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HYDROGEOLOGICAL INVESTIGATION

PROPOSED DEVELOPMENT, 3855 DUNDAS STREET WEST, MISSISSAUGA, ONTARIO

Prepared for:

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1. INTRODUCTION

Fisher Engineering Ltd (Fisher) was commissioned by Dymon Group of Companies to carry out a Hydrogeological Investigation at the property municipally addressed as 3855 Dundas Street West in Mississauga, Ontario, hereinafter referred to as the 'Site'.

The purpose of the Hydrogeological Investigation was to evaluate groundwater conditions with respect to the proposed construction of a new building.

Updates in relation to the previous versions of the report are summarized as follows:

- A four-storey building, with one underground level, along with industrial condo building to be constructed as slab on grade, is now proposed.
- Construction groundwater dewatering rates of 8.50 m^3/day and 3.34 m^3/day for the four-storey building with one UG level and industrial condo respectively.
- Permanent drainage rate of 4.82 m^3/day was obtained for the four-storey building with one UG level.

2. SITE AND PROJECT DESCRIPTIONS

Site Settings

The Site is located at the north side of Dundas Street West, approximately 350m west of Highway 403, in a mixed-use area, and is bounded by Ninth Line to the west, baseball diamonds to the north, undeveloped land to the east, beyond which is HWY403 and Dundas Street West to the south. The property has an approximate area of 8,053m^2 and is rectangular in shape.

At the time of the investigation, the Site was mainly covered with grass/weeds but appeared to have been graded in the recent past. Access to the property is via an unpaved entrance off Dundas Street East.

Topography

The Site is generally flat and slopes gently towards drainage ditches. An average ground surface elevation of 171.15m asl was used for this report based on elevations at BH/MW locations.

Proposed Development

It was understood that the proposed development will consist of the construction of a four-storey self-storage facility and one-storey industrial condo, covering the western portion of the Site, adjacent to Ninth Line. The self-storage building will have one underground level while the industrial condo will be constructed as slab on grade. Based on the Site Plan, prepared by Global Architect Inc, dated June 14, 2023, finished ground floor elevation (FFE) is 171.40m asl while top of slab (TOS) for P1 is 168.05m asl. The proposed building, including the industrial condo, will have a footprint of 7,810m^2 while P1 area is 5,064.9m^2. Average footing depths, for conventional footings, of 1.2m below P1 and 2.2m below ground floor were assumed for the storage building, with one UG level, and industrial condo, with slab on grade, respectively, based on recommendations in the geotechnical engineering report.

3. SCOPE OF HYDROGEOLOGICAL INVESTIGATION

The Hydrogeological Investigation works were required to:

1) Establish groundwater conditions for the design of dewatering works, if required, prior to construction of the proposed building.
2) Determine the need for permanent drainage and
3) Conduct calculations/analyses of the groundwater quantity and quality to be used for the necessary permits applications prior to proceeding with construction dewatering and design of permanent drainage, if necessary.

The scope of this work generally consisted of the following:

- **Drilling/locating Monitoring Wells.** Drilling of, and locating existing, monitoring wells and reviewing / compiling borehole logs and onsite / laboratory testing.
- **Data Evaluation.** Evaluating the results of soil types, groundwater static levels, ground surface elevation, groundwater quality, flow direction and other available hydrogeological data for the Site and their potential impact on the proposed development.
- **Hydraulic Conductivity Tests.** Conduct single well response tests in monitoring wells and record groundwater level drawdown and recovery to model/calculate hydraulic conductivity.

- **Groundwater Quality Analysis.** Carry out laboratory analyses on soil and groundwater to determine compliance with the Ontario Reg. Mun of Peel Sanitary Bylaw #53-2010 and Peel Storm Sewer By-law #53-201 (Apr 2011).
- **Groundwater Level Monitoring.** Conduct long term monitoring of the groundwater levels to determine seasonal highwater levels at the Site.
- **Private Well Survey.** Carry out a search of private supply wells in proximity to the Site.
- **Hydrogeological Report.** Prepare and submit a report detailing the findings and recommendations of the Hydrogeological Investigation.

4. FIELD AND LABORATORY WORKS

Subsurface exploration for the initial Hydrogeological Investigation was conducted on August 19, 2020 and consisted of the drilling of four (4) boreholes to depths of 5.03m below existing grades (BH1 to BH4). Seven (7) additional boreholes were drilled on September 13 and 14, 2021 to depths of 5.03m bgs. All boreholes were instrumented as monitoring wells (MW101 to MW104 and MW201 to 207) for groundwater monitoring and testing. Groundwater monitoring was carried out in all installed wells and two existing monitoring wells (MW2 & MW4, installed during a previous geotechnical investigation in 2018). A clean silica sand pack was placed around the well screens and isolated with bentonite to depths below existing grade as shown in the borehole details in Appendix B. Six (6) shallow boreholes (TH1 to TH6) were drilled during the recent investigation to be used for infiltration tests.

Truck/track mounted drill rigs equipped with solid stem augers, supplied by Terra Firma Services, were used for all drilling work.

Laboratory Analyses

Five (5) representative soil samples, from BH101 were selected and submitted to Fisher Environmental laboratory for grain size distribution and moisture content analyses. Two (2) soil samples from BH102 and BH103 were submitted to ALS Environmental laboratory for grain size and hydrometer analyses. Six (6) soil samples from the shallow boreholes (TH1 to TH6) were submitted for grain size and moisture content analyses and three (3) samples for hydrometer testing. The laboratory results, which are presented in Appendix C, are consistent with the field description for subsurface soils discussed in Section 5.0.

One groundwater sample from MW202 was submitted to ALS Environmental laboratory for analysis of water quality under the Ontario Reg. Mun of Peel Sanitary Bylaw #53-2010 and Peel Storm Sewer By-law #53-201 (Apr 2011). The results are presented in Appendix D.

The soil samples recovered during the investigations were stored in the Fisher Environmental laboratory for a period of 30 days after submitting the initial reports and were discarded thereafter.

Site Survey

Elevations at borehole/monitoring well locations were interpolated from a survey plan prepared by Speight, Van Nostrand & Gibson Limited dated September 10, 2018 which was provided to Fisher during the investigation.

5. PAVEMENT AND SOIL CONDITIONS

Surface and subsurface conditions encountered at borehole locations are shown in Appendix B - Log of Boreholes, and are summarized as follows:

- **Fill/Disturbed Soil:** – Layers of fill/disturbed soil were encountered in all boreholes at ground surface extending to depths of 0.30m to 3.00m below prevailing grade. The fill materials generally consisted of reddish brown/to grey, silt/clayey silt, with trace of gravel/shale fragments, asphalt and bricks. Brown to grey silty clay with sand seams followed by black organic silty clay fill was reported in BH2 below the earth fill layer. The encountered layer of fill, which appears to be due to recent earth work, was moist to dry and was in a loose to compact state and was generally deeper in the northern section of the property covered by BH2, BH201 and BH202. A deeper layer of fill/disturbed soil was also encountered in the southeast section covered by BH207.

  Depth and elevation of the fill encountered in all boreholes are presented in Table 1.

- **Clayey Silt Till:** – Reddish brown to greyish brown, moist to dry, stiff to hard clayey silt till with trace gravel and pieces of shale were encountered below the fill extending to termination depth in most boreholes. The clayey silt till was overlain by a dark brown to grey clayey silt layer in BH102.

- **Suspected Shale:** – Reddish brown, dry, hard shale/weathered shale was encountered at 3.2m bgs in BH203. SPT values of over 100 blows per 300mm of penetration were observed in the shale. Refusal to power auguring occurred at approximately 4.72m bgs in the shale material.

Table 1: Fill depths and Elevations

Borehole No.	BH201	BH202	BH203	BH204	BH205	BH206	BH207	BH101	BH102	BH103	BH104	BH2	BH4
Surface Elevation (m asl)	171.50	171.09	170.98	170.41	171.33	171.42	170.89	171.40	171.22	171.25	171.35	171.09	170.98
Depth of Borehole (m bgs)	5.03	5.03	5.03	4.72	5.03	5.03	4.99	5.03	5.03	5.03	5.03	6.71	6.55
Elevation at Bottom of Borehole (m asl)	166.47	166.06	165.95	165.69	166.30	166.39	165.90	166.37	166.19	166.22	166.32	164.38	164.43
Depth of Fill (m bgs)	3.05	1.98	0.23	1.07	1.07	1.37	2.44	0.76	1.22	0.3	0.61	1.85	0.46
Elevation at Bottom of Fill (m asl)	168.45	169.11	170.75	169.34	170.26	170.05	168.45	170.64	170.00	170.95	170.74	169.24	170.52

6. HYDROGEOLOGICAL STUDY

Hydrogeological study for the subject Site was conducted based on the boreholes/wells' exploration, observation and Site/Laboratory testing. Groundwater details from the eleven newly installed and two existing monitoring wells were used in the Hydrogeological Study. The wells were constructed with 3.05 (10') long, 51mm diameter PVC slotted screen pipes and risers as shown in Appendix B. Clean silica sand packs were placed around each well screen which was isolated with bentonite extending to slightly below existing grade.

6.1 Hydrogeological Conditions

Review of the available surficial geological and hydrogeological information for the area shows that the soils comprise generally of Glacial Ice Deposits consisting predominantly of Young Tills, clayey silt till and sandy silt till (Quaternary Geology, Toronto and Surrounding Area, Ontario Geological Survey Map 2204,

1998). Underlying bedrock is represented by shale, limestone, dolostone and siltstone of the Queenston Formation and is generally less than 10m below existing grade.

The subsoils and hydrogeological conditions were observed and recorded during the previous Geotechnical and current Hydrogeological Investigations. Based on the boreholes/wells' exploration, subsoils at the site were dominated by a layer of reddish brown, moist to dry, stiff to hard clayey silt till beneath the fill/disturbed soil layers. A layer of grey to brown, moist, firm clayey silt was observed in some boreholes overlying the clayey silt till. Pieces of shale were observed embedded in the clayey silt till at further depths. Dry, hard, weathered shale was observed in one borehole at 3.2m bgs. The observed soil stratigraphy is consistent with the regional geology.

All monitoring wells used for the investigation, including existing wells, were purged/developed, and groundwater levels measured on subsequent occasions. Measured groundwater depths and elevations are summarized in Table 2.

Notes on Table 2:

The following general comments regarding groundwater conditions are based on the groundwater level data and the Site investigation:

- Groundwater levels were monitored over the period September to November 2021 and on November 2, 2018, August 27, 2020 and September 4, 2020.
- All boreholes were observed to be generally dry on completion of drilling. Small quantity of water was observed in the open borehole at the bottom of BH202.
- Groundwater levels vary between 0.40m and 5.10m below existing grade (elevations of 165.99m to 170.01m asl). Depths to observed groundwater were generally greater than 1.2m. Higher gwls were observed in MW204 towards the eastern boundary of the property.
- No defined aquifer was encountered within the investigated depths on the Site.
- Given the proposed development, recommended average conventional footing elevations would be approximately 166.85m and 169.02m asl for the four-storey building with one UG level and the industrial condo with slab on grade respectively. Footings for the elevator shaft are expected to be another 1.5m below. Therefore, conventional footings would extend into the groundwater levels observed during the Hydrogeological Investigation.
- The nearest body of surface water is the Credit River located approximately 5.1km east of the Site. Historical maps show numerous small creeks/drainage ditches within 1km radius of the Site.

Table 2: Groundwater Levels and Elevations

Well No.		MW201	MW202	MW203	MW204	MW205	MW206	MW207	MW101	MW102	MW103	MW104	MW2	MW4
Elev. at Ground (m)		171.50	171.09	170.98	170.41	171.33	171.42	170.89	171.40	171.22	171.25	171.35	171.09	170.98
Depth of Well/BH	m bgs	4.57	4.57	4.57	4.57	4.57	4.57	4.57	4.57	4.57	4.57	4.57	6.10	6.10
	m asl	166.93	166.52	166.41	165.84	166.76	166.85	166.32	166.83	166.65	166.68	166.78	164.99	164.88
On Completion	GW level, m bgs	Dry	4.55	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
	GW Ele, m asl	-	166.54	-	-	-	-	-	-	-	-	-	-	-
2-Nov-18	GW level, m bgs	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.10	1.67
	GW Ele, m asl	-	-	-	-	-	-	-	-	-	-	-	165.99	169.31
27-Aug-20	GW level, m bgs	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Dry	Dry	Dry	4.32	4.12	2.09
	GW Ele, m asl	-	-	-	-	-	-	-	-	-	-	167.03	166.97	168.89
4-Sep-20	GW level, m bgs	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Dry	3.77	Dry	3.89	3.04	1.40
	GW Ele, m asl	-	-	-	-	-	-	-	-	167.45		167.47	168.05	169.58
17-Sep-21	GW level, m bgs	2.89	1.43	1.62	1.45	3.94	4.11	3.72	1.83	1.46	4.12	3.38	1.64	1.56
	GW Ele, m asl	168.61	169.66	169.36	168.96	167.39	167.31	167.17	169.57	169.76	167.13	167.97	169.45	169.42

Well No.		MW201	MW202	MW203	MW204	MW205	MW206	MW207	MW101	MW102	MW103	MW104	MW2	MW4
Elev. at Ground (m)		171.50	171.09	170.98	170.41	171.33	171.42	170.89	171.40	171.22	171.25	171.35	171.09	170.98
29-Sep-21	GW level, m bgs	2.81	1.33	1.53	0.71	3.91	4.03	3.67	1.71	1.28	4.10	3.39	1.62	1.37
	GW Ele, m asl	168.69	169.76	169.45	169.70	167.42	167.39	167.22	169.69	169.94	167.15	167.96	169.47	169.61
13-Oct-21	GW level, m bgs	2.59	1.43	1.55	0.49	3.40	3.64	2.83	1.72	1.41	3.96	2.95	1.51	1.26
	GW Ele, m asl	168.91	169.66	169.43	169.92	167.93	167.78	168.06	169.68	169.81	167.29	168.40	169.58	169.72
27-Oct-21	GW level, m bgs	2.42	1.40	1.48	0.42	2.99	3.98	2.19	1.74	1.32	3.87	1.27	2.69	1.25
	GW Ele, m asl	169.08	169.69	169.50	169.99	168.34	167.44	168.70	169.66	169.90	167.38	170.08	168.40	169.73
10-Nov-21	GW level, m bgs	2.40	1.39	1.45	0.41	2.95	3.96	2.17	1.71	1.29	3.81	1.26	2.60	1.27
	GW Ele, m asl	169.10	169.70	169.53	170.00	168.38	167.46	168.72	169.69	169.93	167.44	170.09	168.49	169.71
24-Nov-21	GW level, m bgs	2.37	1.35	1.41	0.40	2.90	3.91	2.15	1.70	1.30	3.75	1.28	2.57	1.24
	GW Ele, m asl	169.13	169.74	169.57	170.01	168.43	167.51	168.74	169.70	169.92	167.50	170.07	168.52	169.74

6.2Hydraulic Conductivity K Modeling Results

Single Well Response Tests

Single well response tests (SWRT) were conducted in MW102 and MW104 on September 4, 2020 and in MW204, MW205 and MW207 on September 17, 2021. The water bearing media, consisting of silt seams/pockets embedded in the predominantly clayey silt till, were assumed to be unconfined, homogenous, isotropic and of uniform thickness. It was also assumed that the wells fully penetrated the water bearing seams/pockets. Data from the single well response tests were used to calculate the hydraulic conductivity values using Luthin's method.

Details of the hydraulic conductivity analyses derived from single well response tests are presented in Appendix E and summarized in Table 3.

Table 3: Summary of Single Well Response Tests and Hydraulic Conductivity Results

Test Wells	Well Surface Elevation (m asl)	Groundwater Depth (m)	Screen Elevation (m asl)	Variance of water head created (m)	30 Minutes/ Recovery Percentage	Hydraulic Conductivity, K (Luthin's Method)	
						m/s	m/day
MW204	170.41	1.45	165.84 - 168.89	2.595	30 min / 19%	1.36×10^{-7}	0.012
MW205	171.33	3.94	166.76 – 169.81	0.53	30 min / 22%	1.06×10^{-7}	0.009
MW207	170.89	3.72	166.32 – 169.37	0.73	30 min / 17%	7.57×10^{-8}	0.007
MW102	171.22	3.77	166.65 – 169.70	0.66	25 min / 15%	1.06×10^{-7}	0.009
MW104	171.35	3.89	166.78 – 169.83	0.61	25 min / 14%	9.08×10^{-8}	0.008

The average hydraulic conductivity was used in the calculation of dewatering volumes.

6.3Grain Size Analysis for Hydraulic Conductivity K

Representative soil samples from BH102, BH103, TH2, TH4 and TH6 were selected from depths associated with the recommended footing locations or change in soil stratigraphy and submitted to ALS Environmental Laboratory and Fisher Environmental Laboratory for grain size distribution and hydrometer analyses. The results for the grain size distribution and hydrometer analyses are presented in Appendix C.

The grain size distribution results were used to estimate the hydraulic conductivity (k) of the overburden soils. The hydraulic conductivity values at various depths, based on grain size, are summarized in Table 4. The estimated k values are expectedly lower than those obtained during the single well response tests as

the insitu tests account for more permeable horizontal seams which are not represented in the laboratory samples.

Table 4: Hydraulic Conductivity Estimated from Grain Size Analysis

Location	Depth of soil sample (feet)	Soil Classification	Estimated Hydraulic Conductivity (Hazen Number)	
			m/s	m/day
TH1	5 – 6½	Clay and Silt, some Sand, trace gravel (Till)	$9x\ 10^{-10}$	0.0000778
TH4	2½ - 4	Clay and Silt, some Sand, Trace gravel (Till)	9×10^{-10}	0.0000778
TH6	5 – 6½	Sandy Clay, trace Gravel (Till)	4×10^{-9}	0.0003456
BH102	10 – 11½'	Clayey, Sandy Silt, trace gravel (Till)	1×10^{-9}	0.0000864
BH103	10 – 11½'	Sandy, Clayey Silt, trace Gravel (Till)	1×10^{-8}	0.000864

7. CONSTRUCTION DEWATERING & PERMANENT DRAINAGE

7.1 Construction Dewatering

Finished floor elevations, based on the site plan provided, are 171.40m and 168.05m asl for the industrial condo and P1 of the four-storey building respectively. Underside of footings were assumed at 169.02m and 166.85m asl based on the geotechnical engineering report. Building areas of 2,745.1m^2 and 5,064.9m^2 were used in the calculation of dewatering quantities for the industrial condo and four-storey building respectively.

The highest groundwater levels observed in monitoring wells covering the areas of the industrial condo and four-storey building (both 1.26m bgs) were used to calculate construction dewatering rates. Based on the highest groundwater levels, observed during the investigation, the recommended average footing depths will be below the groundwater levels, depending on the time of year that construction takes place. Groundwater levels should therefore be lowered to at least 1m below the base of the footings to prevent hydraulic uplift/piping during construction.

Based on the calculations, shown in Appendix F, construction dewatering flowrates of **8.50 m^3/day and 3.34 m^3/day** were obtained for the four-storey building and industrial condo respectively **(total**

unfactored construction groundwater dewatering rate of 11,840 L/day). A factor of safety of 1.5 should be applied to construction dewatering rates to give **12.75 and 5.01 m^3/day (total factored groundwater dewatering rate of 17.76 m^3/day or 17,760 L/day**).

Provisions should be made to pump any encountered groundwater from the excavation area for the Wilkinson Heavy Precast Fire Tank and Onsite Sewage System tank for Waterloo Biofilter or equivalent to be located as per site plan. A nominal flowrate of **1.0 m^3/day** for each structure should be used for planning purposes.

Seasonal High Groundwater Levels

Additional groundwater level monitoring was carried out over the period September to November 2021. The highest groundwater levels observed on the site may be taken as representative of seasonal highwater levels at the site. These were used to estimate permanent drainage rates and construction dewatering quantities.

Accounting for Accumulated Precipitation

Provisions should be made to pump any accumulated water from the excavation areas during construction, particularly following a period of heavy rainfall. For example, 25mm rainfall in 24 hrs may result in accumulation of approximately 195m^3 in the excavated area for the four-storey building and industrial condo (predominantly clayey silt till). Considering the low infiltration capacity of the soils at the expected excavation base, some of this water will accumulate. A conservative accumulated volume of **30 m^3/day** may be assumed for rainfall events in the excavation area. Accumulated precipitation may be stored on Site for subsequent disposal to an MECP-licensed facility. If the water is to be discharged into the public sewer system, then an application for the discharge of private water will have to be made to the City of Mississauga (storm) or the Region of Peel (sanitary). The water quality, at the time of the application, will need to be ascertained to ensure compliance with the Ontario Reg. Mun of Peel Sanitary Bylaw #53-2010 and Peel Storm Sewer By-law #53-201 (Apr 2011).

The **maximum total construction discharge** rates, taking into consideration accumulated precipitation volumes and seasonal high groundwater levels, are:

Unfactored: 41.84 m^3/day (41,840 L/day) and

Factored: 47.76 m^3/day (47,760 L/day).

Permanent Drainage

The highest groundwater elevations observed in the location of the building is 169.94m asl with FFE/P1 TOS of 171.40m and 168.05m asl for the industrial condo and four-storey building respectively. These represent a difference of 1.46m above the highest observed groundwater elevation for the industrial condo. Under the observed groundwater conditions, for the portion of the building with no underground levels, neither permanent under slab nor perimeter drainage will be required.

For the four-storey building with one underground level, permanent drainage of **4.82 m^3/day** will be required. A factored discharge rate of **7.23 m^3/day (7,230 L/day)** should be used for planning purposes.

It is also recommended that the subsurface portion of the elevator shaft be designed as watertight.

Permission to take water (PTTW)

As the calculated total construction dewatering flow rate, including accumulated precipitation, is less than 50,000 L/day, registration on the MECP Environmental Activity and Sector Registry (EASR) for Water Taking will not be required. An application for permission to take water (PTTW) is not required as the daily flow rate is less than 400,000 litres for construction and less than 50,000 litres for permanent drainage.

7.2Groundwater Quality

The results (September 23, 2021) of analyses for water quality under the Ontario Reg. Mun of Peel Sanitary Bylaw #53-2010 and Peel Storm Sewer By-law #53-201 (Apr 2011), show compliance with all parameters except as listed in Table 5.

Table 5: Results from Sewer Use Bylaw tests

Parameters	Guide Limits		Results
	Table 1	Table 2	MW102
Total suspended solids, mg/L	350	15	161
Manganese, mg/L	5	0.05	1.21
Kjeldahl Nitrogen (TKN), mg/L	100	1.0	1.40
Sulphate, mg/L	1500	-	1540
Fecal Coliforms, CFU/100mL	-	0	770

Based on the results in Table 5, the groundwater will need to be treated before it can be discharged into the public storm or sanitary sewer system.

It should also be noted that testing of groundwater at the depths observed during the investigation would not be representative of the water that might accumulate during a high rainfall event. Any accumulation of precipitation occurring in the excavation during construction, that may require offsite discharge, will have to be tested at the time of the event to determine the quality of water for discharge.

7.3Dewatering Influence Zone

Based on the preceding calculations for dewatering quantities during excavation/footing construction, groundwater drawdown influence zones are up to 2.64m from the edge of the excavation areas in the mainly clayey silt till. As the dewatering quantity, if any, will be nominal, dewatering can be carried out by pumping from sump pits. Consequently, there should be no impact on surrounding structures due to construction dewatering.

7.4 Hydrogeological Impact

During the investigation, it was determined that there will not be any negative impact to the natural environment, City of Mississauga/Peel Region Sewer works nor surrounding properties due to construction dewatering because of the depth at which groundwater was observed and the short influence zone in the mainly clayey silt till. No groundwater induced depression at surface level is expected. Consequently, it is not expected that construction will impact public infrastructure, the natural environment nor will there be any settlement issues.

8. ONTARIO MINISTRY OF ENVIRONMENT WATER WELL RECORDS

The MECP Water Well Records for existing private wells in a 500m radius of the Site were obtained to determine the characteristics of existing private wells in the vicinity of the subject Site. A Total of sixteen (16) well records were reviewed from the MECP online water well record mapping resource. The records show that fourteen (14) wells were installed in shale/limestone, encountered at depths of eight to fifty-five feet (8-55') below prevailing grades. Well depths vary from twenty-eight to two hundred and twenty-four feet (28-224') with an average approximate depth of 93'. Two wells were reportedly

decommissioned. A summary of the well characteristics for the fourteen (14) water wells within 500m of the Site is presented in Table 6 with details in Appendix G.

The MECP Water Well Records for drinking water wells surrounding the subject Site show that water in existing private wells was encountered at depth of twelve to one hundred and thirty (12-130') feet during installation with an average approximate depth of 65 feet bgs. Recommended pumping depths vary between 27 and 105 feet with an average recommended depth of 75'. Recommended pumping rates vary between 1 and 5 gpm with an average recommended rate of 2.3 gpm. One well was abandoned due to insufficient supply.

It would be expected that similar yield to those observed in existing supply wells would be possible from well(s) installed to similar depths on the subject site.

Table 6. MECP details of wells within 500m radius of Site boundary

No	MOE Well ID	Date Completed	Well Completion	Well Type	Bedrock depth, feet	Water Found at, feet	Static Water Level, feet	Well Depth, feet	Recommended pumping rate, GPM	Recommended Pumping Depth, feet
1	910346653	30-Sept-1959	Shale	Domestic Water Supply	26	66	15	81.0	2.5	70
2	910337800	7-Sept-1955	Shale	Domestic Water Supply	55	70	25	75.0	0.5	65
3	910337978	n/a	Limestone	Commercial Water Supply – drive in theatre	8	n/a	50	224.0	3.0	n/a
4	910337984	14-Sept-1967	Shale	Domestic Water Supply	23	69-85	20	85.0	1.0	80
5	910339323	2-Dec-1971	Shale	Domestic Water Supply	20	25	10	28.0	n/a	27
6	910485009	24-Apr-1982	Shale	Domestic Water Supply	22	98	12	110.0	5.0	105
7	910103887	29-Jul-1985	Shale	Commercial Water Supply	50	52	15	70.0	1.0	67
8	910103357	25-Apr-1992	Shale	Domestic Water Supply	35	88	9	93.0	3.5	89
9	910103811	8-May-1996	Shale	Domestic Water Supply-Abandoned – insufficient supply	26	n/a	n/a	100.0	n/a	n/a
10	910550859	19-Dec-2002	n/a	Decommissioning	n/a	n/a	n/a	n/a	n/a	n/a
11	910532650	14-Aug-2001	Shale	Domestic Water Supply	32	12-32	12	47.5	3.0	45
12	21071884	-Oct-2007	Shale	Commercial Water Supply	15.54m	26m	n/a	28.65m	4.5 L/min	27m
13	1003476639	08-Nov-2010	Shale	Place of Worship	29	35-60	n/a	70	4.0	65
14	1004128056	23-Jul-2012	Shale	Commercial Water Supply	52	130	n/a	130.0	1.0	125
15	1005391871	02-Dec-2014	n/a	Commercial Water Supply	n/a	n/a	n/a	n/a	n/a	n/a
16		05-Oct-2019	n/a	Decommissioning	n/a	n/a	n/a	n/a	n/a	n/a

9. DISCUSSION

- Hydraulic conductivity values from the single well response tests vary between **7.57 x 10^{-8} m**/s (0.007 m/day) and **1.36 x 10^{-7} m/s** (0.012 m/day). An average value was used to calculate dewatering rates.
- Groundwater levels vary between 0.40m and 5.10m bgs (elevations of 165.99m to 170.01m asl). The highest observed groundwater level in the building location was used to calculate construction dewatering and permanent drainage quantities.
- Maximum factored total construction dewatering flowrate of **47.76 m^3/day**, including accumulated precipitation, was estimated for the building.
- Permanent drainage rate of **4.82 m^3/day (factored rate of 7.23 m^3/day)** was estimated for the four-storey building with one UG level. Permanent drainage will not be required for the industrial condo to be constructed as slab on grade.
- Based on the groundwater levels observed during the investigation pumping from sump pits should be adequate for construction dewatering.
- It should be noted that if it is intended that any accumulated water/groundwater, following periods of heavy rainfall, be discharged into the public sewer, then a permit to discharge would be required along with laboratory analyses to ensure compliance with Ontario Reg. Mun of Peel Sanitary Bylaw #53-2010 and Peel Storm Sewer By-law #53-201 (Apr 2011).
- Based on the total dewatering quantities, including accumulated precipitation in the excavation areas, registration on the EASR for water taking will not be required during construction. An application for PTTW will not be required.
- Fourteen active supply wells were observed in proximity to the property with recommended pumping rates of 1-5 gpm from average depths of approximately 75 feet below prevailing grades.

10.LIMITATIONS

This report is limited in scope to those items specifically referenced in the text. The discussions and recommendations presented in this report are intended only as guidance for the named client, design engineers and those directly associated with the implementation and monitoring of the project. The information on which these recommendations are based is subject to confirmation by engineering personnel at the time of construction. Localized variations in the subsoil conditions may be present between and beyond the boreholes and should be verified during construction.

As more specific subsurface information becomes available during excavations on the Site, this report should be updated. Contractors bidding on or undertaking the work should decide on their own investigations, as well as their own interpretations of the factual borehole results. This concern specifically applies to the classification of the subsurface soil and the potential reuse of these soils on/off Site. Contractors should draw their own conclusions as to how the near surface and subsurface conditions may affect them.

APPENDIX A – SITE AND LOCATION PLANS

LEGEND

FISHER ENGINEERING
400 Esna Park Dr., #15
Markham, Ontario
L3R 3K2
Tel: 905 475-7755
Fax: 905 475-7718

KEY PLAN

N

PROJECT NAME AND ADDRESS
HYDROGEOLOGICAL INVESTIGATION

3855 DUNDAS STREET E,
MISSISSAUGA, ON

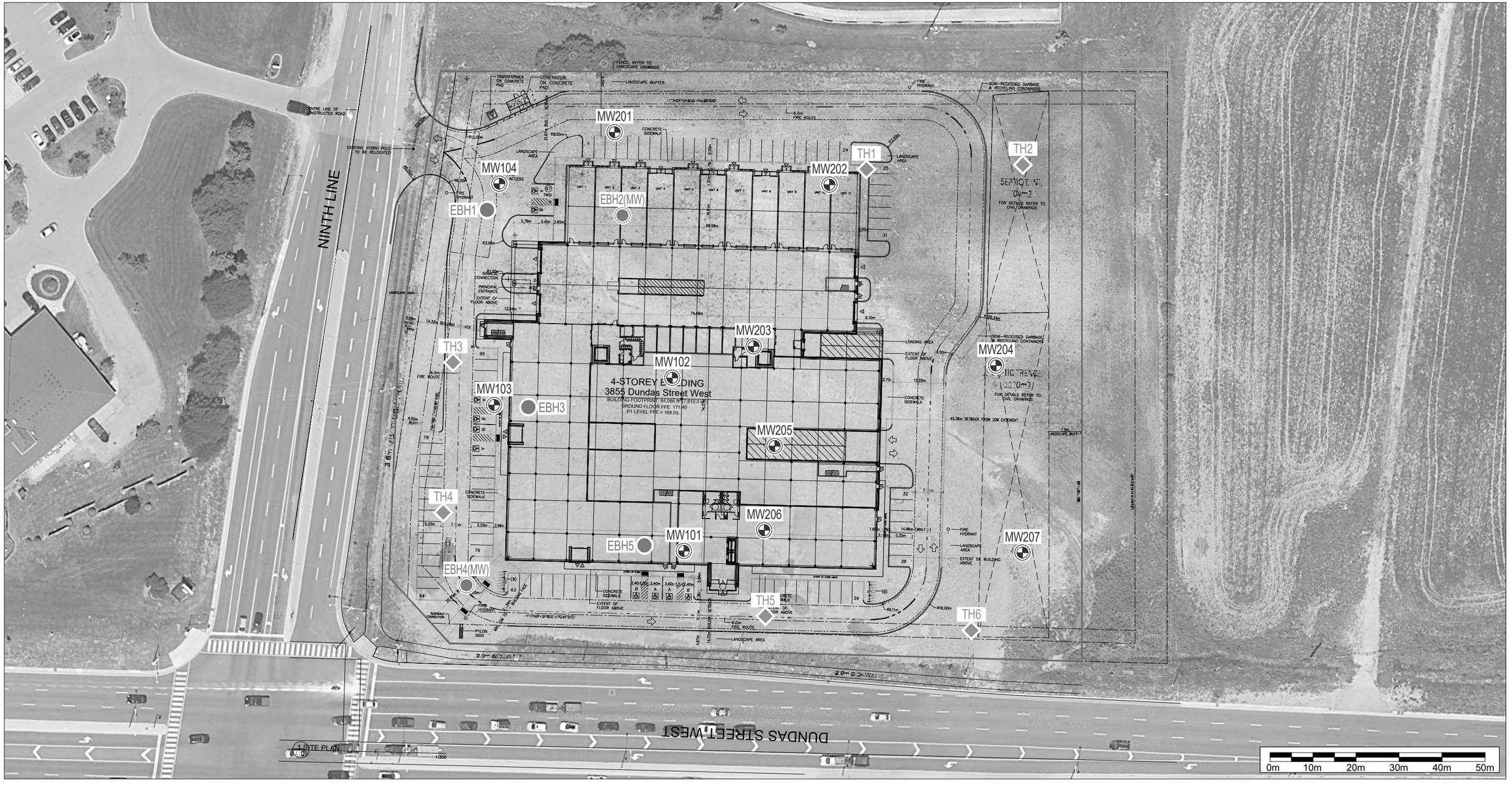
PROJECT NO.
FE-P20-10464

DATE
SEPTEMBER 2020

SCALE
As shown

FIGURE: A

Site Location Map.



FISHER ENGINEERING
400 Esna Park Dr., #15
Markham, Ontario
L3R 3K2
Tel: 905 475-7755
Fax: 905 475-7718

NORTH

LEGEND

- SITE BOUNDARY
- BOREHOLE WITH MONITORING WELL LOCATION
- TEST HOLE LOCATION
- EXISTING BOREHOLE WITH MONITORING WELL LOCATION

PROJECT NAME AND ADDRESS

HYDROGEOLOGICAL & GECOTECHNICAL INVESTIGATIONS

3855 Dundas Street East, Mississauga, ON.

PROJECT NO.	FE-P 21-11439/40
DATE.	25 July 2023
SCALE.	AS SHOWN
FIGURE A2:	SITE PLAN WITH TEST HOLE AND MONITORING WELL LOCATIONS
SHEET NO.	A2

TOPOGRAPHIC SURVEY OF

PART OF LOT 9
REGISTRAR'S COMPILED PLAN 1542

CITY OF MISSISSAUGA

REGIONAL MUNICIPALITY OF PEEL

SCALE 1 : 500

10 5 0 10 20 30 40 50 metres

SPEIGHT, VAN NOSTRAND & GIBSON LIMITED
ONTARIO LAND SURVEYORS
2018

ELEVATION NOTE

ELEVATIONS ARE GEODETIC AND ARE DERIVED FROM THE CITY OF MISSISSAUGA BENCHMARK No. 075023031.

LOCATION :

BRASS CAP SET AT TOP OF CONCRETE CYLINDER LOCATED AT THE NORTH-EAST CORNER OF THE INTERSECTION OF DUNDAS STREET WEST AND VEGA BOULEVARD, 16M EAST OF THE CENTRELINE OF VEGA BOULEVARD AND 27M NORTH OF CENTRELINE OF DUNDAS STREET WEST.

ELEVATION:

PUBLISHED ELEVATION = 169.073 metres.

TO OBTAIN GEODETIC ELEVATIONS (1978 G.S.C. RE-ADJUSTMENT) SUBTRACT (0.121 metres) FROM VALUES SHOWN HEREIN.

BEARING NOTE

BEARINGS SHOWN HEREON ARE GRID AND ARE REFERRED TO THE EASTERLY LIMIT OF PART 9, AS SHOWN ON PLAN 43R-32759, HAVING A BEARING OF N54°08'10"W.

METRIC

DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

LEGEND

■ DENOTES		SURVEY MONUMENT FOUND
□	"	SURVEY MONUMENT PLANTED
WIT	"	WITNESS MONUMENT
SIB	"	STANDARD IRON BAR
SSIB	"	SHORT STANDARD IRON BAR
IB	"	IRON BAR
CC	"	CUT CROSS
N,S,E,W	"	NORTH, SOUTH, EAST, WEST
OU	"	ORIGIN UNKNOWN
950	"	CUNNINGHAM McCONNELL LIMITED, O.L.S.
JDB	"	J. D. BARNES LIMITED, O.L.S.
P1	"	PLAN 43R-32759
MH	"	MANHOLE
GUY	"	GUY WIRE
WMH	"	WATER MANHOLE
HMH	"	HYDRO MANHOLE
BMH	"	BELL MANHOLE
CB	"	CATCH BASIN
FH	"	FIRE HYDRANT
WV	"	WATER VALVE
GV	"	GAS VALVE
HW	"	HAND WELL
ATS	"	AUTOMATIC TRAFFIC SIGNAL
WHP	"	WOODEN HYDRO POLE
CLS	"	CONCRETE LIGHT STANDARD
MLS	"	METAL LIGHT STANDARD
HB	"	HYDRO BOX
WELL	"	MONITORING WELL
B	"	BOLLARD
	"	DECIDUOUS TREE
	"	CONIFEROUS TREE
	"	CONCRETE
	"	GRAVEL

SURVEYOR'S CERTIFICATE

I CERTIFY THAT :

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON SEPTEMBER 7th, 2018.

DATE : SEPTEMBER 10th, 2018

D. A. WILTON
ONTARIO LAND SURVEYOR

SPEIGHT, VAN NOSTRAND & GIBSON LIMITED
ONTARIO LAND SURVEYORS
750 OAKDALE ROAD, Units 65 & 66
TORONTO, ONTARIO M3N 2Z4
TEL. 416 749-SVNG(7864) FAX 416 749-7866
E-MAIL: toronto@svng.on.ca

ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
2068653

THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY ISSUED BY THE SURVEYOR
In accordance with Regulation 1026, Section 29(3)

DRAWN : E. D./F. P. B.	FILE NAME : A1800104.DWG
CHECKED : D. A. W.	PLOT SCALE : MET.1=0.50
JOB No. : 180-0104	PLOTTED : APRIL 25, 2018
REF. No. : 1-RCP 1542 PEEL	UPDATED :

1-RCP 1542 PEEL

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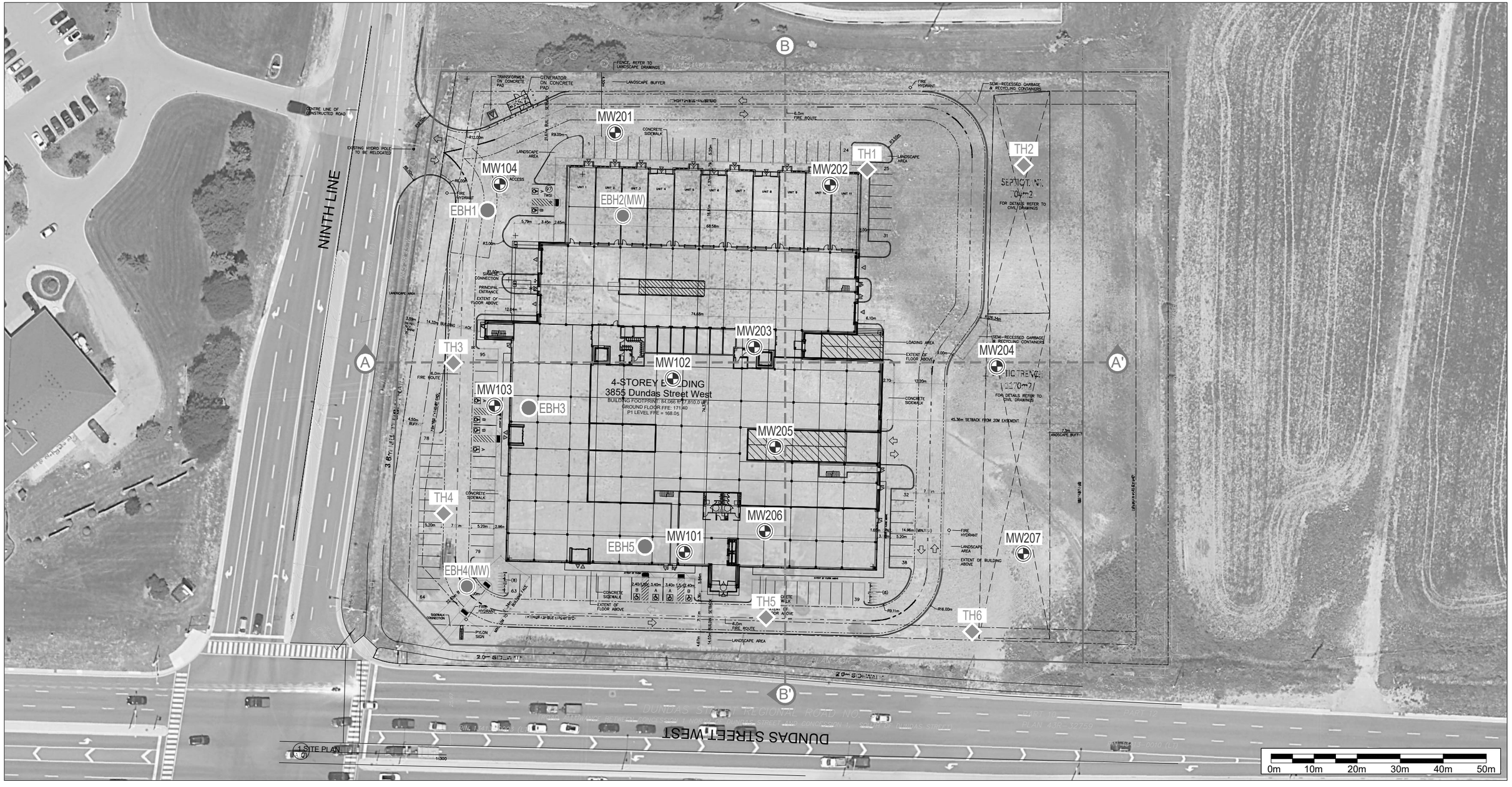


FISHER ENGINEERING
400 Esna Park Dr., #15
Markham, Ontario
L3R 3K2
Tel: 905 475-7755
Fax: 905 475-7718

NORTH

LEGEND

- SITE BOUNDARY
- BOREHOLE WITH MONITORING WELL LOCATION
- TEST HOLE LOCATION
- EXISTING BOREHOLE WITH MONITORING WELL LOCATION
- CROSS SECTION LINE

PROJECT NAME AND ADDRESS

HYDROGEOLOGICAL & GECOTECHNICAL INVESTIGATIONS

3855 Dundas Street East, Mississauga, ON.

PROJECT NO. FE-P 21-11439/40	FIGURE A4: SITE PLAN WITH CROSS SECTIONS	SHEET NO. A4
DATE. 25 July 2023		
SCALE. AS SHOWN		

FISHER ENGINEERING

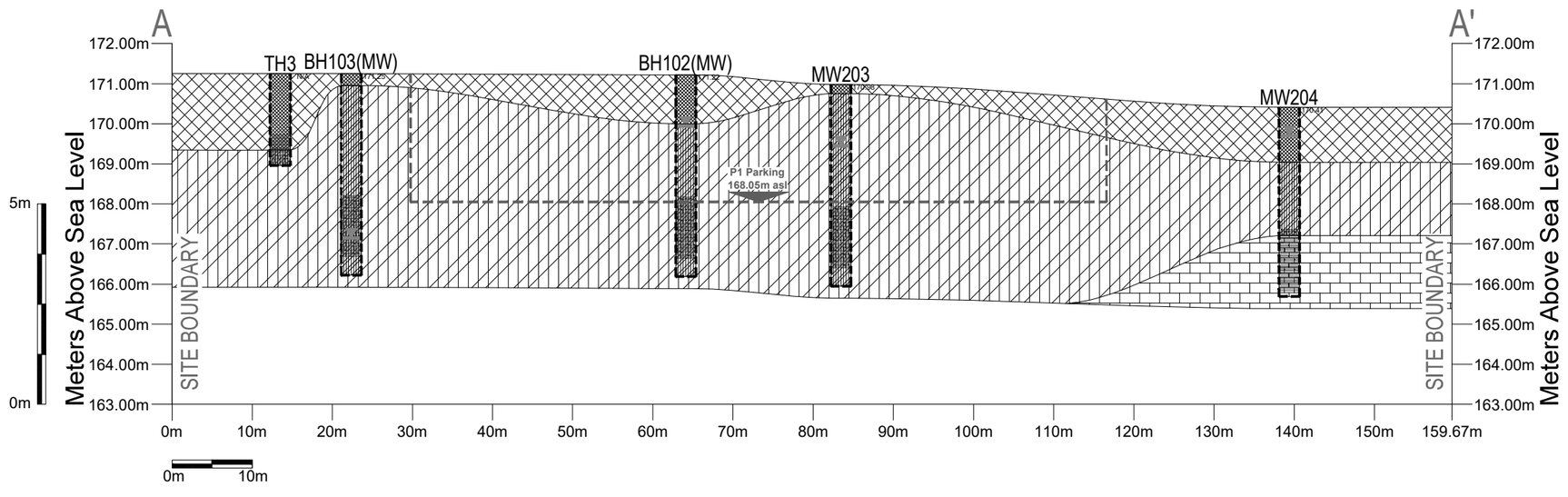
400 Esna Park Dr., #15
Markham, Ontario
L3R 3K2

Tel: 905 475-7755
Fax: 905 475-7718

NORTH

LEGEND

- ASPHALT
- FILL
- SILT
- CLAY
- SHALE
- GROUNDWATER POTENTIOMETRIC LEVEL



PROJECT NAME AND ADDRESS

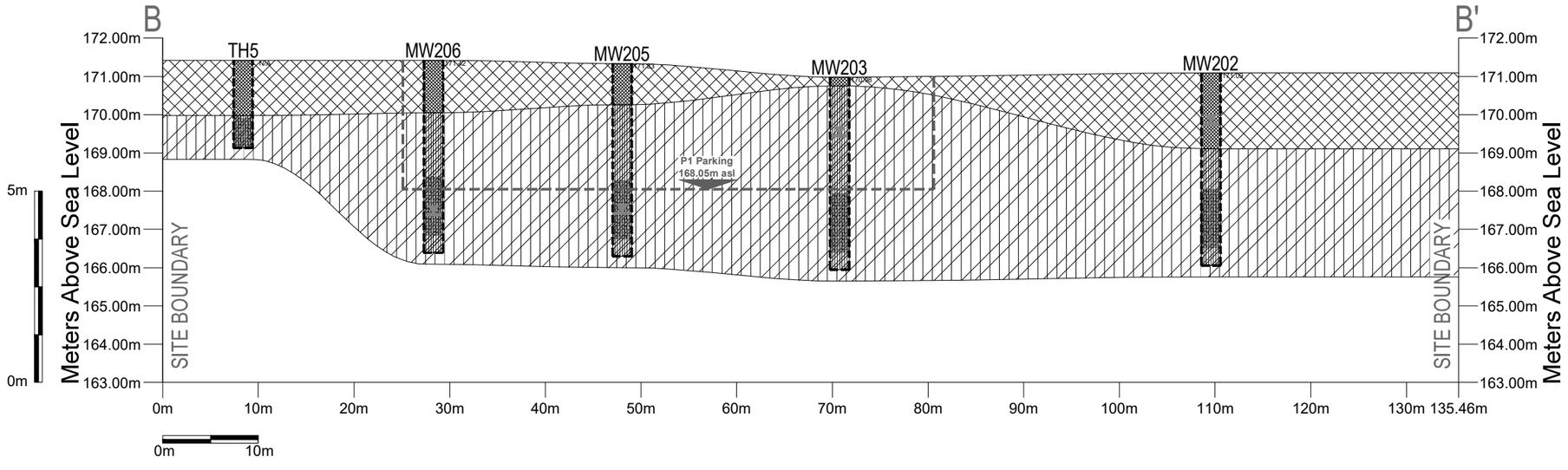
HYDROGEOLOGICAL INVESTIGATION

3855 Dundas Street East,
Mississauga, ON.

FIGURE A4.1:

CROSS-SECTION A - A';

PROJECT NO.	SHEET NO.
FE-P 21-11439	A4.1
DATE: 26 July 2023	
SCALE: AS SHOWN	



FISHER ENGINEERING

400 Esna Park Dr., #15
Markham, Ontario
L3R 3K2

Tel: 905 475-7755
Fax: 905 475-7718

NORTH

LEGEND

- ASPHALT
- FILL
- SILT
- CLAY
- GROUNDWATER POTENTIOMETRIC LEVEL

PROJECT NAME AND ADDRESS

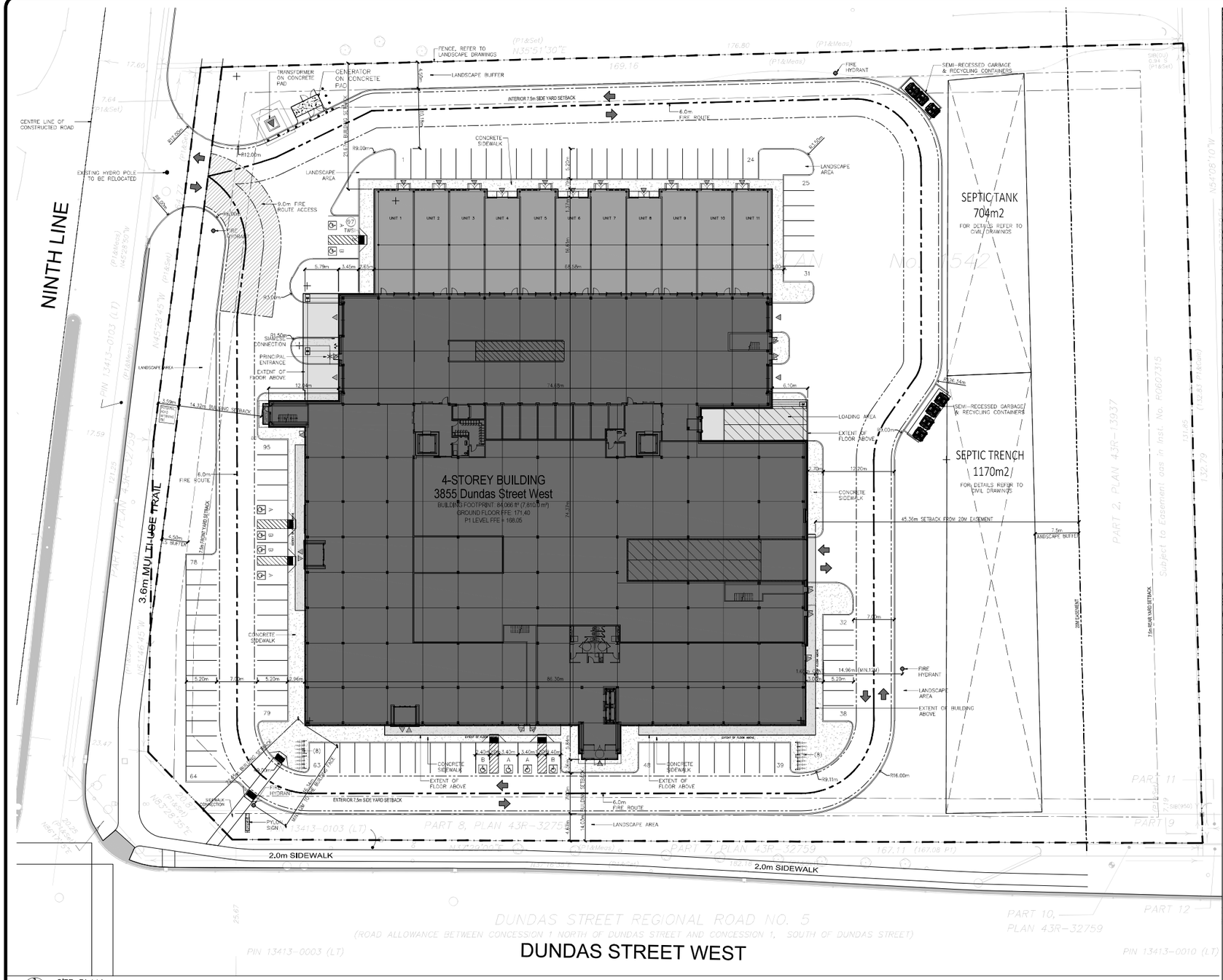
HYDROGEOLOGICAL INVESTIGATION

3855 Dundas Street East,
Mississauga, ON.

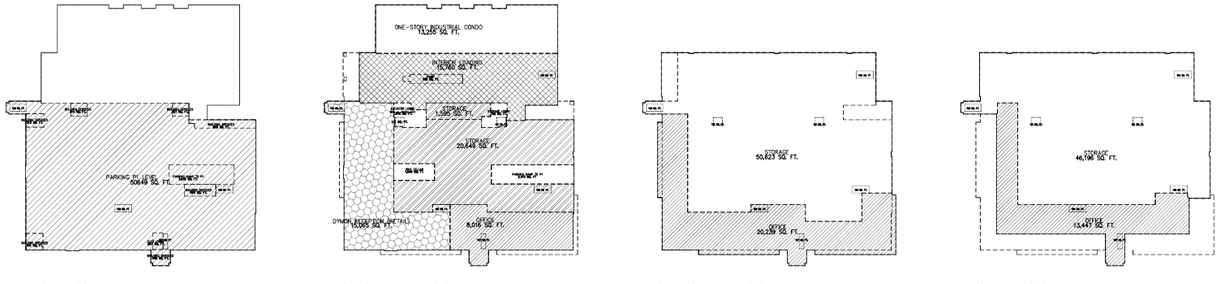
FIGURE A4.2:

CROSS-SECTION B - B';

PROJECT NO.	SHEET NO.
FE-P 21-11439	A4.2
DATE: 26 July 2023	
SCALE: AS SHOWN	



1 SITE PLAN (A101) 1:300



P1 FLOOR PLAN
50649 SQ. FT.

GROUND FLOOR PLAN
79,593 SQ. FT.

2ND-3RD FLOOR PLAN
70,862 SQ. FT.

4TH FLOOR PLAN
59,643 SQ. FT.

2 FLOOR PLATE COMPARISON (A101) 1:900

SITE STATISTIC

LEGAL DESCRIPTION OF PROPERTY

LOTS, REGISTERED'S COMPILED PLAN 1542
CITY OF MISSISSAUGA, REGION MUNICIPALITY OF PEEL
SURVEYED BY SPEIGHT, VAN NOSTRAND & GIBSON LIMITED
ONTARIO LAND SURVEYORS 2018

ZONING REGULATIONS (By-law 247-2016 UMU)	REQUIRED	PROVIDED	REMARKS	COMPLIANCE
Total Lot Area	21,871.0sm	[236,945sf]	N/A	
9.0m Road Widening (to be conveyed)	2,716.7sm	[29,242sf]		
Lot Area	21,579.3sm	[253,801sf]		
Building Footprint Area	7,810.0sm	[84,066sf]	33.12% of lot area	
GFA per uses				
Drive-through Loading Area	1,464.2sm	[15,760sf]		
Storage Lobby	566.7sm	[5,996sf]		
Reception & Retail Area	1,399.6sm	[15,065sf]		
Parking Ramp Area	223.9sm	[2,410sf]		
with Storage Ground to 4th floor	15,826.2sm	[168,952sf]		
Office Ground to 4th floor	5,754.5sm	[61,941sf]		
Mezz Office & Lounge	97.4sm	[1,048sf]		
Industrial Condo Self-Storage	1,231.4sm	[13,255sf]		
Total Building GFA per uses (excluding P1)	**25,953.8sm**	**[279,365sf]**		
Building Setbacks				
Setback from Ninth Line - Front yard	14.16m		7.5m	YES
Setback from Rear yard	45.30m (to 20m easement)		7.5m	YES
Setback from Dundas Street West - Exterior Side yard	12.57m		7.5m	YES
Setback from north property line - Interior Side yard	21.62m		7.5m	YES
Building Height	4 storeys		23.3m (5-storey building)	
Permitted uses	Recalls, Offices & Self-Storage Warehouse			
Parking spaces				
As per Parking Justification Report	190 spaces (97 at grade & 93 at underground level 1)		292	NO
Industrial uses (Self-Storage Warehouse) - 0.25 per 100 m2 net floor area)			39	
Retail - 4.1 per 100 m2 net floor area			60	
Office - 3.0 per 100 m2 net floor area			173	
Industrial Condo - 1.6 per 100m2 net floor area			20	
Accessible Parking Spaces	Total provided: 12 spaces (6 type A & 6 type B) (10 at grade & 2 at underground level 1)		Total required: 8 spaces (4 type A & 4 type B)	YES
Bicycle Parking Spaces	Total provided: 26 spaces (16 at grade & 10 at underground level 1)		total required: 23 (10 long term & 13 short term)	YES
Landscape Buffers				
landscaped abutting Nine Line	7.5m		7.5m	YES
landscaped abutting Dundas Street West	7.5m		7.5m	YES
roofing	1 (Interior & 1 Exterior Loading		N/A	
Drive Aisle Width	7.0m (two-way)		7.0m	YES
Landscaping				
Sweet Area (hard landscape)	7,674.0sm	[82,602sf] 32.55%	N/A	
landscaped Area (soft landscape)	8,514.9sm	[91,654sf] 36.18%	N/A	

GFA			
Ground Floor	7,396.4sm	[79,593sf]	
2nd Floor	6,583.3sm	[70,862sf]	
3rd Floor	6,583.3sm	[70,862sf]	
4th Floor	5,541.0sm	[59,643sf]	
Parking level 1	4,705.4sm	[50,649sf]	
Total Building GFA (excluding P1)	**26,102.0sm**	**[280,960sf]**	

Roof Areas		Roof Finishes	% over building GFA
One-storey Industrial Condo	1,231.4sm	[13,255sf]	5%
5-storey Self-Storage & Office	6,583.3sm	[70,862sf]	25%

GFA breakdown per uses			Percentage
Stairs Ground floor to 4th (Self-Storage)	138.2sm	[1,488.0sf]	0.5%
Stairs Ground floor to 4th (Office)	91.1sm	[979sf]	0.3%
Elevators Ground floor to 4th (Self-Storage)	89.9sm	[968sf]	0.3%
Elevators Ground floor to 4th (Office)	39.8sm	[428sf]	0.2%
Stairs & Ramp Underground Level 1	253.8sm	[2,495sf]	0.89%
Elevators Lobby Underground Level 1	34.4sm	[370sf]	0.13%
Mechanical & Electrical & Service Areas	159.7sm	[1,656sf]	1.38%
Elevators Lobby/ Ancillary Space Ground floor Self-storage	566.7sm	[1,798sf]	1%
Interior Loading & Parking and Loading Dock	1,464.2sm	[15,760sf]	5.6%
Dymon Reception & Retail	1,399.6sm	[15,065sf]	5%
Total Self-storage Ground to 4th (***)	15,388.0sm	[165,635sf]	59%
Total Office Ground to 4th floor (***)	5,644.6sm	[60,756sf]	22%
Total GFA 4-storey Building	**25,953.8sm**	**[279,365sf]**	**99%**
Total GFA (****)	**[34,489.7sm**	**[263,605sf]**	

(***) Excludes Elevators and Stairs
(****) Excludes Interior Loading & Parking and Loading dock

Total GFA Underground Level 1 (*****)	**4,099.6sm**	**[44,128sf]**

(*****) Excludes Elevators, Stairs, Ramp, Mechanical, Electrical, Service Areas

LEGEND

- PROPOSED BUILDING LOCATION
- EXISTING NEIGHBORING BUILDINGS
- LANDSCAPED AREA
- CONCRETE/ SIDEWALK
- BARRIER FREE PARKING CLEARANCE
- CURB
- DEPRESSED CURB
- TWSI TACTILE WALKING SURFACE INDICATOR
- NEW TREE/ VEGETATION (REFER TO LANDSCAPE PLAN FOR TYPE, SIZE AND LOCATION)
- EXISTING TREE (FOR REFERENCE ONLY, REFER TO LANDSCAPE PLAN)
- BARRIER FREE PARKING
- INTERIOR PARKING
- MAN HOLE, CATCH BASIN
- SIAMESE CONNECTION
- ENTRANCE/ EXIT LOCATION
- PRINCIPAL ENTRANCE
- TRANSFORMER
- FENCE & GATE
- UTILITY POLE
- FIRE HYDRANT
- NLS (NEW LIGHT STANDARD, REFER TO ELECTRICAL)
- BOLLARD
- HYDRO POLE
- PEDESTRIAN CROSSING DEMARCATION PAINTED
- DENOTES PAINTED LINES
- DENOTES FIRE ROUTE ACCESS
- ONE-WAY SIGN
- NO ENTRY SIGN
- FIRE ROUTE ACCESS / NO PARKING SIGN
- TRAFFIC DIRECTION

BOUNDARY INFORMATION FROM SURVEY BY: SPEIGHT, VAN NOSTRAND & GIBSON LIMITED ONTARIO LAND SURVEYORS COMPLETED ON APRIL 22, 2018

SCALE 1 : 300
5 0 10m

GLOBAL architect inc
6 Lesayn Road
Toronto, Ontario, M6A 1K2
tel (416)256-4440
fax (416)256-4449

Design Architect
TACT Architecture Inc
660R College Street (Rear Lane)
Toronto ON. M6G 1B8
tel: (416) 516-1949

Planning, Urban Design & Landscape Architect
MHBC Planning, Urban Design & Landscape Architecture
7050 Weston Road, Suite 230,
Woodbridge ON. L4L 8G7
tel: (905) 761-5588

Civil Engineer
C.F. Crozier & Associates Consulting Engineers
211 Yonge street, Suite 301,
Toronto ON. M5B 1M4
tel: (416) 477-3392

NO.	DATE	DESCRIPTION
11	JULY 20, 23	DELETE P2 PARKING/ REVISED SITE PLAN INFO
10	JULY 17, 23	REVISED STATS FOR COORDINATION
9	JUN 29, 23	REVISED FOR COORDINATION
8	JUN 14, 23	REVISED SOUTH ENTRANCE
7	JUN 05, 23	FOR COORDINATION
6	MAY 31, 23	SPA PROGRESS FOR COORDINATION
5	APL 13, 23	REVISED CONCEPT PLAN R3
4	DEC 04, 22	REVISED CONCEPT PLAN R2
3	OCT 28, 22	REVISED CONCEPT PLAN R1
2	OCT 19, 22	REVISED TO MTO COMMENTS
1	SEPT 02, 22	ISSUED FOR REVIEW

PROJECT NORTH / TRUE NORTH

DYMON STORAGE

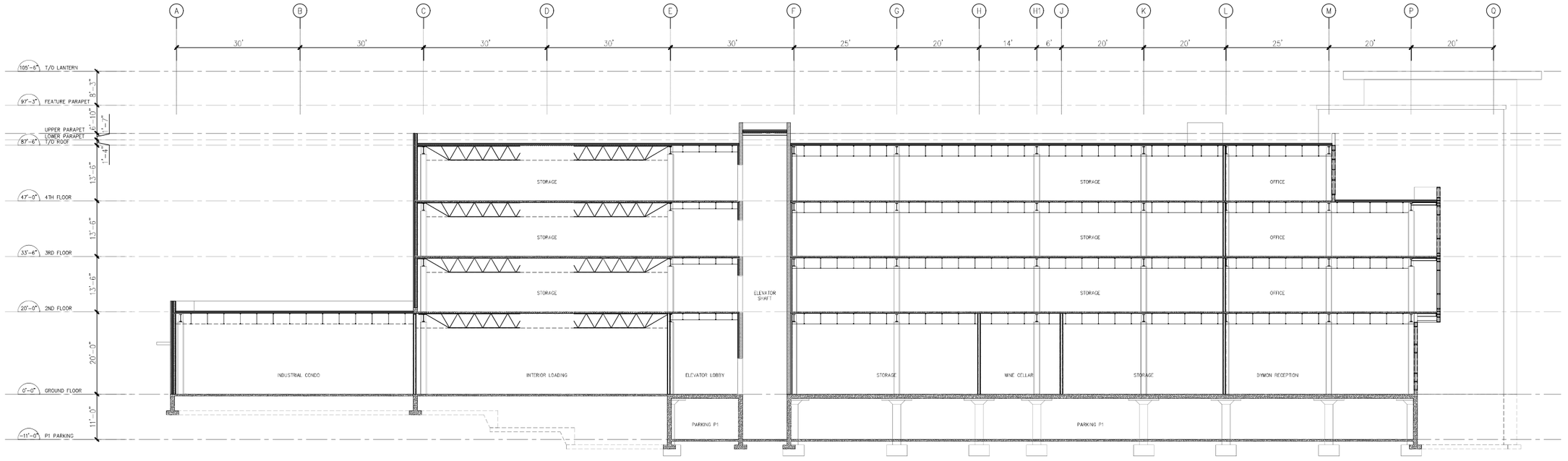
DYMON CAPITAL CORP.
2-1830 WALKLEY ROAD
OTTAWA ON. K1H 8K3

PROJECT NAME
4 STOREY SELF STORAGE FACILITY & 1 STOREY INDUSTRIAL CONDO
3855 DUNDAS ST. WEST
MISSISSAUGA ON.

DRAWN BY	AT
CHECKED BY	R.P.
DATE	June 14, 2023
SCALE	AS NOTED

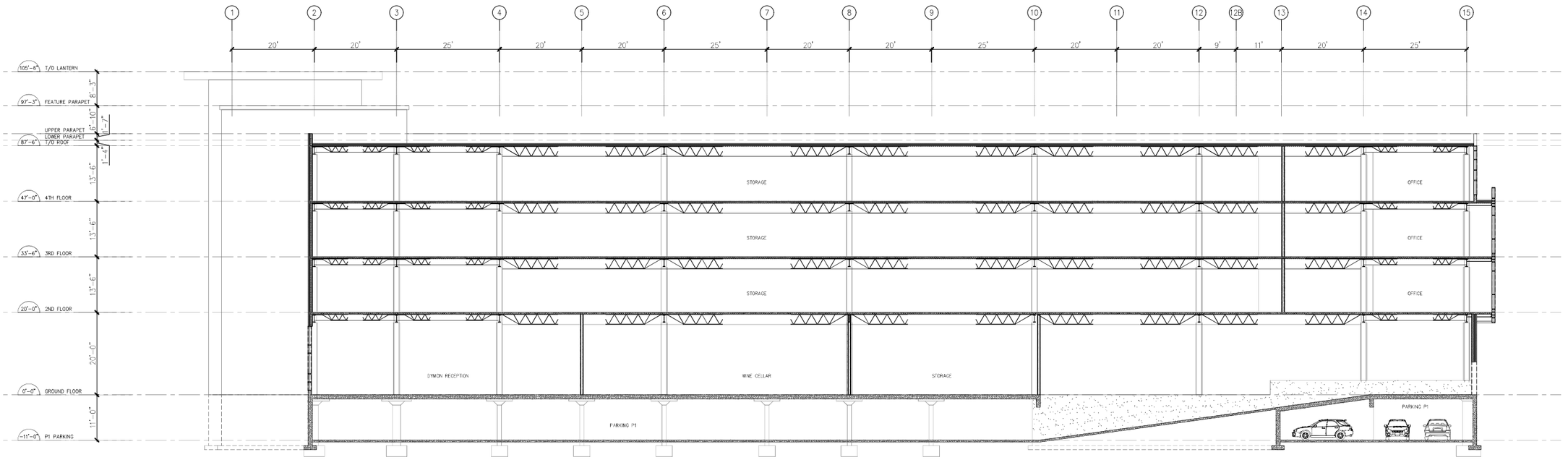
DRAWING TITLE
SITE PLAN

PROJECT NO.	DRAWING NO.
22-06	A101



2 SECTION B-B

3/32" = 1'-0"



1 SECTION A-A

3/32" = 1'-0"

GLOBAL architect inc

6 Lesayn Road
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tel (416)256-4440
fax (416)256-4449

Design Architect
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PROJECT TRUE NORTH

DYMON STORAGE

DYMON CAPITAL CORP.
2-1830 WALKLEY ROAD
OTTAWA ON. K1H 8K3

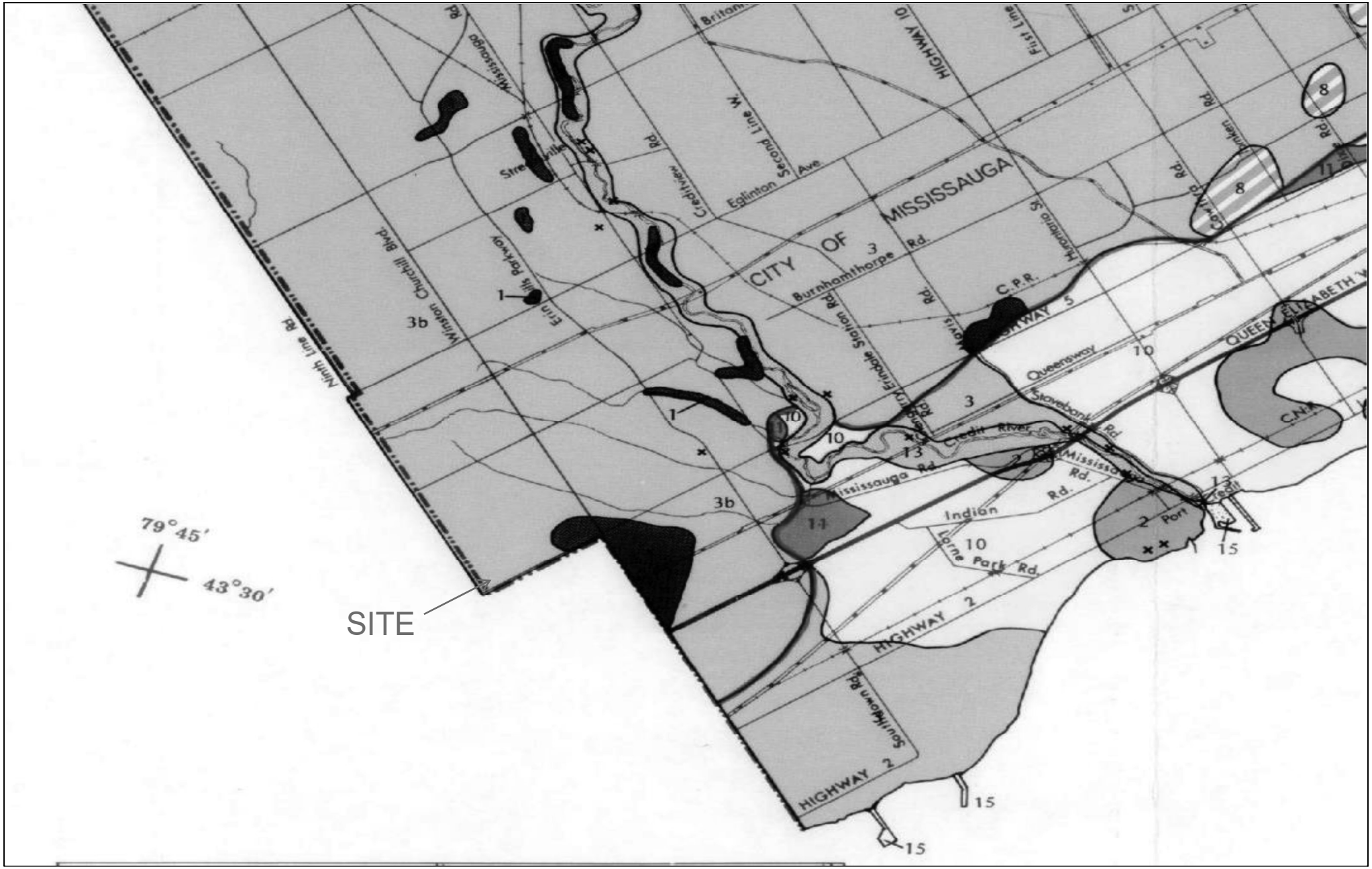
PROJECT NAME
4 STOREY SELF STORAGE FACILITY
& 1 STOREY INDUSTRIAL CONDO
3855 DUNDAS ST. WEST
MISSISSAUGA ON

DRAWN BY	DL
CHECKED BY	R.P.
DATE	July 17, 2023
SCALE	AS NOTED

DRAWING TITLE

BLDG. SECTIONS

PROJECT NO.	DRAWING NO.
22-06	A401



FISHER ENGINEERING
400 Esna Park Dr., #15
Markham, Ontario
L3R 3K2
Tel: 905 475-7755
Fax: 905 475-7718

KEY PLAN

LEGEND **Glacial Ice Deposits: Young tills - Clayey silt till and sandy silt till.**

PROJECT NAME AND ADDRESS
HYDROGEOLOGICAL INVESTIGATION
3855 Dundas Street West, MISSISSAUGA, ON

PROJECT NO. FE-P20-10464
DATE July 2023
SCALE As shown

FIGURE: A7
Surficial Geology Map.

Ontario

Ministry of Natural Resources and Forestry

Make-a-Map: Natural Heritage Areas

3855 Dundas St East, Natural Heritage Map

Map created:7/25/2023

Notes:

Enter map notes

Legend

- Assessment Parcel
- ANSI
- Earth Science Provincially Significant/sciences de la terre d'importance provinciale
- Earth Science Regionally Significant/sciences de la terre d'importance régionale
- Life Science Provincially Significant/sciences de la vie d'importance provinciale
- Life Science Regionally Significant/sciences de la vie d'importance régionale
- Conservation Reserve
- Provincial Park
- Natural Heritage System

0.7 0 0.33 0.7 Kilometres

Absence of a feature in the map does not mean they do not exist in this area.

This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Ontario Ministry of Natural Resources and Forestry(OMNRF) shall not be liable in any way for the use of, or reliance upon, this map or any information on this map.

APPENDIX B – LOG OF BOREHOLES

LOG OF BOREHOLE

NO. MW201 SHEET. 1 of 1

PROJECT NO.: FE-P 21-11439/40

PROJECT NAME: Geotechnical & Hydrogeological Investigation

LOCATION: 3855 Dundas St. East, Mississauga, ON

DRILLING METHOD: Marooka, Solid Stem

DRILLING DATE: September 13th, 2021

DEPTH (feet)	DEPTH (metres)	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES TYPE NUMBER	Type NO.	"N" VALUE
		GROUND SURFACE (m asl)		171.50			
0	0	FILL: Grey to Greyish brown silt, trace of clay, some gravel, asphalt, bricks and wood, moist			SS-1		12
2	1				SS-2		16
4							
6	2				SS-3		10
8				169.06 /2.44	SS-4		18
10	3	FILL: Dark reddish brown silt, trace clay, trace gravel, moist		168.45 /3.05			
12	4	CLAYEY SILT TILL: Reddish brown, trace of gravel, moist to very moist, very stiff to hard			SS-5		27
14					SS-6		26
16	5				SS-7		44
		End of Borehole 5.03m bgs		166.47 /5.03			
18	6						
20							
22	7						
24							
26	8						
28	9						
30							
32	10						

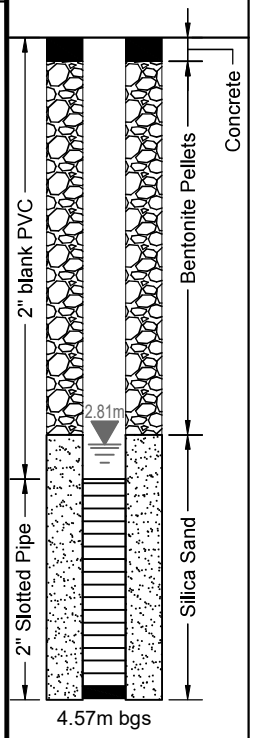
PENETRATION TESTING (SPT) ▲ 20 40 60 80

SHEAR STRENGTH (Kpa) ✚ 40 80 120 160

VAPOUR READING (ppm) □ 20 40 60 80

MOISTURE CONTENT (%) ● 10 20 30 40

PIEZOMETER ORWELL CONSTRUCTION



Groundwater Depth (m): on completion: Dry/ On September 29, 2021: 2.81m

DRAWN: AM LOGGED: SP CHECKED: CW

FISHER ENGINEERING

LOG OF BOREHOLE

NO. MW202 SHEET. 1 of 1

PROJECT NO.: FE-P 21-11439/40

PROJECT NAME: Geotechnical & Hydrogeological Investigation

LOCATION: 3855 Dundas St. East, Mississauga, ON

DRILLING METHOD: Marooka, Solid Stem

DRILLING DATE: September 13th, 2021

DEPTH (feet)	DEPTH (metres)	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES TYPE NUMBER	Type NO.	"N" VALUE
		GROUND SURFACE (m asl)		171.09			
0	0	FILL: Reddish brown sandy silt, trace clay, gravel and roots, moist			SS-1		11
2	1				SS-2		10
4							
6	2				SS-3		6
				169.11 /1.98			
		CLAYEY SILT TILL: Reddish brown, some sand, trace gravel, moist, very stiff to hard					
8					SS-4		25
10	3				SS-5		42
12							
14	4				SS-6		69
16	5				SS-7		44
				166.06 /5.03			
		End of Borehole 5.03m bgs					
18							
20	6						
22	7						
24							
26	8						
28							
30	9						
32	10						

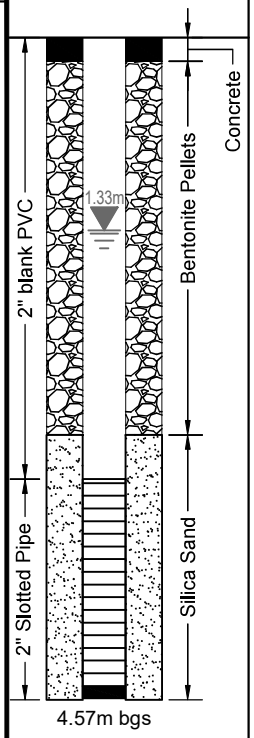
PENETRATION TESTING (SPT)▲ 20 40 60 80

SHEAR STRENGTH (Kpa) ✚ 40 80 120 160

VAPOUR READING (ppm) □ 20 40 60 80

MOISTURE CONTENT (%) ● 10 20 30 40

PIEZOMETER ORWELL CONSTRUCTION



Groundwater Depth (m): on completion: 4.57m bgs/ On September 29, 2021: 1.33m

DRAWN: AM LOGGED: SP CHECKED: CW

FISHER ENGINEERING

LOG OF BOREHOLE

NO. MW203 SHEET. 1 of 1

PROJECT NO.: FE-P 21-11439/40

PROJECT NAME: Geotechnical & Hydrogeological Investigation

LOCATION: 3855 Dundas St. East, Mississauga, ON

DRILLING METHOD: Marooka, Solid Stem

DRILLING DATE: September 13th, 2021

DEPTH (feet)	DEPTH (metres)	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES TYPE NUMBER	Type NO.	"N" VALUE
		GROUND SURFACE (m asl)		170.98			
0	0	FILL: Reddish brown sandy silt, trace of clay, gravel and roots, moist		170.75 /0.23	SS-1		27
4	1	CLAYEY SILT TILL: Reddish brown, some sand and gravel, moist, stiff to hard			SS-2		9
6	2				SS-3		17
8					SS-4		11
10	3				SS-5		34
12	4						
14							
16	5			165.95 /5.03	SS-6		52
		End of Borehole 5.03m bgs					
18							
20	6						
22	7						
24							
26	8						
28	9						
30							
32	10						

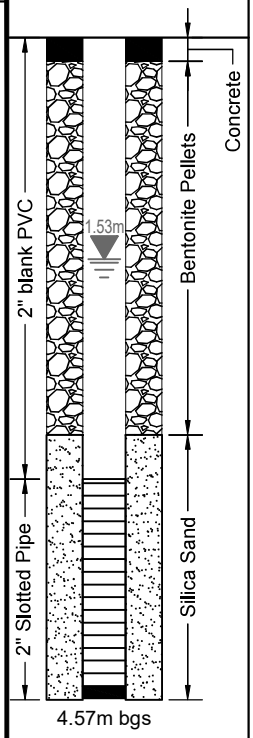
PENETRATION TESTING (SPT)▲ 20 40 60 80

SHEAR STRENGTH (Kpa) ✚ 40 80 120 160

VAPOUR READING (ppm) □ 20 40 60 80

MOISTURE CONTENT (%) ● 10 20 30 40

PIEZOMETER ORWELL CONSTRUCTION



Groundwater Depth (m): on completion: Dry/ On September 29, 2021: 1.53m

DRAWN: AM LOGGED: SP CHECKED: CW

FISHER ENGINEERING

LOG OF BOREHOLE

NO. MW204 SHEET. 1 of 1

PROJECT NO.: FE-P 21-11439/40

PROJECT NAME: Geotechnical & Hydrogeological Investigation

LOCATION: 3855 Dundas St. East, Mississauga, ON

DRILLING METHOD: Marooka, Solid Stem

DRILLING DATE: September 13th, 2021

DEPTH (feet)	DEPTH (metres)	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES TYPE NUMBER	Type NO.	"N" VALUE
		GROUND SURFACE (m asl)		170.41			
0	0	FILL: Reddish brown sandy silt, trace of clay, gravel, topsoil and topsoil mix soils,			SS-1		8
2	1	Layer of topsoil below 1.07m			SS-2		6
4				169.04 /1.37			
6	2	CLAYEY SILT TILL: Reddish brown, some sand and gravel, moist, stiff to very stiff			SS-3		14
8					SS-4		23
10	3			167.21 /3.20	SS-5		100+
12	4	SHALE: Reddish brown, dry hard					
14							
				165.69 /4.72	SS-6		100+
16	5	End of Borehole 4.72m bgs					
18							
20	6						
22	7						
24							
26	8						
28	9						
30							
32	10						

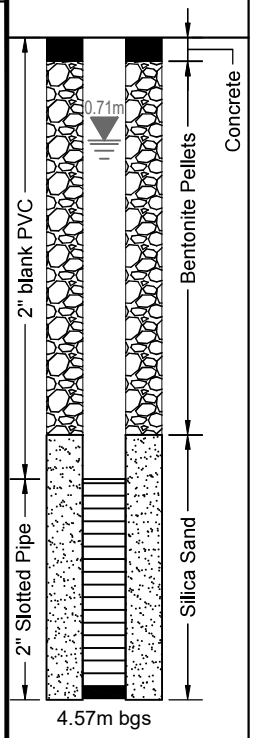
PENETRATION TESTING (SPT)▲ 20 40 60 80

SHEAR STRENGTH (Kpa) ✚ 40 80 120 160

VAPOUR READING (ppm) □ 20 40 60 80

MOISTURE CONTENT (%) ● 10 20 30 40

PIEZOMETER ORWELL CONSTRUCTION



Groundwater Depth (m): on completion: Dry/ On September 29, 2021: 0.71m

DRAWN: AM LOGGED: SP CHECKED: CW

LOG OF BOREHOLE

NO. MW205 SHEET. 1 of 1

PROJECT NO.: FE-P 21-11439/40

PROJECT NAME: Geotechnical & Hydrogeological Investigation

LOCATION: 3855 Dundas St. East, Mississauga, ON

DRILLING METHOD: Marooka, Solid Stem

DRILLING DATE: September 13th, 2021

DEPTH (feet)	DEPTH (metres)	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES TYPE NUMBER	Type NO.	"N" VALUE
		GROUND SURFACE (m asl)		171.33			
0	0	FILL: Reddish brown sandy silt to grey clayey sandy silt, trace of gravel, moist			SS-1		36
2	1			170.26 /1.07	SS-2		14
4		CLAYEY SILT TILL: Reddish brown, some sand and gravel, moist, stiff to very stiff					
6	2				SS-3		29
8					SS-4		24
10	3				SS-5		29
12	4						
14							
16	5				SS-6		23
		End of Borehole 5.03m bgs		166.30 /5.03			
18							
20	6						
22							
24	7						
26	8						
28							
30	9						
32	10						

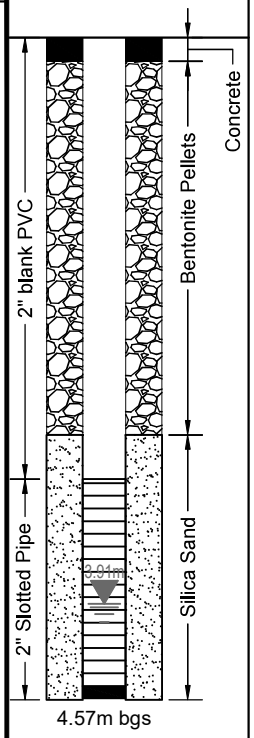
PENETRATION TESTING (SPT)▲ 20 40 60 80

SHEAR STRENGTH (Kpa) ✚ 40 80 120 160

VAPOUR READING (ppm) □ 20 40 60 80

MOISTURE CONTENT (%) ● 10 20 30 40

PIEZOMETER ORWELL CONSTRUCTION



Groundwater Depth (m): on completion: Dry/ On September 29, 2021: 3.91m

DRAWN: AM LOGGED: SP CHECKED: CW

FISHER ENGINEERING

LOG OF BOREHOLE

NO. MW206 SHEET. 1 of 1

PROJECT NO.: FE-P 21-11439/40

PROJECT NAME: Geotechnical & Hydrogeological Investigation

LOCATION: 3855 Dundas St. East, Mississauga, ON

DRILLING METHOD: Marooka, Solid Stem

DRILLING DATE: September 13th, 2021

DEPTH (feet)	DEPTH (metres)	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES TYPE NUMBER	Type NO.	"N" VALUE
		GROUND SURFACE (m asl)		171.42			
0	0	FILL: Reddish brown sandy silt, trace of clay and gravel, moist			SS-1		9
2	1				SS-2		5
4				170.05 /1.37			
6	2	CLAYEY SILT TILL: Reddish brown, some sand and gravel, moist, stiff to hard			SS-3		14
8					SS-4		24
10	3				SS-5		35
12	4						
14							
16	5				SS-6		31
		End of Borehole 5.03m bgs		166.39 /5.03			
18							
20	6						
22	7						
24							
26	8						
28	9						
30							
32	10						

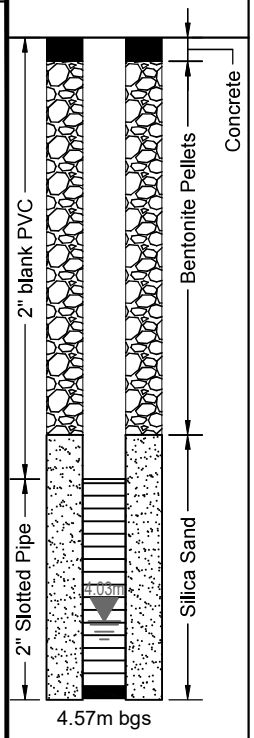
PENETRATION TESTING (SPT)▲ 20 40 60 80

SHEAR STRENGTH (Kpa) ✚ 40 80 120 160

VAPOUR READING (ppm) □ 20 40 60 80

MOISTURE CONTENT (%) ● 10 20 30 40

PIEZOMETER ORWELL CONSTRUCTION



Groundwater Depth (m): on completion: Dry/ On September 29, 2021: 4.03m

DRAWN: AM LOGGED: SP CHECKED: CW

FISHER ENGINEERING

LOG OF BOREHOLE NO. MW207 SHEET. 1 of 1

PROJECT NO.: FE-P 21-11439/40

PROJECT NAME: Geotechnical & Hydrogeological Investigation

LOCATION: 3855 Dundas St. East, Mississauga, ON

DRILLING METHOD: Marooka, Solid Stem

DRILLING DATE: September 14th, 2021

DEPTH (feet)	DEPTH (metres)	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES TYPE NUMBER	Type NO.	"N" VALUE
		GROUND SURFACE (m asl)		170.89			
0	0	FILL: Reddish brown to brown to grey sandy silt, trace of clay, gravel and topsoil, Layers of topsoil below 1.83m, moist			SS-1		7
2	1				SS-2		20
4							
6	2				SS-3		8
8		CLAYEY SILT TILL: Reddish brown, trace sand and gravel, occasional boulders and rocks moist, very stiff to hard		168.45 /2.44	SS-4		15
10	3				SS-5		24
12	4						
14							
16	5			165.90 /4.99	SS-6		100+
		End of Borehole 4.99m bgs					
18							
20	6						
22	7						
24							
26	8						
28							
30	9						
32	10						

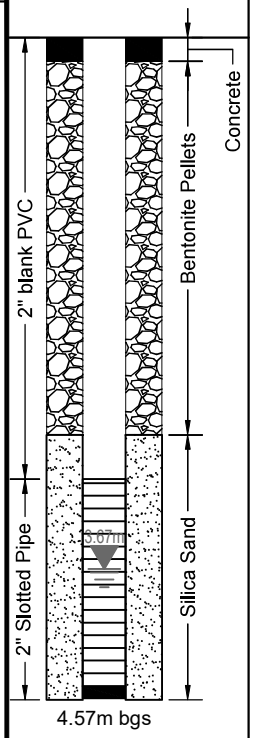
PENETRATION TESTING (SPT)▲ 20 40 60 80

SHEAR STRENGTH (Kpa) ✚ 40 80 120 160

VAPOUR READING (ppm) □ 20 40 60 80

MOISTURE CONTENT (%) ● 10 20 30 40

PIEZOMETER ORWELL CONSTRUCTION



Groundwater Depth (m): on completion: Dry/ On September 29, 2021: 3.67m

DRAWN: AM | LOGGED: SP | CHECKED: CW

FISHER ENGINEERING

LOG OF BOREHOLE NO. TH1 SHEET. 1 of 1

PROJECT NO.: FE-P 21-11439/40

PROJECT NAME: Geotechnical & Hydrogeological Investigation

LOCATION: 3855 Dundas St. East, Mississauga, ON

DRILLING METHOD: Marooka, Solid Stem

DRILLING DATE: September 14th, 2021

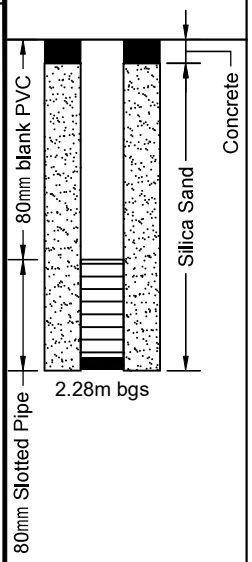
DEPTH (feet)	DEPTH (metres)	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES: TYPE NUMBER	SAMPLES: Type NO.	SAMPLES: "N" VALUE
		GROUND SURFACE (m asl)					
0	0	FILL: Reddish brown sandy silt, trace of clay, gravel and roots, Layers of topsoil below 1.85m, moist			SS-1		12
2							
4	1				SS-2		10
6					SS-3		9
8	2	CLAYEY SILT TILL: Reddish brown, some sand, moist, stiff					
10	3	End of Borehole 2.28m bgs					
12	4						
14							
16	5						
18							
20	6						
22							
24	7						
26	8						
28							
30	9						
32	10						

PENETRATION TESTING (SPT) ▲ 20 40 60 80

SHEAR STRENGTH (Kpa) ✚ 40 80 120 160

VAPOUR READING (ppm) □ 20 40 60 80

MOISTURE CONTENT (%) ● 10 20 30 40



Groundwater Depth (m): on completion: Dry

DRAWN: AM | LOGGED: SP | CHECKED: CW

FISHER ENGINEERING

LOG OF BOREHOLE NO. TH2 SHEET. 1 of 1

PROJECT NO.: FE-P 21-11439/40

PROJECT NAME: Geotechnical & Hydrogeological Investigation

LOCATION: 3855 Dundas St. East, Mississauga, ON

DRILLING METHOD: Marooka, Solid Stem

DRILLING DATE: September 14th, 2021

DEPTH (feet)	DEPTH (metres)	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES TYPE NUMBER	SAMPLES Type NO.	SAMPLES "N" VALUE
		GROUND SURFACE (m asl)					
0	0	FILL: Reddish brown sandy silt, trace of clay, gravel and roots, moist			SS-1		10
2							
4	1				SS-2		38
6	2	CLAYEY SILT TILL: Reddish brown, trace of sand and gravel, moist, very stiff			SS-3		26
8		End of Borehole 2.28m bgs					
10	3						
12	4						
14							
16	5						
18							
20	6						
22	7						
24							
26	8						
28							
30	9						
32	10						

PENETRATION TESTING (SPT) ▲ 20 40 60 80

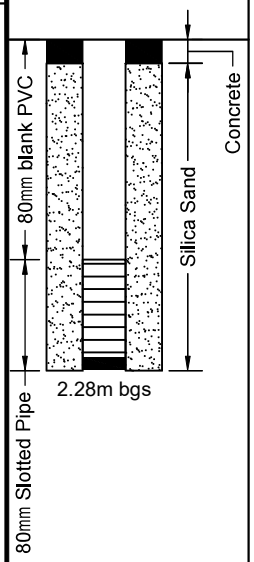
SHEAR STRENGTH (Kpa) ✚ 40 80 120 160

VAPOUR READING (ppm) □ 20 40 60 80

MOISTURE CONTENT (%) ● 10 20 30 40

13.0

PIEZOMETER ORWELL CONSTRUCTION



Groundwater Depth (m): on completion: Dry

DRAWN: AM | LOGGED: SP | CHECKED: CW

FISHER ENGINEERING

LOG OF BOREHOLE NO. TH3 SHEET. 1 of 1

PROJECT NO.: FE-P 21-11439/40

PROJECT NAME: Geotechnical & Hydrogeological Investigation

LOCATION: 3855 Dundas St. East, Mississauga, ON

DRILLING METHOD: Marooka, Solid Stem

DRILLING DATE: September 14th, 2021

DEPTH (feet)	DEPTH (metres)	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES: TYPE NUMBER	SAMPLES: Type NO.	SAMPLES: "N" VALUE
		GROUND SURFACE (m asl)					
0	0	FILL: Reddish brown sandy silt, to dark brown silty sand, trace of clay, gravel, roots, topsoil and topsoil mixed soils, moist			SS-1		23
2							
4	1				SS-2		8
6	2	CLAYEY SILT TILL: Reddish brown, trace of sand and gravel, very stiff			SS-3		20
8		End of Borehole 2.28m bgs					
10	3						
12	4						
14							
16	5						
18							
20	6						
22	7						
24							
26	8						
28							
30	9						
32	10						

PENETRATION TESTING (SPT) ▲ 20 40 60 80

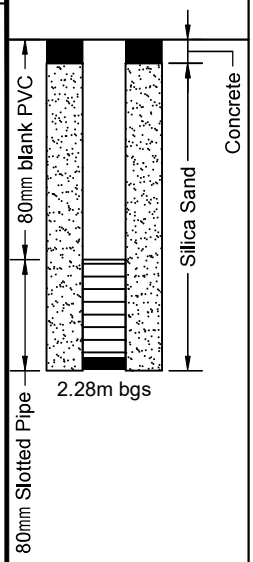
SHEAR STRENGTH (Kpa) ✚ 40 80 120 160

VAPOUR READING (ppm) □ 20 40 60 80

MOISTURE CONTENT (%) ● 10 20 30 40

20.0

PIEZOMETER ORWELL CONSTRUCTION



Groundwater Depth (m): on completion: Dry

DRAWN: AM | LOGGED: SP | CHECKED: CW

FISHER ENGINEERING

LOG OF BOREHOLE NO. TH4 SHEET. 1 of 1

PROJECT NO.: FE-P 21-11439/40

PROJECT NAME: Geotechnical & Hydrogeological Investigation

LOCATION: 3855 Dundas St. East, Mississauga, ON

DRILLING METHOD: Marooka, Solid Stem

DRILLING DATE: September 14th, 2021

DEPTH (feet)	DEPTH (metres)	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES: TYPE NUMBER	SAMPLES: Type NO.	SAMPLES: "N" VALUE
		GROUND SURFACE (m asl)					
0	0	FILL: Reddish brown sandy silt, to dark brown silty sand, trace of clay and gravel, moist			SS-1		7
2	1				SS-2		16
4		CLAYEY SILT TILL: Reddish brown, trace of sand and gravel, moist, hard			SS-3		32
6	2	End of Borehole 2.28m bgs					
8							
10	3						
12							
14	4						
16	5						
18							
20	6						
22	7						
24							
26	8						
28							
30	9						
32	10						

PENETRATION TESTING (SPT) ▲ 20 40 60 80

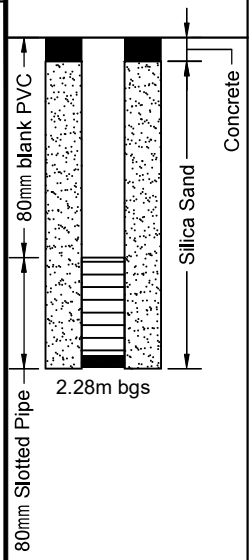
SHEAR STRENGTH (Kpa) ✚ 40 80 120 160

VAPOUR READING (ppm) □ 20 40 60 80

MOISTURE CONTENT (%) ● 10 20 30 40

15.0

PIEZOMETER ORWELL CONSTRUCTION



Groundwater Depth (m): on completion: Dry

DRAWN: AM LOGGED: SP CHECKED: CW

FISHER ENGINEERING

LOG OF BOREHOLE NO. TH5 SHEET. 1 of 1

PROJECT NO.: FE-P 21-11439/40

PROJECT NAME: Geotechnical & Hydrogeological Investigation

LOCATION: 3855 Dundas St. East, Mississauga, ON

DRILLING METHOD: Marooka, Solid Stem

DRILLING DATE: September 14th, 2021

DEPTH (feet)	DEPTH (metres)	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES TYPE NUMBER	SAMPLES Type NO.	SAMPLES "N" VALUE
		GROUND SURFACE (m asl)					
0	0	FILL: Reddish brown sandy silt, trace of clay and gravel, moist			SS-1		15
2							
4	1				SS-2		9
6	2	CLAYEY SILT TILL: Reddish brown, trace of sand and gravel, very stiff			SS-3		16
8		End of Borehole 2.28m bgs					
10	3						
12	4						
14							
16	5						
18							
20	6						
22	7						
24							
26	8						
28							
30	9						
32	10						

PENETRATION TESTING (SPT)▲ 20 40 60 80

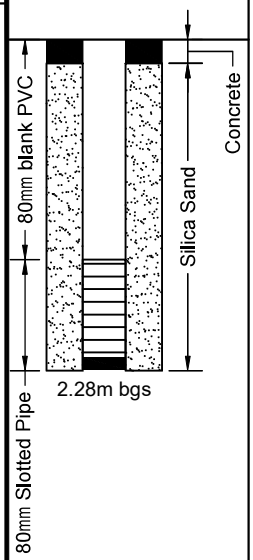
SHEAR STRENGTH (Kpa) ✚ 40 80 120 160

VAPOUR READING (ppm) □ 20 40 60 80

MOISTURE CONTENT (%) ● 10 20 30 40

22.0

PIEZOMETER ORWELL CONSTRUCTION



Groundwater Depth (m): on completion: Dry

DRAWN: AM LOGGED: SP CHECKED: CW

FISHER ENGINEERING

LOG OF BOREHOLE NO. TH6 SHEET. 1 of 1

PROJECT NO.: FE-P 21-11439/40

PROJECT NAME: Geotechnical & Hydrogeological Investigation

LOCATION: 3855 Dundas St. East, Mississauga, ON

DRILLING METHOD: Marooka, Solid Stem

DRILLING DATE: September 14th, 2021

DEPTH (feet)	DEPTH (metres)	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES: TYPE NUMBER	SAMPLES: Type NO.	SAMPLES: "N" VALUE
		GROUND SURFACE (m asl)					
0	0	FILL: Reddish brown to brownish grey silt, trace, of clay, gravel, shale and top soil, moist			SS-1		16
2							
4	1				SS-2		4
6	2				SS-3		9
8		End of Borehole 2.28m bgs					
10	3						
12	4						
14							
16	5						
18							
20	6						
22	7						
24							
26	8						
28							
30	9						
32	10						

PENETRATION TESTING (SPT)▲ 20 40 60 80

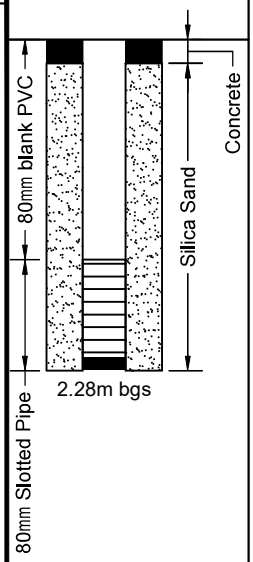
SHEAR STRENGTH (Kpa) ✚ 40 80 120 160

VAPOUR READING (ppm) □ 20 40 60 80

MOISTURE CONTENT (%) ● 10 20 30 40

12.0

PIEZOMETER ORWELL CONSTRUCTION



Groundwater Depth (m): on completion: Dry

DRAWN: AM LOGGED: SP CHECKED: CW

FISHER ENGINEERING

LOG OF BOREHOLE NO. BH101(MW) SHEET. 1 of 1

PROJECT NO.: FE-P 20-10464

PROJECT NAME: Hydrogeological Investigation

LOCATION: 3855 Dundas St. E., Oakville, ON

DRILLING METHOD: D-50, Solid Stem

DRILLING DATE: August 19, 2020

DEPTH (feet)	DEPTH (metres)	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	LAB ID:	SAMPLES TYPE NUMBER	SAMPLES P.I.D. Reading	SAMPLES "N" VALUE
		GROUND SURFACE (m asl)		171.40				
0	0	TOPSOIL/DISTURBED SOIL						
		FILL: clayey silt, trace of gravel, red with grey pieces, moist, stiff.				SS-1		9
2				0.76/ 170.64				
4	1					SS-2		6
		CLAYEY SILT TILL: trace of gravel, red brown, moist, firm to hard.						
6	2					SS-3		23
8						SS-4		36
10	3					SS-5		39
12								
14	4							
16	5			5.03/ 166.37		SS-6		56
		End of Borehole						
18								
20	6	BH dry on completion.						
22								
24	7							
26	8							
28								
30	9							
32								
	10							

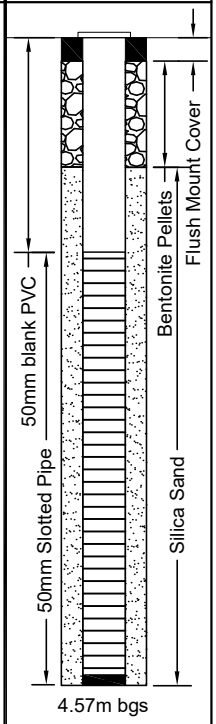
PENETRATION TESTING (SPT) ▲ 20 40 60 80

SHEAR STRENGTH (Kpa) ✚ 40 80 120 160

VAPOUR READING (ppm) □ 20 40 60 80

MOISTURE CONTENT (%) ● 10 20 30 40

PIEZOMETER OR WELL CONSTRUCTION



Groundwater Depth (m): on completion: dry

DRAWN: BL LOGGED: RR CHECKED: CW

FISHER ENGINEERING

LOG OF BOREHOLE NO. BH102(MW) SHEET. 1 of 1

PROJECT NO.: FE-P 20-10464

PROJECT NAME: Hydrogeological Investigation

LOCATION: 3855 Dundas St. E., Oakville, ON

DRILLING METHOD: D-50, Solid Stem

DRILLING DATE: August 19, 2020

DEPTH (feet)	DEPTH (metres)	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	LAB ID:	TYPE NUMBER	P.I.D. Reading	"N" VALUE
		GROUND SURFACE (m asl)		171.22				
0	0	FILL/DISTURBED SOIL						
		FILL: clayey silt, trace of gravel, some cobbles, red brown, slightly moist, some ash, debris.				SS-1		24
2	1					SS-2		15
4				1.22/ 170.00				
		CLAYEY SILT: grey to brown, moist, firm to very stiff.				SS-3		6
6	2							
				2.29/ 168.93				
8		CLAYEY SILT TILL: trace of gravel, red brown, moist, very stiff to hard.				SS-4		22
10	3					SS-5		33
12	4							
14								
16	5					SS-6		21
				5.03/ 166.19				
18		End of Borehole						
20	6	BH dry on completion.						
22	7							
24								
26	8							
28								
30	9							
32	10							

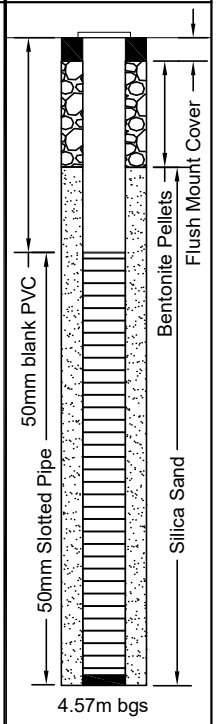
PENETRATION TESTING (SPT) ▲ 20 40 60 80

SHEAR STRENGTH (Kpa) ✚ 40 80 120 160

VAPOUR READING (ppm) □ 20 40 60 80

MOISTURE CONTENT (%) ● 10 20 30 40

PIEZOMETER OR WELL CONSTRUCTION



Groundwater Depth (m): on completion: dry

DRAWN: BL LOGGED: RR CHECKED: CW

FISHER ENGINEERING

LOG OF BOREHOLE NO. BH103(MW) SHEET. 1 of 1

PROJECT NO.: FE-P 20-10464

PROJECT NAME: Hydrogeological Investigation

LOCATION: 3855 Dundas St. E., Oakville, ON

DRILLING METHOD: D-50, Solid Stem

DRILLING DATE: August 19, 2020

DEPTH (feet)	DEPTH (metres)	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	LAB ID:	SAMPLES TYPE NUMBER	SAMPLES P.I.D. Reading	SAMPLES "N" VALUE
		GROUND SURFACE (m asl)		171.25				
0	0	TOPSOIL/DISTURBED SOIL						
		FILL: clayey silt, trace of gravel, brown, moist.		0.30/ 170.95		SS-1		21
2								
4	1					SS-2		18
		CLAYEY SILT TILL: trace of gravel, red brown, moist, very stiff to hard.						
6	2					SS-3		25
8								
						SS-4		49
10	3							
12						SS-5		29
	4							
14								
16						SS-6		28
	5			5.03/ 166.22				
		End of Borehole						
18								
20	6	BH dry on completion.						
22								
24	7							
26	8							
28								
30	9							
32								
	10							

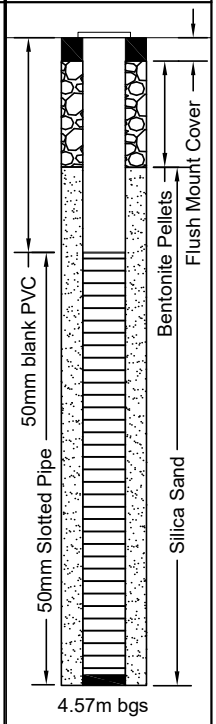
PENETRATION TESTING (SPT) ▲ 20 40 60 80

SHEAR STRENGTH (Kpa) ✚ 40 80 120 160

VAPOUR READING (ppm) □ 20 40 60 80

MOISTURE CONTENT (%) ● 10 20 30 40

PIEZOMETER OR WELL CONSTRUCTION



Groundwater Depth (m): on completion: dry

DRAWN: BL LOGGED: RR CHECKED: CW

FISHER ENGINEERING

LOG OF BOREHOLE NO. BH104(MW) SHEET. 1 of 1

PROJECT NO.: FE-P 20-10464

PROJECT NAME: Hydrogeological Investigation

LOCATION: 3855 Dundas St. E., Oakville, ON

DRILLING METHOD: D-50, Solid Stem

DRILLING DATE: August 19, 2020

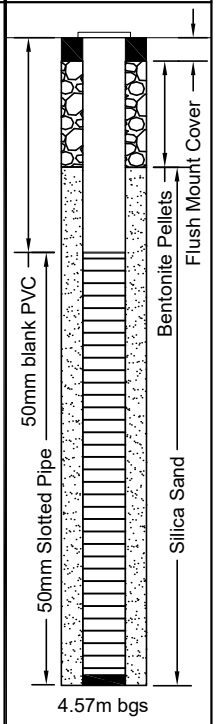
DEPTH (feet)	DEPTH (metres)	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	LAB ID:	TYPE NUMBER	P.I.D. Reading	"N" VALUE
		GROUND SURFACE (m asl)		171.35				
0	0	FILL: sandy silt, brown to grey, slightly moist.				SS-1		14
2				0.61/ 170.74				
4	1	CLAYEY SILT TILL: trace of gravel, red brown, stiff to hard, occasional sand seams.				SS-2		20
6	2					SS-3		10
8						SS-4		26
10	3					SS-5		33
12	4							
14								
16	5			166.37 /5.03		SS-6		26
18		End of Borehole						
20	6	BH dry on completion.						
22	7							
24								
26	8							
28								
30	9							
32	10							

PENETRATION TESTING (SPT) ▲ 20 40 60 80

SHEAR STRENGTH (Kpa) ✚ 40 80 120 160

VAPOUR READING (ppm) □ 20 40 60 80

MOISTURE CONTENT (%) ● 10 20 30 40



Groundwater Depth (m): on completion: dry

DRAWN: BL LOGGED: RR CHECKED: CW

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LOG OF BOREHOLE NO. 2 SHEET. 2 of 5

PROJECT NO.: FE-P 18-9089

PROJECT NAME: Geotechnical Investigation

LOCATION: 3855 Dundas St East, Mississauga ON

DRILLING METHOD: Solid Stem

DRILLING DATE: 26 October, 2018

DEPTH (feet)	DEPTH (metres)	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUE
0	0	GROUND SURFACE (m asl)		100.10			
		FILL: Clayey silt, trace shale fragments, reddish brown, moist, loose.			1	SS	7
2		Silty clay, brown to grey, trace sand seams, moist, brown sand layers at 4'			2	SS	5
4	1			98.58/ 1.52			
6	2	FILL: Silty clay, organics, black, moist, soft.		98.27/ 1.83	3	SS	3
8		CLAYEY SILT TILL: Trace gravel, limestone, and shale pieces, reddishbrown, moist, very stiff.			4	SS	19
10	3	Gray silty sand, silty clay at 6'.			5	SS	31
12	4						
14							
16	5	Greyish brown below 15'.			6	SS	30
18							
20	6	Redish brown clayey silt with weathered shale complex at 20' very dense.			7	SS	83
22	7	End of Borehole		93.39/ 6.71			
24							
26	8						
28							
30	9						
32	10						

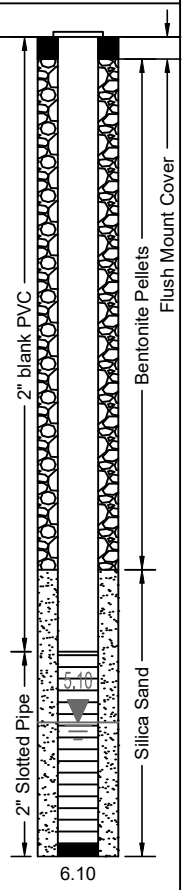
PENETRATION TESTING (SPT) ▲ 20 40 60 80

SHEAR STRENGTH (Kpa) ✚ 40 80 120 160

VAPOUR READING (ppm) □ 20 40 60 80

MOISTURE CONTENT (%) ○ 10 20 30 40

PIEZOMETER OR WELL CONSTRUCTION



Groundwater Depth (m): On Completion: Dry. On 2 Nov 2018: 5.10m

LOGGED: DL

CHECKED: FF

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LOG OF BOREHOLE NO. 4 SHEET. 4 of 5

PROJECT NO.: FE-P 18-9089

PROJECT NAME: Geotechnical Investigation

LOCATION: 3855 Dundas St East, Mississauga ON

DRILLING METHOD: Solid Stem

DRILLING DATE: 26 October, 2018

DEPTH (feet)	DEPTH (metres)	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUE
0	0	GROUND SURFACE (m asl)		100.35			
0	0	FILL: Clayey silt, trace gravel, shale pieces, reddish brown silty sand, sand pocket below 1.5', compact		99.89/ 0.46	1	SS	28
4	1				2	SS	13
6	2	CLAYEY SILT TILL: trace shale fragments, reddish brown, moist, gray at uper 2', stiff to hard.			3	SS	15
8	2	Boulder at 8.5'			4	SS	30
10	3				5	SS	29
12	4	Greyish brown at 11'					
16	5				6	SS	31
18	5						
20	6	Greyish brown below 20'			7	SS	32
22	7	End of Borehole		94.80/ 6.55			
24	7						
26	8						
28	9						
30	9						
32	10						

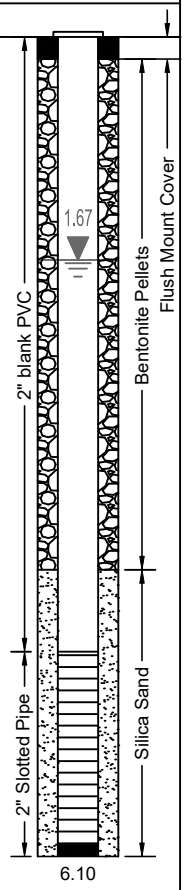
PENETRATION TESTING (SPT) ▲ 20 40 60 80

SHEAR STRENGTH (Kpa) ✚ 40 80 120 160

VAPOUR READING (ppm) □ 20 40 60 80

MOISTURE CONTENT (%) ○ 10 20 30 40

PIEZOMETER OR WELL CONSTRUCTION



Groundwater Depth (m): On Completion: Dry. On 2 Nov 2018: 1.67m.

LOGGED: DL

CHECKED: FF

APPENDIX C – GRAIN SIZE DISTRIBUTION ANALYSES

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Client:	Dymon Group of Companies	***F.E. Job #:***	21-7241A
Address:	2-1830 Walkley Road	***Project Name:***	Infiltration Tests
	Ottawa, ON	***Project ID:***	FE-P 21-11439
	K1H 8K3	***Date Sampled:***	14-Sep-2021
Tel.:		***Date Received:***	17-Sep-2021
Email:		***Date Reported:***	24-Sep-2021
Attn.:		***Location:***	3855 Dundas Street East

Certificate of Analysis

Analyses	Matrix	Quantity	Date Extracted	Date Analyzed	Lab SOP	Method Reference
Moisture Content	Soil	6	N/A	17-Sep-21	Support Procedures F-99	Carter (1993)
Grain Size	Soil	6	N/A	21-Sep-21	Grain Size F-28	ASTM D6913-04

Fisher Environmental Laboratories is accredited by CALA (the Canadian Association for Laboratory Accreditation Inc.) for specific parameters as required by Ontario Regulation 153/04. All analytical testing has been performed in accordance with ISO 17025 and the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act published by Ontario Ministry of the Environment.

Authorized by:

Roger Lin, Ph. D., C. Chem.
Laboratory Manager

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Ronggen (Roger) Lin
CHEMIST

Results related only to the items tested

Certificate of Analysis

Analysis Requested:	Moisture Content, Grain Size
Sample Description:	8 Soil Sample(s)

Parameter	***21-7241-1*** TH1 0.75-1.20m	***21-7241-3*** TH2 1.50-1.95m	***21-7241-4*** TH3 1.50-1.95m	***21-7241-5*** TH4 0.75-1.20m	***21-7241-6*** TH5 0.75-1.20m	***21-7241-8*** TH6 0.75-1.20m
Geo Moisture Content (%)	14	13	20	15	22	12

QA/QC Report

Parameter	**Blank**	**RL**	**LCS**	**AR**	**Duplicate**	**AR**
			Recovery (%)		**RPD (%)**	
Geo Moisture Content (%)	<0.1	0.1	100	70-130	4.9	0-20

LEGEND:

RL - Reporting Limit
LCS - Laboratory Control Sample
AR - Acceptable Range
RPD - Relative Percent Difference

Certificate of Analysis

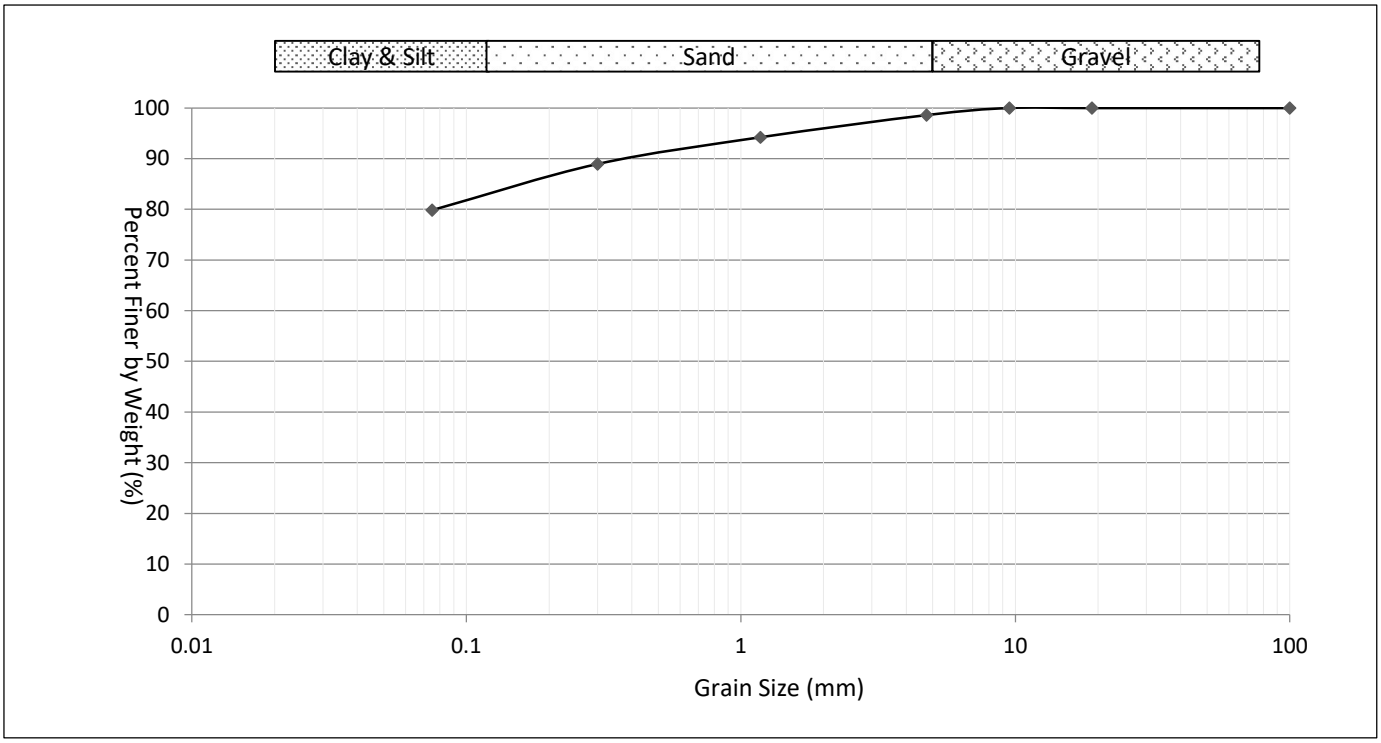
Analysis Requested:	Moisture Content, Grain Size
Sample Description:	8 Soil Sample(s)

Parameter	***21-7241-1*** TH1 0.75-1.20m	***21-7241-3*** TH2 1.50-1.95m	***21-7241-4*** TH3 1.50-1.95m	***21-7241-5*** TH4 0.75-1.20m	***21-7241-6*** TH5 0.75-1.20m	***21-7241-8*** TH6 0.75-1.20m
Grain Size (%)						
>19mm	0.0	0.0	0.0	0.0	0.0	0.0
9.5mm-19mm	0.0	0.0	2.3	0.0	0.0	2.3
4.75mm-9.5mm	1.4	4.2	4.2	2.2	0.7	4.2
1.18m-4.75mmm	4.4	3.2	2.3	2.5	0.6	8.5
300um-1.18mm	5.3	4.1	2.4	3.1	1.9	9.6
75um-300um	9.1	7.8	5.6	6.3	4.5	12.7
<75um	79.9	80.8	83.2	85.9	92.3	62.8
Clay & Silt	**80**	**81**	**83**	**86**	**92**	**63**
Sand	**19**	**15**	**10**	**12**	**7**	**31**
Gravel	**1**	**4**	**7**	**2**	**1**	**6**

Grain Size Distribution

Sample ID: 21-7241-1 TH1 0.75-1.20m

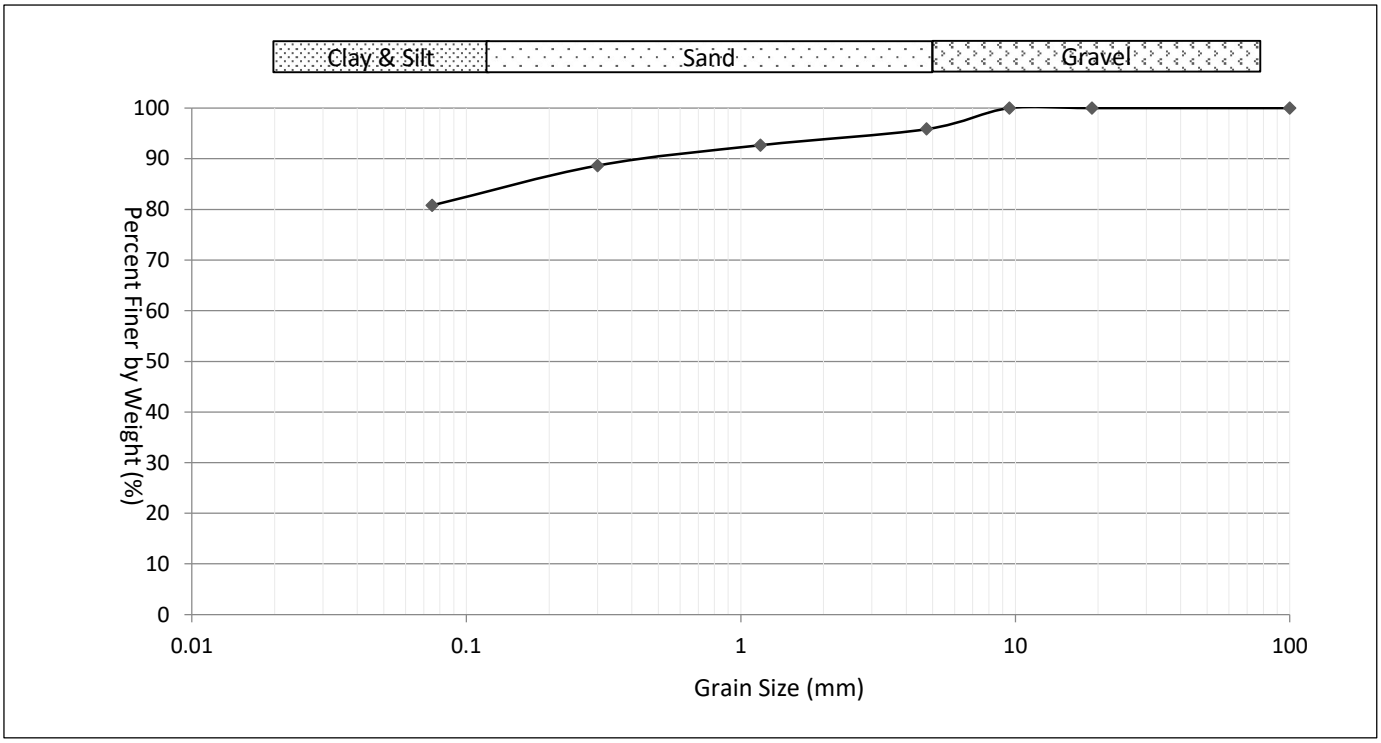
Clay & Silt: 80% Sand: 19% Gravel: 1%



Grain Size Distribution

Sample ID: 21-7241-3 TH2 1.50-1.95m

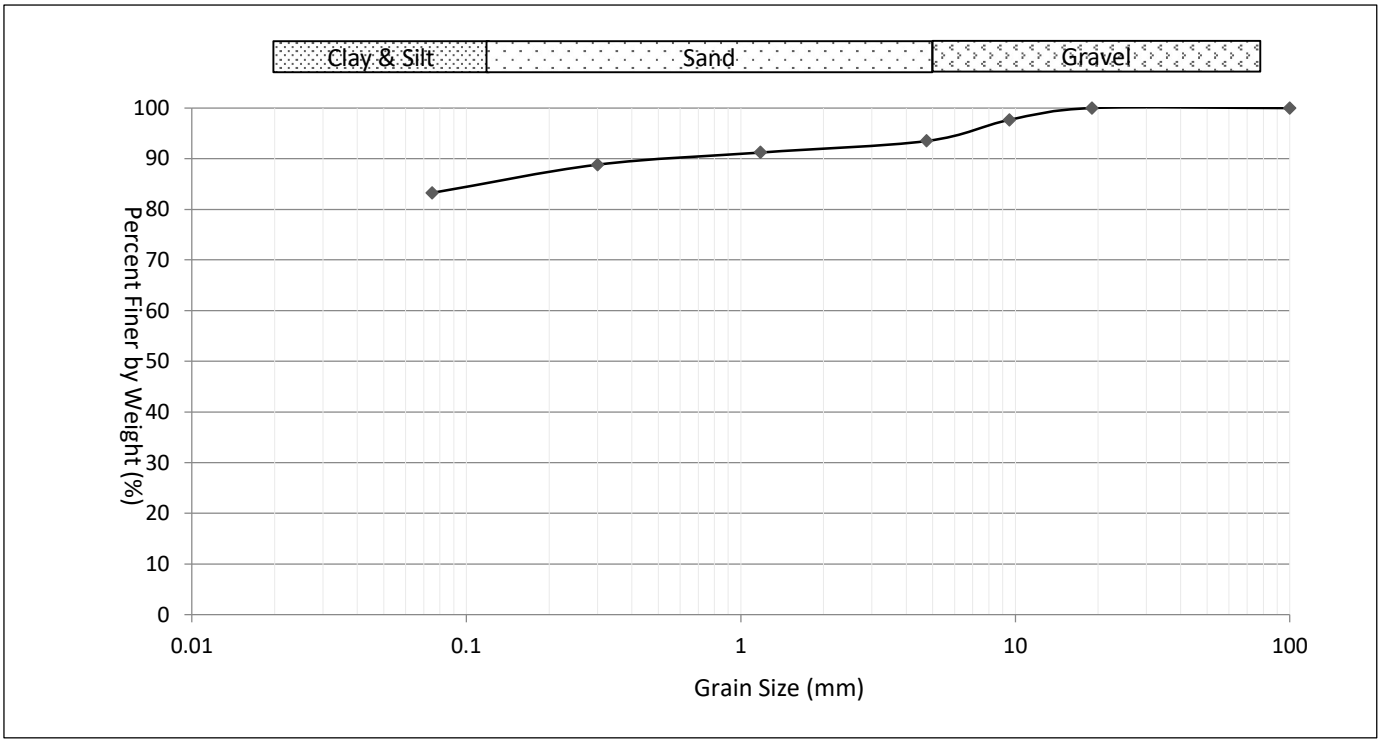
Clay & Silt: 81% Sand: 15% Gravel: 4%



Grain Size Distribution

Sample ID: 21-7241-4 TH3 1.50-1.95m

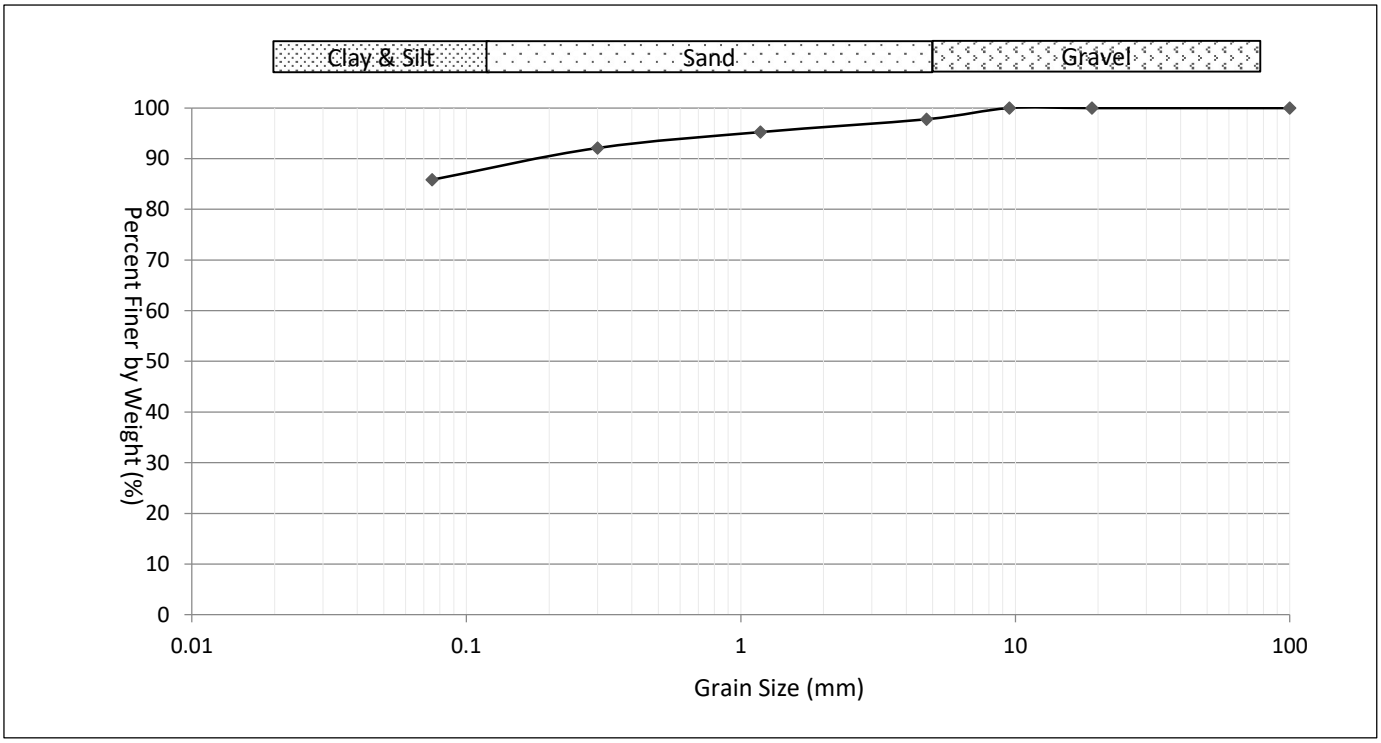
Clay & Silt: 83% Sand: 10% Gravel: 7%



Grain Size Distribution

Sample ID: 21-7241-5 TH4 0.75-1.20m

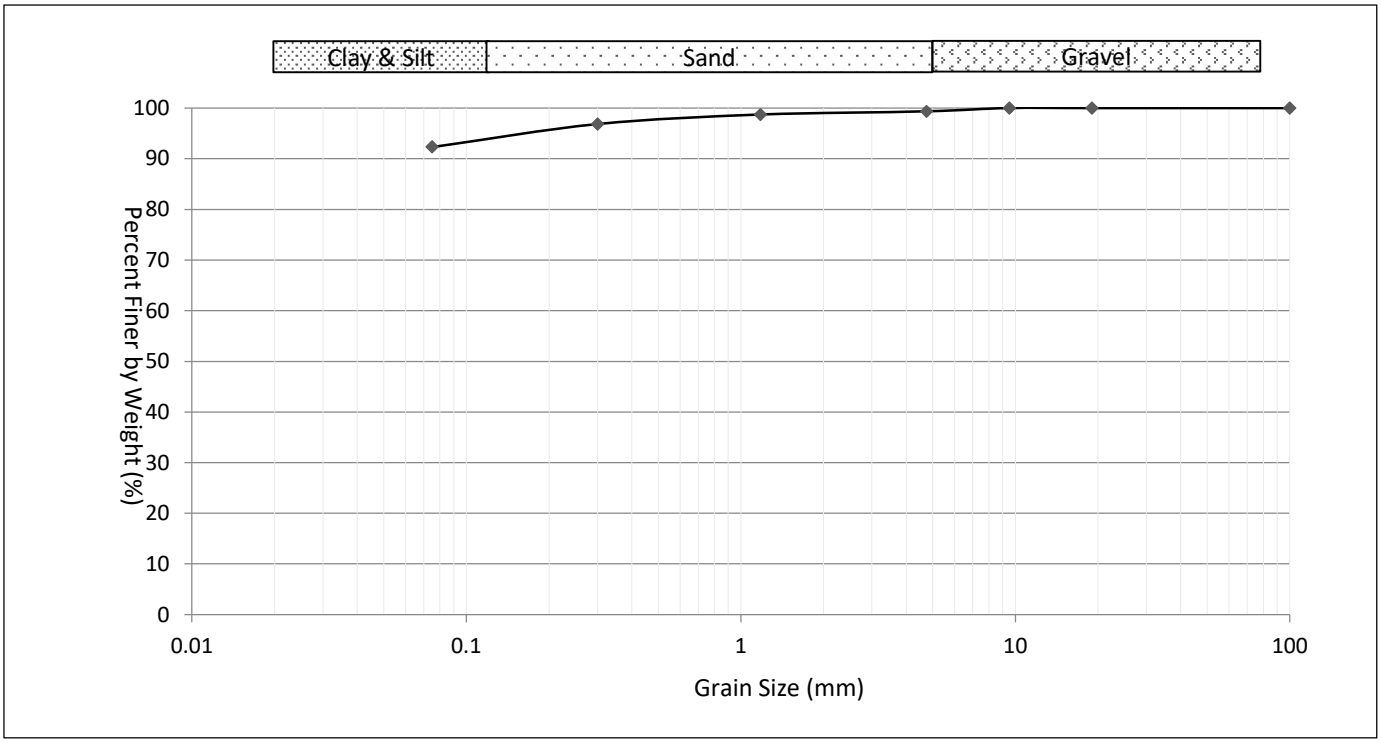
Clay & Silt: 86% Sand: 12% Gravel: 2%



Grain Size Distribution

Sample ID: 21-7241-6 TH5 0.75-1.20m

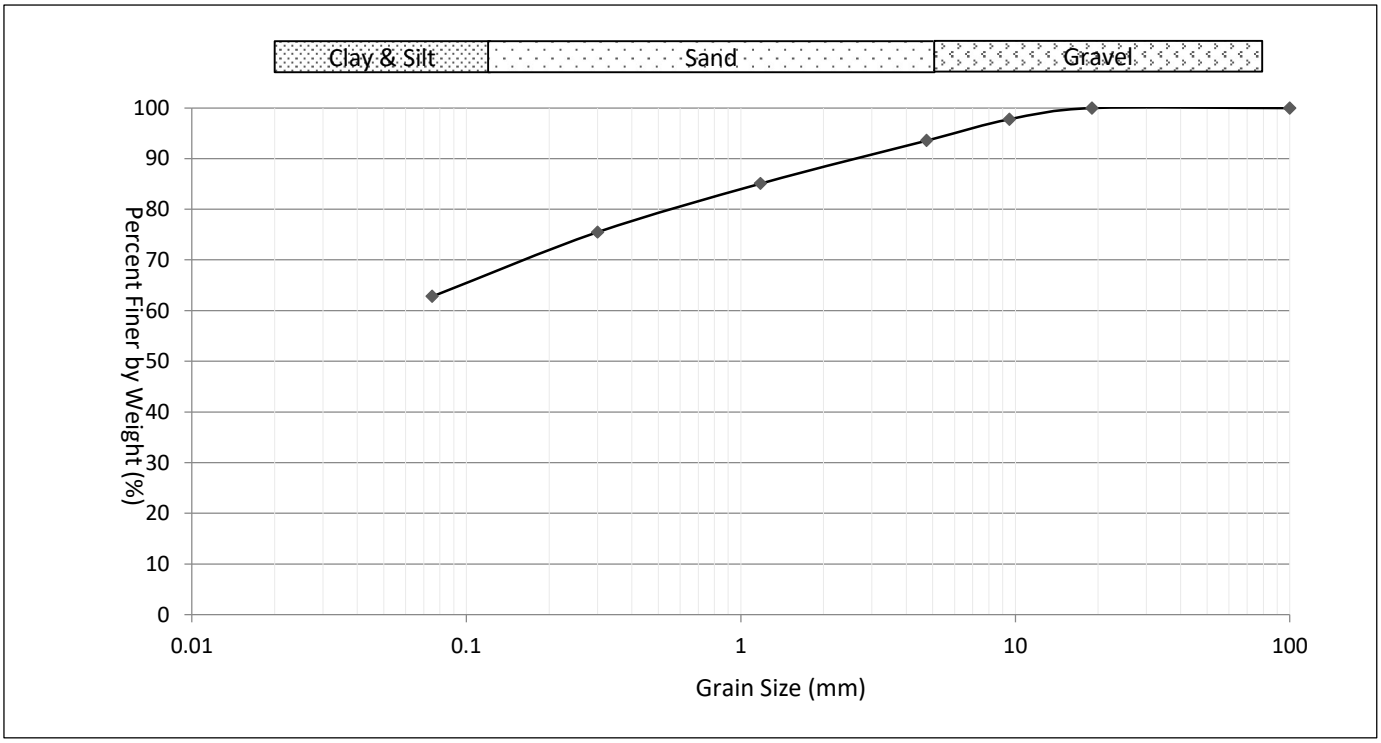
Clay & Silt: 92% Sand: 7% Gravel: 1%



Grain Size Distribution

Sample ID: 21-7241-8 TH6 0.75-1.20m

Clay & Silt: 63% Sand: 31% Gravel: 6%



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FAX: 905 475-7718
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Client: Dymon Group of Companies
Address: 2-1830 Walkley Road
Ottawa, ON
K1H 8K3
Tel.:
Email:
Attn.:

F.E. Job #: 21-7241B
Project Name: Infiltration Tests
Project ID: FE-P 21-11439
Date Sampled: 14-Sep-2021
Date Received: 17-Sep-2021
Date Reported: 24-Sep-2021
Location: 3855 Dundas Street East

Certificate of Analysis

Analyses	Matrix	Quantity	Date Extracted	Date Analyzed	Lab SOP	Method Reference
Hydrometer	Soil	3	N/A	22-Sep-21	Hydrometer SOP	ASTM D7928-17

Fisher Environmental Laboratories is accredited by CALA (the Canadian Association for Laboratory Accreditation Inc.) for specific parameters as required by Ontario Regulation 153/04. All analytical testing has been performed in accordance with ISO 17025 and the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act published by Ontario Ministry of the Environment.

Authorized by:

Roger Lin, Ph. D., C. Chem.
Laboratory Manager

Client: Dymon Group of Companies ***F.E. Job #:*** 21-7241B

Certificate of Analysis

Analysis Requested:	Hydrometer
Sample Description:	3 Soil Sample(s)

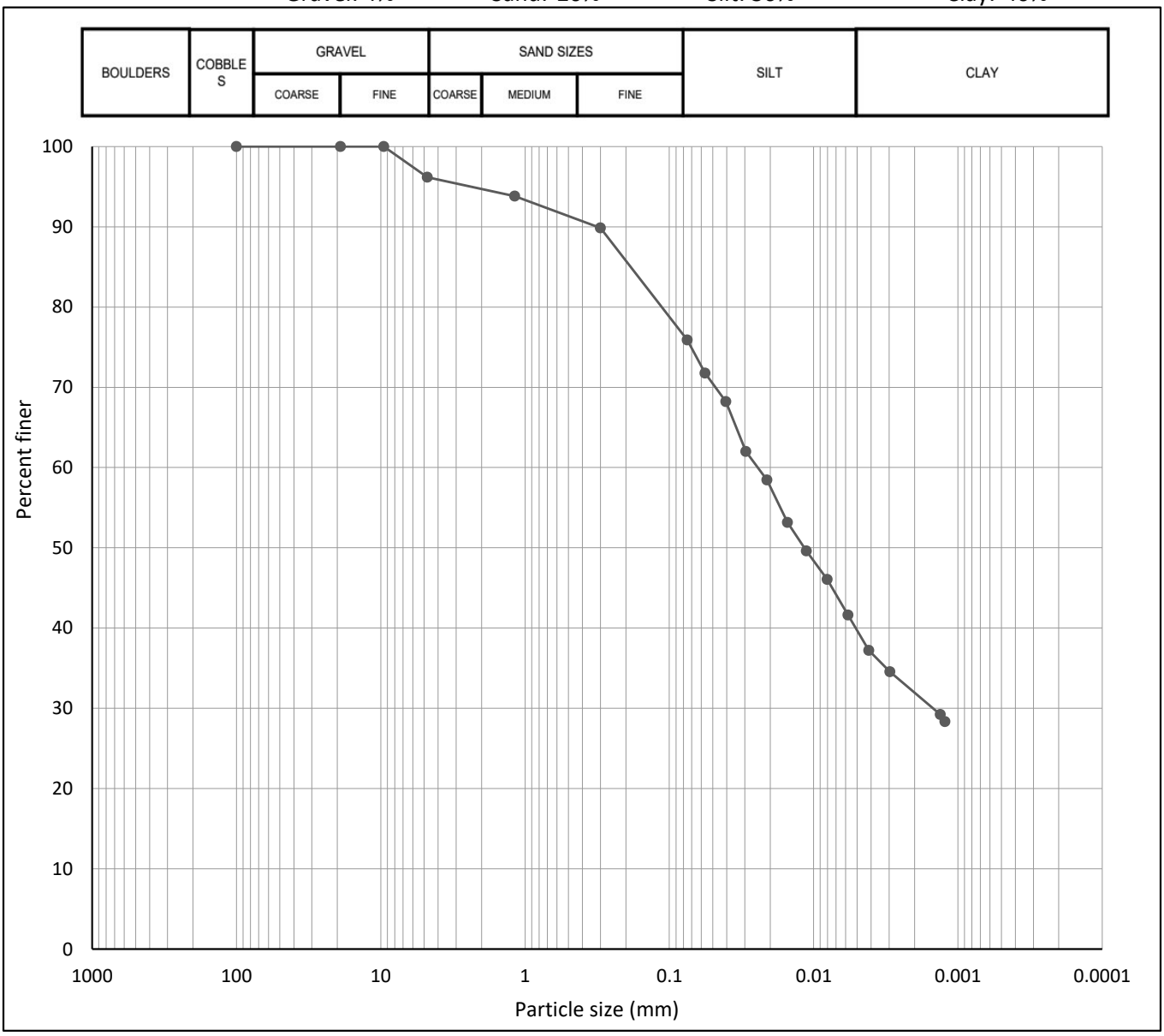
Parameter	***21-7241-2*** TH1 1.50-1.95m	***21-7241-5*** TH4 0.75-1.20m	***21-7241-7*** TH6 1.50-1.95m			
Grain Size (%)						
>19mm	0.0	0.0	0.0			
9.5mm-19mm	0.0	0.0	2.3			
4.75mm-9.5mm	3.8	2.2	4.2			
1.18mm-4.75mm	2.4	2.5	8.5			
300um-1.18mm	4.0	3.1	9.6			
75um-300um	14.0	6.3	12.7			
5um-75um	36	36	29			
2um-5um	8	11	10			
<2um	32	39	24			
Clay	**40**	**50**	**34**			
Silt	**36**	**36**	**29**			
Sand	**20**	**12**	**31**			
Gravel	**4**	**2**	**6**			

Client: Dymon Group of Companies ***F.E. Job #:*** 21-7241B

Grain Size Distribution

Sample ID: 21-7241-2 TH1 1.50-1.95m

Gravel: 4% Sand: 20% Silt: 36% Clay: 40%



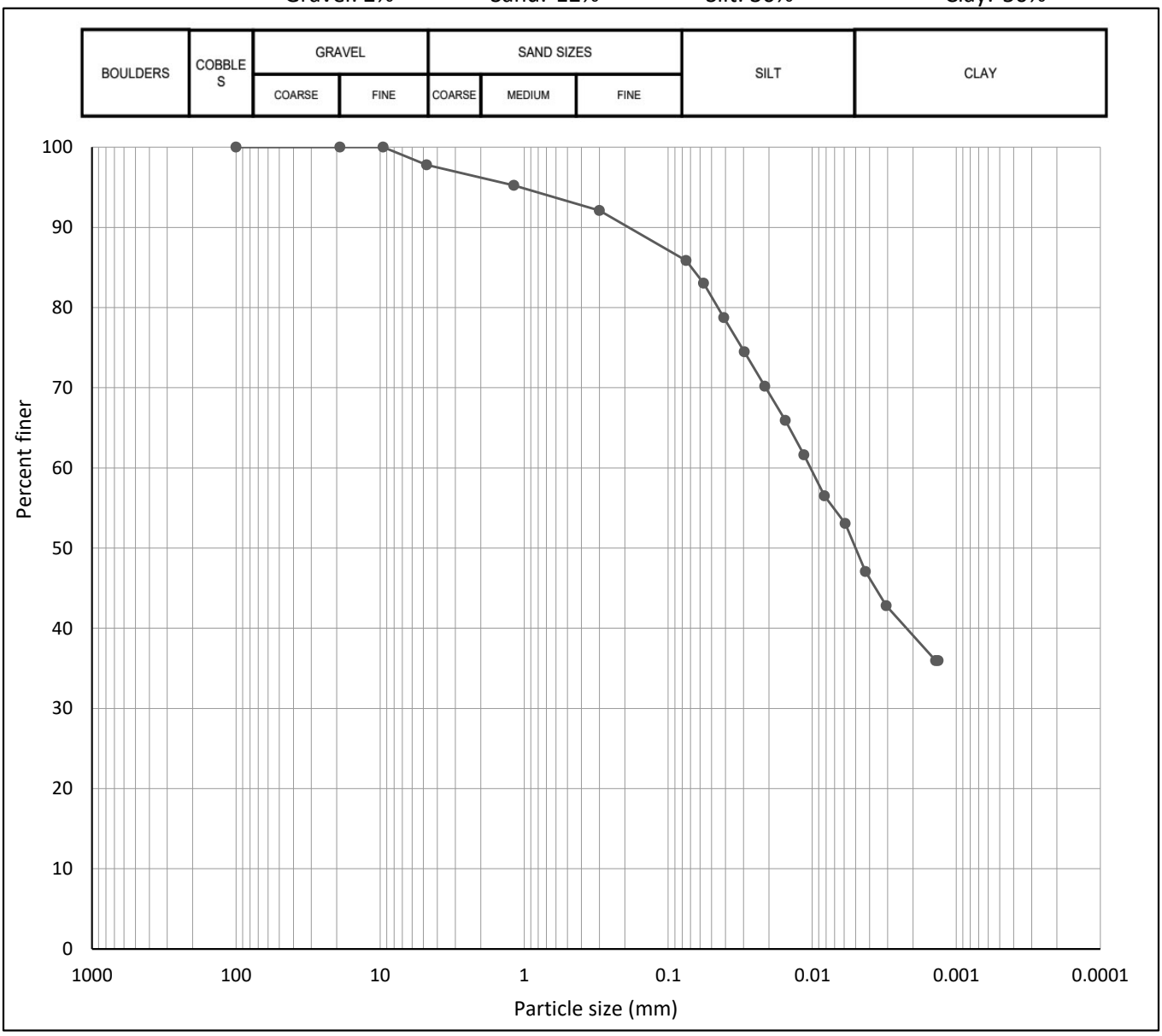
Sample ID: 21-7241-2 TH1 1.50-1.95m		
Diameter	***Weight (%)***	***Grain Size***
>4.75mm	3.8	Gravel
1.18mm-4.75mm	2.4	Coarse Sand
300um-1.18mm	4.0	Medium Sand
75um-300um	14.0	Fine Sand
5um-75um	36	Silt
2um-5um	8	Clay
<2um	32	

Client: Dymon Group of Companies ***F.E. Job #:*** 21-7241B

Grain Size Distribution

Sample ID: 21-7241-5 TH4 0.75-1.20m

Gravel: 2% Sand: 12% Silt: 36% Clay: 50%



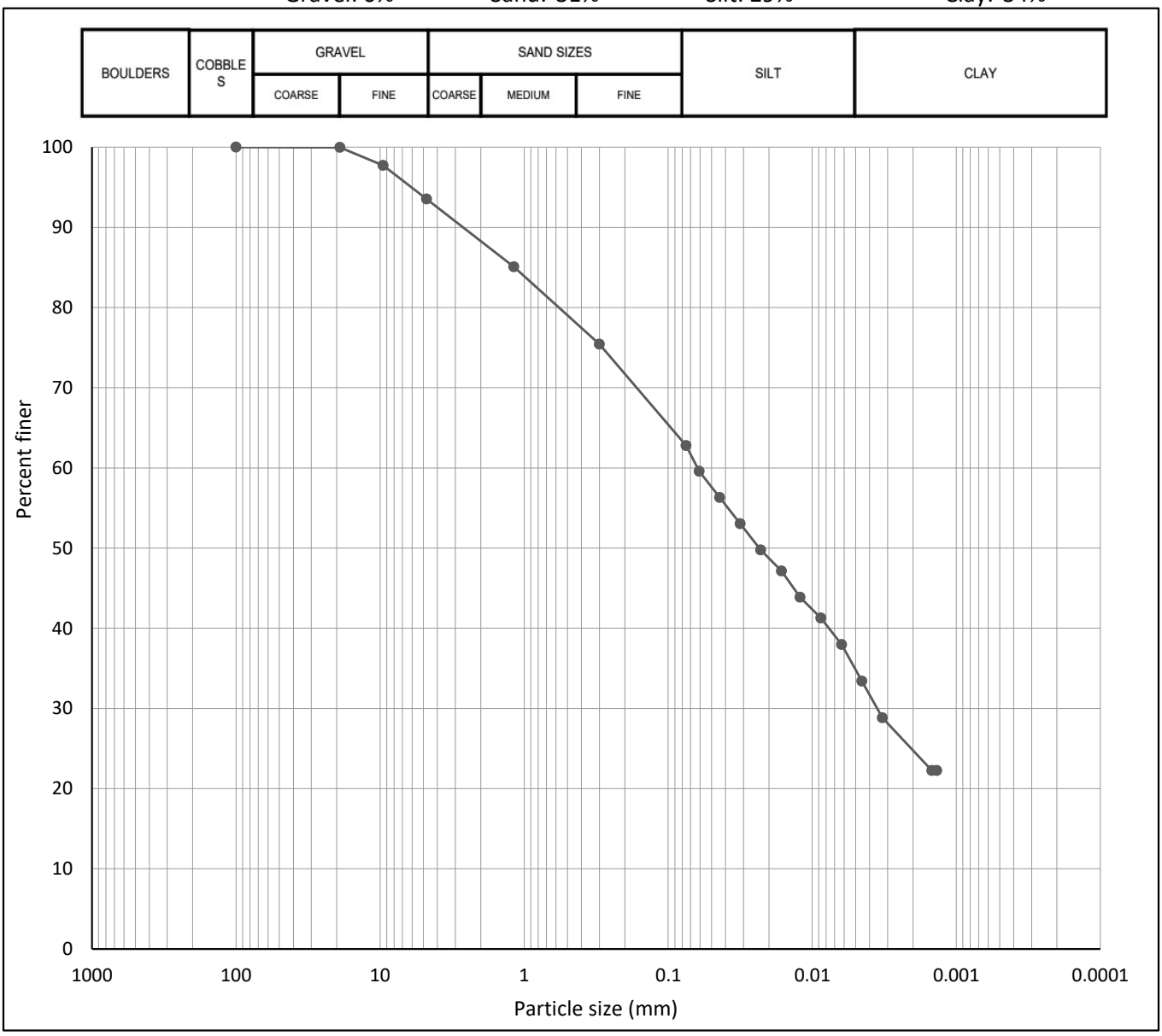
Sample ID: 21-7241-5 TH4 0.75-1.20m		
Diameter	***Weight (%)***	***Grain Size***
>4.75mm	2.2	Gravel
1.18mm-4.75mm	2.5	Coarse Sand
300um-1.18mm	3.1	Medium Sand
75um-300um	6.3	Fine Sand
5um-75um	36	Silt
2um-5um	11	Clay
<2um	39	

Client: Dymon Group of Companies ***F.E. Job #:*** 21-7241B

Grain Size Distribution

Sample ID: 21-7241-7 TH6 1.50-1.95m

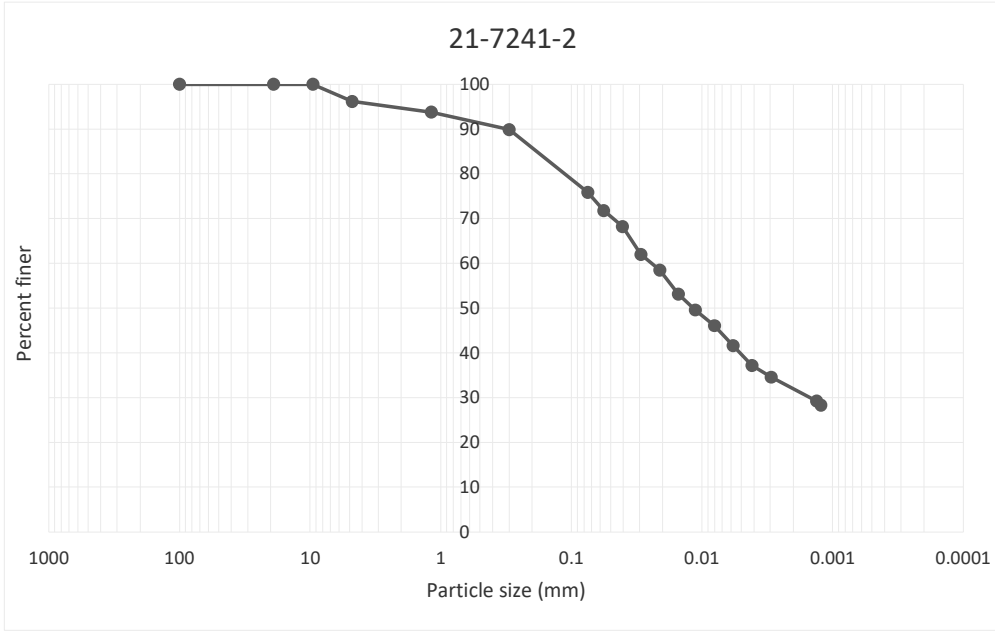
Gravel: 6% Sand: 31% Silt: 29% Clay: 34%



Sample ID: 21-7241-7 TH6 1.50-1.95m		
Diameter	***Weight (%)***	***Grain Size***
>4.75mm	6.4	Gravel
1.18mm-4.75mm	8.5	Coarse Sand
300um-1.18mm	9.6	Medium Sand
75um-300um	12.7	Fine Sand
5um-75um	28.8	Silt
2um-5um	10.0	Clay
<2um	24	

Temp(K/C)	Soil Weight (g)	Water g/ml	viscosity (poise)	G(solid)	Specific Gravity							
297	40	0.997329795	0.009120211	3	F	FS	FSW	FW	S	DW	DS	G
24					122.804	138.649	335.394	324.193	15.845	1	15.845	3

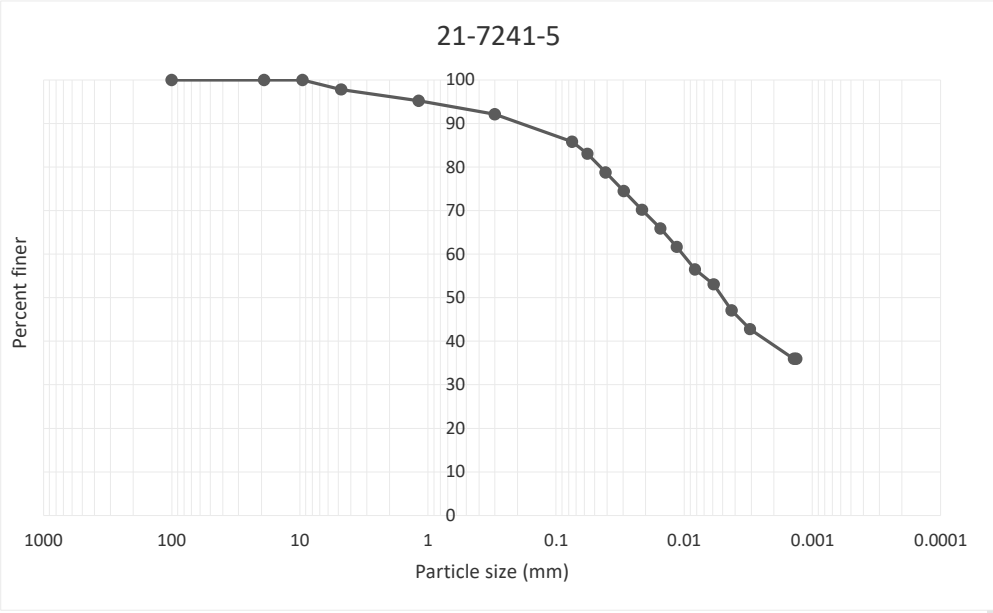
Time	Reading	Comp Correction	Corrected Reading	Hm (cm)	Particle size (µm)	Percent Finer	% finer whole
30	43	4	39	11.46204	56.59980633	94.557375	71.75013615
60	40.5	3.5	37	11.79742	40.60341802	89.887875	68.20691955
120	37	3.5	33.5	12.38435	29.41647038	81.71625	62.0062905
240	35	3.5	31.5	12.71973	21.08035801	77.04675	58.4630739
480	32	3.5	28.5	13.22281	15.19797992	70.0425	53.148249
900	30	3.5	26.5	13.55819	11.23891236	65.373	49.6050324
1800	27.5	3	24.5	13.89358	8.044803257	60.7035	46.0618158
3600	25	3	22	14.31281	5.773721257	54.866625	41.63279505
7200	22.5	3	19.5	14.73204	4.141997379	49.02975	37.2037743
14400	21	3	18	14.98358	2.953732428	45.527625	34.54636185
73800	18	3	15	15.48665	1.32646337	38.523375	29.23153695
86400	17.5	3	14.5	15.5705	1.229246711	37.356	28.3457328
		3	-3	18.50511	#DIV/0!	-3.502125	-2.65741245
		3	-3	18.50511	#DIV/0!	-3.502125	-2.65741245



100		100	
19		100	
9.5		100	
4.75		96.18	
1.18		93.81	
0.3		89.86	
0.075		75.88	
0.0566	71.7501	71.7501	"corrected" for sieve data
0.040603	68.2069	68.2069	
0.029416	62.0063	62.0063	
0.02108	58.4631	58.4631	
0.015198	53.1482	53.1482	
0.011239	49.6050	49.6050	
0.008045	46.0618	46.0618	
0.005774	41.6328	41.6328	
0.004142	37.2038	37.2038	
0.002954	34.5464	34.5464	
0.001326	29.2315	29.2315	
0.001229	28.3457	28.3457	
#DIV/0!	-2.6574	-2.6574	
#DIV/0!	-2.6574	-2.6574	

Temp(K/C)	Soil Weight (g)	Water g/ml	viscosity (poise)	G(solid)	Specific Gravity							
					F	FS	FSW	FW	S	DW	DS	G
297	49.06	0.997329795	0.009120211	2.75								
24					122.804	138.649	335.394	324.193	15.845	1	15.845	2.75

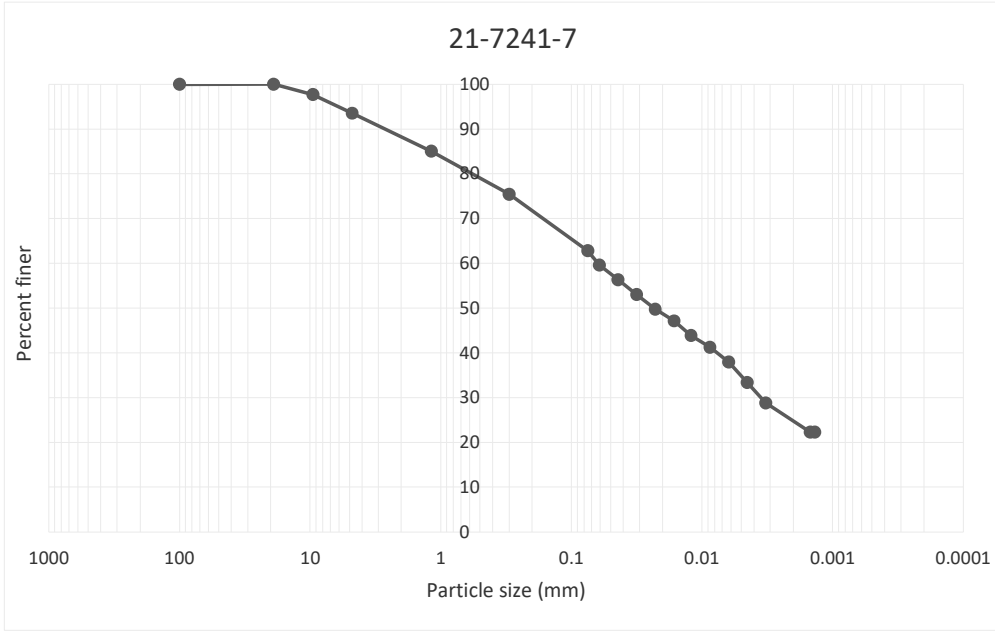
Time	Reading	Comp Correction	Corrected Reading	Hm (cm)	Particle size (µm)	Percent Finer	% finer whole
30	51	4	47	10.1205	56.85661106	96.72037156	83.03443898
60	48	3.5	44.5	10.53973	41.02794334	91.73478539	78.75431326
120	45.5	3.5	42	10.95896	29.58248771	86.74919923	74.47418754
240	43	3.5	39.5	11.37819	21.31432723	81.76361307	70.19406182
480	40.5	3.5	37	11.79742	15.34664949	76.77802691	65.9139361
900	38	3.5	34.5	12.21665	11.40500542	71.79244074	61.63381038
1800	34.5	3	31.5	12.71973	8.228929168	65.80973735	56.49765951
3600	32.5	3	29.5	13.05511	5.894944552	61.82126842	53.07355894
7200	29	3	26	13.64204	4.261024241	54.84144779	47.08138293
14400	26.5	3	23.5	14.06127	3.058944762	49.85586163	42.80125721
72900	22.5	3	19.5	14.73204	1.391580317	41.87892377	35.95305605
79200	22.5	3	19.5	14.73204	1.335086642	41.87892377	35.95305605
		3	-3	18.50511	#DIV/0!	-2.991351698	-2.568075432
		3	-3	18.50511	#DIV/0!	-2.991351698	-2.568075432



100		100	
19		100	
9.5		100	
4.75		97.79	
1.18		95.25	
0.3		92.11	
0.075		85.85	
0.056857	83.0344	83.0344	"corrected" for sieve data
0.041028	78.7543	78.7543	
0.029582	74.4742	74.4742	
0.021314	70.1941	70.1941	
0.015347	65.9139	65.9139	
0.011405	61.6338	61.6338	
0.008229	56.4977	56.4977	
0.005895	53.0736	53.0736	
0.004261	47.0814	47.0814	
0.003059	42.8013	42.8013	
0.001392	35.9531	35.9531	
0.001335	35.9531	35.9531	
#DIV/0!	-2.5681	-2.5681	
#DIV/0!	-2.5681	-2.5681	

Temp(K/C)	Soil Weight (g)	Water g/ml	viscosity (poise)	G(solid)	Specific Gravity							
297	48.5	0.997329795	0.009120211	2.6	F	FS	FSW	FW	S	DW	DS	G
24					122.804	138.649	335.394	324.193	15.845	1	15.845	2.6

Time	Reading	Comp Correction	Corrected Reading	Hm (cm)	Particle size (µm)	Percent Finer	% finer whole
30	48	4	44	10.62358	60.92203515	94.91440722	59.59675629
60	45	3.5	41.5	11.04281	43.92014618	89.6993299	56.32220924
120	42.5	3.5	39	11.46204	31.64025362	84.48425258	53.04766219
240	40	3.5	36.5	11.88127	22.77851704	79.26917526	49.77311514
480	38	3.5	34.5	12.21665	16.33259395	75.0971134	47.15347751
900	35.5	3.5	32	12.63588	12.13057036	69.88203608	43.87893046
1800	33	3	30	12.97127	8.690697524	65.70997423	41.25929282
3600	30.5	3	27.5	13.3905	6.243768574	60.49489691	37.98474577
7200	27	3	24	13.97742	4.510731316	53.19378866	33.4003799
14400	23.5	3	20.5	14.56435	3.255846357	45.89268041	28.81601403
73800	18.5	3	15.5	15.40281	1.47901105	35.46252577	22.26691993
86400	18.5	3	15.5	15.40281	1.366918837	35.46252577	22.26691993
		3	-3	18.50511	#DIV/0!	-3.129046392	-1.964728229
		3	-3	18.50511	#DIV/0!	-3.129046392	-1.964728229



100		100	
19		99.99	
9.5		97.73	
4.75		93.55	
1.18		85.08	
0.3		75.44	
0.075		62.79	
0.060922	59.5968	59.5968	"corrected" for sieve data
0.04392	56.3222	56.3222	
0.03164	53.0477	53.0477	
0.022779	49.7731	49.7731	
0.016333	47.1535	47.1535	
0.012131	43.8789	43.8789	
0.008691	41.2593	41.2593	
0.006244	37.9847	37.9847	
0.004511	33.4004	33.4004	
0.003256	28.8160	28.8160	
0.001479	22.2669	22.2669	
0.001367	22.2669	22.2669	
#DIV/0!	-1.9647	-1.9647	
#DIV/0!	-1.9647	-1.9647	

FISHER ENVIRONMENTAL LABORATORIES

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www.fisherenvironmental.com
laboratory@fisherenvironmental.com

LAB JOB #: 21-7241

CHAIN OF CUSTODY 2588

Page 1 of 1

CLIENT INFORMATION
Company Name: Dymer Group
Contact:
Address: 3855 Dundas Street East
Mississauga
Phone:
Fax:
Email:
Fax results? Y/N
Email results? Y/N

PROJECT INFORMATION
Project Name: Infiltration Tests
Project ID:
Sampled By: Saha

TURNAROUND TIME (TAT) REQUIRED

STD - Standard (5-7 working days)		Working Time: Monday-Friday 9:00am-5:00pm
SR - Semi Rush (48 hours)	50%	Surcharges apply; Sample received after 2pm will be considered received the next business day
R - Rush (24 hours)	75%	
SD - Same Day - 100%	100%	

BILLING INFORMATION
Purchase Order #:
Verbal Authorization:
Credit Card (type):
Credit Card #:
Expiry Date:

LAB SAMPLE ID	CLIENT'S SAMPLE ID AND DESCRIPTION	SAMPLING DATE/TIME	SAMPLE MATRIX	CONTAINER # & TYPE	TAT (Above)	ANALYSIS REQUESTED (Check or Specify) Metals	PHCs	VOCs	PAHs	PCBs	Asbestos	GS	M	Hydrometer	NOTES
1	TH1: 2½ - 4	14/09/21	Soil	Bag								✓	✓		
2	" 5 - 6½	"	"	"										✓	
3	TH2: 5 - 6½	"	"	"								✓	✓		
4	TH3: 5 - 6½	"	"	"								✓	✓		
5	TH4: 2½ - 4	"	"	"								✓	✓	✓	
6	TH5: 2½ - 4	"	"	"								✓	✓		
7	TH6: 5 - 6½	"	"	"										✓	
8	TH6: 2½ - 4	"	"	"								✓	✓		

Relinquished by: (Signature & Print)
Clive
Date & Time:
Method of Shipment: By Hand

Client's Comments:

Received by: (Signature & Print)
Date & Time: Sept 17, 21

Arrival Temperature (°C): 6°C
Laboratory Remarks:

Regulatory Requirements

Reg. 153
Table_____
☐ Residential / Parkland
☐ Industrial / Commercial
☐ Agricultural
Soil Texture
☐ Coarse ☐ Med/Fine

Sewer Use
☐ Sanitary
☐ Storm
Region _____

Reg. 558
☐ TCLP

Revision: 2.2

FISHER ENVIRONMENTAL
ATTN: CLIVE
15-400 ESNA PARK DRIVE
MARKHAM ON NA

Date Received: 01-SEP-20
Report Date: 14-SEP-20 12:39 (MT)
Version: FINAL

Client Phone: 905-475-7755

Certificate of Analysis

Lab Work Order #: L2497329

Project P.O. #: 3855 DUNDAS ST E
Job Reference: 20-10464
C of C Numbers:
Legal Site Desc: MISSISSAUGA

Emily Hansen
Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2497329-1 BH102- 10-11 1/2 Sampled By: CLIENT on 28-AUG-20 Matrix: SOIL							
Physical Tests							
Grain Size Curve	SEE ATTACHED				11-SEP-20	11-SEP-20	R5222734
Particle Size							
Gravel (4.75mm - 3in.)	<1.0		1.0	%	11-SEP-20	11-SEP-20	R5222734
Medium Sand (0.425mm - 2.0mm)	9.6		1.0	%	11-SEP-20	11-SEP-20	R5222734
Coarse Sand (2.0mm - 4.75mm)	<1.0		1.0	%	11-SEP-20	11-SEP-20	R5222734
Fine Sand (0.075mm - 0.425mm)	18.0		1.0	%	11-SEP-20	11-SEP-20	R5222734
Silt (0.002mm - 0.075mm)	47.7		1.0	%	11-SEP-20	11-SEP-20	R5222734
Silt (0.005mm - 0.075mm)	37.1		1.0	%	11-SEP-20	11-SEP-20	R5222734
Clay (<0.002mm)	24.0		1.0	%	11-SEP-20	11-SEP-20	R5222734
Clay (<0.005mm)	34.6		1.0	%	11-SEP-20	11-SEP-20	R5222734
L2497329-2 BH103- 10-11 1/2 Sampled By: CLIENT on 28-AUG-20 Matrix: SOIL							
Physical Tests							
Grain Size Curve	SEE ATTACHED				11-SEP-20	11-SEP-20	R5222734
Particle Size							
Gravel (4.75mm - 3in.)	<1.0		1.0	%	11-SEP-20	11-SEP-20	R5222734
Medium Sand (0.425mm - 2.0mm)	12.9		1.0	%	11-SEP-20	11-SEP-20	R5222734
Coarse Sand (2.0mm - 4.75mm)	<1.0		1.0	%	11-SEP-20	11-SEP-20	R5222734
Fine Sand (0.075mm - 0.425mm)	21.8		1.0	%	11-SEP-20	11-SEP-20	R5222734
Silt (0.002mm - 0.075mm)	45.0		1.0	%	11-SEP-20	11-SEP-20	R5222734
Silt (0.005mm - 0.075mm)	36.1		1.0	%	11-SEP-20	11-SEP-20	R5222734
Clay (<0.002mm)	20.1		1.0	%	11-SEP-20	11-SEP-20	R5222734
Clay (<0.005mm)	28.9		1.0	%	11-SEP-20	11-SEP-20	R5222734

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
GRAIN SIZE-HYD-SK	Soil	Grain Size by Hydrometer	ASTM D6913/D7928

Particle size curve is generated from dry sieving (particles > 2 mm), wet sieving (particles 2 mm-75 um) and hydrometer readings (particles < 75 um)

ASTM D422-63 has been withdrawn, the ASTM D6913/D7928 standard serves as the successor method.

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

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

Laboratory Definition Code	Laboratory Location
SK	ALS ENVIRONMENTAL - SASKATOON, SASKATCHEWAN, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid weight of sample
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Client: FISHER ENVIRONMENTAL
15-400 ESNA PARK DRIVE
MARKHAM ON NA
Contact: CLIVE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
GRAIN SIZE-HYD-SK	Soil							
Batch R5222734								
WG3401674-1 DUP		**L2497329-2**						
Gravel (4.75mm - 3in.)		<1.0	<1.0	RPD-NA	%	N/A	5	11-SEP-20
Coarse Sand (2.0mm - 4.75mm)		<1.0	<1.0	RPD-NA	%	N/A	5	11-SEP-20
Medium Sand (0.425mm - 2.0mm)		12.9	12.0	J	%	1.0	5	11-SEP-20
Fine Sand (0.075mm - 0.425mm)		21.8	21.1	J	%	0.6	5	11-SEP-20
Silt (0.005mm - 0.075mm)		36.1	36.4	J	%	0.4	5	11-SEP-20
Clay (<0.005mm)		28.9	30.2	J	%	1.3	5	11-SEP-20
Silt (0.002mm - 0.075mm)		45.0	46.2	J	%	1.3	5	11-SEP-20
Clay (<0.002mm)		20.1	20.4	J	%	0.4	5	11-SEP-20
WG3401674-2 IRM		**2017-PSA**						
Medium Sand (0.425mm - 2.0mm)			8.9		%		3.9-13.9	11-SEP-20
Fine Sand (0.075mm - 0.425mm)			34.5		%		27.6-37.6	11-SEP-20
Silt (0.005mm - 0.075mm)			31.1		%		25.8-35.8	11-SEP-20
Clay (<0.005mm)			25.5		%		22.7-32.7	11-SEP-20
Silt (0.002mm - 0.075mm)			36.7		%		31.1-41.1	11-SEP-20
Clay (<0.002mm)			20.0		%		17.4-27.4	11-SEP-20

Legend:

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

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

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

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

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

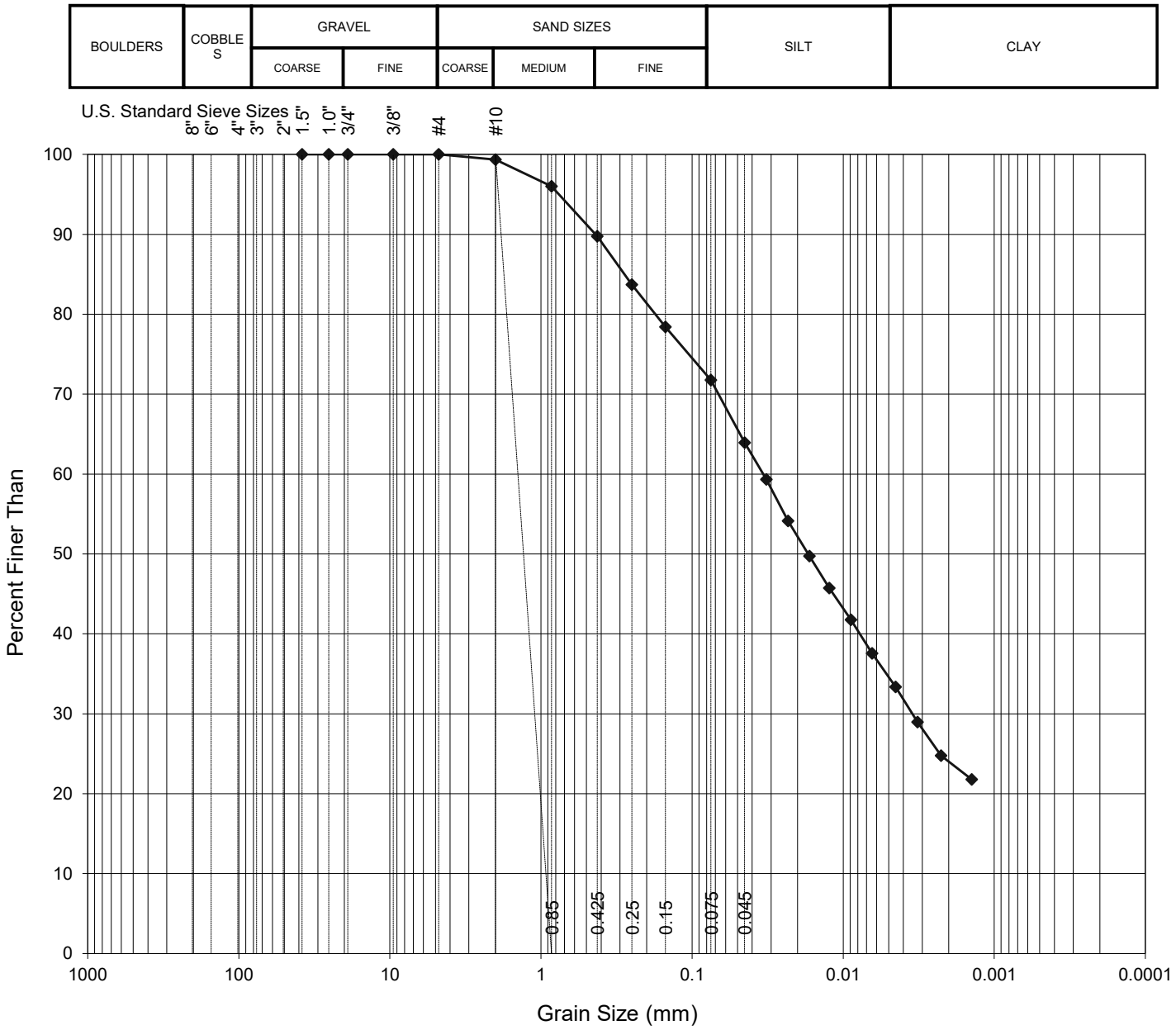
Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

ALS Laboratory Group

819-58th Street, Saskatoon,SK

PARTICLE SIZE DISTRIBUTION CURVE

Client Name: FISHER ENVIRONMENTAL
Project Number:
Client Sample ID BH102- 10-11 1/2
Lab Sample ID L2497329-1
Date Sample Received 01-Sep-20
Test Completion Date: 12-Sep-20
Analyst: SHCH



METHOD DESCRIPTION
Method Reference: ASTM D 422 - 63 (2002)
Dispersion method: Mechanical
Dispesion period: 1 minute cm/s
Soil classification system used: ASTM D422-63 Classification

DESCRIPTION OF SAND AND GRAVEL PARTICLES
Shape: Angular
Hardness: Hard

SUMMARY OF RESULTS

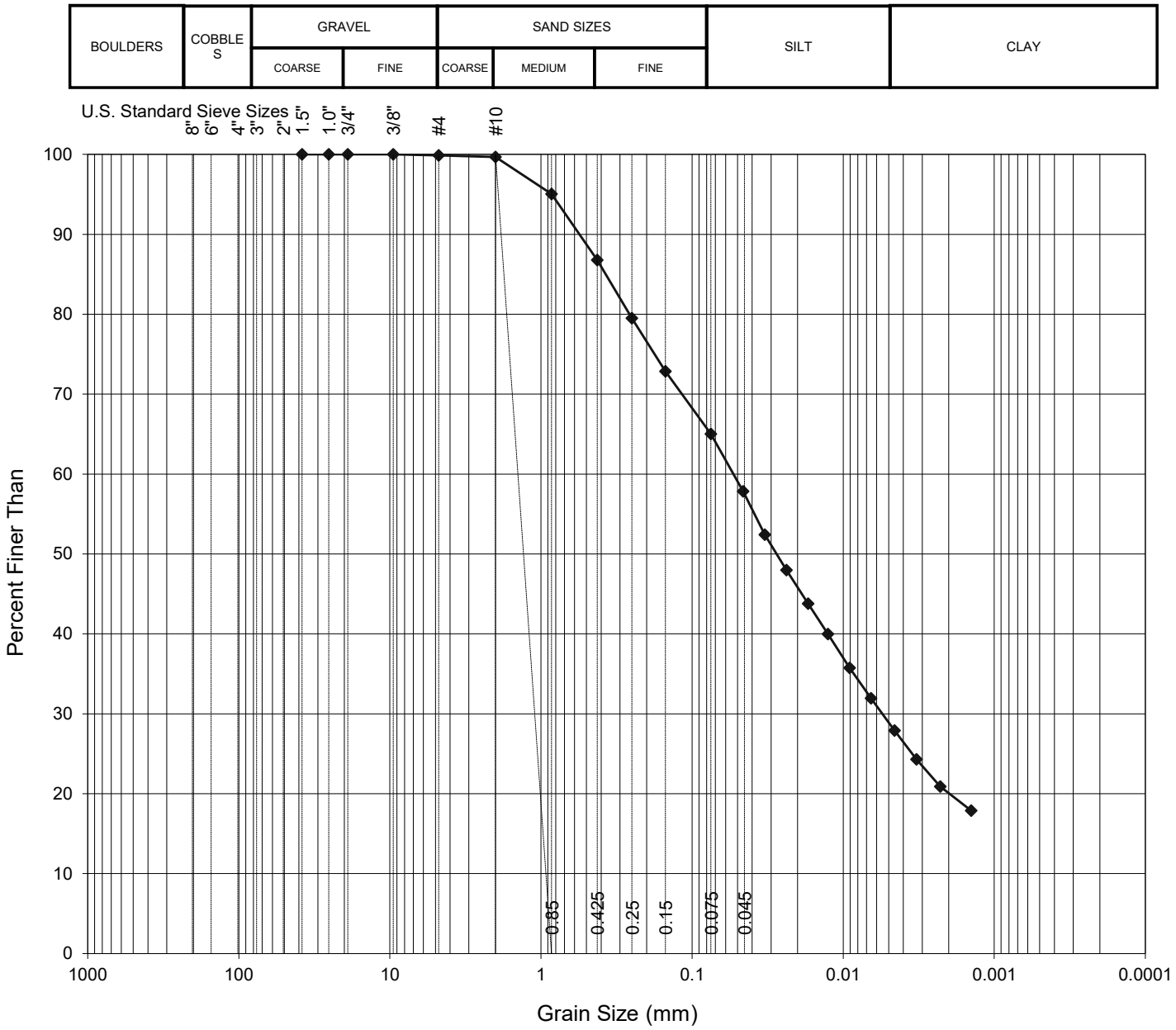
GRAIN SIZE	WT %	DIA. RANGE (mm)
% GRAVEL :	<1	> 4.75
% COARSE SAND :	<1	2.0 - 4.75
% MEDIUM SAND :	9.59	0.425 - 2.0
% FINE SAND :	17.99	0.075 - 0.425
% SILT :	37.14	0.075 - 0.005
% CLAY :	34.60	< 0.005

ALS Laboratory Group

819-58th Street, Saskatoon,SK

PARTICLE SIZE DISTRIBUTION CURVE

Client Name: FISHER ENVIRONMENTAL
Project Number:
Client Sample ID BH103- 10-11 1/2
Lab Sample ID L2497329-2
Date Sample Received 01-Sep-20
Test Completion Date: 12-Sep-20
Analyst: SHCH



METHOD DESCRIPTION
Method Reference: ASTM D 422 - 63 (2002)
Dispersion method: Mechanical
Dispesion period: 1 minute cm/s
Soil classification system used: ASTM D422-63 Classification

DESCRIPTION OF SAND AND GRAVEL PARTICLES
Shape: Angular
Hardness: Hard

SUMMARY OF RESULTS

GRAIN SIZE	WT %	DIA. RANGE (mm)
% GRAVEL :	<1	> 4.75
% COARSE SAND :	<1	2.0 - 4.75
% MEDIUM SAND :	12.91	0.425 - 2.0
% FINE SAND :	21.76	0.075 - 0.425
% SILT :	36.08	0.075 - 0.005
% CLAY :	28.92	< 0.005

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2497329-COFC

COC Number: 17 -

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Fisher Environmental
Contact:	Clive
Phone:	416 605 9722
	Company address below will appear on the final report
Street:	
City/Province:	
Postal Code:	
Invoice To	Same as Report To ☐ ☐ NO
	Copy of Invoice with Report ☐ ☐ NO
Company:	
Contact:	

Report Format

Select Report Format: ☑ ☐ EXCEL ☐ EDD (DIGITAL)

Quality Control (QC) Report with Report ☐ ☐ NO

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Clive

Email 2: Frank

Email 3:

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: elena

Email 2: clive

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days)		EMERGENCY	
	4 day [P4-20%] ☐		1 Business day [E - 100%] ☐
	3 day [P3-25%] ☐		Same Day, Weekend or Statutory holiday [E2 -200% ☐
	2 day [P2-50%] ☐		(Laboratory opening fees may apply)]

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information

ALS Account # / Quote #:	
Job #:	20-10464
PO / AFE:	3855 Dundas St E
LSD:	Mississauga
ALS Lab Work Order # (lab use only):	L2497329 RD

Oil and Gas Required Fields (client use)

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

Analysis Request

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

ALS Sample # (lab 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	95 hydrometer	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	BH102: - 10-11½'	28-08-20		soil	1			
	BH103: 10-11½	"		"	1			

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

Are samples taken from a Regulated DW System? ☐ ☑ NO

Are samples for human consumption/ use? ☐ ☐ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				11.7			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date: 9-1-2020	Time: 1645

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2019 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**.

FISHER ENVIRONMENTAL LABORATORIES

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FAX: 905 475-7718
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Client: Dymon
Address:

Tel.:
Email:
Attn.:

F.E. Job #: 20-5123
Project Name: Geo/Hydro Investigations
Project ID: FE-P 20-10404
Date Sampled: 19-Aug-2020
Date Received: 28-Aug-2020
Date Reported: 4-Sep-2020
Location: 3855 Dundas Street, East Mississauga, ON

Certificate of Analysis

Analyses	Matrix	Quantity	Date Extracted	Date Analyzed	Lab SOP	Method Reference
Moisture Content	Soil	5	N/A	1-Sep-20	Support Procedures F-99	Carter (1993)
Grain Size	Soil	5	N/A	3-Sep-20	Grain Size F-28	ASTM D6913-04

Fisher Environmental Laboratories is accredited by CALA (the Canadian Association for Laboratory Accreditation Inc.) for specific parameters as required by Ontario Regulation 153/04. All analytical testing has been performed in accordance with ISO 17025 and the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act published by Ontario Ministry of the Environment.

Authorized by:

Roger Lin, Ph. D., C. Chem.
Laboratory Manager

Results related only to the items tested

Certificate of Analysis

Analysis Requested:	Moisture Content, Grain Size
Sample Description:	5 Soil Sample(s)

Parameter	***20-5123-1*** BH101 1.50-1.95m	***20-5123-2*** BH101 2.25-2.70m	***20-5123-3*** BH101 3.00-3.45m	***20-5123-4*** BH101 4.55-5.00m	***20-5123-5*** BH101 0.75-1.20m	
Moisture Content (%)	12	12	9.8	10	18	

QA/QC Report

Parameter	**Blank**	**RL**	**LCS**	**AR**	**Duplicate**	**AR**
			Recovery (%)		**RPD (%)**	
Moisture Content (%)	<0.1	0.1	100	70-130	4.1	0-20

LEGEND:
RL - Reporting Limit
LCS - Laboratory Control Sample
AR - Acceptable Range
RPD - Relative Percent Difference

Certificate of Analysis

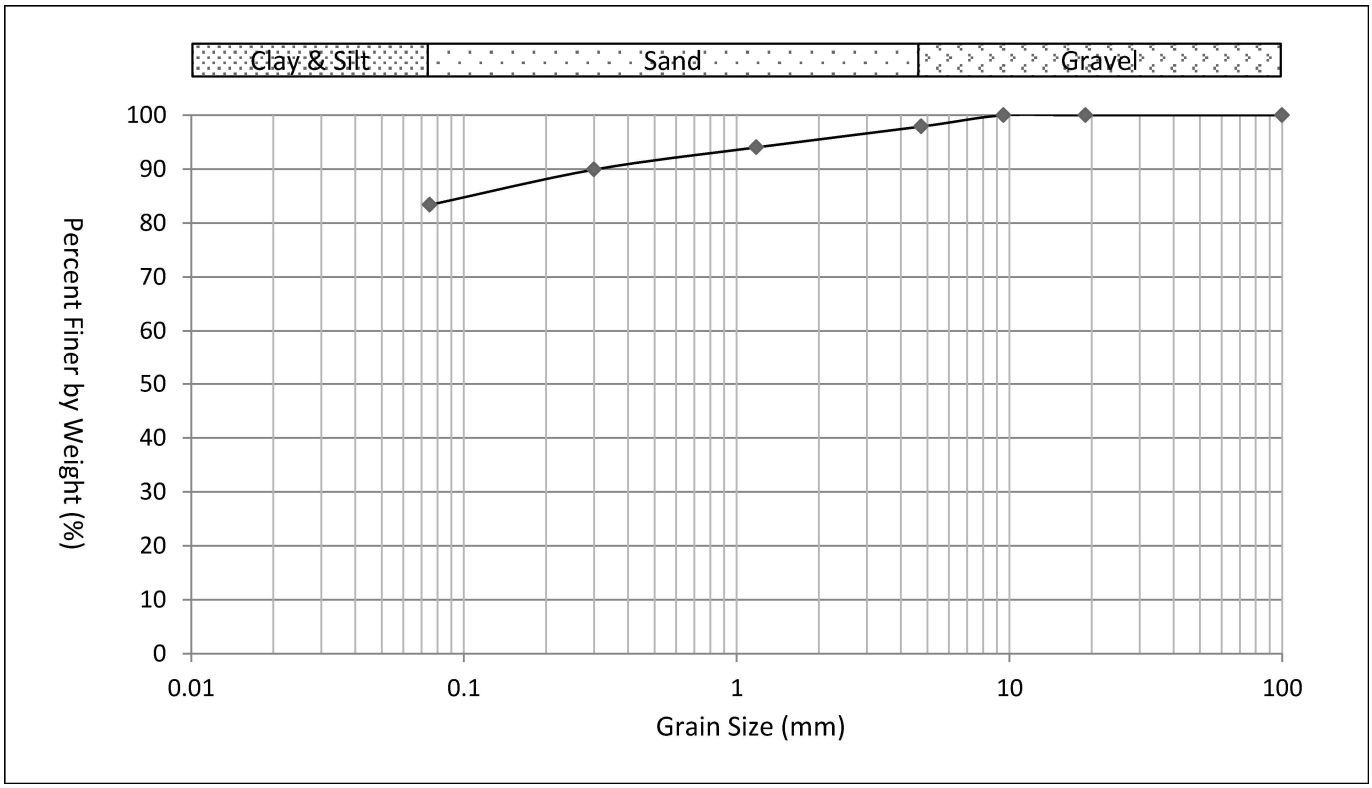
Analysis Requested:	Moisture Content, Grain Size
Sample Description:	5 Soil Sample(s)

Parameter	***20-5123-1*** BH101 1.50-1.95m	***20-5123-2*** BH101 2.25-2.70m	***20-5123-3*** BH101 3.00-3.45m	***20-5123-4*** BH101 4.55-5.00m	***20-5123-5*** BH101 0.75-1.20m	
Grain Size (%)						
>19mm	0.0	0.0	0.0	0.0	0.0	
9.5mm-19mm	0.0	0.0	0.0	0.0	0.0	
4.75mm-9.5mm	2.1	2.2	1.9	2.0	0.8	
1.18m-4.75mmm	3.9	5.2	7.8	9.4	1.8	
300um-1.18mm	4.1	3.3	6.1	6.6	2.1	
75um-300um	6.5	5.0	4.4	5.4	5.0	
<75um	83.4	84.3	79.7	76.6	90.3	
Clay & Silt	**83**	**84**	**80**	**77**	**90**	
Sand	**15**	**14**	**18**	**21**	**9**	
Gravel	**2**	**2**	**2**	**2**	**1**	

Grain Size Distribution

Sample ID: 20-5123-1 BH101 1.50-1.95m

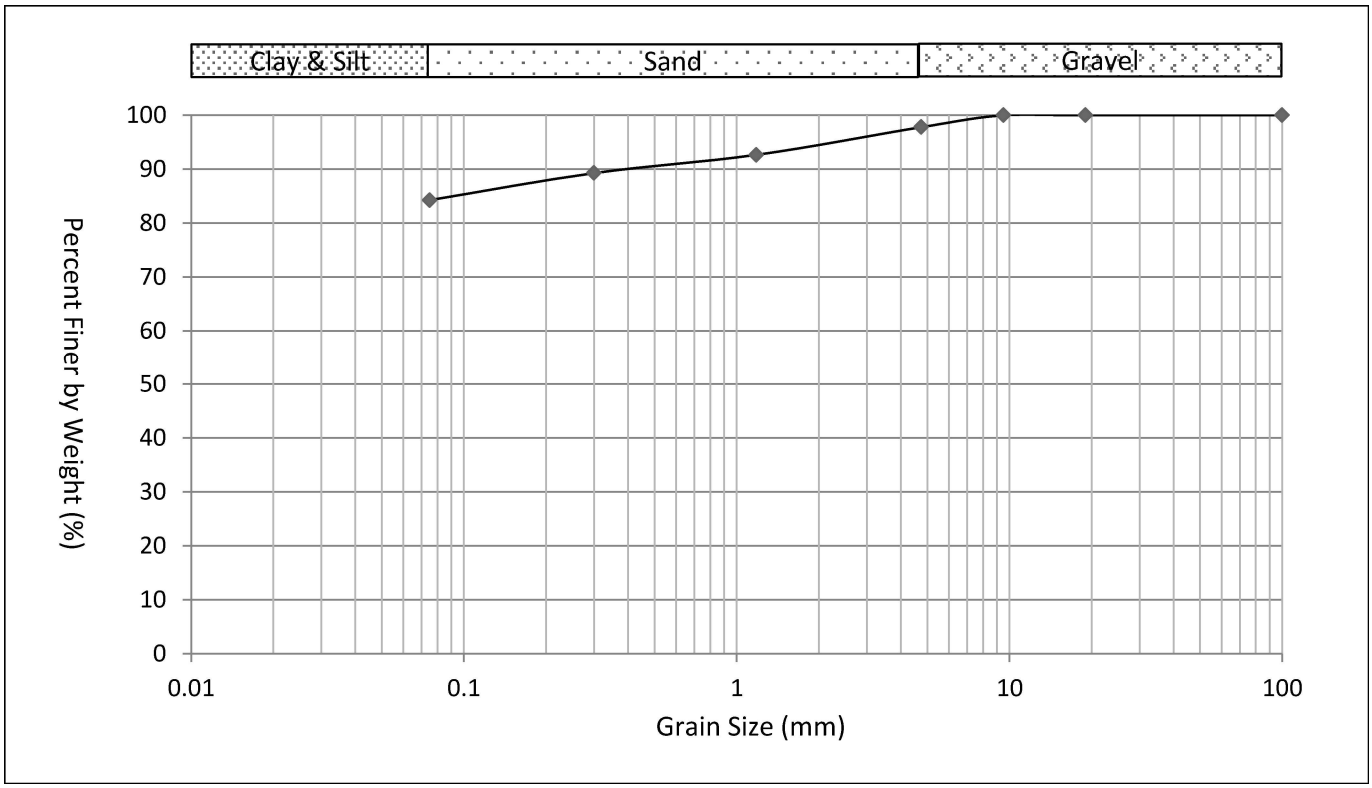
Clay & Silt: 83% Sand: 15% Gravel: 2%



Grain Size Distribution

Sample ID: 20-5123-2 BH101 2.25-2.70m

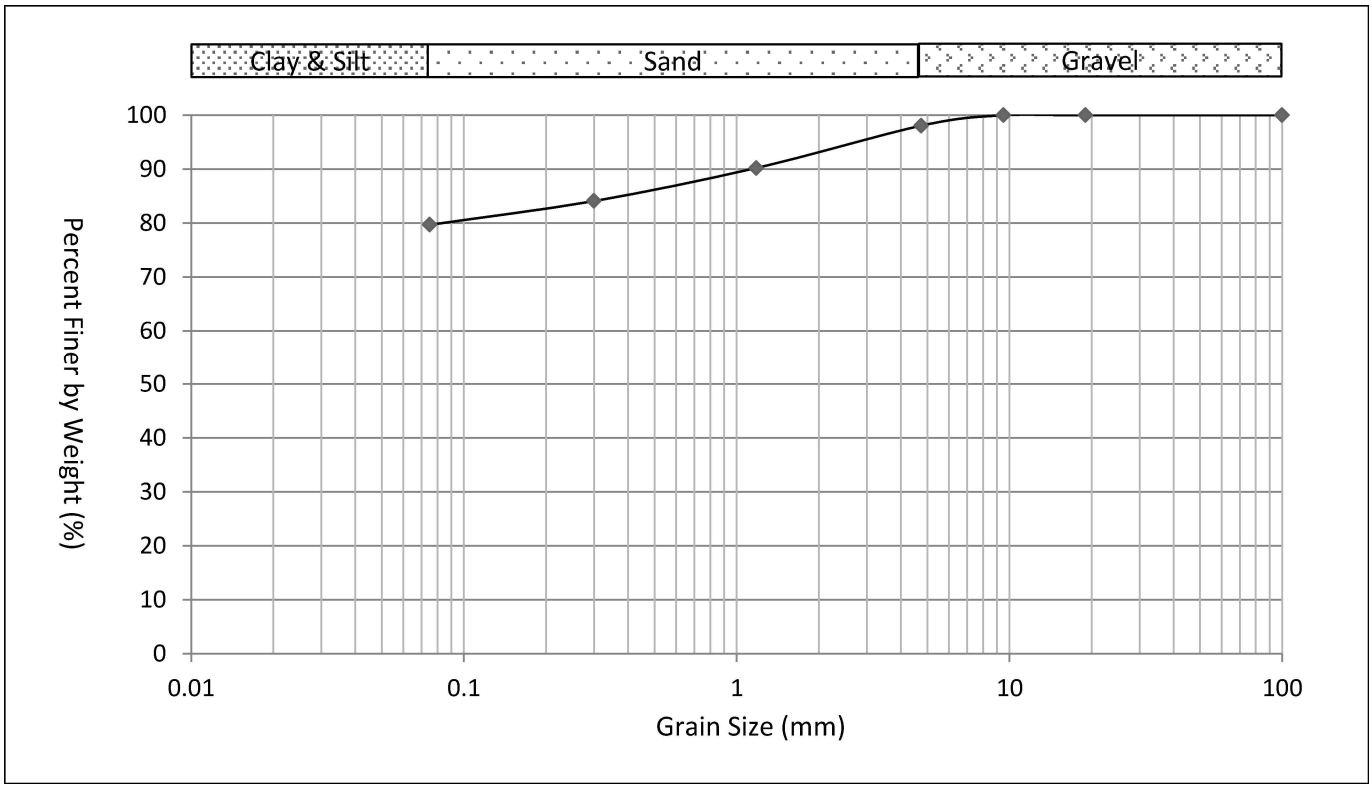
Clay & Silt: 84% Sand: 14% Gravel: 2%



Grain Size Distribution

Sample ID: 20-5123-3 BH101 3.00-3.45m

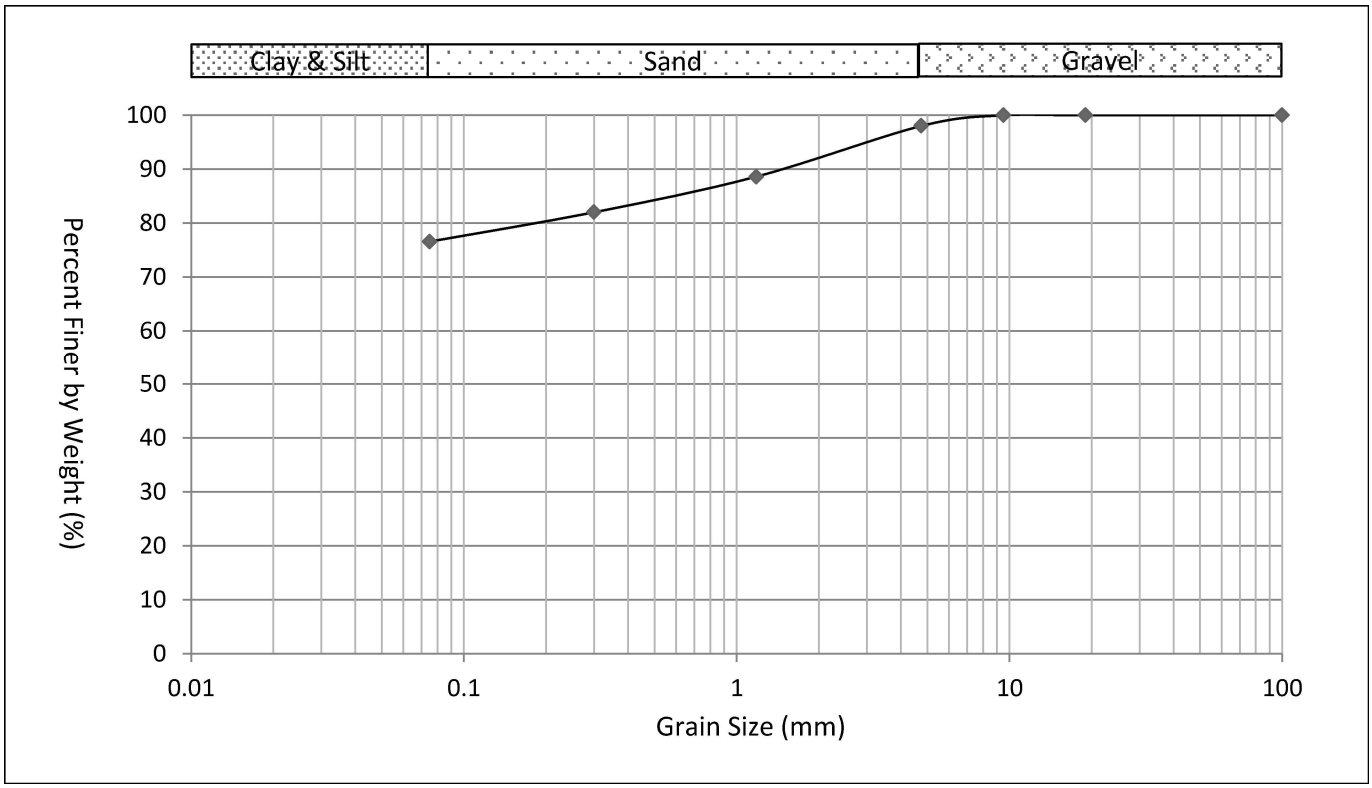
Clay & Silt: 80% Sand: 18% Gravel: 2%



Grain Size Distribution

Sample ID: 20-5123-4 BH101 4.55-5.00m

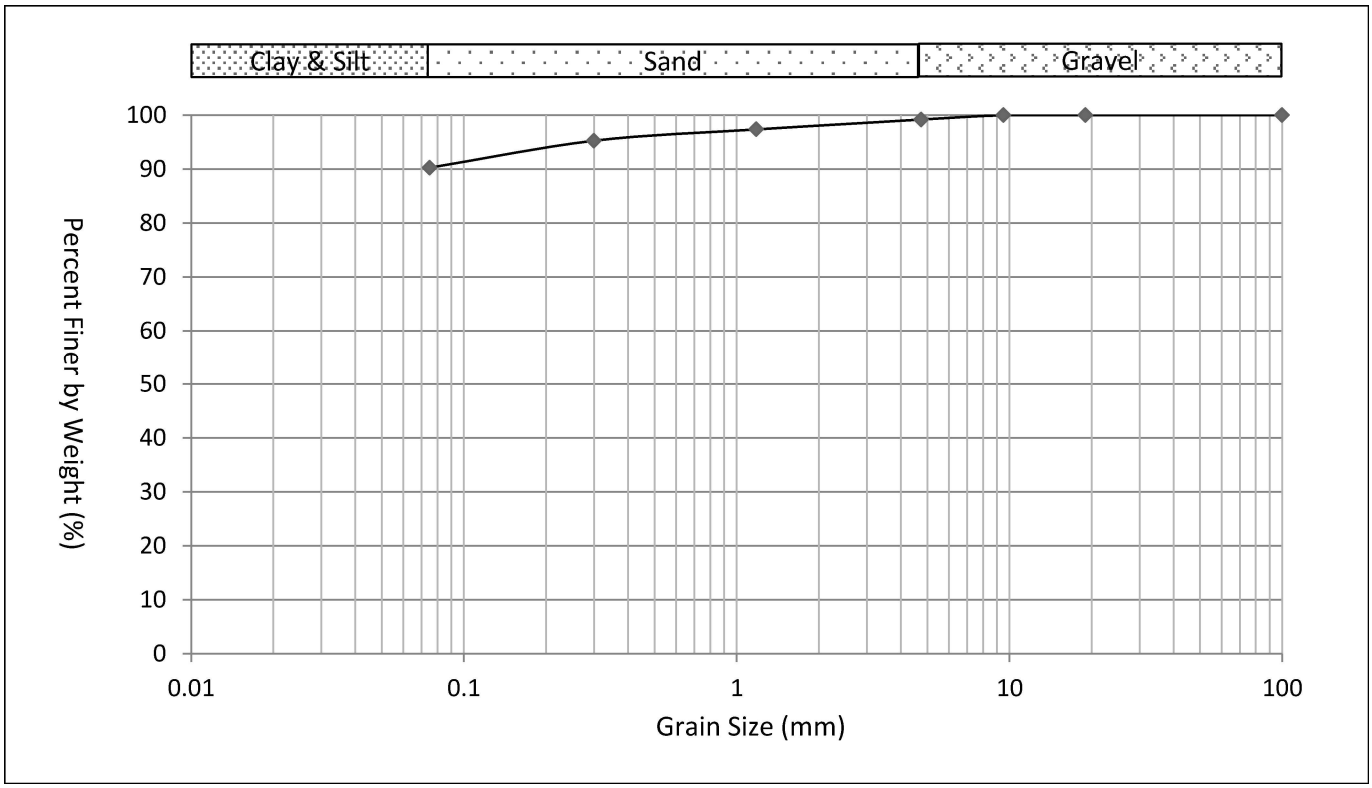
Clay & Silt: 77% Sand: 21% Gravel: 2%



Grain Size Distribution

Sample ID: 20-5123-5 BH101 0.75-1.20m

Clay & Silt: 90% Sand: 9% Gravel: 1%



APPENDIX D – SEWER BYLAWS RESULTS

FISHER ENVIRONMENTAL
ATTN: CLIVE
15-400 ESNA PARK DRIVE
MARKHAM ON N/A

Date Received: 16-SEP-21
Report Date: 23-SEP-21 15:18 (MT)
Version: FINAL

Client Phone: 905-475-7755

Certificate of Analysis

Lab Work Order #: L2640093
Project P.O. #: NOT SUBMITTED
Job Reference:
C of C Numbers:
Legal Site Desc:

Emily Hansen
Account Manager

Summary of Guideline Exceedances

Guideline ALS ID	Client ID	Grouping	Analyte	Result	Guideline Limit	Unit
Ontario Reg. Mun. of Peel Sanitary Bylaw #53-2010 (APR. 2011) - Reg. Mun. of Peel Sanitary by-law #53-2010						
L2640093-1	3855 DUNDAS ST. EAST MW202	Anions and Nutrients	Sulfate (SO4)	1540	1500	mg/L
Ontario Reg. Mun. of Peel Sanitary Bylaw #53-2010 (APR. 2011) - Peel Storm Sewer By-Law #53-201- (APR. 2011)						
L2640093-1	3855 DUNDAS ST. EAST MW202	Physical Tests	Total Suspended Solids	161	15	mg/L
		Anions and Nutrients	Total Kjeldahl Nitrogen	1.40	1	mg/L
		Bacteriological Tests	Fecal Coliforms	770	0	CFU/100mL
		Total Metals	Manganese (Mn)-Total	1.21	0.05	mg/L

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

ANALYTICAL REPORT

Physical Tests - WATER

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID: L2640093-1 Sample Date: 15-SEP-21 Sample ID: 3855 DUNDAS ST. EAST MW202
pH	pH units	5.5-10	6-9	6.89
Total Suspended Solids	mg/L	350	15	161

Guide Limit #1: Reg. Mun. of Peel Sanitary by-law #53-2010
Guide Limit #2: Peel Storm Sewer By-Law #53-201- (APR. 2011)

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

ANALYTICAL REPORT

Anions and Nutrients - WATER

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID: L2640093-1 Sample Date: 15-SEP-21 Sample ID: 3855 DUNDAS ST. EAST MW202
Fluoride (F)	mg/L	10	-	<0.10 DLDS
Total Kjeldahl Nitrogen	mg/L	100	1	1.40 DLM
Phosphorus, Total	mg/L	10	0.4	0.0353
Sulfate (SO4)	mg/L	1500	-	1540 DLDS

Guide Limit #1: Reg. Mun. of Peel Sanitary by-law #53-2010
Guide Limit #2: Peel Storm Sewer By-Law #53-201- (APR. 2011)

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

Cyanides - WATER

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID: L2640093-1 Sample Date: 15-SEP-21 Sample ID: 3855 DUNDAS ST. EAST MW202
Cyanide, Total	mg/L	2	0.02	<0.0020

Guide Limit #1: Reg. Mun. of Peel Sanitary by-law #53-2010
Guide Limit #2: Peel Storm Sewer By-Law #53-201- (APR. 2011)

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

ANALYTICAL REPORT

Bacteriological Tests - WATER

			Lab ID	L2640093-1
			Sample Date	15-SEP-21
			Sample ID	3855 DUNDAS ST. EAST MW202
		Guide Limits		
Analyte	**Unit**	**#1**	**#2**	
E. Coli	CFU/100mL	-	200	<2 DLM
Fecal Coliforms	CFU/100mL	-	0	770 DLM

Guide Limit #1: Reg. Mun. of Peel Sanitary by-law #53-2010
Guide Limit #2: Peel Storm Sewer By-Law #53-201- (APR. 2011)

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

ANALYTICAL REPORT

Total Metals - WATER

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID: L2640093-1 Sample Date: 15-SEP-21 Sample ID: 3855 DUNDAS ST. EAST MW202
Aluminum (Al)-Total	mg/L	50	-	2.74 DLHC
Antimony (Sb)-Total	mg/L	5	-	<0.0010 DLHC
Arsenic (As)-Total	mg/L	1	0.02	0.0035 DLHC
Cadmium (Cd)-Total	mg/L	0.7	0.008	<0.000050 DLHC
Chromium (Cr)-Total	mg/L	5	0.08	<0.0050 DLHC
Cobalt (Co)-Total	mg/L	5	-	0.0041 DLHC
Copper (Cu)-Total	mg/L	3	0.05	0.0052 DLHC
Lead (Pb)-Total	mg/L	3	0.120	0.00177 DLHC
Manganese (Mn)-Total	mg/L	5	0.05	1.21 DLHC
Mercury (Hg)-Total	mg/L	0.01	0.0004	<0.0000050
Molybdenum (Mo)-Total	mg/L	5	-	0.00170 DLHC
Nickel (Ni)-Total	mg/L	3	0.08	0.0065 DLHC
Selenium (Se)-Total	mg/L	1	0.02	<0.00050 DLHC
Silver (Ag)-Total	mg/L	5	0.12	<0.00050 DLHC
Tin (Sn)-Total	mg/L	5	-	<0.0010 DLHC
Titanium (Ti)-Total	mg/L	5	-	0.0854 DLHC
Zinc (Zn)-Total	mg/L	3	0.04	<0.030 DLHC

Guide Limit #1: Reg. Mun. of Peel Sanitary by-law #53-2010
Guide Limit #2: Peel Storm Sewer By-Law #53-201- (APR. 2011)

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

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

ANALYTICAL REPORT

Aggregate Organics - WATER

			Lab ID	L2640093-1
			Sample Date	15-SEP-21
			Sample ID	3855 DUNDAS ST. EAST MW202
		Guide Limits		
Analyte	**Unit**	**#1**	**#2**	
BOD Carbonaceous	mg/L	300	15	<3.0 BODL
Oil and Grease, Total	mg/L	-	-	<5.0
Animal/Veg Oil & Grease	mg/L	150	-	<5.0
Mineral Oil and Grease	mg/L	15	-	<2.5
Phenols (4AAP)	mg/L	1	0.008	<0.0010

Guide Limit #1: Reg. Mun. of Peel Sanitary by-law #53-2010
Guide Limit #2: Peel Storm Sewer By-Law #53-201- (APR. 2011)

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

Volatile Organic Compounds - WATER

				Lab ID	L2640093-1
				Sample Date	15-SEP-21
				Sample ID	3855 DUNDAS ST. EAST MW202
		Guide Limits			
Analyte	Unit	#1	#2		
Acetone	ug/L	-	-	<20 OWP	
Benzene	ug/L	10	2	<0.50 OWP	
Bromodichloromethane	ug/L	-	-	<1.0 OWP	
Bromoform	ug/L	-	-	<1.0 OWP	
Bromomethane	ug/L	-	-	<0.50 OWP	
Carbon Disulfide	ug/L	-	-	<1.0 OWP	
Carbon tetrachloride	ug/L	-	-	<0.20 OWP	
Chlorobenzene	ug/L	-	-	<0.50 OWP	
Dibromochloromethane	ug/L	-	-	<1.0 OWP	
Chloroethane	ug/L	-	-	<1.0 OWP	
Chloroform	ug/L	40	2	<1.0 OWP	
Chloromethane	ug/L	-	-	<2.0 OWP	
1,2-Dibromoethane	ug/L	-	-	<0.20 OWP	
1,2-Dichlorobenzene	ug/L	50	5.6	<0.50 OWP	
1,3-Dichlorobenzene	ug/L	-	-	<0.50 OWP	
1,4-Dichlorobenzene	ug/L	80	6.8	<0.50 OWP	
Dichlorodifluoromethane	ug/L	-	-	<1.0 OWP	
1,1-Dichloroethane	ug/L	-	-	<0.50 OWP	
1,2-Dichloroethane	ug/L	-	-	<0.50 OWP	
1,1-Dichloroethylene	ug/L	-	-	<0.50 OWP	
cis-1,2-Dichloroethylene	ug/L	4000	5.6	<0.50 OWP	
trans-1,2-Dichloroethylene	ug/L	-	-	<0.50 OWP	
Dichloromethane	ug/L	2000	5.2	<2.0 OWP	
1,2-Dichloropropane	ug/L	-	-	<0.50 OWP	
cis-1,3-Dichloropropene	ug/L	-	-	<0.30 OWP	
trans-1,3-Dichloropropene	ug/L	140	5.6	<0.30 OWP	
Ethylbenzene	ug/L	160	2	<0.50 OWP	
n-Hexane	ug/L	-	-	<0.50 OWP	
2-Hexanone	ug/L	-	-	<20 OWP	
Methyl Ethyl Ketone	ug/L	8000	-	<20 OWP	

Guide Limit #1: Reg. Mun. of Peel Sanitary by-law #53-2010
Guide Limit #2: Peel Storm Sewer By-Law #53-201- (APR. 2011)

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

Volatile Organic Compounds - WATER

				Lab ID	L2640093-1
				Sample Date	15-SEP-21
				Sample ID	3855 DUNDAS ST. EAST MW202
		Guide Limits			
Analyte	Unit	#1	#2		
Methyl Isobutyl Ketone	ug/L	-	-	<20 OWP	
MTBE	ug/L	-	-	<0.50 OWP	
Styrene	ug/L	200	-	<0.50 OWP	
1,1,1,2-Tetrachloroethane	ug/L	-	-	<0.50 OWP	
1,1,2,2-Tetrachloroethane	ug/L	1400	17	<0.50 OWP	
Tetrachloroethylene	ug/L	1000	4.4	<0.50 OWP	
Toluene	ug/L	270	2	<0.40 OWP	
1,1,1-Trichloroethane	ug/L	-	-	<0.50 OWP	
1,1,2-Trichloroethane	ug/L	-	-	<0.50 OWP	
Trichloroethylene	ug/L	400	8	<0.50 OWP	
Trichlorofluoromethane	ug/L	-	-	<1.0 OWP	
Vinyl chloride	ug/L	-	-	<0.50 OWP	
o-Xylene	ug/L	-	-	<0.30 OWP	
m+p-Xylenes	ug/L	-	-	<0.40 OWP	
Xylenes (Total)	ug/L	1400	4.4	<0.50	
Surrogate: 4-Bromofluorobenzene	%	-	-	103.4	
Surrogate: 1,4-Difluorobenzene	%	-	-	102.1	

Guide Limit #1: Reg. Mun. of Peel Sanitary by-law #53-2010
Guide Limit #2: Peel Storm Sewer By-Law #53-201- (APR. 2011)

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

ANALYTICAL REPORT

Phthalate Esters - WATER

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID: L2640093-1 Sample Date: 15-SEP-21 Sample ID: 3855 DUNDAS ST. EAST MW202
Bis(2-ethylhexyl)phthalate	ug/L	12	8.8	<2.0
Surrogate: 2-fluorobiphenyl	%	-	-	83.4
Surrogate: p-Terphenyl d14	%	-	-	83.0

Guide Limit #1: Reg. Mun. of Peel Sanitary by-law #53-2010
Guide Limit #2: Peel Storm Sewer By-Law #53-201- (APR. 2011)

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

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

ALS Environmental

ANALYTICAL REPORT

Semi-Volatile Organics - WATER

			Lab ID	L2640093-1
			Sample Date	15-SEP-21
			Sample ID	3855 DUNDAS ST. EAST MW202
Analyte	**Unit**	**Guide Limits #1**	**#2**	
Di-n-butylphthalate	ug/L	80	15	<1.0
Surrogate: 2-Fluorobiphenyl	%	-	-	83.4
Surrogate: p-Terphenyl d14	%	-	-	83.0

Guide Limit #1: Reg. Mun. of Peel Sanitary by-law #53-2010
Guide Limit #2: Peel Storm Sewer By-Law #53-201- (APR. 2011)

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

ANALYTICAL REPORT

Polychlorinated Biphenyls - WATER

			Lab ID	L2640093-1
			Sample Date	15-SEP-21
			Sample ID	3855 DUNDAS ST. EAST MW202
		Guide Limits		
Analyte	**Unit**	**#1**	**#2**	
Aroclor 1242	ug/L	-	-	<0.020
Aroclor 1248	ug/L	-	-	<0.020
Aroclor 1254	ug/L	-	-	<0.020
Aroclor 1260	ug/L	-	-	<0.020
Surrogate: Decachlorobiphenyl	%	-	-	76.2
Total PCBs	ug/L	1	0.4	<0.040
Surrogate: Tetrachloro-m-xylene	%	-	-	95.1

Guide Limit #1: Reg. Mun. of Peel Sanitary by-law #53-2010
Guide Limit #2: Peel Storm Sewer By-Law #53-201- (APR. 2011)

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

ANALYTICAL REPORT

Organic Parameters - WATER

				Lab ID	L2640093-1
				Sample Date	15-SEP-21
				Sample ID	3855 DUNDAS ST. EAST MW202
		Guide Limits			
Analyte	Unit	#1	#2		
Nonylphenol	ug/L	20	-	<1.0	
Nonylphenol Diethoxylates	ug/L	-	-	<0.10	
Total Nonylphenol Ethoxylates	ug/L	200	-	<2.0	
Nonylphenol Monoethoxylates	ug/L	-	-	<2.0	

Guide Limit #1: Reg. Mun. of Peel Sanitary by-law #53-2010
Guide Limit #2: Peel Storm Sewer By-Law #53-201- (APR. 2011)

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

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

Reference Information

Qualifiers for Individual Parameters Listed:

Qualifier	Description
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
BODL	Limit of Reporting for BOD was increased to account for the largest volume of sample tested.
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
OWP	Organic water sample contained visible sediment (must be included as part of analysis). Measured concentrations of organic substances in water can be biased high due to presence of

Reference Information

sediment.

DLHC Detection Limit Raised: Dilution required due to high concentration of test analyte(s).

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
625-BIS-2-PHTH-WT	Water	Bis(2-ethylhexyl)phthalate	SW846 8270
Aqueous samples are extracted and extracts are analyzed on GC/MSD.			
625-DNB-PHTH-WT	Water	Di-n-Butyl Phthalate	SW846 8270
Aqueous samples are extracted and extracts are analyzed on GC/MSD.			
BOD-C-WT	Water	BOD Carbonaceous	APHA 5210 B (CBOD)
This analysis is carried out using procedures adapted from APHA Method 5210B - "Biochemical Oxygen Demand (BOD)". All forms of biochemical oxygen demand (BOD) are determined by diluting and incubating a sample for a specified time period, and measuring the oxygen depletion using a dissolved oxygen meter. Dissolved BOD (SOLUBLE) is determined by filtering the sample through a glass fibre filter prior to dilution. Carbonaceous BOD (CBOD) is determined by adding a nitrification inhibitor to the diluted sample prior to incubation.			
CN-TOT-WT	Water	Cyanide, Total	ISO 14403-2
Total cyanide is determined by the combination of UV digestion and distillation. Cyanide is converted to cyanogen chloride by reacting with chloramine-T, the cyanogen chloride then reacts with a combination of barbituric acid and isonicotinic acid to form a highly colored complex. When using this method, high levels of thiocyanate in samples can cause false positives at ~1-2% of the thiocyanate concentration. For samples with detectable cyanide analyzed by this method, ALS recommends analysis for thiocyanate to check for this potential interference			
EC-SCREEN-WT	Water	Conductivity Screen (Internal Use Only)	APHA 2510
Qualitative analysis of conductivity where required during preparation of other tests - e.g. TDS, metals, etc.			
EC-WW-MF-WT	Water	E. Coli	SM 9222D
A 100 mL volume of sample is filtered through a membrane, the membrane is placed on mFC-BCIG agar and incubated at 44.5 –0 .2 C for 24 – 2 h. Method ID: WT-TM-1200			
F-IC-N-WT	Water	Fluoride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
FC-WW-MF-WT	Water	Fecal Coliforms	APHA 9223B
FC-WW-MF-WT	Water	Fecal Coliforms	SM 9222D
HG-T-CVAA-WT	Water	Total Mercury in Water by CVAAS	EPA 1631E (mod)
Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.			
MET-T-CCMS-WT	Water	Total Metals in Water by CRC ICPMS	EPA 200.2/6020A (mod)
Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
		Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).	
NP,NPE-LCMS-WT	Water	Nonylphenols and Ethoxylates by LC/MS-MS	J. Chrom A849 (1999) p.467-482
		Water samples are filtered and analyzed on LCMS/MS by direct injection.	
OGG-SPEC-CALC-WT	Water	Speciated Oil and Grease A/V Calc	CALCULATION
		Sample is extracted with hexane, sample speciation into mineral and animal/vegetable fractions is achieved via silica gel separation and is then determined gravimetrically.	
OGG-SPEC-WT	Water	Speciated Oil and Grease-Gravimetric	APHA 5520 B
		The procedure involves an extraction of the entire water sample with hexane. Sample speciation into mineral and animal/vegetable fractions is achieved via silica gel separation and is then determined gravimetrically.	
P-T-COL-WT	Water	Total P in Water by Colour	APHA 4500-P PHOSPHORUS
		This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is deteremined colourimetrically after persulphate digestion of the sample.	
PCB-WT	Water	Polychlorinated Biphenyls	EPA 8082
		PCBs are extracted from an aqueous sample at neutral pH with aliquots of dichloromethane using a modified separatory funnel technique. The extracts are analyzed by GC/MSD.	
PH-WT	Water	pH	APHA 4500 H-Electrode
		Water samples are analyzed directly by a calibrated pH meter.	
		Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011). Holdtime for samples under this regulation is 28 days	
PHENOLS-4AAP-WT	Water	Phenol (4AAP)	EPA 9066
		An automated method is used to distill the sample. The distillate is then buffered to pH 9.4 which reacts with 4AAP and potassium ferricyanide to form a red complex which is measured colorimetrically.	
SO4-IC-N-WT	Water	Sulfate in Water by IC	EPA 300.1 (mod)
		Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.	
SOLIDS-TSS-WT	Water	Suspended solids	APHA 2540 D-Gravimetric
		A well-mixed sample is filtered through a weighed standard glass fibre filter and the residue retained is dried in an oven at 104–1 C for a minimum of four hours or until a constant weight is achieved.	
TKN-F-WT	Water	TKN in Water by Fluorescence	J. ENVIRON. MONIT., 2005,7,37-42,RSC
		Total Kjeldahl Nitrogen is determined using block digestion followed by Flow-injection analysis with fluorescence detection	
VOC-ROU-HS-WT	Water	Volatile Organic Compounds	SW846 8260
		Aqueous samples are analyzed by headspace-GC/MS.	

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
XYLENES-SUM-CALC-WT	Water	Sum of Xylene Isomer Concentrations	CALCULATION

Total xylenes represents the sum of o-xylene and m&p-xylene.

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

Chain of Custody Numbers:

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

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

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

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

Quality Control Report

Workorder: L2640093 Report Date: 23-SEP-21

Client: FISHER ENVIRONMENTAL
15-400 ESNA PARK DRIVE
MARKHAM ON N/A

Contact: CLIVE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
625-BIS-2-PHTH-WT	Water							
Batch R5592637								
WG3620987-2 LCS								
Bis(2-ethylhexyl)phthalate			129.7		%		50-140	23-SEP-21
WG3620987-1 MB								
Bis(2-ethylhexyl)phthalate			<2.0		ug/L		2	23-SEP-21
Surrogate: 2-fluorobiphenyl			75.8		%		40-130	23-SEP-21
Surrogate: p-Terphenyl d14			111.6		%		40-130	23-SEP-21
625-DNB-PHTH-WT	Water							
Batch R5592637								
WG3620987-2 LCS								
Di-n-butylphthalate			103.9		%		50-150	23-SEP-21
WG3620987-1 MB								
Di-n-butylphthalate			<1.0		ug/L		1	23-SEP-21
Surrogate: 2-Fluorobiphenyl			75.8		%		40-130	23-SEP-21
Surrogate: p-Terphenyl d14			111.6		%		40-130	23-SEP-21
BOD-C-WT	Water							
Batch R5595897								
WG3619785-2 DUP		**L2639932-1**						
BOD Carbonaceous		3.9	2.3	J	mg/L	1.6	4	17-SEP-21
WG3619785-3 LCS								
BOD Carbonaceous			98.0		%		85-115	17-SEP-21
WG3619785-1 MB								
BOD Carbonaceous			<2.0		mg/L		2	17-SEP-21
CN-TOT-WT	Water							
Batch R5587382								
WG3619703-8 DUP		**WG3619703-10**						
Cyanide, Total		<0.0020	<0.0020	RPD-NA	mg/L	N/A	20	17-SEP-21
WG3619703-7 LCS								
Cyanide, Total			91.4		%		80-120	17-SEP-21
WG3619703-6 MB								
Cyanide, Total			<0.0020		mg/L		0.002	17-SEP-21
WG3619703-9 MS		**WG3619703-10**						
Cyanide, Total			92.0		%		70-130	17-SEP-21
EC-WW-MF-WT	Water							
Batch R5589616								
WG3619317-3 DUP		**L2640525-6**						
E. Coli		0	0		CFU/100mL	0.0	65	17-SEP-21
WG3619317-1 MB								

Quality Control Report

Client: FISHER ENVIRONMENTAL
15-400 ESNA PARK DRIVE
MARKHAM ON N/A

Contact: CLIVE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
EC-WW-MF-WT	Water							
Batch R5589616								
WG3619317-1 MB								
E. Coli			0		CFU/100mL		1	17-SEP-21
F-IC-N-WT	Water							
Batch R5587323								
WG3619689-4 DUP		**WG3619689-3**						
Fluoride (F)		0.046	0.047		mg/L	0.7	20	17-SEP-21
WG3619689-2 LCS								
Fluoride (F)			101.2		%		90-110	17-SEP-21
WG3619689-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	17-SEP-21
WG3619689-5 MS		**WG3619689-3**						
Fluoride (F)			103.8		%		75-125	17-SEP-21
FC-WW-MF-WT	Water							
Batch R5589599								
WG3619308-1 MB								
Fecal Coliforms			0		CFU/100mL		1	17-SEP-21
HG-T-CVAA-WT	Water							
Batch R5587825								
WG3619639-3 DUP		**L2639289-1**						
Mercury (Hg)-Total		0.0000120	0.0000123		mg/L	2.5	20	20-SEP-21
WG3619639-2 LCS								
Mercury (Hg)-Total			104.0		%		80-120	20-SEP-21
WG3619639-1 MB								
Mercury (Hg)-Total			<0.0000050		mg/L		0.000005	20-SEP-21
WG3619639-4 MS		**L2639774-1**						
Mercury (Hg)-Total			109.0		%		70-130	20-SEP-21
MET-T-CCMS-WT	Water							
Batch R5586131								
WG3619129-4 DUP		**WG3619129-3**						
Aluminum (Al)-Total		0.0658	0.0604		mg/L	8.5	20	17-SEP-21
Antimony (Sb)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	17-SEP-21
Arsenic (As)-Total		0.00018	0.00020		mg/L	11	20	17-SEP-21
Cadmium (Cd)-Total		0.0000097	0.0000121	J	mg/L	0.0000024	0.00001	17-SEP-21
Chromium (Cr)-Total		<0.00050	0.00055	RPD-NA	mg/L	N/A	20	17-SEP-21
Cobalt (Co)-Total		0.00018	0.00019		mg/L	5.8	20	17-SEP-21

Quality Control Report

Client: FISHER ENVIRONMENTAL
15-400 ESNA PARK DRIVE
MARKHAM ON N/A
Contact: CLIVE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WT	Water							
Batch R5586131								
WG3619129-4 DUP		**WG3619129-3**						
Copper (Cu)-Total		0.00240	0.00244		mg/L	1.9	20	17-SEP-21
Lead (Pb)-Total		0.000093	0.000092		mg/L	0.5	20	17-SEP-21
Manganese (Mn)-Total		0.00721	0.00757		mg/L	4.8	20	17-SEP-21
Molybdenum (Mo)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	17-SEP-21
Nickel (Ni)-Total		0.00210	0.00213		mg/L	1.6	20	17-SEP-21
Selenium (Se)-Total		0.000056	<0.000050	RPD-NA	mg/L	N/A	20	17-SEP-21
Silver (Ag)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	17-SEP-21
Tin (Sn)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	17-SEP-21
Titanium (Ti)-Total		0.00243	0.00224		mg/L	8.5	20	17-SEP-21
Zinc (Zn)-Total		0.0037	0.0036		mg/L	3.3	20	17-SEP-21
WG3619129-2 LCS								
Aluminum (Al)-Total			101.0		%		80-120	17-SEP-21
Antimony (Sb)-Total			99.1		%		80-120	17-SEP-21
Arsenic (As)-Total			100.3		%		80-120	17-SEP-21
Cadmium (Cd)-Total			98.2		%		80-120	17-SEP-21
Chromium (Cr)-Total			98.5		%		80-120	17-SEP-21
Cobalt (Co)-Total			100.2		%		80-120	17-SEP-21
Copper (Cu)-Total			98.7		%		80-120	17-SEP-21
Lead (Pb)-Total			99.4		%		80-120	17-SEP-21
Manganese (Mn)-Total			99.8		%		80-120	17-SEP-21
Molybdenum (Mo)-Total			100.1		%		80-120	17-SEP-21
Nickel (Ni)-Total			98.2		%		80-120	17-SEP-21
Selenium (Se)-Total			96.4		%		80-120	17-SEP-21
Silver (Ag)-Total			103.6		%		80-120	17-SEP-21
Tin (Sn)-Total			98.6		%		80-120	17-SEP-21
Titanium (Ti)-Total			94.2		%		80-120	17-SEP-21
Zinc (Zn)-Total			96.3		%		80-120	17-SEP-21
WG3619129-1 MB								
Aluminum (Al)-Total			<0.0050		mg/L		0.005	17-SEP-21
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	17-SEP-21
Arsenic (As)-Total			<0.00010		mg/L		0.0001	17-SEP-21
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	17-SEP-21
Chromium (Cr)-Total			<0.00050		mg/L		0.0005	17-SEP-21
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	17-SEP-21

Quality Control Report

Client: FISHER ENVIRONMENTAL
15-400 ESNA PARK DRIVE
MARKHAM ON N/A

Contact: CLIVE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WT	Water							
Batch R5586131								
WG3619129-1 MB								
Copper (Cu)-Total			<0.00050		mg/L		0.0005	17-SEP-21
Lead (Pb)-Total			<0.000050		mg/L		0.00005	17-SEP-21
Manganese (Mn)-Total			<0.00050		mg/L		0.0005	17-SEP-21
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	17-SEP-21
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	17-SEP-21
Selenium (Se)-Total			<0.000050		mg/L		0.00005	17-SEP-21
Silver (Ag)-Total			<0.000050		mg/L		0.00005	17-SEP-21
Tin (Sn)-Total			<0.00010		mg/L		0.0001	17-SEP-21
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	17-SEP-21
Zinc (Zn)-Total			<0.0030		mg/L		0.003	17-SEP-21
WG3619129-5 MS		**WG3619129-6**						
Aluminum (Al)-Total			94.2		%		70-130	17-SEP-21
Antimony (Sb)-Total			102.2		%		70-130	17-SEP-21
Arsenic (As)-Total			101.7		%		70-130	17-SEP-21
Cadmium (Cd)-Total			101.8		%		70-130	17-SEP-21
Chromium (Cr)-Total			100.4		%		70-130	17-SEP-21
Cobalt (Co)-Total			103.0		%		70-130	17-SEP-21
Copper (Cu)-Total			102.0		%		70-130	17-SEP-21
Lead (Pb)-Total			103.2		%		70-130	17-SEP-21
Manganese (Mn)-Total			N/A	MS-B	%		-	17-SEP-21
Molybdenum (Mo)-Total			101.3		%		70-130	17-SEP-21
Nickel (Ni)-Total			103.2		%		70-130	17-SEP-21
Selenium (Se)-Total			102.7		%		70-130	17-SEP-21
Silver (Ag)-Total			105.8		%		70-130	17-SEP-21
Tin (Sn)-Total			101.7		%		70-130	17-SEP-21
Titanium (Ti)-Total			93.2		%		70-130	17-SEP-21
Zinc (Zn)-Total			98.4		%		70-130	17-SEP-21
NP,NPE-LCMS-WT	Water							
Batch R5588139								
WG3619483-3 DUP		**L2638090-1**						
Nonylphenol		<1.0	<1.0	RPD-NA	ug/L	N/A	30	20-SEP-21
Nonylphenol Monoethoxylates		<2.0	<2.0	RPD-NA	ug/L	N/A	30	20-SEP-21
Nonylphenol Diethoxylates		1.08	1.16		ug/L	7.2	30	20-SEP-21
WG3619483-2 LCS								

Quality Control Report

Client: FISHER ENVIRONMENTAL
15-400 ESNA PARK DRIVE
MARKHAM ON N/A
Contact: CLIVE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NP,NPE-LCMS-WT	Water							
Batch R5588139								
WG3619483-2 LCS								
Nonylphenol			84.2		%		75-125	20-SEP-21
Nonylphenol Monoethoxylates			92.4		%		75-125	20-SEP-21
Nonylphenol Diethoxylates			98.5		%		75-125	20-SEP-21
WG3619483-1 MB								
Nonylphenol			<1.0		ug/L		1	20-SEP-21
Nonylphenol Monoethoxylates			<2.0		ug/L		2	20-SEP-21
Nonylphenol Diethoxylates			<0.10		ug/L		0.1	20-SEP-21
WG3619483-4 MS		**L2638090-1**						
Nonylphenol			60.0		%		60-140	20-SEP-21
Nonylphenol Monoethoxylates			80.4		%		60-140	20-SEP-21
Nonylphenol Diethoxylates			N/A	MS-B	%		-	20-SEP-21
OGG-SPEC-WT	Water							
Batch R5588940								
WG3620508-2 LCS								
Oil and Grease, Total			88.7		%		70-130	20-SEP-21
Mineral Oil and Grease			80.9		%		70-130	20-SEP-21
WG3620508-1 MB								
Oil and Grease, Total			<5.0		mg/L		5	20-SEP-21
Mineral Oil and Grease			<2.5		mg/L		2.5	20-SEP-21
P-T-COL-WT	Water							
Batch R5586099								
WG3618944-3 DUP		**L2639948-1**						
Phosphorus, Total		0.0089	0.0095		mg/L	6.7	20	17-SEP-21
WG3618944-2 LCS								
Phosphorus, Total			101.6		%		80-120	17-SEP-21
WG3618944-1 MB								
Phosphorus, Total			<0.0030		mg/L		0.003	17-SEP-21
WG3618944-4 MS		**L2639948-1**						
Phosphorus, Total			98.5		%		70-130	17-SEP-21
PCB-WT	Water							
Batch R5590177								
WG3620703-2 LCS								
Aroclor 1242			96.2		%		65-130	21-SEP-21
Aroclor 1248			111.6		%		65-130	21-SEP-21
Aroclor 1254			97.2		%		65-130	21-SEP-21

Quality Control Report

Client: FISHER ENVIRONMENTAL
15-400 ESNA PARK DRIVE
MARKHAM ON N/A

Contact: CLIVE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-WT	Water							
Batch R5590177								
WG3620703-2 LCS								
Aroclor 1260			126.6		%		65-130	21-SEP-21
WG3620703-3 LCSD		**WG3620703-2**						
Aroclor 1242		96.2	86.7		%	10	50	21-SEP-21
Aroclor 1248		111.6	111.6		%	0.0	50	21-SEP-21
Aroclor 1254		97.2	86.7		%	11	50	21-SEP-21
Aroclor 1260		126.6	115.2		%	9.4	50	21-SEP-21
WG3620703-1 MB								
Aroclor 1242			<0.020		ug/L		0.02	21-SEP-21
Aroclor 1248			<0.020		ug/L		0.02	21-SEP-21
Aroclor 1254			<0.020		ug/L		0.02	21-SEP-21
Aroclor 1260			<0.020		ug/L		0.02	21-SEP-21
Surrogate: Decachlorobiphenyl			121.4		%		50-150	21-SEP-21
Surrogate: Tetrachloro-m-xylene			85.9		%		50-150	21-SEP-21
PH-WT	Water							
Batch R5586818								
WG3620023-4 DUP		**WG3620023-3**						
pH		8.27	8.17	J	pH units	0.10	0.2	17-SEP-21
WG3620023-2 LCS								
pH			6.99		pH units		6.9-7.1	17-SEP-21
PHENOLS-4AAP-WT	Water							
Batch R5586158								
WG3618908-3 DUP		**L2639437-4**						
Phenols (4AAP)		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	16-SEP-21
WG3618908-2 LCS								
Phenols (4AAP)			93.6		%		85-115	16-SEP-21
WG3618908-1 MB								
Phenols (4AAP)			<0.0010		mg/L		0.001	16-SEP-21
WG3618908-4 MS		**L2639437-4**						
Phenols (4AAP)			97.1		%		75-125	16-SEP-21
SO4-IC-N-WT	Water							
Batch R5587323								
WG3619689-4 DUP		**WG3619689-3**						
Sulfate (SO4)		1.08	1.06		mg/L	1.9	20	17-SEP-21
WG3619689-2 LCS								
Sulfate (SO4)			100.1		%		90-110	17-SEP-21

Quality Control Report

Client: FISHER ENVIRONMENTAL
15-400 ESNA PARK DRIVE
MARKHAM ON N/A
Contact: CLIVE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
SO4-IC-N-WT	Water							
Batch R5587323								
WG3619689-1 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	17-SEP-21
WG3619689-5 MS		**WG3619689-3**						
Sulfate (SO4)			101.3		%		75-125	17-SEP-21
SOLIDS-TSS-WT	Water							
Batch R5591856								
WG3620846-3 DUP		**L2640093-1**						
Total Suspended Solids		161	155		mg/L	3.6	20	21-SEP-21
WG3620846-2 LCS								
Total Suspended Solids			94.3		%		85-115	21-SEP-21
WG3620846-1 MB								
Total Suspended Solids			<3.0		mg/L		3	21-SEP-21
TKN-F-WT	Water							
Batch R5593159								
WG3619118-3 DUP		**L2640038-1**						
Total Kjeldahl Nitrogen		0.330	0.420	J	mg/L	0.090	0.1	22-SEP-21
WG3619118-2 LCS								
Total Kjeldahl Nitrogen			110.5		%		75-125	22-SEP-21
WG3619118-1 MB								
Total Kjeldahl Nitrogen			<0.050		mg/L		0.05	22-SEP-21
WG3619118-4 MS		**L2640038-1**						
Total Kjeldahl Nitrogen			110.4		%		70-130	22-SEP-21
VOC-ROU-HS-WT	Water							
Batch R5586227								
WG3618821-4 DUP		**WG3618821-3**						
1,1,1,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
1,1,2,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
1,1,1-Trichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
1,1,2-Trichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
1,2-Dibromoethane		<0.20	<0.20	RPD-NA	ug/L	N/A	30	17-SEP-21
1,1-Dichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
1,1-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
1,2-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
1,2-Dichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
1,2-Dichloropropane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
1,3-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21

Quality Control Report

Client: FISHER ENVIRONMENTAL
15-400 ESNA PARK DRIVE
MARKHAM ON N/A

Contact: CLIVE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-ROU-HS-WT	Water							
Batch R5586227								
WG3618821-4 DUP		**WG3618821-3**						
1,4-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
2-Hexanone		<20	<20	RPD-NA	ug/L	N/A	30	17-SEP-21
Acetone		<20	<20	RPD-NA	ug/L	N/A	30	17-SEP-21
Benzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
Bromodichloromethane		<1.0	<1.0	RPD-NA	ug/L	N/A	30	17-SEP-21
Bromoform		<1.0	<1.0	RPD-NA	ug/L	N/A	30	17-SEP-21
Bromomethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
Carbon Disulfide		<1.0	<1.0	RPD-NA	ug/L	N/A	30	17-SEP-21
Carbon tetrachloride		<0.50	<0.20	RPD-NA	ug/L	N/A	30	17-SEP-21
Chlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
Chloroethane		<1.0	<1.0	RPD-NA	ug/L	N/A	30	17-SEP-21
Chloroform		<1.0	<1.0	RPD-NA	ug/L	N/A	30	17-SEP-21
Chloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	17-SEP-21
cis-1,2-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
cis-1,3-Dichloropropene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	17-SEP-21
Dibromochloromethane		<1.0	<1.0	RPD-NA	ug/L	N/A	30	17-SEP-21
Dichlorodifluoromethane		<1.0	<1.0	RPD-NA	ug/L	N/A	30	17-SEP-21
Dichloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	17-SEP-21
Ethylbenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
m+p-Xylenes		<0.40	<0.40	RPD-NA	ug/L	N/A	30	17-SEP-21
Methyl Ethyl Ketone		<20	<20	RPD-NA	ug/L	N/A	30	17-SEP-21
Methyl Isobutyl Ketone		<20	<20	RPD-NA	ug/L	N/A	30	17-SEP-21
n-Hexane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
MTBE		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
o-Xylene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	17-SEP-21
Styrene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
Tetrachloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
Toluene		<0.40	<0.40	RPD-NA	ug/L	N/A	30	17-SEP-21
trans-1,2-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
trans-1,3-Dichloropropene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	17-SEP-21
Trichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
Trichlorofluoromethane		<1.0	<1.0	RPD-NA	ug/L	N/A	30	17-SEP-21
Vinyl chloride		<0.50	<0.50		ug/L			17-SEP-21

Client: FISHER ENVIRONMENTAL
15-400 ESNA PARK DRIVE
MARKHAM ON N/A

Contact: CLIVE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-ROU-HS-WT	Water							
Batch R5586227								
WG3618821-4 DUP		**WG3618821-3**						
Vinyl chloride		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-SEP-21
WG3618821-1 LCS								
1,1,1,2-Tetrachloroethane			96.5		%		70-130	17-SEP-21
1,1,2,2-Tetrachloroethane			86.3		%		70-130	17-SEP-21
1,1,1-Trichloroethane			100.2		%		70-130	17-SEP-21
1,1,2-Trichloroethane			91.5		%		70-130	17-SEP-21
1,2-Dibromoethane			90.5		%		70-130	17-SEP-21
1,1-Dichloroethane			90.9		%		70-130	17-SEP-21
1,1-Dichloroethylene			96.8		%		70-130	17-SEP-21
1,2-Dichlorobenzene			97.6		%		70-130	17-SEP-21
1,2-Dichloroethane			95.0		%		70-130	17-SEP-21
1,2-Dichloropropane			93.9		%		70-130	17-SEP-21
1,3-Dichlorobenzene			100.0		%		70-130	17-SEP-21
1,4-Dichlorobenzene			100.4		%		70-130	17-SEP-21
2-Hexanone			77.8		%		60-140	17-SEP-21
Acetone			90.0		%		60-140	17-SEP-21
Benzene			93.3		%		70-130	17-SEP-21
Bromodichloromethane			101.4		%		70-130	17-SEP-21
Bromoform			85.0		%		70-130	17-SEP-21
Bromomethane			95.7		%		60-140	17-SEP-21
Carbon Disulfide			96.4		%		70-130	17-SEP-21
Carbon tetrachloride			100.9		%		70-130	17-SEP-21
Chlorobenzene			96.9		%		70-130	17-SEP-21
Chloroethane			91.9		%		70-130	17-SEP-21
Chloroform			97.4		%		70-130	17-SEP-21
Chloromethane			87.8		%		60-140	17-SEP-21
cis-1,2-Dichloroethylene			96.5		%		70-130	17-SEP-21
cis-1,3-Dichloropropene			88.3		%		70-130	17-SEP-21
Dibromochloromethane			91.9		%		70-130	17-SEP-21
Dichlorodifluoromethane			97.5		%		50-140	17-SEP-21
Dichloromethane			89.7		%		70-130	17-SEP-21
Ethylbenzene			97.7		%		70-130	17-SEP-21
m+p-Xylenes			98.3		%		70-130	17-SEP-21
Methyl Ethyl Ketone			81.9		%		60-140	17-SEP-21

Client: FISHER ENVIRONMENTAL
15-400 ESNA PARK DRIVE
MARKHAM ON N/A
Contact: CLIVE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-ROU-HS-WT	Water							
Batch R5586227								
WG3618821-1 LCS								
Methyl Isobutyl Ketone			84.5		%		50-150	17-SEP-21
n-Hexane			92.0		%		70-130	17-SEP-21
MTBE			102.2		%		70-130	17-SEP-21
o-Xylene			96.8		%		70-130	17-SEP-21
Styrene			96.6		%		70-130	17-SEP-21
Tetrachloroethylene			101.6		%		70-130	17-SEP-21
Toluene			95.5		%		70-130	17-SEP-21
trans-1,2-Dichloroethylene			95.4		%		70-130	17-SEP-21
trans-1,3-Dichloropropene			84.7		%		70-130	17-SEP-21
Trichloroethylene			97.8		%		70-130	17-SEP-21
Trichlorofluoromethane			102.9		%		60-140	17-SEP-21
Vinyl chloride			87.5		%		60-140	17-SEP-21
WG3618821-2 MB								
1,1,1,2-Tetrachloroethane			<0.50		ug/L		0.5	17-SEP-21
1,1,2,2-Tetrachloroethane			<0.50		ug/L		0.5	17-SEP-21
1,1,1-Trichloroethane			<0.50		ug/L		0.5	17-SEP-21
1,1,2-Trichloroethane			<0.50		ug/L		0.5	17-SEP-21
1,2-Dibromoethane			<0.20		ug/L		0.2	17-SEP-21
1,1-Dichloroethane			<0.50		ug/L		0.5	17-SEP-21
1,1-Dichloroethylene			<0.50		ug/L		0.5	17-SEP-21
1,2-Dichlorobenzene			<0.50		ug/L		0.5	17-SEP-21
1,2-Dichloroethane			<0.50		ug/L		0.5	17-SEP-21
1,2-Dichloropropane			<0.50		ug/L		0.5	17-SEP-21
1,3-Dichlorobenzene			<0.50		ug/L		0.5	17-SEP-21
1,4-Dichlorobenzene			<0.50		ug/L		0.5	17-SEP-21
2-Hexanone			<20		ug/L		20	17-SEP-21
Acetone			<20		ug/L		20	17-SEP-21
Benzene			<0.50		ug/L		0.5	17-SEP-21
Bromodichloromethane			<1.0		ug/L		1	17-SEP-21
Bromoform			<1.0		ug/L		1	17-SEP-21
Bromomethane			<0.50		ug/L		0.5	17-SEP-21
Carbon Disulfide			<1.0		ug/L		1	17-SEP-21
Carbon tetrachloride			<0.20		ug/L		0.2	17-SEP-21
Chlorobenzene			<0.50		ug/L		0.5	17-SEP-21

Client: FISHER ENVIRONMENTAL
15-400 ESNA PARK DRIVE
MARKHAM ON N/A

Contact: CLIVE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-ROU-HS-WT	Water							
Batch R5586227								
WG3618821-2 MB								
Chloroethane			<1.0		ug/L		1	17-SEP-21
Chloroform			<1.0		ug/L		1	17-SEP-21
Chloromethane			<2.0		ug/L		2	17-SEP-21
cis-1,2-Dichloroethylene			<0.50		ug/L		0.5	17-SEP-21
cis-1,3-Dichloropropene			<0.30		ug/L		0.3	17-SEP-21
Dibromochloromethane			<1.0		ug/L		1	17-SEP-21
Dichlorodifluoromethane			<1.0		ug/L		1	17-SEP-21
Dichloromethane			<2.0		ug/L		2	17-SEP-21
Ethylbenzene			<0.50		ug/L		0.5	17-SEP-21
m+p-Xylenes			<0.40		ug/L		0.4	17-SEP-21
Methyl Ethyl Ketone			<20		ug/L		20	17-SEP-21
Methyl Isobutyl Ketone			<20		ug/L		20	17-SEP-21
n-Hexane			<0.50		ug/L		0.5	17-SEP-21
MTBE			<0.50		ug/L		0.5	17-SEP-21
o-Xylene			<0.30		ug/L		0.3	17-SEP-21
Styrene			<0.50		ug/L		0.5	17-SEP-21
Tetrachloroethylene			<0.50		ug/L		0.5	17-SEP-21
Toluene			<0.40		ug/L		0.4	17-SEP-21
trans-1,2-Dichloroethylene			<0.50		ug/L		0.5	17-SEP-21
trans-1,3-Dichloropropene			<0.30		ug/L		0.3	17-SEP-21
Trichloroethylene			<0.50		ug/L		0.5	17-SEP-21
Trichlorofluoromethane			<1.0		ug/L		1	17-SEP-21
Vinyl chloride			<0.50		ug/L		0.5	17-SEP-21
Surrogate: 1,4-Difluorobenzene			102.5		%		70-130	17-SEP-21
Surrogate: 4-Bromofluorobenzene			102.1		%		70-130	17-SEP-21
WG3618821-5 MS		**WG3618821-3**						
1,1,1,2-Tetrachloroethane			91.9		%		50-150	17-SEP-21
1,1,2,2-Tetrachloroethane			79.0		%		50-150	17-SEP-21
1,1,1-Trichloroethane			94.7		%		50-150	17-SEP-21
1,1,2-Trichloroethane			85.6		%		50-150	17-SEP-21
1,2-Dibromoethane			84.0		%		50-150	17-SEP-21
1,1-Dichloroethane			85.8		%		50-150	17-SEP-21
1,1-Dichloroethylene			89.6		%		50-150	17-SEP-21
1,2-Dichlorobenzene			92.5		%		50-150	17-SEP-21

Client: FISHER ENVIRONMENTAL
15-400 ESNA PARK DRIVE
MARKHAM ON N/A

Contact: CLIVE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-ROU-HS-WT	Water							
Batch R5586227								
WG3618821-5 MS		**WG3618821-3**						
1,2-Dichloroethane			87.7		%		50-150	17-SEP-21
1,2-Dichloropropane			88.2		%		50-150	17-SEP-21
1,3-Dichlorobenzene			95.7		%		50-150	17-SEP-21
1,4-Dichlorobenzene			95.3		%		50-150	17-SEP-21
2-Hexanone			69.7		%		50-150	17-SEP-21
Acetone			84.4		%		50-150	17-SEP-21
Benzene			87.4		%		50-150	17-SEP-21
Bromodichloromethane			95.3		%		50-150	17-SEP-21
Bromoform			78.7		%		50-150	17-SEP-21
Bromomethane			84.6		%		50-150	17-SEP-21
Carbon Disulfide			87.3		%		50-150	17-SEP-21
Carbon tetrachloride			95.6		%		50-150	17-SEP-21
Chlorobenzene			92.2		%		50-150	17-SEP-21
Chloroethane			83.5		%		50-150	17-SEP-21
Chloroform			91.7		%		50-150	17-SEP-21
Chloromethane			75.6		%		50-150	17-SEP-21
cis-1,2-Dichloroethylene			90.0		%		50-150	17-SEP-21
cis-1,3-Dichloropropene			79.8		%		50-150	17-SEP-21
Dibromochloromethane			86.3		%		50-150	17-SEP-21
Dichlorodifluoromethane			78.9		%		50-150	17-SEP-21
Dichloromethane			83.2		%		50-150	17-SEP-21
Ethylbenzene			93.5		%		50-150	17-SEP-21
m+p-Xylenes			94.1		%		50-150	17-SEP-21
Methyl Ethyl Ketone			73.1		%		50-150	17-SEP-21
Methyl Isobutyl Ketone			75.5		%		50-150	17-SEP-21
n-Hexane			85.0		%		50-150	17-SEP-21
MTBE			97.6		%		50-150	17-SEP-21
o-Xylene			92.1		%		50-150	17-SEP-21
Styrene			91.1		%		50-150	17-SEP-21
Tetrachloroethylene			97.0		%		50-150	17-SEP-21
Toluene			91.1		%		50-150	17-SEP-21
trans-1,2-Dichloroethylene			88.9		%		50-150	17-SEP-21
trans-1,3-Dichloropropene			76.6		%		50-150	17-SEP-21

Quality Control Report

Client: FISHER ENVIRONMENTAL
15-400 ESNA PARK DRIVE
MARKHAM ON N/A
Contact: CLIVE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-ROU-HS-WT	Water							
Batch R5586227								
WG3618821-5 MS		**WG3618821-3**						
Trichloroethylene			92.2		%		50-150	17-SEP-21
Trichlorofluoromethane			94.1		%		50-150	17-SEP-21
Vinyl chloride			77.0		%		50-150	17-SEP-21

Quality Control Report

Workorder: L2640093 Report Date: 23-SEP-21

Client: FISHER ENVIRONMENTAL
15-400 ESNA PARK DRIVE
MARKHAM ON N/A
Contact: CLIVE

Legend:

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

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

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

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

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

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

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

L2640093-COFC

Canada Toll Free: 1 800 668 9878

COC Number: 20 - 892424

Page of

Report To	Contact and company name below will appear on the report
Company:	Fisher Environmental
Contact:	Clwe
Phone:	416-605-9722
Company address below will appear on the final report	
Street:	15-400 Esna Park Dr.
City/Province:	Markham ON
Postal Code:	L3R 3K2
Invoice To	Same as Report To ☐ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	Fisher Environmental
Contact:	Clwe

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	Clwe@FE
Email 2	
Email 3	
Invoice Recipients	
Select Invoice Distribution:	☐ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	
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. Additional fees may apply to rush requests on weekends, statutory holidays and non-routine tests
Date and Time Required for all E&P TATs:
For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#:
Job #:		Major/Minor Code:	Routing Code:
PO / AFE:	RD	Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (ALS use only):	L2640093	ALS Contact:	Sampler:

Analysis Request

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

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: Peel region sewer discharge by laws	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	3855 Dimdas St. East Mississauga Peel region sewer discharge by laws MW 202	15-09-21		Water				

Drinking Water (DW) Samples[1] (client use)	Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)
Are samples taken from a Regulated DW System? ☐ YES ☒ NO	
Are samples for human consumption/ use? ☐ YES ☒ NO	

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
	9.1

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by: Nramdi	Date: 15/09/21	Time:	Received by:	Date:	Time:	Received by:	Date: 9/16/21	Time: 10:30

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

ALS 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**.

APPENDIX E – HYDRAULIC CONDUCTIVITY ANALYSES

FISHER ENGINEERING

HYDRAULIC CONDUCTIVITY ANALYSIS

Location: *3855 Dundas Street East, Mississauga*
Project: *FE-P-20-10464 HydroGeo*
Test Date: *2020-09-04*
Well No. *MW102*

Equilibrium Water level (from top of pipe) HE	*377*	*cm*
Initial Water level (from top of pipe) Ho	*443*	*cm*
Monitoring well inner diameter d	*0.05*	*m*
Initial Time offset To	*5*	*second*
Reverse of Luthin's reference system Ru = Ho - HE	*66.00*	*cm*
Slope of Log((ho-he)/(ht-he)) / T	*7.00E-06*	
G = Ru / (HT - HE)		

Hydraulic conductivity computed k =

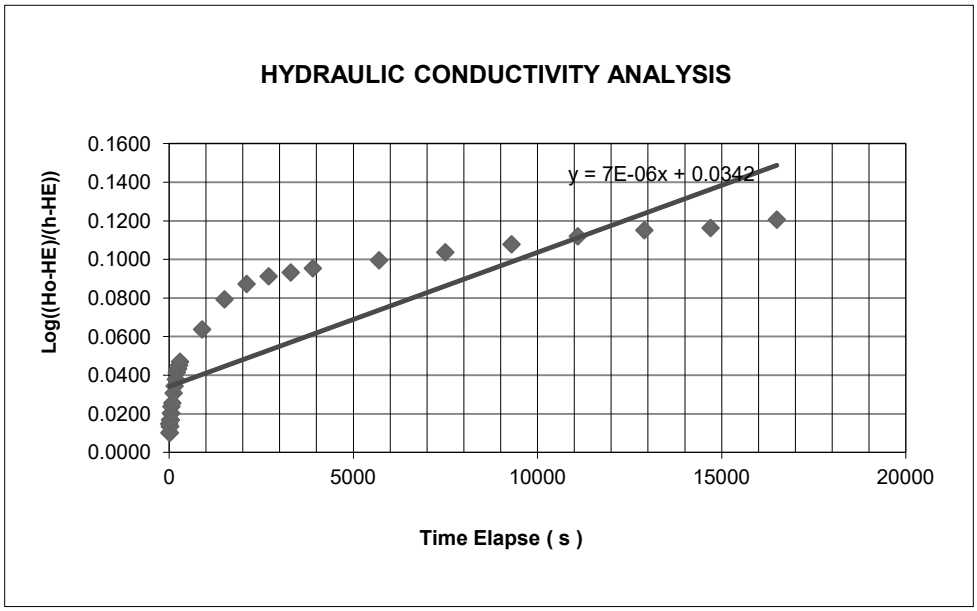
0.0000106	**cm/s**
1.06E-07	**m/s**
0.009	**m/day**

Time		HT (Water Drop)		G	LOG (G)
(Interval s)	(Elapsed s)	(m)	(cm)		
5	5	4.420	442.00	1.0154	0.0147
5	10	4.415	441.50	1.0233	0.0100
5	15	4.415	441.50	1.0233	0.0100
5	20	4.410	441.00	1.0313	0.0134
5	25	4.410	441.00	1.0313	0.0134
5	30	4.405	440.50	1.0394	0.0168
5	35	4.405	440.50	1.0394	0.0168
5	40	4.405	440.50	1.0394	0.0168
5	45	4.405	440.50	1.0394	0.0168
5	50	4.400	440.00	1.0476	0.0202
5	55	4.400	440.00	1.0476	0.0202
5	60	4.395	439.50	1.0560	0.0237
30	90	4.393	439.25	1.0602	0.0254
30	120	4.385	438.50	1.0732	0.0307
30	150	4.380	438.00	1.0820	0.0342
30	180	4.375	437.50	1.0909	0.0378
30	210	4.370	437.00	1.1000	0.0414
30	240	4.368	436.75	1.1046	0.0432
30	270	4.365	436.50	1.1092	0.0450
30	300	4.363	436.25	1.1139	0.0469
600	900	4.340	434.00	1.1579	0.0637
600	1500	4.320	432.00	1.2000	0.0792
600	2100	4.310	431.00	1.2222	0.0872
600	2700	4.305	430.50	1.2336	0.0912
600	3300	4.303	430.25	1.2394	0.0932
600	3900	4.300	430.00	1.2453	0.0953
1800	5700	4.295	429.50	1.2571	0.0994
1800	7500	4.290	429.00	1.2692	0.1035
1800	9300	4.285	428.50	1.2816	0.1077
1800	11100	4.280	428.00	1.2941	0.1120
1800	12900	4.277	427.65	1.3031	0.1150
1800	14700	4.275	427.50	1.3069	0.1163
1800	16500	4.270	427.00	1.3200	0.1206
1800	18300	4.268	426.75	1.3266	0.1228

FISHER ENGINEERING

HYDRAULIC CONDUCTIVITY ANALYSIS

Location: *3855 Dundas Street East, Mississauga*
Project: *FE-P-20-10464 HydroGeo*
Test Date: *2020-09-04*
Well No. *MW102*



FISHER ENGINEERING

HYDRAULIC CONDUCTIVITY ANALYSIS

Location: *3855 Dundas Street East, Mississauga*
Project: *FE-P-20-10464 HydroGeo*
Test Date: *2020-09-04*
Well No. *MW104*

Equilibrium Water level (from top of pipe) HE	*389*	*cm*
Initial Water level (from top of pipe) Ho	*450*	*cm*
Monitoring well inner diameter d	*0.05*	*m*
Initial Time offset To	*5*	*second*
Reverse of Luthin's reference system Ru = Ho - HE	*61.00*	*cm*
Slope of Log((ho-he)/(ht-he)) / T	*6.00E-06*	
G = Ru / (HT - HE)		

Hydraulic conductivity computed k =

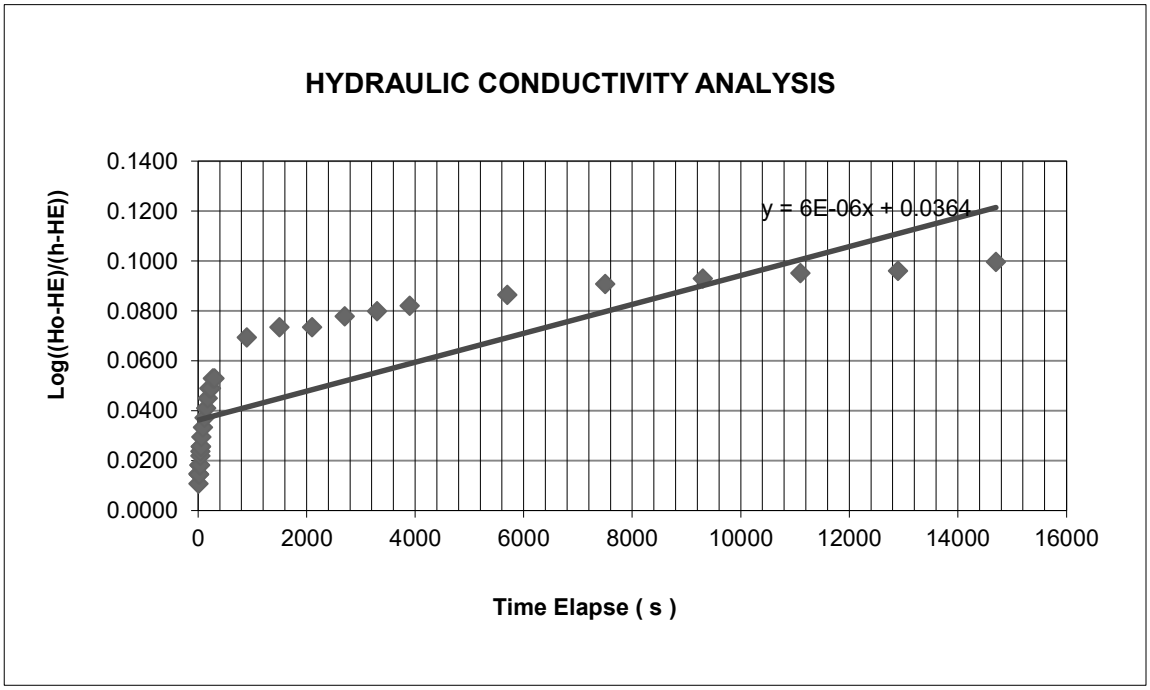
0.0000091	**cm/s**
9.08E-08	**m/s**
0.008	**m/day**

Time		HT (Water Drop)		G	LOG (G)
(Interval s)	(Elapsed s)	(m)	(cm)		
5	5	4.490	449.00	1.0167	0.0147
5	10	4.485	448.50	1.0252	0.0108
5	15	4.480	448.00	1.0339	0.0145
5	20	4.480	448.00	1.0339	0.0145
5	25	4.475	447.50	1.0427	0.0182
5	30	4.475	447.50	1.0427	0.0182
5	35	4.475	447.50	1.0427	0.0182
5	40	4.470	447.00	1.0517	0.0219
5	45	4.468	446.75	1.0563	0.0238
5	50	4.465	446.50	1.0609	0.0257
5	55	4.465	446.50	1.0609	0.0257
5	60	4.460	446.00	1.0702	0.0295
30	90	4.455	445.50	1.0796	0.0333
30	120	4.450	445.00	1.0893	0.0371
30	150	4.445	444.50	1.0991	0.0410
30	180	4.440	444.00	1.1091	0.0450
30	210	4.435	443.50	1.1193	0.0489
30	240	4.435	443.50	1.1193	0.0489
30	270	4.430	443.00	1.1296	0.0529
30	300	4.430	443.00	1.1296	0.0529
600	900	4.410	441.00	1.1731	0.0693
600	1500	4.405	440.50	1.1845	0.0735
600	2100	4.405	440.50	1.1845	0.0735
600	2700	4.400	440.00	1.1961	0.0778
600	3300	4.398	439.75	1.2020	0.0799
600	3900	4.395	439.50	1.2079	0.0820
1800	5700	4.390	439.00	1.2200	0.0864
1800	7500	4.385	438.50	1.2323	0.0907
1800	9300	4.383	438.25	1.2386	0.0929
1800	11100	4.380	438.00	1.2449	0.0951
1800	12900	4.379	437.90	1.2474	0.0960
1800	14700	4.375	437.50	1.2577	0.0996
1800	16500	4.373	437.30	1.2629	0.1014
1800	18300	4.370	437.00	1.2708	0.1041

FISHER ENGINEERING

HYDRAULIC CONDUCTIVITY ANALYSIS

Location: *3855 Dundas Street East, Mississauga*
Project: *FE-P-20-10464 HydroGeo*
Test Date: *2020-09-04*
Well No. *MW104*



FISHER ENGINEERING

HYDRAULIC CONDUCTIVITY ANALYSIS

Location: *3855 Dundas Street East, Mississauga*
Project: *FE-P-20-10464 HydroGeo*
Test Date: *2021-09-17*
Well No. *MW204*

Equilibrium Water level (from top of pipe) HE	*145*	*cm*
Initial Water level (from top of pipe) Ho	*404.5*	*cm*
Monitoring well inner diameter d	*0.05*	*m*
Initial Time offset To	*5*	*second*
Reverse of Luthin's reference system Ru = Ho - HE	*259.50*	*cm*
Slope of Log((ho-he)/(ht-he)) / T	*9.00E-06*	
G = Ru / (HT - HE)		

Hydraulic conductivity computed k =

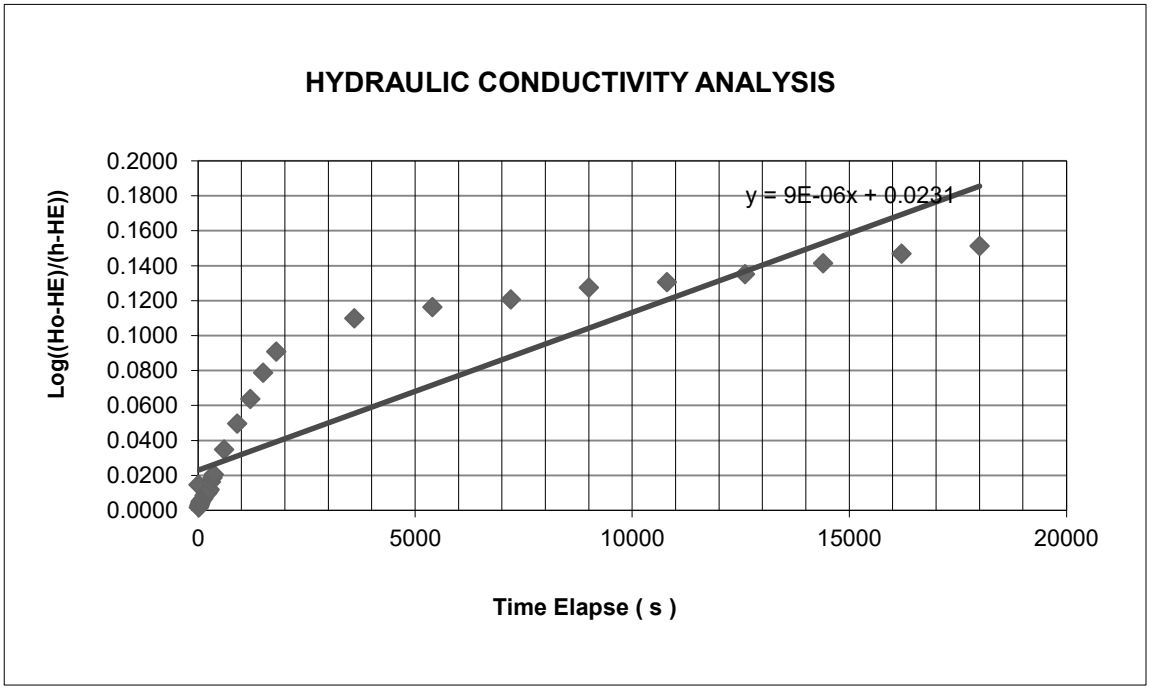
0.0000136	**cm/s**
1.36E-07	**m/s**
0.012	**m/day**

Time		HT (Water Drop)		G	LOG (G)
(Interval s)	(Elapsed s)	(m)	(cm)		
10	10	4.040	404.00	1.0019	0.0147
10	20	4.035	403.50	1.0039	0.0017
10	30	4.030	403.00	1.0058	0.0025
10	40	4.025	402.50	1.0078	0.0034
10	50	4.020	402.00	1.0097	0.0042
10	60	4.015	401.50	1.0117	0.0050
30	90	4.010	401.00	1.0137	0.0059
30	120	4.005	400.50	1.0157	0.0067
30	150	3.995	399.50	1.0196	0.0084
30	180	3.990	399.00	1.0217	0.0093
30	210	3.988	398.80	1.0225	0.0096
30	240	3.981	398.10	1.0253	0.0108
30	270	3.975	397.50	1.0277	0.0119
30	300	3.949	394.90	1.0384	0.0164
30	330	3.936	393.60	1.0438	0.0186
30	360	3.925	392.50	1.0485	0.0206
240	600	3.845	384.50	1.0835	0.0348
300	900	3.765	376.50	1.1210	0.0496
300	1200	3.691	369.10	1.1580	0.0637
300	1500	3.615	361.50	1.1986	0.0787
300	1800	3.555	355.50	1.2328	0.0909
1800	3600	3.465	346.50	1.2878	0.1099
1800	5400	3.435	343.50	1.3073	0.1164
1800	7200	3.415	341.50	1.3206	0.1208
1800	9000	3.385	338.50	1.3411	0.1275
1800	10800	3.371	337.10	1.3509	0.1306
1800	12600	3.351	335.10	1.3651	0.1352
1800	14400	3.324	332.40	1.3847	0.1414
1800	16200	3.300	330.00	1.4027	0.1470
1800	18000	3.282	328.20	1.4165	0.1512

FISHER ENGINEERING

HYDRAULIC CONDUCTIVITY ANALYSIS

Location: *3855 Dundas Street East, Mississauga*
Project: *FE-P-20-10464 HydroGeo*
Test Date: *2021-09-17*
Well No. *MW204*



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HYDRAULIC CONDUCTIVITY ANALYSIS

Location: *3855 Dundas Street East, Mississauga*
Project: *FE-P-20-10464 HydroGeo*
Test Date: *2021-09-17*
Well No. *MW205*

Equilibrium Water level (from top of pipe) HE	*394*	*cm*
Initial Water level (from top of pipe) Ho	*447*	*cm*
Monitoring well inner diameter d	*0.05*	*m*
Initial Time offset To	*5*	*second*
Reverse of Luthin's reference system Ru = Ho - HE	*53.00*	*cm*
Slope of Log((ho-he)/(ht-he)) / T	*7.00E-06*	
G = Ru / (HT - HE)		

Hydraulic conductivity computed k =

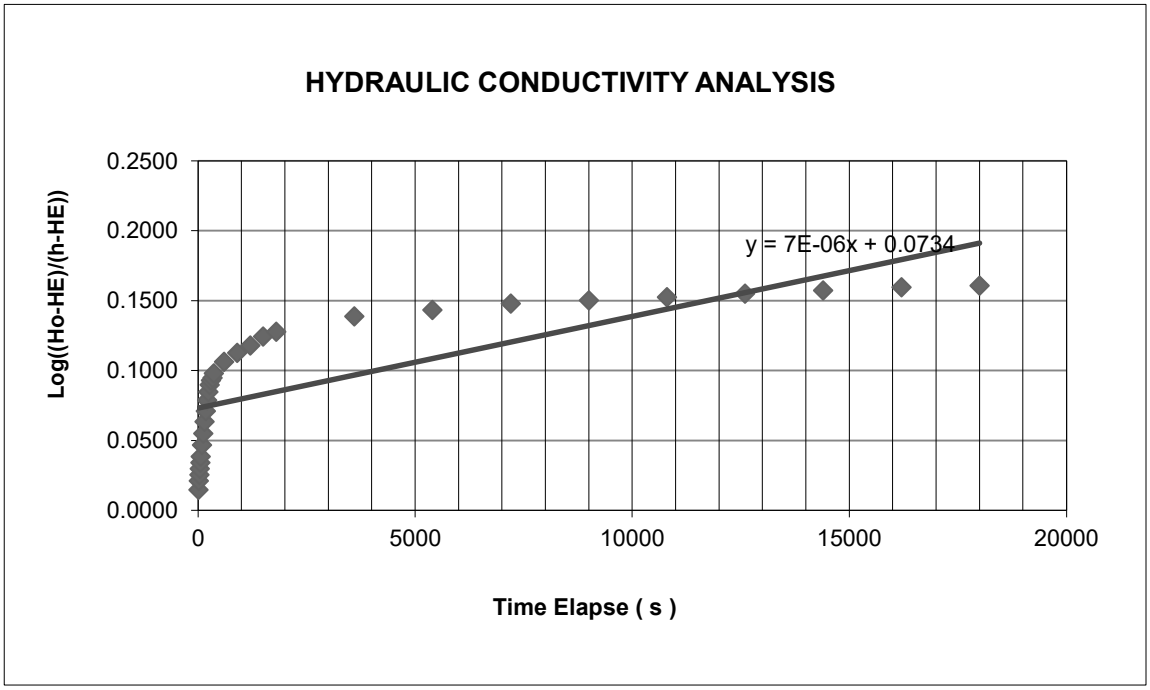
0.0000106	**cm/s**
1.06E-07	**m/s**
0.009	**m/day**

Time		HT (Water Drop)		G	LOG (G)
(Interval s)	(Elapsed s)	(m)	(cm)		
10	10	4.450	445.00	1.0392	0.0147
10	20	4.445	444.50	1.0495	0.0210
10	30	4.440	444.00	1.0600	0.0253
10	40	4.435	443.50	1.0707	0.0297
10	50	4.430	443.00	1.0816	0.0341
10	60	4.425	442.50	1.0928	0.0385
30	90	4.416	441.60	1.1134	0.0467
30	120	4.407	440.70	1.1349	0.0550
30	150	4.398	439.80	1.1572	0.0634
30	180	4.390	439.00	1.1778	0.0711
30	210	4.382	438.20	1.1991	0.0789
30	240	4.376	437.60	1.2156	0.0848
30	270	4.371	437.10	1.2297	0.0898
30	300	4.368	436.80	1.2383	0.0928
30	330	4.366	436.60	1.2441	0.0949
30	360	4.363	436.30	1.2530	0.0979
240	600	4.355	435.50	1.2771	0.1062
300	900	4.349	434.90	1.2958	0.1126
300	1200	4.344	434.40	1.3119	0.1179
300	1500	4.338	433.80	1.3317	0.1244
300	1800	4.335	433.50	1.3418	0.1277
1800	3600	4.325	432.50	1.3766	0.1388
1800	5400	4.321	432.10	1.3911	0.1434
1800	7200	4.317	431.70	1.4058	0.1479
1800	9000	4.315	431.50	1.4133	0.1502
1800	10800	4.313	431.30	1.4209	0.1526
1800	12600	4.311	431.10	1.4286	0.1549
1800	14400	4.309	430.90	1.4363	0.1572
1800	16200	4.307	430.70	1.4441	0.1596
1800	18000	4.306	430.60	1.4481	0.1608

FISHER ENGINEERING

HYDRAULIC CONDUCTIVITY ANALYSIS

Location: *3855 Dundas Street East, Mississauga*
Project: *FE-P-20-10464 HydroGeo*
Test Date: *2021-09-17*
Well No. *MW205*



FISHER ENGINEERING

HYDRAULIC CONDUCTIVITY ANALYSIS

Location: *3855 Dundas Street East, Mississauga*
Project: *FE-P-20-10464 HydroGeo*
Test Date: *2021-09-17*
Well No. *MW207*

Equilibrium Water level (from top of pipe) HE	*372*	*cm*
Initial Water level (from top of pipe) Ho	*445*	*cm*
Monitoring well inner diameter d	*0.05*	*m*
Initial Time offset To	*5*	*second*
Reverse of Luthin's reference system Ru = Ho - HE	*73.00*	*cm*
Slope of Log((ho-he)/(ht-he)) / T	*5.00E-06*	
G = Ru / (HT - HE)		

Hydraulic conductivity computed k =

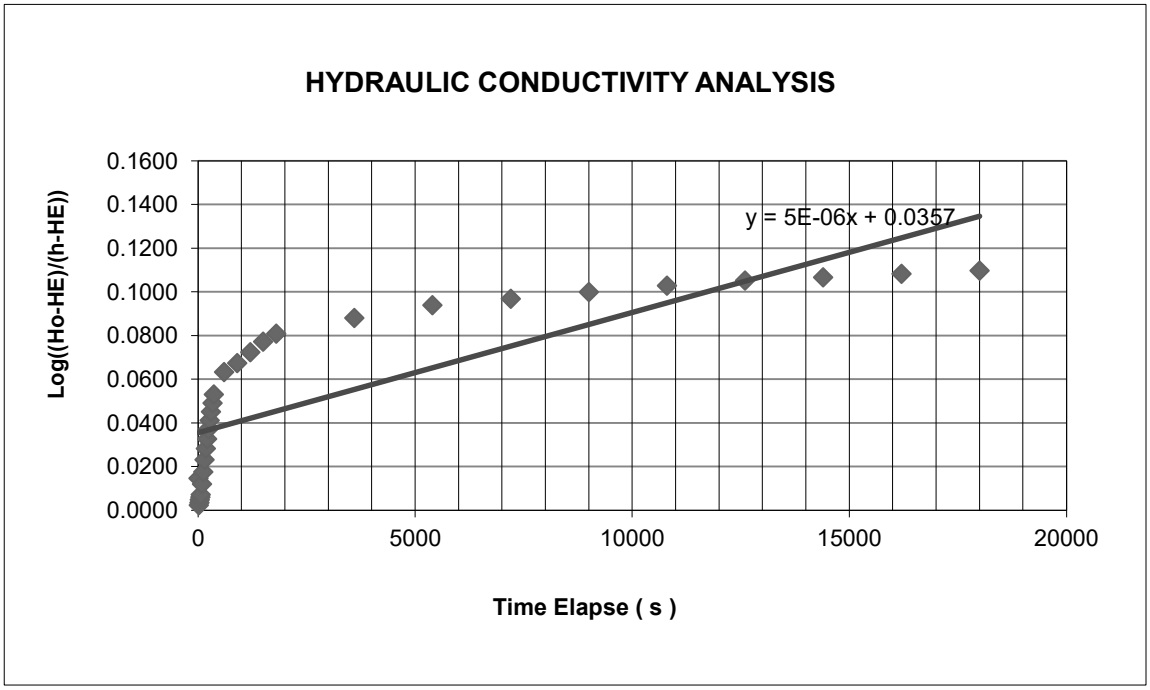
0.0000076	**cm/s**
7.57E-08	**m/s**
0.007	**m/day**

Time		HT (Water Drop)		G	LOG (G)
(Interval s)	(Elapsed s)	(m)	(cm)		
10	10	4.448	444.80	1.0027	0.0147
10	20	4.446	444.60	1.0055	0.0024
10	30	4.444	444.40	1.0083	0.0036
10	40	4.442	444.20	1.0111	0.0048
10	50	4.440	444.00	1.0139	0.0060
10	60	4.438	443.80	1.0167	0.0072
30	90	4.430	443.00	1.0282	0.0121
30	120	4.421	442.10	1.0414	0.0176
30	150	4.412	441.20	1.0549	0.0232
30	180	4.404	440.40	1.0673	0.0283
30	210	4.397	439.70	1.0783	0.0327
30	240	4.390	439.00	1.0896	0.0372
30	270	4.384	438.40	1.0994	0.0412
30	300	4.378	437.80	1.1094	0.0451
30	330	4.372	437.20	1.1196	0.0491
30	360	4.366	436.60	1.1300	0.0531
240	600	4.351	435.10	1.1569	0.0633
300	900	4.345	434.50	1.1680	0.0674
300	1200	4.338	433.80	1.1812	0.0723
300	1500	4.331	433.10	1.1948	0.0773
300	1800	4.326	432.60	1.2046	0.0809
1800	3600	4.316	431.60	1.2248	0.0881
1800	5400	4.308	430.80	1.2415	0.0939
1800	7200	4.304	430.40	1.2500	0.0969
1800	9000	4.300	430.00	1.2586	0.0999
1800	10800	4.296	429.60	1.2674	0.1029
1800	12600	4.293	429.30	1.2740	0.1052
1800	14400	4.291	429.10	1.2785	0.1067
1800	16200	4.289	428.90	1.2830	0.1082
1800	18000	4.287	428.70	1.2875	0.1097

FISHER ENGINEERING

HYDRAULIC CONDUCTIVITY ANALYSIS

Location: *3855 Dundas Street East, Mississauga*
Project: *FE-P-20-10464 HydroGeo*
Test Date: *2021-09-17*
Well No. *MW207*



APPENDIX F –DEWATERING RATES AND RADIUS OF INFLUENCE

Construction Dewatering Calculation

Location: *3855 Dundas Street West, Mississauga*
Project: *FH 21-11440*
Date: *7/25/2023*

Dupuit Forcheimer for Radial Flow to a Closely Welled System or Excavation

Construction Units	Finished lowest floor elevation (m asl)	Ground Surface Elev. (m asl)	Lowest Footing Elevation (m asl)	Required Dewatering Elevation (m asl)	Static water level		Well base elevation	H (m)	h_w (m)	H-h_w (m)	R_0 (m)		r_w	ab (m^2)	K (m/s)	H^2-h_w^2	lnR_0	lnr_w	Q_s (m^3/s)	Q_s (m^3/day)
					BGS (m)	Elevation (m asl)	(m)				Model	Adjusted								
4-Storey building with 1 UG level	168.05	171.22	166.85	165.85	1.26	169.96	165.55	4.41	0.3	4.11	2.64	42.79	40.15	5064.9	1.03E-07	19.36	3.76	3.69	9.84E-05	8.50
Industrial Condo with no UG levels	171.40	171.22	169.02	168.02	1.26	169.96	167.72	2.24	0.3	1.94	1.24	30.81	29.56	2745.1	1.03E-07	4.93	3.43	3.39	3.86E-05	3.34

Dupuit Forcheimer Equation

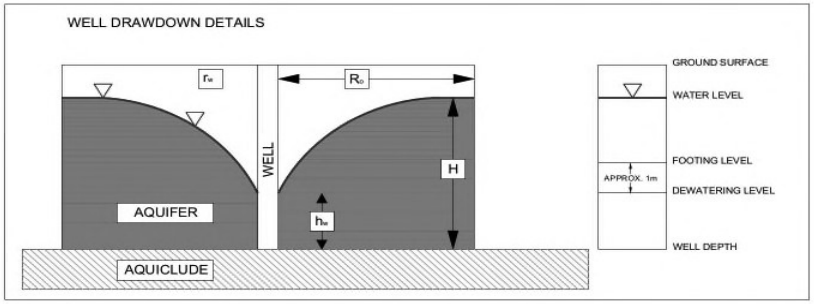
$$Q = \frac{\pi K(H^2 - h_w{}^2)}{lnR_0 - lnr_w}$$

Equivalent radius of well, r_w

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

Radius of influence in m, calculated from Sichardt's equation

$$R_0 = 2000(H - h_w)\sqrt{k}$$



Where:

r_w = equivalent radius of the well in m,
H = hydraulic head of the original water table (total saturated aquifer thickness) in m,
h_w = hydraulic head at maximum dewatering (proposed drawdown) in m,
R_0 = radius of influence in m, calculated from Sichardt's equation, and
K = hydraulic conductivity, in m/s
a = length of excavation area in m
b = width of excavation area in m

FISHER ENGINEERING

Permanent Drainage Rates

Location: *3855 Dundas Street West, Mississauga*
Project: *FH 21-11440*
Date: *7/25/2023*

Dupuit Forcheimer for Radial Flow to a Closely Welled System or Excavation

Construction Units	Finished lowest floor elevation (m asl)	Ground Surface Elev. (m asl)	Lowest Footing Elevation (m asl)	Required Dewatering Elevation (m asl)	Static water level		Well base elevation	H (m)	h_w (m)	H-h_w (m)	R_0 (m)		r_w	ab (m^2)	K (m/s)	H^2-h_w^2	lnR_0	lnr_w	Q, (m^3/s)	Q, (m^3/day)
					BGS (m)	Elevation (m asl)	(m)				Model	Adjusted								
4-Storey building with 1 UG level	168.05	171.22	166.85	167.75	1.26	169.96	167.50	2.46	0.3	2.21	1.42	41.57	40.15	5064.9	1.03E-07	5.99	3.73	3.69	5.58E-05	4.82

Dupuit Forcheimer Equation

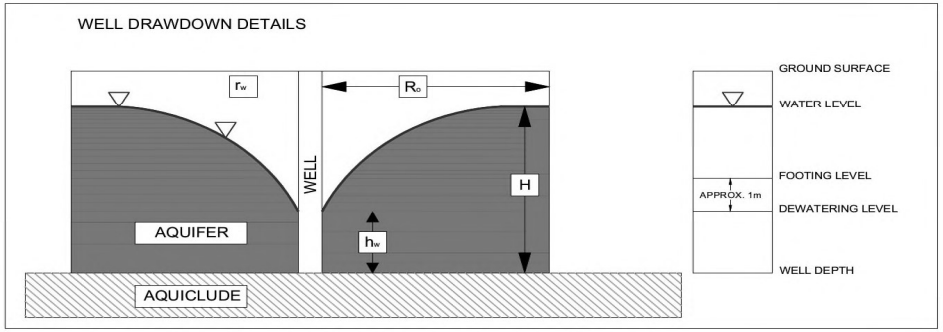
$$Q = \frac{\pi K(H^2 - h_w{}^2)}{lnR_0 - lnr_w}$$

Equivalent radius of well, r_w

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

Radius of influence in m, calculated from Sichardt's equation

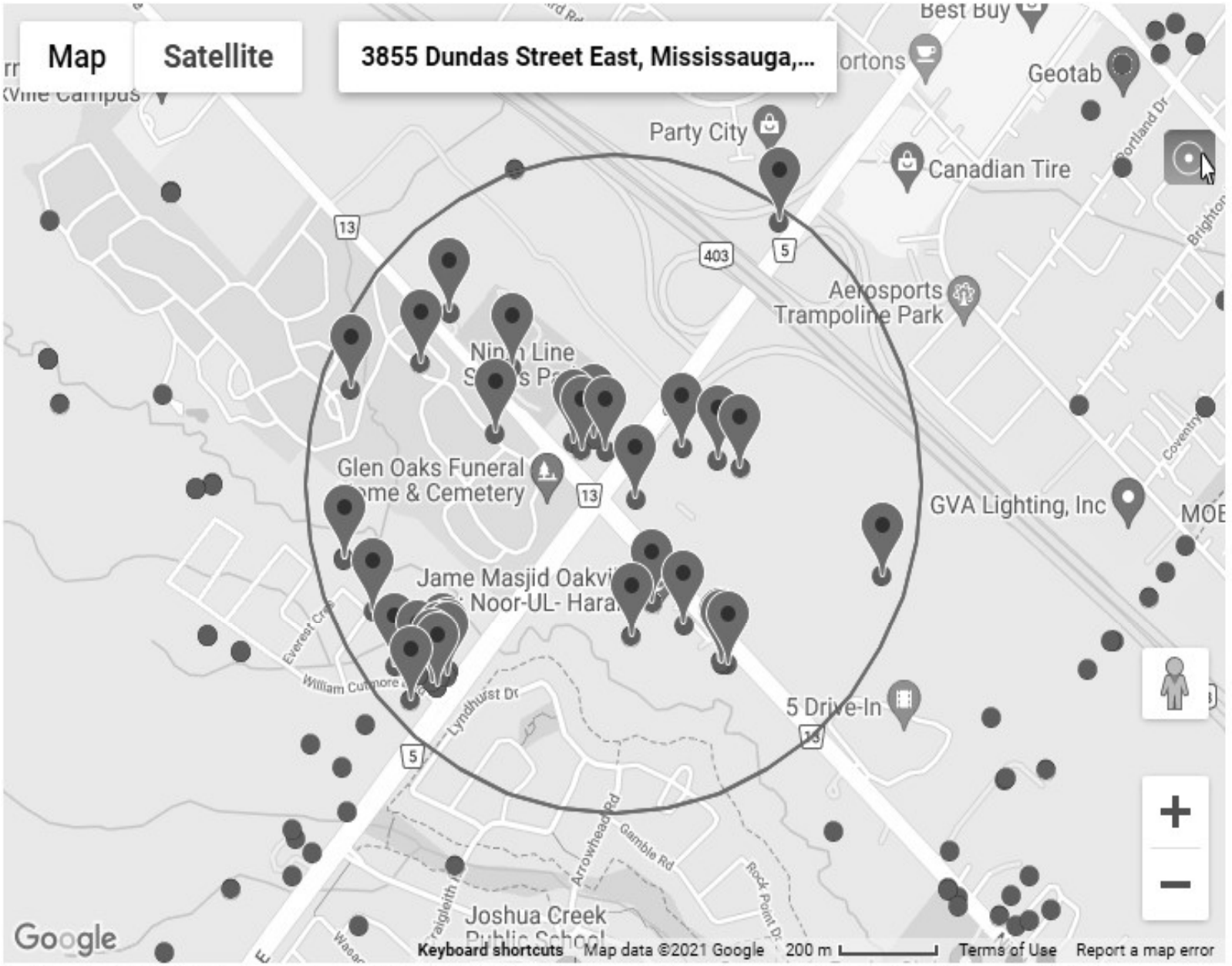
$$R_0 = 2000(H - h_w)\sqrt{k}$$



Where:

r_w = equivalent radius of the well in m,
H = hydraulic head of the original water table (total saturated aquifer thickness) in m,
h_w = hydraulic head at maximum dewatering (proposed drawdown) in m,
R_0 = radius of influence in m, calculated from Sichardt's equation, and
K = hydraulic conductivity, in m/s
a = length of excavation area in m
b = width of excavation area in m

APPENDIX G – PRIVATE WELL RECORDS



Latitude:43.51176, Longitude:-79.70405 (UTM Zone:17, Easting:604750, Northing:4818463)

FISHER ENGINEERING
400 Esna Park Dr., #15
Markham, Ontario
L3R 3K2
Tel: 905 475-7755
Fax: 905 475-7718

NORTH

N

LEGEND

SITE BOUNDARY

PROJECT NAME AND ADDRESS

HYDROGEOLOGICAL INVESTIGATION

3855 Dundas Street East, MISSISSAUGA, ONTARIO

FIGURE 1:

WELLS WITHIN 500M RADIUS

SHEET NO.

H1

PROJECT NO.

FE-P21-110464

DATE

NOVEMBER 2021

SCALE

AS SHOWN

UTM 17 Z 605655 E 30M/12
9 R 4818402 N
Elev. 9[illegible] R/ 0562 North
Basin 20
Lot 4

The Ontario Water Resources Commission Act, 1957

28 No. 2101

GROUND WATER BRANCH
JAN 11 1960
ONTARIO WATER RESOURCES COMMISSION
OAKVILLE

WATER WELL RECORD

County or District Halton — ~~Township, Village~~, Town ~~or City~~ ~~Trafalgar~~

[redacted] completed 30 (day) September (month) 1959 (year)

[redacted] ress # 5 Hwy., Trafalgar, Ont.

Casing and Screen Record

Inside diameter of casing 6¼" I.D.
Total length of casing 7 ft.
Type of screen none
Length of screen "
Depth to top of screen /
Diameter of finished hole 6¼"

Pumping Test

Static level 15 ft.
Test-pumping rate 3 G.P.M.
Pumping level 75 ft.
Duration of test pumping 6 hrs.
Water clear or cloudy at end of test clear
Recommended pumping rate 2½ G.P.M.
with pumping level of 70 ft.

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, sulphur)
Dug well	0	25'			
Grey muck	25'	26'	66'	51'	fresh
Red shale	26'	81'	78'	63'	fresh

For what purpose(s) is the water to be used?
Domestic Use

Is well on upland, in valley, or on hillside?
Upland

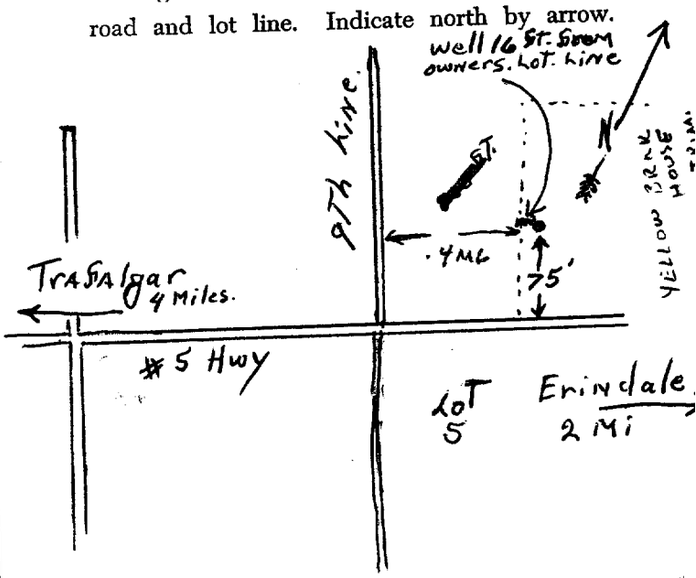
Drilling Firm
Address

Licence Number 262
Name of Driller Don P. Jacobson
Address 175 Main St. North, Georgetown, Ontario.
Date Nov. 25/59

Don P. Jacobson
(Signature of Licensed Drilling Contractor)

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



CSS.S8

Form 5
M-58-4149

E UTM 17 Z 605068 E 30M/12
9 R 4817982 N
Elev. 9[illegible] R 0553
Basin 24

ONTARIO

Rec'd Sept 8/55
28 No. 2102

The Water-well Drillers Act, 1954
Department of Mines

Water-Well Record

County or Territorial District HALTON Township, Village, Town or City ~~Township, Village~~, Town ~~or City~~ OAKVILLE Trafalgar

[redacted] Village, Town or City)

[redacted] Address R.R. #1 Milton

(day) (month) (year)

Pipe and Casing Record

Casing diameter(s) 6 ¼
Length(s) 61'
Type of screen
Length of screen

Pumping Test

Static level 25
Pumping rate ~~5~~ 9 g.p.m.
Pumping level ~~55~~ 65
Duration of test 1 hour.

Well Log

Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
clay	0	30			
sand & clay	30	55			
red shale	55	75	70	45	fresh

For what purpose(s) is the water to be used? house

Is water clear or cloudy? clear

Is well on upland, in valley, or on hillside? Upland

Drilling firm F C Lore

Address Box 442 Milton Ont.

Name of Driller

Address

Licence Number 431

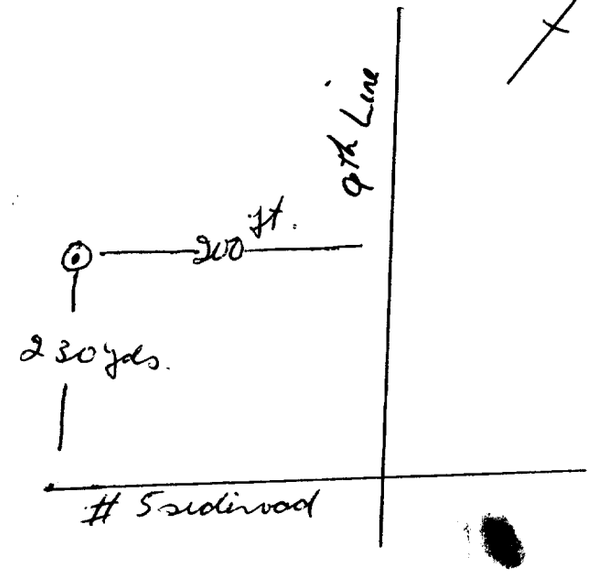
I certify that the foregoing statements of fact are true.

Date 7 Sept 55 [signature]

Signature of Licensee

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



Form 5

CSS.S8

30 M12 b

UTM 17 Z 6 0 5 5 3 5 E
9 R 4 8 1 7 9 3 7 N 4a
Elev. 94 R 0 5 5 7
Basin 24

ONTARIO

RECEIVED
DEC 22 1954
GEOLOGICAL BRANCH
DEPARTMENT OF MINES

28 No. 2284

The Well Drillers Act
Department of Mines, Province of Ontario

Water Well Record OAKVILLE

County or Territorial District Halton Township, ~~Village~~, Town ~~or City~~ Trafalgar
(Township, Village, Town or City)
[redacted] 15 South Wilson Oakville
Date Completed (day) (month) (year) Cost of Well (excluding pump)

Pipe and Casing Record

Casing diameter(s) 6" 4"
Length(s) of casing(s) 12 ft
Type of screen
Length of screen
Distance from top of screen to ground level
Is well a gravel-wall type?

Pumping Test

Date
Static level 50'
Pumping level pumped dawn
Pumping rate 3 g.p.m.
Duration of test
Distance from cylinder or bowls to ground level

Water Record

Kind (fresh or mineral) fresh
Quality (hard, soft, contains iron, sulphur, etc.) small amt sulphur
Appearance (clear, cloudy, coloured) clear
For what purpose(s) is the water to be used? domestic
Drive-in Theatre
How far is well from possible source of contamination?
What is the source of contamination? nil
Enclose a copy of any mineral analysis that has been made of water

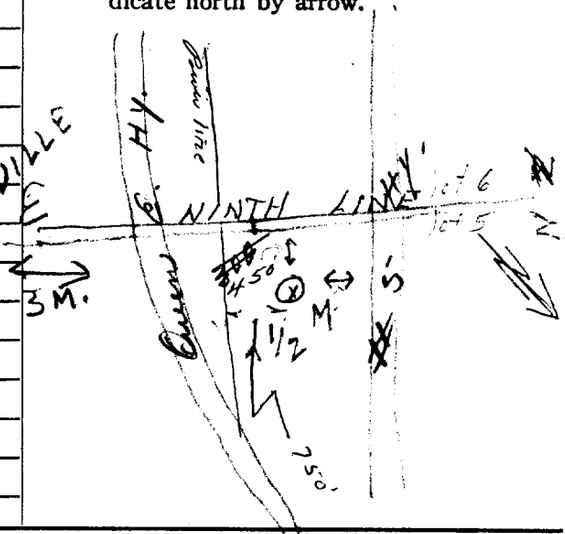
Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
~~50 ft~~	hard	174

Well Log

Overburden and Bedrock Record	From	To
Clay	0 ft.	8 ft.
limestone	8	224

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



Situation: Is well on upland, in valley, or on hillside? upland
Drilling Firm. Gail Gadsby
Address Vroman Corners
Name of Driller T. Lovett Address Vroman Ont.
Date Licence Number
Signature of Licensee

FORM 5

CSS 58

30 M12B

B

28 № 2290

UTM 17 Z 560556 12 E
5 R 4811539 N

Elev. 84 R 05210

Basin 24

The Ontario Water Resources Commission Act

WATER WELL RECORD

OAKVILLE

County or District HALTON

Township, Village, Town or City ~~TRAFALGER~~

Con. 1 SDS. Lot 61

Date completed 14 (day) SEPT. (month) 67 (year)

[redacted] ress 9TH LINE. OAKVILLE.

Casing and Screen Record

Inside diameter of casing 6 5/8"

Total length of casing 23'

Type of screen

Length of screen

Depth to top of screen

Diameter of finished hole 6 5/8.

Pumping Test

Static level 20'

Test-pumping rate 1 G.P.M.

Pumping level PUMPS DRY.

Duration of test pumping 2

Water clear or cloudy at end of test CLEAR

Recommended pumping rate 1 G.P.M.

with pump setting of 80' feet below ground surface

Well Log

Overburden and Bedrock Record	From ft.	To ft.
TOP SOIL	0	1
BROWN & RED CLAY	1	23
(ROCK) - RED SHALE	23.	85.

Water Record

Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
69-85.	FRESH.

For what purpose(s) is the water to be used? HOUSE. DOMESTIC.

Is well on upland, in valley, or on hillside? UPLAND.

Drilling or Boring Firm WM. E. CORE & SON.

Address 161 QUEEN ST. E. BRAMPTON ONT.

Licence Number 2525.

Name of Driller or Borer EDWARD CORE.

Address 88 CLARENCE ST.

Date Sept 14/67.

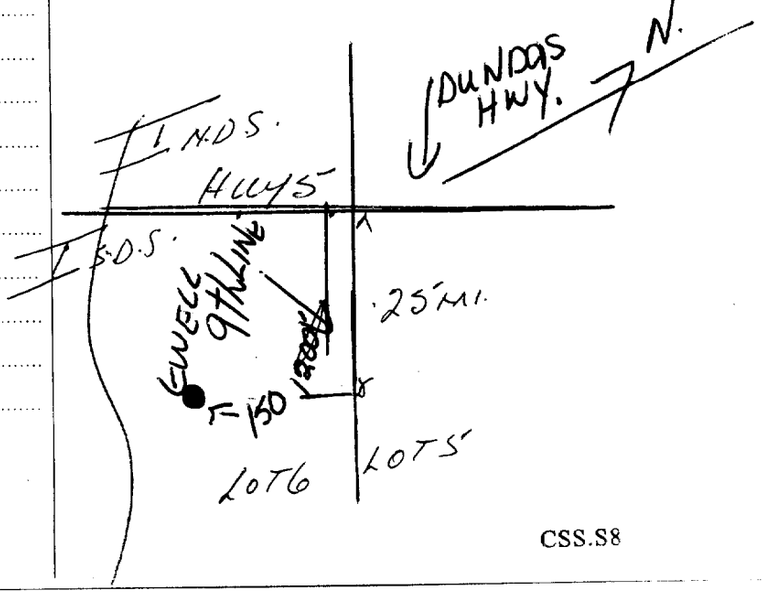
Edward Core
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M-60-4138

OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



CSS.S8

The Ontario Water Resources Commission Act

WATER WELL RECORD

30M/126

Water management in Ontario

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 2803675 | UNICIP. 28605 | CON. DS S C 91

COUNTY OR DISTRICT: Halton | TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: Oakville | CON., BLOCK, TRACT, SURVEY, ETC.: 1 SOS | LOT: 6 006

[redacted] 135 Ninth Line Oakville

DATE COMPLETED: DAY 02 MO Dec YR 71

UTM | 17 54 0 | RC. 4 | ELEVATION 05 30 | RC. 4 | BASIN CODE 24

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH FROM	DEPTH TO
Redish	Clay			0	20
red	shale			20	25
red	shale &	water		25	26
red	shale			26	28

31 | 0020 7905 | 0028 7117

32

41 WATER RECORD

WATER FOUND AT — FEET	KIND OF WATER
0025	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 5 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH FROM	DEPTH TO
30	1 ☐ STEEL; 2 ☐ GALVANIZED; 3 ☒ CONCRETE; 4 ☐ OPEN HOLE	3"	0	0028
	1 ☐ STEEL; 2 ☐ GALVANIZED; 3 ☐ CONCRETE; 4 ☐ OPEN HOLE			
	1 ☐ STEEL; 2 ☐ GALVANIZED; 3 ☐ CONCRETE; 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER (INCHES)	LENGTH (FEET)

MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN (FEET)

61 PLUGGING & SEALING RECORD

DEPTH SET AT — FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☐ PUMP 2 ☒ BAILER | PUMPING RATE 0008 2009 GPM ~~24 hours~~ | DURATION OF PUMPING ~~00~~ HOURS 30 MINS.

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☐ PUMPING 2 ☐ RECOVERY) 15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
010 FEET	027 FEET	FEET	FEET	FEET	FEET

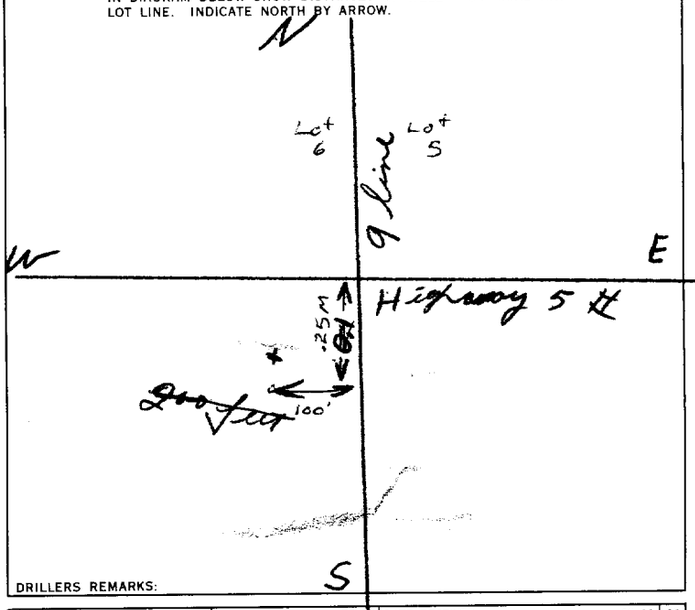
IF FLOWING, GIVE RATE: GPM. | PUMP INTAKE SET AT: FEET | WATER AT END OF TEST: 1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☒ SHALLOW ☐ DEEP | RECOMMENDED PUMP SETTING 027 FEET | RECOMMENDED PUMPING RATE GPM.

GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

FINAL STATUS OF WELL

1 ☒ WATER SUPPLY; 2 ☐ OBSERVATION WELL; 3 ☐ TEST HOLE; 4 ☐ RECHARGE WELL; 5 ☐ ABANDONED, INSUFFICIENT SUPPLY; 6 ☐ ABANDONED, POOR QUALITY; 7 ☐ UNFINISHED

WATER USE 01

1 ☒ DOMESTIC; 2 ☐ STOCK; 3 ☐ IRRIGATION; 4 ☐ INDUSTRIAL; 5 ☐ COMMERCIAL; 6 ☐ MUNICIPAL; 7 ☐ PUBLIC SUPPLY; 8 ☐ COOLING OR AIR CONDITIONING; ☐ OTHER; 9 ☐ NOT USED

METHOD OF DRILLING

1 ☐ CABLE TOOL; 2 ☐ ROTARY (CONVENTIONAL); 3 ☐ ROTARY (REVERSE); 4 ☐ ROTARY (AIR); 5 ☐ AIR PERCUSSION; 6 ☒ BORING; 7 ☐ DIAMOND; 8 ☐ JETTING; 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: Maurice Babin | LICENCE NUMBER: 1307

ADDRESS: 361 West Mall apt 304 Etobicoke

NAME OF DRILLER OR BORER: Maurice Babin | LICENCE NUMBER: 1307

SIGNATURE OF CONTRACTOR: Maurice Babin | SUBMISSION DATE: DAY 2 MO Dec YR 71

OWRC COPY

OFFICE USE ONLY

DATA SOURCE: 1 | CONTRACTOR: 1307 | DATE RECEIVED: 211271

DATE OF INSPECTION | INSPECTOR

REMARKS: CSS.S8 | P 1 | WI

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

Form 7

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 2805872 MUNICIP. 28602 CON. DS S 01

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY ETC	LOT
HALTON	OKVILLE TOWN TRAF.	T. DS. S	005

[redacted] R. 4 OKVILLE 2013 Dundas ST E

DATE COMPLETED: DAY 24 MO 04 YR 82

UTM-NORTHING 817960 RC 4 ELEVATION 0550 RC 4 BASIN CODE 24

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
BROWN	CLAY	STONS	DENSE	0	22
RED	SHALL		HARD	22	110

31 9022605 1266 01107 1773

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
098	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
06"	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	0	022
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE		22	0110
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER ETC.)
0	16	clay

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☐ PUMP 2 ☒ BAILER

PUMPING RATE: 0005 GPM

DURATION OF PUMPING: 01 HOURS 30 MINS

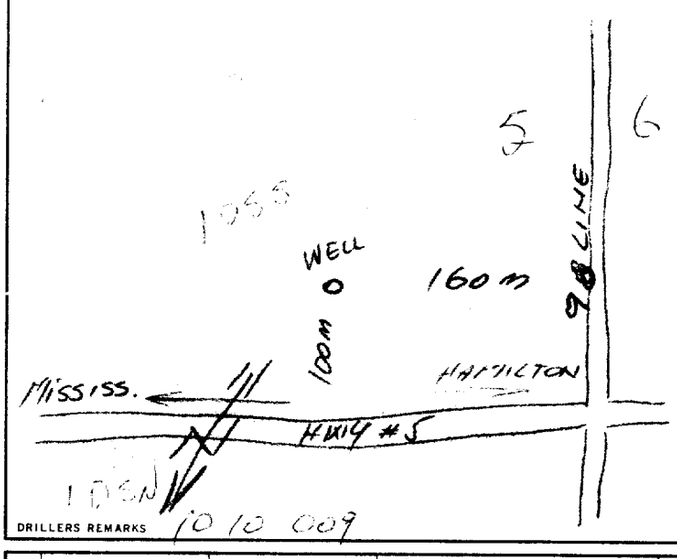
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY			
		15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
012 FEET	101 FEET	FEET	101 FEET	FEET	101 FEET

IF FLOWING GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☒ DEEP	105 FEET	0005 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS: 10 10 009

FINAL STATUS OF WELL 1

1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED POOR QUALITY 7 ☐ UNFINISHED

WATER USE 01

1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF DRILLING 1

1 ☒ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: M. KIVAC — LICENCE NUMBER: 3132

ADDRESS: Box 148 Caledon. Ont. LONICO

NAME OF DRILLER OR BORER — LICENCE NUMBER

SIGNATURE OF CONTRACTOR

SUBMISSION DATE: DAY 15 MO 05 YR 82

OFFICE USE ONLY

DATA SOURCE 1 | CONTRACTOR 3132 | DATE RECEIVED 12 10 82

DATE OF INSPECTION 06/4/83 | INSPECTOR

REMARKS: No Seal etc Book left owner advised

CSS.88

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506-4-77

30 M/12 6

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 — 2806336 — MUNICIP. — CON.

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC	LOT
HALTON	OAKVILLE	CON.1 N.D.S.	6

[redacted] .9TH. OAKVILLE ONT. L6J 4Z2

DATE COMPLETED: DAY 29 MO 7 YR 85

RING — 18063 — RC. — ELEVATION 170 — RC. — BASIN CODE — II — III — IV

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
BROWN	CLAY		LOOSE	0	10
BROWN	SANDY CLAY	& GRAVEL	LOOSE	10	18
GREY	CLAY		LOOSE	18	47
RED	CLAY		LOOSE	47	50
RED	SHALE		HARD	50	70

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
52	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6¼	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	1	50
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE		50	70
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER (INCHES)	LENGTH (FEET)

MATERIAL AND TYPE — DEPTH TO TOP OF SCREEN (FEET)

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☐ PUMP 2 ☒ BAILER	1 GPM	1 HOURS ___ MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
15 FEET	69 FEET	1 ☐ PUMPING 2 ☐ RECOVERY	58 FEET	46 FEET	34 FEET	22 FEET

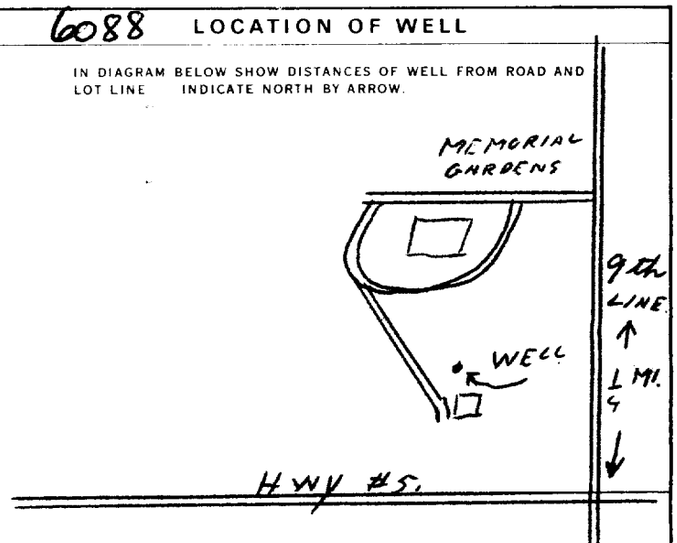
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	1 ☐ CLEAR 2 ☒ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☒ DEEP	67 FEET	1 GPM

LOCATION OF WELL

6088

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS: 010 020 10/07-08

FINAL STATUS OF WELL

1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED

WATER USE

1 ~~☒~~ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☒ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF DRILLING

1 ☒ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR	LICENCE NUMBER
OCONNOR WELL DRILLING LTD.	4005

ADDRESS: RR # 1 MILLGROVE ONT. LOR IVO

NAME OF DRILLER OR BORER	LICENCE NUMBER
J.W.OCNNOR W.HOWE	

SIGNATURE OF CONTRACTOR: J.B. O'Connor — SUBMISSION DATE: DAY ___ MO ___ YR ___

OFFICE USE ONLY

DATA SOURCE	CONTRACTOR	DATE RECEIVED
		09 09 85

DATE OF INSPECTION — INSPECTOR

REMARKS

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506—4—77 FORM 7

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 — 2807995 — MUNICIP 28605 — CON. D.S. S — LOT 01

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON. BLOCK, TRACT, SURVEY, ETC	LOT
Halton	Trafalgar (Burlington)	Con I	Pt I 2 6

[redacted]
2478 Ninth Line Oakville

DATE COMPLETED: DAY 25 MO 04 YR 92

NG | RC | ELEVATION | RC | BASIN CODE | II | III | IV

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
Black	topsoil		Loose	0	2
Red	Clay		soft	2	35
Red	Shale		Hard	35	93

31
32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
88	1 ☒ FRESH 2 ☒ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6 1/4	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	188	0	37
6	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE 5 ☐ PLASTIC	37	37	93
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET	

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
0	20	Holeplug

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☒ PUMP 2 ☐ BAILER	3½ GPM	2 HOURS ___ MINS

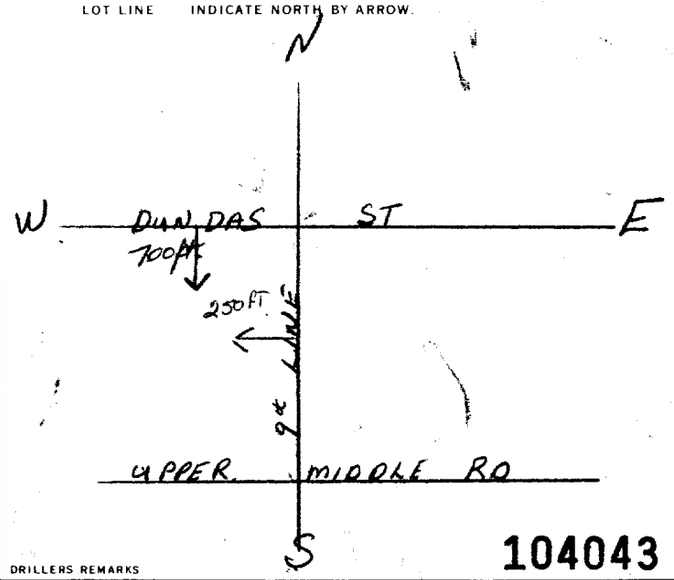
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
9 FEET	42 FEET		28 FEET	36 FEET	42 FEET	42 FEET

IF FLOWING GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☒ DEEP	89 FEET	3½ GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS: 104043

FINAL STATUS OF WELL

1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED ☐ DEWATERING

WATER USE

1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☒ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF CONSTRUCTION

1 ☒ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING ☐ DIGGING ☐ OTHER

CONTRACTOR

NAME OF WELL CONTRACTOR: Langille Well Drilling
WELL CONTRACTOR'S LICENCE NUMBER: 3349
ADDRESS: 46Royce Ave Brampton
NAME OF WELL TECHNICIAN: Kevin Langille-Ron Langille
WELL TECHNICIAN'S LICENCE NUMBER: T0420
SIGNATURE OF TECHNICIAN/CONTRACTOR: Ron Langille
SUBMISSION DATE: DAY 30 MO 04 YR 9i

MINISTRY OF THE ENVIRONMENT COPY

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR 3349 | DATE RECEIVED JUL 20 1992
DATE OF INSPECTION | INSPECTOR
REMARKS

FORM NO. 0506 (11/86) FORM 9

Ministry of Environment and Energy
Ontario

The Ontario Water Resources Act
WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11 — 2808467 — Municipality 28605 — Con DS S 01

County or District	Township/Borough/City/Town/Village	Con block tract survey, etc.	Lot
[redacted]	Town of Oakville	Conc. 1 SDS	6

Address: RR#1 Oakville, Ont., L6J-4Z2 — Date completed: 8 day, 5 month, 96 year

21 — Northing — '96 JUL 10 P1 50 — Elevation — Basin Code

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth – feet From	Depth – feet To
Brown	Clay			0	26
Red	Shale			26	97
Grey	Shale			97	100

31

32

41 WATER RECORD

Water found at – feet	Kind of water
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth – feet From	Depth – feet To
6.25	1 ☒ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic	0.188	+4	26
6	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☒ Open hole 5 ☐ Plastic		26	100
	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic			

SCREEN

Sizes of opening (Slot No.)	Diameter inches	Length feet

Material and type: | Depth at top of screen feet:

61 PLUGGING & SEALING RECORD

☐ Annular space ☐ Abandonment

Depth set at – feet From	Depth set at – feet To	Material and type (Cement grout, bentonite, etc.)

71 PUMPING TEST

Pumping test method: 1 ☐ Pump 2 ☐ Bailer — Pumping rate: 0 GPM — Duration of pumping: ..... Hours ..... Mins

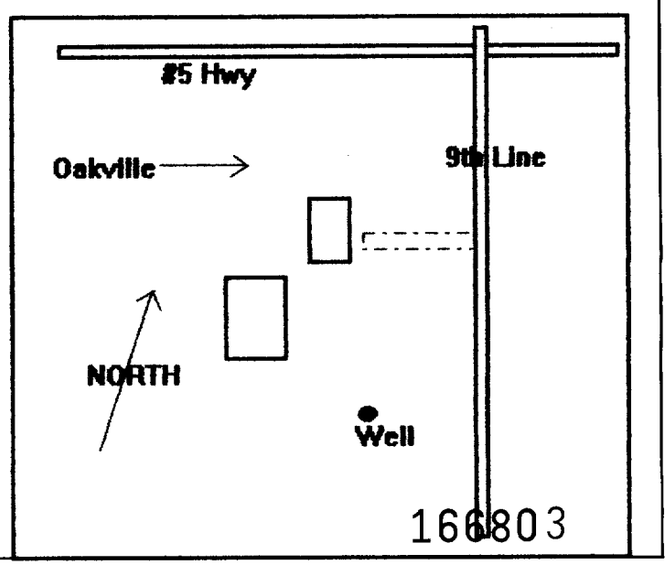
Static level feet	Water level end of pumping feet	Water levels during: 1 ☐ Pumping 2 ☐ Recovery — 15 minutes feet	30 minutes feet	45 minutes feet	60 minutes feet

If flowing give rate GPM	Pump intake set at feet	Water at end of test: ☐ Clear ☐ Cloudy

Recommended pump type: ☐ Shallow ☐ Deep	Recommended pump setting feet	Recommended pump rate GPM

LOCATION OF WELL

In diagram below show distances of well from road and lot line.
Indicate north by arrow.



FINAL STATUS OF WELL

1 ☐ Water supply 2 ☐ Observation well 3 ☐ Test hole 4 ☐ Recharge well
5 ☒ Abandoned, insufficient supply 6 ☐ Abandoned, poor quality 7 ☐ Abandoned (Other) 8 ☐ Dewatering
9 ☐ Unfinished 10 ☐ Replacement well

WATER USE

1 ☒ Domestic 2 ☐ Stock 3 ☐ Irrigation 4 ☐ Industrial
5 ☐ Commercial 6 ☐ Municipal 7 ☐ Public supply 8 ☐ Cooling & air conditioning
9 ☐ Not used 10 ☐ Other .....

METHOD OF CONSTRUCTION

1 ☒ Cable tool 2 ☐ Rotary (conventional) 3 ☐ Rotary (reverse) 4 ☐ Rotary (air)
5 ☐ Air percussion 6 ☐ Boring 7 ☐ Diamond 8 ☐ Jetting
9 ☐ Driving 10 ☐ Digging 11 ☐ Other .....

Name of Well Contractor	Well Contractor's Licence No.
O'Connor Well Drilling Ltd	4005
Address: RR#1 Millgrove, Ont., L0R-1V0	
Name of Well Technician: W. Howe	Well Technician's Licence No. T-0518
Signature of Technician/Contractor: John McCann	Submission date: day mo yr

MINISTRY USE ONLY

Data source	Contractor 4005	Date received JUN 05 1996
Date of inspection	Inspector	
Remarks		

0506 (07/94) Front Form 9

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Ontario **Ministry of the Environment**

The Ontario Water Resources Act
WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11 (1 2) **2809720**

Municipality (10–14) 28605 Con. (15–22) DS S (23 24) 01

County or District	Township/Borough/City/Town/Village	Con	block	tract	survey, etc.	Lot (25-27)
HALTON	OAKVILLE					05

Address: 1012 DUNDAS ST, EAST OAKVILLE

Date completed (48-53): 19 12 02 (day month year)

21 (1 2) | UTM (10) | Northing (12–17) | (18–24) | RC (25) | Elevation (26) | RC (30) | Basin Code (31) | ii | iii | iv (47)

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet From	Depth - feet To
			WELL DECOMMISSIONING		
	DRILLED WELL	INSIDE OF OLD STONE WELL			
	DRILLED WELL	FILLED WITH HOLEPLUG		40	10
	OLD STONE WELL	FILLED WITH HOLEPLUG		10	9
	OLD STONE WELL	FILLED WITH CLEAN SAND		9	5
	OLD STONE WELL	FILLED WITH CLEAN CLAY FILL		5	0
	NOTE: TOP FIVE FEET OF STONES REMOVED				

31

32 (10 14 15 21 32 43 54 65 75 80)

41 WATER RECORD

Water found at - feet	Kind of water
10-13	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas (14)
15-18	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas (19)
20-23	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas (24)
25-28	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas (29)
30-33	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas (34) (60)

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet From	Depth - feet To
10-11	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic (12)			13-16
17-18	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic (19)			20-23
24-25	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic (26)			27-30

SCREEN

Sizes of opening (Slot No.) (31-33)	Diameter (34-38) inches	Length (39-40) feet
Material and type	Depth at top of screen (41-44) feet	(30)

61 PLUGGING & SEALING RECORD

☐ Annular space ☐ Abandonment

Depth set at - feet From	Depth set at - feet To	Material and type (Cement grout, bentonite, etc.)
10-13	14-17	
18-21	22-25	
26-29	30-33 (80)	

71 PUMPING TEST

Pumping test method (10): 1 ☐ Pump 2 ☐ Bailer

Pumping rate (11-14): GPM

Duration of pumping (15-16) Hours (17-18) Mins

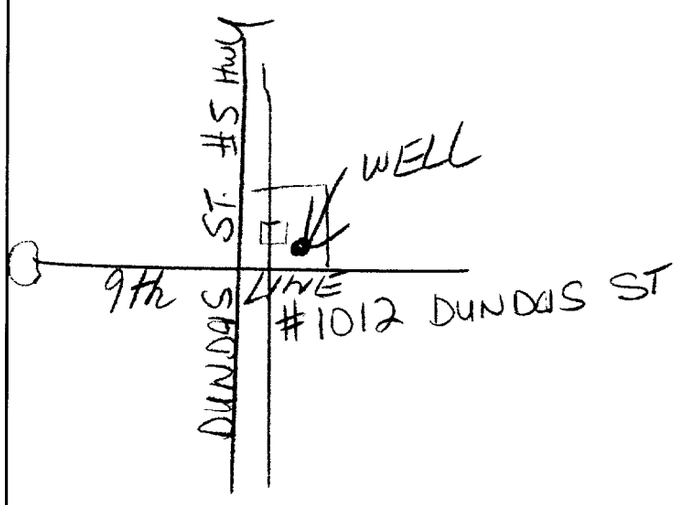
Static level (19-21) feet	Water level end of pumping (22-24) feet	Water levels during (25): 1 ☐ Pumping 2 ☐ Recovery			
		15 minutes (26-28) feet	30 minutes (29-31) feet	45 minutes (32-34) feet	60 minutes (35-37) feet

If flowing give rate (38-41) GPM	Pump intake set at feet	Water at end of test (42): ☐ Clear ☐ Cloudy
Recommended pump type: ☐ Shallow ☐ Deep	Recommended pump setting (43-45) feet	Recommended pump rate (46-49) GPM

(50-53)

LOCATION OF WELL

In diagram below show distances of well from road and lot line. Indicate north by arrow.



242197

FINAL STATUS OF WELL (54)

1 ☐ Water supply 2 ☐ Observation well 3 ☐ Test hole 4 ☐ Recharge well
5 ☐ Abandoned, insufficient supply 6 ☐ Abandoned, poor quality 7 ☒ Abandoned (Other) 8 ☐ Dewatering
9 ☐ Unfinished 10 ☐ Replacement well

WATER USE (55-56)

1 ☒ Domestic 2 ☐ Stock 3 ☐ Irrigation 4 ☐ Industrial
5 ☐ Commercial 6 ☐ Municipal 7 ☐ Public supply 8 ☐ Cooling & air conditioning
9 ☐ Not use 10 ☐ Other

METHOD OF CONSTRUCTION (57)

1 ☐ Cable tool 2 ☐ Rotary (conventional) 3 ☐ Rotary (reverse) 4 ☐ Rotary (air)
5 ☐ Air percussion 6 ☐ Boring 7 ☐ Diamond 8 ☐ Jetting
9 ☐ Driving 10 ☐ Digging 11 ☐ Other

Name of Well Contractor	Well Contractor's Licence No.
CORE'S WELL DRILLING	1660
Address: 264 BRONTE ST, UNIT#10, MILTON, ONT.	
Name of Well Technician: ROD CORE	Well Technician's Licence No.: TO-479
Signature of Technician/Contractor	Submission date: day mo yr

MINISTRY USE ONLY

Data source (58)	Contractor (59-62)	Date received (63-68) (80)
	1660	MAR 06 2003
Date of inspection	Inspector	
Remarks		CSS.ES3

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Ontario **Ministry of the Environment**

The Ontario Water Resources Act
WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11 (1 2) **4908839** Municipality 49006 (10 14) Con. DS N 01 (15 22 23 24)

County or District	Township/Borough/City/Town/Village	Con block tract survey, etc.	Lot (25-27)
PEEL	MISSISSAUGA	9TH LINE	5

Owner's surname (28-47)	First Name	Address	Date completed (48-53)
CITY OF MISSISSAUGA		9TH LINE	14 day 8 month 01 year

21 (1 2) UTM Zone (10) Easting (12 17) Northing (18 24) RC (25) Elevation (26) RC (30) Basin Code (31 47) ii iii iv

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet From	Depth - feet To
BROWN	TOP-SOIL			0	1
BROWN	SANDY	CLAY		1	12
GREY	SAND	CLAY	LAYERS	12	20
GREY	CLAY	SILT	LAYERS	20	32
RED	SHALE			32	47 1/2

31 (10 14 15 21) 32 (32 43 54 65 75 80)

41 WATER RECORD

Water found at - feet (10-13)	Kind of water (14)	(19)	(24)	(29)	(34)	(60)
12	1 ☑ Fresh 2 ☐ Salty	3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas				
16-20 (15-18)	1 ☑ Fresh 2 ☐ Salty	3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas				
32 (20-23)	1 ☑ Fresh 2 ☐ Salty	3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas				
(25-28)	1 ☐ Fresh 2 ☐ Salty	3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas				
(30-33)	1 ☐ Fresh 2 ☐ Salty	3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas				

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material (12)	(19)	(26)	Wall thickness inches	Depth - feet From	Depth - feet To (13-16)	(20-23)	(27-30)
36 (10-11)	1 ☐ Steel 2 ☐ Galvanized 3 ☑ Concrete 4 ☐ Open hole 5 ☐ Plastic			3	0	47 1/2		
(17-18)		1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic						
(24-25)			1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic					

SCREEN

Sizes of opening (Slot No.) (31-33)	Diameter (34-38) inches	Length (39-40) feet

Material and type	Depth at top of screen (41-44) feet	(30)
PEA STONE		

61 PLUGGING & SEALING RECORD

☐ Annular space ☐ Abandonment

Depth set at - feet From (13-17)	To (14-17)	Material and type (Cement grout, bentonite, etc.)
0	8	BENSEAL
(18-21)	(22-25)	
(26-29)	(30-33) (80)	

71 PUMPING TEST

Pumping test method (10): 1 ☐ Pump 2 ☐ Bailer
Pumping rate (11-14): GPM
Duration of pumping (15-16) Hours (17-18) Mins

Static level (19-21) feet	Water level end of pumping (22-24) feet	Water levels during (25): 1 ☐ Pumping 2 ☐ Recovery	15 minutes (26-28) feet	30 minutes (29-31) feet	45 minutes (32-34) feet	60 minutes (35-37) feet
12						

If flowing give rate (38-41) GPM	Pump intake set at feet	Water at end of test (42): ☐ Clear ☐ Cloudy

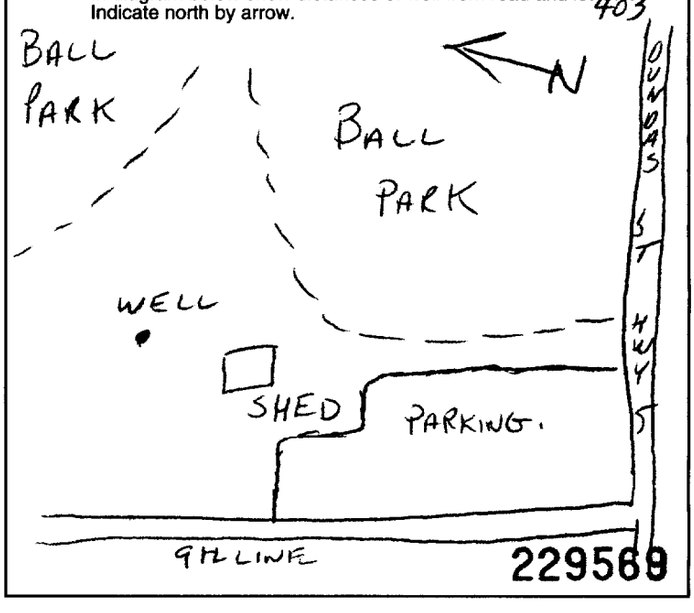
Recommended pump type	Recommended pump setting (43-45) feet	Recommended pump rate (46-49) GPM
☐ Shallow ☑ Deep	45	3 INT

(50-53)

LOCATION OF WELL

In diagram below show distances of well from road and lot line. Indicate north by arrow.

TO 403



229569

FINAL STATUS OF WELL (54)

1 ☑ Water supply
2 ☐ Observation well
3 ☐ Test hole
4 ☐ Recharge well
5 ☐ Abandoned, insufficient supply
6 ☐ Abandoned, poor quality
7 ☐ Abandoned (Other)
8 ☐ Dewatering
9 ☐ Unfinished
10 ☐ Replacement well

WATER USE (55-56)

1 ☑ Domestic
2 ☐ Stock
3 ☐ Irrigation
4 ☐ Industrial
5 ☐ Commercial
6 ☐ Municipal
7 ☐ Public supply
8 ☐ Cooling & air conditioning
9 ☐ Not use
10 ☐ Other

METHOD OF CONSTRUCTION (57)

1 ☐ Cable tool
2 ☐ Rotary (conventional)
3 ☐ Rotary (reverse)
4 ☐ Rotary (air)
5 ☐ Air percussion
6 ☑ Boring
7 ☐ Diamond
8 ☐ Jetting
9 ☐ Driving
10 ☐ Digging
11 ☐ Other

Name of Well Contractor	Well Contractor's Licence No.
JOHNSON + BAETZ	3030
Address	
BRANTFORD	
Name of Well Technician	**Well Technician's Licence No.**
JOHN BAETZ	T-0333
Signature of Technician/Contractor	**Submission date** day mo yr
John Baetz	

MINISTRY USE ONLY

Data source (58)	Contractor (59-62)	Date received (63-68) (80)
	3030	SEP 27 2001
Date of inspection	**Inspector**	
Remarks		

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Ontario Ministry of the Environment

Well Tag No. *(Place Sticker and/or Print Below)* A 054168

Well Record

Regulation 903 Ontario Water Resources Act

Page _____ of _____

Well Owner's Information

First Name	Last Name	E-mail Address	☐ Well Constructed by Well Owner
Ten - Corp			

Mailing Address (Street Number/Name, RR)	Municipality	Province	Postal Code	Telephone No. *(inc. area code)*
2379 MARISA COURT	MISSISSAUGA	ONT	L5K2P7	4166171848

Part A Construction and/or Major Alteration of a Well

Address of Well Location (Street Number/Name, RR)	Township	Lot	Concession
309 9th Line PLAN 1542-(3)	Mississauga	9	10

County/District/Municipality	City/Town/Village	Province	Postal Code
~~HALTON~~ Peel ORIGINALLY HALTON	~~ORIGINALLY OAKVILLE~~ Mississauga	Ontario	

UTM Coordinates	Zone	Easting	Northing	GPS Unit Make	Model	Mode of Operation:	
NAD 83	17	584394	4849604	GARMIN	~~GPS~~ E-TREX	☐ Undifferentiated ☑ Averaged ☐ Differentiated, specify	

Overburden and Bedrock Materials *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (Metres) From	To
BROWN	Topsoil			0	.61
Brown	SAND	gravel		.61	7.62
grey	Clay	SAND & gravel		7.62	12.19
Grey	gravel	Silt & SAND		12.19	15.54
Red	SHALE			15.54	28.65

Annular Space/Abandonment Sealing Record

Depth Set at (Metres) From	To	Type of Sealant Used (Material and Type)	Volume Placed (Cubic Metres)
0	6.1	Bentonite Slurry	.062

Method of Construction

☑ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Rotary (Air) ☐ Digging
☐ Air percussion ☐ Boring
☐ Other, *specify* _____

Water Use

☐ Public ☑ Commercial ☐ Not used
☐ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ Industrial
☐ Other, *specify* _____

Status of Well

☑ Water Supply ☐ Dewatering Well ☐ Observation and/or Monitoring Hole
☐ Replacement Well ☐ Abandoned, Insufficient Supply ☐ Alteration (Construction)
☐ Test Hole ☐ Abandoned, Poor Water Quality ☐ Other, *specify* _____
☐ Recharge Well ☐ Abandoned, other, *specify* _____

Results of Well Yield Testing

Check box if after test of well yield, water was:
☑ Clear and sand free
☐ Cannot develop to sand-free state

If pumping discontinued, give reason:

Pumping test method: Pump

Pump intake set at *(Metres)*: 27

Pumping rate *(Litres/min)*: 4.5

Duration of pumping: 2 hrs + _____ min

Final water level end of pumping *(Metres)*

Recommended pump type: ☐ Shallow ☑ Deep

Recommended pump depth: 27 Metres

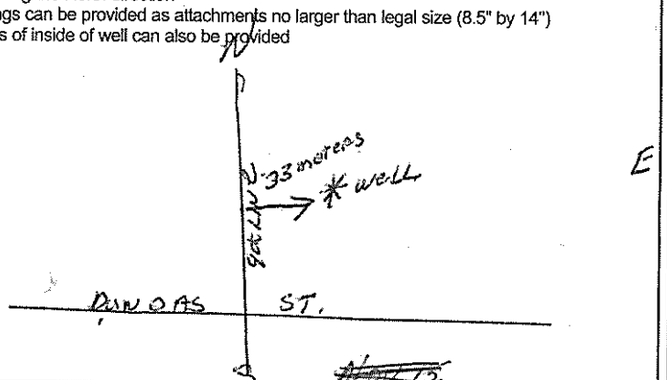
Recommended pump rate *(Litres/min)*: 4.5

If flowing give rate *(Litres/min)*

Draw Down Time (Min)	Draw Down Water Level (Metres)	Recovery Time (Min)	Recovery Water Level (Metres)
Static Level	3m45cm	Static Level	11.96cm
1	3m55cm	1	11.90
2	4.70	2	11.80
3	5.96	3	11.75
4	6.52	4	11.70
5	6.58	5	11.65
10	7.31	10	11.29
15	8.25	15	11.
20	8.58	20	10.73
25	9.09	25	10.49cm
30	9.66	30	10.23
40	10.47	40	9.82
50	11.23m	50	9.46
60	11.76	60	9.15

Location of Well

Please provide a map below showing:
- all property boundaries, and measurements sufficient to locate the well in relation to fixed points,
- an arrow indicating the North direction
- detailed drawings can be provided as attachments no larger than legal size (8.5" by 14")
- vidigital pictures of inside of well can also be provided



Date Well Completed (yyyy/mm/dd)	Was the well owner's information package delivered?	Date the Well Record and Package Delivered to Well Owner (yyyy/mm/dd)
2007/10/	☑ Yes ☐ No	2007/11/15

Water Details

Water found at Depth		Kind of Water	
26	Metres ☐ Gas	☑ Fresh	☐ Salty ☐ Sulphur ☐ Minerals
	Metres ☐ Gas	☐ Fresh	☐ Salty ☐ Sulphur ☐ Minerals
	Metres ☐ Gas	☐ Fresh	☐ Salty ☐ Sulphur ☐ Minerals

Casing Used	Screen Used
☐ Galvanized	☐ Galvanized
☑ Steel	☐ Steel
☐ Fibreglass	☐ Fibreglass
☐ Plastic	☐ Plastic
☐ Concrete	☐ Concrete

No Casing and Screen Used
☑ Open Hole 13.10
Disinfected? ☑ Yes ☐ No

Casing and Well Details
Diameter of the Hole *(Centimetres)*: ~~15.558~~ 16.827
Depth of the Hole *(Metres)*: 28.65
Wall Thickness *(Metres)*: .188
Inside Diameter of the Casing *(Metres)*: 15.88
Depth of the Casing *(Metres)*: 15.54

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Langille Well Drilling	3149

Business Address (Street No./Name, number, RR)	Municipality
48 Rayal ave Brampton	Peel

Province	Postal Code	Business E-mail Address
Ont	L6Y 1S7	Langille welldrilling@sympatico.ca

Bus. Telephone No. *(inc. area code)*	Name of Well Technician (Last Name, First Name)
9058778329	Kevin Langille

Well Technician's Licence No.	Signature of Technician	Date Submitted (yyyy/mm/dd)
2268		2007/11/19

Ministry Use Only

Audit No.	Well Contractor No.
Z69801	
Date Received (yyyy/mm/dd)	**Date of Inspection (yyyy/mm/dd)**
NOV 26 2007	
Remarks	

506E (11/2006)

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Ontario — Ministry of the Environment

Well Record

Regulation 903 Ontario Water Resources Act

Page ____ of ____

Measurements recorded in: ☐ Metric ☒ Imperial

Well Tag No. *(Pla...* A 059945

A 059945

Well Owner's Information

First Name	Last Name / Organization	E-mail Address	☐ Well Constructed by Well Owner
	World Islamic Mission Canada		

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. *(inc. area code)*

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
2478 9th line, Oakville		6	1

County/District/Municipality	City/Town/Village	Province	Postal Code
Halton	Oakville	Ontario	L6H 7G9

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	17	605374	4817813		

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
Black	topsoil			0	1 ft
Grey	clay			1	29 ft
Red	shale			29	70 ft

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m^3/ft^3)
20	0 ft	benseal/bentonite	

Method of Construction

☒ Cable Tool
☐ Rotary (Conventional)
☐ Rotary (Reverse)
☐ Boring
☐ Air percussion
☐ Other, *specify*
☐ Diamond
☐ Jetting
☐ Driving
☐ Digging

Well Use

☐ Public
☐ Domestic
☐ Livestock
☐ Irrigation
☐ Industrial
☒ Other, *specify* church
☐ Commercial
☐ Municipal
☐ Test Hole
☐ Cooling & Air Conditioning
☐ Not used
☐ Dewatering
☐ Monitoring

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To
6¼"	steel	0.188	+2 ft	30 ft
6"	open hole		30	70 ft

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To
	N/A			

Status of Well

☒ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, *specify*
☐ Other, *specify*

Water Details

Water found at Depth	Kind of Water	
35 (m/ft) ☐ Gas	☒ Fresh ☐ Untested	☐ Other, *specify*
60 (m/ft) ☐ Gas	☒ Fresh ☐ Untested	☐ Other, *specify*
(m/ft) ☐ Gas	☐ Fresh ☐ Untested	☐ Other, *specify*

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
0	20ft	8 in
20	70	6"

Results of Well Yield Testing

After test of well yield, water was:
☒ Clear and sand free
☐ Other, *specify*

If pumping discontinued, give reason:

Pump intake set at (m/ft): 65 feet

Pumping rate (l/min / GPM): seven gpm (7)

Duration of pumping: one hrs + 30 min

Final water level end of pumping (m/ft): 65 ft

If flowing give rate (l/min / GPM):

Recommended pump depth (m/ft): 65 ft

Recommended pump rate (l/min / GPM): 4 gpm four

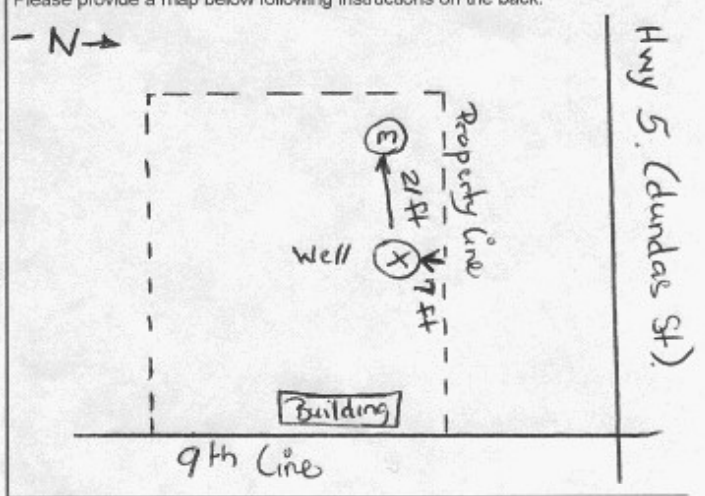
Well production (l/min / GPM): five gpm (5)

Disinfected? ☒ Yes ☐ No

	Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level	4			65 ft
1	10		1	58 ft
2	12⁴		2	55 ft
3	13.5		3	53 ft
4	14.2		4	49 ft
5	19.6		5	45 ft
10	22.6		10	33 ft
15	26.1		15	27.9
20	29.6		20	24.7
25	34.4		25	22 ft
30	47.5		30	20.6
40	59.5		40	17.9
50	65		50	16.3
60	65		60	15 ft

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

(m) = monitoring well

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Core's Well Drilling	1660

Business Address (Street Number/Name)	Municipality	Province	Postal Code	Business E-mail Address
264 Bronte St. S. unit 10 Milton	Halton	Ont	L9T 5A3	

Bus. Telephone No. *(inc. area code)*	Name of Well Technician (Last Name, First Name)
905 878 4515	Core, Rod,

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
T 479	Edward Core	

Well owner's information package delivered: ☒ Yes ☐ No

Date Package Delivered:

Date Work Completed: 2010 11 08

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Audit No. z114531

Received FEB 17 2011

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Ontario — Ministry of the Environment

Well Tag No. *(Place Sticker and/or Print Below)* **Tag#: A124691**

Well Record

Regulation 903 Ontario Water Resources Act

Measurements recorded in: ☐ Metric ☑ Imperial

Page _____ of _____

Well Owner's Information

First Name	Last Name / Organization	E-mail Address	☐ Well Constructed by Well Owner
Allen	Oako Memorial Gardens		

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. *(inc. area code)*
3164 Ninth Line	Oakville	ON	L6H7A8	

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
9th Line			

County/District/Municipality	City/Town/Village	Province	Postal Code
	Oakville	Ontario	

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 8 3	17	600926	4818327		

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
GREY	SANDY CLAY		SOFT	0	22
GREY	SOFT CLAY		SOFT	22	52
RED	SHALE/SHALE		DENSE	52	120
GREY	SHALE		DENSE	120	130

Annular Space

Depth Set at (m/ft) From	Depth Set at (m/ft) To	Type of Sealant Used (Material and Type)	Volume Placed (m^3/ft^3)
0	20	BENTONITE SLURRY	

Method of Construction

☐ Cable Tool ☐ Diamond ☐ Rotary (Conventional) ☐ Jetting ☐ Rotary (Reverse) ☐ Driving ☐ Boring ☐ Digging ☐ Air percussion ☒ Other, *specify* AIR ROTARY

Well Use

☒ Public ☐ Commercial ☐ Not used ☐ Domestic ☐ Municipal ☐ Dewatering ☐ Livestock ☐ Test Hole ☐ Monitoring ☐ Irrigation ☐ Cooling & Air Conditioning ☐ Industrial ☐ Other, *specify*

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To
6	STEEL	.188	0	52

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To
	ROCK WELL			

Status of Well

☑ Water Supply ☑ Replacement Well ☐ Test Hole ☐ Recharge Well ☐ Dewatering Well ☐ Observation and/or Monitoring Hole ☐ Alteration (Construction) ☐ Abandoned, Insufficient Supply ☐ Abandoned, Poor Water Quality ☐ Abandoned, other, *specify* ☐ Other, *specify*

Water Details

Water found at Depth (m/ft)	☐ Gas	Kind of Water: ☒ Fresh ☐ Untested ☐ Other, *specify*
130		
	☐ Gas	☐ Other, *specify*
	☐ Gas	☐ Other, *specify*

Hole Diameter

Depth (m/ft) From	Depth (m/ft) To	Diameter (cm/in)
0	130	6

Results of Well Yield Testing

After test of well yield, water was: ☑ Clear and sand free ☐ Other, *specify*

If pumping discontinued, give reason: Ran dry

Pump intake set at (m/ft): 130

Pumping rate (l/min / GPM): 10 GPM

Duration of pumping: ____ hrs + 16 min

Final water level end of pumping (m/ft): 130

If flowing give rate (l/min / GPM):

Recommended pump depth (m/ft): 125

Recommended pump rate (l/min / GPM): 1 GPM

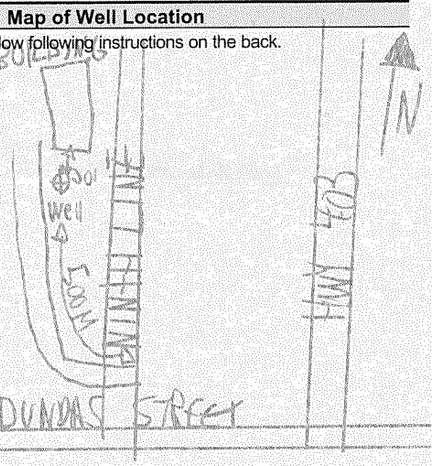
Well production (l/min / GPM): 1.5

Disinfected? ☑ Yes ☐ No

Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level	19.0		
1	26.2	1	128.2
2	29.3	2	127.4
3	32.5	3	126.9
4	34.7	4	123.2
5	37.1	5	121.7
10	78.9	10	115.8
15	130	15	
20		20	
25		25	
30		30	
40		40	
50		50	
60		60	

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Wilson's Water Wells Ltd	5143

Business Address (Street Number/Name)	Municipality
13787 HWY 48 STOUFFVILLE	

Province	Postal Code	Business E-mail Address
ONTARIO	L4A7X3	

Bus. Telephone No. *(inc. area code)*	Name of Well Technician (Last Name, First Name)
9056101431	O'BRIEN MICHAEL

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
2516	M. O'Brien	2012/08/01

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☐ Yes ☐ No		2012/07/25

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Audit No. Z141324

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Contractor's Copy

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Measurements recorded in: ☐ Metric ☑ Imperial

Well Tag No. *(Place Sticker and/or Print Below)*

Well Record

Regulation 903 Ontario Water Resources Act

Page _____ of _____

Well Owner's Information

First Name	Last Name / Organization	E-mail Address	☐ Well Constructed by Well Owner
	DANIEL SAPIR MEDICINE PROFESSIONAL CORPORATION		

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. *(inc. area code)*
2435 NINTH LINE	OAKVILLE	ONT	L6J 4Z2	4162190907

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
2435 NINTH LINE	CON 1 SDS PT HALTON REGION	6 RP	20R13906 PART 6

County/District/Municipality	City/Town/Village	Province	Postal Code
HALTON	OAKVILLE	Ontario	L6J 4Z2

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	17	605560	4831776 7		

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
	WELL DECOMMISSION ON 30" DIA BORED WELL				
	3/4 CLEAR GRAVEL			28	23
	HOLE PLUG			23	20
	3/4 CLER GRAVEL			20	15
	HOLE PLUG			15	12
	BROWN CLEAN CLAY			12	0
	7FT OF TILES REMOVED BELOW SURFACE.				

Annular Space

Depth Set at (m/ft) From	Depth Set at (m/ft) To	Type of Sealant Used (Material and Type)	Volume Placed (m^3/ft^3)

Method of Construction

☐ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☑ Boring ☐ Digging
☐ Air percussion
☐ Other, *specify* _____

Well Use

☐ Public ☐ Commercial ☐ Not used
☐ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ Industrial
☐ Other, *specify* _____

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To

Status of Well

☐ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☑ Abandoned, Insufficient Supply
☑ Abandoned, Poor Water Quality
☐ Abandoned, other, *specify*
☐ Other, *specify*

Water Details

Water found at Depth (m/ft)	Kind of Water	Hole Diameter Depth (m/ft) From	Hole Diameter Depth (m/ft) To	Diameter (cm/in)
☐ Gas	☐ Fresh ☐ Untested ☐ Other, *specify*			
☐ Gas	☐ Fresh ☐ Untested ☐ Other, *specify*			
☐ Gas	☐ Fresh ☐ Untested ☐ Other, *specify*			

Results of Well Yield Testing

After test of well yield, water was:
☐ Clear and sand free
☐ Other, *specify* _____

If pumping discontinued, give reason:

Pump intake set at *(m/ft)*

Pumping rate *(l/min / GPM)*: 0 G.P.M

Duration of pumping: _____ hrs + _____ min

Final water level end of pumping *(m/ft)*

If flowing give rate *(l/min / GPM)*

Recommended pump depth *(m/ft)*

Recommended pump rate *(l/min / GPM)*

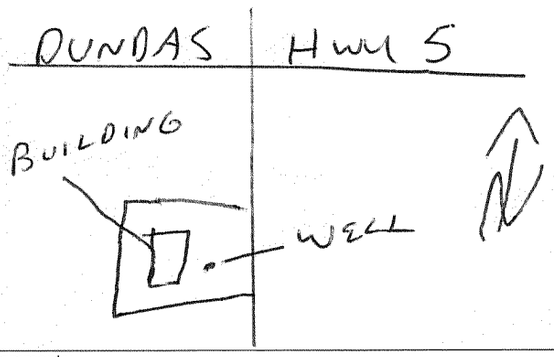
Well production *(l/min / GPM)*: 0

Disinfected? ☑ Yes ☐ No

	Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level				
1			1	
2			2	
3			3	
4			4	
5			5	
10			10	
15			15	
20			20	
25			25	
30			30	
40			40	
50			50	
60			60	

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
LL HALTON WATER SVC	7268

Business Address (Street Number/Name)	Municipality
377 SECOND LINE CAMPBELLVILLE	HALTON

Province	Postal Code	Business E-mail Address
ONT	L0P1B0	

Bus. Telephone No. *(inc. area code)*	Name of Well Technician (Last Name, First Name)
9059945515	CORE ROD

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
7479		Y Y Y Y M M D D

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☐ Yes ☑ No	2014/12/02	2014/12/02

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Audit No. Z 173351

Received JUN 04 2015

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Ministry of the Environment, Conservation and Parks

Measurements recorded in: [X] Metric [ ] Imperial

Well Tag No. *(Place Sticker and/or Print Below)*: NOTag - Decom -

Well Record

Regulation 903 Ontario Water Resources Act

Page 1 of 1

Well Owner's Information

First Name	Last Name / Organization	E-mail Address	[ ] Well Constructed by Well Owner
	Mattamy Homes.		

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. *(inc. area code)*
433 Steeles Ave. E, Milton	Halton	ON	L9T8Z4	9052039090

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
1345 Dundas	Oakville Town		

County/District/Municipality	City/Town/Village	Province	Postal Code
Halton	Oakville	Ontario	

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	17	604914	4817681		

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
	Clean fill/Native soil			0	2
	Bentonite Chips			2	2.2
	Clean fill/bentonite layers.			2.2	7
	Bentonite Slurry			7	8
	Clean gravel			8	9.14

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used *(Material and Type)*	Volume Placed (m^3/ft^3)

Method of Construction

[ ] Cable Tool [ ] Diamond
[ ] Rotary (Conventional) [ ] Jetting
[ ] Rotary (Reverse) [ ] Driving
[ ] Boring [ ] Digging
[ ] Air percussion
[ ] Other, *specify* _____

Well Use

[ ] Public [ ] Commercial [ ] Not used
[ ] Domestic [ ] Municipal [ ] Dewatering
[ ] Livestock [ ] Test Hole [ ] Monitoring
[ ] Irrigation [ ] Cooling & Air Conditioning
[ ] Industrial
[ ] Other, *specify* _____

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To
91.44	Field Stone	15.24	0	9.144

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To

Status of Well

[ ] Water Supply
[ ] Replacement Well
[ ] Test Hole
[ ] Recharge Well
[ ] Dewatering Well
[ ] Observation and/or Monitoring Hole
[ ] Alteration (Construction)
[ ] Abandoned, Insufficient Supply
[ ] Abandoned, Poor Water Quality
[X] Abandoned, other, *specify* redeveloped.
[ ] Other, *specify* _____

Water Details

Water found at Depth (m/ft)	Kind of Water: [ ] Fresh [ ] Untested [ ] Gas [ ] Other, *specify*

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Langille Water Services	7213

Business Address (Street Number/Name)	Municipality
53 Jane St. Guelph	Wellington

Province	Postal Code	Business E-mail Address
ON	N1E4T2	langillewells@rogers.com

Bus. Telephone No. *(inc. area code)*	Name of Well Technician (Last Name, First Name)
5199496562	Langille, Kevin

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
2268		2019/09/05

Results of Well Yield Testing

After test of well yield, water was:
[ ] Clear and sand free
[ ] Other, *specify* _____

If pumping discontinued, give reason: Water removed -

Pump intake set at *(m/ft)*

Pumping rate *(l/min / GPM)*

Duration of pumping _____ hrs + _____ min

Final water level end of pumping *(m/ft)*

If flowing give rate *(l/min / GPM)*

Recommended pump depth *(m/ft)*

Recommended pump rate *(l/min / GPM)*

Well production *(l/min / GPM)*

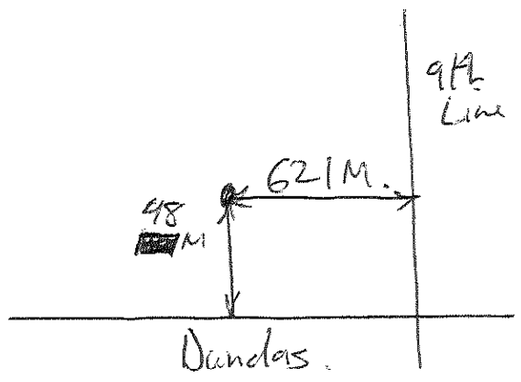
Disinfected? [X] Yes [ ] No

Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level			
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
50		50	
60		60	

Map of Well Location

Please provide a map below following instructions on the back.

N/A



Comments:

Well owner's information package delivered: [ ] Yes [X] No

Date Package Delivered: Y Y Y Y M M D D

Date Work Completed: 2019/09/05

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Audit No. Z314719

Received

0506E (2018/12)

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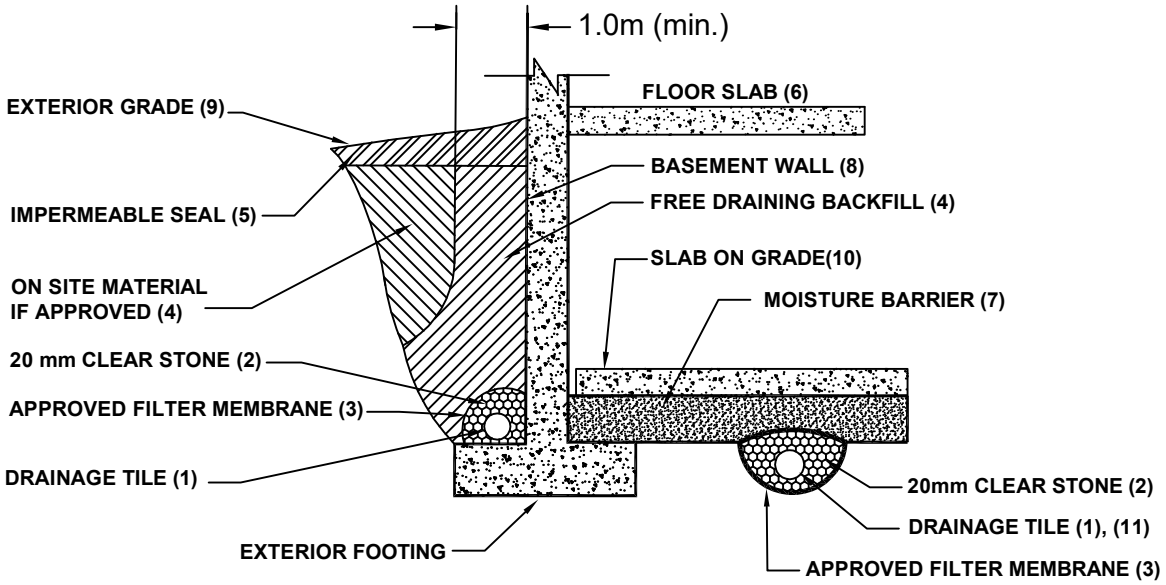
APPENDIX H – DRAINAGE

FISHER ENGINEERING



NOTES:

(1) DRAINAGE TILE TO CONSIST OF 100mm (4") DIAMETER WEEPING TILE OR EQUIVALENT PERFORATED PIPE LEADING TO A POSITIVE SUMP OR OUTLET.

(2) 20mm (3/4") CLEAR STONE - 150mm (6") TOP AND SIDE OF DRAIN. IF DRAIN IS NOT ON FOOTING, PLACE 100mm (4") OF STONE BELOW DRAIN.

(3) WRAP THE CLEAR STONE WITH AN APPROVED FILTER MEMBRANE (TERRAFIX 279R OR EQUIVALENT).

(4) FREE DRAINING BACKFILL - OPSS GRANULAR B OR EQUIVALENT COMPACTED TO THE SPECIFIED DENSITY. DO NOT USE HEAVY COMPACTION EQUIPMENT WITHIN 1.8m (6') OF WALL.

(5) IMPERMEABLE BACKFILL SEAL - COMPACTED CLAY, CLAYEY SILT OR EQUIVALENT. IF ORIGINAL SOIL IS FREE-DRAINING, SEAL MAY BE OMITTED. MAXIMUM THICKNESS OF SEAL TO BE 0.5m.

(6) DO NOT BACKFILL UNTIL WALL IS SUPPORTED BY BASEMENT AND FLOOR SLABS OR ADEQUATE BRACING.

(7) MOISTURE BARRIER TO BE AT LEAST 200mm (8") OF COMPACTED CLEAR 20mm (3/4") STONE OR EQUIVALENT FREE DRAINING MATERIAL. A VAPOUR BARRIER MAY BE REQUIRED FOR SPECIALTY FLOORS.

(8) BASEMENT WALL TO BE DAMP PROOFED.

(9) EXTERIOR GRADE TO SLOPE AWAY FROM BUILDING.

(10) SLAB ON GRADE SHOULD NOT BE STRUCTURALLY CONNECTED TO THE WALL OR FOOTING

(11) UNDERFLOOR DRAIN INVERT TO BE AT LEAST 300mm (12") BELOW UNDERSIDE OF FLOOR SLAB. DRAINAGE TILE PLACED IN PARALLEL ROWS 6 TO 8m (20-25') CENTERS ONE WAY. PLACE DRAIN ON 100mm (4") CLEAR STONE WITH 150mm (6") OF CLEAR STONE ON TOP AND SIDES. ENCLOSE STONE WITH FILTER FABRIC AS NOTED IN (3)

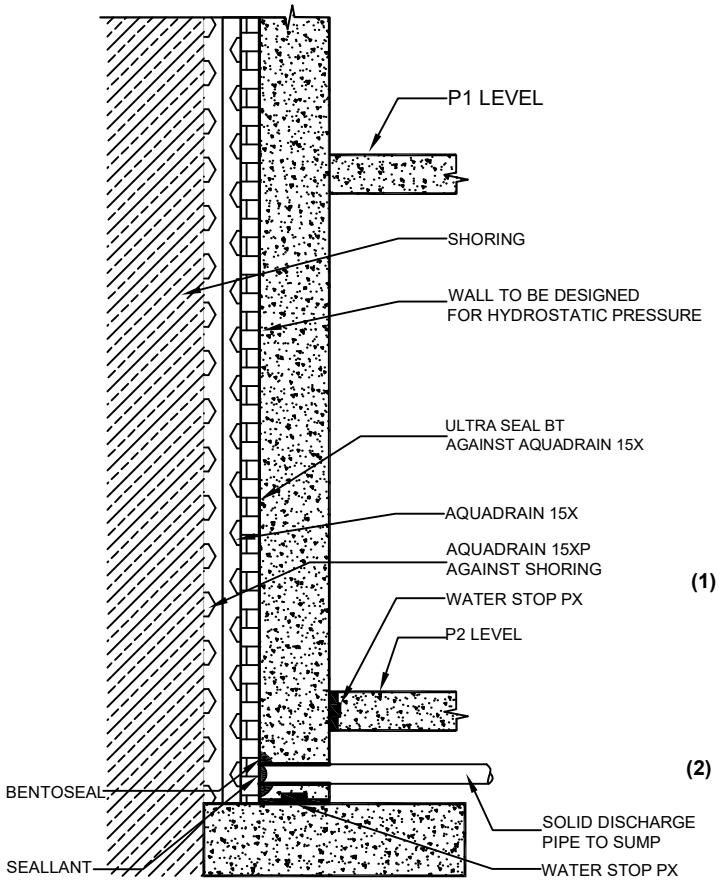
(12) THE ENTIRE SUBGRADE TO BE SEALED WITH APPROVED FILER FABRIC (TERRAFIX 270R OR EQUIVALENT) IF NON-COHESIVE(SANDY) SOILS BELOW GROUND WATER TABLE ENCOUNTERED.

(13) DO NOT CONNECT THE UNDERFLOOR DRAINS TO PERIMETER DRAINS.

(14) REVIEW THE GEOTECHNICAL REPORT FOR SPECIFIC DETAILS.

DRAINAGE AND BACKFILL RECOMMENDATIONS

BASEMENT WITH UNDERFLOOR DRAINAGE
(NOT TO SCALE)



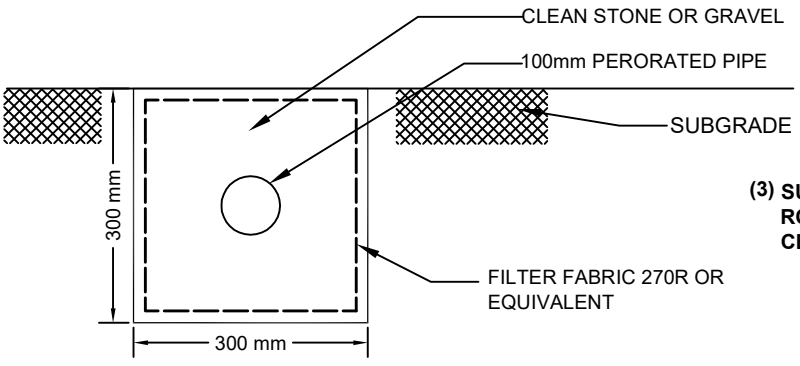
NOTES:

(1) ALL PERMANENT DRAINAGE PIPES MUST HAVE GEOTEXTILE FILTER SLEEVE TO PREVENT LONG TERM SILTING. TO FURTHER MINIMIZE SILTATION OF THE DRAINAGE SYSTEM, ALL DRAINAGE PIPE CONNECTION MUST BE SOLID PVC ELBOWS AND Ts. NO "BUTT" END CONNECTIONS SHOULD BE PERMITTED.

(2) PERIMETER COLLECTION PIPE TO BE SOLID PIPE,

SUGGESTED EXTERIOR DRAINAGE AGAINST SHORING

(NOT TO SCALE)



(3) SUBGRADE DRAIN TO BE PLACED IN PARALLEL ROWS 6-8 m (20'-25'), FROM CENTERLINE TO CENTERLINE.

DETAIL OF SUBGRADE DRAIN

(NOT TO SCALE)