GEMS®

Groundwater Environmental Management Services

Hydrogeological Report

2634, 2636, 2640, 2642 Eglinton Avenue West and 1856, 1856A Keele Street

Toronto, Ontario

M6M 1T7

Project: 22-1464

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Prepared For:
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1.0 Introduction

Groundwater Environmental Management Services Inc. (GEMS) was retained by Fora Developments Inc. to evaluate the hydrogeological conditions for the proposed development at 2634, 2636, 2640, 2642 Eglinton Avenue West and 1856, 1856A Keele Street, Toronto, Ontario (the Site). The regional location of the Site is illustrated in **Figure 1.**

The Site area is approximately 1,350 square metres (m^2) (gh3, 2022) and currently contains mixed residential and commercial buildings. A single, thirty-three (33) level tower is proposed for the Site with three (3) levels of underground parking structure (gh3, 2022). The proposed architectural drawings are provided in **Appendix A.**

GEMS has reviewed the available relevant hydrogeological, environmental, and geotechnical information and has prepared this Hydrogeological Report in support of the proposed development by assessing the short and long-term dewatering requirements.

GEMS' scope of work includes:

- A review of hydrogeological conditions and environmental information based on previous reports prepared for the Site;
- A review of subsurface soils conditions;
- Groundwater level monitoring;
- Hydraulic conductivity testing;
- Water quality analysis;
- Calculation of maximum radius of influence;
- Calculation of maximum probable short and long-term dewatering rates;
- Assessment of potential adverse environmental effects; and,
- Assessment MECP well records within 500 m of the Site.

2.0 Site Conditions

2.1 Location and Land Usage

The Site is irregularly shaped and located on the north side of Eglinton Avenue West and west of Keele Street (Google Earth, 2022). The Site is currently zoned as commercial residential (City of Toronto Zoning By-law 569-2013, 2020).

Lands within 500 metres (m) of the Site are urban, and predominately consist of residential, commercial residential, residential apartment and open space (City of Toronto Zoning By-law 569-2013, 2020). The Keelesdale Light-rail Transit (LRT) Station is located immediately west of the Site and a youth recreation center and city park exist to the west of that.

North: Commercial Residential and Residential

East: Commercial Residential, Residential, Residential Apartment

South: Commercial Residential and Residential

West: Commercial Residential, LRT Station, Open Space (Coronation Park and Keelesdale North Park), Youth Recreation Center.

2.2 Proposed Development

The Site Plan outlines a total Site area of approximately 1,350 m^2 with a proposed development consisting of a single, mixed commercial and residential tower. The building will be comprised of thirty-four (34) levels with retail space on the ground floor (gh3, 2022). The underground structure will consist of 3 parking levels with a lowest Finished Floor Elevation (FFE) estimated at 115.5 metres above sea level (masl), based on the provided preliminary section drawings and a ground surface elevation of approximately 129.5 masl (gh3, 2022). The base of the excavation (excavation invert) for use in dewatering estimations is assumed to be one metre below the FFE (114.5 masl).

3.0 Methodology

The methodologies followed to complete the field investigation are outlined in this section.

3.1 Drilling Program

On 24 October 2022 and 28 November 2022, Terrapex Environmental Ltd. (Terrapex) carried out a field investigation that included the advancement of three (3) boreholes, for the purpose of logging the site geology and installing monitoring wells (MW101, MW201, MW202).

All monitoring wells were equipped with a 50-millimetre (mm) diameter, schedule-40, Polyvinyl chloride (PVC) monitoring wells, with screened intervals of 3.05 m length at their base. The wells were installed to evaluate static groundwater elevations, conduct hydraulic testing, and obtain water quality samples. All monitoring wells were developed prior to sampling activities using a Waterra inertial lift pump by purging at least three well volumes or until the monitoring well was purged dry. Borehole logs produced by Terrapex are provided in **Appendix B,** and a detailed Site Plan showing the borehole locations is presented on **Figure 2**.

3.2 Hydraulic Testing

On 8 December 2022, GEMS personnel visited the Site to complete Single Well Response Tests (SWRTs) on monitoring wells MW101, MW201 and MW202.

The SWRTs consisted of rising head testing performed by ‘instantaneously’ removing a pre-determined volume of water (a slug). Water level recovery back to static conditions was monitored using an automated water level logging device and validated with manual measurements. A dedicated barologger was set above the water table to allow the data to compensate for changes in atmospheric pressure.

3.3 Water Quality Sampling

On 28 November 2022, GEMS personnel were on Site to collect one (1) groundwater sample for water quality analysis. The sample was taken from monitoring well MW101 using a new dedicated bailer and sterile nitrile gloves to preserve sample integrity and ensure that the results represent in-situ groundwater conditions. The sample collection was not filtered.

The sample was packed with ice in a cooler to maintain sample temperature, and the cooler was sealed and transported for analysis to Bureau Veritas, a Canadian laboratory accredited and licensed by the Standards Council of Canada and/or the Canadian Association for Laboratory Accreditation (CALA). The

sample was tested for all parameters denoted in The City of Toronto Sanitary and Storm Sewer By-law criteria.

4.0 Geology and Hydrogeological Setting

The Site is situated in the physiographic region detailed as the South Slope, characterized by ground moraine with irregular knolls and hollows (Chapman & Putnam, 2007). Overburden materials deposited at the Site are reported to consist mainly of stone-poor, sandy silt to silty sand-textured till on Paleozoic terrain. The surficial soils in the area are mapped as Halton Till (Ontario-Erie lobe) (OGS, 1991), characterized as being carbonate-rich and comprised of silt and silty clay. The surficial geology of the Site is displayed in **Figure 3**. Paleozoic bedrock in the area is mapped as Upper Ordovician deposits of shale and limestone belonging to the Georgian Bay Formation (OGS, 1991).

4.1 Subsurface Investigation

Monitoring wells MW101, MW201 and MW202 were evaluated for this report. These boreholes were advanced to depths ranging from 6.1 metres below ground surface (mbgs) to 8.2 mbgs, and the monitoring wells were installed at depths ranging from 5.2 mbgs to 6.1 mbgs.

The details of borehole advancement are summarized below in **Table 4.1.1,** their locations are presented in **Figure 2,** and their corresponding borehole logs are provided in **Appendix B.**

Table 4.1.1 Borehole Details

Well ID	Date Installed	Ground Elevation (masl)	Borehole Depth (mbgs)	Borehole Depth (masl)	Monitoring Well Depth (mbgs)	Monitoring Well Depth (masl)
MW101	2022-10-24	129.6*	8.2	121.4	5.2	124.4
MW201	2022-11-28	127.9+	6.1	121.8	6.1	121.8
MW202	2022-11-28	127.8+	6.1	121.7	6.1	121.7

Ground elevation obtained from Terrapex borehole log 2022. (Appendix B**)*
+Ground elevation estimated using site survey

GEMS characterized the site stratigraphy based on overburden soils encountered during drilling, in descending order from the surface, as shown in **Table 4.2**:

Table 4.1.2 Site Stratigraphy

Asphalt	The Site is overlain by a parking lot composed of approximately 5 cm of asphaltic concrete.
Clayey Silty Sand to Silty Sand (Fill)	In all boreholes, approximately 1.4 to 2.6 metres of fill was encountered comprised of dry to moist, clayey silty sand to silty sand with traces of gravel.
Clayey Silt	A continuous layer of dark brown or grey clayey silt till was encountered in boreholes MW201 and MW202. The top depth of this unit is at an elevation of approximately 126.3 masl and has a thickness of roughly 0.6 metres.
Fine Sand	A thin, 0.3 metre layer of light brown, fine sand with traces of gravel was observed in MW201 at an elevation of 125.6 masl
Silty Sand	Dark grey or brown silty Sand layers were encountered in all three boreholes. The top of this layer ranged from 126.8 masl to 124.8 masl and had a thickness of 4.5 metres in MW101 and MW202. Two separate Silty sand units were observed in MW201, a shallow one at approximately 125.6 with a thickness of 0.5 m and a deeper one at 123.3 with a thickness of 2.0 metres. This layer was described as moist to saturated in MW101 and moist to wet in MW201 and MW202.
Silty Clay	A layer of moist to wet, dark grey silty clay with trace sand or gravel was encountered in MW101 and MW201 at 123.7 masl to 124.9 masl, respectively. This unit had a thickness of 1.9 metres in MW101 and 1.4 metres in MW201 and was absent in MW202, therefore this layer is interpreted to thin westward across the site.

This characterization is consistent with what was expected from the available published literature and mapping information.

4.2 Stratigraphy and Hydrogeological Conditions

Across the Site, beneath the asphalt/fill materials, the native soils consist of predominately clayey silt, silty sand, and silty clay materials with thin, discontinuous layers of fine sand. These materials are interpreted to be part of the Lower Newmarket till formation as shown in the site geologic cross-section provided in **Appendix C** and are consistent with the soil descriptions described in section 4.0. Bedrock was not encountered in any of the boreholes.

It is interpreted that most of the dewatering for the proposed development will occur within sandy silt, silty clay, and silty sand materials of the Lower Newmarket till formation.

The nearest surface water feature is Black Creek, situated approximately 500 m to the west of the Site, bordering Coronation Park and Keelesdale North Park. The Humber River is approximately 3 kilometres (km) west of the site and Lake Ontario is located 6 km to the south (**Figure 1**).

Local groundwater flow has been interpreted from site water levels to be roughly westward, towards Black creek and the Humber River. Regional groundwater flow is southward towards Lake Ontario.

4.3 Groundwater Level/Elevation Monitoring

From 28 November 2022 to 13 December 2022, GEMS carried out three (3) weekly Site visits to obtain water level measurements from the following three (3) monitoring wells installed on the Site: MW101, MW201 and MW202.

The locations of these monitoring wells are shown on **Figure 2,** and the well installation details and groundwater monitoring results are summarized in **Table 4.3**.

Table 4.3 Monitoring Well Summary and Groundwater Elevations

Well ID	Screened Unit and Screen Depth (masl)	Ground Elevation (masl)	Static Water Level Measurements			
			Date (YYYY-MM-DD)	Water Level (mbgs)	Water Elevation (masl)	Average (masl)
MW101	Silty Sand 127.7 – 124.6	129.6*	2022-11-28	4.51	125.09	124.99
			2022-12-08	4.65	124.95	
			2022-12-13	4.66	124.94	
MW201	Silty Sand 124.9 – 121.8	127.9+	2022-11-28	3.74	124.16	124.17
			2022-12-08	3.69	124.21	
			2022-12-13	3.76	124.14	
MW202	Sandy Silt, Silt and Silty Sand 124.8 – 121.7	127.9+	2022-11-28	3.43	124.38	124.36
			2022-12-08	3.43	124.37	
			2022-12-13	3.46	124.34	

Ground elevation obtained from Terrapex borehole log 2022 (*Appendix B***)*
+Ground elevation estimated using site survey
Note: Groundwater level monitoring is on-going to achieve 6 measurements in all monitoring wells

During the monitoring period, groundwater elevations at the Site ranged from 124.14 masl to 125.09 masl, with the highest observed in MW101 on 28 November 2022. Based on a review of the Oak Ridges Moraine Groundwater Program Data, the groundwater table in this area generally ranges from approximately 126.8 masl to 124.5 masl, sloping downward to the west (ORMGP, 2022 (**Appendix C**).

All wells are screened within the Newmarket Till and are considered hydrologically connected to each other within an unconfined water bearing zone. Groundwater elevations show the local groundwater flow is westward towards Lake Ontario.

Based on the preliminary architectural drawings (gh3, 2022) the proposed underground parking and associated excavation activities will occur within the Newmarket Till material to a maximum depth of approximately 114.5 masl.

4.4 Single Well Response Tests

On 8 December 2022, GEMS was on-Site to complete single well response tests (SWRTs) in three (3) monitoring wells: MW101, MW201, and MW202.

For each SWRT, a 'slug' of water was removed from the well, and the water level recovery was monitored for 30 minutes thereafter, or until the well returned to its static level. Estimations of hydraulic conductivity were made in AQTESOLV Aquifer Test Analysis Software using the Hvorslev Method (Hvorslev, 1951) based on the rate of recovery. Hydraulic Conductivity analysis graphs for each SWRT are provided in **Appendix D**.

The Hvorslev Method was chosen for its versatility and is based on the following assumptions:

- Water-bearing unit has infinite areal extent;
- Water-bearing unit is homogeneous and of uniform thickness;
- Water bearing unit is confined or unconfined;
- Water table is initially horizontal before testing;
- The well is fully or partially penetrating into the water-bearing unit;
- The slug is instantaneously removed from the well; and,
- Groundwater flow is steady.

After analyzing the slug test data from MW101 it was determined that the well screen was likely inhibiting recovery and therefore this data was not included. The estimated hydraulic conductivity results for the SWRTs are presented in **Table 4.4.**

Table 4.4: Hydraulic Conductivity Results from Single Well Response Tests

Well ID	Screened Unit	Screen Interval (masl)	SWRT	Hydraulic Conductivity (m/s)	Geometric Mean (m/s)
MW201	Silty Clay and Silty Sand	124.9 – 121.8	1	1.3×10^{-7}	1.2×10^{-7}
			2	1.5×10^{-7}	
			3	9.2×10^{-8}	
MW202	Silty Sand and Sandy Silt	124.8 – 121.7	1	1.6×10^{-7}	1.6×10^{-7}
			2	1.3×10^{-7}	
			3	2.0×10^{-7}	
Geometric Mean Hydraulic Conductivity (m/s) for all SWRTs					**1.4 x 10-7**
Highest Hydraulic Conductivity (m/s) for all SWRTs					**2.0 x 10-7**

The hydraulic conductivity results ranged from 9.2×10^{-8} m/s to 2.0×10^{-7} m/s, with an overall geometric mean of 1.4×10^{-7} m/s.

The borehole records (**Appendix B**) indicate that all tested wells are screened across the same water-bearing unit (Thorncliffe Formation) in materials, including silty sand, sandy silt, and silt. The geometric mean of hydraulic conductivity estimates (10^{-7} m/s) is within the textbook range for silty materials denoted by Freeze & Cherry (1979).

As a conservative estimate, GEMS recommends using the highest hydraulic conductivity result of 2.0×10^{-7} m/s to forecast the overburden dewatering rate.

4.5 Groundwater Quality

The water quality discharged by the dewatering system during construction is expected to be similar to in-situ groundwater quality.

On 5 December 2022, a groundwater sample was collected from borehole MW101 to characterize the in-situ groundwater quality at the Site. The water quality analysis results are included in **Appendix E**.

Water quality results were compared to the following criteria:

- City of Toronto Storm Sewer Discharge Use By-Law
- City of Toronto Sanitary and Combined Sewers Discharge Guidelines

The water quality met the City of Toronto Sanitary and Combined Sewers Discharge Guidelines for all parameters. It exceeded the City of Toronto Storm Sewer Discharge Use By-law criteria for Total Suspended Solids (TSS).

Exceedances to these criteria were identified and are summarized in **Table 4.5,** with the criteria exceeded in bold.

Table 4.5: Water Quality Results Exceeding Discharge Criteria

Water Quality Parameters	Units	MW101 Results	Storm Criteria	Sanitary Criteria
Total Suspended Solids (TSS)	mg/L	41	**15**	350

Groundwater quality should be expected to change over time during active construction dewatering. A dewatering contractor should assess the groundwater quality before any water-taking and discharging activities.

5.0 Short and Long-Term Discharge Rates

5.1 Short-Term Construction Dewatering

A construction dewatering system design may include well points, several sump pumps, and a network of gravity drains. Implementing a dewatering system is the responsibility of the property owner, and a qualified dewatering contractor with experience in construction dewatering should be retained to design and outline the methodology of the dewatering system. Construction will require that the groundwater level be lowered to a depth of at least 1.0 m below the excavation invert.

Table 5.1: Dewatering Estimate Assumptions

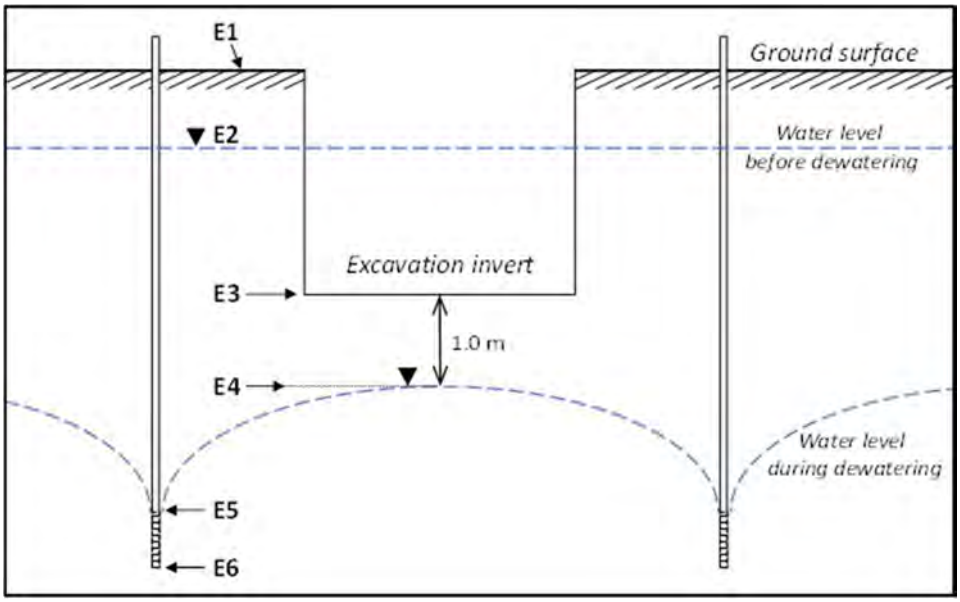
Input Parameter	Value	Notes
Ground Surface Elevation	129.5 masl	Highest surface elevation based on provided geotechnical borehole logs (**Appendix B**).
Finished Floor Elevation (FFE)	115.5 masl	The lowest finished floor elevation was assumed to be 6 metres below the surface based on two levels of underground parking as presented in the architectural drawings (**Appendix A**).
Excavation Invert	114.5 masl	Assumed 1 metre below FFE for raft slab.
Dewatering Target Elevation	113.4 masl	Assumed to be 1.0 metre below the excavation invert.
Excavation Area	30 m x 75 m	Simplified "rectangular" dimensions of the excavation.
Max. Anticipated Groundwater Elevation	125.1 masl	Highest measured groundwater elevation at the Site (MW101 11/28/2022)
Base of Aquifer	110.7 masl	Aquitard depth based on ORMGP cross section (**Appendix C**).
Hydraulic Conductivity (K)	6.5×10^{-8} m/s	Highest K value estimated from SWRT tests (MW202).

Dewatering estimates have been calculated assuming an excavation invert of 114.5 masl. On-Site water level measurements show the water table ranges between approximately 125.1 and 124.1 masl. The maximum anticipated groundwater level was 125.1, based on the highest measured water levels throughout the monitoring period (MW101, 11/28/2022). The maximum anticipated groundwater elevation is 10.6 metres above the assumed excavation invert, and therefore, short-term construction dewatering is anticipated.

A conceptual well-point dewatering model has been used to forecast the dewatering rates. As such, a greater drawdown would be required at the pumping wells themselves to achieve the target level in the central area of the base of the excavation. For calculations, the bottom tips of dewatering wells have been assumed to be located 3.0 m deeper than the excavation invert, with water levels in those dewatering wells 2.0 m below the excavation invert.

A schematic diagram of a section of loop dewatering is shown below in **Drawing 1**. The values for indicated parameters are as follows:

E1 =	Approximate ground level	129.5 masl
E2 =	Maximum hydraulic head	125.1 masl
E3 =	Lowest point of excavation	114.5 masl
E4 =	Target water level below excavation	113.5 masl
E5 =	Target water level in wellpoints	112.5 masl
E6 =	Dewatering wellpoint tips	111.5 masl



Drawing 5.1 Schematic diagram showing a cross-section of loop dewatering at two well points on opposite sides of the property.

5.2 Radius of Influence

Calculations for dewatering effects require an estimation of the radius of influence (ROI). Estimates of ROI for a rectangular excavation are calculated using the following formula adapted from the Jacob equation without recharge (Cooper, 1946).

$$R_o = r_w + \sqrt{\frac{T \cdot t}{C_4 \cdot C_s}}$$

Where:

- t = Duration of Dewatering

- T = Transmissivity in m^2/sec
- C_s = Storage Coefficient (no units)
- C_4 = Constant (4790) (no units)
- r_w = Effective well radius of open excavation in metres.

The effective radius of the open rectangular excavation has dimensions of a and b:

$$r_w = \frac{a + b}{\pi}$$

Because the analytical solutions used to estimate dewatering volumes are based on a rectangular excavation, the Site's irregular shape was simplified for the purpose of the calculations. This was achieved by using a rectangle with an area equal to that of the proposed excavation (1,350 m^2).

Simplified dimensions:

- Dewatering Area: 45 m x 30 m

Assuming 40 days of pumping for the steady-state drawdown, the ROI extending outward from the perimeter of the excavation is estimated to be 32 m. This ROI is depicted by the Zone of Influence (ZOI) shown in **Figure 4**. This is the maximum possible ROI assuming:

I. No recharge;

II. Wells are located around the perimeter of the rectangular excavation; and,

III. The bottom tips of wells are approximately 3.0 m deeper than the assumed foundation invert depth.

It should be noted that ROI estimates are based on simplified standard textbook modelling and are approximations of complex geological conditions that do not account for recharge effects. Based on observations and the documented Site condition, a typical recharge effect is anticipated. Subsurface materials are variable in structure, soil texture, thickness, and other factors, and thus conditions affecting the extent of the ROI may be present which were not identified by Site boreholes.

A conservative approach to forecasting the maximum pumping rates and associated ROI was taken to account for uncertainties associated with varying subsurface soil conditions and fluctuations in groundwater elevations. The value inputs to the equation were conservatively biased to predict the maximum pumping rates of dewatering required to draw down groundwater to the target levels. This conservative approach reduces the possibility of unforeseen hydrogeological conditions encountered, which may require a higher dewatering rate.

5.3 Pumping Rate Calculations

The calculation for a rectangular excavation is based on a scenario that models radial flow into a well with a calculated equivalent radius reflective of the area to be dewatered. Dewatering was simulated by analyzing radial flow to a well in an unconfined aquifer. Flows toward the well were simulated using the following formula (J.P.Powers, 2007):

$$Q = \frac{\pi \cdot K\left(H^2 - h^2\right)}{\ln\left(\frac{R_o}{r_w}\right)}$$

Where the symbols and input values are as follows:

- Q = Discharge flow (L/min)
- K = Hydraulic conductivity = 2.0 x 10^{-7} m/s
- H = Pre-construction static water level = 125.3 masl
- h = Target water level = 113.5 masl
- R_o = Radius of influence = 32.0 m
- r_w = Effective well radius of open excavation

The simplified shape of the excavation used for the pumping rate calculations is assumed to account for the full dimensions of the underground structure, as displayed in **Figure 4**.

5.4 Construction Dewatering Rates

Assuming the dewatering wells are installed to elevations of 111.5 masl, the estimated maximum dewatering rate for initial drawdown (7 days) is 74,880 L/day (52 L/min), and during steady-state drawdown (40 days) is 32,728 L/day (23 L/min). The dewatering calculations are provided in **Appendix E.**

For the purpose of permitting applications for dewatering, GEMS recommends using the forecasted 7-day pumping rate with the application of a safety factor of 2. The resulting pumping rate after applying the safety factor is 149,760 L/day (104 L/min). This forecasted dewatering pumping rate will allow for uncertainties and variability in the range of hydraulic conductivity.

Additionally, it is necessary to account for contributions to the dewatering volume from significant precipitation events. Assuming a rectangular excavation with dimensions of 45 m x 30 m for underground parking, the total surface area of the excavation will be 1,350 m^2. Anticipating a 15 mm daily rainfall event, the volume of rainwater contributed to this area would be 20,250 L.

Adding the rainfall contribution to the dewatering rate with the applied safety factor brings the forecast maximum pumping rate to 170,010 L/day (118 L/min).

A dewatering contractor should be retained to evaluate the dewatering methods. If dewatering wells deeper than 3.0 m below the assumed excavation invert depth are required, the discharge rates should be re-evaluated by GEMS.

A summary of the construction dewatering rates is outlined in **Table 5.3.**

Table 5.3 Summary of Construction Dewatering Rates

Dewatering	Excavation Area	
	Dewatering Rate	2.0 Safety Factor
15 mm Rainfall Contribution	20,250 L/day (14 L/min)	-
Initial Drawdown for Excavation	74,880 L/day (50 L/min)	149,760 L/day (104 L/min)
Total Volume	95,130 L/day 66 L/min	170,010 L/day* (118 L/min)*

**Rounded for permitting*

Based on the above estimate, an Environmental Activity and Sector Registry (EASR) is required for water taking during the dewatering and construction of the proposed development, as the forecast dewatering rate is greater than 50,000 L/day.

A short-term discharge agreement with the City of Toronto will be required before discharging water into any sewers owned by the City.

5.5 Long-Term Seepage Rates

It has been communicated with GEMS that the foundation will be constructed as water-tight, therefore no long-term discharge of groundwater is anticipated at the Site. The elimination of groundwater taking over the lifetime of the building will not adversely impact the aquifer over the long-term. The design and implantation of the water-tight structure is the responsibility of the construction team.

6.0 Potential for Adverse Effects

The following section identifies the potential for adverse environmental effects resulting from the proposed construction dewatering program.

6.1 Regulated and Sensitive Areas

According to The Ministry of Environment, Conservation and Parks' (MECP) Source Protection Information Atlas (MECP, 2021), the Site is not located in an area of development control as defined by the Niagara Escarpment Planning & Development Act. The Site is also not located in the Oak Ridges Moraine Conservation Area as defined by the Oak Moraine Conservation Plan.

There is no Toronto and Region Conservation Authority (TRCA) regulated areas within the zone of influence of the Site.

6.2 MECP Well Records and Groundwater Resources

The area within 500 m of the Site is serviced by the City of Toronto municipal water. The City of Toronto obtains its water supply from Lake Ontario. Therefore, there is no potential for groundwater interference complaints during construction dewatering activities.

A copy of the Ministry of Environment, Conservation and Parks (MECP) well listings within 500 m of the Site are provided in **Appendix E**. The wells within 500 m of the Site are displayed in **Figure 3**.

There are two hundred and twenty-nine (229) wells identified within the 500 m area surrounding the Site. There are thirty-nine (39) observation wells, twenty-nine (29) test holes, eighteen (18) monitoring and test holes, seventy-eight (78) dewatering wells, eighteen (18) wells with an unknown status. The remaining fourty-seven (47) wells are listed as abandoned. Therefore, no water supply wells, or domestic wells are expected to be impacted by construction dewatering. Water-taking activities related to construction dewatering are not expected to impact any wells near the Site, and no monitoring is recommended.

An MECP-licensed drill contractor should properly decommission all monitoring wells at the Site prior to the demolition of the existing building.

6.3 Settlement

Expectations regarding settlement are to be addressed in a separate report provided by Terrapex Environmental Ltd.

6.4 Recommended Additional Fieldwork and Monitoring

The proposed monitoring and additional fieldwork are recommended during temporary construction dewatering:

If dewatering discharge is directed to the City of Toronto sanitary or storm sewer, GEMS recommends the following monitoring for water quality:

Location:	Discharge outlet pipe or sampling port of the dewatering system.
Parameters:	City of Toronto sewer use By-Law
Schedule:	First sample is recommended to be obtained within the first two (2) days of discharge start. Routine samples are recommended to be obtained monthly thereafter.
Trigger:	If one or more parameters have a concentration above the receiving sewer By-Law limit.
Mitigation:	Filtration/treatment approaches would be reviewed on a specific basis. Upon installation of a filtration/treatment system, an additional sample should be performed to ensure compliance with the criteria.
Reporting:	As required, all results are reported to the Project supervisor for submission to the City of Toronto or the MECP.

Monitoring of the discharge water quantity is required to ensure compliance with the discharge agreement and/or EASR conditions. GEMS recommends the following program for monitoring the groundwater taking and discharge volumes:

Location:	A flow meter attached to the discharge pipe of the dewatering system.

Parameter:	Total volume of discharge, date, and time of measurement.
Schedule:	Minimum of daily recording by on-Site personnel, with values reported to the Project supervisor weekly for submission to the City, Region and/or MECP.
Trigger:	Discharge volume exceeds the maximum rate of dewatering specified in the discharge agreement and/or the EASR.
Mitigation:	Immediately reduce the pumping rate so that discharge is within permitted limit.
Reporting:	Values reported to the Project supervisor weekly for submission to the City, Region and/or MECP.

Additional Fieldwork

Well decommissioning is required before construction. A licensed well contractor should decommission any inactive wells within the Site, according to Ontario Regulation 903. This regulation applies to any existing monitoring wells.

7.0 Conclusion

Based on the above analysis, the following conclusions and recommendations are offered for the proposed reconstruction of 2636 – 2654 Eglinton Avenue West, Toronto, Ontario:

- The geology at the Site is composed of medium to fine-textured glaciolacustrine deposits of fine sand to silty clay in the Lower Newmarket Till formation. Excavation and dewatering activities will occur in predominately Sandy Silt, Silty Clay, and Silty Sand materials.
- The groundwater elevation at the Site ranged between 124.1 – 125.1 masl over the monitoring period (November to December 2022).
- Hydraulic conductivity tests for the water-bearing unit ranges from 9.2×10^{-8} m/s to 2.0×10^{-7} m/s, with a geometric mean of 1.4×10^{-7} m/s.
- The water quality met the City of Toronto Sanitary and Combined Sewers Discharge Guidelines for all parameters. It exceeded the City of Toronto Storm Sewer Discharge Use By-law criteria for Total Suspended Solids (TSS).
- The maximum construction dewatering rate to maintain water levels below the estimated maximum depth of excavation is 74,880 L/day (52 L/min).
- The estimated maximum dewatering rate for 15 mm rainfall event is 20,250 L/day (14 L/min).
- With the application of a safety factor of 2, the total maximum forecasted dewatering rate is 149,760 L/day (104 L/min) for groundwater entering the excavation area. For permitting purposes, GEMS has rounded this number and added the rainfall volume for a total of 170,010 L/day (118 L/min).
- The zone of influence for construction dewatering is estimated to extend 32 metres from the edge of the excavation area.
- The maximum finished floor elevation is roughly 10.8 metres below the water table, but the foundation is to be constructed as watertight and therefore long-term discharge of groundwater is not anticipated.

- Well decommissioning will be required before construction. A licensed well contractor should decommission any inactive wells within the Site, according to Ontario Regulations.

Groundwater Environmental Management Services Inc. (GEMS) has prepared this report for our client and its agents exclusively. GEMS accepts no responsibility for any damages that third parties may suffer resulting from decisions or actions based on this report.

The findings and conclusions are site-specific and were developed in a manner consistent with the level of care and skill normally exercised by environmental professionals currently practicing under similar conditions in the area. Changing assessment techniques, regulations, and site conditions mean that environmental investigations and their conclusions can quickly become dated, so this report is current up to two years from the published date. The report should not be used after that without GEMS' review/approval.

The Project has been conducted according to our instructions and work program. Additional conditions and limitations on our liability are outlined in our work program/contract. No warranty, expressed or implied, is made.

8.0 References

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9.0 Closing

We trust this information meets your current requirements. Please do not hesitate to contact the undersigned should you have any questions or require additional information.

Yours truly,

Groundwater Environmental Management Services Inc.

Prepared By:

Kenley Bairos

Kenley Bairos, M.Sc., GIT,

Hydrogeologist

Reviewed By:

PROFESSIONAL GEOSCIENTIST
19 DEC 2022
MICHAEL FRANCIS
PRACTISING MEMBER
3439
ONTARIO

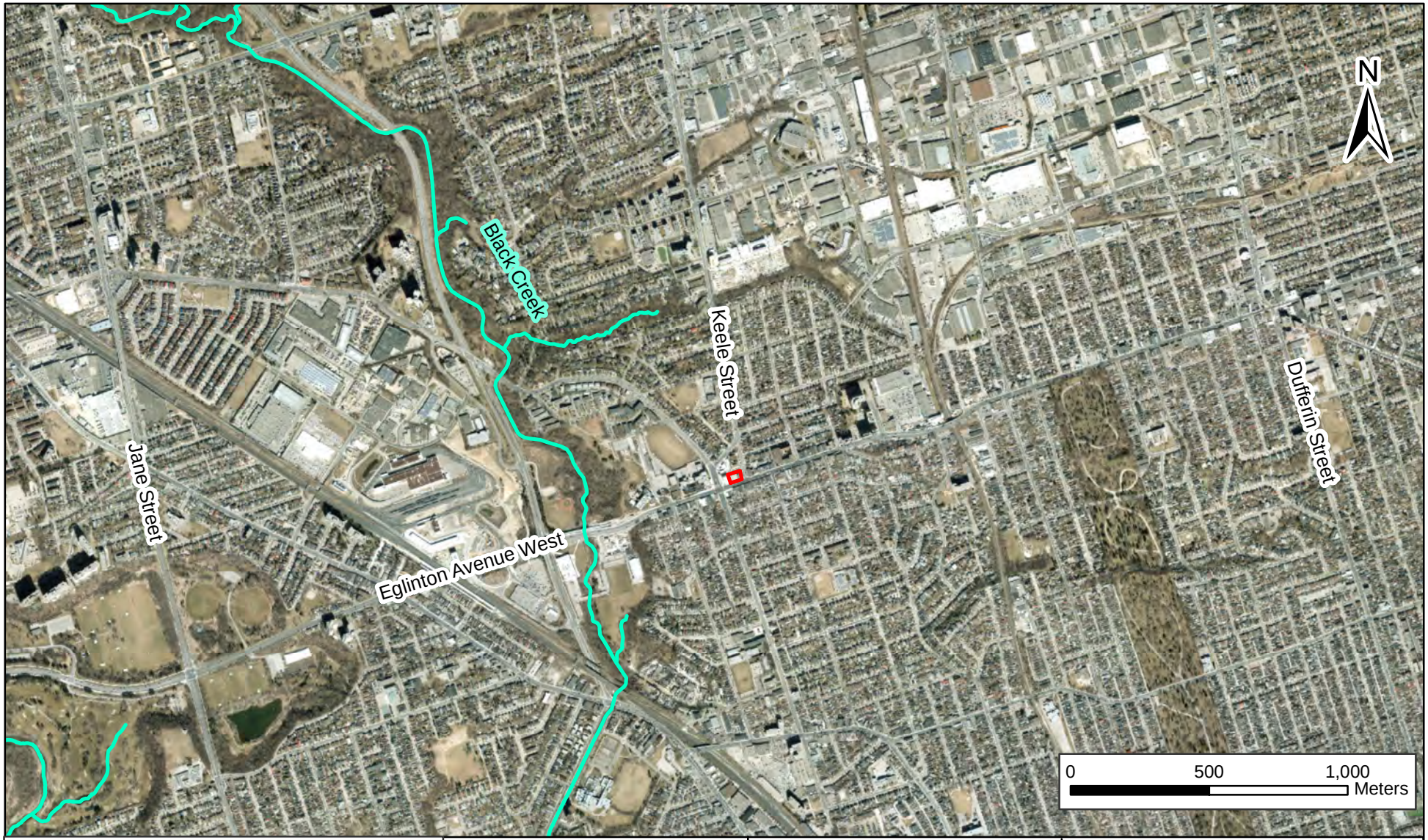
Mike Francis, B.Sc., C.Tech, P.Geo

Hydrogeologist

Figures

Figure 1

Regional Location Plan



Legend

Site: 2636-2654 Eglinton Ave West, Toronto, Ontario

Watercourses

GEMS
Groundwater Environmental Management Services

Client: Fora Developments Inc

Date: December 2022

Scale: 1:20,000

Source: ESRI Basemap
WGS1984 UTM Zone 17N

Title:	Figure No.	Project No.	Drawn By:
Regional Location Plan	1	22-1464	JP

Figure 2

Detailed Site Plan

Legend

Site: 2636-2654 Eglinton Ave West, Toronto, Ontario

Monitoring well

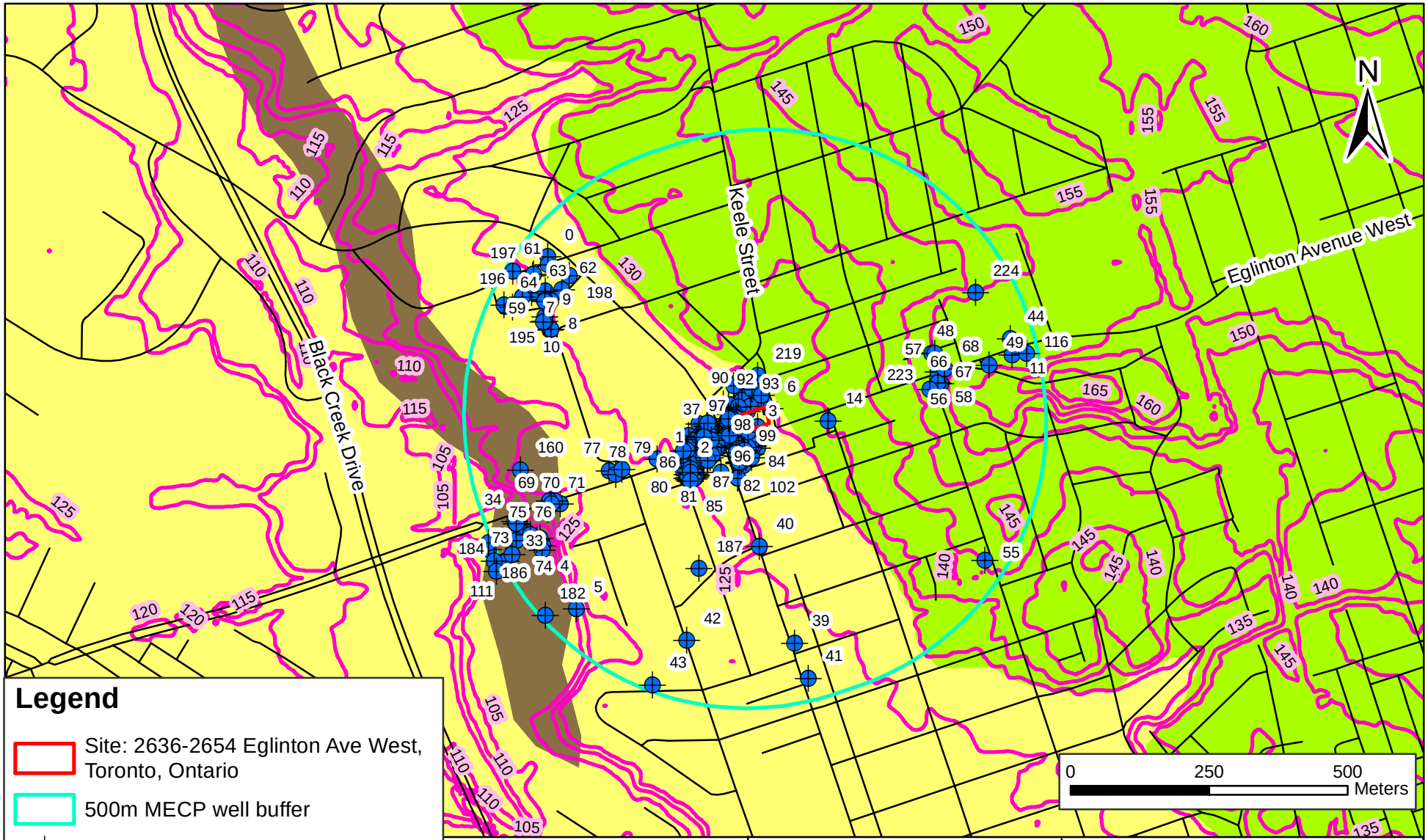
GEMS
Groundwater Environmental Management Services

Client:	Fora Developments Inc.
Date:	December 2022
Scale:	1:750
Source:	ESRI Basemap WGS1984 UTM Zone 17N

Title:	Figure No.	Project No.	Drawn By:
Dewatering Plan	2	22-1464	JP

Figure 3

Surface Geology and MECP Wells



Legend

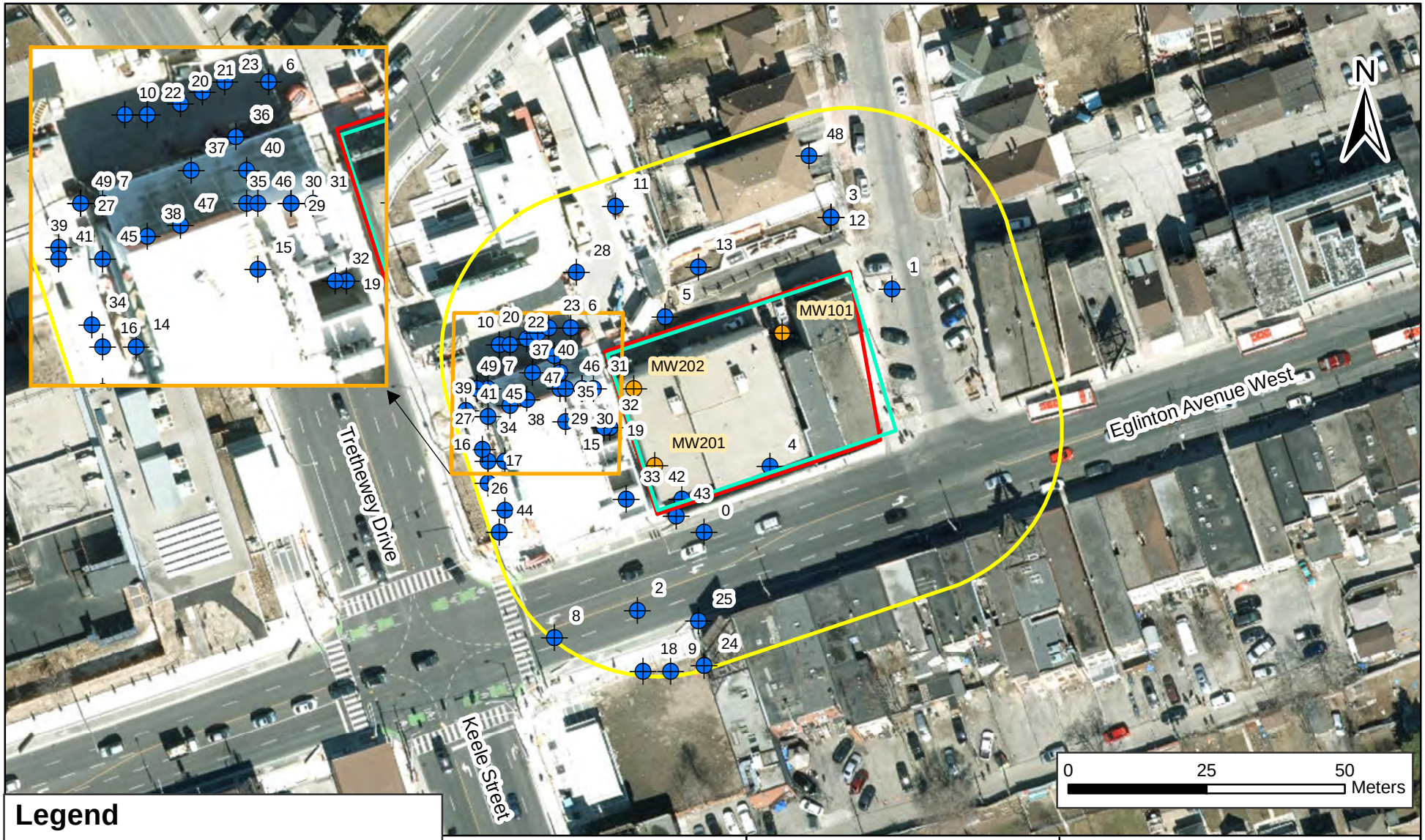
- Site: 2636-2654 Eglinton Ave West, Toronto, Ontario
- 500m MECP well buffer
- MECP well
- Street
- 5m contour
- Sand and gravel
- Sand and silty sand
- Sandy silt to sand till

GEMS
Groundwater Environmental Management Services

Client: Fora Developments Inc			Date: December 2022
			Scale: 1:10,000
Title: Surface Geology and MECP Wells	Figure No. 3	Project No. 22-1464	Drawn By: JP
			Source: ESRI Basemap WGS1984 UTM Zone 17N

Figure 4

Dewatering Area Plan



Legend

- Site: 2636-2654 Eglinton Ave West, Toronto, Ontario
- Dewatering area
- Radius of influence (30m)
- MECP well within radius of influence
- Monitoring well

GEMS
Groundwater Environmental Management Services

Client:	Fora Developments Inc.
Date:	December 2022
Scale:	1:1,000
Source:	ESRI Basemap WGS1984 UTM Zone 17N

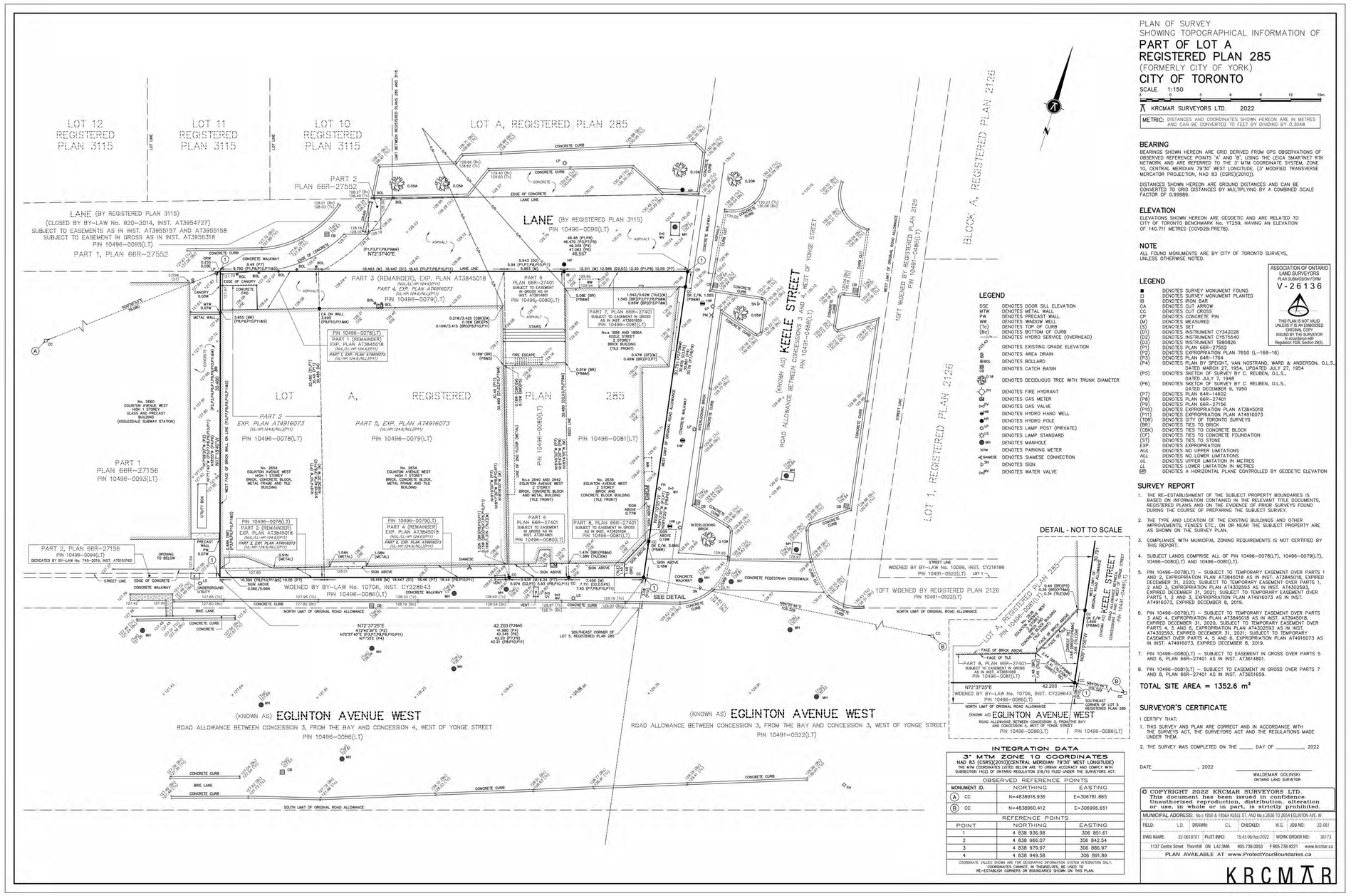
Title:	Figure No.	Project No.	Drawn By:
Dewatering Plan	4	22-1464	JP

Appendix A

Architectural Drawings

GENERAL NOTES:

1. Drawings are not to be scaled. Contractor will verify all existing conditions and dimensions required to perform the Work and will report any discrepancies with the Contract Documents to the Architect before commencing work.
2. The Architectural Drawings are to be read in conjunction with all other Contract Documents including the Project Manuals and the Structural, Mechanical and Electrical Drawings. In cases of difference between the Consultants' documents with respect to the quantity, sizes or scope of work, the greater shall apply.
3. Positions of exposed or finished Mechanical or Electrical devices, fittings and fixtures are indicated on the Architectural Drawings. Locations shown on the Architectural Drawings shall govern over Mechanical and Electrical Drawings. Mechanical and Electrical items not clearly located will be located as directed by the Architect.
4. Dimensions indicated are taken between the faces of finished surfaces unless otherwise noted.
5. The architect has not been retained for supervision of construction and assumes no responsibility for means, methods and techniques of construction.
6. These documents are not to be used for construction unless specifically noted for such purpose.



PLAN OF SURVEY
SHOWING TOPOGRAPHICAL INFORMATION OF

PART OF LOT A REGISTERED PLAN 285

(FORMERLY CITY OF YORK)

CITY OF TORONTO

SCALE 1:150

3 0 3 6 9 12 15m

KRCMAR SURVEYORS LTD. 2022

METRIC: DISTANCES AND COORDINATES SHOWN HEREON ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

BEARING

BEARINGS SHOWN HEREON ARE GRID DERIVED FROM GPS OBSERVATIONS OF OBSERVED REFERENCE POINTS 'A' AND 'B', USING THE LEICA SMARTNET RTK NETWORK AND ARE REFERRED TO THE 3° MTM COORDINATE SYSTEM, ZONE 10, CENTRAL MERIDIAN 79°30' WEST LONGITUDE, (3° MODIFIED TRANSVERSE MERCATOR PROJECTION, NAD 83 (CSRS)(2010)).

DISTANCES SHOWN HEREON ARE GROUND DISTANCES AND CAN BE CONVERTED TO GRID DISTANCES BY MULTIPLYING BY A COMBINED SCALE FACTOR OF 0.99989.

ELEVATION

ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE RELATED TO CITY OF TORONTO BENCHMARK No. YT259, HAVING AN ELEVATION OF 140.711 METRES (CGVD28:2HRE78).

NOTE

ALL FOUND MONUMENTS ARE BY CITY OF TORONTO SURVEYS, UNLESS OTHERWISE NOTED.

LEGEND

■	DENOTES SURVEY MONUMENT FOUND
□	DENOTES SURVEY MONUMENT PLANTED
IB	DENOTES IRON BAR
CA	DENOTES CUT ARROW
CC	DENOTES CUT CROSS
CP	DENOTES CONCRETE PIN
(M)	DENOTES MEASURED
(S)	DENOTES SET
(D1)	DENOTES INSTRUMENT CY342026
(D2)	DENOTES INSTRUMENT CY575540
(D3)	DENOTES INSTRUMENT TB80826
(P1)	DENOTES PLAN 66R-27552
(P2)	DENOTES EXPROPRIATION PLAN 7650 (L-168-16)
(P3)	DENOTES PLAN 648-1764
(P4)	DENOTES PLAN BY SPEIGHT, VAN NOSTRAND, WARD & ANDERSON, O.L.S., DATED MARCH 27, 1954, UPDATED JULY 27, 1954
(P5)	DENOTES SKETCH OF SURVEY BY C. REUBEN, O.L.S., DATED JULY 7, 1948
(P6)	DENOTES SKETCH OF SURVEY BY C. REUBEN, O.L.S., DATED DECEMBER 9, 1950
(P7)	DENOTES PLAN 648-14602
(P8)	DENOTES PLAN 66R-27401
(P9)	DENOTES PLAN 66R-27156
(P10)	DENOTES EXPROPRIATION PLAN AT3845018
(P11)	DENOTES EXPROPRIATION PLAN AT4916073
(TOR)	DENOTES CITY OF TORONTO SURVEYS
(BR)	DENOTES TIES TO BRICK
(CBK)	DENOTES TIES TO CONCRETE BLOCK
(CF)	DENOTES TIES TO CONCRETE FOUNDATION
(ST)	DENOTES TIES TO STONE
EXP.	DENOTES EXPROPRIATION
NUL	DENOTES NO UPPER LIMITATIONS
NLL	DENOTES NO LOWER LIMITATIONS
UL	DENOTES UPPER LIMITATION IN METRES
LL	DENOTES LOWER LIMITATION IN METRES
(SD)	DENOTES A HORIZONTAL PLANE CONTROLLED BY GEODETIC ELEVATION
DSE	DENOTES DOOR SILL ELEVATION
MTW	DENOTES METAL WALL
PW	DENOTES PRECAST WALL
WW	DENOTES WINDOW WELL
(Tc)	DENOTES TOP OF CURB
(Bc)	DENOTES BOTTOM OF CURB
—HYD—	DENOTES HYDRO SERVICE (OVERHEAD)
124.56	DENOTES EXISTING GRADE ELEVATION
	DENOTES AREA DRAIN
BOL	DENOTES BOLLARD
CB	DENOTES CATCH BASIN
0.18	DENOTES DECIDUOUS TREE WITH TRUNK DIAMETER
FH	DENOTES FIRE HYDRANT
GM	DENOTES GAS METER
GV	DENOTES GAS VALVE
HW	DENOTES HYDRO HAND WELL
HP	DENOTES HYDRO POLE
LP	DENOTES LAMP POST (PRIVATE)
LS	DENOTES LAMP STANDARD
MH	DENOTES MANHOLE
PM	DENOTES PARKING METER
SIAMESE	DENOTES SIAMESE CONNECTION
SN	DENOTES SIGN
WV	DENOTES WATER VALVE

SURVEY REPORT

1. THE RE-ESTABLISHMENT OF THE SUBJECT PROPERTY BOUNDARIES IS BASED ON INFORMATION CONTAINED IN THE RELEVANT TITLE DOCUMENTS, REGISTERED PLANS AND ON THE EVIDENCE OF PRIOR SURVEYS FOUND DURING THE COURSE OF PREPARING THE SUBJECT SURVEY.
2. THE TYPE AND LOCATION OF THE EXISTING BUILDINGS AND OTHER IMPROVEMENTS, FENCES ETC., ON OR NEAR THE SUBJECT PROPERTY ARE AS SHOWN ON THE SURVEY PLAN.
3. COMPLIANCE WITH MUNICIPAL ZONING REQUIREMENTS IS NOT CERTIFIED BY THIS REPORT.
4. SUBJECT LANDS COMPRISE ALL OF PIN 10496-0078(LT), 10496-0079(LT), 10496-0080(LT) AND 10496-0081(LT).
5. PIN 10496-0078(LT) – SUBJECT TO TEMPORARY EASEMENT OVER PARTS 1 AND 2, EXPROPRIATION PLAN AT3845018 AS IN INST. AT3845018, EXPIRED DECEMBER 31, 2020; SUBJECT TO TEMPORARY EASEMENT OVER PARTS 1, 2 AND 3, EXPROPRIATION PLAN AT4302593 AS IN INST. AT4302593, EXPIRED DECEMBER 31, 2021; SUBJECT TO TEMPORARY EASEMENT OVER PARTS 1, 2 AND 3, EXPROPRIATION PLAN AT4916073 AS IN INST. AT4916073, EXPIRED DECEMBER 8, 2019.
6. PIN 10496-0079(LT) – SUBJECT TO TEMPORARY EASEMENT OVER PARTS 3 AND 4, EXPROPRIATION PLAN AT3845018 AS IN INST. AT3845018, EXPIRED DECEMBER 31, 2020; SUBJECT TO TEMPORARY EASEMENT OVER PARTS 4, 5 AND 6, EXPROPRIATION PLAN AT4302593 AS IN INST. AT4302593, EXPIRED DECEMBER 31, 2021; SUBJECT TO TEMPORARY EASEMENT OVER PARTS 4, 5 AND 6, EXPROPRIATION PLAN AT4916073 AS IN INST. AT4916073, EXPIRED DECEMBER 8, 2019.
7. PIN 10496-0080(LT) – SUBJECT TO EASEMENT IN GROSS OVER PARTS 5 AND 6, PLAN 66R-27401 AS IN INST. AT3614801.
8. PIN 10496-0081(LT) – SUBJECT TO EASEMENT IN GROSS OVER PARTS 7 AND 8, PLAN 66R-27401 AS IN INST. AT3651659.

TOTAL SITE AREA = 1352.6 m²

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE ____ DAY OF _____, 2022

DATE: _____, 2022

WALDEMAR GOLINSKI
ONTARIO LAND SURVEYOR

ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
V-26136
THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY
ISSUED BY THE SURVEYOR
In accordance with Regulation 1026, Section 29(3).

INTEGRATION DATA

3° MTM ZONE 10 COORDINATES
NAD 83 (CSRS)(2010)(CENTRAL MERIDIAN 79°30' WEST LONGITUDE)
THE MTM COORDINATES LISTED BELOW ARE TO URBAN ACCURACY AND COMPLY WITH SUBSECTION 14(2) OF ONTARIO REGULATION 216/10 FILED UNDER THE SURVEYORS ACT.

OBSERVED REFERENCE POINTS		
MONUMENT ID.	NORTHING	EASTING
(A) CC	N=4838916.936	E=306781.865
(B) CC	N=4838960.412	E=306996.651

REFERENCE POINTS		
POINT	NORTHING	EASTING
1	4 838 936.98	306 851.61
2	4 838 966.07	306 842.54
3	4 838 979.97	306 886.97
4	4 838 949.58	306 891.89

COORDINATE VALUES SHOWN ARE FOR GEOGRAPHIC INFORMATION SYSTEM INTEGRATION ONLY. COORDINATES CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

MUNICIPAL ADDRESS: No.s 1850 & 1856A KEELE ST. AND No.s 2636 TO 2654 EGLINTON AVE. W.

FIELD: L.D. | DRAWN: C.L. | CHECKED: W.G. | JOB NO: 22-061

DWG NAME: 22-061ST01 | PLOT INFO: | 15:43:06/Apr/2022 | WORK ORDER NO: 36173

1137 Centre Street Thornhill ON L4J 3M6 905.738.0053 F 905.738.9221 www.krcmar.ca

PLAN AVAILABLE AT www.ProtectYourBoundaries.ca

KRCMAR

Rev. Date Issued

gh3*
gh3°
55 OSSINGTON AVE, SUITE 100
Toronto, ON, Canada M6J 2Y9
416 915 1791

FORA

FORA
2634, 2636, 2640, 2642 & 2654 EGLINTON AVENUE WEST AND 1856 & 1856A KEELE STREET

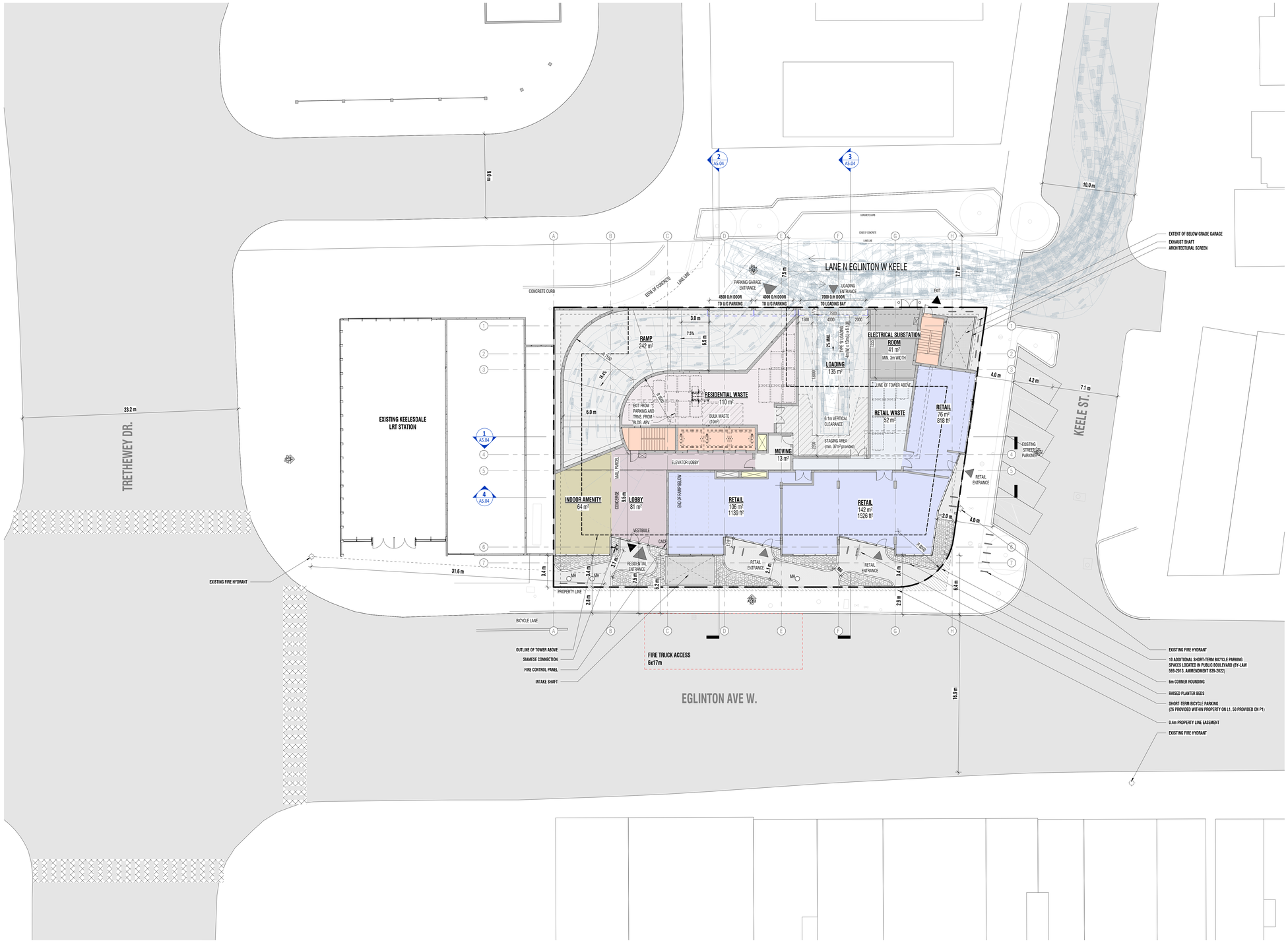
TORONTO, ONTARIO

Project North True North

SCALE
PROJECT NO. 202202
ISSUE DATE DEC. 8, 2022

SURVEY

A0.06



1 A1.00 Ground Floor Site Plan ZBA

1 : 150

SITE PLAN LEGEND

- +XXX.XX PROPOSED ELEVATION
- XXX.XX EX EXISTING ELEVATION
- XXX.XX AD AREA DRAINAGE
- XXX.XX SW STORM WATER
- XXX.XX CB CATCH BASIN
- PROPERTY LINE
- PROPERTY LINE EASEMENT
- FIRE TRUCK ROUTE
- PARKING STRUCTURE BELOW
- LOBBY
- INDOOR AMENITY
- RESIDENTIAL WASTE
- RETAIL
- RETAIL WASTE
- ELECTRICAL SUBSTATION ROOM
- LOADING / MOVING / RAMP
- MAIN RES ENTRANCE
- RES ENTRANCE
- NON-RES ENTRANCE
- EXIT
- VEHICULAR ENTRANCE/EXIT
- FIRE HYDRANT
- SIAMESE CONNECTION
- STREET LIGHT
- PEDESTRIAN LIGHT
- BOLLARD LIGHT
- BOLLARDS
- BICYCLE SHARING STATION
- BIKE RING
- PROPOSED CANOPY TREE
- EXISTING TREE
- EXISTING TREE TO BE PROTECTED
- PROPOSED UNDERSTOREY TREE
- GRASSES AND SHRUBS
- HIGH-ALBEDO PAVERS SRI VALUE : 29 OR BETTER
- CONCRETE PAVING SRI VALUE : 29 OR BETTER
- CONCRETE PAVING SRI VALUE : 29 OR BETTER

REFER TO LANDSCAPE PLAN FOR HARDSCAPE AND PLANTING DETAILS

NOTES

- A TRAINED ON-SITE STAFF MEMBER MUST BE AVAILABLE TO MANOEUVRE BINS FOR THE COLLECTION DRIVER AND ALSO ACT AS A FLAGMAN WHEN THE TRUCK IS REVERSING. IN THE EVENT THE ON-SITE STAFF MEMBER IS UNAVAILABLE AT THE TIME THE CITY COLLECTION VEHICLES ARRIVAL AT THE SITE, THE COLLECTION VEHICLE WILL LEAVE THE SITE AND NOT RETURN UNTIL THE NEXT SCHEDULED COLLECTION DAY.
- TYPE G LOADING 6.1m MINIMUM VERTICAL CLEARANCE. MINIMUM 200mm THICK REINFORCED CONCRETE SLAB IN LOADING SPACE AND STAGING AREA. FLOOR GRADE NOT TO EXCEED +/-2%
- THE OVERHEAD DOOR ADJACENT TO THE TYPE G LOADING AREA WILL BE OPEN UPON THE ARRIVAL OF THE TRUCK TO ALLOW IT TO REVERSE FORM THE TYPE G LOADING AREA ENABLING IT TO EXIT THE SITE IN A FORWARD MOTION.
- A WARNING SYSTEM IS TO BE PROVIDED TO CAUTION MOTORISTS LEAVING THE PARKING GARAGE OF HEAVY VEHICLES WHEN LOADING. SYSTEM TO INCLUDE LIGHTS AND SIGNS.
- ALL ACCESS DRIVEWAYS TO BE USED BY THE COLLECTION VEHICLE TO HAVE A MAXIMUM GRADIENT OF 8%, HAVE A MINIMUM VERTICAL CLEARANCEOF 4.4 METERS THROUGHOUT, A MINIMUM WIDTH OF 4.5 METERS THROUGHOUT AND BE 6 METERS WIDE AT POINT OF INGRESS AND EGRESS.
- PROPOSED ACCESS ROUTE FOR WASTE COLLECTION VEHICLE TO HAVE MINIMUM 4.4M VERTICAL CLEARANCE THROUGHOUT AND DESIGNED TO SAFELY SUPPORT 35,000 KG.
- STRUCTURAL ENGINEER TO DESIGN AREA TO CONFORM AS FOLLOWS: (A) DESIGN CODE -ONTARIO BUILDING CODE (B) DESIGN LOAD -CITY BULK LIFT VEHICLE IN ADDITION TO BUILDING CODE REQUIREMENTS (C) IMPACT FACTOR -0% FOR MAX. VEHICULAR SPEEDS TO 15KM/H AND 30% FOR HIGHER SPEEDS
- NON-RESIDENTIAL COMPONENT WILL ONLY SCHEDULE USE OF THE TYPE G LOADING SPACE ON DIFFERENT DAYS FROM THE COLLECTION DAYS OF THE RESIDENTIAL COMPONENT TO ENSURE THAT THE TYPE G LOADING SPACE WILL BE VACANT FOR CITY WASTE COLLECTION.
- 4-FIRE ACCESS ROUTE MIN. 6m WIDE WITH 5m HEIGHT CLEARANCE, CHANGE IN GRADIENT NOT MORE THAN 8% IN 15m; LOAD SUPPORT SUFFICIENT FOR EQUIPMENT; SURFACE TO BE ACCESSIBLE IN ALL CLIMATICE CONDITION FOR ALL TRUCK DIAGRAM MOVEMENT REFER TO TRAFFIC CONSULTANT REPORT - PATH SHOWN FOR CONTEXT
- FIRE ACCESS ROUTE MIN. 6m WIDE WITH 5m HEIGHT CLEARANCE, CHANGE IN GRADIENT NOT MORE THAN 8% IN 15m LOAD SUPPORT SUFFICIENT FOR EQUIPMENT; SURFACE TO BE ACCESSIBLE IN ALL CLIMATICE CONDITION FOR ALL TRUCK DIAGRAM MOVEMENT REFER TO TRAFFIC CONSULTANT REPORT - PATH SHOWN FOR CONTEXT
- BE ADVISED THAT SHOULD ANY PARTY INCLUDING THE OWNER OR ANY SUBSEQUENT OWNER , APPLY FOR MORE THAN ONE CONDOMINIUM CORPORATION ENCOMPASSING ANY OR ALL OF THIS DEVELOPMENT OR MAKE AN APPLICATION THAT RESULTS IN A LAND DIVISION, STAFF MAY REQUIRE LEGAL ASSURANCES, INCLUDING BUT NOT LIMITED TO EASEMENTS, WITH RESPECT TO THE APPROVED SERVICES. SUCH ASSURANCES WILL BE DETERMINED AT THE TIME OF APPLICATION FOR CONDOMINIUM APPROVAL
- VENTILATION GRATING TO HAVE A POROSITY OF LESS THAN 20mm X 20mm OR 40mm X 10mm

GENERAL NOTES:

1. Drawings are not to be scaled. Contractor will verify all existing conditions and dimensions required to perform the Work and will report any discrepancies with the Contract Documents to the Architect before commencing work.
2. The Architectural Drawings are to be read in conjunction with all other Contract Documents including the Project Manuals and the Structural, Mechanical and Electrical Drawings. In cases of difference between the Consultants' documents with respect to the quantity, sizes or scope of work, the greater shall apply.
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5. The architect has not been retained for supervision of construction and assumes no responsibility for means, methods and techniques of construction.
6. These documents are not to be used for construction unless specifically noted for such purpose.

No.	Date	Issued
3	Oct.26.22	Coordintation
2	Oct.6.22	Coordination
1	Sep.29.22	Coordination

gh3*
gh3*
55 OSSINGTON AVE, SUITE 100
Toronto, ON, Canada M6J 2Y9
416 915 1791

FORA
FORA

2634, 2636, 2640, 2642 & 2654 EGLINTON AVENUE WEST AND 1856 & 1856A KEELE STREET

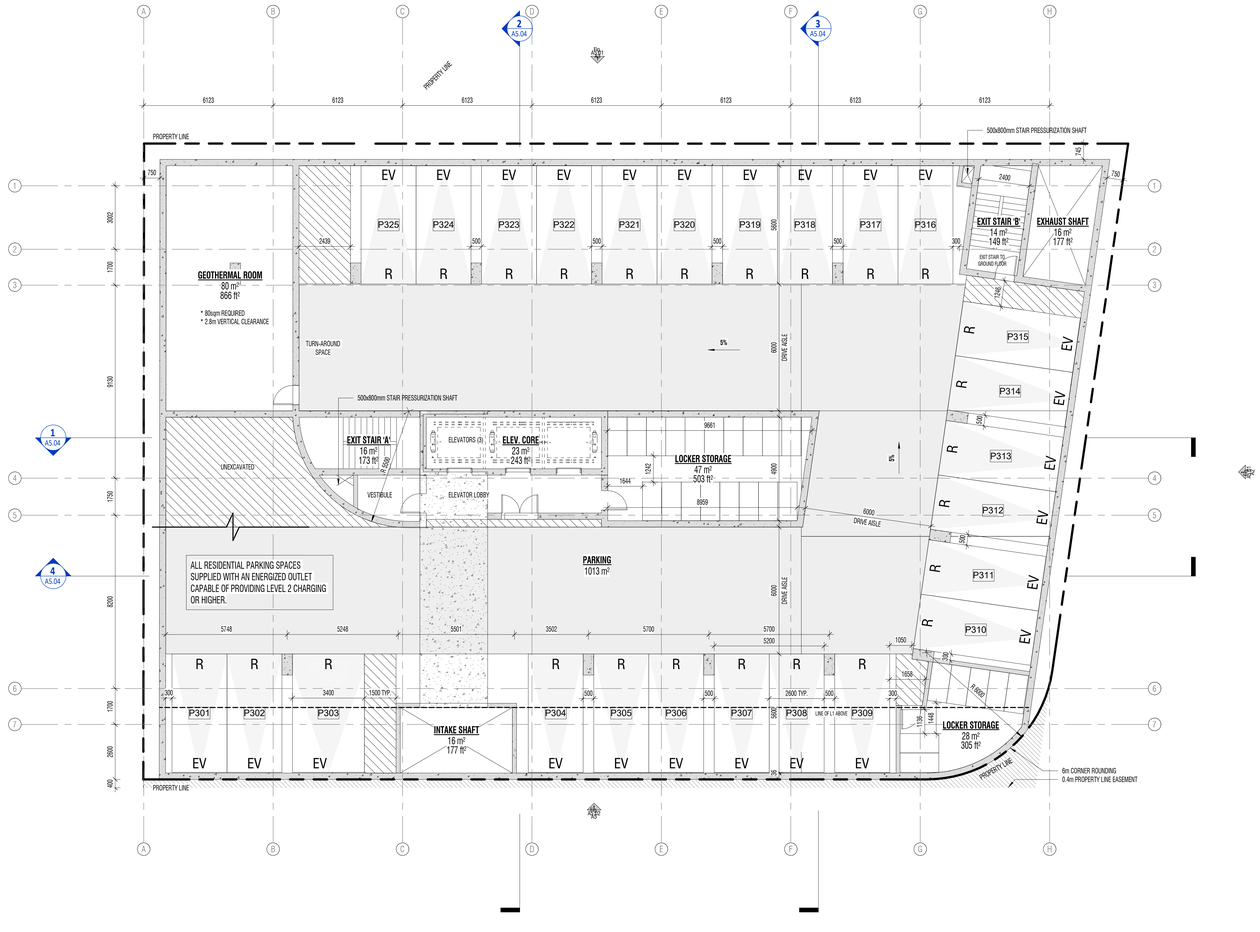
TORONTO, ONTARIO

Project North | True North

SCALE	As indicated
PROJECT NO.	202202
ISSUE DATE	DEC. 8, 2022

GROUND FLOOR SITE PLAN

A1.00



5.1 CAR PARKING

Level	Residential Car Parking				Visitor Car Parking				Retail Car Parking				Total Car Parking
	Regular	Barrier-Free	Total	EVSE (100%)	Regular	Barrier-Free	Total	EVSE (25%)	Regular	Barrier-Free	Total	EVSE (25%)	
P1	0	0	0	**0**	7	1	8	**3**	2	0	2	**1**	**10**
P2	27	1	28	**28**	0	0	0	**0**	0	0	0	**0**	**28**
P3	24	1	25	**25**	0	0	0	**0**	0	0	0	**0**	**25**
TOTAL	**51**	**2**	**53**	**53**	**7**	**1**	**8**	**3**	**2**	**0**	**2**	**1**	**63**

1 / A2.01 P3 ZBA

1 : 100

GENERAL NOTES:

1. Drawings are not to be scaled. Contractor will verify all existing conditions and dimensions required to perform the Work and will report any discrepancies with the Contract Documents to the Architect before commencing work.
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gh3*
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55 OSSINGTON AVE, SUITE 100
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416 915 1791

FORA

FORA

2634, 2636, 2640, 2642 & 2654 EGLINTON AVENUE WEST AND 1856 & 1856A KEELE STREET

TORONTO, ONTARIO

Project North True North

SCALE 1 : 100
PROJECT NO. 202202
ISSUE DATE DEC. 8, 2022

P3 FLOOR PLAN

A2.01

MATERIALS LEGEND

C1	CONCRETE
SP1	BRICK TEXTURED SOLID PANEL
GL1	GLASS PANEL - NO FRIT
GL2	GLASS PANEL - FRIT
ML1	ALUMINUM, SOFT WHITE TONE
ML2	ALUMINUM, LIGHT BRONZE TINT

Bird-Friendly Design Statistics

TORONTO

	Elevation First 16m Above Grade					
	North	South	East	West	Total (m2)	Total (%)
Glazing Area (m2)	321	329	219	48	917	100%
Untreated Area (m2)	0	0	0	0	0	0%
Treated Area (m2)	321	329	219	48	917	
Visual Markers (m2)	251	260	183	39	733	80%
Non-reflective glass (m2)	70	69	36	9	184	20%
Shaded (m2)	0	0	0	0	0	0%

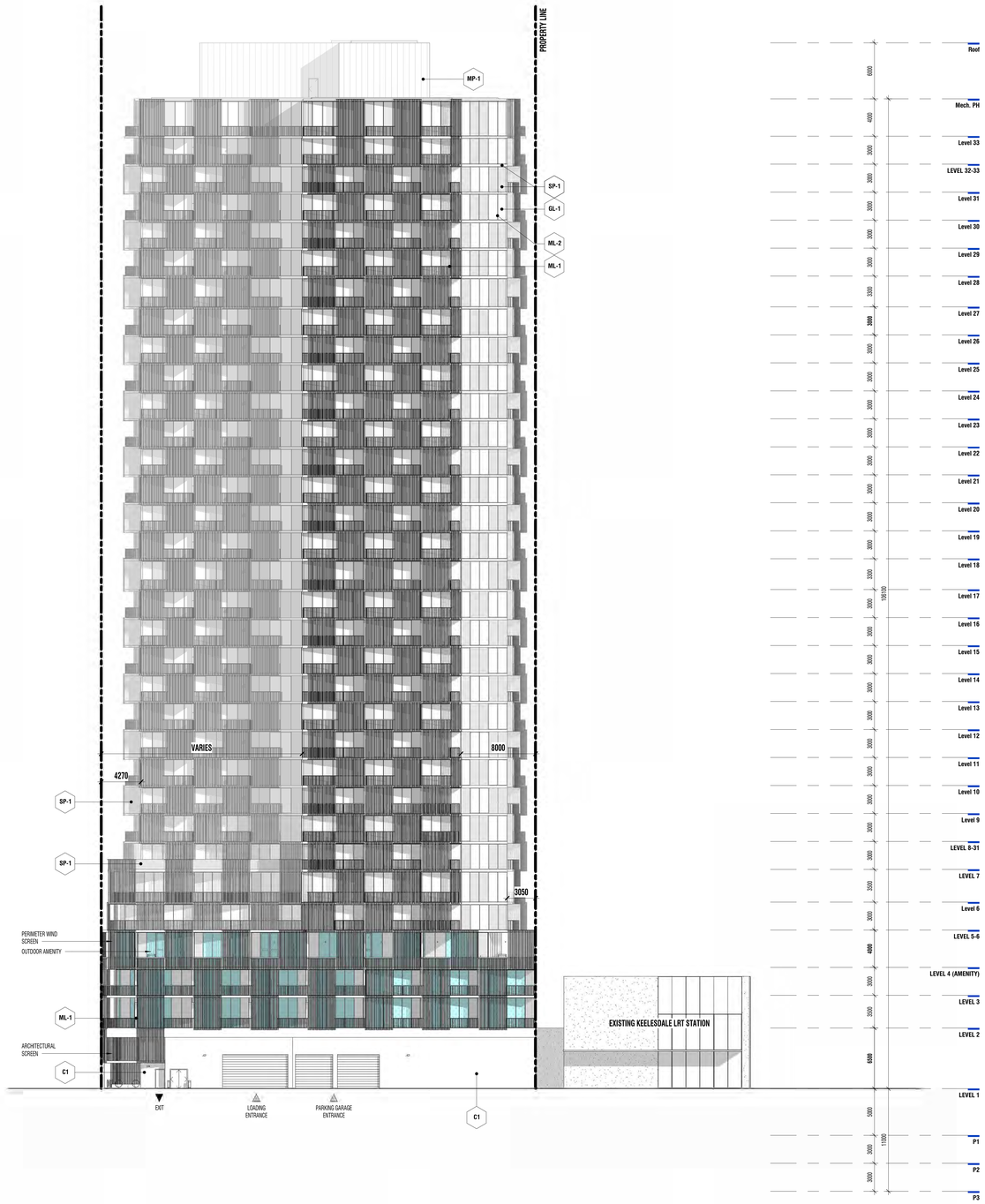
Refer to the Toronto Green Standard Version 4 Ecology section for details on bird collision deterrence treatment options.

EC 4.3 GRATE POROSITY

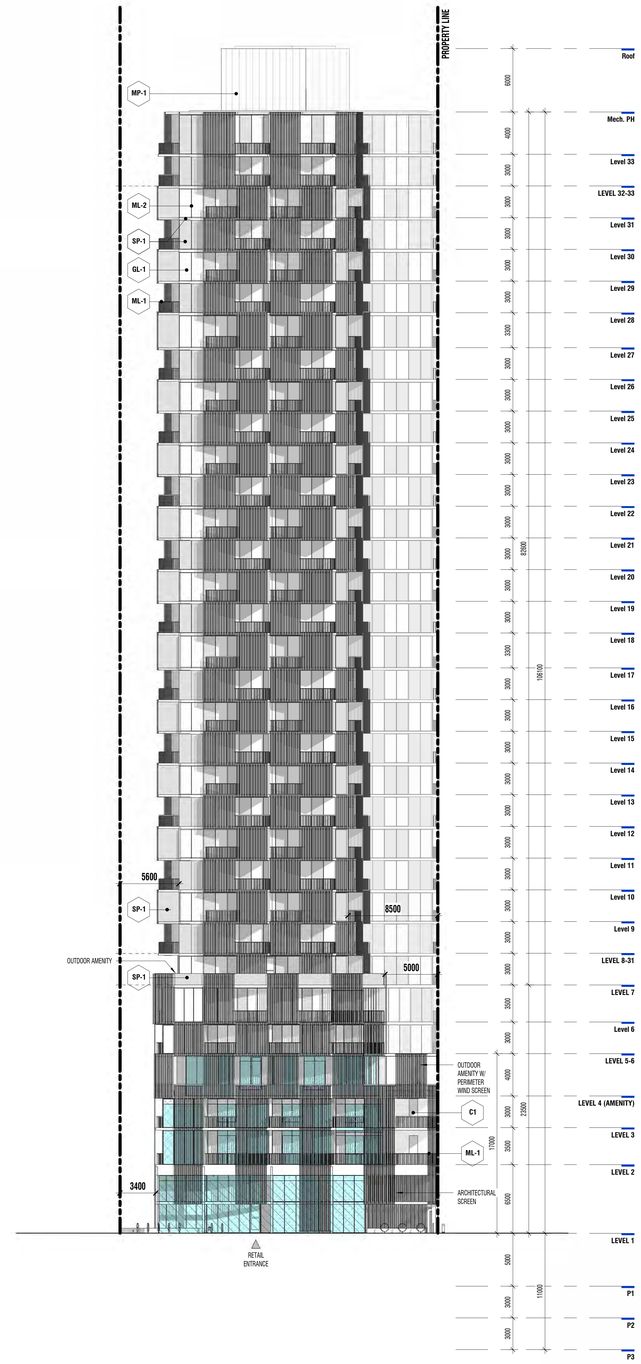
ENSURE GROUND LEVEL VENTILATION GRATES HAVE POROSITY OF LESS THAN 20mm x 20mm (OR 40mm x 10mm)

GENERAL NOTES:

1. Drawings are not to be scaled. Contractor will verify all existing conditions and dimensions required to perform the Work and will report any discrepancies with the Contract Documents to the Architect before commencing work.
2. The Architectural Drawings are to be read in conjunction with all other Contract Documents including the Project Manuals and the Structural, Mechanical and Electrical Drawings. In cases of difference between the Consultants' documents with respect to the quantity, sizes or scope of work, the greater shall apply.
3. Positions of exposed or finished Mechanical or Electrical devices, fittings and fixtures are indicated on the Architectural Drawings. Locations shown on the Architectural Drawings shall govern over Mechanical and Electrical Drawings. Mechanical and Electrical items not clearly located will be located as directed by the Architect.
4. Dimensions indicated are taken between the faces of finished surfaces unless otherwise noted.
5. The architect has not been retained for supervision of construction and assumes no responsibility for means, methods and techniques of construction.
6. These documents are not to be used for construction unless specifically noted for such purpose.



1 A5.01 North
1 : 200



2 A5.01 East
1 : 200

Rev. Date Issued

gh3*
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55 ISSINGTON AVE, SUITE 100
Toronto, ON, Canada M6J 2Y9
416 915 1791

FORA

FORA
2634, 2636, 2640, 2642 & 2654 EGLINTON AVENUE WEST AND 1856 & 1856A KEELE STREET

TORONTO, ONTARIO

Project North True North

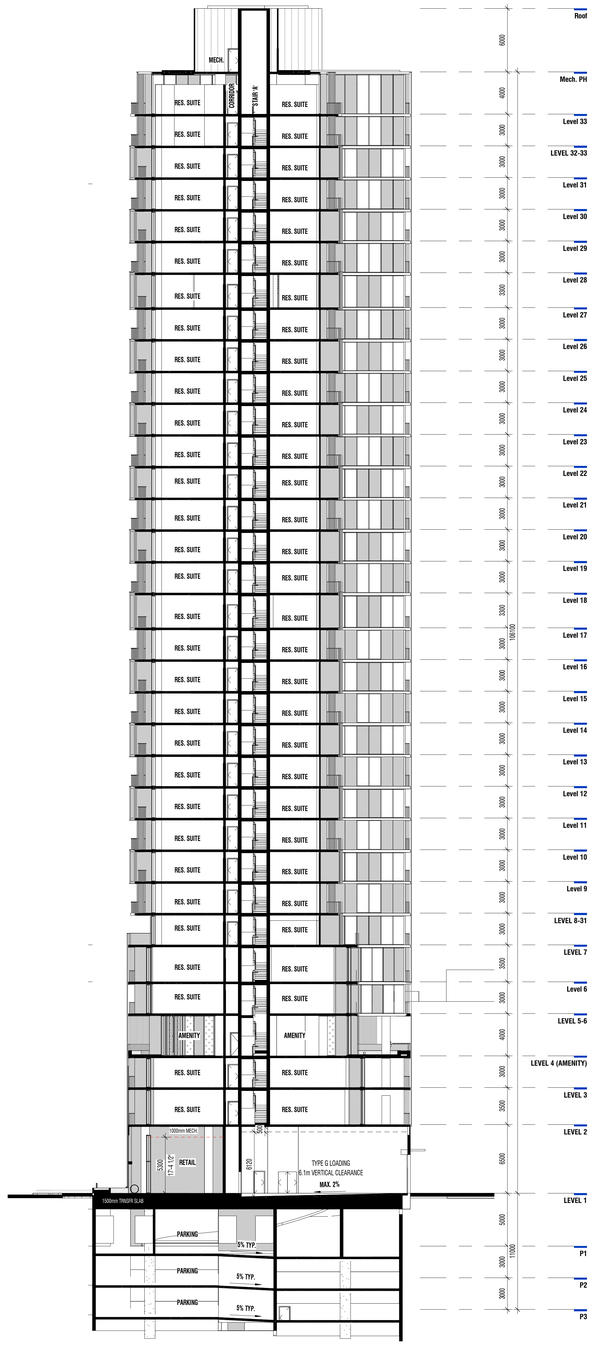
SCALE As indicated
PROJECT NO. 202202
ISSUE DATE DEC. 8, 2022

BUILDING ELEVATIONS

A5.01

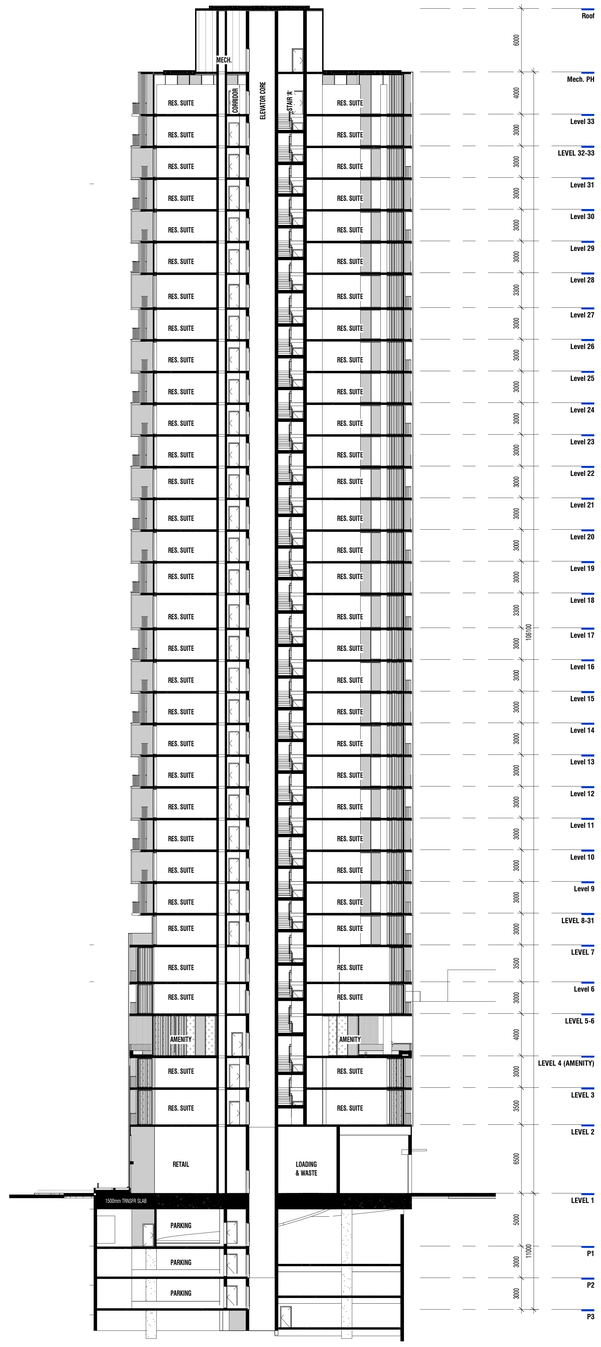
4 A5.04 E-W BUILDING SECTION 'C'

1 : 200



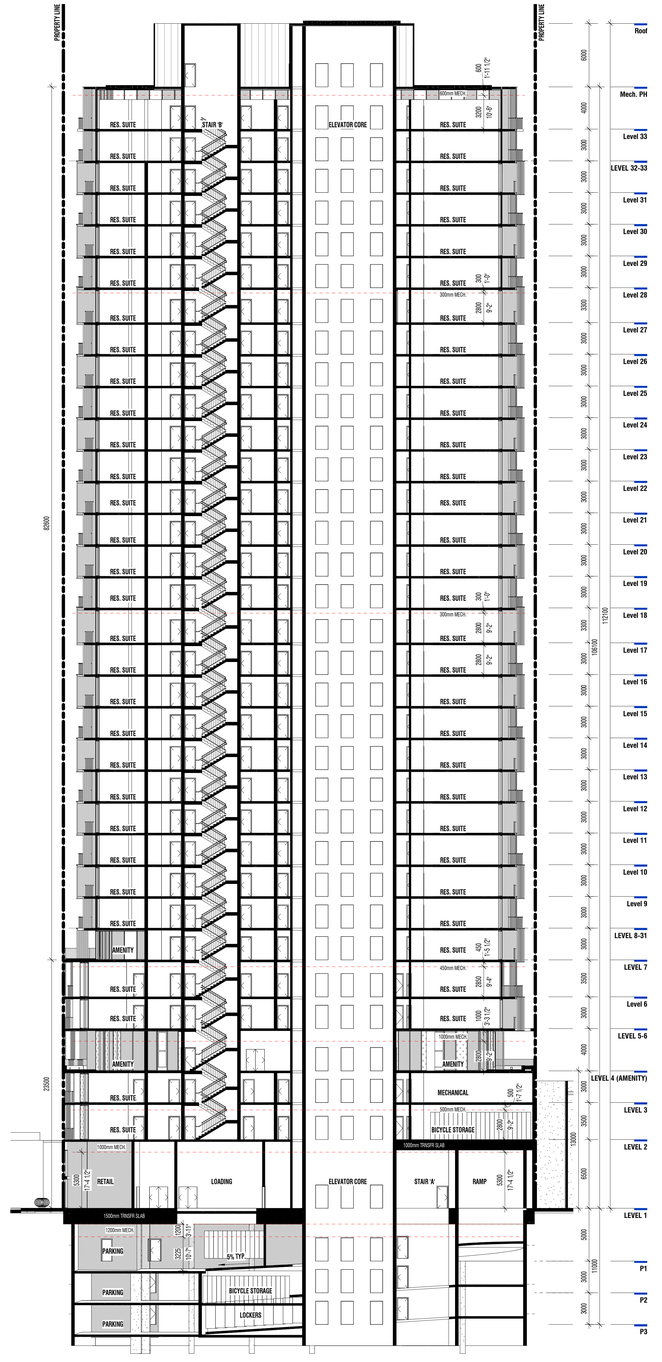
3 A5.04 N-S BUILDING SECTION 'B'

1 : 200



2 A5.04 N-S BUILDING SECTION 'A'

1 : 200



1 A5.04 E-W BUILDING SECTION 'A'

1 : 200

GENERAL NOTES:

1. Drawings are not to be scaled. Contractor will verify all existing conditions and dimensions required to perform the Work and will report any discrepancies with the Contract Documents to the Architect before commencing work.
2. The Architectural Drawings are to be read in conjunction with all other Contract Documents including the Project Manuals and the Structural, Mechanical and Electrical Drawings. In cases of difference between the Consultants' documents with respect to the quantity, sizes or scope of work, the greater shall apply.
3. Positions of exposed or finished Mechanical or Electrical devices, fittings and fixtures are indicated on the Architectural Drawings. Locations shown on the Architectural Drawings shall govern over Mechanical and Electrical Drawings. Mechanical and Electrical items not clearly located will be located as directed by the Architect.
4. Dimensions indicated are taken between the faces of finished surfaces unless otherwise noted.
5. The architect has not been retained for supervision of construction and assumes no responsibility for means, methods and techniques of construction.
6. These documents are not to be used for construction unless specifically noted for such purpose.

Rev. Date Issued

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55 ossington Ave, SUITE 100
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FORA

FORA
2634, 2636, 2640, 2642 & 2654 EGLINTON AVENUE WEST AND 1856 & 1856A KEELE STREET

TORONTO, ONTARIO

Project North True North

SCALE 1 : 200
PROJECT NO. 202202
ISSUE DATE DEC. 8, 2022

BUILDING SECTIONS

A5.04

Appendix B

Borehole Logs and Well Installation Details

CLIENT: FORA DEVELOPMENTS		PROJECT NO.: CT3639.00	**RECORD OF: MW101**
ADDRESS: 1856-1856A Keele Street and 2636 - 2654 Eglinton Avenue West			
CITY/PROVINCE: TORONTO, ONTARIO	NORTHING (m): 4838649	EASTING (m): 622958	ELEV. (m) 129.59
CONTRACTOR: PONTIL DRILLING INC.	METHOD: Hollow Stem Auger and Split Spoon Sampling		
BOREHOLE DIAMETER (cm): 20	WELL DIAMETER (cm): 5	SCREEN SLOT #: 10	SAND TYPE: 2	SEALANT TYPE: BENTONITE

SAMPLE TYPE: AUGER | DRIVEN | CORING | DYNAMIC CONE | SHELBY | SPLIT SPOON

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa) 40 80 120 160 / N-VALUE (Blows/300mm) 20 40 60 80	WATER CONTENT (%) PL W.C. LL 20 40 60 80	SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	CV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
		ASPHALT	0	129.5	5		1A		50	<5/0.0			
		SAND AND GRAVEL (FILL) brown, moist	0.5	129	5		1B		50	<5/0			
			1	128.5	5		2		100	<5/0	M&I, PAHs, BTEX, F1- F4		
			1.5	128	10		3A		50	<5/0			
		SILTY SAND trace gravel brown --- moist to saturated	2	127.5	10		3B		50	<5/0			
			2.5	127	8		4		100	<5/0			
			3	126.5									
			3.5	126	13		5		100	<5/0	M&I		
		--- saturated, coal fragment	4	125.5	26		6		42	<5/0	PAHs		
			4.5	125									
			5	124.5	8		7		79	<5/0	BTEX, F1-F4, VOCs		
		--- grey	5.5	124	10		8		83	<5/0			
			6	123.5			9A						
		SILTY CLAY trace gravel grey, wet	6.5	123	6		9B		100	<5/0			
			7	122.5	8		10		100	<5/0			
			7.5	122									
			8	121.5	7		11		17	<5/0			
		END OF BOREHOLE											

TERRAPEX

LOGGED BY: EL	DRILLING DATE: 24-OCT-22
INPUT BY: JS	MONITORING DATE: 28-NOV-2022
REVIEWED BY: MD	PAGE 1 OF 1

CLIENT: FORA DEVELOPMENTS		PROJECT NO.: CT3639.00	**RECORD OF: MW201**
ADDRESS: 1856-1856A Keele Street and 2636 - 2654 Eglinton Avenue West			
CITY/PROVINCE: TORONTO, ONTARIO	NORTHING (m):	EASTING (m):	ELEV. (m)
CONTRACTOR: SONIC SOIL LTD.	METHOD: PIONJAR		
BOREHOLE DIAMETER (cm): 20	WELL DIAMETER (cm): 5	SCREEN SLOT #: 10	SAND TYPE: 2	SEALANT TYPE: BENTONITE

SAMPLE TYPE: AUGER | DRIVEN | CORING | DYNAMIC CONE | SHELBY | SPLIT SPOON

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa) 40 80 120 160 / N-VALUE (Blows/300mm) 20 40 60 80	WATER CONTENT (%) PL W.C. LL 20 40 60 80	SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	CV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
		CONCRETE	0										
		CLAYEY SILTY SAND (FILL) some gravel, asphalt dark brown, moist	0.5				1		60	<5/0			
			1				2		40	<5/0	M&I, PAHs, VOCs, F1- F4		
		CLAYEY SILT some sand, trace gravel, cobble grey, moist	1.5										
			2				3		80	<5/0			
		FINE SAND trace gravel, oxidation light brown, moist	2.5				4A		100	<5/0			
		SILTY SAND trace clay dark grey, moist	3				4B						
		SILTY CLAY trace sand dark grey, moist	3.5				5		100	<5/0	M&I, PAHs, DUPLICATE		
		--- moist to wet	4				6		100	<5/0	F1-F4, VOCs		
			4.5										
		SILTY SAND trace clay seams dark grey, moist to wet	5				7		100	<5/0			
		--- wet	5.5				8		100	<5/0			
			6										
		END OF BOREHOLE											

TERRAPEX

LOGGED BY: TL	DRILLING DATE: 17-NOV-2022
INPUT BY: JS	MONITORING DATE:
REVIEWED BY: MD	PAGE 1 OF 1

CLIENT: FORA DEVELOPMENTS | PROJECT NO.: CT3639.00 | **RECORD OF: MW202**

ADDRESS: 1856-1856A Keele Street and 2636 - 2654 Eglinton Avenue West

CITY/PROVINCE: TORONTO, ONTARIO | NORTHING (m): | EASTING (m): | ELEV. (m)

CONTRACTOR: SONIC SOIL INC | METHOD: PIONJAR

BOREHOLE DIAMETER (cm): 20 | WELL DIAMETER (cm): 5 | SCREEN SLOT #: 10 | SAND TYPE: 2 | SEALANT TYPE: BENTONITE

SAMPLE TYPE: AUGER | DRIVEN | CORING | DYNAMIC CONE | SHELBY | SPLIT SPOON

GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa) 40 80 120 160 / N-VALUE (Blows/300mm) 20 40 60 80	WATER CONTENT (%) PL W.C. LL 20 40 60 80	SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	CV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
		CONCRETE	0										
		CLAYEY SILTY SAND (FILL) some gravel light brown, dry	0.5				1		50	<5/0			
		SILTY SAND (FILL) light brown, moist	1				2		100	<5/0	M&I, PAHs, F1-F4, VOCs		
		CLAYEY SILT some sand, oxidation dark brown, moist to wet	1.5 2				3		100	<5/0			
		SANDY SILT TO SILTY SAND trace fine gravel dark grey, moist to wet	2.5				4		100	<5/0	M&I, PAHs		
			3 3.5				5		100	20/1			
			4				6		100	85/6	F1-F4, VOCs, DUPLICATE		
			4.5				7		100	70/1			
			5 5.5				8		100	25/1			
		END OF BOREHOLE	6										

TERRAPEX

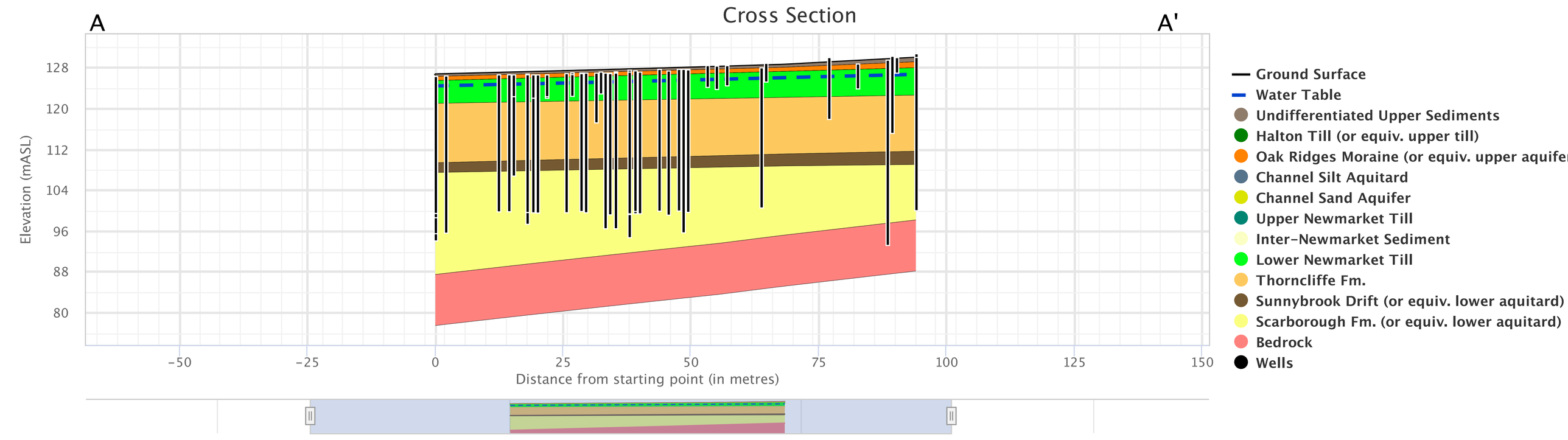
LOGGED BY: TL | DRILLING DATE: 17-NOV-2022

INPUT BY: JS | MONITORING DATE: 28-NOV-2022

REVIEWED BY: MD | PAGE 1 OF 1

Appendix C

ORMGP Cross Section

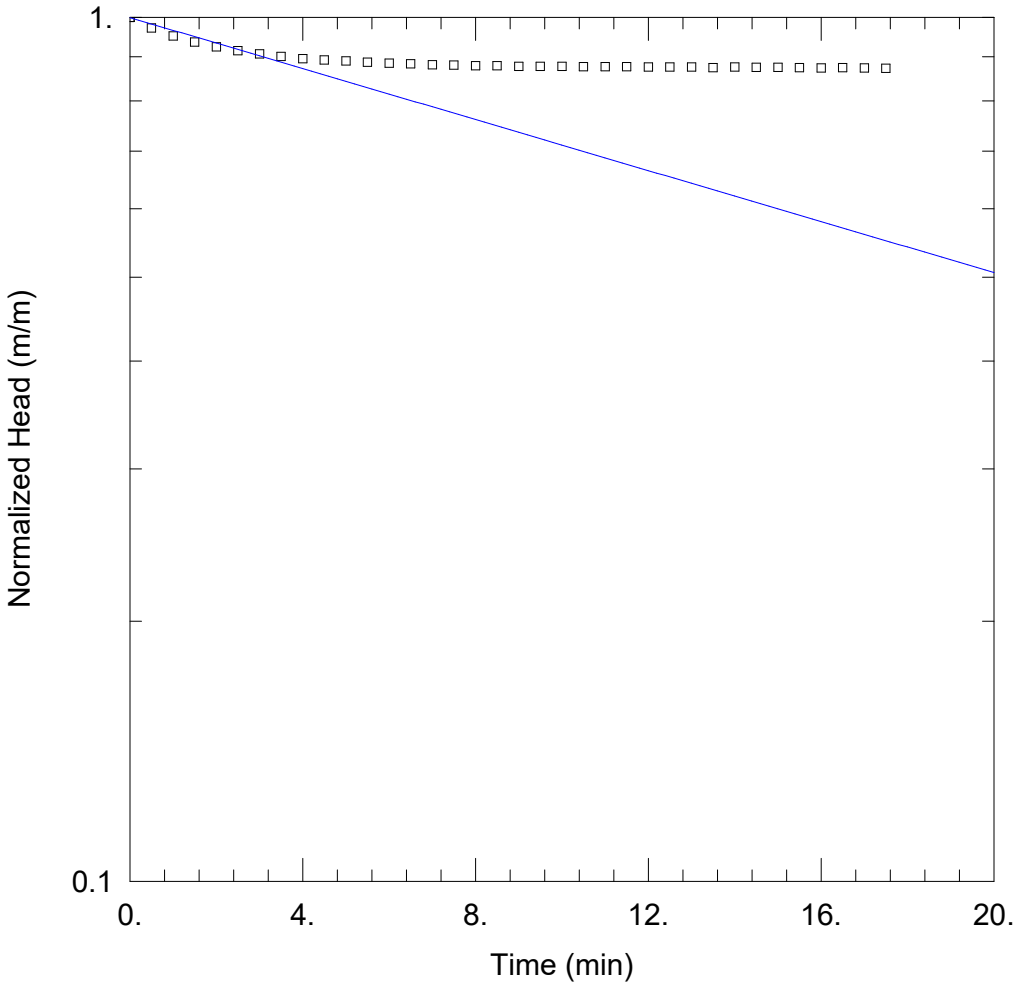

Cross Section
A
A'
Elevation (mASL)
128
120
112
104
96
88
80
-50
-25
0
25
50
75
100
125
150
Distance from starting point (in metres)
Ground Surface
Water Table
Undifferentiated Upper Sediments
Halton Till (or equiv. upper till)
Oak Ridges Moraine (or equiv. upper aquife
Channel Silt Aquitard
Channel Sand Aquifer
Upper Newmarket Till
Inter-Newmarket Sediment
Lower Newmarket Till
Thorncliffe Fm.
Sunnybrook Drift (or equiv. lower aquitard)
Scarborough Fm. (or equiv. lower aquitard)
Bedrock
Wells

Appendix D

Hydraulic Conductivity Analysis

MW201 - Single Well Hydraulic Test 1

Prepared By:	Prepared For:
GEMS	Keeli GP Inc.
Project:	**Location:**
22-1464	2636-2654 Eglinton Ave West



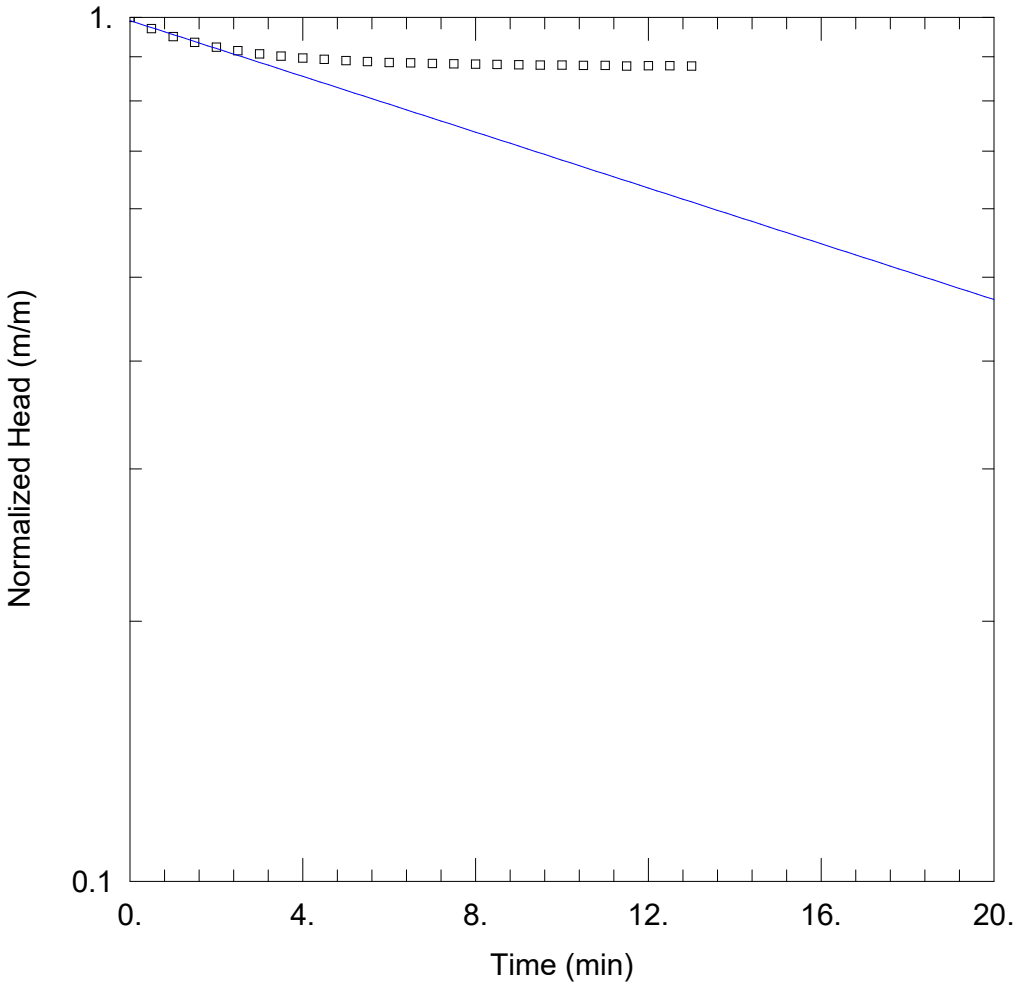
SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev

K = 1.325E-7 m/sec y0 = 1.587 m

MW201 - Single Well Hydraulic Test 2

Prepared By:	Prepared For:
GEMS	Keeli GP Inc.
Project:	**Location:**
22-1464	2636-2654 Eglinton Ave West



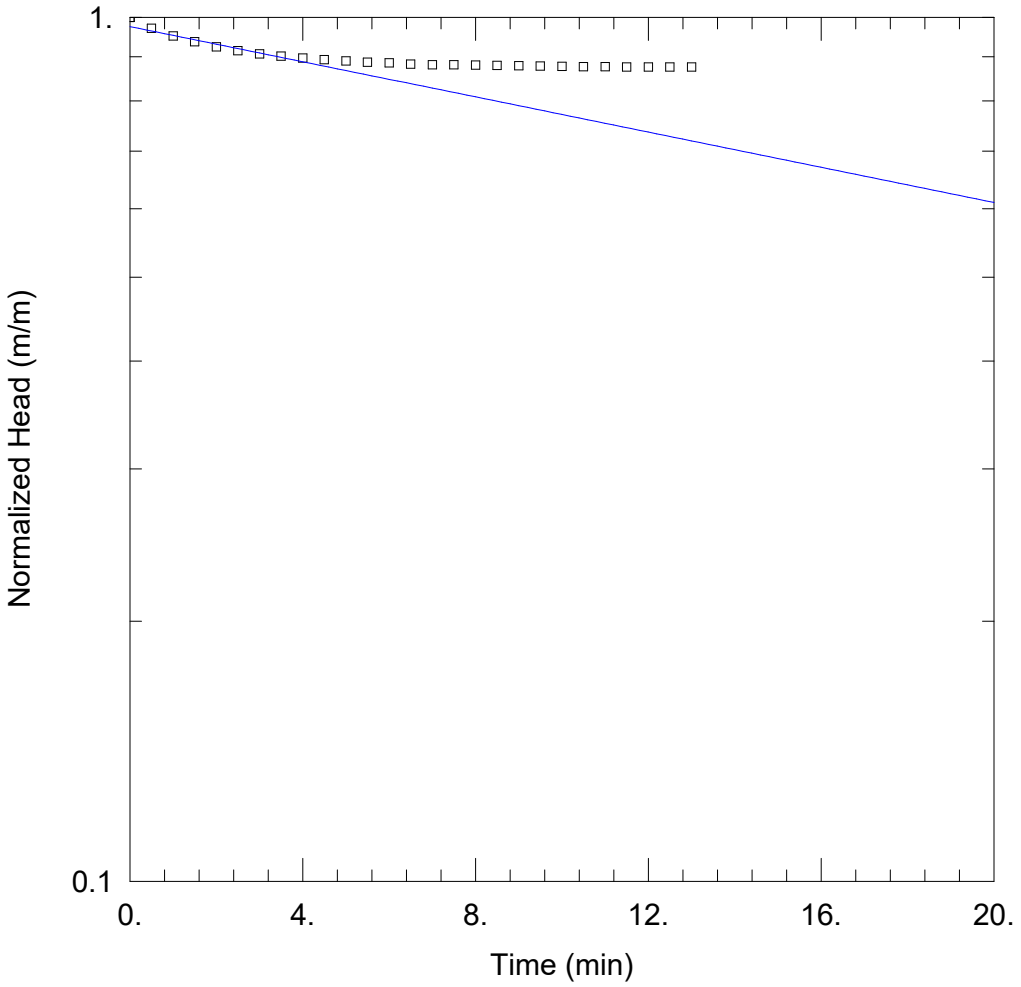
SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev

K = 1.45E-7 m/sec y0 = 1.573 m

MW201 - Single Well Hydraulic Test 3

Prepared By:	Prepared For:
GEMS	Keeli GP Inc.
Project:	**Location:**
22-1464	2636-2654 Eglinton Ave West



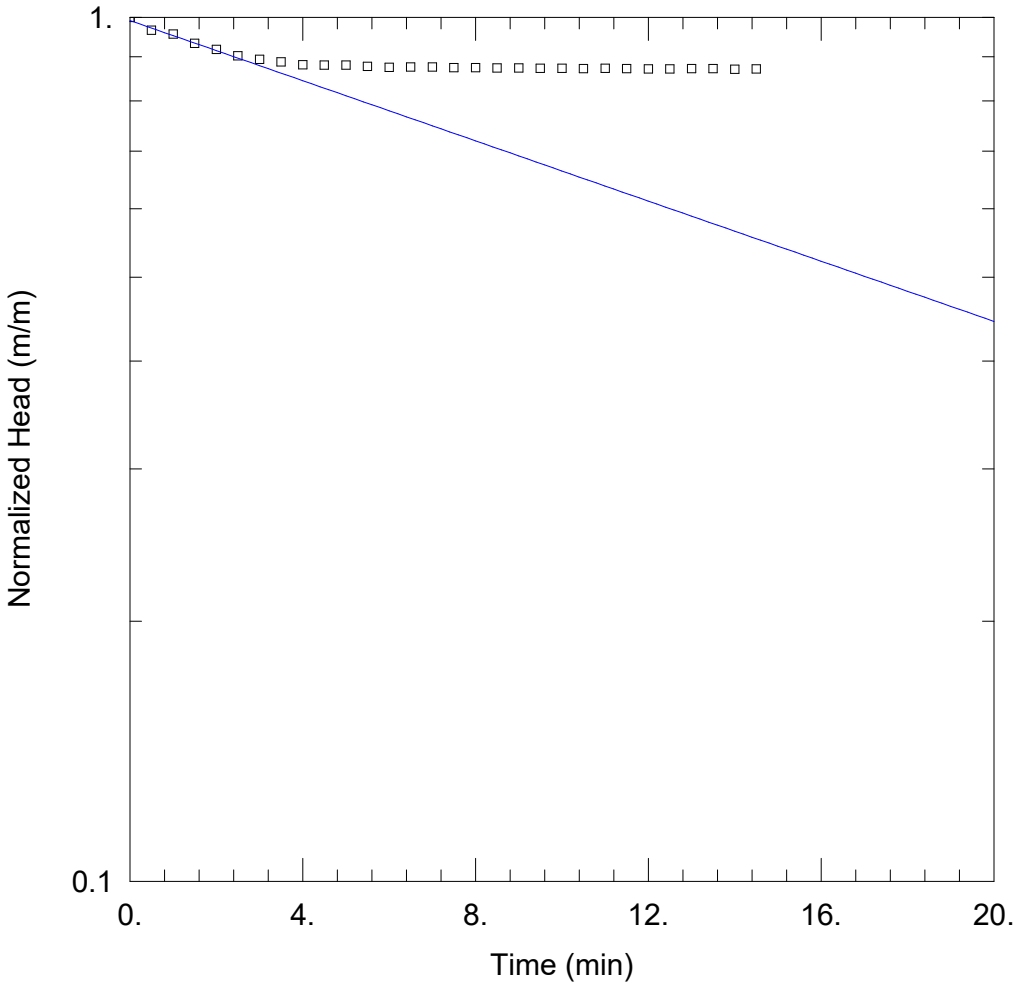
SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev

K = 9.145E-8 m/sec y0 = 1.553 m

MW202 - Single Well Hydraulic Test 1

Prepared By:	Prepared For:
GEMS	Keeli GP Inc.
Project:	**Location:**
22-1464	2636-2654 Eglinton Ave West



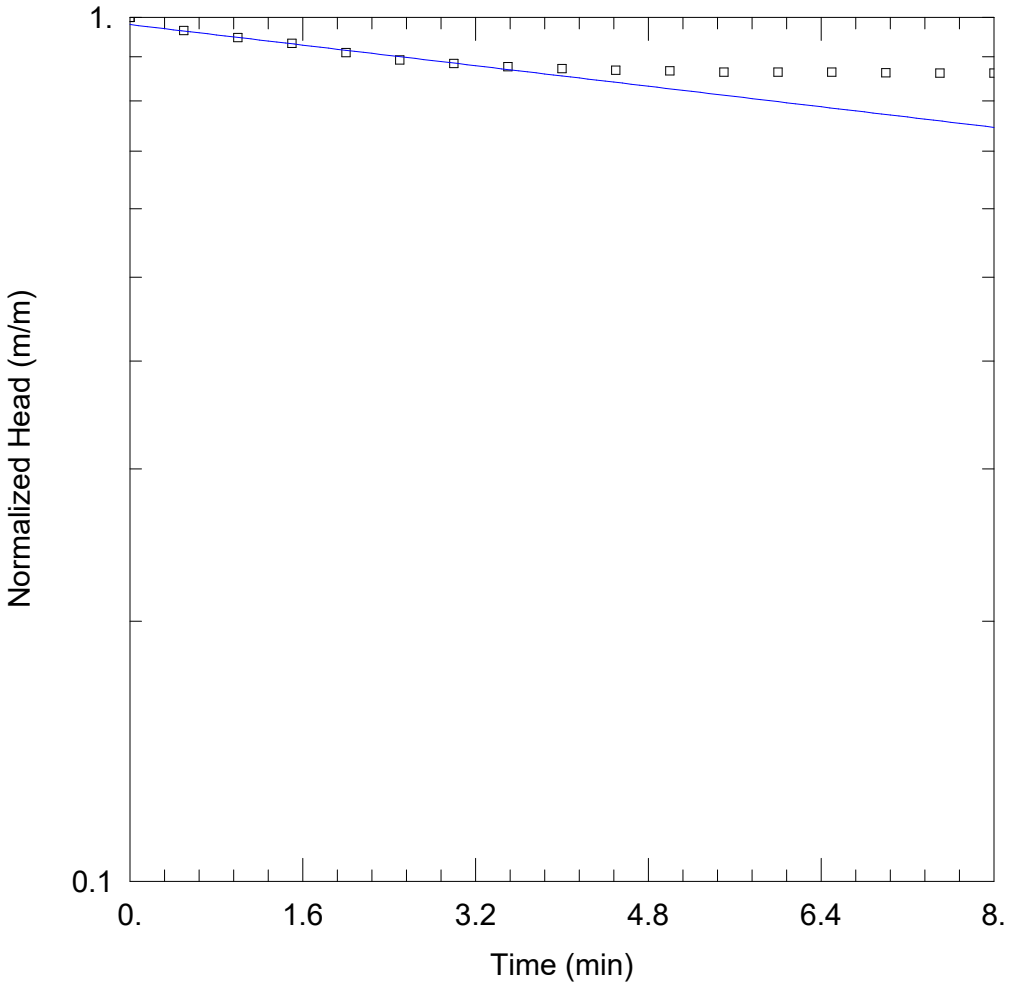
SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev

K = 1.564E-7 m/sec y0 = 0.8959 m

MW202 - Single Well Hydraulic Test 2

Prepared By:	Prepared For:
GEMS	Flora Developments
Project:	**Location:**
22-1464	2636-2654 Eglinton Ave West



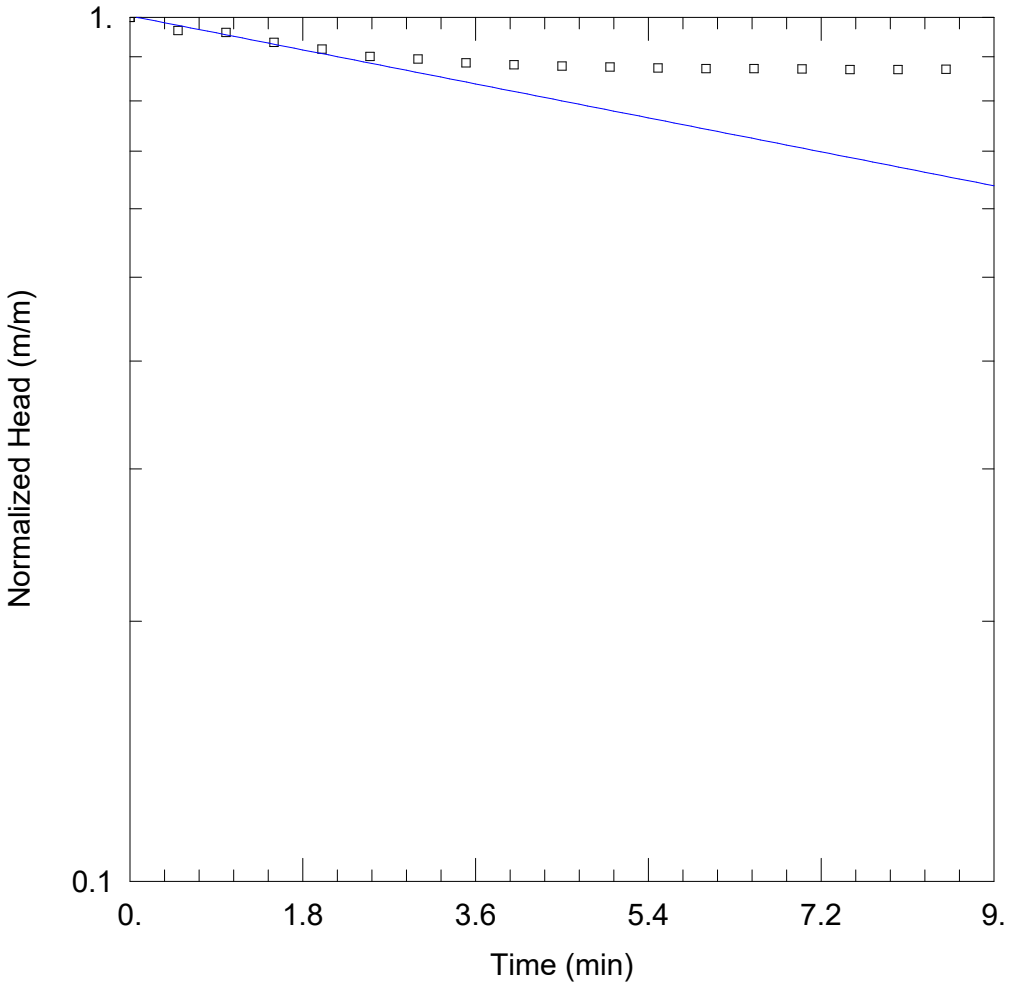
SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev

K = 1.336E-7 m/sec y0 = 0.8998 m

MW202 - Single Well Hydraulic Test 3

Prepared By:	Prepared For:
GEMS	Flora Developments
Project:	**Location:**
22-1464	2636-2654 Eglington Ave West



SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev

K = 1.962E-7 m/sec y0 = 0.9306 m

Appendix E

Water Quality Analysis

Your Project #: 22-1464
Site Location: 2636-2654 EGLINTON AVE W
Your C.O.C. #: 907396-01-01

Attention: Mike Francis

Groundwater Environmental Management Services Inc.
150 Rivermede Rd
Unit # 9
Concord, ON
CANADA L4K 3M8

Report Date: 2022/12/05
Report #: R7417288
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C2Y8836
Received: 2022/11/28, 15:40

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Sewer Use By-Law Semivolatile Organics	1	2022/12/02	2022/12/03	CAM SOP 00301	EPA 8270 m
Biochemical Oxygen Demand (BOD)	1	2022/11/30	2022/12/05	CAM SOP-00427	SM 23 5210B m
Chromium (VI) in Water	1	N/A	2022/11/30	CAM SOP-00436	EPA 7199 m
Total Cyanide	1	2022/11/29	2022/11/29	CAM SOP-00457	OMOE E3015 5 m
Fluoride	1	2022/11/29	2022/11/30	CAM SOP-00449	SM 23 4500-F C m
Mercury in Water by CVAA	1	2022/11/30	2022/11/30	CAM SOP-00453	EPA 7470A m
Total Metals Analysis by ICPMS	1	N/A	2022/12/01	CAM SOP-00447	EPA 6020B m
E.coli, (CFU/100mL)	1	N/A	2022/11/28	CAM SOP-00552	
Total Nonylphenol in Liquids by HPLC	1	2022/11/30	2022/12/02	CAM SOP-00313	In-house Method
Nonylphenol Ethoxylates in Liquids: HPLC	1	2022/11/30	2022/12/02	CAM SOP-00313	In-house Method
Animal and Vegetable Oil and Grease	1	N/A	2022/12/02	CAM SOP-00326	EPA1664B m,SM5520B m
Total Oil and Grease	1	2022/12/02	2022/12/02	CAM SOP-00326	EPA1664B m,SM5520B m
Polychlorinated Biphenyl in Water	1	2022/11/30	2022/12/01	CAM SOP-00309	EPA 8082A m
pH	1	2022/11/29	2022/11/30	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2022/11/30	CAM SOP-00444	OMOE E3179 m
Total Kjeldahl Nitrogen in Water	1	2022/11/29	2022/11/30	CAM SOP-00938	OMOE E3516 m
Total PAHs (1)	1	N/A	2022/12/05	CAM SOP - 00301	
Mineral/Synthetic O & G (TPH Heavy Oil) (2)	1	2022/12/02	2022/12/02	CAM SOP-00326	EPA1664B m,SM5520F m
Total Suspended Solids	1	2022/11/30	2022/12/01	CAM SOP-00428	SM 23 2540D m
Volatile Organic Compounds in Water	1	N/A	2022/11/30	CAM SOP-00228	EPA 8260C m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Your Project #: 22-1464
Site Location: 2636-2654 EGLINTON AVE W
Your C.O.C. #: 907396-01-01

Attention: Mike Francis

Groundwater Environmental Management Services Inc.
150 Rivermede Rd
Unit # 9
Concord, ON
CANADA L4K 3M8

Report Date: 2022/12/05
Report #: R7417288
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C2Y8836

Received: 2022/11/28, 15:40

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) Total PAHs include only those PAHs specified in the sewer use by-by-law.
(2) Note: TPH (Heavy Oil) is equivalent to Mineral / Synthetic Oil & Grease

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Jolanta Goralczyk, Project Manager
Email: Jolanta.Goralczyk@bureauveritas.com
Phone# (905)817-5751

==========

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas Job #: C2Y8836
Report Date: 2022/12/05

Groundwater Environmental Management Services Inc.
Client Project #: 22-1464
Site Location: 2636-2654 EGLINTON AVE W
Sampler Initials: LM

TORONTO SANITARY&STORM SEWER (100-2016)

Bureau Veritas ID				UKU597		
Sampling Date				2022/11/28 11:00		
COC Number				907396-01-01		
	UNITS	Criteria	Criteria-2	MW101	RDL	QC Batch
Calculated Parameters						
Total Animal/Vegetable Oil and Grease	mg/L	-	150	0.70	0.50	8371011
Inorganics						
Total BOD	mg/L	15	300	ND	2	8375459
Fluoride (F-)	mg/L	-	10	0.12	0.10	8373964
Total Kjeldahl Nitrogen (TKN)	mg/L	-	100	0.30	0.10	8373578
pH	pH	6.0:9.5	6.0:11.5	7.68		8373966
Phenols-4AAP	mg/L	0.008	1.0	ND	0.0010	8374534
Total Suspended Solids	mg/L	15	350	**85**	10	8375381
Total Cyanide (CN)	mg/L	0.02	2	ND	0.0050	8373064
Petroleum Hydrocarbons						
Total Oil & Grease	mg/L	-	-	1.2	0.50	8381722
Total Oil & Grease Mineral/Synthetic	mg/L	-	15	0.50	0.50	8381727
Miscellaneous Parameters						
Nonylphenol Ethoxylate (Total)	mg/L	0.01	0.2	ND	0.005	8376857
Nonylphenol (Total)	mg/L	0.001	0.02	ND	0.001	8376848
Metals						
Chromium (VI)	ug/L	40	2000	0.54	0.50	8373967
Mercury (Hg)	mg/L	0.0004	0.01	ND	0.00010	8375550
Total Aluminum (Al)	ug/L	-	50000	1600	4.9	8377550
Total Antimony (Sb)	ug/L	-	5000	ND	0.50	8377550
Total Arsenic (As)	ug/L	20	1000	ND	1.0	8377550
Total Cadmium (Cd)	ug/L	8	700	ND	0.090	8377550
Total Chromium (Cr)	ug/L	80	4000	ND	5.0	8377550
Total Cobalt (Co)	ug/L	-	5000	0.99	0.50	8377550
Total Copper (Cu)	ug/L	40	2000	3.9	0.90	8377550
Total Lead (Pb)	ug/L	120	1000	1.7	0.50	8377550
Total Manganese (Mn)	ug/L	50	5000	46	2.0	8377550

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Toronto Storm Sewer Discharge Use By-Law
Criteria-2: Toronto Sanitary and Combined Sewers Discharge Guidelines. Referenced to the Chapter 681.

ND = Not Detected at a concentration equal or greater than the indicated Detection Limit.

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TORONTO SANITARY&STORM SEWER (100-2016)

Bureau Veritas ID				UKU597		
Sampling Date				2022/11/28 11:00		
COC Number				907396-01-01		
	UNITS	Criteria	Criteria-2	MW101	RDL	QC Batch
Total Molybdenum (Mo)	ug/L	-	5000	0.97	0.50	8377550
Total Nickel (Ni)	ug/L	80	2000	3.0	1.0	8377550
Total Phosphorus (P)	ug/L	400	10000	110	100	8377550
Total Selenium (Se)	ug/L	20	1000	ND	2.0	8377550
Total Silver (Ag)	ug/L	120	5000	ND	0.090	8377550
Total Tin (Sn)	ug/L	-	5000	2.0	1.0	8377550
Total Titanium (Ti)	ug/L	-	5000	45	5.0	8377550
Total Zinc (Zn)	ug/L	40	2000	10	5.0	8377550
Semivolatile Organics						
Di-N-butyl phthalate	ug/L	15	80	ND	8	8380818
Bis(2-ethylhexyl)phthalate	ug/L	8.8	12	ND	8	8380818
3,3'-Dichlorobenzidine	ug/L	0.8	2	ND	0.8	8380818
Pentachlorophenol	ug/L	2	5	ND	2	8380818
Phenanthrene	ug/L	-	-	ND	0.8	8380818
Anthracene	ug/L	-	-	ND	0.8	8380818
Fluoranthene	ug/L	-	-	ND	0.8	8380818
Pyrene	ug/L	-	-	ND	0.8	8380818
Benzo(a)anthracene	ug/L	-	-	ND	0.8	8380818
Chrysene	ug/L	-	-	ND	0.8	8380818
Benzo(b/j)fluoranthene	ug/L	-	-	ND	0.8	8380818
Benzo(k)fluoranthene	ug/L	-	-	ND	0.8	8380818
Benzo(a)pyrene	ug/L	-	-	ND	0.8	8380818
Indeno(1,2,3-cd)pyrene	ug/L	-	-	ND	0.8	8380818
Dibenzo(a,h)anthracene	ug/L	-	-	ND	0.8	8380818
Benzo(g,h,i)perylene	ug/L	-	-	ND	0.8	8380818
Dibenzo(a,i)pyrene	ug/L	-	-	ND	0.8	8380818
Benzo(e)pyrene	ug/L	-	-	ND	0.8	8380818
Perylene	ug/L	-	-	ND	0.8	8380818

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Toronto Storm Sewer Discharge Use By-Law
Criteria-2: Toronto Sanitary and Combined Sewers Discharge Guidelines. Referenced to the Chapter 681.

ND = Not Detected at a concentration equal or greater than the indicated Detection Limit.

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TORONTO SANITARY&STORM SEWER (100-2016)

Bureau Veritas ID				UKU597		
Sampling Date				2022/11/28 11:00		
COC Number				907396-01-01		
	UNITS	Criteria	Criteria-2	MW101	RDL	QC Batch
Dibenzo(a,j) acridine	ug/L	-	-	ND	2	8380818
7H-Dibenzo(c,g) Carbazole	ug/L	-	-	ND	2	8380818
1,6-Dinitropyrene	ug/L	-	-	ND	2	8380818
1,3-Dinitropyrene	ug/L	-	-	ND	2	8380818
1,8-Dinitropyrene	ug/L	-	-	ND	2	8380818
Calculated Parameters						
Total PAHs (18 PAHs)	ug/L	2	5	**ND (1)**	5	8371129
Volatile Organics						
Benzene	ug/L	2	10	ND	0.40	8373368
Chloroform	ug/L	2	40	ND	0.40	8373368
1,2-Dichlorobenzene	ug/L	5.6	50	ND	0.80	8373368
1,4-Dichlorobenzene	ug/L	6.8	80	ND	0.80	8373368
cis-1,2-Dichloroethylene	ug/L	5.6	4000	ND	1.0	8373368
trans-1,3-Dichloropropene	ug/L	5.6	140	ND	0.80	8373368
Ethylbenzene	ug/L	2	160	ND	0.40	8373368
Methylene Chloride(Dichloromethane)	ug/L	5.2	2000	ND	4.0	8373368
1,1,2,2-Tetrachloroethane	ug/L	17	1400	ND	0.80	8373368
Tetrachloroethylene	ug/L	4.4	1000	ND	0.40	8373368
Toluene	ug/L	2	16	ND	0.40	8373368
Trichloroethylene	ug/L	7.6	400	ND	0.40	8373368
p+m-Xylene	ug/L	-	-	ND	0.40	8373368
o-Xylene	ug/L	-	-	ND	0.40	8373368
Total Xylenes	ug/L	4.4	1400	ND	0.40	8373368
PCBs						
Total PCB	ug/L	0.4	1	ND	0.05	8377150
Microbiological						
Escherichia coli	CFU/100mL	200	-	<10	10	8372269

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Toronto Storm Sewer Discharge Use By-Law
Criteria-2: Toronto Sanitary and Combined Sewers Discharge Guidelines. Referenced to the Chapter 681.

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(1) RDL exceeds criteria

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TORONTO SANITARY&STORM SEWER (100-2016)

Bureau Veritas ID				UKU597		
Sampling Date				2022/11/28 11:00		
COC Number				907396-01-01		
	UNITS	Criteria	Criteria-2	MW101	RDL	QC Batch
Surrogate Recovery (%)						
2,4,6-Tribromophenol	%	-	-	37		8380818
2-Fluorobiphenyl	%	-	-	63		8380818
D14-Terphenyl (FS)	%	-	-	93		8380818
D5-Nitrobenzene	%	-	-	77		8380818
D8-Acenaphthylene	%	-	-	73		8380818
Decachlorobiphenyl	%	-	-	70		8377150
4-Bromofluorobenzene	%	-	-	94		8373368
D4-1,2-Dichloroethane	%	-	-	117		8373368
D8-Toluene	%	-	-	95		8373368

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Toronto Storm Sewer Discharge Use By-Law
Criteria-2: Toronto Sanitary and Combined Sewers Discharge Guidelines. Referenced to the Chapter 681.

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Bureau Veritas Job #: C2Y8836
Report Date: 2022/12/05

Groundwater Environmental Management Services Inc.
Client Project #: 22-1464
Site Location: 2636-2654 EGLINTON AVE W
Sampler Initials: LM

TEST SUMMARY

Bureau Veritas ID: UKU597
Sample ID: MW101
Matrix: Water

Collected: 2022/11/28
Shipped:
Received: 2022/11/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Sewer Use By-Law Semivolatile Organics	GC/MS	8380818	2022/12/02	2022/12/03	Adriana Zurita
Biochemical Oxygen Demand (BOD)	DO	8375459	2022/11/30	2022/12/05	Nusrat Naz
Chromium (VI) in Water	IC	8373967	N/A	2022/11/30	Theodora Luck
Total Cyanide	SKAL/CN	8373064	2022/11/29	2022/11/29	Prgya Panchal
Fluoride	ISE	8373964	2022/11/29	2022/11/30	Kien Tran
Mercury in Water by CVAA	CV/AA	8375550	2022/11/30	2022/11/30	Japneet Gill
Total Metals Analysis by ICPMS	ICP/MS	8377550	N/A	2022/12/01	Rupinder Gill
E.coli, (CFU/100mL)	PL	8372269	N/A	2022/11/28	Sonja Elavinamannil
Total Nonylphenol in Liquids by HPLC	LC/FLU	8376848	2022/11/30	2022/12/02	Dennis Boodram
Nonylphenol Ethoxylates in Liquids: HPLC	LC/FLU	8376857	2022/11/30	2022/12/02	Dennis Boodram
Animal and Vegetable Oil and Grease	BAL	8371011	N/A	2022/12/02	Automated Statchk
Total Oil and Grease	BAL	8381722	2022/12/02	2022/12/02	Navneet Singh
Polychlorinated Biphenyl in Water	GC/ECD	8377150	2022/11/30	2022/12/01	Svitlana Shaula
pH	AT	8373966	2022/11/29	2022/11/30	Kien Tran
Phenols (4AAP)	TECH/PHEN	8374534	N/A	2022/11/30	Mandeep Kaur
Total Kjeldahl Nitrogen in Water	SKAL	8373578	2022/11/29	2022/11/30	Rajni Tyagi
Total PAHs	CALC	8371129	N/A	2022/12/05	Automated Statchk
Mineral/Synthetic O & G (TPH Heavy Oil)	BAL	8381727	2022/12/02	2022/12/02	Navneet Singh
Total Suspended Solids	BAL	8375381	2022/11/30	2022/12/01	Masood Siddiqui
Volatile Organic Compounds in Water	GC/MS	8373368	N/A	2022/11/30	Narayan Ghimire

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	8.0°C

Sample UKU597 [MW101] : VOC Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

ABN Analysis: Due to the sample matrix, a smaller amount was used for extraction. Detection limits were adjusted accordingly.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8373064	GYA	Matrix Spike	Total Cyanide (CN)	2022/11/29		100	%	80 - 120
8373064	GYA	Spiked Blank	Total Cyanide (CN)	2022/11/29		97	%	80 - 120
8373064	GYA	Method Blank	Total Cyanide (CN)	2022/11/29	ND, RDL=0.0050		mg/L	
8373064	GYA	RPD	Total Cyanide (CN)	2022/11/29	NC		%	20
8373368	NGH	Matrix Spike	4-Bromofluorobenzene	2022/11/30		94	%	70 - 130
			D4-1,2-Dichloroethane	2022/11/30		120	%	70 - 130
			D8-Toluene	2022/11/30		99	%	70 - 130
			Benzene	2022/11/30		92	%	70 - 130
			Chloroform	2022/11/30		99	%	70 - 130
			1,2-Dichlorobenzene	2022/11/30		95	%	70 - 130
			1,4-Dichlorobenzene	2022/11/30		107	%	70 - 130
			cis-1,2-Dichloroethylene	2022/11/30		NC	%	70 - 130
			trans-1,3-Dichloropropene	2022/11/30		116	%	70 - 130
			Ethylbenzene	2022/11/30		87	%	70 - 130
			Methylene Chloride(Dichloromethane)	2022/11/30		103	%	70 - 130
			1,1,2,2-Tetrachloroethane	2022/11/30		103	%	70 - 130
			Tetrachloroethylene	2022/11/30		82	%	70 - 130
			Toluene	2022/11/30		88	%	70 - 130
			Trichloroethylene	2022/11/30		NC	%	70 - 130
			p+m-Xylene	2022/11/30		88	%	70 - 130
			o-Xylene	2022/11/30		88	%	70 - 130
8373368	NGH	Spiked Blank	4-Bromofluorobenzene	2022/11/30		93	%	70 - 130
			D4-1,2-Dichloroethane	2022/11/30		110	%	70 - 130
			D8-Toluene	2022/11/30		103	%	70 - 130
			Benzene	2022/11/30		90	%	70 - 130
			Chloroform	2022/11/30		95	%	70 - 130
			1,2-Dichlorobenzene	2022/11/30		94	%	70 - 130
			1,4-Dichlorobenzene	2022/11/30		107	%	70 - 130
			cis-1,2-Dichloroethylene	2022/11/30		99	%	70 - 130
			trans-1,3-Dichloropropene	2022/11/30		98	%	70 - 130
			Ethylbenzene	2022/11/30		89	%	70 - 130
			Methylene Chloride(Dichloromethane)	2022/11/30		98	%	70 - 130
			1,1,2,2-Tetrachloroethane	2022/11/30		93	%	70 - 130
			Tetrachloroethylene	2022/11/30		85	%	70 - 130
			Toluene	2022/11/30		90	%	70 - 130
			Trichloroethylene	2022/11/30		92	%	70 - 130
			p+m-Xylene	2022/11/30		91	%	70 - 130
			o-Xylene	2022/11/30		90	%	70 - 130
8373368	NGH	Method Blank	4-Bromofluorobenzene	2022/11/30		93	%	70 - 130
			D4-1,2-Dichloroethane	2022/11/30		111	%	70 - 130
			D8-Toluene	2022/11/30		102	%	70 - 130
			Benzene	2022/11/30	ND, RDL=0.20		ug/L	
			Chloroform	2022/11/30	ND, RDL=0.20		ug/L	
			1,2-Dichlorobenzene	2022/11/30	ND, RDL=0.40		ug/L	
			1,4-Dichlorobenzene	2022/11/30	ND, RDL=0.40		ug/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			cis-1,2-Dichloroethylene	2022/11/30	ND, RDL=0.50		ug/L	
			trans-1,3-Dichloropropene	2022/11/30	ND, RDL=0.40		ug/L	
			Ethylbenzene	2022/11/30	ND, RDL=0.20		ug/L	
			Methylene Chloride(Dichloromethane)	2022/11/30	ND, RDL=2.0		ug/L	
			1,1,2,2-Tetrachloroethane	2022/11/30	ND, RDL=0.40		ug/L	
			Tetrachloroethylene	2022/11/30	ND, RDL=0.20		ug/L	
			Toluene	2022/11/30	ND, RDL=0.20		ug/L	
			Trichloroethylene	2022/11/30	ND, RDL=0.20		ug/L	
			p+m-Xylene	2022/11/30	ND, RDL=0.20		ug/L	
			o-Xylene	2022/11/30	ND, RDL=0.20		ug/L	
			Total Xylenes	2022/11/30	ND, RDL=0.20		ug/L	
8373368	NGH	RPD	Benzene	2022/11/30	NC		%	30
			Chloroform	2022/11/30	NC		%	30
			1,2-Dichlorobenzene	2022/11/30	NC		%	30
			1,4-Dichlorobenzene	2022/11/30	NC		%	30
			cis-1,2-Dichloroethylene	2022/11/30	4.5		%	30
			trans-1,3-Dichloropropene	2022/11/30	NC		%	30
			Ethylbenzene	2022/11/30	NC		%	30
			Methylene Chloride(Dichloromethane)	2022/11/30	NC		%	30
			1,1,2,2-Tetrachloroethane	2022/11/30	NC		%	30
			Tetrachloroethylene	2022/11/30	NC		%	30
			Toluene	2022/11/30	NC		%	30
			Trichloroethylene	2022/11/30	5.6		%	30
			p+m-Xylene	2022/11/30	NC		%	30
			o-Xylene	2022/11/30	NC		%	30
			Total Xylenes	2022/11/30	NC		%	30
8373578	RTY	Matrix Spike	Total Kjeldahl Nitrogen (TKN)	2022/11/30		104	%	80 - 120
8373578	RTY	QC Standard	Total Kjeldahl Nitrogen (TKN)	2022/11/30		104	%	80 - 120
8373578	RTY	Spiked Blank	Total Kjeldahl Nitrogen (TKN)	2022/11/30		103	%	80 - 120
8373578	RTY	Method Blank	Total Kjeldahl Nitrogen (TKN)	2022/11/30	ND, RDL=0.10		mg/L	
8373578	RTY	RPD	Total Kjeldahl Nitrogen (TKN)	2022/11/30	4.1		%	20
8373964	KIT	Matrix Spike	Fluoride (F-)	2022/11/30		103	%	80 - 120
8373964	KIT	Spiked Blank	Fluoride (F-)	2022/11/30		101	%	80 - 120
8373964	KIT	Method Blank	Fluoride (F-)	2022/11/30	ND, RDL=0.10		mg/L	
8373964	KIT	RPD	Fluoride (F-)	2022/11/30	2.4		%	20
8373966	KIT	Spiked Blank	pH	2022/11/30		102	%	98 - 103
8373966	KIT	RPD	pH	2022/11/30	0.11		%	N/A
8373967	TL2	Matrix Spike	Chromium (VI)	2022/11/30		98	%	80 - 120
8373967	TL2	Spiked Blank	Chromium (VI)	2022/11/30		102	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8373967	TL2	Method Blank	Chromium (VI)	2022/11/30	ND, RDL=0.50		ug/L	
8373967	TL2	RPD	Chromium (VI)	2022/11/30	NC		%	20
8374534	MKX	Matrix Spike	Phenols-4AAP	2022/11/30		100	%	80 - 120
8374534	MKX	Spiked Blank	Phenols-4AAP	2022/11/30		101	%	80 - 120
8374534	MKX	Method Blank	Phenols-4AAP	2022/11/30	ND, RDL=0.0010		mg/L	
8374534	MKX	RPD	Phenols-4AAP	2022/11/30	NC		%	20
8375381	MSQ	QC Standard	Total Suspended Solids	2022/12/01		96	%	85 - 115
8375381	MSQ	Method Blank	Total Suspended Solids	2022/12/01	ND, RDL=10		mg/L	
8375381	MSQ	RPD	Total Suspended Solids	2022/12/01	9.5		%	20
8375459	NNA	QC Standard	Total BOD	2022/12/05		91	%	80 - 120
8375459	NNA	Method Blank	Total BOD	2022/12/05	ND,RDL=2		mg/L	
8375459	NNA	RPD	Total BOD	2022/12/05	10		%	30
8375550	JGC	Matrix Spike	Mercury (Hg)	2022/11/30		106	%	75 - 125
8375550	JGC	Spiked Blank	Mercury (Hg)	2022/11/30		106	%	80 - 120
8375550	JGC	Method Blank	Mercury (Hg)	2022/11/30	ND, RDL=0.00010		mg/L	
8375550	JGC	RPD	Mercury (Hg)	2022/11/30	NC		%	20
			Mercury (Hg)	2022/11/30	NC		%	20
			Mercury (Hg)	2022/11/30	NC		%	20
			Mercury (Hg)	2022/11/30	NC		%	20
			Mercury (Hg)	2022/11/30	NC		%	20
			Mercury (Hg)	2022/11/30	NC		%	20
8376848	DEO	Matrix Spike	Nonylphenol (Total)	2022/12/02		88	%	50 - 130
8376848	DEO	Spiked Blank	Nonylphenol (Total)	2022/12/02		84	%	50 - 130
8376848	DEO	Method Blank	Nonylphenol (Total)	2022/12/02	ND, RDL=0.001		mg/L	
8376848	DEO	RPD	Nonylphenol (Total)	2022/12/02	NC		%	40
8376857	DEO	Matrix Spike	Nonylphenol Ethoxylate (Total)	2022/12/02		90	%	50 - 130
8376857	DEO	Spiked Blank	Nonylphenol Ethoxylate (Total)	2022/12/02		87	%	50 - 130
8376857	DEO	Method Blank	Nonylphenol Ethoxylate (Total)	2022/12/02	ND, RDL=0.005		mg/L	
8376857	DEO	RPD	Nonylphenol Ethoxylate (Total)	2022/12/02	NC		%	40
8377150	SVS	Matrix Spike	Decachlorobiphenyl	2022/12/01		83	%	60 - 130
			Total PCB	2022/12/01		80	%	60 - 130
8377150	SVS	Spiked Blank	Decachlorobiphenyl	2022/12/01		76	%	60 - 130
			Total PCB	2022/12/01		91	%	60 - 130
8377150	SVS	Method Blank	Decachlorobiphenyl	2022/12/01		75	%	60 - 130
			Total PCB	2022/12/01	ND, RDL=0.05		ug/L	
8377150	SVS	RPD	Total PCB	2022/12/01	NC		%	40
8377550	RG4	Matrix Spike	Total Aluminum (Al)	2022/12/01		NC	%	80 - 120
			Total Antimony (Sb)	2022/12/01		83	%	80 - 120
			Total Arsenic (As)	2022/12/01		103	%	80 - 120
			Total Cadmium (Cd)	2022/12/01		102	%	80 - 120
			Total Chromium (Cr)	2022/12/01		101	%	80 - 120
			Total Cobalt (Co)	2022/12/01		102	%	80 - 120
			Total Copper (Cu)	2022/12/01		103	%	80 - 120
			Total Lead (Pb)	2022/12/01		91	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Manganese (Mn)	2022/12/01		108	%	80 - 120
			Total Molybdenum (Mo)	2022/12/01		106	%	80 - 120
			Total Nickel (Ni)	2022/12/01		98	%	80 - 120
			Total Phosphorus (P)	2022/12/01		108	%	80 - 120
			Total Selenium (Se)	2022/12/01		95	%	80 - 120
			Total Silver (Ag)	2022/12/01		96	%	80 - 120
			Total Tin (Sn)	2022/12/01		107	%	80 - 120
			Total Titanium (Ti)	2022/12/01		159 (1)	%	80 - 120
			Total Zinc (Zn)	2022/12/01		97	%	80 - 120
8377550	RG4	Spiked Blank	Total Aluminum (Al)	2022/12/01		102	%	80 - 120
			Total Antimony (Sb)	2022/12/01		105	%	80 - 120
			Total Arsenic (As)	2022/12/01		101	%	80 - 120
			Total Cadmium (Cd)	2022/12/01		102	%	80 - 120
			Total Chromium (Cr)	2022/12/01		97	%	80 - 120
			Total Cobalt (Co)	2022/12/01		101	%	80 - 120
			Total Copper (Cu)	2022/12/01		97	%	80 - 120
			Total Lead (Pb)	2022/12/01		97	%	80 - 120
			Total Manganese (Mn)	2022/12/01		100	%	80 - 120
			Total Molybdenum (Mo)	2022/12/01		96	%	80 - 120
			Total Nickel (Ni)	2022/12/01		101	%	80 - 120
			Total Phosphorus (P)	2022/12/01		106	%	80 - 120
			Total Selenium (Se)	2022/12/01		105	%	80 - 120
			Total Silver (Ag)	2022/12/01		100	%	80 - 120
			Total Tin (Sn)	2022/12/01		103	%	80 - 120
			Total Titanium (Ti)	2022/12/01		101	%	80 - 120
			Total Zinc (Zn)	2022/12/01		106	%	80 - 120
8377550	RG4	Method Blank	Total Aluminum (Al)	2022/12/01	ND, RDL=4.9		ug/L	
			Total Antimony (Sb)	2022/12/01	ND, RDL=0.50		ug/L	
			Total Arsenic (As)	2022/12/01	ND, RDL=1.0		ug/L	
			Total Cadmium (Cd)	2022/12/01	ND, RDL=0.090		ug/L	
			Total Chromium (Cr)	2022/12/01	ND, RDL=5.0		ug/L	
			Total Cobalt (Co)	2022/12/01	ND, RDL=0.50		ug/L	
			Total Copper (Cu)	2022/12/01	ND, RDL=0.90		ug/L	
			Total Lead (Pb)	2022/12/01	ND, RDL=0.50		ug/L	
			Total Manganese (Mn)	2022/12/01	ND, RDL=2.0		ug/L	
			Total Molybdenum (Mo)	2022/12/01	ND, RDL=0.50		ug/L	
			Total Nickel (Ni)	2022/12/01	ND, RDL=1.0		ug/L	
			Total Phosphorus (P)	2022/12/01	ND, RDL=100		ug/L	
			Total Selenium (Se)	2022/12/01	ND, RDL=2.0		ug/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Silver (Ag)	2022/12/01	ND, RDL=0.090		ug/L	
			Total Tin (Sn)	2022/12/01	ND, RDL=1.0		ug/L	
			Total Titanium (Ti)	2022/12/01	ND, RDL=5.0		ug/L	
			Total Zinc (Zn)	2022/12/01	ND, RDL=5.0		ug/L	
8377550	RG4	RPD	Total Manganese (Mn)	2022/12/01	1.7		%	20
8380818	AZ	Matrix Spike	2,4,6-Tribromophenol	2022/12/02		62	%	10 - 130
			2-Fluorobiphenyl	2022/12/02		53	%	30 - 130
			D14-Terphenyl (FS)	2022/12/02		89	%	30 - 130
			D5-Nitrobenzene	2022/12/02		61	%	30 - 130
			D8-Acenaphthylene	2022/12/02		61	%	30 - 130
			Di-N-butyl phthalate	2022/12/02		96	%	30 - 130
			Bis(2-ethylhexyl)phthalate	2022/12/02		111	%	30 - 130
			3,3'-Dichlorobenzidine	2022/12/02		17 (2)	%	30 - 130
			Pentachlorophenol	2022/12/02		90	%	30 - 130
			Phenanthrene	2022/12/02		79	%	30 - 130
			Anthracene	2022/12/02		78	%	30 - 130
			Fluoranthene	2022/12/02		94	%	30 - 130
			Pyrene	2022/12/02		94	%	30 - 130
			Benzo(a)anthracene	2022/12/02		93	%	30 - 130
			Chrysene	2022/12/02		99	%	30 - 130
			Benzo(b/j)fluoranthene	2022/12/02		110	%	30 - 130
			Benzo(k)fluoranthene	2022/12/02		101	%	30 - 130
			Benzo(a)pyrene	2022/12/02		107	%	30 - 130
			Indeno(1,2,3-cd)pyrene	2022/12/02		119	%	30 - 130
			Dibenzo(a,h)anthracene	2022/12/02		117	%	30 - 130
			Benzo(g,h,i)perylene	2022/12/02		125	%	30 - 130
			Dibenzo(a,i)pyrene	2022/12/02		90	%	30 - 130
			Benzo(e)pyrene	2022/12/02		106	%	30 - 130
			Perylene	2022/12/02		97	%	30 - 130
			Dibenzo(a,j) acridine	2022/12/02		117	%	30 - 130
			7H-Dibenzo(c,g) Carbazole	2022/12/02		84	%	30 - 130
			1,6-Dinitropyrene	2022/12/02		108	%	30 - 130
			1,3-Dinitropyrene	2022/12/02		105	%	30 - 130
			1,8-Dinitropyrene	2022/12/02		110	%	30 - 130
8380818	AZ	Spiked Blank	2,4,6-Tribromophenol	2022/12/02		65	%	10 - 130
			2-Fluorobiphenyl	2022/12/02		61	%	30 - 130
			D14-Terphenyl (FS)	2022/12/02		90	%	30 - 130
			D5-Nitrobenzene	2022/12/02		77	%	30 - 130
			D8-Acenaphthylene	2022/12/02		73	%	30 - 130
			Di-N-butyl phthalate	2022/12/02		95	%	30 - 130
			Bis(2-ethylhexyl)phthalate	2022/12/02		117	%	30 - 130
			3,3'-Dichlorobenzidine	2022/12/02		55	%	30 - 130
			Pentachlorophenol	2022/12/02		80	%	30 - 130
			Phenanthrene	2022/12/02		81	%	30 - 130
			Anthracene	2022/12/02		82	%	30 - 130
			Fluoranthene	2022/12/02		94	%	30 - 130
			Pyrene	2022/12/02		93	%	30 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Benzo(a)anthracene	2022/12/02		94	%	30 - 130
			Chrysene	2022/12/02		99	%	30 - 130
			Benzo(b/j)fluoranthene	2022/12/02		111	%	30 - 130
			Benzo(k)fluoranthene	2022/12/02		103	%	30 - 130
			Benzo(a)pyrene	2022/12/02		109	%	30 - 130
			Indeno(1,2,3-cd)pyrene	2022/12/02		118	%	30 - 130
			Dibenzo(a,h)anthracene	2022/12/02		117	%	30 - 130
			Benzo(g,h,i)perylene	2022/12/02		124	%	30 - 130
			Dibenzo(a,i)pyrene	2022/12/02		92	%	30 - 130
			Benzo(e)pyrene	2022/12/02		107	%	30 - 130
			Perylene	2022/12/02		95	%	30 - 130
			Dibenzo(a,j) acridine	2022/12/02		116	%	30 - 130
			7H-Dibenzo(c,g) Carbazole	2022/12/02		87	%	30 - 130
			1,6-Dinitropyrene	2022/12/02		116	%	30 - 130
			1,3-Dinitropyrene	2022/12/02		115	%	30 - 130
			1,8-Dinitropyrene	2022/12/02		120	%	30 - 130
8380818	AZ	Method Blank	2,4,6-Tribromophenol	2022/12/02		50	%	10 - 130
			2-Fluorobiphenyl	2022/12/02		63	%	30 - 130
			D14-Terphenyl (FS)	2022/12/02		94	%	30 - 130
			D5-Nitrobenzene	2022/12/02		80	%	30 - 130
			D8-Acenaphthylene	2022/12/02		75	%	30 - 130
			Di-N-butyl phthalate	2022/12/02	ND,RDL=2		ug/L	
			Bis(2-ethylhexyl)phthalate	2022/12/02	ND,RDL=2		ug/L	
			3,3'-Dichlorobenzidine	2022/12/02	ND, RDL=0.8		ug/L	
			Pentachlorophenol	2022/12/02	ND,RDL=1		ug/L	
			Phenanthrene	2022/12/02	ND, RDL=0.2		ug/L	
			Anthracene	2022/12/02	ND, RDL=0.2		ug/L	
			Fluoranthene	2022/12/02	ND, RDL=0.2		ug/L	
			Pyrene	2022/12/02	ND, RDL=0.2		ug/L	
			Benzo(a)anthracene	2022/12/02	ND, RDL=0.2		ug/L	
			Chrysene	2022/12/02	ND, RDL=0.2		ug/L	
			Benzo(b/j)fluoranthene	2022/12/02	ND, RDL=0.2		ug/L	
			Benzo(k)fluoranthene	2022/12/02	ND, RDL=0.2		ug/L	
			Benzo(a)pyrene	2022/12/02	ND, RDL=0.2		ug/L	
			Indeno(1,2,3-cd)pyrene	2022/12/02	ND, RDL=0.2		ug/L	
			Dibenzo(a,h)anthracene	2022/12/02	ND, RDL=0.2		ug/L	
			Benzo(g,h,i)perylene	2022/12/02	ND, RDL=0.2		ug/L	
			Dibenzo(a,i)pyrene	2022/12/02	ND, RDL=0.2		ug/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Benzo(e)pyrene	2022/12/02	ND, RDL=0.2		ug/L	
			Perylene	2022/12/02	ND, RDL=0.2		ug/L	
			Dibenzo(a,j) acridine	2022/12/02	ND, RDL=0.4		ug/L	
			7H-Dibenzo(c,g) Carbazole	2022/12/02	ND, RDL=0.4		ug/L	
			1,6-Dinitropyrene	2022/12/02	ND, RDL=0.4		ug/L	
			1,3-Dinitropyrene	2022/12/02	ND, RDL=0.4		ug/L	
			1,8-Dinitropyrene	2022/12/02	ND, RDL=0.4		ug/L	
8380818	AZ	RPD	Di-N-butyl phthalate	2022/12/03	NC		%	40
			Bis(2-ethylhexyl)phthalate	2022/12/03	NC		%	40
			3,3'-Dichlorobenzidine	2022/12/03	NC		%	40
			Pentachlorophenol	2022/12/03	NC		%	40
			Phenanthrene	2022/12/03	NC		%	40
			Anthracene	2022/12/03	NC		%	40
			Fluoranthene	2022/12/03	NC		%	40
			Pyrene	2022/12/03	NC		%	40
			Benzo(a)anthracene	2022/12/03	NC		%	40
			Chrysene	2022/12/03	NC		%	40
			Benzo(b/j)fluoranthene	2022/12/03	NC		%	40
			Benzo(k)fluoranthene	2022/12/03	NC		%	40
			Benzo(a)pyrene	2022/12/03	NC		%	40
			Indeno(1,2,3-cd)pyrene	2022/12/03	NC		%	40
			Dibenzo(a,h)anthracene	2022/12/03	NC		%	40
			Benzo(g,h,i)perylene	2022/12/03	NC		%	40
			Dibenzo(a,i)pyrene	2022/12/03	NC		%	40
			Benzo(e)pyrene	2022/12/03	NC		%	40
			Perylene	2022/12/03	NC		%	40
			Dibenzo(a,j) acridine	2022/12/03	NC		%	40
			7H-Dibenzo(c,g) Carbazole	2022/12/03	NC		%	40
			1,6-Dinitropyrene	2022/12/03	NC		%	40
			1,3-Dinitropyrene	2022/12/03	NC		%	40
			1,8-Dinitropyrene	2022/12/03	NC		%	40
8381722	NSG	Spiked Blank	Total Oil & Grease	2022/12/02		99	%	85 - 115
8381722	NSG	RPD	Total Oil & Grease	2022/12/02	0.25		%	25
8381722	NSG	Method Blank	Total Oil & Grease	2022/12/02	ND, RDL=0.50		mg/L	
8381727	NSG	Spiked Blank	Total Oil & Grease Mineral/Synthetic	2022/12/02		97	%	85 - 115
8381727	NSG	RPD	Total Oil & Grease Mineral/Synthetic	2022/12/02	0.52		%	25

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8381727	NSG	Method Blank	Total Oil & Grease Mineral/Synthetic	2022/12/02	ND, RDL=0.50		mg/L	

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Matrix Spike exceeds acceptance limits. Probable Matrix interference

(2) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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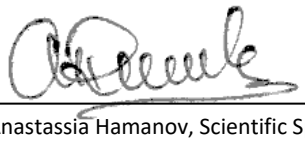
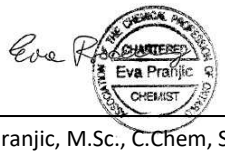
VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:



Anastassia Hamanov, Scientific Specialist



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

Sonja Elavinamannil, Master of Biochemistry, Team Lead

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28-Nov-22 15:40
Jolanta Goralczyk
C2Y8836

Page of

AJH ENV-1559

907396

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:			
Company Name:	#24874 Groundwater Environmental Management Ser	Company Name:		Quotation #:	C15394	le Order #:	
Attention:	Accounting	Attention:		P.O. #:			
Address:	150 Rivermede Rd Unit # 9	Address:	MIKE.FRANCIS@GEMSERVICESINC.COM	Project:	~~22-1302~~ 22-1464		
	Concord ON L4K 3M8	Tel:	(647) 517-2624 Fax:	Project Name:	2636-2654 Eglinton Ave W	COC #:	Project Manager:
Tel:	(905) 907-3077 Fax: (905) 907-6617	Email:	Kaitlin.Cocks@gemservicesinc.com; ~~Matthew.Pickett@~~	Site #:		C#907396-01-01	Jolanta Goralczyk
Email:	valerie.noble@gemservicesinc.com			Sampled By:	LM		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- ☐ Table 1 ☐ Res/Park ☐ Medium/Fine
- ☐ Table 2 ☐ Ind/Comm ☐ Coarse
- ☐ Table 3 ☐ Agri/Other ☐ For RSC
- ☐ Table ___

Other Regulations
- ☐ CCME ☒ Sanitary Sewer Bylaw
- ☐ Reg 558 ☒ Storm Sewer Bylaw
- ☐ MISA Municipality Toronto
- ☐ PWQO ☐ Reg 406 Table ___
- ☐ Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	Toronto Sanitary&Storm Sewer (100-2016)									# of Bottles	Comments
1		MW101	22/11/28	11:00	GW		✓									18	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
Logan McNabb	22/11/28	12:00	RAJ MAJANI	2022/11/28	1540		Time Sensitive	Temperature (°C) on Recei 8 8 8	Custody Seal	Yes	No
									Present	✓	
									Intact	✓	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/CHAIN-CUSTODY-FORMS-COCS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

White: Bureau Veritas Yellow: Client

Bureau Veritas Canada (2019) Inc.

BV – 02 2022

Exceedance Summary Table – Toronto Storm Sewer

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
MW101	UKU597-05	Total Suspended Solids	15	85	10	mg/L

Detection Limit Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
MW101	UKU597-03	Total PAHs (18 PAHs)	2	<5	5	ug/L

The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Exceedance Summary Table – Toronto Sanitary Sewer

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						

The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Appendix F

Dewatering Calculations

Table 1

Short-Term Dewatering Rate Calculations

Proposed Development:2636 -2654 Eglinton Ave West **Project No.** **22-1464**

Symbol	Description	Value 7 Days	Value 40 Days	Unit	Comment
Dewatering target heights and elevations					
$E_{Target} = E_{invert} - 1$	Dewatering target elevation	113.50	113.50	masl	
$E_{wp} = E_{Target} - 1$	Target water level	112.50	112.50	masl	
$H = E_{GW} - E_{wp}$	Initial height of groundwater	13.80	13.80	m	
$h = E_{Target} - E_{wp}$	Target height of groundwater	1.00	1.00	m	
H - h	Drawdown required	12.80	12.80	m	
t	Duration of Dewatering	7	40	days	
K	Hydraulic Conductivity	2.0E-07	2.0E-07	m/s	
T	Transmissivity	2.8E-06	2.8E-06	m^2/sec	$T = K \cdot (H - h)$
Cs	Storage Coefficient	0.30	0.30	no units	
C_4	Constant	4790	4790	no units	
a	Dewatered Area Length	45.0	45.0	m	
b	Dewatered Area Width	30.0	30.0	m	
r_w	Effective Well Radius of Open Excavation	23.9	23.9	m	$r_w = \frac{a+b}{\pi}$
R_o	**Radius of influence**	**27.4**	**32.3**	**m**	$R_o = r_w + \sqrt{\frac{T \cdot t}{C_4 \cdot C_s}}$
					Unconfined Conditions
Q	**Predicted Pumping Rate**	**51.7**	**23.6**	L/min	$Q = \frac{\pi \cdot K \left(H^2 - h^2\right)}{\ln\left(\frac{R_o}{r_w}\right)}$
		74,430	**33,917**	L/day	
					(Powers et al., 2008)

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Appendix G

MECP Wells

Table 1: MECP Summary Table
2400 - 2440 Dundas Street West, Toronto, ON

Well ID	FID	Easting	Northing	Well Usage
6928208	0	622578	4838930	#N/A
7153849	1	622776	4838565	Monitoring
7153850	2	622823	4838545	Monitoring
7154471	3	622945	4838612	Monitoring
7155348	4	622570	4838409	Monitoring
7155352	5	622630	4838295	Monitoring
7156541	6	622979	4838656	Monitoring
7161366	7	622583	4838798	Monitoring and Test Hole
7161367	8	622584	4838799	Monitoring and Test Hole
7161368	9	622573	4838814	Monitoring and Test Hole
7161369	10	622573	4838821	Monitoring and Test Hole
7171141	11	623416	4838753	Monitoring
7171536	12	623287	4838701	Monitoring
7171538	13	622832	4838608	Monitoring
7177982	14	623084	4838634	Monitoring
7180621	15	622940	4838579	Monitoring and Test Hole
7180622	16	622933	4838598	
7180623	17	622929	4838582	Monitoring and Test Hole
7180624	18	622923	4838558	
7180625	19	622923	4838558	
7180626	20	622941	4838576	Monitoring and Test Hole
7180627	21	622923	4838571	
7180628	22	622923	4838557	
7185114	23	622931	4838554	
7188179	24	622918	4838702	Test Hole
7188180	25	622929	4838678	Test Hole
7188181	26	622895	4838664	Test Hole
7193053	27	622941	4838585	Test Hole
7196174	28	622847	4838536	Monitoring and Test Hole
7196175	29	622831	4838538	Monitoring and Test Hole
7196176	30	622834	4838536	Monitoring and Test Hole
7196177	31	622829	4838531	Monitoring and Test Hole
7196178	32	622839	4838532	Monitoring and Test Hole
7196443	33	622578	4838473	Monitoring
7197327	34	622519	4838452	
7201492	35	622851	4838629	Test Hole
7201493	36	622870	4838614	Test Hole
7202149	37	622870	4838615	
7202150	38	622968	4838669	
7204800	39	623024	4838234	Monitoring
7204804	40	622960	4838408	Monitoring
7204805	41	623048	4838170	Monitoring
7204806	42	622829	4838238	Monitoring
7204807	43	622767	4838158	Monitoring

7211338	44	623412	4838782	
7212577	45	622921	4838531	
7212579	46	622921	4838531	
7214948	47	622860	4838566	
7215004	48	623271	4838756	Test Hole
7220550	49	623374	4838735	Monitoring
7227393	50	622957	4838585	Monitoring and Test Hole
7227394	51	622957	4838624	Monitoring
7230839	52	622938	4838651	Monitoring and Test Hole
7230840	53	622921	4838649	Monitoring and Test Hole
7230841	54	622906	4838638	Monitoring and Test Hole
7231829	55	623367	4838383	
7238253	56	623294	4838728	Dewatering
7238254	57	623282	4838723	Dewatering
7242611	58	623282	4838701	Dewatering
7245499	59	622570	4838856	Monitoring and Test Hole
7245555	60	622579	4838916	Monitoring and Test Hole
7245556	61	622516	4838904	Monitoring and Test Hole
7246566	62	622604	4838870	Monitoring and Test Hole
7246567	63	622550	4838865	Monitoring and Test Hole
7246568	64	622500	4838843	Monitoring and Test Hole
7253181	65	622918	4838593	Monitoring
7253776	66	623282	4838701	Dewatering
7253777	67	623282	4838703	Dewatering
7253778	68	623294	4838728	Dewatering
7258944	69	622584	4838482	Monitoring
7258945	70	622584	4838482	
7258946	71	622584	4838482	Monitoring
7259790	72	622891	4838542	
7260008	73	622541	4838433	
7260009	74	622538	4838427	
7260010	75	622524	4838429	
7260011	76	622524	4838429	
7260481	77	622689	4838544	Monitoring and Test Hole
7260482	78	622701	4838538	Monitoring and Test Hole
7260483	79	622712	4838546	Monitoring and Test Hole
7261345	80	622827	4838549	
7261346	81	622837	4838552	
7261347	82	622920	4838571	
7261348	83	622939	4838587	
7261349	84	622945	4838575	
7261350	85	622832	4838527	
7261351	86	622842	4838539	
7261352	87	622845	4838532	
7261353	88	622908	4838646	
7261354	89	622914	4838698	
7261355	90	622929	4838671	

7261356	91	622904	4838663	
7261357	92	622968	4838669	
7261358	93	622944	4838660	
7261359	94	622909	4838625	
7261360	95	622920	4838632	
7261362	96	622906	4838625	
7261363	97	622906	4838621	
7261364	98	622934	4838587	
7261365	99	622928	4838583	
7261366	100	622927	4838560	
7261367	101	622924	4838560	
7261368	102	622946	4838568	
7261369	103	622928	4838631	
7262338	104	622913	4838647	Monitoring and Test Hole
7262339	105	622915	4838648	Monitoring and Test Hole
7262340	106	622910	4838646	Monitoring and Test Hole
7262341	107	622917	4838649	Monitoring and Test Hole
7262385	108	622472	4838402	Monitoring
7262386	109	622522	4838418	Monitoring
7262390	110	622503	4838381	Monitoring
7262391	111	622482	4838382	Monitoring
7262392	112	622568	4838400	Monitoring
7262393	113	622565	4838422	Monitoring
7262394	114	622547	4838428	Monitoring
7262395	115	622514	4838393	Monitoring
7262445	116	623442	4838755	Monitoring
7265771	117	622828	4838581	Monitoring
7271774	118	622571	4838813	
7272522	119	622949	4838588	
7272523	120	622945	4838588	Dewatering
7272526	121	622944	4838596	Dewatering
7272527	122	622923	4838583	Dewatering
7272528	123	622919	4838577	Dewatering
7272529	124	622940	4838586	Dewatering
7272530	125	622933	4838582	Dewatering
7272531	126	622936	4838567	Dewatering
7272549	127	622896	4838598	Dewatering
7272740	128	622866	4838565	Dewatering
7272741	129	622887	4838585	Dewatering
7272742	130	622883	4838586	
7272743	131	622871	4838568	Dewatering
7272744	132	622854	4838565	Dewatering
7272745	133	622875	4838572	Dewatering
7272746	134	622858	4838567	Dewatering
7272747	135	622845	4838587	Dewatering
7272748	136	622846	4838600	Dewatering
7272749	137	622851	4838606	Dewatering

7272824	138	622859	4838600	Dewatering
7275992	139	622909	4838616	Dewatering
7275993	140	622904	4838638	Domestic
7275995	141	622922	4838659	Dewatering
7275996	142	622923	4838638	Dewatering
7275997	143	622923	4838638	
7275998	144	622925	4838638	Dewatering
7275999	145	622927	4838631	Dewatering
7276000	146	622931	4838618	Dewatering
7276001	147	622905	4838627	Dewatering
7276002	148	622846	4838567	Dewatering
7276003	149	622836	4838548	Dewatering
7276004	150	622836	4838547	Dewatering
7276005	151	622837	4838545	Dewatering
7276006	152	622845	4838535	Dewatering
7276007	153	622845	4838537	Domestic
7276008	154	622833	4838532	Dewatering
7276009	155	622842	4838542	Dewatering
7276010	156	622834	4838528	Dewatering
7276011	157	622836	4838525	Dewatering
7276012	158	622842	4838530	Dewatering
7276013	159	622830	4838537	Dewatering
7276014	160	622529	4838545	Dewatering
7276015	161	622826	4838550	Dewatering
7276016	162	622919	4838638	Dewatering
7276017	163	622918	4838644	Dewatering
7276018	164	622914	4838641	Domestic
7276019	165	622910	4838635	Dewatering
7276020	166	622902	4838634	Dewatering
7276021	167	622919	4838641	Dewatering
7276022	168	622902	4838633	Dewatering
7276445	169	622871	4838603	Dewatering
7276446	170	622872	4838599	Dewatering
7276447	171	622867	4838563	Dewatering
7276448	172	622859	4838615	Dewatering
7276449	173	622860	4838615	Dewatering
7276450	174	622857	4838605	Dewatering
7276451	175	622860	4838600	Dewatering
7276452	176	622872	4838609	Dewatering
7276453	177	622869	4838615	
7278189	178	622601	4838484	
7278190	179	622591	4838490	
7278191	180	622582	4838490	
7278192	181	622585	4838484	
7278193	182	622574	4838283	
7278194	183	622559	4838420	
7278195	184	622486	4838363	

7278196	185	622522	4838449	
7278197	186	622472	4838414	
7278897	187	622851	4838367	
7287372	188	622833	4838558	Monitoring
7289116	189	622870	4838611	Dewatering
7289117	190	622871	4838617	Dewatering
7289118	191	622865	4838625	Domestic
7289119	192	622868	4838619	Dewatering
7294462	193	622574	4838868	Test Hole
7294463	194	622584	4838851	Test Hole
7294464	195	622515	4838839	Test Hole
7294465	196	622533	4838858	Test Hole
7296389	197	622551	4838896	Test Hole
7296390	198	622617	4838896	Test Hole
7298509	199	622892	4838600	Dewatering
7298510	200	622830	4838582	Dewatering
7298511	201	622892	4838600	Dewatering
7298512	202	622898	4838604	Dewatering
7298513	203	622941	4838618	Dewatering
7298514	204	622823	4838580	Dewatering
7298515	205	622940	4838615	Dewatering
7298516	206	622908	4838612	Dewatering
7298517	207	622906	4838608	Dewatering
7298518	208	622867	4838630	Dewatering
7299820	209	622906	4838633	Dewatering
7301929	210	622873	4838599	
7301930	211	622836	4838548	
7301931	212	622920	4838638	
7301932	213	622913	4838636	
7301933	214	622836	4838542	
7308184	215	623276	4838755	
7309101	216	622553	4838898	
7312061	217	622573	4838852	Monitoring
7329480	218	622573	4838849	
7337152	219	622957	4838715	Monitoring
7337165	220	622947	4838691	Monitoring
7337213	221	622964	4838680	Monitoring
7356458	222	622860	4838605	
7363176	223	623268	4838691	
7368565	224	623350	4838865	Monitoring
7379603	225	622933	4838582	
7379604	226	622919	4838577	
7379605	227	622904	4838638	
7379606	228	622836	4838525	