Hydrogeological Assessment Report

303, 309 and 317 Speedvale Avenue East

Guelph, Ontario

Habitat for Humanity Wellington Dufferin Guelph
Final Report | Version 00

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Property and Confidentiality

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APPENDICES

1. Introduction and Project Background

Englobe Corp. ("Englobe") was retained by Habitat for Humanity Wellington Dufferin Guelph ("the Client") to carry out a hydrogeological investigation. The purpose of the investigations was to support the design of a proposed six (6) storey residential building with surface parking ("the Project") at the property located at 303, 309 and 317 Speedvale Avenue East in Guelph, Ontario ("the Site"). The location of the Site is shown on the attached Site Location Map in **Appendix A, Figure 1**. The investigation was conducted as per Englobe's proposal, dated August 21, 2023, and as authorized by the Client on August 23, 2023.

The objectives of Englobe's hydrogeological investigation were to assess the groundwater conditions at the Site and to provide a construction (temporary) dewatering estimate to evaluate the potential need for an Environmental Activity and Sector Registry (EASR) for dewatering rates exceeding 50,000 L/day but not exceeding 400,000 L/day or Permit To Take Water (PTTW) application for dewatering rates exceeding 400,000 L/day for construction of the proposed building.

This report has been prepared specifically and solely for the Project, as described herein. It presents the factual results of the field investigation and provides temporary dewatering estimates based on the assumed construction methodologies and construction duration.

The hydrogeological assessment results are presented in **Sections 3, 4, 5, 6, and 7** of this report.

This Hydrogeological Assessment Report has been prepared for the sole use of Habitat for Humanity Wellington Dufferin Guelph. Any use or reliance on this report by another party is the responsibility of such party. This report is also subject to the statement of limitations included in **Appendix I**.

1.1 Background

The Site is made up of two parcels of land, located at 303, 309 and 317 Speedvale Avenue East. The property is accessed via asphalt paved driveways off Speedvale Avenue East and Manhattan Court. Asphalt paved surface parking / driveway areas are located on the southeast and southwest portions of the property. Surrounding land uses consist of commercial properties to the north on the corner of Speedvale Avenue East and Stevenson Street North and predominantly residential properties to the west and south. To the east of the Site is an area of commercial, institutional and residential use, including institutional properties (i.e. a place of worship and a public school) and condominium complexes. Directly adjacent to the Phase One Property are residential properties to the north, west and south and a dentist to the east.

Englobe completed a Phase One and Phase Two Environmental Site Assessment for the Site in support of the Project. The Phase One and Phase Two ESAs were documented within the following reports:

- Phase One Environmental Site Assessment: 303, 309, and 317 Speedvale Avenue East, Guelph, Ontario. Draft Report. Prepared for Habitat for Humanity Wellinton Dufferin Guelph. Dated August 17, 2023;
- Phase Two Environmental Site Assessment: 303, 309, and 317 Speedvale Avenue East, Guelph, Ontario. Draft Report. Prepared for Habitat for Humanity Wellinton Dufferin Guelph. Dated November 10, 2023.

Englobe also understands that CMT Engineering Inc. ("CMT") has completed a Geotechnical Field Investigation at the Site and prepared a Geotechnical Investigation Report ("CMT Geotechnical Report"), provided to Englobe for review, documented within the following report:

- Geotechnical Investigation, Proposed Building – 303, 309, 317 Speedvale Avenue East, Guelph, Ontario. CMT Project 23-399.R01. Prepared for Habitat for Humanity Guelph-Wellington, prepared by CMT Engineering Inc., dated August 3, 2023.

The results of Englobe's hydrogeological investigation for the proposed building are presented herein.

It is Englobe's understanding that the Site is currently developed with four (4) building structures consisting of one (1) commercial office building, one (1) commercial (formerly residential) massage therapist office, and one (1) private residential dwelling with one (1) detached garage structure.

Englobe was provided the following architectural drawing set related to the proposed project:

- *Speedvale Affordable Housing, Manhattan Court & Speedvale Ave E, Guelph, ON.* Architectural Drawing Set, Sheet Number A1.00 through A4.02. Prepared by Newton Group Ltd. Re-Issued for SPA Pre-Consultation. Dated December 19, 2023 (hereinafter the "Architectural Design Drawings").

Based on the Architectural Design Drawing, Englobe understands that the proposed project includes the construction of a six (6) storey residential building with an at grade basement, and surface parking on the south eastern portion of the Site. The Architectural Design Drawings list the basement elevation at 332.7 metres above mean sea level (masl), however it also depicts portions of the building foundation extending to depths below this elevation. For the purposes of this hydrogeological assessment, it has been assumed that the bottom elevation of the building foundation and footings will be no greater than 4 m below the indicated basement elevation of 332.7 masl.

2 Methodology

The hydrogeological assessment completed at the Site included drilling five (5) boreholes, all of which were completed as monitoring wells, collecting select groundwater samples for laboratory analysis, completing single-well response hydraulic conductivity tests, completing surveys of monitoring well and groundwater level elevations, procurement and review of an EcoLog™ Environmental Risk Database search, and estimation of temporary dewatering requirements. The methodologies and procedures applied to perform these key hydrogeological evaluation tasks are described in this Section.

2.1 Borehole Drilling and Monitoring Well Installation

Before carrying out the field investigation, Englobe obtained public utility locates (through Ontario One Call) for the utility clearances at each borehole location. Englobe then marked out the proposed borehole locations at the Site and obtained private utility locates for the utility clearances at each borehole location. A total of three (3) boreholes (MW23-01 through MW23-03) were advanced as part of the Phase Two ESA, and two (2) boreholes (MW23-04 and MW23-05) were advanced as part of the Hydrogeological Investigation at the Site on September 19 and 20, 2023 to maximum depths ranging from 6.1 to 7.6 mbgs. All five (5) boreholes (MW23-01 through MW-23-05) were subsequently instrumented as groundwater monitoring wells.

All five (5) boreholes were advanced by means of a track-mounted Geoprobe® direct push soil coring drilling rig equipped with dual tube sampling equipment. A hollow stem auger (HSA) was used in conjunction with

this system for installation of monitoring wells. The drilling equipment was supplied and operated by Direct Environmental Drilling Inc. (DED) of London, Ontario, an MECP licensed well drilling contractor. The specialist drilling sub-contractors operated the rigs under the full-time supervision of a Englobe Personnel. Representative soil samples were collected from within each borehole. All collected soil samples were logged in the field for texture, moisture and visual appearance.

Monitoring wells were installed all five (5) of the open boreholes (MW23-01 through MW23-05) for long term groundwater monitoring and this hydrogeological evaluation. The monitoring wells were constructed using Schedule 40, 50.8-mm diameter polyvinyl chloride (PVC) casings with a 0.254-mm machine-slotted screen. The well screen pipes were 3.0 m long and installed with an appropriate length of solid PVC riser pipe with threaded joint connections extending to grade. A sand-pack consisting of clean silica sand was then placed within the annulus space surrounding the screened section of the wells and to a depth of approximately 0.3 m above the well screen. Bentonite hole plug was placed from the top of the sand layer to ground surface to minimize the potential for cross-contamination from other permeable sublayers. A locking J-Plug cap was placed at the top of each well pipe, and a steel monument-style cover was cemented at surface to protect the wells. No glues or lubricants were used in the construction of the monitoring wells, and new disposable nitrile gloves were donned prior to the handling of the well materials for each monitoring well. A summary of the monitoring well screened intervals is presented in **Section 3.3** in **Table 3.1** and on the attached Monitoring Well Logs, provided in **Appendix B**.

Monitoring well locations are shown in **Figure 2** provided in **Appendix A**. Monitoring well construction details are presented schematically on the monitoring well logs provided in **Appendix B** of this report.

2.2 Elevation Survey of Boreholes and Monitoring Wells

Englobe completed a geodetic elevation survey of the boreholes and monitoring wells at the Site using a Geneq™ Model SXBlue Global Navigation Satellite System (GNSS) rover. The monitoring well locations were referenced to Universal Transverse Mercator North American Datum of 1983 (UTM NAD83) coordinates (zone 17T). Geodetic ground surface elevations were established based on GNSS and local base station telemetry.

The ground surface elevations obtained for each monitoring well advanced as part of Englobe's investigation are shown in **Table 2-1** and on the attached monitoring well logs, provided in **Appendix B**.

Table 2-1 Summary of the Geodetic and Elevation Survey Results for Completed Boreholes

Description	Surface Elevation (masl [1])	Northing (m [2]) [3]	Easting (m [2]) [3]
MW23-01	334.11	4823820.2	559842.3
MW23-02	333.38	4823830.9	559854.2
MW23-03	332.84	4823820.5	559863.5
MW23-04	332.49	4823794.8	559861.0
MW23-05	331.44	4823790.8	559813.0

[1] Metres above sea level.
[2] Metres.
[3] UTM NAD 83, Zone 17.

2.3 Groundwater Level Measurements

During Englobe's field investigation, the depth to groundwater was measured in each borehole as drilling progressed and upon completion. The groundwater depths were measured again by an Englobe personnel on September 21, 2023, September 29, 2022, and October 3, 2023 for each of the groundwater monitoring wells installed as part of the investigation.

Groundwater level measurements involved taking both water level and well depth measurements from the top of the well casing. Groundwater level readings were recorded to the nearest 0.01 m and converted into geodetic head elevations.

The water levels were measured using a Solinst Canada Ltd. Model 122 oil/water interface meter which was also used to confirm the presence/absence and thickness of light / dense non-aqueous phase liquids (LNAPLs / DNAPLS) that may potentially be residing on the surface of the groundwater table or the bottom of the well, respectively. The results regarding the presence or absence of free product are presented in **Section 5** of this report. The electronic interface probe was decontaminated before the collection of each water level measurement.

2.4 Hydraulic Conductivity Test

Short duration rising head hydraulic conductivity tests ("K-tests") were used to estimate the Site-specific *in-situ* horizontal hydraulic conductivity of the geological materials intercepted at the well screens of all monitoring wells with the exception of MW23-02 on September 22, 2023. Each of the K-tests were performed by inserting a solid slug into each well and recording the water level as it receded (falling head). An additional K-test was performed by removing the solid slug and recording the water level as it recovered (rising head). Water levels were recorded both electronically with a datalogger and manually with a water level probe during the recovery phases of the K-tests.

In addition to the hydraulic conductivity estimates from the short duration falling head test data, the grain size distribution data for the following soil samples were analyzed using the HydrogeosieveXL tool to estimate hydraulic conductivity:

- MW23-01 SS9 (6.10 – 6.71 mbgs);
- MW23-02 SS7 (4.57 – 5.33 mbgs);
- MW23-03 SS8 (5.18 – 6.10 mbgs);
- MW23-04 SS7 (4.57 – 5.33 mbgs); and,
- MW23-05 SS8 (5.18 – 6.10 mbgs).

The HydrogeoSieveXL calculates hydraulic conductivity values from the grain-size distribution curves and accounts for the characteristics of the porous medium (aquifer material) and temperature dependent properties (density and viscosity) of groundwater (Devlin, 2015).

The *in-situ* horizontal hydraulic conductivity test results and the calculated HydrogeoSieveXL results are provided in **Appendix C.**

2.5 Groundwater Sampling

Prior to groundwater sampling, monitoring wells were purged of three (3) casing volumes of water on September 21, 2023 to remove any groundwater impacted by drilling activities and to reduce the amount of

sediment within the wells. Purging was accomplished using a dedicated Waterra™ inertial pump with a 12.7-mm diameter foot valve and tubing.

On September 29, 2023, a groundwater sample was collected from monitoring wells MW22-01, MW22-03 MW22-04 and MW22-05. Prior to groundwater sampling, the monitoring wells were purged by applying low-flow techniques and a peristaltic pump (target flow rate approximately 150 mL/min) equipped with a flow-through cell to allow for measurements of water quality parameters using a Horiba U-50 multi-sensor water quality meter. Englobe monitored water quality parameters including pH, specific conductivity, dissolved oxygen (DO), temperature and oxidation reduction potential (ORP) and recorded each reading approximately every 2 to 3 minutes during purging. When three consecutive field parameters readings stabilized, specifically focusing on temperature, conductivity, and pH, were within +/- 0.5°C, +/- 3% and +/- 0.1 pH units, of each other, respectively, the flow-through cell was removed, and the groundwater sample was collected directly from the dedicated tubing into appropriate laboratory-supplied containers.

The groundwater sample was submitted to ALS Environmental (ALS) for laboratory analytical testing. ALS is certified by the Canadian Association for Laboratory Accreditation Inc. (CALA). The groundwater The groundwater samples were analyzed for one or more following chemical parameters:

- Petroleum hydrocarbon (PHC) fractions F1 to F4;
- Volatile organic compounds (VOCs);
- Dissolved metals and inorganics; and,
- The parameters listed within the City of Guelph Sewer Use By-law No. 15202 (1996)

The results of the groundwater analytical testing are discussed in **Section 5** of this report, including a comparison to the limits described in the City of Guelph Sewer Use By-law No. 15202 (1996), and the MECP Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition (MECP Table 2 SCS).

The laboratory Certificates of Analysis for the submitted groundwater sample is provided for reference in **Appendix F**.

2.6 Review of Environmental Data Sources

Englobe retained the services of EcoLog™ Environmental Risk Information Services (ERIS) Ltd. to conduct a search of databases from federal, provincial, and private sources for the Site These databases may contain environmental and historical land-use-related information about the Site and its neighbouring properties, such as reported spills, storage tanks, Certificates of Approval, Environmental Registry, Inventory of PCB Storage Sites, etc. The search area used by EcoLog was a 250-m radius from the perimeter of the Site. Only the databases that contained records and information regarding potential sources of contamination or spill events on the Site and surrounding properties within the search radius are discussed in **Section 6** below. The EcoLog ERIS report is provided for reference in **Appendix H**.

2.7 Estimation of Groundwater Dewatering Rates

This section presents the methodology employed in estimating groundwater dewatering rates as well as the potential radius of drawdown during temporary dewatering. Based on the Site conditions and the proposed construction activities, groundwater is expected to be encountered in excavations. Based on the results of the field investigation and data analysis, an analytical approach based on the Dupuit-Forchheimer

approximation for an unconfined aquifer (Powers et al., 2007) was used to estimate construction-related groundwater dewatering volumes.

Building Foundation Excavation

To estimate construction-related groundwater dewatering volumes, it is assumed that square excavations would be employed for the excavations associated with the building foundation. Based on the assumed excavation dimensions of the building foundation, and the assumption that radial groundwater flows from the excavation, an estimate of groundwater inflows to the planned excavation can be obtained using the following equation:

$$Q = \frac{\pi K\left(H^2 - {h_w}^2\right)}{ln\left(\frac{R_O}{r_w}\right)}$$

Where:

Q = Groundwater extraction rate in m^3/s

K = Hydraulic conductivity in m/s

H = Initial groundwater level (m)

h_w = Groundwater level at the base of the excavation (m)

R_O = Radius of Influence for a radial flow structure (m)

r_w = Equivalent radius of the well (m)

The lateral extent of groundwater drawdown or radius of influence associated with groundwater dewatering was estimated using the groundwater flow model and the Sichart and Kryieleis relationship (Powers et al., 2007):

$$R_o = 3000(H - h_w)\sqrt{K}$$

Where:

Ro = Radius of influence for a radial flow structure (m)

K = Hydraulic conductivity in m/s

H = Initial groundwater level (m)

h_w = Groundwater level at the base of excavation (m)

Based on the estimated value of R_o, the equivalent radius of influence for a point source can be calculated based on the following equation:

$$r_w = \sqrt{\frac{ab}{\pi}}$$

Where:

a = Length of the excavation area (m)

b = Width of the excavation area (m)

The values of temporary construction-related groundwater dewatering volumes were estimated using the preceding analytical approximations and were based on the assumed construction methodologies, sequencing, and duration for the planed excavation.

Further, the preceding analytical approximation assumes an unlined vertically walled excavation and that the groundwater will be drawn down to 0.5 m below the base of the excavation.

During construction, the contractor will have to manage water that accumulates in the open excavation during a rainfall event. These incidental precipitation volumes were calculated volumetrically based on a review of Intensity-duration-frequency (IDF) curves (Ontario Ministry of Transportation, November 2023) for the Site. The analysis determined the rainfall over 24 hours for 5-year, 10-year, 25-year, 50-year, and 100-year events was 79.4 mm, 91.9 mm, 108.0 mm, 119.7 mm, and 131.4 mm, respectively. A value of 131.4 mm was used to determine the incidental precipitation volumes to the proposed excavations.

The purpose of using the highest observed one-day rainfall event in the last 100 years is to ensure that the construction contractor is prepared to handle a similar rainfall event during construction without impeding construction progress. Therefore, the daily maximum pumping rates include groundwater inflow volume estimates from the Dupuit-Forchheimer approximations plus the incidental precipitation volume estimates.

The following general assumptions were made when estimating temporary groundwater dewatering rates during construction:

- It was assumed that the hydraulic conductivity of the geological materials is the same throughout the Site and does not vary by location (isotropic conditions).
- Groundwater dewatering estimates presented in this report do not account for artesian conditions requiring pressure relief, potential hydraulic uplift and associated aquifer depressurisation.
- It was assumed that the contribution of the subject groundwater flow regime from the nearby surface water bodies is negligible.
- Groundwater inflow rates were estimated based on the proposed retrofit being a stand-alone project, with no other concurrent groundwater pumping or dewatering activities in the area.
- It was assumed that the construction dewatering will occur sequentially, with only one open excavation open at a given time.
- The extent of construction dewatering will vary depending on the type of material encountered in the actual excavations, excavation dimensions, the depth to groundwater, and the required depth of dewatering. The groundwater dewatering estimates presented in this report are based on the assumptions described herein regarding the excavation dimensions, construction method, groundwater levels, and hydraulic conductivity.
- Contractors bidding on the construction and dewatering services should make their own interpretation of the information presented in this report and other project documents, including bid design drawings, and draw their own conclusions as to how the conditions may affect their work or design.
- Changes in the design including excavation dimensions, changes in the location of proposed structures, construction methods and sequencing will require the recalculation of estimates presented in this report.
- Should significant water-bearing zones be encountered during the excavations, Englobe recommends

that supplementary hydraulic conductivity testing of the newly encountered water-bearing permeable materials be completed to update the groundwater inflow estimates presented in this report.

3 Description of Subsurface Conditions

3.1 Regional Geology

The regional surficial geology in the area of the Site is described as stone-poor, sandy silt to silty sand-textured till (Ontario Geological Survey, 2010). The Site is located within the physiographic region known as the Guelph Drumlin Field (Chapman and Putnam, 1984) and includes physiographic landforms of drumlins (Chapman and Putnam, 2007). The bedrock geology consists of sandstone, shale, dolostone and/or siltstone of the Guelph Formation (Ontario Geological Survey, 2011). Based on OGS Drift thickness mapping, bedrock is not expected to be encountered at the Site until a depth of at least 8.9 to 32.6 mbgs (Ontario Geological Survey, 2006).

3.2 Site-Specific Stratigraphy

Details of the subsurface soil conditions encountered in the five (5) boreholes advanced as part of Englobe's Hydrogeological Assessment are presented on the borehole and monitoring well logs in **Appendix B**. A general overview of the soil stratigraphy is provided in this section.

Considering the results of the field and laboratory investigations, the following descriptions provide a generalized overview of the different subsoils encountered in the boreholes advanced at the Site:

- **Asphalt:** Asphalt was encountered at the surface within boreholes MW23-04 and MW23-05. The thickness of the asphalt ranged from 100 to 127 mm.
- **Topsoil:** Loose, silty, organic topsoil was encountered at the surface within boreholes MW23-01, MW23-02 and MW23-03. The thickness of the topsoil ranged from 100 to 305 mm.
- **Fill:** Fill materials consisting of brown sand and gravel with trace silt, brown silty sand, or silt at depths ranging between 0.8 to approximately 3.0 m mbgs were encountered in MW23-01 and MW23-04.
- **Native Sand and Silt:** In all borehole locations, the fill materials or topsoil were underlain by brown to grey sand with trace to some silt and gravel to sand and silt with some clay and trace gravel to the final extent of the excavations at approximately 6.1 mbgs.

3.3 Hydrogeology

During Englobe's field investigation at the Site, groundwater was encountered during the advancement of MW23-01, MW23-03, MW23-04, and MW23-05 on September 19th, and 20th, 2023. Follow-up measurements of the groundwater depths at the installed monitoring wells were completed on September 21st, 22nd, 29th, and October 4th, 2023. **Table 3-1** summarizes the follow-up groundwater level readings taken at the monitoring wells installed during Englobe's field investigation.

It should be noted that the groundwater levels are transient and tend to fluctuate with the seasons and periods of precipitation, sometimes by up to 2 m or more. The groundwater conditions encountered during this investigation may not, therefore, be representative of the groundwater conditions during the construction period. Therefore, additional groundwater monitoring is recommended before the start of construction.

Borehole and monitoring well locations are shown in **Figure 2**, provided in **Appendix A**. Borehole and monitoring well logs are provided in **Appendix B** of this report.

Table 3-1 Summary of Follow-up Groundwater Level Observations from Englobe's Field Investigation

Borehole ID	Approx. Ground Elevation (masl [1])	Riser Height (m [2])	Screened Interval Depth (mbgs [3]) [4]	Screened Stratigraphic Layer(s) [4]	Approximate Groundwater Level (mbgs [3] / *masl* [1])			
					Sept. 21, 2023	Sept. 22, 2023	Sept. 29 2023	Oct. 3, 2023
MW23-01	334.113	0.84	4.57 - 7.62	Silt to Silty Sand	6.64 / *327.47*	6.66 / *327.45*	6.85 / *327.26*	6.77 / *327.35*
Average Groundwater Level for MW23-01 (mbgs [3] / *masl* [1])					6.73 / *327.38*			
MW23-02	333.381	0.945	3.81- 6.86	Silt to Sandy Silt	Dry / *N/A*	Dry / *N/A*	Dry / *N/A*	Dry / *N/A*
Average Groundwater Level for MW23-02 (mbgs [3] / *masl* [1])					Dry / *N/A*[6]			
MW23-03	332.839	0.945	3.81- 6.86	Silt to Sandy Silt	5.37 / *327.47*	5.37 / *327.47*	5.45 / *327.39*	5.49 / *327.35*
Average Groundwater Level for MW23-03 (mbgs [3] / *masl* [1])					5.42 / *327.42*			
MW23-04	332.493	-0.19	3.05-6.10	Silt to Silt with trace sand, trace gravel to Silty Sand	5.24 / *327.25*	5.25 / *327.24*	5.12 / *327.183*	5.37 / 327.12
Average Groundwater Level for MW23-04 (mbgs [3] / *masl* [1])					5.25 / *327.20*			
MW23-05	331.444	-0.16	3.05-6.10	Silt to Silty Sand to Sand, some Silt	4.60 / *326.84*	4.62 / *326.83*	4.66 / *326.78*	N/A[5]
Average Groundwater Level for MW23-05 (mbgs [3] / *masl* [1])					4.63 / *326.81*			
Overall Average Groundwater Level (mbgs [3] / *masl* [1])					5.51 / *327.20*			

[1] Metres above sea level.
[2] Metres.
[3] Metres below ground surface.
[4] Screened intervals and Screened Stratigraphic Layer(s) were based on the Englobe 2023 Borehole Logs.
[5] Not Measured.
[6] Not included in the average groundwater level at the Site.

Measured groundwater levels varied from 4.60 m to 6.85 mbgs, with measured groundwater elevations from 326.78 to 327.47 masl across all the measuring events. MW23-02 was dry across all measuring events.

The nearest water body to the Site is Speed River located approximately 810 m to the west of the Site. Speed River flows from Guelph Lake, located approximately 3.0 km northeast of the northeastern corner of the Site. It is thus anticipated that the regional groundwater flow direction is to the southwest towards the Speed River. It is noted, however, that local groundwater flow can be influenced by surface topography and subsurface utilities and structures. Groundwater levels from W0000024-2, the nearest monitoring well that is part of the Provincial Groundwater Monitoring Network (PGMN) Program screened at a similar depth and in similar overburden materials as Englobe's installed monitoring wells at the Site, were also reviewed for the period of available PGMN well data. Direct observation of the hydraulic response in the surficial

geological materials (i.e., silt) to rainfall events with higher than a 10-year return period is not possible from available PGMN data. A review of temporal changes in groundwater levels during the wet and dry seasons in the period of May 2001 through to October 2018 indicated that the largest change in groundwater level due to the wet weather conditions occurred in 2002 with a + 1.39 m difference. Therefore, high groundwater levels and inflows should be anticipated during wet weather conditions.

Hydraulic conductivity values were estimated for the stratigraphic units within the screened intervals of MW23-01, MW23-03 through MW23-05 based on the *in-situ* hydraulic conductivity testing carried out on September 22, 2023.

The hydraulic conductivity test results are provided in **Appendix C** and are summarized in **Table 3-2** below.

Table 3-2 Summary of Estimated Hydraulic Conductivity Values

Borehole / Sample ID	Screened Stratigraphic Layer(s) [2]	Test Method	Data Analysis Method	Hydraulic Conductivity (m/s [3])
***In-Situ* Hydraulic Conductivity Test Results**				
MW23-01 Screened Interval (4.59 – 7.56 mbgs)	Silt to Silty Sand	Slug (Solid), Falling Head	Dagan (1978) [1]	7.85×10^{-7}
		Slug (Solid), Rising Head		8.03×10^{-7}
MW23-03 Screened Interval (2.98 – 5.98 mbgs)	Silt to Sandy Silt	Slug (Solid), Falling Head	Dagan (1978) [1]	4.38×10^{-7}
		Slug (Solid), Rising Head		1.15×10^{-6}
MW23-04 Screened Interval (3.15 – 6.15 mbgs)	Silt to Silty Sand	Slug (Solid), Falling Head	Dagan (1978) [1]	8.44×10^{-7}
		Slug (Solid), Rising Head		7.28×10^{-7}
MW23-05 Screened Interval (3.16 – 6.16 mbgs)	Silt to Sand with some Silty Sand	Slug (Solid), Falling Head	Dagan (1978) [1]	7.20×10^{-6}
		Slug (Solid), Rising Head		6.11×10^{-6}
Geometric Mean of *In-Situ* Hydraulic Conductivity (m/s)				1.31×10^{-6}
Grain Size Hydraulic Conductivity Test Results				
MW23-01 SS9 (6.10 – 6.71 mbgs)	Sand and Silt, some Clay, trace Gravel	Grain size data	Devlin (2015) [2]	1.75×10^{-7}
MW23-02 SS7 (4.57 – 5.33 mbgs)	Sand and Silt, some Gravel, trace Clay	Grain size data	Devlin (2015) [2]	7.52×10^{-7}
MW23-03 SS8 (5.18 – 6.10 mbgs)	Sandy Silt, Traces of Gravel and Clay	Grain size data	Devlin (2015) [2]	1.55×10^{-7}
MW23-04 SS7 (4.57 – 5.33 mbgs)	Sand and Silt, traces of Gravel and Clay	Grain size data	Devlin (2015) [2]	6.33×10^{-7}

Borehole / Sample ID	Screened Stratigraphic Layer(s) [2]	Test Method	Data Analysis Method	Hydraulic Conductivity (m/s [2])
MW23-05 SS8 (5.18 – 6.10 mbgs)	Silty Sand, trace Clay	Grain size data	Devlin (2015) [2]	1.22×10^{-5}
Geometric Mean of Grain Size Analysis Hydraulic Conductivity (m/s)				6.91×10^{-7}
Overall Mean of the Geometric Means of *In-Situ* and Grain Size Analysis Hydraulic Conductivities (m/s)				9.51×10^{-7}

[1] Hydraulic conductivity data analysis was carried out using AQTESOLV for Windows, Version 4.50.002 (HydroSOLVE, Inc. 2007).

[2] Analyzed using the HydrogeosieveXL tool to estimate hydraulic conductivity (Devlin, 2015). Based on the geometric mean of the dataset meeting acceptability criteria.

4 Assumed Construction-Related Temporary Dewatering Program

To facilitate the construction of the proposed development, excavations extending below the observed groundwater level are anticipated based on Englobe's understanding from the Re-Issued For SPA Pre-Consultation Drawings provided by the Client (dated December 19, 2023), included in **Appendix E**. The construction activities anticipated to have excavations extending below the observed shallow groundwater level are as follows:

- **Building Excavation:** Based on the information provided by the Client and the Architectural Drawing Set, the foundation of the building is expected to have a bottom elevation of no lower than approximately 328.7 masl. The existing ground surface ranges from approximately 331.4 to 334.1 masl. Based on the Architectural Design Drawings, the excavation has been assumed to be approximately 46.0 m in length, 20.0 m in width, with a minimum elevation of approximately 328.7 masl.

It should be noted that the construction-related temporary dewatering estimates are based on the Issued For SPA Pre-Consultation Drawings provided to Englobe. It is recommended that Englobe be retained to review any final Issued for Construction design packages for the Project to evaluate if recalculation of temporary dewatering estimates may be required.

Temporary and localized groundwater dewatering is anticipated to be required to complete construction. It is assumed that groundwater will be lowered to 0.5 m below the base of the excavation bottom.

Groundwater inflow rates for two separate scenarios (average conditions case and assumed worst-case case scenario) were estimated based on the Dupuit-Forchheimer approximation for an unconfined aquifer and the following assumptions and parameters:

- The excavations for the above-noted construction works are assumed to be undertaken sequentially, with only one excavation open at a time;
- For the average conditions case scenario, the geometric mean in-situ hydraulic conductivity value (1.31×10^{-6} m/s) from the hydraulic conductivity estimates completed by Englobe was applied;
- For the assumed worst-case scenario, it was assumed that hydraulic conductivity of the geological materials would be the highest hydraulic conductivity value estimated from all test method during this investigation (i.e. 1.22×10^{-5} m/s);

- For the average conditions scenario, the groundwater level in the vicinity of the proposed excavations was assumed to be the average elevation of all groundwater level readings taken at the monitoring wells located within the area of the proposed excavations (327.20 masl), as summarized in **Table 3-1** above.
- For the assumed worst-case scenario, the highest observed groundwater level elevation in the vicinity of the proposed excavations was assumed to be the highest groundwater levels measured at the Site (327.47 masl) plus a 1.39 m increase in the water level (328.86 masl) in response to a change to wet weather conditions, based on the reviewed PGMN data.
- It was assumed that the depth to an underlying aquitard was approximately 10 mbgs, which is the approximate depth to the underlying limestone bedrock from surrounding MECP well records;
- The required depth of dewatering was assumed to be 0.5 m below the excavation floors;
- For ease of calculation, it was assumed that all excavations will be open cuts and upward seepage or pressure from the geological units underlying the Site is negligible (i.e., absence of artesian pressure or confining layers within anticipated excavation depths);
- It was assumed that surface water will be diverted or bypassed before the commencement of dewatering and surface water contribution to the dewatering is assumed to be negligible; and,
- A safety factor of 2 to account for the variabilities in the hydraulic properties.

Table 4-1 presents estimates of the average condition case and assumed worst-case dewatering volumes, including the estimated incidental precipitation volumes and total daily volumes. Incidental precipitation into the excavation will need to be managed during construction. A 131.4 mm rain event (highest observed one-day precipitation amount in last 100 years at the Site) over 24 hours would increase groundwater taking rates by the amounts summarized in **Table 4-1** below.

Table 4-1 Estimates of Groundwater Taking Volumes

Description of Excavation and Approximate Chainage	Scenario	Approximate Steady State Condition [1] (m^3/day)	Incidental Precipitation [2] (m^3/day)	Total Daily Volumes [4] (m^3/day)
Building Foundation Excavation[3]	Average Conditions		Water Takings Not Anticipated with the Exception of Managing Incidental Precipitation	
Building Foundation Excavation[3]	Assumed Worst Case	143.0	123.4	266.4

[1] Inflow volumes when the groundwater system reaches the steady-state including safety factor to account for the transient volumes during the initial days of dewatering.

[2] Volumetric estimate of water that could accumulate in an open excavation because of direct precipitation. Estimated based on the excavation dimensions and highest recorded 24-hour rainfall in last 100 years for the Site. Note that the management of incidental precipitation is not included within total water taking volumes allowed under an EASR.

[3] Based on the assumed excavation dimensions estimated from the provided Issued for SPA Pre-Consultation Drawings in **Appendix E.**

[4] The approximate steady-state volumes provided contribute to the water taking volume limits under an EASR. The total daily volumes provided include incidental precipitation volumes as a reference for the contractor in the event of a precipitation event during construction.

Groundwater taking estimates are based on the assumed construction duration, excavation dimensions, construction sequencing, and methodology. Should there be changes in these items, revised groundwater-taking volumes will be required. It is the dewatering contractor's responsibility to determine the type and extent of the dewatering system required.

The predicted radius of influence of groundwater taking associated with the construction activities is anticipated to range from 13.2 m (average conditions case) to 22.4 m (assumed worst-case scenario), within the shallow soils for the building foundation excavation. Further details on the estimates of groundwater taking volumes are provided in **Appendix D.**

5 Groundwater Sampling Results

Englobe used a Solinst Canada Ltd. Model 122 oil/water interface meter to confirm the presence/absence and thickness of free (petroleum) product that may potentially be residing on the surface of the groundwater table. No free product was noted at the time of Englobe's water level measurements nor at the time of groundwater sampling. The electronic interface probe was decontaminated prior to the collection of each water level measurement.

On September 29, 2023, a groundwater sample obtained from MW23-04 and MW22-05 and was submitted for analysis of parameters listed in the City of Guelph Sewer Use By-law No. 15202 (1996). Two additional groundwater samples were taken as part of the Phase Two ESA from MW23-01 and MW23-03, and submitted for analysis of PHCs F1 to F4, VOCs and dissolved metals and inorganics.

A summary of the parameters exceeding the City of Guelph Sewer Use By-law No. 15202 (1996) and MECP Table 2 SCS are presented in **Table 5-1**.

Table 5-1 Summary of Parameter Exceedances for Tested Groundwater Samples

Sample Location	Parameters Exceeding City of Guelph Sewer Use By-law No. 15202 (1996) for Sanitary Discharge Limits [1]	Parameters Exceeding City of Guelph Sewer Use By-law No. 15202 (1996) for Storm Discharge Limits [2]	Parameters Exceeding for MECP Table 2 SCS [3]
MW23-01	N/A [4]	N/A [4]	None [4]
MW23-03	N/A [4]	N/A [4]	None [4]
MW23-04	None [5]	None [5]	N/A [4]
MW23-05	None [5]	Total Suspended Solids, Total Zinc	N/A [4]

[1] The City of Guelph Sewer Use By-law No. 15202 (1996), Section 2.1 for Discharges to Sanitary Sewer.
[2] The City of Guelph Sewer Use By-law No. 15202 (1996), Section 3.1 for Discharges to Storm Sewer.
[3] MECP "Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act", April 2011, Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition.
[4] Not applicable. Groundwater was not sampled for applicable criteria.
[5] None of the parameters were exceeded by the tested sample for the corresponding discharge limits or SCS.

Laboratory certificates of analysis for the groundwater samples are presented in **Appendix F**.

Based on the groundwater sampling and analysis completed as part of this investigation, concentrations of total suspended solids and total zinc exceeded the City of Guelph Storm Discharge Limit for MW23-05. The groundwater samples submitted from MW23-05 met the City of Guelph Sanitary Discharge Limits. The

groundwater samples submitted from MW23-01 and MW23-03 met the Table 2 SCS. Treatment of the discharge water is therefore expected to be required if discharging to the municipal storm sewer infrastructure.

Based on the water quality results presented in **Table 5-1**, the removal of substances exceeding applicable discharge limits may be required before discharge to the storm sewer.

The quality of groundwater that is to be removed during the construction activities should be re-assessed before and during construction dewatering activities to determine if it may be disposed of directly to the local sanitary or storm sewer without treatment, under a permit that would be required from the local municipality and/or conservation authority. The construction contractor is solely responsible for obtaining a permit from the local municipality and conservation authority for the discharge of water to the sanitary or storm sewer. The local municipality's sewer use program may require analysis for parameters not included as part of this assessment. We recommend that a project-specific groundwater management plan be required for the construction work.

It is also recommended that the contractor develop a spill management and control plan for review and approval by the local municipality and/or the conservation authority and to implement during construction, to limit the potential for introduction of groundwater contamination from spills related to construction activities.

6 Potential for Possible Mobilization of Contaminants

Englobe completed a Phase One Environmental Site Assessment (Phase One ESA) for the Site to identify issues of potential concern related to soil and groundwater contamination before completion of the field investigation. The Phase One ESA consisted of the completion of a site reconnaissance, review of available records (aerial photographs, city directories, and fire insurance plans), and a review of selected environmental databases (including spill records, fuel storage tank records, waste generation records, waste disposal site records, etc.). The environmental database review was completed by obtaining an EcoLog Environmental Risk Information Services (ERIS) report for an area with a radius of approximately 250 m from the boundaries of the Site. The AOPU report was submitted under separate cover. A copy of the EcoLog ERIS report has been provided in **Appendix H**.

A summary of the issues of potential concern related to potential groundwater contamination, as identified in the Phase One ESA report, within a 250-m radius of the Site is provided in **Table 6-1.**

Table 6-1 Summary of Potential Concerns Related to Groundwater Contamination

PCA [1] Identification Number	PCA [1] Location	Potentially Contaminating Activity [1]
PCA 1	324 Speedvale Avenue East (90 m north-northeast of the Site)	No. 28 - Gasoline and Associated Products Storage in Fixed Tanks
PCA 2	358 Speedvale Avenue East (250 north-northeast of the Site)	No. 37 - Operation of Dry-Cleaning Equipment (where chemicals are used) Unspecified PCA - Waste Generator Records
PCA 3	328 Speedvale Avenue East (145	No. 28 - Gasoline and Associated Products Storage in Fixed Tanks

PCA [1] Identification Number	PCA [1] Location	Potentially Contaminating Activity [1]
	m north-northeast of the Site)	
PCA 4	328-378 Speedvale Avenue East (145 m north-northeast of the Site)	Unspecified PCA – Waste Generator Records
PCA 5	On-Site – 317 Speedvale Avenue East	No. 30 – Importation of Fill Material of Unknown Quality

[1] Potentially Contaminating Activity number/description as referenced in Table 2 of O.Reg. 153/04.

Periodic testing of the discharge water during dewatering is recommended to verify water quality and, if contaminants are detected, to aid in identifying proper treatment requirements.

As summarized in **Sections 2.5 and 5**, Englobe completed a limited investigation of groundwater quality conditions at the Site. Englobe collected groundwater samples from monitoring wells MW23-01, MW23-03 MW22-04 and MW22-05 (September 29, 2023). Groundwater samples were submitted for laboratory analysis of parameters listed in the City of Guelph Sewer Use By-law No. 15202 (1996) (MW23-04 and MW23-05), petroleum hydrocarbon (PHC) fractions F1 to F4, volatile organic compounds (VOCs), and dissolved metals and inorganics (MW23-01 and MW23-03).

Based on the groundwater sampling and analysis completed as part of this investigation, concentrations of total suspended solids and total zinc exceeded the City of Guelph Storm Discharge Limit for MW23-05. The groundwater samples submitted from MW23-05 met the City of Guelph Sanitary Discharge Limits. The groundwater samples submitted from MW23-01 and MW23-03 met the Table 2 SCS.

Treatment of the dewatering effluent may be required under the applicable discharge agreement established with the local municipality for discharge to the storm sewer system. It is recommended that periodic sampling of the groundwater and submission of collected samples for laboratory analysis be undertaken to confirm compliance with the applicable discharge agreement. Laboratory analysis should be (at a minimum) for the parameters listed in the City of Guelph Sewer Use By-law No. 15202 (1996). The terms of a discharge agreement to discharge the water to the sewer system may also specify the frequency of sampling and the parameters to be analyzed.

7 Evaluation of Impacts

7.1 Private Water Supply

A review of MECP Water Well Records (WWRs) indicated that 47 WWRs are registered within 500 m of the Site. Of the 47 WWRs, 1 is designated as a municipal water supply well. The remaining 46 WWRs are designated as observation wells, monitoring and test holes, abandoned monitoring and test hole, or undesignated.

The water supply well is as follows:

- Well ID 6704194, designated municipal water supply well, was completed in dalomite at a maximum depth of approximately 46.3 m and was dated March 1, 1946. Located approximately 470 m south of the southern boundary of the Site.

The above-noted water supply well is identified as the Emma Well, and is registered under active Permit to Take Water Number 0157-C3JSR7. Based on the distance of the supply well from the Site, and as the well is screened in the bedrock, it is not anticipated that construction dewatering will interfere with the supply wells since the dewatering will be within the shallow overburden materials and the estimated area of influence associated with the excavation dewatering is in the order of 13.2 m to 22.4 m.

7.2 Local Sewage Works

As summarized in **Section 4**, construction dewatering volumes were estimated as follows:

Englobe assumed that discharge will be to the municipal storm or sanitary sewer system. The contractor will be responsible for discharging the water in a manner that does not result in erosion, flooding, or siltation.

As summarized in **Section 5**, Based on the groundwater sampling and analysis completed as part of this investigation, concentrations of total suspended solids and total zinc exceeded the City of Guelph Storm Discharge Limit for MW23-05. The groundwater samples submitted from MW23-05 met the City of Guelph Sanitary Discharge Limits. The groundwater samples submitted from MW23-01 and MW23-03 met the Table 2 SCS. Treatment of the discharge water is therefore expected to be required if discharging to the municipal storm sewer infrastructure.

Based on the limited number of potentially contaminating activities identified in **Table 6-1**, the continued presence and possible mobilization of these potential contaminants of concern during the anticipated construction dewatering is considered unlikely. Nevertheless, testing of the discharge water during dewatering is recommended to verify water quality and, if contaminants are detected, to aid in identifying proper treatment requirements and potential impacts to the environment from the release of discharge effluent.

7.3 Existing Water Takings

Section 34 of the Ontario Water Resources requires a permit for non-construction-related water takings of groundwater in excess of 50,000 L per day. Construction-related temporary groundwater takings between 50,000 L/day to 400,000 L/day require registration under Environmental Activity and Sector Registry (EASR). A Permit to Take Water (PTTW) is required for construction-related dewatering activities of greater than 400,000 L/day. A summary of all active PTTWs within approximately 500 m of the Site is provided in **Table 7-1** below:

Table 7-1 Summary of Active PTTWs within 500-m of Project Alignment

Permit Number	Permit Holder Name	Purpose	Max Litres per Day	Source Typer	Distance to Site
0157-C3JSR7	The Corporation of the City of Guelph	Municipal Water Supply	3,100,000	Groundwater	470 m south of Site

The construction dewatering at the Site is anticipated to be short-term (3 to 20 days) and has a maximum estimated radius of influence of 22.4 m. It is not anticipated that construction dewatering will interfere with the above active PTTW.

7.4 Municipal Water Supply

The municipal water supply system for the City of Guelph is obtained primarily from a series of groundwater supply wells screened in the deep Paleozoic bedrock (Guelph and Amabel Formations). The closest municipal water supply well to the Site is Emma Well (WWR #6704194), which is located approximately 470 m south of the southern boundary of the Site. The predicted radius of influence associated with the construction dewatering is anticipated to range from 13.2 m to 22.4 m in the shallow overburden. Thus, dewatering activity related to the construction excavation is not anticipated to result in adverse interference to any municipal water supply wells.

7.5 Surface Water and Natural Functions of the Ecosystem

The nearest water body to the Site is Speed River located approximately 810 m to the west of the Site. Speed River flows from Guelph Lake, located approximately 3.0 km northeast of the northeastern corner of the Site. Based on the distance of the closest surface water body and the predicted radius of influence associated with the water takings, the dewatering activity related to the construction excavation is not expected to adversely interfere with its function.

Based on the Ontario Ministry of Natural Resources and Forestry online GIS application no provincially significant wetlands (PSW) or Area of Natural & Scientific Interests (ANSI) are located within approximately 1 km of the Site. The estimated area of influence associated with the excavation dewatering is in the order of 13.2 m to 22.4 m. Based on the information available from the Issued for SPA Pre-Consultation Design Drawings and estimated area of influence based on the assumed construction method and excavation dimensions, adverse interferences to these natural features by the proposed groundwater dewatering is not anticipated.

7.6 Geotechnical Opinion Regarding the Potential for Settlements

The estimated groundwater dewatering rates discussed above are based on observed groundwater level, hydraulic conductivity, assumed duration of dewatering and produced an anticipated groundwater cone of depression associated with the water taking within the temporary excavations. Further, the groundwater dewatering estimates assume an unlined vertically walled excavation and that the groundwater will be drawn down to 0.5 m below the base of the excavations. The area of influence or extent of groundwater drawdown varies from 13.2 m to 22.4 m depending on the groundwater levels, hydraulic conductivity, and required groundwater drawdown. For the majority of the predicted area of influence, the underlying geology appears to be comprised of topsoil, underlain by native deposits of silt and silty sand.

The predicted area of influence of the assumed excavations may include existing utility infrastructure and buildings within the area of influence of water taking activities, therefore, the potential for the occurrence of settlements cannot be ruled out. It is recommended that a dewatering risk management plan consisting of a detailed settlement monitoring plan should be developed and submitted by the contractor.

8 Discharge Plan

The discharge plan described herein was prepared according to the assumptions and evaluations detailed in the preceding sections of the report with consideration for the requirements imposed under the EASR. Englobe assumed that discharge will be to the municipal storm or sanitary sewer system.

8.1 Description of Water Taking, Water Use, and Return to Environment

Temporary excavations will be made at the proposed development at the Site. As these temporary excavations will be partially below the groundwater table, water is expected to be taken from the open excavations to lower the groundwater table to allow for the safe and proper construction of the services. It is assumed that the construction contractor may apply a variety of dewatering techniques to lower the groundwater table. For example, a suitable dewatering program for the excavations may consist of a typical sump and pump system within the excavation or a well-point system. It should be noted that the actual required dewatering effort will depend on several factors, including excavation depth, sequencing, season and weather conditions, and the length of time the excavation is left open. It should be noted that the interpretation of the dewatering estimates presented in this report and the selection of an appropriate dewatering design is the responsibility of the contractor.

8.2 Groundwater Discharge Method

Englobe assumed that discharge will be to the municipal storm or sanitary sewer system. The construction contractor will be responsible for discharging the water in accordance with the requirements of the applicable discharge agreement and in a manner that does not result in erosion, flooding, or siltation. The construction contractor has the responsibility to obtain a discharge agreement from the City of Guelph for the discharge of water to the local storm or sanitary sewer system. The City of Guelph's discharge agreements may require assessment of parameters other than those sampled as part of this assessment.

Treatment of the dewatering effluent to lower the concentrations of contaminants to below the limits described in the discharge agreement will likely be required for discharges to the storm sewer system based on the limited groundwater analytical testing completed as part of this investigation. Periodic analytical testing of the treated dewatering effluent to confirm the quality of the dewatering effluent is recommended for the duration of the water-taking activities.

8.3 Off-Site Removal of Discharge

If contamination of the discharge water is suspected based on visual or olfactory evidence or analytical test results, and if it is not possible to achieve on-Site treatment to meet discharge limits to the natural environment, the groundwater shall be discharged directly into containment vessels that can be taken off-Site to an appropriate waste receiver or treatment facility by a licensed waste hauler.

8.4 Discharge Quantity

Under the assumed worst case conditions, it is expected that the groundwater taking rate for the Site would be limited to approximately 143.0 m^3/day for the assumed excavation of the building foundation, excluding any incidental precipitation.

During conditions of a rainfall event of the equivalent of a 100-year storm event, the accumulated volume of water within the excavation would increase the daily pumping rate in the excavation by 123.4 m^3/day for the assumed excavation of the building foundation.

Daily dewatering volumes of groundwater must not exceed 400 m^3/day to comply with the EASR. Total daily volumes of water that include incidental precipitation during a 100-year storm event should be communicated to the contractor for preparation in the event of a precipitation event. Work in excavations requiring dewatering should therefore cease or be modified as required during the 100-year storm event to comply with the EASR requirements of 400 m^3/day.

8.5 Sediment and Erosion Control

The contractor will be responsible for discharging the water in a manner that does not result in erosion, flooding, or siltation of nearby waterbodies. The amount of sediment in the dewatering effluent should be controlled by providing a filter system at the water intake(s) or outlet(s) to the sewer systems.

8.6 Discharge Quality

As summarized in **Section 5**, based on the groundwater sampling and analysis completed as part of this investigation, concentrations of total suspended solids and total zinc exceeded the City of Guelph Storm Discharge Limit for MW23-05. The groundwater samples submitted from MW23-05 met the City of Guelph Sanitary Discharge Limits. The groundwater samples submitted from MW23-01 and MW23-03 met the Table 2 SCS.

The quality of groundwater that is to be removed during the construction activities should be re-assessed before and during construction dewatering activities to determine if it may be disposed of directly to the natura environment or the local sanitary/storm sewer without treatment. A sewer discharge approval would be required to discharge water to the municipal sanitary sewer, and a water discharge approval may be required to discharge water to the environment. It is also recommended that periodic sampling of the dewatering discharge effluent and submission of collected samples for laboratory analysis be undertaken to confirm contaminant concentrations within the discharge water. Dewatering discharge effluent samples should be analysed for (at a minimum) for the parameters listed in the City of Guelph Sewer Use By-law No. 15202 (1996). The terms of a discharge agreement to discharge the water to the sewer system may also specify the frequency of sampling and the parameters to be analyzed.

Based on the distance between the excavations for the proposed building and the locations of the potential environmental concerns listed in **Section 6**, the possible mobilization of potential contaminants of concern during the anticipated excavation dewatering is considered unlikely. Nevertheless, testing of the discharge water during dewatering is recommended to verify water quality and, if contaminants are detected, to aid in identifying proper treatment requirements and potential impacts to the local environment.

9 Conclusions and Recommendations

Based on the above, the following conclusions are provided:

- Dewatering volumes presented in this report are based on the assumed excavation dimensions and construction methods, duration, sequence, and schedule, as per the Architectural Design Drawings. Changes in construction methods and duration, excavation dimension, and construction sequence may require recalculation of dewatering rates before construction. It is recommended that Englobe be retained to review any final Issued for Construction design packages for the Project to evaluate if recalculation of temporary dewatering estimates may be required.
- Based on the information available at the time of preparation of this report, groundwater taking volumes for assumed excavations were estimated as follows:
    - **Building Excavation:** For the 46.0 m long, 20.0 m wide building foundation excavation with a depth of 4.0 m, groundwater taking volumes are not anticipated with the exception of managing incidental precipitation (under the average conditions scenario) to 143.0 m^3/day (under the assumed worst-case scenario), excluding any incidental precipitation.

- It is recommended that periodic sampling of the groundwater and submission of collected samples for laboratory analysis be undertaken to confirm compliance with the applicable discharge agreement. Laboratory analysis should be at a minimum for the parameters listed with the City of Guelph Sewer Use By-law No. 15202 (1996).
- It is recommended that the contractor develop a spill management and control plan for review and approval by the City of Guelph and to implement during construction, to limit the potential for introduction of groundwater contamination from spills related to construction activities.
- Based on the above-noted estimates of water taking, registration with the EASR may be suitable for anticipated water takings. It is the responsibility of the Client and their dewatering contractor to ensure that taking volumes are within the applicable permit limits. If the daily water taking volumes are found to exceed those authorized in the EASR, it is recommended that the local MECP staff be notified. We also recommend the development of a monitoring plan by the contractor to satisfy the following objectives:
  - Confirm that the groundwater taking does not result in unacceptable impacts;
  - Confirm that discharge water quality meets the applicable discharge quality requirements; and
  - Initiate contingency action if unacceptable impacts do occur.

  It is recommended that a monitoring plan be developed and submitted by the contractor based on the consideration of the following:

  1. Monitoring of daily water taking including maintenance of a daily record of water taking volumes, flow rates, and durations for the water taking source would be required as part of the monitoring plan. It is recommended that the daily records of flow rates by each pump be maintained at the Site in graphical and digital formats by installing properly calibrated flow meters to the discharge hoses.
  2. Sampling procedures should be described for the grab sampling of discharge water and groundwater sampling from monitoring wells.
  3. Additionally, if actual water taking volumes approach the 400,000 L/day limit, methods should be employed by the contractor to limit groundwater dewatering rates below 400,000 L/day, such as:
     - Placing a flow restriction on the dewatering equipment to limit dewatering to below 400,000 L/day;
     - Reducing the excavation dimensions;
     - Not completing excavations during upset conditions (i.e., during storm events, during periods of high groundwater);
     - Use of engineered groundwater control systems to reduce groundwater extraction;

  If the above-noted methods are not feasible or are not able to reduce water-taking volumes to less than 400,000 L/day, then a Category 3 Permit to Take Water may be required for the water-taking.
- Should significant water-bearing zones be encountered during excavation, Englobe recommends that supplementary hydraulic conductivity testing of the newly encountered water-bearing permeable materials be completed to update the groundwater inflow estimates presented in this report. Groundwater dewatering estimates presented in this report do not account for artesian conditions, potential hydraulic uplift, and associated aquifer depressurisation.

- The quality of the groundwater to be removed during the construction activities should be re-assessed during construction dewatering activities according to the requirements that would be established under the water discharge agreement.
- The predicted area of influence of dewatering of the proposed excavations may be large enough to include existing buildings, roadways, and utilities located adjacent to the Site. Therefore, the potential for the occurrence of dewatering-related settlements within the predicted area of groundwater drawdown cannot be ruled out. It is recommended that a dewatering risk management plan consisting of a detailed settlement monitoring plan should be developed and submitted by the contractor.

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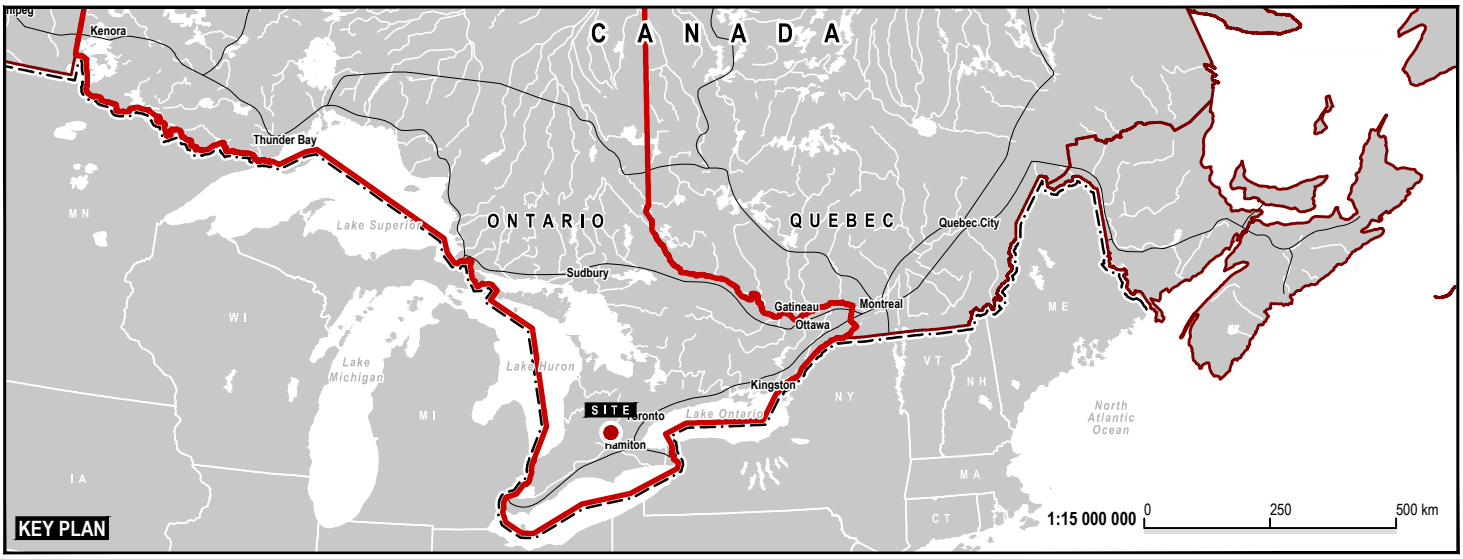
Appendix A
Figures

ENGLOBE



Note

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

Revision	Date	Issue	Approval
A	2023/10/26	Preliminary	KB

Client: Habitat for Humanity Wellington Dufferin Guelph

Site: 303, 309 & 317 Speedvale Avenue East, Guelph, ON

ENGLOBE

Report Title: Hydrogeological Assessment

Drawing Title: Site Location Map

Designed By: JG	Date: October 2023
Drawn By: JM	Project No.: 02302109.002
Approved By: KB	Figure No.: 1
Scale: As Shown	

2713 Lancaster Road, Unit 101, Ottawa, Ontario K1B 5R6 Tel: (613) 748-1415 Fax: (613) 748-1356 Website: www.englobecorp.com/canada

ENGLOBE

Note

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

Legend

- Approximate Project Limits
- 327.45 Monitoring Well Location Showing Groundwater Elevation (masl)

1:500

0 5 10 15 20 25 m

0 1:1 5 cm

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

Revision	Date	Issue	Approval
A	2023/10/26	Preliminary	KB

Client
Habitat for Humanity Wellington Dufferin Guelph

Site
303, 309 & 317 Speedvale Avenue East, Guelph, ON

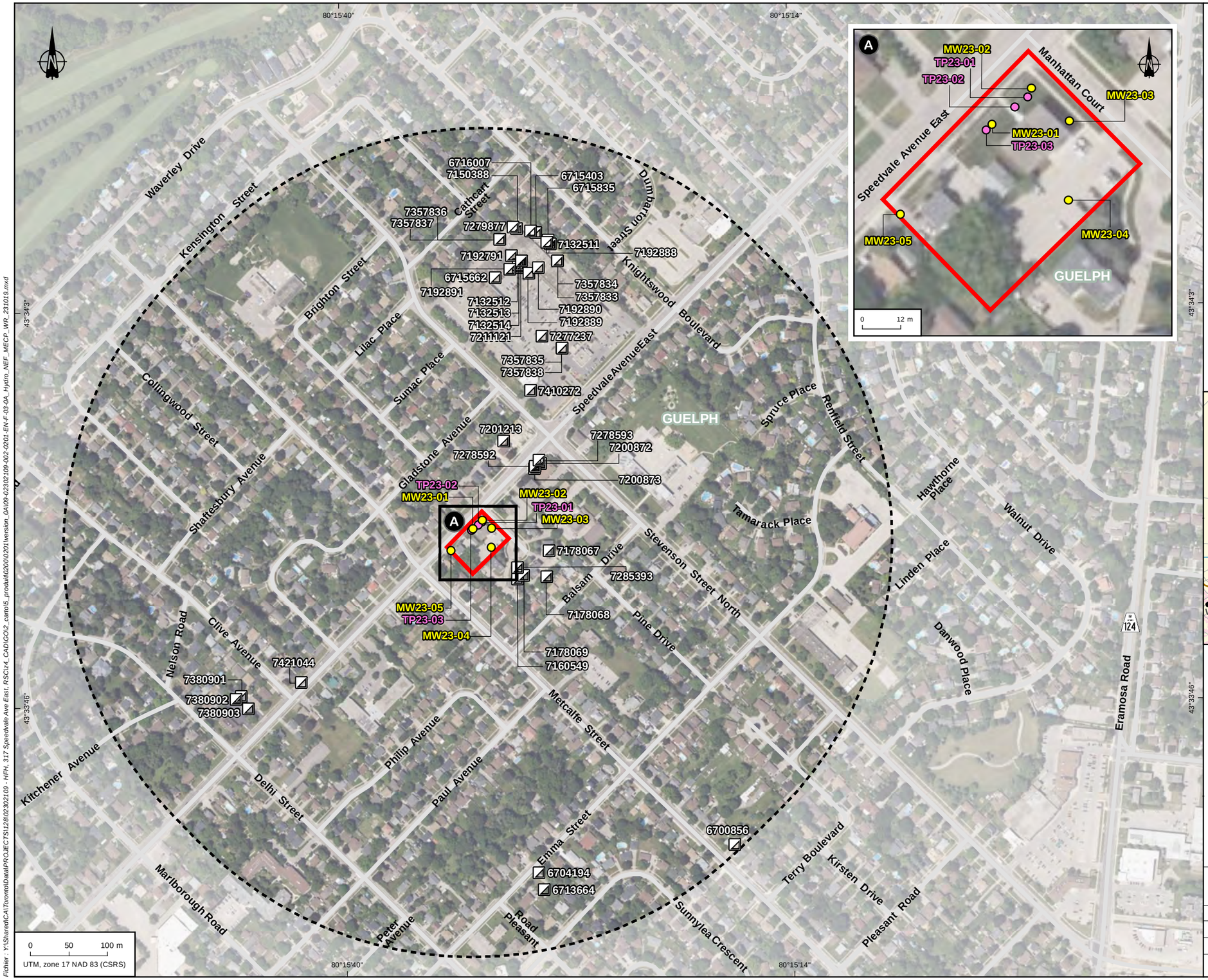
Report Title
Hydrogeological Assessment

Drawing Title
Site Plan

Designed By	Scale
JG	As Shown
Drawn By	**Date**
JM	October 2023
Approved By	**Project No.**
KB	02302109.002

Figure No.
2

2713 Lancaster Road, Unit 101, Ottawa, Ontario K1B 5R6 Tel: (613) 748-1415 Fax: (613) 748-1356 Website: www.englobecorp.com/canada

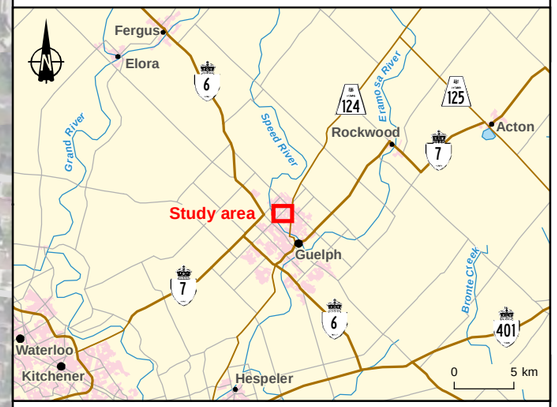


Project Components

- Approximate Property Boundary
- 500 m Buffer From Site Limits
- 6700856 — MECP Well Records and Identifier
- MW23-01 — Monitoring Well and Identifier
- TP23-01 — Test Pit and Identifier

Infrastructures

- 124 — Regional Road
- Street



Habitat for Humanity Wellington Dufferin Guelph

Hydrogeological Assessment Report for 303, 309 and 317 Speedvale Avenue East

Figure 3
Location of Hydrogeological and Natural Environmental Features, and MECP Well Records Wetland Delineation

Sources :

Base : Orthophoto, © 2014 DigitalGlobe Image courtesy of USGS
Canvek 50K. Gov. of Canada. 2023
Canveck 1M, Gov. of Canada. 2023
Wells, Gov. of Ontario, MECP Well Records, 2023

Mapping : Englobe, 2023

October 2023

ENGLOBE

Project manager : J. Godin					Date : 2023-10-23	
Prepared : J. Godin		Drawn : F. Thériault			Verified : B. Andrieux	
Department	Projet	Sub-phase	Disc.	Type	Drawing n°	Rev.
XXX	02302109-002	0201	EN	F	03	0A

Appendix B
Borehole and Monitoring Well Logs

eNGLOBe

LOG OF BOREHOLE MW-23-01

ENGLOBE REF. No.: **02302109.001**
CLIENT: **Habitat for Humanity Wellington Dufferin Guelph**
PROJECT: **Phase Two ESA- 303, 309 and 317 Speedvale Avenue East, Guelph, ON**
LOCATION: **303, 309 and 317 Speedvale Avenue East, Guelph, ON**
SURFACE ELEV.: **334.11 meters above sea level (MASL)**

Drilling Data
METHOD: **Direct Push**
DIAMETER: **150 mm**
DATE: **September 19, 2023**
COORDINATES: **4823820.174** m N, **559842.306** m E

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE (W_p W W_l) 20 40 60 80	Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE	Su (kPa) VANE ✕ PP ✳ 40 80 120 160 / SPT (N) □ Blows/0.3m DCPT ◆ 20 40 60 80	HEX(ppm)	IBL(ppm)	REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
0	334				TOPSOIL: organic, moist, dark brown							
					FILL: Dark brown silt, organics, trace gravel	1				0	0	
1.0	333					2				0	0	
					FILL: Light brown sand, moist							
					FILL: Dark brown silt, trace sand, moist	3				0	0	
2.0	332				FILL: Light brown silt, moist							
						4				0	0	
3.0	331				SILT: light brown, moist	5				0	50	
					SAND: trace silt, moist, grey							
4.0	330					6				0	100	
					SILTY SAND: sand, light brown	7				0	50	
5.0	329				SILT: very moist, light brown							
						8				0	150	
6.0	328				light brown, moist	9				0	50	
					Light brown, very moist							
7.0	327					10				0	0	
8.0	326											

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353 BRIDGE STREET EAST
KITCHENER, ON, N2K 2Y5
PH: 1-877-300-4800
FX: 1-888-979-6772
Web: www.englobecorp.com

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

WELL LEGEND
- Bentonite
- Sand
- Screen

[3] Numbers refers to Sensitivity
PP: Pocket Penetrometer
CHVC: Combustable Headspace Vapor Concentration
NFP: No Further Penetration
m bgs: Meters Below Ground Surface
PHCs-petroleum hdyrocarbon fractions
PAHs-polycyclic aromatic hdyrocarbons
VOCs- Volatile Oragnis

SHEP 02302109.000.GPJ DATA TEMPLATE.GDT 10/13/23

LOG OF BOREHOLE MW-23-02

ENGLOBE REF. No.: **02302109.001**
CLIENT: **Habitat for Humanity Wellington Dufferin Guelph**
PROJECT: **Phase Two ESA- 303, 309 and 317 Speedvale Avenue East, Guelph, ON**
LOCATION: **303, 309 and 317 Speedvale Avenue East, Guelph, ON**
SURFACE ELEV.: **333.38 meters above sea level (MASL)**

Drilling Data
METHOD: **Direct Push**
DIAMETER: **150 mm**
DATE: **September 19, 2023**
COORDINATES: **4823830.912** m N, **559854.175** m E

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE (Wp — W — Wl; 20 40 60 80)	Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE	Su (kPa) VANE ✕ PP ✳ (40 80 120 160); SPT (N) □ Blows/0.3m DCPT ◆ (20 40 60 80)	HEX(ppm)	IBL(ppm)	REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
0	333				TOPSOIL: crushed rock, moist, dark brown	1				0	0	
					SILT: trace sand, some gravel, dark brown							
1.0	332				SILT: gravel layers, very moist, dark brown	2				0	50	
2.0	331				SAND AND GRAVEL: light brown/grey	3				0	50	
3.0	330				SANDY SILT: moist, light brown	4				0	0	
4.0	329				SILT: moist, light brown	5				0	50	
					very moist	6				0	100	
5.0	328					7				0	100	
6.0	327					8				0	100	
7.0	326											
8.0	325											

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KITCHENER, ON, N2K 2Y5
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FX: 1-888-979-6772
Web: www.englobecorp.com

SAMPLE TYPE LEGEND

- Auger Sample
- Split Spoon Sample
- Tube Sample
- Rock Core
- Core Sample
- Shelby Tube

WELL LEGEND

- Bentonite
- Sand
- Screen

✕3 Numbers refers to Sensitivity
PP: Pocket Penetrometer
CHVC: Combustable Headspace Vapor Concentration
NFP: No Further Penetration
m bgs: Meters Below Ground Surface
PHCs-petroleum hdyrocarbon fractions
PAHs-polycyclic aromatic hdyrocarbons
VOCs- Volatile Oragnis

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LOG OF BOREHOLE MW-23-03

ENGLOBE REF. No.: **02302109.001**
CLIENT: **Habitat for Humanity Wellington Dufferin Guelph**
PROJECT: **Phase Two ESA- 303, 309 and 317 Speedvale Avenue East, Guelph, ON**
LOCATION: **303, 309 and 317 Speedvale Avenue East, Guelph, ON**
SURFACE ELEV.: **332.84 meters above sea level (MASL)**

Drilling Data
METHOD: **Direct Push**
DIAMETER: **150 mm**
DATE: **September 19, 2023**
COORDINATES: **4823820.487** m N, **559863.457** m E

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE (Wp, W, Wl; 20 40 60 80)	Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE	Su (kPa) VANE ✖ PP ✳ (40 80 120 160); SPT (N) □ Blows/0.3m DCPT ◆ (20 40 60 80)	HEX(ppm)	IBL(ppm)	REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
0	332				TOPSOIL: dark brown, moist							
					SANDY SILT: silt, some sand, dark brown	1				20	0	
					SILT: some sand, dark brown							
1.0						2				10	0	
	331				SILT: some sand, moist, light brown							
2.0						3				0	0	
						4				5	0	
	330											
3.0					coarse sand layers							
					SANDY SILT: till, trace gravel, moist, light brown	5				5	0	
4.0	329					6				0	0	
					SILT: very moist, light grey							
5.0	328					7				35	0	
						8				0	0	
6.0	327											
					SANDY SILT: saturated, silty sand	9				5	0	
7.0	326											
8.0	325											
	324											

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SAMPLE TYPE LEGEND

- Auger Sample
- Split Spoon Sample
- Tube Sample
- Rock Core
- Core Sample
- Shelby Tube

WELL LEGEND

- Bentonite
- Sand
- Screen

✖3 Numbers refers to Sensitivity
PP: Pocket Penetrometer
CHVC: Combustable Headspace Vapor Concentration
NFP: No Further Penetration
m bgs: Meters Below Ground Surface
PHCs-petroleum hdyrocarbon fractions
PAHs-polycyclic aromatic hdyrocarbons
VOCs- Volatile Oragnis

SHEP 02302109.000.GPJ DATA TEMPLATE.GDT 10/13/23

LOG OF BOREHOLE MW-23-04

ENGLOBE REF. No.: **02302109.001**
CLIENT: **Habitat for Humanity Wellington Dufferin Guelph**
PROJECT: **Phase Two ESA- 303, 309 and 317 Speedvale Avenue East, Guelph, ON**
LOCATION: **303, 309 and 317 Speedvale Avenue East, Guelph, ON**
SURFACE ELEV.: **332.49 meters above sea level (MASL)**

Drilling Data
METHOD: **Direct Push**
DIAMETER: **150 mm**
DATE: **September 19, 2023**
COORDINATES: **4823794.795** m N, **559860.972** m E

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE (W_p W W_l) 20 40 60 80	Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE	Su (kPa) VANE ✕ PP ✳ 40 80 120 160 / SPT (N) □ Blows/0.3m DCPT ◆ 20 40 60 80	HEX(ppm)	IBL(ppm)	REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
0	332				ASPHALT: sand and gravel, light brown,							
					SAND AND GRAVEL: trace silt, light brown (from 0.01-0.3m)	1				20	0	
1.0					FILL: silt with sand, trace silt, trace gravel, dark brown	2				20	0	
	331				FILL: sand and gravel, dark brown							
2.0					SILT: dark brown, very moist	3				25	0	
	330					4				25	0	
3.0					SILT: light brown/grey							
	329					5				15	0	
4.0						6				15	0	
	328											
5.0					SILTY SAND: saturated, light brown	7				15	20	
					SILT: saturated, light brown,							
	327				SILT: trace gravel, trace sand, saturated, light brown/grey	8				25	50	
6.0												
	326											
7.0												
	325											
8.0												
	324											

SHEP 02302109.000.GPJ DATA TEMPLATE.GDT 10/13/23

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SAMPLE TYPE LEGEND

- Auger Sample
- Split Spoon Sample
- Tube Sample
- Rock Core
- Core Sample
- Shelby Tube

WELL LEGEND

- Bentonite
- Sand
- Screen

✕3 Numbers refers to Sensitivity
PP: Pocket Penetrometer
CHVC: Combustable Headspace Vapor Concentration
NFP: No Further Penetration
m bgs: Meters Below Ground Surface
PHCs-petroleum hdyrocarbon fractions
PAHs-polycyclic aromatic hdyrocarbons
VOCs- Volatile Oragnis

LOG OF BOREHOLE MW-23-05

ENGLOBE REF. No.: **02302109.001**
CLIENT: **Habitat for Humanity Wellington Dufferin Guelph**
PROJECT: **Phase Two ESA- 303, 309 and 317 Speedvale Avenue East, Guelph, ON**
LOCATION: **303, 309 and 317 Speedvale Avenue East, Guelph, ON**
SURFACE ELEV.: **331.44 meters above sea level (MASL)**

Drilling Data
METHOD: **Direct Push**
DIAMETER: **150 mm**
DATE: **September 19, 2023**
COORDINATES: **4823790.771** m N, **559812.975** m E

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE (W_p W W_l) 20 40 60 80	Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE	Su (kPa) VANE ✕ PP ✳ 40 80 120 160 / SPT (N) □ Blows/0.3m DCPT ◆ 20 40 60 80	HEX(ppm)	IBL(ppm)	REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
0	331				ASPHALT							
					SAND AND GRAVEL: dark brown							
					SILT: some sand, dark brown	1				25	0	
1.0						2				10	50	
	330				SAND: dark brown							
					SILT: very moist, light brown	3				0	50	
2.0												
	329					4				0	100	
3.0					light brown, wet							
	328					5				0	50	
4.0						6				15	100	
	327				SAND: light brown, wet							
					SILTY SAND: some silt, saturated	7				0	0	
5.0												
	326				SAND: some silt, saturated							
					with saturated fine sand	8				0	50	
6.0												
	325											
7.0												
	324											
8.0												
	323											

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353 BRIDGE STREET EAST
KITCHENER, ON, N2K 2Y5
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FX: 1-888-979-6772
Web: www.englobecorp.com

SAMPLE TYPE LEGEND

- Auger Sample
- Split Spoon Sample
- Tube Sample
- Rock Core
- Core Sample
- Shelby Tube

WELL LEGEND

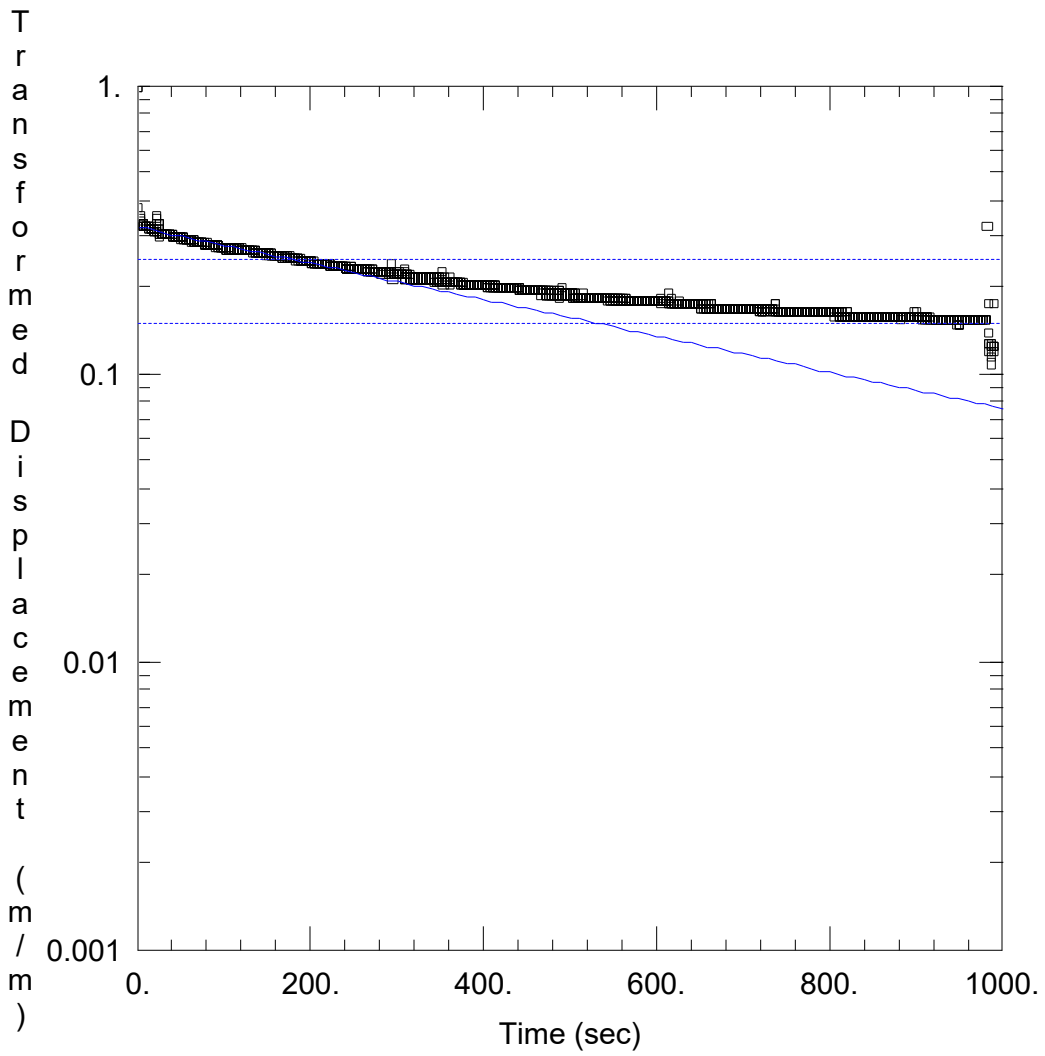
- Bentonite
- Sand
- Screen

✕3 Numbers refers to Sensitivity
PP: Pocket Penetrometer
CHVC: Combustable Headspace Vapor Concentration
NFP: No Further Penetration
m bgs: Meters Below Ground Surface
PHCs-petroleum hdyrocarbon fractions
PAHs-polycyclic aromatic hdyrocarbons
VOCs- Volatile Oragnis

SHEP 02302109.000.GPJ DATA TEMPLATE.GDT 10/13/23

Appendix C
Hydraulic Conductivity Test Results

eNGLOBe



FALLING HEAD TEST

Data Set: Y:\...\MW23-01 Falling Head.aqt
Date: 11/15/23 Time: 09:54:12

PROJECT INFORMATION

Company: Englobe
Client: Habitat for Humanity
Project: 02302109.002
Location: 317 Speedvale Avenue East
Test Well: MW23-01
Test Date: September 22, 2023

AQUIFER DATA

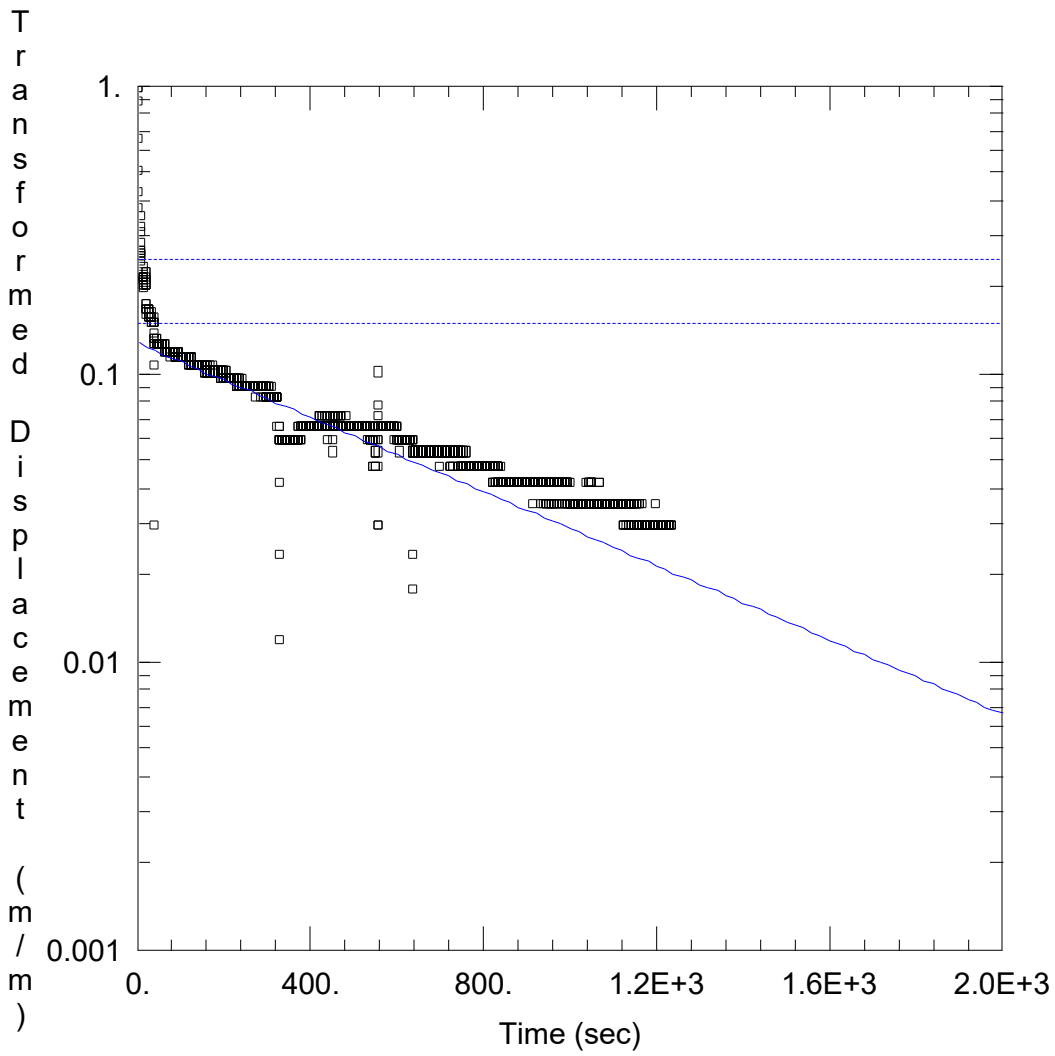
Saturated Thickness: 8.495 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW23-01)

Initial Displacement: 0.184 m
Total Well Penetration Depth: 0.905 m
Casing Radius: 0.0255 m
Static Water Column Height: 0.905 m
Screen Length: 0.905 m
Well Radius: 0.105 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Dagan
K = 7.849E-7 m/sec
y0 = 0.06392 m



RISING HEAD TEST

Data Set: Y:\...\MW23-01 Rising Head.aqt
Date: 11/15/23 Time: 09:57:56

PROJECT INFORMATION

Company: Englobe
Client: Habitat for Humanity
Project: 02302109.002
Location: 317 Speedvale Avenue East
Test Well: MW23-01
Test Date: September 22, 2023

AQUIFER DATA

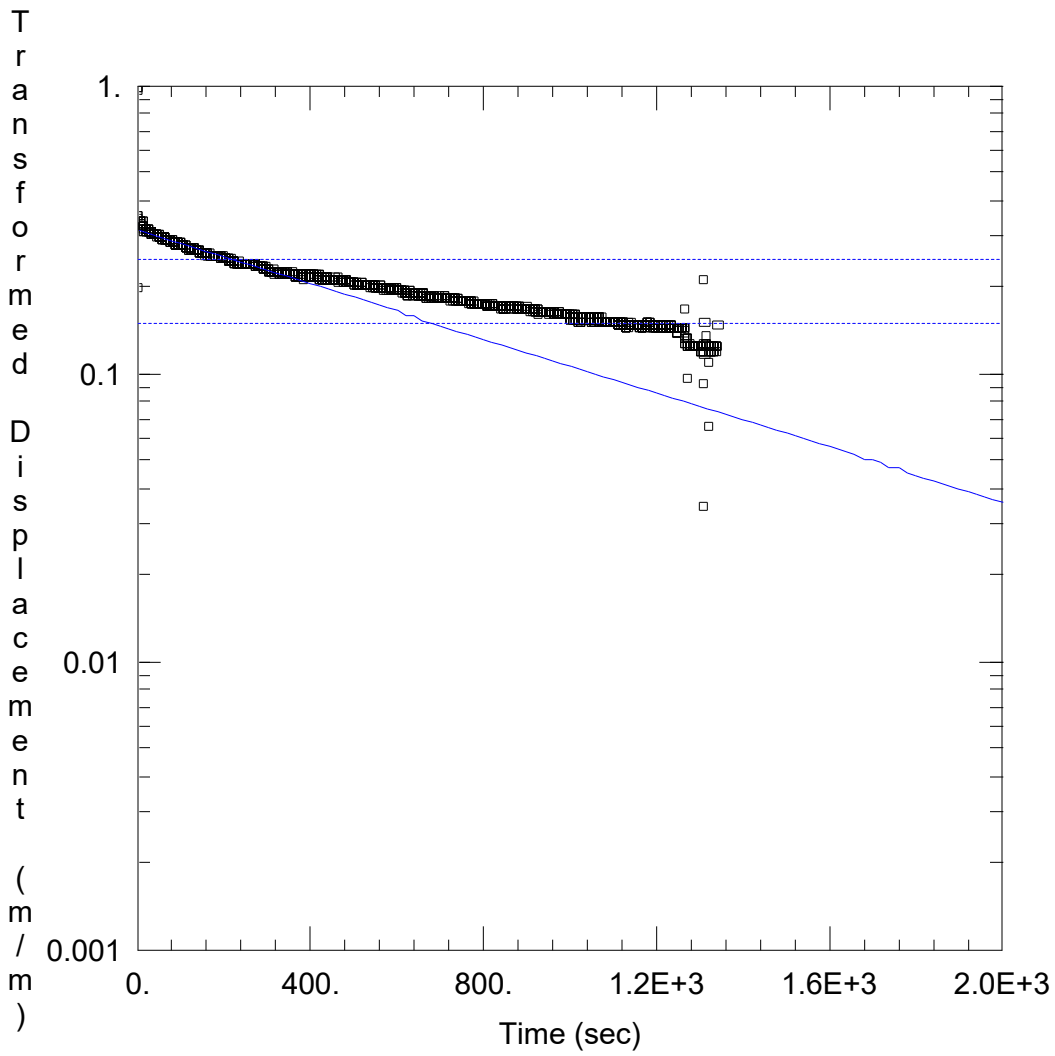
Saturated Thickness: 8.495 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW23-01)

Initial Displacement: 0.154 m
Total Well Penetration Depth: 0.905 m
Casing Radius: 0.0255 m
Static Water Column Height: 0.905 m
Screen Length: 0.905 m
Well Radius: 0.105 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Dagan
K = 8.027E-7 m/sec
y0 = 0.02124 m



MW23-03 FALLING HEAD TEST

Data Set:
Date: 11/15/23 Time: 09:09:36

PROJECT INFORMATION

Company: Englobe
Client: Habitat for Humanity
Project: 02302109.002
Location: 317 Speedvale Avenue East
Test Well: MW23-03
Test Date: September 22, 2023

AQUIFER DATA

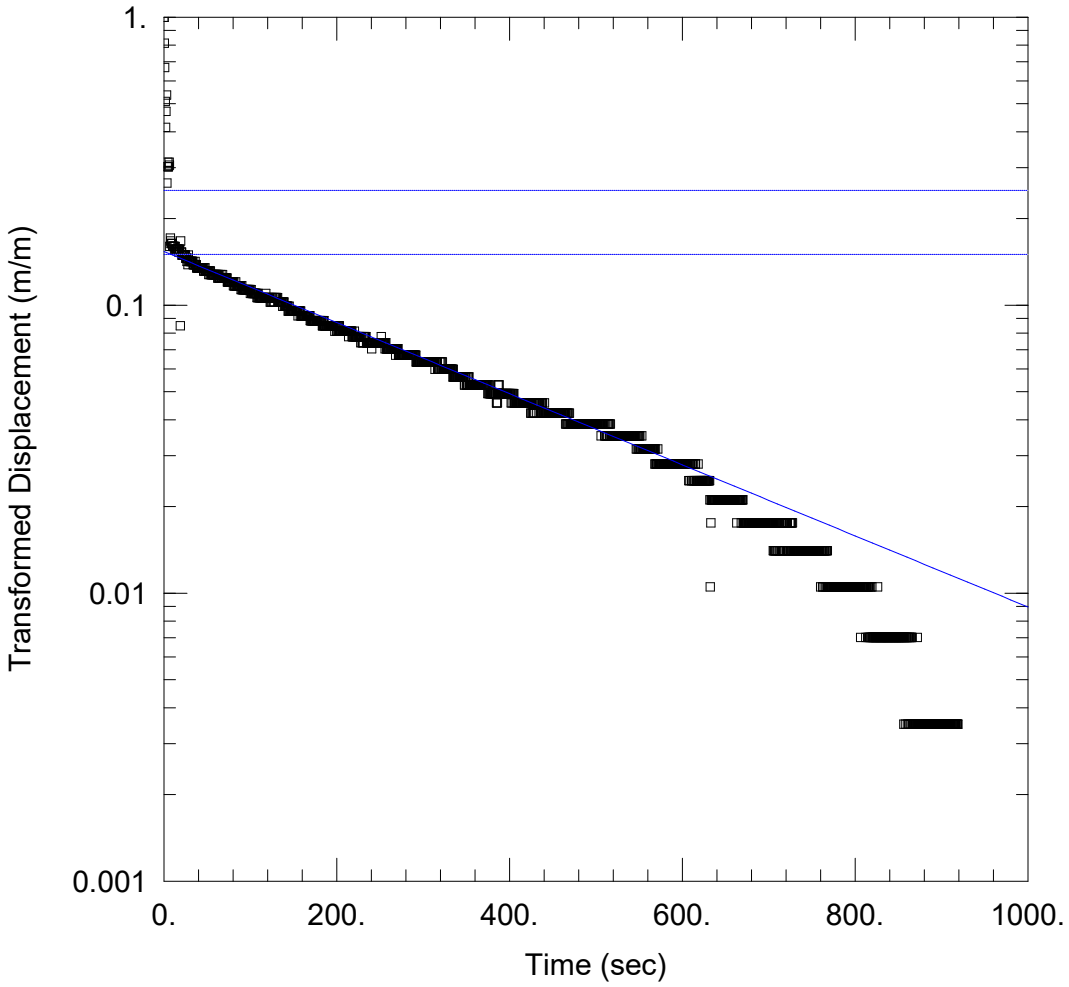
Saturated Thickness: 8.595 m
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW23-03)

Initial Displacement: 0.24 m
Total Well Penetration Depth: 1.6 m
Casing Radius: 0.0255 m
Static Water Column Height: 1.6 m
Screen Length: 1.6 m
Well Radius: 0.105 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Dagan
K = 4.377E-7 m/sec
y0 = 0.07993 m



MW23-3 RISING HEAD TEST

Data Set: \...\MW23-03 Rising Head.aqt
Date: 11/28/23 Time: 08:09:47

PROJECT INFORMATION

Company: Englobe
Client: Habitat for Humanity
Project: 02302109.002
Location: 317 Speedvale Avenue East
Test Well: MW23-03
Test Date: September 22, 2023

AQUIFER DATA

Saturated Thickness: 8.595 m Anisotropy Ratio (Kz/Kr): 1.

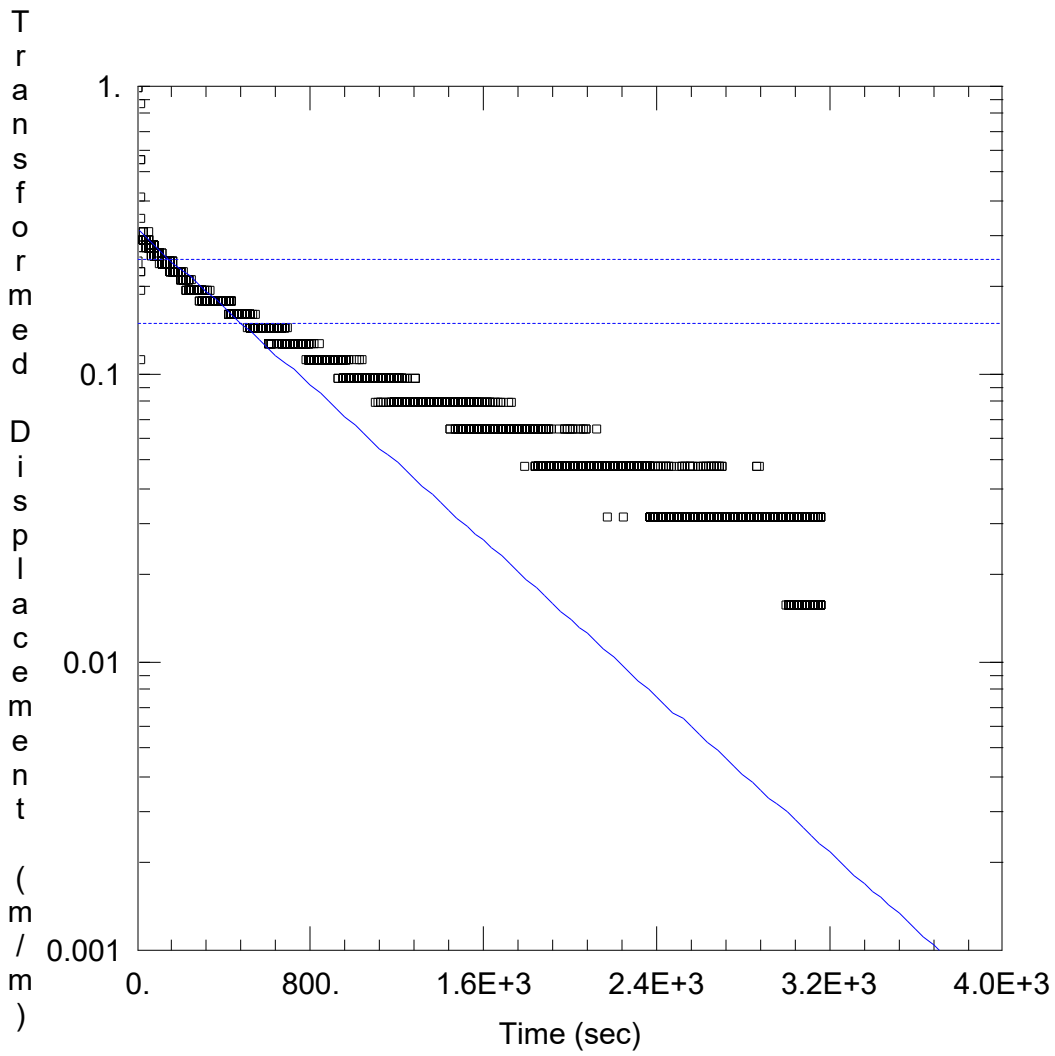
WELL DATA (MW23-03)

Initial Displacement: 0.262 m
Total Well Penetration Depth: 1.6 m
Casing Radius: 0.0255 m
Static Water Column Height: 1.6 m
Screen Length: 1.6 m
Well Radius: 0.105 m

SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan

K = 1.146E-6 m/sec y0 = 0.0432 m



MW23-04 RISING HEAD TEST

Data Set: Y:\...\MW23-04 Falling Head.aqt
Date: 11/15/23 Time: 09:40:01

PROJECT INFORMATION

Company: Englobe
Client: Habitat for Humanity
Project: 02302109.002
Location: 317 Speedvale Avenue East
Test Well: MW23-04
Test Date: September 22, 2023

AQUIFER DATA

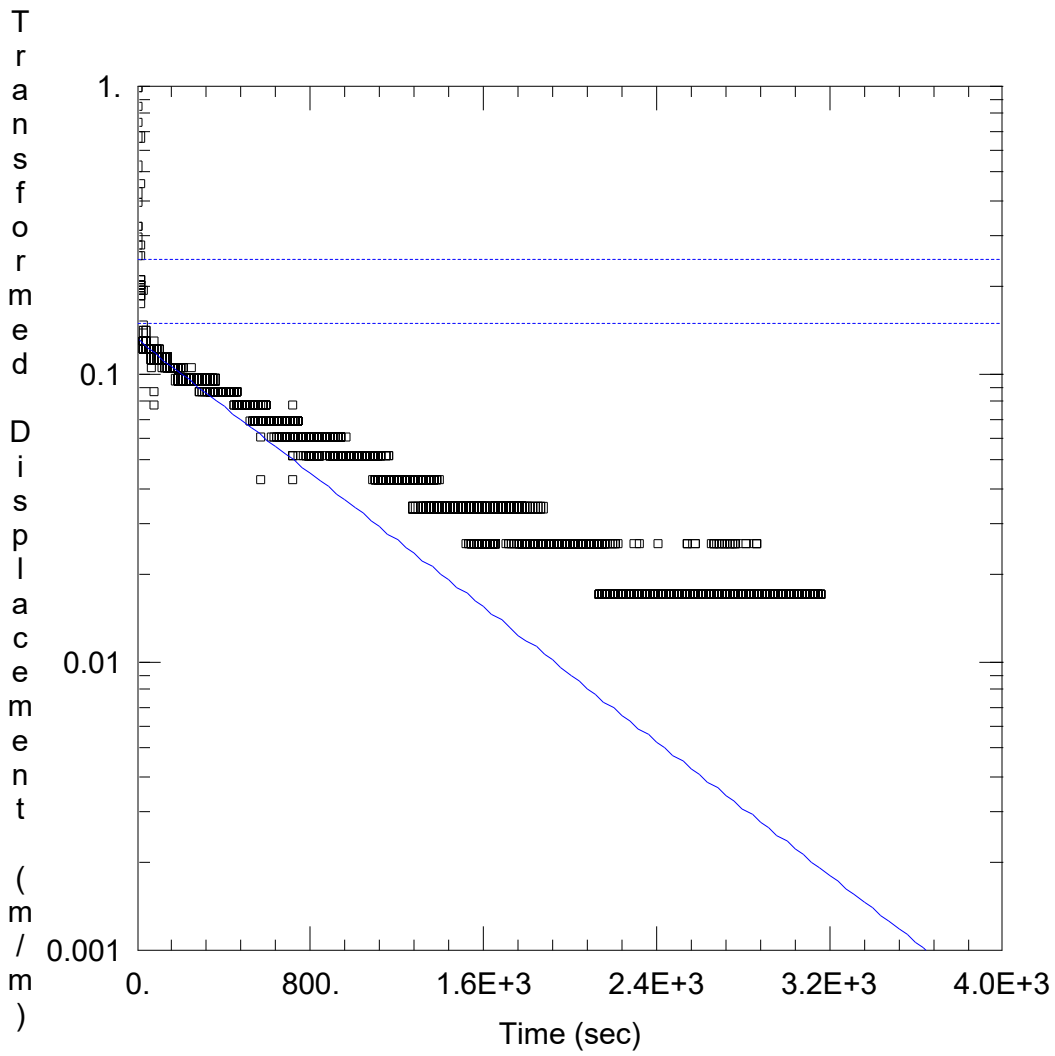
Saturated Thickness: 7.05 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW23-04)

Initial Displacement: 0.171 m
Total Well Penetration Depth: 0.9 m
Casing Radius: 0.0255 m
Static Water Column Height: 0.9 m
Screen Length: 0.9 m
Well Radius: 0.105 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Dagan
K = 8.442E-7 m/sec
y0 = 0.05765 m



MW23-04 RISING HEAD

Data Set:
Date: 11/15/23 Time: 09:47:34

PROJECT INFORMATION

Company: Englobe
Client: Habitat for Humanity
Project: 02302109.002
Location: 317 Speedvale Avenue East
Test Well: MW23-04
Test Date: September 22, 2023

AQUIFER DATA

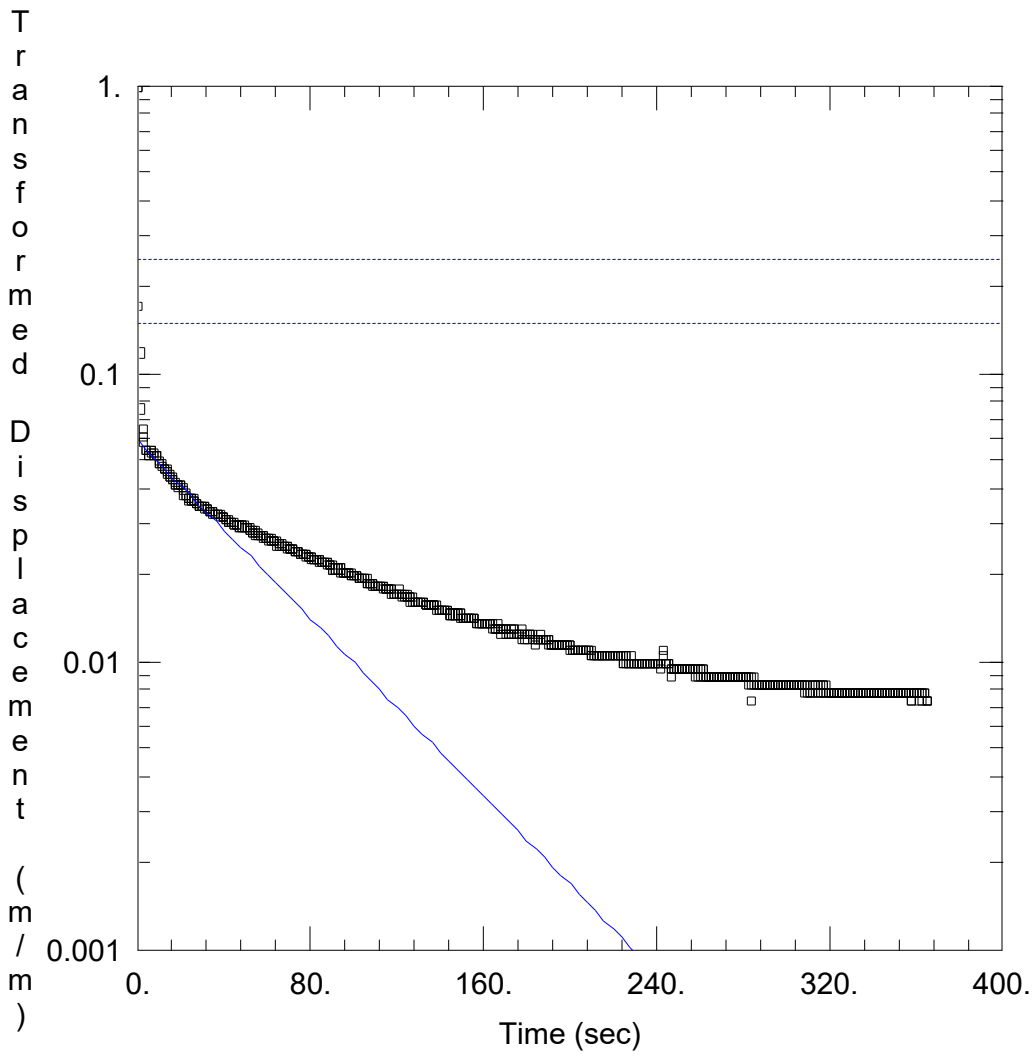
Saturated Thickness: 7.05 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW23-04)

Initial Displacement: 0.294 m
Total Well Penetration Depth: 0.9 m
Casing Radius: 0.0255 m
Static Water Column Height: 0.9 m
Screen Length: 0.9 m
Well Radius: 0.105 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Dagan
K = 7.275E-7 m/sec
y0 = 0.04503 m



MW23-05 FALLING HEAD TEST

Data Set: Y:\...\MW23-05 Falling Head.aqt
Date: 11/15/23 Time: 10:38:12

PROJECT INFORMATION

Company: Englobe
Client: Habitat for Humanity
Project: 02302109.002
Location: 317 Speedvale Avenue East
Test Well: MW23-05
Test Date: September 22, 2023

AQUIFER DATA

Saturated Thickness: 7.705 m Anisotropy Ratio (Kz/Kr): 1.

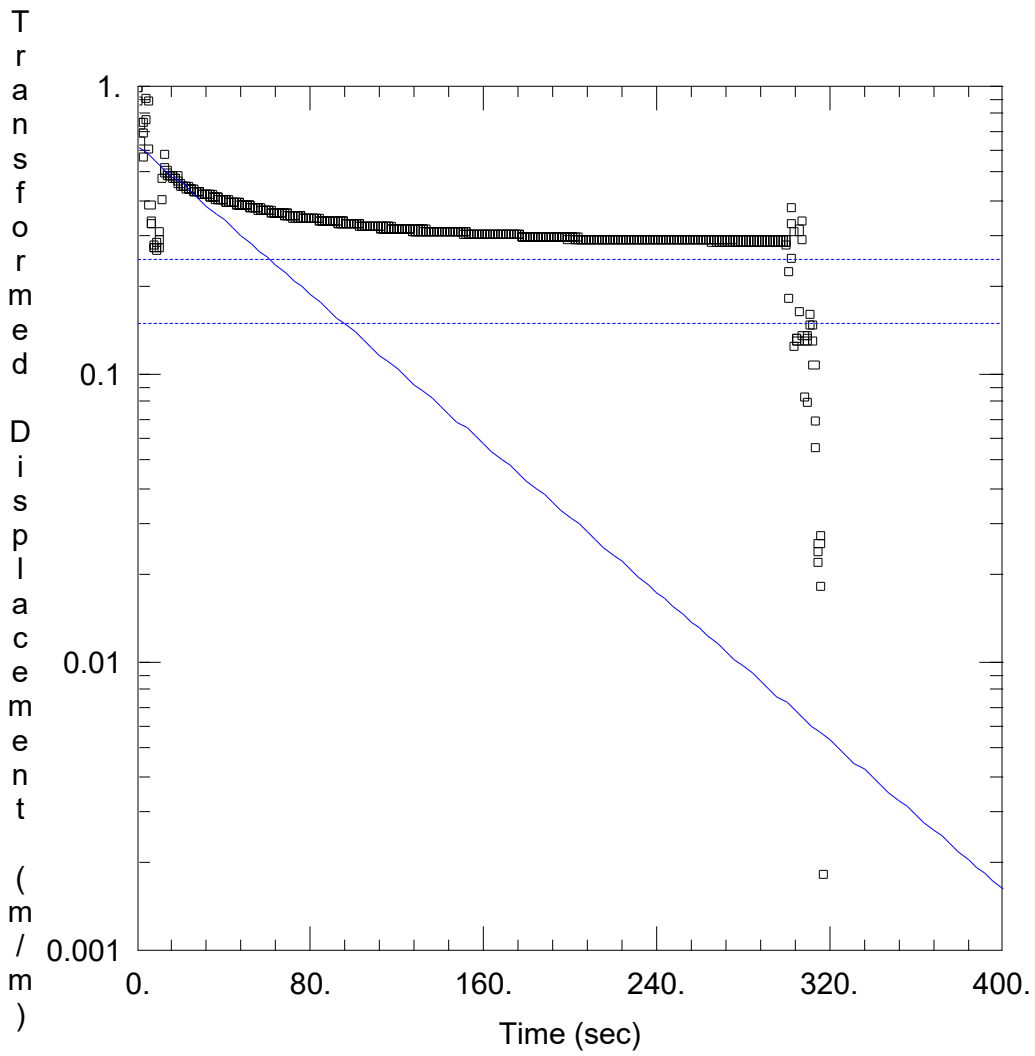
WELL DATA (MW23-05)

Initial Displacement: 1.187 m
Total Well Penetration Depth: 1.545 m
Casing Radius: 0.0255 m
Static Water Column Height: 1.545 m
Screen Length: 1.545 m
Well Radius: 0.105 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Dagan

K = 7.202E-6 m/sec
y0 = 0.1081 m



MW23-05 RISING HEAD TEST

Data Set: Y:\...\MW23-05 Rising Head.aqt
Date: 11/15/23 Time: 10:42:39

PROJECT INFORMATION

Company: Englobe
Client: Habitat for Humanity
Project: 02302109.002
Location: 317 Speedvale Avenue East
Test Well: MW23-05
Test Date: September 22, 2023

AQUIFER DATA

Saturated Thickness: 7.705 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW23-05)

Initial Displacement: 0.463 m
Total Well Penetration Depth: 1.545 m
Casing Radius: 0.0255 m
Static Water Column Height: 1.545 m
Screen Length: 1.545 m
Well Radius: 0.105 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Dagan
K = 6.106E-6 m/sec
y0 = 0.3033 m

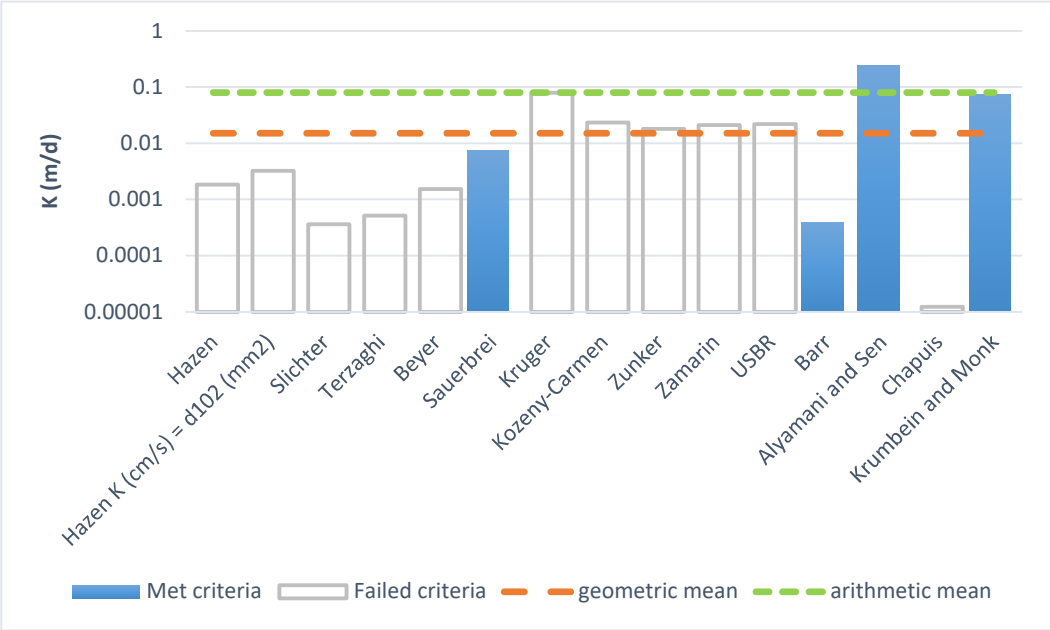
Determination of Hydraulic Conductivity based on the Grain Size Distribution Data

K from Grain Size Analysis Report Date: 28-Sep-23

Sample Name: MW23-01 SS9 (6.10 - 6.71 mbgs)

Mass Sample (g): 100 T (oC) 20

SAND and SILT, some Clay, trace Gravel



Estimation of Hydraulic Conductivity	cm/s	m/s	m/d	de
Hazen	2.12E-06	2.12E-08	1.83E-03	
Hazen K (cm/s) = d_{10} (mm)	3.74E-06	3.74E-08	3.23E-03	
Slichter	4.16E-07	4.16E-09	3.59E-04	
Terzaghi	5.93E-07	5.93E-09	5.12E-04	
Beyer	1.77E-06	1.77E-08	1.53E-03	
Sauerbrei	8.80E-06	8.80E-08	7.60E-03	
Kruger	9.21E-05	9.21E-07	7.96E-02	
Kozeny-Carmen	2.72E-05	2.72E-07	2.35E-02	
Zunker	2.07E-05	2.07E-07	1.79E-02	
Zamarin	2.45E-05	2.45E-07	2.12E-02	
USBR	2.52E-05	2.52E-07	2.18E-02	
Barr	4.46E-07	4.46E-09	3.85E-04	
Alyamani and Sen	2.79E-04	2.79E-06	2.41E-01	
Chapuis	1.42E-08	1.42E-10	1.23E-05	
Krumbein and Monk	8.52E-05	8.52E-07	7.36E-02	
geometric mean	1.75E-05	1.75E-07	1.51E-02	
arithmetic mean	9.33E-05	9.33E-07	8.06E-02	

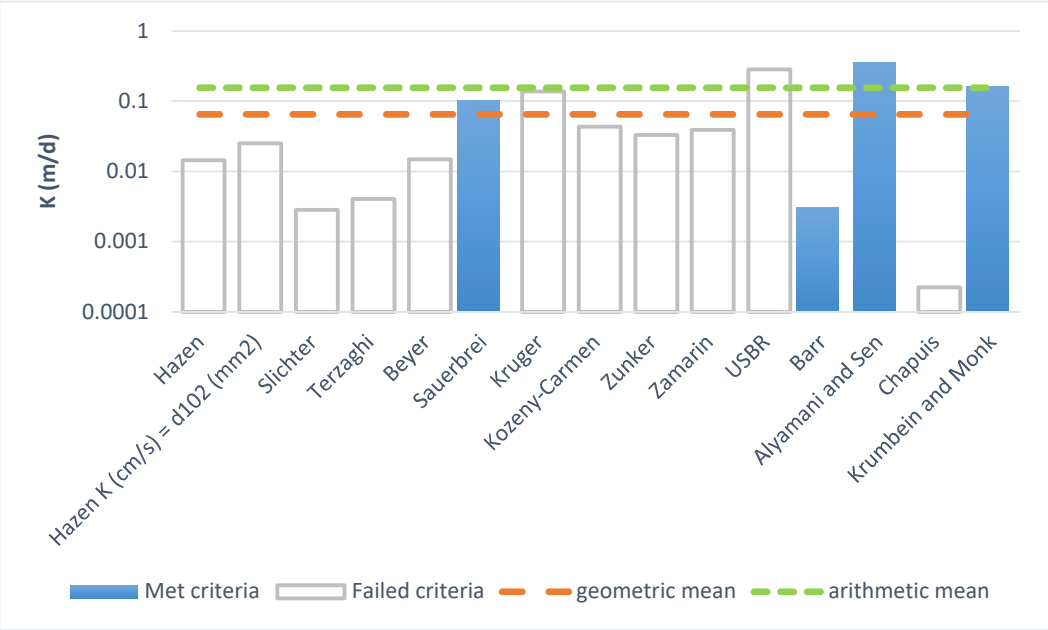
Determination of Hydraulic Conductivity based on the Grain Size Distribution Data

K from Grain Size Analysis Report Date: 28-Sep-23

Sample Name: MW23-02 SS7 (4.57 - 5.33 mbgs)

Mass Sample (g): 100 T (oC) 20

SAND and SILT, some Gravel, trace Clay



Estimation of Hydraulic Conductivity	cm/s	m/s	m/d	de
Hazen	1.66E-05	1.66E-07	1.43E-02	
Hazen K (cm/s) = d_{10} (mm)	2.92E-05	2.92E-07	2.52E-02	
Slichter	3.26E-06	3.26E-08	2.81E-03	
Terzaghi	4.65E-06	4.65E-08	4.02E-03	
Beyer	1.72E-05	1.72E-07	1.49E-02	
Sauerbrei	1.18E-04	1.18E-06	1.02E-01	
Kruger	1.58E-04	1.58E-06	1.37E-01	
Kozeny-Carmen	4.98E-05	4.98E-07	4.31E-02	
Zunker	3.81E-05	3.81E-07	3.29E-02	
Zamarin	4.51E-05	4.51E-07	3.90E-02	
USBR	3.26E-04	3.26E-06	2.82E-01	
Barr	3.49E-06	3.49E-08	3.02E-03	
Alyamani and Sen	4.07E-04	4.07E-06	3.51E-01	
Chapuis	2.58E-07	2.58E-09	2.23E-04	
Krumbein and Monk	1.91E-04	1.91E-06	1.65E-01	
geometric mean	7.52E-05	7.52E-07	6.50E-02	
arithmetic mean	1.80E-04	1.80E-06	1.55E-01	

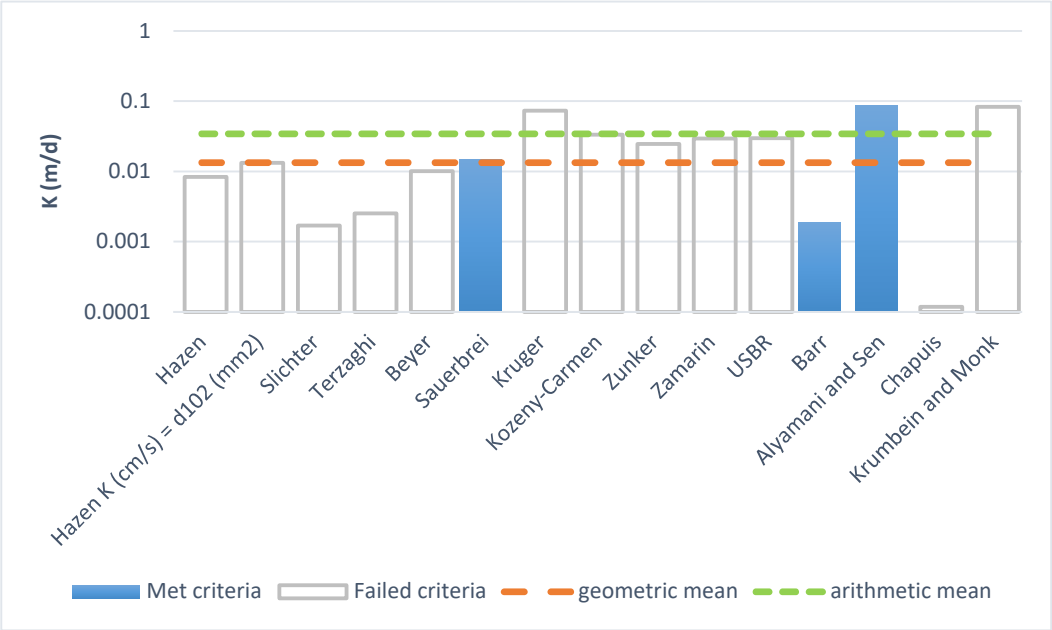
Determination of Hydraulic Conductivity based on the Grain Size Distribution Data

K from Grain Size Analysis Report Date: 28-Sep-23

Sample Name: MW23-03 SS8 (5.18 - 6.10 mbgs)

Mass Sample (g): 100 T (oC) 20

Sandy Silt, Traces of Gravel and Clay



Estimation of Hydraulic Conductivity	cm/s	m/s	m/d	de
Hazen	9.69E-06	9.69E-08	8.37E-03	
Hazen K (cm/s) = d_{10} (mm)	1.53E-05	1.53E-07	1.33E-02	
Slichter	1.96E-06	1.96E-08	1.69E-03	
Terzaghi	2.91E-06	2.91E-08	2.51E-03	
Beyer	1.17E-05	1.17E-07	1.01E-02	
Sauerbrei	1.72E-05	1.72E-07	1.49E-02	
Kruger	8.42E-05	8.42E-07	7.28E-02	
Kozeny-Carmen	3.86E-05	3.86E-07	3.33E-02	
Zunker	2.84E-05	2.84E-07	2.46E-02	
Zamarin	3.41E-05	3.41E-07	2.94E-02	
USBR	3.42E-05	3.42E-07	2.96E-02	
Barr	2.14E-06	2.14E-08	1.85E-03	
Alyamani and Sen	1.00E-04	1.00E-06	8.65E-02	
Chapuis	1.36E-07	1.36E-09	1.18E-04	
Krumbein and Monk	9.64E-05	9.64E-07	8.33E-02	
geometric mean	1.55E-05	1.55E-07	1.34E-02	
arithmetic mean	3.98E-05	3.98E-07	3.44E-02	

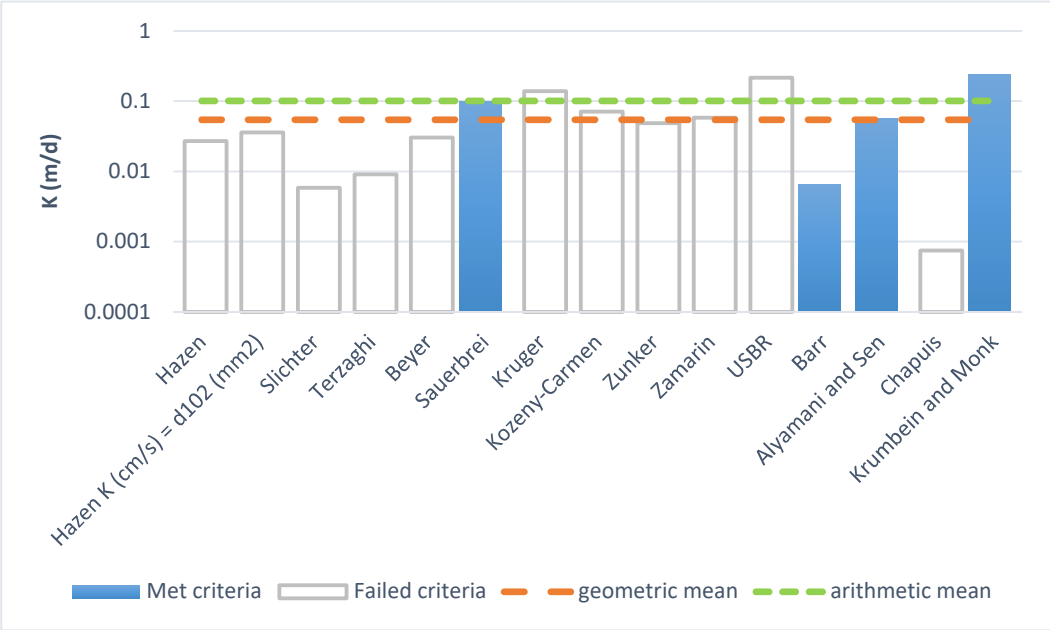
Determination of Hydraulic Conductivity based on the Grain Size Distribution Data

K from Grain Size Analysis Report Date: 28-Sep-23

Sample Name: MW23-04 SS7 (4.57 - 5.33 mbgs)

Mass Sample (g): 100 T (oC) 20

Sand and Silt, traces of Gravel and Clay



Estimation of Hydraulic Conductivity	cm/s	m/s	m/d	de
Hazen	3.11E-05	3.11E-07	2.68E-02	
Hazen K (cm/s) = d_{10} (mm)	4.13E-05	4.13E-07	3.57E-02	
Slichter	6.72E-06	6.72E-08	5.80E-03	
Terzaghi	1.05E-05	1.05E-07	9.10E-03	
Beyer	3.51E-05	3.51E-07	3.04E-02	
Sauerbrei	1.16E-04	1.16E-06	1.01E-01	
Kruger	1.61E-04	1.61E-06	1.39E-01	
Kozeny-Carmen	8.20E-05	8.20E-07	7.08E-02	
Zunker	5.61E-05	5.61E-07	4.85E-02	
Zamarin	6.72E-05	6.72E-07	5.81E-02	
USBR	2.50E-04	2.50E-06	2.16E-01	
Barr	7.59E-06	7.59E-08	6.56E-03	
Alyamani and Sen	6.53E-05	6.53E-07	5.64E-02	
Chapuis	8.67E-07	8.67E-09	7.49E-04	
Krumbein and Monk	2.78E-04	2.78E-06	2.41E-01	
geometric mean	6.33E-05	6.33E-07	5.47E-02	
arithmetic mean	1.17E-04	1.17E-06	1.01E-01	

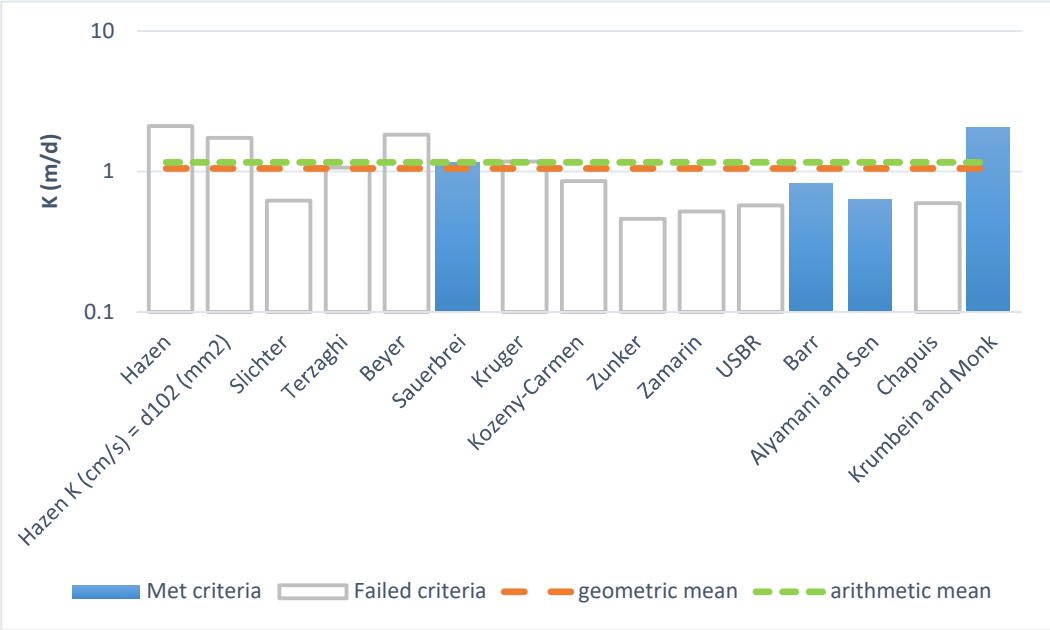
Determination of Hydraulic Conductivity based on the Grain Size Distribution Data

K from Grain Size Analysis Report Date: 28-Sep-23

Sample Name: MW23-05 SS8 (5.18 - 6.10 mbgs)

Mass Sample (g): 100 T (oC) 20

Silty Sand, trace Clay



Estimation of Hydraulic Conductivity	cm/s	m/s	m/d	de
Hazen	2.43E-03	2.43E-05	2.10E+00	
Hazen K (cm/s) = d_{10} (mm)	2.00E-03	2.00E-05	1.73E+00	
Slichter	7.15E-04	7.15E-06	6.17E-01	
Terzaghi	1.23E-03	1.23E-05	1.06E+00	
Beyer	2.11E-03	2.11E-05	1.82E+00	
Sauerbrei	1.33E-03	1.33E-05	1.15E+00	
Kruger	1.36E-03	1.36E-05	1.17E+00	
Kozeny-Carmen	9.89E-04	9.89E-06	8.54E-01	
Zunker	5.30E-04	5.30E-06	4.58E-01	
Zamarin	5.98E-04	5.98E-06	5.17E-01	
USBR	6.63E-04	6.63E-06	5.72E-01	
Barr	9.48E-04	9.48E-06	8.19E-01	
Alyamani and Sen	7.35E-04	7.35E-06	6.35E-01	
Chapuis	6.88E-04	6.88E-06	5.94E-01	
Krumbein and Monk	2.36E-03	2.36E-05	2.04E+00	
geometric mean	1.22E-03	1.22E-05	1.05E+00	
arithmetic mean	1.34E-03	1.34E-05	1.16E+00	

Appendix D
Construction-Related Groundwater Inflow Estimates

eNGLOBe

Building Foundation Excavation
Method: Dupuit Forcheimer Equation - Worst Case Scenario Estimates

To calculate flow from a **point source** in an unconfined aquifer.

Equation

$$Q = \frac{\pi K (H^2 - h_w{}^2)}{ln \frac{R_o}{r_w}}$$

Where:

Q =	Pumping Rate (m^3/s)
K =	Hydraulic Conductivity (m/s)
H =	Hydraulic head of the original water table (m)
h_w =	Hydraulic head at maximum dewatering (m)
R_O =	Radius of influence of Well or Point Source (m)
r_w =	Equivalent radius of the well (m)

To calculate the equivalent radius of influence for a Well or Point Source. (Approximated using the Sichart and Kryieleis Method)

Equation

$$R_O = 3000(H - h_W)\sqrt{K}$$

Where:

R_o =	Radius of Influence for a radial flow structure (m)
K =	Hydraulic Conductivity (m/s)
H =	Initial Groundwater Level (m)
h_w =	Groundwater Level at the Base of the Excavation (m)

To calculate the equivalent radius of the well.

Equation

$$r_w = \sqrt{\frac{ab}{\pi}}$$

Where:

r_w =	Equivalent radius of the well (m)
a =	Length of excavation area (m)
b =	Width of excavation area (m)

Parameters

Excavation Parameters				Aquifer Parameters			Calculated Parameters				
Length, a (m)	Width, b (m)	Depth (m bgs)	Depth Requiring Dewatering (m bgs)	Depth to Aquitard (m bgs)	Groundwater Level (m bgs)	K (m/s)	H (m)	h_w (m)	r_w (m)	R_o (m)	R_o* (m)
46	20	4	4.5	10	3.99	1.22E-05	6.008	5.5	17.11	5.32	22.44

R_o* (m) = $R_O + r_w$ (When R_O estimate is within excavation)

Dewatering Calculations

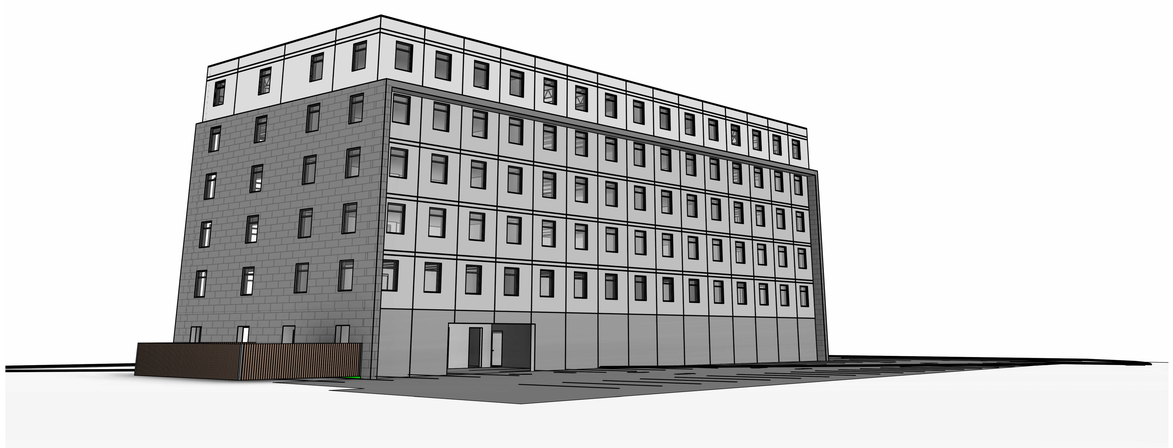
Q =	0.000827	m^3/s	GW Flow Rate per Second
Q =	71.48	m^3/day	GW Flow Rate per day
Q =	71,479	L/day	GW Flow Rate
2 Q =	142,958	L/day	GW Flow Rate with 2x Safety Factor
Q =	266,330	L/day	Total Volumes with Incidental Precipitation Volume

Incidental Precipitation

Precipitation (m)	0.1341
Excavation Area (m^2)	920
Precipitation Volume (m^3/day)	123.372
Precipitation Volume (L/day)	123,372

Appendix E
Re-Issued for SPA Pre-Consultation Drawings

ENGLOBE



ARCHITECTURAL DRAWING SHEET LIST

SHEET NUMBER	SHEET NAME	SHEET ISSUED DATE	REV. #	REV. DATE
A1.00	SITE PLAN	23/08/25	B	23-12-19
A0.00	COVER PAGE	23/08/25	B	23-12-19
A2.01	BASEMENT MAIN LEVEL & LEVEL 1.0	23/08/25	B	23-12-19
A2.03	LEVEL 2.0 AND 3.0 FLOOR PLAN	23/08/25	B	23-12-19
A3.01	BUILDING SECTIONS	23/08/25	B	23-12-19
A4.01	BUILDING ELEVATIONS	23/08/25	B	23-12-19
A4.02	BUILDING ELEVATIONS	23/08/25	B	23-12-19
A2.04	LEVEL 4.0 AND 5.0 FLOOR PLAN	03/01/22	B	23-12-19
A2.05	ROOF LEVEL	23/08/25	B	23-12-19

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COVER PAGE

PROJECT NO.:	23136
PROJECT DATE:	2023-07-20
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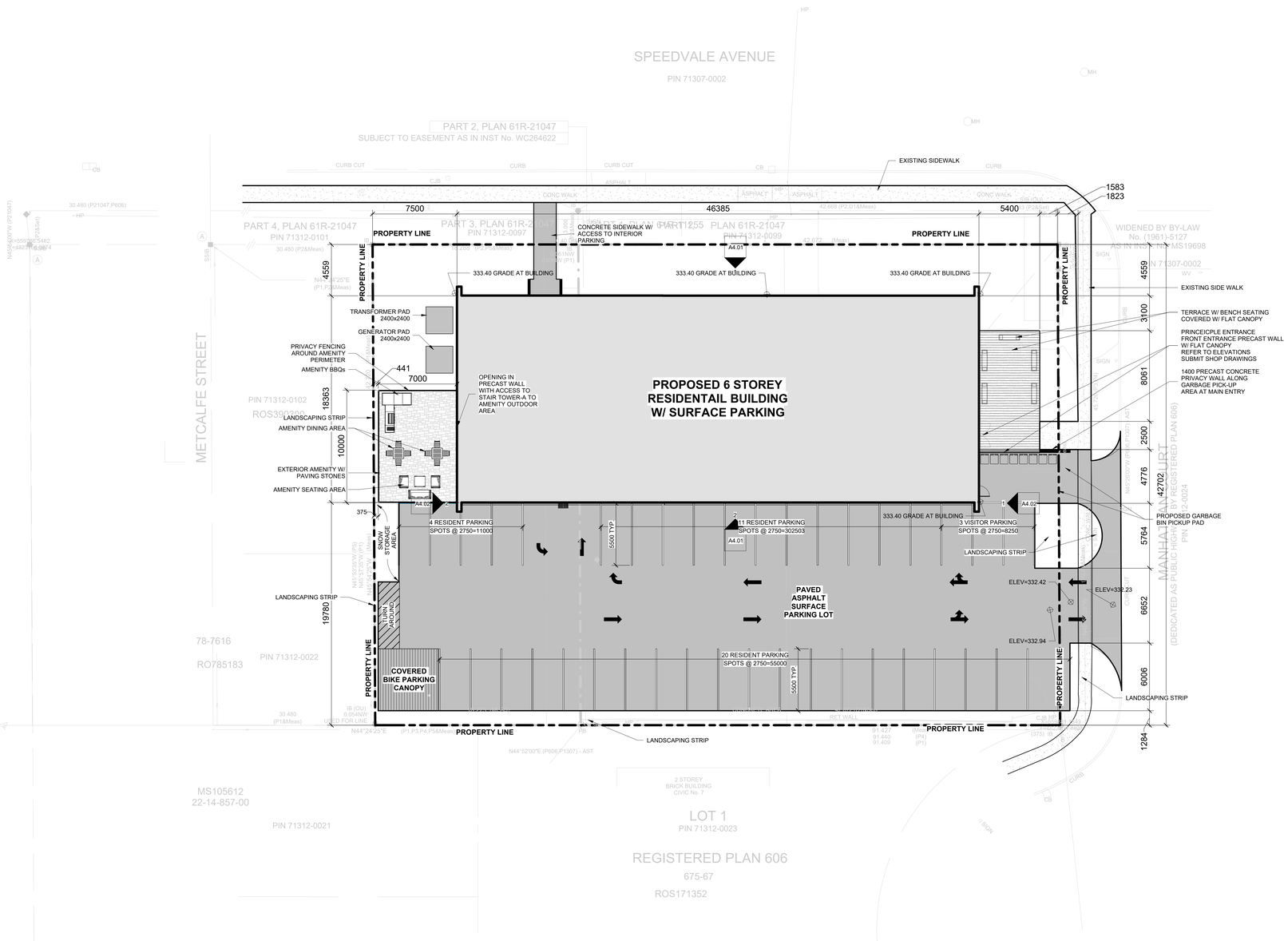

1 **PROPOSED SITE PLAN**
SCALE:1 : 150

SITE KEY PLAN
SCALE: 1 : 50

UNIT BREAMDOWN

ROOM NAME	TOTAL UNITS
1 BEDROOM UNIT	5
1 BEDROOM+DEN UNIT	6
2 BEDROOM UNIT	17
3 BEDROOM UNIT	20
TOTAL UNITS: 48	

BUILDING UNIT / ROOM SCHEDULE

ROOM NAME	ROOM #	OCCUPANCY TYPE	LEVEL REFERENCE	ROOM AREA	CEILING FINISH	BASE FINISH	WALL FINISH	COMMENTS
Not Placed								
M&E SHAFT	112		Not Placed	Not Placed				
M&E SHAFT	113		Not Placed	Not Placed				
Not Placed: 2				0 m²				
BASEMENT								
VESTIBULE	101		BASEMENT	13 m²				
OFFICE	102		BASEMENT	10 m²				
2 BEDROOM UNIT	104		BASEMENT	72 m²				
1 BEDROOM+DEN UNIT	105		BASEMENT	56 m²				
2 BEDROOM UNIT	106		BASEMENT	72 m²				
AMENITY SPACE	107		BASEMENT	55 m²				
MECHANICAL AND ELECTRICAL ROOM	108		BASEMENT	34 m²				
STORAGE LOCKERS	109		BASEMENT	48 m²				
GARBAGE/RECYCLE ROOM	110		BASEMENT	22 m²				
COORDOR	111		BASEMENT	51 m²				
STAIR TOWER-B	314		BASEMENT	14 m²				
TERRACE AMENITY AREA	N/A		BASEMENT	57 m²				
DINING AMENITY AREA	N/A		BASEMENT	70 m²				
STAIR TOWER-A	TBD		BASEMENT	13 m²				
ELEVATOR SHAFT	TBD		BASEMENT	13 m²				
BASEMENT: 15				600 m²				
LEVEL 1.0								
2 BEDROOM UNIT	101		LEVEL 1.0	72 m²				
3 BEDROOM UNIT	102		LEVEL 1.0	88 m²				
1 BEDROOM+DEN UNIT	103		LEVEL 1.0	56 m²				
2 BEDROOM UNIT	104		LEVEL 1.0	69 m²				
1 BEDROOM UNIT	105		LEVEL 1.0	48 m²				
3 BEDROOM UNIT	106		LEVEL 1.0	95 m²				
2 BEDROOM UNIT	107		LEVEL 1.0	73 m²				
3 BEDROOM UNIT	108		LEVEL 1.0	88 m²				
3 BEDROOM UNIT	109		LEVEL 1.0	97 m²				
LEVEL 1.0: 9				685 m²				
LEVEL 2.0								
2 BEDROOM UNIT	201		LEVEL 2.0	72 m²				
3 BEDROOM UNIT	202		LEVEL 2.0	88 m²				
1 BEDROOM+DEN UNIT	203		LEVEL 2.0	56 m²				
2 BEDROOM UNIT	204		LEVEL 2.0	69 m²				
1 BEDROOM UNIT	205		LEVEL 2.0	48 m²				
3 BEDROOM UNIT	206		LEVEL 2.0	95 m²				
2 BEDROOM UNIT	207		LEVEL 2.0	73 m²				
3 BEDROOM UNIT	208		LEVEL 2.0	88 m²				
3 BEDROOM UNIT	209		LEVEL 2.0	97 m²				
LEVEL 2.0: 9				685 m²				
LEVEL 3.0								
2 BEDROOM UNIT	301		LEVEL 3.0	72 m²				
3 BEDROOM UNIT	302		LEVEL 3.0	88 m²				
1 BEDROOM+DEN UNIT	303		LEVEL 3.0	56 m²				
2 BEDROOM UNIT	304		LEVEL 3.0	69 m²				
1 BEDROOM UNIT	305		LEVEL 3.0	48 m²				
3 BEDROOM UNIT	306		LEVEL 3.0	95 m²				
2 BEDROOM UNIT	307		LEVEL 3.0	73 m²				
3 BEDROOM UNIT	308		LEVEL 3.0	88 m²				
3 BEDROOM UNIT	309		LEVEL 3.0	97 m²				
LEVEL 3.0: 9				685 m²				
LEVEL 4.0								
2 BEDROOM UNIT	401		LEVEL 4.0	72 m²				
3 BEDROOM UNIT	402		LEVEL 4.0	88 m²				
1 BEDROOM+DEN UNIT	403		LEVEL 4.0	56 m²				
2 BEDROOM UNIT	404		LEVEL 4.0	69 m²				
1 BEDROOM UNIT	405		LEVEL 4.0	48 m²				
3 BEDROOM UNIT	406		LEVEL 4.0	95 m²				
2 BEDROOM UNIT	407		LEVEL 4.0	73 m²				
3 BEDROOM UNIT	408		LEVEL 4.0	88 m²				
3 BEDROOM UNIT	409		LEVEL 4.0	97 m²				
LEVEL 4.0: 9				685 m²				
LEVEL 5.0								
2 BEDROOM UNIT	501		LEVEL 5.0	72 m²				
3 BEDROOM UNIT	502		LEVEL 5.0	88 m²				
1 BEDROOM+DEN UNIT	503		LEVEL 5.0	56 m²				
2 BEDROOM UNIT	504		LEVEL 5.0	69 m²				
1 BEDROOM UNIT	505		LEVEL 5.0	48 m²				
3 BEDROOM UNIT	506		LEVEL 5.0	95 m²				
2 BEDROOM UNIT	507		LEVEL 5.0	73 m²				
3 BEDROOM UNIT	508		LEVEL 5.0	88 m²				
3 BEDROOM UNIT	509		LEVEL 5.0	97 m²				
LEVEL 5.0: 9				685 m²				
TOTAL UNITS: 62				4022 m²				

PV SOLAR PANEL SCHEDULE

PANEL TYPE	Level	LEVEL COMMENTS	Count	PANEL ANGLE	COMMENTS
PV_SOLAR PANEL 1000 x 2000 (ANGLED)	U/S OF DECK	APARTMENT ROOF	224	FLUSH MOUNT	BALLAST SYSTEM
TOTAL PANELS= 224			224		

PARKING SCHEDULE

STALL TYPE	PARKING LEVEL REFERENCE	STALL QTY	COMMENTS
TYP. STALL VISITORS CoG-2.75m x 5.5m	EXTERIOR PARKING	2	SPOTS NOT ACCESSIBLE DURING GARBAGE PICK-UP TIME
TYP. ACC. STALL-A CoG-3.4m x 5.50m	INTERIOR PARKING	1	
TYP. ACC. STALL-B CoG-2.75m x 5.50m	INTERIOR PARKING	1	
TYP. STALL RESIDENT CoG-2.75m x 5.5m	INTERIOR PARKING	38	
COMPACT STALL CoG-2.65x5.5m	INTERIOR PARKING W/ EV	1	
TYP. STALL RESIDENT CoG-2.75m x 5.5m	INTERIOR PARKING W/ EV	3	
TYP. STALL RESIDENT EV CoG-2.75m x 5.5m	INTERIOR PARKING W/ EV	2	
TOTAL STALLS=		48	

AMENITY AREA SCHEDULE

ROOM NAME	ROOM NUMBER	AREA (m2)	AREA (ft2)	LOCATION
AMENITY SPACE	107	55 m²	594 ft²	INTERIOR
DINING AMENITY AREA	N/A	70 m²	753 ft²	EXTERIOR
TERRACE AMENITY AREA	N/A	57 m²	614 ft²	EXTERIOR

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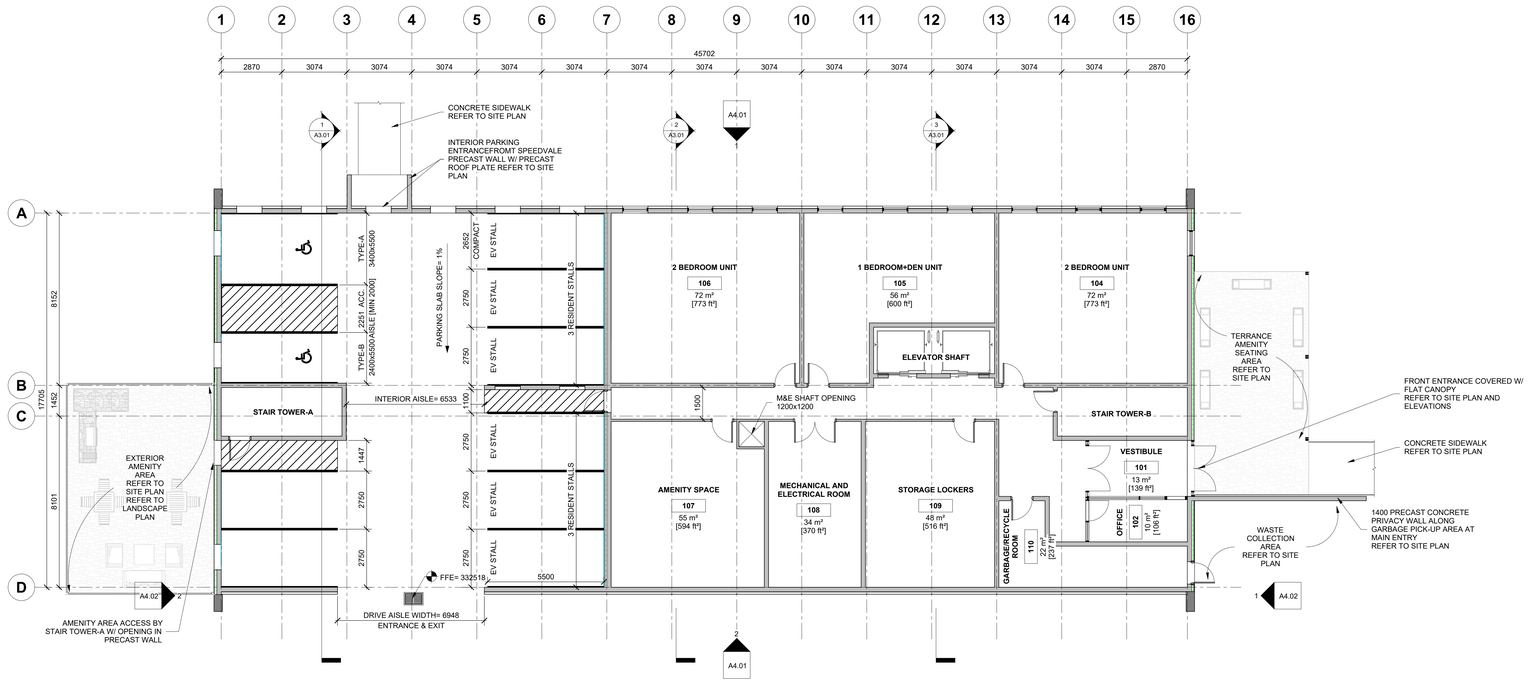

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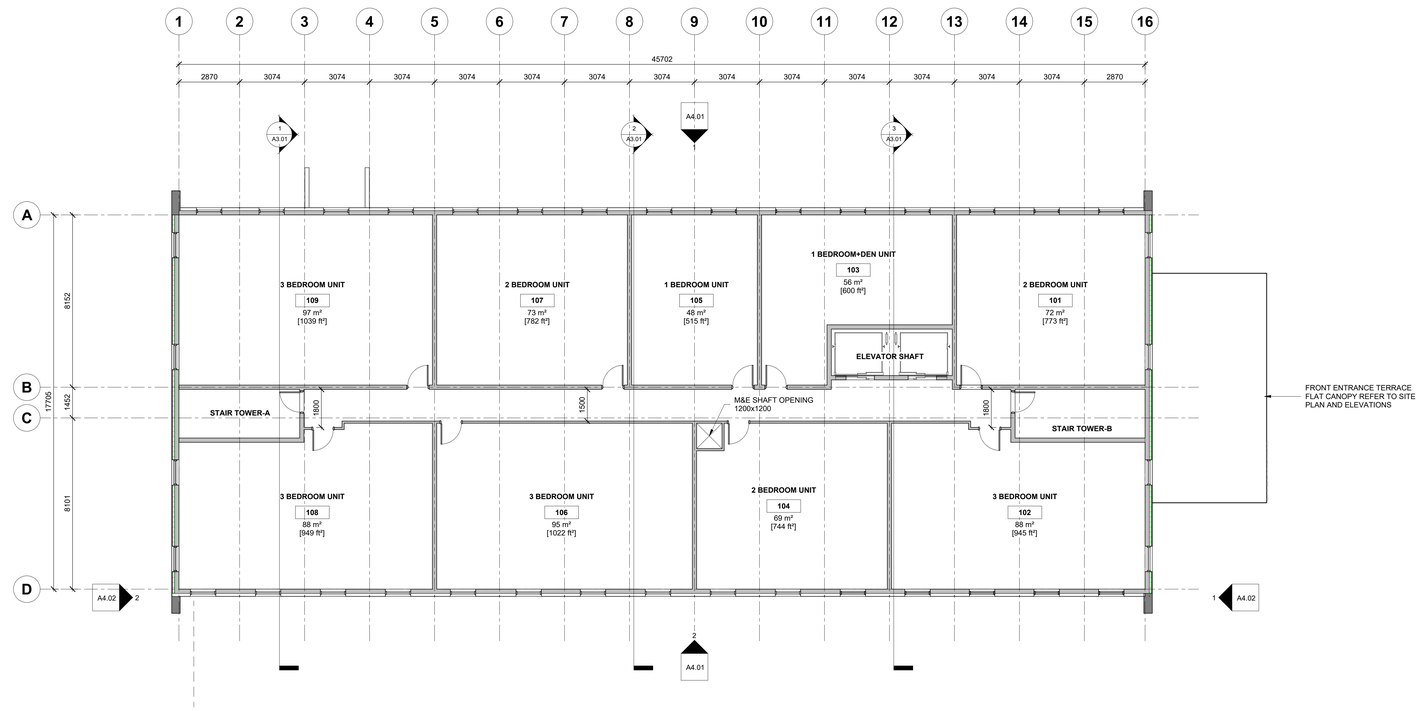

2 LEVEL 1.0
SCALE: 1 : 100

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BASEMENT MAIN LEVEL & LEVEL 1.0

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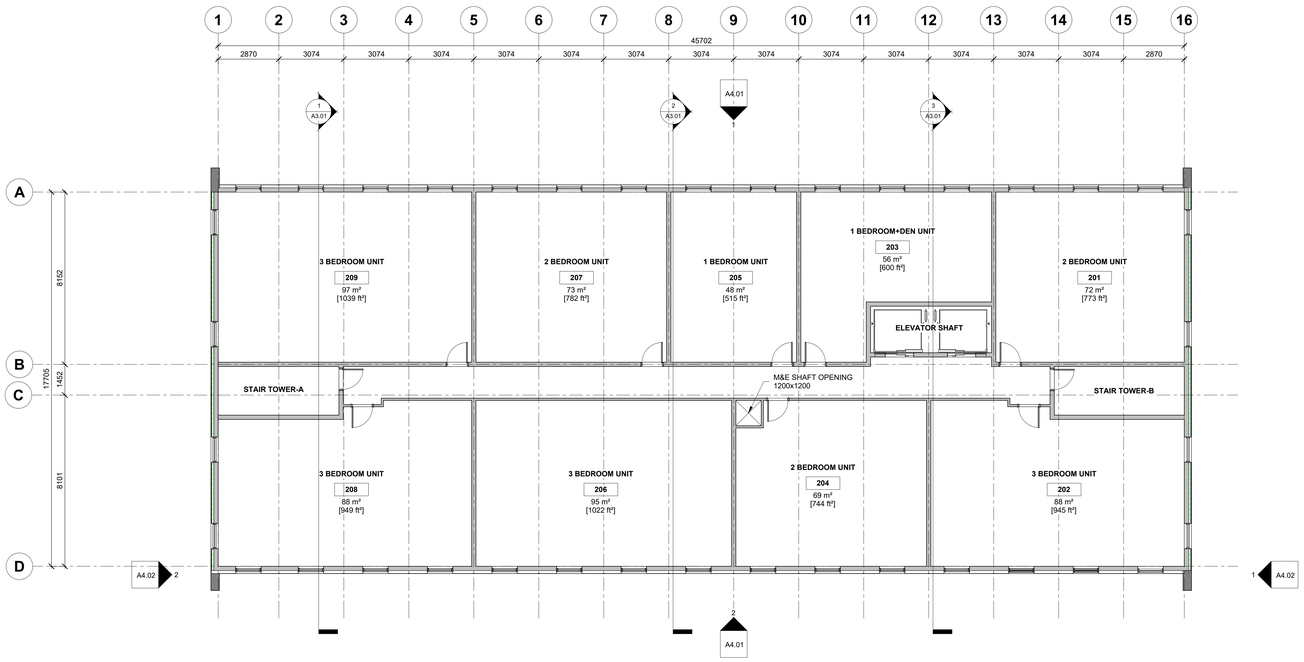
PROJECT DATE:	2023-07-20
DRAWN BY:	CVL
CHECKED BY:	CK
SCALE:	1 : 100

DRAWING NO.
A2.01



1 **LEVEL 2.0**
SCALE: 1 : 100

2 **LEVEL 3.0**
SCALE: 1 : 100

Newton Group Ltd.
41 MASSEY RD.
GUELPH, ON
N1H 7M6
TEL: (519)822-5281
FAX: (519)823-6332
www.kiwinewton.com

Habitat for Humanity® Guelph Wellington

#	DATE	DESCRIPTION	BY
B	23-12-19	REISSUED FOR SPA PRE-CONSULTATION	CVL
A	23-08-25	ISSUED FOR SPA PRE-CONSULTATION	CVL

PROJECT
SPEEDVALE AFFORDABLE HOUSING
MANHATTAN COURT & SPEEDVALE AVE E
GUELPH, ON
POSTAL CODE [TBD]

DRAWING
LEVEL 2.0 AND 3.0 FLOOR PLAN

PROJECT NO.:	23136
PROJECT DATE:	2023-07-20
DRAWN BY:	CVL
CHECKED BY:	CK
SCALE:	1 : 100

DRAWING NO.
A2.03

2024-01-16 12:44:48 PM SHEET SIZE: 36 X 48

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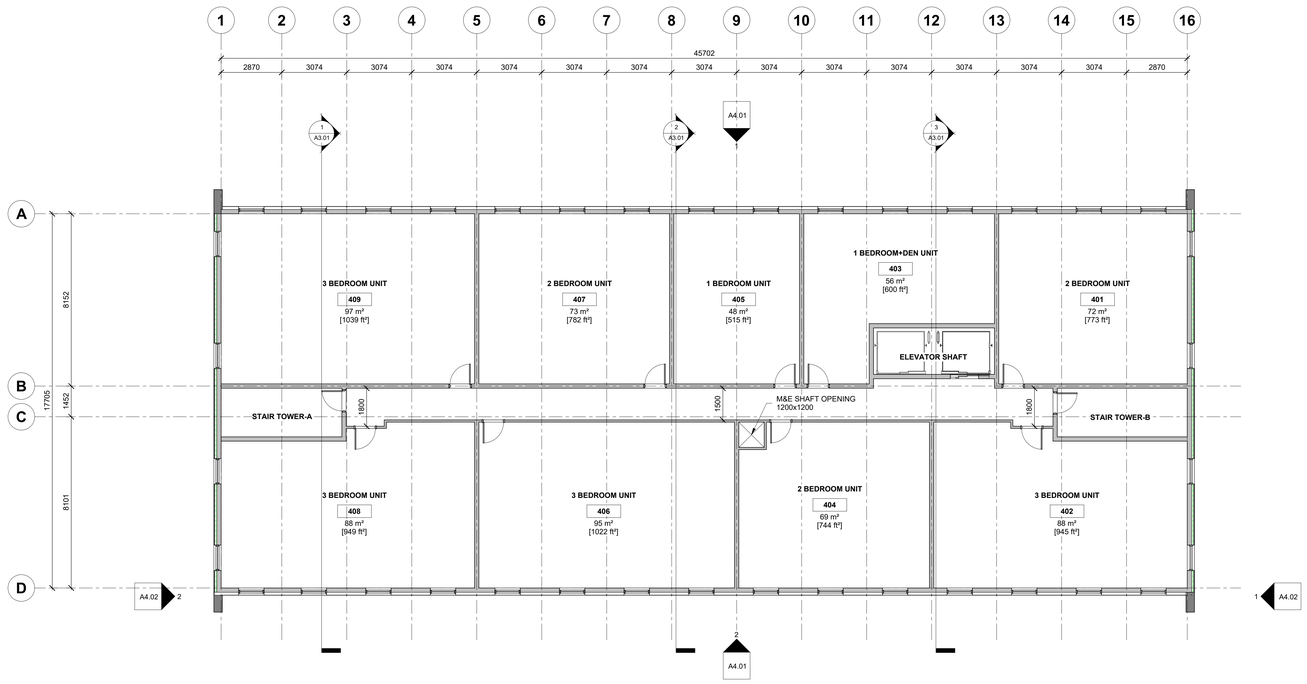

1 **LEVEL 4.0**
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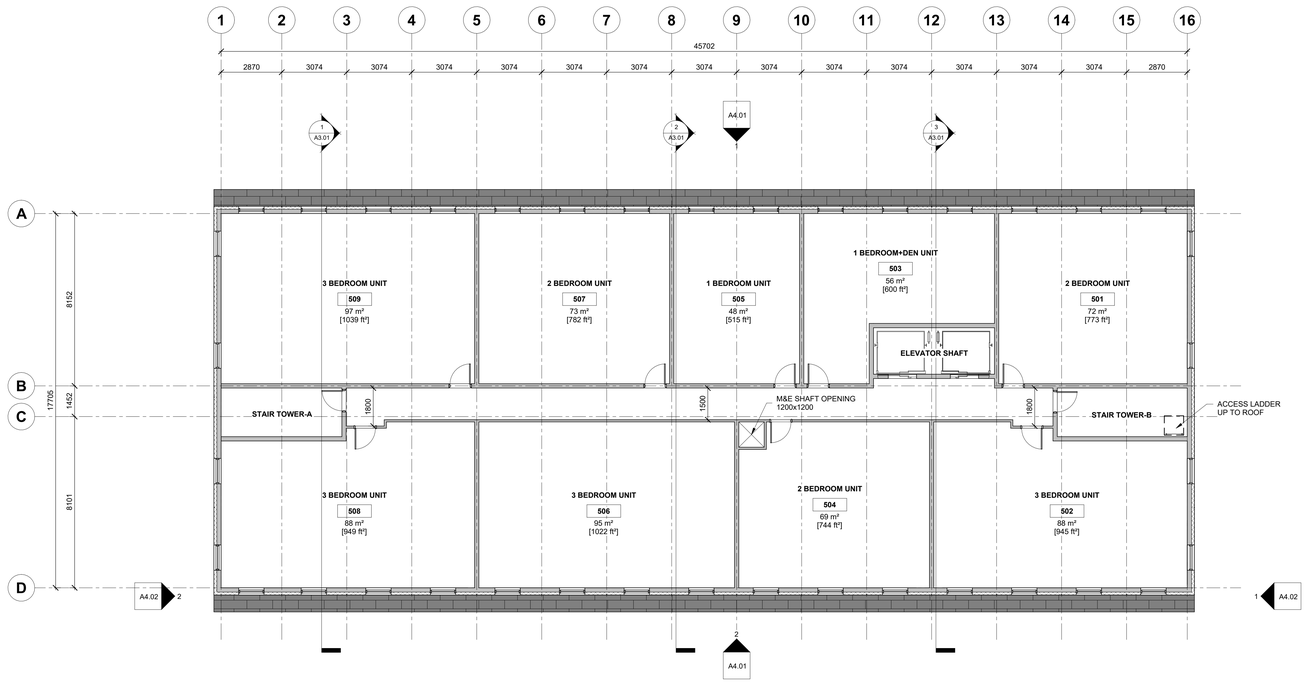

2 **LEVEL 5.0 (TOP FLOOR)**
SCALE: 1 : 100

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TEL: (519)822-5281
FAX: (519)823-6332
www.kiwinewton.com

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#	DATE	DESCRIPTION	BY
B	23-12-19	REISSUED FOR SPA PRE-CONSULTATION	CVL
A	23-08-25	ISSUED FOR SPA PRE-CONSULTATION	CVL

PROJECT
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GUELPH, ON
POSTAL CODE [TBD]

DRAWING
LEVEL 4.0 AND 5.0 FLOOR PLAN

PROJECT NO.:	23136
PROJECT DATE:	2023-07-20
DRAWN BY:	CVL
CHECKED BY:	CK
SCALE:	1 : 100

DRAWING NO. **A2.04**

2024-01-16 12:44:49 PM SHEET SIZE: 36 X 48

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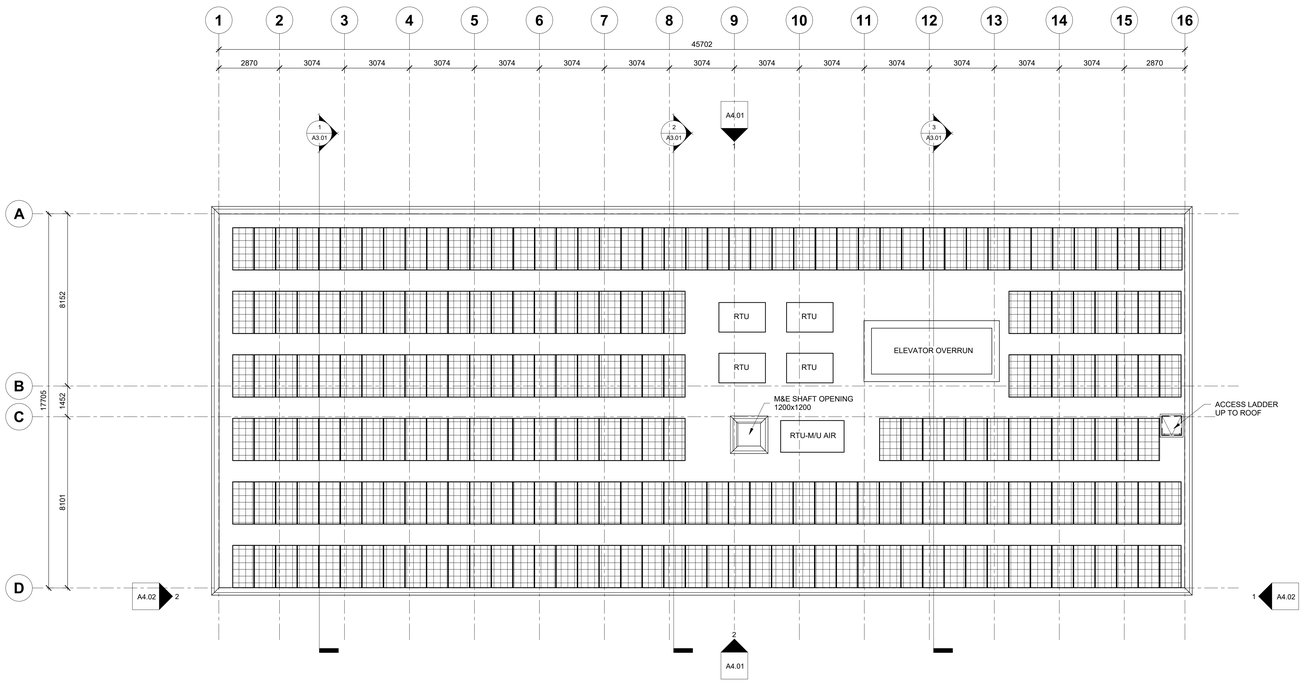

1 **U/S OF DECK**
SCALE: 1 : 100

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GUELPH, ON
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FAX: (519)823-6332
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#	DATE	DESCRIPTION	BY
B	23-12-19	REISSUED FOR SPA PRE-CONSULTATION	CVL
A	23-08-25	ISSUED FOR SPA PRE-CONSULTATION	CVL

PROJECT
SPEEDVALE AFFORDABLE HOUSING
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GUELPH, ON
POSTAL CODE [TBD]

DRAWING
ROOF LEVEL

PROJECT NO.:	23136
PROJECT DATE:	2023-07-20
DRAWN BY:	CVL
CHECKED BY:	CK
SCALE:	1 : 100

DRAWING NO.
A2.05

2024-01-16 12:44:50 PM SHEET SIZE: 36 X 48

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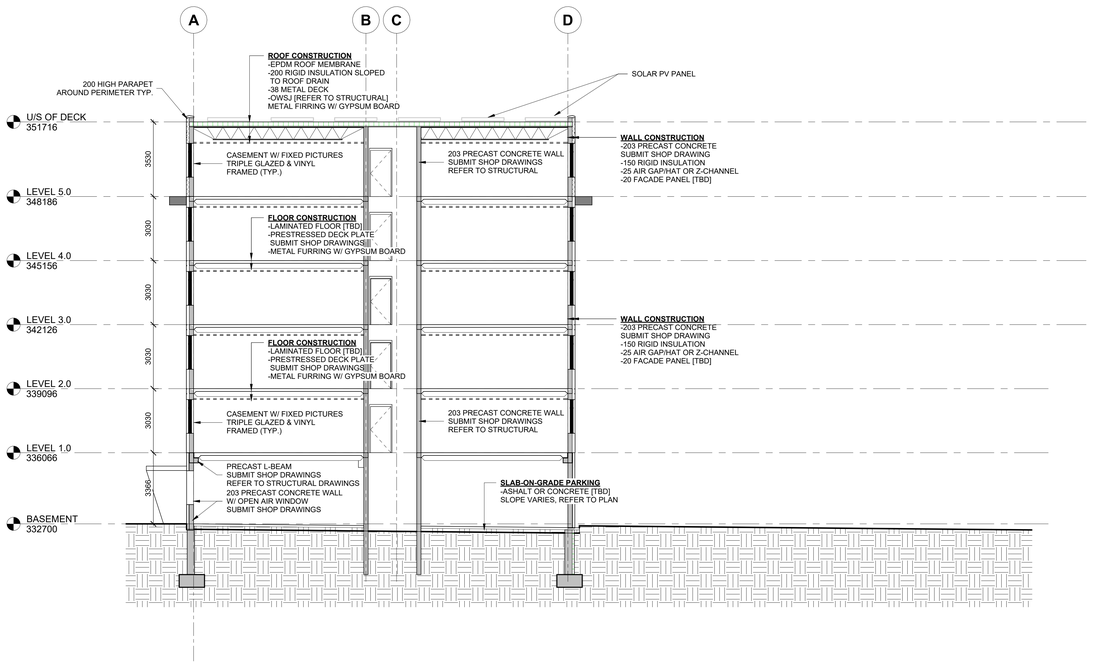
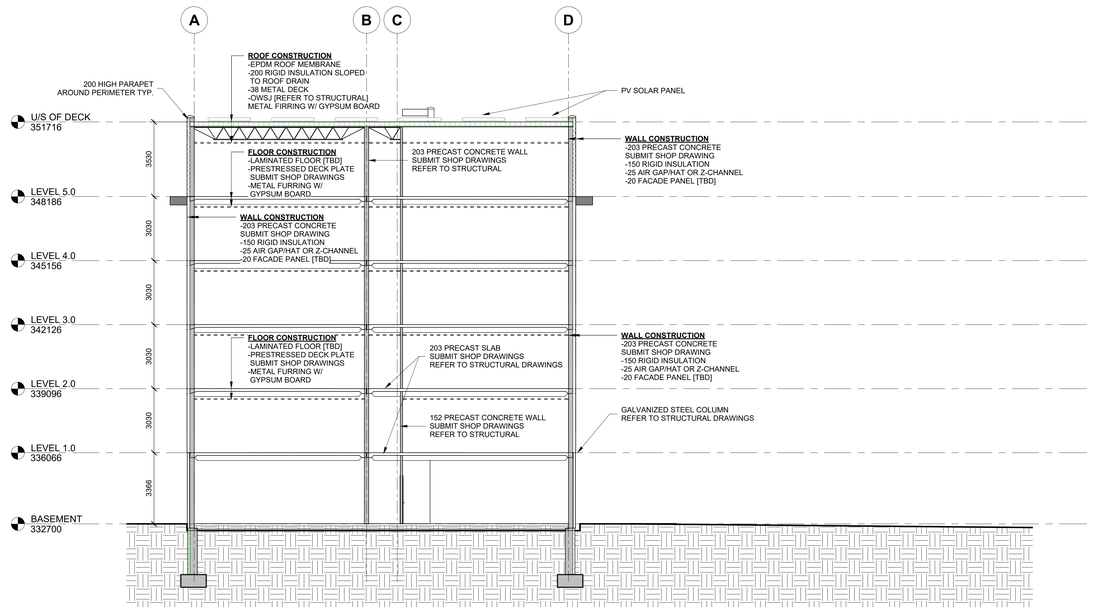
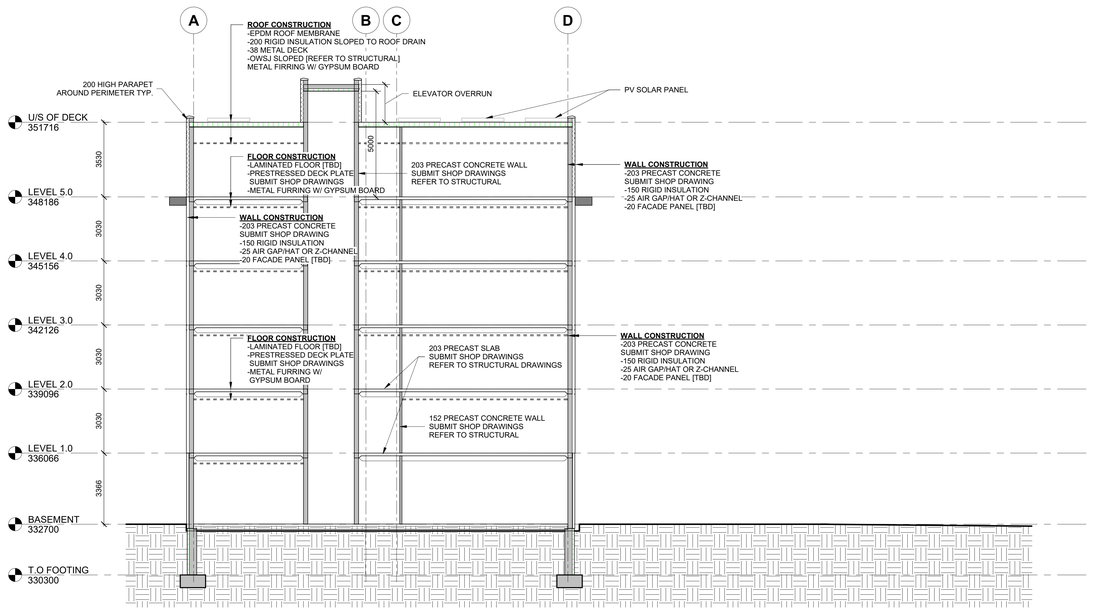


1 **BUILDING SECTION-1**
SCALE: 1 : 100



2 **BUILDING SECTION-2**
SCALE: 1 : 100



3 **BUILDING SECTION-3**
SCALE: 1 : 100

Newton Group Ltd.
41 MASSEY RD.
GUELPH, ON
N1H 7M6
TEL: (519)822-5281
FAX: (519)823-6332
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#	DATE	DESCRIPTION	BY
B	23-12-19	REISSUED FOR SPA PRE-CONSULTATION	CVL
A	23-08-25	ISSUED FOR SPA PRE-CONSULTATION	CVL

PROJECT
SPEEDVALE AFFORDABLE HOUSING
MANHATTAN COURT & SPEEDVALE AVE E
GUELPH, ON
POSTAL CODE [TBD]

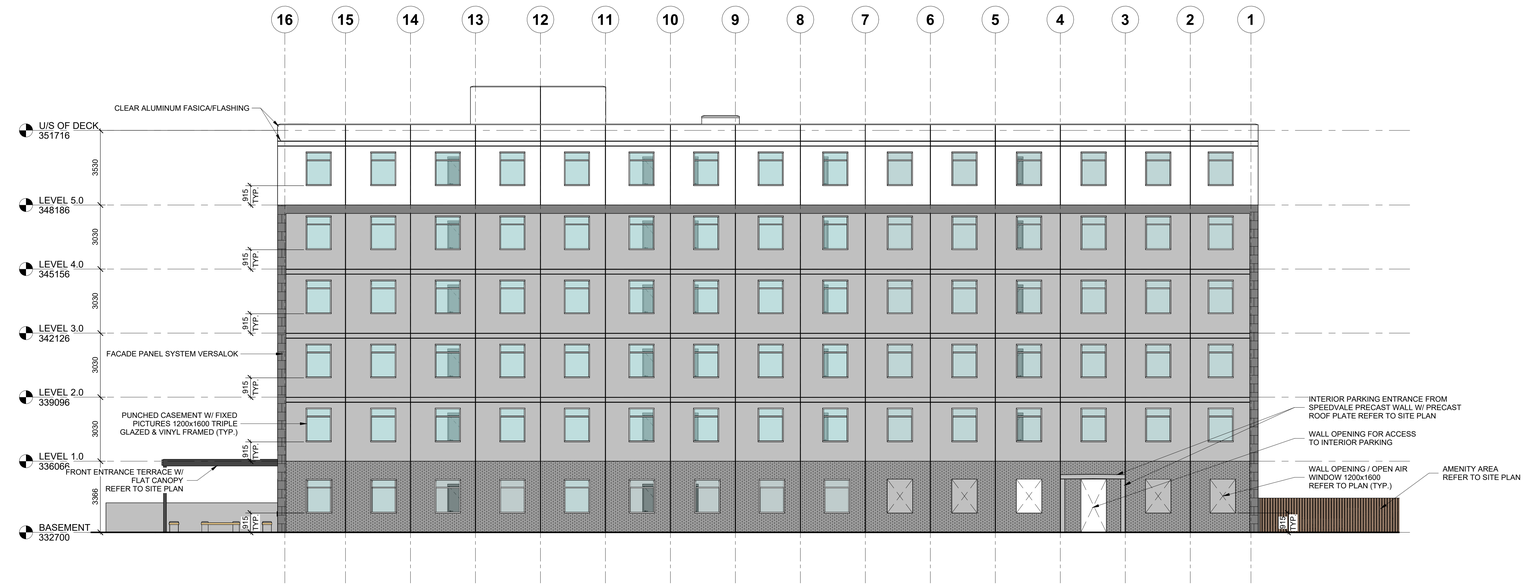
DRAWING
BUILDING SECTIONS

PROJECT NO.:	23136
PROJECT DATE:	2023-07-20
DRAWN BY:	CVL
CHECKED BY:	CK
SCALE:	1 : 100

DRAWING NO.
A3.01

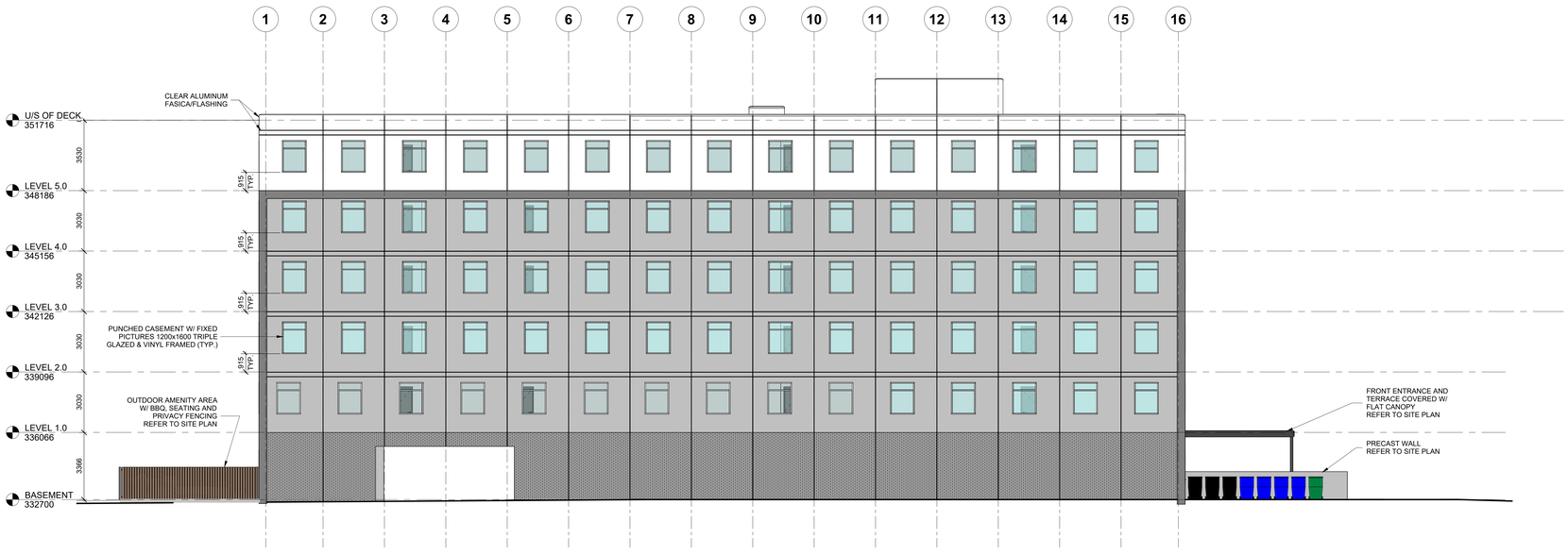
2024-01-16 12:44:51 PM SHEET SIZE: 36 X 48

CNT FILE PATH: GO TO SHEET TYPE PROP.



NORTH BUILDING ELEVATION

1 SCALE: 1 : 100



SOUTH BUILDING ELEVATION

2 SCALE: 1 : 100

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GUELPH, ON
N1H 7M6
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FAX: (519)823-6332
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Habitat for Humanity® Guelph Wellington

#	DATE	DESCRIPTION	BY
B	23-12-19	REISSUED FOR SPA PRE-CONSULTATION	CVL
A	23-08-25	ISSUED FOR SPA PRE-CONSULTATION	CVL

PROJECT

SPEEDVALE AFFORDABLE HOUSING

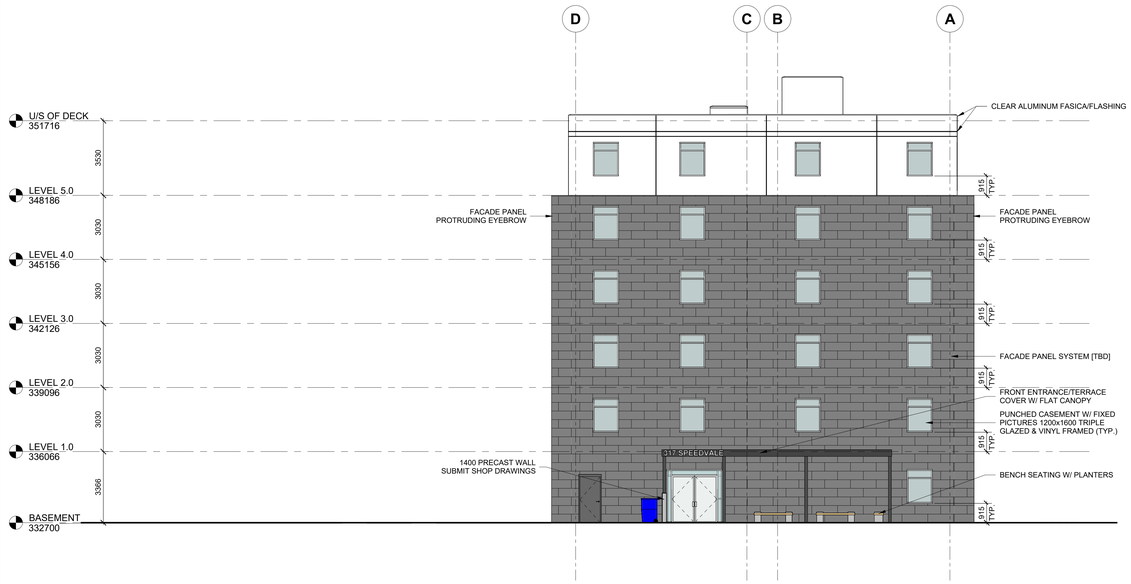
MANHATTAN COURT & SPEEDVALE AVE E
GUELPH, ON
POSTAL CODE [TBD]

DRAWING

BUILDING ELEVATIONS

PROJECT NO.:	23136
PROJECT DATE:	2023-07-20
DRAWN BY:	CVL
CHECKED BY:	CK
SCALE:	1 : 100

DRAWING NO.: **A4.01**



EAST BUILDING ELEVATION

1 SCALE: 1 : 100

WEST BUILDING ELEVATION

2 SCALE: 1 : 100

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GUELPH, ON
N1H 7M6
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Habitat for Humanity® Guelph Wellington

#	DATE	DESCRIPTION	BY
B	23-12-19	REISSUED FOR SPA PRE-CONSULTATION	CVL
A	23-08-25	ISSUED FOR SPA PRE-CONSULTATION	CVL

PROJECT
SPEEDVALE AFFORDABLE HOUSING
MANHATTAN COURT & SPEEDVALE AVE E
GUELPH, ON
POSTAL CODE [TBD]

DRAWING
BUILDING ELEVATIONS

PROJECT NO.:	23136
PROJECT DATE:	2023-07-20
DRAWN BY:	CVL
CHECKED BY:	CK
SCALE:	1 : 100

DRAWING NO. **A4.02**

2024-01-16 12:44:58 PM SHEET SIZE: 36 X 48

CNT FILE PATH: GO TO SHEET TYPE PROP.

Appendix F
Certificates of Analysis (Groundwater)

ENGLOBE

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CERTIFICATE OF ANALYSIS (GUIDELINE EVALUATION)

Work Order	: **WT2331537**	Page	: 1 of 7
Client	: **Englobe Corp.**	Laboratory	: ALS Environmental - Waterloo
Contact	: Jessica Godin	Account Manager	: Gayle Braun
Address	: 353 Bridge Street East Kitchener ON Canada N2K 2Y5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: +1 519 886 6910
Project	: 2302109.002	Date Samples Received	: 30-Sep-2023 09:00
PO	: ----	Date Analysis Commenced	: 30-Sep-2023
C-O-C number	: 20-1083265	Issue Date	: 06-Oct-2023 13:43
Sampler	: AG		
Site	: ----		
Quote number	: SANITARY & STORM BYLAWS		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Guideline Comparison

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Metals, Waterloo, Ontario
Hannah Lewis	Inorganics Analyst	Inorganics, Waterloo, Ontario
John Tang	Lab Analyst	Inorganics, Waterloo, Ontario
Rachel Cameron	Supervisor - Semi-Volatile Extractions	Organics, Waterloo, Ontario
Ruby Sujeepan		Microbiology, Waterloo, Ontario

Summary of Guideline Breaches by Sample

SampleID/Client ID	Matrix	Analyte	Analyte Summary	Guideline	Category	Result	Limit
MW23-05 GS	Water	Solids, total suspended [TSS]		GUESUB	STM	50.4 mg/L	15 mg/L
	Water	Zinc, total		GUESUB	STM	0.0519 mg/L	0.05 mg/L

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.
Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

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

Key : LOR: Limit of Reporting (detection limit).

Unit	*Description*
CFU/100mL	colony forming units per hundred millilitres
mg/L	milligrams per litre
pH units	pH units

>: greater than.
<: less than.
Red shading is applied where the result or the LOR is greater than the Guideline Upper Limit (or lower than the Guideline Lower Limit, if applicable).
For drinking water samples, Red shading is applied where the result for E.coli, fecal or total coliforms is greater than or equal to the Guideline Upper Limit.

Qualifiers

Qualifier	Description
BODL	Limit of Reporting for BOD was increased to account for the largest volume of sample tested.
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
DLUI	Detection Limit Raised: Unknown interference generated an apparent false positive test result.

Analytical Results Evaluation

Matrix: **Water**

Analyte	CAS Number	Method/Lab	Unit	Client sample ID	MW23-04 GS	MW23-05 GS	----	----	----	----	----
				Sampling date/time	29-Sep-2023 14:50	29-Sep-2023 15:45	----	----	----	----	----
				Sub-Matrix	Water	Water	----	----	----	----	----
					WT2331537-001	WT2331537-002	--------	--------	--------	--------	--------
Physical Tests											
pH	----	E108/WT	pH units		7.76	7.55	----	----	----	----	----
Solids, total suspended [TSS]	----	E160/WT	mg/L		<3.0	50.4	----	----	----	----	----
Anions and Nutrients											
Chloride	16887-00-6	E235.Cl/WT	mg/L		1100 DLDS	916 DLDS	----	----	----	----	----
Fluoride	16984-48-8	E235.F/WT	mg/L		<0.200 DLDS	<0.100 DLDS	----	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/WT	mg/L		0.214	0.262	----	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/WT	mg/L		0.0052	0.0529	----	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	mg/L		55.7 DLDS	39.6 DLDS	----	----	----	----	----
Cyanides											
Cyanide, strong acid dissociable (Total)	----	E333/WT	mg/L		<0.0020	<0.0020	----	----	----	----	----
Microbiological Tests											
Coliforms, thermotolerant [fecal]	----	E012.FC/WT	CFU/100 mL		Not Detected	Not Detected	----	----	----	----	----
Total Metals											
Aluminum, total	7429-90-5	E420/WT	mg/L		0.0350 DLHC	0.461 DLHC	----	----	----	----	----
Antimony, total	7440-36-0	E420/WT	mg/L		<0.00100 DLHC	<0.00100 DLHC	----	----	----	----	----
Arsenic, total	7440-38-2	E420/WT	mg/L		<0.00100 DLHC	<0.00100 DLHC	----	----	----	----	----
Bismuth, total	7440-69-9	E420/WT	mg/L		<0.000500 DLHC	<0.000500 DLHC	----	----	----	----	----
Cadmium, total	7440-43-9	E420/WT	mg/L		0.0000585 DLHC	0.000207 DLHC	----	----	----	----	----
Chromium, total	7440-47-3	E420/WT	mg/L		<0.00500 DLHC	<0.00500 DLHC	----	----	----	----	----
Cobalt, total	7440-48-4	E420/WT	mg/L		<0.00100 DLHC	<0.00100 DLHC	----	----	----	----	----
Copper, total	7440-50-8	E420/WT	mg/L		<0.00500 DLHC	<0.00500 DLHC	----	----	----	----	----
Iron, total	7439-89-6	E420/WT	mg/L		<0.100 DLHC	0.801 DLHC	----	----	----	----	----
Lead, total	7439-92-1	E420/WT	mg/L		<0.000500 DLHC	0.00517 DLHC	----	----	----	----	----
Manganese, total	7439-96-5	E420/WT	mg/L		0.0596 DLHC	0.0525 DLHC	----	----	----	----	----
Mercury, total	7439-97-6	E508/WT	mg/L		<0.0000050	<0.0000050	----	----	----	----	----
Molybdenum, total	7439-98-7	E420/WT	mg/L		0.00117 DLHC	0.000673 DLHC	----	----	----	----	----

Analytical Results Evaluation

Matrix: **Water**

Analyte	CAS Number	Method/Lab	Unit	Client sample ID	MW23-04 GS	MW23-05 GS	----	----	----	----	----
				Sampling date/time	29-Sep-2023 14:50	29-Sep-2023 15:45	----	----	----	----	----
				Sub-Matrix	Water	Water	----	----	----	----	----
					WT2331537-001	WT2331537-002	--------	--------	--------	--------	--------
Total Metals											
Nickel, total	7440-02-0	E420/WT	mg/L		<0.00500 DLHC	<0.00500 DLHC	----	----	----	----	----
Selenium, total	7782-49-2	E420/WT	mg/L		0.00126 DLHC	<0.000500 DLHC	----	----	----	----	----
Silver, total	7440-22-4	E420/WT	mg/L		<0.000100 DLHC	<0.000100 DLHC	----	----	----	----	----
Tin, total	7440-31-5	E420/WT	mg/L		<0.00100 DLHC	<0.00100 DLHC	----	----	----	----	----
Titanium, total	7440-32-6	E420/WT	mg/L		<0.00300 DLHC	<0.0159 DLHC, DLUI	----	----	----	----	----
Vanadium, total	7440-62-2	E420/WT	mg/L		<0.00500 DLHC	<0.00500 DLHC	----	----	----	----	----
Zinc, total	7440-66-6	E420/WT	mg/L		<0.0300 DLHC	0.0519 DLHC	----	----	----	----	----
Aggregate Organics											
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/WT	mg/L		<3.0 BODL	<3.0 BODL	----	----	----	----	----
Oil & grease (gravimetric)	----	E567/WT	mg/L		5.6	<5.0	----	----	----	----	----
Oil & grease, animal/vegetable (gravimetric)	----	EC567A.SG/WT	mg/L		5.6	<5.0	----	----	----	----	----
Oil & grease, mineral (gravimetric)	----	E567SG/WT	mg/L		<5.0	<5.0	----	----	----	----	----
Phenols, total (4AAP)	----	E562/WT	mg/L		<0.0010	<0.0010	----	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Summary of Guideline Limits

Analyte	CAS Number	Unit	GUESUB SAN	GUESUB STM
Physical Tests				
pH	----	pH units	**5.5 - 9.5 pH units**	**6 - 9 pH units**
Solids, total suspended [TSS]	----	mg/L	**350 mg/L**	**15 mg/L**
Anions and Nutrients				
Chloride	16887-00-6	mg/L	**1500 mg/L**	--
Fluoride	16984-48-8	mg/L	**10 mg/L**	--
Kjeldahl nitrogen, total [TKN]	----	mg/L	**100 mg/L**	--
Phosphorus, total	7723-14-0	mg/L	**10 mg/L**	--
Sulfate (as SO4)	14808-79-8	mg/L	**1500 mg/L**	--
Cyanides				
Cyanide, strong acid dissociable (Total)	----	mg/L	**2 mg/L**	--
Microbiological Tests				
Coliforms, thermotolerant [fecal]	----	CFU/100mL	--	**200 CFU/100mL**
Total Metals				
Aluminum, total	7429-90-5	mg/L	**50 mg/L**	--
Antimony, total	7440-36-0	mg/L	**5 mg/L**	--
Arsenic, total	7440-38-2	mg/L	**1 mg/L**	--
Bismuth, total	7440-69-9	mg/L	**5 mg/L**	--
Cadmium, total	7440-43-9	mg/L	**1 mg/L**	**0.001 mg/L**
Chromium, total	7440-47-3	mg/L	**5 mg/L**	**0.2 mg/L**
Cobalt, total	7440-48-4	mg/L	**5 mg/L**	--
Copper, total	7440-50-8	mg/L	**3 mg/L**	**0.01 mg/L**
Iron, total	7439-89-6	mg/L	**50 mg/L**	--
Lead, total	7439-92-1	mg/L	**5 mg/L**	**0.05 mg/L**
Manganese, total	7439-96-5	mg/L	**5 mg/L**	--
Mercury, total	7439-97-6	mg/L	**0.1 mg/L**	**0.001 mg/L**
Molybdenum, total	7439-98-7	mg/L	**5 mg/L**	--
Nickel, total	7440-02-0	mg/L	**3 mg/L**	**0.05 mg/L**
Selenium, total	7782-49-2	mg/L	**5 mg/L**	--
Silver, total	7440-22-4	mg/L	**5 mg/L**	--
Tin, total	7440-31-5	mg/L	**5 mg/L**	--
Titanium, total	7440-32-6	mg/L	**5 mg/L**	--
Vanadium, total	7440-62-2	mg/L	**5 mg/L**	--
Zinc, total	7440-66-6	mg/L	**3 mg/L**	**0.05 mg/L**
Aggregate Organics				
Carbonaceous biochemical oxygen demand [CBOD]	----	mg/L	**300 mg/L**	**15 mg/L**

Analyte	CAS Number	Unit	GUESUB SAN	GUESUB STM					
Aggregate Organics - Continued									
Oil & grease (gravimetric)	----	mg/L	--	--					
Oil & grease, animal/vegetable (gravimetric)	----	mg/L	**100 mg/L**	--					
Oil & grease, mineral (gravimetric)	----	mg/L	**15 mg/L**	--					
Phenols, total (4AAP)	----	mg/L	**1 mg/L**	--					

Please refer to the General Comments section for an explanation of any qualifiers detected.

Key:

GUESUB	Ontario Guelph Sanitary and Storm Sewer By-Law 15202 (1996)
SAN	Ontario City of Guelph Sanitary Sewer Use By-Law 15202
STM	Ontario City of Guelph Storm Sewer Use By-Law 15202

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WT2331537**	Page	: 1 of 11
Client	: **Englobe Corp.**	Laboratory	: ALS Environmental - Waterloo
Contact	: Jessica Godin	Account Manager	: Gayle Braun
Address	: 353 Bridge Street East Kitchener ON Canada N2K 2Y5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: +1 519 886 6910
Project	: 2302109.002	Date Samples Received	: 30-Sep-2023 09:00
PO	: ----	Issue Date	: 06-Oct-2023 13:44
C-O-C number	: 20-1083265		
Sampler	: AG		
Site	: ----		
Quote number	: SANITARY & STORM BYLAWS		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand (Carbonaceous) - 5 day										
HDPE [BOD HT-4d]										
MW23-04 GS	E555	29-Sep-2023	----	----	----		30-Sep-2023	4 days	0 days	✓
Aggregate Organics : Biochemical Oxygen Demand (Carbonaceous) - 5 day										
HDPE [BOD HT-4d]										
MW23-05 GS	E555	29-Sep-2023	----	----	----		30-Sep-2023	4 days	0 days	✓
Aggregate Organics : Mineral Oil & Grease by Gravimetry										
Amber glass (hydrochloric acid)										
MW23-04 GS	E567SG	29-Sep-2023	02-Oct-2023	28 days	3 days	✓	02-Oct-2023	40 days	0 days	✓
Aggregate Organics : Mineral Oil & Grease by Gravimetry										
Amber glass (hydrochloric acid)										
MW23-05 GS	E567SG	29-Sep-2023	02-Oct-2023	28 days	3 days	✓	02-Oct-2023	40 days	0 days	✓
Aggregate Organics : Oil & Grease by Gravimetry										
Amber glass (hydrochloric acid)										
MW23-04 GS	E567	29-Sep-2023	02-Oct-2023	28 days	3 days	✓	02-Oct-2023	40 days	0 days	✓
Aggregate Organics : Oil & Grease by Gravimetry										
Amber glass (hydrochloric acid)										
MW23-05 GS	E567	29-Sep-2023	02-Oct-2023	28 days	3 days	✓	02-Oct-2023	40 days	0 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
MW23-04 GS	E562	29-Sep-2023	02-Oct-2023	28 days	3 days	✓	03-Oct-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
MW23-05 GS	E562	29-Sep-2023	02-Oct-2023	28 days	3 days	✓	03-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
MW23-04 GS	E235.Cl	29-Sep-2023	02-Oct-2023	28 days	3 days	✓	02-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
MW23-05 GS	E235.Cl	29-Sep-2023	03-Oct-2023	28 days	4 days	✓	03-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
MW23-04 GS	E235.F	29-Sep-2023	02-Oct-2023	28 days	3 days	✓	02-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
MW23-05 GS	E235.F	29-Sep-2023	03-Oct-2023	28 days	4 days	✓	03-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
MW23-04 GS	E235.SO4	29-Sep-2023	02-Oct-2023	28 days	3 days	✓	02-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
MW23-05 GS	E235.SO4	29-Sep-2023	03-Oct-2023	28 days	4 days	✓	03-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
MW23-04 GS	E318	29-Sep-2023	03-Oct-2023	28 days	4 days	✓	04-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
MW23-05 GS	E318	29-Sep-2023	03-Oct-2023	28 days	4 days	✓	04-Oct-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
MW23-04 GS	E372-U	29-Sep-2023	02-Oct-2023	28 days	3 days	✓	03-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
MW23-05 GS	E372-U	29-Sep-2023	02-Oct-2023	28 days	3 days	✓	03-Oct-2023	28 days	4 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MW23-04 GS	E333	29-Sep-2023	04-Oct-2023	14 days	5 days	✓	04-Oct-2023	14 days	5 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MW23-05 GS	E333	29-Sep-2023	04-Oct-2023	14 days	5 days	✓	04-Oct-2023	14 days	5 days	✓
Microbiological Tests : Thermotolerant (Fecal) Coliform (MF-mFC)										
Sterile HDPE (Sodium thiosulphate) [ON MECP]										
MW23-05 GS	E012.FC	29-Sep-2023	----	----	----		30-Sep-2023	48 hrs	19 hrs	✓
Microbiological Tests : Thermotolerant (Fecal) Coliform (MF-mFC)										
Sterile HDPE (Sodium thiosulphate) [ON MECP]										
MW23-04 GS	E012.FC	29-Sep-2023	----	----	----		30-Sep-2023	48 hrs	20 hrs	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
MW23-04 GS	E108	29-Sep-2023	02-Oct-2023	14 days	3 days	✓	03-Oct-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
MW23-05 GS	E108	29-Sep-2023	03-Oct-2023	14 days	4 days	✓	03-Oct-2023	14 days	4 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP]										
MW23-04 GS	E160	29-Sep-2023	----	----	----		03-Oct-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP]										
MW23-05 GS	E160	29-Sep-2023	----	----	----		03-Oct-2023	7 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP]										
MW23-04 GS	E508	29-Sep-2023	02-Oct-2023	28 days	3 days	✓	02-Oct-2023	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP]										
MW23-05 GS	E508	29-Sep-2023	02-Oct-2023	28 days	3 days	✓	02-Oct-2023	28 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
MW23-04 GS	E420	29-Sep-2023	01-Oct-2023	180 days	2 days	✓	02-Oct-2023	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
MW23-05 GS	E420	29-Sep-2023	01-Oct-2023	180 days	2 days	✓	02-Oct-2023	180 days	3 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Biochemical Oxygen Demand (Carbonaceous) - 5 day	E555	1163210	1	18	5.5	5.0	✓
Chloride in Water by IC	E235.Cl	1164101	2	25	8.0	5.0	✓
Fluoride in Water by IC	E235.F	1164103	2	20	10.0	5.0	✓
pH by Meter	E108	1164097	2	37	5.4	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1163732	1	14	7.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1164104	2	20	10.0	5.0	✓
Thermotolerant (Fecal) Coliform (MF-mFC)	E012.FC	1162631	1	3	33.3	5.0	✓
Total Cyanide	E333	1167375	1	11	9.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1163730	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1164162	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1163647	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1163731	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1165994	1	20	5.0	4.7	✓
Laboratory Control Samples (LCS)							
Biochemical Oxygen Demand (Carbonaceous) - 5 day	E555	1163210	1	18	5.5	5.0	✓
Chloride in Water by IC	E235.Cl	1164101	2	25	8.0	5.0	✓
Fluoride in Water by IC	E235.F	1164103	2	20	10.0	5.0	✓
Mineral Oil & Grease by Gravimetry	E567SG	1163441	1	9	11.1	5.0	✓
Oil & Grease by Gravimetry	E567	1163440	1	15	6.6	5.0	✓
pH by Meter	E108	1164097	2	37	5.4	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1163732	1	14	7.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1164104	2	20	10.0	5.0	✓
Total Cyanide	E333	1167375	1	11	9.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1163730	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1164162	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1163647	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1163731	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1165994	1	20	5.0	4.7	✓
Method Blanks (MB)							
Biochemical Oxygen Demand (Carbonaceous) - 5 day	E555	1163210	1	18	5.5	5.0	✓
Chloride in Water by IC	E235.Cl	1164101	2	25	8.0	5.0	✓
Fluoride in Water by IC	E235.F	1164103	2	20	10.0	5.0	✓
Mineral Oil & Grease by Gravimetry	E567SG	1163441	1	9	11.1	5.0	✓
Oil & Grease by Gravimetry	E567	1163440	1	15	6.6	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1163732	1	14	7.1	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Method Blanks (MB) - Continued							
Sulfate in Water by IC	E235.SO4	1164104	2	20	10.0	5.0	✓
Thermotolerant (Fecal) Coliform (MF-mFC)	E012.FC	1162631	1	3	33.3	5.0	✓
Total Cyanide	E333	1167375	1	11	9.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1163730	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1164162	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1163647	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1163731	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1165994	1	20	5.0	4.7	✓
Matrix Spikes (MS)							
Chloride in Water by IC	E235.Cl	1164101	2	25	8.0	5.0	✓
Fluoride in Water by IC	E235.F	1164103	2	20	10.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1163732	1	14	7.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1164104	2	20	10.0	5.0	✓
Total Cyanide	E333	1167375	1	11	9.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1163730	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1164162	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1163647	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1163731	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Thermotolerant (Fecal) Coliform (MF-mFC)	E012.FC ALS Environmental - Waterloo	Water	APHA 9222 D (mod)	Following filtration (0.45 µm), and incubation at 44.5 ±0.2°C for 22-26 hours, colonies exhibiting characteristic morphology of the target organism are enumerated and confirmed.
pH by Meter	E108 ALS Environmental - Waterloo	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry	E160 ALS Environmental - Waterloo	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
Chloride in Water by IC	E235.Cl ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).
Total Cyanide	E333 ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Waterloo	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Waterloo	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Biochemical Oxygen Demand (Carbonaceous) - 5 day	E555 ALS Environmental - Waterloo	Water	APHA 5210 B (mod)	Samples are diluted and incubated for a specified time period, after which the oxygen depletion is measured using a dissolved oxygen meter. Nitrification inhibitor is added to samples to prevent nitrogenous compounds from consuming oxygen resulting in only carbonaceous oxygen demand being reported by this method. Free chlorine is a negative interference in the BOD method; please advise ALS when free chlorine is present in samples.
Phenols (4AAP) in Water by Colorimetry	E562 ALS Environmental - Waterloo	Water	EPA 9066	This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K3Fe(CN)6) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically.
Oil & Grease by Gravimetry	E567 ALS Environmental - Waterloo	Water	BC MOE Lab Manual (Oil & Grease) (mod)	The entire water sample is extracted with hexane and the extract is evaporated to dryness. The residue is then weighed to determine Oil and Grease.
Mineral Oil & Grease by Gravimetry	E567SG ALS Environmental - Waterloo	Water	BC MOE Lab Manual (Oil & Grease) (mod)	The entire water sample is extracted with hexane, followed by silica gel treatment after which the extract is evaporated to dryness. The residue is then weighed to determine Mineral Oil and Grease.
Animal & Vegetable Oil & Grease by Gravimetry	EC567A.SG ALS Environmental - Waterloo	Water	APHA 5520 (mod)	Animal & vegetable oil and grease is calculated as follows: Oil & Grease (gravimetric) minus Mineral Oil & Grease (gravimetric)

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Digestion for TKN in water	EP318 ALS Environmental - Waterloo	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Oil & Grease Extraction for Gravimetry	EP567 ALS Environmental - Waterloo	Water	BC MOE Lab Manual (Oil & Grease) (mod)	The entire water sample is extracted with hexane by liquid-liquid extraction.

QUALITY CONTROL REPORT

Work Order	: **WT2331537**	Page	: 1 of 10
Client	: Englobe Corp.	Laboratory	: ALS Environmental - Waterloo
Contact	: Jessica Godin	Account Manager	: Gayle Braun
Address	: 353 Bridge Street East Kitchener ON Canada N2K 2Y5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	:	Telephone	: +1 519 886 6910
Project	: 2302109.002	Date Samples Received	: 30-Sep-2023 09:00
PO	: ----	Date Analysis Commenced	: 30-Sep-2023
C-O-C number	: 20-1083265	Issue Date	: 06-Oct-2023 13:44
Sampler	: AG ----		
Site	: ----		
Quote number	: SANITARY & STORM BYLAWS		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Metals, Waterloo, Ontario
Hannah Lewis	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
John Tang	Lab Analyst	Waterloo Inorganics, Waterloo, Ontario
Rachel Cameron	Supervisor - Semi-Volatile Extractions	Waterloo Organics, Waterloo, Ontario
Ruby Sujeepan		Waterloo Microbiology, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1164097)											
WT2331477-001	Anonymous	pH	----	E108	0.10	pH units	8.21	8.19	0.244%	4%	----
Physical Tests (QC Lot: 1165090)											
WT2331569-001	Anonymous	pH	----	E108	0.10	pH units	7.55	7.59	0.528%	4%	----
Physical Tests (QC Lot: 1165994)											
WT2331516-002	Anonymous	Solids, total suspended [TSS]	----	E160	3.0	mg/L	55.8	60.8	8.58%	20%	----
Anions and Nutrients (QC Lot: 1163730)											
WT2331306-001	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	0.500	mg/L	32.9	33.0	0.285%	20%	----
Anions and Nutrients (QC Lot: 1163731)											
WT2331369-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0040	mg/L	1.01	1.01	0.372%	20%	----
Anions and Nutrients (QC Lot: 1164101)											
WT2331505-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	14.6	14.5	0.638%	20%	----
Anions and Nutrients (QC Lot: 1164103)											
WT2331505-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.063	0.061	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1164104)											
WT2331505-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	10.1	10.0	0.664%	20%	----
Anions and Nutrients (QC Lot: 1165085)											
WT2331306-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	7.38	7.34	0.602%	20%	----
Anions and Nutrients (QC Lot: 1165086)											
WT2331306-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	25.0	24.8	0.504%	20%	----
Anions and Nutrients (QC Lot: 1165087)											
WT2331306-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	3.18	3.16	0.656%	20%	----
Cyanides (QC Lot: 1167375)											
TY2309674-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333	0.0020	mg/L	<0.0020	<0.0020	0	Diff <2x LOR	----
Microbiological Tests (QC Lot: 1162631)											
WT2331537-001	MW23-04 GS	Coliforms, thermotolerant [fecal]	----	E012.FC	1	CFU/100mL	<1	<1	0	Diff <2x LOR	----
Total Metals (QC Lot: 1163647)											
WT2331456-002	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0549	0.0552	0.457%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00048	0.00048	0.000002	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00209	0.00212	1.81%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1163647) - continued											
WT2331456-002	Anonymous	Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000534	0.0000576	7.57%	20%	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00054	0.00056	0.00002	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00176	0.00178	1.61%	20%	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.0392	0.0419	6.79%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	2.69	2.68	0.213%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.00101	0.00102	0.770%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.165	0.163	1.65%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00504	0.00506	0.380%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00109	0.00111	0.00002	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000080	0.000073	0.000006	Diff <2x LOR	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000031	0.000033	0.000002	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	0.00012	0.00013	0.000006	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00420	0.00444	5.63%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00053	0.00053	0.000004	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0172	0.0180	0.0009	Diff <2x LOR	----
Total Metals (QC Lot: 1164162)											
TY2309849-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Aggregate Organics (QC Lot: 1163210)											
WT2331537-001	MW23-04 GS	Carbonaceous biochemical oxygen demand [CBOD]	----	E555	3.0	mg/L	<3.0	<3.0	0.0%	30%	----
Aggregate Organics (QC Lot: 1163732)											
WT2331413-002	Anonymous	Phenols, total (4AAP)	----	E562	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1165994)						
Solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Anions and Nutrients (QCLot: 1163730)						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 1163731)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1164101)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1164103)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1164104)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1165085)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1165086)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1165087)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Cyanides (QCLot: 1167375)						
Cyanide, strong acid dissociable (Total)	----	E333	0.002	mg/L	<0.0020	----
Microbiological Tests (QCLot: 1162631)						
Coliforms, thermotolerant [fecal]	----	E012.FC	1	CFU/100mL	<1	----
Total Metals (QCLot: 1163647)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1163647) - continued						
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Total Metals (QCLot: 1164162)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Aggregate Organics (QCLot: 1163210)						
Carbonaceous biochemical oxygen demand [CBOD]	----	E555	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 1163440)						
Oil & grease (gravimetric)	----	E567	5	mg/L	<5.0	----
Aggregate Organics (QCLot: 1163441)						
Oil & grease, mineral (gravimetric)	----	E567SG	5	mg/L	<5.0	----
Aggregate Organics (QCLot: 1163732)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1164097)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1165090)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1165994)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	101	85.0	115	----
Anions and Nutrients (QCLot: 1163730)									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1163731)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.393 mg/L	101	80.0	120	----
Anions and Nutrients (QCLot: 1164101)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	97.1	90.0	110	----
Anions and Nutrients (QCLot: 1164103)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	98.9	90.0	110	----
Anions and Nutrients (QCLot: 1164104)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	97.7	90.0	110	----
Anions and Nutrients (QCLot: 1165085)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1165086)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.8	90.0	110	----
Anions and Nutrients (QCLot: 1165087)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	103	90.0	110	----
Cyanides (QCLot: 1167375)									
Cyanide, strong acid dissociable (Total)	----	E333	0.002	mg/L	0.25 mg/L	97.9	80.0	120	----
Total Metals (QCLot: 1163647)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	0.1 mg/L	94.9	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	0.05 mg/L	99.3	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	0.05 mg/L	97.9	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	0.05 mg/L	97.2	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.005 mg/L	94.3	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1163647) - continued									
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.0125 mg/L	96.3	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.0125 mg/L	94.3	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.0125 mg/L	94.0	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	0.05 mg/L	96.1	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.025 mg/L	98.4	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.0125 mg/L	94.3	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.0125 mg/L	96.7	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.025 mg/L	93.7	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	0.05 mg/L	94.5	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.005 mg/L	92.5	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.025 mg/L	95.0	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.0125 mg/L	92.2	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.025 mg/L	96.8	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.025 mg/L	93.9	80.0	120	----
Total Metals (QCLot: 1164162)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	100	80.0	120	----
Aggregate Organics (QCLot: 1163210)									
Carbonaceous biochemical oxygen demand [CBOD]	----	E555	2	mg/L	198 mg/L	92.6	85.0	115	----
Aggregate Organics (QCLot: 1163440)									
Oil & grease (gravimetric)	----	E567	5	mg/L	200 mg/L	88.0	70.0	130	----
Aggregate Organics (QCLot: 1163441)									
Oil & grease, mineral (gravimetric)	----	E567SG	5	mg/L	100 mg/L	84.4	70.0	130	----
Aggregate Organics (QCLot: 1163732)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	99.1	85.0	115	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1163730)										
WT2331306-001	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	ND mg/L	2.5 mg/L	ND	70.0	130	----
Anions and Nutrients (QCLot: 1163731)										
WT2331369-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L	0.1 mg/L	ND	70.0	130	----
Anions and Nutrients (QCLot: 1164101)										
WT2331505-001	Anonymous	Chloride	16887-00-6	E235.Cl	96.7 mg/L	100 mg/L	96.7	75.0	125	----
Anions and Nutrients (QCLot: 1164103)										
WT2331505-001	Anonymous	Fluoride	16984-48-8	E235.F	0.914 mg/L	1 mg/L	91.4	75.0	125	----
Anions and Nutrients (QCLot: 1164104)										
WT2331505-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	94.5 mg/L	100 mg/L	94.5	75.0	125	----
Anions and Nutrients (QCLot: 1165085)										
WT2331306-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	99.1 mg/L	100 mg/L	99.1	75.0	125	----
Anions and Nutrients (QCLot: 1165086)										
WT2331306-001	Anonymous	Chloride	16887-00-6	E235.Cl	100 mg/L	100 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1165087)										
WT2331306-001	Anonymous	Fluoride	16984-48-8	E235.F	ND mg/L	1 mg/L	ND	75.0	125	----
Cyanides (QCLot: 1167375)										
TY2309674-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333	0.252 mg/L	0.25 mg/L	101	75.0	125	----
Total Metals (QCLot: 1163647)										
WT2331456-003	Anonymous	Aluminum, total	7429-90-5	E420	0.0874 mg/L	0.1 mg/L	87.4	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0468 mg/L	0.05 mg/L	93.5	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0467 mg/L	0.05 mg/L	93.3	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0446 mg/L	0.05 mg/L	89.1	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00453 mg/L	0.005 mg/L	90.7	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0111 mg/L	0.0125 mg/L	88.7	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0111 mg/L	0.0125 mg/L	89.1	70.0	130	----
		Copper, total	7440-50-8	E420	0.0111 mg/L	0.0125 mg/L	88.8	70.0	130	----
		Iron, total	7439-89-6	E420	ND mg/L	0.05 mg/L	ND	70.0	130	----
		Lead, total	7439-92-1	E420	0.0225 mg/L	0.025 mg/L	90.0	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0113 mg/L	0.0125 mg/L	90.4	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1163647) - continued										
WT2331456-003	Anonymous	Molybdenum, total	7439-98-7	E420	0.0112 mg/L	0.0125 mg/L	89.6	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0221 mg/L	0.025 mg/L	88.4	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0460 mg/L	0.05 mg/L	92.0	70.0	130	----
		Silver, total	7440-22-4	E420	0.00424 mg/L	0.005 mg/L	84.9	70.0	130	----
		Tin, total	7440-31-5	E420	0.0229 mg/L	0.025 mg/L	91.7	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0114 mg/L	0.0125 mg/L	91.0	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0228 mg/L	0.025 mg/L	91.4	70.0	130	----
		Zinc, total	7440-66-6	E420	0.0220 mg/L	0.025 mg/L	87.8	70.0	130	----
Total Metals (QCLot: 1164162)										
TY2309849-003	Anonymous	Mercury, total	7439-97-6	E508	0.000100 mg/L	0.0001 mg/L	100	70.0	130	----
Aggregate Organics (QCLot: 1163732)										
WT2331413-002	Anonymous	Phenols, total (4AAP)	----	E562	0.0196 mg/L	0.02 mg/L	98.1	75.0	125	----

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 - 1083265

Page 1 of 1

ALS www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Environmental Division
Waterloo
Work Order Reference
WT2331537

Telephone : +1 519 886 6910

Report To	Contact and company name below will appear on the final report
Company:	Englobe Corp.
Contact:	Jessica Godin
Phone:	226 752 9370
	Company address below will appear on the final report
Street:	353 Bridge St. E
City/Province:	Kitchener, ON
Postal Code:	N2K 2Y5
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A
☑ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: jessica.godin@englobecorp.com
Email 2: amanda.goncalves@englobecorp.com
Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: ap-ont@englobecorp.com
Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. Additiona may apply to rush requests on weekends, statutory holidays and non-routin

Date and Time Required for all E&P TATs:

For all tests with rush TATs requested, please cont

Project Information

Account # / Quote #:
#: 2302109.002
AFE:
:

Oil and Gas Required Fields (client use)

AFE/Cost Center: PO#
Major/Minor Code: Routing Code:
Requisitioner:
Location:

ALS Lab Work Order # (ALS use only): WT2331537 FA

ALS Contact: Gayle Brown Sampler: AG

S Sample # S use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Analysis Requ: Indicate Filtered (F), Preserved (P) or Filtered and P: P	COG By-Law 15262 (1996)	SAMPLES ON HOLD	EXTENDED STORAGE REQ	SUSPECTED HAZARD (see
	MW23-04 GS	29-SEP-23	14:50	GW	9		X			
	MW23-05 GS	29-SEP-23	15:45	GW	9		X			

Drinking Water (DW) Samples[1] (client use)

amples taken from a Regulated DW System?
☐ YES ☑ NO
amples for human consumption/ use?
☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Compare to City of Guelph Sewer Use Bylaw (15202 (1996)), Sanitary and Storm.

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☑ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED
Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO
Cooler Custody Seals Intact: ☐ YES ☑ N/A Sample Custody Seals Intact: ☐ YES ☑ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C				
				0.4				

SHIPMENT RELEASE (client use)

eased by: AG Dina Date: Sep 29, 2023 Time: 20:15

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by: Date: Time:

FINAL SHIPMENT RECEPTION (ALS use only)

Received by: TC Date: Sept 30/23 Time: 9:00

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

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

OGG-946 MM-576

ALS Canada Ltd.

right solutions.
right partner.

CERTIFICATE OF ANALYSIS (GUIDELINE EVALUATION)

Work Order	: **WT2331569**	Page	: 1 of 10
Client	: **Englobe Corp.**	Laboratory	: ALS Environmental - Waterloo
Contact	: Jessica Godin	Account Manager	: Gayle Braun
Address	: 353 Bridge Street East Kitchener ON Canada N2K 2Y5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: +1 519 886 6910
Project	: 02302109.001	Date Samples Received	: 02-Oct-2023 08:30
PO	: ----	Date Analysis Commenced	: 02-Oct-2023
C-O-C number	: 20-1083259	Issue Date	: 10-Oct-2023 14:19
Sampler	: AG		
Site	: ----		
Quote number	: KITCHENER/LONDON GW SOA		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Guideline Comparison

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Metals, Waterloo, Ontario
Jeremy Gingras	Supervisor - Semi-Volatile Instrumentation	Organics, Waterloo, Ontario
Jon Fisher	Production Manager, Environmental	Inorganics, Waterloo, Ontario
Sarah Birch	VOC Section Supervisor	VOC, Waterloo, Ontario

No Breaches Found

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.
Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

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

Key : LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
µg/L	micrograms per litre
mg/L	milligrams per litre
mS/cm	millisiemens per centimetre
pH units	pH units

>: greater than.
<: less than.
Red shading is applied where the result or the LOR is greater than the Guideline Upper Limit (or lower than the Guideline Lower Limit, if applicable).
For drinking water samples, Red shading is applied where the result for E.coli, fecal or total coliforms is greater than or equal to the Guideline Upper Limit.

Qualifiers

Qualifier	Description
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.

Analytical Results Evaluation

Matrix: **Water**

Analyte	CAS Number	Method/Lab	Unit	Client sample ID	MW23-01	MW23-03	DUP23-01	TRIP BLANK	----	----	----
				Sampling date/time	29-Sep-2023 18:15	29-Sep-2023 17:00	29-Sep-2023 00:00	29-Sep-2023 00:00	----	----	----
				Sub-Matrix	Water	Water	Water	Water	----	----	----
					WT2331569-001	WT2331569-002	WT2331569-003	WT2331569-004	--------	--------	--------
Physical Tests											
Conductivity	----	E100/WT	mS/cm		2.18	2.07	2.23	----	----	----	----
pH	----	E108/WT	pH units		7.55	7.52	7.65	----	----	----	----
Anions and Nutrients											
Chloride	16887-00-6	E235.Cl/WT	mg/L		199 DLDS	366 DLDS	429 DLDS	----	----	----	----
Cyanides											
Cyanide, weak acid dissociable	----	E336/WT	µg/L		<2.0	<2.0	<2.0	----	----	----	----
Dissolved Metals											
Antimony, dissolved	7440-36-0	E421/WT	µg/L		0.22	0.26	0.25	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/WT	µg/L		0.33	0.53	0.54	----	----	----	----
Barium, dissolved	7440-39-3	E421/WT	µg/L		78.3	120	115	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/WT	µg/L		<0.020	<0.020	<0.020	----	----	----	----
Boron, dissolved	7440-42-8	E421/WT	µg/L		16	38	38	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/WT	µg/L		0.0189	0.0318	0.0313	----	----	----	----
Chromium, dissolved	7440-47-3	E421/WT	µg/L		<0.50	<0.50	<0.50	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/WT	µg/L		0.32	0.52	0.51	----	----	----	----
Copper, dissolved	7440-50-8	E421/WT	µg/L		4.37	1.46	1.52	----	----	----	----
Lead, dissolved	7439-92-1	E421/WT	µg/L		0.280	0.066	0.071	----	----	----	----
Mercury, dissolved	7439-97-6	E509/WT	µg/L		<0.0050	<0.0050	<0.0050	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WT	µg/L		0.590	3.51	3.36	----	----	----	----
Nickel, dissolved	7440-02-0	E421/WT	µg/L		4.08	2.10	2.13	----	----	----	----
Selenium, dissolved	7782-49-2	E421/WT	µg/L		0.326	1.25	1.24	----	----	----	----
Silver, dissolved	7440-22-4	E421/WT	µg/L		<0.010	<0.010	<0.010	----	----	----	----
Sodium, dissolved	7440-23-5	E421/WT	µg/L		134000	164000	159000	----	----	----	----
Thallium, dissolved	7440-28-0	E421/WT	µg/L		0.017	0.020	0.018	----	----	----	----
Uranium, dissolved	7440-61-1	E421/WT	µg/L		1.03	0.766	0.733	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/WT	µg/L		<0.50	0.58	0.59	----	----	----	----
Zinc, dissolved	7440-66-6	E421/WT	µg/L		6.1	5.7	5.2	----	----	----	----

Analytical Results Evaluation

Matrix: **Water**

Analyte	CAS Number	Method/Lab	Unit	Client sample ID	MW23-01	MW23-03	DUP23-01	TRIP BLANK	----	----	----
				Sampling date/time	29-Sep-2023 18:15	29-Sep-2023 17:00	29-Sep-2023 00:00	29-Sep-2023 00:00	----	----	----
				Sub-Matrix	Water	Water	Water	Water	----	----	----
					WT2331569-001	WT2331569-002	WT2331569-003	WT2331569-004	--------	--------	--------
Dissolved Metals											
Dissolved mercury filtration location	----	EP509/WT	-		Field	Field	Field	----	----	----	----
Dissolved metals filtration location	----	EP421/WT	-		Field	Field	Field	----	----	----	----
Speciated Metals											
Chromium, hexavalent [Cr VI], dissolved	18540-29-9	E532A/WT	µg/L		<0.50	<0.50	<0.50	----	----	----	----
Volatile Organic Compounds											
Acetone	67-64-1	E611D/WT	µg/L		<20	<20	<20	<20	----	----	----
Benzene	71-43-2	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Bromodichloromethane	75-27-4	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Bromoform	75-25-2	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Bromomethane	74-83-9	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Carbon tetrachloride	56-23-5	E611D/WT	µg/L		<0.20	<0.20	<0.20	<0.20	----	----	----
Chlorobenzene	108-90-7	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Chloroform	67-66-3	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Dibromochloromethane	124-48-1	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Dibromoethane, 1,2-	106-93-4	E611D/WT	µg/L		<0.20	<0.20	<0.20	<0.20	----	----	----
Dichlorobenzene, 1,2-	95-50-1	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Dichlorobenzene, 1,3-	541-73-1	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Dichlorobenzene, 1,4-	106-46-7	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Dichlorodifluoromethane	75-71-8	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Dichloroethane, 1,1-	75-34-3	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Dichloroethane, 1,2-	107-06-2	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Dichloroethylene, 1,1-	75-35-4	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Dichloroethylene, cis-1,2-	156-59-2	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Dichloroethylene, trans-1,2-	156-60-5	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Dichloromethane	75-09-2	E611D/WT	µg/L		<1.0	<1.0	<1.0	<1.0	----	----	----
Dichloropropane, 1,2-	78-87-5	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Dichloropropylene, cis+trans-1,3-	542-75-6	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D/WT	µg/L		<0.30	<0.30	<0.30	<0.30	----	----	----

Analytical Results Evaluation

Matrix: **Water**

Analyte	CAS Number	Method/Lab	Unit	Client sample ID	MW23-01	MW23-03	DUP23-01	TRIP BLANK	----	----	----
				Sampling date/time	29-Sep-2023 18:15	29-Sep-2023 17:00	29-Sep-2023 00:00	29-Sep-2023 00:00	----	----	----
				Sub-Matrix	Water	Water	Water	Water	----	----	----
					WT2331569-001	WT2331569-002	WT2331569-003	WT2331569-004	--------	--------	--------
Volatile Organic Compounds											
Dichloropropylene, trans-1,3-	10061-02-6	E611D/WT	µg/L		<0.30	<0.30	<0.30	<0.30	----	----	----
Ethylbenzene	100-41-4	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Hexane, n-	110-54-3	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Methyl ethyl ketone [MEK]	78-93-3	E611D/WT	µg/L		<20	<20	<20	<20	----	----	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D/WT	µg/L		<20	<20	<20	<20	----	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Styrene	100-42-5	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Tetrachloroethylene	127-18-4	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Toluene	108-88-3	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Trichloroethane, 1,1,1-	71-55-6	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Trichloroethane, 1,1,2-	79-00-5	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Trichloroethylene	79-01-6	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Trichlorofluoromethane	75-69-4	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Vinyl chloride	75-01-4	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
Xylene, m+p-	179601-23-1	E611D/WT	µg/L		<0.40	<0.40	<0.40	<0.40	----	----	----
Xylene, o-	95-47-6	E611D/WT	µg/L		<0.30	<0.30	<0.30	<0.30	----	----	----
Xylenes, total	1330-20-7	E611D/WT	µg/L		<0.50	<0.50	<0.50	<0.50	----	----	----
BTEX, total	----	E611D/WT	µg/L		<1.0	<1.0	<1.0	<1.0	----	----	----
Hydrocarbons											
F1 (C6-C10)	----	E581.F1-L/WT	µg/L		<25	<25	<25	<25	----	----	----
F2 (C10-C16)	----	E601.SG/WT	µg/L		<100	<100	<100	----	----	----	----
F3 (C16-C34)	----	E601.SG/WT	µg/L		<250	<250	<250	----	----	----	----
F4 (C34-C50)	----	E601.SG/WT	µg/L		<250	<250	<250	----	----	----	----
F1-BTEX	----	EC580/WT	µg/L		<25	<25	<25	<25	----	----	----
Hydrocarbons, total (C6-C50)	----	EC581SG/WT	µg/L		<370	<370	<370	----	----	----	----
Chromatogram to baseline at nC50	n/a	E601.SG/WT	-		YES	YES	YES	----	----	----	----

Analytical Results Evaluation

Matrix: **Water**

Analyte	CAS Number	Method/Lab	Unit	Client sample ID	MW23-01	MW23-03	DUP23-01	TRIP BLANK	----	----	----
				Sampling date/time	29-Sep-2023 18:15	29-Sep-2023 17:00	29-Sep-2023 00:00	29-Sep-2023 00:00	----	----	----
				Sub-Matrix	Water	Water	Water	Water	----	----	----
					WT2331569-001	WT2331569-002	WT2331569-003	WT2331569-004	--------	--------	--------
Hydrocarbons Surrogates											
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	E601.SG/WT	%		75.7	76.8	74.5	----	----	----	----
Dichlorotoluene, 3,4-	95-75-0	E581.F1-L/WT	%		84.8	86.9	87.7	105	----	----	----
Volatile Organic Compounds Surrogates											
Bromofluorobenzene, 4-	460-00-4	E611D/WT	%		93.2	93.0	93.2	91.7	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611D/WT	%		94.1	94.4	94.5	100	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Summary of Guideline Limits

Analyte	CAS Number	Unit	ON153/04 T2-GW-C-All	ON153/04 T2-GW-F-All
Physical Tests				
Conductivity	----	mS/cm	--	--
pH	----	pH units	--	--
Anions and Nutrients				
Chloride	16887-00-6	mg/L	**790 mg/L**	**790 mg/L**
Cyanides				
Cyanide, weak acid dissociable	----	µg/L	**66 µg/L**	**66 µg/L**
Dissolved Metals				
Antimony, dissolved	7440-36-0	µg/L	**6 µg/L**	**6 µg/L**
Arsenic, dissolved	7440-38-2	µg/L	**25 µg/L**	**25 µg/L**
Barium, dissolved	7440-39-3	µg/L	**1000 µg/L**	**1000 µg/L**
Beryllium, dissolved	7440-41-7	µg/L	**4 µg/L**	**4 µg/L**
Boron, dissolved	7440-42-8	µg/L	**5000 µg/L**	**5000 µg/L**
Cadmium, dissolved	7440-43-9	µg/L	**2.7 µg/L**	**2.7 µg/L**
Chromium, dissolved	7440-47-3	µg/L	**50 µg/L**	**50 µg/L**
Cobalt, dissolved	7440-48-4	µg/L	**3.8 µg/L**	**3.8 µg/L**
Copper, dissolved	7440-50-8	µg/L	**87 µg/L**	**87 µg/L**
Dissolved mercury filtration location	----	-	--	--
Dissolved metals filtration location	----	-	--	--
Lead, dissolved	7439-92-1	µg/L	**10 µg/L**	**10 µg/L**
Mercury, dissolved	7439-97-6	µg/L	**0.29 µg/L**	**1 µg/L**
Molybdenum, dissolved	7439-98-7	µg/L	**70 µg/L**	**70 µg/L**
Nickel, dissolved	7440-02-0	µg/L	**100 µg/L**	**100 µg/L**
Selenium, dissolved	7782-49-2	µg/L	**10 µg/L**	**10 µg/L**
Silver, dissolved	7440-22-4	µg/L	**1.5 µg/L**	**1.5 µg/L**
Sodium, dissolved	7440-23-5	µg/L	**490000 µg/L**	**490000 µg/L**
Thallium, dissolved	7440-28-0	µg/L	**2 µg/L**	**2 µg/L**
Uranium, dissolved	7440-61-1	µg/L	**20 µg/L**	**20 µg/L**
Vanadium, dissolved	7440-62-2	µg/L	**6.2 µg/L**	**6.2 µg/L**
Zinc, dissolved	7440-66-6	µg/L	**1100 µg/L**	**1100 µg/L**
Speciated Metals				
Chromium, hexavalent [Cr VI], dissolved	18540-29-9	µg/L	**25 µg/L**	**25 µg/L**
Volatile Organic Compounds				
Acetone	67-64-1	µg/L	**2700 µg/L**	**2700 µg/L**
Benzene	71-43-2	µg/L	**5 µg/L**	**5 µg/L**
Bromodichloromethane	75-27-4	µg/L	**16 µg/L**	**16 µg/L**
Bromoform	75-25-2	µg/L	**25 µg/L**	**25 µg/L**
Bromomethane	74-83-9	µg/L	**0.89 µg/L**	**0.89 µg/L**

Analyte	CAS Number	Unit	ON153/04 T2-GW-C-All	ON153/04 T2-GW-F-All
Volatile Organic Compounds - Continued				
BTEX, total	----	µg/L	--	--
Carbon tetrachloride	56-23-5	µg/L	0.79 µg/L	5 µg/L
Chlorobenzene	108-90-7	µg/L	30 µg/L	30 µg/L
Chloroform	67-66-3	µg/L	2.4 µg/L	22 µg/L
Dibromochloromethane	124-48-1	µg/L	25 µg/L	25 µg/L
Dibromoethane, 1,2-	106-93-4	µg/L	0.2 µg/L	0.2 µg/L
Dichlorobenzene, 1,2-	95-50-1	µg/L	3 µg/L	3 µg/L
Dichlorobenzene, 1,3-	541-73-1	µg/L	59 µg/L	59 µg/L
Dichlorobenzene, 1,4-	106-46-7	µg/L	1 µg/L	1 µg/L
Dichlorodifluoromethane	75-71-8	µg/L	590 µg/L	590 µg/L
Dichloroethane, 1,1-	75-34-3	µg/L	5 µg/L	5 µg/L
Dichloroethane, 1,2-	107-06-2	µg/L	1.6 µg/L	5 µg/L
Dichloroethylene, 1,1-	75-35-4	µg/L	1.6 µg/L	14 µg/L
Dichloroethylene, cis-1,2-	156-59-2	µg/L	1.6 µg/L	17 µg/L
Dichloroethylene, trans-1,2-	156-60-5	µg/L	1.6 µg/L	17 µg/L
Dichloromethane	75-09-2	µg/L	50 µg/L	50 µg/L
Dichloropropane, 1,2-	78-87-5	µg/L	5 µg/L	5 µg/L
Dichloropropylene, cis+trans-1,3-	542-75-6	µg/L	0.5 µg/L	0.5 µg/L
Dichloropropylene, cis-1,3-	10061-01-5	µg/L	--	--
Dichloropropylene, trans-1,3-	10061-02-6	µg/L	--	--
Ethylbenzene	100-41-4	µg/L	2.4 µg/L	2.4 µg/L
Hexane, n-	110-54-3	µg/L	51 µg/L	520 µg/L
Methyl ethyl ketone [MEK]	78-93-3	µg/L	1800 µg/L	1800 µg/L
Methyl isobutyl ketone [MIBK]	108-10-1	µg/L	640 µg/L	640 µg/L
Methyl-tert-butyl ether [MTBE]	1634-04-4	µg/L	15 µg/L	15 µg/L
Styrene	100-42-5	µg/L	5.4 µg/L	5.4 µg/L
Tetrachloroethane, 1,1,1,2-	630-20-6	µg/L	1.1 µg/L	1.1 µg/L
Tetrachloroethane, 1,1,2,2-	79-34-5	µg/L	1 µg/L	1 µg/L
Tetrachloroethylene	127-18-4	µg/L	1.6 µg/L	17 µg/L
Toluene	108-88-3	µg/L	24 µg/L	24 µg/L
Trichloroethane, 1,1,1-	71-55-6	µg/L	200 µg/L	200 µg/L
Trichloroethane, 1,1,2-	79-00-5	µg/L	4.7 µg/L	5 µg/L
Trichloroethylene	79-01-6	µg/L	1.6 µg/L	5 µg/L
Trichlorofluoromethane	75-69-4	µg/L	150 µg/L	150 µg/L
Vinyl chloride	75-01-4	µg/L	0.5 µg/L	1.7 µg/L
Xylene, m+p-	179601-23-1	µg/L	--	--
Xylene, o-	95-47-6	µg/L	--	--
Xylenes, total	1330-20-7	µg/L	300 µg/L	300 µg/L
Hydrocarbons				

Analyte	CAS Number	Unit	ON153/04 T2-GW-C-All	ON153/04 T2-GW-F-All					
Hydrocarbons - Continued									
Chromatogram to baseline at nC50	n/a	-	--	--					
F1 (C6-C10)	----	µg/L	**750 µg/L**	**750 µg/L**					
F1-BTEX	----	µg/L	**750 µg/L**	**750 µg/L**					
F2 (C10-C16)	----	µg/L	**150 µg/L**	**150 µg/L**					
F3 (C16-C34)	----	µg/L	**500 µg/L**	**500 µg/L**					
F4 (C34-C50)	----	µg/L	**500 µg/L**	**500 µg/L**					
Hydrocarbons, total (C6-C50)	----	µg/L	--	--					
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	%							
Dichlorotoluene, 3,4-	95-75-0	%							
Bromofluorobenzene, 4-	460-00-4	%							
Difluorobenzene, 1,4-	540-36-3	%							

Please refer to the General Comments section for an explanation of any qualifiers detected.

Key:

ON153/04	Ontario Regulation 153/04 - April 15, 2011 Standards (JUL, 2011)
T2-GW-C-All	153 T2-Ground Water (Coarse Soil)-All Types of Property Use
T2-GW-F-All	153 T2-Ground Water (Fine Soil)-All Types of Property Use

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WT2331569**	Page	: 1 of 10
Client	: **Englobe Corp.**	Laboratory	: ALS Environmental - Waterloo
Contact	: Jessica Godin	Account Manager	: Gayle Braun
Address	: 353 Bridge Street East Kitchener ON Canada N2K 2Y5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: +1 519 886 6910
Project	: 02302109.001	Date Samples Received	: 02-Oct-2023 08:30
PO	: ----	Issue Date	: 10-Oct-2023 14:19
C-O-C number	: 20-1083259		
Sampler	: AG		
Site	: ----		
Quote number	: KITCHENER/LONDON GW SOA		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] MW23-01	E235.Cl	29-Sep-2023	03-Oct-2023	28 days	4 days	✓	03-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] MW23-03	E235.Cl	29-Sep-2023	03-Oct-2023	28 days	4 days	✓	03-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] DUP23-01	E235.Cl	29-Sep-2023	03-Oct-2023	28 days	4 days	✓	03-Oct-2023	28 days	5 days	✓
Cyanides : WAD Cyanide										
HDPE - total (sodium hydroxide) MW23-01	E336	29-Sep-2023	04-Oct-2023	14 days	5 days	✓	04-Oct-2023	14 days	5 days	✓
Cyanides : WAD Cyanide										
HDPE - total (sodium hydroxide) MW23-03	E336	29-Sep-2023	04-Oct-2023	14 days	5 days	✓	04-Oct-2023	14 days	5 days	✓
Cyanides : WAD Cyanide										
HDPE - total (sodium hydroxide) DUP23-01	E336	29-Sep-2023	04-Oct-2023	14 days	6 days	✓	04-Oct-2023	14 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) MW23-01	E509	29-Sep-2023	02-Oct-2023	28 days	3 days	✓	02-Oct-2023	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) MW23-03	E509	29-Sep-2023	02-Oct-2023	28 days	3 days	✓	02-Oct-2023	28 days	3 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DUP23-01	E509	29-Sep-2023	02-Oct-2023	28 days	4 days	✓	02-Oct-2023	28 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) MW23-01	E421	29-Sep-2023	02-Oct-2023	180 days	3 days	✓	02-Oct-2023	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) MW23-03	E421	29-Sep-2023	02-Oct-2023	180 days	3 days	✓	02-Oct-2023	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP23-01	E421	29-Sep-2023	02-Oct-2023	180 days	4 days	✓	02-Oct-2023	180 days	4 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)										
Glass vial (sodium bisulfate) DUP23-01	E581.F1-L	29-Sep-2023	03-Oct-2023	14 days	4 days	✓	03-Oct-2023	14 days	4 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)										
Glass vial (sodium bisulfate) MW23-01	E581.F1-L	29-Sep-2023	03-Oct-2023	14 days	4 days	✓	03-Oct-2023	14 days	4 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)										
Glass vial (sodium bisulfate) MW23-03	E581.F1-L	29-Sep-2023	03-Oct-2023	14 days	4 days	✓	03-Oct-2023	14 days	4 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)										
Glass vial (sodium bisulfate) TRIP BLANK	E581.F1-L	29-Sep-2023	04-Oct-2023	14 days	5 days	✓	04-Oct-2023	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Hydrocarbons : Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
MW23-01	E601.SG	29-Sep-2023	02-Oct-2023	14 days	3 days	✓	06-Oct-2023	40 days	4 days	✓
Hydrocarbons : Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
MW23-03	E601.SG	29-Sep-2023	02-Oct-2023	14 days	3 days	✓	06-Oct-2023	40 days	4 days	✓
Hydrocarbons : Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
DUP23-01	E601.SG	29-Sep-2023	02-Oct-2023	14 days	4 days	✓	06-Oct-2023	40 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
DUP23-01	E100	29-Sep-2023	03-Oct-2023	28 days	4 days	✓	03-Oct-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
MW23-01	E100	29-Sep-2023	03-Oct-2023	28 days	4 days	✓	03-Oct-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
MW23-03	E100	29-Sep-2023	03-Oct-2023	28 days	4 days	✓	03-Oct-2023	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
DUP23-01	E108	29-Sep-2023	03-Oct-2023	14 days	4 days	✓	03-Oct-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
MW23-01	E108	29-Sep-2023	03-Oct-2023	14 days	4 days	✓	03-Oct-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
MW23-03	E108	29-Sep-2023	03-Oct-2023	14 days	4 days	✓	03-Oct-2023	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Speciated Metals : Dissolved Hexavalent Chromium (Cr VI) by IC										
HDPE - dissolved (NaOH+Buf) [ON MECP]										
DUP23-01	E532A	29-Sep-2023	----	----	----		03-Oct-2023	28 days	4 days	✓
Speciated Metals : Dissolved Hexavalent Chromium (Cr VI) by IC										
HDPE - dissolved (NaOH+Buf) [ON MECP]										
MW23-01	E532A	29-Sep-2023	----	----	----		03-Oct-2023	28 days	4 days	✓
Speciated Metals : Dissolved Hexavalent Chromium (Cr VI) by IC										
HDPE - dissolved (NaOH+Buf) [ON MECP]										
MW23-03	E532A	29-Sep-2023	----	----	----		03-Oct-2023	28 days	4 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate)										
DUP23-01	E611D	29-Sep-2023	03-Oct-2023	14 days	4 days	✓	03-Oct-2023	14 days	4 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate)										
MW23-01	E611D	29-Sep-2023	03-Oct-2023	14 days	4 days	✓	03-Oct-2023	14 days	4 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate)										
MW23-03	E611D	29-Sep-2023	03-Oct-2023	14 days	4 days	✓	03-Oct-2023	14 days	4 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate)										
TRIP BLANK	E611D	29-Sep-2023	04-Oct-2023	14 days	5 days	✓	04-Oct-2023	14 days	5 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	1168023	2	20	10.0	5.0	✓
Chloride in Water by IC	E235.Cl	1165086	1	9	11.1	5.0	✓
Conductivity in Water	E100	1165091	1	5	20.0	5.0	✓
Dissolved Hexavalent Chromium (Cr VI) by IC	E532A	1165144	1	5	20.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1164701	1	8	12.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1164449	1	18	5.5	5.0	✓
pH by Meter	E108	1165090	1	18	5.5	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	1168022	3	39	7.6	5.0	✓
WAD Cyanide	E336	1167376	1	8	12.5	5.0	✓
Laboratory Control Samples (LCS)							
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	1168023	2	20	10.0	5.0	✓
Chloride in Water by IC	E235.Cl	1165086	1	9	11.1	5.0	✓
Conductivity in Water	E100	1165091	1	5	20.0	5.0	✓
Dissolved Hexavalent Chromium (Cr VI) by IC	E532A	1165144	1	5	20.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1164701	1	8	12.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1164449	1	18	5.5	5.0	✓
pH by Meter	E108	1165090	1	18	5.5	5.0	✓
Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID	E601.SG	1164560	1	19	5.2	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	1168022	2	39	5.1	5.0	✓
WAD Cyanide	E336	1167376	1	8	12.5	5.0	✓
Method Blanks (MB)							
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	1168023	2	20	10.0	5.0	✓
Chloride in Water by IC	E235.Cl	1165086	1	9	11.1	5.0	✓
Conductivity in Water	E100	1165091	1	5	20.0	5.0	✓
Dissolved Hexavalent Chromium (Cr VI) by IC	E532A	1165144	1	5	20.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1164701	1	8	12.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1164449	1	18	5.5	5.0	✓
Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID	E601.SG	1164560	1	19	5.2	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	1168022	2	39	5.1	5.0	✓
WAD Cyanide	E336	1167376	1	8	12.5	5.0	✓
Matrix Spikes (MS)							
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	1168023	2	20	10.0	5.0	✓
Chloride in Water by IC	E235.Cl	1165086	1	9	11.1	5.0	✓
Dissolved Hexavalent Chromium (Cr VI) by IC	E532A	1165144	1	5	20.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1164701	1	8	12.5	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Dissolved Metals in Water by CRC ICPMS	E421	1164449	1	18	5.5	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	1168022	2	39	5.1	5.0	✓
WAD Cyanide	E336	1167376	1	8	12.5	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Waterloo	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Waterloo	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Chloride in Water by IC	E235.Cl ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
WAD Cyanide	E336 ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hexavalent Chromium (Cr VI) by IC	E532A ALS Environmental - Waterloo	Water	APHA 3500-Cr C (Ion Chromatography)	Hexavalent Chromium is measured by Ion chromatography-Post column reaction and UV detection. sample pretreatment involved field or lab filtration following by sample preservation.
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1 (mod)	CCME Fraction 1 (F1) is analyzed by static headspace GC-FID. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID	E601.SG ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1 (mod)	Sample extracts are subjected to in-situ silica gel treatment prior to analysis by GC-FID for CCME hydrocarbon fractions (F2-F4). Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.
VOCs (Eastern Canada List) by Headspace GC-MS	E611D ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
F1-BTEX	EC580 ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1	F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX).
SUM F1 to F4 where F2-F4 is SG treated	EC581SG ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1	Hydrocarbons, total (C6-C50) is the sum of CCME Fraction F1(C6-C10), F2(C10-C16), F3(C16-C34), and F4(C34-C50), where F2-F4 have been treated with silica gel. F4G-sg is not used within this calculation due to overlap with other fractions.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals Water Filtration	EP421 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.
VOCs Preparation for Headspace Analysis	EP581 ALS Environmental - Waterloo	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into the GC/MS-FID system.
PHCs and PAHs Hexane Extraction	EP601 ALS Environmental - Waterloo	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are extracted using a hexane liquid-liquid extraction.

QUALITY CONTROL REPORT

Work Order	: **WT2331569**	Page	: 1 of 18
Client	: Englobe Corp.	Laboratory	: ALS Environmental - Waterloo
Contact	: Jessica Godin	Account Manager	: Gayle Braun
Address	: 353 Bridge Street East Kitchener ON Canada N2K 2Y5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	:	Telephone	: +1 519 886 6910
Project	: 02302109.001	Date Samples Received	: 02-Oct-2023 08:30
PO	: ----	Date Analysis Commenced	: 02-Oct-2023
C-O-C number	: 20-1083259	Issue Date	: 10-Oct-2023 14:19
Sampler	: AG ----		
Site	: ----		
Quote number	: KITCHENER/LONDON GW SOA		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Metals, Waterloo, Ontario
Jeremy Gingras	Supervisor - Semi-Volatile Instrumentation	Waterloo Organics, Waterloo, Ontario
Jon Fisher	Production Manager, Environmental	Waterloo Inorganics, Waterloo, Ontario
Sarah Birch	VOC Section Supervisor	Waterloo VOC, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1165090)											
WT2331569-001	MW23-01	pH	----	E108	0.10	pH units	7.55	7.59	0.528%	4%	----
Physical Tests (QC Lot: 1165091)											
WT2331569-001	MW23-01	Conductivity	----	E100	1.0	µS/cm	2.18 mS/cm	2190	0.458%	10%	----
Anions and Nutrients (QC Lot: 1165086)											
WT2331306-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	25.0	24.8	0.504%	20%	----
Cyanides (QC Lot: 1167376)											
WP2324357-003	Anonymous	Cyanide, weak acid dissociable	----	E336	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1164449)											
WT2331477-002	Anonymous	Antimony, dissolved	7440-36-0	E421	0.00100	mg/L	<1.00 µg/L	<0.00100	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00100	mg/L	<1.00 µg/L	<0.00100	0	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00100	mg/L	98.2 µg/L	0.0999	1.71%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000200	mg/L	<0.200 µg/L	<0.000200	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.100	mg/L	142 µg/L	0.138	0.004	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000500	mg/L	<0.0500 µg/L	<0.0000500	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00500	mg/L	<5.00 µg/L	<0.00500	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00100	mg/L	<1.00 µg/L	<0.00100	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00200	mg/L	<2.00 µg/L	<0.00200	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000500	mg/L	<0.500 µg/L	<0.000500	0	Diff <2x LOR	----
		Molybdenum, dissolved	7439-98-7	E421	0.000500	mg/L	0.963 µg/L	0.00106	0.000096	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00500	mg/L	<5.00 µg/L	<0.00500	0	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000500	mg/L	1.71 µg/L	0.00194	0.000225	Diff <2x LOR	----
		Silver, dissolved	7440-22-4	E421	0.000100	mg/L	<0.100 µg/L	<0.000100	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.500	mg/L	730000 µg/L	734	0.547%	20%	----
		Thallium, dissolved	7440-28-0	E421	0.000100	mg/L	<0.100 µg/L	<0.000100	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000100	mg/L	2.54 µg/L	0.00243	4.28%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00500	mg/L	<5.00 µg/L	<0.00500	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0100	mg/L	<10.0 µg/L	<0.0100	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1164701)											
WT2331407-004	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0050 µg/L	<0.0000050	0	Diff <2x LOR	----
Speciated Metals (QC Lot: 1165144)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Speciated Metals (QC Lot: 1165144) - continued											
WT2331569-001	MW23-01	Chromium, hexavalent [Cr VI], dissolved	18540-29-9	E532A	0.00050	mg/L	<0.50 µg/L	<0.00050	0	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 1165127)											
WT2331562-001	Anonymous	Acetone	67-64-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Benzene	71-43-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromodichloromethane	75-27-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromoform	75-25-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromomethane	74-83-9	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Carbon tetrachloride	56-23-5	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Chlorobenzene	108-90-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroform	67-66-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dibromochloromethane	124-48-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dibromoethane, 1,2-	106-93-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Dichlorobenzene, 1,2-	95-50-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,3-	541-73-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,4-	106-46-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorodifluoromethane	75-71-8	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,1-	75-34-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,2-	107-06-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, 1,1-	75-35-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, cis-1,2-	156-59-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, trans-1,2-	156-60-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloromethane	75-09-2	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Dichloropropane, 1,2-	78-87-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Hexane, n-	110-54-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethylene	127-18-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Volatile Organic Compounds (QC Lot: 1165127) - continued											
WT2331562-001	Anonymous	Toluene	108-88-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethylene	79-01-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichlorofluoromethane	75-69-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Vinyl chloride	75-01-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611D	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
		Xylene, o-	95-47-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 1168022)											
WT2331542-001	Anonymous	Dichloroethylene, trans-1,2-	156-60-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
WT2331542-001	Anonymous	Acetone	67-64-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Benzene	71-43-2	E611D	0.50	µg/L	19.0	19.6	2.85%	30%	----
		Bromodichloromethane	75-27-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromoform	75-25-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromomethane	74-83-9	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Carbon tetrachloride	56-23-5	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Chlorobenzene	108-90-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroform	67-66-3	E611D	2.00	µg/L	<2.00	<2.00	0	Diff <2x LOR	----
		Dibromochloromethane	124-48-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dibromoethane, 1,2-	106-93-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Dichlorobenzene, 1,2-	95-50-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,3-	541-73-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,4-	106-46-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorodifluoromethane	75-71-8	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,1-	75-34-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,2-	107-06-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, 1,1-	75-35-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, cis-1,2-	156-59-2	E611D	0.50	µg/L	1.01	1.03	0.02	Diff <2x LOR	----
		Dichloromethane	75-09-2	E611D	6.0	µg/L	<6.0	<6.0	0	Diff <2x LOR	----
		Dichloropropane, 1,2-	78-87-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611D	0.50	µg/L	34.6	36.0	3.82%	30%	----
		Hexane, n-	110-54-3	E611D	0.50	µg/L	7.53	7.67	1.84%	30%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Volatile Organic Compounds (QC Lot: 1168022) - continued											
WT2331542-001	Anonymous	Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethylene	127-18-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611D	0.50	µg/L	5.35	5.56	3.85%	30%	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethylene	79-01-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichlorofluoromethane	75-69-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Vinyl chloride	75-01-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611D	0.40	µg/L	43.2	44.5	3.15%	30%	----
		Xylene, o-	95-47-6	E611D	0.30	µg/L	21.8	22.7	4.09%	30%	----
Hydrocarbons (QC Lot: 1165128)											
WT2331562-001	Anonymous	F1 (C6-C10)	----	E581.F1-L	25	µg/L	<25	<25	0	Diff <2x LOR	----
Hydrocarbons (QC Lot: 1168023)											
WT2331542-001	Anonymous	F1 (C6-C10)	----	E581.F1-L	25	µg/L	322	369	13.7%	30%	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1165091)						
Conductivity	----	E100	1	µS/cm	1.5	----
Anions and Nutrients (QCLot: 1165086)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Cyanides (QCLot: 1167376)						
Cyanide, weak acid dissociable	----	E336	0.002	mg/L	<0.0020	----
Dissolved Metals (QCLot: 1164449)						
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Dissolved Metals (QCLot: 1164701)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Speciated Metals (QCLot: 1165144)						
Chromium, hexavalent [Cr VI], dissolved	18540-29-9	E532A	0.0005	mg/L	<0.00050	----
Volatile Organic Compounds (QCLot: 1165127)						
Acetone	67-64-1	E611D	20	µg/L	<20	----
Benzene	71-43-2	E611D	0.5	µg/L	<0.50	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 1165127) - continued						
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	<0.50	----
Bromoform	75-25-2	E611D	0.5	µg/L	<0.50	----
Bromomethane	74-83-9	E611D	0.5	µg/L	<0.50	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	<0.20	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	<0.50	----
Chloroform	67-66-3	E611D	0.5	µg/L	<0.50	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	<0.50	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	<0.20	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	<0.50	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	<0.50	----
Dichloromethane	75-09-2	E611D	1	µg/L	<1.0	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	<0.50	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	<0.30	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	<0.30	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	<0.50	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	<0.50	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	<0.50	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	<0.50	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	<0.50	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 1165127) - continued						
Vinyl chloride	75-01-4	E611D	0.5	µg/L	<0.50	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	<0.30	----
Volatile Organic Compounds (QCLot: 1168022)						
Acetone	67-64-1	E611D	20	µg/L	<20	----
Benzene	71-43-2	E611D	0.5	µg/L	<0.50	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	<0.50	----
Bromoform	75-25-2	E611D	0.5	µg/L	<0.50	----
Bromomethane	74-83-9	E611D	0.5	µg/L	<0.50	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	<0.20	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	<0.50	----
Chloroform	67-66-3	E611D	0.5	µg/L	<0.50	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	<0.50	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	<0.20	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	<0.50	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	<0.50	----
Dichloromethane	75-09-2	E611D	1	µg/L	<1.0	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	<0.50	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	<0.30	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	<0.30	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	<0.50	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	<0.50	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	<0.50	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 1168022) - continued						
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	<0.50	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	<0.50	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	<0.50	----
Vinyl chloride	75-01-4	E611D	0.5	µg/L	<0.50	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	<0.30	----
Hydrocarbons (QCLot: 1164560)						
F2 (C10-C16)	----	E601.SG	100	µg/L	<100	----
F3 (C16-C34)	----	E601.SG	250	µg/L	<250	----
F4 (C34-C50)	----	E601.SG	250	µg/L	<250	----
Hydrocarbons (QCLot: 1165128)						
F1 (C6-C10)	----	E581.F1-L	25	µg/L	<25	----
Hydrocarbons (QCLot: 1168023)						
F1 (C6-C10)	----	E581.F1-L	25	µg/L	<25	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1165090)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1165091)									
Conductivity	----	E100	1	µS/cm	1409 µS/cm	102	90.0	110	----
Anions and Nutrients (QCLot: 1165086)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.8	90.0	110	----
Cyanides (QCLot: 1167376)									
Cyanide, weak acid dissociable	----	E336	0.002	mg/L	0.125 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 1164449)									
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	0.05 mg/L	101	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	0.05 mg/L	107	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.0125 mg/L	102	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.005 mg/L	94.9	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	0.05 mg/L	93.8	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.005 mg/L	101	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.0125 mg/L	102	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.0125 mg/L	102	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.0125 mg/L	102	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.025 mg/L	94.0	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.0125 mg/L	97.2	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.025 mg/L	100	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	0.05 mg/L	101	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.005 mg/L	91.1	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	2.5 mg/L	111	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	0.05 mg/L	99.7	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.00025 mg/L	88.9	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.025 mg/L	103	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.025 mg/L	107	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	86.2	80.0	120	----
Speciated Metals (QCLot: 1165144)									

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Speciated Metals (QCLot: 1165144) - continued									
Chromium, hexavalent [Cr VI], dissolved	18540-29-9	E532A	0.0005	mg/L	0.025 mg/L	94.4	80.0	120	----
Volatile Organic Compounds (QCLot: 1165127)									
Acetone	67-64-1	E611D	20	µg/L	100 µg/L	117	70.0	130	----
Benzene	71-43-2	E611D	0.5	µg/L	100 µg/L	111	70.0	130	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	100 µg/L	114	70.0	130	----
Bromoform	75-25-2	E611D	0.5	µg/L	100 µg/L	108	70.0	130	----
Bromomethane	74-83-9	E611D	0.5	µg/L	100 µg/L	114	60.0	140	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	100 µg/L	116	70.0	130	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Chloroform	67-66-3	E611D	0.5	µg/L	100 µg/L	114	70.0	130	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	100 µg/L	111	70.0	130	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	100 µg/L	102	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	100 µg/L	110	70.0	130	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	100 µg/L	112	70.0	130	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	100 µg/L	111	70.0	130	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	100 µg/L	90.6	60.0	140	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	100 µg/L	111	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	100 µg/L	115	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	100 µg/L	112	70.0	130	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	100 µg/L	118	70.0	130	----
Dichloromethane	75-09-2	E611D	1	µg/L	100 µg/L	116	70.0	130	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	100 µg/L	111	70.0	130	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	100 µg/L	98.5	70.0	130	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	100 µg/L	93.1	70.0	130	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	100 µg/L	114	70.0	130	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	100 µg/L	99.8	70.0	130	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	100 µg/L	91.0	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Styrene	100-42-5	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	100 µg/L	111	70.0	130	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	100 µg/L	118	70.0	130	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	100 µg/L	118	70.0	130	----
Toluene	108-88-3	E611D	0.5	µg/L	100 µg/L	110	70.0	130	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 1165127) - continued									
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	100 µg/L	115	70.0	130	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	100 µg/L	111	60.0	140	----
Vinyl chloride	75-01-4	E611D	0.5	µg/L	100 µg/L	115	60.0	140	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	200 µg/L	108	70.0	130	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	100 µg/L	109	70.0	130	----
Volatile Organic Compounds (QCLot: 1168022)									
Acetone	67-64-1	E611D	20	µg/L	100 µg/L	92.9	70.0	130	----
Benzene	71-43-2	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	100 µg/L	96.2	70.0	130	----
Bromoform	75-25-2	E611D	0.5	µg/L	100 µg/L	79.7	70.0	130	----
Bromomethane	74-83-9	E611D	0.5	µg/L	100 µg/L	96.9	60.0	140	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	100 µg/L	92.0	70.0	130	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
Chloroform	67-66-3	E611D	0.5	µg/L	100 µg/L	95.0	70.0	130	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	100 µg/L	85.2	70.0	130	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	100 µg/L	83.5	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	100 µg/L	98.5	70.0	130	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	100 µg/L	96.0	70.0	130	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	100 µg/L	72.6	60.0	140	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	100 µg/L	97.0	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	100 µg/L	97.7	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	100 µg/L	96.2	70.0	130	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
Dichloromethane	75-09-2	E611D	1	µg/L	100 µg/L	94.9	70.0	130	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	100 µg/L	96.5	70.0	130	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	100 µg/L	92.1	70.0	130	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	100 µg/L	86.2	70.0	130	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	100 µg/L	100	70.0	130	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	100 µg/L	87.5	70.0	130	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	100 µg/L	70.9	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	100 µg/L	96.9	70.0	130	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 1168022) - continued									
Styrene	100-42-5	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	100 µg/L	88.7	70.0	130	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	100 µg/L	92.1	70.0	130	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Toluene	108-88-3	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	100 µg/L	95.2	70.0	130	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	100 µg/L	89.0	70.0	130	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	100 µg/L	91.8	60.0	140	----
Vinyl chloride	75-01-4	E611D	0.5	µg/L	100 µg/L	96.3	60.0	140	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	200 µg/L	95.2	70.0	130	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	100 µg/L	92.1	70.0	130	----
Hydrocarbons (QCLot: 1164560)									
F2 (C10-C16)	----	E601.SG	100	µg/L	3685.12 µg/L	99.3	70.0	130	----
F3 (C16-C34)	----	E601.SG	250	µg/L	7481.33 µg/L	99.3	70.0	130	----
F4 (C34-C50)	----	E601.SG	250	µg/L	4274.88 µg/L	84.2	70.0	130	----
Hydrocarbons (QCLot: 1165128)									
F1 (C6-C10)	----	E581.F1-L	25	µg/L	2000 µg/L	92.6	80.0	120	----
Hydrocarbons (QCLot: 1168023)									
F1 (C6-C10)	----	E581.F1-L	25	µg/L	2000 µg/L	105	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1165086)										
WT2331306-001	Anonymous	Chloride	16887-00-6	E235.Cl	100 mg/L	100 mg/L	100	75.0	125	----
Cyanides (QCLot: 1167376)										
WP2324357-003	Anonymous	Cyanide, weak acid dissociable	----	E336	0.142 mg/L	0.125 mg/L	113	75.0	125	----
Dissolved Metals (QCLot: 1164449)										
WT2331477-004	Anonymous	Antimony, dissolved	7440-36-0	E421	0.0530 mg/L	0.05 mg/L	106	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0567 mg/L	0.05 mg/L	113	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.0125 mg/L	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.00486 mg/L	0.005 mg/L	97.2	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	0.05 mg/L	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00510 mg/L	0.005 mg/L	102	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0130 mg/L	0.0125 mg/L	104	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0126 mg/L	0.0125 mg/L	100	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0122 mg/L	0.0125 mg/L	97.6	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0226 mg/L	0.025 mg/L	90.3	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0128 mg/L	0.0125 mg/L	102	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0243 mg/L	0.025 mg/L	97.3	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0552 mg/L	0.05 mg/L	110	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00439 mg/L	0.005 mg/L	87.8	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2.5 mg/L	ND	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.0475 mg/L	0.05 mg/L	94.9	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.000219 mg/L	0.00025 mg/L	87.5	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0270 mg/L	0.025 mg/L	108	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.0252 mg/L	0.025 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1164701)										
WT2331407-005	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000865 mg/L	0.0001 mg/L	86.5	70.0	130	----
Speciated Metals (QCLot: 1165144)										
WT2331569-001	MW23-01	Chromium, hexavalent [Cr VI], dissolved	18540-29-9	E532A	0.0382 mg/L	0.04 mg/L	95.5	70.0	130	----
Volatile Organic Compounds (QCLot: 1165127)										
WT2331562-001	Anonymous	Acetone	67-64-1	E611D	119 µg/L	100 µg/L	119	60.0	140	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 1165127) - continued										
WT2331562-001	Anonymous	Benzene	71-43-2	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Bromodichloromethane	75-27-4	E611D	109 µg/L	100 µg/L	109	60.0	140	----
		Bromoform	75-25-2	E611D	105 µg/L	100 µg/L	105	60.0	140	----
		Bromomethane	74-83-9	E611D	105 µg/L	100 µg/L	105	60.0	140	----
		Carbon tetrachloride	56-23-5	E611D	106 µg/L	100 µg/L	106	60.0	140	----
		Chlorobenzene	108-90-7	E611D	97.3 µg/L	100 µg/L	97.3	60.0	140	----
		Chloroform	67-66-3	E611D	108 µg/L	100 µg/L	108	60.0	140	----
		Dibromochloromethane	124-48-1	E611D	107 µg/L	100 µg/L	107	60.0	140	----
		Dibromoethane, 1,2-	106-93-4	E611D	99.0 µg/L	100 µg/L	99.0	60.0	140	----
		Dichlorobenzene, 1,2-	95-50-1	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Dichlorobenzene, 1,3-	541-73-1	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Dichlorobenzene, 1,4-	106-46-7	E611D	100 µg/L	100 µg/L	100	60.0	140	----
		Dichlorodifluoromethane	75-71-8	E611D	77.0 µg/L	100 µg/L	77.0	60.0	140	----
		Dichloroethane, 1,1-	75-34-3	E611D	98.4 µg/L	100 µg/L	98.4	60.0	140	----
		Dichloroethane, 1,2-	107-06-2	E611D	110 µg/L	100 µg/L	110	60.0	140	----
		Dichloroethylene, 1,1-	75-35-4	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Dichloroethylene, cis-1,2-	156-59-2	E611D	107 µg/L	100 µg/L	107	60.0	140	----
		Dichloroethylene, trans-1,2-	156-60-5	E611D	108 µg/L	100 µg/L	108	60.0	140	----
		Dichloromethane	75-09-2	E611D	111 µg/L	100 µg/L	111	60.0	140	----
		Dichloropropane, 1,2-	78-87-5	E611D	106 µg/L	100 µg/L	106	60.0	140	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	92.6 µg/L	100 µg/L	92.6	60.0	140	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	87.0 µg/L	100 µg/L	87.0	60.0	140	----
		Ethylbenzene	100-41-4	E611D	91.6 µg/L	100 µg/L	91.6	60.0	140	----
		Hexane, n-	110-54-3	E611D	99.2 µg/L	100 µg/L	99.2	60.0	140	----
		Methyl ethyl ketone [MEK]	78-93-3	E611D	105 µg/L	100 µg/L	105	60.0	140	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	93 µg/L	100 µg/L	92.6	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	97.0 µg/L	100 µg/L	97.0	60.0	140	----
		Styrene	100-42-5	E611D	97.1 µg/L	100 µg/L	97.1	60.0	140	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	103 µg/L	100 µg/L	103	60.0	140	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	116 µg/L	100 µg/L	116	60.0	140	----
		Tetrachloroethylene	127-18-4	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Toluene	108-88-3	E611D	96.6 µg/L	100 µg/L	96.6	60.0	140	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	97.8 µg/L	100 µg/L	97.8	60.0	140	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	103 µg/L	100 µg/L	103	60.0	140	----
		Trichloroethylene	79-01-6	E611D	105 µg/L	100 µg/L	105	60.0	140	----

Sub-Matrix: **Water**

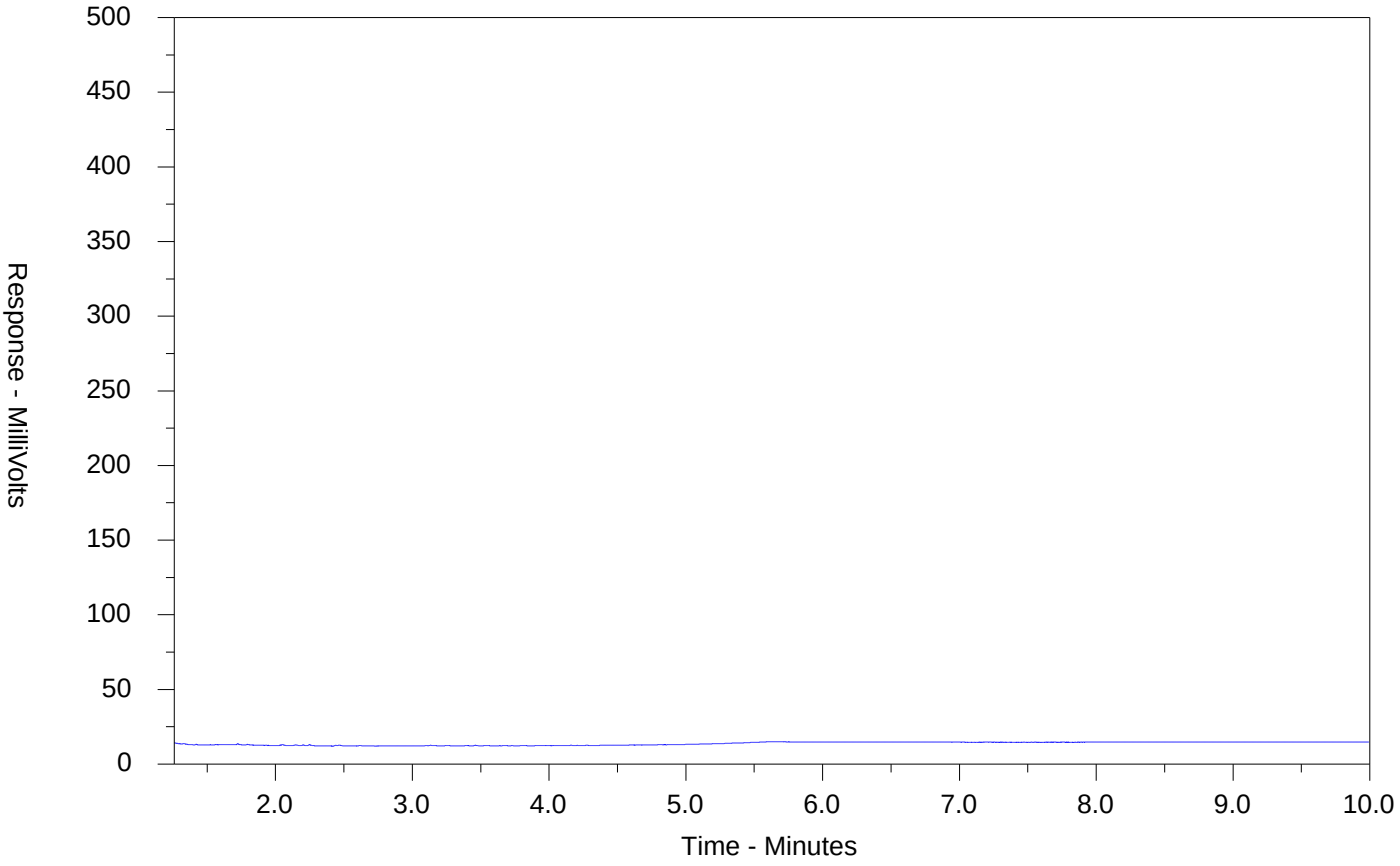
					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 1165127) - continued										
WT2331562-001	Anonymous	Trichlorofluoromethane	75-69-4	E611D	99.5 µg/L	100 µg/L	99.5	60.0	140	----
		Vinyl chloride	75-01-4	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Xylene, m+p-	179601-23-1	E611D	192 µg/L	200 µg/L	96.3	60.0	140	----
		Xylene, o-	95-47-6	E611D	99.1 µg/L	100 µg/L	99.1	60.0	140	----
Volatile Organic Compounds (QCLot: 1168022)										
WT2331542-001	Anonymous	Acetone	67-64-1	E611D	103 µg/L	100 µg/L	103	60.0	140	----
		Benzene	71-43-2	E611D	105 µg/L	100 µg/L	105	60.0	140	----
		Bromodichloromethane	75-27-4	E611D	100 µg/L	100 µg/L	100	60.0	140	----
		Bromoform	75-25-2	E611D	80.6 µg/L	100 µg/L	80.6	60.0	140	----
		Bromomethane	74-83-9	E611D	97.8 µg/L	100 µg/L	97.8	60.0	140	----
		Carbon tetrachloride	56-23-5	E611D	88.0 µg/L	100 µg/L	88.0	60.0	140	----
		Chlorobenzene	108-90-7	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Chloroform	67-66-3	E611D	96.6 µg/L	100 µg/L	96.6	60.0	140	----
		Dibromochloromethane	124-48-1	E611D	87.2 µg/L	100 µg/L	87.2	60.0	140	----
		Dibromoethane, 1,2-	106-93-4	E611D	89.6 µg/L	100 µg/L	89.6	60.0	140	----
		Dichlorobenzene, 1,2-	95-50-1	E611D	99.8 µg/L	100 µg/L	99.8	60.0	140	----
		Dichlorobenzene, 1,3-	541-73-1	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Dichlorobenzene, 1,4-	106-46-7	E611D	94.7 µg/L	100 µg/L	94.7	60.0	140	----
		Dichlorodifluoromethane	75-71-8	E611D	67.0 µg/L	100 µg/L	67.0	60.0	140	----
		Dichloroethane, 1,1-	75-34-3	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Dichloroethane, 1,2-	107-06-2	E611D	106 µg/L	100 µg/L	106	60.0	140	----
		Dichloroethylene, 1,1-	75-35-4	E611D	95.4 µg/L	100 µg/L	95.4	60.0	140	----
		Dichloroethylene, cis-1,2-	156-59-2	E611D	98.5 µg/L	100 µg/L	98.5	60.0	140	----
		Dichloroethylene, trans-1,2-	156-60-5	E611D	111 µg/L	100 µg/L	111	60.0	140	----
		Dichloromethane	75-09-2	E611D	94.5 µg/L	100 µg/L	94.5	60.0	140	----
		Dichloropropane, 1,2-	78-87-5	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	89.2 µg/L	100 µg/L	89.2	60.0	140	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	78.3 µg/L	100 µg/L	78.3	60.0	140	----
		Ethylbenzene	100-41-4	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Hexane, n-	110-54-3	E611D	96.2 µg/L	100 µg/L	96.2	60.0	140	----
		Methyl ethyl ketone [MEK]	78-93-3	E611D	94 µg/L	100 µg/L	94.4	60.0	140	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	77 µg/L	100 µg/L	76.6	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	99.3 µg/L	100 µg/L	99.3	60.0	140	----
		Styrene	100-42-5	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	88.2 µg/L	100 µg/L	88.2	60.0	140	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 1168022) - continued										
WT2331542-001	Anonymous	Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	98.6 µg/L	100 µg/L	98.6	60.0	140	----
		Tetrachloroethylene	127-18-4	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Toluene	108-88-3	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	89.0 µg/L	100 µg/L	89.0	60.0	140	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	95.5 µg/L	100 µg/L	95.5	60.0	140	----
		Trichloroethylene	79-01-6	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Trichlorofluoromethane	75-69-4	E611D	87.5 µg/L	100 µg/L	87.5	60.0	140	----
		Vinyl chloride	75-01-4	E611D	93.6 µg/L	100 µg/L	93.6	60.0	140	----
		Xylene, m+p-	179601-23-1	E611D	190 µg/L	200 µg/L	95.1	60.0	140	----
		Xylene, o-	95-47-6	E611D	95.3 µg/L	100 µg/L	95.3	60.0	140	----
Hydrocarbons (QCLot: 1165128)										
WT2331562-001	Anonymous	F1 (C6-C10)	----	E581.F1-L	1680 µg/L	2000 µg/L	84.0	60.0	140	----
Hydrocarbons (QCLot: 1168023)										
WT2331542-001	Anonymous	F1 (C6-C10)	----	E581.F1-L	1740 µg/L	2000 µg/L	87.1	60.0	140	----

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: WT2331569-001-E601.SG
Client Sample ID: MW23-01



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →	← Motor Oils/Lube Oils/Grease →		
← Diesel/Jet Fuels →			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

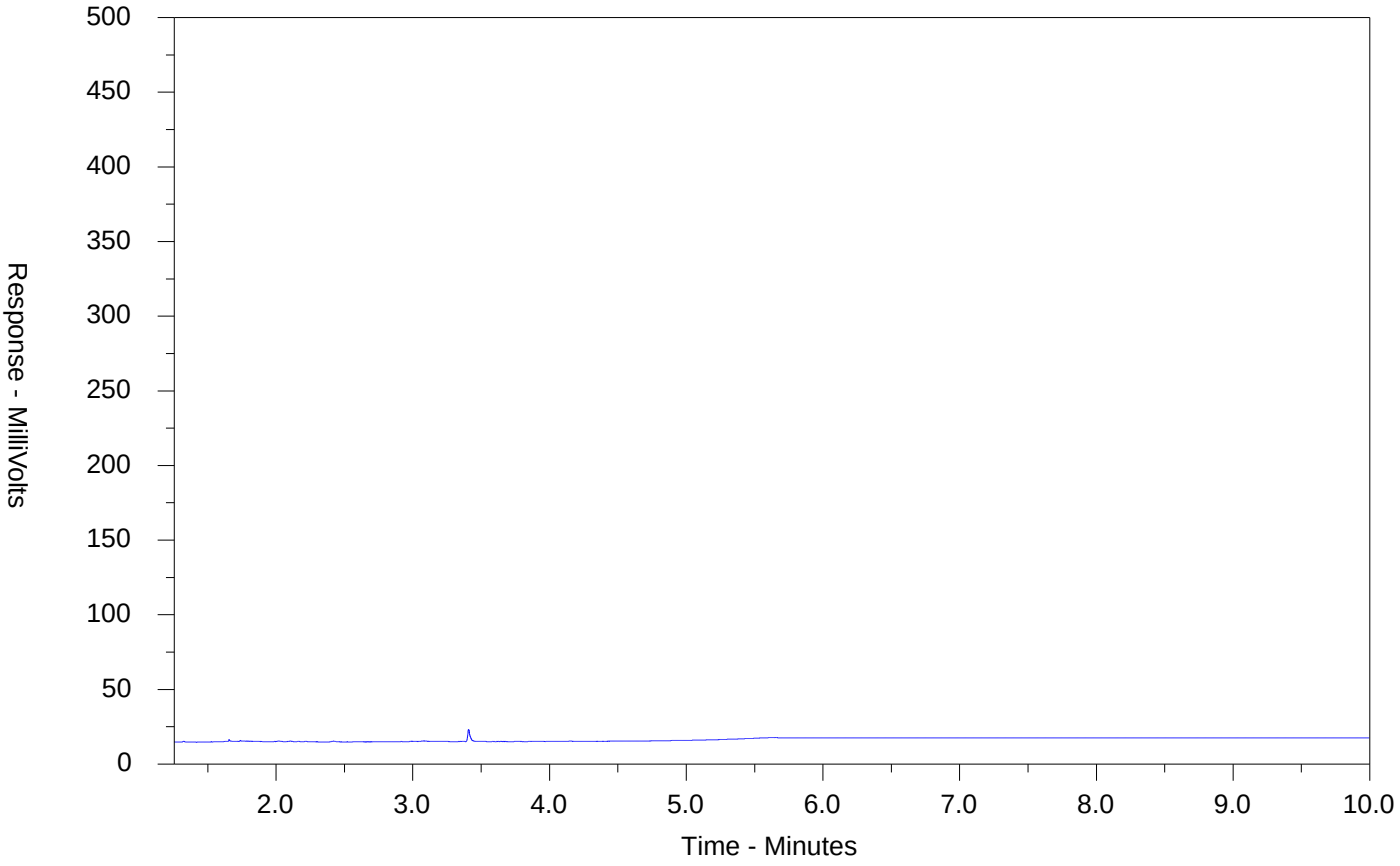
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: WT2331569-002-E601.SG
Client Sample ID: MW23-03



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →	← Motor Oils/Lube Oils/Grease →		
← Diesel/Jet Fuels →			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

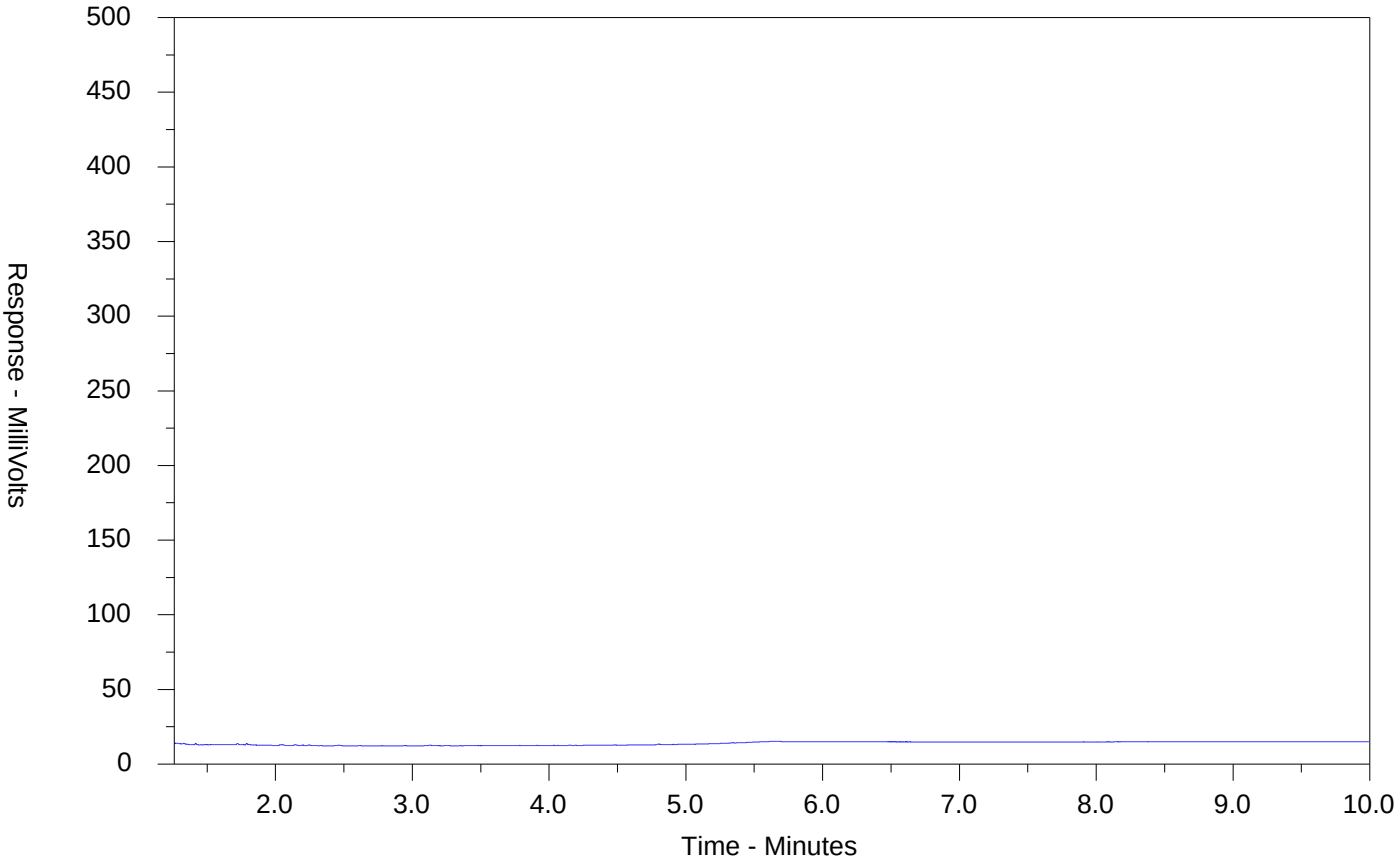
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: WT2331569-003-E601.SG
Client Sample ID: DUP23-01



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →	← Motor Oils/Lube Oils/Grease →		
← Diesel/Jet Fuels →			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 - 1083259

Canada Toll Free: 1 800 668 9878

Page 1 of 1

www.alsglobal.com

Environmental Division Waterloo
Work Order Reference
WT2331569

Telephone : +1 519 886 6910

Report To	Contact and company name below will appear on the final report
Company:	Englobe Corp.
Contact:	Jessica Godin
Phone:	226 752 9370
	Company address below will appear on the final report
Street:	353 Bridge St. E
City/Province:	Kitchener, ON
Postal Code:	N2K 2Y5
Invoice To	Same as Report To: YES ☐ NO
	Copy of Invoice with Report: YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: PDF EXCEL EDD (DIGITAL)
Merge QC/QCI Reports with COA: YES NO N/A
Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: EMAIL MAIL FAX
Email 1 or Fax: jessica.godin@englobecorp.com
Email 2: amanda.goncalves@englobecorp.com
Email 3:

Invoice Recipients

Select Invoice Distribution: EMAIL MAIL FAX
Email 1 or Fax: ap-ont@englobecorp.com
Email 2:

Turnaround Time (TAT) Requested

- Routine [R] if received by 3pm M-F - no surcharges apply
- 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
- 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
- 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
- 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
- Same day [E2] if received by 10am M-S - 200% rush surcharge. Additi may apply to rush requests on weekends, statutory holidays and non-rou

Date and Time Required for all E&P TATs:

For all tests with rush TATs requested, please c

Project Information

ALS Account # / Quote #:	
Job #:	2302109.001
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#:
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (ALS use only): WT2331569
ALS Contact: Gayle Bradin
Sampler: AG

Analysis Re

Indicate Filtered (F), Preserved (P) or Filtered and

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	P	P		P											SAMPLES ON HOLD	EXTENDED STORAGE REQ	SUSPECTED HAZARD (see
						PHCs (F1-F4)	VOCs	O.Reg 153/04	Metals&Inorganics													
	MW23-01	21-SEP-23	18:15	GW	9	X	X	X	X													
	MW23-03	↓	17:00	↓	9	X	X	X	X													
	DUP23-01		NA		9	X	X	X	X													

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? YES NO
Are samples for human consumption/ use? YES NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Compare to Table 2 RPI standards.

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: NONE ICE ICE PACKS FROZEN COOLING INITIATED
Submission Comments identified on Sample Receipt Notification: YES NO
Cooler Custody Seals Intact: YES N/A Sample Custody Seals Intact: YES N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				-0.3			

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
AG Dr MB	Sep 30, 2023	15:30

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
AP	2-Oct-23	8:30

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

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

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

CM

GC-836 SC-491
MM-577 OR-229
CN-366 VW-034

Appendix G
Grain Size Distribution Test Results

ENGLOBE

GRAIN SIZE AND HYDROMETER ANALYSIS REPORT
LS-602, 702 & 703/704

PROJECT NUMBER:	02302109.000	**PROJECT NAME:**	Habitat For Humanity - 317 Speedvale Ave East	**CLIENT:**	Habitat For Humanity
LAB NUMBER:	1625	**SAMPLE ID:**	MW-23-01 / Sample - 9	**SAMPLE DEPTH:**	6.10 - 6.71 mbgs
SAMPLED BY:	Taylor Akimov	**DATE RECEIVED:**	September 20, 2023	**DATE COMPLETED:**	September 28, 2023

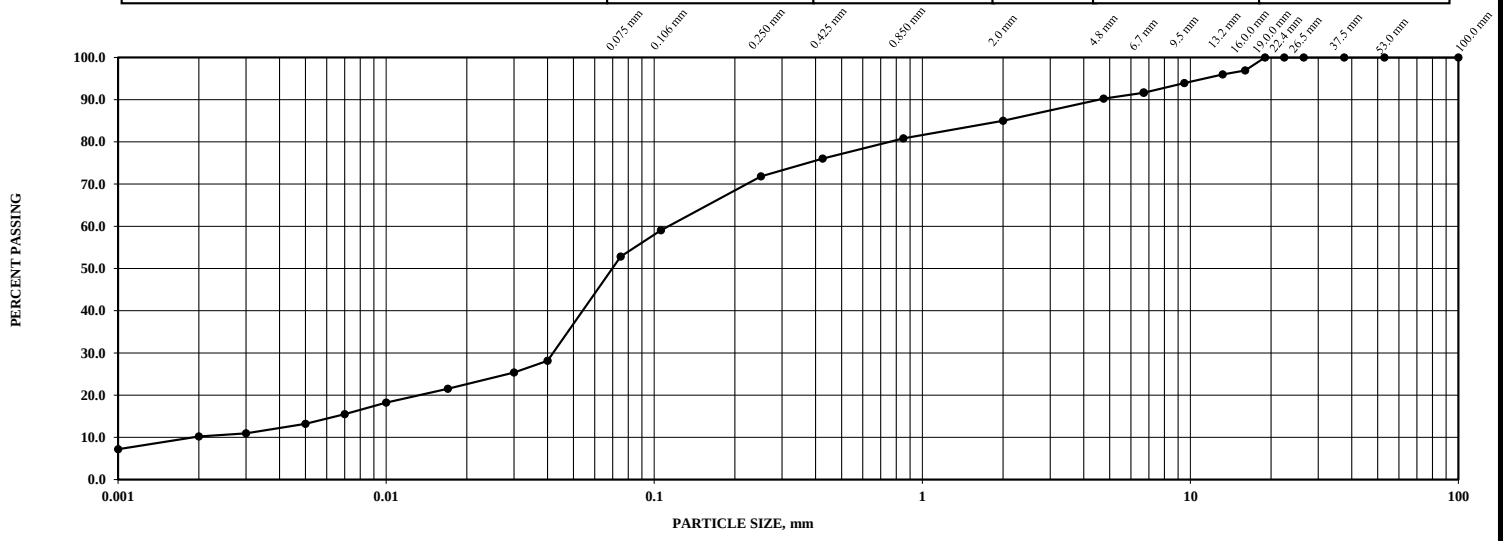
PARTICLE SIZE DISTRIBUTION, MTO LS-702

U.S. BUREAU OF SOILS CLASSIFICATION (AS USED IN MINISTRY OF TRANSPORTATION OF ONTARIO PAVEMENT DESIGNS)

CLAY	SILT	VERY FINE SAND	FINE SAND	MEDIUM SAND	COARSE SAND	FINE GRAVEL	GRAVEL

UNIFIED SOILS CLASSIFICATION ASTM D 2487

FINES (SILT & CLAY)	FINE SAND	MEDIUM SAND	COARSE SAND	FINE GRAVEL	COARSE GRAVEL



COEFFICIENTS									
D60	0.117	**D30**	0.043	**D10**	0.002	**Cc**	8.059	**Cu**	60.58

GRAIN SIZE ANALYSIS		HYDROMETER ANALYSIS	
SIEVE SIZE mm	**% PASSING**	**DIAMETER mm**	**% PASSING**
53	100.0	0.040	28.2
37.5	100.0	0.030	25.4
26.5	100.0	0.017	21.5
22.4	100.0	0.010	18.2
19	100.0	0.007	15.5
16	96.9	0.005	13.2
13.2	96.0	0.002	10.2
9.5	93.9	0.001	7.2
6.7	91.6	**ATTERBERG LIMITS**	
4.75	90.2		
2.00	85.0		
0.850	80.8		
0.425	76.0		
0.250	71.8		
0.106	59.0		
0.075	52.8		

GRAIN SIZE PROPORTIONS, %		
% GRAVEL (> 4.75 mm):		9.8
% SAND (75 µm to 4.75 mm):		37.4
% SILT (2 µm to 75 µm):		42.6
% CLAY (<2 µm):		10.2
GROUP SYMBOL / SOIL DESCRIPTION:		SAND and SILT, some Clay, trace Gravel

REMARKS

Figure: 1

TESTED BY: Diego Augusto De Arruda
Laboratory Technician

REVIEWED BY David McBay, CET.
Laboratory Supervisor

Reporting of these test results constitutes a testing service only. Engineering interpretation or evaluation of test results is provided only on written request.

GRAIN SIZE AND HYDROMETER ANALYSIS REPORT
LS-602, 702 & 703/704

PROJECT NUMBER:	02302109.000	**PROJECT NAME:**	Habitat For Humanity - 317 Speedvale Ave East	**CLIENT:**	Habitat For Humanity
LAB NUMBER:	1626	**SAMPLE ID:**	MW-23-02 / Sample - 7	**SAMPLE DEPTH:**	4.57 - 5.33 mbgs
SAMPLED BY:	Taylor Akimov	**DATE RECEIVED:**	September 20, 2023	**DATE COMPLETED:**	September 28, 2023

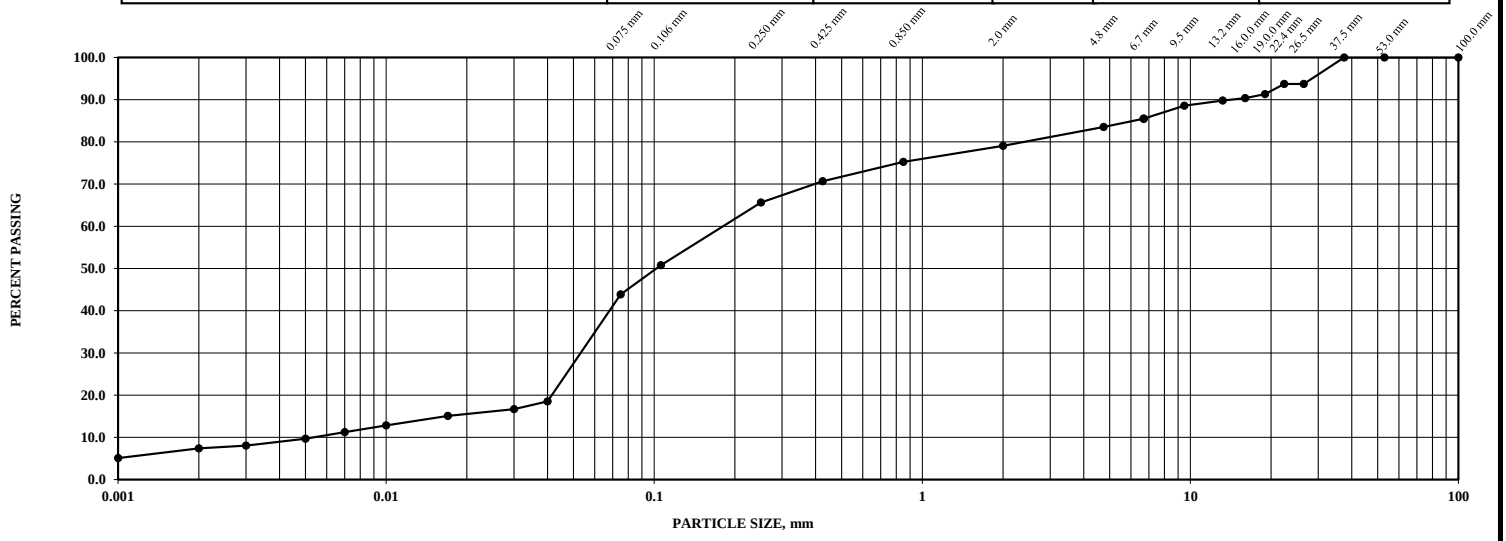
PARTICLE SIZE DISTRIBUTION, MTO LS-702

U.S. BUREAU OF SOILS CLASSIFICATION (AS USED IN MINISTRY OF TRANSPORTATION OF ONTARIO PAVEMENT DESIGNS)

CLAY	SILT	VERY FINE SAND	FINE SAND	MEDIUM SAND	COARSE SAND	FINE GRAVEL	GRAVEL

UNIFIED SOILS CLASSIFICATION ASTM D 2487

FINES (SILT & CLAY)	FINE SAND	MEDIUM SAND	COARSE SAND	FINE GRAVEL	COARSE GRAVEL



COEFFICIENTS									
D60	0.195	**D30**	0.056	**D10**	0.005	**Cc**	2.962	**Cu**	36.18

GRAIN SIZE ANALYSIS		HYDROMETER ANALYSIS	
SIEVE SIZE mm	**% PASSING**	**DIAMETER mm**	**% PASSING**
53	100.0	0.040	18.5
37.5	100.0	0.030	16.7
26.5	93.7	0.017	15.1
22.4	93.7	0.010	12.8
19	91.3	0.007	11.2
16	90.4	0.005	9.7
13.2	89.8	0.002	7.4
9.5	88.6	0.001	5.1
6.7	85.5	**ATTERBERG LIMITS**	
4.75	83.5		
2.00	79.1		
0.850	75.3		
0.425	70.7		
0.250	65.7		
0.106	50.8		
0.075	43.8		

GRAIN SIZE PROPORTIONS, %		
% GRAVEL (> 4.75 mm):		16.5
% SAND (75 µm to 4.75 mm):		39.7
% SILT (2 µm to 75 µm):		36.4
% CLAY (<2 µm):		7.4
GROUP SYMBOL / SOIL DESCRIPTION:		SAND and SILT, some Gravel, trace Clay

REMARKS

Figure: 2

TESTED BY: Diego Augusto De Arruda, Laboratory Technician

REVIEWED BY: David McBay, CET., Laboratory Supervisor

Reporting of these test results constitutes a testing service only. Engineering interpretation or evaluation of test results is provided only on written request.

GRAIN SIZE AND HYDROMETER ANALYSIS REPORT
LS-602, 702 & 703/704

PROJECT NUMBER:	02302109.000	**PROJECT NAME:**	Habitat For Humanity - 317 Speedvale Ave East	**CLIENT:**	Habitat For Humanity
LAB NUMBER:	1627	**SAMPLE ID:**	MW-23-03 / Sample - 8	**SAMPLE DEPTH:**	5.18 - 6.10 mbgs
SAMPLED BY:	Taylor Akimov	**DATE RECEIVED:**	September 20, 2023	**DATE COMPLETED:**	September 28, 2023

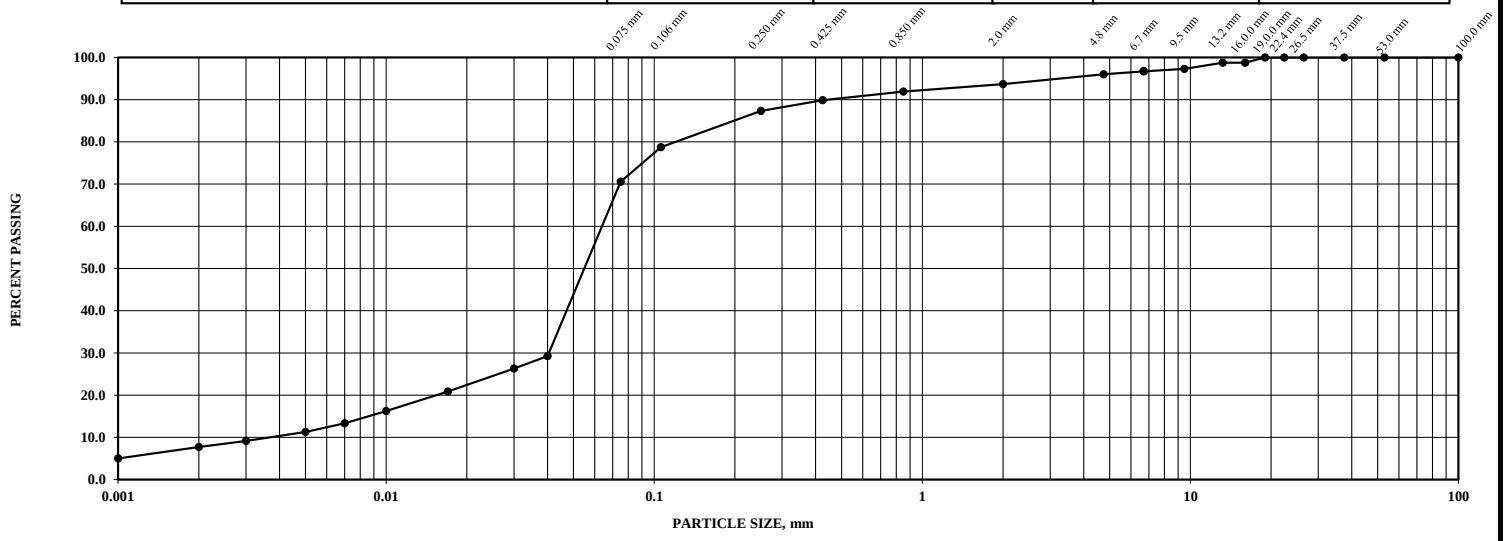
PARTICLE SIZE DISTRIBUTION, MTO LS-702

U.S. BUREAU OF SOILS CLASSIFICATION (AS USED IN MINISTRY OF TRANSPORTATION OF ONTARIO PAVEMENT DESIGNS)

CLAY	SILT	VERY FINE SAND	FINE SAND	MEDIUM SAND	COARSE SAND	FINE GRAVEL	GRAVEL

UNIFIED SOILS CLASSIFICATION ASTM D 2487

FINES (SILT & CLAY)	FINE SAND	MEDIUM SAND	COARSE SAND	FINE GRAVEL	COARSE GRAVEL



COEFFICIENTS									
D60	0.066	**D30**	0.041	**D10**	0.004	**Cc**	6.563	**Cu**	17.36

GRAIN SIZE ANALYSIS		HYDROMETER ANALYSIS	
SIEVE SIZE mm	**% PASSING**	**DIAMETER mm**	**% PASSING**
53	100.0	0.040	29.3
37.5	100.0	0.030	26.3
26.5	100.0	0.017	20.8
22.4	100.0	0.010	16.2
19	100.0	0.007	13.3
16	98.8	0.005	11.3
13.2	98.8	0.002	7.7
9.5	97.3	0.001	5.0
6.7	96.7	**ATTERBERG LIMITS**	
4.75	96.0		
2.00	93.7		
0.850	91.9		
0.425	89.9		
0.250	87.3		
0.106	78.7		
0.075	70.5		

GRAIN SIZE PROPORTIONS, %		
% GRAVEL (> 4.75 mm):		4.0
% SAND (75 µm to 4.75 mm):		25.5
% SILT (2 µm to 75 µm):		62.8
% CLAY (<2 µm):		7.7
GROUP SYMBOL / SOIL DESCRIPTION:		Sandy SILT, traces of Gravel and Clay

REMARKS

Figure: 3

TESTED BY: Diego Augusto De Arruda
Laboratory Technician

REVIEWED BY David McBay, CET.
Laboratory Supervisor

Reporting of these test results constitutes a testing service only. Engineering interpretation or evaluation of test results is provided only on written request.

GRAIN SIZE AND HYDROMETER ANALYSIS REPORT
LS-602, 702 & 703/704

PROJECT NUMBER:	02302109.000	**PROJECT NAME:**	Habitat For Humanity - 317 Speedvale Ave East	**CLIENT:**	Habitat For Humanity
LAB NUMBER:	1628	**SAMPLE ID:**	MW-23-04 / Sample - 7	**SAMPLE DEPTH:**	4.57 - 4.88 mbgs
SAMPLED BY:	Taylor Akimov	**DATE RECEIVED:**	September 20, 2023	**DATE COMPLETED:**	September 28, 2023

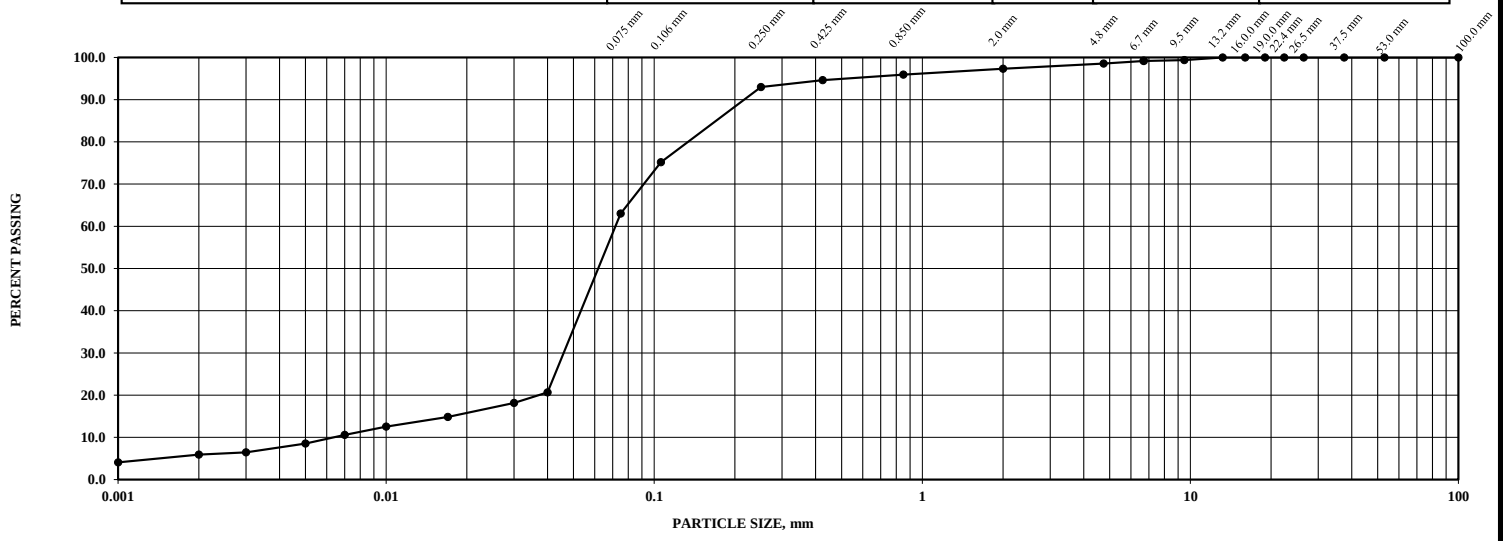
PARTICLE SIZE DISTRIBUTION, MTO LS-702

U.S. BUREAU OF SOILS CLASSIFICATION (AS USED IN MINISTRY OF TRANSPORTATION OF ONTARIO PAVEMENT DESIGNS)

CLAY	SILT	VERY FINE SAND	FINE SAND	MEDIUM SAND	COARSE SAND	FINE GRAVEL	GRAVEL

UNIFIED SOILS CLASSIFICATION ASTM D 2487

FINES (SILT & CLAY)	FINE SAND	MEDIUM SAND	COARSE SAND	FINE GRAVEL	COARSE GRAVEL



COEFFICIENTS									
D60	0.073	**D30**	0.048	**D10**	0.006	**Cc**	4.887	**Cu**	11.28

GRAIN SIZE ANALYSIS		HYDROMETER ANALYSIS	
SIEVE SIZE mm	**% PASSING**	**DIAMETER mm**	**% PASSING**
53	100.0	0.040	20.6
37.5	100.0	0.030	18.2
26.5	100.0	0.017	14.8
22.4	100.0	0.010	12.5
19	100.0	0.007	10.6
16	100.0	0.005	8.5
13.2	100.0	0.002	5.9
9.5	99.4	0.001	4.1
6.7	99.2	**ATTERBERG LIMITS**	
4.75	98.5		
2.00	97.3		
0.850	95.9		
0.425	94.6		
0.250	93.0		
0.106	75.2		
0.075	63.0		

GRAIN SIZE PROPORTIONS, %		
% GRAVEL (> 4.75 mm):		1.5
% SAND (75 µm to 4.75 mm):		35.5
% SILT (2 µm to 75 µm):		57.1
% CLAY (<2 µm):		5.9
GROUP SYMBOL / SOIL DESCRIPTION:		SAND and SILT, traces of Gravel and Clay

REMARKS

Figure: 4

TESTED BY: Diego Augusto De Arruda
Laboratory Technician

REVIEWED BY David McBay, CET.
Laboratory Supervisor

GRAIN SIZE AND HYDROMETER ANALYSIS REPORT
LS-602, 702 & 703/704

PROJECT NUMBER:	02302109.000	**PROJECT NAME:**	Habitat For Humanity - 317 Speedvale Ave East	**CLIENT:**	Habitat For Humanity
LAB NUMBER:	1629	**SAMPLE ID:**	MW-23-05 / Sample - 8	**SAMPLE DEPTH:**	5.18 - 6.10 mbgs
SAMPLED BY:	Taylor Akimov	**DATE RECEIVED:**	September 20, 2023	**DATE COMPLETED:**	September 28, 2023

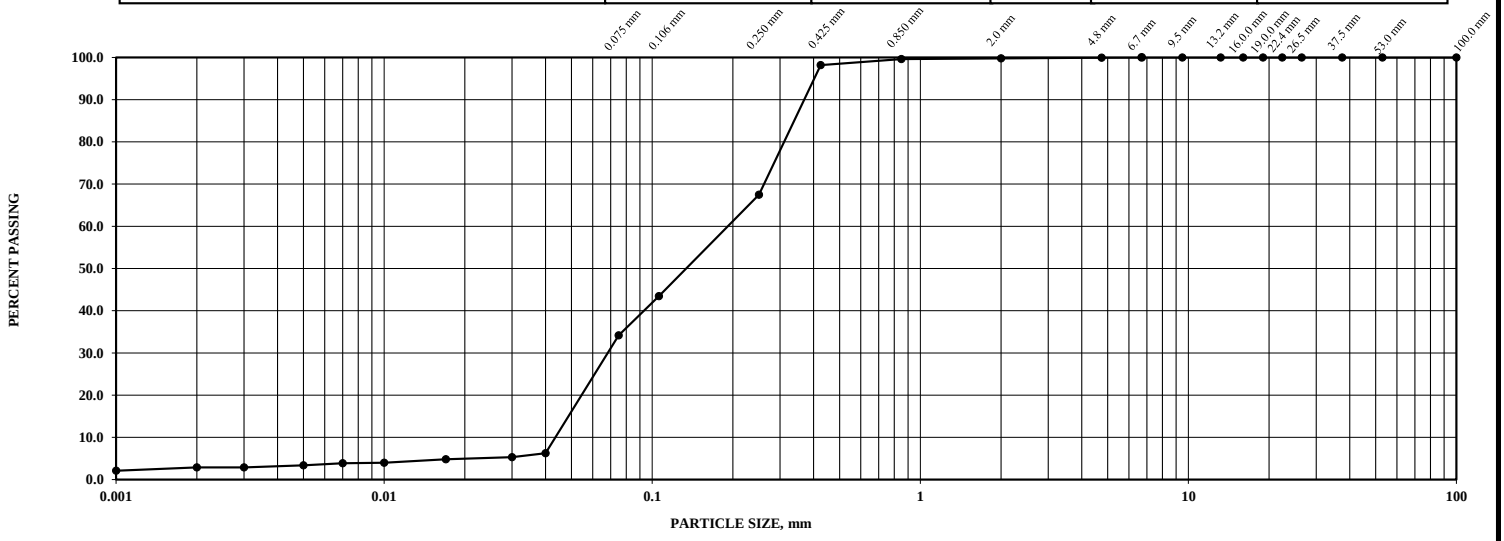
PARTICLE SIZE DISTRIBUTION, MTO LS-702

U.S. BUREAU OF SOILS CLASSIFICATION (AS USED IN MINISTRY OF TRANSPORTATION OF ONTARIO PAVEMENT DESIGNS)

CLAY	SILT	VERY FINE SAND	FINE SAND	MEDIUM SAND	COARSE SAND	FINE GRAVEL	GRAVEL

UNIFIED SOILS CLASSIFICATION ASTM D 2487

FINES (SILT & CLAY)	FINE SAND	MEDIUM SAND	COARSE SAND	FINE GRAVEL	COARSE GRAVEL



COEFFICIENTS									
D60	0.205	**D30**	0.070	**D10**	0.045	**Cc**	0.531	**Cu**	4.59

GRAIN SIZE ANALYSIS		HYDROMETER ANALYSIS	
SIEVE SIZE mm	**% PASSING**	**DIAMETER mm**	**% PASSING**
53	100.0	0.040	6.2
37.5	100.0	0.030	5.3
26.5	100.0	0.017	4.8
22.4	100.0	0.010	4.0
19	100.0	0.007	3.8
16	100.0	0.005	3.4
13.2	100.0	0.002	2.9
9.5	100.0	0.001	2.1
6.7	100.0	**ATTERBERG LIMITS**	
4.75	99.9		
2.00	99.8		
0.850	99.6		
0.425	98.2		
0.250	67.5		
0.106	43.4		
0.075	34.2		

GRAIN SIZE PROPORTIONS, %		
% GRAVEL (> 4.75 mm):		0.1
% SAND (75 µm to 4.75 mm):		65.7
% SILT (2 µm to 75 µm):		31.3
% CLAY (<2 µm):		2.9
GROUP SYMBOL / SOIL DESCRIPTION:		Silty SAND, trace Clay

REMARKS

Figure: 5

TESTED BY: Diego Augusto De Arruda
Laboratory Technician

REVIEWED BY David McBay, CET.
Laboratory Supervisor

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Appendix H
EcoLog ERIS Report

ENGLOBE

DATABASE REPORT

Project Property:	*Phase One Environmental Site Assessment - 303, 309 and 317 Speedvale Avenue East, Guelph, Ontario* *303, 309 and 317 Speedvale Avenue East* *Guelph ON N1E 1N3*
Project No:	*02302109.000*
Report Type:	*RSC Report (Urban)*
Order No:	*23060200052*
Requested by:	*EnGlobe Corp.*
Date Completed:	*June 2, 2023*

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

Table of Contents

Executive Summary

Property Information:

Project Property:	*Phase One Environmental Site Assessment - 303, 309 and 317 Speedvale Avenue East, Guelph, Ontario* *303, 309 and 317 Speedvale Avenue East Guelph ON N1E 1N3*
Project No:	*02302109.000*

Order Information:

Order No:	*23060200052*
Date Requested:	*June 2, 2023*
Requested by:	*EnGlobe Corp.*
Report Type:	*RSC Report (Urban)*

Historical/Products:

Aerial Photographs	*Aerials - National Collection*
City Directory Search	*CD - Subject Site plus 10 Adjacent Properties*
ERIS Xplorer	*ERIS Xplorer*
Insurance Products	*Fire Insurance Maps/Inspection Reports/Site Plans*
Land Title Search	*Historical Land Title Search*
Topographic Map	*RSC Maps*

Executive Summary: Report Summary

Database	Name	Searched	Project Property	Boundary to 0.30km	Total
AAGR	Abandoned Aggregate Inventory	Y	0	0	0
AGR	Aggregate Inventory	Y	0	0	0
AMIS	Abandoned Mine Information System	Y	0	0	0
ANDR	Anderson's Waste Disposal Sites	Y	0	0	0
AST	Aboveground Storage Tanks	Y	0	0	0
AUWR	Automobile Wrecking & Supplies	Y	0	0	0
BORE	Borehole	Y	0	0	0
CA	Certificates of Approval	Y	0	1	1
CDRY	Dry Cleaning Facilities	Y	0	1	1
CFOT	Commercial Fuel Oil Tanks	Y	0	0	0
CHEM	Chemical Manufacturers and Distributors	Y	0	0	0
CHM	Chemical Register	Y	0	0	0
CNG	Compressed Natural Gas Stations	Y	0	0	0
COAL	Inventory of Coal Gasification Plants and Coal Tar Sites	Y	0	0	0
CONV	Compliance and Convictions	Y	0	0	0
CPU	Certificates of Property Use	Y	0	0	0
DRL	Drill Hole Database	Y	0	0	0
DTNK	Delisted Fuel Tanks	Y	0	12	12
EASR	Environmental Activity and Sector Registry	Y	0	2	2
EBR	Environmental Registry	Y	0	0	0
ECA	Environmental Compliance Approval	Y	0	0	0
EEM	Environmental Effects Monitoring	Y	0	0	0
EHS	ERIS Historical Searches	Y	0	19	19
EIIS	Environmental Issues Inventory System	Y	0	0	0
EMHE	Emergency Management Historical Event	Y	0	0	0
EPAR	Environmental Penalty Annual Report	Y	0	0	0
EXP	List of Expired Fuels Safety Facilities	Y	0	0	0
FCON	Federal Convictions	Y	0	0	0
FCS	Contaminated Sites on Federal Land	Y	0	0	0
FOFT	Fisheries & Oceans Fuel Tanks	Y	0	0	0
FRST	Federal Identification Registry for Storage Tank Systems (FIRSTS)	Y	0	0	0
FST	Fuel Storage Tank	Y	0	13	13
FSTH	Fuel Storage Tank - Historic	Y	0	4	4
GEN	Ontario Regulation 347 Waste Generators Summary	Y	0	42	42
GHG	Greenhouse Gas Emissions from Large Facilities	Y	0	0	0
HINC	TSSA Historic Incidents	Y	0	1	1

Database	Name	Searched	Project Property	Boundary to 0.30km	Total
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0
INC	Fuel Oil Spills and Leaks	Y	0	0	0
LIMO	Landfill Inventory Management Ontario	Y	0	0	0
MINE	Canadian Mine Locations	Y	0	0	0
MNR	Mineral Occurrences	Y	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0
NCPL	Non-Compliance Reports	Y	0	0	0
NDFT	National Defense & Canadian Forces Fuel Tanks	Y	0	0	0
NDSP	National Defense & Canadian Forces Spills	Y	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0
NEBI	National Energy Board Pipeline Incidents	Y	0	0	0
NEBP	National Energy Board Wells	Y	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0
NPCB	National PCB Inventory	Y	0	0	0
NPRI	National Pollutant Release Inventory	Y	0	0	0
OGWE	Oil and Gas Wells	Y	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	0	0
OPCB	Inventory of PCB Storage Sites	Y	0	0	0
ORD	Orders	Y	0	0	0
PAP	Canadian Pulp and Paper	Y	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0
PES	Pesticide Register	Y	0	4	4
PINC	Pipeline Incidents	Y	0	4	4
PRT	Private and Retail Fuel Storage Tanks	Y	0	2	2
PTTW	Permit to Take Water	Y	0	0	0
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	0	0
RSC	Record of Site Condition	Y	0	0	0
RST	Retail Fuel Storage Tanks	Y	0	1	1
SCT	Scott's Manufacturing Directory	Y	3	1	4
SPL	Ontario Spills	Y	0	13	13
SRDS	Wastewater Discharger Registration Database	Y	0	0	0
TANK	Anderson's Storage Tanks	Y	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0
VAR	Variances for Abandonment of Underground Storage Tanks	Y	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0
WWIS	Water Well Information System	Y	0	13	13
	Total:		3	133	136

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
1	SCT	D M L CONTROL INC.	317 SPEEDVALE AVE E FLOOR 2 GUELPH ON N1E 1N3	NNE/0.0	0.73	36
1	SCT	DML CONTROL INC.	317 Speedvale Ave E Floor 2 Guelph ON N1E 1N3	NNE/0.0	0.73	36
1	SCT	Hench Control International	317 Speedvale Ave E Floor 2 Guelph ON N1E 1N3	NNE/0.0	0.73	36

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
2	WWIS		MANHATTEN COURT Guelph ON ***Well ID:*** 7285393	ESE/33.6	0.72	37
3	SPL	Enbridge Gas Inc.	, 310 Speedvale Ave. E Guelph ON	NNW/43.3	1.56	40
4	WWIS		324 SPEEDVALE RD Guelph ON ***Well ID:*** 7160549	ESE/44.1	0.39	41
5	WWIS		328 SPEEDVALE AVENUE EAST Guelph ON ***Well ID:*** 7178069	ESE/46.3	0.39	47
6	EHS		300 Speedvale Ave E Guelph ON N1E 1N2	W/47.7	0.61	50
7	EHS		7, 8, 9, 10 and 11 Manhattan Court Guelph ON	ESE/50.4	0.69	50
7	EHS		7, 9, 10 and 11 Manhattan Court Guelph ON N1E 3W1	ESE/50.4	0.69	50
7	EHS		7, 9, 10 and 11 Manhattan Court Guelph ON N1E 3W1	ESE/50.4	0.69	51
7	EHS		7, 9, 10 and 11 Manhattan Court Guelph ON N1E 3W1	ESE/50.4	0.69	51
7	EHS		7, 9, 10 and 11 Manhattan Court Guelph ON N1E 3W1	ESE/50.4	0.69	51
8	WWIS		328 SPEEDVALE AVENUE EAST Guelph ON ***Well ID:*** 7178067	E/56.5	0.69	51
9	WWIS		328 SPEEDVALE AVENUE EAST Guelph ON	ESE/69.2	0.69	54

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
			Well ID: 7178068			
10	WWIS		323 SPEEDALE AVE E GUELPH ON ***Well ID:*** 7200873	NE/93.7	1.39	58
11	WWIS		323 SPEEDVALE AVE E Guelph ON ***Well ID:*** 7278592	NE/96.6	1.39	60
12	EHS		320 Speedvale Ave E Guelph ON N1E 1N2	NNE/103.7	0.58	63
12	WWIS		ON ***Well ID:*** 7201213	NNE/103.7	0.58	63
13	WWIS		323 SPEEDUALE GUELPH ON ***Well ID:*** 7200872	NE/104.3	1.39	64
14	WWIS		323 SPEEDVALE AVE E Guelph ON ***Well ID:*** 7278593	NE/105.8	1.39	67
15	PRT	BEAVER FUELS MANAGEMENT LIMITED ATTENTION: MIRIAM	324 SPEEDVALE AV E GUELPH ON N1E 1N2	NNE/115.0	0.58	69
15	RST	BEAVER FUELS	324 SPEEDVALE AVE E GUELPH ON N1E 1N2	NNE/115.0	0.58	69
15	FSTH	1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH ON N1E 1N2	NNE/115.0	0.58	69
15	FSTH	1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH ON N1E 1N2	NNE/115.0	0.58	70
15	DTNK	1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH ON	NNE/115.0	0.58	71
15	GEN	Shell Canada Products	324 Speedvale Ave E Guelph ON N1E 1N2	NNE/115.0	0.58	71
15	GEN	Shell Canada Products	324 Speedvale Ave E Guelph ON N1E 1N2	NNE/115.0	0.58	72

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
15	DTNK	1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	NNE/115.0	0.58	72
15	DTNK	1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	NNE/115.0	0.58	72
15	GEN	Shell Canada Products	324 Speedvale Ave E Guelph ON N1E 1N2	NNE/115.0	0.58	73
15	GEN	Shell Canada Products	324 Speedvale Ave E Guelph ON	NNE/115.0	0.58	73
15	DTNK	1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	NNE/115.0	0.58	74
15	DTNK	1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	NNE/115.0	0.58	74
15	DTNK	1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	NNE/115.0	0.58	75
15	DTNK	1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	NNE/115.0	0.58	76
15	DTNK	1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	NNE/115.0	0.58	76
15	GEN	Shell Canada Products	324 Speedvale Ave E Guelph ON N1E 1N2	NNE/115.0	0.58	77
15	GEN	Shell Canada Products	324 Speedvale Ave E Guelph ON N1E 1N2	NNE/115.0	0.58	77
15	GEN	Shell Canada Products	324 Speedvale Ave E Guelph ON N1E 1N2	NNE/115.0	0.58	78

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
15	FST	1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	NNE/115.0	0.58	78
15	FST	1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	NNE/115.0	0.58	79
15	FST	1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	NNE/115.0	0.58	79
15	FST	1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	NNE/115.0	0.58	80
15	FST	1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	NNE/115.0	0.58	80
15	FST	1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	NNE/115.0	0.58	81
15	FST	1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	NNE/115.0	0.58	81
16	SPL	BEAVER GAS STATION	PEEDVALE AVE EAST/STEVENSON ST. SERVICE STATION GUELPH CITY ON	NE/141.7	2.00	82
16	PRT	SOUTHLAND CANADA 2830 ATTN MARYANN GRAHOVAC	SPEEDVALE AT STEVENSON GUELPH ON	NE/141.7	2.00	82
16	GEN	GUELPH HYDRO	SPEEDVALE AVE. EAST AT STEVENSON ST. N. C/O 104 DAWSON ROAD GUELPH ON N1H 1A7	NE/141.7	2.00	83
16	GEN	GUELPH HYDRO 18-349	SPEEDVALE AVE. EAST AT STEVENSON ST. N. C/O 104 DAWSON ROAD GUELPH ON N1H 1A7	NE/141.7	2.00	83
16	GEN	GUELPH HYDRO	SPEEDVALE AVENUE EAST AT STEVENSON STREET NORTH GUELPH ON	NE/141.7	2.00	83

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
16	EHS		Speedvale Ave E & Stevenson St N Guelph ON	NE/141.7	2.00	84
17	SPL		329 Speedvale Ave E Guelph ON N1E 1N6	NE/159.8	2.73	84
18	EHS		7-Eleven 328 Speedvale Ave East Guelph ON N1E 1N5	NNE/184.7	2.39	85
18	EHS		7-Eleven 328 Speedvale Ave East Guelph ON N1E 1N5	NNE/184.7	2.39	85
18	EHS		7-Eleven 328 Speedvale Ave East Guelph ON N1E 1N5	NNE/184.7	2.39	85
18	EHS		7-Eleven 328 Speedvale Ave East Guelph ON N1E 1N5	NNE/184.7	2.39	85
19	FSTH	7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E AT STEVENSON GUELPH ON N1E 1N5	NNE/188.1	2.69	85
19	FSTH	7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E AT STEVENSON GUELPH ON N1E 1N5	NNE/188.1	2.69	86
19	SPL	The Corporation of the City of Guelph	328 Speedville Ave East Guelph ON	NNE/188.1	2.69	87
19	DTNK	7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E AT STEVENSON GUELPH ON	NNE/188.1	2.69	87
19	EHS		328 Speedvale Avenue East Guelph ON	NNE/188.1	2.69	88
19	FST	7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON	NNE/188.1	2.69	88
19	FST	7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON	NNE/188.1	2.69	89

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
19	FST	7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON	NNE/188.1	2.69	89
19	FST	7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON	NNE/188.1	2.69	90
19	GEN	7-Eleven Canada Inc.	328 Speedvale Ave East Guelph ON	NNE/188.1	2.69	90
19	EHS		328 Speedvale Ave E Guelph ON N1E0J4	NNE/188.1	2.69	90
19	GEN	7-Eleven Canada Inc.	328 Speedvale Ave East Guelph ON	NNE/188.1	2.69	91
19	FST	7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON	NNE/188.1	2.69	91
19	FST	7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON	NNE/188.1	2.69	91
19	GEN	7-Eleven Canada Inc.	328 Speedvale Ave East Guelph ON N1E 1N5	NNE/188.1	2.69	92
19	GEN	7-Eleven Canada Inc.	328 Speedvale Ave East Guelph ON N1E 1N5	NNE/188.1	2.69	92
19	GEN	7-Eleven Canada Inc.	328 Speedvale Ave East Guelph ON N1E 1N5	NNE/188.1	2.69	93
19	GEN	7-Eleven Canada Inc.	328 Speedvale Ave East Guelph ON N1E 1N5	NNE/188.1	2.69	93
19	GEN	Cornell Animal Hospital	328 Speedvale Ave. E. Guelph ON N1E 1N5	NNE/188.1	2.69	93

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
19	GEN	7-Eleven Canada Inc.	328 Speedvale Ave East Guelph ON N1E 1N5	NNE/188.1	2.69	94
19	EASR	328 SPEEDVALE COMMERCIAL CENTRE INC.	328 Speedvale AVE E Guelph ON N1E 1N5	NNE/188.1	2.69	94
19	SPL		328 Speedvale Ave East Guelph ON	NNE/188.1	2.69	94
19	DTNK	7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON	NNE/188.1	2.69	95
19	DTNK	7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON	NNE/188.1	2.69	96
19	DTNK		328 SPEEDVALE AV E GUELPH ON N1E 1N5	NNE/188.1	2.69	96
19	GEN	Cornell Animal Hospital	328 Speedvale Ave. E. Guelph ON N1E 1N5	NNE/188.1	2.69	97
19	GEN	7-Eleven Canada Inc.	328 Speedvale Ave East Guelph ON N1E 1N5	NNE/188.1	2.69	97
19	GEN	7-Eleven Canada Inc.	328 Speedvale Ave East Guelph ON N1E 1N5	NNE/188.1	2.69	98
19	GEN	Cornell Animal Hospital	328 Speedvale Ave. E. Guelph ON N1E 1N5	NNE/188.1	2.69	98
19	EASR	Parsons Inc.	328 Speedvale AVE E Guelph ON N1E 1N5	NNE/188.1	2.69	98
20	SPL		Intersection of Gladstone and Speedvale Guelph ON	WSW/194.7	-2.31	99
21	PINC	PIPELINE HIT - 1 1/4"	261 SPEEDVALE AVE E,,GUELPH,ON, N1E 1M8,CA ON	SW/201.9	-4.00	99

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
21	PINC	ELMRIDGE DR 145 APARTMENT BUILDING	261 SPEEDVALE AVE E,,GUELPH,ON, N1E 1M8,CA ON	SW/201.9	-4.00	100
22	GEN	Upper Grand District School Board	Edward Johnson Public School 397 Stevenson Street North Guelph ON N1E 5C1	ENE/230.6	3.71	100
23	WWIS		328 SPEEDVALE AVE EAST Guelph ON ***Well ID:*** 7357835	NNE/244.3	3.77	101
23	WWIS		328 SPEEDVALE AVE EAST Guelph ON ***Well ID:*** 7357838	NNE/244.3	3.77	104
24	GEN	1865088 Ontario Ltd	328-386 Speedvale Ave East Guelph ON	NE/245.4	3.73	107
24	GEN	1865088 Ontario Ltd	328-386 Speedvale Ave East Guelph ON N1E 6A7	NE/245.4	3.73	107
24	GEN	1865088 Ontario Ltd	328-386 Speedvale Ave East Guelph ON N1E 6A7	NE/245.4	3.73	108
24	GEN	1865088 Ontario Ltd	328-386 Speedvale Ave East Guelph ON N1E 6A7	NE/245.4	3.73	108
24	GEN	1865088 Ontario Ltd	328-386 Speedvale Ave East Guelph ON N1E 6A7	NE/245.4	3.73	108
25	WWIS		328 SPEEDVALE AVE E Guelph ON ***Well ID:*** 7277237	NNE/249.4	3.00	109
26	SPL	Union Gas Limited	7 Lilac Place Guelph ON	NNW/253.4	4.69	113
26	PINC	PIPELINE HIT - 1/2"	7 LILAC PLACE,,GUELPH,ON,N1E 1K2, CA ON	NNW/253.4	4.69	114

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
27	EHS		328-386 Speedvale Avenue Guelph ON N1E 1N6	NNE/276.7	3.64	114
27	EHS		328-386 Speedvale Avenue Guelph ON N1E 1N6	NNE/276.7	3.64	114
27	EHS		328-386 Speedvale Avenue Guelph ON N1E 1N6	NNE/276.7	3.64	114
27	EHS		328-386 Speedvale Avenue Guelph ON N1E 1N6	NNE/276.7	3.64	115
28	SPL		330 Speedvale Ave. E. Guelph ON N1E 1N5	N/280.2	3.69	115
28	PES	BYRON FOOD MARKET	330 SPEEDVALE AVENUE EAST GUELPH ON N1E1N5	N/280.2	3.69	116
28	SPL		330 Speedvale Ave East Guelph ON	N/280.2	3.69	116
29	SPL	Union Gas Ltd	343 Speedvale Ave East Guelph ON	NE/283.2	4.69	117
29	PINC	2" Pipeline Hit	343 SPEEDVALE AVENUE EAST,, GUELPH,ON,N1E 1N6,CA ON	NE/283.2	4.69	117
30	CA	TDL GROUP LTD.	328-378 SPEEDVALE AVENUE GUELPH CITY ON	NE/294.9	4.61	118
30	EHS		328-386 Speedvale Ave East Guelph ON N1E 1N5	NE/294.9	4.61	118
30	PES	THE BARGAIN! SHOP HOLDINGS INC. (STORE#52961)	328 - 378 SPEEDVALE AVE GUELPH ON N1E1N5	NE/294.9	4.61	118
30	GEN	HREIT Corporation 27	328-378 Speedvale Ave E Guelph ON	NE/294.9	4.61	119

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
30	GEN	Huntingdon-Reit	328-378 Speedvale Drive Guelph ON N1E 1N5	NE/294.9	4.61	119
30	PES	THE BARGAIN! SHOP HOLDINGS INC. (STORE#52961)	328 - 378 SPEEDVALE AVE GUELPH ON N1E 1N5	NE/294.9	4.61	119
30	PES	THE BARGAIN! SHOP HOLDINGS INC. (STORE#52961)	328 - 378 SPEEDVALE AVE GUELPH ON N1E1N5	NE/294.9	4.61	120
30	GEN	328 Speedvale Commercial Centre Inc.	328-378 Speedvale Ave. East Guelph ON N1E 1N5	NE/294.9	4.61	120
30	SPL	Unknown<UNOFFICIAL>	378 Speedvale Avenue East, Guelph Guelph ON	NE/294.9	4.61	121
30	GEN	328 Speedvale Commercial Centre Inc.	328-378 Speedvale Ave. East Guelph ON N1E 1N5	NE/294.9	4.61	121
30	GEN	328 Speedvale Commercial Centre Inc.	328-378 Speedvale Ave. East Guelph ON N1E 1N5	NE/294.9	4.61	122
31	HINC		102 EMMA STREET GUELPH ON N1E 1T8	SSE/295.9	-3.31	122
32	GEN	ROYAL CLEANERS	358 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	NNE/297.4	4.69	122
32	GEN	ROYAL CLEANERS 33-163	358 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	NNE/297.4	4.69	123
32	GEN	ROYAL CLEANERS	358 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	NNE/297.4	4.69	123
32	GEN	ROBERT LANE INC.	358 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	NNE/297.4	4.69	123

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
32	GEN	ROBERT LANE INC.	358 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	NNE/297.4	4.69	124
32	GEN	ROBERT LANE INC.	358 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	NNE/297.4	4.69	124
32	CDRY	Royal Cleaners	358 Speedvale Ave E Guelph ON N1E1N5	NNE/297.4	4.69	125
33	SCT	Candies of Merritt Ltd.	344 Speedvale Ave E Guelph ON N1E 1N5	N/297.8	3.69	125
33	GEN	PHARMA PLUS DRUGS LTD	334 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	N/297.8	3.69	126
33	GEN	PHARMA PLUS DRUGS LTD. 31-756	334 SPEEDVALE AVE. E. C/O 5935 AIRPORT ROAD #500 MISSISSAUGA ON L4V 1W5	N/297.8	3.69	126
33	GEN	PHARMA PLUS DRUGS LTD (OUT OF BUSINESS)	334 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	N/297.8	3.69	126
34	SPL	UNION GAS LTD.	231 SPEEDVALE AVE. BYPRO MARKETING (IN FRONT OF) GUELPH CITY ON	SW/298.1	-3.31	127
34	SPL	Goderich-Exeter Railway Company Limited	behind Bipro plant on 231Speedvale Ave. Guelph ON	SW/298.1	-3.31	127

Executive Summary: Summary By Data Source

CA - Certificates of Approval

A search of the CA database, dated 1985-Oct 30, 2011* has found that there are 1 CA site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
TDL GROUP LTD.	328-378 SPEEDVALE AVENUE GUELPH CITY ON	294.9	30

CDRY - Dry Cleaning Facilities

A search of the CDRY database, dated Jan 2004-Dec 2021 has found that there are 1 CDRY site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
Royal Cleaners	358 Speedvale Ave E Guelph ON N1E1N5	297.4	32

DTNK - Delisted Fuel Tanks

A search of the DTNK database, dated Feb 28, 2022 has found that there are 12 DTNK site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	115.0	15
1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	115.0	15
1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	115.0	15
1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	115.0	15

Site	Address	Distance (m)	Map Key
1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	115.0	15
1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	115.0	15
1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	115.0	15
1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH ON	115.0	15
7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E AT STEVENSON GUELPH ON	188.1	19
	328 SPEEDVALE AV E GUELPH ON N1E 1N5	188.1	19
7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON	188.1	19
7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON	188.1	19

EASR - Environmental Activity and Sector Registry

A search of the EASR database, dated Oct 2011- Apr 30, 2023 has found that there are 2 EASR site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
328 SPEEDVALE COMMERCIAL CENTRE INC.	328 Speedvale AVE E Guelph ON N1E 1N5	188.1	19

Site	Address	Distance (m)	Map Key
Parsons Inc.	328 Speedvale AVE E Guelph ON N1E 1N5	188.1	19

EHS - ERIS Historical Searches

A search of the EHS database, dated 1999-Mar 31, 2023 has found that there are 19 EHS site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
	300 Speedvale Ave E Guelph ON N1E 1N2	47.7	6
	7, 9, 10 and 11 Manhattan Court Guelph ON N1E 3W1	50.4	7
	7, 9, 10 and 11 Manhattan Court Guelph ON N1E 3W1	50.4	7
	7, 9, 10 and 11 Manhattan Court Guelph ON N1E 3W1	50.4	7
	7, 9, 10 and 11 Manhattan Court Guelph ON N1E 3W1	50.4	7
	7, 8, 9, 10 and 11 Manhattan Court Guelph ON	50.4	7
	320 Speedvale Ave E Guelph ON N1E 1N2	103.7	12
	Speedvale Ave E & Stevenson St N Guelph ON	141.7	16
	7-Eleven 328 Speedvale Ave East Guelph ON N1E 1N5	184.7	18

Site	Address	Distance (m)	Map Key
	7-Eleven 328 Speedvale Ave East Guelph ON N1E 1N5	184.7	18
	7-Eleven 328 Speedvale Ave East Guelph ON N1E 1N5	184.7	18
	7-Eleven 328 Speedvale Ave East Guelph ON N1E 1N5	184.7	18
	328 Speedvale Avenue East Guelph ON	188.1	19
	328 Speedvale Ave E Guelph ON N1E0J4	188.1	19
	328-386 Speedvale Avenue Guelph ON N1E 1N6	276.7	27
	328-386 Speedvale Avenue Guelph ON N1E 1N6	276.7	27
	328-386 Speedvale Avenue Guelph ON N1E 1N6	276.7	27
	328-386 Speedvale Avenue Guelph ON N1E 1N6	276.7	27
	328-386 Speedvale Ave East Guelph ON N1E 1N5	294.9	30

FST - Fuel Storage Tank

A search of the FST database, dated Feb 28, 2022 has found that there are 13 FST site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	115.0	15
1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	115.0	15
1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	115.0	15
1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	115.0	15
1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	115.0	15
1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	115.0	15
1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	115.0	15
7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON	188.1	19
7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON	188.1	19
7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON	188.1	19
7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON	188.1	19

Site	Address	Distance (m)	Map Key
7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON	188.1	19
7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON	188.1	19

FSTH - Fuel Storage Tank - Historic

A search of the FSTH database, dated Pre-Jan 2010* has found that there are 4 FSTH site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH ON N1E 1N2	115.0	15
1348083 ONTARIO LTD O/A GAS STN	324 SPEEDVALE AV E GUELPH ON N1E 1N2	115.0	15
7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E AT STEVENSON GUELPH ON N1E 1N5	188.1	19
7-ELEVEN CANADA INC - NATIONAL GAS DEPT	328 SPEEDVALE AV E AT STEVENSON GUELPH ON N1E 1N5	188.1	19

GEN - Ontario Regulation 347 Waste Generators Summary

A search of the GEN database, dated 1986-Oct 31, 2022 has found that there are 42 GEN site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
Shell Canada Products	324 Speedvale Ave E Guelph ON N1E 1N2	115.0	15
Shell Canada Products	324 Speedvale Ave E Guelph ON N1E 1N2	115.0	15

Site	Address	Distance (m)	Map Key
Shell Canada Products	324 Speedvale Ave E Guelph ON N1E 1N2	115.0	15
Shell Canada Products	324 Speedvale Ave E Guelph ON N1E 1N2	115.0	15
Shell Canada Products	324 Speedvale Ave E Guelph ON N1E 1N2	115.0	15
Shell Canada Products	324 Speedvale Ave E Guelph ON N1E 1N2	115.0	15
Shell Canada Products	324 Speedvale Ave E Guelph ON	115.0	15
GUELPH HYDRO	SPEEDVALE AVE. EAST AT STEVENSON ST. N. C/O 104 DAWSON ROAD GUELPH ON N1H 1A7	141.7	16
GUELPH HYDRO 18-349	SPEEDVALE AVE. EAST AT STEVENSON ST. N. C/O 104 DAWSON ROAD GUELPH ON N1H 1A7	141.7	16
GUELPH HYDRO	SPEEDVALE AVENUE EAST AT STEVENSON STREET NORTH GUELPH ON	141.7	16
7-Eleven Canada Inc.	328 Speedvale Ave East Guelph ON N1E 1N5	188.1	19
7-Eleven Canada Inc.	328 Speedvale Ave East Guelph ON N1E 1N5	188.1	19
7-Eleven Canada Inc.	328 Speedvale Ave East Guelph ON N1E 1N5	188.1	19
7-Eleven Canada Inc.	328 Speedvale Ave East Guelph ON N1E 1N5	188.1	19

Site	Address	Distance (m)	Map Key
Cornell Animal Hospital	328 Speedvale Ave. E. Guelph ON N1E 1N5	188.1	19
7-Eleven Canada Inc.	328 Speedvale Ave East Guelph ON N1E 1N5	188.1	19
Cornell Animal Hospital	328 Speedvale Ave. E. Guelph ON N1E 1N5	188.1	19
7-Eleven Canada Inc.	328 Speedvale Ave East Guelph ON N1E 1N5	188.1	19
7-Eleven Canada Inc.	328 Speedvale Ave East Guelph ON N1E 1N5	188.1	19
Cornell Animal Hospital	328 Speedvale Ave. E. Guelph ON N1E 1N5	188.1	19
7-Eleven Canada Inc.	328 Speedvale Ave East Guelph ON	188.1	19
7-Eleven Canada Inc.	328 Speedvale Ave East Guelph ON	188.1	19
Upper Grand District School Board	Edward Johnson Public School 397 Stevenson Street North Guelph ON N1E 5C1	230.6	22
1865088 Ontario Ltd	328-386 Speedvale Ave East Guelph ON	245.4	24
1865088 Ontario Ltd	328-386 Speedvale Ave East Guelph ON N1E 6A7	245.4	24

Site	Address	Distance (m)	Map Key
1865088 Ontario Ltd	328-386 Speedvale Ave East Guelph ON N1E 6A7	245.4	24
1865088 Ontario Ltd	328-386 Speedvale Ave East Guelph ON N1E 6A7	245.4	24
1865088 Ontario Ltd	328-386 Speedvale Ave East Guelph ON N1E 6A7	245.4	24
HREIT Corporation 27	328-378 Speedvale Ave E Guelph ON	294.9	30
Huntingdon-Reit	328-378 Speedvale Drive Guelph ON N1E 1N5	294.9	30
328 Speedvale Commercial Centre Inc.	328-378 Speedvale Ave. East Guelph ON N1E 1N5	294.9	30
328 Speedvale Commercial Centre Inc.	328-378 Speedvale Ave. East Guelph ON N1E 1N5	294.9	30
328 Speedvale Commercial Centre Inc.	328-378 Speedvale Ave. East Guelph ON N1E 1N5	294.9	30
ROYAL CLEANERS	358 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	297.4	32
ROYAL CLEANERS 33-163	358 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	297.4	32
ROYAL CLEANERS	358 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	297.4	32
ROBERT LANE INC.	358 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	297.4	32

Site	Address	Distance (m)	Map Key
ROBERT LANE INC.	358 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	297.4	32
ROBERT LANE INC.	358 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	297.4	32
PHARMA PLUS DRUGS LTD	334 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	297.8	33
PHARMA PLUS DRUGS LTD. 31-756	334 SPEEDVALE AVE. E. C/O 5935 AIRPORT ROAD #500 MISSISSAUGA ON L4V 1W5	297.8	33
PHARMA PLUS DRUGS LTD(OUT OF BUSINESS)	334 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	297.8	33

HINC - TSSA Historic Incidents

A search of the HINC database, dated 2006-June 2009* has found that there are 1 HINC site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
	102 EMMA STREET GUELPH ON N1E 1T8	295.9	31

PES - Pesticide Register

A search of the PES database, dated Oct 2011- Apr 30, 2023 has found that there are 4 PES site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
BYRON FOOD MARKET	330 SPEEDVALE AVENUE EAST GUELPH ON N1E1N5	280.2	28
THE BARGAIN! SHOP HOLDINGS INC. (STORE#52961)	328 - 378 SPEEDVALE AVE GUELPH ON N1E1N5	294.9	30

Site	Address	Distance (m)	Map Key
THE BARGAIN! SHOP HOLDINGS INC. (STORE#52961)	328 - 378 SPEEDVALE AVE GUELPH ON N1E 1N5	294.9	30
THE BARGAIN! SHOP HOLDINGS INC. (STORE#52961)	328 - 378 SPEEDVALE AVE GUELPH ON N1E1N5	294.9	30

PINC - Pipeline Incidents

A search of the PINC database, dated Feb 28, 2021 has found that there are 4 PINC site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
ELMRIDGE DR 145 APARTMENT BUILDING	261 SPEEDVALE AVE E,,GUELPH,ON,N1E 1M8,CA ON	201.9	21
PIPELINE HIT - 1 1/4"	261 SPEEDVALE AVE E,,GUELPH,ON,N1E 1M8,CA ON	201.9	21
PIPELINE HIT - 1/2"	7 LILAC PLACE,,GUELPH,ON,N1E 1K2,CA ON	253.4	26
2" Pipeline Hit	343 SPEEDVALE AVENUE EAST,,GUELPH, ON,N1E 1N6,CA ON	283.2	29

PRT - Private and Retail Fuel Storage Tanks

A search of the PRT database, dated 1989-1996* has found that there are 2 PRT site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
BEAVER FUELS MANAGEMENT LIMITED ATTENTION: MIRIAM	324 SPEEDVALE AV E GUELPH ON N1E 1N2	115.0	15
SOUTHLAND CANADA 2830 ATTN MARYANN GRAHOVAC	SPEEDVALE AT STEVENSON GUELPH ON	141.7	16

Site	Address	Distance (m)	Map Key

RST - Retail Fuel Storage Tanks

A search of the RST database, dated 1999-Feb 28, 2023 has found that there are 1 RST site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
BEAVER FUELS	324 SPEEDVALE AVE E GUELPH ON N1E 1N2	115.0	15

SCT - Scott's Manufacturing Directory

A search of the SCT database, dated 1992-Mar 2011* has found that there are 4 SCT site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
D M L CONTROL INC.	317 SPEEDVALE AVE E FLOOR 2 GUELPH ON N1E 1N3	0.0	1
Hench Control International	317 Speedvale Ave E Floor 2 Guelph ON N1E 1N3	0.0	1
DML CONTROL INC.	317 Speedvale Ave E Floor 2 Guelph ON N1E 1N3	0.0	1
Candies of Merritt Ltd.	344 Speedvale Ave E Guelph ON N1E 1N5	297.8	33

SPL - Ontario Spills

A search of the SPL database, dated 1988-Oct 2021 has found that there are 13 SPL site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
Enbridge Gas Inc.	, 310 Speedvale Ave. E Guelph ON	43.3	3

Site	Address	Distance (m)	Map Key
BEAVER GAS STATION	PEEDVALE AVE EAST/STEVENSON ST. SERVICE STATION GUELPH CITY ON	141.7	16
	329 Speedvale Ave E Guelph ON N1E 1N6	159.8	17
The Corporation of the City of Guelph	328 Speedville Ave East Guelph ON	188.1	19
	328 Speedvale Ave East Guelph ON	188.1	19
	Intersection of Gladstone and Speedvale Guelph ON	194.7	20
Union Gas Limited	7 Lilac Place Guelph ON	253.4	26
	330 Speedvale Ave. E. Guelph ON N1E 1N5	280.2	28
	330 Speedvale Ave East Guelph ON	280.2	28
Union Gas Ltd	343 Speedvale Ave East Guelph ON	283.2	29
Unknown<UNOFFICIAL>	378 Speedvale Avenue East, Guelph Guelph ON	294.9	30
Goderich-Exeter Railway Company Limited	behind Bipro plant on 231Speedvale Ave. Guelph ON	298.1	34

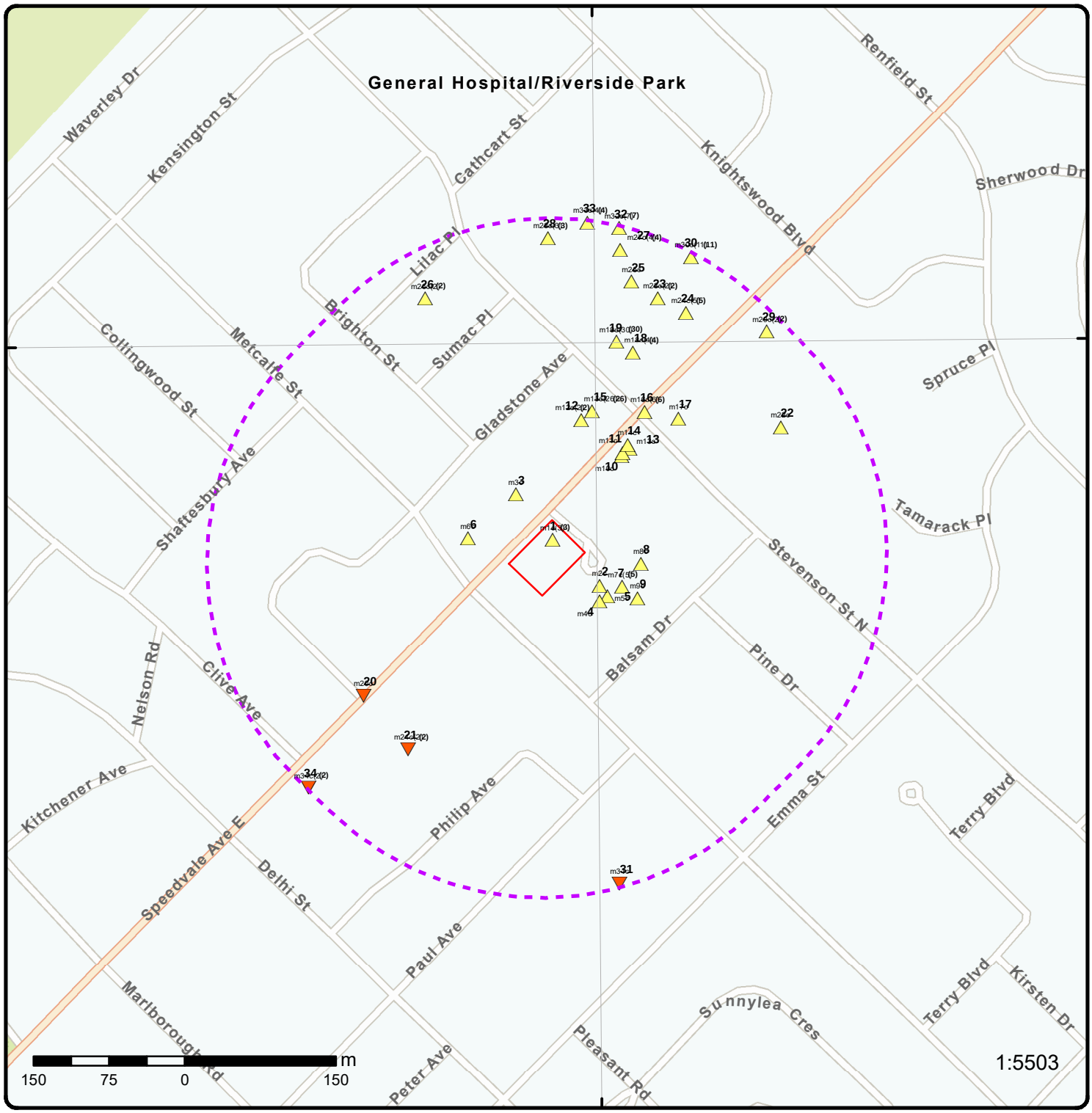
Site	Address	Distance (m)	Map Key
UNION GAS LTD.	231 SPEEDVALE AVE. BYPRO MARKETING (IN FRONT OF) GUELPH CITY ON	298.1	34

WWIS - Water Well Information System

A search of the WWIS database, dated Jun 30 2022 has found that there are 13 WWIS site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
	MANHATTEN COURT Guelph ON ***Well ID:*** 7285393	33.6	2
	324 SPEEDVALE RD Guelph ON ***Well ID:*** 7160549	44.1	4
	328 SPEEDVALE AVENUE EAST Guelph ON ***Well ID:*** 7178069	46.3	5
	328 SPEEDVALE AVENUE EAST Guelph ON ***Well ID:*** 7178067	56.5	8
	328 SPEEDVALE AVENUE EAST Guelph ON ***Well ID:*** 7178068	69.2	9
	323 SPEEDALE AVE E GUELPH ON ***Well ID:*** 7200873	93.7	10
	323 SPEEDVALE AVE E Guelph ON ***Well ID:*** 7278592	96.6	11
	ON ***Well ID:*** 7201213	103.7	12
	323 SPEEDUALE GUELPH ON	104.3	13

Site	Address	Distance (m)	Map Key
	Well ID: 7200872		
	323 SPEEDVALE AVE E Guelph ON	105.8	14
	Well ID: 7278593		
	328 SPEEDVALE AVE EAST Guelph ON	244.3	23
	Well ID: 7357838		
	328 SPEEDVALE AVE EAST Guelph ON	244.3	23
	Well ID: 7357835		
	328 SPEEDVALE AVE E Guelph ON	249.4	25
	Well ID: 7277237		



Map: 0.3 Kilometer Radius

Order Number: 23060200052

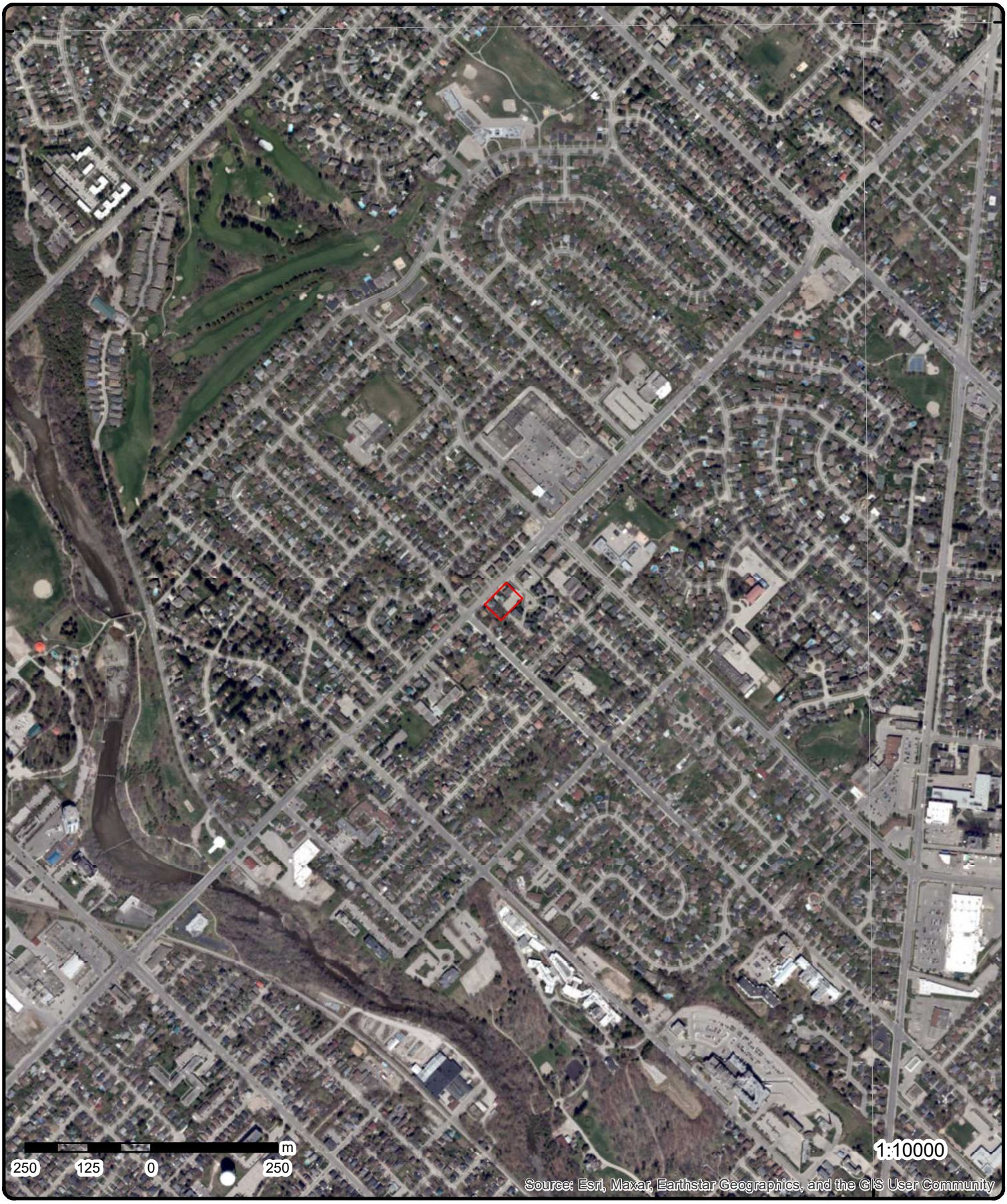
Address: 303, 309 and 317 Speedvale Avenue East, Guelph, ON

- Project Property
- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major Arterial; Minor Arterial
- Local Road
- Service Road; Traffic Circle; Ramp
- Rail
- Beach
- Airport
- Industrial Area
- Military Base
- Aircraft Roads
- Native Reservation
- Hospital
- Shopping & Sports Area
- University/College
- Cemetery; Golf Course
- Parkt (National)
- Park (City/County)

80°15'W

43°34'30"N

43°34'30"N



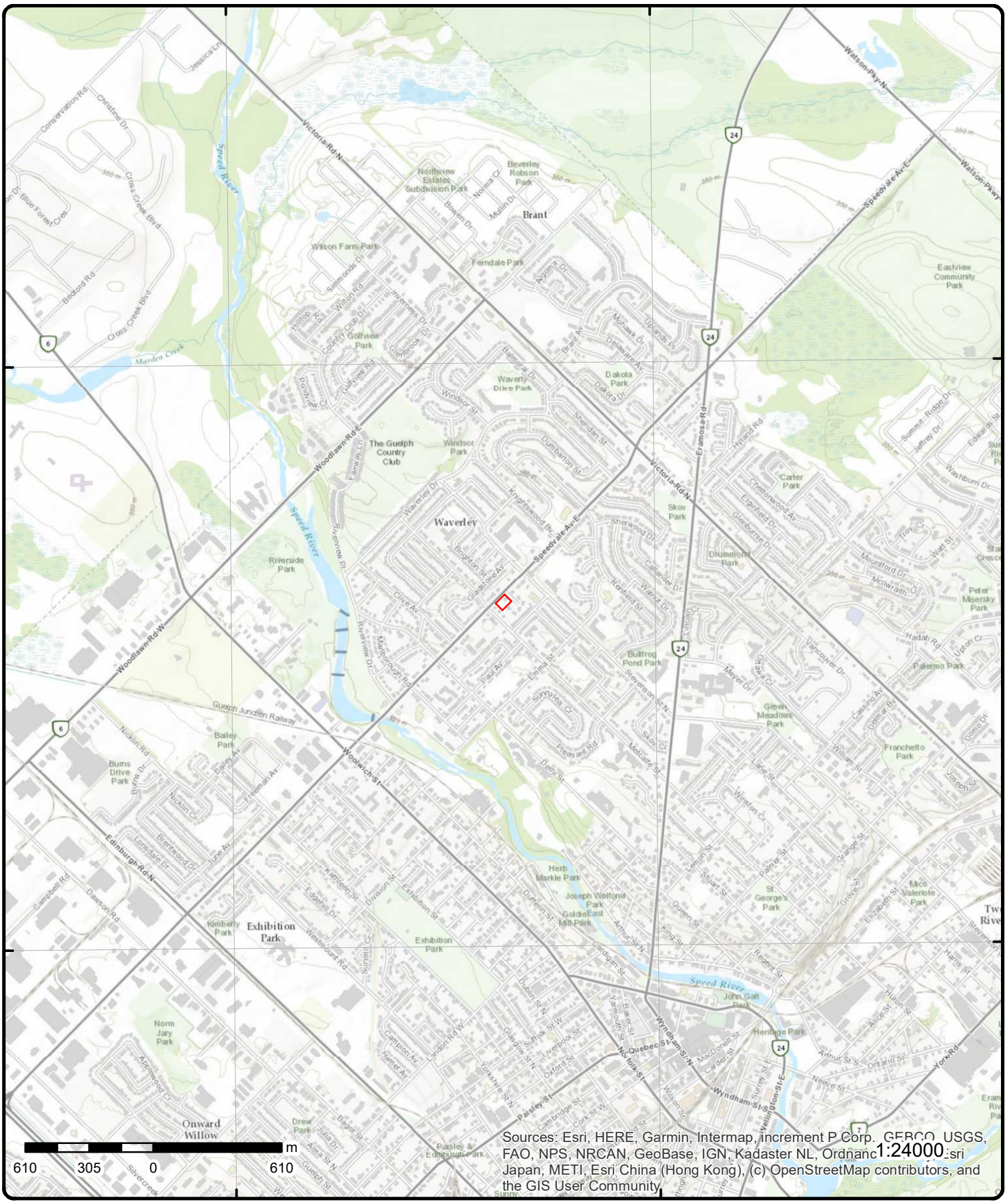
Aerial

Year: 2020

Order Number: 23060200052

Address: 303, 309 and 317 Speedvale Avenue East, Guelph, ON

Source: ESRI World Imagery



Topographic Map

Order Number: 23060200052

Address: 303, 309 and 317 Speedvale Avenue East, ON

Source: ESRI World Topographic Map

Detail Report

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	1 of 3	NNE/0.0	334.9 / 0.73	D M L CONTROL INC. 317 SPEEDVALE AVE E FLOOR 2 GUELPH ON N1E 1N3	SCT

Established: 1993
Plant Size (ft²): 2500
Employment: 8

--Details--
Description: AIR-CONDITIONING AND WARM AIR HEATING EQUIPMENT, AND COMMERCIAL AND INDUSTRIAL REFRIGERATION
SIC/NAICS Code: 3585

Description: WARM AIR HEATING & AIR-CONDITIONING EQUIPMENT AND SUPPLIES
SIC/NAICS Code: 5075

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	2 of 3	NNE/0.0	334.9 / 0.73	DML CONTROL INC. 317 Speedvale Ave E Floor 2 Guelph ON N1E 1N3	SCT

Established: 1993
Plant Size (ft²): 2500
Employment: 8

--Details--
Description: Heating Equipment and Commercial Refrigeration Equipment Manufacturing
SIC/NAICS Code: 333416

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	3 of 3	NNE/0.0	334.9 / 0.73	Hench Control International 317 Speedvale Ave E Floor 2 Guelph ON N1E 1N3	SCT

Established: 1993
Plant Size (ft²): 2500
Employment:

--Details--
Description: Heating Equipment and Commercial Refrigeration Equipment Manufacturing
SIC/NAICS Code: 333416

Description: Measuring, Medical and Controlling Devices Manufacturing
SIC/NAICS Code: 334512

Description: Industrial Machinery, Equipment and Supplies Wholesaler-Distributors
SIC/NAICS Code: 417230

Description: Office and Store Machinery and Equipment Wholesaler-Distributors
SIC/NAICS Code: 417910

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
2	1 of 1	ESE/33.6	334.9 / 0.72	MANHATTEN COURT Guelph ON	WWIS

Well ID:	7285393	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:	Monitoring	**Data Entry Status:**	
Use 2nd:		**Data Src:**	
Final Well Status:	Observation Wells	**Date Received:**	19-Apr-2017 00:00:00
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:	Z228656	**Contractor:**	7564
Tag:	A202202	**Form Version:**	7
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	WELLINGTON
Elevatn Reliabilty:		**Lot:**	
Depth to Bedrock:		**Concession:**	
Well Depth:		**Concession Name:**	
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	GUELPH CITY		
Site Info:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/728\7285393.pdf

Additional Detail(s) (Map)

Well Completed Date:	2016/09/28
Year Completed:	2016
Depth (m):	60.05
Latitude:	43.564492437824
Longitude:	-80.2583305057607
Path:	728\7285393.pdf

Bore Hole Information

Bore Hole ID:	1006382746	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	559896.00
Code OB Desc:		**North83:**	4823771.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	3
Date Completed:	28-Sep-2016 00:00:00	**UTMRC Desc:**	margin of error : 10 - 30 m
Remarks:		**Location Method:**	gis
Loc Method Desc:	from gis		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1006683896
Layer:	3
Color:	
General Color:	
Mat1:	15

Most Common Material: LIMESTONE
Mat2:
Mat2 Desc:
Mat3: 71
Mat3 Desc: FRACTURED
Formation Top Depth: 10.359999656677246
Formation End Depth: 10.970000267028809
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1006683894
Layer: 1
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 11
Mat2 Desc: GRAVEL
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 7.920000076293945
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1006683895
Layer: 2
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 11
Mat2 Desc: GRAVEL
Mat3: 28
Mat3 Desc: SAND
Formation Top Depth: 7.920000076293945
Formation End Depth: 10.359999656677246
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1006683897
Layer: 4
Color: 6
General Color: BROWN
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 10.970000267028809
Formation End Depth: 60.04999923706055
Formation End Depth UOM: m

Method of Construction & Well Use

Method Construction ID: 1006683906
Method Construction Code: 2
Method Construction: Rotary (Convent.)
Other Method Construction:

Pipe Information

Pipe ID: 1006683893
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1006683903
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From: 11.729999542236328
Depth To: 60.04999923706055
Casing Diameter: 15.550000190734863
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Casing

Casing ID: 1006683902
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From: -0.5099999904632568
Depth To: 11.729999542236328
Casing Diameter: 15.550000190734863
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1006683904
Layer: 1
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter:

Water Details

Water ID: 1006683901
Layer: 3
Kind Code: 8
Kind: Untested
Water Found Depth: 45.720001220703125
Water Found Depth UOM: m

Water Details

Water ID: 1006683899

Layer: 1
Kind Code: 8
Kind: Untested
Water Found Depth: 11.600000381469727
Water Found Depth UOM: m

Water Details

Water ID: 1006683900
Layer: 2
Kind Code: 8
Kind: Untested
Water Found Depth: 35.970001220703125
Water Found Depth UOM: m

Hole Diameter

Hole ID: 1006683898
Diameter: 15.550000190734863
Depth From: 0.0
Depth To: 60.04999923706055
Hole Depth UOM: m
Hole Diameter UOM: cm

Links

Bore Hole ID: 1006382746
Depth M: 60.05
Year Completed: 2016
Well Completed Dt: 2016/09/28
Audit No: Z228656
Tag No: A202202
Contractor: 7564
Path: 728\7285393.pdf
Latitude: 43.564492437824
Longitude: -80.2583305057607

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3 | ***1 of 1*** | ***NNW/43.3*** | ***335.7 / 1.56*** | ***Enbridge Gas Inc. , 310 Speedvale Ave. E Guelph ON*** | ***SPL***

Ref No: 8654-BG4QQ5
Site No: NA
Incident Dt: 9/17/2019
Year:
Incident Cause:
Incident Event: Leak/Break
Environment Impact:
Nature of Impact:
MOE Response: No
Dt MOE Arvl on Scn:
MOE Reported Dt: 9/17/2019
Dt Document Closed: 10/24/2019
Municipality No:
System Facility Address:
Contaminant Qty: 0 other - see incident description
Nature of Damage:
Discharger Report:
Material Group:
Health/Env Conseq: 2 - Minor Environment
Agency Involved:
Site Lot:
Site Conc:
Site Geo Ref Accu:
Site Map Datum:
Northing:
Easting:
Client Type: Corporation
Call Report Location Geodata:
Contaminant Code: 35
Contaminant Name: NATURAL GAS (METHANE)
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1: 1075
Receiving Medium:
Receiving Environment: Air
Incident Reason: Operator/Human Error
Incident Summary: TSSA FSB: Enbridge Gas, 1 ¼" plastic main line damaged, made safe
Site Region: West Central

Site Municipality:	Guelph
Activity Preceding Spill:	
Property 2nd Watershed:	
Property Tertiary Watershed:	
Sector Type:	Miscellaneous Communal
SAC Action Class:	TSSA - Fuel Safety Branch - Hydrocarbon Fuel Release/Spill
Source Type:	Pipeline/Components
Site County/District:	County of Wellington
Site Geo Ref Meth:	
Site District Office:	Guelph
Nearest Watercourse:	
Site Name:	Residential<UNOFFICIAL>
Site Address:	, 310 Speedvale Ave. E
Client Name:	Enbridge Gas Inc.

4 **1 of 1** **ESE/44.1** **334.6 / 0.39** **324 SPEEDVALE RD Guelph ON** **WWIS**

Well ID:	7160549	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:	Monitoring	**Data Entry Status:**	
Use 2nd:		**Data Src:**	
Final Well Status:	Test Hole	**Date Received:**	08-Jul-2010 00:00:00
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:	M06506	**Contractor:**	6607
Tag:	A094823	**Form Version:**	5
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	WELLINGTON
Elevatn Reliabilty:		**Lot:**	
Depth to Bedrock:		**Concession:**	
Well Depth:		**Concession Name:**	
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	GUELPH CITY		
Site Info:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/716\7160549.pdf

Additional Detail(s) (Map)

Well Completed Date:	2010/02/17
Year Completed:	2010
Depth (m):	6.6
Latitude:	43.5643573861798
Longitude:	-80.2583321626956
Path:	716\7160549.pdf

Bore Hole Information

Bore Hole ID:	1004560519	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	559876.00
Code OB Desc:		**North83:**	4823725.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:	This is a record from cluster log sheet	**UTMRC:**	4
Date Completed:	18-Feb-2010 00:00:00	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	WWR
Loc Method Desc:			

Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Annular Space/Abandonment Sealing Record

Plug ID: 1004560523
Layer:
Plug From:
Plug To:
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID: 1004560522
Method Construction Code:
Method Construction:
Other Method Construction: BORING

Pipe Information

Pipe ID: 1004560524
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1004560526
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 3.5999999046325684
Casing Diameter:
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1004560525
Layer: 1
Slot:
Screen Top Depth: 3.5999999046325684
Screen End Depth: 6.599999904632568
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter:

Results of Well Yield Testing

Pumping Test Method Desc:
Pump Test ID: 1004560527
Pump Set At:
Static Level: 4.900000095367432

Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: m
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1004560521
Diameter: 21.0
Depth From:
Depth To: 6.599999904632568
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1004560528
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 18-Feb-2010 00:00:00
Remarks:
Loc Method Desc:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83: 559882.00
North83: 4823722.00
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: WWR

Annular Space/Abandonment Sealing Record

Plug ID: 1004560532
Layer:
Plug From:
Plug To:
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID: 1004560531
Method Construction Code:
Method Construction:
Other Method Construction: BORING

Pipe Information

Pipe ID: 1004560533

Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1004560535
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 1.899999976158142
Casing Diameter:
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1004560534
Layer: 1
Slot:
Screen Top Depth: 1.899999976158142
Screen End Depth: 4.900000095367432
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter:

Results of Well Yield Testing

Pumping Test Method Desc:
Pump Test ID: 1004560536
Pump Set At:
Static Level: 4.5
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: m
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1004560530
Diameter: 21.0
Depth From:
Depth To: 4.900000095367432
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1003486621 ***Elevation:***
DP2BR: ***Elevrc:***
Spatial Status: ***Zone:*** 17

Code OB:		***East83:***	559896.00
Code OB Desc:		***North83:***	4823756.00
Open Hole:	No	***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	3
Date Completed:	17-Feb-2010 00:00:00	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1004560539
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	4.5
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	1004560540
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	11
Most Common Material:	GRAVEL
Mat2:	28
Mat2 Desc:	SAND
Mat3:	
Mat3 Desc:	
Formation Top Depth:	4.5
Formation End Depth:	6.599999904632568
Formation End Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	1004560543
Layer:	2
Plug From:	3.5999999046325684
Plug To:	6.599999904632568
Plug Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	1004560542
Layer:	1

Plug From: 0.0
Plug To: 3.5999999046325684
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID: 1004560548
Method Construction Code: 6
Method Construction: Boring
Other Method Construction:

Pipe Information

Pipe ID: 1004560537
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1004560545
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0.0
Depth To: 6.599999904632568
Casing Diameter: 5.099999904632568
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1004560546
Layer: 1
Slot: 10
Screen Top Depth:
Screen End Depth:
Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter: 6.400000095367432

Results of Well Yield Testing

Pumping Test Method Desc:
Pump Test ID: 1004560538
Pump Set At:
Static Level: 4.199999809265137
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: m
Rate UOM:
Water State After Test Code: 0
Water State After Test:
Pumping Test Method: 0
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Water Details

Water ID:	1004560544
Layer:	1
Kind Code:	
Kind:	
Water Found Depth:	5.099999904632568
Water Found Depth UOM:	m

Hole Diameter

Hole ID:	1004560541
Diameter:	21.0
Depth From:	0.0
Depth To:	6.599999904632568
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Links

Bore Hole ID:	1003486621	***Tag No:***	A094823
Depth M:	6.6	***Contractor:***	6607
Year Completed:	2010	***Path:***	716\7160549.pdf
Well Completed Dt:	2010/02/17	***Latitude:***	43.5643573861798
Audit No:	M06506	***Longitude:***	-80.2583321626956

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5 ***1 of 1*** ***ESE/46.3*** ***334.6 / 0.39*** ***328 SPEEDVALE AVENUE EAST Guelph ON*** ***WWIS***

Well ID:	7178069	***Flowing (Y/N):***	
Construction Date:		***Flow Rate:***	
Use 1st:	Monitoring	***Data Entry Status:***	
Use 2nd:		***Data Src:***	
Final Well Status:	Observation Wells	***Date Received:***	14-Mar-2012 00:00:00
Water Type:		***Selected Flag:***	TRUE
Casing Material:		***Abandonment Rec:***	
Audit No:	Z130566	***Contractor:***	6607
Tag:	A126153	***Form Version:***	7
Constructn Method:		***Owner:***	
Elevation (m):		***County:***	WELLINGTON
Elevatn Reliabilty:		***Lot:***	
Depth to Bedrock:		***Concession:***	
Well Depth:		***Concession Name:***	
Overburden/Bedrock:		***Easting NAD83:***	
Pump Rate:		***Northing NAD83:***	
Static Water Level:		***Zone:***	
Clear/Cloudy:		***UTM Reliability:***	
Municipality:	GUELPH TOWNSHIP		
Site Info:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/717\7178069.pdf

Additional Detail(s) (Map)

Well Completed Date:	2012/02/09
Year Completed:	2012
Depth (m):	4.5
Latitude:	43.5644017607587
Longitude:	-80.2582325577339
Path:	717\7178069.pdf

Bore Hole Information

Bore Hole ID:	1003703879	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	559904.00
Code OB Desc:		***North83:***	4823761.00
Open Hole:		***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	4
Date Completed:	09-Feb-2012 00:00:00	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1004193426
Layer:	3
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	28
Mat2 Desc:	SAND
Mat3:	66
Mat3 Desc:	DENSE
Formation Top Depth:	3.0
Formation End Depth:	4.5
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	1004193424
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	11
Mat2 Desc:	GRAVEL
Mat3:	01
Mat3 Desc:	FILL
Formation Top Depth:	0.0
Formation End Depth:	0.8999999761581421
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	1004193425
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND

Mat2: 06
Mat2 Desc: SILT
Mat3:
Mat3 Desc:
Formation Top Depth: 0.8999999761581421
Formation End Depth: 3.0
Formation End Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1004193434
Layer: 2
Plug From: 0.30000001192092896
Plug To: 1.2000000476837158
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1004193433
Layer: 1
Plug From: 0.0
Plug To: 0.30000001192092896
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID: 1004193432
Method Construction Code: 6
Method Construction: Boring
Other Method Construction:

Pipe Information

Pipe ID: 1004193423
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1004193429
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0.0
Depth To: 1.5
Casing Diameter: 5.099999904632568
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1004193430
Layer: 1
Slot: 20
Screen Top Depth: 1.5
Screen End Depth: 4.5
Screen Material: 5

Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter: 6.400000095367432

Water Details

Water ID: 1004193428
Layer:
Kind Code:
Kind:
Water Found Depth:
Water Found Depth UOM: m

Hole Diameter

Hole ID: 1004193427
Diameter: 21.0
Depth From: 0.0
Depth To: 4.5
Hole Depth UOM: m
Hole Diameter UOM: cm

Links

Bore Hole ID: 1003703879
Depth M: 4.5
Year Completed: 2012
Well Completed Dt: 2012/02/09
Audit No: Z130566
Tag No: A126153
Contractor: 6607
Path: 717\7178069.pdf
Latitude: 43.5644017607587
Longitude: -80.2582325577339

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6 | **1 of 1** | **W/47.7** | **334.8 / 0.61** | **300 Speedvale Ave E Guelph ON N1E 1N2** | **EHS**

Order No: 20130315011
Status: C
Report Type: Custom Report
Report Date: 25-MAR-13
Date Received: 15-MAR-13
Previous Site Name:
Lot/Building Size:
Additional Info Ordered: Fire Insur. Maps and/or Site Plans; Aerial Photos
Nearest Intersection:
Municipality: Guelph Ontario
Client Prov/State: ON
Search Radius (km): .1
X: 0
Y: 0

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7 | **1 of 5** | **ESE/50.4** | **334.9 / 0.69** | **7, 8, 9, 10 and 11 Manhattan Court Guelph ON** | **EHS**

Order No: 20091222014
Status: C
Report Type: Custom Report
Report Date: 12/30/2009
Date Received: 12/22/2009
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:
Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): 0.25
X: -80.258123
Y: 43.564635

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7 | **2 of 5** | **ESE/50.4** | **334.9 / 0.69** | **7, 9, 10 and 11 Manhattan Court Guelph ON N1E 3W1** | **EHS**

Order No: 21030100415
Status: C
Nearest Intersection:
Municipality:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Report Type:	Standard Report			**Client Prov/State:**	ON
Report Date:	04-MAR-21			**Search Radius (km):**	.25
Date Received:	01-MAR-21			**X:**	-80.25805
Previous Site Name:				**Y:**	43.5644825
Lot/Building Size:					
Additional Info Ordered:					

7	3 of 5	ESE/50.4	334.9 / 0.69	7, 9, 10 and 11 Manhattan Court Guelph ON N1E 3W1	EHS

Order No:	21030100415	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	04-MAR-21	**Search Radius (km):**	.25
Date Received:	01-MAR-21	**X:**	-80.25805
Previous Site Name:		**Y:**	43.5644825
Lot/Building Size:			
Additional Info Ordered:			

7	4 of 5	ESE/50.4	334.9 / 0.69	7, 9, 10 and 11 Manhattan Court Guelph ON N1E 3W1	EHS

Order No:	21030100415	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	04-MAR-21	**Search Radius (km):**	.25
Date Received:	01-MAR-21	**X:**	-80.25805
Previous Site Name:		**Y:**	43.5644825
Lot/Building Size:			
Additional Info Ordered:			

7	5 of 5	ESE/50.4	334.9 / 0.69	7, 9, 10 and 11 Manhattan Court Guelph ON N1E 3W1	EHS

Order No:	21030100415	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	04-MAR-21	**Search Radius (km):**	.25
Date Received:	01-MAR-21	**X:**	-80.25805
Previous Site Name:		**Y:**	43.5644825
Lot/Building Size:			
Additional Info Ordered:			

8	1 of 1	E/56.5	334.9 / 0.69	328 SPEEDVALE AVENUE EAST Guelph ON	WWIS

Well ID:	7178067	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:	Monitoring and Test Hole	**Data Entry Status:**	
Use 2nd:	0	**Data Src:**	
Final Well Status:	Observation Wells	**Date Received:**	14-Mar-2012 00:00:00
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:	Z130565	**Contractor:**	6607
Tag:	A126313	**Form Version:**	7
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	WELLINGTON
Elevatn Reliabilty:		**Lot:**	
Depth to Bedrock:		**Concession:**	

Well Depth:		**Concession Name:**	
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	GUELPH TOWNSHIP		
Site Info:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/717\7178067.pdf

Additional Detail(s) (Map)

Well Completed Date:	2012/02/09
Year Completed:	2012
Depth (m):	5.1
Latitude:	43.5646872191126
Longitude:	-80.2578204283461
Path:	717\7178067.pdf

Bore Hole Information

Bore Hole ID:	1003703876	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	559937.00
Code OB Desc:		**North83:**	4823793.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	09-Feb-2012 00:00:00	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1004193400
Layer:	3
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	06
Mat2 Desc:	SILT
Mat3:	77
Mat3 Desc:	LOOSE
Formation Top Depth:	2.700000047683716
Formation End Depth:	5.099999904632568
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	1004193399
Layer:	2
Color:	2
General Color:	GREY

Mat1: 06
Most Common Material: SILT
Mat2: 28
Mat2 Desc: SAND
Mat3: 73
Mat3 Desc: HARD
Formation Top Depth: 2.0999999046325684
Formation End Depth: 2.700000047683716
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1004193398
Layer: 1
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 06
Mat2 Desc: SILT
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 2.0999999046325684
Formation End Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1004193409
Layer: 2
Plug From: 0.30000001192092896
Plug To: 3.0
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1004193408
Layer: 1
Plug From: 0.0
Plug To: 0.30000001192092896
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID: 1004193407
Method Construction Code: 6
Method Construction: Boring
Other Method Construction:

Pipe Information

Pipe ID: 1004193397
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1004193403
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0.0
Depth To: 1.0
Casing Diameter: 5.099999904632568
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1004193404
Layer: 1
Slot: 20
Screen Top Depth: 2.0999999046325684
Screen End Depth: 5.099999904632568
Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter: 6.400000095367432

Water Details

Water ID: 1004193402
Layer:
Kind Code:
Kind:
Water Found Depth:
Water Found Depth UOM: m

Hole Diameter

Hole ID: 1004193401
Diameter: 21.0
Depth From: 0.0
Depth To: 5.099999904632568
Hole Depth UOM: m
Hole Diameter UOM: cm

Links

Bore Hole ID: 1003703876
Depth M: 5.1
Year Completed: 2012
Well Completed Dt: 2012/02/09
Audit No: Z130565
Tag No: A126313
Contractor: 6607
Path: 717\7178067.pdf
Latitude: 43.5646872191126
Longitude: -80.2578204283461

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9 ***1 of 1*** ***ESE/69.2*** ***334.9 / 0.69*** ***328 SPEEDVALE AVENUE EAST Guelph ON*** ***WWIS***

Well ID: 7178068
Construction Date:
Use 1st: Monitoring
Use 2nd:
Final Well Status: Observation Wells
Water Type:
Casing Material:
Audit No: Z130564
Tag: A126245
Constructn Method:
Flowing (Y/N):
Flow Rate:
Data Entry Status:
Data Src:
Date Received: 14-Mar-2012 00:00:00
Selected Flag: TRUE
Abandonment Rec:
Contractor: 6607
Form Version: 7
Owner:

Elevation (m):		**County:**	WELLINGTON
Elevatn Reliabilty:		**Lot:**	
Depth to Bedrock:		**Concession:**	
Well Depth:		**Concession Name:**	
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	GUELPH TOWNSHIP		
Site Info:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/717\7178068.pdf

Additional Detail(s) (Map)

Well Completed Date:	2012/02/09
Year Completed:	2012
Depth (m):	5.1
Latitude:	43.5643813432248
Longitude:	-80.2578613313849
Path:	717\7178068.pdf

Bore Hole Information

Bore Hole ID:	1003701057	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	559934.00
Code OB Desc:		**North83:**	4823759.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	09-Feb-2012 00:00:00	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1004193411
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	11
Mat2 Desc:	GRAVEL
Mat3:	01
Mat3 Desc:	FILL
Formation Top Depth:	0.0
Formation End Depth:	0.6000000238418579
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	1004193413

Layer: 3
Color: 2
General Color: GREY
Mat1: 06
Most Common Material: SILT
Mat2: 28
Mat2 Desc: SAND
Mat3: 85
Mat3 Desc: SOFT
Formation Top Depth: 2.0999999046325684
Formation End Depth: 3.299999952316284
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1004193412
Layer: 2
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 06
Mat2 Desc: SILT
Mat3: 66
Mat3 Desc: DENSE
Formation Top Depth: 0.6000000238418579
Formation End Depth: 2.0999999046325684
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1004193414
Layer: 4
Color: 2
General Color: GREY
Mat1: 06
Most Common Material: SILT
Mat2: 28
Mat2 Desc: SAND
Mat3: 66
Mat3 Desc: DENSE
Formation Top Depth: 3.299999952316284
Formation End Depth: 5.099999904632568
Formation End Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1004193422
Layer: 2
Plug From: 0.30000001192092896
Plug To: 3.0
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1004193421
Layer: 1
Plug From: 0.0

Plug To: 0.30000001192092896
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID: 1004193420
Method Construction Code: 6
Method Construction: Boring
Other Method Construction:

Pipe Information

Pipe ID: 1004193410
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1004193417
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0.0
Depth To: 2.0999999046325684
Casing Diameter: 5.099999904632568
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1004193418
Layer: 1
Slot: 20
Screen Top Depth: 2.0999999046325684
Screen End Depth: 5.099999904632568
Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter: 6.400000095367432

Water Details

Water ID: 1004193416
Layer:
Kind Code:
Kind:
Water Found Depth:
Water Found Depth UOM: m

Hole Diameter

Hole ID: 1004193415
Diameter: 21.0
Depth From: 0.0
Depth To: 5.099999904632568
Hole Depth UOM: m
Hole Diameter UOM: cm

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Links

Bore Hole ID:	1003701057	***Tag No:***	A126245
Depth M:	5.1	***Contractor:***	6607
Year Completed:	2012	***Path:***	717\7178068.pdf
Well Completed Dt:	2012/02/09	***Latitude:***	43.5643813432248
Audit No:	Z130564	***Longitude:***	-80.2578613313849

10 ***1 of 1*** ***NE/93.7*** ***335.6 / 1.39*** ***323 SPEEDALE AVE E GUELPH ON*** ***WWIS***

Well ID:	7200873	***Flowing (Y/N):***	
Construction Date:		***Flow Rate:***	
Use 1st:	Monitoring	***Data Entry Status:***	
Use 2nd:		***Data Src:***	
Final Well Status:	Observation Wells	***Date Received:***	30-Apr-2013 00:00:00
Water Type:		***Selected Flag:***	TRUE
Casing Material:		***Abandonment Rec:***	
Audit No:	Z095135	***Contractor:***	6607
Tag:	A141601	***Form Version:***	7
Constructn Method:		***Owner:***	
Elevation (m):		***County:***	WELLINGTON
Elevatn Reliabilty:		***Lot:***	
Depth to Bedrock:		***Concession:***	
Well Depth:		***Concession Name:***	
Overburden/Bedrock:		***Easting NAD83:***	
Pump Rate:		***Northing NAD83:***	
Static Water Level:		***Zone:***	
Clear/Cloudy:		***UTM Reliability:***	
Municipality:	GUELPH TOWNSHIP		
Site Info:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/720\7200873.pdf

Additional Detail(s) (Map)

Well Completed Date:	2012/11/29
Year Completed:	2012
Depth (m):	6.7
Latitude:	43.5656521142972
Longitude:	-80.2580438552235
Path:	720\7200873.pdf

Bore Hole Information

Bore Hole ID:	1004278330	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	559918.00
Code OB Desc:		***North83:***	4823900.00
Open Hole:		***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	4
Date Completed:	29-Nov-2012 00:00:00	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1004846981
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	06
Mat2 Desc:	SILT
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	6.699999809265137
Formation End Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	1004846989
Layer:	2
Plug From:	0.30000001192092896
Plug To:	3.200000047683716
Plug Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	1004846988
Layer:	1
Plug From:	0.0
Plug To:	0.30000001192092896
Plug Depth UOM:	m

Method of Construction & Well Use

Method Construction ID:	1004846987
Method Construction Code:	6
Method Construction:	Boring
Other Method Construction:	

Pipe Information

Pipe ID:	1004846980
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1004846984
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0.0
Depth To:	3.700000047683716
Casing Diameter:	5.099999904632568
Casing Diameter UOM:	cm
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1004846985
Layer:	1
Slot:	10
Screen Top Depth:	3.700000047683716
Screen End Depth:	6.699999809265137
Screen Material:	5
Screen Depth UOM:	m
Screen Diameter UOM:	cm
Screen Diameter:	6.400000095367432

Water Details

Water ID:	1004846983
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	5.199999809265137
Water Found Depth UOM:	m

Hole Diameter

Hole ID:	1004846982
Diameter:	21.0
Depth From:	0.0
Depth To:	6.699999809265137
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Links

Bore Hole ID:	1004278330	***Tag No:***	A141601
Depth M:	6.7	***Contractor:***	6607
Year Completed:	2012	***Path:***	720\7200873.pdf
Well Completed Dt:	2012/11/29	***Latitude:***	43.5656521142972
Audit No:	Z095135	***Longitude:***	-80.2580438552235

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11 ***1 of 1*** ***NE/96.6*** ***335.6 / 1.39*** ***323 SPEEDVALE AVE E Guelph ON*** ***WWIS***

Well ID:	7278592	***Flowing (Y/N):***	
Construction Date:		***Flow Rate:***	
Use 1st:	Monitoring	***Data Entry Status:***	
Use 2nd:		***Data Src:***	
Final Well Status:	Abandoned-Other	***Date Received:***	10-Jan-2017 00:00:00
Water Type:		***Selected Flag:***	TRUE
Casing Material:		***Abandonment Rec:***	Yes
Audit No:	Z240418	***Contractor:***	6607
Tag:	A141601	***Form Version:***	7
Constructn Method:		***Owner:***	
Elevation (m):		***County:***	WELLINGTON
Elevatn Reliabilty:		***Lot:***	
Depth to Bedrock:		***Concession:***	
Well Depth:		***Concession Name:***	
Overburden/Bedrock:		***Easting NAD83:***	
Pump Rate:		***Northing NAD83:***	
Static Water Level:		***Zone:***	
Clear/Cloudy:		***UTM Reliability:***	
Municipality:	GUELPH TOWNSHIP		
Site Info:			

PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date: 2016/11/30
Year Completed: 2016
Depth (m):
Latitude: 43.5656790442605
Longitude: -80.2580311418514
Path:

Bore Hole Information

Bore Hole ID: 1006330097
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 30-Nov-2016 00:00:00
Remarks:
Loc Method Desc: on Water Well Record
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83: 559919.00
North83: 4823903.00
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1006487454
Layer:
Color:
General Color:
Mat1:
Most Common Material:
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth:
Formation End Depth:
Formation End Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1006487461
Layer: 1
Plug From:
Plug To:
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1006487462
Layer: 1
Plug From: 0.10000000149011612

Plug To:	6.599999904632568
Plug Depth UOM:	m

Method of Construction & Well Use

Method Construction ID:	1006487460
Method Construction Code:	6
Method Construction:	Boring
Other Method Construction:	

Pipe Information

Pipe ID:	1006487453
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1006487457
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0.10000000149011612
Depth To:	3.5999999046325684
Casing Diameter:	5.099999904632568
Casing Diameter UOM:	cm
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1006487458
Layer:	1
Slot:	10
Screen Top Depth:	3.5999999046325684
Screen End Depth:	6.599999904632568
Screen Material:	5
Screen Depth UOM:	m
Screen Diameter UOM:	cm
Screen Diameter:	6.400000095367432

Water Details

Water ID:	1006487456
Layer:	1
Kind Code:	8
Kind:	Untested
Water Found Depth:	5.099999904632568
Water Found Depth UOM:	m

Hole Diameter

Hole ID:	1006487455
Diameter:	21.0
Depth From:	0.0
Depth To:	6.599999904632568
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Links

Bore Hole ID:	1006330097	***Tag No:***	A141601
Depth M:		***Contractor:***	6607
Year Completed:	2016	***Path:***	
Well Completed Dt:	2016/11/30	***Latitude:***	43.5656790442605
Audit No:	Z240418	***Longitude:***	-80.2580311418514

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12 ***1 of 2*** ***NNE/103.7*** ***334.7 / 0.58*** ***320 Speedvale Ave E Guelph ON N1E 1N2*** ***EHS***

Order No:	20130403042	***Nearest Intersection:***	
Status:	C	***Municipality:***	
Report Type:	Site Report	***Client Prov/State:***	ON
Report Date:	04-APR-13	***Search Radius (km):***	.001
Date Received:	03-APR-13	***X:***	0
Previous Site Name:		***Y:***	0
Lot/Building Size:			
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans; City Directory; Aerial Photos		

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12 ***2 of 2*** ***NNE/103.7*** ***334.7 / 0.58*** ***ON*** ***WWIS***

Well ID:	7201213	***Flowing (Y/N):***	
Construction Date:		***Flow Rate:***	
Use 1st:		***Data Entry Status:***	Yes
Use 2nd:		***Data Src:***	
Final Well Status:		***Date Received:***	03-May-2013 00:00:00
Water Type:		***Selected Flag:***	TRUE
Casing Material:		***Abandonment Rec:***	
Audit No:	C20826	***Contractor:***	6607
Tag:	A141471	***Form Version:***	8
Constructn Method:		***Owner:***	
Elevation (m):		***County:***	WELLINGTON
Elevatn Reliabilty:		***Lot:***	
Depth to Bedrock:		***Concession:***	
Well Depth:		***Concession Name:***	
Overburden/Bedrock:		***Easting NAD83:***	
Pump Rate:		***Northing NAD83:***	
Static Water Level:		***Zone:***	
Clear/Cloudy:		***UTM Reliability:***	
Municipality:	GUELPH TOWNSHIP		
Site Info:			

PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date:	2013/03/07
Year Completed:	2013
Depth (m):	
Latitude:	43.5659794513924
Longitude:	-80.2585351530019
Path:	

Bore Hole Information

Bore Hole ID:	1004284772	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	559878.00
Code OB Desc:		***North83:***	4823936.00

Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	07-Mar-2013 00:00:00	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Links

Bore Hole ID:	1004284772	**Tag No:**	A141471
Depth M:		**Contractor:**	6607
Year Completed:	2013	**Path:**	
Well Completed Dt:	2013/03/07	**Latitude:**	43.5659794513924
Audit No:	C20826	**Longitude:**	-80.2585351530019

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13 | ***1 of 1*** | ***NE/104.3*** | ***335.6 / 1.39*** | ***323 SPEEDUALE GUELPH ON*** | ***WWIS***

Well ID:	7200872	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:	Monitoring	**Data Entry Status:**	
Use 2nd:		**Data Src:**	
Final Well Status:	Observation Wells	**Date Received:**	30-Apr-2013 00:00:00
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:	Z095137	**Contractor:**	6607
Tag:	A134058	**Form Version:**	7
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	WELLINGTON
Elevatn Reliabilty:		**Lot:**	
Depth to Bedrock:		**Concession:**	
Well Depth:		**Concession Name:**	
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	GUELPH TOWNSHIP		
Site Info:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/720\7200872.pdf

Additional Detail(s) (Map)

Well Completed Date:	2012/11/29
Year Completed:	2012
Depth (m):	6.7
Latitude:	43.5657144954783
Longitude:	-80.2579440268573
Path:	720\7200872.pdf

Bore Hole Information

Bore Hole ID:	1004278327	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	559926.00
Code OB Desc:		**North83:**	4823907.00

Open Hole:
Cluster Kind:
Date Completed: 29-Nov-2012 00:00:00
Remarks:
Loc Method Desc: on Water Well Record
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1004846970
Layer: 1
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 06
Mat2 Desc: SILT
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 6.699999809265137
Formation End Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1004846978
Layer: 1
Plug From: 0.0
Plug To: 0.30000001192092896
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1004846979
Layer: 2
Plug From: 0.30000001192092896
Plug To: 3.200000047683716
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID: 1004846977
Method Construction Code: 6
Method Construction: Boring
Other Method Construction:

Pipe Information

Pipe ID: 1004846969
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID:	1004846974
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0.0
Depth To:	3.700000047683716
Casing Diameter:	6.099999904632568
Casing Diameter UOM:	cm
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1004846975
Layer:	1
Slot:	10
Screen Top Depth:	3.069999933242798
Screen End Depth:	6.699999809265137
Screen Material:	5
Screen Depth UOM:	m
Screen Diameter UOM:	cm
Screen Diameter:	6.400000095367432

Water Details

Water ID:	1004846973
Layer:	2
Kind Code:	
Kind:	
Water Found Depth:	
Water Found Depth UOM:	m

Water Details

Water ID:	1004846972
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	5.199999809265137
Water Found Depth UOM:	m

Hole Diameter

Hole ID:	1004846971
Diameter:	21.0
Depth From:	0.0
Depth To:	6.699999809265137
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Links

Bore Hole ID:	1004278327	***Tag No:***	A134058
Depth M:	6.7	***Contractor:***	6607
Year Completed:	2012	***Path:***	720\7200872.pdf
Well Completed Dt:	2012/11/29	***Latitude:***	43.5657144954783
Audit No:	Z095137	***Longitude:***	-80.2579440268573

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
14	1 of 1	NE/105.8	335.6 / 1.39	323 SPEEDVALE AVE E Guelph ON	WWIS

Well ID: 7278593
Construction Date:
Use 1st: Monitoring
Use 2nd:
Final Well Status: Abandoned-Other
Water Type:
Casing Material:
Audit No: Z240417
Tag: A134058
Constructn Method:
Elevation (m):
Elevatn Reliabilty:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Clear/Cloudy:
Municipality: GUELPH TOWNSHIP
Site Info:

Flowing (Y/N):
Flow Rate:
Data Entry Status:
Data Src:
Date Received: 10-Jan-2017 00:00:00
Selected Flag: TRUE
Abandonment Rec: Yes
Contractor: 6607
Form Version: 7
Owner:
County: WELLINGTON
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date: 2016/11/30
Year Completed: 2016
Depth (m):
Latitude: 43.5657506699723
Longitude: -80.2579683484704
Path:

Bore Hole Information

Bore Hole ID: 1006330100
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 30-Nov-2016 00:00:00
Remarks:
Loc Method Desc: on Water Well Record
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83: 559924.00
North83: 4823911.00
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1006487464
Layer:
Color:
General Color:
Mat1:
Most Common Material:

Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth:
Formation End Depth:
Formation End Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1006487471
Layer: 1
Plug From:
Plug To:
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1006487472
Layer: 1
Plug From: 0.10000000149011612
Plug To: 6.599999904632568
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID: 1006487470
Method Construction Code: 6
Method Construction: Boring
Other Method Construction:

Pipe Information

Pipe ID: 1006487463
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1006487467
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0.10000000149011612
Depth To: 3.5999999046325684
Casing Diameter: 5.099999904632568
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1006487468
Layer: 1
Slot: 10
Screen Top Depth: 3.5999999046325684
Screen End Depth: 6.599999904632568
Screen Material: 5

Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter: 6.400000095367432

Water Details

Water ID: 1006487466
Layer: 1
Kind Code: 8
Kind: Untested
Water Found Depth: 4.800000190734863
Water Found Depth UOM: m

Hole Diameter

Hole ID: 1006487465
Diameter: 21.0
Depth From: 0.0
Depth To: 6.599999904632568
Hole Depth UOM: m
Hole Diameter UOM: cm

Links

Bore Hole ID: 1006330100
Depth M:
Year Completed: 2016
Well Completed Dt: 2016/11/30
Audit No: Z240417
Tag No: A134058
Contractor: 6607
Path:
Latitude: 43.5657506699723
Longitude: -80.2579683484704

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15 | ***1 of 26*** | ***NNE/115.0*** | ***334.7 / 0.58*** | ***BEAVER FUELS MANAGEMENT LIMITED***
ATTENTION: MIRIAM
324 SPEEDVALE AV E
GUELPH ON N1E 1N2 | ***PRT***

Location ID: 5649
Type: retail
Expiry Date: 1995-05-31
Capacity (L): 81600
Licence #: 0048126001

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15 | ***2 of 26*** | ***NNE/115.0*** | ***334.7 / 0.58*** | ***BEAVER FUELS***
324 SPEEDVALE AVE E
GUELPH ON N1E 1N2 | ***RST***

Headcode: 1186800
Headcode Desc: Service Stations-Gasoline, Oil & Natural Gas
Phone: 5198248233
List Name:
Description:

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15 | ***3 of 26*** | ***NNE/115.0*** | ***334.7 / 0.58*** | ***1348083 ONTARIO LTD O/A GAS STN***
324 SPEEDVALE AV E
GUELPH ON N1E 1N2 | ***FSTH***

License Issue Date: 3/2/2006
Tank Status: Licensed
Tank Status As Of: August 2007
Operation Type: Retail Fuel Outlet

Facility Type: Gasoline Station - Full Serve

--Details--
Status: Removed
Year of Installation: 1984
Corrosion Protection:
Capacity: 22730
Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline

Status: Removed
Year of Installation: 1984
Corrosion Protection:
Capacity: 9000
Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline

Status: Removed
Year of Installation: 1984
Corrosion Protection:
Capacity: 13600
Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline

Status: Removed
Year of Installation: 1984
Corrosion Protection:
Capacity: 22730
Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline

Status: Removed
Year of Installation: 1984
Corrosion Protection:
Capacity: 13600
Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
15	4 of 26	NNE/115.0	334.7 / 0.58	1348083 ONTARIO LTD O/A GAS STN 324 SPEEDVALE AV E GUELPH ON N1E 1N2	FSTH

License Issue Date: 3/2/2006 10:48:00 AM
Tank Status: Licensed
Tank Status As Of: December 2008
Operation Type: Retail Fuel Outlet
Facility Type: Gasoline Station - Full Serve

--Details--
Status: Active
Year of Installation: 1996
Corrosion Protection:
Capacity: 50000
Tank Fuel Type: Liquid Fuel Double Wall UST - Gasoline

Status: Active
Year of Installation: 1996
Corrosion Protection:
Capacity: 25000
Tank Fuel Type: Liquid Fuel Double Wall UST - Gasoline

Status: Active
Year of Installation: 1996
Corrosion Protection:
Capacity: 25000
Tank Fuel Type: Liquid Fuel Double Wall UST - Gasoline

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
15	5 of 26	NNE/115.0	334.7 / 0.58	1348083 ONTARIO LTD O/A GAS STN 324 SPEEDVALE AV E GUELPH ON	DTNK

Delisted Expired Fuel Safety Facilities

Instance No:	11353950	***Expired Date:***	
Status:	EXPIRED	***Max Hazard Rank:***	
Instance ID:	79532	***Facility Location:***	
Instance Type:	FS Piping	***Facility Type:***	
Instance Creation Dt:		***Fuel Type 2:***	
Instance Install Dt:		***Fuel Type 3:***	
Item Description:		***Panam Related:***	
Manufacturer:		***Panam Venue Nm:***	
Model:		***External Identifier:***	
Serial No:		***Item:***	
ULC Standard:		***Piping Steel:***	
Quantity:		***Piping Galvanized:***	
Unit of Measure:		***Tank Single Wall St:***	
Overfill Prot Type:		***Piping Underground:***	
Creation Date:		***Tank Underground:***	
Next Periodic Str DT:		***Source:***	
TSSA Base Sched Cycle 2:			
TSSAMax Hazard Rank 1:			
TSSA Risk Based Periodic Yn:			
TSSA Volume of Directives:			
TSSA Periodic Exempt:			
TSSA Statutory Interval:			
TSSA Recd Insp Interva:			
TSSA Recd Tolerance:			
TSSA Program Area:			
TSSA Program Area 2:			
Description:	FS Piping		
Original Source:	EXP		
Record Date:	Up to Mar 2012		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
15	6 of 26	NNE/115.0	334.7 / 0.58	Shell Canada Products 324 Speedvale Ave E Guelph ON N1E 1N2	GEN

Generator No:	ON8412668
SIC Code:	447110
SIC Description:	Gasoline Stations with Convenience Stores
Approval Years:	2010
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	221
Waste Class Name:	LIGHT FUELS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
15	7 of 26	NNE/115.0	334.7 / 0.58	Shell Canada Products 324 Speedvale Ave E Guelph ON N1E 1N2	GEN

Generator No: ON8412668
SIC Code: 447110
SIC Description: Gasoline Stations with Convenience Stores
Approval Years: 2011
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 221
Waste Class Name: LIGHT FUELS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
15	8 of 26	NNE/115.0	334.7 / 0.58	1348083 ONTARIO LTD O/A GAS STN 324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	DTNK

Delisted Expired Fuel Safety Facilities

Instance No: 11588823
Status: EXPIRED
Instance ID:
Instance Type:
Instance Creation Dt: 7/19/2000 8:15:15 PM
Instance Install Dt: 6/2/2009
Item Description: FS Liquid Fuel Tank
Manufacturer: NULL
Model: NULL
Serial No: NULL
ULC Standard: NULL
Quantity: 1
Unit of Measure: EA
Overfill Prot Type: NULL
Creation Date: 7/5/2009 1:26:10 AM
Next Periodic Str DT: NULL
TSSA Base Sched Cycle 2: NULL
TSSAMax Hazard Rank 1: NULL
TSSA Risk Based Periodic Yn: NULL
TSSA Volume of Directives: NULL
TSSA Periodic Exempt: NULL
TSSA Statutory Interval: NULL
TSSA Recd Insp Interva: NULL
TSSA Recd Tolerance: NULL
TSSA Program Area: NULL
TSSA Program Area 2: NULL
Description: 2009VBS
Original Source: EXP
Record Date: 31-JUL-2020

Expired Date:
Max Hazard Rank: NULL
Facility Location: 324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA
Facility Type: FS LIQUID FUEL TANK
Fuel Type 2: NULL
Fuel Type 3: NULL
Panam Related: NULL
Panam Venue Nm: NULL
External Identifier: NULL
Item:
Piping Steel:
Piping Galvanized:
Tank Single Wall St:
Piping Underground:
Tank Underground:
Source: FS Liquid Fuel Tank

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
15	9 of 26	NNE/115.0	334.7 / 0.58	1348083 ONTARIO LTD O/A GAS STN 324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA	DTNK

Delisted Expired Fuel Safety Facilities

Instance No:	11588843	***Expired Date:***	
Status:	EXPIRED	***Max Hazard Rank:***	NULL
Instance ID:		***Facility Location:***	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA
Instance Type:		***Facility Type:***	FS LIQUID FUEL TANK
Instance Creation Dt:	7/19/2000 8:15:15 PM	***Fuel Type 2:***	Gasoline
Instance Install Dt:	6/2/2009	***Fuel Type 3:***	NULL
Item Description:	FS Liquid Fuel Tank	***Panam Related:***	NULL
Manufacturer:	NULL	***Panam Venue Nm:***	NULL
Model:	NULL	***External Identifier:***	NULL
Serial No:	NULL	***Item:***	
ULC Standard:	NULL	***Piping Steel:***	
Quantity:	1	***Piping Galvanized:***	
Unit of Measure:	EA	***Tank Single Wall St:***	
Overfill Prot Type:	NULL	***Piping Underground:***	
Creation Date:	7/5/2009 1:26:13 AM	***Tank Underground:***	
Next Periodic Str DT:	NULL	***Source:***	FS Liquid Fuel Tank

TSSA Base Sched Cycle 2:	NULL
TSSAMax Hazard Rank 1:	NULL
TSSA Risk Based Periodic Yn:	NULL
TSSA Volume of Directives:	NULL
TSSA Periodic Exempt:	NULL
TSSA Statutory Interval:	NULL
TSSA Recd Insp Interva:	NULL
TSSA Recd Tolerance:	NULL
TSSA Program Area:	NULL
TSSA Program Area 2:	NULL
Description:	2009VBS [Split compartment: 25KL Regular / 25kL Premium]
Original Source:	EXP
Record Date:	31-JUL-2020

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15 ***10 of 26*** ***NNE/115.0*** ***334.7 / 0.58*** ***Shell Canada Products 324 Speedvale Ave E Guelph ON N1E 1N2*** ***GEN***

Generator No:	ON8412668
SIC Code:	447110
SIC Description:	Gasoline Stations with Convenience Stores
Approval Years:	2012
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	221
Waste Class Name:	LIGHT FUELS

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15 ***11 of 26*** ***NNE/115.0*** ***334.7 / 0.58*** ***Shell Canada Products 324 Speedvale Ave E Guelph ON*** ***GEN***

Generator No:	ON8412668
SIC Code:	447110
SIC Description:	
Approval Years:	2013
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	221
Waste Class Name:	LIGHT FUELS
Waste Class:	251
Waste Class Name:	OIL SKIMMINGS & SLUDGES

15	12 of 26	NNE/115.0	334.7 / 0.58	1348083 ONTARIO LTD O/A GAS STN 324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA ON	DTNK

Delisted Expired Fuel Safety Facilities

Instance No:	10771081	**Expired Date:**	
Status:	EXPIRED	**Max Hazard Rank:**	NULL
Instance ID:		**Facility Location:**	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA
Instance Type:		**Facility Type:**	FS LIQUID FUEL TANK
Instance Creation Dt:	7/19/2000 8:15:15 PM	**Fuel Type 2:**	NULL
Instance Install Dt:	6/2/2009	**Fuel Type 3:**	NULL
Item Description:	FS Liquid Fuel Tank	**Panam Related:**	NULL
Manufacturer:	NULL	**Panam Venue Nm:**	NULL
Model:	NULL	**External Identifier:**	NULL
Serial No:	NULL	**Item:**	
ULC Standard:	NULL	**Piping Steel:**	
Quantity:	1	**Piping Galvanized:**	
Unit of Measure:	EA	**Tank Single Wall St:**	
Overfill Prot Type:	NULL	**Piping Underground:**	
Creation Date:	7/5/2009 1:20:52 AM	**Tank Underground:**	
Next Periodic Str DT:	NULL	**Source:**	FS Liquid Fuel Tank

TSSA Base Sched Cycle 2:	NULL
TSSAMax Hazard Rank 1:	NULL
TSSA Risk Based Periodic Yn:	NULL
TSSA Volume of Directives:	NULL
TSSA Periodic Exempt:	NULL
TSSA Statutory Interval:	NULL
TSSA Recd Insp Interva:	NULL
TSSA Recd Tolerance:	NULL
TSSA Program Area:	NULL
TSSA Program Area 2:	NULL
Description:	Removed in 1996
Original Source:	EXP
Record Date:	31-JUL-2020

15	13 of 26	NNE/115.0	334.7 / 0.58	1348083 ONTARIO LTD O/A GAS STN 324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA	DTNK

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
				ON	

Delisted Expired Fuel Safety Facilities

Instance No:	11353914	***Expired Date:***	
Status:	EXPIRED	***Max Hazard Rank:***	NULL
Instance ID:		***Facility Location:***	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA
Instance Type:		***Facility Type:***	FS LIQUID FUEL TANK
Instance Creation Dt:	7/19/2000 8:15:15 PM	***Fuel Type 2:***	NULL
Instance Install Dt:	6/2/2009	***Fuel Type 3:***	NULL
Item Description:	FS Liquid Fuel Tank	***Panam Related:***	NULL
Manufacturer:	NULL	***Panam Venue Nm:***	NULL
Model:	NULL	***External Identifier:***	NULL
Serial No:	NULL	***Item:***	
ULC Standard:	NULL	***Piping Steel:***	
Quantity:	1	***Piping Galvanized:***	
Unit of Measure:	EA	***Tank Single Wall St:***	
Overfill Prot Type:	NULL	***Piping Underground:***	
Creation Date:	7/5/2009 1:24:50 AM	***Tank Underground:***	
Next Periodic Str DT:	NULL	***Source:***	FS Liquid Fuel Tank
TSSA Base Sched Cycle 2:	NULL		
TSSAMax Hazard Rank 1:	NULL		
TSSA Risk Based Periodic Yn:	NULL		
TSSA Volume of Directives:	NULL		
TSSA Periodic Exempt:	NULL		
TSSA Statutory Interval:	NULL		
TSSA Recd Insp Interva:	NULL		
TSSA Recd Tolerance:	NULL		
TSSA Program Area:	NULL		
TSSA Program Area 2:	NULL		
Description:	Removed in 1996		
Original Source:	EXP		
Record Date:	31-JUL-2020		

15	***14 of 26***	***NNE/115.0***	***334.7 / 0.58***	***1348083 ONTARIO LTD O/A GAS STN*** ***324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA*** ***ON***	***DTNK***

Delisted Expired Fuel Safety Facilities

Instance No:	11353870	***Expired Date:***	
Status:	EXPIRED	***Max Hazard Rank:***	NULL
Instance ID:		***Facility Location:***	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA
Instance Type:		***Facility Type:***	FS LIQUID FUEL TANK
Instance Creation Dt:	7/19/2000 8:15:15 PM	***Fuel Type 2:***	NULL
Instance Install Dt:	6/2/2009	***Fuel Type 3:***	NULL
Item Description:	FS Liquid Fuel Tank	***Panam Related:***	NULL
Manufacturer:	NULL	***Panam Venue Nm:***	NULL
Model:	NULL	***External Identifier:***	NULL
Serial No:	NULL	***Item:***	
ULC Standard:	NULL	***Piping Steel:***	
Quantity:	1	***Piping Galvanized:***	
Unit of Measure:	EA	***Tank Single Wall St:***	
Overfill Prot Type:	NULL	***Piping Underground:***	
Creation Date:	7/5/2009 1:24:51 AM	***Tank Underground:***	
Next Periodic Str DT:	NULL	***Source:***	FS Liquid Fuel Tank
TSSA Base Sched Cycle 2:	NULL		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

TSSAMax Hazard Rank 1:	NULL
TSSA Risk Based Periodic Yn:	NULL
TSSA Volume of Directives:	NULL
TSSA Periodic Exempt:	NULL
TSSA Statutory Interval:	NULL
TSSA Recd Insp Interva:	NULL
TSSA Recd Tolerance:	NULL
TSSA Program Area:	NULL
TSSA Program Area 2:	NULL
Description:	Removed in 1996
Original Source:	EXP
Record Date:	31-JUL-2020

15	***15 of 26***	***NNE/115.0***	***334.7 / 0.58***	***1348083 ONTARIO LTD O/A GAS STN*** ***324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA*** ***ON***	***DTNK***

Delisted Expired Fuel Safety Facilities

Instance No:	11353893	***Expired Date:***	
Status:	EXPIRED	***Max Hazard Rank:***	NULL
Instance ID:		***Facility Location:***	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA
Instance Type:		***Facility Type:***	FS LIQUID FUEL TANK
Instance Creation Dt:	7/19/2000 8:15:15 PM	***Fuel Type 2:***	NULL
Instance Install Dt:	6/2/2009	***Fuel Type 3:***	NULL
Item Description:	FS Liquid Fuel Tank	***Panam Related:***	NULL
Manufacturer:	NULL	***Panam Venue Nm:***	NULL
Model:	NULL	***External Identifier:***	NULL
Serial No:	NULL	***Item:***	
ULC Standard:	NULL	***Piping Steel:***	
Quantity:	1	***Piping Galvanized:***	
Unit of Measure:	EA	***Tank Single Wall St:***	
Overfill Prot Type:	NULL	***Piping Underground:***	
Creation Date:	7/5/2009 1:24:54 AM	***Tank Underground:***	
Next Periodic Str DT:	NULL	***Source:***	FS Liquid Fuel Tank
TSSA Base Sched Cycle 2:	NULL		
TSSAMax Hazard Rank 1:	NULL		
TSSA Risk Based Periodic Yn:	NULL		
TSSA Volume of Directives:	NULL		
TSSA Periodic Exempt:	NULL		
TSSA Statutory Interval:	NULL		
TSSA Recd Insp Interva:	NULL		
TSSA Recd Tolerance:	NULL		
TSSA Program Area:	NULL		
TSSA Program Area 2:	NULL		
Description:	Removed in 1996		
Original Source:	EXP		
Record Date:	31-JUL-2020		

15	***16 of 26***	***NNE/115.0***	***334.7 / 0.58***	***1348083 ONTARIO LTD O/A GAS STN*** ***324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA*** ***ON***	***DTNK***

Delisted Expired Fuel Safety Facilities

Instance No:	11353934	***Expired Date:***	
Status:	EXPIRED	***Max Hazard Rank:***	NULL
Instance ID:		***Facility Location:***	324 SPEEDVALE AV E GUELPH N1E 1N2 ON

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

CA

Instance Type:		***Facility Type:***	FS LIQUID FUEL TANK
Instance Creation Dt:	7/19/2000 8:15:15 PM	***Fuel Type 2:***	NULL
Instance Install Dt:	6/2/2009	***Fuel Type 3:***	NULL
Item Description:	FS Liquid Fuel Tank	***Panam Related:***	NULL
Manufacturer:	NULL	***Panam Venue Nm:***	NULL
Model:	NULL	***External Identifier:***	NULL
Serial No:	NULL	***Item:***	
ULC Standard:	NULL	***Piping Steel:***	
Quantity:	1	***Piping Galvanized:***	
Unit of Measure:	EA	***Tank Single Wall St:***	
Overfill Prot Type:	NULL	***Piping Underground:***	
Creation Date:	7/5/2009 1:24:55 AM	***Tank Underground:***	
Next Periodic Str DT:	NULL	***Source:***	FS Liquid Fuel Tank
TSSA Base Sched Cycle 2:	NULL		
TSSAMax Hazard Rank 1:	NULL		
TSSA Risk Based Periodic Yn:	NULL		
TSSA Volume of Directives:	NULL		
TSSA Periodic Exempt:	NULL		
TSSA Statutory Interval:	NULL		
TSSA Recd Insp Interva:	NULL		
TSSA Recd Tolerance:	NULL		
TSSA Program Area:	NULL		
TSSA Program Area 2:	NULL		
Description:	Removed in 1996		
Original Source:	EXP		
Record Date:	31-JUL-2020		

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15 ***17 of 26*** ***NNE/115.0*** ***334.7 / 0.58*** ***Shell Canada Products***
324 Speedvale Ave E
Guelph ON N1E 1N2 ***GEN***

Generator No:	ON8412668
SIC Code:	447110
SIC Description:	447110
Approval Years:	2016
PO Box No:	
Country:	Canada
Status:	
Co Admin:	Akruti Atawala
Choice of Contact:	CO_ADMIN
Phone No Admin:	416-635-5882 Ext.55839
Contaminated Facility:	No
MHSW Facility:	No

Detail(s)

Waste Class:	221
Waste Class Name:	LIGHT FUELS
Waste Class:	251
Waste Class Name:	OIL SKIMMINGS & SLUDGES

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15 ***18 of 26*** ***NNE/115.0*** ***334.7 / 0.58*** ***Shell Canada Products***
324 Speedvale Ave E
Guelph ON N1E 1N2 ***GEN***

Generator No:	ON8412668
SIC Code:	447110
SIC Description:	447110
Approval Years:	2015
PO Box No:	
Country:	Canada

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Status:
Co Admin: Akruti Atawala
Choice of Contact: CO_ADMIN
Phone No Admin: 416-635-5882 Ext.55839
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 221
Waste Class Name: LIGHT FUELS

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15 ***19 of 26*** ***NNE/115.0*** ***334.7 / 0.58*** ***Shell Canada Products***
324 Speedvale Ave E
Guelph ON N1E 1N2 ***GEN***

Generator No: ON8412668
SIC Code: 447110
SIC Description: 447110
Approval Years: 2014
PO Box No:
Country: Canada
Status:
Co Admin: Akruti Atawala
Choice of Contact: CO_ADMIN
Phone No Admin: 416-635-5882 Ext.
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 221
Waste Class Name: LIGHT FUELS

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15 ***20 of 26*** ***NNE/115.0*** ***334.7 / 0.58*** ***1348083 ONTARIO LTD O/A GAS STN***
324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA
ON ***FST***

Instance No: 10771081
Status:
Cont Name:
Instance Type:
Item:
Item Description: FS Liquid Fuel Tank
Tank Type: Liquid Fuel Single Wall UST
Install Date: 6/2/2009
Install Year: 1984
Years in Service:
Model: NULL
Description:
Capacity: 22730
Tank Material: Steel
Corrosion Protect: Internally Lined
Overfill Protect:
Facility Type: FS Liquid Fuel Tank
Parent Facility Type:
Facility Location:

Manufacturer:
Serial No:
Ulc Standard:
Quantity:
Unit of Measure:
Fuel Type: Gasoline
Fuel Type2: NULL
Fuel Type3: NULL
Piping Steel:
Piping Galvanized:
Tanks Single Wall St:
Piping Underground:
No Underground:
Panam Related:
Panam Venue:

Device Installed Location: 324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA

Liquid Fuel Tank Details

Overfill Protection:
Owner Account Name: 1348083 ONTARIO LTD O/A GAS STN
Item: FS LIQUID FUEL TANK

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15 | ***21 of 26*** | ***NNE/115.0*** | ***334.7 / 0.58*** | ***1348083 ONTARIO LTD O/A GAS STN***
324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA
ON | ***FST***

Instance No:	11353914	***Manufacturer:***	
Status:		***Serial No:***	
Cont Name:		***Ulc Standard:***	
Instance Type:		***Quantity:***	
Item:		***Unit of Measure:***	
Item Description:	FS Liquid Fuel Tank	***Fuel Type:***	Gasoline
Tank Type:	Liquid Fuel Single Wall UST	***Fuel Type2:***	NULL
Install Date:	6/2/2009	***Fuel Type3:***	NULL
Install Year:	1984	***Piping Steel:***	
Years in Service:		***Piping Galvanized:***	
Model:	NULL	***Tanks Single Wall St:***	
Description:		***Piping Underground:***	
Capacity:	22730	***No Underground:***	
Tank Material:	Steel	***Panam Related:***	
Corrosion Protect:	Internally Lined	***Panam Venue:***	
Overfill Protect:			
Facility Type:	FS Liquid Fuel Tank		
Parent Facility Type:			
Facility Location:			
Device Installed Location:	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA		

Liquid Fuel Tank Details

Overfill Protection:
Owner Account Name: 1348083 ONTARIO LTD O/A GAS STN
Item: FS LIQUID FUEL TANK

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15 | ***22 of 26*** | ***NNE/115.0*** | ***334.7 / 0.58*** | ***1348083 ONTARIO LTD O/A GAS STN***
324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA
ON | ***FST***

Instance No:	11353893	***Manufacturer:***	
Status:		***Serial No:***	
Cont Name:		***Ulc Standard:***	
Instance Type:		***Quantity:***	
Item:		***Unit of Measure:***	
Item Description:	FS Liquid Fuel Tank	***Fuel Type:***	Gasoline
Tank Type:	Liquid Fuel Single Wall UST	***Fuel Type2:***	NULL
Install Date:	6/2/2009	***Fuel Type3:***	NULL
Install Year:	1984	***Piping Steel:***	
Years in Service:		***Piping Galvanized:***	
Model:	NULL	***Tanks Single Wall St:***	
Description:		***Piping Underground:***	
Capacity:	13600	***No Underground:***	
Tank Material:	Steel	***Panam Related:***	
Corrosion Protect:	Internally Lined	***Panam Venue:***	
Overfill Protect:			
Facility Type:	FS Liquid Fuel Tank		
Parent Facility Type:			
Facility Location:			
Device Installed Location:	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA		

Liquid Fuel Tank Details

Overfill Protection:
Owner Account Name: 1348083 ONTARIO LTD O/A GAS STN
Item: FS LIQUID FUEL TANK

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15 | ***23 of 26*** | ***NNE/115.0*** | ***334.7 / 0.58*** | ***1348083 ONTARIO LTD O/A GAS STN***
324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA
ON | ***FST***

Instance No:	11353870	***Manufacturer:***	
Status:		***Serial No:***	
Cont Name:		***Ulc Standard:***	
Instance Type:		***Quantity:***	
Item:		***Unit of Measure:***	
Item Description:	FS Liquid Fuel Tank	***Fuel Type:***	Gasoline
Tank Type:	Liquid Fuel Single Wall UST	***Fuel Type2:***	NULL
Install Date:	6/2/2009	***Fuel Type3:***	NULL
Install Year:	1984	***Piping Steel:***	
Years in Service:		***Piping Galvanized:***	
Model:	NULL	***Tanks Single Wall St:***	
Description:		***Piping Underground:***	
Capacity:	9000	***No Underground:***	
Tank Material:	Steel	***Panam Related:***	
Corrosion Protect:	Internally Lined	***Panam Venue:***	
Overfill Protect:			
Facility Type:	FS Liquid Fuel Tank		
Parent Facility Type:			
Facility Location:			
Device Installed Location:	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA		

Liquid Fuel Tank Details

Overfill Protection:
Owner Account Name: 1348083 ONTARIO LTD O/A GAS STN
Item: FS LIQUID FUEL TANK

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15 | ***24 of 26*** | ***NNE/115.0*** | ***334.7 / 0.58*** | ***1348083 ONTARIO LTD O/A GAS STN***
324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA
ON | ***FST***

Instance No:	11588823	***Manufacturer:***	
Status:		***Serial No:***	
Cont Name:		***Ulc Standard:***	
Instance Type:		***Quantity:***	
Item:		***Unit of Measure:***	
Item Description:	FS Liquid Fuel Tank	***Fuel Type:***	Gasoline
Tank Type:	Double Wall UST	***Fuel Type2:***	NULL
Install Date:	6/2/2009	***Fuel Type3:***	NULL
Install Year:	1996	***Piping Steel:***	
Years in Service:		***Piping Galvanized:***	
Model:	NULL	***Tanks Single Wall St:***	
Description:		***Piping Underground:***	
Capacity:	50000	***No Underground:***	
Tank Material:	Fiberglass (FRP)	***Panam Related:***	
Corrosion Protect:	Fiberglass	***Panam Venue:***	
Overfill Protect:			
Facility Type:	FS Liquid Fuel Tank		
Parent Facility Type:			
Facility Location:			
Device Installed Location:	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA		

Liquid Fuel Tank Details

Overfill Protection:
Owner Account Name: 1348083 ONTARIO LTD O/A GAS STN
Item: FS LIQUID FUEL TANK

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15 **25 of 26** **NNE/115.0** **334.7 / 0.58** **1348083 ONTARIO LTD O/A GAS STN**
324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA
ON **FST**

Instance No:	11588843	***Manufacturer:***	
Status:		***Serial No:***	
Cont Name:		***Ulc Standard:***	
Instance Type:		***Quantity:***	
Item:		***Unit of Measure:***	
Item Description:	FS Liquid Fuel Tank	***Fuel Type:***	Gasoline
Tank Type:	Double Wall UST	***Fuel Type2:***	Gasoline
Install Date:	6/2/2009	***Fuel Type3:***	NULL
Install Year:	1996	***Piping Steel:***	
Years in Service:		***Piping Galvanized:***	
Model:	NULL	***Tanks Single Wall St:***	
Description:		***Piping Underground:***	
Capacity:	50000	***No Underground:***	
Tank Material:	Fiberglass (FRP)	***Panam Related:***	
Corrosion Protect:	Fiberglass	***Panam Venue:***	
Overfill Protect:			
Facility Type:	FS Liquid Fuel Tank		
Parent Facility Type:			
Facility Location:			
Device Installed Location:	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA		

Liquid Fuel Tank Details

Overfill Protection:
Owner Account Name: 1348083 ONTARIO LTD O/A GAS STN
Item: FS LIQUID FUEL TANK

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15 **26 of 26** **NNE/115.0** **334.7 / 0.58** **1348083 ONTARIO LTD O/A GAS STN**
324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA
ON **FST**

Instance No:	11353934	***Manufacturer:***	
Status:		***Serial No:***	
Cont Name:		***Ulc Standard:***	
Instance Type:		***Quantity:***	
Item:		***Unit of Measure:***	
Item Description:	FS Liquid Fuel Tank	***Fuel Type:***	Gasoline
Tank Type:	Liquid Fuel Single Wall UST	***Fuel Type2:***	NULL
Install Date:	6/2/2009	***Fuel Type3:***	NULL
Install Year:	1984	***Piping Steel:***	
Years in Service:		***Piping Galvanized:***	
Model:	NULL	***Tanks Single Wall St:***	
Description:		***Piping Underground:***	
Capacity:	13600	***No Underground:***	
Tank Material:	Steel	***Panam Related:***	
Corrosion Protect:	Internally Lined	***Panam Venue:***	
Overfill Protect:			
Facility Type:	FS Liquid Fuel Tank		
Parent Facility Type:			
Facility Location:			
Device Installed Location:	324 SPEEDVALE AV E GUELPH N1E 1N2 ON CA		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Liquid Fuel Tank Details

Overfill Protection:
Owner Account Name: 1348083 ONTARIO LTD O/A GAS STN
Item: FS LIQUID FUEL TANK

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16 | ***1 of 6*** | ***NE/141.7*** | ***336.2 / 2.00*** | ***BEAVER GAS STATION***
PEEDVALE AVE EAST/STEVENSON ST.
SERVICE STATION
GUELPH CITY ON | ***SPL***

Ref No: 119083
Site No:
Incident Dt: 9/27/1995
Year:
Incident Cause: PIPE/HOSE LEAK
Incident Event:
Environment Impact: NOT ANTICIPATED
Nature of Impact:
MOE Response:
Dt MOE Arvl on Scn:
MOE Reported Dt: 9/29/1995
Dt Document Closed:
Municipality No: 75101
System Facility Address:
Client Type:
Call Report Location Geodata:
Contaminant Code:
Contaminant Name:
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Receiving Medium: LAND
Receiving Environment:
Incident Reason: OTHER
Incident Summary: BEAVER GAS STATION - 7 L GASOLINE TO ASPHALT FROM UNDERGR'D TANK,CLEANED UP
Site Region:
Site Municipality: GUELPH CITY
Activity Preceding Spill:
Property 2nd Watershed:
Property Tertiary Watershed:
Sector Type:
SAC Action Class:
Source Type:
Site County/District:
Site Geo Ref Meth:
Site District Office:
Nearest Watercourse:
Site Name:
Site Address:
Client Name:

Contaminant Qty:
Nature of Damage:
Discharger Report:
Material Group:
Health/Env Conseq:
Agency Involved:
Site Lot:
Site Conc:
Site Geo Ref Accu:
Site Map Datum:
Northing:
Easting:

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16 | ***2 of 6*** | ***NE/141.7*** | ***336.2 / 2.00*** | ***SOUTHLAND CANADA 2830 ATTN MARYANN GRAHOVAC***
SPEEDVALE AT STEVENSON
GUELPH ON | ***PRT***

Location ID: 5651
Type: retail
Expiry Date: 1995-07-31
Capacity (L): 127300
Licence #: 0053572001

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	3 of 6	NE/141.7	336.2 / 2.00	GUELPH HYDRO SPEEDVALE AVE. EAST AT STEVENSON ST. N. C/O 104 DAWSON ROAD GUELPH ON N1H 1A7	GEN

Generator No: ON0558308
SIC Code: 4911
SIC Description: ELECT. POWER SYS.
Approval Years: 89,90
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 122
Waste Class Name: ALKALINE WASTES - OTHER METALS

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	4 of 6	NE/141.7	336.2 / 2.00	GUELPH HYDRO 18-349 SPEEDVALE AVE. EAST AT STEVENSON ST. N. C/O 104 DAWSON ROAD GUELPH ON N1H 1A7	GEN

Generator No: ON0558308
SIC Code: 4911
SIC Description: ELECT. POWER SYS.
Approval Years: 92,93,94,95,96,97,98
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 122
Waste Class Name: ALKALINE WASTES - OTHER METALS

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	5 of 6	NE/141.7	336.2 / 2.00	GUELPH HYDRO SPEEDVALE AVENUE EAST AT STEVENSON STREET NORTH GUELPH ON	GEN

Generator No: ON0558308
SIC Code:
SIC Description:
Approval Years: 03,04

PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

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16 | **6 of 6** | **NE/141.7** | **336.2 / 2.00** | **Speedvale Ave E & Stevenson St N Guelph ON** | **EHS**

Order No: 20050421009
Status: C
Report Type:
Report Date: 4/22/2005
Date Received: 4/21/2005
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): 0.35
X: -80.2581
Y: 43.56777

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17 | **1 of 1** | **NE/159.8** | **336.9 / 2.73** | **329 Speedvale Ave E Guelph ON N1E 1N6** | **SPL**

Ref No: 3500-8AQHL2
Site No:
Incident Dt:
Year:
Incident Cause:
Incident Event:
Environment Impact: Not Anticipated
Nature of Impact: Surface Water Pollution
MOE Response: No Field Response
Dt MOE Arvl on Scn:
MOE Reported Dt: 10/30/2010
Dt Document Closed: 11/10/2010
Municipality No:
System Facility Address:
Client Type:
Call Report Location Geodata:
Contaminant Code:
Contaminant Name:
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Receiving Medium:
Receiving Environment:
Incident Reason:
Incident Summary: MVA: vehicles leaking fluids into storm drain
Site Region:
Site Municipality:
Activity Preceding Spill:
Property 2nd Watershed:
Property Tertiary Watershed:
Sector Type: Motor Vehicle
SAC Action Class: Watercourse Spills
Source Type:
Site County/District:
Site Geo Ref Meth:
Site District Office:
Nearest Watercourse:
Site Name: MVA<UNOFFICIAL>
Site Address:

Contaminant Qty:
Nature of Damage:
Discharger Report:
Material Group:
Health/Env Conseq:
Agency Involved:
Site Lot:
Site Conc:
Site Geo Ref Accu:
Site Map Datum:
Northing:
Easting:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Client Name:					

18 1 of 4 NNE/184.7 336.6 / 2.39 7-Eleven 328 Speedvale Ave East Guelph ON N1E 1N5 EHS

Order No:	21112300473	Nearest Intersection:	
Status:	C	Municipality:	
Report Type:	Custom Report	Client Prov/State:	ON
Report Date:	03-DEC-21	Search Radius (km):	.25
Date Received:	23-NOV-21	X:	-80.25789165
Previous Site Name:		Y:	43.56657602
Lot/Building Size:			
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans; Aerial Photos		

18 2 of 4 NNE/184.7 336.6 / 2.39 7-Eleven 328 Speedvale Ave East Guelph ON N1E 1N5 EHS

Order No:	21112300473	Nearest Intersection:	
Status:	C	Municipality:	
Report Type:	Custom Report	Client Prov/State:	ON
Report Date:	03-DEC-21	Search Radius (km):	.25
Date Received:	23-NOV-21	X:	-80.25789165
Previous Site Name:		Y:	43.56657602
Lot/Building Size:			
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans; Aerial Photos		

18 3 of 4 NNE/184.7 336.6 / 2.39 7-Eleven 328 Speedvale Ave East Guelph ON N1E 1N5 EHS

Order No:	21112300473	Nearest Intersection:	
Status:	C	Municipality:	
Report Type:	Custom Report	Client Prov/State:	ON
Report Date:	03-DEC-21	Search Radius (km):	.25
Date Received:	23-NOV-21	X:	-80.25789165
Previous Site Name:		Y:	43.56657602
Lot/Building Size:			
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans; Aerial Photos		

18 4 of 4 NNE/184.7 336.6 / 2.39 7-Eleven 328 Speedvale Ave East Guelph ON N1E 1N5 EHS

Order No:	21112300473	Nearest Intersection:	
Status:	C	Municipality:	
Report Type:	Custom Report	Client Prov/State:	ON
Report Date:	03-DEC-21	Search Radius (km):	.25
Date Received:	23-NOV-21	X:	-80.25789165
Previous Site Name:		Y:	43.56657602
Lot/Building Size:			
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans; Aerial Photos		

19 1 of 30 NNE/188.1 336.9 / 2.69 7-ELEVEN CANADA INC - NATIONAL GAS DEPT 328 SPEEDVALE AV E AT STEVENSON GUELPH ON N1E 1N5 FSTH

License Issue Date:	6/21/2002
Tank Status:	Licensed
Tank Status As Of:	August 2007

Operation Type: Retail Fuel Outlet
Facility Type: Gasoline Station - Self Serve

--Details--
Status: Active
Year of Installation: 1987
Corrosion Protection:
Capacity: 36370
Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline

Status: Active
Year of Installation: 1987
Corrosion Protection:
Capacity: 36370
Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline

Status: Active
Year of Installation: 1987
Corrosion Protection:
Capacity: 27280
Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline

Status: Active
Year of Installation: 1987
Corrosion Protection:
Capacity: 27280
Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline

19	2 of 30	NNE/188.1	336.9 / 2.69	7-ELEVEN CANADA INC - NATIONAL GAS DEPT 328 SPEEDVALE AV E AT STEVENSON GUELPH ON N1E 1N5	FSTH

License Issue Date: 6/21/2002
Tank Status: Licensed
Tank Status As Of: December 2008
Operation Type: Retail Fuel Outlet
Facility Type: Gasoline Station - Self Serve

--Details--
Status: Active
Year of Installation: 1987
Corrosion Protection:
Capacity: 36370
Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline

Status: Active
Year of Installation: 1987
Corrosion Protection:
Capacity: 36370
Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline

Status: Active
Year of Installation: 1987
Corrosion Protection:
Capacity: 27280
Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline

Status: Active
Year of Installation: 1987
Corrosion Protection:
Capacity: 27280
Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
19	3 of 30	NNE/188.1	336.9 / 2.69	The Corporation of the City of Guelph 328 Speedville Ave East Guelph ON	SPL

Ref No: 4458-84Y434
Site No:
Incident Dt:
Year:
Incident Cause: Other Discharges
Incident Event:
Environment Impact: Not Anticipated
Nature of Impact: Surface Water Pollution
MOE Response: No Field Response
Dt MOE Arvl on Scn:
MOE Reported Dt: 4/28/2010
Dt Document Closed: 6/24/2010
Municipality No:
System Facility Address:
Client Type:
Call Report Location Geodata:
Contaminant Code: 27
Contaminant Name: FIRE SUPPRESSANT
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Receiving Medium:
Receiving Environment:
Incident Reason: Fire/Explosion - Resulting from fires/explosions (Not occurrences which cause a fire or explosion)
Incident Summary: Vehicle fire - Firefighting foam to CB
Site Region:
Site Municipality:
Activity Preceding Spill:
Property 2nd Watershed:
Property Tertiary Watershed:
Sector Type: Other
SAC Action Class: Watercourse Spills
Source Type:
Site County/District:
Site Geo Ref Meth:
Site District Office:
Nearest Watercourse:
Site Name: Catchbasin<UNOFFICIAL>
Site Address:
Client Name: The Corporation of the City of Guelph
Contaminant Qty: 1000 L
Nature of Damage:
Discharger Report:
Material Group:
Health/Env Conseq:
Agency Involved:
Site Lot:
Site Conc:
Site Geo Ref Accu:
Site Map Datum:
Northing:
Easting:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
19	4 of 30	NNE/188.1	336.9 / 2.69	7-ELEVEN CANADA INC - NATIONAL GAS DEPT 328 SPEEDVALE AV E AT STEVENSON GUELPH ON	DTNK

Delisted Expired Fuel Safety Facilities

Instance No: 11329253
Status: EXPIRED
Instance ID: 79039
Instance Type: FS Piping
Instance Creation Dt:
Instance Install Dt:
Item Description:
Expired Date:
Max Hazard Rank:
Facility Location:
Facility Type:
Fuel Type 2:
Fuel Type 3:
Panam Related:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Manufacturer:
Model:
Serial No:
ULC Standard:
Quantity:
Unit of Measure:
Overfill Prot Type:
Creation Date:
Next Periodic Str DT:
TSSA Base Sched Cycle 2:
TSSAMax Hazard Rank 1:
TSSA Risk Based Periodic Yn:
TSSA Volume of Directives:
TSSA Periodic Exempt:
TSSA Statutory Interval:
TSSA Recd Insp Interva:
TSSA Recd Tolerance:
TSSA Program Area:
TSSA Program Area 2:
Description: FS Piping
Original Source: EXP
Record Date: Up to Mar 2012
Panam Venue Nm:
External Identifier:
Item:
Piping Steel:
Piping Galvanized:
Tank Single Wall St:
Piping Underground:
Tank Underground:
Source:

---

19 | ***5 of 30*** | ***NNE/188.1*** | ***336.9 / 2.69*** | ***328 Speedvale Avenue East Guelph ON*** | ***EHS***

Order No: 20120509001
Status: C
Report Type: Standard Report
Report Date: 5/17/2012 8:05:27 AM
Date Received: 5/9/2012 8:05:08 AM
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:
Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): 0.25
X: -80.257944
Y: 43.567644

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19 | ***6 of 30*** | ***NNE/188.1*** | ***336.9 / 2.69*** | ***7-ELEVEN CANADA INC - NATIONAL GAS DEPT 328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON*** | ***FST***

Instance No: 10771159
Status:
Cont Name:
Instance Type: FS Liquid Fuel Tank
Item:
Item Description: FS Liquid Fuel Tank
Tank Type: Single Wall UST
Install Date: 6/2/2009
Install Year: 1987
Years in Service:
Model: NULL
Description:
Capacity: 36370
Tank Material: Fiberglass (FRP)
Corrosion Protect: Fiberglass
Overfill Protect:
Facility Type: FS Liquid Fuel Tank
Parent Facility Type: FS GASOLINE STATION - SELF SERVE
Facility Location:
Device Installed Location: 328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA
Manufacturer:
Serial No:
Ulc Standard:
Quantity:
Unit of Measure:
Fuel Type: Gasoline
Fuel Type2: NULL
Fuel Type3: NULL
Piping Steel:
Piping Galvanized:
Tanks Single Wall St:
Piping Underground:
No Underground:
Panam Related:
Panam Venue:

Liquid Fuel Tank Details

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Overfill Protection:
Owner Account Name: 7-ELEVEN CANADA INC - NATIONAL GAS DEPT
Item: FS LIQUID FUEL TANK

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19 | ***7 of 30*** | ***NNE/188.1*** | ***336.9 / 2.69*** | ***7-ELEVEN CANADA INC - NATIONAL GAS DEPT 328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON*** | ***FST***

Instance No:	10771168	***Manufacturer:***	
Status:		***Serial No:***	
Cont Name:		***Ulc Standard:***	
Instance Type:	FS Liquid Fuel Tank	***Quantity:***	
Item:		***Unit of Measure:***	
Item Description:	FS Liquid Fuel Tank	***Fuel Type:***	Gasoline
Tank Type:	Single Wall UST	***Fuel Type2:***	NULL
Install Date:	6/2/2009	***Fuel Type3:***	NULL
Install Year:	1987	***Piping Steel:***	
Years in Service:		***Piping Galvanized:***	
Model:	NULL	***Tanks Single Wall St:***	
Description:		***Piping Underground:***	
Capacity:	36370	***No Underground:***	
Tank Material:	Fiberglass (FRP)	***Panam Related:***	
Corrosion Protect:	Fiberglass	***Panam Venue:***	
Overfill Protect:			

Facility Type: FS Liquid Fuel Tank
Parent Facility Type: FS GASOLINE STATION - SELF SERVE
Facility Location:
Device Installed Location: 328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA

Liquid Fuel Tank Details

Overfill Protection:
Owner Account Name: 7-ELEVEN CANADA INC - NATIONAL GAS DEPT
Item: FS LIQUID FUEL TANK

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19 | ***8 of 30*** | ***NNE/188.1*** | ***336.9 / 2.69*** | ***7-ELEVEN CANADA INC - NATIONAL GAS DEPT 328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON*** | ***FST***

Instance No:	10771175	***Manufacturer:***	
Status:		***Serial No:***	
Cont Name:		***Ulc Standard:***	
Instance Type:	FS Liquid Fuel Tank	***Quantity:***	
Item:		***Unit of Measure:***	
Item Description:	FS Liquid Fuel Tank	***Fuel Type:***	Gasoline
Tank Type:	Single Wall UST	***Fuel Type2:***	NULL
Install Date:	6/2/2009	***Fuel Type3:***	NULL
Install Year:	1987	***Piping Steel:***	
Years in Service:		***Piping Galvanized:***	
Model:	NULL	***Tanks Single Wall St:***	
Description:		***Piping Underground:***	
Capacity:	27280	***No Underground:***	
Tank Material:	Fiberglass (FRP)	***Panam Related:***	
Corrosion Protect:	Fiberglass	***Panam Venue:***	
Overfill Protect:			

Facility Type: FS Liquid Fuel Tank
Parent Facility Type: FS GASOLINE STATION - SELF SERVE
Facility Location:
Device Installed Location: 328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA

Liquid Fuel Tank Details

Overfill Protection:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Owner Account Name: 7-ELEVEN CANADA INC - NATIONAL GAS DEPT
Item: FS LIQUID FUEL TANK

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19 | ***9 of 30*** | ***NNE/188.1*** | ***336.9 / 2.69*** | ***7-ELEVEN CANADA INC - NATIONAL GAS DEPT***
328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA
ON | ***FST***

Instance No:	10771184	***Manufacturer:***	
Status:		***Serial No:***	
Cont Name:		***Ulc Standard:***	
Instance Type:	FS Liquid Fuel Tank	***Quantity:***	
Item:		***Unit of Measure:***	
Item Description:	FS Liquid Fuel Tank	***Fuel Type:***	Gasoline
Tank Type:	Single Wall UST	***Fuel Type2:***	NULL
Install Date:	6/2/2009	***Fuel Type3:***	NULL
Install Year:	1987	***Piping Steel:***	
Years in Service:		***Piping Galvanized:***	
Model:	NULL	***Tanks Single Wall St:***	
Description:		***Piping Underground:***	
Capacity:	27280	***No Underground:***	
Tank Material:	Fiberglass (FRP)	***Panam Related:***	
Corrosion Protect:	Fiberglass	***Panam Venue:***	
Overfill Protect:			

Facility Type: FS Liquid Fuel Tank
Parent Facility Type: FS GASOLINE STATION - SELF SERVE
Facility Location:
Device Installed Location: 328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA

Liquid Fuel Tank Details

Overfill Protection:
Owner Account Name: 7-ELEVEN CANADA INC - NATIONAL GAS DEPT
Item: FS LIQUID FUEL TANK

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19 | ***10 of 30*** | ***NNE/188.1*** | ***336.9 / 2.69*** | ***7-Eleven Canada Inc.***
328 Speedvale Ave East
Guelph ON | ***GEN***

Generator No: ON6405832
SIC Code: 447110
SIC Description: Gasoline Stations with Convenience Stores
Approval Years: 2012
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

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19 | ***11 of 30*** | ***NNE/188.1*** | ***336.9 / 2.69*** | ***328 Speedvale Ave E***
Guelph ON N1E0J4 | ***EHS***

Order No:	20140502031	***Nearest Intersection:***	
Status:	C	***Municipality:***	
Report Type:	Custom Report	***Client Prov/State:***	ON
Report Date:	12-MAY-14	***Search Radius (km):***	.25
Date Received:	02-MAY-14	***X:***	-80.257927
Previous Site Name:		***Y:***	43.567463
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
19	12 of 30	NNE/188.1	336.9 / 2.69	7-Eleven Canada Inc. 328 Speedvale Ave East Guelph ON	GEN

Generator No: ON6405832
SIC Code: 447110
SIC Description:
Approval Years: 2013
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 221
Waste Class Name: LIGHT FUELS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
19	13 of 30	NNE/188.1	336.9 / 2.69	7-ELEVEN CANADA INC - NATIONAL GAS DEPT 328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON	FST

Instance No: 64557930
Status:
Cont Name:
Instance Type: FS Liquid Fuel Tank
Item:
Item Description: FS Liquid Fuel Tank
Tank Type: Double Wall UST
Install Date: 1/22/2013 3:58:03 PM
Install Year: 2013
Years in Service:
Model: NULL
Description:
Capacity: 75000
Tank Material: Fiberglass (FRP)
Corrosion Protect: NULL
Overfill Protect:
Facility Type: FS Liquid Fuel Tank
Parent Facility Type: FS Gasoline Station - Self Serve
Facility Location:
Device Installed Location: 328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA

Manufacturer:
Serial No:
Ulc Standard:
Quantity:
Unit of Measure:
Fuel Type: Gasoline
Fuel Type2: NULL
Fuel Type3: NULL
Piping Steel:
Piping Galvanized:
Tanks Single Wall St:
Piping Underground:
No Underground:
Panam Related:
Panam Venue:

Liquid Fuel Tank Details

Overfill Protection:
Owner Account Name: 7-ELEVEN CANADA INC - NATIONAL GAS DEPT
Item: FS LIQUID FUEL TANK

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
19	14 of 30	NNE/188.1	336.9 / 2.69	7-ELEVEN CANADA INC - NATIONAL GAS DEPT 328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON	FST

Instance No: 64557931
Status:
Cont Name:
Instance Type: FS Liquid Fuel Tank

Manufacturer:
Serial No:
Ulc Standard:
Quantity:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Item:		**Unit of Measure:**	
Item Description:	FS Liquid Fuel Tank	**Fuel Type:**	Diesel
Tank Type:	Double Wall UST	**Fuel Type2:**	Gasoline
Install Date:	1/22/2013 3:58:03 PM	**Fuel Type3:**	NULL
Install Year:	2013	**Piping Steel:**	
Years in Service:		**Piping Galvanized:**	
Model:	NULL	**Tanks Single Wall St:**	
Description:		**Piping Underground:**	
Capacity:	75000	**No Underground:**	
Tank Material:	Fiberglass (FRP)	**Panam Related:**	
Corrosion Protect:	NULL	**Panam Venue:**	
Overfill Protect:			

Facility Type: FS Liquid Fuel Tank
Parent Facility Type: FS Gasoline Station - Self Serve
Facility Location:
Device Installed Location: 328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA

Liquid Fuel Tank Details

Overfill Protection:
Owner Account Name: 7-ELEVEN CANADA INC - NATIONAL GAS DEPT
Item: FS LIQUID FUEL TANK

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
19	15 of 30	NNE/188.1	336.9 / 2.69	7-Eleven Canada Inc. 328 Speedvale Ave East Guelph ON N1E 1N5	GEN

Generator No: ON6405832
SIC Code: 447110
SIC Description: 447110
Approval Years: 2016
PO Box No:
Country: Canada
Status:
Co Admin: Keisha-Gaye Williams
Choice of Contact: CO_ADMIN
Phone No Admin: 905-569-4158 Ext.
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 221
Waste Class Name: LIGHT FUELS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
19	16 of 30	NNE/188.1	336.9 / 2.69	7-Eleven Canada Inc. 328 Speedvale Ave East Guelph ON N1E 1N5	GEN

Generator No: ON6405832
SIC Code: 447110
SIC Description: 447110
Approval Years: 2015
PO Box No:
Country: Canada
Status:
Co Admin: Steve M Della Rossa
Choice of Contact: CO_ADMIN
Phone No Admin: 905-569-4138 Ext.
Contaminated Facility: No
MHSW Facility: No

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Detail(s)

Waste Class: 221
Waste Class Name: LIGHT FUELS

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19 | ***17 of 30*** | ***NNE/188.1*** | ***336.9 / 2.69*** | ***7-Eleven Canada Inc.***
328 Speedvale Ave East
Guelph ON N1E 1N5 | ***GEN***

Generator No: ON6405832
SIC Code: 447110
SIC Description: 447110
Approval Years: 2014
PO Box No:
Country: Canada
Status:
Co Admin: Steve M Della Rossa
Choice of Contact: CO_ADMIN
Phone No Admin: 905-569-4138 Ext.
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 221
Waste Class Name: LIGHT FUELS

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19 | ***18 of 30*** | ***NNE/188.1*** | ***336.9 / 2.69*** | ***7-Eleven Canada Inc.***
328 Speedvale Ave East
Guelph ON N1E 1N5 | ***GEN***

Generator No: ON6405832
SIC Code:
SIC Description:
Approval Years: As of Dec 2018
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 221 L
Waste Class Name: Light fuels

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19 | ***19 of 30*** | ***NNE/188.1*** | ***336.9 / 2.69*** | ***Cornell Animal Hospital***
328 Speedvale Ave. E.
Guelph ON N1E 1N5 | ***GEN***

Generator No: ON9687993
SIC Code:
SIC Description:
Approval Years: As of Jul 2020
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 312 P
Waste Class Name: Pathological wastes

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19 | ***20 of 30*** | ***NNE/188.1*** | ***336.9 / 2.69*** | ***7-Eleven Canada Inc.***
328 Speedvale Ave East
Guelph ON N1E 1N5 | ***GEN***

Generator No: ON6405832
SIC Code:
SIC Description:
Approval Years: As of Jul 2020
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 221 L
Waste Class Name: Light fuels

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19 | ***21 of 30*** | ***NNE/188.1*** | ***336.9 / 2.69*** | ***328 SPEEDVALE COMMERCIAL CENTRE INC.***
328 Speedvale AVE E
Guelph ON N1E 1N5 | ***EASR***

Approval No: R-010-2111313201
Status: REGISTERED
Date: 2019-05-14
Record Type: EASR
Link Source: MOFA
Project Type: Air Emissions
Full Address:
Approval Type: EASR-Air Emissions
SWP Area Name: Grand River
PDF URL:
PDF Site Location:

MOE District: Guelph
Municipality: Guelph
Latitude: 43.5675
Longitude: -80.25805556
Geometry X:
Geometry Y:

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19 | ***22 of 30*** | ***NNE/188.1*** | ***336.9 / 2.69*** | ***328 Speedvale Ave East***
Guelph ON | ***SPL***

Ref No: 2265-BHPM25
Site No: NA
Incident Dt: 11/7/2019
Year:
Incident Cause:
Incident Event: Leak/Break
Environment Impact:
Nature of Impact:
MOE Response: No
Dt MOE Arvl on Scn:
MOE Reported Dt: 11/7/2019

Contaminant Qty: 10 L
Nature of Damage:
Discharger Report:
Material Group:
Health/Env Conseq: 2 - Minor Environment
Agency Involved:
Site Lot:
Site Conc:
Site Geo Ref Accu:
Site Map Datum:
Northing: 4823951.67

Dt Document Closed:		**Easting:**	559938.9
Municipality No:			
System Facility Address:			
Client Type:			
Call Report Location Geodata:			
Contaminant Code:	15		
Contaminant Name:	TRANSMISSION OIL		
Contaminant Limit 1:			
Contam Limit Freq 1:			
Contaminant UN No 1:	1993		
Receiving Medium:			
Receiving Environment:	Land		
Incident Reason:	Material Failure - Poor Design/Substandard Material		
Incident Summary:	Transmission oil leak 10 L cleaning		
Site Region:	West Central		
Site Municipality:	Guelph		
Activity Preceding Spill:			
Property 2nd Watershed:			
Property Tertiary Watershed:			
Sector Type:	Miscellaneous Communal		
SAC Action Class:			
Source Type:	Motor Vehicle		
Site County/District:	County of Wellington		
Site Geo Ref Meth:			
Site District Office:	Guelph		
Nearest Watercourse:			
Site Name:	spill <UNOFFICIAL>		
Site Address:	328 Speedvale Ave East		
Client Name:			

19	23 of 30	NNE/188.1	336.9 / 2.69	7-ELEVEN CANADA INC - NATIONAL GAS DEPT 328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON	DTNK

Delisted Expired Fuel Safety Facilities

Instance No:	64557931	**Expired Date:**	
Status:	EXPIRED	**Max Hazard Rank:**	NULL
Instance ID:		**Facility Location:**	328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA
Instance Type:		**Facility Type:**	FS LIQUID FUEL TANK
Instance Creation Dt:	1/22/2013 3:59:45 PM	**Fuel Type 2:**	Gasoline
Instance Install Dt:	1/22/2013 3:58:03 PM	**Fuel Type 3:**	NULL
Item Description:	FS Liquid Fuel Tank	**Panam Related:**	NULL
Manufacturer:	NULL	**Panam Venue Nm:**	NULL
Model:	NULL	**External Identifier:**	NULL
Serial No:	NULL	**Item:**	
ULC Standard:	NULL	**Piping Steel:**	
Quantity:	1	**Piping Galvanized:**	
Unit of Measure:	EA	**Tank Single Wall St:**	
Overfill Prot Type:	Alarm	**Piping Underground:**	
Creation Date:	1/22/2013 3:59:45 PM	**Tank Underground:**	
Next Periodic Str DT:	NULL	**Source:**	FS Liquid Fuel Tank
TSSA Base Sched Cycle 2:	NULL		
TSSAMax Hazard Rank 1:	NULL		
TSSA Risk Based Periodic Yn:	NULL		
TSSA Volume of Directives:	NULL		
TSSA Periodic Exempt:	NULL		
TSSA Statutory Interval:	NULL		
TSSA Recd Insp Interva:	NULL		
TSSA Recd Tolerance:	NULL		

TSSA Program Area:	NULL
TSSA Program Area 2:	NULL
Description:	never installed
Original Source:	EXP
Record Date:	31-JUL-2020

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
19	24 of 30	NNE/188.1	336.9 / 2.69	7-ELEVEN CANADA INC - NATIONAL GAS DEPT 328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA ON	DTNK

Delisted Expired Fuel Safety Facilities

Instance No:	64557930	***Expired Date:***	
Status:	EXPIRED	***Max Hazard Rank:***	NULL
Instance ID:		***Facility Location:***	328 SPEEDVALE AV E GUELPH N1E 1N5 ON CA
Instance Type:		***Facility Type:***	FS LIQUID FUEL TANK
Instance Creation Dt:	1/22/2013 3:58:03 PM	***Fuel Type 2:***	NULL
Instance Install Dt:	1/22/2013 3:58:03 PM	***Fuel Type 3:***	NULL
Item Description:	FS Liquid Fuel Tank	***Panam Related:***	NULL
Manufacturer:	NULL	***Panam Venue Nm:***	NULL
Model:	NULL	***External Identifier:***	NULL
Serial No:	NULL	***Item:***	
ULC Standard:	NULL	***Piping Steel:***	
Quantity:	1	***Piping Galvanized:***	
Unit of Measure:	EA	***Tank Single Wall St:***	
Overfill Prot Type:	Alarm	***Piping Underground:***	
Creation Date:	1/22/2013 3:59:33 PM	***Tank Underground:***	
Next Periodic Str DT:	NULL	***Source:***	FS Liquid Fuel Tank

TSSA Base Sched Cycle 2:	NULL
TSSAMax Hazard Rank 1:	NULL
TSSA Risk Based Periodic Yn:	NULL
TSSA Volume of Directives:	NULL
TSSA Periodic Exempt:	NULL
TSSA Statutory Interval:	NULL
TSSA Recd Insp Interva:	NULL
TSSA Recd Tolerance:	NULL
TSSA Program Area:	NULL
TSSA Program Area 2:	NULL
Description:	Never installed
Original Source:	EXP
Record Date:	31-JUL-2020

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
19	25 of 30	NNE/188.1	336.9 / 2.69	328 SPEEDVALE AV E GUELPH ON N1E 1N5	DTNK

Delisted Fuel Storage Tank

Instance No:	9764015	***Creation Date:***	
Status:	Active	***Overfill Prot Type:***	
Instance Type:		***Facility Location:***	
Fuel Type:		***Piping SW Steel:***	0
Cont Name:		***Piping SW Galvan:***	0
Capacity:		***Tanks SW Steel:***	0
Tank Material:		***Piping Underground:***	3
Corrosion Prot:		***No Underground:***	4
Tank Type:		***Max Hazard Rank:***	
Install Year:		***Max Hazard Rank 1:***	
Facility Type:		***Nxt Period Start Dt:***	
Device Installed Loc:		***Program Area 1:***	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Fuel Type 2:		**Program Area 2:**	
Fuel Type 3:		**Nxt Period Strt Dt 2:**	
Item:	FS GASOLINE STATION - SELF SERVE	**Risk Based Periodic:**	
Item Description:		**Vol of Directives:**	
Model:		**Years in Service:**	
Description:		**Created Date:**	
Instance Creation Dt:		**Federal Device:**	
Instance Install Dt:		**Periodic Exempt:**	
Manufacturer:		**Statutory Interval:**	
Serial No:		**Rcomnd Insp Interval:**	
ULC Standard:		**Recommended Toler:**	
Quantity:		**Panam Venue Name:**	
Unit of Measure:		**External Identifier:**	
Parent Fac Type:			
TSSA Base Sched Cycle 1:			
TSSA Base Sched Cycle 2:			
Original Source:	FST		
Record Date:	31-MAY-2021		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
19	26 of 30	NNE/188.1	336.9 / 2.69	**Cornell Animal Hospital** **328 Speedvale Ave. E.** **Guelph ON N1E 1N5**	GEN

Generator No:	ON9687993
SIC Code:	
SIC Description:	
Approval Years:	As of Nov 2021
PO Box No:	
Country:	Canada
Status:	Registered
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	312 P
Waste Class Name:	Pathological wastes

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
19	27 of 30	NNE/188.1	336.9 / 2.69	**7-Eleven Canada Inc.** **328 Speedvale Ave East** **Guelph ON N1E 1N5**	GEN

Generator No:	ON6405832
SIC Code:	
SIC Description:	
Approval Years:	As of Nov 2021
PO Box No:	
Country:	Canada
Status:	Registered
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	221 L
Waste Class Name:	Light fuels

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class:		221 I			
Waste Class Name:		Light fuels			

19	28 of 30	NNE/188.1	336.9 / 2.69	**7-Eleven Canada Inc.** **328 Speedvale Ave East** **Guelph ON N1E 1N5**	GEN

Generator No: ON6405832
SIC Code:
SIC Description:
Approval Years: As of Oct 2022
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 221 L
Waste Class Name: LIGHT FUELS

Waste Class: 221 I
Waste Class Name: LIGHT FUELS

19	29 of 30	NNE/188.1	336.9 / 2.69	**Cornell Animal Hospital** **328 Speedvale Ave. E.** **Guelph ON N1E 1N5**	GEN

Generator No: ON9687993
SIC Code:
SIC Description:
Approval Years: As of Oct 2022
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 261 A
Waste Class Name: PHARMACEUTICALS

Waste Class: 312 P
Waste Class Name: PATHOLOGICAL WASTES

19	30 of 30	NNE/188.1	336.9 / 2.69	**Parsons Inc.** **328 Speedvale AVE E** **Guelph ON N1E 1N5**	EASR

Approval No: R-009-1174545854
Status: REGISTERED
Date: April 13, 2022
Record Type: EASR
Link Source: MOFA
MOE District: Guelph
Municipality: Guelph
Latitude: 43.5675
Longitude: -80.25805556
Geometry X: -8934285.8764999993

Project Type:	Water Taking - Construction Dewatering	**Geometry Y:**	5398753.9492999986
Full Address:			
Approval Type:	EASR-Water Taking - Construction Dewatering		
SWP Area Name:	Grand River		
PDF URL:	http://www.accessenvironment.ene.gov.on.ca/AEWeb/ae/ViewDocument.action?documentRefID=2621828		
PDF Site Location:	328 Speedvale Avenue (ave) East Guelph ON N1E 1N5		

20 | **1 of 1** | **WSW/194.7** | **331.9 / -2.31** | **Intersection of Gladstone and Speedvale Guelph ON** | **SPL**

Ref No:	6304-A6MTBR	**Contaminant Qty:**	0 other - see incident description
Site No:	NA	**Nature of Damage:**	
Incident Dt:	2016/01/29	**Discharger Report:**	
Year:		**Material Group:**	
Incident Cause:		**Health/Env Conseq:**	
Incident Event:	Collision/Accident	**Agency Involved:**	
Environment Impact:		**Site Lot:**	
Nature of Impact:		**Site Conc:**	
MOE Response:	No	**Site Geo Ref Accu:**	GPS
Dt MOE Arvl on Scn:		**Site Map Datum:**	
MOE Reported Dt:	2016/01/29	**Northing:**	4823661
Dt Document Closed:	2016/02/04	**Easting:**	559662
Municipality No:			
System Facility Address:			
Client Type:			
Call Report Location Geodata:			
Contaminant Code:	15		
Contaminant Name:	TRANSMISSION OIL		
Contaminant Limit 1:			
Contam Limit Freq 1:			
Contaminant UN No 1:			
Receiving Medium:			
Receiving Environment:	Land		
Incident Reason:	Operator/Human Error		
Incident Summary:	MVA in Guelph; operating fluids to rd and cb, responding		
Site Region:			
Site Municipality:	Guelph		
Activity Preceding Spill:			
Property 2nd Watershed:			
Property Tertiary Watershed:			
Sector Type:	Miscellaneous Communal		
SAC Action Class:	Land Spills		
Source Type:			
Site County/District:			
Site Geo Ref Meth:			
Site District Office:			
Nearest Watercourse:			
Site Name:	Roadway and CB<UNOFFICIAL>		
Site Address:	Intersection of Gladstone and Speedvale		
Client Name:			

21 | **1 of 2** | **SW/201.9** | **330.2 / -4.00** | **PIPELINE HIT - 1 1/4" 261 SPEEDVALE AVE E,,GUELPH,ON,N1E 1M8, CA ON** | **PINC**

Incident Id:		**Pipe Material:**	
Incident No:	1861740	**Fuel Category:**	
Incident Reported Dt:	5/11/2016	**Health Impact:**	
Type:	FS-Pipeline Incident	**Environment Impact:**	
Status Code:		**Property Damage:**	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Tank Status:	Pipeline Damage Reason Est	**Service Interrupt:**	
Task No:		**Enforce Policy:**	
Spills Action Centre:		**Public Relation:**	
Fuel Type:		**Pipeline System:**	
Fuel Occurrence Tp:		**PSIG:**	
Date of Occurrence:		**Attribute Category:**	
Occurrence Start Dt:		**Regulator Location:**	
Depth:		**Method Details:**	
Customer Acct Name:	PIPELINE HIT - 1 1/4"		
Incident Address:	261 SPEEDVALE AVE E,,GUELPH,ON,N1E 1M8,CA		
Operation Type:			
Pipeline Type:			
Regulator Type:			
Summary:			
Reported By:			
Affiliation:			
Occurrence Desc:			
Damage Reason:			
Notes:			

21	*2 of 2*	*SW/201.9*	*330.2 / -4.00*	***ELMRIDGE DR 145 APARTMENT BUILDING*** ***261 SPEEDVALE AVE E,,GUELPH,ON,N1E 1M8, CA*** ***ON***	***PINC***

Incident Id:		**Pipe Material:**	
Incident No:	1774942	**Fuel Category:**	
Incident Reported Dt:	12/18/2015	**Health Impact:**	
Type:	FS-Pipeline Incident	**Environment Impact:**	
Status Code:		**Property Damage:**	
Tank Status:	Pipeline Damage Reason Est	**Service Interrupt:**	
Task No:		**Enforce Policy:**	
Spills Action Centre:		**Public Relation:**	
Fuel Type:		**Pipeline System:**	
Fuel Occurrence Tp:		**PSIG:**	
Date of Occurrence:		**Attribute Category:**	
Occurrence Start Dt:		**Regulator Location:**	
Depth:		**Method Details:**	
Customer Acct Name:	ELMRIDGE DR 145 APARTMENT BUILDING		
Incident Address:	261 SPEEDVALE AVE E,,GUELPH,ON,N1E 1M8,CA		
Operation Type:			
Pipeline Type:			
Regulator Type:			
Summary:			
Reported By:			
Affiliation:			
Occurrence Desc:			
Damage Reason:			
Notes:			

22	*1 of 1*	*ENE/230.6*	*337.9 / 3.71*	***Upper Grand District School Board*** ***Edward Johnson Public School 397 Stevenson Street North*** ***Guelph ON N1E 5C1***	***GEN***

Generator No:	ON3056104
SIC Code:	611110
SIC Description:	Elementary and Secondary Schools
Approval Years:	04
PO Box No:	
Country:	
Status:	

Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

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23 **1 of 2** **NNE/244.3** **337.9 / 3.77** **328 SPEEDVALE AVE EAST Guelph ON** **WWIS**

Well ID:	7357835	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:	Monitoring	**Data Entry Status:**	
Use 2nd:		**Data Src:**	
Final Well Status:	0	**Date Received:**	06-May-2020 00:00:00
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:	Z331471	**Contractor:**	7675
Tag:	A273189	**Form Version:**	7
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	WELLINGTON
Elevatn Reliabilty:		**Lot:**	
Depth to Bedrock:		**Concession:**	
Well Depth:		**Concession Name:**	
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	GUELPH TOWNSHIP		
Site Info:			

PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date:	2020/03/12
Year Completed:	2020
Depth (m):	6.096
Latitude:	43.567062760397
Longitude:	-80.2575807480301
Path:	

Bore Hole Information

Bore Hole ID:	1008270720	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	559954.00
Code OB Desc:		**North83:**	4824057.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	12-Mar-2020 00:00:00	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID: 1008288561
Layer: 1
Color:
General Color:
Mat1: 01
Most Common Material: FILL
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 2.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1008288562
Layer: 2
Color:
General Color:
Mat1: 28
Most Common Material: SAND
Mat2: 11
Mat2 Desc: GRAVEL
Mat3: 68
Mat3 Desc: DRY
Formation Top Depth: 2.0
Formation End Depth: 20.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1008288572
Layer: 4
Plug From: 9.0
Plug To: 20.0
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1008288571
Layer: 3
Plug From: 2.0
Plug To: 9.0
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1008288570
Layer: 2
Plug From: 1.0
Plug To: 2.0
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID:	1008288569
Layer:	1
Plug From:	0.0
Plug To:	1.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	1008288568
Method Construction Code:	E
Method Construction:	Auger
Other Method Construction:	

Pipe Information

Pipe ID:	1008288560
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1008288565
Layer:	1
Material:	
Open Hole or Material:	
Depth From:	0.0
Depth To:	10.0
Casing Diameter:	2.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1008288566
Layer:	1
Slot:	10
Screen Top Depth:	10.0
Screen End Depth:	20.0
Screen Material:	5
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	2.0

Water Details

Water ID:	1008288564
Layer:	
Kind Code:	
Kind:	
Water Found Depth:	
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1008288563
Diameter:	8.0
Depth From:	0.0
Depth To:	20.0
Hole Depth UOM:	ft

Hole Diameter UOM: inch

Links

Bore Hole ID:	1008270720	**Tag No:**	A273189
Depth M:	6.096	**Contractor:**	7675
Year Completed:	2020	**Path:**	
Well Completed Dt:	2020/03/12	**Latitude:**	43.567062760397
Audit No:	Z331471	**Longitude:**	-80.2575807480301

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23 **2 of 2** **NNE/244.3** **337.9 / 3.77** **328 SPEEDVALE AVE EAST Guelph ON** **WWIS**

Well ID:	7357838	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:	Monitoring	**Data Entry Status:**	
Use 2nd:		**Data Src:**	
Final Well Status:	0	**Date Received:**	06-May-2020 00:00:00
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:	Z331474	**Contractor:**	7675
Tag:	A273188	**Form Version:**	7
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	WELLINGTON
Elevatn Reliabilty:		**Lot:**	
Depth to Bedrock:		**Concession:**	
Well Depth:		**Concession Name:**	
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	GUELPH TOWNSHIP		
Site Info:			

PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date:	2020/03/12
Year Completed:	2020
Depth (m):	9.144
Latitude:	43.567062760397
Longitude:	-80.2575807480301
Path:	

Bore Hole Information

Bore Hole ID:	1008270732	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	559954.00
Code OB Desc:		**North83:**	4824057.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	12-Mar-2020 00:00:00	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			

Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID:	1008288606
Layer:	3
Color:	
General Color:	
Mat1:	28
Most Common Material:	SAND
Mat2:	11
Mat2 Desc:	GRAVEL
Mat3:	91
Mat3 Desc:	WATER-BEARING
Formation Top Depth:	20.0
Formation End Depth:	30.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1008288604
Layer:	1
Color:	
General Color:	
Mat1:	01
Most Common Material:	FILL
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	2.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1008288605
Layer:	2
Color:	
General Color:	
Mat1:	28
Most Common Material:	SAND
Mat2:	11
Mat2 Desc:	GRAVEL
Mat3:	68
Mat3 Desc:	DRY
Formation Top Depth:	2.0
Formation End Depth:	20.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1008288616
Layer:	4
Plug From:	23.0
Plug To:	30.0
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1008288615
Layer:	3
Plug From:	2.0
Plug To:	23.0
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1008288613
Layer:	1
Plug From:	0.0
Plug To:	1.0
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1008288614
Layer:	2
Plug From:	1.0
Plug To:	2.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	1008288612
Method Construction Code:	E
Method Construction:	Auger
Other Method Construction:	

Pipe Information

Pipe ID:	1008288603
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1008288609
Layer:	1
Material:	
Open Hole or Material:	
Depth From:	0.0
Depth To:	25.0
Casing Diameter:	2.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1008288610
Layer:	1
Slot:	10
Screen Top Depth:	25.0
Screen End Depth:	30.0

Screen Material: 5
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 2.0

Water Details

Water ID: 1008288608
Layer:
Kind Code:
Kind:
Water Found Depth:
Water Found Depth UOM: ft

Hole Diameter

Hole ID: 1008288607
Diameter: 8.0
Depth From: 0.0
Depth To: 30.0
Hole Depth UOM: ft
Hole Diameter UOM: inch

Links

Bore Hole ID: 1008270732
Depth M: 9.144
Year Completed: 2020
Well Completed Dt: 2020/03/12
Audit No: Z331474
Tag No: A273188
Contractor: 7675
Path:
Latitude: 43.567062760397
Longitude: -80.2575807480301

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24 | **1 of 5** | **NE/245.4** | **337.9 / 3.73** | **1865088 Ontario Ltd**
328-386 Speedvale Ave East
Guelph ON | **GEN**

Generator No: ON6318298
SIC Code: 531310
SIC Description: REAL ESTATE PROPERTY MANAGERS
Approval Years: 2013
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 263
Waste Class Name: ORGANIC LABORATORY CHEMICALS

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24 | **2 of 5** | **NE/245.4** | **337.9 / 3.73** | **1865088 Ontario Ltd**
328-386 Speedvale Ave East
Guelph ON N1E 6A7 | **GEN**

Generator No: ON6318298
SIC Code: 531310
SIC Description: REAL ESTATE PROPERTY MANAGERS
Approval Years: 2016

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

PO Box No:
Country: Canada
Status:
Co Admin: Randy Barkhouse
Choice of Contact: CO_ADMIN
Phone No Admin: 519-741-5774 Ext.
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 263
Waste Class Name: ORGANIC LABORATORY CHEMICALS

24	3 of 5	NE/245.4	337.9 / 3.73	**1865088 Ontario Ltd** **328-386 Speedvale Ave East** **Guelph ON N1E 6A7**	GEN

Generator No: ON6318298
SIC Code: 531310
SIC Description: REAL ESTATE PROPERTY MANAGERS
Approval Years: 2015
PO Box No:
Country: Canada
Status:
Co Admin: Randy Barkhouse
Choice of Contact: CO_ADMIN
Phone No Admin: 519-741-5774 Ext.
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 263
Waste Class Name: ORGANIC LABORATORY CHEMICALS

24	4 of 5	NE/245.4	337.9 / 3.73	**1865088 Ontario Ltd** **328-386 Speedvale Ave East** **Guelph ON N1E 6A7**	GEN

Generator No: ON6318298
SIC Code: 531310
SIC Description: REAL ESTATE PROPERTY MANAGERS
Approval Years: 2014
PO Box No:
Country: Canada
Status:
Co Admin: Randy Barkhouse
Choice of Contact: CO_ADMIN
Phone No Admin: 519-741-5774 Ext.
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 263
Waste Class Name: ORGANIC LABORATORY CHEMICALS

24	5 of 5	NE/245.4	337.9 / 3.73	**1865088 Ontario Ltd** **328-386 Speedvale Ave East** **Guelph ON N1E 6A7**	GEN

Generator No: ON6318298
SIC Code:
SIC Description:
Approval Years: As of Jun 2018
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 263 L
Waste Class Name: Misc. waste organic chemicals

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25 | **1 of 1** | **NNE/249.4** | **337.2 / 3.00** | **328 SPEEDVALE AVE E Guelph ON** | **WWIS**

Well ID: 7277237
Construction Date:
Use 1st: Monitoring
Use 2nd:
Final Well Status: Observation Wells
Water Type:
Casing Material:
Audit No: Z232715
Tag: A213494
Constructn Method:
Elevation (m):
Elevatn Reliabilty:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Clear/Cloudy:
Municipality: GUELPH TOWNSHIP
Site Info:

Flowing (Y/N):
Flow Rate:
Data Entry Status:
Data Src:
Date Received: 16-Dec-2016 00:00:00
Selected Flag: TRUE
Abandonment Rec:
Contractor: 7238
Form Version: 7
Owner:
County: WELLINGTON
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date: 2016/11/25
Year Completed: 2016
Depth (m): 18.5928
Latitude: 43.5672089055917
Longitude: -80.2579009146942
Path:

Bore Hole Information

Bore Hole ID: 1006308002
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:

Elevation:
Elevrc:
Zone: 17
East83: 559928.00
North83: 4824073.00
Org CS: UTM83
UTMRC: 4

Date Completed: 25-Nov-2016 00:00:00
Remarks:
Loc Method Desc: on Water Well Record
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1006499285
Layer: 3
Color:
General Color:
Mat1: 28
Most Common Material: SAND
Mat2:
Mat2 Desc:
Mat3: 91
Mat3 Desc: WATER-BEARING
Formation Top Depth: 15.0
Formation End Depth: 40.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1006499284
Layer: 2
Color:
General Color:
Mat1: 06
Most Common Material: SILT
Mat2: 34
Mat2 Desc: TILL
Mat3:
Mat3 Desc:
Formation Top Depth: 2.0
Formation End Depth: 15.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1006499286
Layer: 4
Color:
General Color:
Mat1: 26
Most Common Material: ROCK
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 40.0
Formation End Depth: 61.0
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID:	1006499283
Layer:	1
Color:	
General Color:	
Mat1:	01
Most Common Material:	FILL
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	2.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1006499295
Layer:	1
Plug From:	0.0
Plug To:	1.0
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1006499297
Layer:	3
Plug From:	2.0
Plug To:	46.0
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1006499296
Layer:	2
Plug From:	1.0
Plug To:	2.0
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1006499298
Layer:	4
Plug From:	46.0
Plug To:	61.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	1006499294
Method Construction Code:	
Method Construction:	
Other Method Construction:	

Pipe Information

Pipe ID: 1006499282
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1006499291
Layer: 2
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0.0
Depth To: 48.0
Casing Diameter: 2.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 1006499290
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From: 0.0
Depth To: 41.0
Casing Diameter: 5.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1006499292
Layer: 1
Slot: 10
Screen Top Depth: 48.0
Screen End Depth: 58.0
Screen Material: 5
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter:

Water Details

Water ID: 1006499289
Layer:
Kind Code:
Kind:
Water Found Depth:
Water Found Depth UOM: ft

Hole Diameter

Hole ID: 1006499288
Diameter: 4.0
Depth From: 40.0
Depth To: 61.0
Hole Depth UOM: ft
Hole Diameter UOM: inch

Hole Diameter

Hole ID: 1006499287
Diameter: 8.0
Depth From: 0.0
Depth To: 40.0
Hole Depth UOM: ft
Hole Diameter UOM: inch

Links

Bore Hole ID: 1006308002
Depth M: 18.5928
Year Completed: 2016
Well Completed Dt: 2016/11/25
Audit No: Z232715
Tag No: A213494
Contractor: 7238
Path: 727\7277237.pdf
Latitude: 43.5672089055917
Longitude: -80.2579009146942

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26 | ***1 of 2*** | ***NNW/253.4*** | ***338.9 / 4.69*** | ***Union Gas Limited 7 Lilac Place Guelph ON*** | ***SPL***

Ref No: 3423-ACPL3T
Site No: NA
Incident Dt: 2016/08/08
Year:
Incident Cause:
Incident Event: Leak/Break
Environment Impact:
Nature of Impact:
MOE Response: No
Dt MOE Arvl on Scn:
MOE Reported Dt: 2016/08/10
Dt Document Closed:
Municipality No:
System Facility Address:
Client Type:
Call Report Location Geodata:
Contaminant Code: 35
Contaminant Name: NATURAL GAS (METHANE)
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Receiving Medium:
Receiving Environment: Air
Incident Reason: Operator/Human Error
Incident Summary: TSSA FSB: 1/2" PL strike, made safe.
Site Region:
Site Municipality: Guelph
Activity Preceding Spill:
Property 2nd Watershed:
Property Tertiary Watershed:
Sector Type: Miscellaneous Industrial
SAC Action Class: TSSA - Fuel Safety Branch - Hydrocarbon Fuel Release/Spill
Source Type:
Site County/District:
Site Geo Ref Meth:
Site District Office:
Nearest Watercourse:
Site Name: Guelph PL strike site<UNOFFICIAL>
Site Address: 7 Lilac Place
Client Name: Union Gas Limited
Contaminant Qty: 0 L
Nature of Damage:
Discharger Report:
Material Group:
Health/Env Conseq:
Agency Involved:
Site Lot:
Site Conc:
Site Geo Ref Accu:
Site Map Datum:
Northing:
Easting:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
26	2 of 2	NNW/253.4	338.9 / 4.69	PIPELINE HIT - 1/2" 7 LILAC PLACE,,GUELPH,ON,N1E 1K2,CA ON	PINC

Incident Id:
Incident No: 1920446
Incident Reported Dt: 8/10/2016
Type: FS-Pipeline Incident
Status Code:
Tank Status: Non Mandated
Task No:
Spills Action Centre:
Fuel Type:
Fuel Occurrence Tp:
Date of Occurrence:
Occurrence Start Dt:
Depth:
Customer Acct Name: PIPELINE HIT - 1/2"
Incident Address: 7 LILAC PLACE,,GUELPH,ON,N1E 1K2,CA
Operation Type:
Pipeline Type:
Regulator Type:
Summary:
Reported By:
Affiliation:
Occurrence Desc:
Damage Reason:
Notes:

Pipe Material:
Fuel Category:
Health Impact:
Environment Impact:
Property Damage:
Service Interrupt:
Enforce Policy:
Public Relation:
Pipeline System:
PSIG:
Attribute Category:
Regulator Location:
Method Details:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
27	1 of 4	NNE/276.7	337.8 / 3.64	328-386 Speedvale Avenue Guelph ON N1E 1N6	EHS

Order No: 21022600008
Status: C
Report Type: Custom Report
Report Date: 03-MAR-21
Date Received: 26-FEB-21
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): .25
X: -80.2580345
Y: 43.56749442

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
27	2 of 4	NNE/276.7	337.8 / 3.64	328-386 Speedvale Avenue Guelph ON N1E 1N6	EHS

Order No: 21022600008
Status: C
Report Type: Custom Report
Report Date: 03-MAR-21
Date Received: 26-FEB-21
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): .25
X: -80.2580345
Y: 43.56749442

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
27	3 of 4	NNE/276.7	337.8 / 3.64	328-386 Speedvale Avenue Guelph ON N1E 1N6	EHS

Order No: 21022600008
Status: C
Report Type: Custom Report
Report Date: 03-MAR-21
Date Received: 26-FEB-21

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): .25
X: -80.2580345

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Previous Site Name:
Lot/Building Size:
Additional Info Ordered:
Y: 43.56749442

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27 | **4 of 4** | **NNE/276.7** | **337.8 / 3.64** | **328-386 Speedvale Avenue Guelph ON N1E 1N6** | **EHS**

Order No: 21022600008
Status: C
Report Type: Custom Report
Report Date: 03-MAR-21
Date Received: 26-FEB-21
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:
Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): .25
X: -80.2580345
Y: 43.56749442

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28 | **1 of 3** | **N/280.2** | **337.9 / 3.69** | **330 Speedvale Ave. E. Guelph ON N1E 1N5** | **SPL**

Ref No: 7863-75Y2H5
Site No:
Incident Dt:
Year:
Incident Cause: Other Discharges
Incident Event:
Environment Impact: Possible
Nature of Impact: Surface Water Pollution
MOE Response: No Field Response
Dt MOE Arvl on Scn:
MOE Reported Dt: 8/10/2007
Dt Document Closed:
Municipality No:
System Facility Address:
Client Type:
Call Report Location Geodata:
Contaminant Code: 27
Contaminant Name: ORGANIC MATERIAL
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Receiving Medium: Water
Receiving Environment:
Incident Reason: Unknown - Reason not determined
Incident Summary: Food Basics: 500L Organic Food Liquid Waste to CB
Site Region:
Site Municipality: Guelph
Activity Preceding Spill:
Property 2nd Watershed:
Property Tertiary Watershed:
Sector Type: Other
SAC Action Class:
Source Type:
Site County/District:
Site Geo Ref Meth:
Site District Office:
Nearest Watercourse:
Site Name: Food Basics<UNOFFICIAL>
Site Address:
Client Name:
Contaminant Qty: 500 L
Nature of Damage:
Discharger Report:
Material Group: Chemicals
Health/Env Conseq:
Agency Involved:
Site Lot:
Site Conc:
Site Geo Ref Accu:
Site Map Datum:
Northing:
Easting:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
28	2 of 3	N/280.2	337.9 / 3.69	BYRON FOOD MARKET 330 SPEEDVALE AVENUE EAST GUELPH ON N1E1N5	PES

Detail Licence No:		**Operator Box:**	
Licence No:	10381	**Operator Class:**	
Status:		**Operator No:**	
Approval Date:		**Operator Type:**	
Report Source:	Legacy Licenses (Excluding TS)	**Oper Area Code:**	519
Licence Type:	Retail Vendor Class 03	**Oper Phone No:**	8372000
Licence Type Code:	21	**Operator Ext:**	
Licence Class:	03	**Operator Lot:**	
Licence Control:		**Oper Concession:**	
Latitude:		**Operator Region:**	
Longitude:		**Operator District:**	
Lot:		**Operator County:**	
Concession:		**Op Municipality:**	
Region:		**Post Office Box:**	
District:		**MOE District:**	
County:		**SWP Area Name:**	
Trade Name:			
PDF URL:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
28	3 of 3	N/280.2	337.9 / 3.69	330 Speedvale Ave East Guelph ON	SPL

Ref No:	6545-BF2NY4	**Contaminant Qty:**	20 L
Site No:	NA	**Nature of Damage:**	
Incident Dt:	8/13/2019	**Discharger Report:**	
Year:		**Material Group:**	
Incident Cause:		**Health/Env Conseq:**	2 - Minor Environment
Incident Event:	Leak/Break	**Agency Involved:**	
Environment Impact:		**Site Lot:**	
Nature of Impact:		**Site Conc:**	
MOE Response:	No	**Site Geo Ref Accu:**	
Dt MOE Arvl on Scn:		**Site Map Datum:**	
MOE Reported Dt:	8/14/2019	**Northing:**	4806418
Dt Document Closed:		**Easting:**	552724
Municipality No:			
System Facility Address:			
Client Type:			
Call Report Location Geodata:			
Contaminant Code:	44		
Contaminant Name:	SEWAGE SLUDGE		
Contaminant Limit 1:			
Contam Limit Freq 1:			
Contaminant UN No 1:	n/a		
Receiving Medium:			
Receiving Environment:	Land		
Incident Reason:	Material Failure - Poor Design/Substandard Material		
Incident Summary:	Sanitary sewer surcharging to CB		
Site Region:	West Central		
Site Municipality:	Guelph		
Activity Preceding Spill:			
Property 2nd Watershed:			
Property Tertiary Watershed:			
Sector Type:	Miscellaneous Communal		
SAC Action Class:	Land Spills		
Source Type:	Sewer (Private or Municipal)		
Site County/District:	County of Wellington		
Site Geo Ref Meth:			
Site District Office:	Guelph		
Nearest Watercourse:			
Site Name:	spill<UNOFFICIAL>		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Site Address: 330 Speedvale Ave East
Client Name:

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29 **1 of 2** **NE/283.2** **338.9 / 4.69** **Union Gas Ltd**
343 Speedvale Ave East
Guelph ON **SPL**

Ref No: 3375-8Z4JXP
Site No:
Incident Dt: 15-OCT-12
Year:
Incident Cause: Leak/Break
Incident Event:
Environment Impact: Confirmed
Nature of Impact: Air Pollution
MOE Response: Not MOE mandate
Dt MOE Arvl on Scn:
MOE Reported Dt: 15-OCT-12
Dt Document Closed: 18-OCT-12
Municipality No:
System Facility Address:
Client Type:
Call Report Location Geodata:
Contaminant Code: 35
Contaminant Name: NATURAL GAS (METHANE)
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Receiving Medium:
Receiving Environment:
Incident Reason: Operator/Human Error
Incident Summary: TSSA FSB: 2 inch plastic line strike, safe
Site Region:
Site Municipality: Guelph
Activity Preceding Spill:
Property 2nd Watershed:
Property Tertiary Watershed:
Sector Type: Pipeline/Components
SAC Action Class: TSSA - Fuel Safety Branch - Hydrocarbon Fuel Release/Spill
Source Type:
Site County/District:
Site Geo Ref Meth:
Site District Office:
Nearest Watercourse:
Site Name: plaza<UNOFFICIAL>
Site Address: 343 Speedvale Ave East
Client Name: Union Gas Ltd

Contaminant Qty: 0 other - see incident description
Nature of Damage:
Discharger Report:
Material Group:
Health/Env Conseq:
Agency Involved:
Site Lot:
Site Conc:
Site Geo Ref Accu:
Site Map Datum:
Northing:
Easting:

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29 **2 of 2** **NE/283.2** **338.9 / 4.69** **2" Pipeline Hit**
343 SPEEDVALE AVENUE EAST,,GUELPH,ON,
N1E 1N6,CA
ON **PINC**

Incident Id:
Incident No: 919760
Incident Reported Dt: 10/15/2012
Type: FS-Pipeline Incident
Status Code:
Tank Status: Not Investigated
Task No:
Spills Action Centre:
Fuel Type:

Pipe Material:
Fuel Category:
Health Impact:
Environment Impact:
Property Damage:
Service Interrupt:
Enforce Policy:
Public Relation:
Pipeline System:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Fuel Occurrence Tp:
Date of Occurrence:
Occurrence Start Dt:
Depth:
Customer Acct Name: 2" Pipeline Hit
Incident Address: 343 SPEEDVALE AVENUE EAST,,GUELPH,ON,N1E 1N6,CA
Operation Type:
Pipeline Type:
Regulator Type:
Summary:
Reported By:
Affiliation:
Occurrence Desc:
Damage Reason:
Notes:
PSIG:
Attribute Category:
Regulator Location:
Method Details:

---

30 | 1 of 11 | NE/294.9 | 338.8 / 4.61 | **TDL GROUP LTD.**
328-378 SPEEDVALE AVENUE
GUELPH CITY ON | CA

Certificate #: 8-2099-97-
Application Year: 97
Issue Date: 5/28/1997
Approval Type: Industrial air
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: KITCHEN EXHAUST HOOD FOR TIM HORTON'S
Contaminants: Odour/Fumes
Emission Control: Other - Air

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30 | 2 of 11 | NE/294.9 | 338.8 / 4.61 | **328-386 Speedvale Ave East**
Guelph ON N1E 1N5 | EHS

Order No: 20080721009
Status: C
Report Type: Custom Report
Report Date: 7/30/2008
Date Received: 7/21/2008
Previous Site Name:
Lot/Building Size:
Additional Info Ordered: Fire Insur. Maps And /or Site Plans
Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): 0.25
X: -694444.444444
Y: -694444.444444

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30 | 3 of 11 | NE/294.9 | 338.8 / 4.61 | **THE BARGAIN! SHOP HOLDINGS INC.**
(STORE#52961)
328 - 378 SPEEDVALE AVE
GUELPH ON N1E1N5 | PES

Detail Licence No:
Licence No:
Status:
Approval Date:
Report Source:
Licence Type: Vendor
Licence Type Code:
Licence Class:
Licence Control:
Operator Box:
Operator Class:
Operator No:
Operator Type:
Oper Area Code:
Oper Phone No:
Operator Ext:
Operator Lot:
Oper Concession:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Latitude: ***Operator Region:***
Longitude: ***Operator District:***
Lot: ***Operator County:***
Concession: ***Op Municipality:***
Region: ***Post Office Box:***
District: ***MOE District:***
County: ***SWP Area Name:***
Trade Name:
PDF URL:

---

30 ***4 of 11*** ***NE/294.9*** ***338.8 / 4.61*** ***HREIT Corporation 27*** ***GEN***
328-378 Speedvale Ave E
Guelph ON

Generator No: ON4298406
SIC Code: 531310
SIC Description: Real Estate Property Managers
Approval Years: 2009
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 241
Waste Class Name: HALOGENATED SOLVENTS

---

30 ***5 of 11*** ***NE/294.9*** ***338.8 / 4.61*** ***Huntingdon-Reit*** ***GEN***
328-378 Speedvale Drive
Guelph ON N1E 1N5

Generator No: ON3817121
SIC Code: 531190
SIC Description: Lessors of Other Real Estate Property
Approval Years: 2010
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 241
Waste Class Name: HALOGENATED SOLVENTS

---

30 ***6 of 11*** ***NE/294.9*** ***338.8 / 4.61*** ***THE BARGAIN! SHOP HOLDINGS INC. (STORE#52961)*** ***PES***
328 - 378 SPEEDVALE AVE
GUELPH ON N1E 1N5

Detail Licence No: 23-01-15693-0 ***Operator Box:***
Licence No: ***Operator Class:***

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Status:				**Operator No:**	
Approval Date:				**Operator Type:**	
Report Source:				**Oper Area Code:**	
Licence Type:	LIMITED			**Oper Phone No:**	
Licence Type Code:				**Operator Ext:**	
Licence Class:				**Operator Lot:**	
Licence Control:				**Oper Concession:**	
Latitude:				**Operator Region:**	
Longitude:				**Operator District:**	
Lot:				**Operator County:**	
Concession:				**Op Municipality:**	
Region:				**Post Office Box:**	
District:				**MOE District:**	
County:				**SWP Area Name:**	
Trade Name:					
PDF URL:					

30	***7 of 11***	***NE/294.9***	***338.8 / 4.61***	***THE BARGAIN! SHOP HOLDINGS INC. (STORE#52961)*** ***328 - 378 SPEEDVALE AVE*** ***GUELPH ON N1E1N5***	***PES***

Detail Licence No:		**Operator Box:**	
Licence No:	15693	**Operator Class:**	
Status:		**Operator No:**	
Approval Date:		**Operator Type:**	
Report Source:	Legacy Licenses (Excluding TS)	**Oper Area Code:**	519
Licence Type:	Limited Vendor	**Oper Phone No:**	8229533
Licence Type Code:	23	**Operator Ext:**	
Licence Class:	01	**Operator Lot:**	
Licence Control:		**Oper Concession:**	
Latitude:		**Operator Region:**	
Longitude:		**Operator District:**	
Lot:		**Operator County:**	
Concession:		**Op Municipality:**	
Region:		**Post Office Box:**	
District:		**MOE District:**	
County:		**SWP Area Name:**	
Trade Name:			
PDF URL:			

30	***8 of 11***	***NE/294.9***	***338.8 / 4.61***	***328 Speedvale Commercial Centre Inc.*** ***328-378 Speedvale Ave. East*** ***Guelph ON N1E 1N5***	***GEN***

Generator No:	ON8306435
SIC Code:	
SIC Description:	
Approval Years:	As of Jul 2020
PO Box No:	
Country:	Canada
Status:	Registered
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	241 L

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class Name: Halogenated solvents and residues

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30 | **9 of 11** | **NE/294.9** | **338.8 / 4.61** | **Unknown<UNOFFICIAL>**
378 Speedvale Avenue East, Guelph
Guelph ON | **SPL**

Ref No: 4554-BR3BUV
Site No: NA
Incident Dt: 2020/06/30
Year:
Incident Cause:
Incident Event: Other
Environment Impact:
Nature of Impact:
MOE Response: No
Dt MOE Arvl on Scn:
MOE Reported Dt: 2020/06/30
Dt Document Closed:
Municipality No:
System Facility Address:
Client Type:
Call Report Location Geodata:
Contaminant Code: 96
Contaminant Name: MILK PRODUCT
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1: n/a
Receiving Medium:
Receiving Environment: Land; Surface Water; Source Water Zone
Incident Reason: Equipment Failure
Incident Summary: City of Guelph: Unknown quantity of milk, 5 CB's, contained
Site Region: West Central
Site Municipality: Guelph
Activity Preceding Spill:
Property 2nd Watershed:
Property Tertiary Watershed:
Sector Type: Miscellaneous Communal
SAC Action Class: Watercourse Spills
Source Type: Container/Drum/Tote
Site County/District: County of Wellington
Site Geo Ref Meth:
Site District Office: Guelph
Nearest Watercourse:
Site Name: 378 Speedvale Avenue East, Guelph<UNOFFICIAL>
Site Address: 378 Speedvale Avenue East, Guelph
Client Name: Unknown<UNOFFICIAL>

Contaminant Qty: 0 other - see incident description
Nature of Damage:
Discharger Report:
Material Group:
Health/Env Conseq: 2 - Minor Environment
Agency Involved:
Site Lot:
Site Conc:
Site Geo Ref Accu:
Site Map Datum:
Northing: 4824078.3
Easting: 560063.63

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30 | **10 of 11** | **NE/294.9** | **338.8 / 4.61** | **328 Speedvale Commercial Centre Inc.**
328-378 Speedvale Ave. East
Guelph ON N1E 1N5 | **GEN**

Generator No: ON8306435
SIC Code:
SIC Description:
Approval Years: As of Nov 2021
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Detail(s)

Waste Class: 241 L
Waste Class Name: Halogenated solvents and residues

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
30	11 of 11	NE/294.9	338.8 / 4.61	328 Speedvale Commercial Centre Inc. 328-378 Speedvale Ave. East Guelph ON N1E 1N5	GEN

Generator No: ON8306435
SIC Code:
SIC Description:
Approval Years: As of Oct 2022
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 241 L
Waste Class Name: HALOGENATED SOLVENTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
31	1 of 1	SSE/295.9	330.9 / -3.31	102 EMMA STREET GUELPH ON N1E 1T8	HINC

External File Num: FS INC 0807-03591
Fuel Occurrence Type: Pipeline Strike
Date of Occurrence: 7/8/2008
Fuel Type Involved: Natural Gas
Status Desc: Completed - Causal Analysis(End)
Job Type Desc: Incident/Near-Miss Occurrence (FS)
Oper. Type Involved: Construction Site (pipeline strike)
Service Interruptions: Yes
Property Damage: Yes
Fuel Life Cycle Stage: Transmission, Distribution and Transportation
Root Cause: Root Cause: Equipment/Material/Component:No Procedures:Yes Maintenance:No Design:No Training: Yes Management:Yes Human Factors:Yes
Reported Details:
Fuel Category: Gaseous Fuel
Occurrence Type: Incident
Affiliation: Industry Stakeholder (Licensee/Registration/Certificate Holder, Facility Owner, etc.)
County Name: Wellington
Approx. Quant. Rel:
Nearby body of water:
Enter Drainage Syst.:
Approx. Quant. Unit:
Environmental Impact:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
32	1 of 7	NNE/297.4	338.9 / 4.69	ROYAL CLEANERS 358 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	GEN

Generator No: ON0543100
SIC Code: 9721
SIC Description: POWER LAUND./CLEANERS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Approval Years: 86,87,88,89
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 241
Waste Class Name: HALOGENATED SOLVENTS

32	*2 of 7*	*NNE/297.4*	*338.9 / 4.69*	***ROYAL CLEANERS 33-163*** ***358 SPEEDVALE AVENUE EAST*** ***GUELPH ON N1E 1N5***	***GEN***

Generator No: ON0543100
SIC Code: 9721
SIC Description: POWER LAUND./CLEANER
Approval Years: 92,93,94,95,96,97,98
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 241
Waste Class Name: HALOGENATED SOLVENTS

32	*3 of 7*	*NNE/297.4*	*338.9 / 4.69*	***ROYAL CLEANERS*** ***358 SPEEDVALE AVENUE EAST*** ***GUELPH ON N1E 1N5***	***GEN***

Generator No: ON0543100
SIC Code: 9721
SIC Description: POWER LAUND./CLEANERS
Approval Years: 99,00,01
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 241
Waste Class Name: HALOGENATED SOLVENTS

32	*4 of 7*	*NNE/297.4*	*338.9 / 4.69*	***ROBERT LANE INC.*** ***358 SPEEDVALE AVENUE EAST***	***GEN***

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
				GUELPH ON N1E 1N5	

Generator No: ON0543100
SIC Code:
SIC Description:
Approval Years: 02,03,04,05,06,07,08
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 241
Waste Class Name: HALOGENATED SOLVENTS

32	5 of 7	NNE/297.4	338.9 / 4.69	ROBERT LANE INC. 358 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	GEN

Generator No: ON0543100
SIC Code: 812320
SIC Description: Dry Cleaning and Laundry Services (except Coin-Operated)
Approval Years: 2009
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 241
Waste Class Name: HALOGENATED SOLVENTS

32	6 of 7	NNE/297.4	338.9 / 4.69	ROBERT LANE INC. 358 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	GEN

Generator No: ON0543100
SIC Code: 812320
SIC Description: Dry Cleaning and Laundry Services (except Coin-Operated)
Approval Years: 2010
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class: 241
Waste Class Name: HALOGENATED SOLVENTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
32	7 of 7	NNE/297.4	338.9 / 4.69	Royal Cleaners 358 Speedvale Ave E Guelph ON N1E1N5	CDRY

Legal Name of Company:
Region:
Type of Reporter:

Waste Quantity by Year

Reporting Year: 2006
Quantity of PERC (kg): 590
Total Waste Water (kg): 0
Total Waste Water (L): -
Total Residue (kg): -
Total Residue (L): 410
Total Mix (kg): 0
Total Mix (L): -
Request for Confidentiality: No
Reason for Confidentiality: N/A

Reporting Year: 2005
Quantity of PERC (kg): 590
Total Waste Water (kg): 0
Total Waste Water (L): -
Total Residue (kg): 205
Total Residue (L): -
Total Mix (kg): 0
Total Mix (L): -
Request for Confidentiality: No
Reason for Confidentiality: N/A

Reporting Year: 2004
Quantity of PERC (kg): 470.68
Total Waste Water (kg): -
Total Waste Water (L): -
Total Residue (kg): -
Total Residue (L): -
Total Mix (kg): -
Total Mix (L): -
Request for Confidentiality: No
Reason for Confidentiality: N/A

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
33	1 of 4	N/297.8	337.9 / 3.69	Candies of Merritt Ltd. 344 Speedvale Ave E Guelph ON N1E 1N5	SCT

Established: 01-JUN-72
Plant Size (ft²): 2500
Employment:

--Details--
Description: Chocolate and Confectionery Manufacturing from Cacao Beans
SIC/NAICS Code: 311320

Description: Non-Chocolate Confectionery Manufacturing
SIC/NAICS Code: 311340

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
33	2 of 4	N/297.8	337.9 / 3.69	PHARMA PLUS DRUGS LTD 334 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	GEN

Generator No: ON1553397
SIC Code: 6031
SIC Description: PHARMACIES
Approval Years: 92,93,97
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 261
Waste Class Name: PHARMACEUTICALS

Waste Class: 312
Waste Class Name: PATHOLOGICAL WASTES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
33	3 of 4	N/297.8	337.9 / 3.69	PHARMA PLUS DRUGS LTD. 31-756 334 SPEEDVALE AVE. E. C/O 5935 AIRPORT ROAD #500 MISSISSAUGA ON L4V 1W5	GEN

Generator No: ON1553397
SIC Code: 6031
SIC Description: PHARMACIES
Approval Years: 94,95,96
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 261
Waste Class Name: PHARMACEUTICALS

Waste Class: 312
Waste Class Name: PATHOLOGICAL WASTES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
33	4 of 4	N/297.8	337.9 / 3.69	PHARMA PLUS DRUGS LTD(OUT OF BUSINESS) 334 SPEEDVALE AVENUE EAST GUELPH ON N1E 1N5	GEN

Generator No: ON1553397
SIC Code: 6031
SIC Description: PHARMACIES
Approval Years: 98,99
PO Box No:
Country:
Status:
Co Admin:

Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 261
Waste Class Name: PHARMACEUTICALS

Waste Class: 312
Waste Class Name: PATHOLOGICAL WASTES

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34 ***1 of 2*** ***SW/298.1*** ***330.9 / -3.31*** ***UNION GAS LTD.***
231 SPEEDVALE AVE. BYPRO MARKETING (IN FRONT OF)
GUELPH CITY ON ***SPL***

Ref No: 201345
Site No:
Incident Dt: 5/24/2001
Year:
Incident Cause: PIPE/HOSE LEAK
Incident Event:
Environment Impact: Possible
Nature of Impact: Soil contamination
MOE Response:
Dt MOE Arvl on Scn:
MOE Reported Dt: 5/24/2001
Dt Document Closed:
Municipality No: 75101
System Facility Address:
Client Type:
Call Report Location Geodata:
Contaminant Code:
Contaminant Name:
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Receiving Medium: Air
Receiving Environment:
Incident Reason: DAMAGE BY MOVING EQUIPMENT
Incident Summary: UNION GAS: SPILL OF UNK. AMOUNT DUE TO BROKEN PIPE BY EXCAVATING CO. MOE
Site Region:
Site Municipality: GUELPH CITY
Activity Preceding Spill:
Property 2nd Watershed:
Property Tertiary Watershed:
Sector Type:
SAC Action Class:
Source Type:
Site County/District:
Site Geo Ref Meth:
Site District Office:
Nearest Watercourse:
Site Name:
Site Address:
Client Name:

Contaminant Qty:
Nature of Damage:
Discharger Report:
Material Group:
Health/Env Conseq:
Agency Involved:
Site Lot:
Site Conc:
Site Geo Ref Accu:
Site Map Datum:
Northing:
Easting:

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34 ***2 of 2*** ***SW/298.1*** ***330.9 / -3.31*** ***Goderich-Exeter Railway Company Limited***
behind Bipro plant on 231Speedvale Ave.
Guelph ON ***SPL***

Ref No:	7662-6Z4QX2	***Contaminant Qty:***	1800 L
Site No:		***Nature of Damage:***	
Incident Dt:		***Discharger Report:***	
Year:		***Material Group:***	Oil
Incident Cause:	Container Leak (Fuel Tank Barrels)	***Health/Env Conseq:***	
Incident Event:		***Agency Involved:***	
Environment Impact:	Confirmed	***Site Lot:***	
Nature of Impact:	Soil Contamination; Surface Water Pollution	***Site Conc:***	
MOE Response:	Priority Field Response	***Site Geo Ref Accu:***	
Dt MOE Arvl on Scn:		***Site Map Datum:***	
MOE Reported Dt:	3/8/2007	***Northing:***	
Dt Document Closed:		***Easting:***	
Municipality No:			
System Facility Address:			
Client Type:			
Call Report Location Geodata:			
Contaminant Code:	13		
Contaminant Name:	DIESEL FUEL		
Contaminant Limit 1:			
Contam Limit Freq 1:			
Contaminant UN No 1:			
Receiving Medium:	Land & Water		
Receiving Environment:			
Incident Reason:	Frost Heave		
Incident Summary:	Goderich Ex.Railw.- est. 1800 L rail diesel to grd.		
Site Region:			
Site Municipality:	Guelph		
Activity Preceding Spill:			
Property 2nd Watershed:			
Property Tertiary Watershed:			
Sector Type:	Train		
SAC Action Class:			
Source Type:			
Site County/District:			
Site Geo Ref Meth:			
Site District Office:			
Nearest Watercourse:			
Site Name:	Rail line, mileage 0.58, Aberdeen Ave<UNOFFICIAL>		
Site Address:			
Client Name:	Goderich-Exeter Railway Company Limited		

Unplottable Summary

Total: 19 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
CA	The Corporation of the City of Guelph	Speedvale Avenue	Guelph ON	
CA	The Corporation of the City of Guelph	Speedvale Ave	Guelph ON	
CA	HOMEWOOD SANITARIUM OF GUELPH ONT.	EMMA ST.HOMEWOOD HEALTH CENTRE	GUELPH CITY ON	
CA	GUELPH CITY	SPEEDVALE AVE.	GUELPH CITY ON	
CA	The Corporation of the City of Guelph	Speedvale Ave	Guelph ON	
CA	PRIMARY DEVELOPMENTS LIMITED	PRIVATE SEWER SPEEDVALE PLAZA	GUELPH CITY ON	
CA	The Corporation of the City of Guelph	Emma Street, Marlborough to Pine	Guelph ON	
ECA	The Corporation of the City of Guelph	Speedvale Avenue	Guelph ON	N1H 3A1
ECA	The Corporation of the City of Guelph	Speedvale Ave	Guelph ON	N1H 3A1
ECA	City of Guelph	Metcalfe St	Guelph ON	N1E 0H5
ECA	The Corporation of the City of Guelph	Speedvale Ave	Guelph ON	N1H 3A1
ECA	The Corporation of the City of Guelph	Speedvale Ave	Guelph ON	N1H 3A1
ECA	The Corporation of the City of Guelph	Speedvale Ave	Guelph ON	N1H 3A1
ECA	The Corporation of the City of Guelph	Speedvale Avenue East	Guelph ON	N1H 3A1
ECA	The Corporation of the City of Guelph	Speedvale Ave	Guelph ON	N1H 3A1
SPL	The Corporation of the City of Guelph	Speedvale Ave	Guelph ON	

SPL	Metcalfe Street	Guelph ON
WWIS	con 2	ON
WWIS	con 2	ON

Unplottable Report

Site: ***The Corporation of the City of Guelph***
Speedvale Avenue Guelph ON

Database: ***CA***

Certificate #:	4724-5M7KGJ
Application Year:	2003
Issue Date:	5/8/2003
Approval Type:	Municipal and Private Sewage Works
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***The Corporation of the City of Guelph***
Speedvale Ave Guelph ON

Database: ***CA***

Certificate #:	8567-7KWJN7
Application Year:	2008
Issue Date:	11/4/2008
Approval Type:	Municipal and Private Sewage Works
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***HOMEWOOD SANITARIUM OF GUELPH ONT.***
EMMA ST.HOMEWOOD HEALTH CENTRE GUELPH CITY ON

Database: ***CA***

Certificate #:	3-0421-93-
Application Year:	93
Issue Date:	5/19/1993
Approval Type:	Municipal sewage
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***GUELPH CITY***
SPEEDVALE AVE. GUELPH CITY ON

Database: ***CA***

Certificate #:	3-1243-86-

Application Year: 86
Issue Date: 8/29/1986
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***The Corporation of the City of Guelph***
Speedvale Ave Guelph ON

Database: ***CA***

Certificate #: 9139-77MJQP
Application Year: 2007
Issue Date: 10/5/2007
Approval Type: Municipal and Private Sewage Works
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***PRIMARY DEVELOPMENTS LIMITED***
PRIVATE SEWER SPEEDVALE PLAZA GUELPH CITY ON

Database: ***CA***

Certificate #: 3-0999-86-
Application Year: 86
Issue Date: 7/21/1986
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***The Corporation of the City of Guelph***
Emma Street, Marlborough to Pine Guelph ON

Database: ***CA***

Certificate #: 0903-6Z5HJU
Application Year: 2007
Issue Date: 5/6/2007
Approval Type: Municipal and Private Sewage Works
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***The Corporation of the City of Guelph***
Speedvale Avenue Guelph ON N1H 3A1

Database: ***ECA***

Approval No:	4724-5M7KGJ	***MOE District:***	
Approval Date:	2003-05-08	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	

Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name: The Corporation of the City of Guelph
Address: Speedvale Avenue
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/8255-5LLGYV-14.pdf
PDF Site Location:

Site: ***The Corporation of the City of Guelph***
Speedvale Ave Guelph ON N1H 3A1

Database: ***ECA***

Approval No:	5289-7L3JUJ	***MOE District:***	
Approval Date:	2008-11-04	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	

Approval Type: ECA-Municipal Drinking Water Systems
Project Type: Municipal Drinking Water Systems
Business Name: The Corporation of the City of Guelph
Address: Speedvale Ave
Full Address:
Full PDF Link:
PDF Site Location:

Site: ***City of Guelph***
Metcalfe St Guelph ON N1E 0H5

Database: ***ECA***

Approval No:	4867-A3FLDW	***MOE District:***	
Approval Date:	2015-10-23	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	

Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name: City of Guelph
Address: Metcalfe St
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/9907-A2LQM4-14.pdf
PDF Site Location:

Site: ***The Corporation of the City of Guelph***
Speedvale Ave Guelph ON N1H 3A1

Database: ***ECA***

Approval No:	8567-7KWJN7	***MOE District:***	
Approval Date:	2008-11-04	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	

Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS

Business Name: The Corporation of the City of Guelph
Address: Speedvale Ave
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/0761-7JZLKX-14.pdf
PDF Site Location:

Site: ***The Corporation of the City of Guelph***
Speedvale Ave Guelph ON N1H 3A1

Database: ***ECA***

Approval No: 8791-7E2TTX
Approval Date: 2008-05-06
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name:
MOE District:
City:
Longitude:
Latitude:
Geometry X:
Geometry Y:
Approval Type: ECA-Municipal Drinking Water Systems
Project Type: Municipal Drinking Water Systems
Business Name: The Corporation of the City of Guelph
Address: Speedvale Ave
Full Address:
Full PDF Link:
PDF Site Location:

Site: ***The Corporation of the City of Guelph***
Speedvale Ave Guelph ON N1H 3A1

Database: ***ECA***

Approval No: 9139-77MJQP
Approval Date: 2007-10-05
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name:
MOE District:
City:
Longitude:
Latitude:
Geometry X:
Geometry Y:
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name: The Corporation of the City of Guelph
Address: Speedvale Ave
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/7293-6ZBMFL-14.pdf
PDF Site Location:

Site: ***The Corporation of the City of Guelph***
Speedvale Avenue East Guelph ON N1H 3A1

Database: ***ECA***

Approval No: 7635-C5SLN7
Approval Date: 2021-08-15
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name:
MOE District:
City:
Longitude:
Latitude:
Geometry X: -8933216.5909
Geometry Y: 5395129.753499999
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name: The Corporation of the City of Guelph
Address: Speedvale Avenue East
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/7894-C4PJHY-14.pdf
PDF Site Location:

Site: ***The Corporation of the City of Guelph***
Speedvale Ave Guelph ON N1H 3A1

Database: ***ECA***

Approval No: 2441-77FQE9
Approval Date: 2007-10-05
MOE District:
City:

Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-Municipal Drinking Water Systems		
Project Type:	Municipal Drinking Water Systems		
Business Name:	The Corporation of the City of Guelph		
Address:	Speedvale Ave		
Full Address:			
Full PDF Link:			
PDF Site Location:			

Site: ***The Corporation of the City of Guelph*** ***Database:*** ***SPL***
Speedvale Ave Guelph ON

Ref No:	3410-BCEPBF	***Contaminant Qty:***	
Site No:	NA	***Nature of Damage:***	
Incident Dt:	5/22/2019	***Discharger Report:***	
Year:		***Material Group:***	
Incident Cause:		***Health/Env Conseq:***	0 - No Impact
Incident Event:		***Agency Involved:***	
Environment Impact:		***Site Lot:***	
Nature of Impact:		***Site Conc:***	
MOE Response:	No	***Site Geo Ref Accu:***	
Dt MOE Arvl on Scn:		***Site Map Datum:***	
MOE Reported Dt:	5/22/2019	***Northing:***	
Dt Document Closed:	6/12/2019	***Easting:***	
Municipality No:			
System Facility Address:			
Client Type:	Municipal Government		
Call Report Location Geodata:			
Contaminant Code:			
Contaminant Name:			
Contaminant Limit 1:			
Contam Limit Freq 1:			
Contaminant UN No 1:			
Receiving Medium:			
Receiving Environment:			
Incident Reason:			
Incident Summary:	City of Guelph recieves call of sheen in Speed River		
Site Region:	West Central		
Site Municipality:	Guelph		
Activity Preceding Spill:			
Property 2nd Watershed:			
Property Tertiary Watershed:			
Sector Type:			
SAC Action Class:	Notifications		
Source Type:			
Site County/District:	County of Wellington		
Site Geo Ref Meth:			
Site District Office:	Guelph		
Nearest Watercourse:			
Site Name:	site<UNOFFICIAL>		
Site Address:	Speedvale Ave		
Client Name:	The Corporation of the City of Guelph		

Site: ***Database:*** ***SPL***
Metcalfe Street Guelph ON

Ref No:	6505-9K46JD	***Contaminant Qty:***	19 L
Site No:	NA	***Nature of Damage:***	
Incident Dt:	2014/05/14	***Discharger Report:***	
Year:		***Material Group:***	
Incident Cause:	Leak/Break	***Health/Env Conseq:***	
Incident Event:		***Agency Involved:***	
Environment Impact:	Not Anticipated	***Site Lot:***	

Nature of Impact:	Surface Water Pollution	***Site Conc:***	
MOE Response:	No Field Response	***Site Geo Ref Accu:***	
Dt MOE Arvl on Scn:		***Site Map Datum:***	
MOE Reported Dt:	2014/05/13	***Northing:***	
Dt Document Closed:	2014/05/28	***Easting:***	

Municipality No:
System Facility Address:
Client Type:
Call Report Location Geodata:
Contaminant Code: 15
Contaminant Name: OIL (PETROLEUM BASED, NOT SPECIFIED)
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Receiving Medium:
Receiving Environment:
Incident Reason: Unknown / N/A
Incident Summary: Guelph Transit: 19L of "turbo oil" to ground, catchbasin
Site Region:
Site Municipality: Guelph
Activity Preceding Spill:
Property 2nd Watershed:
Property Tertiary Watershed:
Sector Type: Motor Vehicle
SAC Action Class: Watercourse Spills
Source Type:
Site County/District:
Site Geo Ref Meth:
Site District Office:
Nearest Watercourse:
Site Name: Metcalfe Street<UNOFFICIAL>
Site Address: Metcalfe Street
Client Name:

Site: ***Database:*** ***WWIS***

con 2 ON

Well ID:	6714411	***Flowing (Y/N):***	
Construction Date:		***Flow Rate:***	
Use 1st:	Not Used	***Data Entry Status:***	
Use 2nd:		***Data Src:***	1
Final Well Status:	Observation Wells	***Date Received:***	27-Mar-2003 00:00:00
Water Type:		***Selected Flag:***	TRUE
Casing Material:		***Abandonment Rec:***	
Audit No:	245037	***Contractor:***	6571
Tag:		***Form Version:***	1
Constructn Method:		***Owner:***	
Elevation (m):		***County:***	WELLINGTON
Elevatn Reliabilty:		***Lot:***	
Depth to Bedrock:		***Concession:***	02
Well Depth:		***Concession Name:***	DIV D
Overburden/Bedrock:		***Easting NAD83:***	
Pump Rate:		***Northing NAD83:***	
Static Water Level:		***Zone:***	
Clear/Cloudy:		***UTM Reliability:***	

Municipality: GUELPH TOWNSHIP
Site Info:

Bore Hole Information

Bore Hole ID:	10542256	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	
Code OB Desc:		***North83:***	
Open Hole:		***Org CS:***	

Cluster Kind:
Date Completed: 27-Nov-2002 00:00:00
Remarks:
Loc Method Desc: Not Applicable i.e. no UTM
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 932921884
Layer: 2
Color: 6
General Color: BROWN
Mat1: 09
Most Common Material: MEDIUM SAND
Mat2: 80
Mat2 Desc: POROUS
Mat3:
Mat3 Desc:
Formation Top Depth: 1.0
Formation End Depth: 6.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932921885
Layer: 3
Color: 6
General Color: BROWN
Mat1: 10
Most Common Material: COARSE SAND
Mat2: 80
Mat2 Desc: POROUS
Mat3:
Mat3 Desc:
Formation Top Depth: 6.0
Formation End Depth: 14.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932921886
Layer: 4
Color: 2
General Color: GREY
Mat1: 06
Most Common Material: SILT
Mat2: 08
Mat2 Desc: FINE SAND
Mat3: 80
Mat3 Desc: POROUS
Formation Top Depth: 14.0
Formation End Depth: 27.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932921883
Layer: 1
Color: 6
General Color: BROWN
Mat1: 02
Most Common Material: TOPSOIL
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 1.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933240169
Layer: 1
Plug From: 0.0
Plug To: 8.0
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933240170
Layer: 2
Plug From: 8.0
Plug To: 27.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 966714411
Method Construction Code: B
Method Construction: Other Method
Other Method Construction:

Pipe Information

Pipe ID: 11090826
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930779079
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 12.0
Casing Diameter: 2.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 933405597
Layer: 1
Slot: 010

Screen Top Depth: 12.0
Screen End Depth: 27.0
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 2.0

Water Details

Water ID: 934036044
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 20.0
Water Found Depth UOM: ft

Site:
con 2 ON

Database: ***WWIS***

Well ID: 6714410
Construction Date:
Use 1st: Not Used
Use 2nd:
Final Well Status: Observation Wells
Water Type:
Casing Material:
Audit No: 245038
Tag:
Constructn Method:
Elevation (m):
Elevatn Reliabilty:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Clear/Cloudy:
Municipality: GUELPH TOWNSHIP
Site Info:

Flowing (Y/N):
Flow Rate:
Data Entry Status:
Data Src: 1
Date Received: 27-Mar-2003 00:00:00
Selected Flag: TRUE
Abandonment Rec:
Contractor: 6571
Form Version: 1
Owner:
County: WELLINGTON
Lot:
Concession: 02
Concession Name: DIV D
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10542255
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 27-Nov-2002 00:00:00
Remarks:
Loc Method Desc: Not Applicable i.e. no UTM
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 932921881
Layer: 3
Color: 6
General Color: BROWN

Mat1: 10
Most Common Material: COARSE SAND
Mat2: 80
Mat2 Desc: POROUS
Mat3:
Mat3 Desc:
Formation Top Depth: 6.0
Formation End Depth: 13.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932921880
Layer: 2
Color: 6
General Color: BROWN
Mat1: 09
Most Common Material: MEDIUM SAND
Mat2: 80
Mat2 Desc: POROUS
Mat3:
Mat3 Desc:
Formation Top Depth: 1.0
Formation End Depth: 6.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932921879
Layer: 1
Color: 6
General Color: BROWN
Mat1: 02
Most Common Material: TOPSOIL
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 1.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932921882
Layer: 4
Color: 2
General Color: GREY
Mat1: 06
Most Common Material: SILT
Mat2: 08
Mat2 Desc: FINE SAND
Mat3: 80
Mat3 Desc: POROUS
Formation Top Depth: 13.0
Formation End Depth: 20.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933240167

Layer: 1
Plug From: 0.0
Plug To: 8.0
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933240168
Layer: 2
Plug From: 8.0
Plug To: 26.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 966714410
Method Construction Code: B
Method Construction: Other Method
Other Method Construction:

Pipe Information

Pipe ID: 11090825
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930779078
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 11.0
Casing Diameter: 2.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 933405596
Layer: 1
Slot: 010
Screen Top Depth: 11.0
Screen End Depth: 26.0
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 2.0

Water Details

Water ID: 934036043
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 20.0
Water Found Depth UOM: ft

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ***Note:*** *Databases denoted with " * " indicates that the database will no longer be updated. See the individual database description for more information.*

Abandoned Aggregate Inventory: Provincial AAGR

The MAAP Program maintains a database of abandoned pits and quarries. Please note that the database is only referenced by lot and concession and city/town location. The database provides information regarding the location, type, size, land use, status and general comments.*

Government Publication Date: Sept 2002*

Aggregate Inventory: Provincial AGR

The Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry (ONDMNRF) maintains this database of pits and quarries. The database provides information regarding the registered owner/operator, location name, operation type, approval type, and maximum annual tonnage.

Government Publication Date: Up to Oct 2022

Abandoned Mine Information System: Provincial AMIS

The Abandoned Mines Information System contains data on known abandoned and inactive mines located on both Crown and privately held lands. The information was provided by the Ministry of Northern Development and Mines (MNDM), with the following disclaimer: "the database provided has been compiled from various sources, and the Ministry of Northern Development and Mines makes no representation and takes no responsibility that such information is accurate, current or complete". Reported information includes official mine name, status, background information, mine start/end date, primary commodity, mine features, hazards and remediation.

Government Publication Date: 1800-Mar 2022

Anderson's Waste Disposal Sites: Private ANDR

The information provided in this database was collected by examining various historical documents which aimed to characterize the likely position of former waste disposal sites from 1860 to present. The research initiative behind the creation of this database was to identify those sites that are missing from the Ontario MOE Waste Disposal Site Inventory, as well as to provide revisions and corrections to the positions and descriptions of sites currently listed in the MOE inventory. In addition to historic waste disposal facilities, the database also identifies certain auto wreckers and scrap yards that have been extrapolated from documentary sources. Please note that the data is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1860s-Present

Aboveground Storage Tanks: Provincial AST

Historical listing of aboveground storage tanks made available by the Department of Natural Resources and Forestry. Includes tanks used to hold water or petroleum. This dataset has been retired as of September 25, 2014 and will no longer be updated.

Government Publication Date: May 31, 2014

Automobile Wrecking & Supplies: Private AUWR

This database provides an inventory of known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts & supplies industry. Information is provided on the company name, location and business type.

Government Publication Date: 1999-Feb 28, 2022

Borehole: Provincial BORE

A borehole is the generalized term for any narrow shaft drilled in the ground, either vertically or horizontally. The information here includes geotechnical investigations or environmental site assessments, mineral exploration, or as a pilot hole for installing piers or underground utilities. Information is from many sources such as the Ministry of Transportation (MTO) boreholes from engineering reports and projects from the 1950 to 1990's in Southern Ontario. Boreholes from the Ontario Geological Survey (OGS) including The Urban Geology Analysis Information System (UGAIS) and the York Peel Durham Toronto (YPDT) database of the Conservation Authority Moraine Coalition. This database will include fields such as location, stratigraphy, depth, elevation, year drilled, etc. For all water well data or oil and gas well data for Ontario please refer to WWIS and OOGW.

Government Publication Date: 1875-Jul 2018

Certificates of Approval: Provincial CA

This database contains the following types of approvals: Air & Noise, Industrial Sewage, Municipal & Private Sewage, Waste Management Systems and Renewable Energy Approvals. The MOE in Ontario states that any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste, must have a Certificate of Approval before it can operate lawfully. Fields include approval number, business name, address, approval date, approval type and status. This database will no longer be updated, as CofA's have been replaced by either Environmental Activity and Sector Registry (EASR) or Environmental Compliance Approval (ECA). Please refer to those individual databases for any information after Oct.31, 2011.

Government Publication Date: 1985-Oct 30, 2011*

Dry Cleaning Facilities: Federal CDRY

List of dry cleaning facilities made available by Environment and Climate Change Canada. Environment and Climate Change Canada's Tetrachloroethylene (Use in Dry Cleaning and Reporting Requirements) Regulations (SOR/2003-79) are intended to reduce releases of tetrachloroethylene to the environment from dry cleaning facilities.

Government Publication Date: Jan 2004-Dec 2021

Commercial Fuel Oil Tanks: Provincial CFOT

Locations of commercial underground fuel oil tanks. This is not a comprehensive or complete inventory of commercial fuel tanks in the province; this listing is a copy of records of registered commercial underground fuel oil tanks obtained under Access to Public Information.
Note that the following types of tanks do not require registration: waste oil tanks in apartments, office buildings, residences, etc.; aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2022

Chemical Manufacturers and Distributors: Private CHEM

This database includes information from both a one time study conducted in 1992 and private source and is a listing of facilities that manufacture or distribute chemicals. The production of these chemical substances may involve one or more chemical reactions and/or chemical separation processes (i.e. fractionation, solvent extraction, crystallization, etc.).

Government Publication Date: 1999-Jan 31, 2020

Chemical Register: Private CHM

This database includes a listing of locations of facilities within the Province or Territory that either manufacture and/or distributes chemicals.

Government Publication Date: 1999-Feb 28, 2023

Compressed Natural Gas Stations: Private CNG

Canada has a network of public access compressed natural gas (CNG) refuelling stations. These stations dispense natural gas in compressed form at 3,000 pounds per square inch (psi), the pressure which is allowed within the current Canadian codes and standards. The majority of natural gas refuelling is located at existing retail gasoline that have a separate refuelling island for natural gas. This list of stations is made available by the Canadian Natural Gas Vehicle Alliance.

Government Publication Date: Dec 2012 -Feb 2023

Inventory of Coal Gasification Plants and Coal Tar Sites: Provincial COAL

This inventory includes both the "Inventory of Coal Gasification Plant Waste Sites in Ontario-April 1987" and the Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario-November 1988) collected by the MOE. It identifies industrial sites that produced and continue to produce or use coal tar and other related tars. Detailed information is available and includes: facility type, size, land use, information on adjoining properties, soil condition, site operators/occupants, site description, potential environmental impacts and historic maps available. This was a one-time inventory.*

Government Publication Date: Apr 1987 and Nov 1988*

Compliance and Convictions: Provincial CONV

This database summarizes the fines and convictions handed down by the Ontario courts beginning in 1989. Companies and individuals named here have been found guilty of environmental offenses in Ontario courts of law.

Government Publication Date: 1989-Feb 2023

Certificates of Property Use: Provincial CPU

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include CPU's on the registry such as (EPA s. 168.6) - Certificate of Property Use.

Government Publication Date: 1994 - Apr 30, 2023

Drill Hole Database: Provincial DRL

The Ontario Drill Hole Database contains information on more than 113,000 percussion, overburden, sonic and diamond drill holes from assessment files on record with the department of Mines and Minerals. Please note that limited data is available for southern Ontario, as it was the last area to be completed. The database was created when surveys submitted to the Ministry were converted in the Assessment File Research Image Database (AFRI) project. However, the degree of accuracy (coordinates) as to the exact location of drill holes is dependent upon the source document submitted to the MNDM. Levels of accuracy used to locate holes are: centering on the mining claim; a sketch of the mining claim; a 1:50,000 map; a detailed company map; or from submitted a "Report of Work".

Government Publication Date: 1886 - Oct 2022

Delisted Fuel Tanks: Provincial DTNK

List of fuel storage tank sites that were once found in - and have since been removed from - the list of fuel storage tanks made available by the regulatory agency under Access to Public Information.

Government Publication Date: Feb 28, 2022

Environmental Activity and Sector Registry: Provincial EASR

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. The EASR allows businesses to register certain activities with the ministry, rather than apply for an approval. The registry is available for common systems and processes, to which preset rules of operation can be applied. The EASR is currently available for: heating systems, standby power systems and automotive refinishing. Businesses whose activities aren't subject to the EASR may apply for an ECA (Environmental Compliance Approval), Please see our ECA database.

Government Publication Date: Oct 2011- Apr 30, 2023

Environmental Registry: Provincial EBR

The Environmental Registry lists proposals, decisions and exceptions regarding policies, Acts, instruments, or regulations that could significantly affect the environment. Through the Registry, thirteen provincial ministries notify the public of upcoming proposals and invite their comments. For example, if a local business is requesting a permit, license, or certificate of approval to release substances into the air or water; these are notified on the registry. Data includes: Approval for discharge into the natural environment other than water (i.e. Air) - EPA s. 9, Approval for sewage works - OWRA s. 53(1), and EPA s. 27 - Approval for a waste disposal site. For information regarding Permit to Take Water (PTTW), Certificate of Property Use (CPU) and (ORD) Orders please refer to those individual databases.

Government Publication Date: 1994 - Apr 30, 2023

Environmental Compliance Approval: Provincial ECA

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. In the past, a business had to apply for multiple approvals (known as certificates of approval) for individual processes and pieces of equipment. Today, a business either registers itself, or applies for a single approval, depending on the types of activities it conducts. Businesses whose activities aren't subject to the EASR may apply for an ECA. A single ECA addresses all of a business's emissions, discharges and wastes. Separate approvals for air, noise and waste are no longer required. This database will also include Renewable Energy Approvals. For certificates of approval prior to Nov 1st, 2011, please refer to the CA database. For all Waste Disposal Sites please refer to the WDS database.

Government Publication Date: Oct 2011- Apr 30, 2023

Environmental Effects Monitoring: Federal EEM

The Environmental Effects Monitoring program assesses the effects of effluent from industrial or other sources on fish, fish habitat and human usage of fisheries resources. Since 1992, pulp and paper mills have been required to conduct EEM studies under the Pulp and Paper Effluent Regulations. This database provides information on the mill name, geographical location and sub-lethal toxicity data.

Government Publication Date: 1992-2007*

ERIS Historical Searches: Private EHS

ERIS has compiled a database of all environmental risk reports completed since March 1999. Available fields for this database include: site location, date of report, type of report, and search radius. As per all other databases, the ERIS database can be referenced on both the map and "Statistical Profile" page.

Government Publication Date: 1999-Mar 31, 2023

Environmental Issues Inventory System: Federal EIIS

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed.

Government Publication Date: 1992-2001*

Emergency Management Historical Event: Provincial EMHE

List of locations of historical occurrences of emergency events, including those assigned to the Ministry of Natural Resources by Order-In-Council (OIC) under the Emergency Management and Civil Protection Act, as well as events where MNR provided requested emergency response assistance. Many of these events will have involved community evacuations, significant structural loss, and/or involvement of MNR emergency response staff. These events fall into one of ten (10) type categories: Dam Failure; Drought / Low Water; Erosion; Flood; Forest Fire; Soil and Bedrock Instability; Petroleum Resource Center Event, EMO Requested Assistance, Continuity of Operations Event, Other Requested Assistance. EMHE record details are reproduced by ERIS under License with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2017.

Government Publication Date: Apr 30, 2022

Environmental Penalty Annual Report: Provincial EPAR

This database contains data from Ontario's annual environmental penalty report published by the Ministry of the Environment and Climate Change. These reports provide information on environmental penalties for land or water violations issued to companies in one of the nine industrial sectors covered by the Municipal Industrial Strategy for Abatement (MISA) regulations.

Government Publication Date: Jan 1, 2011 - Dec 31, 2022

List of Expired Fuels Safety Facilities: Provincial EXP

List of facilities and tanks for which there was once a fuel registration. This is not a comprehensive or complete inventory of expired tanks/tank facilities in the province; this listing is a copy of previously registered tanks and facilities obtained under Access to Public Information. Includes private fuel outlets, bulk plants, fuel oil tanks, gasoline stations, marinas, propane filling stations, liquid fuel tanks, piping systems, etc; includes tanks which have been removed from the ground.
Notes: registration was not required for private fuel underground/aboveground storage tanks prior to January 1990, nor for furnace oil tanks prior to May 1, 2002; registration is not required for waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2022

Federal Convictions: Federal FCON

Environment Canada maintains a database referred to as the "Environmental Registry" that details prosecutions under the Canadian Environmental Protection Act (CEPA) and the Fisheries Act (FA). Information is provided on the company name, location, charge date, offence and penalty.

Government Publication Date: 1988-Jun 2007*

Contaminated Sites on Federal Land: Federal FCS

The Federal Contaminated Sites Inventory includes information on known federal contaminated sites under the custodianship of departments, agencies and consolidated Crown corporations as well as those that are being or have been investigated to determine whether they have contamination arising from past use that could pose a risk to human health or the environment. The inventory also includes non-federal contaminated sites for which the Government of Canada has accepted some or all financial responsibility. It does not include sites where contamination has been caused by, and which are under the control of, enterprise Crown corporations, private individuals, firms or other levels of government. Includes fire training sites and sites at which Per- and Polyfluoroalkyl Substances (PFAS) are a concern.

Government Publication Date: Jun 2000-Mar 2023

Fisheries & Oceans Fuel Tanks: Federal FOFT

Fisheries & Oceans Canada maintains an inventory of aboveground & underground fuel storage tanks located on Fisheries & Oceans property or controlled by DFO. Our inventory provides information on the site name, location, tank owner, tank operator, facility type, storage tank location, tank contents & capacity, and date of tank installation.

Government Publication Date: 1964-Sep 2019

Federal Identification Registry for Storage Tank Systems (FIRSTS): Federal FRST

A list of federally regulated Storage tanks from the Federal Identification Registry for Storage Tank Systems (FIRSTS). FIRSTS is Environment and Climate Change Canada's database of storage tank systems subject to the Storage Tank for Petroleum Products and Allied Petroleum Products Regulations. The main objective of the Regulations is to prevent soil and groundwater contamination from storage tank systems located on federal and aboriginal lands. Storage tank systems that do not have a valid identification number displayed in a readily visible location on or near the storage tank system may be refused product delivery.

Government Publication Date: May 31, 2018

Fuel Storage Tank: Provincial FST

List of registered private and retail fuel storage tanks. This is not a comprehensive or complete inventory of private and retail fuel storage tanks in the province; this listing is a copy of registered private and retail fuel storage tanks, obtained under Access to Public Information.
Notes: registration was not required for private fuel underground/aboveground storage tanks prior to January 1990, nor for furnace oil tanks prior to May 1, 2002; registration is not required for waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2022

Fuel Storage Tank - Historic: Provincial FSTH

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks. Public records of private fuel storage tanks are only available since the registration became effective in September 1989. This information is now collected by the Technical Standards and Safety Authority.

Government Publication Date: Pre-Jan 2010*

Ontario Regulation 347 Waste Generators Summary: Provincial GEN

Regulation 347 of the Ontario EPA defines a waste generation site as any site, equipment and/or operation involved in the production, collection, handling and/or storage of regulated wastes. A generator of regulated waste is required to register the waste generation site and each waste produced, collected, handled, or stored at the site. This database contains the registration number, company name and address of registered generators including the types of hazardous wastes generated. It includes data on waste generating facilities such as: drycleaners, waste treatment and disposal facilities, machine shops, electric power distribution etc. This information is a summary of all years from 1986 including the most currently available data. Some records may contain, within the company name, the phrase "See & Use..." followed by a series of letters and numbers. This occurs when one company is amalgamated with or taken over by another registered company. The number listed as "See & Use", refers to the new ownership and the other identification number refers to the original ownership. This phrase serves as a link between the 2 companies until operations have been fully transferred.

Government Publication Date: 1986-Oct 31, 2022

Greenhouse Gas Emissions from Large Facilities: Federal GHG

List of greenhouse gas emissions from large facilities made available by Environment Canada. Greenhouse gas emissions in kilotonnes of carbon dioxide equivalents (kt CO2 eq).

Government Publication Date: 2013-Dec 2019

TSSA Historic Incidents: Provincial HINC

List of historic incidences of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen recorded by the TSSA in their previous incident tracking system. The TSSA's Fuels Safety Program administers the Technical Standards & Safety Act 2000, providing fuel-related safety services associated with the safe transportation, storage, handling and use of fuels such as gasoline, diesel, propane, natural gas and hydrogen. Under this Act, the TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of historical fuel spills and leaks in the province. This listing is a copy of the data captured at one moment in time and is hence limited by the record date provided here.

Government Publication Date: 2006-June 2009*

Indian & Northern Affairs Fuel Tanks: Federal IAFT

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of aboveground & underground fuel storage tanks located on both federal and crown land. Our inventory provides information on the reserve name, location, facility type, site/facility name, tank type, material & ID number, tank contents & capacity, and date of tank installation.

Government Publication Date: 1950-Aug 2003*

Fuel Oil Spills and Leaks: Provincial INC

Listing of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen reported to the Spills Action Centre (SAC). This is not a comprehensive or complete inventory of fuel-related leaks, spills, and incidents in the province; this listing in a copy of incidents reported to the SAC, obtained under Access to Public Information. Includes incidents from fuel-related hazards such as spills, fires, and explosions. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2022

Landfill Inventory Management Ontario: Provincial LIMO

The Landfill Inventory Management Ontario (LIMO) database is updated every year, as the Ministry of the Environment, Conservation and Parks compiles new and updated information. Includes small and large landfills currently operating as well as those which are closed and historic. Operators of larger landfills provide landfill information for the previous operating year to the ministry for LIMO including: estimated amount of total waste received, landfill capacity, estimated total remaining landfill capacity, fill rates, engineering designs, reporting and monitoring details, size of location, service area, approved waste types, leachate of site treatment, contaminant attenuation zone and more. The small landfills include information such as site owner, site location and certificate of approval # and status.

Government Publication Date: Mar 21, 2022

Canadian Mine Locations: Private MINE

This information is collected from the Canadian & American Mines Handbook. The Mines database is a national database that provides over 290 listings on mines (listed as public companies) dealing primarily with precious metals and hard rocks. Listed are mines that are currently in operation, closed, suspended, or are still being developed (advanced projects). Their locations are provided as geographic coordinates (x, y and/or longitude, latitude). As of 2002, data pertaining to Canadian smelters and refineries has been appended to this database.

Government Publication Date: 1998-2009*

Mineral Occurrences: Provincial MNR

In the early 70's, the Ministry of Northern Development and Mines created an inventory of approximately 19,000 mineral occurrences in Ontario, in regard to metallic and industrial minerals, as well as some information on building stones and aggregate deposits. Please note that the "Horizontal Positional Accuracy" is approximately +/- 200 m. Many reference elements for each record were derived from field sketches using pace or chain/tape measurements against claim posts or topographic features in the area. The primary limiting factor for the level of positional accuracy is the scale of the source material. The testing of horizontal accuracy of the source materials was accomplished by comparing the plan metric (X and Y) coordinates of that point with the coordinates of the same point as defined from a source of higher accuracy.

Government Publication Date: 1846-Feb 2023

National Analysis of Trends in Emergencies System (NATES): Federal NATE

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of significant spill incidents. The data was to be used to assist in directing the work of the emergencies program. NATES ran from 1974 to 1994. Extensive information is available within this database including company names, place where the spill occurred, date of spill, cause, reason and source of spill, damage incurred, and amount, concentration, and volume of materials released.

Government Publication Date: 1974-1994*

Non-Compliance Reports: Provincial NCPL

The Ministry of the Environment provides information about non-compliant discharges of contaminants to air and water that exceed legal allowable limits, from regulated industrial and municipal facilities. A reported non-compliance failure may be in regard to a Control Order, Certificate of Approval, Sectoral Regulation or specific regulation/act.

Government Publication Date: Dec 31, 2021

National Defense & Canadian Forces Fuel Tanks: Federal NDFT

The Department of National Defense and the Canadian Forces maintains an inventory of all aboveground & underground fuel storage tanks located on DND lands. Our inventory provides information on the base name, location, tank type & capacity, tank contents, tank class, date of tank installation, date tank last used, and status of tank as of May 2001. This database will no longer be updated due to the new National Security protocols which have prohibited any release of this database.

Government Publication Date: Up to May 2001*

National Defense & Canadian Forces Spills: Federal NDSP

The Department of National Defense and the Canadian Forces maintains an inventory of spills to land and water. All spill sites have been classified under the "Transportation of Dangerous Goods Act - 1992". Our inventory provides information on the facility name, location, spill ID #, spill date, type of spill, as well as the quantity of substance spilled & recovered.

Government Publication Date: Mar 1999-Apr 2018

National Defence & Canadian Forces Waste Disposal Sites: Federal NDWD

The Department of National Defence and the Canadian Forces maintains an inventory of waste disposal sites located on DND lands. Where available, our inventory provides information on the base name, location, type of waste received, area of site, depth of site, year site opened/closed and status.

Government Publication Date: 2001-Apr 2007*

National Energy Board Pipeline Incidents: Federal NEBI

Locations of pipeline incidents from 2008 to present, made available by the Canada Energy Regulator (CER) - previously the National Energy Board (NEB). Includes incidents reported under the Onshore Pipeline Regulations and the Processing Plant Regulations related to pipelines under federal jurisdiction, does not include incident data related to pipelines under provincial or territorial jurisdiction.

Government Publication Date: 2008-Jun 30, 2021

National Energy Board Wells: Federal NEBP

The NEBW database contains information on onshore & offshore oil and gas wells that are outside provincial jurisdiction(s) and are thereby regulated by the National Energy Board. Data is provided regarding the operator, well name, well ID No./UWI, status, classification, well depth, spud and release date.

Government Publication Date: 1920-Feb 2003*

National Environmental Emergencies System (NEES): Federal NEES

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for previous Environment Canada spill datasets. NEES is composed of the historic datasets ' or Trends ' which dates from approximately 1974 to present. NEES Trends is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

Government Publication Date: 1974-2003*

National PCB Inventory: Federal NPCB

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. Federal out-of-service PCB containing equipment and PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites. Some addresses provided may be Head Office addresses and are not necessarily the location of where the waste is being used or stored.

Government Publication Date: 1988-2008*

National Pollutant Release Inventory: Federal NPRI

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances.

Government Publication Date: 1993-May 2017

Oil and Gas Wells: Private OGWE

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickle's database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Government Publication Date: 1988-Feb 30, 2023

Ontario Oil and Gas Wells: Provincial OOGW

In 1998, the MNR handed over to the Ontario Oil, Gas and Salt Resources Corporation, the responsibility of maintaining a database of oil and gas wells drilled in Ontario. The OGSR Library has over 20,000+ wells in their database. Information available for all wells in the ERIS database include well owner/operator, location, permit issue date, and well cap date, license No., status, depth and the primary target (rock unit) of the well being drilled. All geology/stratigraphy table information, plus all water table information is also provide for each well record.

Government Publication Date: 1800-Aug 2021

Inventory of PCB Storage Sites: Provincial OPCB

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of PCB storage sites within the province. Ontario Regulation 11/82 (Waste Management - PCB) and Regulation 347 (Generator Waste Management) under the Ontario EPA requires the registration of inactive PCB storage equipment and/or disposal sites of PCB waste with the Ontario Ministry of Environment. This database contains information on: 1) waste quantities; 2) major and minor sites storing liquid or solid waste; and 3) a waste storage inventory.

Government Publication Date: 1987-Oct 2004; 2012-Dec 2013

Orders: Provincial ORD

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include Orders on the registry such as (EPA s. 17) - Order for remedial work, (EPA s. 18) - Order for preventative measures, (EPA s. 43) - Order for removal of waste and restoration of site, (EPA s. 44) - Order for conformity with Act for waste disposal sites, (EPA s. 136) - Order for performance of environmental measures.

Government Publication Date: 1994 - Apr 30, 2023

Canadian Pulp and Paper: Private PAP

This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

Government Publication Date: 1999, 2002, 2004, 2005, 2009-2014

Parks Canada Fuel Storage Tanks: Federal PCFT

Canadian Heritage maintains an inventory of known fuel storage tanks operated by Parks Canada, in both National Parks and at National Historic Sites. The database details information on site name, location, tank install/removal date, capacity, fuel type, facility type, tank design and owner/operator.

Government Publication Date: 1920-Jan 2005*

Pesticide Register: Provincial PES

The Ontario Ministry of the Environment and Climate Change maintains a database of licensed operators and vendors of registered pesticides.

Government Publication Date: Oct 2011- Apr 30, 2023

Pipeline Incidents: Provincial PINC

List of pipeline incidents (strikes, leaks, spills). This is not a comprehensive or complete inventory of pipeline incidents in the province; this listing in an historical copy of records previously obtained under Access to Public Information. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2021

Private and Retail Fuel Storage Tanks: Provincial PRT

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks and licensed retail fuel outlets. This database includes an inventory of locations that have gasoline, oil, waste oil, natural gas and/or propane storage tanks on their property. The MCCR no longer collects this information. This information is now collected by the Technical Standards and Safety Authority (TSSA).

Government Publication Date: 1989-1996*

Permit to Take Water: Provincial PTTW

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include PTTW's on the registry such as OWRA s. 34 - Permit to take water.

Government Publication Date: 1994 - Apr 30, 2023

Ontario Regulation 347 Waste Receivers Summary: Provincial REC

Part V of the Ontario Environmental Protection Act ("EPA") regulates the disposal of regulated waste through an operating waste management system or a waste disposal site operated or used pursuant to the terms and conditions of a Certificate of Approval or a Provisional Certificate of Approval. Regulation 347 of the Ontario EPA defines a waste receiving site as any site or facility to which waste is transferred by a waste carrier. A receiver of regulated waste is required to register the waste receiving facility. This database represents registered receivers of regulated wastes, identified by registration number, company name and address, and includes receivers of waste such as: landfills, incinerators, transfer stations, PCB storage sites, sludge farms and water pollution control plants. This information is a summary of all years from 1986 including the most currently available data.

Government Publication Date: 1986-1990, 1992-2020

Record of Site Condition: Provincial RSC

The Record of Site Condition (RSC) is part of the Ministry of the Environment's Brownfields Environmental Site Registry. Protection from environmental cleanup orders for property owners is contingent upon documentation known as a record of site condition (RSC) being filed in the Environmental Site Registry. In order to file an RSC, the property must have been properly assessed and shown to meet the soil, sediment and groundwater standards appropriate for the use (such as residential) proposed to take place on the property. The Record of Site Condition Regulation (O. Reg. 153/04) details requirements related to site assessment and clean up.
RSCs filed after July 1, 2011 will also be included as part of the new (O.Reg. 511/09).

Government Publication Date: 1997-Sept 2001, Oct 2004-Mar 2023

Retail Fuel Storage Tanks: Private RST

This database includes an inventory of retail fuel outlet locations (including marinas) that have on their property gasoline, oil, waste oil, natural gas and / or propane storage tanks.

Government Publication Date: 1999-Feb 28, 2023

Scott's Manufacturing Directory: Private SCT

Scott's Directories is a data bank containing information on over 200,000 manufacturers across Canada. Even though Scott's listings are voluntary, it is the most comprehensive database of Canadian manufacturers available. Information concerning a company's address, plant size, and main products are included in this database.

Government Publication Date: 1992-Mar 2011*

Ontario Spills: Provincial SPL

List of spills and incidents made available the Ministry of the Environment, Conservation and Parks. This database identifies information such as location (approximate), type and quantity of contaminant, date of spill, environmental impact, cause, nature of impact, etc. Information from 1988-2002 was part of the ORIS (Occurrence Reporting Information System). The SAC (Spills Action Centre) handles all spills reported in Ontario. Regulations for spills in Ontario are part of the MOE's Environmental Protection Act, Part X. The Ministry of the Environment, Conservation and Parks cites the coronavirus pandemic as an explanation for delays in releasing data pursuant to requests.

Government Publication Date: 1988-Oct 2021

Wastewater Discharger Registration Database: Provincial SRDS

Facilities that report either municipal treated wastewater effluent or industrial wastewater discharges under the Effluent Monitoring and Effluent Limits (EMEL) and Municipal/Industrial Strategy for Abatement Regulations. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment keeps record of direct dischargers of toxic pollutants within nine sectors including: Electric Power Generation, Mining, Petroleum Refining, Organic Chemicals, Inorganic Chemicals, Pulp & Paper, Metal Casting, Iron & Steel, and Quarries.

Government Publication Date: 1990-Dec 31, 2020

Anderson's Storage Tanks: Private TANK

The information provided in this database was collected by examining various historical documents, which identified the location of former storage tanks, containing substances such as fuel, water, gas, oil, and other various types of miscellaneous products. Information is available in regard to business operating at tank site, tank location, permit year, permit & installation type, no. of tanks installed & configuration and tank capacity. Data contained within this database pertains only to the city of Toronto and is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1915-1953*

Transport Canada Fuel Storage Tanks: Federal TCFT

List of fuel storage tanks currently or previously owned or operated by Transport Canada. This inventory also includes tanks on The Pickering Lands, which refers to 7,530 hectares (18,600 acres) of land in Pickering, Markham, and Uxbridge owned by the Government of Canada since 1972; properties on this land has been leased by the government since 1975, and falls under the Site Management Policy of Transport Canada, but is administered by Public Works and Government Services Canada. This inventory provides information on the site name, location, tank age, capacity and fuel type.

Government Publication Date: 1970 - Apr 2020

Variances for Abandonment of Underground Storage Tanks: Provincial VAR

Listing of variances granted for storage tank abandonment. This is not a comprehensive or complete inventory of tank abandonment variances in the province; this listing is a copy of tank abandonment variance records previously obtained under Access to Public Information. In Ontario, registered underground storage tanks must be removed within two years of disuse; if removal of a tank is not feasible, an application may be sought for a variance from this code requirement.
Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2022

Waste Disposal Sites - MOE CA Inventory: Provincial WDS

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of known open (active or inactive) and closed disposal sites in the Province of Ontario. Active sites maintain a Certificate of Approval, are approved to receive and are receiving waste. Inactive sites maintain Certificate(s) of Approval but are not receiving waste. Closed sites are not receiving waste. The data contained within this database was compiled from the MOE's Certificate of Approval database. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number. All new Environmental Compliance Approvals handed out after Oct 31, 2011 for Waste Disposal Sites will still be found in this database.

Government Publication Date: Oct 2011- Apr 30, 2023

Waste Disposal Sites - MOE 1991 Historical Approval Inventory: Provincial WDSH

In June 1991, the Ontario Ministry of Environment, Waste Management Branch, published the "June 1991 Waste Disposal Site Inventory", of all known active and closed waste disposal sites as of October 30st, 1990. For each "active" site as of October 31st 1990, information is provided on site location, site/CA number, waste type, site status and site classification. For each "closed" site as of October 31st 1990, information is provided on site location, site/CA number, closure date and site classification. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number.

Government Publication Date: Up to Oct 1990*

Water Well Information System: Provincial WWIS

This database describes locations and characteristics of water wells found within Ontario in accordance with Regulation 903. It includes such information as coordinates, construction date, well depth, primary and secondary use, pump rate, static water level, well status, etc. Also included are detailed stratigraphy information, approximate depth to bedrock and the approximate depth to the water table.

Government Publication Date: Jun 30 2022

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

Appendix I
Statement of Limitations

ENGLOBE

STATEMENT OF LIMITATIONS

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

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