



GEOTECHNICAL INVESTIGATION REPORT

**Proposed Mixed Use Development
2400-2440 Dundas Street West
Toronto, Ontario**

March 8, 2023

Terrapex Environmental Ltd.
90 Scarsdale Road
Toronto, Ontario, M3B 2R7
Telephone: (416) 245-0011
Email: toronto@terrapex.com
Website: www.terrapex.com

DISTRIBUTION: Fora Developments Inc.

PROJECT # CT3488.00

TABLE OF CONTENTS

1	INTRODUCTION	1
2	FIELDWORK.....	1
4	SITE AND SUBSURFACE CONDITONS	3
4.1.	SITE DESCRIPTION	3
4.2.	ASPHALTIC CONCRETE	3
4.3.	FILL MATERIAL.....	4
4.4.	NATIVE SOIL	4
4.4.1	SAND, SILTY SAND, SANDY SILT, AND SILT	4
4.4.2	CLAYEY SILT	5
4.4.3	CLAYEY SILT TILL	5
4.4.4	SHALE BEDROCK	6
4.5.	GROUNDWATER.....	7
5	DISCUSSION AND PRELIMINARY RECOMMENDATIONS.....	8
5.1.	EXCAVATION	9
5.2.	GROUNDWATER CONTROL.....	9
5.3.	REUSE OF ON-SITE EXCAVATED SOIL	10
5.4.	FOUNDATION DESIGN	10
5.5.	BASEMENT FLOOR SLAB	11
5.6.	LATERAL EARTH PRESSURE	11
5.7.	SHORING DESIGN	13
5.8.	PAVEMENT DESIGN	15
5.9.	EARTHQUAKE DESIGN PARAMETERS	15
5.10.	CHEMICAL CHARACTERIZATION OF SUBSURFACE SOIL.....	16
6	LIMITATIONS OF REPORT.....	16

APPENDICES

Appendix A	Limitations of Report
Appendix B	Borehole Location Plan
Appendix C	Borehole Log Sheets
Appendix D	Geotechnical Laboratory Test Results
Appendix E	Certificate of Chemical Analyses
Appendix F	Photographs of Rock Cores

1 INTRODUCTION

Terrapex Environmental Ltd. (Terrapex) has been retained by Fora Developments Inc. to carry out a geotechnical investigation for the mixed use development proposed at the property with the municipal addresses of 2400 and 2440 Dundas Street West, Toronto, Ontario (the Site). Authorization to proceed with this study was given by Mr. Lyle Levine of Fora Developments Inc.

We understand that it is proposed to redevelop the Site with two residential towers (18 and 25 storeys) above a shared podium and a 36 storey mixed commercial and residential building constructed over one level underground parking garage. The architectural drawings issued for ZBA and dated March 8, 2023, prepared by Giannone Petriconne Associates, reveal that the floor slab of the underground parking garage will be situated at a depth of 4 m below grade. The recommendations in this report are preliminary in nature, subject to review and revision upon completion of the above referenced plans.

The purpose of this investigation was to characterize the underlying soil and groundwater conditions, to determine the relevant geotechnical properties of encountered soils and to provide recommendations for the proposed development (foundation type and design, temporary shoring, basement slab construction, seismic site classification, etc.).

The geotechnical investigation was carried out in conjunction with Environmental and Hydrogeological Assessments undertaken by Terrapex and Groundwater Environmental Management Services Inc. (GEMS) respectively; the findings of which are reported under separate covers.

This report presents the results of the investigation performed in accordance with the general terms of reference outlined above and is intended for the guidance of the owner and the design architects or engineers only. It is assumed that the design will be in accordance with the applicable building codes and standards.

2 FIELDWORK

The fieldwork for this study was carried out during the period June 9 to July 14, 2022. It consisted of nine (9) boreholes, advanced by a drilling contractor commissioned by **Terrapex** utilizing mud rotary drilling and bedrock coring. The boreholes are designated as MW101 through MW109; advanced to depths ranging from 6.7 m to 32.2 m below ground surface (mbg).

The bedrock was cored at two (2) of the boreholes (Boreholes MW106 and MW107) to depths of 36.0 and 37.6 mbg respectively.

Monitoring wells were installed in all boreholes and additional shallow monitoring wells were installed in straight drilled boreholes adjacent to boreholes MW101 through MW104, MW106 and MW107, designated as MW101S through MW104S, MW106S and MW107S. The monitoring wells were installed for long-term monitoring of the groundwater table necessary for the Environmental and Hydrogeological assessments.

The locations of the boreholes and monitoring wells are shown on Figure 1 'Borehole Location Plan' in Appendix B. The borehole log sheets are enclosed in Appendix C of this report.

Standard penetration tests were carried out while advancing the boreholes through the overburden soils to take representative soil samples and to measure penetration index values (N-values) to characterize the condition of the various soil materials. The number of blows of the striking hammer required to drive the split spoon sampler through 300 mm depth increments was recorded and these are presented on the logs as penetration index values.

The subsurface soil information at the site was complemented with the results of Pressuremeter Testing (PMT) carried out in Borehole MW101 extending from approximately 7 to 32 mbg at 3 m depth intervals. The PMT is an in-situ stress-strain test performed on the wall of a predrilled borehole using a cylindrical probe that is expanded radially. Based on the interpretation of the test data, an estimation of the deformation properties of the soils are determined.

Groundwater level observations were made by Terrapex in all boreholes during their advancement, and subsequently in the monitoring wells on September 8, 2022.

The ground surface elevations at the locations of the boreholes and monitoring wells were established utilizing a TopCon HiPer V GNSS Receiver.

The fieldwork for this project was carried out under the supervision of an experienced technician from this office who laid out the positions of the boreholes in the field; arranged locates of buried services; effected the drilling, sampling and in situ testing; observed groundwater conditions; and prepared field borehole log sheets.

3 LABORATORY TESTS

The soil samples recovered from the split spoon sampler were properly sealed, labelled and brought to our laboratory. They were visually classified and water content tests were conducted on all samples retained from Boreholes MW104, MW107 and MW108. The results of the classification, water contents, and Standard Penetration tests are presented on the borehole log sheets in Appendix C.

Grain-size analyses were carried out on six (6) native soil samples (Borehole MW104 Sample 15, and Borehole MW108 Samples 4, 8, 10, 12, and 13). Three (3) cohesive native soil samples were

also subjected to Atterberg Limits tests (Borehole MW104 Sample 15, and Borehole MW108 Samples 10 and 13). The results of these tests are enclosed in Appendix D as Figures 1 through 7.

In addition, two (2) soil samples, MW103 Sample 10 and MW105 Sample 11, were submitted to AGAT Laboratories for determination of pH and sulphate content and its potential for sulphate attack on buried concrete. The results of these tests are enclosed in Appendix E; discussed in Section 5.10 of this report.

4 SITE AND SUBSURFACE CONDITIONS

Full details of the subsurface soil and groundwater conditions at the site are given on the Borehole Log Sheets attached in Appendix C of this report.

The following paragraphs present a description of the site and a commentary on the engineering properties of the various soil materials contacted in the boreholes.

It should be noted that the boundaries of soil types indicated on the borehole logs are inferred from non-continuous soil sampling and observations made during drilling. These boundaries are intended to reflect transition zones for the purpose of geotechnical design, and therefore, should not be construed as exact planes of geological change.

4.1. SITE DESCRIPTION

The Site is situated east of Dundas Street West; approximately 170 m north of Bloor Street West. It is bound by a high-rise building to the south, Go Transit station and railway to the east, and a three-storey building to the north. It has a trapezoidal shape and comprises an area of approximately 1.04 hectares (2.57 acres). Shoppers Drug Mart and FreshCo grocery store buildings occupy the north and south sections of the Site with a parking lot situated between the two buildings.

The ground surface topography of the site is relatively level. The ground surface elevations at the locations of the boreholes are within 0.70 m.

4.2. ASPHALTIC CONCRETE

Asphaltic concrete pavement is present at the ground surface in all boreholes. The thickness of the asphaltic concrete at the borehole locations ranges from approximately 60 to 120 mm.

4.3. FILL MATERIAL

Fill material is present below the asphaltic concrete in all boreholes. It extends to depths ranging from approximately 0.4 to 2.7 mbg. The fill material consists of gravelly sand with traces of brick and asphalt, sand with traces of gravel, silt, brick and wood, sand and silt with some gravel and trace of brick, sand, and gravel with trace of asphalt and wood, and silty sand with traces of gravel, wood, brick and asphalt.

The fill is brown in colour and moist in appearance. The water content of the samples of fill obtained from Boreholes MW104, MW107 and MW108 range from 2 to 9% by weight. SPT in the fill provided N-values ranging from 4 to 52 blows for 200mm of penetration, indicating a loose to very dense compactness condition, more typically being compact.

4.4. NATIVE SOIL

The native soils below the fill material consist of layers of sand, silty sand, sandy silt, silt, clayey silt, and clayey silt till, followed by shale bedrock at approximate depths of 30.5 to 32.0 mbg.

4.4.1 SAND, SILTY SAND, SANDY SILT, and SILT

Non-cohesive soils consisting of sand with trace to some silt and trace clay, silty sand, sandy silt, and silt with trace sand and clay are present below the fill material in all boreholes extending to depths ranging from 10.1 to 13.1 mbg in Boreholes MW101 through MW108 and extending to the terminated depth of Borehole MW109.

The non-cohesive soils are brown in colour, becoming grey below depths ranging from 2.7 to 3.8 mbg. The water content of samples of non-cohesive soils obtained from Boreholes MW104, MW107, and MW108 range from 2.0 to 21.0% weight; moist to wet in appearance.

SPT carried out in the non-cohesive soils provided N-values ranging from 3 to 86 blows for 275 mm of penetration, indicating a very loose to very dense compactness condition: more typically being compact to dense.

Grain size analyses were carried out on three (3) representative samples of non-cohesive soils. The test results are enclosed in Appendix D as Figure 2, 3 and 5 summarized in the following table.

Sample No. and Depth	Sample Description	Gravel %	Sand %	Silt %	Clay %
MW108 Sample 4; 2.3 m	SAND some silt, trace clay	0	78	18	4

Sample No. and Depth	Sample Description	Gravel %	Sand %	Silt %	Clay %
MW108 Sample 8; 5.3 m	SILT some clay, trace sand	0	9	80	11
MW108 Sample 12; 10.7 m	SILT trace sand, some clay	0	5	82	13

Based on the results of the grain size analyses, the Coefficient of Permeability of the sand is estimated to be 1.8×10^{-3} cm/sec, corresponding to medium to high relative permeability. The Coefficient of Permeability of the silt is estimated to be 2.3×10^{-6} cm/sec corresponding to low relative permeability.

4.4.2 CLAYEY SILT

Clayey silt with traces of gravel and sand is present below the non-cohesive soils in Boreholes MW101, MW102, MW107, and MW108 extending to depths ranging from 8.5 to 21.3 mbg.

Clayey silt is grey in colour and the water content of the samples obtained from Boreholes MW107 and MW108 are 17% and 23% by weight respectively, moist and wet in appearance.

SPT carried out in the clayey silt provided N-values ranging from 3 to 88 blows for 275mm of penetration indicating a soft to hard consistency.

Grain size analyses were carried out on one (1) representative sample of clayey silt. The test result is enclosed in Appendix D as Figure 4 and summarized in the following table.

Sample No. and Depth	Sample Description	Gravel %	Sand %	Silt %	Clay %
MW108 Sample 10; 7.6 m	CLAYEY SILT trace sand	0	5	69	26

Atterberg Limits test conducted on this sample revealed that the clayey silt has Liquid Limit of 22.2 and a Plasticity Index of 8.7, indicating that the soil has a low plasticity. The test result is enclosed in Appendix D as Figure 7.

Based on the results of the grain size analyses, the Coefficient of Permeability (k) of the clayey silt is estimated to be less than 10^{-8} cm/sec, corresponding to very low relative permeability.

4.4.3 CLAYEY SILT TILL

Clayey silt till with trace to some sand and trace of gravel is present below the non-cohesive soils

in Boreholes MW103 through MW106, and MW108 and below the clayey silt layer in Boreholes MW101, MW102, and MW107. It extends to the shale bedrock in Boreholes MW101 and MW104 through MW108, and to the terminated depth of Boreholes MW102 and MW103.

The clayey silt till is a glacial deposit consisting of a random mixture of soil particles ranging from clay to gravel, with clay and silt being the predominant fractions.

It is grey in colour and the water content of samples obtained from Boreholes MW104, MW107, and MW108 range from 7 to 18% by weight, moist in appearance.

SPT carried out in the clayey silt till provided N-values ranging from 2 to 70 blows for 275mm of penetration indicating a soft to hard consistency, more typically being firm to hard.

Grain size analyses were carried out on two (2) representative samples of clayey silt till. The test results are enclosed in Appendix D as Figures 1 and 6 and summarized in the following table.

Sample No. and Depth	Sample Description	Gravel %	Sand %	Silt %	Clay %
MW104 Sample 15; 15.2 m	CLAYEY SILT trace gravel, some sand	5	19	54	22
MW108 Sample 13; 12.2 m	CLAYEY SILT trace gravel, some sand	4	19	54	23

Atterberg Limits tests conducted on these samples revealed that the clayey silt till has Liquid Limits of 22.5 and 24.1 and Plasticity Indices of 9.6 and 10.4, indicating that the soil has a low plasticity. The test results are enclosed in Appendix D as Figure 7.

Based on the results of the grain size analyses, the Coefficient of Permeability (k) of the clayey silt till is estimated to be less than 10^{-8} cm/sec, corresponding to very low relative permeability.

4.4.4 SHALE BEDROCK

The native soils are underlain by bedrock, consisting predominately of grey shale with occasional thin layers of limestone interbeds. The rockhead is situated at approximate depths ranging from 30.5 to 32.0 mbg.

Review of the rock core samples extracted from Borehole MW106 revealed the bedrock to be moderately weathered and moderately hard. Observations made on the rock cores indicate the condition of the bedrock deteriorates with depth, from being intensely to moderately fractured to intensely fractured. Intermittent layers of clay were observed in depths ranging from 34.5 to 35.5 mbg. The engineering properties of the shale are represented by rock quality designation (RQD)

values of 56% to 78%. A rock core with an RQD between 25% and 50% is poor, more than 50% is considered fair, more than 75% is considered good.

Review of the rock core samples extracted from Borehole MW107 revealed the condition of the bedrock improves with depth, from being highly weathered to slightly weathered, from being very intensely fractured to intensely to moderately fractured, and from being moderately hard to hard. The engineering properties of the shale are represented by rock quality designation (RQD) values of 0% to 89%.

The strength of the shale bedrock was assessed by peeling the rock specimens with a pocketknife and using a geological hammer. Rock Specimens could not be peeled with a pocketknife and most of the rock specimens fractured with single firm blow of geological hammer.

Unconfined compressive strength (UCS) tests and wet unit weight (γ_w) determinations were completed on four (5) shale bedrock samples. The UCS and γ_w values of the tested shale samples are given below.

Borehole No.	Sample Depth (mbgs) / Elevation (m)	Unconfined Compressive Strength (MPa)	γ_w (kN/m ³)
MW106	35.56 / 78.42	24.6	25.0
MW107	35.71 / 78.03	36.0	25.3
MW107	36.17 / 77.57	20.5	25.4
MW107	36.35 / 77.39	36.2	25.3
MW107	36.55 / 77.19	69.6	25.7

The results of the unconfined compression tests carried out on the core samples indicate rock strengths ranging from 20.5 to 69.6 MPa and the unit weight of the rock cores range from 25.0 to 25.7 kN/m³.

Based on the UCS test results, the bedrock is “weak” to “strong” and its hardness grade is ranging from R2 to R4 according to Table 3.5 of the CFEM (4th Edition).

Combining the strength index tests, the UCS tests and our observations of the bedrock quality, the bedrock at the site is assessed to be strong.

Photos of the rock cores extracted from the boreholes are enclosed in Appendix F.

4.5. GROUNDWATER

Groundwater level measurements were made during advancement of the boreholes and

subsequently in the monitoring wells following their installation.

The groundwater levels measured in the monitoring wells are shown on the individual borehole logs and are summarized in the following table.

Borehole No.	Ground Surface Elevation (m)	Date	Groundwater Depth (mbgs)	Groundwater Elevation (m)
MW101	113.53	September 8, 2022	15.57	97.96
MW101S	113.50	September 8, 2022	3.20	110.30
MW102	113.68	September 8, 2022	3.78	109.90
MW102S	113.65	September 8, 2022	3.04	110.61
MW103	113.62	September 8, 2022	3.61	110.01
MW103S	113.67	September 8, 2022	3.24	110.43
MW104	114.10	September 8, 2022	4.12	109.98
MW104S	114.10	September 8, 2022	3.05	111.05
MW105	114.20	September 8, 2022	3.27	110.93
MW106	114.04	September 8, 2022	4.10	109.94
MW106S	114.11	September 8, 2022	3.16	110.95
MW107	113.77	September 8, 2022	3.89	109.88
MW107S	113.77	September 8, 2022	3.05	110.72
MW108	113.88	September 8, 2022	3.14	110.74
MW109	113.93	September 8, 2022	3.05	110.88

It should be noted that groundwater levels are subject to seasonal fluctuations. A higher groundwater level condition may develop following significant rainfall events.

5 DISCUSSION AND PRELIMINARY RECOMMENDATIONS

The following discussions and recommendations are based on the factual data obtained from the boreholes advanced at the site by **Terrapex** and are intended for use by the client and design architects and engineers only.

We understand that it is proposed to redevelop the Site with two residential towers (18 and 25 storeys) above a shared podium and a 36 storey mixed commercial and residential building constructed over one level underground parking garage. The underground parking garage floor slab will be situated approximately 4 m below grade. It is anticipated that the underside of the foundation will be situated about 2 to 3 m below the parking garage floor slab, approximately 6 to 7 mbg.

The construction methods described in this report are not specifications or recommendations to the contractors or as the only suitable methods. The collected data and the interpretation presented in this report may not be sufficient to assess all the factors that may influence the construction. Contractors bidding on this project or conducting work associated with this project should make their own interpretation of the factual data and/or carry out their own investigations as they might deem necessary. The contractor should also select the method of construction, equipment and sequence based on their previous experience on similar projects.

5.1. EXCAVATION

Based on the field results, excavations for the basement and foundations are not expected to pose any unusual difficulty. Excavation of the soils at this site can be carried out with hydraulic excavators.

All excavations must be carried out in accordance with the Occupational Health and Safety Act (OHSA). With respect to the OHSA, the fill materials and sandy soils above groundwater table are expected to conform to Type 3 soils. Sandy soils situated below the groundwater table are considered Type 4 soil.

Temporary excavation sidewalls in Type 3 soils should not exceed 1.0 horizontal to 1.0 vertical. Side slopes of excavations extended into Type 4 soil should not be any steeper than 3.0 horizontal to 1.0 vertical.

In the event very loose and/or soft soils are encountered at shallow depths or within zones of persistent seepage, it will be necessary to flatten the side slopes to achieve stable conditions.

For excavations through multiple soil types, the side slope geometry is governed by the soil with the highest number designation. Excavation side-slopes should not be unduly left exposed to inclement weather.

Where workers must enter excavations extending deeper than 1.2 m below grade, the excavation sidewalls must be suitably sloped and/or braced in accordance with the Occupational Health and Safety Act and Regulations for Construction Projects.

It is anticipated that the basement/underground parking garage will extend to the property limits, and that it will be necessary to shore the excavation walls. Shoring recommendations are provided in Section 5.7 of this report.

5.2. GROUNDWATER CONTROL

Based on observations made during drilling of the boreholes, and close examination of the soil samples extracted from the boreholes, groundwater seepage is expected to occur within excavations extended into the non-cohesive soils.

The Hydrogeological Report prepared by GEMS should be referred to for recommendations for estimated dewatering volumes during construction and during the service life of the building, and requirements for an Environmental Activity and Sector Registry (EASR) or Permit to Take Water (PTTW).

5.3. REUSE OF ON-SITE EXCAVATED SOIL

On-site excavated inorganic soils, and soils free of construction debris and other deleterious materials are considered suitable for reuse as backfill provided their water content is within 2% of their optimum water contents (OWC) as determined by Standard Proctor test, and the materials are effectively compacted with a heavy sheepsfoot compactor.

While the quality of the on-site soils is considered suitable for backfilling; the moisture content of the soils and the lift thickness for compaction must be properly controlled during backfilling. Measured water content within the fill and native soils within the presumed excavation depth generally range from approximately 2 to 23%; typically, being above the optimum water content of the soils.

On-site soils that are wetter than their OWC should be dried sufficiently prior to use as backfill to achieve the specified degree of compaction.

5.4. FOUNDATION DESIGN

We understand that it is proposed to redevelop the Site with two residential towers (18 and 25 storeys) above a shared podium and a 36 storey mixed commercial and residential building constructed over one level underground parking garage. The parking garage floor slab will be situated approximately 4 m below grade.

Based on the groundwater conditions encountered in the boreholes, it is anticipated that it will be necessary to waterproof the entire substructure of the building to prevent a significant volume of groundwater requiring to be discharged to the City sewer system during the service life of the building. To facilitate waterproofing of the substructure, it will be necessary to support the building on a mat / raft foundation. The underside of the raft foundation will likely be situated approximately 2 to 3 m below the floor slab of the parking garage: approximately 6 to 7 mbg.

The foundation and foundation walls must be designed to resist hydrostatic pressure resulting from water head equivalent to the height of historical high water table from the base of the proposed raft. It will be necessary to maintain the water table below the base of the excavation at all times during construction of the foundation and until such time when the foundation is

sufficiently loaded to prevent its uplift.

The bearing resistance of the soil across the site is not sufficient to support the proposed buildings using the raft foundation alone, accordingly it will be necessary to utilize caisson foundations extended into the shale bedrock to support the raft foundation and the buildings above. The caissons should be extended through the weathered zone and founded on the unweathered zone at approximate elevation 79.0 m; approximately 35 mbg, designed for an end bearing resistance at SLS and ULS of 10 MPa. Settlement resulting from application of this pressure should be negligible.

A factored shaft resistance of 200 kPa may be used to determine the axial capacity of the caissons due to shaft skin friction within the shale bedrock. The uplift resistance of the piles would be 75% of the piles shaft resistance.

The centre to centre spacing between adjoining caissons should not be less than 2 X the largest diameter (B) of the caissons.

The caisson contractor must take into consideration the excavation method used through wet fine sand and/or silt and the concreting technique for installing caissons in accordance with good construction practice.

The foundation construction must be closely monitored and inspected by qualified geotechnical personnel to ensure that the founding rock is consistent with the findings of the geotechnical investigation and the bottom of the caisson hole has been sufficiently cleaned prior to concrete pour. Concrete should be placed to a minimum thickness of 600 mm in the caisson hole and stirred with the auger. The concrete should then be extracted from the caisson hole and disposed. Concrete placement for the caisson foundation may then proceed.

If more than 150 mm of water is present in the base of the hole, it will be necessary to place concrete using the tremie method to ensure proper placement of the concrete in water.

5.5. BASEMENT FLOOR SLAB

As raft foundation system will have to be implemented, the floor slab is anticipated to be constructed over an approximately 500 to 600 mm thick layer of granular soil such as 19 mm clear stone placed directly over the raft foundation to permit placement of sub-floor drainage piping and other utility lines.

5.6. LATERAL EARTH PRESSURE

Parameters used in the determination of earth pressure acting on structures subject to unbalanced pressures are defined below.

SOIL PARAMETERS

Parameter	Definition	Units
Φ'	angle of internal friction	degrees
γ	bulk unit weight of soil	kN/m ³
K_a	active earth pressure coefficient (Rankine)	dimensionless
K_o	at-rest earth pressure coefficient (Rankine)	dimensionless
K_p	passive earth pressure coefficient (Rankine)	dimensionless

The appropriate un-factored values for use in the design of structures subject to unbalanced earth pressures at this site are tabulated as follows:

SOIL PARAMETER VALUES

SOIL	Parameters				
	Φ'	γ	K_a	K_p	K_o
Fill Material	28°	20.0	0.36	2.77	0.53
Sand, Silty Sand, Sandy Silt, Silt	32°	19.0	0.31	3.25	0.47
Clayey Silt	26°	19.0	0.39	2.56	0.56
Clayey Silt Till	30°	21.0	0.33	3.00	0.50

Walls or bracings subject to unbalanced earth pressures must be designed to resist a pressure that can be calculated based on the following formula:

$$P = K (\gamma h + q)$$

where **P** = lateral pressure in kPa acting at a depth h (m) below ground surface

K = applicable lateral earth pressure coefficient (Use K_o for basement wall design)

γ = bulk unit weight of backfill (kN/m³)

h = height at any point along the interface (m)

q = the complete surcharge loading (kPa)

This equation assumes that free-draining backfill and positive drainage is provided behind the basement walls.

Subsurface walls that are subject to unbalanced earth and hydrostatic pressures must be designed to resist a pressure that can be calculated based on the following formula:

$$P = K [\gamma (h - h_w) + \gamma' h_w + q] + \gamma_w h_w$$

where **P** = lateral pressure in kPa acting at a depth h (m) below ground surface

K = applicable lateral earth pressure coefficient

H = height at any point along the interface (m)

h_w = depth below the groundwater level at point of interest (m)

γ = bulk unit weight of backfill (kN/m^3)

γ' = the submerged unit weight (kN/m^3) of exterior soil ($\gamma' = \gamma - \gamma_w$)

γ_w = unit weight of water, assume a value of 9.8 kN/m^3

q = the complete surcharge loading (kPa)

Resistance to sliding of earth retaining structures is developed by friction between the base of the footing and the soil. This friction (R) depends on the normal load on the soil contact (N) and the frictional resistance of the soil ($\tan \Phi'$) expressed as: **$R = N \tan \Phi'$** . This is an ultimate resistance value and does not contain a factor of safety.

5.7. SHORING DESIGN

Given the proposed depth of the basement and the groundwater conditions expected to be encountered during excavation of the basement, it is recommended to use a contiguous concrete caisson (secant) wall as the shoring system surrounding the entire basement excavation.

The design of temporary shoring for the support of the excavation walls must account for the presence of structures and buried services on the adjacent properties, and the existing subsurface conditions at the site.

The lateral restraining force for the shoring system may be provided by employing either rakers or tieback anchors. The latter is favorable because they do not protrude into the excavations as is the case with rakers. The use of tieback anchors will depend on whether permission is obtained to extend the anchors to the required distance on to the neighboring properties.

Provisions should be made to install temporary liners for the excavation of the soldier pile holes. The shoring contractor must also provide construction method(s) to overcome any groundwater seepage into the pile holes during excavation and subsequent concreting of the piles to comply with good construction practice.

The shoring design should be based on the procedure detailed in the latest edition of the Canadian Foundation Engineering Manual.

The earth pressure coefficients applicable for the design of the shoring system are:

= **K_0** the 'at rest' earth pressure coefficient, applicable where no movement in the retained soil can be permitted, such as the presence of buried services or foundations close to the wall,

= K_a the active pressure coefficient,

= 0.3 - where adjacent building footings or buried services fall outside an envelope formed by a 60° line drawn from the base of the excavation wall to the ground surface

= 0.25 - where adjacent building footings or buried services are outside an envelope formed by a 45° line drawn from the base of the excavation wall to the ground surface

The minimum depth of penetration (d) of soldier piles may be estimated from the following expression:

$$R = NB \left(\frac{1}{2} \gamma d^2 K_p \right)$$

where R = required toe resistance

K_p = passive earth pressure coefficient

N = factor according to three-dimensional effect around an isolated pile,

B = diameter of concrete filled hole

d = required penetration depth

γ = bulk unit weight of soil

Raker footings should be designed in accordance with the design principals for shallow foundations subject to inclined loading. All raker footings should be located outside the zone of influence of the buried portion of soldier piles, and at no less than 1.5D from the piles, where D = Depth of penetration of the piles below the base of the excavation. No excavation should be made within two footing widths of the raker footings, on the side opposite the rakers.

Anchors extended into the compact to dense sandy silt, silty sand, sand, and silt may be designed based on soil/grout bond value of 50 kPa. This value depends on the anchor installation method and grouting procedures. Gravity poured concrete can result in low bond values, while pressure grouted anchors will give higher values and produce a more satisfactory anchor.

It will be necessary to perform load tests on the tiebacks to confirm the bond stresses assumed in the design of anchors.

Movement of the shoring system is inevitable. Vertical movements will result from the vertical loads on the soldier piles resulting from the inclined tiebacks and inward horizontal movement will result from the earth and water pressures. The magnitude of this movement can be controlled by sound construction practices. The lateral and vertical movement of the shoring system must be monitored especially at locations in which settlement sensitive structures are present, to ensure that movements are kept within an acceptable range.

5.8. PAVEMENT DESIGN

A private driveway will be constructed on the parking garage roof slab. In this regard, the pavement may be comprised of a minimum of 75 mm thick layer of Granular 'A' topped with asphaltic concrete having a minimum thickness of 80 mm (40 mm HL8 and 40 mm HL3).

Pavement which will be supported by soil subgrade should comprise a minimum 300 mm compacted depth of OPSS Granular B Type I sub-base, followed by a minimum 150 mm compacted depth of Granular A base material, 50 mm of HL8 asphaltic concrete base course, and 40 mm of HL3 asphaltic concrete surface course.

The critical section of pavement will be at the transition between the pavement on subgrade and the pavement above the garage roof slab. To alleviate the detrimental effects of dynamic loading / settlement / pavement depression in the backfill to the rigid garage roof structure, it is recommended that an approach type slab be constructed at the entrance/exit points, by extending the granular sub-base to greater depths along the exterior garage wall.

5.9. EARTHQUAKE DESIGN PARAMETERS

The Ontario Building Code (2012) stipulates the methodology for earthquake design analysis, as set out in Subsection 4.18.7. The determination of the type of analysis is predicated on the importance of the structure, the spectral response acceleration, and the site classification.

The parameters for determination of the Site Classification for Seismic Site Response are set out in Table 4.1.8.4.A of the Ontario Building Code (2012). The classification is based on the determination of the average shear wave velocity in the top 30 metres of the site stratigraphy, where shear wave velocity (v_s) measurements have been taken. In the absence of such measurements, the classification is estimated based on empirical analysis of undrained shear strength or penetration resistance. The applicable penetration resistance is that which has been corrected to a rod energy efficiency of 60% of the theoretical maximum or the (N60) value.

Provided that the proposed buildings are founded on shale bedrock, the site designation for seismic analysis is Class C.

The site specific 5% damped spectral acceleration coefficients, and the peak ground acceleration factors are provided in the 2006 Ontario Building Code - Supplementary Standard SB-1 (September 2, 2014), Table 1.2, location Mississauga, Ontario.

5.10. CHEMICAL CHARACTERIZATION OF SUBSURFACE SOIL

Two (2) native soil samples obtained from Boreholes MW103 (from approximate depth of 7.6 mbg) and MW105 (from approximate depth of 9.1 mbg) were submitted to AGAT Laboratories for pH index test and water-soluble sulphate content to determine the potential of attacking the subsurface concrete. The Certificate of Analysis provided by the analytical chemical testing laboratory is contained in Appendix E of this report.

The test results revealed that the pH index of the soil samples is 8.18 and 8.41, indicating a slight alkalinity.

The water-soluble sulphate content of the tested samples is 0.0153% and 0.0144%. The concentration of water-soluble sulphate content of the tested samples is below the CSA Standard of 0.1% water-soluble sulphate (Table 12 of CSA A23.1, Requirements for Concrete Subjected to Sulphate Attack). Special concrete mixes against sulphate attack are therefore not required for the sub-surface concrete of the proposed building.

6 LIMITATIONS OF REPORT

The Limitations of Report, as quoted in Appendix 'A', are an integral part of this report.

Yours respectfully,

Terrapex Environmental Ltd.



Kellen Campbell, C.Tech.
Branch Manager – Durham
Manager, Geotechnical Investigations



Vic Nersesian, P.Eng.
Senior Geotechnical Engineer

APPENDIX A

LIMITATIONS OF REPORT

LIMITATIONS OF REPORT

This report has been completed in accordance with the terms of reference for this project as agreed upon by Fora Developments Inc. (the Client) and Terrapex Environmental Ltd. (Terrapex) and generally accepted engineering consulting practices in this area.

The conclusion and recommendations in this report are based on information determined at the inspection locations. Soil and groundwater conditions between and beyond the test holes may differ from those encountered at the test hole locations, and conditions may become apparent during construction which could not be detected or anticipated at the time of the soil investigation. If new or different information is identified, Terrapex should be requested to re-evaluate its conclusions and recommendations and amend the report as appropriate.

The design recommendations given in this report are applicable only to the project described in the text, and then only if constructed substantially in accordance with details of alignment and elevations stated in the report. Since all details of the design may not be known to us, in our analysis certain assumptions had to be made as set out in this report. The actual conditions may, however, vary from those assumed, in which case changes and modifications may be required to our recommendations.

This report was prepared for the sole use of Fora Developments Inc. Terrapex accepts no liability for claims arising from the use of this report, or from actions taken or decisions made because of this report, by parties other than Fora Developments Inc. The material herein reflects Terrapex's judgement considering the information available to it at the time of preparation. We recommend, therefore, that we be retained during the final design stage to review the design drawings and to verify that they are consistent with our recommendations, or the assumptions made in our analysis. We also recommend that we be retained during construction to confirm that the subsurface conditions throughout the site do not deviate materially from those encountered in the test holes. In cases where these recommendations are not followed, Terrapex's responsibility is limited to accurately interpreting the conditions encountered at the test holes, only.



The comments given in this report on potential construction problems and possible methods are intended for the guidance of the design engineer, only. The number of inspection locations may not be sufficient to determine all the factors that may affect construction methods and costs. Contractors bidding on this project or undertaking the construction should, therefore, make their own interpretation of the information presented and draw their own conclusions as to how the subsurface conditions may affect their work.

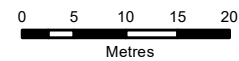
APPENDIX B

BOREHOLE LOCATION PLAN




LEGEND

-  SITE BOUNDARY
-  MONITORING WELL



DATA SOURCE: CITY OF TORONTO
MAP PROJECTION: NAD 1983 UTM ZONE 17N

CLIENT:			FORA DEVELOPMENTS		
SITE LOCATION:			2400-2440 DUNDAS STREET WEST TORONTO, ONTARIO		
					
TITLE:			BOREHOLE LOCATION PLAN		
DRAWN BY:	PROJECT NO.:	CHECKED BY:			
SW	CT3488.00	XX			
REVISION:	DATE:	FIGURE:			
00	AUGUST 2022	1			

APPENDIX C


BOREHOLE LOG SHEETS

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW101			
ADDRESS: 2400-2440 Dundas Street West, Toronto											
CITY/PROVINCE: ON				NORTHING (m): 4835075.72		EASTING (m): 624823.70		ELEV. (m) 113.53			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling + PMT							
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2			
SAMPLE TYPE		<input type="checkbox"/> AUGER <input checked="" type="checkbox"/> DRIVEN <input checked="" type="checkbox"/> CORING <input type="checkbox"/> DYNAMIC CONE <input type="checkbox"/> SHELBY						SPLIT SPOON			

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)				PL W.C. LL										
					40	80	120	160	20	40	60	80							
		Asphaltic concrete (60mm)	0	113.5															
		compact, moist, brown gravelly sand	0.5	113	18								1		0	<5			Bentonite 50 mm monitoring well was installed. water level measured on September 8, 2022: 15.57 mbg
		compact, moist, brown SAND trace silt	1	112.5	11								2	50	<5				
			1.5	112	12								3	63	<5				
			2	111.5															
			2.5	111	19								4	67	50				
			3	110.5															
			3.5	110	21								5	88	50				
			4	109.5									6	88	60				
			4.5	109									7	92	85				
			5	108.5															
			5.5	108	39								8	92	<5				
			6	107.5															
			6.5	107	35								9	67	<5				
			7	106.5															
			7.5	106															
			8	105.5	30								10	67	<5				
			8.5	105															
			9	104.5															

	LOGGED BY: AD	DRILLING DATE: 09 to 14-June-2022
	INPUT BY: EMZ	MONITORING DATE: 08-September-2022
	REVIEWED BY: VN	PAGE 1 OF 4

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW101												
ADDRESS: 2400-2440 Dundas Street West, Toronto																				
CITY/PROVINCE: ON				NORTHING (m): 4835075.72		EASTING (m): 624823.70		ELEV. (m) 113.53												
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling + PMT																
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2												
SAMPLE TYPE <input checked="" type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input checked="" type="checkbox"/> DYNAMIC CONE		<input checked="" type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON										
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS	
					N-VALUE (Blows/300mm)				PL W.C. LL											
					20	40	60	80	20	40	60	80								
		dense, wet, grey SANDY SILT	9.5	104																
			10	103.5									P2							
			10.5	103																
			11	102.5									11		70					
			11.5	102																
			12	101.5																
		grey, moist CLAYEY SILT trace gravel	12.5	101																
			13	100.5									P3							
			13.5	100																
		soft	14	99.5									12		100					
			14.5	99																
			15	98.5																
			15.5	98																
			16	97.5									P4							
			16.5	97																
		firm	17	96.5									13		42					
			17.5	96																
			18	95.5																
			18.5																	



LOGGED BY: AD

INPUT BY: EMZ

REVIEWED BY: VN

DRILLING DATE: 09 to 14-June-2022

MONITORING DATE: 08-September-2022

PAGE 2 OF 4

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW101			
ADDRESS: 2400-2440 Dundas Street West, Toronto											
CITY/PROVINCE: ON				NORTHING (m): 4835075.72		EASTING (m): 624823.70		ELEV. (m) 113.53			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling + PMT							
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2			
SAMPLE TYPE <input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON	

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)				PL W.C. LL										
					40	80	120	160	20	40	60	80							
		stiff, grey, moist CLAYEY SILT trace gravel	19	94.5															
			19.5	94									P5						
			20	93.5									14		58				
			20.5	93															
			21	92.5															
		hard, moist, grey CLAYEY SILT trace gravel, trace sand (TILL)	21.5	92															
			22	91.5															
			22.5	91									P6						
			23	90.5									15		28				
			23.5	90															
			24	89.5															
			24.5	89															
			25	88.5															
			25.5	88									P7						
			26	87.5									16		33				
			26.5	87															
			27	86.5															
			27.5	86															

LOGGED BY: AD

INPUT BY: EMZ

REVIEWED BY: VN

DRILLING DATE: 09 to 14-June-2022


MONITORING DATE: 08-September-2022

PAGE 3 OF 4

CLIENT: Fora Developments						PROJECT NO.: CT3488.00							RECORD OF:							
ADDRESS: 2400-2440 Dundas Street West, Toronto													MW101							
CITY/PROVINCE: ON						NORTHING (m): 4835075.72				EASTING (m): 624823.70				ELEV. (m) 113.53						
CONTRACTOR: Profile Drilling Inc.						METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling + PMT														
BOREHOLE DIAMETER (cm): 15			WELL DIAMETER (cm): 5			SCREEN SLOT #: 10			SAND TYPE: 2				SEALANT TYPE: 2							
SAMPLE TYPE		<input type="checkbox"/> AUGER	<input checked="" type="checkbox"/>	DRIVEN		<input checked="" type="checkbox"/>	CORING		<input type="checkbox"/>	DYNAMIC CONE		<input type="checkbox"/>	SHELBY		<input type="checkbox"/>	SPLIT SPOON				
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION		DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa) ▲ N-VALUE (Blows/300mm)				WATER CONTENT (%) PL W.C. LL				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
		hard, moist, grey CLAYEY SILT trace gravel, trace sand (TILL)		28	85.5										P8					
				28.5	85															
				29	84.5										17		33			
				29.5	84															
				30	83.5															
				30.5	83															
				31	82.5															
				31.5	82										P9					
		grey weathered SHALE		32	81.5										18		33			
		END OF BOREHOLE																		

LOGGED BY: AD	DRILLING DATE: 09 to 14-June-2022
INPUT BY: EMZ	MONITORING DATE: 08-September-2022
REVIEWED BY: VN	PAGE 4 OF 4

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF:												
ADDRESS: 2400-2440 Dundas Street West, Toronto								MW101S												
CITY/PROVINCE: ON				NORTHING (m): 4835075.09				EASTING (m): 624822.39												
ELEV. (m) 113.50																				
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger																
BOREHOLE DIAMETER (cm): 15				WELL DIAMETER (cm): 5				SCREEN SLOT #: 10												
SAND TYPE: 2				SEALANT TYPE: 2																
SAMPLE TYPE <input type="checkbox"/> AUGER <input checked="" type="checkbox"/> DRIVEN <input checked="" type="checkbox"/> CORING <input type="checkbox"/> DYNAMIC CONE <input type="checkbox"/> SHELBY <input type="checkbox"/> SPLIT SPOON																				
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS	
					40	80	120	160	PL	W.C.	LL	20								40
		Straight drilled to 5.5mbg to install the monitoring well	0	113.5																Bentonite
			0.5	113																50 mm monitoring well was installed.
			1	112.5																water level measured on
			1.5	112																September 8, 2022:
			2	111.5																3.20 mbg
			2.5	111																Sand
			3	110.5																Screen + Sand
			3.5	110																
			4	109.5																
			4.5	109																
			5	108.5																
		END OF BOREHOLE																		



LOGGED BY: AD

INPUT BY: EMZ

REVIEWED BY: VN


DRILLING DATE: 14-June-2022

MONITORING DATE: 08-September-2022

PAGE 1 OF 1

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF:											
ADDRESS: 2400-2440 Dundas Street West, Toronto								MW102											
CITY/PROVINCE: ON				NORTHING (m): 4835110.68		EASTING (m): 624806.93		ELEV. (m) 113.68											
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling															
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2											
SAMPLE TYPE		<input checked="" type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON							
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)				PL W.C. LL										
					40	80	120	160	20	40	60	80							
		asphaltic concrete (100mm)	0	113.5	17									1	46	40			Bentonite
	compact	moist, brown sand	0.5	113															50 mm monitoring well was installed. water level measured on September 8, 2022: 3.78 mbg
	-----	trace gravel, trace brick																	
		trace wood (FILL)	1	112.5	35									2	42	35			
	dense		1.5	112															

			2	111.5	8									3	50	25			
	compact		2.5	111															
		compact, wet, grey SILTY SAND	3	110.5															
			3.5	110	27									4	67	65			
		compact to dense, wet, grey SANDY SILT	4	109.5	24									5	42	35			
			4.5	109															
			5	108.5	44									6	83	105		Sand	
		loose, wet, grey SILT	5.5	108	6									7	13	5		Screen + Sand	
		trace sand, trace clay	6	107.5															
		compact to dense, wet, grey SILTY SAND	6.5	107	22									8	42	55			
			7	106.5															
			7.5	106															
			8	105.5	45									9	42	15			
		very dense, wet, grey SANDY SILT	8.5	105															
			9	104.5															



LOGGED BY: AD/AH

INPUT BY: EMZ

REVIEWED BY: VN

DRILLING DATE: 14&15-June-2022

MONITORING DATE: 08-September-2022


PAGE 1 OF 3

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW102			
ADDRESS: 2400-2440 Dundas Street West, Toronto											
CITY/PROVINCE: ON				NORTHING (m): 4835110.68		EASTING (m): 624806.93		ELEV. (m) 113.68			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling							
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2			
SAMPLE TYPE <input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON	

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)	WATER CONTENT (%)	SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)	PL W.C. LL							
					40 80 120 160	20 40 60 80							
		very dense, wet, grey SANDY SILT	9.5	104	72		10		58	<5			
		hard, moist, grey CLAYEY SILT trace sand	10	103.5									
			10.5	103									
			11	102.5	30		11		89				
			11.5	102									
			12	101.5									
			12.5	101	88/275		12		59				
			13	100.5									
		moist, grey CLAYEY SILT trace gravel, trace sand (TILL)	13.5	100									
			14	99.5	6		13		78				
			14.5	99									
			15	98.5									
			15.5	98	5		14		78				
			16	97.5									
			16.5	97									
			17	96.5	5		15		89				
			17.5	96									
			18	95.5									
			18.5										

LOGGED BY: AD/AH	DRILLING DATE: 14&15-June-2022
INPUT BY: EMZ	MONITORING DATE: 08-September-2022
REVIEWED BY: VN	PAGE 2 OF 3

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW102											
ADDRESS: 2400-2440 Dundas Street West, Toronto																			
CITY/PROVINCE: ON				NORTHING (m): 4835110.68		EASTING (m): 624806.93		ELEV. (m) 113.68											
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling															
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2											
SAMPLE TYPE		<input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON							
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)				PL W.C. LL										
					20	40	60	80	20	40	60	80							
	soft	moist, grey CLAYEY SILT trace gravel, trace sand (TILL)	19	94.5	2									16		100			
	very stiff		20	93.5	18									17		78			
			21	93															
			21.5	92.5										18		89			
			22	92	13														
			22.5	91.5															
	hard		23	91															
				90.5	36									19		58			
		END OF BOREHOLE																	



LOGGED BY: AD/AH

INPUT BY: EMZ


REVIEWED BY: VN

DRILLING DATE: 14&15-June-2022

MONITORING DATE: 08-September-2022

PAGE 3 OF 3

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF:												
ADDRESS: 2400-2440 Dundas Street West, Toronto								MW102S												
CITY/PROVINCE: ON				NORTHING (m): 4835111.62				EASTING (m): 624806.36												
ELEV. (m) 113.65																				
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger																
BOREHOLE DIAMETER (cm): 15				WELL DIAMETER (cm): 5				SCREEN SLOT #: 10												
SAND TYPE: 2				SEALANT TYPE: 2																
SAMPLE TYPE <input type="checkbox"/> AUGER <input checked="" type="checkbox"/> DRIVEN <input checked="" type="checkbox"/> CORING <input type="checkbox"/> DYNAMIC CONE <input type="checkbox"/> SHELBY <input type="checkbox"/> SPLIT SPOON																				
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS	
					40	80	120	160	PL	W.C.	LL	20								40
		Straight drilled to 5.5mbg to install the monitoring well	0	113.5																Bentonite
			0.5	113																50 mm monitoring well was installed.
			1	112.5																water level measured on
			1.5	112																September 8, 2022:
			2	111.5																3.04 mbg
			2.5	111																Sand
			3	110.5																Screen + Sand
			3.5	110																
			4	109.5																
			4.5	109																
			5	108.5																
		END OF BOREHOLE																		



LOGGED BY: AH

INPUT BY: EMZ

REVIEWED BY: VN

DRILLING DATE: 15-June-2022

MONITORING DATE: 08-September-2022

PAGE 1 OF 1

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW103			
ADDRESS: 2400-2440 Dundas Street West, Toronto											
CITY/PROVINCE: ON				NORTHING (m): 4835092.43		EASTING (m): 624761.97		ELEV. (m) 113.62			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling							
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2			
SAMPLE TYPE <input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON	

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)				PL W.C. LL										
					40	80	120	160	20	40	60	80							
		asphaltic concrete (100mm) loose to compact, moist, brown sand trace silt, trace brick (FILL)	0	113.5	13									1	13	40			Bentonite 50 mm monitoring well was installed. water level measured on September 8, 2022: 3.61 mbg
			0.5	113										2	21	35			
			1	112.5	6									3	50	25			
		dense, moist, brown SANDY SILT	1.5	112										4	67				
			2	111.5	38									5	58	65			
			2.5	111	34									6	67	35			
		compact, wet, grey SILTY SAND	3	110.5										7	58	105			
			3.5	110	15									8	67	5			
			4	109.5	18									9	58	55			
			4.5	109	22									10	67	15			
		dense, moist, grey SANDY SILT	5	108.5														Sand Screen + Sand	
			5.5	108	39														
		dense, moist, grey SILTY SAND	6	107.5															
			6.5	107	38														
		compact, moist, grey SILT some clay	7	106.5															
			7.5	106															
			8	105.5	18														
		dense, moist, grey SILTY SAND	8.5	105															
			9	104.5															


LOGGED BY: AH	DRILLING DATE: 16-June-2022
INPUT BY: EMZ	MONITORING DATE: 08-September-2022
REVIEWED BY: VN	PAGE 1 OF 3


CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW103			
ADDRESS: 2400-2440 Dundas Street West, Toronto											
CITY/PROVINCE: ON				NORTHING (m): 4835092.43		EASTING (m): 624761.97		ELEV. (m) 113.62			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling							
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2			
SAMPLE TYPE <input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON	

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)				PL W.C. LL										
					40	80	120	160	20	40	60	80							
		dense, moist, grey SILTY SAND	9.5	104	42								11		58	<5			
		dense, moist, grey SILT trace clay	10	103.5															
			10.5	103															
			11	102.5	39								12		50				
		soft to firm, moist, grey CLAYEY SILT trace gravel, trace sand (TILL)	11.5	102															
			12	101.5															
			12.5	101	4								13		89				
			13	100.5															
			13.5	100															
			14	99.5	4								14		78				
			14.5	99															
			15	98.5															
			15.5	98	3								15		89				
			16	97.5															
			16.5	97															
			17	96.5	4								16		89				
			17.5	96															
			18	95.5															
			18.5																

	LOGGED BY: AH		DRILLING DATE: 16-June-2022	
	INPUT BY: EMZ		MONITORING DATE: 08-September-2022	
	REVIEWED BY: VN		PAGE 2 OF 3	


CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW103			
ADDRESS: 2400-2440 Dundas Street West, Toronto											
CITY/PROVINCE: ON				NORTHING (m): 4835092.43		EASTING (m): 624761.97		ELEV. (m) 113.62			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling							
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2			
SAMPLE TYPE <input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON	

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS	
					N-VALUE (Blows/300mm)				PL W.C. LL											
					40	80	120	160	20	40	60	80								
		very stiff to hard, moist, grey CLAYEY SILT trace gravel, trace sand (TILL)		95																
	19		94.5																	
	19.5		94																	
	20		93.5										18		82					
	20.5		93																	
	21	92.5																		
	21.5	92										19		89						
	22	91.5																		
	22.5	91																		
	23	90.5										20		50						
		END OF BOREHOLE																		



LOGGED BY: AH	DRILLING DATE: 16-June-2022
INPUT BY: EMZ	MONITORING DATE: 08-September-2022
REVIEWED BY: VN	PAGE 3 OF 3

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF:												
ADDRESS: 2400-2440 Dundas Street West, Toronto								MW103S												
CITY/PROVINCE: ON				NORTHING (m): 4835092.17				EASTING (m): 624761.33												
ELEV. (m) 113.67																				
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger																
BOREHOLE DIAMETER (cm): 15				WELL DIAMETER (cm): 5				SCREEN SLOT #: 10												
SAND TYPE: 2				SEALANT TYPE: 2																
SAMPLE TYPE <input type="checkbox"/> AUGER <input checked="" type="checkbox"/> DRIVEN <input checked="" type="checkbox"/> CORING <input type="checkbox"/> DYNAMIC CONE <input type="checkbox"/> SHELBY <input type="checkbox"/> SPLIT SPOON																				
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS	
					40	80	120	160	PL	W.C.	LL									
					N-VALUE (Blows/300mm)															
			0	113.5																
			0.5	113																
			1	112.5																
			1.5	112																
			2	111.5																
			2.5	111																
			3	110.5																
			3.5	110																
			4	109.5																
			4.5	109																
			5	108.5																
		END OF BOREHOLE																		



LOGGED BY: AH	DRILLING DATE: 20-June-2022
INPUT BY: EMZ	MONITORING DATE: 08-September-2022
REVIEWED BY: VN	PAGE 1 OF 1

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW104			
ADDRESS: 2400-2440 Dundas Street West, Toronto											
CITY/PROVINCE: ON				NORTHING (m): 4835168.40		EASTING (m): 624769.14		ELEV. (m) 114.10			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling							
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2			
SAMPLE TYPE <input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON	

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)		WATER CONTENT (%)			SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS	
					N-VALUE (Blows/300mm)		PL W.C. LL										
					40	80	120	160	20								40
		asphaltic concrete (120mm) compact to very dense, moist, brown sand and silt some gravel, trace brick (FILL)	0	114	15					9							Bentonite 50 mm monitoring well was installed. water level measured on September 8, 2022: 4.12 mbg
			0.5	113.5						2							
			1	113	60/225												
			1.5	112.5						7							
		loose	2	112	8												
		brown	2.5	111.5	19					16							
		compact	3	111						17							
		grey	3.5	110.5	51												
			4	110	27					16							
		compact, wet, grey SILT trace sand	4.5	109.5						15							
		grey, moist SILTY SAND	5	109	50												
		very dense	5.5	108.5	8					18							
		loose	6	108													
		compact	6.5	107.5	17					20							
			7	107													
			7.5	106.5													
		very dense	8	106	50					18							
			8.5	105.5													
			9	105													

LOGGED BY: AH	DRILLING DATE: 20&21-June-2022
INPUT BY: EMZ	MONITORING DATE: 08-September-2022
REVIEWED BY: VN	PAGE 1 OF 4

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW104			
ADDRESS: 2400-2440 Dundas Street West, Toronto											
CITY/PROVINCE: ON				NORTHING (m): 4835168.40		EASTING (m): 624769.14		ELEV. (m) 114.10			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling							
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2			
SAMPLE TYPE <input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON	

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)	WATER CONTENT (%)	SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)	PL W.C. LL							
					40 80 120 160	20 40 60 80							
		very dense, moist, grey SILTY SAND	9.5	104.5	59 ▲	19 ■	11		42	<5			
		compact, moist, grey SILT trace sand, some clay	10	104									
			10.5	103.5									
		compact, moist, grey SANDY SILT	11	103	12 ▲	18 ■	12		42				
			11.5	102.5									
			12	102									
			12.5	101.5	19 ▲	14 ■	13		33				
			13	101									
		firm, moist, grey CLAYEY SILT trace gravel, trace to some sand (TILL)	13.5	100.5									
			14	100	4 ▲	14 ■	14		78				
			14.5	99.5									
			15	99									
			15.5	98.5	8 ▲	15 ■	15		33				
			16	98									
			16.5	97.5									
			17	97	6 ▲	15 ■	16		89				
			17.5	96.5									
			18	96									
			18.5										

	LOGGED BY: AH		DRILLING DATE: 20&21-June-2022	
	INPUT BY: EMZ		MONITORING DATE: 08-September-2022	
	REVIEWED BY: VN		PAGE 2 OF 4	


CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW104			
ADDRESS: 2400-2440 Dundas Street West, Toronto											
CITY/PROVINCE: ON				NORTHING (m): 4835168.40		EASTING (m): 624769.14		ELEV. (m) 114.10			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling							
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2			
SAMPLE TYPE <input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON	

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)	WATER CONTENT (%)	SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)	PL W.C. LL							
					40 80 120 160	20 40 60 80							
		moist, grey CLAYEY SILT trace gravel, trace sand (TILL)	95.5	95.5	5	15	17		44				
			19	95									
		firm	19.5	94.5									
			20	94	7	15	18		89				
			20.5	93.5									
			21	93									
		stiff	21.5	92.5	12	17	19		78				
			22	92									
			22.5	91.5									
			23	91	41	10	20		44				
			23.5	90.5									
			24	90									
			24.5	89.5	32	12	21		44				
			25	89									
		hard	25.5	88.5									
			26	88	40	11	22		56				
			26.5	87.5									
			27	87									
			27.5	86.5	55	11	23		56				

	LOGGED BY: AH		DRILLING DATE: 20&21-June-2022	
	INPUT BY: EMZ		MONITORING DATE: 08-September-2022	
	REVIEWED BY: VN		PAGE 3 OF 4	

CLIENT: Fora Developments						PROJECT NO.: CT3488.00						RECORD OF: MW104							
ADDRESS: 2400-2440 Dundas Street West, Toronto																			
CITY/PROVINCE: ON							NORTHING (m): 4835168.40					EASTING (m): 624769.14				ELEV. (m) 114.10			
CONTRACTOR: Profile Drilling Inc.									METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling										
BOREHOLE DIAMETER (cm): 15				WELL DIAMETER (cm): 5				SCREEN SLOT #: 10				SAND TYPE: 2				SEALANT TYPE: 2			
SAMPLE TYPE		<input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON							
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa) N-VALUE (Blows/300mm)	WATER CONTENT (%) PL W.C. LL	SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL) (new title)	LABORATORY TESTING	WELL INSTALLATION	REMARKS						
		hard, moist, grey CLAYEY SILT trace gravel, trace sand (TILL)	28	86															
			28.5	85.5															
			29	85	53 ▲	10 ■	24		56										
			29.5	84.5															
			30	84															
			30.5	83.5	50/75 ▲	4 ■	25		67										
		grey weathered SHALE END OF BOREHOLE																	
					LOGGED BY: AH					DRILLING DATE: 20&21-June-2022									
					INPUT BY: EMZ					MONITORING DATE: 08-September-2022									
					REVIEWED BY: VN					PAGE 4 OF 4									

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF:												
ADDRESS: 2400-2440 Dundas Street West, Toronto								MW104S												
CITY/PROVINCE: ON				NORTHING (m): 4835168.80				EASTING (m): 624769.82												
ELEV. (m) 114.10																				
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger																
BOREHOLE DIAMETER (cm): 15				WELL DIAMETER (cm): 5				SCREEN SLOT #: 10												
SAND TYPE: 2				SEALANT TYPE: 2																
SAMPLE TYPE <input type="checkbox"/> AUGER <input checked="" type="checkbox"/> DRIVEN <input checked="" type="checkbox"/> CORING <input type="checkbox"/> DYNAMIC CONE <input type="checkbox"/> SHELBY <input type="checkbox"/> SPLIT SPOON																				
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS	
					40	80	120	160	PL	W.C.	LL	20								40
		Straight drilled to 5.5mbg to install the monitoring well	0	114																Bentonite 50 mm monitoring well was installed. water level measured on September 8, 2022: 3.05 mbg Sand Screen + Sand
			0.5	113.5																
			1	113																
			1.5	112.5																
			2	112																
			2.5	111.5																
			3	111																
			3.5	110.5																
			4	110																
			4.5	109.5																
		5	109																	
		END OF BOREHOLE																		



LOGGED BY: AH

INPUT BY: EMZ

REVIEWED BY: VN

DRILLING DATE: 22-June-2022

MONITORING DATE: 08-September-2022

PAGE 1 OF 1

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW105			
ADDRESS: 2400-2440 Dundas Street West, Toronto											
CITY/PROVINCE: ON				NORTHING (m): 4835141.75		EASTING (m): 624791.12		ELEV. (m) 114.20			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling							
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2			
SAMPLE TYPE <input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON	

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)				PL W.C. LL										
					40	80	120	160	20	40	60	80							
		asphaltic concrete (120mm)	0	114				69					1		42	<5			Bentonite 50 mm monitoring well was installed. water level measured on September 8, 2022: 3.27 mbg Sand Screen + Sand
		moist, brown sand and gravel trace asphalt, trace wood (FILL)	0.5	113.5									2		21	<5			
		dense to very dense	1	113			34						3		21	<5			
		loose	2	112.5			4						4		42	65			
		SILTY SAND	2.5	112			22						5		58	200			
		compact moist brown	3	111.5									6		67	230			
		dense wet	3.5	111			49						7		67	110			
		compact grey	4	110.5			27						8		58	<5			
		very dense, moist, grey SANDY SILT	4.5	110									9		33	50			
		loose, moist, grey SILTY SAND	5	109.5			10						10		50	55			
		dense, moist, grey SILT trace sand, trace clay	5.5	109				56											
			6	108.5															
			6.5	108			5												
			7	107.5															
			7.5	107															
			8	106.5				40											
			8.5	106															
			9	105.5															
			9	105															

LOGGED BY: AH	DRILLING DATE: 23&24&27-June-2022
INPUT BY: EMZ	MONITORING DATE: 08-September-2022
REVIEWED BY: VN	PAGE 1 OF 4

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW105			
ADDRESS: 2400-2440 Dundas Street West, Toronto											
CITY/PROVINCE: ON				NORTHING (m): 4835141.75		EASTING (m): 624791.12		ELEV. (m) 114.20			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling							
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2			
SAMPLE TYPE <input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON	

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)			SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS	
					N-VALUE (Blows/300mm)				PL W.C. LL										
					40	80	120	160	20	40	60								80
		very dense, moist, grey SILT trace sand, trace clay	9.5	104.5									11		58	<5			
		very dense, moist, grey SANDY SILT	10	104															
			10.5	103.5															
			11	103									12		78				
		compact, moist, grey SILT trace sand	11.5	102.5															
			12	102															
			12.5	101.5									13		42				
			13	101															
		firm, moist, grey CLAYEY SILT trace gravel, trace sand (TILL)	13.5	100.5															
			14	100									14		67				
			14.5	99.5															
			15	99															
			15.5	98.5									15		89				
			16	98															
			16.5	97.5															
			17	97									16		100				
			17.5	96.5															
			18	96															
			18.5																

LOGGED BY: AH

DRILLING DATE: 23&24&27-June-2022

INPUT BY: EMZ

MONITORING DATE: 08-September-2022

REVIEWED BY: VN

PAGE 2 OF 4

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW105			
ADDRESS: 2400-2440 Dundas Street West, Toronto											
CITY/PROVINCE: ON				NORTHING (m): 4835141.75		EASTING (m): 624791.12		ELEV. (m) 114.20			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling							
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2			
SAMPLE TYPE <input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON	

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)			SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS	
					N-VALUE (Blows/300mm)				PL W.C. LL										
					40	80	120	160	20	40	60								80
		moist, grey CLAYEY SILT trace gravel, trace sand (TILL)		95.5								17		78					
			19	95															
			19.5	94.5															
			20	94								18		89					
		firm to very stiff	20.5	93.5															
			21	93															
			21.5	92.5								19		78					
			22	92															
			22.5	91.5															
			23	91								20		56					
			23.5	90.5															
			24	90															
			24.5	89.5								21		44					
		hard	25	89															
			25.5	88.5															
			26	88								22		24					
			26.5	87.5															
			27	87															
			27.5	86.5								23		28					

LOGGED BY: AH

INPUT BY: EMZ


REVIEWED BY: VN

DRILLING DATE: 23&24&27-June-2022

MONITORING DATE: 08-September-2022

PAGE 3 OF 4

CLIENT: Fora Developments						PROJECT NO.: CT3488.00						RECORD OF: MW105								
ADDRESS: 2400-2440 Dundas Street West, Toronto																				
CITY/PROVINCE: ON									NORTHING (m): 4835141.75						EASTING (m): 624791.12			ELEV. (m) 114.20		
CONTRACTOR: Profile Drilling Inc.									METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling											
BOREHOLE DIAMETER (cm): 15				WELL DIAMETER (cm): 5				SCREEN SLOT #: 10				SAND TYPE: 2				SEALANT TYPE: 2				
SAMPLE TYPE		<input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON								
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa) 40 80 120 160 N-VALUE (Blows/300mm)	WATER CONTENT (%) ▲ PL W.C. LL	SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL) (new title)	LABORATORY TESTING	WELL INSTALLATION	REMARKS							
		hard, moist, grey CLAYEY SILT trace gravel, trace sand (TILL)	28	86																
			28.5	85.5																
			29	85	57 ▲		24		44											
			29.5	84.5																
			30	84																
			30.5	83	50/75 ▲		25		67											
		grey weathered SHALE END OF BOREHOLE																		
						LOGGED BY: AH			DRILLING DATE: 23&24&27-June-2022											
						INPUT BY: EMZ			MONITORING DATE: 08-September-2022											
						REVIEWED BY: VN			PAGE 4 OF 4											

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF:											
ADDRESS: 2400-2440 Dundas Street West, Toronto								MW106											
CITY/PROVINCE: ON				NORTHING (m): 4835158.42		EASTING (m): 624743.08		ELEV. (m) 114.04											
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling + Rock															
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2											
SAMPLE TYPE		<input checked="" type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON							
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)				PL W.C. LL										
					20	40	60	80	20	40	60	80							
		asphaltic concrete (120mm)	0	114	22									1	33	30			Bentonite
		compact, moist, brown gravelly sand trace asphalt (FILL)	0.5	113.5															
		compact, moist, brown silty sand trace gravel, trace wood trace brick (FILL)	1	113	22									2	33	70			
			1.5	112.5															
		compact to dense, brown SILTY SAND	2	112	9									3	33	<5			
			2.5	111.5										4	50	65			
		moist	3	111															
			3.5	110.5	26									5	58	200			
		wet	4	110	23									6	50	230			
		compact, wet, grey SANDY SILT	4.5	109.5															
			5	109	26									7	50	110			Sand
			5.5	108.5										8	42	<5			Screen + Sand
		very loose, moist, grey SILT trace sand, trace clay	6	108	3														
			6.5	107.5	32									9	33	50			
		dense, moist, grey SILTY SAND	7	107															
			7.5	106.5															
		very dense, moist, grey SANDY SILT	8	106										10	71	55			
			8.5	105.5	86/275														
			9	105															
					LOGGED BY: AH				DRILLING DATE: 29 June to 6 July-2022										
					INPUT BY: EMZ				MONITORING DATE: 08-September-2022										
					REVIEWED BY: VN				PAGE 1 OF 4										

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW106			
ADDRESS: 2400-2440 Dundas Street West, Toronto											
CITY/PROVINCE: ON				NORTHING (m): 4835158.42		EASTING (m): 624743.08		ELEV. (m) 114.04			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling + Rock							
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2			
SAMPLE TYPE <input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON	

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)	WATER CONTENT (%)	SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)	PL W.C. LL							
					40 80 120 160	20 40 60 80							
		grey SANDY SILT	9.5	104.5	83		11		72	<5			
		very dense											
		-----	10	104									
		dense	10.5	103.5									
		-----	11	103	49		12		58				
		wet	11.5	102.5									
		compact	12	102									
		-----	12.5	101.5	19		13		44				
		grey, moist CLAYEY SILT	13	101									
		trace gravel, trace sand (TILL)	13.5	100.5									
		-----	14	100	5		14		67				
		firm	14.5	99.5									
		-----	15	99									
		-----	15.5	98.5	4		15		67				
		-----	16	98									
		-----	16.5	97.5									
		-----	17	97	5		16		78				
		-----	17.5	96.5									
		stiff	18	96									
		-----	18.5										


	LOGGED BY: AH		DRILLING DATE: 29 June to 6 July-2022	
	INPUT BY: EMZ		MONITORING DATE: 08-September-2022	
	REVIEWED BY: VN		PAGE 2 OF 4	

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW106			
ADDRESS: 2400-2440 Dundas Street West, Toronto											
CITY/PROVINCE: ON				NORTHING (m): 4835158.42		EASTING (m): 624743.08		ELEV. (m) 114.04			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling + Rock							
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2			
SAMPLE TYPE <input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON	

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)	WATER CONTENT (%)	SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS	
					N-VALUE (Blows/300mm)	PL W.C. LL								
					20 40 60 80	20 40 60 80								
		grey, moist CLAYEY SILT trace gravel, trace sand (TILL)	19	95				17		78				
		19.5	94.5											
		20	94	▲ 9				18		56				
		20.5	93.5											
		21	93											
		21.5	92.5	▲ 9				19		67				
		22	92											
		22.5	91.5											
		23	91	52 ▲				20		67				
		23.5	90.5											
		24	90											
		24.5	89.5	41 ▲				21		33				
		25	89											
	25.5	88.5												
	26	88	▲ 18				22		78					
	26.5	87.5												
	27	87												
	27.5	86.5	67 ▲				23		22					

LOGGED BY: AH	DRILLING DATE: 29 June to 6 July-2022
INPUT BY: EMZ	MONITORING DATE: 08-September-2022
REVIEWED BY: VN	PAGE 3 OF 4

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW106											
ADDRESS: 2400-2440 Dundas Street West, Toronto																			
CITY/PROVINCE: ON				NORTHING (m): 4835158.42		EASTING (m): 624743.08		ELEV. (m) 114.04											
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling + Rock															
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2											
SAMPLE TYPE <input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON									
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	(new title)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)				PL W.C. LL										
					40	80	120	160	20	40	60	80							
		hard, moist, grey CLAYEY SILT trace gravel, trace sand (TILL)	28	86															
			28.5	85.5															
			29	85									24		67				
			29.5	84.5															
			30	84															
			30.5	83.5									25		52				
			31	83															
			31.5	82.5															
		grey weathered SHALE	32	82									26		100				
			32.5	81.5															
		grey SHALE with 5-18cm limestone interbeds moderately weathered intensely to moderately fractured moderately hard	33	81															
			33.5	80.5									RC1						TCR= 99% RQD= 78%
			34	80															
		grey SHALE with 5-18cm limestone interbeds moderately weathered intensely fractured moderately hard intermittent 5-8cm clay layers at 34.5 35.5mbg	34.5	79.5															
			35	79									RC2						TCR= 99% RQD= 56%
			35.5	78.5															UCS at 35.56 mbg: 24.6 MPa
		END OF BOREHOLE																	



LOGGED BY: AH

INPUT BY: EMZ


REVIEWED BY: VN

DRILLING DATE: 29 June to 6 July-2022

MONITORING DATE: 08-September-2022

PAGE 4 OF 4

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW106S													
ADDRESS: 2400-2440 Dundas Street West, Toronto																					
CITY/PROVINCE: ON				NORTHING (m): 4835158.61		EASTING (m): 624742.47		ELEV. (m) 114.11													
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger																	
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2													
SAMPLE TYPE		<input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON									
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	(new title)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS	
					N-VALUE (Blows/300mm)				PL W.C. LL												
			0	114																	
		Straight drilled to 5.5mbg to install the monitoring well	0.5	113.5																	Bentonite 50 mm monitoring well was installed. water level measured on September 8, 2022: 3.16 mbg Sand Screen + Sand
			1	113																	
			1.5	112.5																	
			2	112																	
			2.5	111.5																	
			3	111																	
			3.5	110.5																	
			4	110																	
			4.5	109.5																	
			5	109																	
		END OF BOREHOLE																			



LOGGED BY: AH
 INPUT BY: EMZ
 REVIEWED BY: VN

DRILLING DATE: 06-July-2022
 MONITORING DATE: 08-September-2022
 PAGE 1 OF 1

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW107			
ADDRESS: 2400-2440 Dundas Street West, Toronto											
CITY/PROVINCE: ON				NORTHING (m): 4835113.99		EASTING (m): 624776.93		ELEV. (m) 113.77			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling + Rock							
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2			
SAMPLE TYPE		<input type="checkbox"/> AUGER <input checked="" type="checkbox"/> DRIVEN <input checked="" type="checkbox"/> CORING <input type="checkbox"/> DYNAMIC CONE <input type="checkbox"/> SHELBY									

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)		WATER CONTENT (%)			SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)		PL W.C. LL									
					40	80	20	40	60							
		asphaltic concrete (120mm)	0		24					1A		50				Bentonite 50 mm monitoring well was installed. water level measured on September 8, 2022: 3.89 mbg
		compact, moist, brown gravelly sand (FILL)	0.5	113.5						1B		70				
		SILTY SAND	1	113												
		loose to compact	1.5	112.5						2		33	55			
		moist brown	2	112						3		50	60			
			2.5	111.5						4		50	105			
			3	111												
			3.5	110.5						5		50	210			
		wet	4	110						6		58	260			
		dense to very dense	4.5	109.5												
			5	109						7		58	200			Sand
			5.5	108.5												Screen + Sand
		compact to very dense, moist, grey SANDY SILT	6	108						8		58	130			
			6.5	107.5						9		50	120			
			7	107												
			7.5	106.5												
			8	106						10		42	100			
			8.5	105.5												
			9	105												

	LOGGED BY: AH	DRILLING DATE: 5 to 11 July-2022
	INPUT BY: EMZ	MONITORING DATE: 08-September-2022
	REVIEWED BY: VN	PAGE 1 OF 5

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW107			
ADDRESS: 2400-2440 Dundas Street West, Toronto											
CITY/PROVINCE: ON				NORTHING (m): 4835113.99		EASTING (m): 624776.93		ELEV. (m) 113.77			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling + Rock							
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2			
SAMPLE TYPE <input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON	


GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)	WATER CONTENT (%)	SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)	PL W.C. LL							
					20 40 60 80	20 40 60 80							
		very dense, moist, grey SANDY SILT	9.5	104.5	53	17	11		58	75			
		soft, moist, grey CLAYEY SILT	10	104									
			10.5	103.5									
			11	103	3	17	12		50	<5			
		soft to firm, moist, grey CLAYEY SILT trace gravel, trace sand (TILL)	11.5	102.5									
			12	102									
			12.5	101.5	3	17	13		100				
			13	101									
			13.5	100.5									
			14	100	6	18	14		56				
			14.5	99.5									
			15	99									
			15.5	98.5	4	17	15		89				
			16	98									
			16.5	97.5									
			17	97	3	16	16		67				
			17.5	96.5									
			18	96									
			18.5	95.5									

	LOGGED BY: AH		DRILLING DATE: 5 to 11 July-2022	
	INPUT BY: EMZ		MONITORING DATE: 08-September-2022	
	REVIEWED BY: VN		PAGE 2 OF 5	

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW107			
ADDRESS: 2400-2440 Dundas Street West, Toronto											
CITY/PROVINCE: ON				NORTHING (m): 4835113.99		EASTING (m): 624776.93		ELEV. (m) 113.77			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling + Rock							
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2			
SAMPLE TYPE <input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON	

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)	WATER CONTENT (%)	SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)	PL W.C. LL							
					40 80 120 160	20 40 60 80							
		stiff to hard, moist, grey CLAYEY SILT trace gravel, trace sand (TILL)			7	15	17	100					
			19	95									
			19.5	94.5									
			20	94	14		18	78					
			20.5	93.5									
			21	93									
			21.5	92.5	13	13	19	67					
			22	92									
			22.5	91.5									
			23	91			20	56					
			23.5	90.5	40	12							
			24	90									
			24.5	89.5			21	67					
			25	89	35	12							
			25.5	88.5									
			26	88			22	28					
			26.5	87.5	52	15							
			27	87									
			27.5	86.5	46	13	23	56					

	LOGGED BY: AH		DRILLING DATE: 5 to 11 July-2022	
	INPUT BY: EMZ		MONITORING DATE: 08-September-2022	
	REVIEWED BY: VN		PAGE 3 OF 5	

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW107											
ADDRESS: 2400-2440 Dundas Street West, Toronto																			
CITY/PROVINCE: ON				NORTHING (m): 4835113.99		EASTING (m): 624776.93		ELEV. (m) 113.77											
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling + Rock															
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2											
SAMPLE TYPE		<input type="checkbox"/> AUGER <input checked="" type="checkbox"/> DRIVEN <input checked="" type="checkbox"/> CORING <input type="checkbox"/> DYNAMIC CONE <input type="checkbox"/> SHELBY								SPLIT SPOON									
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)				PL W.C. LL										
					40	80	120	160	20	40	60	80							
		hard, moist, grey CLAYEY SILT trace gravel, trace sand (TILL)	28	86															
			28.5	85.5															
			29	85															
			29.5	84.5	49				9				24		67				
			30	84															
			30.5	83.5															
			31	83	53				7				25		58				
			31.5	82.5															
		grey weathered SHALE	32	82	50/50				5				26		38				
		grey SHALE with 3-19cm limestone interbeds highly weathered very intensely fractured moderately hard	32.5	81.5														TCR= 66% RQD= 0%	
			33	81															
		grey SHALE with 3-19cm limestone interbeds moderately weathered intensely fractured moderately hard	33.5	80.5														TCR= 95% RQD= 51%	
			34	80															
			34.5	79.5															
		grey SHALE with 3-19cm limestone interbeds slightly weathered intensely to moderately fractured hard	35	79														UCS at 35.71 mbg: 36.0 MPa TCR= 97% RQD= 77%	
			35.5	78.5															
			36	78														UCS at 36.17 mbg: 20.5 MPa	
		grey SHALE with 3-19cm limestone interbeds slightly weathered intensely to moderately fractured hard	36.5	77.5														UCS at 36.35 mbg: 36.2 MPa	
			37	77														UCS at 36.55 mbg: 69.6 MPa	
					LOGGED BY: AH				DRILLING DATE: 5 to 11 July-2022										
					INPUT BY: EMZ				MONITORING DATE: 08-September-2022										
					REVIEWED BY: VN				PAGE 4 OF 5										

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF:												
ADDRESS: 2400-2440 Dundas Street West, Toronto								MW107												
CITY/PROVINCE: ON				NORTHING (m): 4835113.99				EASTING (m): 624776.93												
				ELEV. (m) 113.77																
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling + Rock																
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2												
SAMPLE TYPE		<input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON								
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS	
					N-VALUE (Blows/300mm)				PL W.C. LL											
					40 80 120 160	20 40 60 80	20 40 60 80	20 40 60 80												
		grey SHALE with 3-19cm limestone interbeds slightly weathered intensely to moderately fractured hard	37.5	76.5																TCR= 98% RQD= 89%
		END OF BOREHOLE																		

LOGGED BY: AH

INPUT BY: EMZ


REVIEWED BY: VN

DRILLING DATE: 5 to 11 July-2022

MONITORING DATE: 08-September-2022

PAGE 5 OF 5

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF:											
ADDRESS: 2400-2440 Dundas Street West, Toronto								MW107S											
CITY/PROVINCE: ON				NORTHING (m): 4835114.60				EASTING (m): 624777.05											
ELEV. (m) 113.77																			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger															
BOREHOLE DIAMETER (cm): 15				WELL DIAMETER (cm): 5				SCREEN SLOT #: 10											
SAND TYPE: 2				SEALANT TYPE: 2															
SAMPLE TYPE <input type="checkbox"/> AUGER <input checked="" type="checkbox"/> DRIVEN <input checked="" type="checkbox"/> CORING <input type="checkbox"/> DYNAMIC CONE <input type="checkbox"/> SHELBY <input type="checkbox"/> SPLIT SPOON																			
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					40	80	120	160	PL	W.C.	LL	20							
		Straight drilled to 5.5mbg to install the monitoring well	0																
			113.5																
			0.5																
			113																
			1																
			112.5																
			1.5																
			112																
			2																
			111.5																
			2.5																
			111																
		3																	
		110.5																	
		3.5																	
		110																	
		4																	
		109.5																	
		4.5																	
		109																	
		5																	
		108.5																	
		END OF BOREHOLE																	



LOGGED BY: AH

INPUT BY: EMZ

REVIEWED BY: VN

DRILLING DATE: 11-July-2022

MONITORING DATE: 08-September-2022

PAGE 1 OF 1

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW108			
ADDRESS: 2400-2440 Dundas Street West, Toronto											
CITY/PROVINCE: ON				NORTHING (m): 4835132.52		EASTING (m): 624752.97		ELEV. (m) 113.88			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling							
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2			
SAMPLE TYPE <input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON	

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)		WATER CONTENT (%)			SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS	
					N-VALUE (Blows/300mm)		PL	W.C.	LL								
					40	80	120	160	20								40
		asphaltic concrete (110mm)	0														Bentonite
		compact to very dense, moist, brown gravelly sand trace asphalt (FILL)	0.5	113.5	24					7							50 mm monitoring well was installed. water level measured on September 8, 2022: 3.14 mbg
			1	113	52/200					5							
		compact, moist, brown SANDY SILT	1.5	112.5						12							
			2	112	15												
		SAND some silt, trace clay moist brown	2.5	111.5						19							
		compact	3	111													
			3.5	110.5	20					19							
			4	110						18							
		dense to very dense grey	4.5	109.5						17							
			5	109													
		dense to very dense, moist, grey SILT trace sand, some clay	5.5	108.5						12							
			6	108	50												
			6.5	107.5						16							
			7	107													
		firm, wet, grey CLAYEY SILT trace sand	7.5	106.5													
			8	106						23							
			8.5	105.5													
		very dense, moist, grey SILTY SAND	9	105													

LOGGED BY: AH		DRILLING DATE: 12&13&14-July-2022	
INPUT BY: EMZ		MONITORING DATE: 08-September-2022	
REVIEWED BY: VN		PAGE 1 OF 4	

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW108			
ADDRESS: 2400-2440 Dundas Street West, Toronto											
CITY/PROVINCE: ON				NORTHING (m): 4835132.52		EASTING (m): 624752.97		ELEV. (m) 113.88			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling							
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2			
SAMPLE TYPE <input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON	

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)	WATER CONTENT (%)	SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)	PL W.C. LL							
					40 80 120 160	20 40 60 80							
		very dense, moist, grey SILTY SAND	9.5	104.5	63 ▲	15 ■	11		58	55			
		compact, moist, grey SILT trace sand, some clay	10	104									
			10.5	103.5									
			11	103	23 ▲	15 ■	12		50	<5			
		moist, grey CLAYEY SILT trace gravel, trace to some sand (TILL)	11.5	102.5									
			12	102									
			12.5	101.5	9 ▲	16 ■	13		100				
			13	101									
		firm to stiff	13.5	100.5									
			14	100	4 ▲	17 ■	14		56				
			14.5	99.5									
			15	99									
		soft	15.5	98.5	3 ▲	17 ■	15		89				
			16	98									
			16.5	97.5									
			17	97	10 ▲	16 ■	16		67				
			17.5	96.5									
		stiff	18	96									
			18.5	95.5									

	LOGGED BY: AH		DRILLING DATE: 12&13&14-July-2022	
	INPUT BY: EMZ		MONITORING DATE: 08-September-2022	
	REVIEWED BY: VN		PAGE 2 OF 4	


CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW108			
ADDRESS: 2400-2440 Dundas Street West, Toronto											
CITY/PROVINCE: ON				NORTHING (m): 4835132.52		EASTING (m): 624752.97		ELEV. (m) 113.88			
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling							
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2			
SAMPLE TYPE <input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON	

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)	WATER CONTENT (%)	SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS	
					N-VALUE (Blows/300mm)	PL W.C. LL								
					20 40 60 80	20 40 60 80								
		firm to hard, moist, grey CLAYEY SILT trace gravel, trace sand (TILL)												
			19	95										
			19.5	94.5										
			20	94	▲ 9		■ 16	18		78				
			20.5	93.5										
			21	93										
			21.5	92.5	▲ 7		■ 13	19		67				
			22	92										
			22.5	91.5										
			23	91	▲ 29		■ 11	20		56				
			23.5	90.5										
			24	90										
			24.5	89.5	▲ 49		■ 10	21		67				
			25	89										
			25.5	88.5										
			26	88	▲ 29		■ 10	22		28				
			26.5	87.5										
			27	87										
			27.5	86.5	▲ 40		■ 9	23		56				

	LOGGED BY: AH		DRILLING DATE: 12&13&14-July-2022	
	INPUT BY: EMZ		MONITORING DATE: 08-September-2022	
	REVIEWED BY: VN		PAGE 3 OF 4	

CLIENT: Fora Developments						PROJECT NO.: CT3488.00						RECORD OF:											
ADDRESS: 2400-2440 Dundas Street West, Toronto												MW108											
CITY/PROVINCE: ON						NORTHING (m): 4835132.52						EASTING (m): 624752.97											
CONTRACTOR: Profile Drilling Inc.						METHOD: Hollow Stem Auger + Mud Rotary + Split Spoon Sampling																	
BOREHOLE DIAMETER (cm): 15				WELL DIAMETER (cm): 5				SCREEN SLOT #: 10				SAND TYPE: 2				SEALANT TYPE: 2							
SAMPLE TYPE <input type="checkbox"/> AUGER				<input checked="" type="checkbox"/> DRIVEN				<input checked="" type="checkbox"/> CORING				<input type="checkbox"/> DYNAMIC CONE				<input type="checkbox"/> SHELBY				<input type="checkbox"/> SPLIT SPOON			
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa) N-VALUE (Blows/300mm)	WATER CONTENT (%) PL W.C. LL	SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/OV (ppm or %LEL) (new title)	LABORATORY TESTING	WELL INSTALLATION	REMARKS										
		hard, moist, grey CLAYEY SILT trace gravel, trace sand (TILL)	28	86	68	7	24		67														
			28.5	85.5																			
			29	85																			
			29.5	84.5																			
			30	84																			
			30.5	83.5																			
			31	83	76	9	25		58														
			31.5	82.5																			
			32	82	50/50	1	26		38														
		grey weathered SHALE END OF BOREHOLE																					
						LOGGED BY: AH						DRILLING DATE: 12&13&14-July-2022											
						INPUT BY: EMZ						MONITORING DATE: 08-September-2022											
						REVIEWED BY: VN						PAGE 4 OF 4											

CLIENT: Fora Developments				PROJECT NO.: CT3488.00				RECORD OF: MW109											
ADDRESS: 2400-2440 Dundas Street West, Toronto																			
CITY/PROVINCE: ON				NORTHING (m): 4835147.07		EASTING (m): 624760.40		ELEV. (m) 113.93											
CONTRACTOR: Profile Drilling Inc.				METHOD: Hollow Stem Auger + Split Spoon Sampling															
BOREHOLE DIAMETER (cm): 15		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: 2		SEALANT TYPE: 2											
SAMPLE TYPE		<input type="checkbox"/> AUGER		<input checked="" type="checkbox"/> DRIVEN		<input checked="" type="checkbox"/> CORING		<input type="checkbox"/> DYNAMIC CONE		<input type="checkbox"/> SHELBY		<input type="checkbox"/> SPLIT SPOON							
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	SV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)				PL W.C. LL										
					40 80 120 160				20 40 60 80										
		asphaltic concrete (120mm) compact, moist, brown silty sand trace gravel, trace asphalt (FILL) loose to compact, brown SILTY SAND	0 0.5 1 1.5 2 2.5 3 3.5 4 4.5 5 5.5 6 6.5	113.5 113 112.5 112 111.5 111 110.5 110 109.5 109 108.5 108 107.5	23 14 17 27 9 43 32 13 36								1 2 3 4 5 6 7 8 9	58 50 50 58 50 58 50 50 50	55 75 115 360 165 270 210 90 115			Bentonite 50 mm monitoring well was installed. water level measured on September 8, 2022: 3.05 mbg Sand Screen + Sand	
		END OF BOREHOLE																	



LOGGED BY: AH

INPUT BY: EMZ

REVIEWED BY: VN

DRILLING DATE: 14-July-2022

MONITORING DATE: 08-September-2022

PAGE 1 OF 1

APPENDIX D

GEOTECHNICAL LABORATORY TEST RESULTS

Particle Size Distribution Report



GRAIN SIZE - mm.

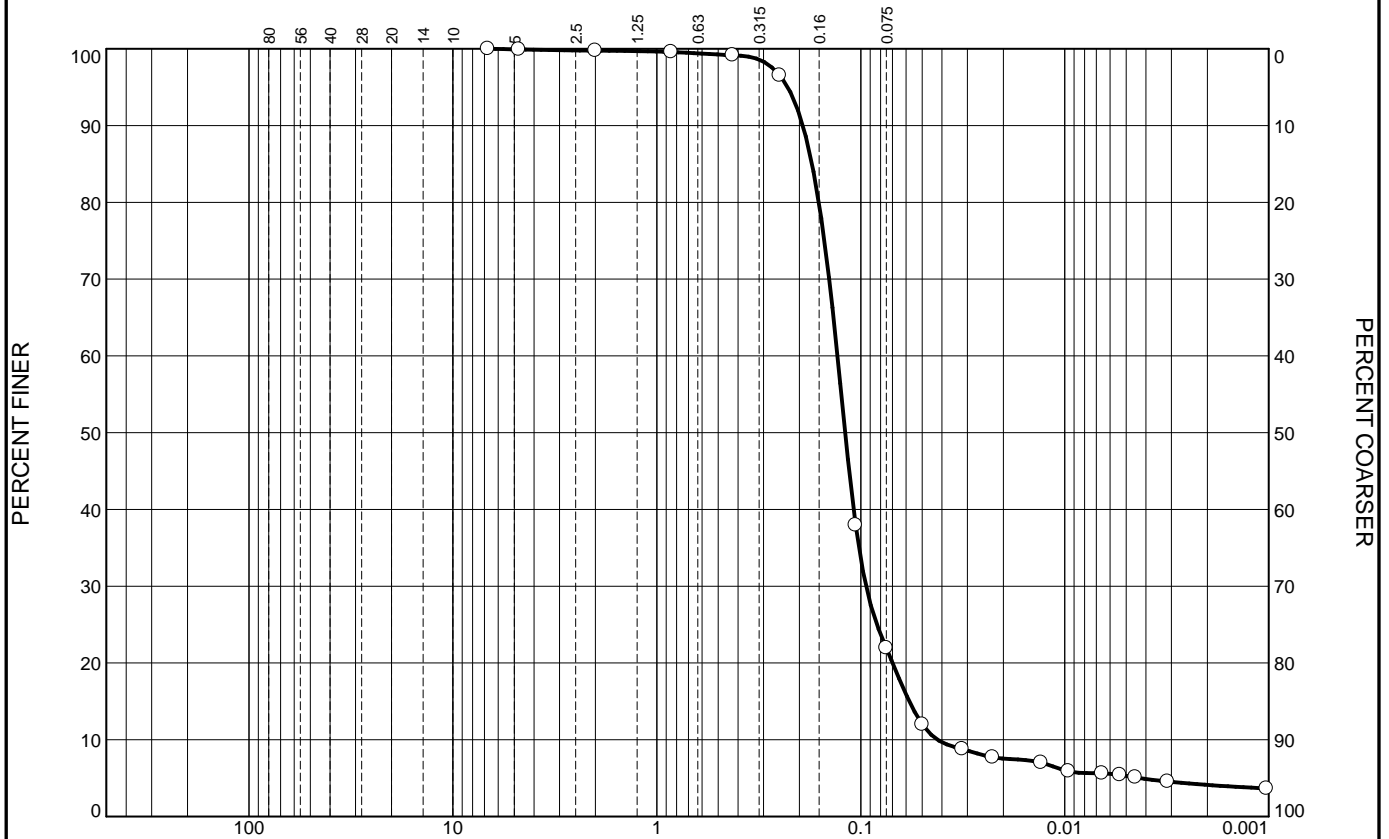
	% +3"		% Gravel			% Sand		% Fines		
						Coarse	Fine	Silt		Clay
○	0		5			4	15	54		22
×	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
○	22.5	12.9	0.1678	0.0354	0.0170	0.0043				

Material Description	USCS	AASHTO
○ CLAYEY SILT some sand trace gravel	CL	A-4(4)

Project No. CT3488.00 Client: Fora Developments Project: 2400-2440 Dundas Street West, Toronto ○ Sample Number: MW 104, S 15	Remarks: ○HYDROMETER DETAILS: Spec. Grav. 2.75(assumed); Vb=53cm ³ ; L2=13.8cm; L1=10.7cm; hs=0.16cm/Div; A=30.2cm ² ; Mass of Disp. Agent=40g/1 Test Date: Aug. 4, 2022
Terrapex Toronto, Ontario	Figure 1

Tested By: AM/TH

Particle Size Distribution Report



GRAIN SIZE - mm.

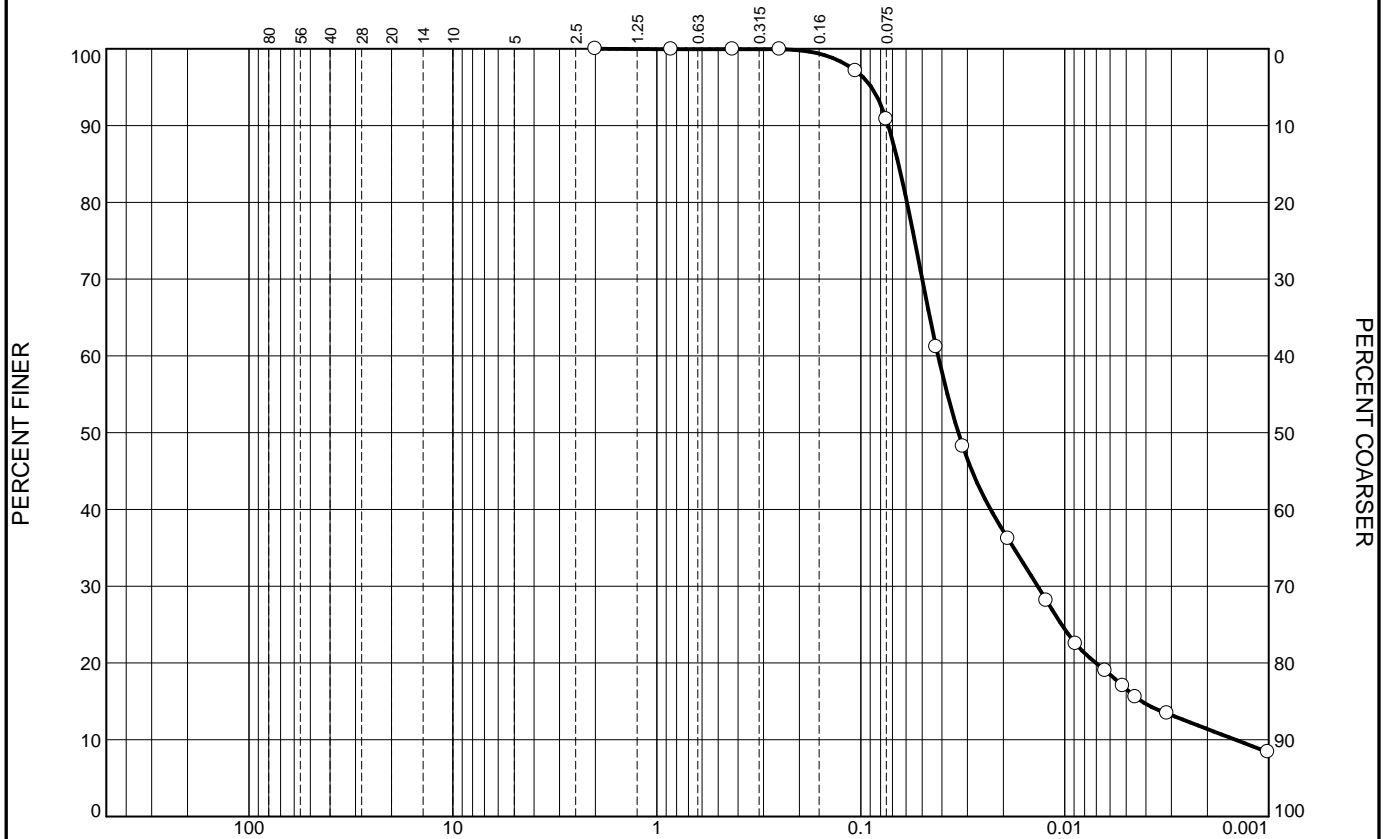
	% +3"		% Gravel		% Sand		% Fines			
					Coarse	Fine	Silt		Clay	
○	0		0		1	77	18		4	
×	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
○			0.1735	0.1303	0.1194	0.0942	0.0578	0.0420	1.62	3.10

Material Description	USCS	AASHTO
○ SAND some silt trace clay		

Project No. CT3488.00 Client: Fora Developments Project: 2400-2440 Dundas Street West, Toronto ○ Sample Number: MW 108, S 4	Remarks: ○HYDROMETER DETAILS: Spec. Grav. 2.75(assumed); Vb=53cm ³ ; L2=13.8cm; L1=10.7cm; hs= 0.16cm/Div; A=30.2cm ² ; Mass of Disp. Agent=40g/1 Test Date: Aug. 3, 2022
Terrapex Toronto, Ontario	Figure 2

Tested By: AM/TH

Particle Size Distribution Report



GRAIN SIZE - mm.

	% +3"		% Gravel		% Sand		% Fines			
					Coarse	Fine	Silt		Clay	
<input type="radio"/>	0		0		0	9	80		11	
<input checked="" type="checkbox"/>	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
<input type="radio"/>			0.0653	0.0418	0.0333	0.0136	0.0042	0.0015	3.03	28.71

Material Description	USCS	AASHTO
<input type="radio"/> SILT some clay trace sand		

Project No. CT3488.00 Client: Fora Developments Project: 2400-2440 Dundas Street West, Toronto <input type="radio"/> Sample Number: MW 108, S 8	Remarks: <input type="radio"/> HYDROMETER DETAILS: Spec. Grav. 2.75(assumed); Vb=53cm ³ ; L2=13.8cm; L1=10.7cm; hs=0.16cm/Div; A=30.2cm ² ; Mass of Disp. Agent=40g/1 Test Date: Aug. 3, 2022
Terrapex Toronto, Ontario	Figure 3

Tested By: AM/TH

Particle Size Distribution Report



GRAIN SIZE - mm.

	% +3"		% Gravel			% Sand		% Fines		
						Coarse	Fine	Silt		Clay
○	0		0			5		69		26
×	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
○	22.2	13.5	0.0328	0.0121	0.0079	0.0028				

Material Description	USCS	AASHTO
○ CLAYEY SILT trace sand	CL	A-4(5)

Project No. CT3488.00 Client: Fora Developments Project: 2400-2440 Dundas Street West, Toronto ○ Sample Number: MW 108, S 10	Remarks: ○HYDROMETER DETAILS: Spec. Grav. 2.75(assumed); Vb=53cm ³ ; L2=13.8cm; L1=10.7cm; hs=0.16cm/Div; A=30.2cm ² ; Mass of Disp. Agent=40g/1 Test Date: Aug. 3, 2022
Terrapex Toronto, Ontario	Figure 4

Tested By: AM/TH

Particle Size Distribution Report



GRAIN SIZE - mm.

	% +3"		% Gravel			% Sand		% Fines		
						Coarse	Fine	Silt		Clay
<input type="radio"/>	0		0			0	5	82		13
<input checked="" type="checkbox"/>	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
<input type="radio"/>			0.0582	0.0331	0.0249	0.0114	0.0030	0.0011	3.49	29.46

Material Description	USCS	AASHTO
<input type="radio"/> SILT some clay trace sand		

Project No. CT3488.00 Client: Fora Developments Project: 2400-2440 Dundas Street West, Toronto <input type="radio"/> Sample Number: MW 108, S 12	Remarks: <input type="radio"/> HYDROMETER DETAILS: Spec. Grav. 2.75(assumed); Vb=53cm ³ ; L2=13.8cm; L1=10.7cm; hs=0.16cm/Div; A=30.2cm ² ; Mass of Disp. Agent=40g/1 Test Date: Aug. 3, 2022
Terrapex Toronto, Ontario	Figure 5

Tested By: AM/TH

Particle Size Distribution Report



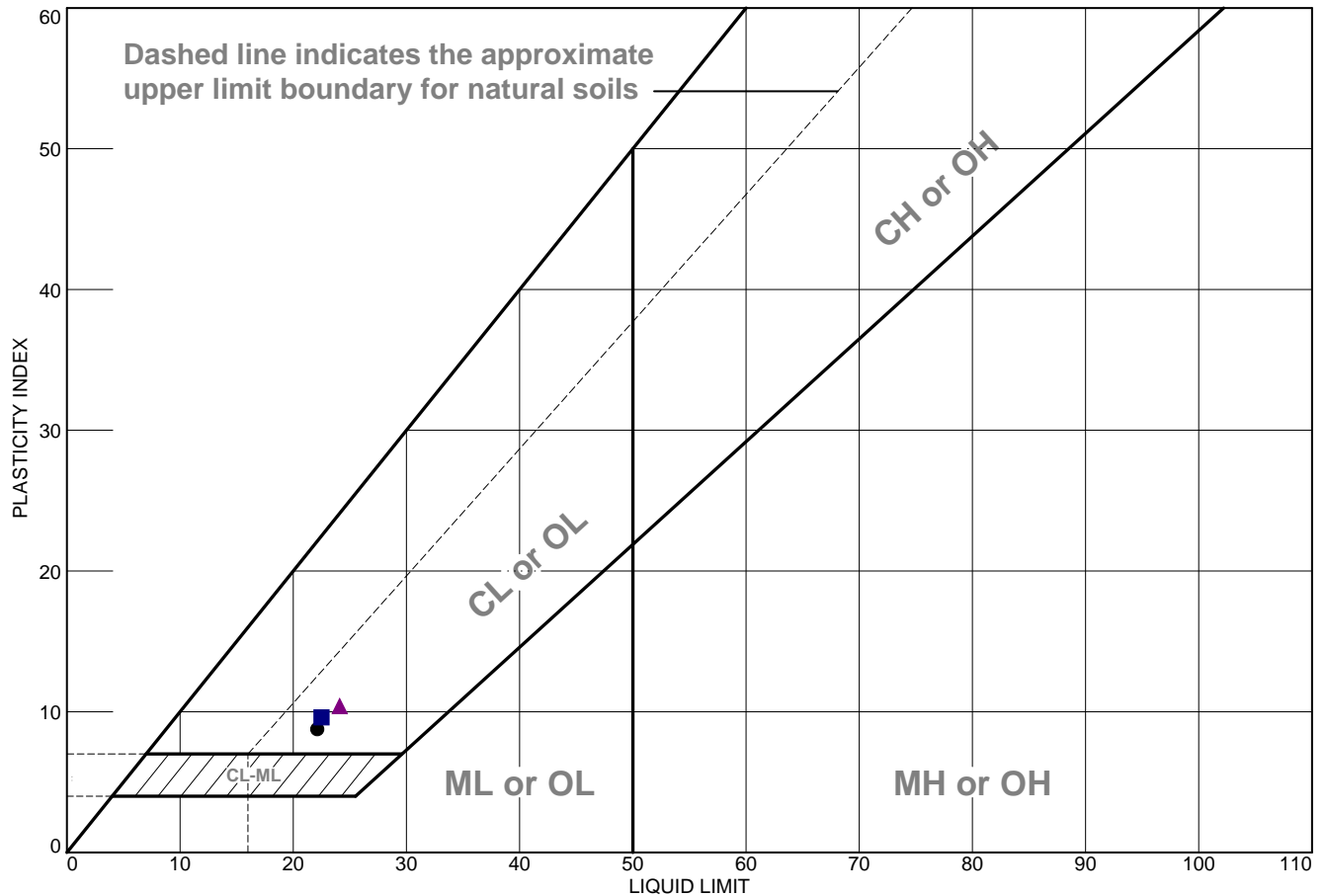
GRAIN SIZE - mm.										
% +3"		% Gravel		% Sand		% Fines				
				Coarse	Fine	Silt		Clay		
0		4		4	15	54		23		
LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u	
24.1	13.7	0.1604	0.0315	0.0157	0.0041					

Material Description								USCS	AASHTO
CLAYEY SILT some sand trace gravel								CL	A-4(5)

Project No. CT3488.00 Client: Fora Developments Project: 2400-2440 Dundas Street West, Toronto <input type="radio"/> Sample Number: MW 108, S 13		Remarks: ○HYDROMETER DETAILS: Spec. Grav. 2.75(assumed);Vb=53cm^3; L2=13.8cm; L1=10.7cm; hs= 0.16cm/Div; A=30.2cm^2; Mass of Disp. Agent=40g/1 Test Date: Aug. 3, 2022
<div>Terrapex</div> <div>Toronto, Ontario</div>		

Tested By: AM/TH

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	CLAYEY SILT trace sand	22.2	13.5	8.7	100	95	CL
■	CLAYEY SILT some sand trace gravel	22.5	12.9	9.6	91	76	CL
▲	CLAYEY SILT some sand trace gravel	24.1	13.7	10.4	92	77	CL

Project No. CT3488.00 **Client:** Fora Developments

Project: 2400-2440 Dundas Street West, Toronto

● **Sample Number:** MW 108, S 10

■ **Sample Number:** MW 104, S 15

▲ **Sample Number:** MW 108, S 13

Terrapex

Toronto, Ontario

Remarks:

● Test Date: Aug. 4, 2022

■ Test Date: Aug. 9, 2022

▲ Test Date: Aug 9, 2022

Figure 7

Tested By: AM

APPENDIX E

CERTIFICATE OF CHEMICAL ANALYSES

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED
90 SCARSDALE RD
TORONTO, ON M3B2R7
(905) 474-5265

ATTENTION TO: Kellen Campbell

PROJECT: CT3488.00

AGAT WORK ORDER: 22T927088

SOIL ANALYSIS REVIEWED BY: Jacky Zhu, Spectroscopy Technician

DATE REPORTED: Aug 05, 2022

PAGES (INCLUDING COVER): 6

VERSION*: 1

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

*Notes

Disclaimer:

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



AGAT Laboratories

Certificate of Analysis

AGAT WORK ORDER: 22T927088

PROJECT: CT3488.00

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

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 2400 Dundas St. W

ATTENTION TO: Kellen Campbell

SAMPLED BY: EM/AH

pH + Sulphate (Soil)

DATE RECEIVED: 2022-07-29

DATE REPORTED: 2022-08-05

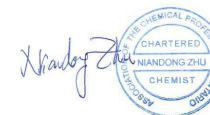
		SAMPLE DESCRIPTION:		MW103-SS10	MW105-SS11
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2022-07-16 10:30	2022-07-23 14:00
Parameter	Unit	G / S	RDL	4151075	4151084
Sulphate (2:1)	µg/g		2	153	144
pH (2:1)	pH Units		NA	8.18	8.41

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

4151075-4151084 pH and Sulphate were determined on the extract obtained from the 2:1 leaching procedure (2 parts DI water: 1 part soil).

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:





Quality Assurance

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

PROJECT: CT3488.00

SAMPLING SITE: 2400 Dundas St. W

AGAT WORK ORDER: 22T927088

ATTENTION TO: Kellen Campbell

SAMPLED BY: EM/AH

Soil Analysis

RPT Date: Aug 05, 2022

RPT Date: Aug 05, 2022			DUPLICATE			Method Blank	REFERENCE MATERIAL		METHOD BLANK SPIKE		MATRIX SPIKE	
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper

pH + Sulphate (Soil)

Sulphate (2:1)	4149226	15	15	0.0%	< 2	101%	70%	130%	98%	80%	120%	104%	70%	130%
----------------	---------	----	----	------	-----	------	-----	------	-----	-----	------	------	-----	------

pH (2:1)	4150003	6.79	6.93	2.0%	NA	100%	80%	120%						
----------	---------	------	------	------	----	------	-----	------	--	--	--	--	--	--

Comments: NA signifies Not Applicable.

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

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

Certified By: _____





Time Markers

AGAT WORK ORDER: 22T927088

PROJECT: CT3488.00

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

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Kellen Campbell

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
4151075	MW103-SS10	Soil	16-JUL-2022	29-JUL-2022

pH + Sulphate (Soil)

Parameter	Date Prepared	Date Analyzed	Initials
Sulphate (2:1)	04-AUG-2022	04-AUG-2022	LC
pH (2:1)	03-AUG-2022	03-AUG-2022	AM

4151084	MW105-SS11	Soil	23-JUL-2022	29-JUL-2022
---------	------------	------	-------------	-------------

pH + Sulphate (Soil)

Parameter	Date Prepared	Date Analyzed	Initials
Sulphate (2:1)	04-AUG-2022	04-AUG-2022	LC
pH (2:1)	03-AUG-2022	03-AUG-2022	AM

Method Summary

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 22T927088

PROJECT: CT3488.00

ATTENTION TO: Kellen Campbell

SAMPLING SITE: 2400 Dundas St. W

SAMPLED BY: EM/AH

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Sulphate (2:1)	INOR-93-6004	modified from SM 4110 B	ION CHROMATOGRAPH
pH (2:1)	INOR 93-6031	modified from EPA 9045D and MCKEAGUE 3.11	PH METER



AGAT

Laboratories

551 7/29/22

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

Chain of Custody Record

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

Report Information:

Company: TERRAPEX
Contact: KELLEN CAMPBELL
Address: 90 Sandale Road, Toronto
Phone: 647-463-0519 Fax: _____
Reports to be sent to: V.nerisyan@terrapen.com
1. Email: K.campbell@terrapen.com
2. Email: C.montag@terrapen.com

Regulatory Requirements:

(Please check all applicable boxes)

- ☐ Regulation 153/04 ☐ Excess Soils R406 ☐ Sewer Use
☐ Ind/Com ☐ Sanitary ☐ Storm
☐ Res/Park ☐ Agriculture ☐ Region
☐ CCME ☐ Prov. Water Quality Objectives (PWQO)
☐ Coarse ☐ Other
☐ Fine

Is this submission for a Record of Site Condition?

☐ Yes ☒ No

Report Guideline on Certificate of Analysis

☐ Yes ☒ No

Sample Matrix Legend

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

Project Information:

Project: CT 3488.00
Site Location: 2400 Dundas St. W
Sampled By: EM/AH
AGAT Quote #: _____ PO: _____
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☒ No ☐

Company: _____
Contact: _____
Address: _____
Email: accounts payable@terrapen.com

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N	Field Filtered - Metals, Hg, CrVI, DOC	Metals & Inorganics	Metals - <input type="checkbox"/> CrVI, <input type="checkbox"/> Hg, <input type="checkbox"/> HWSB	BTEX, F1-F4 PHCs	Analyze F4G if required <input type="checkbox"/> Yes <input type="checkbox"/> No	PAHs	PCBs	VOC	Landfill Disposal Characterization TOLP: <input type="checkbox"/> M&I <input type="checkbox"/> VOCs <input type="checkbox"/> ABNs <input type="checkbox"/> B1a/P <input type="checkbox"/> PCBs	Excess Soils SPLP Rainwater Leach	SPLP: <input type="checkbox"/> Metals <input type="checkbox"/> VOCs <input type="checkbox"/> SVOCs	Excess Soils Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Salt - EC/SAR	Potentially Hazardous or High Concentration (Y/N)
<u>B MW103-SS10</u>	<u>16/7/22</u>	<u>10:30 AM</u>	<u>1</u>	<u>S</u>																
<u>MW105-SS11</u>	<u>23/7/22</u>	<u>2:10 PM</u>	<u>1</u>	<u>S</u>																
		<u>AM PM</u>																		
		<u>AM PM</u>																		
		<u>AM PM</u>																		
		<u>AM PM</u>																		
		<u>AM PM</u>																		
		<u>AM PM</u>																		
		<u>AM PM</u>																		
		<u>AM PM</u>																		
		<u>AM PM</u>																		
		<u>AM PM</u>																		

Samples Relinquished By (Print Name and Sign):

Date:

Time:

Samples Received By (Print Name and Sign):

Date:

Time:

Samples Relinquished By (Print Name and Sign):

Date:

Time:

Samples Received By (Print Name and Sign):

Date:

Time:

Samples Relinquished By (Print Name and Sign):

Date:

Time:

Samples Received By (Print Name and Sign):

Date:

Time:

No: **T 125596**

APPENDIX F

PHOTOGRAPHS OF ROCK CORES

Client: Fora Developments
Address: 2400-2440 Dundas Street West, Toronto, ON

Project no: CT3488.00



PHOTO LOG OF ROCK CORE SAMPLES

**Top of Core
Run**

MW106

**Bottom of
Core Run**

RC1 – 107' 10"
(32.87 mbgs)



RC1 – 112' 10"
(34.39 mbgs)

RC2 – 112' 10"
(34.39 mbgs)



RC2 – 117' 10"
(35.97 mbgs)

Client: Fora Developments
Address: 2400-2440 Dundas Street West, Toronto, ON

Project no: CT3488.00



MW107

Top of Core Run

Bottom of Core Run

RC1 – 103' 8"
(31.60 mbgs)



RC1 – 107' 10"
(32.87 mbgs)

RC2 – 107' 10"
(32.87 mbgs)



RC2 – 112' 10"
(34.39 mbgs)

RC3 – 112' 10"
(34.39 mbgs)



RC3 – 118' 2"
(36.02 mbgs)

RC4 – 118' 2"
(36.02 mbgs)



RC4 – 123' 4"
(37.59 mbgs)