENTAL CONSULTANTS INC.          16 YOUNG STREET, WOODSTOCK,          ONTARIO, N4S 3L4          TELEPHONE: 519-266-4680          FAX: 519-266-3666</p>
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**PROJECT # :** 8714

**PROJECT TITLE:** NO MUNICIPAL ADDRESS, DARCY DRIVE, STRATHROY, ONTARIO

**DRAWING TITLE:**  
 CSM FIGURE 5: BOREHOLE, MONITORING WELLS, TEST PIT AND STOCKPILE LOCATIONS WITHIN THE APECS

**SCALE:**  
 ALL SCALE NOTATIONS ARE BASED ON 11" x 17" FORMAT DRAWINGS



**REFERENCES:**

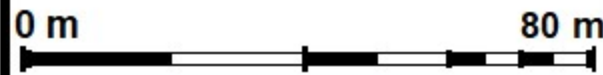
- [www.erisinfo.com](http://www.erisinfo.com)
- [www.google.com/earth](http://www.google.com/earth)
- County of Middlesex | County of Middlesex | LIO, County of Middlesex | Middlesex County, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, AAFC, NRCan

<b>DATE:</b> FEB 2025	<b>REVISION #:</b> -
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**A&A ENVIRONMENTAL CONSULTANTS INC.**  
 16 Young St,  
 Woodstock, ON, N4S 3L4  
 Tel: 519 266-4680

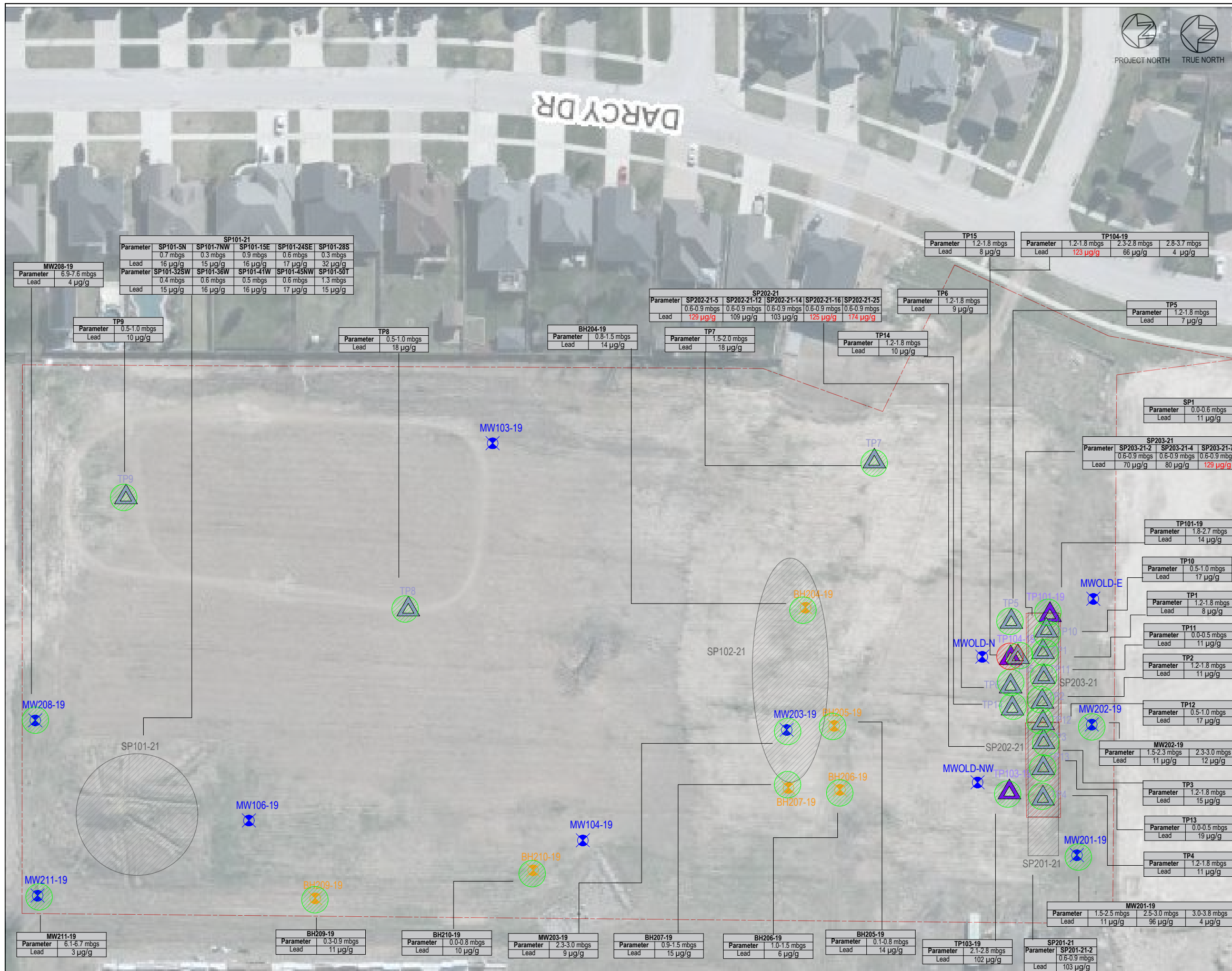
**CSM Figure 6: Groundwater Contour and Flow Direction**  
 No Municipal Address, Darcy Drive, Strathroy, Ontario



**Project: 8714**  
**Mar 2025**

Map Source:  
 County of Middlesex | County of Middlesex |  
 L.I.O., County of Middlesex  
 2020 Aerial Photo





**LEGEND:**

- SUBJECT SITE BOUNDARY
- BOREHOLES (BH) INSTALLED BY MTE 2019
- MONITORING WELL (MW) INSTALLED BY MTE IN 2019 AND OTHERS
- TEST PITS EXCAVATED BY MTE IN 2019
- STOCKPILES NOTED BY MTE IN 2021
- TEST PITS EXCAVATED BY A&A IN 2025
- SAMPLES MET APPLICABLE SCS
- ONE OR MORE SAMPLES EXCEEDED APPLICABLE SCS

GIS (GUIDELINE/STANDARDS)	
Parameter	ON T2 RPI CT
Lead	120 µg/g

**NOTE:** MTE did not provide SP sampling locations in their Phase II ESA report; therefore, A&A is relying on the results as a picture of the entire stockpile identified and not individual locations within the stockpiles.

**A & A ENVIRONMENTAL CONSULTANTS INC.**  
 16 YOUNG STREET, WOODSTOCK,  
 ONTARIO, N4S 3L4  
 TELEPHONE: 519-266-4680  
 FAX: 519-266-3666

**PROJECT # :** 8714

**PROJECT TITLE:** NO MUNICIPAL ADDRESS, DARCY DRIVE, STRATHROY, ONTARIO

**DRAWING TITLE:** CSM FIGURE 7: PLAN VIEW SHOWING METAL RESULTS IN THE SOIL ON THE SUBJECT SITE

**SCALE:**  
 ALL SCALE NOTATIONS ARE BASED ON 11" x 17" FORMAT DRAWINGS

**REFERENCES:**

- [www.ensisinfo.com](http://www.ensisinfo.com)
- [www.google.com/earth](http://www.google.com/earth)
- County of Middlesex | County of Middlesex | LIO, County of Middlesex | Middlesex County, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, AAFC, NRCan

**DATE:** FEB 2025      **REVISION #:** -

Parameter	SP101-21				
	SP101-5N	SP101-7NW	SP101-15E	SP101-24SE	SP101-28S
Lead	16 µg/g	15 µg/g	16 µg/g	17 µg/g	32 µg/g

Parameter	TP9	
	0.5-1.0 mbgs	Lead
Lead	10 µg/g	

Parameter	TP8	
	0.5-1.0 mbgs	Lead
Lead	16 µg/g	

Parameter	BH204-19	
	0.8-1.5 mbgs	Lead
Lead	14 µg/g	

Parameter	SP202-21				
	SP202-21-5	SP202-21-12	SP202-21-14	SP202-21-16	SP202-21-25
Lead	129 µg/g	109 µg/g	103 µg/g	125 µg/g	174 µg/g

Parameter	TP6	
	1.2-1.8 mbgs	Lead
Lead	9 µg/g	

Parameter	TP5		
	1.2-1.8 mbgs	Lead	
Lead	7 µg/g		

Parameter	SP1	
	0.0-0.6 mbgs	Lead
Lead	11 µg/g	

Parameter	SP203-21		
	SP203-21-2	SP203-21-4	SP203-21-7
Lead	70 µg/g	80 µg/g	129 µg/g

Parameter	TP101-19	
	1.8-2.7 mbgs	Lead
Lead	14 µg/g	

Parameter	TP10	
	0.5-1.0 mbgs	Lead
Lead	17 µg/g	

Parameter	TP1	
	1.2-1.8 mbgs	Lead
Lead	8 µg/g	

Parameter	TP11	
	0.0-0.5 mbgs	Lead
Lead	11 µg/g	

Parameter	TP2	
	1.2-1.8 mbgs	Lead
Lead	11 µg/g	

Parameter	TP12	
	0.5-1.0 mbgs	Lead
Lead	17 µg/g	

Parameter	MW202-19	
	1.5-2.3 mbgs	2.3-3.0 mbgs
Lead	11 µg/g	12 µg/g

Parameter	TP3	
	1.2-1.8 mbgs	Lead
Lead	15 µg/g	

Parameter	TP13	
	0.0-0.5 mbgs	Lead
Lead	19 µg/g	

Parameter	TP4	
	1.2-1.8 mbgs	Lead
Lead	11 µg/g	

Parameter	MW201-19		
	1.5-2.5 mbgs	2.5-3.0 mbgs	3.0-3.8 mbgs
Lead	11 µg/g	96 µg/g	4 µg/g

Parameter	MW211-19	
	6.1-6.7 mbgs	Lead
Lead	3 µg/g	

Parameter	BH209-19	
	0.3-0.9 mbgs	Lead
Lead	11 µg/g	

Parameter	BH210-19	
	0.0-0.8 mbgs	Lead
Lead	10 µg/g	

Parameter	MW203-19	
	2.3-3.0 mbgs	Lead
Lead	9 µg/g	

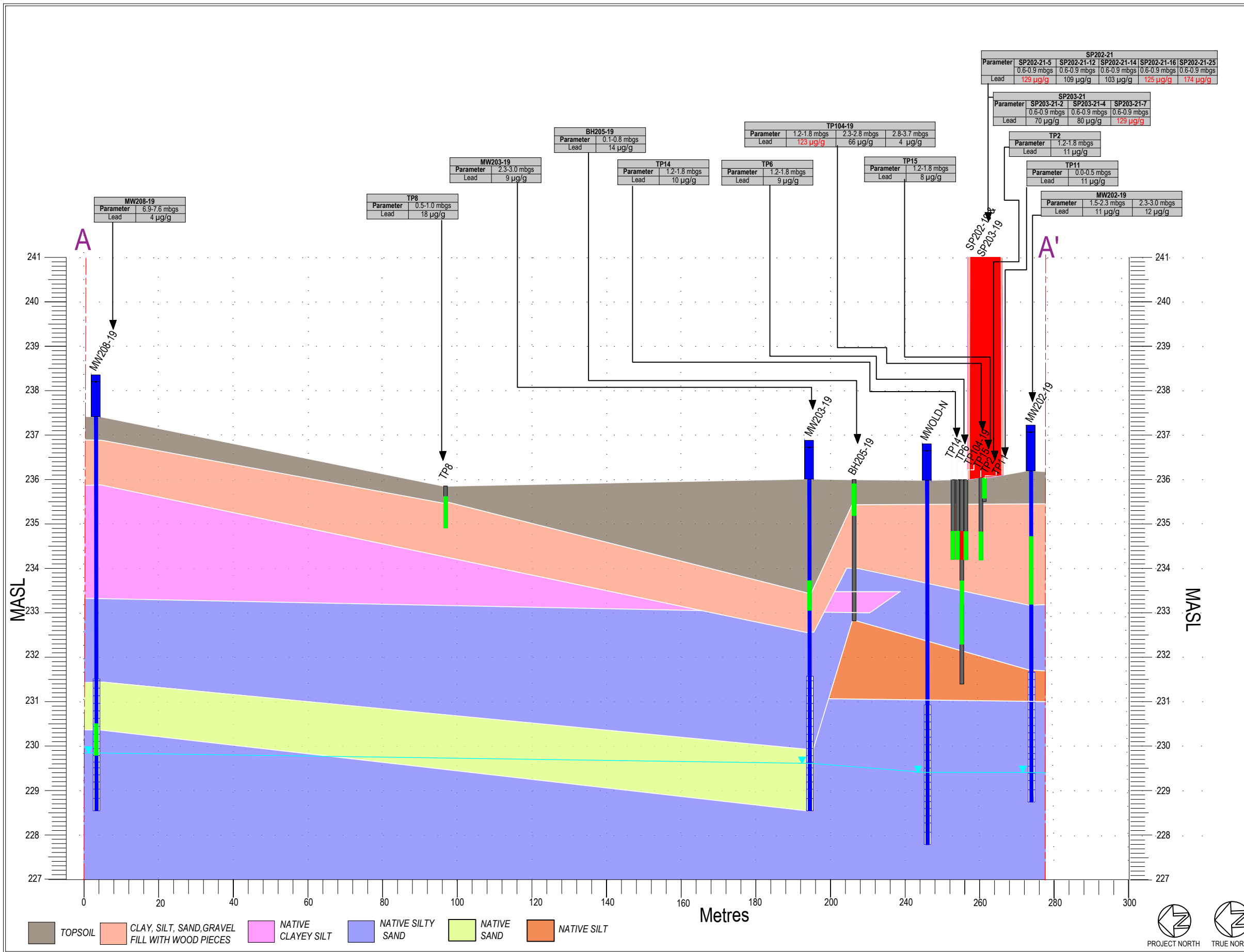
Parameter	BH207-19	
	0.9-1.5 mbgs	Lead
Lead	15 µg/g	

Parameter	BH206-19	
	1.0-1.5 mbgs	Lead
Lead	6 µg/g	

Parameter	BH205-19	
	0.1-0.8 mbgs	Lead
Lead	14 µg/g	

Parameter	TP103-19	
	2.1-2.8 mbgs	Lead
Lead	102 µg/g	

Parameter	SP201-21	
	0.6-0.9 mbgs	Lead
Lead	103 µg/g	



**LEGEND:**

- MONUMENT
- WELL SCREEN
- BOREHOLE (BH)/ MONITORING WELL (MW)
- BOREHOLE (BH) /TEST PIT (TP)
- SUBJECT SITE BOUNDARIES
- APPROXIMATE UNCONFINED AQUIFER WATER LEVEL
- SAMPLES MET APPLICABLE SCS (ON T2 RPI CT)
- ONE OR MORE SAMPLES EXCEEDED APPLICABLE SCS (ON T2 RPI CT)
- STOCKPILE AREA (SP202-21 & 203-21)

Parameter	ON T2 RPI CT
Lead	120 µg/g

**NOTE:** STOCKPILE AREAS SP 202-21, AND SP203-21 WERE REMOVED FROM THE SITE PRIOR TO A&A'S INVESTIGATION IN 2025

**A & A ENVIRONMENTAL CONSULTANTS INC.**  
 16 YOUNG STREET, WOODSTOCK, ONTARIO, N4S 3L4  
 TELEPHONE: 519-266-4680  
 FAX: 519-266-3666

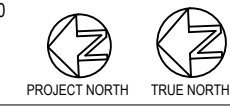


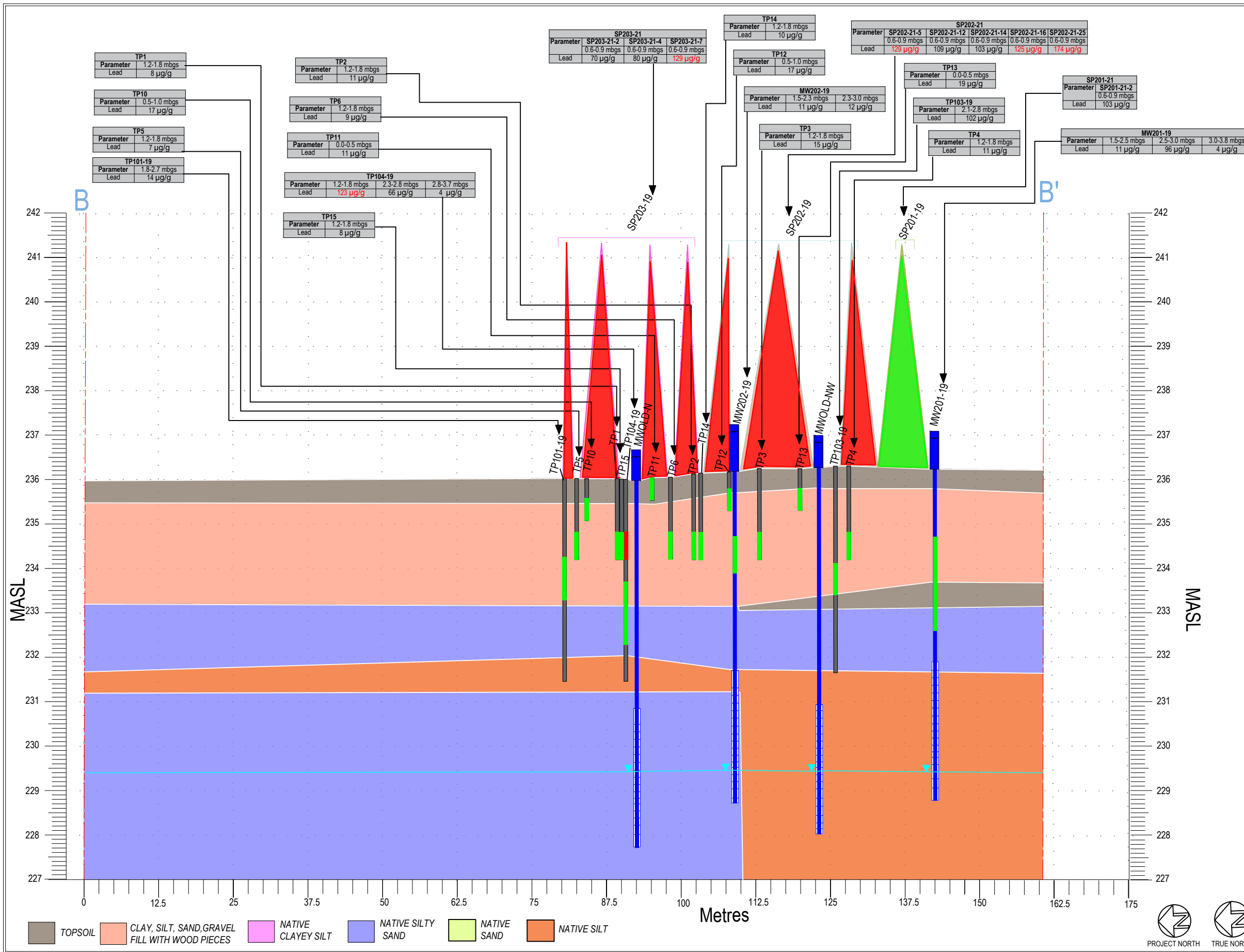
**PROJECT #:** 8714  
**PROJECT TITLE:** NO MUNICIPAL ADDRESS, DARCY DRIVE, STRATHROY, ONTARIO  
**DRAWING TITLE:** CSM FIGURE 8: A-A' CROSS SECTION SHOWING THE METAL SOIL RESULTS ON SITE

**SCALE:**  
 ALL SCALE NOTATIONS ARE BASED ON 11" x 17" FORMAT DRAWINGS  
 VERTICAL: 0 0.5 1 2 4 metres  
 HORIZONTAL: 0 4 8 16 32 metres

**REFERENCES:**  
 www.erininfo.com  
 www.google.com/earth  
 County of Middlesex | County of Middlesex | LIO, County of Middlesex | Middlesex County, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, AAFC, NRCan

**DATE:** MAR 2025  
**REVISION #:** -





**LEGEND:**

- MONUMENT
- BOREHOLE (BH)/ MONITORING WELL (MW)
- BOREHOLE (BH) /TEST PIT (TP)
- WELL SCREEN
- SUBJECT SITE BOUNDARIES
- APPROXIMATE UNCONFINED AQUIFER WATER LEVEL
- SAMPLES MET APPLICABLE SCS (ON T2 RPI CT)
- ONE OR MORE SAMPLES EXCEEDED APPLICABLE SCS (ON T2 RPI CT)
- STOCKPILE AREA (SP203-21)
- STOCKPILE AREA (SP202-21)
- STOCKPILE AREA (SP201-21)

G/S (GUIDELINE/STANDARDS)	Parameter	ON T2 RPI CT
Lead		120 µg/g

**NOTE:** STOCKPILE AREAS SP201-21, SP 202-21, AND SP203-21 WERE REMOVED FROM THE SITE PRIOR TO A&A'S INVESTIGATION IN 2025

**A & A ENVIRONMENTAL CONSULTANTS INC.**  
 16 YOUNG STREET, WOODSTOCK, ONTARIO, N4S 3L4  
 TELEPHONE: 519-266-4680  
 FAX: 519-266-3666



**PROJECT #:** 8714  
**PROJECT TITLE:** NO MUNICIPAL ADDRESS, DARCY DRIVE, STRATHROY, ONTARIO

**DRAWING TITLE:** CSM FIGURE 9: B-B' CROSS SECTION SHOWING THE METAL SOIL RESULTS ON SITE

**SCALE:**  
 ALL SCALE NOTATIONS ARE BASED ON 11" x 17" FORMAT DRAWINGS

**VERTICAL:** 0 0.5 1 2 4 metres

**HORIZONTAL:** 0 2.5 5 10 20 metres

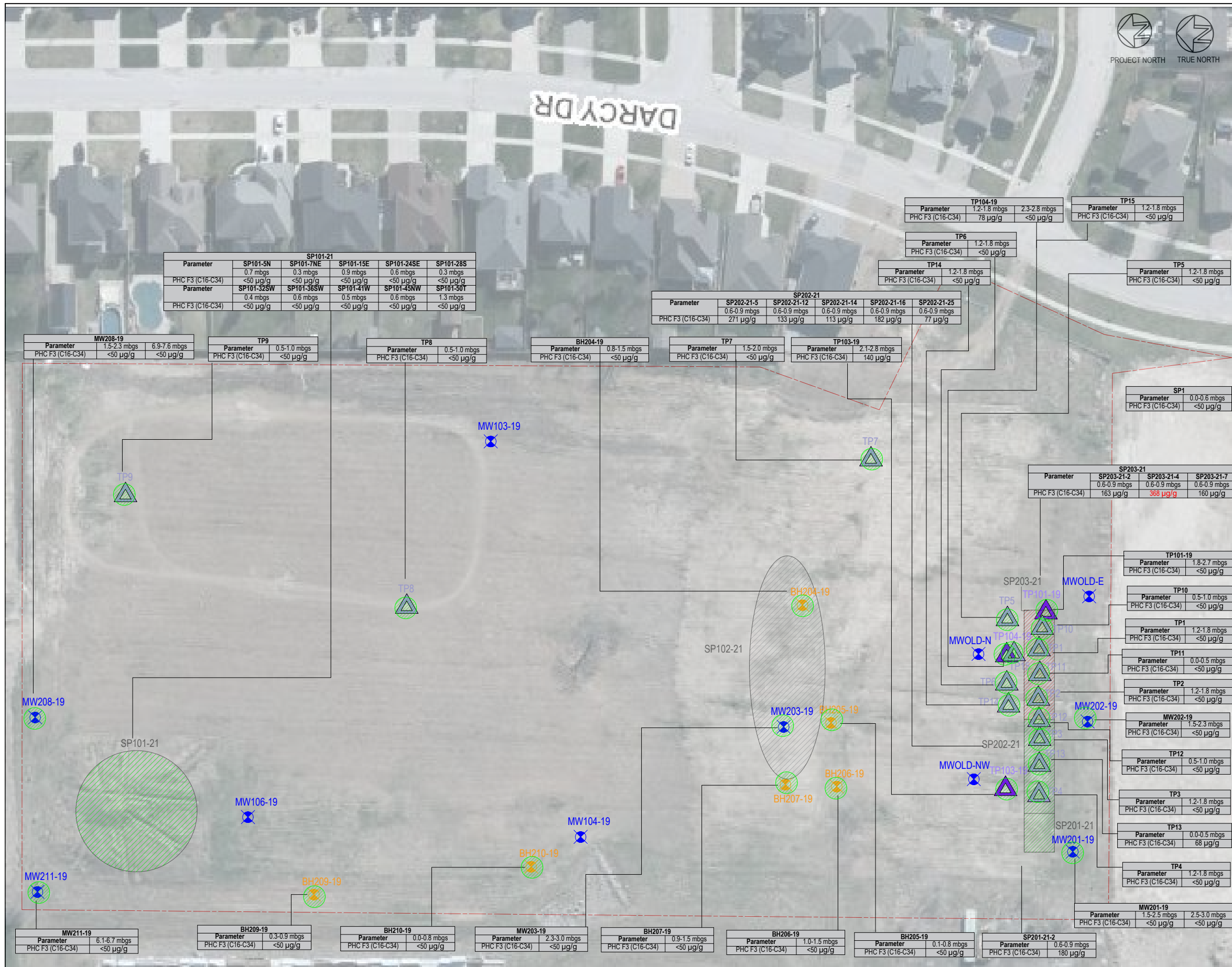
**REFERENCES:**  
 www.erisinfo.com  
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 County of Middlesex | County of Middlesex | LIO, County of Middlesex | Middlesex County, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, AAFC, NRCan

**DATE:** MAR 2025

**REVISION #:** -

**TOPSOIL** **CLAY, SILT, SAND, GRAVEL FILL WITH WOOD PIECES** **NATIVE CLAYEY SILT** **NATIVE SILTY SAND** **NATIVE SAND** **NATIVE SILT**

PROJECT NORTH TRUE NORTH



- LEGEND:**
- SUBJECT SITE BOUNDARY
  - ☒ BOREHOLES (BH) INSTALLED BY MTE 2019
  - ⊗ MONITORING WELL (MW) INSTALLED BY MTE IN 2019 AND OTHERS
  - △ TEST PITS EXCAVATED BY MTE IN 2019
  - ▨ STOCKPILES NOTED BY MTE IN 2021
  - △ TEST PITS EXCAVATED BY A&A IN 2025
  - ⊗ SAMPLES MET APPLICABLE SCS
  - ⊗ ONE OR MORE SAMPLES EXCEEDED APPLICABLE SCS

G/S (Guideline/Standard)	
Parameter	ON T2 RPI C1
PHC F3 (C16-C34)	300 µg/g

**NOTE:** MTE did not provide SP sampling locations in their Phase II ESA report; therefore, A&A is relying on the results as a picture of the entire stockpile identified and not individual locations within the stockpiles.

**A & A ENVIRONMENTAL CONSULTANTS INC.**  
 16 YOUNG STREET, WOODSTOCK, ONTARIO, N4S 3L4  
 TELEPHONE: 519-266-4680  
 FAX: 519-266-3666

**PROJECT # :** 8714

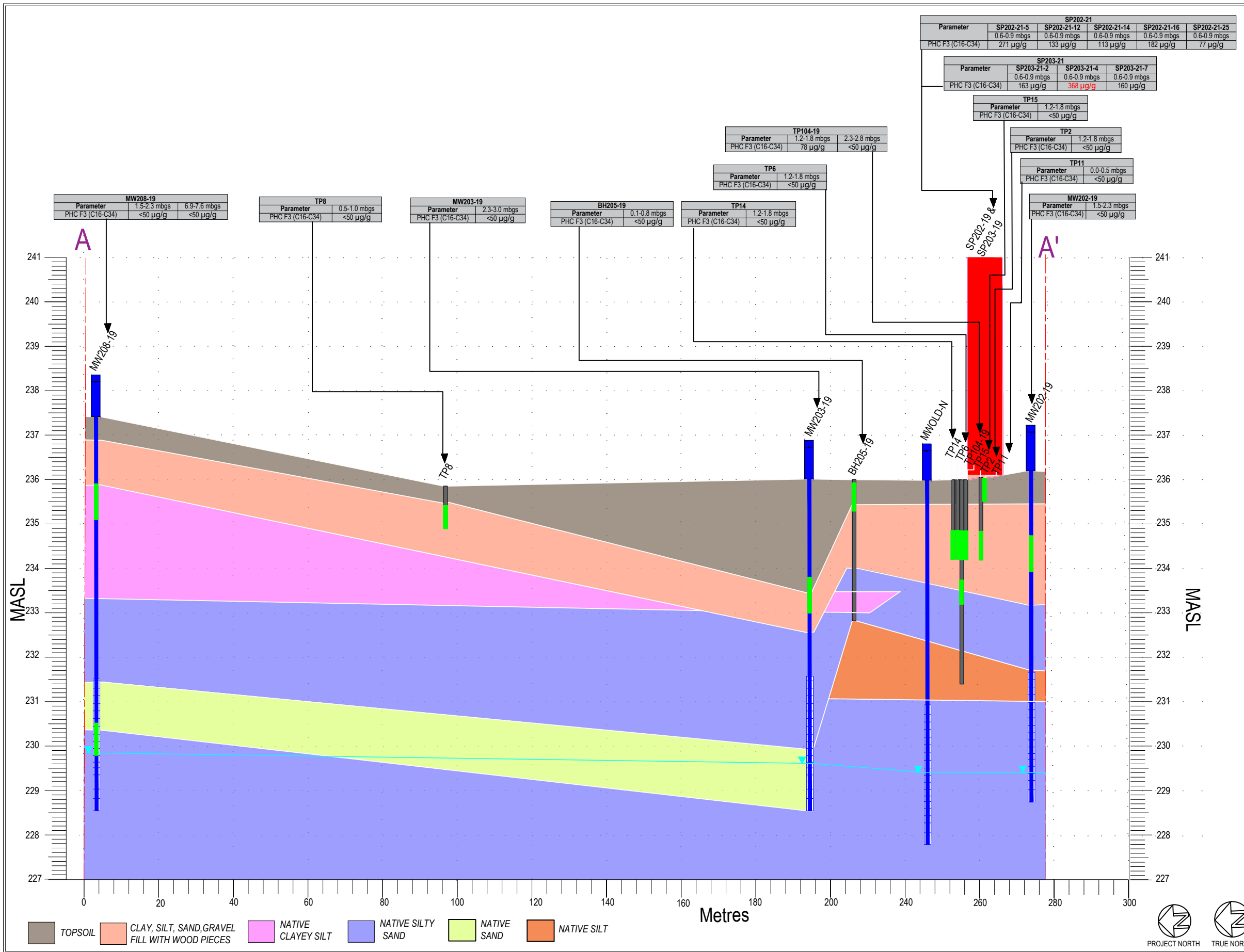
**PROJECT TITLE:** NO MUNICIPAL ADDRESS, DARCY DRIVE, STRATHROY, ONTARIO

**DRAWING TITLE:** CSM FIGURE 10: PLAN VIEW SHOWING PHC RESULTS IN THE SOIL ON THE SUBJECT SITE

**SCALE:** ALL SCALE NOTATIONS ARE BASED ON 11" x 17" FORMAT DRAWINGS

- REFERENCES:**
- www.ensisinfo.com
  - www.google.com/earth
  - County of Middlesex | County of Middlesex | LIO, County of Middlesex | Middlesex County, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, AAFC, NRCan

**DATE:** FEB 2025      **REVISION #:** -



Parameter	SP202-21				
	SP202-21-5	SP202-21-12	SP202-21-14	SP202-21-16	SP202-21-25
0.6-0.9 mbgs					
PHC F3 (C16-C34)	271 µg/g	133 µg/g	113 µg/g	182 µg/g	77 µg/g

Parameter	SP203-21		
	SP203-21-2	SP203-21-4	SP203-21-7
0.6-0.9 mbgs			
PHC F3 (C16-C34)	163 µg/g	368 µg/g	160 µg/g

Parameter	TP15
	1.2-1.8 mbgs
PHC F3 (C16-C34)	<50 µg/g

Parameter	TP2
	1.2-1.8 mbgs
PHC F3 (C16-C34)	<50 µg/g

Parameter	TP11
	0.0-0.5 mbgs
PHC F3 (C16-C34)	<50 µg/g

Parameter	MW202-19
	1.5-2.3 mbgs
PHC F3 (C16-C34)	<50 µg/g

Parameter	TP104-19	
	1.2-1.8 mbgs	2.3-2.8 mbgs
PHC F3 (C16-C34)	78 µg/g	<50 µg/g

Parameter	TP6
	1.2-1.8 mbgs
PHC F3 (C16-C34)	<50 µg/g

Parameter	TP14
	1.2-1.8 mbgs
PHC F3 (C16-C34)	<50 µg/g

Parameter	BH205-19
	0.1-0.8 mbgs
PHC F3 (C16-C34)	<50 µg/g

Parameter	MW203-19
	2.3-3.0 mbgs
PHC F3 (C16-C34)	<50 µg/g

Parameter	TP8
	0.5-1.0 mbgs
PHC F3 (C16-C34)	<50 µg/g

Parameter	MW208-19	
	1.5-2.3 mbgs	6.9-7.6 mbgs
PHC F3 (C16-C34)	<50 µg/g	<50 µg/g

**LEGEND:**

- BOREHOLE (BH)/ MONITORING WELL (MW)
  - BOREHOLE (BH) /TEST PIT (TP)
  - SUBJECT SITE BOUNDARIES
  - APPROXIMATE UNCONFINED AQUIFER WATER LEVEL
  - SAMPLES MET APPLICABLE SCS (ON T2 RPI CT)
  - ONE OR MORE SAMPLES EXCEEDED APPLICABLE SCS (ON T2 RPI CT)
  - STOCKPILE AREA (SP202-21 & 203-21)
- | G/S (Guideline/Standard) |          |
|--------------------------|----------|
| PHC F3 (C16-C34)         | 300 µg/g |

**NOTE:** STOCKPILE AREAS SP 202-21, AND SP203-21 WERE REMOVED FROM THE SITE PRIOR TO A&A'S INVESTIGATION IN 2025

**A & A ENVIRONMENTAL CONSULTANTS INC.**  
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 TELEPHONE: 519-266-4680  
 FAX: 519-266-3666

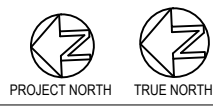


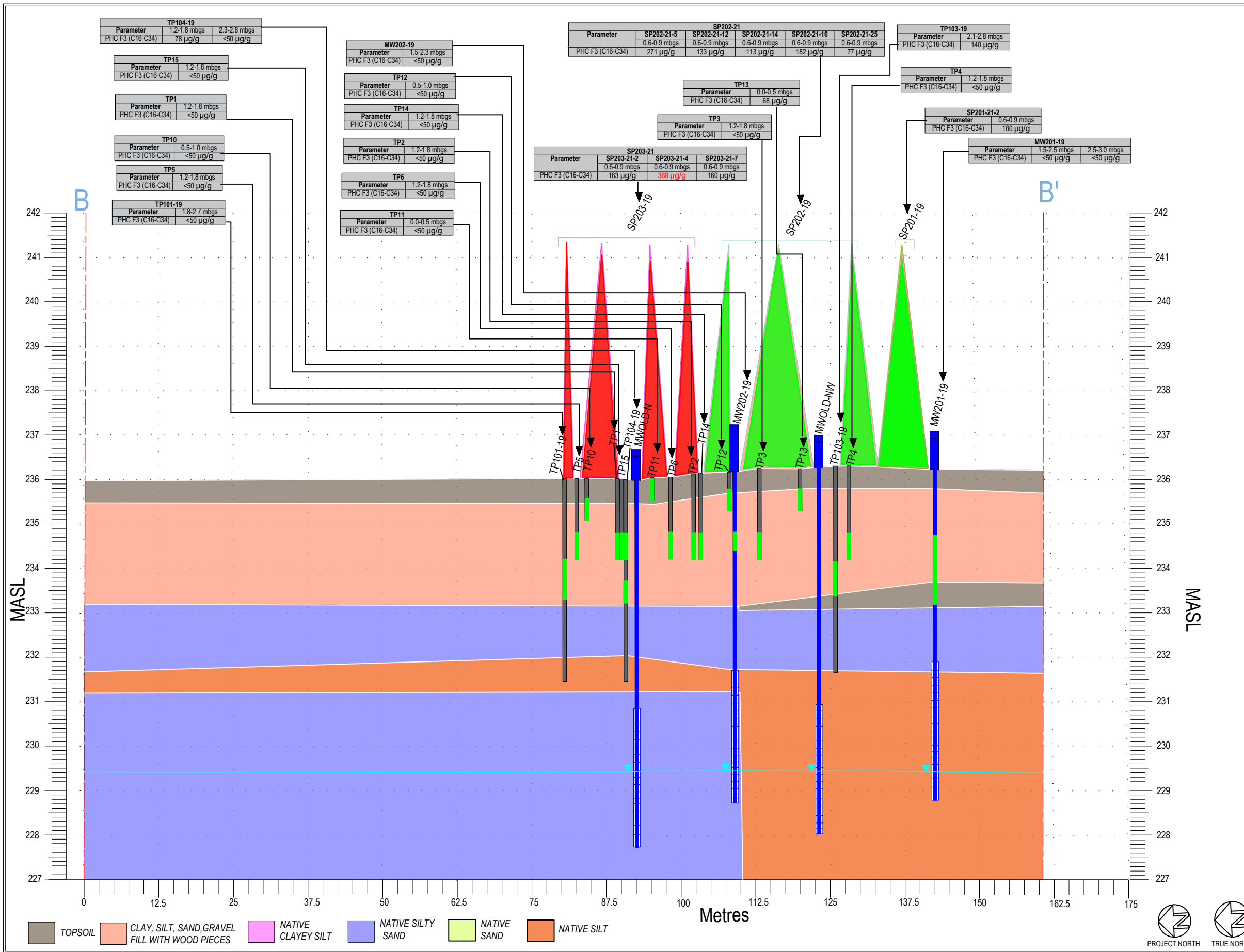
**PROJECT #:** 8714  
**PROJECT TITLE:** NO MUNICIPAL ADDRESS, DARCY DRIVE, STRATHROY, ONTARIO  
**DRAWING TITLE:** CSM FIGURE 11: A-A' CROSS SECTION SHOWING THE PHC SOIL RESULTS ON SITE

**SCALE:**  
 ALL SCALE NOTATIONS ARE BASED ON 11" x 17" FORMAT DRAWINGS  
 VERTICAL:   
 HORIZONTAL:

**REFERENCES:**  
 www.erisinfo.com  
 www.google.com/earth  
 County of Middlesex | County of Middlesex | LIO, County of Middlesex | Middlesex County, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, AAFC, NRCan

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**LEGEND:**

- MONUMENT
- WELL SCREEN
- BOREHOLE (BH)/ MONITORING WELL (MW)
- BOREHOLE (BH) /TEST PIT (TP)
- SUBJECT SITE BOUNDARIES
- APPROXIMATE UNCONFINED AQUIFER WATER LEVEL
- SAMPLES MET APPLICABLE SCS (ON T2 RPI CT)
- ONE OR MORE SAMPLES EXCEEDED APPLICABLE SCS (ON T2 RPI CT)
- STOCKPILE AREA (SP203-21)
- STOCKPILE AREA (SP202-21)
- STOCKPILE AREA (SP201-21)

G/S (Guideline/Standard)	
PHC F3 (C16-C34)	300 µg/g

**NOTE:** STOCKPILE AREAS SP201-21, SP 202-21, AND SP203-21 WERE REMOVED FROM THE SITE PRIOR TO A&A'S INVESTIGATION IN 2025

**A & A ENVIRONMENTAL CONSULTANTS INC.**  
 16 YOUNG STREET, WOODSTOCK, ONTARIO, N4S 3L4  
 TELEPHONE: 519-266-4680  
 FAX: 519-266-3666



**PROJECT #:** 8714  
**PROJECT TITLE:** NO MUNICIPAL ADDRESS, DARCY DRIVE, STRATHROY, ONTARIO

**DRAWING TITLE:** CSM FIGURE 12: B-B' CROSS SECTION SHOWING THE PHC SOIL RESULTS ON SITE

**SCALE:**  
 ALL SCALE NOTATIONS ARE BASED ON 11" x 17" FORMAT DRAWINGS

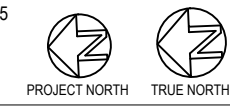
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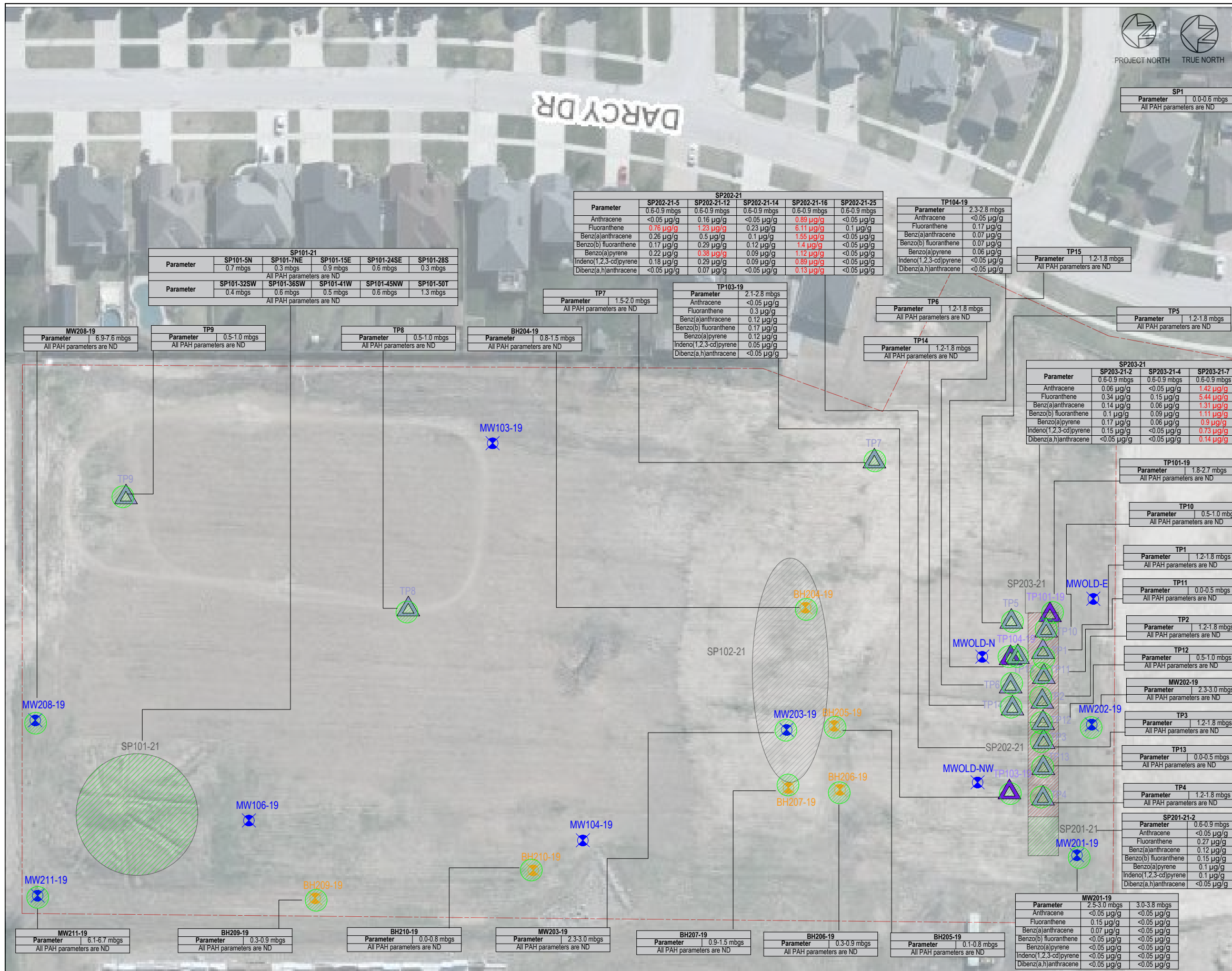
HORIZONTAL:

**REFERENCES:**  
 www.esisinfo.com  
 www.google.com/earth  
 County of Middlesex | County of Middlesex | LIO, County of Middlesex | Middlesex County, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, AAFC, NRCan

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**LEGEND:**

- SUBJECT SITE BOUNDARY
- ✕ BOREHOLES (BH) INSTALLED BY MTE 2019
- ✕ MONITORING WELL (MW) INSTALLED BY MTE IN 2019 AND OTHERS
- △ TEST PITS EXCAVATED BY MTE IN 2019
- STOCKPILES NOTED BY MTE IN 2021
- △ TEST PITS EXCAVATED BY A&A IN 2025
- SAMPLES MET APPLICABLE SCS
- ONE OR MORE SAMPLES EXCEEDED APPLICABLE SCS

G/S (Guideline/Standard)	
Parameter	ON T2 RPI CT
Anthracene	0.67 µg/g
Fluoranthene	0.69 µg/g
Benzo(a)anthracene	0.5 µg/g
Benzo(b)fluoranthene	0.78 µg/g
Benzo(a)pyrene	0.3 µg/g
Indeno(1,2,3-cd)pyrene	0.38 µg/g
Dibenzo(a,h)anthracene	0.1 µg/g

NOTE: ND= Non-detect

**NOTE:** MTE did not provide SP sampling locations in their Phase II ESA report; therefore, A&A is relying on the results as a picture of the entire stockpile identified and not individual locations within the stockpiles.



A & A ENVIRONMENTAL CONSULTANTS INC.  
 16 YOUNG STREET, WOODSTOCK,  
 ONTARIO, N4S 3L4  
 TELEPHONE: 519-266-4680  
 FAX: 519-266-3666

**PROJECT # :** 8714

**PROJECT TITLE:** NO MUNICIPAL ADDRESS, DARCY DRIVE, STRATHROY, ONTARIO

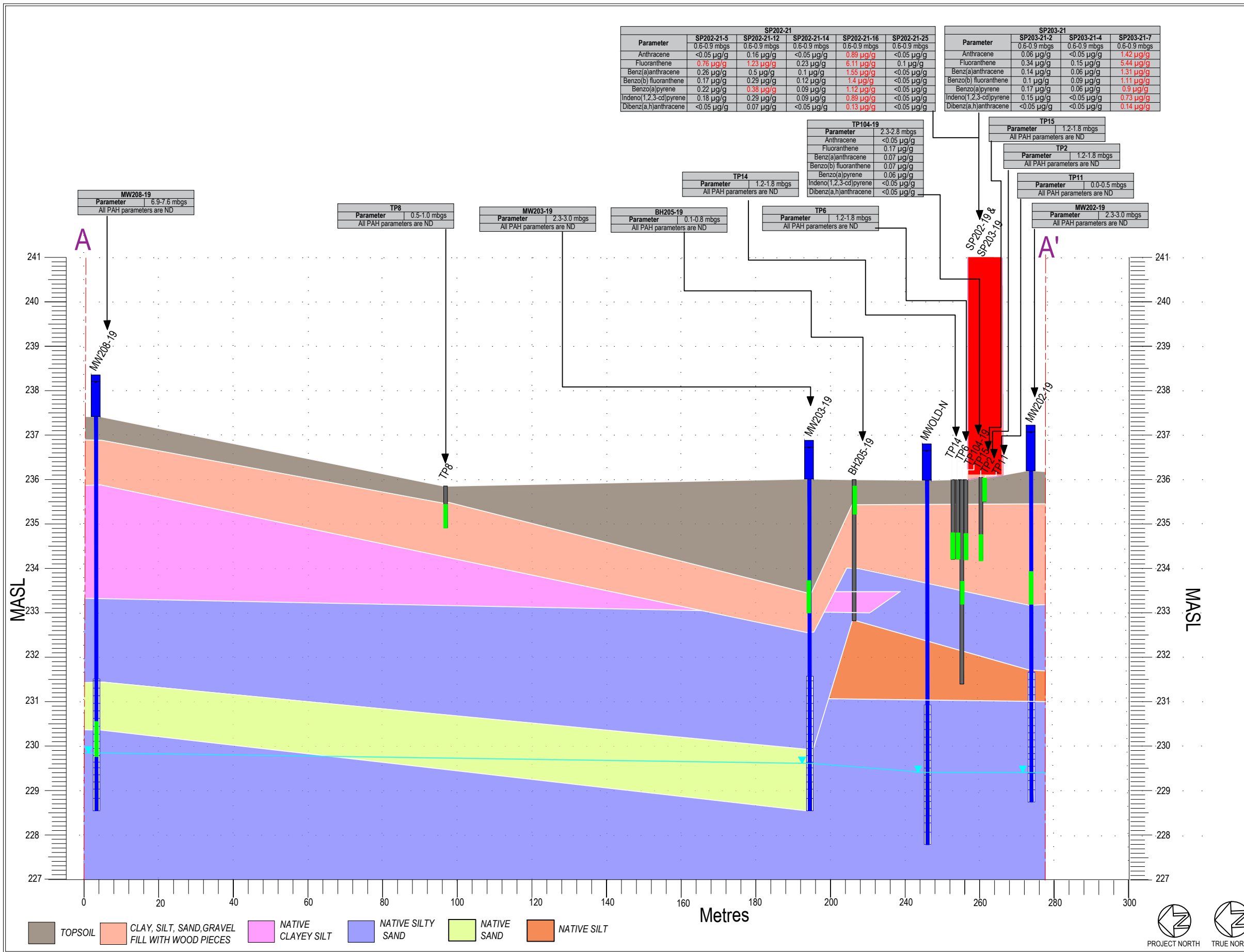
**DRAWING TITLE:** CSM FIGURE 13: PLAN VIEW OF PAH SOIL RESULTS ON THE SUBJECT SITE

**SCALE:** ALL SCALE NOTATIONS ARE BASED ON 11" x 17" FORMAT DRAWINGS

**REFERENCES:**

- www.ensisinfo.com
- www.google.com/earth
- County of Middlesex | County of Middlesex | LIO, County of Middlesex | Middlesex County, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, AAFC, NRCan

**DATE:** FEB 2025 **REVISION #:** -



**LEGEND:**

- MONUMENT
- WELL SCREEN
- BOREHOLE (BH)/ MONITORING WELL (MW)
- BOREHOLE (BH) /TEST PIT (TP)
- SUBJECT SITE BOUNDARIES
- APPROXIMATE UNCONFINED AQUIFER WATER LEVEL
- SAMPLES MET APPLICABLE SCS (ON T2 RPI CT)
- ONE OR MORE SAMPLES EXCEEDED APPLICABLE SCS (ON T2 RPI CT)
- STOCKPILE AREA (SP202-21 & 203-21)

G/S (Guideline/Standard)	
Parameter	ON T2 RPI CT
Anthracene	0.67 µg/g
Fluoranthene	0.69 µg/g
Benzo(a)anthracene	0.5 µg/g
Benzo(b)fluoranthene	0.78 µg/g
Benzo(a)pyrene	0.3 µg/g
Indeno(1,2,3-cd)pyrene	0.38 µg/g
Dibenz(a,h)anthracene	0.1 µg/g

NOTE: STOCKPILE AREAS SP 202-21, AND SP203-21 WERE REMOVED FROM THE SITE PRIOR TO A&A'S INVESTIGATION IN 2025

**A & A ENVIRONMENTAL CONSULTANTS INC.**  
 16 YOUNG STREET, WOODSTOCK, ONTARIO, N4S 3L4  
 TELEPHONE: 519-266-4680  
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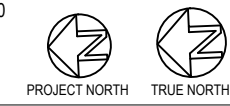
**PROJECT #:** 8714  
**PROJECT TITLE:** NO MUNICIPAL ADDRESS, DARCY DRIVE, STRATHROY, ONTARIO

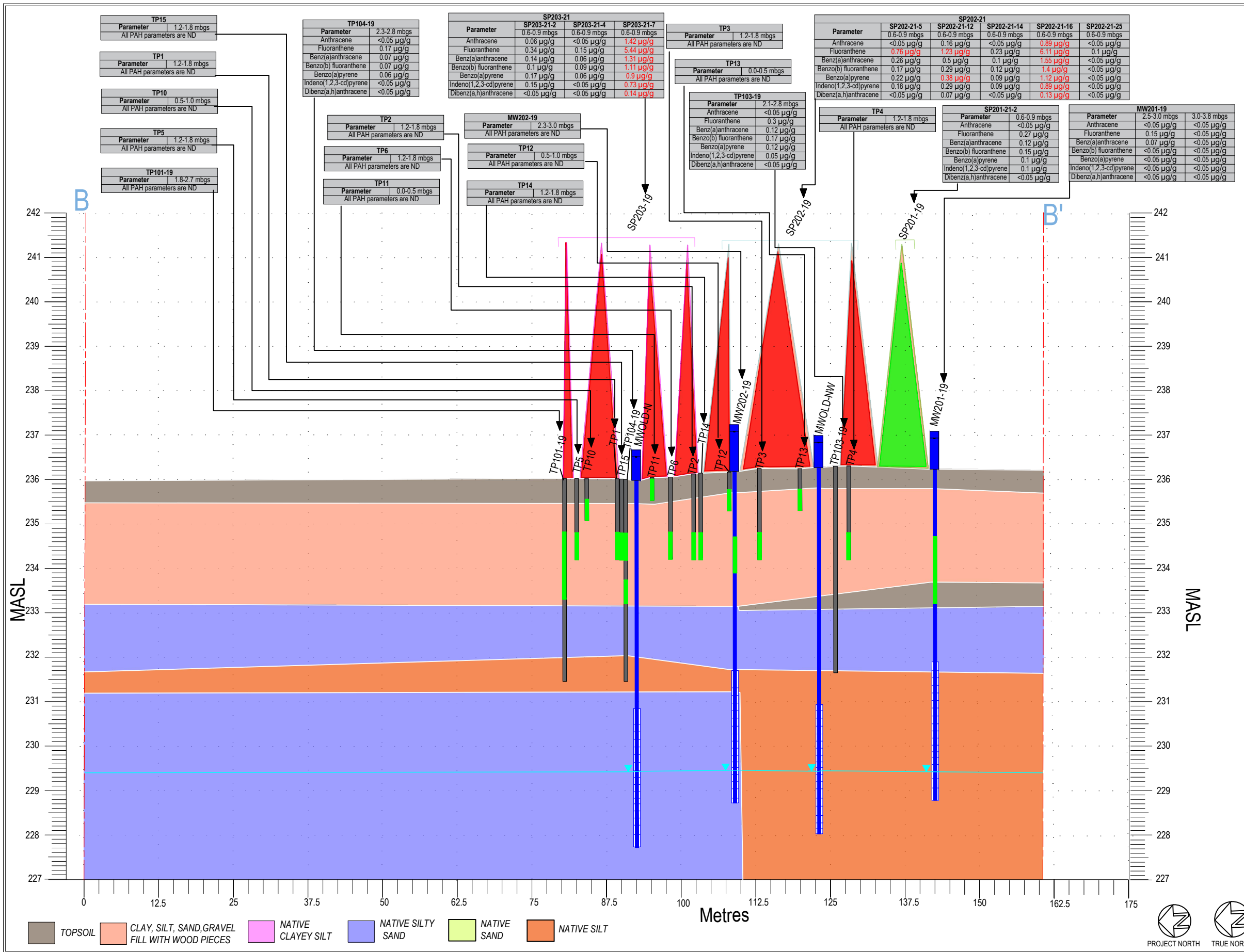
**DRAWING TITLE:** CSM FIGURE 14: A-A' CROSS SECTION SHOWING THE PAH SOIL RESULTS ON SITE

**SCALE:**  
 ALL SCALE NOTATIONS ARE BASED ON 11" x 17" FORMAT DRAWINGS  
 VERTICAL: 0 0.5 1 2 4 metres  
 HORIZONTAL: 0 4 8 16 32 metres

**REFERENCES:**  
 www.erisinfo.com  
 www.google.com/earth  
 County of Middlesex | County of Middlesex | LIO, County of Middlesex | Middlesex County, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, AAFC, NRCan

**DATE:** MAR 2025  
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**LEGEND:**

- MONUMENT
- WELL SCREEN
- BOREHOLE (BH)/ MONITORING WELL (MW)
- BOREHOLE (BH) /TEST PIT (TP)
- SUBJECT SITE BOUNDARIES
- APPROXIMATE UNCONFINED AQUIFER WATER LEVEL
- SAMPLES MET APPLICABLE SCS (ON T2 RPI CT)
- ONE OR MORE SAMPLES EXCEEDED APPLICABLE SCS (ON T2 RPI CT)
- STOCKPILE AREA (SP203-21)
- STOCKPILE AREA (SP202-21)
- STOCKPILE AREA (SP201-21)

G/S (Guideline/Standard)		
Parameter	ON T2 RPI CT	
Anthracene	0.67 µg/g	
Fluoranthene	0.69 µg/g	
Benz(a)anthracene	0.5 µg/g	
Benzo(b)fluoranthene	0.78 µg/g	
Benzo(a)pyrene	0.3 µg/g	
Indeno(1,2,3-cd)pyrene	0.38 µg/g	
Dibenz(a,h)anthracene	0.1 µg/g	

NOTE: ND= Non-detect

**NOTE:** STOCKPILE AREAS SP201-21, SP 202-21, AND SP203-21 WERE REMOVED FROM THE SITE PRIOR TO A&A'S INVESTIGATION IN 2025

**A & A ENVIRONMENTAL CONSULTANTS INC.**  
 16 YOUNG STREET, WOODSTOCK, ONTARIO, N4S 3L4  
 TELEPHONE: 519-266-4680  
 FAX: 519-266-3666



**PROJECT #:** 8714  
**PROJECT TITLE:** NO MUNICIPAL ADDRESS, DARCY DRIVE, STRATHROY, ONTARIO

**DRAWING TITLE:** CSM FIGURE 15: B-B' CROSS SECTION SHOWING THE PAH SOIL RESULTS ON SITE

**SCALE:**  
 ALL SCALE NOTATIONS ARE BASED ON 11" x 17" FORMAT DRAWINGS

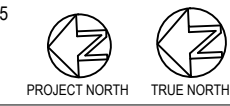
VERTICAL:

HORIZONTAL:

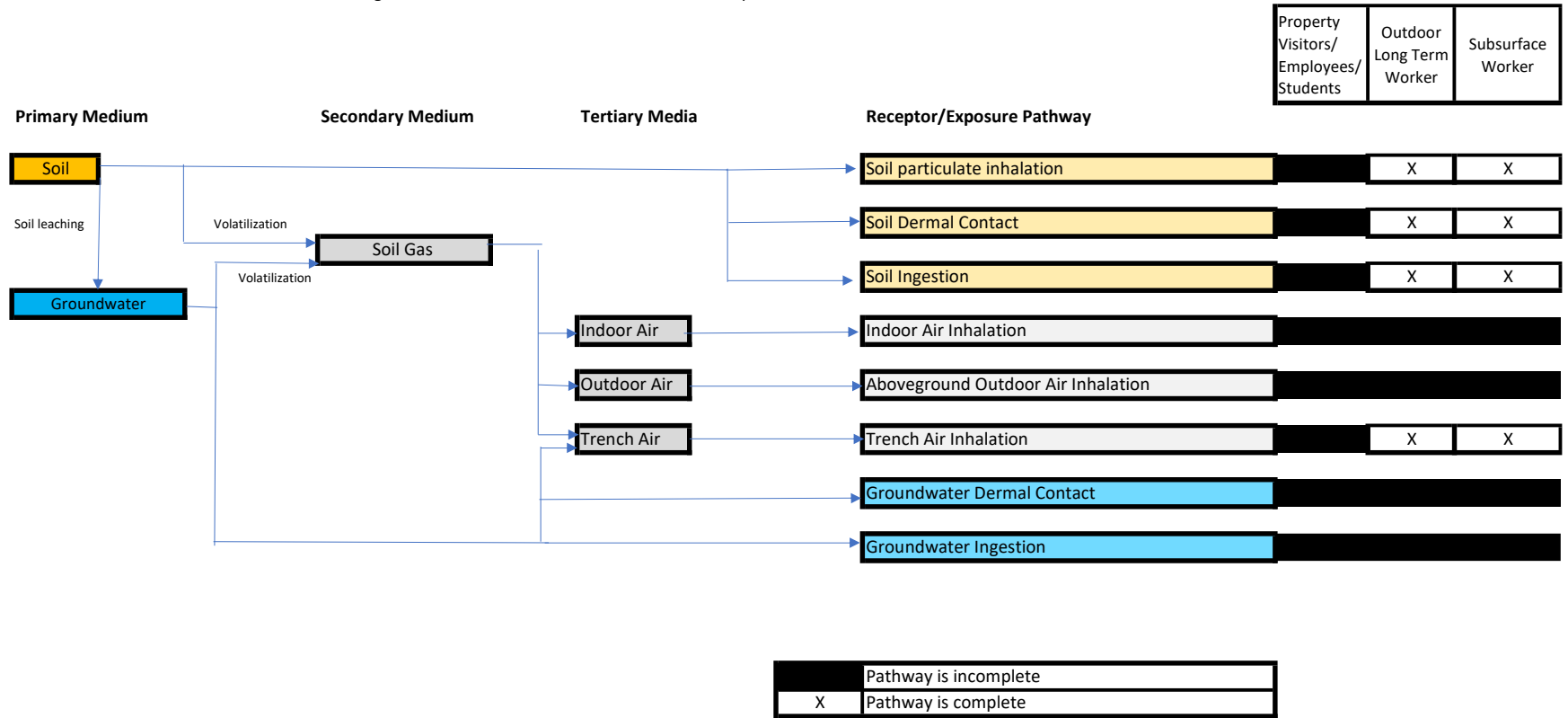
**REFERENCES:**  
 www.esisinfo.com  
 www.google.com/earth  
 County of Middlesex | County of Middlesex | LIO, County of Middlesex | Middlesex County, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, AAFC, NRCan

**DATE:** MAR 2025

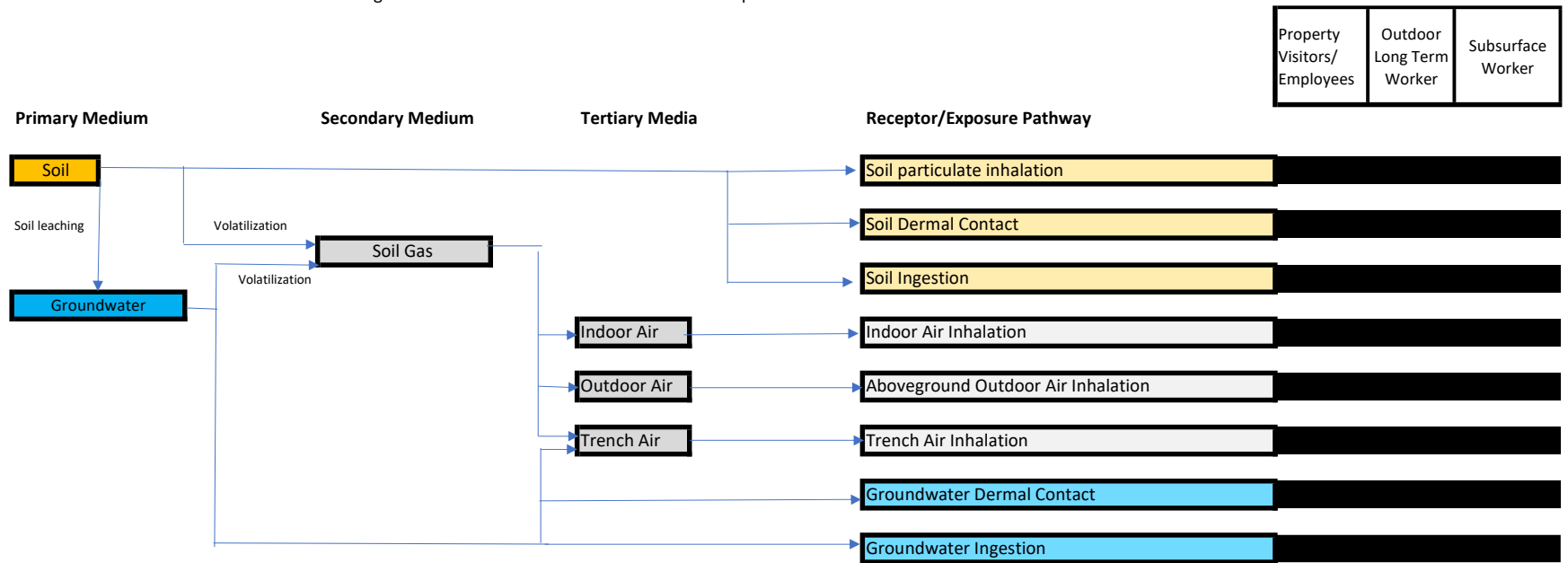
**REVISION #:** -



CSM Figure 16 - Human Health Risk Assessment Conceptual Site Model Pre-Remediation



CSM Figure 17 - Human Health Risk Assessment Conceptual Site Model Post-Remediation

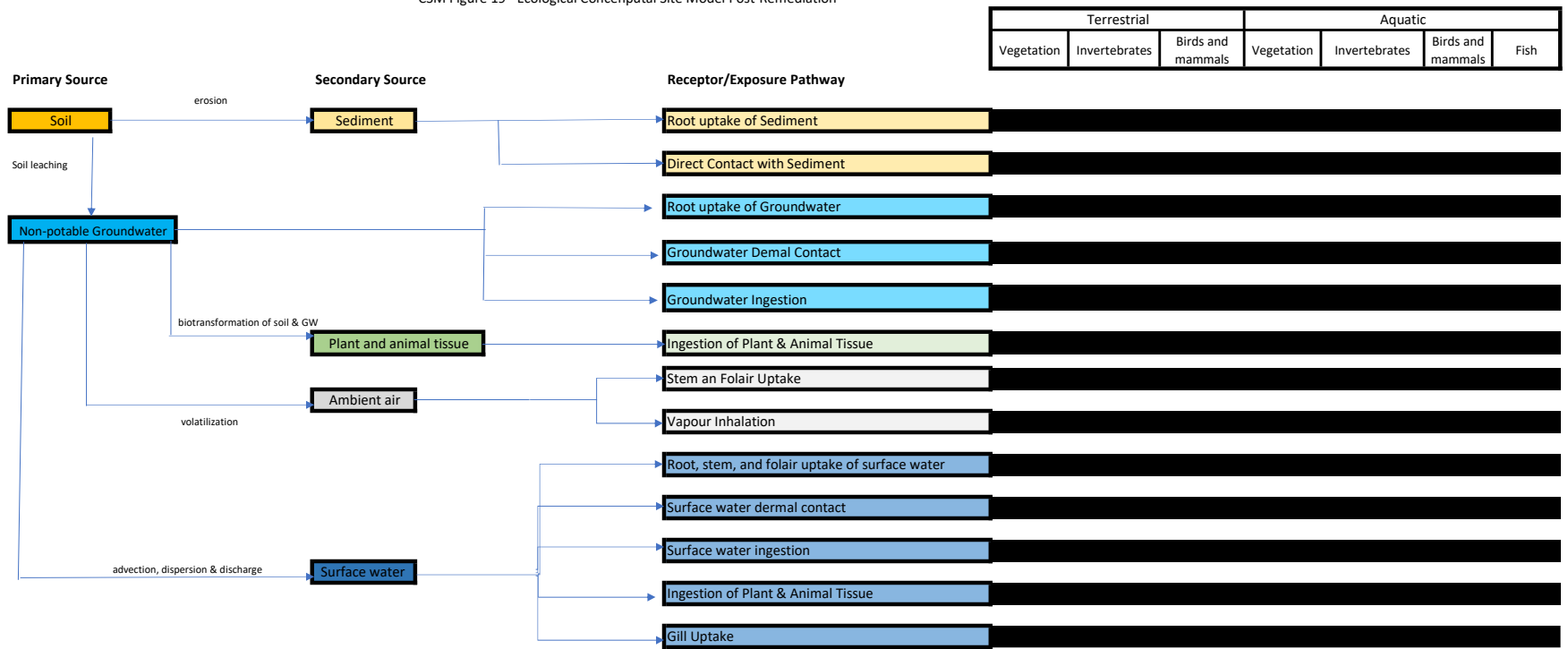


\*No COCs remain on Site post remediation (ie all pathways incomplete)

	Pathway is incomplete
X	Pathway is complete



CSM Figure 19 - Ecological Conceptual Site Model Post-Remediation



\*No COCs remain on Site post remediation (ie all pathways incomplete)