TATHAM ENGINEERING

Enhancing our communities

U-Haul – 16728 Highway 12, Midland

HYDROGEOLOGICAL ASSESSMENT

U-Haul Co. Canada Ltd.

File 324816 | September 25, 2024

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Issue	Date	Description
1	September 25, 2024	Final Report

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1 Introduction

Tatham Engineering Limited (Tatham) has been retained by U-Haul Co. Canada Ltd. (U Haul) to complete a hydrogeological assessment in support of the proposed new storage facility located at 16728 Highway 12 in the Town of Midland.

The subject property is approximately 2.4 ha in size and is currently wooded vacant land. The site is bound by Prospect Boulevard to the south, a commercial building followed by King Street to the east, a Highway 12 followed by commercial buildings to the north, and commercial properties to the west. A site location plan is enclosed as Figure 1.

It is our understanding proposed development would consist of the following:

- Building 'A'- a 3-storey, mixed use building including self storage, office and retail spaces, and
- Building 'B'- a 1-storey, logistic building with the interior configured as one large open space 3-storeys in height, and, the site also includes an external storage unit area configured as four distinct groupings of storage units separated by access laneways.

The hydrogeological assessment was completed for the proposed storage facility located at 16728 Highway 12 in the Town of Midland and will be carried out in general accordance with typical Source Water Protection, and the Ministry of the Environment, Conservation and Parks (MECP) hydrogeological study requirements.

A geotechnical investigation report was carried out by Green Geotechnical Ltd. (Green), dated March 28, 2024, and was reported separately. The geotechnical investigation and report have been relied upon for this hydrogeological assessment.

1.1 PURPOSE AND SCOPE OF WORK

The main objectives of the hydrogeological assessment were to:

- Establish local and regional geology and hydrogeology.
- Establish the soil and groundwater conditions.
- Verify the presence of existing water supply wells on-site and within a 500 m radius of the site.
- Determine potential construction dewatering requirements and provide an assessment of the anticipated construction dewatering flow rate for a generic scenario.
- Assess the background groundwater quality and compare the results to the Provincial Water Quality Objectives (PWQO) and O.Reg.153/04, as amended.

- Qualitatively assess the potential impacts to the nearby structures, water bodies and water uses, if any, as a result of potential construction dewatering and comment on future regulatory agency involvement.
- Prepare a hydrogeological assessment report.

To achieve the above objects, Tatham proposed the following scope of work:

- Complete a desktop review of pertinent geological and hydrogeological resources, Ministry of the Environment, Conservation and Parks (MECP) water well records within a 500 m radius of the site, geotechnical report completed by others, and proposed site plan drawings.
- Visit the site to note existing site conditions, topography, drainage, water features, neighboring land uses, and/or any existing water supply or monitoring wells.
- Complete groundwater level monitoring at the five monitoring wells installed on-site as part of the 2024 geotechnical investigation completed by Green Geotechnical.
- Perform borehole permeability testing at the selected monitoring wells to determine the hydraulic conductivity of the screen soil deposits.
- Determine baseline groundwater quality by collecting and analysis of one representative groundwater sample.
- Evaluate the background information, field, and laboratory data to evaluate the construction dewatering requirements.
- Prepare a hydrogeological assessment report in general accordance with the typical Source Water Protection and MECP hydrogeological study requirements.

1.2 REGULATORY REQUIREMENTS

1.2.1 Water Taking – Temporary

Temporary construction dewatering is governed by the Environmental Protection Act, and the following water taking limits and requirements are outlined in O.Reg.63/16:

- Construction dewatering less than 50,000 L/day: the taking of both groundwater and stormwater does not require a hydrogeological report nor a water taking permit.
- Construction dewatering greater than 50,000 L/day but less than 400,000 L/day: the taking of both groundwater and stormwater does require a hydrogeological report and registration on the Environmental Activity and Sector Registry (EASR).
- Construction dewatering greater than 400,000 L/day: the taking of groundwater and stormwater requires a hydrogeological report and an approved MECP Category 3 Permit-To-Take-Water (PTTW).

This hydrogeological assessment was carried out to assess the potential construction dewatering volumes in order to proceed in accordance with the applicable water taking regulatory requirements and to obtain the applicable water taking permit.

2 Site Setting

The site is located at 16728 Highway 12 in the Town of Midland. The subject property is approximately 2.4 ha in size and is currently wooded vacant land. A site location plan is enclosed as Figure 1.

The site is bound by Prospect Boulevard to the south, a commercial building followed by King Street to the east, a Highway 12 followed by commercial buildings to the north, and commercial properties to the west.

2.1 PHYSIOGRAPHY, SURFICIAL AND BEDROCK GEOLOGY

The site lies within the physiographic region known as the Simcoe Uplands comprising sand plains (Chapman and Putnam, 1984). Based on the review of Ontario Geological Survey (OGS) surficial geology mapping, the site is mapped within an area mapped as ice-contact stratified deposits comprising sand, gravel and minor silt and clay deposits.

The bedrock in the area consists of Limestone of the Bobcaygeon formation. During the geotechnical investigation, the bedrock was not encountered to a maximum investigated depth of 8.1 m bgs. Based on the review of nearby MECP well record bedrock was contacted at an approximate depth between 52.4 and 75.0 m bgs.

2.2 TOPOGRAPHY, DRAINAGE, LOCAL SURFACE WATER AND NATURAL HERITAGE FEATURES

2.2.1 Topography and Drainage

The Simcoe County Interactive GIS mapping (2 m contour) was reviewed to understand the topography throughout the site and the surrounding area. The reviewed 2 m contour indicates the site gradually sloping down to the east. The ground surface elevation varies between 222 m asl towards the western property limit and 216 m asl towards the eastern property limit. Under current conditions, it is anticipated drainage on-site will follow the existing surface topography and flow to the east towards King Street and then south towards Mud Lake which finally drains into Georgian bay.

2.2.2 Surface Water and Natural Heritage Features

The Ministry of Natural Resources and Forestry (MNRF) database was reviewed for any natural heritage features including watercourses, bodies of water, wetland features, Areas of Natural and Scientific Interest (ANSI) and wooded areas. Based on the review of records, Mud Lake is located approximately 880 m south and Little Lake is located approximately 920 m northwest of the site. Numerous water courses are scattered around the site where the two closest water courses are

located approximately 640 m southwest and 680 m southeast of the site. Both the water courses flow toward the south to drain into Mud Lake.

An ANSI is located approximately 480 m southeast of the site encompassing the entirety of Mud Lake and associated wetland area. The Natural Heritage System is located 480 m southeast of the site.

Two provincial significant wetlands are located approximately 540 m southeast and 910 m northwest of the site. An unevaluated wetland is located approximately 270 m northeast of the site.

Wooded areas are scattered on-site as well as surrounding the site.

2.3 MECP WATER WELL RECORDS

MECP water well records were reviewed for a 500 m radius surrounding the site to assess the general nature of the groundwater resources in the vicinity of the site, and the historical/current well usage in the area. The approximate MECP water well locations are shown in Figure 2, and a summary of the water well information is provided in Appendix A.

A total of 23 water well records were reviewed for the site. 13 of the water well records indicate water supply use for domestic, livestock and commercial, 4 of the records indicate monitoring and/or monitoring test hole use, 2 of the water well records were listed as not used, and no information for usage was provided for 4 of the water well records.

In general, the stratigraphy noted in the reviewed water well records indicated layers of sand and clay with variable amounts of silt and gravel overlying bedrock. Bedrock was contacted at an approximate depth of 51.8 m bgs.

It is noted, the well locations and stratigraphic descriptions included within the MECP water well records are not completely accurate and inherent uncertainties should be assumed when reviewing. However, a general sense of the stratigraphy can be inferred by looking at commonalities between the various water well records, and details with respect to what aquifer supplies the water well can be determined by the screened or uncased portion of the well, along with the depth it was drilled to.

2.4 MECP PTTW RECORDS

The MECP PTTW inventory website was reviewed for any active PTTW application records within a 1.0 km radius of the site on August 13, 2024. The records reviewed indicate there are two active records for which are located approximately 850 m west of the site. A summary of the water well information is provided in Appendix A.

2.5 SOURCE WATER PROTECTION

The MECP mandates the protection of existing and future sources of drinking water under the Clean Water Act, 2006 (CWA). Strategies outlined in the CWA involve identifying Wellhead Protection Areas (WHPAs), Significant Groundwater Recharge Areas (SGRAs), and Highly Vulnerable Aquifers (HVAs), along with evaluating threats to both the quality and quantity of drinking water within Source Protection Regions. Source Water Protection Plans are formulated in accordance with the CWA, encompassing measures to regulate and prevent specific activities and land uses within WHPAs.

The site lies within a municipal WHPA Q1 and Q2; however, the site does not lie within an IPZ as shown on Figures 3 and 4, respectively. A WHPA Q1/Q2 refers to an area where a reduction in recharge and/or increase in water taking without returning to the same source is a significant threat to the water source. Further the site does lie within a SGRA with a vulnerability score of 2; however, the site does not lie within a HVA, as shown on Figures 5 and 6, respectively.

2.6 SITE INSPECTION

A visual site inspection was completed on July 29, 2024, to assess the site drainage, topography, and surface water features.

The site is located at municipal address 16728 Highway 12 in the Town of Midland. The site is vacant and consists of wooded/grassland and landscaped area. The site gradually slopes downward from the west to the east, and the surrounding area slopes downward from the north to the south towards Mud Lake. It is anticipated surface water runoff on the property will follow local topography and flow west to east, and then south towards Mud Lake.

3 Procedures and Methodology

3.1 BOREHOLE DRILLING AND MONITOIRNG WELL INSTALLATION

A total of 11 boreholes (BH1 through BH11) were advanced during the geotechnical investigation completed by Green on February 26 to 28, 2024. Details are presented in the draft Geotechnical report, dated March 28, 2024. During the investigation, the boreholes were drilled to approximate depths of 4.6 to 8.1 m below existing ground surface. Five of the boreholes were instrumented as monitoring wells (BH1, BH2, BH7, BH9 and BH11) upon completion of drilling. The borehole/monitoring well locations are presented on Figure 7.

The draft geotechnical borehole logs are discussed further in Section 4 and are provided in Appendix B and the draft geotechnical laboratory data for the boreholes are provided in Appendix C.

3.2 BOREHOLE PERMEABILITY TESTING

Borehole permeability testing was not feasible due to the insufficient water column inside the monitoring well. Consequently, testing was not performed at any monitoring well on the site.

3.3 GROUNDWATER SAMPLING

Groundwater sampling was not feasible due to the insufficient water column within the monitoring wells. As a result, no groundwater samples were obtained from any of the monitoring wells on site. Consequently, a groundwater quality analysis was not completed.

3.4 LONG-TERM GROUNDWATER LEVEL MONITORING

Long-term groundwater monitoring will be conducted between March 2025 and June 2025 to establish the seasonally high groundwater levels in the five on-site monitoring wells.

A supplemental groundwater level letter will be prepared at the end of the long-term groundwater level monitoring program highlighting the seasonal high groundwater levels measured to date.

4 Subsurface Conditions

4.1 STRATIGRAPHY

The geotechnical investigation (Green, March 28, 2024) was reviewed for this hydrogeological investigation. The borehole and monitoring well locations are presented in Figure 7, detailed subsurface draft borehole logs are presented in Appendix B, and the draft geotechnical laboratory data for the boreholes are provided in Appendix C.

In general, the subsurface logs encountered topsoil to depths of 0.2 and 0.7 m, over sand/silty sand with variable amount of gravel and clay to maximum investigated depth of 8.1 m bgs.

4.2 GROUNDWATER

Unstabilized groundwater level measurements and cave measurements were taken upon completion of each borehole drilled by Green. These measurements provide a rough estimate of the possible excavation and temporary groundwater control constructability considerations arising. Upon completion of the boreholes, all boreholes were open and dry immediately following drilling.

Monitoring wells were installed in five boreholes (BH1, BH2, BH7, BH9 and BH11) to facilitate measurement of stabilized groundwater levels across the site. The monitoring wells were installed with 50 mm diameter PVC riser pipe and slotted 1.5 to 3.6-meter-long screens. A summary of the monitoring well installations is presented in Table 1. Stabilized groundwater measurements are presented in Table 2.

Table 1: Monitoring Well Installation Details

MONITORING WELL ID	GROUND SURFACE[1] (m asl)	LOCATION OF SCREEN		STRATA SCREENED
		DEPTH (m)	ELEVATION (m asl)	
BH1	220.5	4.5 – 8.1	216.0 -212.4	Silty Sand / Sand
BH2	214.7	3.0 – 5.0	211.7 - 214.7	Sand / Silty Sand
BH7	218.5	3.0 – 6.6	215.5 – 211.9	Silty Sand
BH9	222.7	4.5 – 8.1	218.2 - 214.6	Silty Sand
BH11	217.0	3.0 – 5.0	214.0 - 217.0	Silty Sand

Note:
1. Ground surface elevations surveyed by Tatham using a GPS Trimble unit.

Table 2: Groundwater Levels

WELL ID	GROUND SURFACE ELEVATION[1] (m asl)	GROUNDWATER ELEVATION (m bgs) / ELEVATION (m asl)	
		March 13, 2024[2]	July 29, 2024
BH1	220.5*	Dry	Dry
BH2	214.7*	Dry	Dry
BH7	218.5*	Dry	Dry
BH9	222.7*	3.3 / 219.4	Dry
BH11	217..0*	Dry	Dry

Note:
1. Ground surface elevations surveyed by Tatham using a GPS Trimble unit.
2. Groundwater levels measured by Green Engineering.

Stabilized groundwater levels were measured on two occasions on March 13, 2024, by Green Geotechnical and July 29, 2024, by Tatham. During both the groundwater monitoring visits, all the monitoring wells were dry except BH9 in which groundwater was recorded at 3.3 m bgs (219.4 masl) during the monitoring event of March 13, 2024.

Due to the dry conditions encountered in the monitoring wells during the monitoring events, the groundwater level information is considered insufficient for preparing groundwater contours.

4.3 GRADATION TESTING

As part of the geotechnical investigation carried out by Green Geotechnical, four near surface soil samples were obtained and submitted to a certified Canadian Council of Independent Laboratories (CCIL) Aggregate Quality Control Laboratory (Type C) for gradation testing.

The hydraulic conductivities and associated percolation times were estimated utilizing the grain size distribution curves and an establish empirical formula by Vukovic and Soro (1992), and the Ontario Building Code (2012) Supplementary Standards SB-6. The results of the laboratory testing are summarized in Table 3, and the gradation testing results are provided in Appendix C.

Table 3: Estimated Hydraulic Conductivity

SAMPLE LOCATION	SAMPLE DEPTH (m)	SOIL TYPE	ESTIMATED HYDRAULIC CONDUCTIVITY, K (m/sec)	PERCOLATION TIMES (MIN/CM)
BH2	0.6 – 1.2	Sand, trace silt, trace clay	1.0×10^{-5}	8 – 20
BH4	2.3 – 2.7	Sand, some silt, trace clay, trace gravel	2.2×10^{-7}	8 – 20
BH10	1.5 – 2.0	Silty Sand, trace clay trace gravel	4.4×10^{-8}	8 – 20

Based on the correlation between the laboratory testing particle size distribution results, the soils on-site are considered to generally be medium permeability with percolation rates of 8 to 20 min/cm in accordance with the Ontario Building Code Supplementary Standards SB-6.

It is noted the K value derived from the particle size distribution curve does not take into consideration site specific details such as compaction, soil structure, organic content, and/or the degree of saturation.

According to Freeze and Cherry (1979), the typical hydraulic conductivity of the strata investigated area:

- Silty Sand and/or Sandy Silt: 10^{-3} m/s to 10^{-7} m/s
- Silt: 10^{-5} m/s to 10^{-9} m/s
- Glacial Till: 10^{-6} to 10^{-12} m/s

The hydraulic conductivity estimated from the gradation of the deposits are generally within the expected ranges.

5 Discussion and Analysis

5.1 CONSTRUTION DEWATERING ASSESSMENT

It is our understanding proposed development would consist of five 1-storey and one 3-storey self storage buildings totalling approximately 1.2 ha (11,927 m2) of gross floor area along with at grade parking area.

- *Proposed 3- and 1-Storey Buildings and Storage Units:* As per our understanding the Finished Floor Elevation (FFE) for 3-storey building is provided at 219.14 m asl, where the Underside of the footing (USF) is provided at 217.87 m asl. The FFE for one of the 1-storey building is provided at 220.18 m asl and the USF is provided at an elevation of 216.96 masl. No information was provided for the rest of the four 1- storey storage units. As such existing ground surface elevation is considered as FFE for these buildings and footing is assumed to be at 2.0 m below FFE.
- *Servicing Trench:* It is assumed 50 m long, and 3.0 m wide trench will be excavated to a depth of approximately 4.0 m bgs for installation of site servicing.

Based on the measured groundwater levels, and preliminary site plans it is not anticipated significant dewatering efforts would be required. It is noted detailed design has not been completed and the dewatering requirements should be reassessed once detailed design is complete if proposed excavations differ from the assumptions above.

Localized sump pumping may be required during these works to ensure stable excavation slopes and dry working conditions. However, based on the above it is anticipated dewatering rates will remain below the 50,000 L/day threshold and a Permit-to-Take-Water (PTTW) and/or Environmental Activity and Sector Registry (EASR) with the Ministry of Environment, Conservation, and Parks (MECP) will likely not be required.

5.2 WATER BUDGET

A pre- and post-development water budget has been prepared as part of Tatham's concurrent Stormwater Management assessment, and surplus is achieved. The details are reported under separate cover.

5.3 LOW IMPACT DEVELOPMENT FEASIBILTIY ASSESSMENT

As discussed in previous sections, the subsoils encountered at site consist of sand/silty sand with variable amounts of gravel and groundwater levels are expected at depths greater than 3.0 m bgs. Based on both the on-site soils and groundwater conditions observed, infiltration based Low

Impact Development (LID) features are considered feasible within the silty sand and/or sand silt soils, provided the LID features are constructed above the seasonal high groundwater table.

Long-term groundwater monitoring to confirm the seasonal high groundwater level during spring season will be carried out by Tatham in 2025 to further verify the feasibility of LID structure. It is recommended to conduct the in-situ infiltration testing at any proposed LID location at the anticipated depth of proposed LID structure to confirm the in-situ soil conditions.

The sizing of any proposed LID features would need to be reviewed with the proposed site plan to ensure sufficient offsets from structures on-site are achieved.

As such, LIDs are considered feasible for the site; however, infiltration testing on-site is recommended. Further discussion on the proposed site-specific LID's are discussed in the Stormwater Management Report prepared by Tatham.

6 References

Chapman and Putman, 1984. Physiography of Southern Ontario. Ontario Geological Survey. Open Map P2715. Scale 1:600,000.

Freeze and Cherry, 1979. Groundwater.

County of Simcoe (GIS), 2024, Interactive Map

Green Geotechnical Engineering, March 28, 2024. Project No. 23-127-01. Draft Geotechnical Investigation Report Proposed Storage Facility Development, 16728 Highway 12, Midland, Simcoe County, ON.

Ministry of the Environment, Conservation and Parks, 2024, Source Protection Information Atlas Interactive Map

Ministry of Natural Resources and Forestry, 2024, Natural Heritage Interactive Map

Ontario Geological Survey, 2011. Bedrock Geology of Ontario; Ontario Geological Survey, Miscellaneous Release-Data 126-Revision 1.

N

NOTES:
1. COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
2.CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENSE – ONTARIO.

LEGEND

SITE

ROAD

0 250 500 1,000 METERS

TATHAM ENGINEERING

U-HAUL - 16728 HIGHWAY 12, MIDLAND
HYDROGEOLOGICAL ASSESSMENT
SITE LOCATION PLAN

DWG. No. **FIG-1**

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NOTES:
1. COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
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LEGEND

- SITE
- STUDY AREA (500 M)
- MECP WATER WELLS
- ROAD

0 100 200 400 METERS

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U-HAUL - 16728 HIGHWAY 12, MIDLAND
HYDROGEOLOGICAL ASSESSMENT
MECP WATER WELL RECORDS

DWG. No. **FIG-2**

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NOTES:
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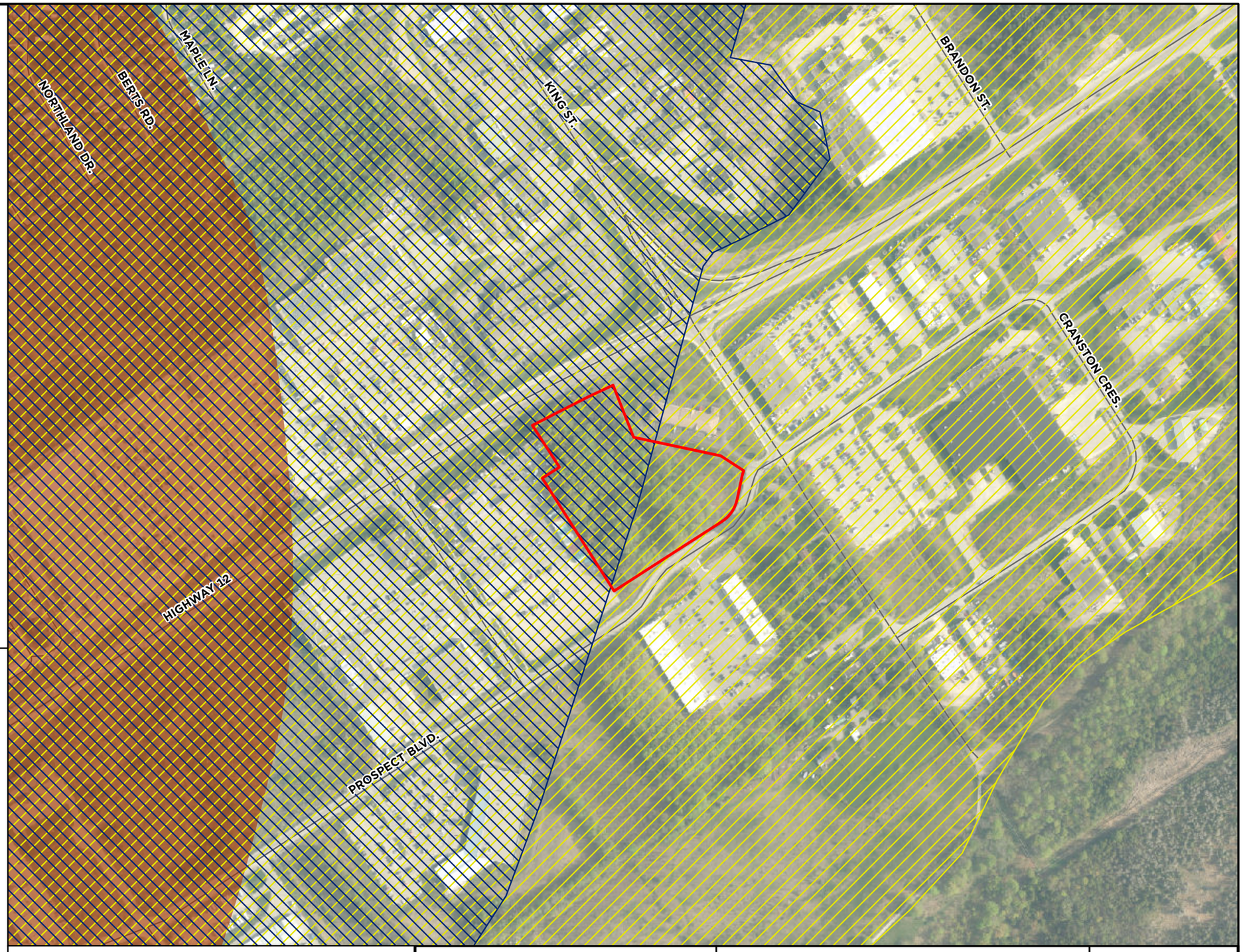
LEGEND

- SITE
- WELLHEAD PROTECTION AREA
- WELLHEAD PROTECTION AREA Q1
- WELLHEAD PROTECTION AREA Q2
- ROAD



0 65 130 260 METERS

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U-HAUL - 16728 HIGHWAY 12, MIDLAND
HYDROGEOLOGICAL ASSESSMENT
WELL HEAD PROTECTION AREA

DWG. No. **FIG-3**

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NOTES:
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2.CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENSE – ONTARIO.

LEGEND

- SITE
- INTAKE PROTECTION ZONE
- ROAD

0 65 130 260
METERS

TATHAM ENGINEERING

U-HAUL - 16728 HIGHWAY 12, MIDLAND
HYDROGEOLOGICAL ASSESSMENT
INTAKE PROTECTION ZONE

DWG. No. **FIG-4**

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NOTES:
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2.CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENSE – ONTARIO.

LEGEND

- SITE
- SIGNIFIGANT GROUNDWATER RECHARGE AREA
- ROAD

0 75 150 300 METERS

TATHAM ENGINEERING

U-HAUL - 16728 HIGHWAY 12, MIDLAND
HYDROGEOLOGICAL ASSESSMENT
SIGNIFICANT GROUNDWATER RECHARGE AREA

DWG. No. **FIG-5**

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NOTES:
1. COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
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LEGEND

- SITE
- HIGHLY VULNERABLE AQUIFER
- ROAD

0 75 150 300 METERS

TATHAM ENGINEERING

U-HAUL - 16728 HIGHWAY 12, MIDLAND
HYDROGEOLOGICAL ASSESSMENT
HIGHLY VULNERABLE AQUIFER

DWG. No. **FIG-6**

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NOTES:
1. COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
2.CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENSE – ONTARIO.

LEGEND

- SITE
- BOREHOLE
- MONITORING WELL

0 15 30 60 METERS

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U-HAUL - 16728 HIGHWAY 12, MIDLAND
HYDROGEOLOGICAL ASSESSMENT
BOREHOLE AND MONITORING WELL LOCATION PLAN

DWG. No. **FIG-7**

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Appendix A:
MECP Water Well Records

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Ministry of the Environment, Conservation and Parks
Water Well Records

Township Con Lot	UTM	Date	Casing Dia	Water	Pump Test	Well Use	Screen Depth	Well	Formation
MIDLAND TOWN	17 589216 4954019 W	2018/03	2			TH MO	0005 10	7309626 (Z282045) A220503	BRWN SAND 0005 BRWN SILT SAND TILL 0015
MIDLAND TOWN	17 589292 4954047 W	2018/03	2			TH MO	0017 10	7309627 (Z282044) A220449	BRWN SAND 0027
MIDLAND TOWN	17 589221 4954004 W	2018/03	2			TH MO	0010 10	7309625 (Z282046) A220450	BRWN SAND GRVL 0004 BRWN SILT SAND TILL 0020
MIDLAND TOWN	17 589297 4953975 W	2020/10						7375121 (Z342757) A306395 P	
MIDLAND TOWN	17 589281 4954008 W	2020/10						7375120 (Z342756) A306396 P	
MIDLAND TOWN	17 589516 4953758 W	1951/10	4 4	FR 0129	85/121/2/5:0	DO CO	0125 3	5703909 ()	BLDR HPAN 0044 HPAN STNS 0124 MSND 0129 GREY CLAY 0131
MIDLAND TOWN	17 589715 4953859 W	1964/05	8	FR 0145		NU		5703911 ()	LOAM 0002 CLAY STNS BLDR 0070 STNS GRVL MSND 0099 GRVL MSND SILT 0101 GRVL MSND 0112 GRVL BLDR 0115 CLAY GRVL MSND 0145 MSND 0148 BLUE CLAY 0158 CLAY MSND STNS 0213
MIDLAND TOWN	17 589546 4953753 W	1959/07	4	FR 0090	80/82/6/1:0	DO	0109 5	5703910 ()	PRDG 0020 STNS CLAY 0090 CSND 0114
MIDLAND TOWN PR E 01 099	17 589752 4953013 W	1985/04	6	FR 0095 FR 0105	72/87/20/1:0	DO		5720247 ()	YLLW SAND GRVL SILT 0054 GREY CLAY SAND 0059 YLLW SAND MSND 0105
MIDLAND TOWN PR E 01 101	17 588917 4953718 W	2020/11	2 4		0///:	MO	0015 5	7377320 (5Z7NMZTV) A300332	BRWN SAND SILT 0020
TAY TOWNSHIP PR E 01 099	17 589714 4953324 W	1975/03	6	FR 0110	80/80/10/3:0	DO	0120 3	5712988 ()	LOAM 0003 BRWN SAND BLDR 0031 GRVL SAND DRY 0110 GRVL SHRP CLN 0123

Township Con Lot	UTM	Date	Casing Dia	Water	Pump Test	Well Use	Screen Depth	Well	Formation
TAY TOWNSHIP PR E 01 099	17 589864 4953214 W	1971/03	2	FR 0126	61/82/3/:	NU	0137 10	5707913 ()	BRWN SAND CLAY GRVL 0006 GREY CLAY SAND GRVL 0013 BRWN SAND GRVL BLDR 0027 GREY CLAY SAND GRVL 0048 BRWN SAND 0098 BRWN SAND GRVL 0107 GREY CLAY GRVL 0126 BRWN SAND GRVL CLAY 0147 GREY CLAY GRVL 0170 GREY ROCK 0172
TAY TOWNSHIP PR E 01 100	17 589004 4953324 W	1971/03						5707898 () A	GREY CLAY GRVL 0008 BRWN SAND GRVL BLDR 0030 BRWN GRVL SAND CLAY 0033 BRWN GRVL SAND CLAY 0047 GREY CLAY STNS GRVL 0059 BRWN SAND GRVL CLAY 0098 GREY CLAY GRVL SAND 0132 BRWN SAND GRVL CLAY 0166 GREY CLAY GRVL 0213 GREY CLAY 0224 GREY ROCK 0225
TAY TOWNSHIP PR E 01 100	17 589625 4953454 W	1972/06	6	FR 0105	89/100/18/1:0	DO	0105 3	5708920 ()	LOAM 0001 BRWN SAND GRVL BLDR 0083 YLLW SAND 0108
TAY TOWNSHIP PR E 01 100	17 589587 4953448 W	1965/08	6	FR 0112	95/98/12/14:0	DO	0120 4	5703891 ()	PRDG 0010 GRVL STNS 0037 GRVL 0049 MSND 0064 GRVL STNS 0088 HPAN MSND 0112 GRVL 0124
TAY TOWNSHIP PR E 01 100	17 589612 4953478 W	1961/11	6	FR 0118	83/115/18/2:30	DO	0118 5	5703889 ()	LOAM 0001 BRWN CLAY BLDR GRVL 0068 BRWN MSND CLAY 0102 CSND GRVL 0123
TAY TOWNSHIP PR E 01 100	17 589192 4953421 W	1965/06	6	FR 0130	106/112/12/12:0	DO	0126 4	5703890 ()	CLAY MSND 0011 STNS GRVL 0058 BRWN CLAY 0063 HPAN 0118 CSND 0130
TAY TOWNSHIP PR E 01 100	17 589674 4953354 W	1968/08	6	FR 0100	85/100/10/2:0	DO	0101 3	5705597 ()	LOAM 0001 BRWN CLAY STNS 0085 YLLW FSND CLAY 0100 MSND CSND 0104
TAY TOWNSHIP PR E 01 100	17 589657 4953428 W	1966/05	6	FR 0095	88/100/15/1:0	DO	0109 3	5703892 ()	LOAM 0002 BRWN CLAY MSND GRVL 0080 FSND 0100 YLLW MSND CSND 0112
TAY TOWNSHIP PR E 01 101	17 589454 4953724 W	1971/02						5707895 () A	LOAM 0001 GREY CLAY 0010 GREY CLAY SAND GRVL 0013 BRWN SAND GRVL CLAY 0054 GREY CLAY GRVL 0070 BRWN SAND CLAY 0130 BRWN SAND CLAY 0138 GREY CLAY GRVL 0206 GREY CLAY GRVL 0241 GREY CLAY STNS GRVL 0244 RED SHLE 0246

Township Con Lot	UTM	Date	Casing Dia	Water	Pump Test	Well Use	Screen Depth	Well	Formation
TAY TOWNSHIP PR E 01 101	17 589377 4953696 W	1972/09	6	FR 0140	110/114/30/3:0	CO	131	5709260 ()	SAND GRVL 0104 FSND 0134 MSND 0143 FSND 0166 CLAY 0170
TAY TOWNSHIP PR E 02 100	17 589766 4953769 W	1963/04	6	FR 0109	87/104/15/0:45	ST DO	0109 3	5703908 ()	PRDG 0090 CSND 0112
TAY TOWNSHIP PR E 02 101	17 589764 4954024 W	1978/07	6	FR 0088	93/110/10/2:0	DO	0126 3	5715451 ()	STNS GRVL 0005 CLAY 0011 GRVL 0070 CSND 0076 GRVL CLAY MSND 0088 CSND 0133 FSND 0138

UTM: UTM in Zone, Easting, Northing and Datum is NAD83; L: UTM estimated from Centroid of Lot; W: UTM not from Lot Centroid
DATE: Date Work Completed
CASING DIA: Casing diameter in inches
WATER: Unit of Depth in Feet. See Table 4 for meaning of code.
PUMP TEST: Static Water Level in Feet / Water Level After Pumping in Feet / Pump Test Rate in GPM / Pump Test Duration in Hr : Min
WELL USE: See Table 2 for Meaning of Code
SCREEN: Screen Depth and Length in feet
WELL: ID # (AUDIT #) Well Tag. A: Abandonment; P: Partial Data Entry Only
FORMATION: See Table 1 and 3 for meaning of Code

Table 1: Core Material and Descriptive Terms

BLDR BOULDERS	FCRD FRACTURED	IRFM IRON FORMATION	PORS POROUS	SOFT SOFT
BSLT BASALT	FGRD FINE-GRAINED	LIMY LIMY	PRDG PREVIOUSLY DUG	SPST SOAPSTONE
CGRD COARSE-GRAINED	FGVL FINE GRAVEL	LMSN LIMESTONE	PRDR PREV. DRILLED	STKY STICKY
CGVL COARSE GRAVEL	FILL FILL	LOAM TOPSOIL	QRTZ QUARTZITE	STNS STONES
CHRT CHERT	FLDS FELDSPAR	LOOS LOOSE	QSND QUICKSAND	STNY STONEY
CLAY CLAY	FLNT FLINT	LTCL LIGHT-COLOURED	QTZ QUARTZ	THIK THICK
CLN CLEAN	FOSS FOSILIFEROUS	LYRD LAYERED	ROCK ROCK	THIN THIN
CLYY CLAYEY	FSND FINE SAND	MARL MARL	SAND SAND	TILL TILL
CMTD CEMENTED	GNIS GNEISS	MGRD MEDIUM-GRAINED	SHLE SHALE	UNKN UNKNOWN TYPE
CONG CONGLOMERATE	GRNT GRANITE	MGVL MEDIUM GRAVEL	SHLY SHALY	VERY VERY
CRYS CRYSTALLINE	GRSN GREENSTONE	MRBL MARBLE	SHRP SHARP	WBRG WATER-BEARING
CSND COARSE SAND	GRVL GRAVEL	MSND MEDIUM SAND	SHST SCHIST	WDFR WOOD FRAGMENTS
DKCL DARK-COLOURED	GRWK GREYWACKE	MUCK MUCK	SILT SILT	WTHD WEATHERED
DLMT DOLOMITE	GVLY GRAVELLY	OBDN OVERBURDEN	SLTE SLATE	
DNSE DENSE	GYPS GYPSUM	PCKD PACKED	SLTY SILTY	
DRTY DIRTY	HARD HARD	PEAT PEAT	SNDS SANDSTONE	
DRY DRY	HPAN HARDPAN	PGVL PEA GRAVEL	SNDY SANDYOAPSTONE	

Table 2: Well Use

DO Domestic
ST Livestock
IR Irrigation
IN Industrial
CO Commercial
MN Municipal
PS Public
AC Cooling And A/C
NU Not Used
OT Other
TH Test Hole
DE Dewatering
MO Monitoring
MT Monitoring TestHole

Table 3: Core Color

WHIT WHITE
GREY GREY
BLUE BLUE
GREN GREEN
YLLW YELLOW
BRWN BROWN
RED RED
BLCK BLACK
BLGY BLUE-GREY

Table 4: Water Detail

FR Fresh
SA Salty
SU Sulphur
MN Mineral
UK Unknown
GS Gas
IR Iron

TATHAM ENGINEERING

Ministry of the Environment, Conservation and Parks
Active PTTWs

Permit Number	Permit Holder Name	Purpose	Max Litres per Day	Source Type	Approx. Distance from the Site (km)
2406-AKPQ83	The Corporation of the Town of Midland	Water Supply	4,924,800	Ground Water	0.85
2406-AKPQ83	The Corporation of the Town of Midland	Water Supply	4,233,600	Ground Water	0.85

Appendix B:
Borehole Logs

BOREHOLE LOG: BH1

Project: 16728 Highway 12 | Project No.: 23-127-01

Site Address: Midland, Ontario | Client: U-Haul Co. Canada Ltd., U-Haul Co. Canada LTEE

Easting: 589402 | Northing: 4953591 | Elevation:

Logged By: SO | Reviewed By: TK | Investigation Date: 2024-02-26

DEPTH	SOIL STRATIGRAPHY	SYMBOL	SAMPLES NO.	SAMPLES SYMBOLS	STANDARD PENETRATION TEST (SPT) 0 10 20 30 40 50	NOTES/GRAIN SIZE (%)	MONITORING WELL	MOISTURE PLOT W_{PL} W W_{LL} 20 40 60 80
	Ground Surface at							
0	**TOPSOIL** 0.3 m		1	SS	1			
	(WEATHERED/DISTURBED) 0.6 m		2	SS	2			
1	**SILTY SAND** trace gravel, trace clay, very loose to very dense, moist, brown to grey		3	SS	10			
2			4	SS	22			
3			5	SS	(67)			
4								
5			6	SS	(83)			
6	6.1 m							
	SAND trace to some silt, trace gravel, very dense, moist, grey		7	SS	(83)			
7								
8	8.1 m		8	SS	(REF)	N=50/250mm		
	BH1 Terminated at 8.1 m							
9								

Notes:
Borehole was open and dry upon completion of drilling.
Monitoring well was dry on 03-13-2024

BOREHOLE LOG: BH2

Project: 16728 Highway 12

Site Address: Midland, Ontario

Easting: 589474

Northing: 4953624

Logged By: SO

Reviewed By: TK

Project No.: 23-127-01

Client: U-Haul Co. Canada Ltd., U-Haul Co. Canada LTEE

Elevation:

Investigation Date: 2024-02-26

Ground Surface at

TOPSOIL 0.3 m

SILTY CLAY TO CLAYEY SILT
trace to some sand, firm, moist, brown 0.8 m

SAND
trace to some silt, trace gravel, very dense, moist, grey

4.5 m

SILTY SAND
trace gravel, trace clay, very dense, moist, grey 5 m

BH2 Terminated at 5 m

NO.	SYMBOLS	STANDARD PENETRATION TEST (SPT)	NOTES/GRAIN SIZE (%)
1	SS	7	
2	SS	18	Gr: 0%, Sa: 86% Si: 10%, Cl: 4%
3	SS	13	
4	SS	16	
5	SS	(80)	
6	SS	(REF)	N=50/50mm

MOISTURE PLOT: W_{PL} — W — W_{LL}; 20 40 60 80

Notes:
Borehole was open and dry upon completion of drilling.
Monitoring well was dry on 03-13-2024

BOREHOLE LOG: BH3

Project: 16728 Highway 12

Site Address: Midland, Ontario

Easting: 589445

Northing: 4953566

Logged By: SO

Reviewed By: TK

Project No.: 23-127-01

Client: U-Haul Co. Canada Ltd., U-Haul Co. Canada LTEE

Elevation:

Investigation Date: 2024-02-26

Ground Surface at

TOPSOIL 0.7 m

SILTY SAND
trace gravel, trace clay, very loose to very dense, moist, brown to grey

6.6 m

BH3 Terminated at 6.6 m

DEPTH	NO.	SYMBOLS	STANDARD PENETRATION TEST (SPT)	MONITORING WELL
0	1	SS	0	No Data
1	2	SS	5	
2	3	SS	(51)	
3	4	SS	47	
4	5	SS	(56) sand seam encountered	
5	6	SS	(66)	
6	7	SS	(REF) N=50/430mm sand seam encountered	
7				
8				
9				

MOISTURE PLOT

W_{PL} — W — W_{LL}

20 40 60 80

Notes:
Borehole was open and dry upon completion of drilling.

GREEN GEOTECHNICAL

BOREHOLE LOG: BH4

Project: 16728 Highway 12

Site Address: Midland, Ontario

Easting: 589402

Northing: 4953536

Logged By: SO

Reviewed By: TK

Project No.: 23-127-01

Client: U-Haul Co. Canada Ltd., U-Haul Co. Canada LTEE

Elevation:

Investigation Date: 2024-02-26

DEPTH	SOIL STRATIGRAPHY	SYMBOL	SAMPLES NO.	SAMPLES SYMBOLS	STANDARD PENETRATION TEST (SPT) 0 10 20 30 40 50	NOTES/GRAIN SIZE (%)	MONITORING WELL	MOISTURE PLOT W_{PL} W W_{LL} 20 40 60 80
	Ground Surface at							
0	**TOPSOIL** 0.3 m		1	SS	4		No Data	
1	**SILTY SAND** trace gravel, trace clay, very loose to very dense, moist, brown to grey		2	SS	3			
2			3	SS	41			
3			4	SS	(75)	Gr: 1%, Sa: 73% Si: 20%, Cl: 6%		
4			5	SS	(REF)	N=50/130mm		
5	5 m BH4 Terminated at 5 m on inferred boulder.		6	SS	(REF)	N=50/80mm		
6								
7								
8								
9								

Notes:
Borehole was open and dry upon completion of drilling.

BOREHOLE LOG: BH5

Project: 16728 Highway 12

Site Address: Midland, Ontario

Easting: 589507

Northing: 4953559

Logged By: SO

Reviewed By: TK

Project No.: 23-127-01

Client: U-Haul Co. Canada Ltd., U-Haul Co. Canada LTEE

Elevation:

Investigation Date: 2024-02-26

Ground Surface at

TOPSOIL 0.3 m

(WEATHERED/DISTURBED) 0.6 m

SAND
trace to some silt, trace gravel, loose to compact, moist, brown

2.3 m

SAND AND GRAVEL
trace silt, compact, moist, brown

3 m

SILTY SAND
trace gravel, trace clay, very dense, moist, grey

4.6 m

BH5 Terminated at 4.6 m on inferred boulder.

NO.	SYMBOLS	STANDARD PENETRATION TEST (SPT)
1	SS	2
2	SS	8
3	SS	14
4	SS	28
5	SS	(83)
6	SS	(REF) N=50/130mm

MONITORING WELL: No Data

MOISTURE PLOT: W_{PL} — W — W_{LL}

Notes:
Borehole was open and dry upon completion of drilling.

BOREHOLE LOG: BH6

Project: 16728 Highway 12

Site Address: Midland, Ontario

Easting: 589435

Northing: 4953494

Logged By: SO

Reviewed By: TK

Project No.: 23-127-01

Client: U-Haul Co. Canada Ltd., U-Haul Co. Canada LTEE

Elevation:

Investigation Date: 2024-02-26

Ground Surface at

TOPSOIL 0.2 m

(WEATHERED/DISTURBED) 0.6 m

SILTY SAND

trace gravel, trace clay, very loose to very dense, moist, brown to grey

5 m

BH6 Terminated at 5 m on inferred boulder.

NO.	SYMBOLS	STANDARD PENETRATION TEST (SPT)	NOTES/GRAIN SIZE (%)
1	SS	0	
2	SS	3	
3	SS	30	
4	SS	(REF) N=50/130mm	
5	SS	(REF) N=50/130mm	
6	SS	(REF) N=50/130mm	

MONITORING WELL: No Data

MOISTURE PLOT: W_{PL} — W — W_{LL}; 20 40 60 80

Notes:
Borehole was open and dry upon completion of drilling.

BOREHOLE LOG: BH7

Project: 16728 Highway 12

Site Address: Midland, Ontario

Easting: 589486

Northing: 4953536

Logged By: SO

Reviewed By: TK

Project No.: 23-127-01

Client: U-Haul Co. Canada Ltd., U-Haul Co. Canada LTEE

Elevation:

Investigation Date: 2024-02-26

DEPTH	SOIL STRATIGRAPHY	SYMBOL	SAMPLES NO.	SAMPLES SYMBOLS	STANDARD PENETRATION TEST (SPT) 0 10 20 30 40 50	NOTES/GRAIN SIZE (%)	MONITORING WELL	MOISTURE PLOT W_{PL} W W_{LL} 20 40 60 80
	Ground Surface at							
0	**TOPSOIL** 0.3 m		1	SS	0			
	(WEATHERED/DISTURBED) 0.6 m							
1	**SILTY SAND** trace gravel, trace clay, very loose to very dense, moist, brown to grey		2	SS	5			
2			3	SS	28			
3			4	SS	(53)			
4			5	SS	(53)			
5			6	SS	(REF) N=50/400mm			
6	6.6 m		7	SS	(REF) N=50/280mm			
7	BH7 Terminated at 6.6 m							
8								
9								

Notes:
Borehole was open and dry upon completion of drilling.
Monitoring well was dry on 03-13-2024

BOREHOLE LOG: BH8

Project: 16728 Highway 12

Project No.: 23-127-01

Site Address: Midland, Ontario

Client: U-Haul Co. Canada Ltd., U-Haul Co. Canada LTEE

Easting: 589549

Northing: 4953548

Elevation:

Logged By: SO

Reviewed By: TK

Investigation Date: 2024-02-26

DEPTH	SOIL STRATIGRAPHY	SYMBOL	SAMPLES NO.	SAMPLES SYMBOLS	STANDARD PENETRATION TEST (SPT)	NOTES/GRAIN SIZE (%)	MONITORING WELL	MOISTURE PLOT
	Ground Surface at							
0	**TOPSOIL** 0.3 m		1	SS	14		No Data	
1	**SILTY SAND** trace gravel, trace clay, compact, moist, brown 0.8 m		2	SS	2			
2	**SAND** trace to some silt, trace gravel, very loose, moist, brown 2.3 m		3	SS	3			
3	**SILTY SAND** trace gravel, trace clay, compact to very dense, moist, brown		4	SS	29			
4			5	SS	(52)			
5	BH8 Terminated at 5 m 5 m		6	SS	(55)			
6								
7								
8								
9								

STANDARD PENETRATION TEST (SPT): 0 10 20 30 40 50

MOISTURE PLOT: W_{PL} W W_{LL}; 20 40 60 80

Notes:
Borehole was open and dry upon completion of drilling.

BOREHOLE LOG: BH9

Project: 16728 Highway 12
Site Address: Midland, Ontario
Easting: 589465
Logged By: SO

Northing: 4953441
Reviewed By: TK

Project No.: 23-127-01
Client: U-Haul Co. Canada Ltd., U-Haul Co. Canada LTEE
Elevation:
Investigation Date: 2024-02-26

DEPTH	SOIL STRATIGRAPHY	SYMBOL	SAMPLES NO.	SAMPLES SYMBOLS	STANDARD PENETRATION TEST (SPT) 0 10 20 30 40 50	NOTES/GRAIN SIZE (%)	MONITORING WELL	MOISTURE PLOT W_{PL} W W_{LL} 20 40 60 80
	Ground Surface at							
0	**TOPSOIL** 0.3 m		1	SS	17			
1	**SILTY SAND** trace gravel, trace clay, compact to very dense, moist, brown to grey		2	SS	20			
2			3	SS	(59)			
3			4	SS	(REF)	N=50/450mm		
4			5	SS	(REF)	N=50/280mm		
5			6	SS	(53)			
6			7	SS	(REF)	N=50/150mm		
7			8	SS	(REF)	N=50/150mm		
8	8.1 m BH9 Terminated at 8.1 m							
9								

Notes:
Borehole was open and dry upon completion of drilling.
Stabilized water level measured at 3.3 mbg on 03-13-2024

BOREHOLE LOG: BH10

Project: 16728 Highway 12

Site Address: Midland, Ontario

Easting: 589516

Northing: 4953480

Logged By: SO

Reviewed By: TK

Project No.: 23-127-01

Client: U-Haul Co. Canada Ltd., U-Haul Co. Canada LTEE

Elevation:

Investigation Date: 2024-02-26

DEPTH	SOIL STRATIGRAPHY	SYMBOL	SAMPLES NO.	SAMPLES SYMBOLS	STANDARD PENETRATION TEST (SPT) 0 10 20 30 40 50	NOTES/GRAIN SIZE (%)	MONITORING WELL	MOISTURE PLOT W_{PL} W W_{LL} 20 40 60 80
	Ground Surface at							
0	**TOPSOIL** 0.3 m		1	SS	15		No Data	
1	**SILTY SAND** trace gravel, trace clay, loose to very dense, moist, brown		2	SS	12			
2			3	SS	9	Gr: 3%, Sa: 66% Si: 24%, Cl: 7%		
3			4	SS	45			
4			5	SS	(71)			
5			6	SS	(REF)	N=50/430mm		
6	6.6 m		7	SS	47			
7	BH10 Terminated at 6.6 m							
8								
9								

RSLog / (No CPT) Soil Log with Piezometer (Letter) / green-geotechnical-ltd. / admin / March 28, 2024 02:47 PM

GREEN GEOTECHNICAL

Notes:
Borehole was open and dry upon completion of drilling.

BOREHOLE LOG: BH11

Project: 16728 Highway 12

Project No.: 23-127-01

Site Address: Midland, Ontario

Client: U-Haul Co. Canada Ltd., U-Haul Co. Canada LTEE

Easting: 589578

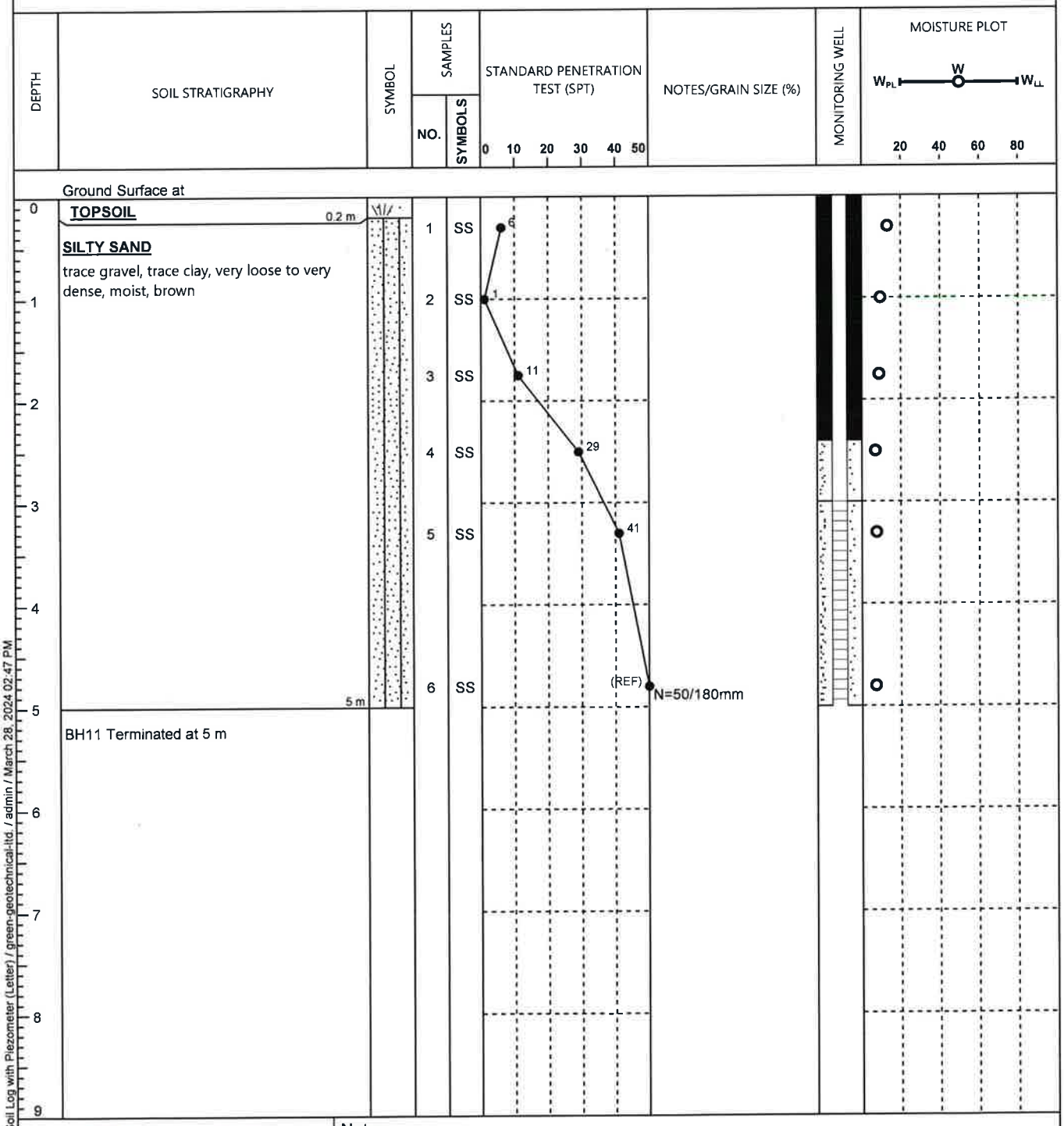
Northing: 4953517

Elevation:

Logged By: SO

Reviewed By: TK

Investigation Date: 2024-02-26



RSLog / (No CPT) Soil Log with Piezometer (Letter) / green-geotechnical-ltd. / admin / March 28, 2024 02:47 PM

GREEN GEOTECHNICAL

Notes:

Borehole was open and dry upon completion of drilling.

Monitoring well was dry on 03-13-2024

Appendix C:
Geotechnical Laboratory Data

GREEN GEOTECHNICAL

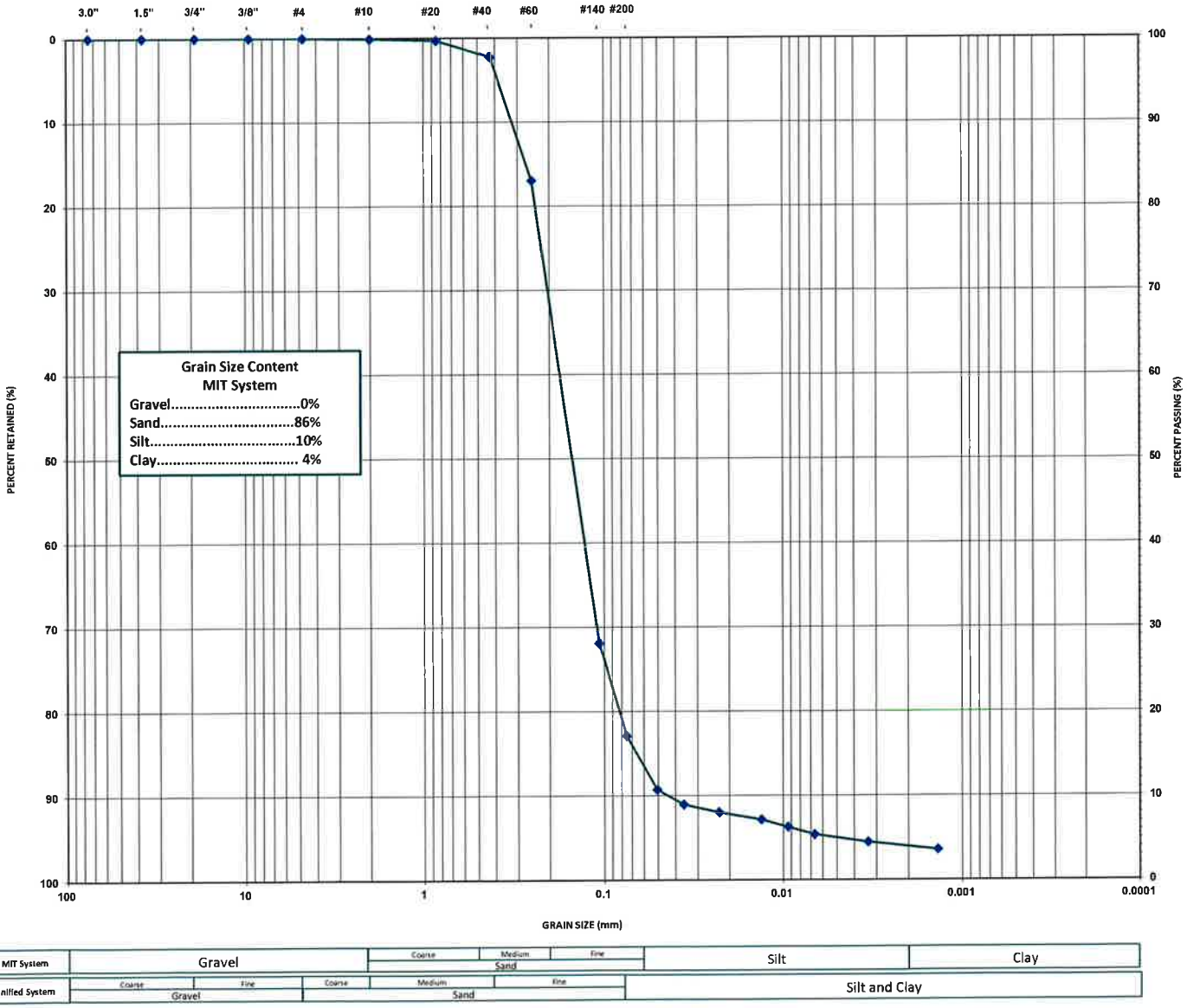
576 Bryne Drive, Unit 'O'
Barrie, ON
L4N 9P6

Hydrometer Analysis Form

Project Number:	23-127-01	Location:	Midland, ON	Project Name:	16728 Highway 12
Sample Date:	February 27, 2024	Test Date:	March 12, 2024	Client Name:	U-Haul Co. Canada Ltd., U-Haul Co. Canada LTEE
Sample Description:	Sand, trace silt, trace clay	Lab Number:	179	Tested By:	J. Duguid
Sample Location:	Midland, ON	Sample Depth:	2 to 4'	Sampled By:	SO
Borehole Hole:	2	Sample Number:		2	
Estimated Septic T-Time:		N/A		Unified Soil Classification	SM

Grain Size Distribution

U.S. Standard Sieve Sizes



GREEN GEOTECHNICAL

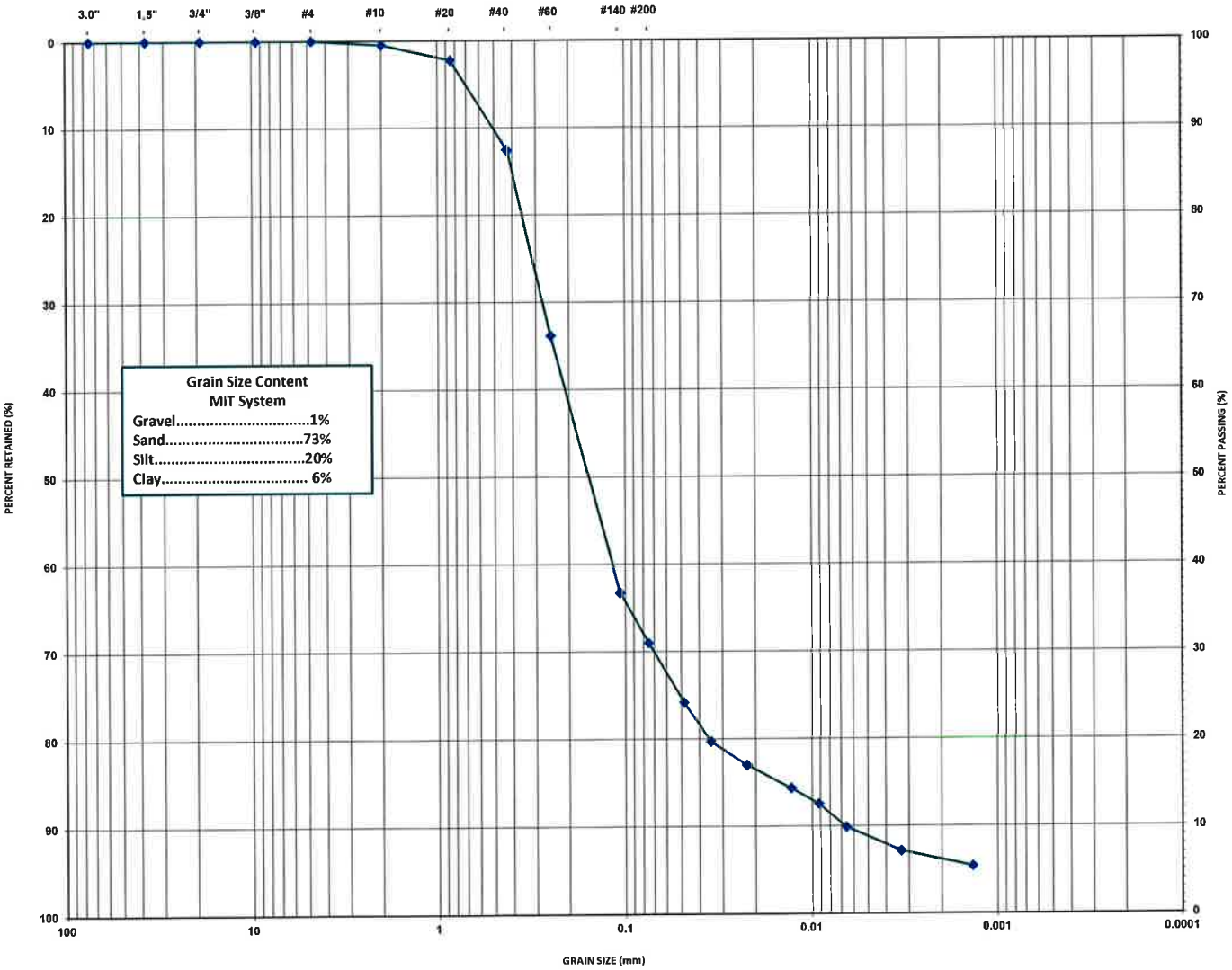
576 Bryne Drive, Unit 'O'
Barrie, ON
L4N 9P6

Hydrometer Analysis Form

Project Number:	23-127-01	Location:	Midland, ON	Project Name:	16728 Highway 12
Sample Date:	February 27, 2024	Test Date:	March 12, 2024	Client Name:	U-Haul Co. Canada Ltd., U-Haul Co. Canada LTEE
Sample Description:	Sand, some silt, trace clay, trace grave	Lab Number:	178	Tested By:	J. Duguid
Sample Location:	Midland, ON	Sample Depth:	7.5 to 9'	Sampled By:	SO
Borehole Hole:	4	Sample Number:		4	
Estimated Septic T-Time:		N		Unified Soil Classification	SM

Grain Size Distribution

U.S. Standard Sieve Sizes



MIT System	Gravel		Coarse	Medium	Fine	Silt	Clay	
			Sand					
Unified System	Coarse	Fine	Coarse	Medium	Fine	Silt and Clay		
	Gravel		Sand					

GREEN GEOTECHNICAL

576 Bryne Drive, Unit 'O'
Barrie, ON
L4N 9P6

Hydrometer Analysis Form

Project Number:	23-127-01	Location:	Midland, ON	Project Name:	16728 Highway 12
Sample Date:	February 27, 2024	Test Date:	March 12, 2024	Client Name:	U-Haul Co. Canada Ltd., U-Haul Co. Canada LTEE
Sample Description:	Silty sand, trace clay, trace gravel		Lab Number: 180	Tested By:	J. Duguid
Sample Location:	Midland, ON	Sample Depth:	5 to 6.5'	Sampled By:	SO
Borehole Hole:	10		Sample Number:	3	
Estimated Septic T-Time:		N/A		Unified Soil Classification	SM

Grain Size Distribution

U.S. Standard Sieve Sizes