Hydrogeological Assessment Update

Proposed Residential and Commercial Development, Main Street / Fockler Lane / Hwy 48, Whitchurch-Stouffville, Ontario

City Park Homes (Stouffville) Inc.

23 June 2026

→ **The Power of Commitment**

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1. Introduction

GHD Limited (GHD) has prepared this updated hydrogeological assessment report in support of a proposed residential and commercial development located at 5262, 5270, 5286 and 5318 Main Street and 12371 Highway 48 in Whitchurch-Stouffville, Ontario (collectively referred to as "the Site"). This report updates and builds upon previous hydrogeological assessments completed by GHD in 2016[1] and 2019[2] for the Site. Geographically, the Site is located on Lot 1, Concession 8 in the Township of Whitchurch (now the Town of Whitchurch-Stouffville) in the Regional Municipality of York. The Site encompasses an area of approximately 7.14 hectares ("ha") (~17.64 acres). The location of the Site is provided on the **Site Location Plan, Figure 1**.

Since completion of the previous assessments, the development concept for the Site has been revised. Based on an updated concept plan, dated November 12, 2025, the proposed development consists of two- and three-storey townhomes with basements, a commercial development area, a stormwater management block and associated road infrastructure. The development will be municipally serviced for water and sanitary sewer. The development would replace existing residential buildings that front onto Main Street and Highway 48 and a commercial structure on Fockler Lane. The remainder of the lands are undeveloped with a tributary of Little Rouge River known as Dickson Hill Creek flowing through the Site. The updated concept plan is illustrated on **Figure 2**.

GHD was retained to update the hydrogeological assessment to reflect the current development concept plan and to incorporate updated site information, including recent field observations and groundwater level measurements. This update includes a revised water balance to reflect pre- and post-development conditions, as typically required for developments and for assessing potential mitigative options such as the use of Low Impact Development (LID) strategies. The design of LIDs will be completed by others.

This report presents the results of the updated hydrogeological assessment and provides revised interpretations of groundwater conditions and considerations for the proposed development. The findings and conclusions presented herein reflect both the previous investigation results and the recent updates.

1.1 Limitations

This addendum has been prepared by GHD for City Park Homes (Stouffville) Inc. and may only be used and relied on by City Park Homes (Stouffville) Inc. for the purpose agreed between GHD and City Park Homes (Stouffville) Inc. as set out in Section 1 of this report.

GHD otherwise disclaims responsibility to any person other than City Park Homes (Stouffville) Inc. arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD and described throughout this report. GHD disclaims liability arising from any of the assumptions being incorrect.

[1] Hydrogeological Assessment Report, Proposed Residential and Commercial Development, Parts 2, 3, 4 and 5, Lot 1, Concession 8, Whitchurch-Stouffville, Ontario. Reference G030337E1 dated April 8, 2016.
[2] Updated Hydrogeological Assessment Report. Residential Development – 5262 – 5318 Main Street, Parts 2, 3, 4 and 5, Lot 1, Concession 8, Whitchurch-Stouffville, Ontario. Report prepared for 2440332 Ontario Inc. Dated June 19, 2019.

2. Background and Existing Conditions

2.1 Site Location and Description

The Site is located within the Town of Whitchurch-Stouffville including the municipal addresses of 5262, 5270, 5286 and 5318 Main Street and 12371 Highway 48. The Site fronts onto Highway 48, Fockler Lane and Main Street and historically has been used for residential and commercial purposes. The Site is generally undeveloped and consists of grassed / treed lands. Several small structures exist at the Site including a one-storey storage building with fenced parking area near Fockler Lane; three (3) residential dwellings along Main Street with two (2) detached garages; and a residential dwelling and Client sales office fronting on Highway 48. Dickson Hill Creek flows from north to south through the Site to the Little Rouge River. Larger trees and vegetation line the creek. A seasonal drainage swale was observed on the western edge of the vacant field area.

Generally, this area of Stouffville is municipally serviced; however, there are several homes along Fockler Lane that appear to still utilize private wells and septic. It is inferred by GHD that these potable wells are upgradient of the Site. The surrounding features were observed to be highway commercial lands, low density residential and undeveloped lands.

2.2 Topography and Drainage

The topography can be generally described as gently sloping towards Lake Ontario. The topography is illustrated on **Figure 3**.

2.3 Physiography

The Site is located on the border of the physiographic regions known as the Oak Ridges Moraine and the South Slope[3]. The South Slope, which is located between the Oak Ridges Moraine and Lake Ontario, contains a variety of different soils. This area of the South Slope contains clayey tills with moderate slopes of limited relief. Bedrock consists of predominantly black and grey shales. The Oak Ridges Moraine, just north of the Site, is generally hilly with a knob and-basin relief typical of an end moraine. Overburden consists of a calcareous sandy till, with some deposits of gravel. The local physiographic region of the Site is known as a Till Plains and is shown on the figure entitled **Physiography, Figure 4**.

2.4 Geology and Soils

Geological Survey information indicates that the surficial geology for the area is glaciolacustrine derived silty to clayey till and quaternary geology for the area is Halton Till, predominately silt to silty clay matrix (high in matrix carbonate content and clast poor). The surficial geology is presented on **Figure 5** and quaternary geology is presented on **Figure 6**. Bedrock in the area is expected to be comprised of limestone. The bedrock geology is presented on **Figure 7.**

2.5 Description of Surface Water Features

Dickson Hill Creek, a tributary of Little Rouge River, was identified running north to south through the Site. The tributary is within an environmentally protected area that will remain undeveloped.

[3] Chapman and Putnam, 1984. The Physiography of Southern Ontario, 3rd Edition. Ministry of Natural Resources.

2.6 Source Water Protection

Where proposed developments are being planned, it is important to assess the Site for areas that are protected under the Clean Water Act (2006). These include the presence of Significant Groundwater Recharge Areas (SGRAs), Highly Vulnerable Aquifers (HVAs) and Wellhead Protection Areas (WHPAs). These features are considered by reviewing the "Source Protection Information Atlas" (SPIA) that is currently available through the MECP website. The published information is dated current as of January 30, 2026. The Site falls within the Lakes Simcoe and Couchiching / Black River Source Protection Area.

In general, SGRAs are defined as areas where water seeps into an aquifer from rain and melting snow, supplying water to the underlying aquifer. A HVA aquifer occurs where the subsurface material offers limited protection from contamination resulting from surface activities. A WHPA is defined as the surface and subsurface area surrounding a water well or well field that supplies a municipal residential system through which contaminants are reasonably likely to move so as to eventually reach the water well. WHPA-A is a 100 m radius around the wellhead. WHPA-B is an area where water and any pollution that may be present can reach the well within 2 years. WHPA-C is an area where water and any pollution that may be present can reach the well within 2 to 5 years. WHPA-D is an area where water and any pollution that may be present can reach the well within 5 to 25 years. WHPA-E is an area where the groundwater is under the direct influence of surface water, meaning that there may be direct pathways from the ground surface to the well, making the drinking water source vulnerable to contamination from the ground surface.

Based on the information reviewed from the SPIA, the Site is within a SGRA; however, is not within a HVA or WHPA as presented on **Figure 8**.

2.6.1 Significant Groundwater Recharge Area

Groundwater recharge is largely controlled by soil conditions and typically occurs in upland areas or porous soils such as sand or gravel that allows water to seep into the ground and flow to an aquifer. A recharge area is considered significant when it helps maintain the water level in an aquifer that supplies a community with drinking water. These areas represent potential recharge zones for the watershed's aquifers.

As defined in the Clean Water Act (2006), an area is a significant groundwater recharge area if,

- the area annually recharges water to the underlying aquifer at a rate that is greater than the rate of recharge across the whole of the related groundwater recharge area by a factor of 1.15 or more; or,
- the area annually recharges a volume of water to the underlying aquifer that is 55% or more of the volume determined by subtracting the annual evapotranspiration for the whole of the related groundwater recharge area from the annual precipitation for the whole of the related groundwater recharge area.

The Site lies within a moderate area of significant groundwater recharge scoring a value of 4. Therefore, the level of groundwater recharge in the area of the Site should be maintained post-development of the Site. This is most commonly implemented through the utilization of low impact development strategies known as LIDs.

2.6.2 Highly Vulnerable Aquifers

The Site is not within an area defined as a highly vulnerable aquifer; however, the development should consider the reduction of potential infiltration of contaminants to the shallow subsurface using best management practices. Clean storm water from rooftops would not be a concern for infiltration; however, runoff from other sources should be evaluated and may require pre-treatment. For example, runoff from asphalt should consider the use of an oil-grit separator or the reduction of the use of deicing salts.

2.6.3 Other Source Water Protection Considerations

The Site does not lie within a wellhead protection area which is defined as the surface and subsurface area surrounding a water well or well field that supplies a municipal residential system through which contaminants are reasonably likely to move so as to eventually reach the water well.

The Site does lie within a wellhead protection area Q1 and Q2. Protection area Q1 refers to an area where activities that take water without returning it to the same source may be a threat. For example, if there is dewatering of an aquifer without returning water to that aquifer. Protection area Q2 refers to an area where activities that reduce recharge may be a threat. For example, the increase of impervious surfaces may reduce infiltration that recharges the groundwater regime.

However, this Site is also south of the WHPA-Q Downgradient line. Developments south of the WHPA-Q Downgradient line where recharge reduction does not impair municipal water supply wells are only required to implement best management practices to the greatest extent that is feasible and practical. It is our opinion that a reduction in the recharge of water at the Site will not impact the municipal wells.

2.7 Previous Assessments Overview

The previous field program consisted of a site inspection, a soils exploration investigation, measurement of water levels, and in-situ hydraulic conductivity testing. The hydrogeological subsurface exploration program consisted of fourteen (14) boreholes drilled to depths of 3.5 m to 15.7 m by Strong Soil Search using a track-mounted drill rig as part of the original scope in 2014. An additional five (5) boreholes ranging in depth from 6.7 m to 15.8 m, each installed with a monitoring well, were advanced as part of the additional subsurface investigation program in 2019. The boreholes advanced for this program are illustrated on the **Test Hole Plan, Figure 2**. The borehole logs from 2014 and 2019 and soil classification results are provided in **Appendix A**. Photographs of the Site are provided in **Appendix B**.

3. Methodology

The purpose of this report was to update the previous hydrogeologic reports with the prevailing conditions at the Site. GHD completed the following tasks to accomplish the foregoing purpose:

1. Updated the inventory of available well record data on file with the Ministry of the Environment, Conservation and Parks (MECP) for the immediate area to evaluate the physical characteristics of the aquifer complexes that underlie the region.
2. Prepared and implemented a Job Safety and Environmental Analysis (JSEA) for the field activities.
3. Advanced test pits at six (6) locations across the Site.
4. Conducted hydrometers testing on two (2) representative soil samples obtained during the test pitting activities.
5. Collected and updated water level measurements from the existing monitoring wells.
6. The water balance was updated to evaluate groundwater baseflow conditions. The water balance calculations are completed to consider pre- and proposed post-development conditions to provide infiltration targets based upon the updated concept plan provided.
7. Prepared this hydrogeological assessment update providing updated information based upon factual data, analysis and recommendations.

GHD also commenced long-term groundwater monitoring to evaluate seasonal fluctuations of the shallow groundwater regime and establish a high groundwater level; however, the program is to continue until May 2027 when one (1) year of data collection will be complete.

3.1 Update of Well Records and Well Survey

The well records from previous assessments were reviewed and updated. The updated well records and mapping is provided in **Appendix C.** A summary of the well records data is provided in **Table 1** of this report.

Based on the review of the MECP well records, there appear to be domestic water supply wells located within 500 m of the Site; however, the Site itself will be serviced using municipal water and sanitary services.

3.2 Health and Safety

For projects that incorporate field activities, GHD conducts Health and Safety planning. For this project, a site-specific Job Safety and Environmental Analysis (JSEA) was prepared and implemented during the field activities. The JSEA presents the visually observed Site conditions to identify potential physical hazards to field personnel. Required personal protective equipment was also listed in the JSEA.

3.3 Test Pit Advancement

The scope of work consisted of advancing six (6) test pits to depths ranging from 3.1 to 4.3 m on May 14, 2026, by an excavation contractor retained directly by the Client. The locations are shown on **Figure 2**. The logs of the test pits are presented in **Appendix A.** Groundwater observations were made within the test pits as the excavations were advanced.

3.4 Physical Laboratory Testing

The physical laboratory testing was completed in accordance with ASTM standards. A GHD technical representative logged and examined the soil samples encountered in the test pits. The detailed results of the examination are recorded on the test pit logs.

Soil samples retrieved during the test pitting were submitted for physical testing including moisture content on each recovered sample. Grain size analyses, consisting of hydrometer testing, were carried out on two (2) selected samples collected from the test pits. The results of the moisture content and grain size distribution analysis are recorded at their corresponding depths on the individual logs. The laboratory grain size distribution analyses are summarized in **Tables 4 and 5** and the data is graphically provided in **Appendix A**.

3.5 Groundwater Level Monitoring

Manual groundwater levels were collected using a Solinst water level meter. Groundwater levels have been measured periodically at the Site between December 9, 2014, and May 21, 2026. The water levels from the monitoring wells are summarized in **Table 6**.

3.6 Updated Water Balance

To understand the pre- and post-infiltration components, a water budget analysis was undertaken for the Site to evaluate the amount of water surplus generated for the existing and proposed Site conditions and assess the potential impacts that may occur in the recharge / discharge characteristics related to the proposed development.

The post-development water balance is based on the updated concept plan[4], dated November 12, 2025, that consists of 171 townhouse units, a stormwater management block, roads, parking areas, open space, a future commercial area, and an Environmental Protection area.

[4] RN Design. Stouffville Main Street, City Park Homes, Concept Project Number: 25065, dated 12-NOV-25.

Groundwater flow is generally toward Dickson Hill Creek with localized flow contributing to the tributary system that drains to the Little Rouge River. Groundwater infiltration should be maintained, if possible, in support of these features and downgradient receptors including Rouge River and potential well users.

The objective of the water balance is to illustrate that post-development infiltration within the developable area can meet or be close to pre-development values. The computations have used detailed parameters such as precipitation (Toronto Buttonville A composite weather station using data from 1991 to 2020 was used), regional evapotranspiration, infiltration and runoff. Weather data from Toronto Buttonville A (composite station metadata 6158409, 6158410, and 615HMAK) was selected as it was the closest weather station to the Site (~13.5 km away). The detailed calculations are provided in **Appendix F**.

4. Desktop and Field Investigation Results

The following sub-sections provide a detailed description of the updated desktop information that was reviewed and data collected from the field investigation / activities completed.

4.1 Existing Local Water Supplies

Information regarding groundwater characteristics of the immediate area was obtained from an inventory of well records and completion of a well survey of the local area. The results of the inventory and well survey are discussed below.

4.1.1 Updated MECP Well Records Review

A total of eighty-nine (89) well records were noted within 500 m of the Site. The information includes fifteen (15) abandonment records, nineteen (19) monitoring wells, one (1) construction dewatering well, and thirteen (13) unknown wells which provided limited information. These records are not included in the statistical breakdown.

The information from the MECP data indicates that 10% of the water supply well records were dug / bored wells with an average depth of 9.1 m and water was found at 7.3 m on average. Shallow dug / bored wells are generally difficult to seal at the surface and considered to be susceptible to shallow sources of contamination. From a quantity perspective, shallow dug / bored wells are susceptible to large seasonal fluctuations in the groundwater and are more prone to becoming dry in the winter and summer months.

The drilled overburden wells comprised 90% of the water supply well records reviewed and were drilled to an average depth of 23.3 m with water encountered at 19.5 m. The wells yielded an average of nearly 70 L/min. Of the drilled overburden wells, 12 wells or about 32% were indicated to be artesian flowing wells in this area.

No bedrock wells were indicated within 500 m of the Site. The groundwater quality was generally described as “fresh” and consisted of hard water in the well records reviewed.

The well records are also generally consistent with the information gathered during GHD’s field investigation. The well records indicate that the overburden soils are till generally comprised of silt, clay and sand.

The information indicates the presence of two (2) principal aquifer systems:

1. An unconfined shallow water table system tapped by shallow dug / bored wells within sand and gravel below the till; and
2. A deeper aquifer within the overburden below the till tapped by drilled wells.

The well records are summarized in the table below:

Table 1 MECP Well Record Summary within 500 m

Well Use	Well Type/Unit	No. of Wells	Well Depth Min – Max (Avg) (m)	Water Encountered Depth Min – Max (Avg) (m)	Static WL Min – Max (m)	Yield Min – Max (Avg) (L/min)
Water Supply	Overburden – Drilled	37 (90%)	6.1 – 84.4 (23.3)	5.2 – 84.4 (19.5)	0.3 – 33.8 (5.5)	7.6 – 946.3 (68.8)
Water Supply	Dug / Bored	4 (10%)	6.1 – 12.2 (9.1)	4.0 – 11.6 (7.3)	2.4 – 6.1 (4.5)	3.8 – 7.6 (6.6)
Total		**41**				
Abandonment	Drilled /Dug	15	3.6 – 25.9 (8.6)	4.6	2.1 – 3.3 (2.7)	94.6
Monitoring Well	Drilled	19	3.6 – 10.6 (5.9)	1.5 – 4.8 (2.8)	NA	NA
Dewatering Well	Drilled	1	6.1	NA	NA	NA
Unknown	Unknown	13	5.5 – 16.8 (11.2)	16.8	2.6	NA

Notes:
Data based on MECP well record information (see **Appendix C**).
L/min represents litres per minute.

GHD notes that any monitoring wells or water wells on the Site will need to be properly abandoned once they are no longer needed and / or prior to development construction activities by a licensed well drilling contractor in accordance with Regulation 903 of the Ontario Water Resources Act.

4.1.2 Private Well Survey

The area of the Site is generally municipally serviced at this time; however, water wells within the vicinity of the Site may still be in use to the west and along Fockler Lane (about four houses). To supplement the MECP well records reviewed, GHD staff had previously conducted a door-to-door well survey of the private wells along Fockler Lane. Of the four (4) homes surveyed, no information was available as no residents were home during the survey. Other areas to the north, south and east were municipally serviced.

4.1.3 Background Groundwater Quality

The well records reviewed for this assessment generally reported fresh water supplies. No water samples were collected during the well survey; however, a water sample was collected from a dug well that was formerly used by one of the homes on the Site (identified as W-1) and from the monitoring well at BH-07 on December 9, 2014, to evaluate background water quality. The water samples were delivered to SGS Canada Inc. for chemical analyses. The Certificates of Analysis are presented in **Appendix D**. Select parameters of the full data set are summarized and compared with the Ontario Drinking Water Standards (ODWS) in **Table 2**.

Table 2 Water Quality Summary

Parameter	Analytical Data		ODWS	
	W-1	BH-07	MAC	AO/OG
Alkalinity (mg/L as CaCO3)	332	**597**	--	30 to 500
Ammonia + Ammonium (mg/L)	0.02	1.85	--	--
Calcium (mg/L)	125	158	--	--
Chloride (mg/L)	75.8	12.7	--	250
Colour (TCU)	**9**	**8**	--	5
Conductivity (µmho/cm)	900	980	--	--
Fluoride (mg/L)	0.2	0.2	1.5	--
Hardness (mg/L as CaCO3)	**390**	**567**	--	80-100
Iron (mg/L)	**0.316**	**0.306**	--	0.3
Magnesium (mg/L)	19.2	41.6	--	--
Manganese (mg/L)	**0.106**	**1.21**	--	0.05
Nitrate – N (mg/L)	0.4	<0.1	10	--
Nitrite – N (mg/L)	<0.1	<0.1	1.0	--
pH (no units)	7.75	7.55	--	6.5 to 8.5
Sodium (mg/L)	64.1	21.6	--	(20) 200
Sulphate (mg/L)	31	16	--	500
Turbidity (N.T.U.)	**25**	**127**	--	5
Langelier Index	0.735	--	--	--

Notes: All units are parts per million (mg/L) unless otherwise stated; (<) indicates levels that are below the detectable limits. Bolded values exceed their applicable ODWS.

The analyses indicated that the parameters meet the health related ODWS and generally meet the aesthetic objectives or operational guidelines with the exception of hardness, iron, manganese and alkalinity. Colour and turbidity were also elevated due to iron and manganese in the water and limited development prior to sampling. Elevated hardness is an aesthetic parameter related to the local soils and is not considered to be an issue.

4.2 Subsurface Conditions

The following subsections present the information generated from the test holes advanced on the Site and groundwater data including updated water levels.

The stratigraphic boundaries shown on the borehole records are inferred from non-continuous sampling, observations of drilling process and the results of the SPTs. These boundaries, therefore, represent transitions between soil types rather than exact planes of geological change. Furthermore, subsurface conditions will vary between and beyond the test hole locations.

In summary, the surface conditions encountered at the test hole locations generally consist of surficial topsoil over non-cohesive fill material extending to depths of approximately 1.8 to 3.5 mbgs. A layer of buried topsoil was also encountered beneath the fill material in several borehole locations. The fill and organic layers were underlain by sandy silt to sandy silty clay till, which extended to the termination depths of the test holes.

Detailed descriptions of subsurface conditions are provided in the following sections of this report. The subsurface conditions are described in accordance with the Unified Soil Classification System and the Canadian Foundation Engineering Manual, (CFEM 2023).

4.2.1 Previous Boreholes

The subsurface stratigraphy was investigated between December 2 and 4, 2014 by drilling fourteen (14) boreholes using Strong Soil Search. The drilling depths were 3.5 m to 15.7 m.

Further investigation was completed between April 22 and 24, 2019 by drilling an additional five (5) boreholes. Drilling activities were completed by Landshark Drilling using a track mounted drill rig. Boreholes were advanced to depths ranging from 6.7 m to 15.8 m. The boreholes targeted potential building areas. Borehole BH-18 was located within the proposed stormwater management block. The locations of the test holes are illustrated on the **Test Hole Plan, Figure 2**. Details of the subsurface conditions encountered are presented graphically in **Appendix A**.

A layer of surficial topsoil was encountered in boreholes BH-01 to BH-12 and MW-15 to MW-18. A buried topsoil layer was also encountered immediately below the fill layer in boreholes BH-01 to BH-04, BH-06 to BH-08, BH-11, BH-12 and MW-18. Surficial topsoil layers ranged in thickness from 25 to 600 mm and the buried topsoil ranged in thickness from 100 to 600 mm. The topsoil was observed to be in a damp, loose state with a silty, highly organic content. As such, it is expected to be devoid of any structural engineering properties.

A layer of fill was observed at the surface in boreholes BH-13, BH-14 and MW-19 and immediately beneath the topsoil layer in the remaining boreholes with the exception of borehole BH-09, where fill was not observed. The fill generally consisted of sand / silty sand with varying amounts of gravel and silt, was light brown to grey in colour, and was found to extend to depths ranging between 1.8 and 3.5 mbgs. Samples of the fill material were visually described to be in a generally moist to wet condition. Typically, the fill was wet at the interface of fill and underlying till layer. SPT N values obtained from within the fill material ranged from 0 to 53 blows / 300 mm, with several spoons encountering refusal on boulders, indicating a very loose to very dense state of compactness.

The till layer was encountered in all of the boreholes. The till was first encountered at depths ranging from 0.6 to 3.8 m and extended to the full depth of the investigation. The till generally appeared light brown to grey in colour and typically consisted of silty sand or sandy silt with varying amounts of clay and gravel and contained occasional cobbles and boulders. Samples of the till material were visually described to be in a moist to wet condition. Based upon observations of seepage and groundwater within the till, there are inferred to be sand and silt seams / layers within the till layer. SPT N values obtained from within the till material ranged from 5 to 92 blows / 300 mm, with several spoons encountering refusal, indicating a loose to very dense state of compactness.

Representative samples of the material encountered were submitted to the soils laboratory for analysis and characterization. Grain size distribution tests were conducted on the following samples.

Table 3 Grain Size Distribution Summary – Boreholes

Location	Depth (m)	Grain Size Distribution			Observed Soil Unit
		%Gravel	%Sand	%Fines	
BH-02 / SS5	3.1 – 3.5	20	42	38	Gravelly Silty Sand Till
BH-06 / SS5	3.1 – 3.5	8	33	59	Clayey Sand Stil Till
BH-06 / SS8	7.6 – 8.1	0	6	94	Silt layer (within the till)
BH-07 / SS1	0 – 0.6	8	47	45	Silty Sand Fill
BH-10 / SS13	15.2 – 15.7	2	39	59	Sandy Silt Till
BH-11 / SS3	1.5 – 2.0	4	43	53	Sandy Silt Fill
BH-13 / SS-10	12.2 – 12.7	9	41	50	Silty Sand Till

Location	Depth (m)	Grain Size Distribution			Observed Soil Unit
		%Gravel	%Sand	%Fines	
MW-16 / SS3	2.3 – 2.9	8	31	61	Clayey Sandy Silt Till
MW-16 / SS6	4.6 – 5.2	13	23	64	Clayey Sandy Silt Till
MW-16 / SS8	7.6 – 8.2	4	27	69	Sandy Silt Till
MW-16 / SS12	13.7 – 14.3	7	17	76	Silt layer (within the till)
MW-18 / SS5	3.1 – 3.7	6	29	65	Clayey Sandy Silt Till
Notes: %Fines indicates silt and clay particles.					

Based on the grain size distribution summary, the underlying soils are predominantly comprised of fine-grained materials (i.e. sandy silt till).

4.2.1.1 Monitoring Wells

Monitoring wells were installed at ten (10) borehole locations in order to facilitate monitoring of groundwater levels. The monitoring wells were constructed with the screens positioned to intersect water where seepage generally occurred. The monitoring well details are provided on the borehole logs and consisted of 1.5 m long screens with the sand pack extended above the screens. The well annulus of each monitoring well was sealed with hole plug to the surface to prevent the downward migration of surface water.

4.2.2 Test Pits

Test pits were advanced to supplement the boreholes and assess shallow subsurface conditions including the presence of groundwater seepage. The investigation was also completed to confirm conditions observed during previous drilling and to verify the presence of buried topsoil beneath the fill material. A total of six (6) test pits were excavated on May 14, 2026, in the locations shown on **Figure 2**.

A summary of the grain size analyses (hydrometers) conducted on two (2) representative samples from the test pits is presented in the following table:

Table 4 Grain Size Distribution Summary – Test Pits

Location	Depth (m)	Grain Size Distribution				Observed Soil Unit
		%Gravel	%Sand	%Silt	%Clay-sized	
TP1-26, GS-2	3.0 – 3.2	8	25	46	21	Sandy Silty Clay
TP4-26, GS-1	0.6 – 0.8	4	50	36	10	Silty Sand
Notes: Soil description based on Unified Soil Classification System (ASTM D 2487) Clay-sized indicates soil particles <2 µm						

An Atterberg test was performed on the cohesive till deposit. The result of this test is provided in **Appendix B** and graphically represented on the borehole record in **Appendix A**. The results are summarized in **Table 5** below:

Table 5 Atterberg Limits Results – Cohesive Silty Clay Deposit

Sample Identification	Depth (mbgs)	Atterberg Results (%)			Natural Moisture Content (%)	USCS Classification
		Liquid Limit	Plastic Limit	Plasticity Index		
TP1-26, GS2	3.0 – 3.2	20	14	6	14.6	Sandy Silty Clay (CL-ML)

The soils encountered during the test pit program were consistent with the soil conditions previously encountered, as documented in Section 4.2.1. The investigation encountered a surficial topsoil layer approximately 200 to 280 mm thick, underlain by fill materials generally consisting of sandy silt or silty sand with trace clay and gravel, described as moist.

Buried organic (topsoil) layers were encountered below the fill in test pits TP1-26, TP2-26, TP3-26 and TP5-26. These layers ranged in thickness from approximately 150 to 460 mm and were typically observed at depths between approximately 1.8 m and 2.3 m below ground surface. At some locations, brick fragments, concrete debris and a tarp were also observed within the fill (e.g., TP3-26 and TP6-26).

The fill materials were underlain by native sandy silty clay till with trace gravel, described as moist to wet. Groundwater seepage was observed in all test pits, occurring at depths ranging from approximately 1.2 m to 3.1 m below ground surface (mbgs). Seepage was generally encountered just below the topsoil or within the upper portion of the till, with the exception of TP5-26 where the groundwater seepage was observed within the fill material. The shallow water suggests there are localized perched groundwater conditions where the surface water infiltrates through the fill and sits at the interface of the topsoil and glacial till. This scenario suggests that the groundwater is seasonal and not a permanent groundwater table. Shallow groundwater seepage, from depths of 0.9 m to 1.2 mbgs, was encountered in the western portion of the Site near the BH-03 and BH-05 borehole locations resulting in saturated and unstable excavation conditions. The swale observed along the western property boundary in this area was partially blocked by refuse, which may have contributed to an accumulation of shallow groundwater due to the localized poor drainage conditions. These saturated and unstable conditions were not observed at the other test pit locations.

4.2.3 Groundwater Data

4.2.3.1 Groundwater Levels

During the original drilling in 2014, five (5) of the open boreholes encountered groundwater seepage at depths ranging from about 0.6 m to 9.1 m. This seepage was generally observed to be the result of a perched zone at the fill and till interface or within the shallow till with deeper seepage noted at BH-07 (4.6 m) and BH-12 (9.1 m). The remaining nine (9) boreholes stayed dry throughout the drilling operations.

During the 2019 drilling program, groundwater seepage was encountered in each of the five (5) boreholes at or near the fill and till interface, with additional seepage observed at greater depths. The deeper groundwater seepage was observed at monitoring well MW-15 at 7.6 m; at MW-16 at 7.6 m and 12.5 m; at MW-17 at 9.1 m; at MW-18 at 3.4 m; and at MW-19 at 6.1 m. The groundwater seepage at MW-17 was recorded to be more intense than at the other locations.

During the 2026 test pit program, groundwater seepage was encountered at each test pit location between 1.2 to 3.1 m.

Monitoring wells were installed in ten (10) boreholes (BH-01, BH-02, BH-07, BH-09 and BH-12 in 2014 and MW-15 though MW-19 in 2019) to facilitate groundwater monitoring. Monitoring well, borehole and test pit information is summarized in **Table 6** and on the individual test hole logs.

Table 6 Summary of Test Hole Information

Location	Depth of Test Hole (m)	Pipe Stick Up (m)	Effective Well Screen Interval (m)	Water Seepage Depth (mbgs)
BH-01	4.3	0.89	2.3 – 4.3	~ 2.0, 2.3 and 2.7
BH-02	4.3	0.86	2.0 – 3.8	~2.3 and 2.7
BH-07	6.6	1.12	2.4 – 6.1	~ 2.3 and 4.6
BH-09	3.5	1.08	1.2 – 3.1	~ 0.6, 2.3 and 3.2
BH-12	9.6	0.86	2.4 – 4.6	~ 1.75, 3.1 and 9.1
MW-15	9.8	0.78	4.6 – 8.7	~2.3 and 7.6
MW-16	15.8	0.79	7.6 – 15.2	~ 1.8. 7.6 and 12.5
MW-17	15.8	0.91	7.6 – 15.2	~ 2.3 and 9.1
MW-18	6.7	1.00	3.0 – 6.7	~ 2.3 and 3.4
MW-19	9.8	1.07	5.5 – 9.1	~ 1.2, 3.0 and 6.1
TP1-26	3.5	-	-	~3.1
TP2-26	3.4	-	-	~3.1
TP3-26	3.2	-	-	~3.1
TP4-26	4.3	-	-	~2.3
TP5-26	3.1	-	-	~1.8
TP6-26	3.4	-	-	~1.2

Notes: m = metres; mbgs = metres below ground surface
Effective well screen includes 10-slot screen and sand pack.
Water seepage depth is the estimated depth(s) where water or wet soils were encountered during the drilling activities.

It is anticipated by GHD that the shallow seepage at or near the fill and till interface is perched and indicative of a seasonal, surface water influenced, non-permanent water table. Generally, the shallow water seepage was slow.

Deeper groundwater seepage encountered within the till and at depths between 7.6 m and 12.5 m is interpreted to be representative of a permanent groundwater source. Water is transmitted within higher permeability seams of the till unit including sand and silt seams. Groundwater seepage observations from the test pit investigation are consistent with these findings and indicate variable shallow groundwater conditions across the Site.

As previously noted, significant groundwater seepage was encountered within MW-17 at 9.1 m. During the monitoring well installation, the construction of the well was very difficult due to the subsurface groundwater conditions at this borehole location. None of the other locations experienced these difficult subsurface conditions during the drilling process.

Groundwater levels have been measured periodically at the Site between December 9, 2014, and May 21, 2026. Monitoring wells MW-15 through MW-19 were installed between April 22 and April 24, 2019; therefore, groundwater level data for these wells are not available prior to this period. MW-19 was inaccessible during the May 21, 2026, monitoring event, and a water level measurement was not obtained for this well on that date. A summary of representative groundwater level measurements from March 20, 2019, to May 21, 2026, is provided in **Table 7**. Groundwater level data collected prior to 2019 are presented in previous versions of the hydrogeological assessment.

It should be noted that shallow groundwater levels are transient and tend to fluctuate seasonally and during periods of precipitation. Continuous monitoring of water levels is currently being conducted using data loggers at monitoring wells on site. The data from these loggers will be provided in an addendum at a later date.

Table 7 Groundwater Levels and Elevations

Location	Ground Elevation (m)*	Water Levels									
		March 20, 2019		April 24, 2019		June 12, 2019		Sept 19, 2019		May 21, 2026	
		WL (mbgs)	Elev (m)	WL (mbgs)	Elev (m)	WL (mbgs)	Elev (m)	WL (mbgs)	Elev (m)	WL (mbgs)	Elev (m)
BH-01	256.5	1.75	254.8	--	--	1.13	255.4	1.85	254.7	1.45	255.1
BH-02	257.3	1.82	255.5	--	--	1.33	256.0	2.18	255.1	1.50	255.8
BH-07	257.2	2.31	254.9	--	--	1.67	255.5	2.72	254.5	1.98	255.2
BH-09	255.5	0.43	255.1	--	--	0.28	255.2	2.60	252.9	0.81	254.7
BH-12	258.1	1.93	256.2	--	--	0.64	257.5	2.60	255.5	1.32	256.8
MW-15	259.7	--	--	1.52	258.2	1.29	258.4	--	--	1.84	257.9
MW-16	259.1	--	--	0.45	258.7	0.80	258.3	1.27	257.8	0.81	258.3
MW-17	257.9	--	--	1.75	256.2	0.51	257.4	1.05	256.9	0.75	257.2
MW-18	257.3	--	--	1.39	255.9	1.57	255.7	2.69	254.6	1.99	255.3
MW-19	256.6	--	--	2.66	253.9	0.62	256.0	--	--	--	--

Notes:

mbgs = metres below ground surface; WL denotes "water level"; Elev means "groundwater elevation"; '--' = water level not obtained

*Elevations interpolated from contours on previous concept plan. The elevations provided are for the purposes of evaluating groundwater elevation and flow direction and should not be relied upon as a legal survey or topographic elevation survey.

There are two (2) locations at the Site where shallow and deep monitoring wells are in close proximity. At BH-12 and MW-16, the potentiometric levels between shallow and deep wells show an upwards vertical gradient. Similarly, at BH-02 and MW-17, the potentiometric levels between shallow and deep wells also show an upwards vertical gradient.

Based upon the water level data collected, the horizontal groundwater flow direction is towards Dickson Hill Creek. It is expected that the flow of groundwater east of the creek conforms to local topography and is also toward the creek. Groundwater flow direction is illustrated on the Groundwater Contour Maps, **Figures 9A** and **9B**. **Figure 9A** shows the groundwater flow of the deeper monitoring wells and **Figure 9B** illustrates the groundwater flow of the shallow perched water.

It should be noted that the water levels presented in this report represent potentiometric surface elevations and do not indicate that there is a permanent water table as shallow as the water levels indicated in **Table 7** or at other areas of the Site where seepage was observed. A water table can be visualized as a "surface" where the subsurface is permanently saturated with water (i.e. an aquifer) and is not confined below a lower permeable unit. Typically, unconfined water tables are comprised of sand and gravel and relatively shallow (i.e. near ground surface) and are not typically found within till.

It is GHD's opinion that there is not a permanently saturated, shallow aquifer at the Site and groundwater for domestic purposes is found at depth below the till. Shallow groundwater at the Site at or near the fill and till interface is perched and should yield relatively limited quantities.

Deeper boreholes encountered permanent groundwater from sand and silt seams within the till. Generally, the groundwater yield from these seams within a till would be expected to be limited. Monitoring well MW-17 experienced a more significant groundwater seepage at 9.1 m then any of the other drilling locations. Potentiometric water levels from the deeper monitoring wells at MW-16, MW-17 and MW-19 range from 0.5 to 0.8 m below grade suggesting minor artesian pressure. The source of the water appears to be between 7.6 m and 12.5 m at these locations.

4.2.3.2 Groundwater Discharge

To evaluate the saturated zone, hydraulic conductivity (K) testing was completed by conducting single well response tests (i.e. slug tests). The testing was completed at BH-01 and BH-12 on December 9, 2014; MW-15, MW-16 and MW-18 on April 24, 2019; and MW-17 and MW-19 on June 12, 2019. The testing consisted of rising and falling head testing and was completed using a one-metre long slug. The water levels were measured using data loggers programmed at two (2) second intervals. The data was analyzed using AQTESOLV and the Bouwer-Rice solution for each rising and falling head test (**Appendix E**).

The K values for the hydraulic conductivity testing conducted at the shallow monitoring wells constructed at BH-01 and BH-12 are on the order of 10^{-6} m/sec. The K values from the slug test data for these monitoring wells indicate that the wells are screened in relatively low hydraulic conductivity units. These boreholes are screened within fill, sand and till materials.

The K values for the hydraulic conductivity testing conducted at the deeper wells MW-15, 16, 17 and 19 are on the order of 10^{-6} to 10^{-9} m/sec. These wells are also screened within a relatively low hydraulic conductivity unit (i.e. till). The K values are consistent with documented values (e.g., Freeze and Cherry, 1979) for till material. Based upon these K values, minimal groundwater yield would be expected from the zones screened by these monitoring wells. Monitoring well MW-17 was noted to have more intense groundwater seepage at about 9.1 mbgs. This seepage zone is above the well screen at MW-17. The K values at MW-17 reflect the less permeable material at the well screen and not the water transmitting layer at about 9.1 mbgs.

The K value for the hydraulic conductivity testing completed on MW-18 was on the order of 10^{-5} m/sec. Although the monitoring well was indicated to be screened within the till, the higher K value suggests there may be more permeable layers found at this location such as a sand seam which would allow water to flow readily and produce more water.

4.2.4 Updated Water Balance Results

Based upon the updated concept plan provided to GHD, the following sections provide the results of the pre-development and post-development calculations for the proposed development.

4.2.4.1 Pre-Development Water Balance

The pre-development water balance incorporated the existing soils, slope and ground cover areas. The infiltration factor for the area was calculated from the table of values presented in the “Land Development Guidelines” (MOEE, 1995). It is based on three sub-factors which are:

– Topography sub-factor;
– Soil sub-factor; and
– Cover sub-factor.

This Site will be evaluated as one (1) watershed within the area considered for the water balance. The area to the east of the creek will be included in the water balance calculations; however, will remain as an environmental protection area and will not change from pre-development to post-development.

The slope for the Site is considered to range from flat to hilly for various areas of the Site. The subsurface soils are generally comprised sandy silt till. Typical groundwater recharge rates are expected to be on the order of 125 to 150 mm per year. The existing vegetation was primarily long grasses and shrubs, some wooded areas and the tributary. There were also existing rooftops of several dwellings and existing gravel driveways / parking lot. The pervious areas represent about 98% of the pre-development Site. The following table summarizes the expected pre-development water balance values for the Site.

Table 8 Pre-Development Summary

Description	Value
Total Precipitation (Udora):	862.5 mm/year
Regional Evapotranspiration:	610.8 mm/year
Recharge Available:	251.7 mm/year
Site Area:	71,370 m^2
Pervious Areas	69,745 m^2 (97.7%)
Impervious Areas	1,625 m^2 (2.3%)
Total Water Surplus -Percent of Precipitation – 32.7%	20.098 m^3/yr
Evapotranspiration -Percent of Precipitation – 67.3%	41,458 m^3/yr
Total Estimated Infiltration -Percent of Precipitation – 15.8%	9,708 m^3/yr
Total Estimated Runoff -Percent of Precipitation – 16.9%	10,390 m^3/yr

Based upon these values, the Site infiltrates on the order of 9,708 m^3 per year (~136 mm/year).

4.2.4.2 Post-Development Water Balance (No Enhancements)

The computation of the water budget was repeated for the proposed development assuming no mitigation techniques, that is, runoff from impervious surfaces is unrecoverable and not infiltrated into the ground. The anticipated impact of the development is related to increased runoff from imperious surfaces such as building rooftops and asphalt surfaces and decrease in infiltration. These are assumed to be impervious surfaces with zero infiltration capacity in this model.

Several assumptions were made to develop the post-development water balance. These assumptions include:

– Asphalt has 0% infiltration capacity
– Evaporation from impervious surfaces assumed to be 20% of precipitation
– Future commercial area
  - Assumed rooftops cover 35% of the commercial area
  - Assumed asphalt covers 55% of the commercial area
  - Assumed lawns cover 10% of the commercial area
– Stormwater Management area was assumed to be 50% pond and 50% lawn

A summary of the computations is provided in **Table 9**.

Table 9 Post-Development Summary (No Enhancements)

Description / Parameter	Value
Site Area	71,370 m^2
Pervious Areas -Lawn / Grass -Open Space / EP	39,861 m^2 (55.9% of the Site area) -10,061 m^2 -29,80 m^2
Impervious Areas -Rooftops -Asphalt roadways and driveways	31,509 m^2 (44.1% of the Site area) -13,593 m^2 -16,667 m^2

Description / Parameter	Value
-Stormwater pond	-1,250 m^2
Total Water Surplus -Percent of Precipitation – 51.6%	31,775 m^3/yr
Evapotranspiration -Percent of Precipitation – 48.4%	29,781 m^3/yr
Total Estimated Infiltration -Percent of Precipitation – 8.4% Infiltration % Difference (pre- vs post-)	5,172 m^3/yr (-47%) (decrease)
Total Estimated Runoff -Percent of Precipitation – 43.2% Runoff % Difference (pre- vs post-)	26,603 m^3/yr (156%) (increase)

Under this scenario, impervious surfaces increased by about 42%; the total infiltration volume decreased by about 47% and runoff volume increased by over 150%. Based upon this scenario, mitigative strategies are required to minimize infiltration losses and reduce storm water runoff. The following section discusses the water balance after considering enhanced infiltration options (i.e. LIDs).

4.2.4.3 Post Development Water Balance (Enhanced Infiltration)

The post-construction water budget computations were repeated considering enhanced infiltration options which are also known as LID technologies. This water balance provides generic infiltration and runoff values that was completed solely for demonstration purposes to illustrate that pre-development conditions can be maintained. Specific LID design criteria and selection of actual LID technologies will be the responsibility of the stormwater engineer for the development. These technologies include and are not restricted to rainwater harvesting, downspout disconnection, soakaway pits, infiltration trenches, vegetated filter strips, bioretention, permeable pavement, enhanced grass swales, dry swales and perforated pipe systems in order to balance the water budget and maintain the downgradient features.

The post-development water balance was modelled to show that stormwater from building roof tops can be directed via downspouts (disconnected from storm sewers in this example) to sodded areas or undeveloped areas (open spaces, parks etc.) for infiltration. Downspout disconnection and infiltration chambers can reduce runoff by 25% to 50% and 85%, respectively, as outlined within LID documentation developed by the Credit Valley Conservation and Toronto and Region Conservation Authority.

In our model, GHD assumed the following LIDs:

– Rooftop runoff for the townhouse lots was directed to sodded areas / lawn via downspout disconnection assuming an infiltration factor of 37.5%
– Rooftop runoff for the future commercial lot was directed to an infiltration chamber assuming an infiltration factor of 85%

Stormwater runoff from driveways is assumed to be lost and not infiltrated. For road surfaces, 10% of stormwater runoff is assumed to infiltrate via adjacent side margins. As noted above, this is a generic water balance to illustrate that there is sufficient surplus water to be infiltrated to match pre-development values; the actual LIDs selected will be at the discretion of the stormwater design team.

A summary of the post-construction water budget with mitigation measures for infiltration is presented in the following table:

Table 10 Post-Development Summary with Enhanced Infiltration – Downspout Disconnection and Infiltration Chamber

Description / Parameter	Value
Site Area	71,370 m^2
Rooftop Stormwater Surplus Available Residential Townhouse rooftops Commercial rooftop	9,379 m^3/yr 8,154 m^3/yr 1,224 m^3/yr
Infiltration via Pervious Surfaces (grass, EP etc.)	5,710 m^3/yr
Downspout Disconnection Infiltration	3,058 m^3/yr
Infiltration Chamber	1,041 m^3/yr
Total Estimated Infiltration using LIDs -Percent of Precipitation – 15.9% Infiltration % Difference (pre- vs post-)	9,808 m^3/yr (1%) (increase)
Total Estimated Runoff -Percent of Precipitation – 35.7% Runoff % Difference (pre- vs post-)	21,967 m^3/yr (111%) (increase)

Based upon the data modelled, the overall infiltration values are shown to slightly exceed the pre-development values. The calculations illustrate that there is sufficient stormwater available that, if it can be infiltrated, will meet the pre-development values.

As per LID documentation, LIDs should be constructed providing a one (1) m separation from groundwater. It is the opinion of GHD that there is not a permanently saturated, shallow aquifer at the Site as the shallow water is perched at or near the fill and till interface. If shallow, permanent groundwater is encountered, the separation distance of 1 m should be adhered to if possible, or the LIDs should be designed to account for the shallow groundwater condition such as shallow infiltrating LIDs (dry swales for example). The data loggers will also capture the seasonal fluctuations including water levels during the dryer summer months which has not been documented at this time.

5. Discussion and Recommendations

5.1 Impacts on Groundwater

The following sections discuss potential impacts from a future development on groundwater. The importance of the groundwater base flow is that, depending upon the hydraulic functionality with the Site, it provides discharge to the downgradient tributary and natural heritage features. There are no known actively used water wells in this area.

5.1.1 Potable Wells

Groundwater that supplies domestic wells along Fockler Lane are also not expected to be impacted. Based upon groundwater flow direction resulting from water levels collected at the Site, the wells on Fockler Lane appear to be upgradient of the Site from a groundwater flow perspective and are receiving water from sources upgradient of the Site. Infiltration through the till to recharge deeper aquifers from this Site is expected to be minimal.

In order to help minimize impact and maintain the integrity of the aquifers which contribute to potable wells in the area, when the monitoring wells are no longer required, they should be properly decommissioned in accordance with Ontario Regulation 903.

5.1.2 Environmental Protection Area

The Site consists of Dickson Hill Creek, a tributary of Little Rouge River, flowing through the Site and will be part of an environmentally protected area including the eastern portion of the Site. The groundwater flow direction is towards the tributary indicating a hydraulic connection between the groundwater base flow and the creek.

It is GHD's professional opinion that there is not expected to be a significant impact on the shallow groundwater base flow that may be supplying the tributary due to the development. LIDs should be utilized to direct water and maintain baseflow to the creek. It is further recommended that silt fences be constructed along the creek edge during development stages of the Site to filter surface water runoff.

5.1.3 Groundwater Recharge

Based upon our review of applicable Source Water Protection mapping, the Site lies within a moderate area of significant groundwater recharge. Pre-development groundwater recharge at the Site should be maintained post-development. The implementation of LIDs would minimize any potential impacts to water quantity in this area and maintain pre-development conditions.

The Site does lie within a wellhead protection area Q1 and Q2. To satisfy Q1 requirements, groundwater that is pumped during construction or pumped during a long-term pumping operation to remove groundwater, should be returned to the ground for infiltration if possible. Removal of groundwater should be minimized if possible. For Q2 requirements, LIDs can be used to promote recharge where areas are built up with impervious surfaces.

However, as noted previously, this Site is also south of the WHPA-Q Downgradient line. Developments south of the WHPA-Q Downgradient line where recharge reduction does not impair municipal water supply wells are only required to implement best management practices to the greatest extent that is feasible and practical. It is our opinion that a reduction in the recharge of water at the Site will not impact the municipal wells

5.1.4 Groundwater Quality

Based upon our test hole program, the deeper aquifers of this area are protected by a very dense overlying till unit. The area is not defined as a HVA; however, the development should consider the reduction of potential infiltration of contaminants to the shallow subsurface using best management practices. Clean storm water from rooftops would not be a concern for infiltration; however, runoff from other sources should be evaluated and may require pre-treatment. For example, runoff from asphalt should consider the use of an oil-grit separator or the reduction of the use of deicing salts.

If infiltration of storm water is required from asphalt areas, GHD recommends the use of an oil-grit separator (OGS) that will remove oil and sediment from the discharge before it is released for infiltration or to the Storm water Management facility. An OGS can have a removal efficiency to 80 percent, meeting the MECP 'enhanced' level of protection.

Monitoring wells can be maintained at the Site during the construction work to carry out intermittent sampling and testing of shallow groundwater if desired. Monitoring stations to assess post-development changes to water quality may be considered – however the specific purpose and long-term responsibility for servicing and maintenance of the monitoring stations would need to be established.

5.1.5 Septic Waste Disposal

Septic waste disposal will be municipally serviced. No further assessment is required.

5.2 Mitigation Requirements

Several mitigative techniques have been recommended in order to address concerns relating to the potential for impact to groundwater and surface water. The impact and mitigation measures can be arranged into two (2) distinct categories: construction phase and operational phase. Prior to construction, storm water management techniques should be incorporated to control additional surface water runoff and permit enhanced infiltration into the surrounding ground.

Storm water management techniques will minimize the potential for groundwater impact and also minimize the amount of silt or other fine-grained soil particles becoming mobile and entering into downgradient areas. The installation of strategically placed silt fences will reduce flow velocities of storm water enabling particulate to settle out prior to entering downgradient areas.

If groundwater volumes of greater than 50,000 L/day are to be pumped during construction activities, then a permit applied for through the Environmental Sector and Activity Registry (EASR) would be required from the MECP. It is our opinion that there are not expected to be any significant constraints for the proposed basement construction from a groundwater perspective as any shallow water can be handled at these depths with appropriate engineering techniques. As noted, wet soils and groundwater seepage was observed between about 1.2 m and 12.5 m at some locations with more intense groundwater seepage at 9.1 m at BH-17.

During the operational phase of the development, it is expected that storm water excess will be controlled as per the Storm Water Management report. LIDs will be required to maintain pre-development infiltration values and reduce storm water runoff and will be incorporated into the site plan at the detailed design stage.

5.2.1 Maintenance of Infiltration

During the operational phase of the development, it is expected that storm water excess may be controlled by LIDs as per the Storm Water Management report. LID technologies include and are not restricted to rainwater harvesting, downspout disconnection, infiltration trenches, vegetated filter strips, bioretention, permeable pavement, enhanced grass swales, dry swales and perforated pipe systems. In general, from a quantitative standpoint, incorporating effective at-source infiltration structures into final land development design as part of a storm water management strategy is primarily dependent on (but not limited to) native soil infiltration rates. At the detailed design stage, once LID locations and infiltration depths are known, in-situ testing can be completed to confirm the design of the LIDs.

We recommend that a minimum topsoil depth of 300 mm be applied to pervious areas and reduced lot grading may help to reduce runoff. Runoff from landscaped areas can be reduced and infiltration increased using these LID techniques.

5.2.2 Maintenance of Groundwater Quality

During the construction phase and grading work, suitable sedimentation controls will be required to help control surface water flow. As construction work progresses, regular maintenance and additional sedimentation measures may be required to limit the effect of siltation in localized areas. Vegetative cover should be re-established in disturbed areas following the completion of the construction work to reduce erosion and sediment loading to the adjacent features. The following recommendations are suggested to minimize impacts to groundwater which may provide base flow to downgradient wells:

- Limit the use of salts or other additives for ice and snow control on the access routes and parking areas (if applicable).
- Limit the use of commercial fertilizers in landscaped areas.
- Stormwater collected on the asphalt areas (access roadways) should be directed through an OGS or away from infiltration areas.
- Stormwater from roof-tops and rear-yards can be collected and directed for infiltration to maintain baseflows.

5.2.3 Monitoring Program

A groundwater monitoring program is not considered at this time.

5.2.4 Contingency Plans

A Best Management Practice (BMP) and spill contingency plan (including a spill action response plan) should be in place for any fuel handling, storage and onsite equipment maintenance activities to minimize the risk of contaminant releases as a result of the proposed construction activities or operational phase of the development.

Contingency planning may be required if significant dewatering is required. Based on the test holes advanced, dewatering may be required. If dewatering is required, construction dewatering will temporarily draw down the local groundwater and could temporarily affect shallow water supply wells, if the wells are present within the temporary dewatering zone of influence. It should be anticipated that a temporary depression in the local shallow groundwater table should rebound to normal levels upon completion of temporary dewatering construction. Characterizing a dewatering zone of influence has not been completed as part of the current scope of work. However, this should be determined as part of the EASR application submission (if required) once additional construction details and methodology is known.

6. Conclusions

Supporting data upon which our conclusions and recommendations are based have been presented in the foregoing sections of this report. The following conclusions and recommendations are governed by the physical properties of the subsurface materials that were encountered at the Site and assume that they are representative of the overall Site conditions. It should be noted that these conclusions and recommendations are intended for use by the designers only. Contractors bidding on or undertaking any work at the Site should examine the factual results of the investigation, satisfy themselves as to the adequacy of the information for construction, and make their own interpretation of this factual data as it affects their proposed construction techniques, equipment capabilities, costs, sequencing, and the like. Comments, techniques, or recommendations pertaining to construction should not be construed as instructions to the contractor.

In summary, the proposed development area is generally comprised of a surficial layer of topsoil above a layer of fill material which is underlain by sandy silt or sandy silty clay till. Occasionally there were layers of native sand or sandy silt below the fill material and buried topsoil was also encountered. The findings of the 2026 test pit investigation are generally consistent with the previous borehole data and provide additional information regarding shallow subsurface and groundwater conditions across the Site. Groundwater seepage was encountered during previous drilling activities and during the 2026 test pit investigation. Shallow seepage was observed within the fill and / or near the fill and till interface and is interpreted to represent localized perched groundwater conditions that are likely seasonal and influenced by surface water infiltration and local drainage conditions. During the test pit investigation, groundwater seepage was observed in all test pits at depths ranging from approximately 1.2 m to 3.1 m below ground surface, with more localized shallow seepage observed in the western portion of the Site. The presence of perched groundwater should be considered in the design and construction of proposed basement levels, foundation drainage, waterproofing, and temporary excavation support / dewatering requirements.

Deeper groundwater seepage was encountered within the till at depths of approximately 7.6 to 12.5 m and is representative of permanent groundwater. Groundwater flow within the till is expected to occur primarily through localized sand and silt seams of relatively higher permeability at depth. It is noted that significant groundwater seepage was encountered within MW-17 at 9.1 m. Similar conditions were not encountered at the other borehole locations. The horizontal groundwater flow direction is towards the tributary flowing through the Site and vertical groundwater gradient is upwards. Long-term groundwater monitoring is on-going within monitoring wells on the Site.

There are minimal impacts expected to groundwater as a result of the future development provided that appropriate planning (i.e. incorporation of LIDs as supported by the water balance calculations), mitigation measures and proper construction techniques are considered. The Site lies within a significant groundwater recharge area that should be maintained, if feasible, through LIDs.

If short-term pumping of groundwater at volumes greater than 50,000 L/day is required during construction activities, then a permit applied for through the EASR would be required.

Based upon water balance calculations, storm water directed from the rooftops to lawn / landscaped areas can maintain pre-development infiltration values. We recommend that a minimum topsoil depth of 300 mm be applied to pervious areas and lot grading will aid to reduce runoff. Lot grading should be completed to promote positive drainage away from structures while maintaining opportunities for clean stormwater infiltration where appropriate.

It is our opinion that the results of this hydrogeological assessment support the proposed municipally serviced development to consist of two- and three-storey townhomes with basement levels, a commercial development area, a stormwater management block and associated road infrastructure. From a groundwater perspective, significant constraints to the proposed development are not expected; however, shallow perched groundwater and localized seepage may be encountered within basement excavations, particularly in areas where shallow seepage and poor drainage conditions were observed. These conditions are expected to be manageable using appropriate engineering measures, which may include temporary construction dewatering, foundation drainage, waterproofing, and/or adjustment of final basement elevations where required by the design team. It is expected that permanent groundwater will generally be below the depth of the future development, although seepage may be encountered in deeper excavations or foundations. In summary, the proposed development is suitable from a hydrogeologic perspective, provided that the shallow perched groundwater conditions are considered in basement design and construction planning, and that appropriate stormwater infiltration and groundwater management measures are implemented.

The following Statement of Limitations should be read carefully and is an integral part of this report. Should any questions arise regarding any aspect of our report, please contact our office.

Sincerely,

DRAFT

Kathleen Goodman, P.Eng.
Environmental Engineer

DRAFT

Robert Neck, P.Geo (Limited)
Senior Geoscientist, Project Director

7. Statement of Limitations

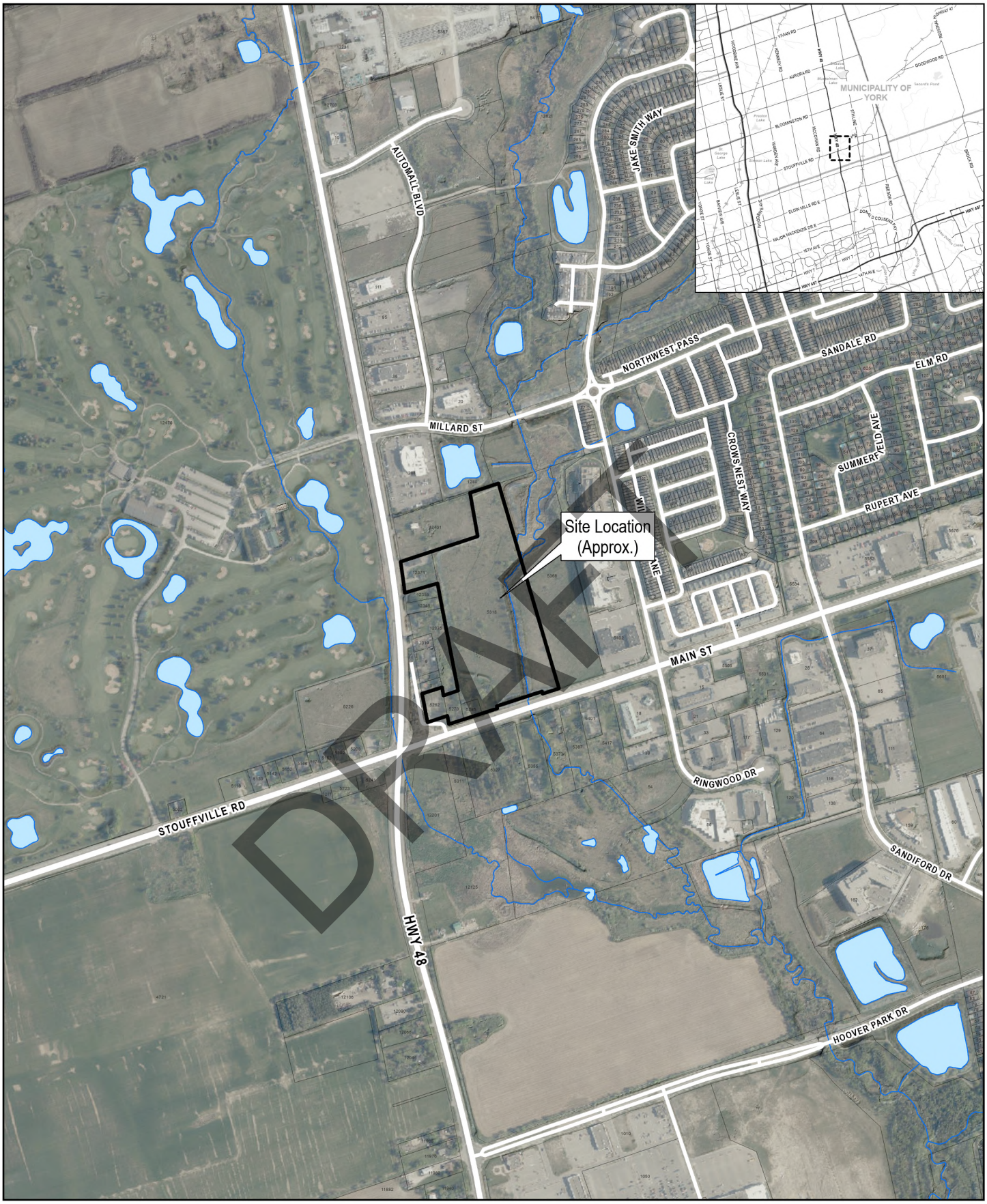
This report is intended solely for City Park Homes (Stouffville) Inc. in assessing the hydrogeologic aspects of land located at 5262, 5270, 5286 and 5318 Main Street and 12371 Highway 48 in Whitchurch-Stouffville, Ontario and is prohibited for use by others without GHD's prior written consent. This report is considered GHD's professional work product and shall remain the sole property of GHD. Any unauthorized reuse, redistribution of or reliance on the report shall be at the Client and recipient's sole risk, without liability to GHD. Client shall defend, indemnify and hold GHD harmless from any liability arising from or related to Client's unauthorized distribution of the report. No portion of this report may be used as a separate entity; it is to be read in its entirety and shall include all supporting drawings and appendices.

The recommendations made in this report are in accordance with our present understanding of the project, the current site use, ground surface elevations and conditions, and are based on the work scope approved by the Client and described in the report. The services were performed in a manner consistent with that level of care and skill ordinarily exercised by members of the hydrogeological profession currently practicing under similar conditions in the same locality. No other representations, and no warranties or representations of any kind, either expressed or implied, are made. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties.

All details of design and construction are rarely known at the time of completion of a hydrogeological study. The recommendations and comments made in the study report are based on our subsurface investigation and resulting understanding of the project, as defined at the time of the study. We should be retained to review our recommendations when the drawings and specifications are complete. Without this review, GHD will not be liable for any misunderstanding of our recommendations or their application and adaptation into the final design.

It is important to emphasize that a soil investigation is, in fact, a random sampling of a site and the comments included in this report are based on the results obtained at the test hole locations only. The subsurface conditions confirmed at the test hole locations may vary at other locations. The subsurface conditions can also be significantly modified by the construction activities on site (ex. excavation, dewatering and drainage, blasting, pile driving, etc.). These conditions can also be modified by exposure of soils or bedrock to humidity, dry periods or frost. Soil and groundwater conditions between and beyond the test locations may differ both horizontally and vertically from those encountered at the test locations and conditions may become apparent during construction which could not be detected or anticipated at the time of our assessment. Should any conditions at the site be encountered which differ from those found at the test locations, we request that we be notified immediately in order to permit a reassessment of our recommendations. If changed conditions are identified during construction, no matter how minor, the recommendations in this report shall be considered invalid until sufficient review and written assessment of said conditions by GHD is completed.

Figures



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0 100 200 300

Metres

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 1983 UTM Zone 17N

N

GHD

City Park Homes (Stouffville) Inc.
Main Street / Fockler Lane, Whitchurch-Stouffville, Ontario

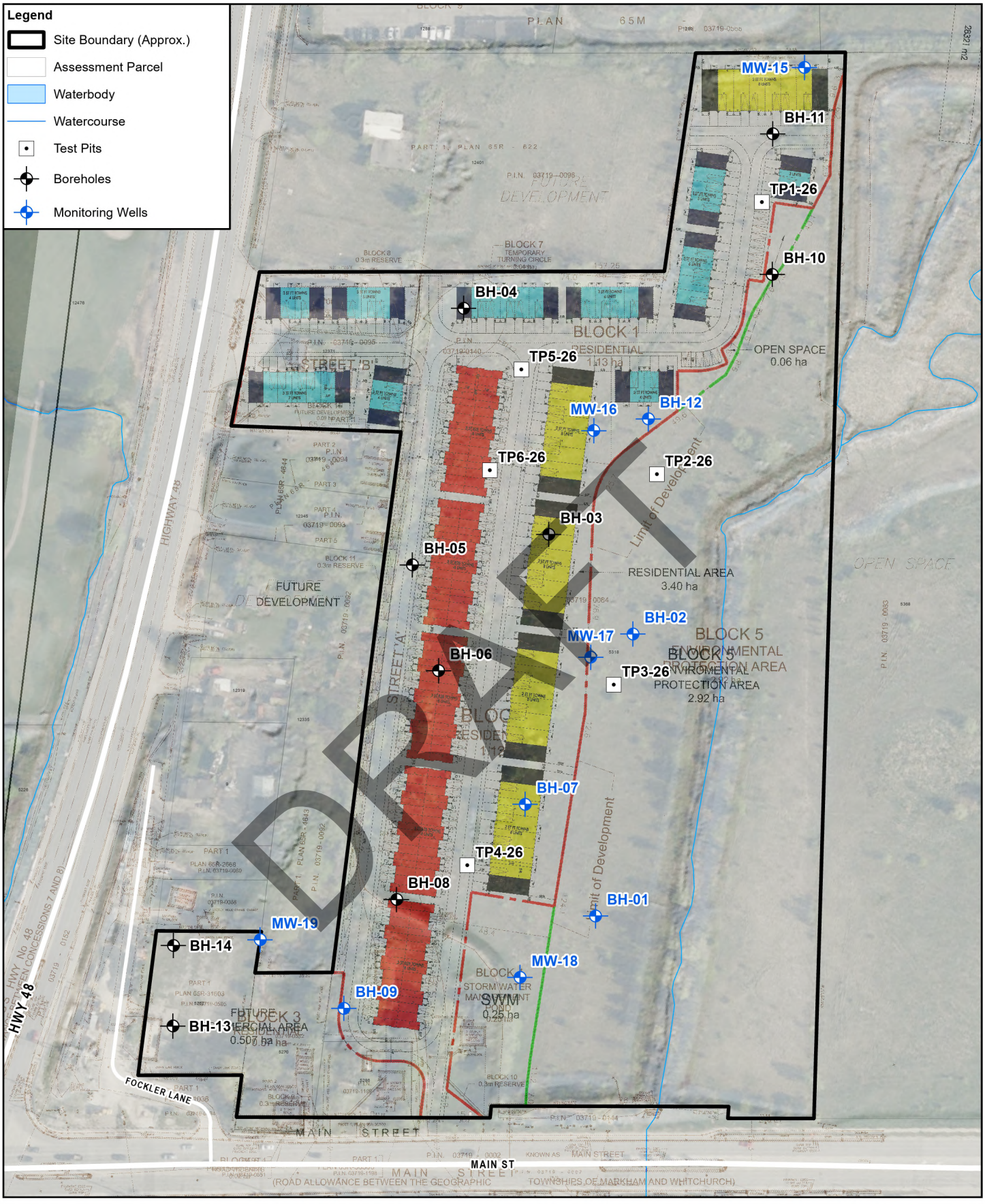
Project No. 12687667
Revision No.
Date Jun 22, 2026

Hydrogeological Assessment Update

Site Location Plan

Figure 1

Q:\GIS\PROJECTS\12687000s\12687667\GIS\Maps\Deliverables\12687667_Hydrogeo\12687667_Hydrogeo.aprx



1:2,000

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Metres

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983 CSRS
Grid: NAD 1983 CSRS UTM Zone 17N

City Park Homes (Stouffville) Inc.
Main Street / Fockler Lane, Whitchurch-Stouffville, Ontario

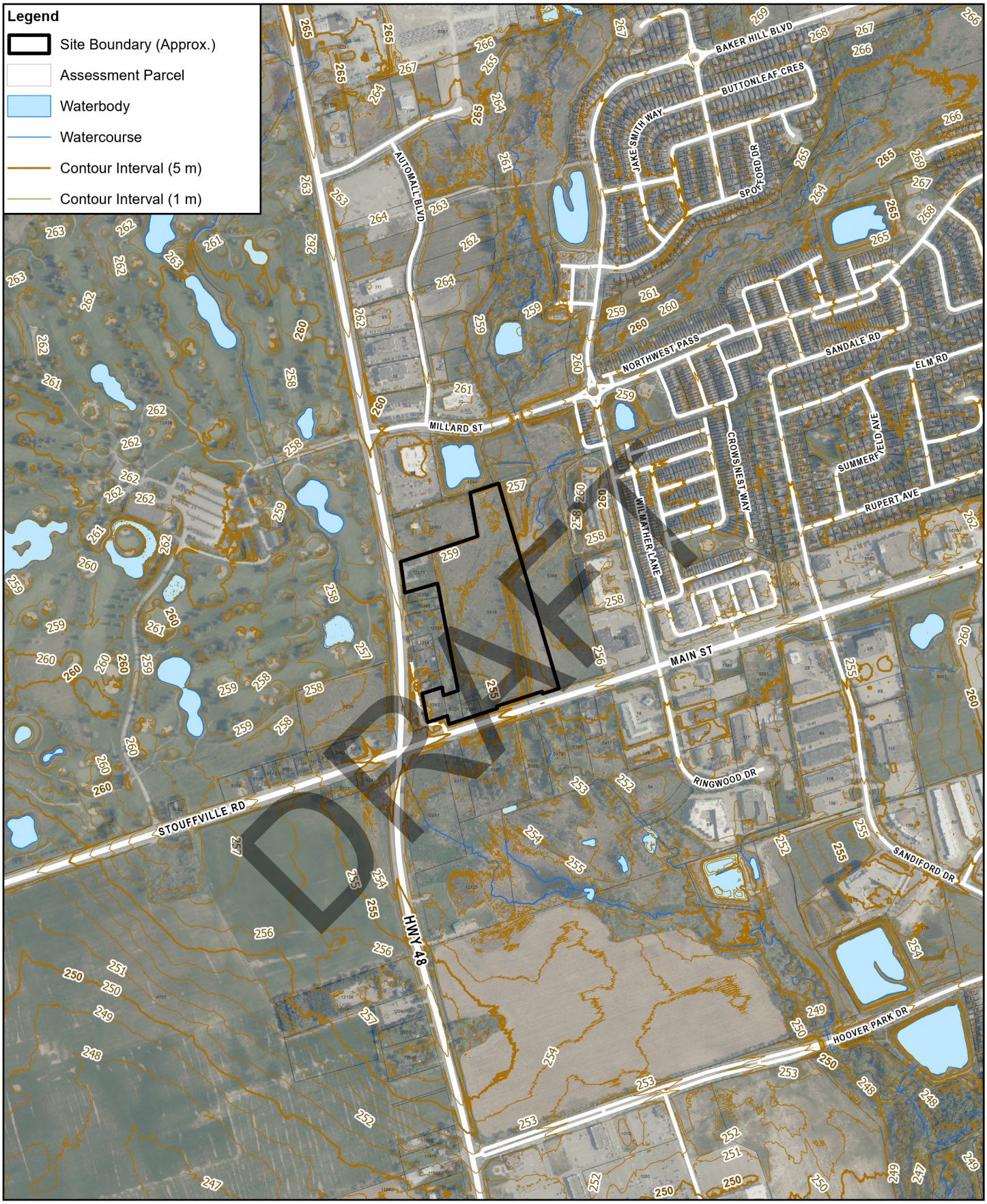
Project No. 12687667
Revision No.
Date Jun 22, 2026

Hydrogeological Assessment Update

Test Hole Plan

Figure 2

Q:\GIS\PROJECTS\12687000s\12687667\GIS\Maps\Deliverables\12687667_Hydrogeo\12687667_Hydrogeo.aprx



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Metres

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 1983 UTM Zone 17N

N

GHD

City Park Homes (Stouffville) Inc.
Main Street / Fockler Lane, Whitchurch-Stouffville, Ontario

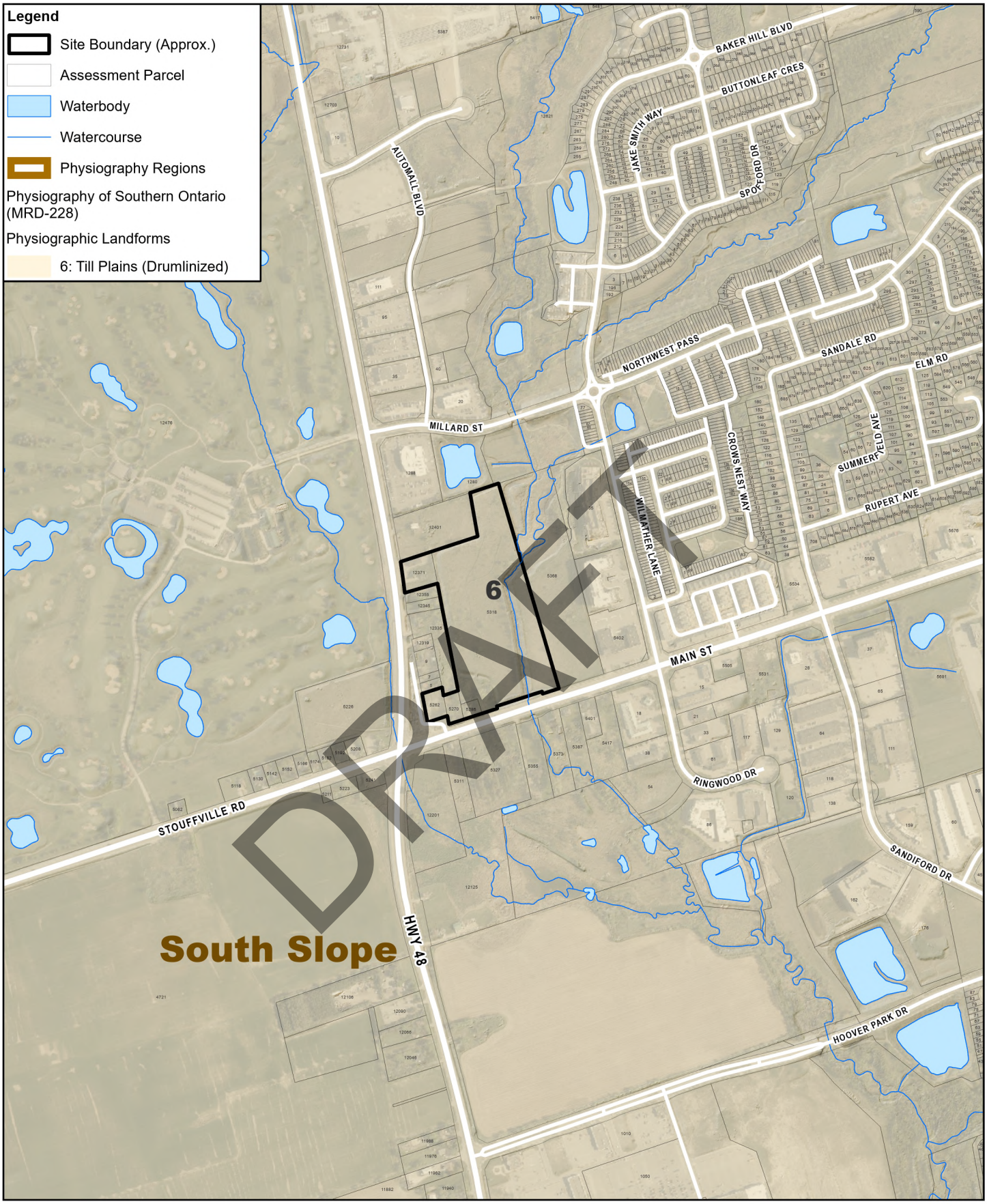
Project No. 12687667
Revision No.
Date Jun 22, 2026

Hydrogeological Assessment Update

Regional Topography

Figure 3

Q:\GIS\PROJECTS\12687000s\12687667\GIS\Maps\Deliverables\12687667_Hydrogeo\12687667_Hydrogeo.aprx



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Metres

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 1983 UTM Zone 17N

N

City Park Homes (Stouffville) Inc.
Main Street / Fockler Lane, Whitchurch-Stouffville, Ontario

Project No. 12687667
Revision No.
Date Jun 22, 2026

Hydrogeological Assessment Update

Physiography

Figure 4

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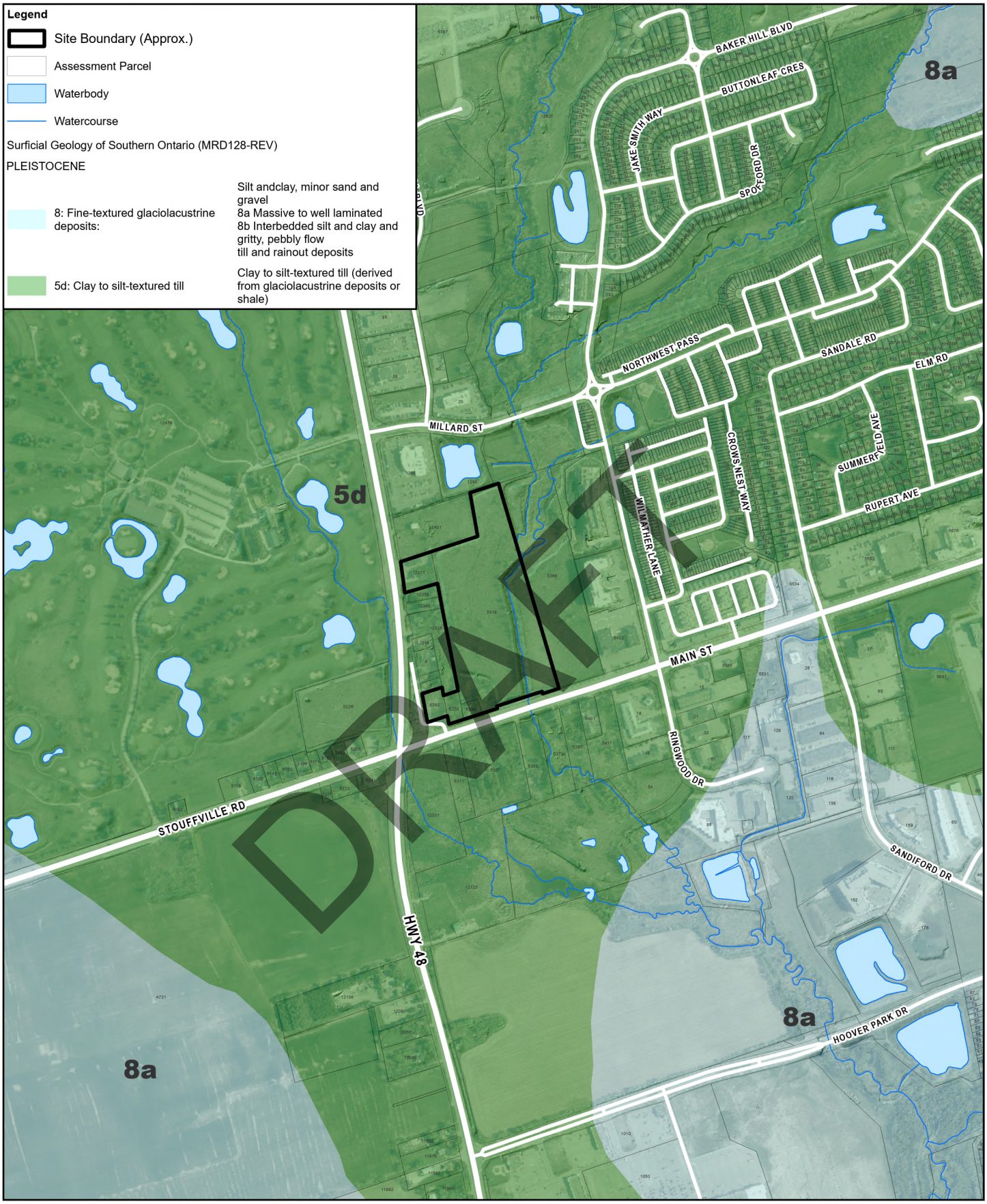

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Metres

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 1983 UTM Zone 17N

N

City Park Homes (Stouffville) Inc.
Main Street / Fockler Lane, Whitchurch-Stouffville, Ontario

Project No. 12687667
Revision No.
Date Jun 22, 2026

Hydrogeological Assessment Update

Surficial Geology

Figure 5

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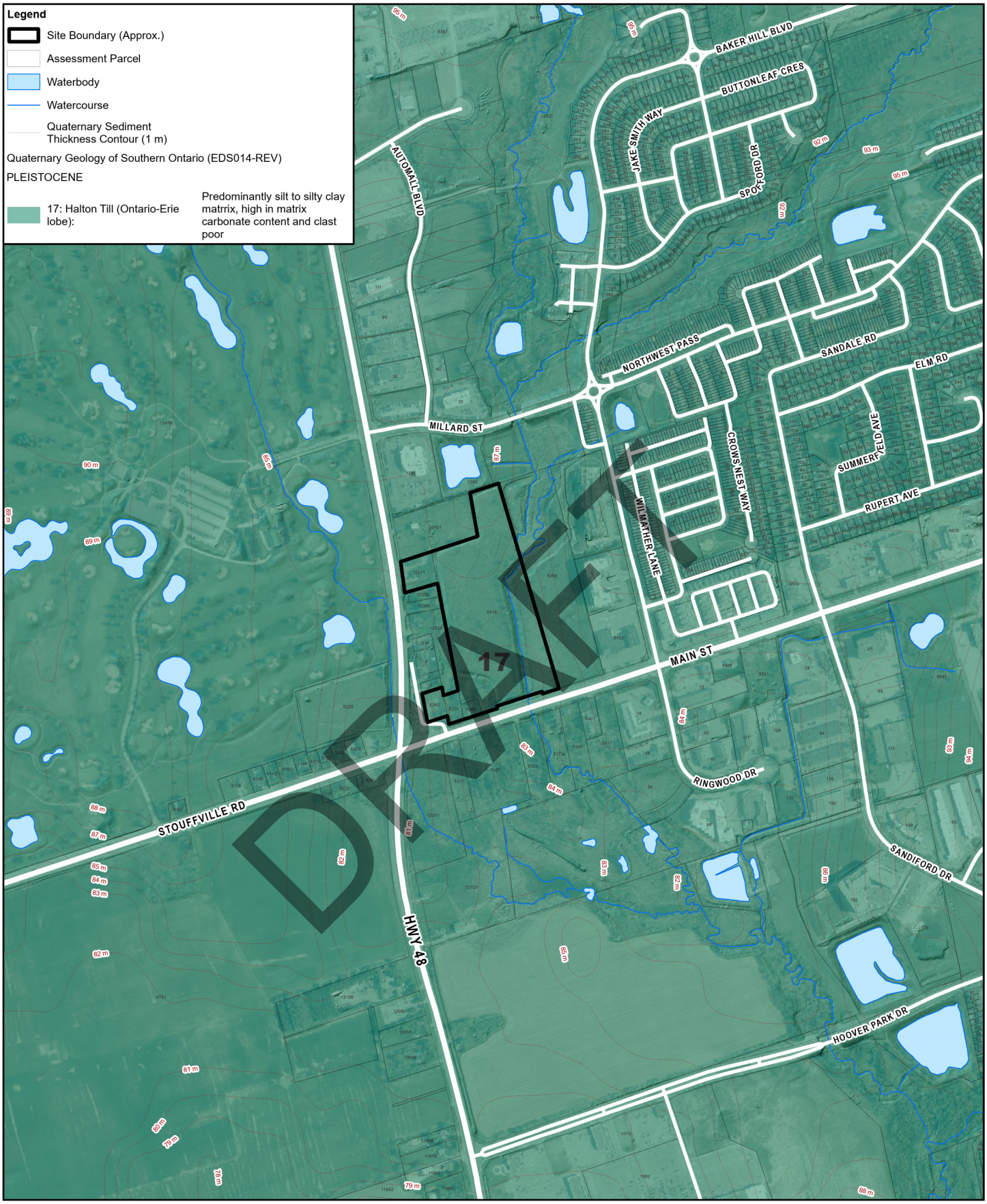

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Metres

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 1983 UTM Zone 17N

N

City Park Homes (Stouffville) Inc.
Main Street / Fockler Lane, Whitchurch-Stouffville, Ontario

Project No. 12687667
Revision No.
Date Jun 22, 2026

Hydrogeological Assessment Update

Quaternary Geology

Figure 6

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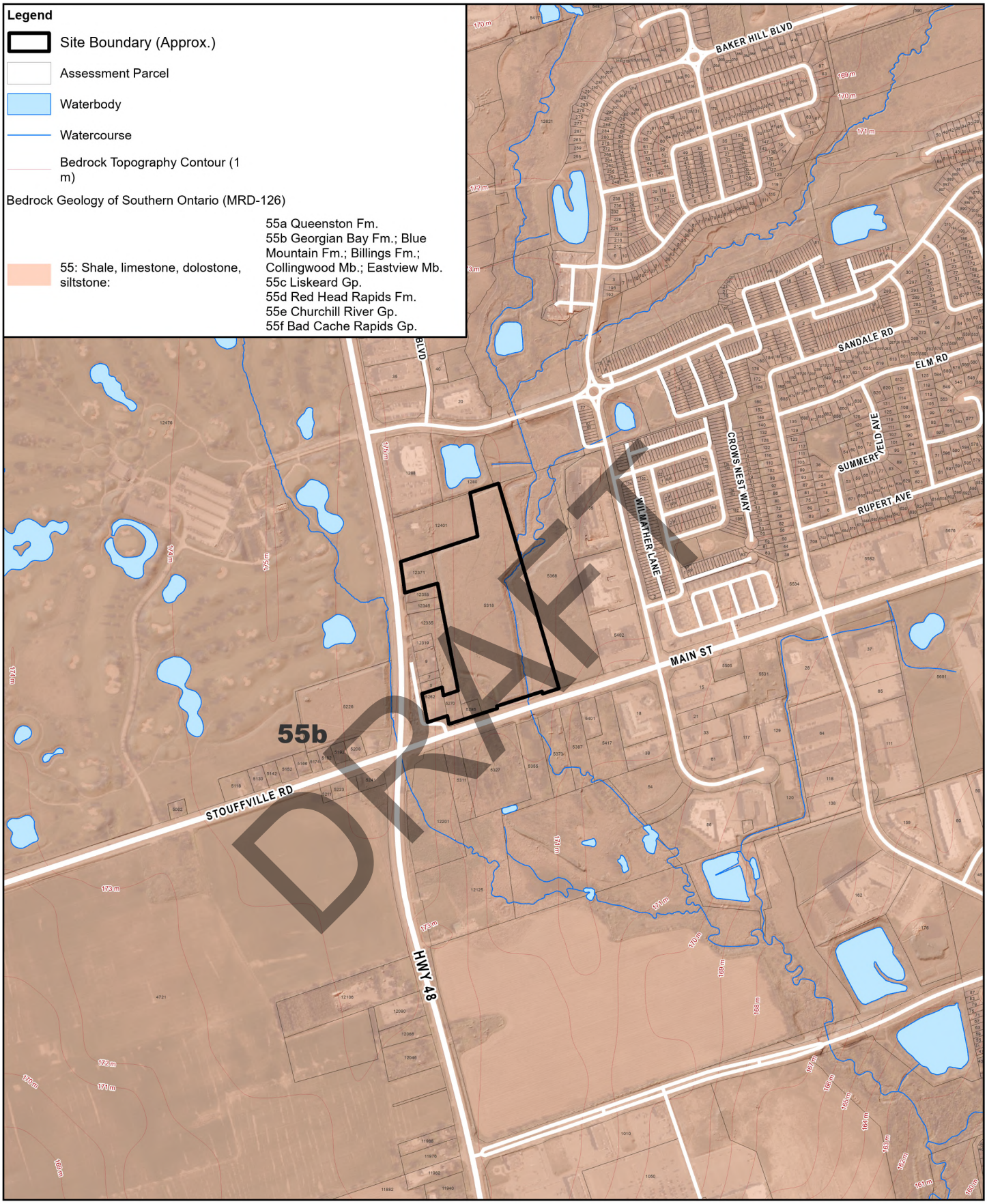

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Horizontal Datum: North American 1983
Grid: NAD 1983 UTM Zone 17N

N

City Park Homes (Stouffville) Inc.
Main Street / Fockler Lane, Whitchurch-Stouffville, Ontario

Project No. 12687667
Revision No.
Date Jun 22, 2026

Hydrogeological Assessment Update

Bedrock Geology

Figure 7

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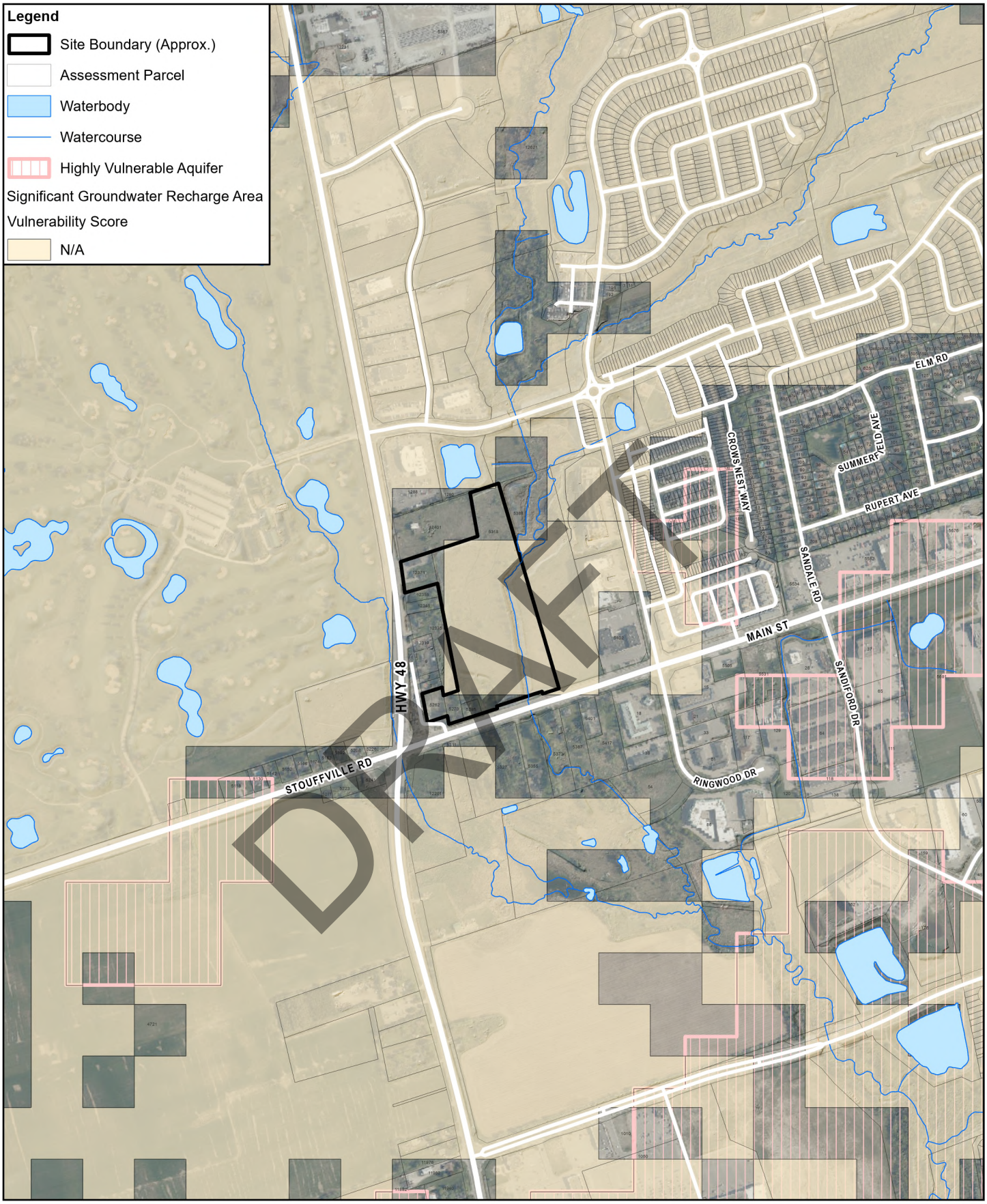

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Metres

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983 CSRS
Grid: NAD 1983 CSRS UTM Zone 17N

N

GHD

City Park Homes (Stouffville) Inc.
Main Street / Fockler Lane, Whitchurch-Stouffville, Ontario

Hydrogeological Assessment Update

Source Water Protection

Project No. 12687667
Revision No.
Date Jun 22, 2026

Figure 8

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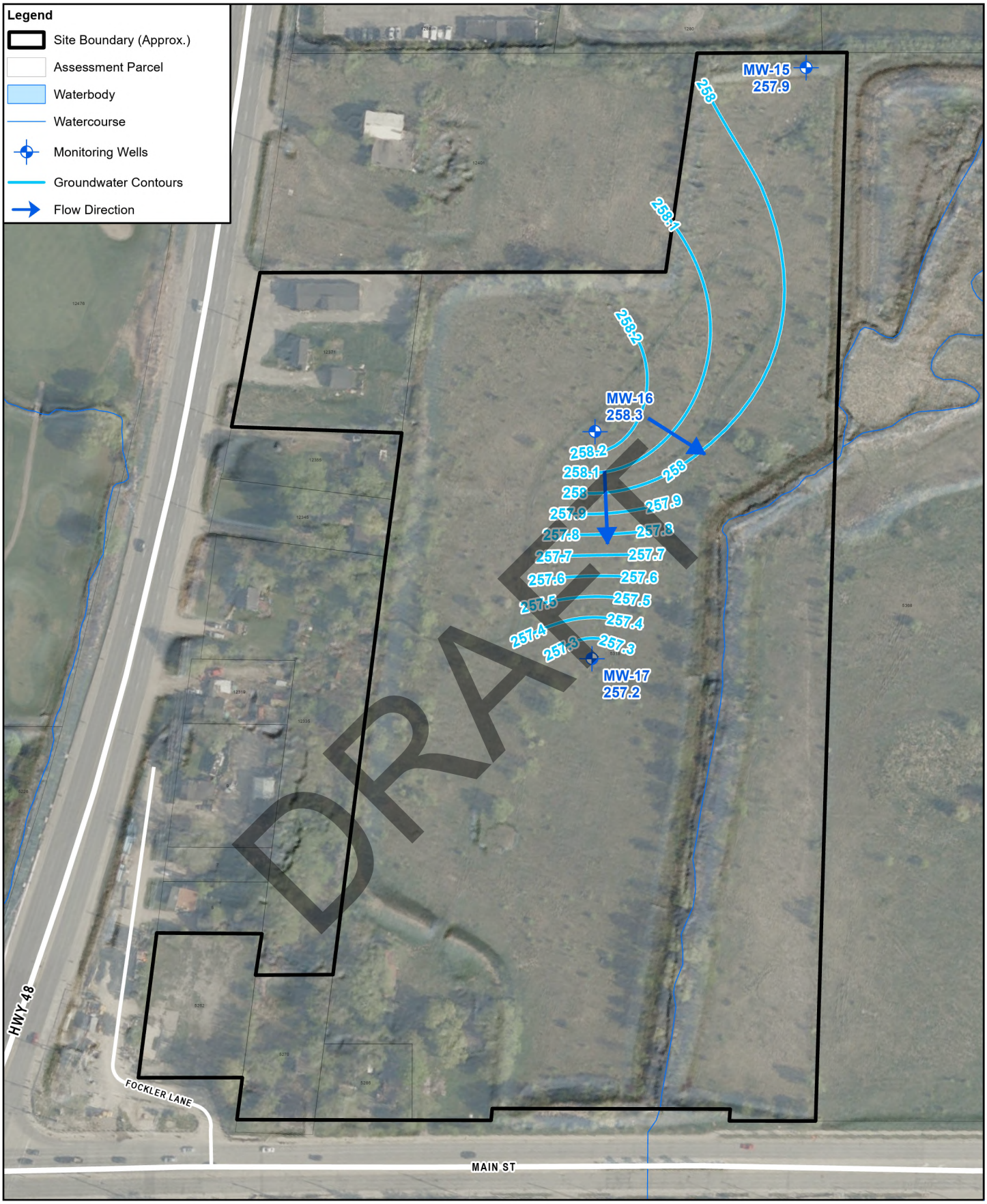

1:2,000

0 20 40 60

Metres

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983 CSRS
Grid: NAD 1983 CSRS UTM Zone 17N

City Park Homes (Stouffville) Inc.
Main Street / Fockler Lane, Whitchurch-Stouffville, Ontario

Hydrogeological Assessment Update

Groundwater Contour Map - Deep Wells

Project No. 12687667
Revision No.
Date Jun 22, 2026

Figure 9A

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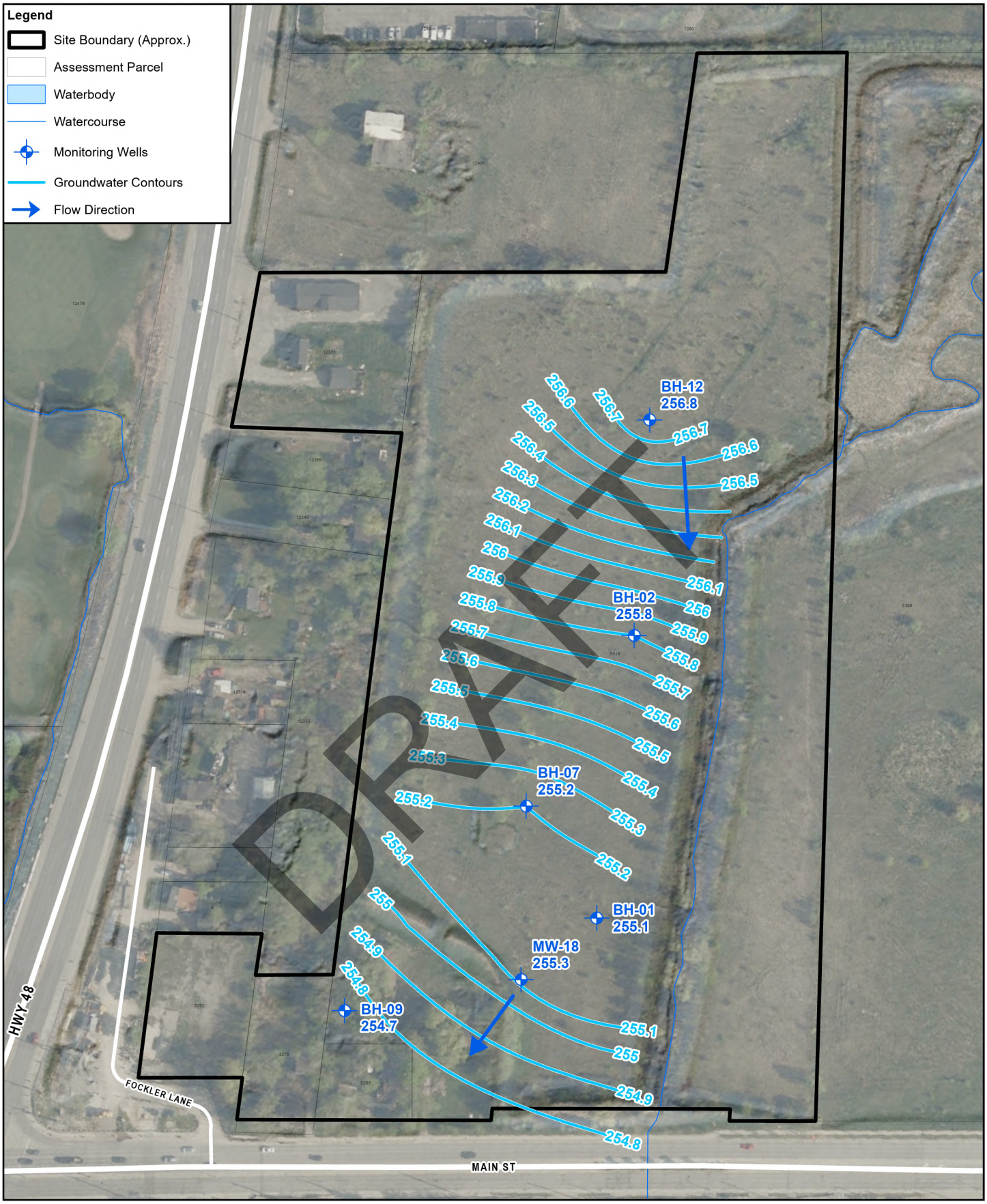

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0 20 40 60

Metres

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983 CSRS
Grid: NAD 1983 CSRS UTM Zone 17N

N

GHD

City Park Homes (Stouffville) Inc.
Main Street / Fockler Lane, Whitchurch-Stouffville, Ontario

Hydrogeological Assessment Update

Groundwater Contour Map - Shallow Wells

Project No. 12687667
Revision No.
Date Jun 23, 2026

Figure 9B

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Appendices

Appendix A

Soils Exploration Data

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-1

BOREHOLE No.: BH-01
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 1

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: K. Plumpton DATE: 2 December 2014
DRILLING COMPANY: Strong Soil Search METHOD: Track-mounted Rig with Split Spoons
NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N
0.0	0.0		GROUND SURFACE					
0.1	0.1		**TOPSOIL** (100 mm)					
1			**FILL** Light Brown Silty Sand Fill, moist, loose to compact	SS-1	30	13	0 2 4	6
2							6	
3	1.0			SS-2	100	10	9 6 6	12
4								
5				SS-3	50	10	4 1 3	4
6	2.0							
7	2.0		Grey Sand with Silt Fill, wet, loose					
8	2.3		Saturated	SS-4a	60	20	3	
9	2.4			SS-4b	60	39	5 7	12
10	2.7		**TOPSOIL**					
11	3.0		**SAND** Brown Sand with Silt, loose, saturated	SS-5	0		7 4 4	8
12								
13	3.8		**TILL** Grey Silty Sand Till with Clay, moist, compact	SS-6	50	10	6 9 14	23
14	4.3		END OF BOREHOLE					
15	4.0							
16								
17	5.0							
18								
19								
20	6.0							
21								
22								
23	7.0							
24								
25								
26	8.0							
27								
28								
29	9.0							
30								
31								
32								

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
W_p W_l Atterberg limits (%)
× "N" Value (blows / 0.3 m) ◆ RQD ◎ CONE

10 20 30 40 50 60 70 80 90

COMMENTS

— m
— 0.89 m

WL - 1.5 m
12/9/2014

WL = 3.35 mbeg upon borehole completion

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-2

BOREHOLE No.: BH-02
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 1

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: K. Plumpton DATE: 2 December 2014
DRILLING COMPANY: Strong Soil Search METHOD: Track-mounted Rig with Split Spoons
NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N
0.0	0.0		GROUND SURFACE					
	0.1		**TOPSOIL** (100 mm)				1	
1			**FILL** Light Brown Sand with Silt and Gravel Fill, moist, loose	SS-1	30	15	3 6 6	9
2								
3	1.0			SS-2	40	12	4 50=4"	100+
4	1.2		Boulders					
5	1.5		Light Brown Sand with Gravel Fill, moist to wet, very loose	SS-3	40	13	1 1 1	2
6								
7	2.0							
8	2.3		Wet, loose	SS-4a	40	15	2	
	2.6			SS-4b	50	21	3 5	8
9	2.7		**TOPSOIL**					
10	3.0		**TILL** Grey Gravelly Silty Sand Till, wet, compact	SS-5	80	15	9 7 4	11
11								
12	3.5		Grey Sandy Silt Till with Gravel and Clay, moist, stiff					
13	3.8		Light Brown to Grey	SS-6	90	10	12 20 16	36
14	4.0							
	4.3		END OF BOREHOLE					
15	5.0							
20	6.0							
23	7.0							
26	8.0							
29	9.0							
32								

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
W_p W_l Atterberg limits (%)
× "N" Value (blows / 0.3 m)
◆ RQD
◎ CONE

10 20 30 40 50 60 70 80 90

COMMENTS

— m
— 0.86 m

WL - 1.3 m
12/9/2014

WL = 2.9 mbeg upon borehole completion
SS-5:
20% Gravel
42% Sand
38% Silt and Clay

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-3

BOREHOLE No.: BH-03
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 1

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: K. Plumpton DATE: 2 December 2014
DRILLING COMPANY: Strong Soil Search METHOD: Track-mounted Rig with Split Spoons
NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N	COMMENTS
		0.0		GROUND SURFACE						
		0.1		**TOPSOIL** (75 mm)						
1				**FILL** Light Brown Sand with Gravel Fill, moist, compact	SS-1	70	6	1 9 10 12	19	
2		0.8		Moist to wet, trace Silt, loose	SS-2	40	10	2 1 1	2	
3	1.0									
4										
5		1.5		Wet	SS-3a	70	13	2 3		
6		1.7		**TOPSOIL**	SS-3b	70	12	3	6	
7	2.0	1.8		**TILL** Light Brown to Grey Sandy Silt Till with Clay and Gravel, moist, loose						
8		2.4		Compact Wet 2.3 - 2.6mbeg	SS-4	100	14	4 4 11	15	
9										
10	3.0									
11					SS-5	60	13	9 12 12	24	
12										
13	4.0									
14										
15		4.6		Grey, dense						
16					SS-6	100	10	13 23 23	46	
17	5.0									
18										
19										
20	6.0	6.1		Grey Fine Silty Sand Till, moist, very dense	SS-7	90	17	15 34 58	92	
21		6.6		END OF BOREHOLE						Borehole dry upon completion
22										
23	7.0									
24										
25										
26	8.0									
27										
28										
29	9.0									
30										
31										
32										

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
W_p W_l Atterberg limits (%)
× "N" Value (blows / 0.3 m)
◆ RQD
◎ CONE

10 20 30 40 50 60 70 80 90

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-4

BOREHOLE No.: BH-04
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 1

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: K. Plumpton DATE: 2 December 2014
DRILLING COMPANY: Strong Soil Search METHOD: Track-mounted Rig with Split Spoons
NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) / "N" Value (blows / 0.3 m) / RQD / CONE (△ Field, □ Lab)	COMMENTS
		0.0		GROUND SURFACE						10 20 30 40 50 60 70 80 90	
		0.1		**TOPSOIL** (100 mm)							
1				**FILL** Brown Sand with Gravel Fill, trace Silt, moist, loose	SS-1	80	11	2, 4, 5	9		
2		0.8		Light Brown to Grey Silty Sand with Gravel Fill, moist, compact	SS-2	70	8	5, 6, 4	10		
3	1.0										
4											
5		1.5		Trace Gravel, loose	SS-3	80	10	1, 2, 3	5		
6											
7	2.0										
		2.3		**TOPSOIL**							
8		2.4		**TILL** Light Brown to Grey Sandy Silt Till, with Clay, moist, compact	SS-4	100	16	3, 6, 7	13		
9											
10	3.0	3.0		With Gravel	SS-5	100	11	8, 9, 12	21		
11		3.5		END OF BOREHOLE							Borehole dry upon completion
12											
13	4.0										
14											
15											
16	5.0										
17											
18											
19											
20	6.0										
21											
22											
23	7.0										
24											
25											
26	8.0										
27											
28											
29	9.0										
30											
31											
32											

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-5

BOREHOLE No.: BH-05
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 1

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: K. Plumpton DATE: 2 December 2014
DRILLING COMPANY: Strong Soil Search METHOD: Track-mounted Rig with Split Spoons
NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) / "N" Value (blows / 0.3 m) / RQD / CONE (△ Field, □ Lab)	COMMENTS
		0.0		GROUND SURFACE						10 20 30 40 50 60 70 80 90	
		0.2		**TOPSOIL** (150 mm)							
1				**FILL** Light Brown to Grey Silty Sand Fill with Gravel, moist, loose	SS-1	60	8	0 0 6	6		
2		0.8		Light Brown Sand with Gravel Fill, trace Cobbles, moist, compact				4 5 7			
3	1.0				SS-2	60	10	3	10		
4											
5		1.5		Wet, loose				1			
6					SS-3	20	9	0 0	0		
7	2.0										
8		2.4		**TILL** Light Brown Sandy Silt Till, with Clay and Gravel, moist, compact	SS-4	70	10	4 6 9	15		
9											
10	3.0							6			
11					SS-5	100	10	7 8	15		
		3.5		END OF BOREHOLE							Borehole dry upon completion
12											
13	4.0										
14											
15											
16											
17	5.0										
18											
19											
20	6.0										
21											
22											
23	7.0										
24											
25											
26	8.0										
27											
28											
29	9.0										
30											
31											
32											

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-6

BOREHOLE REPORT

BOREHOLE No.: BH-06
ELEVATION: Existing Grade
Page: 1 of 1

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: K. Plumpton DATE: 4 December 2014
DRILLING COMPANY: Strong Soil Search METHOD: Track-mounted Rig with Split Spoons
NOTES:

LEGEND
- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N	COMMENTS
	0.0		GROUND SURFACE						
	0.1		**TOPSOIL** (100 mm)				4		
1			**FILL** Light Brown Sand with Gravel Fill, moist, dense	SS-1	70	35	13 25	38	
2	0.8						14		
3			Trace Silt, compact	SS-2	80	8	18 11 7	18	
1.0	1.5		With Silt, loose	SS-3	10	9	2 2 3	5	
6	2.0								
7	2.3		Boulder 2.1 - 2.3 mbeg						
8			Saturated	SS-4a	60	13	2		
	2.6			SS-4b	60	14	2	4	
9	2.7		**TOPSOIL**						
10			**TILL** Light Brown to Grey Clayey Sandy Silt Till with Gravel, moist, compact	SS-5	100	12	5 8 14	22	SS-5: 8% Gravel 33% Sand 59% Silt and Clay 34% between 5-75 µm
3.0									
12									
13	4.0								
14									
15	4.6		Light Brown to Grey Silty Sand Till with Gravel, trace Clay, moist, very dense	SS-6	80	9	17 27 36	63	
16									
5.0									
17									
18									
19									
20	6.0			SS-7	100	11	49 50=5"	100+	
21									
22									
23	7.0								
24									
25			- Silt seam	SS-8	90	17	19 25 33	58	SS-8: 0% Gravel 6% Sand 94% Silt and Clay
26	8.0								
27									
28									
29									
30	9.0								
	9.1		Occasional Cobbles	SS-9	100	12	19 23 28	51	
31	9.6		END OF BOREHOLE						Borehole dry upon completion
32									

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
W_p W_l Atterberg limits (%)
× "N" Value (blows / 0.3 m) ◆ RQD ◎ CONE

10 20 30 40 50 60 70 80 90

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-7

BOREHOLE No.: BH-07
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 1

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: K. Plumpton DATE: 2 December 2014
DRILLING COMPANY: Strong Soil Search METHOD: Track-mounted Rig with Split Spoons
NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N	COMMENTS
		0.0		GROUND SURFACE						
		0.1		**TOPSOIL** (100 mm)						
1				**FILL** Light Brown Silty Sand with Gravel Fill, moist, loose	SS-1	60	6	0 0 5	5	SS-1: 8% Gravel 47% Sand 45% Silt and Clay
2								21		
3	1.0			Boulder from 0.76 to 1.22 mbeg	SS-2	10	6	50=5"	100+	
4										
5		1.5		Grading to Grey, compact	SS-3	80	7	9 12 4	16	WL - 1.8 m 12/9/2014
6	2.0									
7										
8		2.3		Loose, Wet	SS-4a	70	11	0 3		
9		2.6			SS-4b	70	40	3	6	
		2.7		**TOPSOIL**						
10	3.0			**SANDY SILT** Dark Brown Sandy Silt with organics, moist, loose	SS-5	30	36	3 3 3	6	
11		3.5		**TILL** Grey Sandy Silt Till with Clay, moist, compact						
12										
13	4.0									
14										
15		4.6		Wet, dense	SS-6	60	11	7 15 18	33	WL = 4.9 mbeg upon borehole completion
16	5.0									
17										
18										
19										
20	6.0	6.1		Grey Silty Sand Till, trace Gravel, moist, very dense	SS-7	70	13	22 33 50	83	
21		6.6		END OF BOREHOLE						
22										
23	7.0									
24										
25										
26	8.0									
27										
28										
29										
30	9.0									
31										
32										

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
W_p W_l Atterberg limits (%)
× "N" Value (blows / 0.3 m) ◆ RQD ◎ CONE
10 20 30 40 50 60 70 80 90

— m
— 1.12 m

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-8

BOREHOLE No.: BH-08
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 1

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: K. Plumpton DATE: 2 December 2014
DRILLING COMPANY: Strong Soil Search METHOD: Track-mounted Rig with Split Spoons
NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) / "N" Value (blows / 0.3 m) / RQD / CONE — 10 20 30 40 50 60 70 80 90	COMMENTS
0.0	0.0		GROUND SURFACE							
1	0.1		**TOPSOIL** (125 mm)				0			
2			**FILL** Light brown Gravelly Sand Fill, moist, compact	SS-1	70	11	1 13 20	14		
3				SS-2	80	7	15 8 6	14		
4	1.0									
5	1.5		Moist to wet, trace Silt	SS-3	40	9	4 2 10	12		
6										
7	2.0									
8	2.3 2.4		**TOPSOIL** **TILL** Light Brown Sandy Silt Till with Clay and Gravel, moist, very stiff	SS-4	100	24	6 8 11	19		
9										
10	3.0		Moist to wet	SS-5	100	10	8 13 13	26		Borehole dry upon completion
11	3.5		END OF BOREHOLE							
12										
13	4.0									
14										
15										
16	5.0									
17										
18										
19	6.0									
20										
21										
22										
23	7.0									
24										
25										
26	8.0									
27										
28										
29	9.0									
30										
31										
32										

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-9

BOREHOLE No.: BH-09
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 1

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: K. Plumpton DATE: 2 December 2014
DRILLING COMPANY: Strong Soil Search METHOD: Track-mounted Rig with Split Spoons
NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N
		0.0		GROUND SURFACE					
				TOPSOIL (600 mm)	SS-1	80	29	1 2 3	5
		0.6		**TILL** Light Brown Silty Sand Till, with Gravel, trace Clay, moist, dense	SS-2	80	23	5 8 19	32
	1.0							13	
		1.5		Compact	SS-3	40	10	8 8 9	17
	2.0								
		2.4		Wet 2.3 - 2.4 mbeg Light Brown Sandy Silt Till with clay and Gravel, moist, compact	SS-4	90	8	8 12 13	25
	3.0	3.0							
		3.2		Wet 3.0 - 3.2 mbeg Dense	SS-5	100	7	17 20 24	44
		3.5		END OF BOREHOLE					
	4.0								
	5.0								
	6.0								
	7.0								
	8.0								
	9.0								

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
W_P W_l Atterberg limits (%)
× "N" Value (blows / 0.3 m) ◆ RQD ◎ CONE

10 20 30 40 50 60 70 80 90

COMMENTS

— m
— 1.08 m

WL - 0.8 m 12/9/2014

WL = 3.2 mbeg upon borehole completion

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-10

BOREHOLE No.: BH-10
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 2

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: K. Plumpton DATE: 3 December 2014
DRILLING COMPANY: Strong Soil Search METHOD: Track-mounted Rig with Split Spoons
NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) / "N" Value (blows / 0.3 m) / RQD / CONE	COMMENTS
		0.0		GROUND SURFACE							
		0.1		**TOPSOIL** (100 mm)							
1				**FILL** Light Brown Sand with Gravel Fill, moist, dense	SS-1	100	15	0 5 34 50=4"	39		Borehole caving suggests presence of groundwater at 7.8 mbeg
2		0.8									
3	1.0			Brown Silty Sand Fill, trace Gravel, moist, compact	SS-2	40	31	6 7 3	10		
4											
5											
6					SS-3	40	16	3 6 7	13		
7	2.0			Grading to Grey							
		2.1									
8				**TILL** Light Brown Clayey Silt Till with Sand and Gravel, moist, very stiff	SS-4	40	17	3 4 14	18		
9											
10	3.0	3.0									
11				Light Brown Silty Sand with Gravel Till, trace Clay, moist, very dense	SS-5	50	12	18 30 22	52		
12											
13	4.0										
14											
15		4.6		Compact							
16	5.0				SS-6	100	15	24 12 16	28		
17											
18				Wet 5.5 - 6.2 mbeg							
19											
20	6.0										
21					SS-7	100	18	8 9 12	21		
22											
23	7.0										
24											
25		7.6									
26	8.0			Grey Sandy Silt Till, trace Gravel, moist, dense	SS-8	90	14	11 13 17	30		Borehole caved to 7.8 mbeg upon completion
27											
28											
29											
30	9.0	9.1									
31				Trace Clay	SS-9	90	20	9 14 15	29		
32											

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-10

BOREHOLE No.: BH-10
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 2 of 2

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: K. Plumpton DATE: 3 December 2014
DRILLING COMPANY: Strong Soil Search METHOD: Track-mounted Rig with Split Spoons
NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) / "N" Value (blows / 0.3 m) / RQD / CONE (△ Field, □ Lab) 10 20 30 40 50 60 70 80 90	COMMENTS
		0.0		GROUND SURFACE							
		10.7		With Gravel, compact	SS-10	80	16	10 11 13	24	○ ×	
	11.0										
	12.0	12.2		Dense	SS-11	0		10 18 22	40	×	
	13.0										
	14.0	13.7		Occasional Cobbles, very dense	SS-12	60	8	28 29 29	58	○ ×	
	15.0										
		15.7		END OF BOREHOLE	SS-13	75	15	18 23 24	47	○ ×	SS-13: 2% Gravel 39% Sand 59% Silt and Clay
	16.0										
	17.0										
	18.0										
	19.0										
	20.0										

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-11

BOREHOLE No.: BH-11
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 1

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: K. Plumpton DATE: 3 December 2014
DRILLING COMPANY: Strong Soil Search METHOD: Track-mounted Rig with Split Spoons
NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) / "N" Value (blows / 0.3 m) / RQD / CONE (△ Field, □ Lab)	COMMENTS
		0.0		GROUND SURFACE						10 20 30 40 50 60 70 80 90	
		0.1		**TOPSOIL** (100 mm)							
1				**FILL** Light brown Sandy Silt Fill, trace Gravel, moist, very loose	SS-1	30	35	1 1 4	5	× ○	
2								6			
3	1.0				SS-2	50	10	3 2 2	4	× ○	
4											
5					SS-3	60	19	2 0 1	1	× ○	SS-3: 4% Gravel 43% Sand 53% Silt and Clay
6	2.0										
7											
8		2.4						5			
		2.5		**TOPSOIL**	SS-4	90	18	4 5	9	× ○	
9				**TILL** Light Brown to Grey Clayey Silt Till with Sand, trace Gravel, moist, compact							
10	3.0	3.0			SS-5	100	15	4 8 11	19	○ ×	
11				Wet							
12											
13	4.0										
14											
15		4.6						9			
16				Light Brown to Grey Silty Sand Till with Gravel, trace Clay, moist, compact	SS-6	80	21	12 14	26	○ ×	
17	5.0										
18											
19											
20	6.0	6.1						8			
21				Grey	SS-7	90	16	12 11	23	○ ×	
22											
23	7.0										
24											
25											
26	8.0										
27											
28											
29											
30	9.0							9			
31					SS-8	80	12	12 13	25	○ ×	
32		9.6		END OF BOREHOLE							Borehole dry upon completion

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-12

BOREHOLE No.: BH-12
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 1

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: K. Plumpton DATE: 3 December 2014
DRILLING COMPANY: Strong Soil Search METHOD: Track-mounted Rig with Split Spoons
NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N
		0.0		GROUND SURFACE					
		0.1		**TOPSOIL** (125 mm)					
1				**FILL** Light Brown Sand with Gravel Fill, trace Silt, moise, very loose	SS-1	50	8	4 9 7	16
2				With Silt					
3	1.0				SS-2	20	17	2 1 1	2
4									
5		1.7			SS-3a	100	6	3	
6		1.8		**TOPSOIL**	SS-3b	100	22	4 3	7
7	2.0			**TILL** Light Brown Sandy Silt Till with Clay and Gravel, moist, compact					
8					SS-4	100	11	3 6 8	14
9									
10	3.0	3.0		Increased Gravel, wet, dense	SS-5	100	14	7 13 19	32
11									
12				Boulder 3.8 - 4.0 mbeg					
13	4.0								
14									
15		4.6		Grey, very dense	SS-6	90	9	31 39 30	69
16	5.0								
17									
18									
19									
20	6.0	6.1		Grey Silty Fine Sand Till, trace Gravel, moist, very dense	SS-7	100	13	24 29 27	56
21									
22									
23	7.0								
24									
25									
26	8.0								
27									
28									
29									
30	9.0	9.1		Wet	SS-8	90	19	22 24 28	52
31		9.6		END OF BOREHOLE					
32									

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
W_p W_l Atterberg limits (%)
× "N" Value (blows / 0.3 m) ◆ RQD ◎ CONE

10 20 30 40 50 60 70 80 90

COMMENTS

WL - 1.4 m 12/9/2014

WL = 3.2 mbeg upon borehole completion

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-13

BOREHOLE No.: BH-13
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 2

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: K. Plumpton DATE: 4 December 2014
DRILLING COMPANY: Strong Soil Search METHOD: Track-mounted Rig with Split Spoons
NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) / "N" Value (blows / 0.3 m) / RQD / CONE	COMMENTS
		0.0		GROUND SURFACE							
				FILL Grey Gravel Fill							
		0.6		Light Brown to Grey Silty Sand Fill with Gravel, moist, loose	SS-1	60	21	4 2 3	5		
					SS-2a	80	16	8 4			
		1.8		**TILL** Light Brown Sandy Silt Till with Clay and Gravel, moist, compact	SS-2b	80	12	4	8		
					SS-3	100	11	7 10 14	24		
		3.0		Light brown to grey	SS-4	100	9	10 13 16	29		
		4.6		Trace Clay, occasional Cobbles, very dense	SS-5	100	9	50 50=4"	100+		
					SS-6	80	7	22 35 27	62		
		7.6		Grey Silty Sand Till with Gravel, trace Silt, moist, very dense	SS-7	80	12	26 28 25	53		
		9.1		Grey Silty Clay Till with Gravel, moist, dense	SS-8	80	14	14 15 22	37		

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-13

BOREHOLE No.: BH-13
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 2 of 2

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: K. Plumpton DATE: 4 December 2014
DRILLING COMPANY: Strong Soil Search METHOD: Track-mounted Rig with Split Spoons
NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) / "N" Value (blows / 0.3 m) / Field / Lab / RQD / CONE	COMMENTS
		0.0		GROUND SURFACE						10 20 30 40 50 60 70 80 90	
35	10.7			Trace Gravel	SS-9	90	9	12 20 25	45		
36	11.0										
40	12.2			Grey Silty Sand Till with Gravel and Cobbles, trace Clay, moist, very dense	SS-10	60	8	50=5"	100+		SS-10: 9% Gravel 41% Sand 50% Silt and Clay
45	13.8				SS-11	70	13	57 50=4"	100+		
50	15.2			Light Brown	SS-12	100	16	50=4"	100+		Borehole dry upon completion
	15.3			END OF BOREHOLE							

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-14

BOREHOLE No.: BH-14
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 1

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: K. Plumpton DATE: 4 December 2014
DRILLING COMPANY: Strong Soil Search METHOD: Track-mounted Rig with Split Spoons
NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) / "N" Value (blows / 0.3 m) / RQD / CONE	COMMENTS
		0.0		GROUND SURFACE							
				FILL Brown Sand and Gravel Fill							
		0.6		Light Brown Sand and Gravel Fill, moist, compact	SS-1	90	23	3 4 9	13		
		1.5		Wet	SS-2	90	10	6 7 10	17		
		1.8		**TILL** Light Brown Silty Sand Till with Gravel, trace Clay, moist, compact							
		2.3		Very dense	SS-3	100	11	15 34 35	69		
		3.0		Dense	SS-4	100	11	23 19 17	36		
		4.6		Very Dense	SS-5	90	6	22 28 27	55		
		6.1		Occasional Cobbles, dense	SS-6	100	8	14 23 25	48		
				- Boulder at 7.6 mbeg							
		9.6		END OF BOREHOLE	SS-7	90	13	20 26 29	55		Borehole dry upon completion

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-15

BOREHOLE No.: MW-15

ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 1

CLIENT: 2440332 Ontario Inc

PROJECT: 5262-5318 Main Street, Stouffville, Ontario

LOGGED BY: J.Cummings DATE: 22 April 2019

DRILLING COMPANY: Landshark Drilling Ltd. METHOD: Hollow Stem Auger and SPT

NOTES:

LEGEND

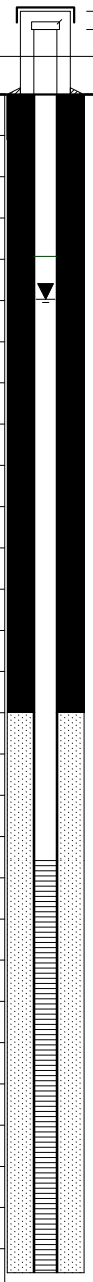
- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

UTM: (±3m) 17T 638088E 4869802N

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N	COMMENTS
		0.0		GROUND SURFACE						
		0.0		**TOPSOIL** (25mm)						
1				**FILL** - Brown Sandy Silt, Trace Gravel, Wet, Very Loose	SS-1	50	9	1 1 2 2	3	
3	1.0				SS-2	50	14	0 0 1 3	1	
5		1.5		Loose	SS-3	75	16	1 2 5 5	7	WL - 1.5 m 4/24/2019
7	2.0	2.3		**TILL** - Grey Clayey Sandy Silt, Trace Gravel, Moist, Dense	SS-4	100	11	9 15 15 18	30	
10	3.0				SS-5	100	7	12 22 15 11	37	
13	4.0									
16	5.0				SS-6	100	15	14 14 19 19	33	WL - 4.7 m (open borehole, immediately after drilling)
20	6.0				SS-7	100	17	10 13 19 17	32	
23	7.0									
25		7.6		Grey Sandy Silt, Trace Clay and Gravel, Wet, Compact	SS-8	50	16	4 10 11 11	21	First encounter of groundwater seepage at 7.6 m Borehole caving at 7.9 m
27	8.0									
29	9.0									51 mm I.D. Monitoring Well installed to 8.7 m
30		9.1		Dense	SS-9	100	17	10 18 24 30	42	
32		9.8		END OF BOREHOLE						

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
W_p W_l Atterberg limits (%)
× "N" Value (blows / 0.3 m) ◆ RQD ◎ CONE

10 20 30 40 50 60 70 80 90



REFERENCE No.: 11192167-02 ENCLOSURE No.: A-16

BOREHOLE No.: MW-16
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 2

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: J.Cummings DATE: 22 April 2019
DRILLING COMPANY: Landshark Drilling Ltd. METHOD: Hollow Stem Auger and SPT
NOTES:

LEGEND
- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

UTM: (±3m) 17T 638061E 4869641N

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) / "N" Value (blows / 0.3 m) / RQD / CONE (10 20 30 40 50 60 70 80 90)	COMMENTS
		0.0		GROUND SURFACE							— 0.87 m — 0.79 m
		0.0		**TOPSOIL** (25mm)							
				FILL - Rusty Brown Sandy Silt, Trace Gravel, Wet, Very Loose	SS-1	100	12	1 3 1 1	4	× ○	WL - 0.5 m 4/24/2019
		1.8		**TILL** - Brown Clayey Sandy Silt, Trace Gravel, Wet, Loose	SS-2	100	12	2 3 5 7	8	× ○	Borehole open on completion of drilling
		2.3		Moist, Compact	SS-3	75	11	3 7 8 11	15	○ ×	**SS-3:** 8% Gravel 31% Sand 61% Silt and Clay 37% between 5-75 µm
		3.0		Dense	SS-4	50	13	9 14 19 21	33	○ ×	
					SS-5	75	10	12 18 20 22	38	○ ×	
		4.6		Grey, Compact	SS-6	100	11	12 12 11 11	23	○ ×	WL - 4.6 m (open borehole, immediately after drilling) **SS-6:** 13% Gravel 23% Sand 64% Silt and Clay 41% between 5-75 µm
					SS-7	75	16	6 10 15 17	25	○ ×	
		7.6		Sandy Silt, Trace Clay and Gravel, Wet, Compact	SS-8	75	17	4 5 9 11	14	× ○	**SS-8:** 4% Gravel 27% Sand 69% Silt and Clay 61% between 5-75 µm
		9.1		Dense	SSS-9	75	16	7 16 24 32	40	○ ×	

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-16

BOREHOLE No.: MW-16

ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 2 of 2

CLIENT: 2440332 Ontario Inc

PROJECT: 5262-5318 Main Street, Stouffville, Ontario

LOGGED BY: J.Cummings DATE: 22 April 2019

DRILLING COMPANY: Landshark Drilling Ltd. METHOD: Hollow Stem Auger and SPT

NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

UTM: (±3m) 17T 638061E 4869641N

Depth ft	Depth m	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) / "N" Value (blows / 0.3 m) / Field / Lab / RQD / CONE	COMMENTS
		0.0		GROUND SURFACE						10 20 30 40 50 60 70 80 90	
35		10.7		Compact	SS-10	100	15	7 11 13 15	24		
36	11.0										
40	12.0				SS-11	100	19	6 11 16 20	27		
43	13.0										
45		13.7		Silt, Some Clay, Some Sand, Trace Gravel, Dense	SS-12	100	14	6 17 24 26	41		**SS-12:** 7% Gravel 17% Sand 76% Silt and Clay 62% between 5-75 µm
49	15.0										
50		15.2		Very Dense	SS-13	100	12	36 50/5"	100+		51 mm I.D. Monitoring Well installed to 15.2 m
52	16.0	15.8		END OF BOREHOLE							
56	17.0										
59	18.0										
62	19.0										
65	20.0										

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-17

BOREHOLE No.: MW-17
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 2

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: J.Cummings DATE: 22 April 2019
DRILLING COMPANY: Landshark Drilling Ltd. METHOD: Hollow Stem Auger and SPT
NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

UTM: (±3m) 17T 638092E 4869557N

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N	COMMENTS
		0.0		GROUND SURFACE						
		0.0		**TOPSOIL** (25mm)						
1				**FILL** - Brown Silty Sand, Some Gravel, Wet, Compact	SS-1	50	9	1 2 17 48	19	Borehole open on completion of drilling
2										
3	1.0				SS-2	50	8	10 8 8 21	16	
4										
5		1.5		Trace Clay, Very Loose				7		
6	2.0				SS-3	25	11	1 1 1	2	WL - 1.7 m 4/24/2019
7										
8								4		
9		2.6		**TILL** - Grey Clayey Sandy Silt, Trace Gravel, Wet, Loose	SS-4	75	13	2 14 9	16	First encounter of groundwater seepage at 2.3 m
10	3.0							1		
11					SS-5	75	26	2 3 4	5	WL - 3.1 m (open borehole, immediately after drilling)
12										
13	4.0									
14										
15		4.6		Moist, Compact				8		
16	5.0				SS-6	50	8	14 13 13	27	
17										
18										
19										
20	6.0	6.1		Very Dense				13		
21					SS-7	50	14	32 50	82	
22										
23	7.0									
24										
25										
26	8.0									
27										
28										
29										
30	9.0	9.1		Grey Sandy Silt, Occasional Cobbles and/or Boulders, Compact, Wet				6		
31					SS-8	75	7	10 14 14	24	More intense groundwater seepage observed at approximately
32										

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
Atterberg limits (%) W_p W_l
× "N" Value (blows / 0.3 m) ◆ RQD ◎ CONE
10 20 30 40 50 60 70 80 90

— 0.99 m
— 0.91 m

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-17

BOREHOLE No.: MW-17
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 2 of 2

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: J.Cummings DATE: 22 April 2019
DRILLING COMPANY: Landshark Drilling Ltd. METHOD: Hollow Stem Auger and SPT
NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

UTM: (±3m) 17T 638092E 4869557N

Depth ft	Depth m	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (W_P W_l) / "N" Value (blows / 0.3 m) / △ Field / □ Lab / ◆ RQD / ◎ CONE	COMMENTS
		0.0		GROUND SURFACE						10 20 30 40 50 60 70 80 90	9.1 m
40	12.0				SS-9	75	12	3 10 12 14	22		
50	15.0	15.2		Very Dense	SS-10	100	11	15 50	100+		51 mm I.D. Monitoring Well installed to 15.2 m
52	16.0	15.8		END OF BOREHOLE							

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-18

BOREHOLE No.: MW-18
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 1

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: J.Cummings DATE: 22 April 2019
DRILLING COMPANY: Landshark Drilling Ltd. METHOD: Hollow Stem Auger and SPT
NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

UTM: (±3m) 17T 638096E 4869429N

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) / "N" Value (blows / 0.3 m) / RQD / CONE — 10 20 30 40 50 60 70 80 90	COMMENTS
	0.0		GROUND SURFACE							— 1.07 m — 1.00 m
	0.2		**TOPSOIL** (150mm)				0			
1	0.5		**FILL** - Brown Sandy Silt, Some Gravel and Organics, Moist, Very Loose	SS-1	75	20	0 3 4	3		Borehole open on completion of drilling
2	0.8		Grey, Clayey				4			
3 — 1.0			Medium Brown Sandy Silt, Some Gravel, Moist, Compact	SS-2	75	9	8 8 9	16		
4	1.5		Medium Brown Silty Sand, Some Gravel, Occasional Cobbles and/or Boulders, Moist, Very Dense				9			WL - 1.4 m 4/24/2019
6 — 2.0				SS-3	75	10	18 35 15	53		
8	2.3		**ORGANIC SILT** - Black Organic Silt with Rootlets, Moist, Loose	SS-4	75	23	1 1 3	4		**SS-5:** 6% Gravel 29% Sand 65% Silt and Clay 46% between 5-75 µm First encounter of groundwater seepage at 3.4 m
9	2.7		**TILL** - Mottled Grey with Brown Clayey Sandy Silt, Trace Gravel, Wet, Loose				4			
10 — 3.0				SS-5	75	18	1 3 3	6		
12							8			
13 — 4.0										
15	4.6		Grey, Moist, Dense				11			
16				SS-6	75	11	17 22	39		WL - 4.8 m (open borehole, immediately after drilling)
17 — 5.0							27			
19										
20 — 6.0	6.1		Compact				5			
21				SS-7	100	10	10 15	25		
22	6.7		END OF BOREHOLE				15			51 mm I.D. Monitoring Well installed to 6.7 m
23 — 7.0										
25										
26 — 8.0										
27										
28										
29 — 9.0										
31										
32										

REFERENCE No.: 11192167-02 ENCLOSURE No.: A-19

BOREHOLE No.: MW-19
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 1

CLIENT: 2440332 Ontario Inc
PROJECT: 5262-5318 Main Street, Stouffville, Ontario
LOGGED BY: J.Cummings DATE: 22 April 2019
DRILLING COMPANY: Landshark Drilling Ltd. METHOD: Hollow Stem Auger and SPT
NOTES:

LEGEND
- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

UTM: (±3m) 17T 637996E 4869414N

Depth ft	Depth m	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Blows per 6 in. / 15 cm	Penetration Index N
		0.0		GROUND SURFACE					
1–3	1.0			**FILL** - Dark Grey to Dark Brown Sandy Silt, Some Gravel, Trace Clay, Wet, Very Loose	SS-1	75	14	0 1 3	4
4–6	2.0	1.8		**TILL** - Mottled Light Brown with Grey Clayey Sandy Silt, Some Gravel, Moist, Compact	SS-2	100	12	5 7 7	14
7–9	3.0	3.0		Wet	SS-3	100	10	6 7 11 13	24
10–12	4.0				SS-4	25	12	16 4 12 1 3 17	25
13–15	5.0	4.6		Grey, Moist, Dense	SS-5	100	9	14 18 15 13	33
16–18	6.0	6.1		Wet, Compact	SS-6	25	13	6 8 9 12	17
19–21	7.0				SS-7	50	13	9 6 13 11	19
22–24	8.0								
25–27	9.0				SS-8	100	15	4 7 17 28	24
28–30		9.8		END OF BOREHOLE					

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
W_p W_l Atterberg limits (%)
× "N" Value (blows / 0.3 m) ◆ RQD ◎ CONE

10 20 30 40 50 60 70 80 90

COMMENTS

— 1.14 m
— 1.07 m

Borehole open on completion of drilling

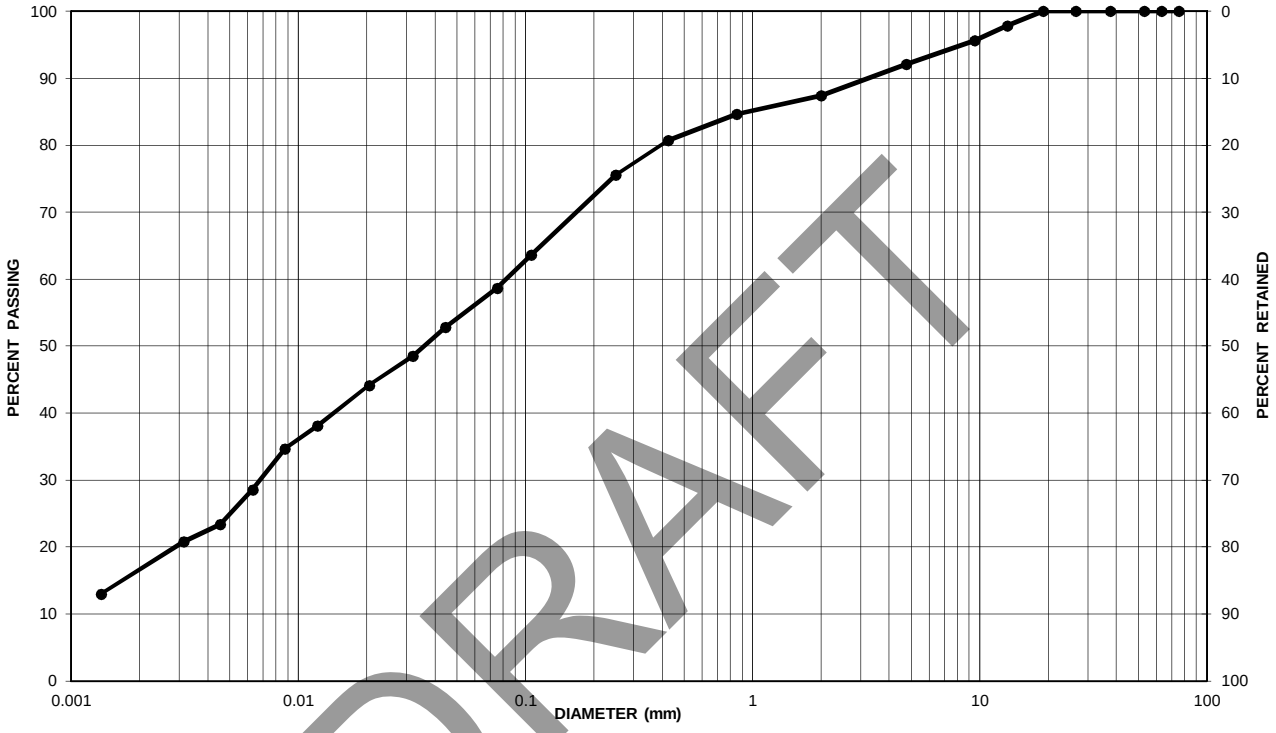
First encounter of groundwater seepage at 1.2 m

WL - 2.7 m 4/24/2019

51 mm I.D. Monitoring Well installed to 9.1 m

PARTICLE-SIZE ANALYSIS OF SOILS (GEOTECHNICAL) (USCS) (LS 702)

CLIENT:	2440332 Ontario Inc.	**LAB No.:**	SS-14-113
PROJECT/ SITE:	5262-5318 Main St, Whitchurch-Stouffville, ON	**PROJECT No.:**	11192167-02
Borehole No.:	BH6	Sample No.:	SS5
Depth:	3.1 - 3.5 m	Enclosure:	A-20



CLAY & SILT	SAND			GRAVEL	
	FINE	MEDIUM	COARSE	FINE	COARSE
UNIFIED SOIL CLASSIFICATION SYSTEM					

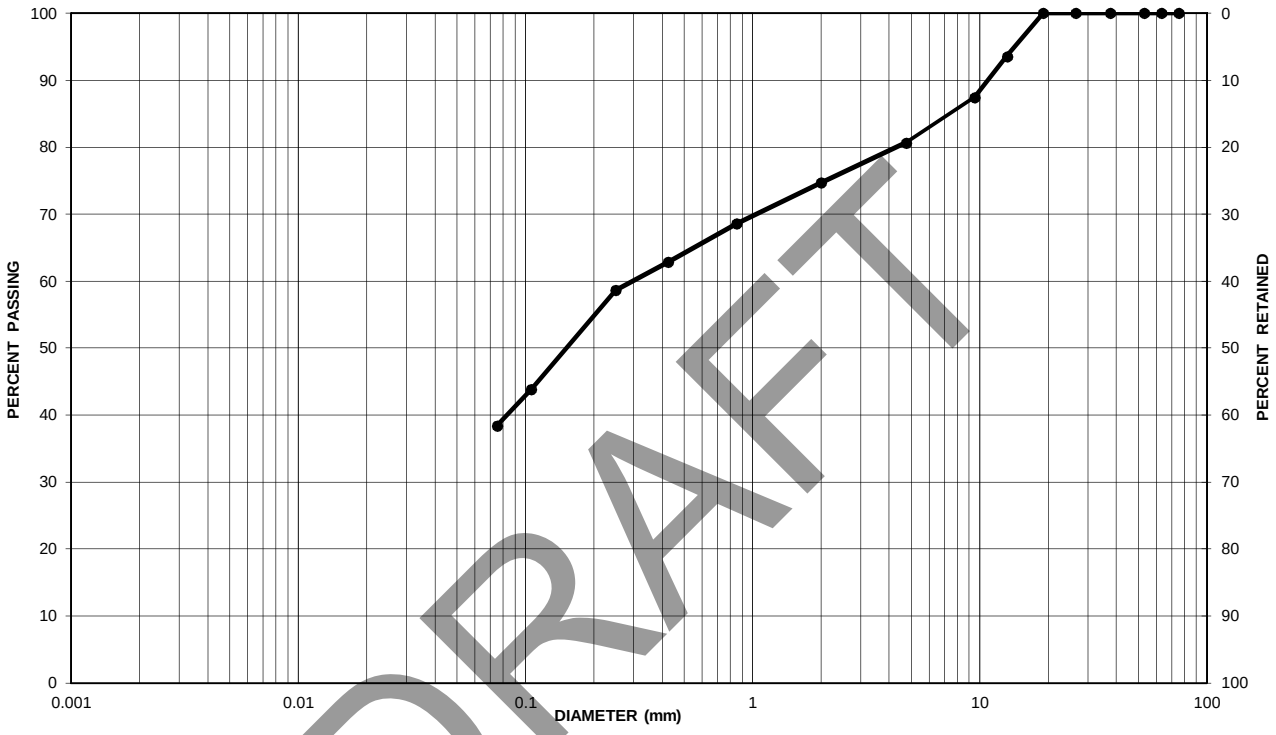
Soil Description	Gravel	Sand	Clay & Silt
BH6 SS5	8	33	59

REMARKS:

PERFORMED BY:		**DATE:**	January 6, 2015
VERIFIED BY:		**DATE:**	January 6, 2015

PARTICLE-SIZE ANALYSIS OF SOILS (GEOTECHNICAL) (USCS) (LS 702)

CLIENT:	2440332 Ontario Inc.	**LAB No.:**	SS-14-113
PROJECT/ SITE:	5262-5318 Main St, Whitchurch-Stouffville, ON	**PROJECT No.:**	11192167-02
Borehole No.:	BH2	Sample No.:	SS5
Depth:	3.1 - 3.5 m	Enclosure:	A-21



CLAY & SILT	SAND			GRAVEL	
	FINE	MEDIUM	COARSE	FINE	COARSE
UNIFIED SOIL CLASSIFICATION SYSTEM					

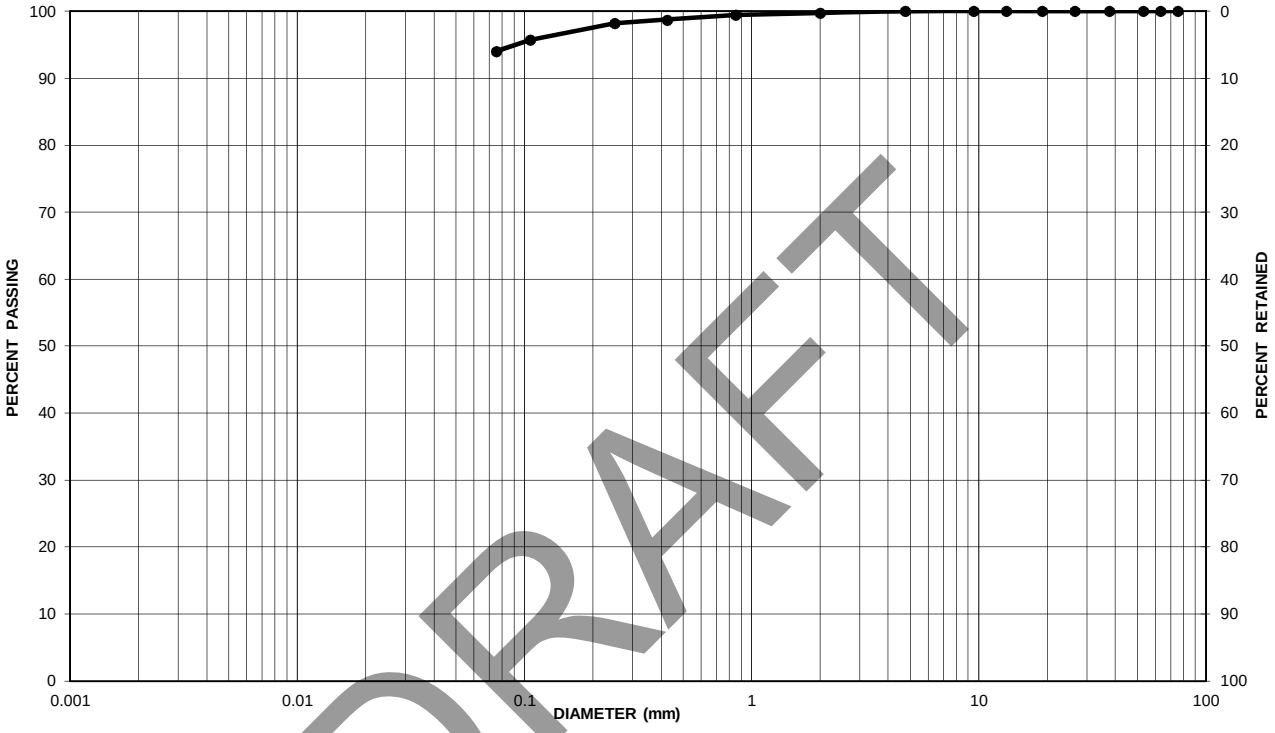
Soil Description	Gravel	Sand	Clay & Silt
BH2 SS5	20	42	38

REMARKS:

PERFORMED BY:		**DATE:**	January 6, 2015
VERIFIED BY:		**DATE:**	January 6, 2015

PARTICLE-SIZE ANALYSIS OF SOILS (GEOTECHNICAL) (USCS) (LS 702)

CLIENT:	2440332 Ontario Inc.	**LAB No.:**	SS-14-113
PROJECT/ SITE:	5262-5318 Main St, Whitchurch-Stouffville, ON	**PROJECT No.:**	11192167-02
Borehole No.:	BH6	Sample No.:	SS8
Depth:	7.6 - 8.1 m	Enclosure:	A-22



CLAY & SILT	SAND			GRAVEL	
	FINE	MEDIUM	COARSE	FINE	COARSE
UNIFIED SOIL CLASSIFICATION SYSTEM					

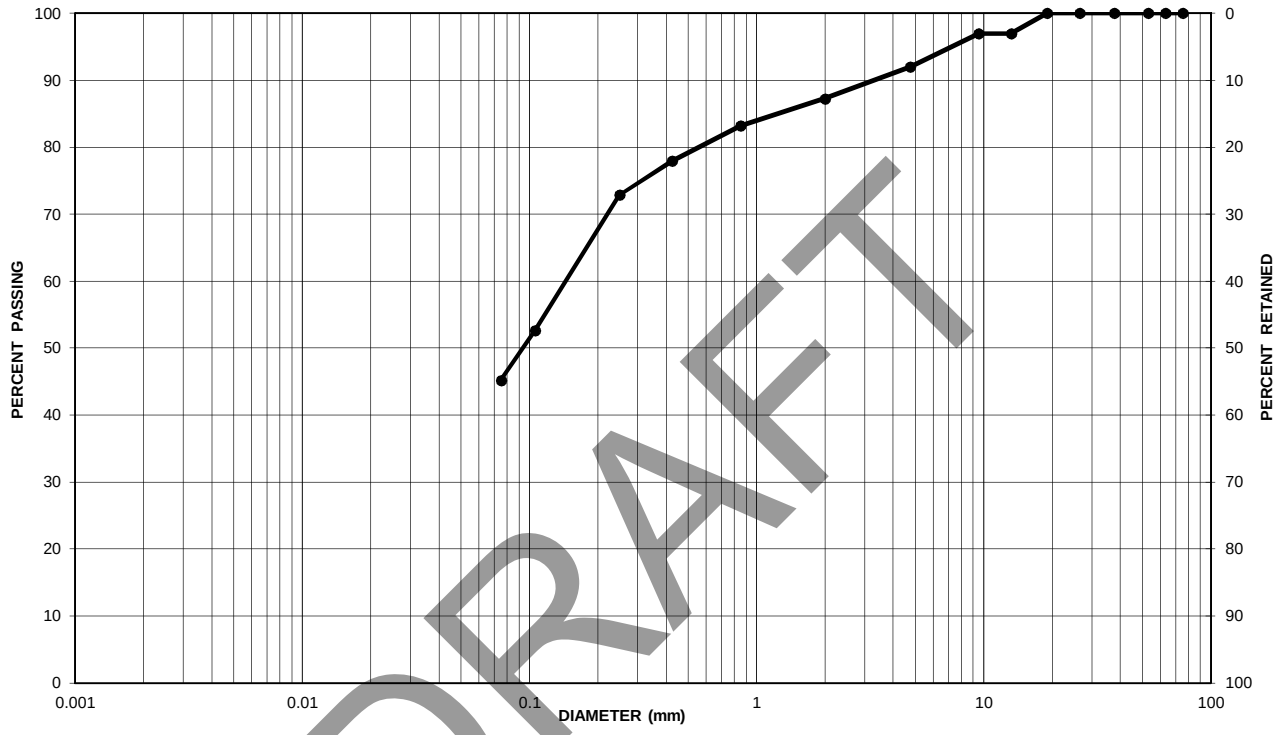
Soil Description	Gravel	Sand	Clay & Silt
BH6 SS8	0	6	94

REMARKS:

PERFORMED BY:		**DATE:**	January 6, 2015
VERIFIED BY:		**DATE:**	January 6, 2015

PARTICLE-SIZE ANALYSIS OF SOILS (GEOTECHNICAL) (USCS) (LS 702)

CLIENT:	2440332 Ontario Inc.	**LAB No.:**	SS-14-113
PROJECT/ SITE:	5262-5318 Main St, Whitchurch-Stouffville, ON	**PROJECT No.:**	11192167-02
Borehole No.:	BH7	Sample No.:	SS1
Depth:	0 - 0.6 m	Enclosure:	A-23



CLAY & SILT	SAND			GRAVEL	
	FINE	MEDIUM	COARSE	FINE	COARSE
UNIFIED SOIL CLASSIFICATION SYSTEM					

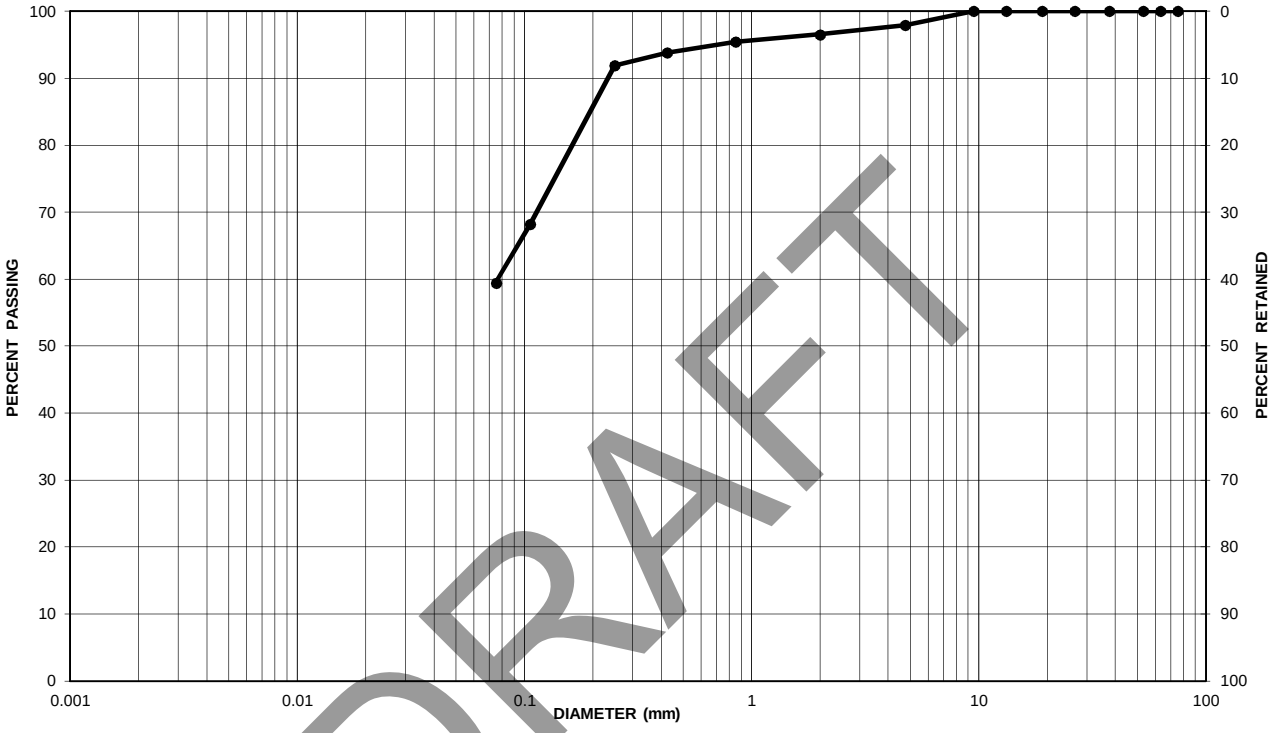
Soil Description	Gravel	Sand	Clay & Silt
BH7 SS1	8	47	45

REMARKS:

PERFORMED BY:		**DATE:**	January 6, 2015
VERIFIED BY:		**DATE:**	January 6, 2015

PARTICLE-SIZE ANALYSIS OF SOILS (GEOTECHNICAL) (USCS) (LS 702)

CLIENT:	2440332 Ontario Inc.	**LAB No.:**	SS-14-113
PROJECT/ SITE:	5262-5318 Main St, Whitchurch-Stouffville, ON	**PROJECT No.:**	11192167-02
Borehole No.:	BH10	Sample No.:	SS13
Depth:	15.2 - 15.7 m	Enclosure:	A-24



CLAY & SILT	SAND			GRAVEL	
	FINE	MEDIUM	COARSE	FINE	COARSE
UNIFIED SOIL CLASSIFICATION SYSTEM					

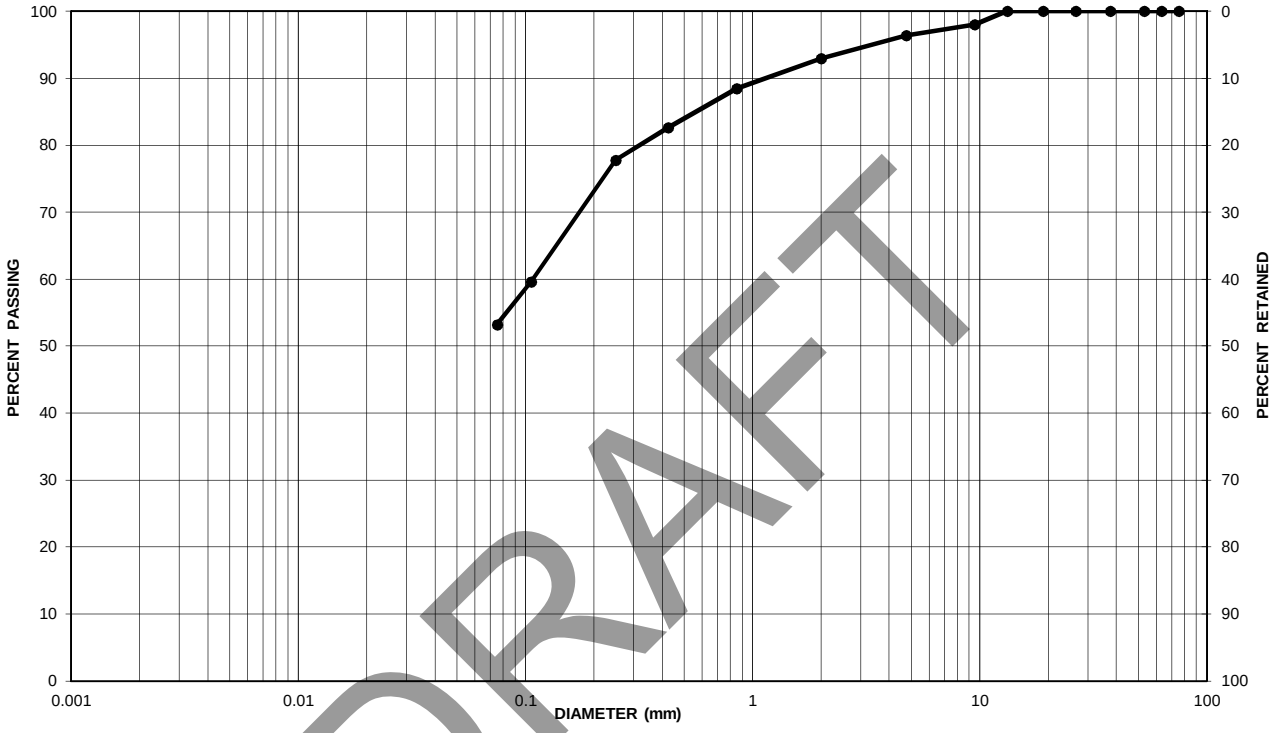
Soil Description	Gravel	Sand	Clay & Silt
BH10 SS13	2	39	59

REMARKS:

PERFORMED BY:		**DATE:**	January 6, 2015
VERIFIED BY:		**DATE:**	January 6, 2015

PARTICLE-SIZE ANALYSIS OF SOILS (GEOTECHNICAL) (USCS) (LS 702)

CLIENT:	2440332 Ontario Inc.	**LAB No.:**	SS-14-113
PROJECT/ SITE:	5262-5318 Main St, Whitchurch-Stouffville, ON	**PROJECT No.:**	11192167-02
Borehole No.:	BH11	Sample No.:	SS3
Depth:	1.5 - 2 m	Enclosure:	A-25



CLAY & SILT	SAND			GRAVEL	
	FINE	MEDIUM	COARSE	FINE	COARSE
UNIFIED SOIL CLASSIFICATION SYSTEM					

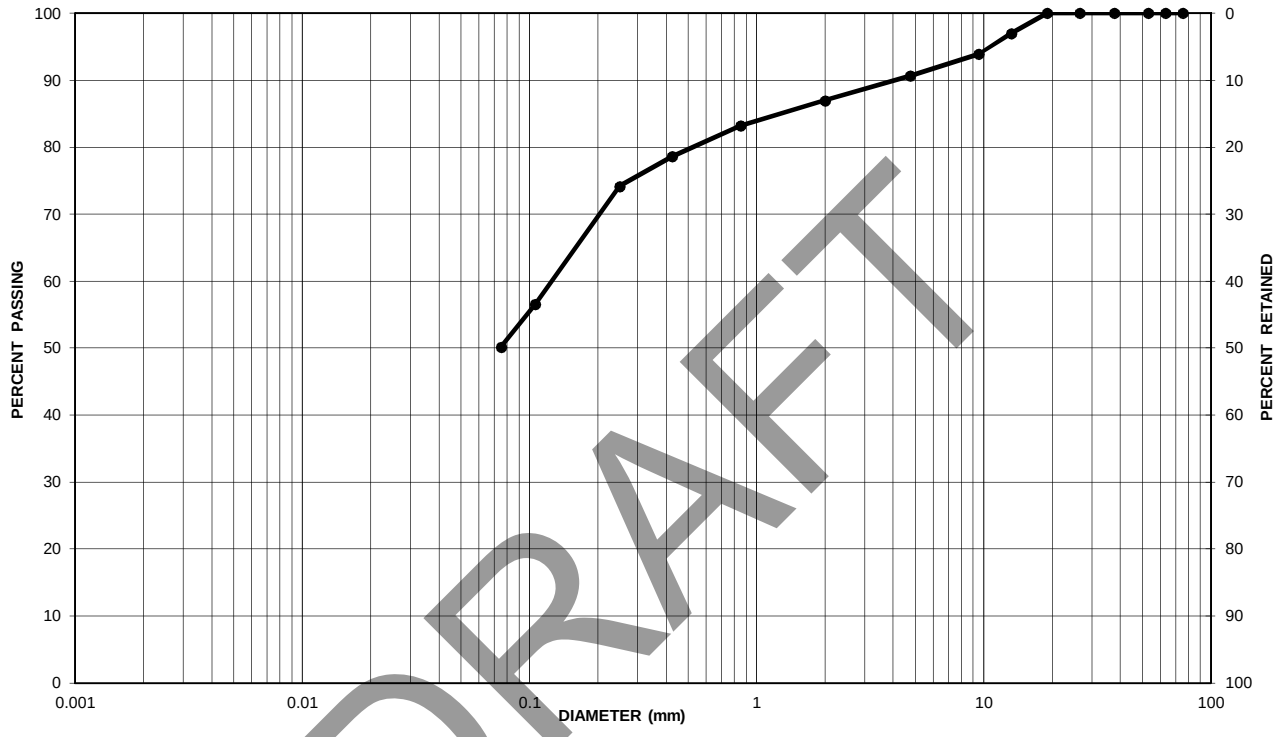
Soil Description	Gravel	Sand	Clay & Silt
BH11 SS3	4	43	53

REMARKS:

PERFORMED BY:		**DATE:**	January 6, 2015
VERIFIED BY:		**DATE:**	January 6, 2015

PARTICLE-SIZE ANALYSIS OF SOILS (GEOTECHNICAL) (USCS) (LS 702)

CLIENT:	2440332 Ontario Inc.	**LAB No.:**	SS-14-113
PROJECT/ SITE:	5262-5318 Main St, Whitchurch-Stouffville, ON	**PROJECT No.:**	11192167-02
Borehole No.:	BH13	Sample No.:	SS10
Depth:	12.2 - 12.65 m	Enclosure:	A-26



CLAY & SILT	SAND			GRAVEL	
	FINE	MEDIUM	COARSE	FINE	COARSE
UNIFIED SOIL CLASSIFICATION SYSTEM					

Soil Description	Gravel	Sand	Clay & Silt
BH13 SS10	9	41	50

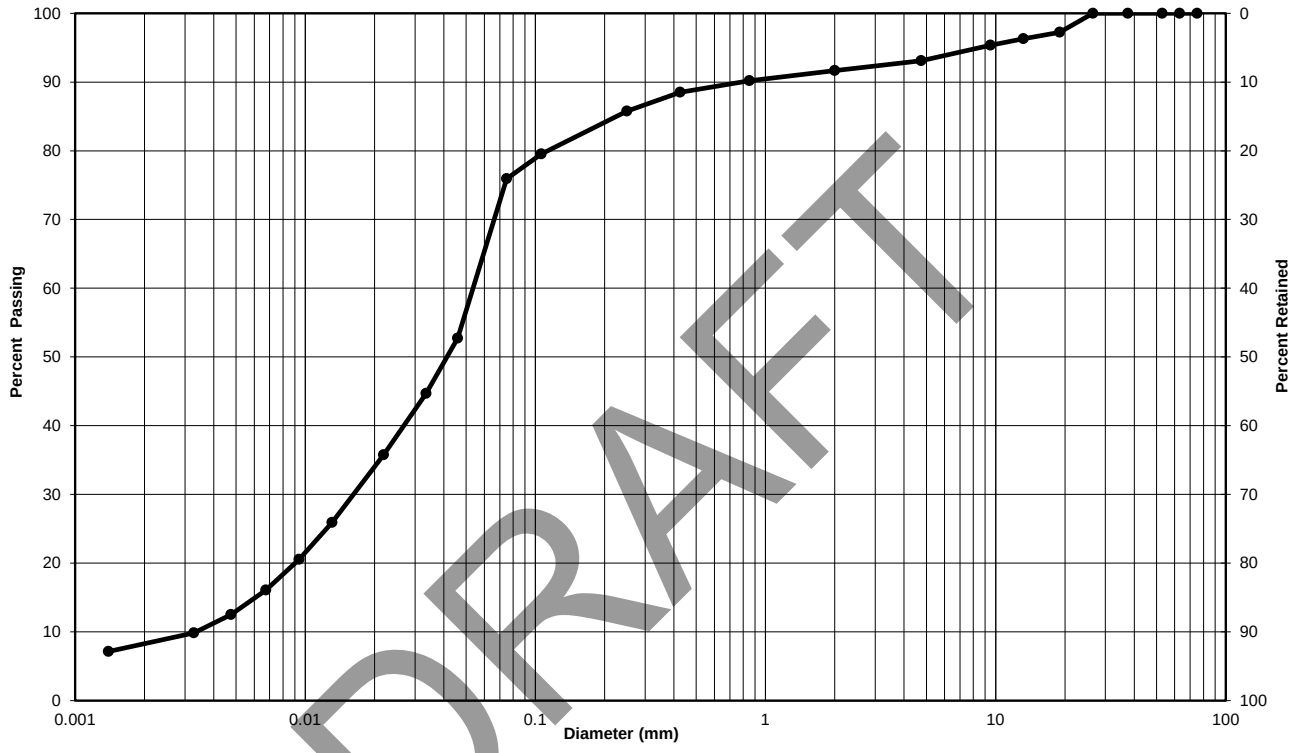
REMARKS:

PERFORMED BY:		**DATE:**	January 6, 2015
VERIFIED BY:		**DATE:**	January 6, 2015

Particle-Size Analysis of Soils (Geotechnical) (USCS) (ASTM D422)

Client:	2440332 Ontario Inc.	**Lab no.:**	SS-19-27
Project/Site:	5262-5318 Main Street, Stouffville ON	**Project no.:**	11192167-02

Borehole no.:	MW-16	Sample no.:	SS-12
Depth:	13.7 - 14.3 m	Enclosure:	A-27



Clay & Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse
Unified Soil Classification System					

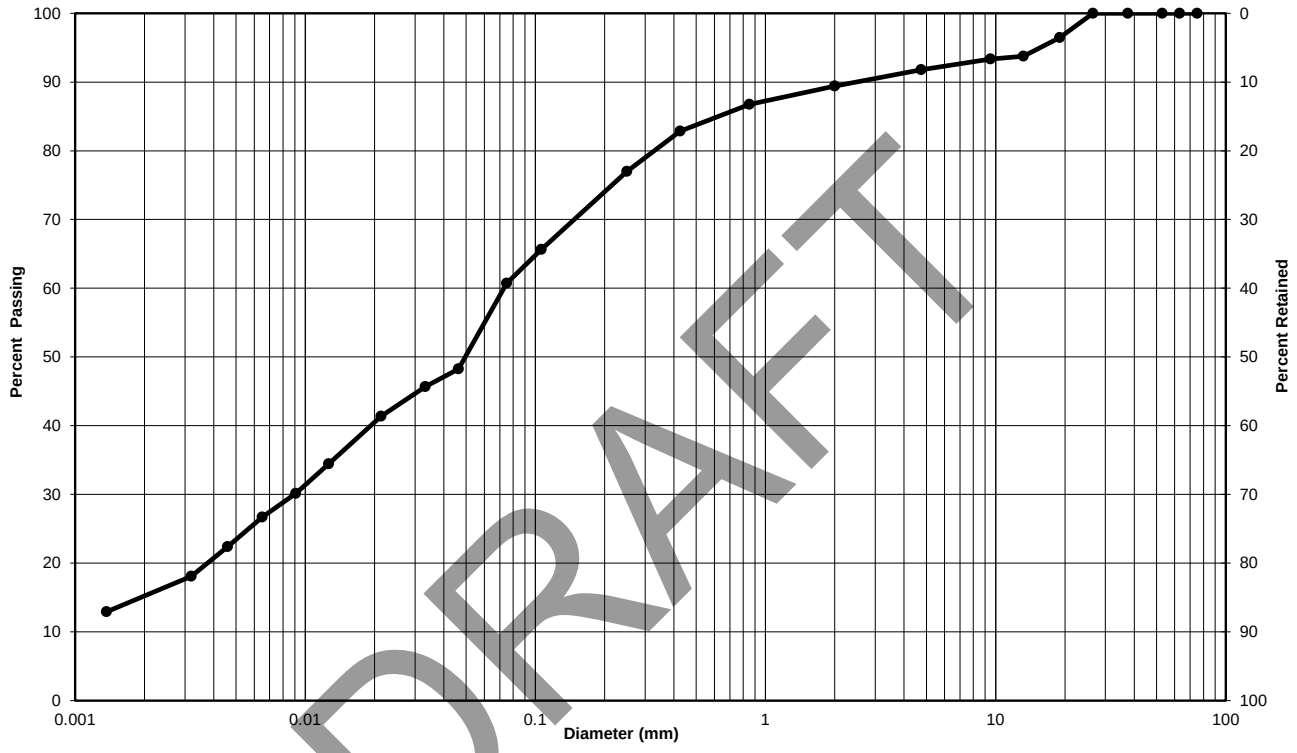
Soil Description	Gravel	Sand	Clay & Silt
	7	17	76

Remarks:

Performed by:	Alex Fawcett	**Date:**	May 7, 2019
Verified by:		**Date:**	May 8, 2019

Particle-Size Analysis of Soils (Geotechnical) (USCS) (ASTM D422)

Client:	2440332 Ontario Inc.	**Lab no.:**	SS-19-27
Project/Site:	5262-5318 Main Street, Stouffville ON	**Project no.:**	11192167-02
Borehole no.:	MW-16	Sample no.:	SS-3
Depth:	2.3 - 2.9 m	Enclosure:	A-28



Clay & Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse
Unified Soil Classification System					

Soil Description	Gravel	Sand	Clay & Silt
	8	31	61

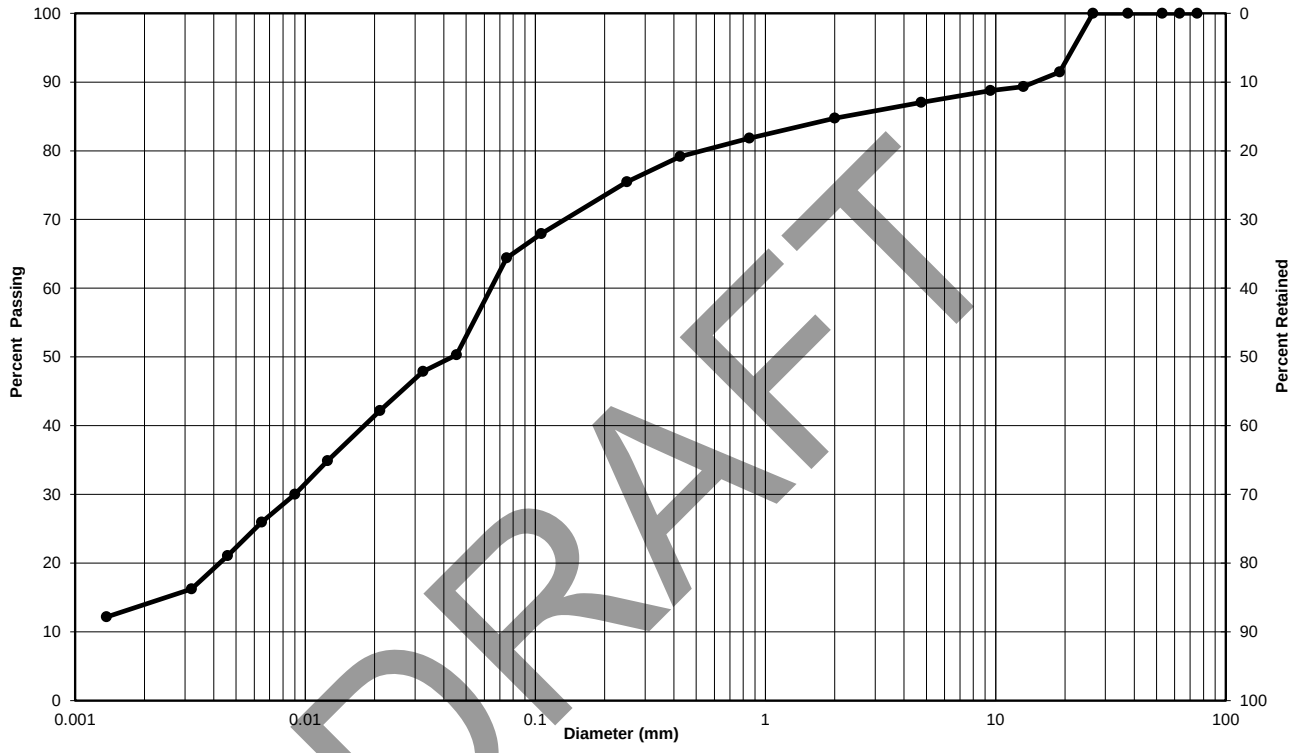
Remarks:

Performed by:	Alex Fawcett	**Date:**	May 7, 2019
Verified by:		**Date:**	May 8, 2019

Particle-Size Analysis of Soils (Geotechnical) (USCS) (ASTM D422)

Client:	2440332 Ontario Inc.	**Lab no.:**	SS-19-27
Project/Site:	5262-5318 Main Street, Stouffville ON	**Project no.:**	11192167-02

Borehole no.:	MW-16	Sample no.:	SS-6
Depth:	4.6 - 5.2 m	Enclosure:	A-29



Clay & Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse
Unified Soil Classification System					

Soil Description	Gravel	Sand	Clay & Silt
	13	23	64

Remarks:

Performed by:	Alex Fawcett	**Date:**	May 7, 2019
Verified by:		**Date:**	May 8, 2019

Particle-Size Analysis of Soils (Geotechnical) (USCS) (ASTM D422)

Client:	2440332 Ontario Inc.	**Lab no.:**	SS-19-27
Project/Site:	5262-5318 Main Street, Stouffville ON	**Project no.:**	11192167-02

Borehole no.:	MW-16	Sample no.:	SS-8
Depth:	7.6 - 8.2 m	Enclosure:	A-30

Clay & Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse
Unified Soil Classification System					

Soil Description	Gravel	Sand	Clay & Silt
	4	27	69

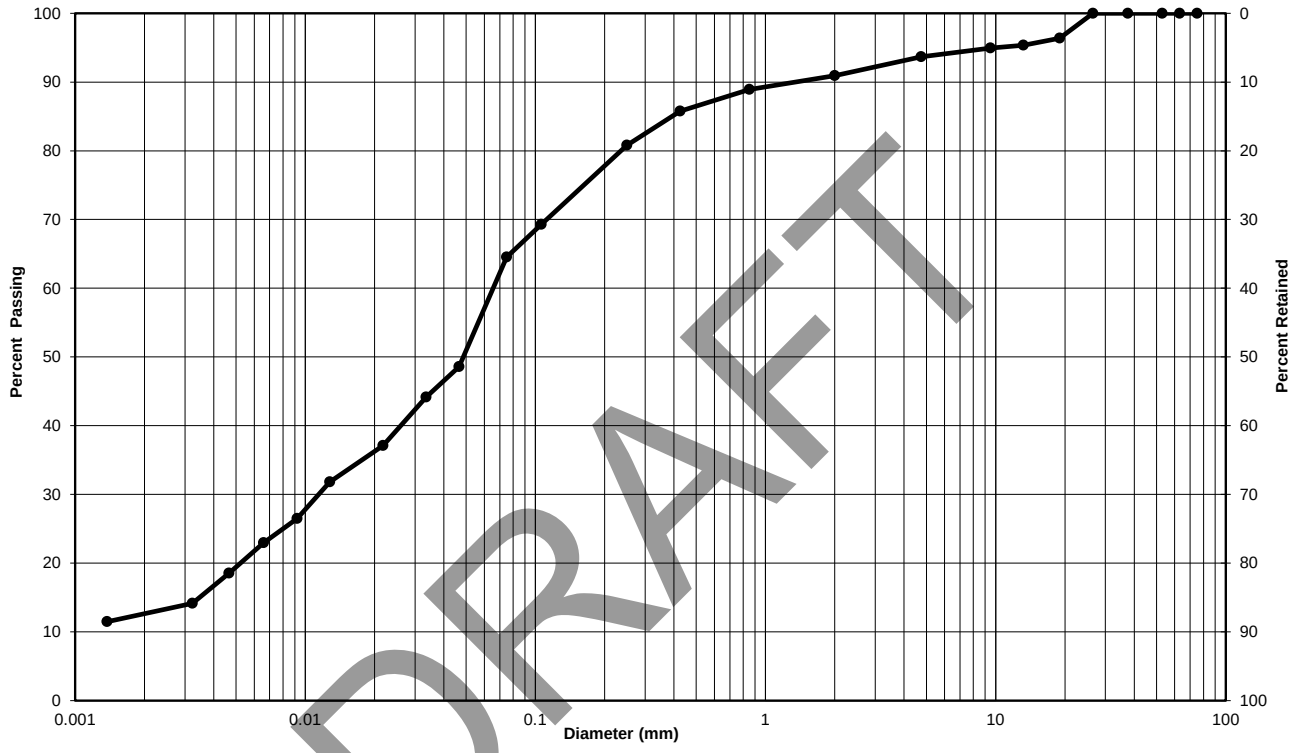
Remarks:

Performed by:	Alex Fawcett	**Date:**	May 7, 2019
Verified by:		**Date:**	May 8, 2019

Particle-Size Analysis of Soils (Geotechnical) (USCS) (ASTM D422)

Client:	2440332 Ontario Inc.	**Lab no.:**	SS-19-27
Project/Site:	5262-5318 Main Street, Stouffville ON	**Project no.:**	11192167-02

Borehole no.:	MW-18	Sample no.:	SS-5
Depth:	3.05 - 3.7 m	Enclosure:	A-31



Clay & Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse
Unified Soil Classification System					

Soil Description	Gravel	Sand	Clay & Silt
	6	29	65

Remarks:

Performed by:	Alex Fawcett	**Date:**	May 7, 2019
Verified by:		**Date:**	May 8, 2019

TEST PIT STRATIGRAPHIC RECORD

TP1-26

Project Number: 12687667

Client: City Park Homes (Stouffville) Inc.
Project: Geotechnical and Hydrogeological Update, City Park Homes
Location: Main Street / Fockler Lane, Stouffville
Date (dd/mm/yyyy): 14/05/2026
Excavation Company: Client Hired Subcontractor
Equipment Used: Komatsu PC138USLC
Excavation Method(s): Excavator

Northing: 4869742 m
Easting: 638095 m
Elevation:
Elevation Datum:

Logged By: Claire Baggesen
Approved By: Michael Nieukirk
Horizontal Datum: NAD83(CSRS98) / UTM zone 17N
Final Depth: 3.51 m

Coordinates and Elevation Values are Approximate

Depth Scale (m)	Depth (m) / Elev. (m)	Strata	Description	Hand Penetrometer (kPa)	Sample Number	Grain Size Analysis: Gravel %	Sand %	Silt %	Clay %	Fines %	Moisture Content %	Water Level(s)	Backfill Details
	0.00												
	0.20		TOPSOIL (200 mm)										
			FILL: SILTY SAND, with clay, trace gravel, light brown, moist		GS1						11		
1													
2			- buried organics (230 mm), dark brown at 2.21 m BGS										
	2.44		NATIVE: SANDY SILTY CLAY TILL, trace gravel, light brown, moist										
3			- groundwater seepage at 3.05 m BGS		GS2	8	25	46	21		15	▼	
	3.51		End of Test Pit at 3.51 m BGS										
4													
5													

● SPT N-Value
▼ DCPT Value (blows 100mm)
Δ Peak Undrained Shear Strength (vane), C_u (kPa)-Peak
□ Remoulded Undrained Shear Strength (Vane), C_u (kPa)-Residual
○ Moisture Content (%)
PL w LL
20 40 60 80

Legend:
Measuring Point Elevation may change; Refer to Current Elevation Table
▽ **At Time of Excavation:**3.10 m **on** 14/05/2026
▼ **Upon Completion of Excavation:**3.10 m **on** 14/05/2026

TEST PIT STRATIGRAPHIC RECORD

TP2-26

Project Number: 12687667

Client: City Park Homes (Stouffville) Inc.
Project: Geotechnical and Hydrogeological Update, City Park Homes
Location: Main Street / Fockler Lane, Stouffville
Date (dd/mm/yyyy): 14/05/2026
Excavation Company: Client Hired Subcontractor
Equipment Used: Komatsu PC138USLC
Excavation Method(s): Excavator

Northing: 4869631 m
Easting: 638090 m
Horizontal Datum: NAD83(CSRS98) / UTM zone 17N
Elevation:
Elevation Datum:

Logged By: Claire Baggesen
Approved By: Michael Nieukirk
Final Depth: 3.35 m

Coordinates and Elevation Values are Approximate

Depth Scale (m)	Depth (m) / Elev. (m)	Strata	Description	Hand Penetrometer (kPa)	Sample Number	Grain Size Analysis (Gravel %, Sand %, Silt %, Clay %, Fines %)	Moisture Content %	● SPT N-Value ▼ DCPT Value (blows 100mm) Δ Peak Undrained Shear Strength (vane), C_u (kPa)-Peak □ Remoulded Undrained Shear Strength (Vane), C_u (kPa)-Residual ○ Moisture Content (%) PL w LL (20 40 60 80)	Water Level(s)	Backfill Details
	0.00									
	0.30		TOPSOIL (200 mm)							
			FILL: SANDY SILT, trace to with clay, trace gravel, light brown, moist		GS1		16	○		
1										
			- buried organics (460 mm), dark brown from 1.83 m BGS to 2.29 m BGS		GS2		31	○		
2	2.29									
			NATIVE: SANDY SILTY CLAY TILL, trace gravel, light brown, moist							
3			- groundwater seepage at 3.05 m BGS		GS3		15	○	▼	
	3.35		End of Test Pit at 3.35 m BGS							
4										
5										

Legend:
Measuring Point Elevation may change; Refer to Current Elevation Table
▽ **At Time of Excavation:**3.10 m **on** 14/05/2026
▼ **Upon Completion of Excavation:**3.10 m **on** 14/05/2026

TEST PIT STRATIGRAPHIC RECORD

TP3-26

Project Number: 12687667

Client: City Park Homes (Stouffville) Inc.
Project: Geotechnical and Hydrogeological Update, City Park Homes
Location: Main Street / Fockler Lane, Stouffville
Date (dd/mm/yyyy): 14/05/2026
Excavation Company: Client Hired Subcontractor
Equipment Used: Komatsu PC138USLC
Excavation Method(s): Excavator

Northing: 4869547 m
Easting: 638096 m
Horizontal Datum: NAD83(CSRS98) / UTM zone 17N
Elevation:
Elevation Datum:

Logged By: Claire Baggesen
Approved By: Michael Nieukirk
Final Depth: 3.20 m

Coordinates and Elevation Values are Approximate

Depth Scale (m)	Depth (m) / Elev. (m)	Strata	Description	Hand Penetrometer (kPa)	Sample Number	Grain Size Analysis (Gravel %, Sand %, Silt %, Clay %, Fines %)	Moisture Content %	Water Level(s)	Backfill Details
	0.00								
	0.25		TOPSOIL (250 mm)						
1			FILL: SANDY SILT, trace gravel, light brown, moist - green tarp at 0.30 m BGS		GS1		8		
2	1.98		- layer of organics (150 mm), dark brown at 1.83 m BGS FILL (Reworked Native): SILTY CLAY with sand, trace gravel, grey, moist		GS2		44		
3	3.05		- concrete slab, chunks of bricks at 2.74 m BGS					▼	
	3.20		NATIVE: SANDY SILTY CLAY TILL, trace gravel, grey, moist - groundwater seepage at 3.05 m BGS		GS3		11	▽	
4			End of Test Pit at 3.20 m BGS						
5									

● SPT N-Value
▼ DCPT Value (blows 100mm)
Δ Peak Undrained Shear Strength (vane), C_u (kPa)-Peak
□ Remoulded Undrained Shear Strength (Vane), C_u (kPa)-Residual
○ Moisture Content (%)
PL w LL
20 40 60 80

Legend:
Measuring Point Elevation may change; Refer to Current Elevation Table
▽ **At Time of Excavation:**3.10 m **on** 14/05/2026
▼ **Upon Completion of Excavation:**3.00 m **on** 14/05/2026

TEST PIT STRATIGRAPHIC RECORD

TP4-26

Project Number: 12687667

Client: City Park Homes (Stouffville) Inc.
Project: Geotechnical and Hydrogeological Update, City Park Homes
Location: Main Street / Fockler Lane, Stouffville
Date (dd/mm/yyyy): 14/05/2026
Excavation Company: Client Hired Subcontractor
Equipment Used: Komatsu PC138USLC
Excavation Method(s): Excavator

Northing: 4869461 m
Easting: 638061 m
Horizontal Datum: NAD83(CSRS98) / UTM zone 17N
Elevation:
Elevation Datum:

Logged By: Claire Baggesen
Approved By: Michael Nieukirk
Final Depth: 4.27 m

Coordinates and Elevation Values are Approximate

Depth Scale (m)	Depth (m) / Elev. (m)	Strata	Description	Hand Penetrometer (kPa)	Sample Number	Grain Size Analysis: Gravel %	Sand %	Silt %	Clay %	Fines %	Moisture Content %	Water Level(s)	Backfill Details
	0.00												
	0.28		TOPSOIL (280 mm)										
			FILL: SILTY SAND, trace gravel, trace clay, brown, moist		GS1	4	50	36	10		14		
1													
2	2.13												
			NATIVE: SANDY SILTY CLAY TILL, trace gravel, light brown, moist - groundwater seepage at 2.29 m BGS									▽	
3					GS2						11		
4	4.27											▼	
			End of Test Pit at 4.27 m BGS										
5													

● SPT N-Value
▼ DCPT Value (blows 100mm)
Δ Peak Undrained Shear Strength (vane), C_u (kPa)-Peak
□ Remoulded Undrained Shear Strength (Vane), C_u (kPa)-Residual
○ Moisture Content (%)
PL w LL
20 40 60 80

Legend:
Measuring Point Elevation may change; Refer to Current Elevation Table
▽ **At Time of Excavation:** 2.30 m **on** 14/05/2026
▼ **Upon Completion of Excavation:** 4.20 m **on** 14/05/2026

TEST PIT STRATIGRAPHIC RECORD

TP5-26

Project Number: 12687667

Client: City Park Homes (Stouffville) Inc.
Project: Geotechnical and Hydrogeological Update, City Park Homes
Location: Main Street / Fockler Lane, Stouffville
Date (dd/mm/yyyy): 14/05/2026
Excavation Company: Client Hired Subcontractor
Equipment Used: Komatsu PC138USLC
Excavation Method(s): Excavator

Northing: 4869644 m
Easting: 638024 m
Horizontal Datum: NAD83(CSRS98) / UTM zone 17N
Elevation:
Elevation Datum:

Logged By: Claire Baggesen
Approved By: Michael Nieukirk
Final Depth: 3.05 m

Coordinates and Elevation Values are Approximate

Depth Scale (m)	Depth (m) / Elev. (m)	Strata	Description	Hand Penetrometer (kPa)	Sample Number	Grain Size Analysis: Gravel %	Sand %	Silt %	Clay %	Fines %	Moisture Content %	● SPT N-Value ▼ DCPT Value (blows 100mm) Δ Peak Undrained Shear Strength (vane), C_u (kPa)-Peak □ Remoulded Undrained Shear Strength (Vane), C_u (kPa)-Residual ○ Moisture Content (%) PL w LL	Water Level(s)	Backfill Details
	0.00													
	0.25		TOPSOIL (280 mm)											
			FILL: SANDY SILT, trace gravel, light brown, moist		GS1						13	○		
1														
			- groundwater seepage at 1.83 m BGS										▽	
2														
	2.44		- buried organics (150 mm), dark brown at 2.29 m BGS		GS2						32	○		
			SANDY SILTY CLAY TILL, trace gravel, light brown to grey, wet											
3	3.05				GS3						13	○	▼	
			End of Test Pit at 3.05 m BGS											
4														
5														

Legend:
Measuring Point Elevation may change; Refer to Current Elevation Table
▽ **At Time of Excavation:** 1.80 m **on** 14/05/2026
▼ **Upon Completion of Excavation:** 3.00 m **on** 14/05/2026

TEST PIT STRATIGRAPHIC RECORD

TP6-26

Project Number: 12687667

Client: City Park Homes (Stouffville) Inc.
Project: Geotechnical and Hydrogeological Update, City Park Homes
Location: Main Street / Fockler Lane, Stouffville
Date (dd/mm/yyyy): 14/05/2026
Excavation Company: Client Hired Subcontractor
Equipment Used: Komatsu PC138USLC
Excavation Method(s): Excavator

Northing: 4869605 m
Easting: 638026 m
Horizontal Datum: NAD83(CSRS98) / UTM zone 17N
Elevation:
Elevation Datum:

Logged By: Claire Baggesen
Approved By: Michael Nieukirk
Final Depth: 3.35 m

Coordinates and Elevation Values are Approximate

Depth Scale (m)	Depth (m) / Elev. (m)	Strata	Description	Hand Penetrometer (kPa)	Sample Number	Grain Size Analysis: Gravel %	Sand %	Silt %	Clay %	Fines %	Moisture Content %	● SPT N-Value ▼ DCPT Value (blows 100mm) Δ Peak Undrained Shear Strength (vane), C_u (kPa)-Peak □ Remoulded Undrained Shear Strength (Vane), C_u (kPa)-Residual ○ Moisture Content (%) PL w LL (20 40 60 80)	Water Level(s)	Backfill Details
	0.00													
	0.23		TOPSOIL (230 mm)											
			FILL: SANDY SILT, trace clay, trace gravel, light brown, moist		GS1						11	○		
1	1.10		- chunk of bricks at 1.07 m BGS NATIVE: SANDY SILTY CLAY TILL, trace gravel, light brown, moist - groundwater seepage at 1.22 m BGS										▽	
2														
3	3.35				GS2						12	○	▼	
			End of Test Pit at 3.35 m BGS											
4														
5														

Legend:
Measuring Point Elevation may change; Refer to Current Elevation Table
▽ **At Time of Excavation:** 1.20 m **on** 14/05/2026
▼ **Upon Completion of Excavation:** 3.10 m **on** 14/05/2026

Liquid Limit, Plastic Limit and Plasticity Index of Soils
(ASTM D4318, MTO LS-703/704)

Client:	City Park Homes (Stouffville) Inc.	**Lab no.:**	SS-26-26
Project/Site:	Main Street / Fockler Lane, Stouffville, ON	**Project no.:**	12687667

Borehole no.:	TP1-26	Sample no.:	GS2	Sample Depth:	3.0-3.2 m
Soil Description:				Date sampled:	A-38

Apparatus:	Hand Crank	Balance no.:	Intell	Porcelain bowl no.:	1
Liquid limit device no.:	1	Oven no.:	B23-02667	Spatula no.:	1
Sieve no.:	0.425	Glass plate no.:	1		

Liquid Limit (LL):

	Test No. 1	Test No. 2	Test No. 3
Number of blows	27	24	17
Water Content:			
Tare no.	43	82	327
Wet soil+tare, g	32.36	33.89	33.75
Dry soil+tare, g	30.57	31.80	31.62
Mass of water, g	1.79	2.09	2.13
Tare, g	21.45	21.37	21.56
Mass of soil, g	9.12	10.43	10.06
Water content %	19.6%	20.0%	21.2%

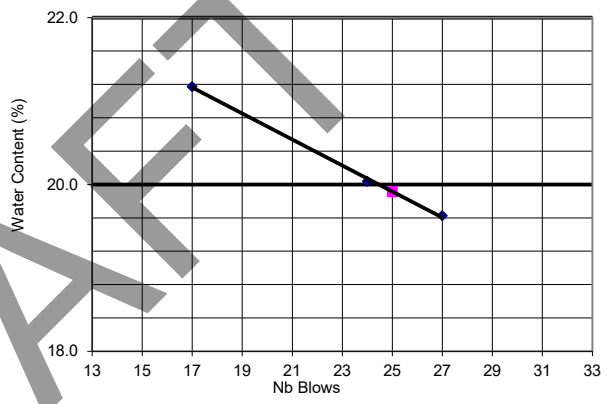
Plastic Limit (PL) - Water Content:		
Tare no.	13	16
Wet soil+tare, g	31.04	33.77
Dry soil+tare, g	29.88	32.30
Mass of water, g	1.16	1.47
Tare, g	21.68	21.96
Mass of soil, g	8.20	10.34
Water content %	14.1%	14.2%
Average water content %	14.2%	

Natural Water Content (W^n):		
Tare no.	Bowl	
Wet soil+tare, g	947.31	
Dry soil+tare, g	847.50	
Mass of water, g	99.81	
Tare, g	166.01	
Mass of soil, g	681.49	
Water content %	14.6%	

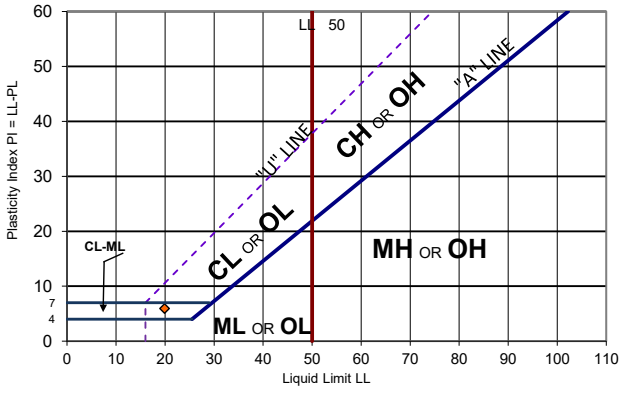
Soil Preparation:

- ☑ Cohesive <425 µm
- ☐ Cohesive >425 µm
- ☐ Non-cohesive
- ☑ Dry preparation (oven dried))
- ☐ Dry preparation (air dried)
- ☐ Wet preparation

Results



Soil Plasticity Chart ASTM D2487



Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)	Natural Water Content Wn
20	14	6	14.6

Plasticity Chart based on ASTM D2487. Additional laboratory reporting information available upon request.

Remarks:

Performed by: Josh Sullivan **Date:** May 29, 2026

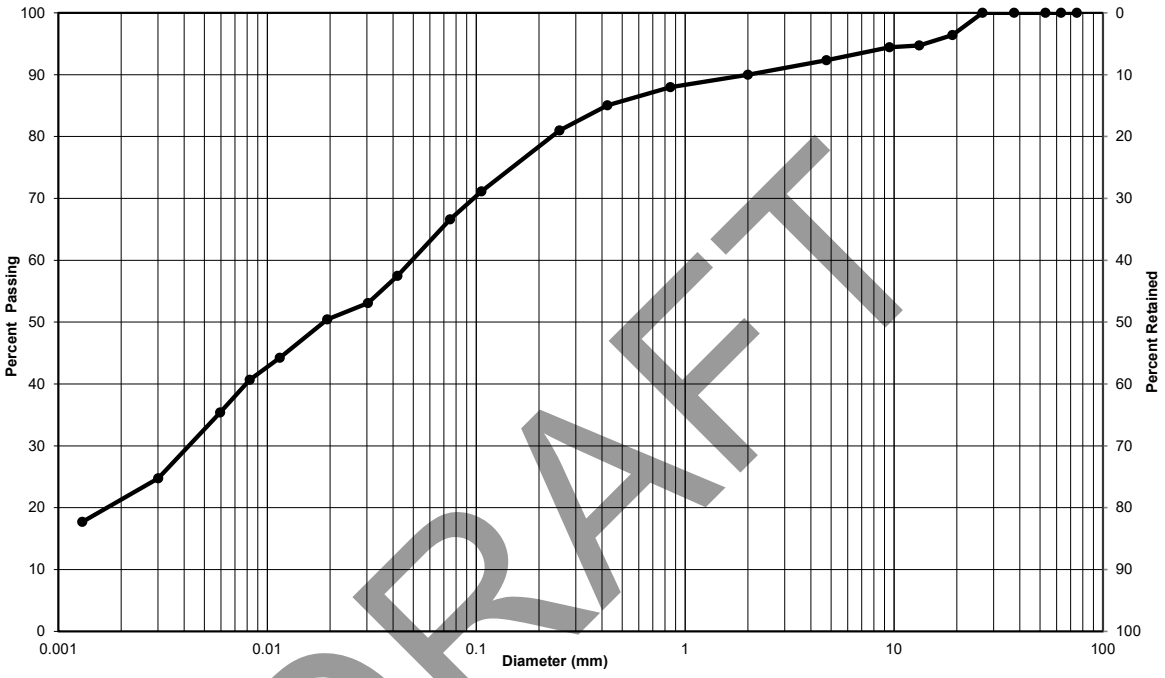
Reviewed by: Joe Sullivan **Date:** May 29, 2026

Laboratory Location: GHD Limited - 347 Pido Road, Unit 29, Peterborough, ON

Particle-Size Analysis of Soils

MTO LS-702/ASTM D422 (Geotechnical)

Client:	City Park Homes (Stouffville) Inc.	**Lab No.:**	SS-26-26
Project/Site:	Main Street / Fockler Lane, Stouffville, ON	**Project No.:**	12687667
Borehole No.:	TP1-26	Sample No.:	GS2
Depth:	3.0-3.2 m	Enclosure:	A-39



Clay & Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse
Particle-Size Limits as per USCS (ASTM D-2487)					

Soil Description	Gravel (%)	Sand (%)	Clay & Silt (%)
Sandy silty clay (CL-ML)	8	25	67
Silt-size particles (%) :	46		
Clay-size particles (%) (<0.002 mm):	21		

Additional laboratory reporting information available upon request.

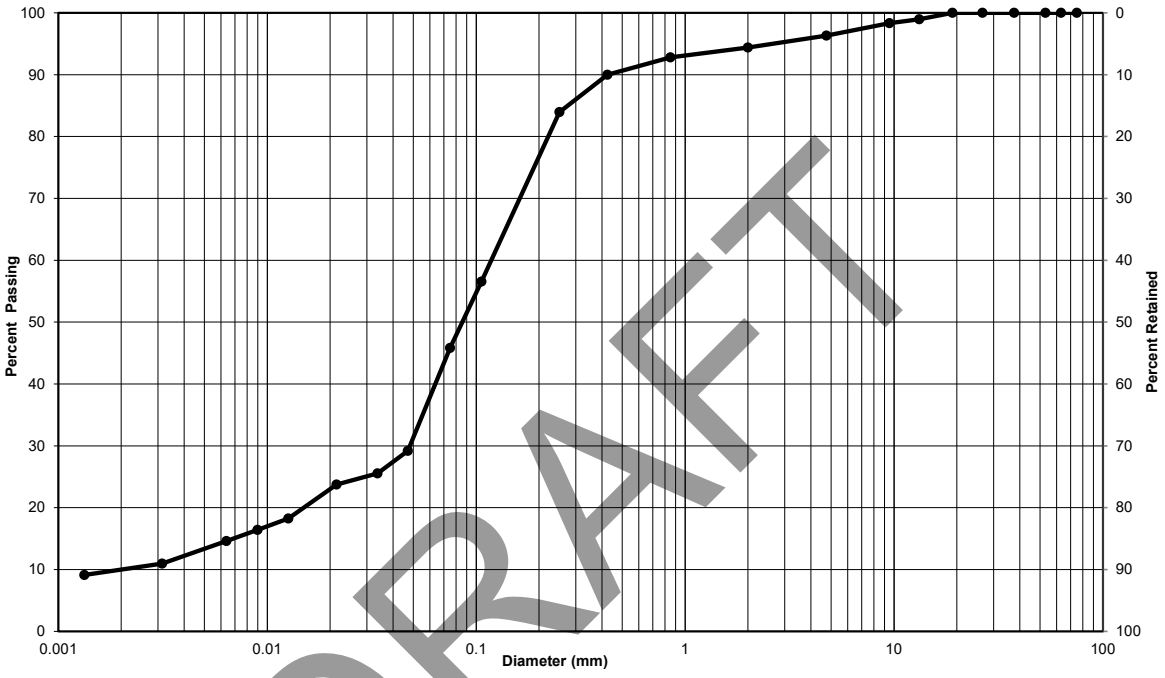
Remarks:

Performed by:	Josh Sullivan	**Date:**	May 29, 2026
Verified by:	Joe Sullivan	**Date:**	May 29, 2026
Laboratory Location:	GHD Limited - 347 Pido Road, Unit 29, Peterborough, ON		

Particle-Size Analysis of Soils

MTO LS-702/ASTM D422 (Geotechnical)

Client:	City Park Homes (Stouffville) Inc.	**Lab No.:**	SS-26-26
Project/Site:	Main Street / Fockler Lane, Stouffville, ON	**Project No.:**	12687667
Borehole No.:	TP4-26	Sample No.:	GS1
Depth:	0.6-0.8 m	Enclosure:	A-40



Clay & Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse
Particle-Size Limits as per USCS (ASTM D-2487)					

Soil Description	Gravel (%)	Sand (%)	Clay & Silt (%)
Silty sand (SM)	4	50	46
Silt-size particles (%) :	36		
Clay-size particles (%) (<0.002 mm):	10		

Additional laboratory reporting information available upon request.

Remarks:

Performed by:	Josh Sullivan	**Date:**	May 29, 2026
Verified by:	Joe Sullivan	**Date:**	May 29, 2026
Laboratory Location:	GHD Limited - 347 Pido Road, Unit 29, Peterborough, ON		

Appendix B

Photographs

Photo 1 – View of residential home on Main Street looking north.

Photo 2 – View of storage and parking area on Fockler Lane.

Site Photographs

Photo 3 – View of Site looking north.

Photo 4 – View of creek.

Site Photographs

Photo 5 – Residences fronting on Main Street.

Photo 6 – Seasonal drainage ditch.

Site Photographs

Photo 7 – View of Site looking south – April 2019.

Photo 8 – View of central parcel of Property, facing north – April 2019

Photo 9 – View of drilling in the central area looking north – April 2019.

Photo 10 – View of drilling in the central looking east – April 2019.

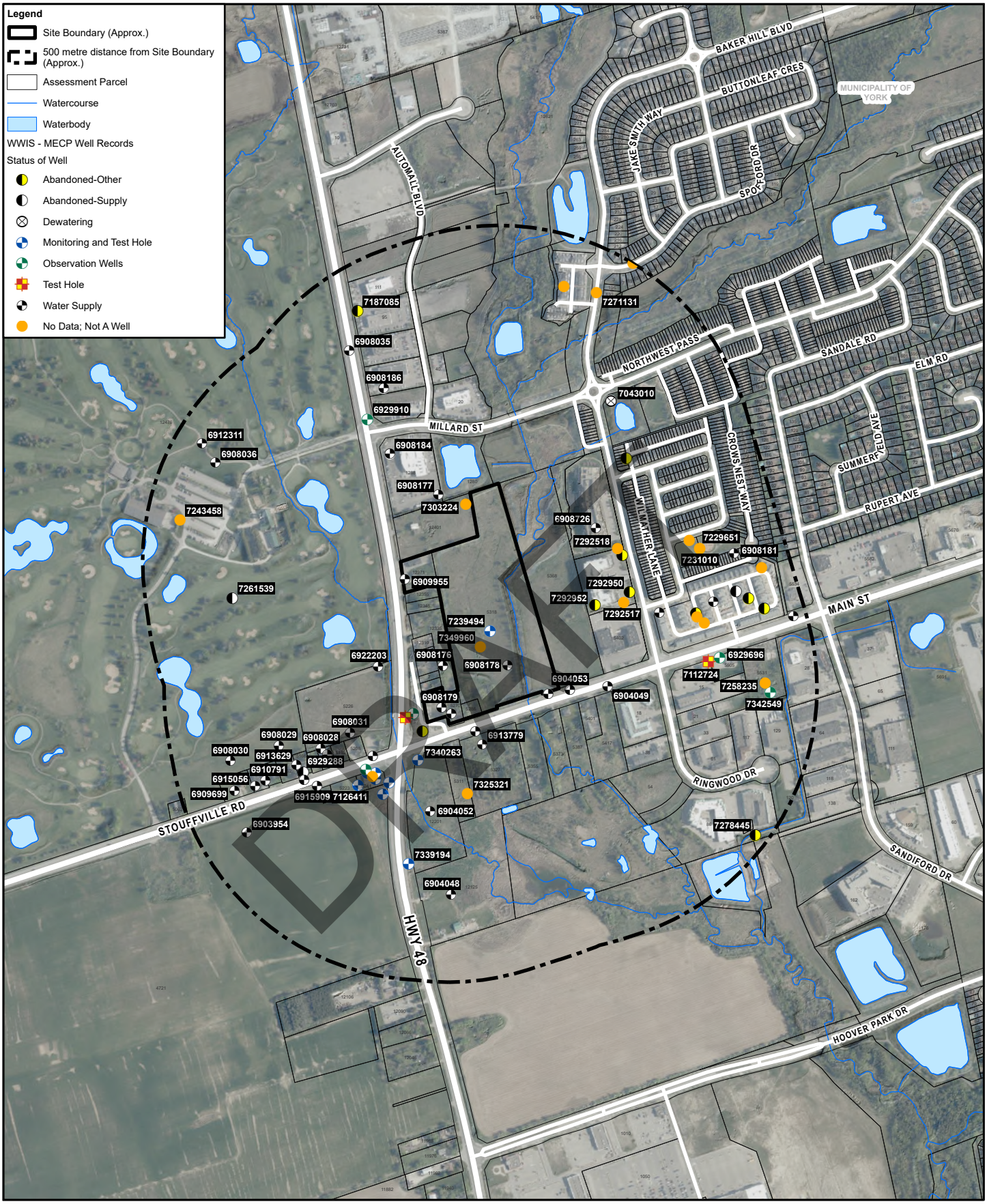
2026 Site Photographs

Photo 1 *View of swale along the western property boundary, blocked by refuse, and surface water ponding*

Photo 2 *View of shallow groundwater seepage at western portion of the Site*

Appendix C

MECP Well Records



1:10,000

0 100 200 300

Metres

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 1983 UTM Zone 17N

N

GHD

City Park Homes
Stouffville Main Street

Geotechnical & Hydrogeological Investigation Report

MECP Wells

Project No. 12687667
Revision No.
Date May 25, 2026

Figure 1

O:\GIS\PROJECTS\12687000s\12687667\GIS\Maps\Deliverables\12687667_Hydrogeo\12687667_Hydrogeo.aprx

MECP WELL RECORD LISTINGS

Ministry of the Environment, Conservation & Parks (MECP)

17

Easting:	626974.70
Northing:	4852623.00
Elev (masl):	260.05

Latitude: 43.962445
Longitude: -79.284595

Well ID: 6903954

LOCATION

Lot:	035	**Tag:**	
Con:	07	**Audit No:**	
Municipality:	YORK	**Contractor License:**	5420
Township:	WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)	**Well Completion Date:**	04-28-1961
Street:		**Received Date:**	06-01-1961
City:	n/a		

WELL

Well Status:	Water Supply	**Well Depth (m):**	6.096
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	Domestic	**Depth to Water:**	ft
Boring Method:	Boring	**Water Kind:**	FRESH

PUMP TEST

Test Method:	CLEAR	**Pipe ID:**	11043250
Pump Set (m):	n/a	**Pump Test ID**	996903954
SWL (ft)	13	**Flowing:**	N
Final Level:	n/a ft	**Pump Duration (hr):**	n/a
Pump Rate:	2 GPM	**Pump Duration (m):**	n/a
Recom. Rate:	2 GPM		

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930806937	34	inch	CONCRETE	n/a	20 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	TOPSOIL	n/a	n/a	n/a	0	1 ft
2	CLAY	MEDIUM SAND	n/a	YELLOW	1	10 ft
3	COARSE SAND	n/a	n/a	n/a	10	20 ft

End of Record

17

Easting:	626774.80
Northing:	4852562.00
Elev (masl):	258.66

Latitude: 43.963342
Longitude: -79.283184

Well ID: 6903955

LOCATION

Lot:	035	**Tag:**	
Con:	07	**Audit No:**	
Municipality:	YORK	**Contractor License:**	2204
Township:	WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)	**Well Completion Date:**	07-15-1961
Street:		**Received Date:**	08-01-1961
City:	n/a		

WELL

Well Status:	Water Supply	**Well Depth (m):**	12.192
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	n/a	**Depth to Water:**	ft
Boring Method:	Jetting	**Water Kind:**	FRESH

PUMP TEST

Test Method:	CLEAR	**Pipe ID:**	11043251
Pump Set (m):	n/a	**Pump Test ID**	996903955
SWL (ft)	4	**Flowing:**	N
Final Level:	34 ft	**Pump Duration (hr):**	12
Pump Rate:	2 GPM	**Pump Duration (m):**	0
Recom. Rate:	2 GPM		

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930806938	2	inch	STEEL	n/a	35 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	PREVIOUSLY DUG	n/a	n/a	n/a	0	20 ft
2	CLAY	STONES	n/a	n/a	20	34 ft
3	GRAVEL	n/a	n/a	n/a	34	40 ft

End of Record

17

Easting:	615854.60
Northing:	4865613.00
Elev (masl):	256.37

Latitude: 43.964126
Longitude: -79.279023

Well ID: 6904046

LOCATION

Lot: 035
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)
Street:
City: n/a

Tag:
Audit No:
Contractor License: 2204
Well Completion Date: 08-06-1949
Received Date: 08-15-1950

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Jetting

Well Depth (m): 17.0688
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) 0
Final Level: n/a ft
Pump Rate: 4 GPM
Recom. Rate: 4 GPM

Pipe ID: 11043341
Pump Test ID 996904046
Flowing: N
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930807034	2	inch	STEEL	n/a	51 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	MEDIUM SAND	CLAY	n/a	n/a	0	30 ft
2	CLAY	n/a	n/a	BLUE	30	50 ft
3	COARSE SAND	n/a	n/a	BROWN	50	56 ft

End of Record

17

Easting:	615984.60
Northing:	4865753.00
Elev (masl):	254.80

Latitude: 43.961291
Longitude: -79.279692

Well ID: 6904048

LOCATION

Lot: 035
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)
Street:
City: n/a

Tag:
Audit No:
Contractor License: 1622
Well Completion Date: 10-18-1954
Received Date: 01-04-1955

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Cable Tool

Well Depth (m): 17.3736
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft)

Pipe ID: 11043343
Pump Test ID 996904048
Flowing: N

PUMP

Final Level: 30 ft
Pump Rate: 10 GPM
Recom. Rate: n/a GPM

Pump Duration (hr): 10
Pump Duration (m): 0

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930807037	4	inch	STEEL	n/a	53 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	FILL	n/a	n/a	n/a	0	5 ft
2	CLAY	MEDIUM SAND	STONES	YELLOW	5	20 ft
3	CLAY	STONES	n/a	BLUE	20	50 ft
4	MEDIUM SAND	STONES	n/a	YELLOW	50	57 ft

End of Record

17

Easting:	616344.60
Northing:	4865863.00
Elev (masl):	256.69

Latitude: 43.96486
Longitude: -79.275811

Well ID: **6904049**

LOCATION

Lot: 035
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)
Street:
City: n/a

Tag:
Audit No:
Contractor License: 2419
Well Completion Date: 12-06-1954
Received Date: 02-22-1955

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Jetting

Well Depth (m): 16.764
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) n/a
Final Level: n/a ft
Pump Rate: 3 GPM
Recom. Rate: n/a GPM

Pipe ID: 11043344
Pump Test ID 996904049
Flowing: Y
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930807038	2	inch	STEEL	n/a	50 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	CLAY	n/a	n/a	n/a	0	45 ft
2	MEDIUM SAND	n/a	n/a	n/a	45	55 ft

End of Record

17

Easting:	616334.60
Northing:	4865853.00
Elev (masl):	257.13

Latitude: 43.966026
Longitude: -79.271289

Well ID: **6904050**

LOCATION

Lot: 035
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)
Street:
City: n/a

Tag:
Audit No:
Contractor License: 4713
Well Completion Date: 05-30-1956
Received Date: 10-22-1956

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Cable Tool

Well Depth (m): 14.9352
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) 15
Final Level: 37 ft
Pump Rate: 8 GPM
Recom. Rate: n/a GPM

Pipe ID: 11043345
Pump Test ID 996904050
Flowing: N
Pump Duration (hr): 3
Pump Duration (m): 0

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930807039	6	inch	STEEL	n/a	49 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	TOPSOIL	n/a	n/a	n/a	0	2 ft
2	CLAY	n/a	n/a	BROWN	2	15 ft
3	CLAY	n/a	n/a	BLUE	15	42 ft
4	CLAY	GRAVEL	n/a	BLUE	42	49 ft

End of Record

17

Easting:	616524.60
Northing:	4865858.00
Elev (masl):	255.88

Latitude: 43.964756
Longitude: -79.277247

Well ID: 6904051

LOCATION

Lot: 035
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)
Street:
City: n/a

Tag:
Audit No:
Contractor License: 5420
Well Completion Date: 06-12-1960
Received Date: 07-06-1960

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Boring

Well Depth (m): 12.192
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) 18
Final Level: n/a ft
Pump Rate: 4 GPM
Recom. Rate: 2 GPM

Pipe ID: 11043346
Pump Test ID 996904051
Flowing: N
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930807040	34	inch	CONCRETE	n/a	40 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	CLAY	n/a	n/a	YELLOW	0	3 ft
2	CLAY	n/a	n/a	BLUE	3	38 ft
3	CLAY	GRAVEL	n/a	BLUE	38	40 ft

End of Record

17

Easting:	616656.60
Northing:	4865921.00
Elev (masl):	255.06

Latitude: 43.962756
Longitude: -79.280159

Well ID: 6904052

LOCATION

Lot: 035
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)
Street:
City: n/a

Tag:
Audit No:
Contractor License: 2204
Well Completion Date: 12-28-1960
Received Date: 01-11-1961

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Jetting

Well Depth (m): 17.0688
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLOUDY
Pump Set (m): n/a
SWL (ft) 4
Final Level: 10 ft
Pump Rate: 2 GPM
Recom. Rate: 2 GPM

Pipe ID: 11043347
Pump Test ID 996904052
Flowing: N
Pump Duration (hr): 18
Pump Duration (m): 0

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930807041	2	inch	STEEL	n/a	47 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	CLAY	STONES	n/a	n/a	0	32 ft
2	GRAVEL	n/a	n/a	n/a	32	33 ft
3	CLAY	STONES	n/a	n/a	33	46 ft
4	COARSE SAND	n/a	n/a	n/a	46	56 ft

End of Record

17

Easting:	616094.60
Northing:	4865783.00
Elev (masl):	256.32

Latitude: 43.96482
Longitude: -79.276722

Well ID: **6904053**

LOCATION

Lot: 035
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)
Street:
City: n/a

Tag:
Audit No:
Contractor License: 2204
Well Completion Date: 01-06-1961
Received Date: 01-11-1961

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Jetting

Well Depth (m): 17.9832
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) 7
Final Level: n/a ft
Pump Rate: n/a GPM
Recom. Rate: n/a GPM

Pipe ID: 11043348
Pump Test ID 996904053
Flowing: N
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930807042	n/a	inch	<null>	n/a	15 ft
2	930807043	2	inch	STEEL	n/a	59 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	PREVIOUSLY DUG	n/a	n/a	n/a	0	20 ft
2	CLAY	STONES	n/a	BLUE	20	58 ft
3	COARSE SAND	n/a	n/a	n/a	58	59 ft

End of Record

17

Easting:	624768.60
Northing:	4860712.00
Elev (masl):	258.65

Latitude: 43.963885
Longitude: -79.282769

Well ID: **6908028**

TION

Lot: 001
Con: 07
Municipality:

Tag:
Audit No:
Contractor License: 2419

LOCATION

Township: YORK WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Well Completion Date: 05-01-1950
Received Date: 05-31-1951

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Jetting

Well Depth (m): 18.288
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) 3
Final Level: n/a ft
Pump Rate: n/a GPM
Recom. Rate: n/a GPM

Pipe ID: 11047292
Pump Test ID 996908028
Flowing: N
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930811237	2	inch	STEEL	n/a	60 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	CLAY	n/a	n/a	n/a	0	20 ft
2	CLAY	n/a	n/a	BLUE	20	40 ft
3	CLAY	GRAVEL	n/a	n/a	40	50 ft
4	MEDIUM SAND	GRAVEL	n/a	n/a	50	60 ft

End of Record

17

Easting:	624925.60
Northing:	4860859.00
Elev (masl):	259.84

Latitude: 43.963954
Longitude: -79.283777

Well ID: **6908029**

LOCATION

Lot: 001
Con: 07
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag:
Audit No:
Contractor License: 2204
Well Completion Date: 05-25-1957
Received Date: 07-02-1957

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Jetting

Well Depth (m): 15.8496
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) 3
Final Level: 10 ft
Pump Rate: 3 GPM
Recom. Rate: n/a GPM

Pipe ID: 11047293
Pump Test ID 996908029
Flowing: N
Pump Duration (hr): 0
Pump Duration (m): 30

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930811238	2	inch	STEEL	n/a	52 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	MEDIUM SAND	CLAY	n/a	n/a	0	30 ft
2	CLAY	STONES	n/a	BLUE	30	52 ft

End of Record

17

Easting:	624063.60
Northing:	4860591.00
Elev (masl):	260.08

Latitude: 43.963702
Longitude: -79.284956

Well ID: **6908030**

LOCATION

Lot:	001	**Tag:**	
Con:	07	**Audit No:**	
Municipality:	YORK	**Contractor License:**	2204
Township:	WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI	**Well Completion Date:**	09-12-1958
Street:		**Received Date:**	11-03-1958
City:	n/a		

WELL

Well Status:	Water Supply	**Well Depth (m):**	15.8496
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	n/a	**Depth to Water:**	ft
Boring Method:	Jetting	**Water Kind:**	FRESH

PUMP TEST

Test Method:	CLEAR	**Pipe ID:**	11047294
Pump Set (m):	n/a	**Pump Test ID**	996908030
SWL (ft)	8	**Flowing:**	N
Final Level:	12 ft	**Pump Duration (hr):**	96
Pump Rate:	2 GPM	**Pump Duration (m):**	0
Recom. Rate:	n/a GPM		

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930811239	2	inch	STEEL	n/a	47 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	CLAY	n/a	n/a	n/a	0	40 ft
2	CLAY	STONES	n/a	BLUE	40	49 ft
3	GRAVEL	CLAY	n/a	n/a	49	52 ft

End of Record

17

Easting:	623700.60
Northing:	4860366.00
Elev (masl):	257.61

Latitude: 43.964153
Longitude: -79.282051

Well ID: 6908031

LOCATION

Lot:	001	**Tag:**	
Con:	07	**Audit No:**	
Municipality:	YORK	**Contractor License:**	2204
Township:	WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI	**Well Completion Date:**	05-13-1964
Street:		**Received Date:**	06-09-1964
City:	n/a		

WELL

Well Status:	Water Supply	**Well Depth (m):**	12.192
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	n/a	**Depth to Water:**	ft
Boring Method:	Jetting	**Water Kind:**	FRESH

PUMP TEST

Test Method:	CLEAR	**Pipe ID:**	11047295
Pump Set (m):	n/a	**Pump Test ID**	996908031
SWL (ft)	4	**Flowing:**	N
Final Level:	4 ft	**Pump Duration (hr):**	5
Pump Rate:	4 GPM	**Pump Duration (m):**	30
Recom. Rate:	4 GPM		

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930811240	2	inch	STEEL	n/a	35 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	CLAY	STONES	n/a	RED	0	30 ft
2	CLAY	n/a	n/a	BLUE	30	36 ft
3	COARSE SAND	n/a	n/a	n/a	36	40 ft

End of Record

17

Easting:	623225.60
Northing:	4860439.00
Elev (masl):	261.83

Latitude: 43.970822
Longitude: -79.281884

Well ID: **6908035**

LOCATION

Lot: 002
Con: 07
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag:
Audit No:
Contractor License: 2419
Well Completion Date: 04-05-1950
Received Date: 05-31-1951

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Jetting

Well Depth (m): 12.192
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) 5
Final Level: 5 ft
Pump Rate: n/a GPM
Recom. Rate: n/a GPM

Pipe ID: 11047299
Pump Test ID 996908035
Flowing: N
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930811244	n/a	inch	<null>	n/a	20 ft
2	930811245	2	inch	STEEL	n/a	40 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	PREVIOUSLY DUG	n/a	n/a	n/a	0	20 ft
2	CLAY	n/a	n/a	n/a	20	40 ft

End of Record

17

Easting:	617733.70
Northing:	4858871.00
Elev (masl):	261.09

Latitude: 43.968909
Longitude: -79.285168

Well ID: **6908036**

LOCATION

Lot: 002
Con: 07
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag:
Audit No:
Contractor License: 5420
Well Completion Date: 10-18-1960
Received Date: 12-05-1960

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: Domestic
Boring Method: Boring

Well Depth (m): 13.716
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) 0
Final Level: n/a ft
Pump Rate: 50 GPM
Recom. Rate: 30 GPM

Pipe ID: 11047300
Pump Test ID 996908036
Flowing: N
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930811246	28	inch	CONCRETE	n/a	44 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	TOPSOIL	n/a	n/a	n/a	0	1 ft
2	CLAY	n/a	n/a	YELLOW	1	7 ft
3	CLAY	n/a	n/a	BLUE	7	25 ft

4	CLAY	STONES	n/a	BLUE	25	44	ft
5	GRAVEL	n/a	n/a	n/a	44	45	ft

End of Record

17

Easting:	624494.70
Northing:	4856333.00
Elev (masl):	257.60

Latitude: 43.96528
Longitude: -79.279775

Well ID: 6908176

LOCATION

Lot: 001
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag:
Audit No:
Contractor License: 2204
Well Completion Date: 07-10-1952
Received Date: 02-13-1953

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Jetting

Well Depth (m): 16.1544
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: n/a
Pump Set (m): n/a
SWL (ft) 1
Final Level: 15 ft
Pump Rate: 6 GPM
Recom. Rate: n/a GPM

Pipe ID: 11047440
Pump Test ID 996908176
Flowing: N
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930811387	n/a	inch	<null>	n/a	20 ft
2	930811388	2	inch	STEEL	n/a	53 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	PREVIOUSLY DUG	n/a	n/a	n/a	0	20 ft
2	CLAY	STONES	n/a	BLUE	20	52 ft
3	GRAVEL	n/a	n/a	n/a	52	53 ft

End of Record

17

Easting:	624674.70
Northing:	4856393.00
Elev (masl):	259.52

Latitude: 43.96827
Longitude: -79.279801

Well ID: 6908177

LOCATION

Lot: 001
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag:
Audit No:
Contractor License: 2204
Well Completion Date: 09-06-1948
Received Date: 03-17-1949

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Jetting

Well Depth (m): 20.4216
Depth to Bedrock (m): n/a
Depth to Water:
Water Kind:

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) n/a
Final Level: n/a ft
Pump Rate: 6 GPM
Recom. Rate: n/a GPM

Pipe ID: 11047441
Pump Test ID 996908177
Flowing: Y
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930811389	2	inch	STEEL	n/a	62 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	CLAY	STONES	n/a	n/a	0	67 ft

End of Record

17

Easting:	624394.70
Northing:	4856288.00
Elev (masl):	256.23

Latitude: 43.965275
Longitude: -79.278217

Well ID: 6908178

LOCATION

Lot: 001
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag:
Audit No:
Contractor License: 2204
Well Completion Date: 11-15-1950
Received Date: 04-06-1951

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: Domestic
Boring Method: Jetting

Well Depth (m): 14.3256
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) n/a
Final Level: n/a ft
Pump Rate: n/a GPM
Recom. Rate: n/a GPM

Pipe ID: 11047442
Pump Test ID 996908178
Flowing: Y
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930811390	2	inch	STEEL	n/a	30 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	CLAY	n/a	n/a	BLUE	0	47 ft

End of Record

17

Easting:	624214.70
Northing:	4857303.00
Elev (masl):	256.69

Latitude: 43.964552
Longitude: -79.279833

Well ID: 6908179

LOCATION

Lot: 001
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag:
Audit No:
Contractor License: 2204
Well Completion Date: 11-01-1957
Received Date: 12-23-1957

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Jetting

Well Depth (m): 13.4112
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) 4
Final Level: n/a ft
Pump Rate: n/a GPM
Recom. Rate: n/a GPM

Pipe ID: 11047443
Pump Test ID 996908179
Flowing: N
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930811391	n/a	inch	<null>	n/a	22 ft
2	930811392	2	inch	STEEL	n/a	22 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	PREVIOUSLY DUG	n/a	n/a	n/a	0	22 ft
2	CLAY	STONES	n/a	n/a	22	43 ft
3	GRAVEL	n/a	n/a	n/a	43	44 ft

End of Record

17

Easting:	621086.70
Northing:	4851478.00
Elev (masl):	259.27

Latitude: 43.966129
Longitude: -79.274527

Well ID: 6908180

LOCATION

Lot: 001
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag:
Audit No:
Contractor License: 2116
Well Completion Date: 09-07-1966
Received Date: 01-31-1967

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Cable Tool

Well Depth (m): 39.624
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) 4
Final Level: 120 ft
Pump Rate: 10 GPM
Recom. Rate: 5 GPM

Pipe ID: 11047444
Pump Test ID 996908180
Flowing: N
Pump Duration (hr): 4
Pump Duration (m): 0

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930811393	6	inch	STEEL	n/a	130 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	TOPSOIL	n/a	n/a	n/a	0	2 ft
2	CLAY	n/a	n/a	GREY	2	15 ft
3	CLAY	n/a	n/a	BLUE	15	20 ft
4	CLAY	n/a	n/a	GREY	20	30 ft
5	MEDIUM SAND	GRAVEL	n/a	n/a	30	32 ft
6	CLAY	STONES	MEDIUM SAND	n/a	32	130 ft

End of Record

17

Easting:	621084.70
Northing:	4851488.00
Elev (masl):	259.83

Latitude: 43.967136
Longitude: -79.272691

Well ID: 6908181

LOCATION

Lot: 001
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag:
Audit No:
Contractor License: 5420
Well Completion Date: 09-26-1967
Received Date: 01-08-1968

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Boring

Well Depth (m): 9.4488
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) 8
Final Level: n/a ft
Pump Rate: n/a GPM
Recom. Rate: n/a GPM

Pipe ID: 11047445
Pump Test ID 996908181
Flowing: N
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930811394	34	inch	CONCRETE	n/a	30 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	TOPSOIL	n/a	n/a	n/a	0	1 ft
2	CLAY	n/a	n/a	BROWN	1	11 ft
3	CLAY	n/a	n/a	BLUE	11	18 ft
4	FINE SAND	n/a	n/a	n/a	18	30 ft
5	CLAY	n/a	n/a	n/a	30	31 ft

End of Record

17

Easting:	621071.70
Northing:	4851570.00
Elev (masl):	259.50

Latitude: 43.966479
Longitude: -79.27266

Well ID: 6908182

LOCATION

Lot: 001
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag:
Audit No:
Contractor License: 5420
Well Completion Date: 08-23-1967
Received Date: 10-10-1967

WELL

Well Status: Abandoned-Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Cable Tool

Well Depth (m): 70.104
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) 8
Final Level: n/a ft
Pump Rate: 1 GPM
Recom. Rate: n/a GPM

Pipe ID: 11047446
Pump Test ID 996908182
Flowing: N
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930811395	34	inch	CONCRETE	n/a	35 ft
2	930811396	6	inch	<null>	n/a	n/a ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	TOPSOIL	n/a	n/a	n/a	0	2 ft
2	MEDIUM SAND	CLAY	n/a	BROWN	2	18 ft
3	CLAY	n/a	n/a	BLUE	18	49 ft
4	MEDIUM SAND	n/a	n/a	n/a	49	110 ft
5	CLAY	MEDIUM SAND	n/a	BLUE	110	230 ft

End of Record

17

Easting:	621048.80
Northing:	4851662.00
Elev (masl):	259.30

Latitude: 43.966307
Longitude: -79.273213

Well ID: 6908183

OCATION

Lot: 001
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:

Tag:
Audit No:
Contractor License: 5420
Well Completion Date: 09-26-1967
Received Date:

LOCATION

City: n/a 01-08-1968

WELL

Well Status: Water Supply **Well Depth (m):** 9.144
Prim. Use: n/a **Depth to Bedrock (m):** n/a
Sec. Use: n/a **Depth to Water:** ft
Boring Method: Boring **Water Kind:** FRESH

PUMP TEST

Test Method: CLEAR **Pipe ID:** 11047447
Pump Set (m): n/a **Pump Test ID** 996908183
SWL (ft) 8 **Flowing:** N
Final Level: n/a ft **Pump Duration (hr):** n/a
Pump Rate: n/a GPM **Pump Duration (m):** n/a
Recom. Rate: 1 GPM

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930811397	34	inch	CONCRETE	n/a	30 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	TOPSOIL	n/a	n/a	n/a	0	1 ft
2	CLAY	n/a	n/a	BROWN	1	12 ft
3	CLAY	n/a	n/a	BLUE	12	25 ft
4	CLAY	GRAVEL	n/a	n/a	25	30 ft

End of Record

17

Easting:	621204.70
Northing:	4851663.00
Elev (masl):	260.28

Latitude: 43.968999
Longitude: -79.280952

Well ID: **6908184**

LOCATION

Lot: 002 **Tag:**
Con: 08 **Audit No:**
Municipality: YORK **Contractor License:** 1413
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI **Well Completion Date:** 04-07-1958
Street: **Received Date:** 06-02-1958
City: n/a

WELL

Well Status: Water Supply **Well Depth (m):** 20.7264
Prim. Use: n/a **Depth to Bedrock (m):** n/a
Sec. Use: n/a **Depth to Water:** ft
Boring Method: Cable Tool **Water Kind:** FRESH

PUMP TEST

Test Method: CLEAR **Pipe ID:** 11047448
Pump Set (m): n/a **Pump Test ID** 996908184
SWL (ft) n/a **Flowing:** Y
Final Level: n/a ft **Pump Duration (hr):** n/a
Pump Rate: 12 GPM **Pump Duration (m):** n/a
Recom. Rate: n/a GPM

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930811398	5	inch	STEEL	n/a	67 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	CLAY	n/a	n/a	BROWN	0	18 ft
2	CLAY	n/a	n/a	BLUE	18	47 ft
3	SILT	GRAVEL	n/a	n/a	47	50 ft
4	HARDPAN	n/a	n/a	n/a	50	67 ft
5	GRAVEL	n/a	n/a	n/a	67	68 ft

End of Record

17

Easting:	621554.70
Northing:	4851987.00
Elev (masl):	261.44

Latitude: 43.970144
Longitude: -79.281068

Well ID: **6908186**

LOCATION

Lot:	003	**Tag:**	
Con:	08	**Audit No:**	
Municipality:	YORK	**Contractor License:**	2204
Township:	WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI	**Well Completion Date:**	08-14-1957
Street:		**Received Date:**	12-23-1957
City:	n/a		

WELL

Well Status:	Water Supply	**Well Depth (m):**	18.8976
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	n/a	**Depth to Water:**	ft
Boring Method:	Jetting	**Water Kind:**	FRESH

PUMP TEST

Test Method:	CLEAR	**Pipe ID:**	11047450
Pump Set (m):	n/a	**Pump Test ID**	996908186
SWL (ft)	-2	**Flowing:**	Y
Final Level:	n/a ft	**Pump Duration (hr):**	n/a
Pump Rate:	2 GPM	**Pump Duration (m):**	n/a
Recom. Rate:	n/a GPM		

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930811400	2	inch	STEEL	n/a	61 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	CLAY	n/a	n/a	n/a	0	15 ft
2	CLAY	STONES	n/a	n/a	15	61 ft
3	GRAVEL	n/a	n/a	n/a	61	62 ft

End of Record

17

Easting:	619196.70
Northing:	4848755.00
Elev (masl):	260.00

Latitude: 43.967637
Longitude: -79.276017

Well ID: **6908726**

LOCATION

Lot:	001	**Tag:**	
Con:	08	**Audit No:**	
Municipality:	YORK	**Contractor License:**	1413
Township:	WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI	**Well Completion Date:**	12-19-1968
Street:		**Received Date:**	01-10-1969
City:	n/a		

WELL

Well Status:	Water Supply	**Well Depth (m):**	84.4296
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	n/a	**Depth to Water:**	ft
Boring Method:	Cable Tool	**Water Kind:**	FRESH

PUMP TEST

Test Method:	CLEAR	**Pipe ID:**	11047980
Pump Set (m):	n/a	**Pump Test ID**	996908726
SWL (ft)	111	**Flowing:**	N
Final Level:	148 ft	**Pump Duration (hr):**	7
Pump Rate:	60 GPM	**Pump Duration (m):**	0
Recom. Rate:	40 GPM		

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930811945	5	inch	STEEL	n/a	269 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	CLAY	n/a	n/a	BROWN	0	18 ft
2	HARDPAN	BOULDERS	n/a	n/a	18	227 ft
3	CLAY	n/a	n/a	BLUE	227	267 ft
4	MEDIUM SAND	GRAVEL	n/a	n/a	267	277 ft

End of Record

17

Easting:	627567.60
Northing:	4875220.00
Elev (masl):	260.01

Latitude: 43.963178
Longitude: -79.284871

Well ID: 6909699

LOCATION

Lot: 001
Con: 07
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag:
Audit No:
Contractor License: 5420
Well Completion Date: 10-21-1969
Received Date: 02-09-1970

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Boring

Well Depth (m): 6.096
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) 3
Final Level: n/a ft
Pump Rate: n/a GPM
Recom. Rate: 3 GPM

Pipe ID: 11048941
Pump Test ID 996909699
Flowing: N
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930812962	34	inch	CONCRETE	n/a	20 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	TOPSOIL	n/a	n/a	n/a	0	1 ft
2	CLAY	MEDIUM SAND	n/a	BROWN	1	12 ft
3	CLAY	n/a	n/a	BLUE	12	17 ft
4	MEDIUM SAND	n/a	n/a	BROWN	17	20 ft

End of Record

17

Easting:	631440.70
Northing:	4871791.00
Elev (masl):	259.69

Latitude: 43.966806
Longitude: -79.280653

Well ID: 6909955

LOCATION

Lot: 001
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag:
Audit No:
Contractor License: 5459
Well Completion Date: 05-19-1970
Received Date: 07-27-1970

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Cable Tool

Well Depth (m): 15.8496
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) 0
Final Level: 48 ft
Pump Rate: 3 GPM
Recom. Rate: 3 GPM

Pipe ID: 11049184
Pump Test ID 996909955
Flowing: N
Pump Duration (hr): 6
Pump Duration (m): 0

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930813219	5	inch	STEEL	n/a	48 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	PREVIOUSLY DUG	n/a	n/a	n/a	0	17 ft
2	CLAY	GRAVEL	n/a	GREY	17	35 ft
3	GRAVEL	CLAY	BOULDERS	GREY	35	46 ft

4	MEDIUM SAND	n/a	n/a	GREY	46	52	ft

End of Record

17

Easting:	609964.60
Northing:	4866123.00
Elev (masl):	259.41

Latitude: 43.963347
Longitude: -79.284119

Well ID: 6910791

LOCATION

Lot: 001
Con: 07
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag:
Audit No:
Contractor License: 2218
Well Completion Date: 12-23-1971
Received Date: 02-18-1972

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Cable Tool

Well Depth (m): 21.336
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) 2
Final Level: n/a ft
Pump Rate: n/a GPM
Recom. Rate: n/a GPM

Pipe ID: 11050005
Pump Test ID 996910791
Flowing: N
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930814111	2	inch	GALVANIZED	n/a	42 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	CLAY	STONES	n/a	BROWN	0	42 ft
2	MEDIUM SAND	CLAY	n/a	BROWN	42	70 ft

End of Record

17

Easting:	635444.70
Northing:	4887373.00
Elev (masl):	258.34

Latitude: 43.963774
Longitude: -79.282611

Well ID: 6911103

LOCATION

Lot: 001
Con: 07
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag:
Audit No:
Contractor License: 1350
Well Completion Date: 07-20-1972
Received Date: 10-23-1972

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Cable Tool

Well Depth (m): 11.5824
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLOUDY
Pump Set (m): n/a
SWL (ft) 3
Final Level: 14 ft
Pump Rate: 10 GPM
Recom. Rate: 10 GPM

Pipe ID: 11050316
Pump Test ID 996911103
Flowing: N
Pump Duration (hr): 2
Pump Duration (m): 20

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930814460	6	inch	STEEL	n/a	38 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

1	CLAY	GRAVEL	FILL	BROWN	0	3	ft
2	CLAY	n/a	n/a	BROWN	3	15	ft
3	GRAVEL	CLAY	n/a	BROWN	15	17	ft
4	CLAY	GRAVEL	n/a	GREY	17	31	ft
5	GRAVEL	CLAY	n/a	GREY	31	36	ft
6	GRAVEL	COARSE SAND	n/a	BROWN	36	38	ft

End of Record

17

Easting:	631684.60
Northing:	4891473.00
Elev (masl):	261.41

Latitude: 43.969247
Longitude: -79.285482

Well ID: **6912311**

LOCATION

Lot: 002
Con: 07
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag:
Audit No:
Contractor License: 5459
Well Completion Date: 08-14-1974
Received Date: 11-26-1974

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Rotary (Convent.)

Well Depth (m): 17.3736
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) 5
Final Level: 57 ft
Pump Rate: 35 GPM
Recom. Rate: 30 GPM

Pipe ID: 11051502
Pump Test ID 996912311
Flowing: N
Pump Duration (hr): 3
Pump Duration (m): 0

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930815839	6	inch	STEEL	n/a	51 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	TOPSOIL	n/a	n/a	BROWN	0	2 ft
2	CLAY	STONES	n/a	BROWN	2	30 ft
3	GRAVEL	CLAY	n/a	GREY	30	35 ft
4	SAND	n/a	n/a	GREY	35	57 ft

End of Record

17

Easting:	636774.70
Northing:	4881883.00
Elev (masl):	259.09

Latitude: 43.963606
Longitude: -79.283363

Well ID: **6913629**

LOCATION

Lot: 001
Con: 07
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag:
Audit No:
Contractor License: 5459
Well Completion Date: 03-01-1976
Received Date: 11-25-1976

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Rotary (Convent.)

Well Depth (m): 16.4592
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLOUDY
Pump Set (m): n/a
SWL (ft) 3
Final Level: 50 ft
Pump Rate: 3 GPM
Recom. Rate: 3 GPM

Pipe ID: 11052782
Pump Test ID 996913629
Flowing: N
Pump Duration (hr): 4
Pump Duration (m): 0

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930817236	6	inch	STEEL	n/a	51 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	CLAY	SAND	n/a	BROWN	0	18 ft
2	CLAY	STONES	n/a	BLUE	18	50 ft
3	SAND	GRAVEL	STONES	BLUE	50	54 ft

End of Record

17

Easting:	643875.70
Northing:	4912092.00
Elev (masl):	256.15

Latitude: 43.963898
Longitude: -79.278867

Well ID: 6913779

LOCATION

Lot: 035
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)
Street:
City: n/a

Tag:
Audit No:
Contractor License: 1350
Well Completion Date: 12-01-1976
Received Date: 02-04-1977

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Cable Tool

Well Depth (m): 15.24
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) 5
Final Level: 45 ft
Pump Rate: 4 GPM
Recom. Rate: 4 GPM

Pipe ID: 11052929
Pump Test ID 996913779
Flowing: N
Pump Duration (hr): 1
Pump Duration (m): 0

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930817383	6	inch	STEEL	n/a	45 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	CLAY	n/a	n/a	GREY	0	21 ft
2	SILT	n/a	n/a	GREY	21	27 ft
3	CLAY	GRAVEL	n/a	GREY	27	45 ft
4	GRAVEL	CLAY	n/a	GREY	45	50 ft

End of Record

17

Easting:	619741.50
Northing:	4885260.00
Elev (masl):	256.69

Latitude: 43.964449
Longitude: -79.279599

Well ID: 6913849

LOCATION

Lot: 001
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag:
Audit No:
Contractor License: 3109
Well Completion Date: 11-04-1976
Received Date: 02-22-1977

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Boring

Well Depth (m): 21.336
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

UMP TEST

Test Method: n/a
Pump Set (m): n/a
SWL (ft) 25
Final Level: n/a ft
Pump Rate: n/a

Pipe ID: 11052999
Pump Test ID 996913849
Flowing: N
Pump Duration (hr): n/a
Pump Duration (m): n/a

PI **Recom. Rate:** 4 GPM

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930817459	30	inch	CONCRETE	n/a	30 ft
2	930817460	24	inch	STEEL	n/a	70 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	TOPSOIL	n/a	n/a	n/a	0	2 ft
2	CLAY	n/a	n/a	BROWN	2	22 ft
3	CLAY	STONEY	n/a	BLUE	22	47 ft
4	SAND	n/a	n/a	n/a	47	50 ft
5	CLAY	STONEY	n/a	BLUE	50	65 ft
6	GRAVEL	n/a	n/a	n/a	65	70 ft

End of Record

17

Easting:	618614.60
Northing:	4871473.00
Elev (masl):	259.61

Latitude: 43.963261
Longitude: -79.28437

Well ID: **6915056**

LOCATION

Lot: 001
Con: 07
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag:
Audit No:
Contractor License: 5459
Well Completion Date: 08-18-1978
Received Date: 06-25-1979

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Cable Tool

Well Depth (m): 23.4696
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) 6
Final Level: 50 ft
Pump Rate: 2 GPM
Recom. Rate: 2 GPM

Pipe ID: 11054195
Pump Test ID 996915056
Flowing: N
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930818733	6	inch	STEEL	n/a	58 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	TOPSOIL	n/a	n/a	n/a	0	3 ft
2	CLAY	n/a	n/a	BLUE	3	18 ft
3	CLAY	HARD	n/a	BLUE	18	77 ft

End of Record

17

Easting:	622004.60
Northing:	4884173.00
Elev (masl):	258.27

Latitude: 43.963238
Longitude: -79.282875

Well ID: **6915909**

LOCATION

Lot: 035
Con: 07
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)
Street:
City: n/a

Tag:
Audit No:
Contractor License: 2218
Well Completion Date: 08-15-1981
Received Date: 09-24-1981

VELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use:

Well Depth (m): 19.812
Depth to Bedrock (m): n/a
Depth to Water:

WELL

Boring Method: Cable Tool **Water Kind:** FRESH ft

PUMP TEST

Test Method: CLOUDY **Pipe ID:** 11055029
Pump Set (m): n/a **Pump Test ID** 996915909
SWL (ft) -4 **Flowing:** Y
Final Level: n/a ft **Pump Duration (hr):** 48
Pump Rate: 2 GPM **Pump Duration (m):** 30
Recom. Rate: n/a GPM

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930819676	2	inch	GALVANIZED	n/a	52 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	CLAY	STONES	n/a	BROWN	0	42 ft
2	CLAY	SAND	n/a	BLUE	42	65 ft

End of Record

17

Easting:	614514.60
Northing:	4863623.00
Elev (masl):	256.63

Latitude: 43.963731
Longitude: -79.281515

Well ID: 6918625

LOCATION

Lot: 035 **Tag:**
Con: 07 **Audit No:** 01137
Municipality: YORK **Contractor License:** 5459
Township: WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP) **Well Completion Date:** 05-21-1986
Street: **Received Date:** 04-06-1987
City: n/a

WELL

Well Status: Water Supply **Well Depth (m):** 60.3504
Prim. Use: n/a **Depth to Bedrock (m):** n/a
Sec. Use: n/a **Depth to Water:** ft
Boring Method: Cable Tool **Water Kind:** FRESH

PUMP TEST

Test Method: CLEAR **Pipe ID:** 11057521
Pump Set (m): n/a **Pump Test ID** 996918625
SWL (ft) 106 **Flowing:** N
Final Level: 185 ft **Pump Duration (hr):** 2
Pump Rate: 10 GPM **Pump Duration (m):** 0
Recom. Rate: 5 GPM

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930822594	6	inch	STEEL	n/a	192 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	SAND	FILL	n/a	BROWN	0	5 ft
2	CLAY	STONES	n/a	BLUE	5	49 ft
3	SAND	CLAY	n/a	BLUE	49	62 ft
4	CLAY	HARD	n/a	BLUE	62	91 ft
5	CLAY	STONES	n/a	BLUE	91	115 ft
6	CLAY	HARD	n/a	BLUE	115	170 ft
7	CLAY	SOFT	n/a	BLUE	170	192 ft
8	COARSE SAND	n/a	n/a	BLACK	192	195 ft
9	SAND	CLAY	n/a	BLUE	195	198 ft

End of Record

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n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	257.15

Latitude: 43.965295
Longitude: -79.281341

Well ID: 6922203

LOCATION

Lot:
Con: 07
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag:
Audit No: 115461
Contractor License: 1413
Well Completion Date: 03-25-1993
Received Date: 04-16-1993

WELL

Well Status: Water Supply
Prim. Use: n/a
Sec. Use: Public
Boring Method: Rotary (Convent.)

Well Depth (m): 81.9912
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) 96
Final Level: 240 ft
Pump Rate: 40 GPM
Recom. Rate: 10 GPM

Pipe ID: 11061079
Pump Test ID 996922203
Flowing: N
Pump Duration (hr): 1
Pump Duration (m): 0

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930826713	6	inch	STEEL	n/a	220 ft
2	930826714	6	inch	STEEL	n/a	265 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	CLAY	DENSE	n/a	BROWN	0	12 ft
2	CLAY	STONES	BOULDERS	GREY	12	203 ft
3	CLAY	DENSE	n/a	GREY	203	212 ft
4	CLAY	SILT	SOFT	GREY	212	230 ft
5	CLAY	SAND	DENSE	GREY	230	263 ft
6	GRAVEL	SAND	CLEAN	BLACK	263	269 ft

End of Record

17

Easting:	641816.70
Northing:	4910629.00
Elev (masl):	258.91

Latitude: 43.966348
Longitude: -79.272361

Well ID: **6928788**

LOCATION

Lot: 001
Con: 09
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street: 5508 STOUFFVILLE RD
City: STOUFFVILLE

Tag: A022149
Audit No: Z22377
Contractor License: 5459
Well Completion Date: 02-25-2005
Received Date: 03-29-2005

WELL

Well Status: Abandoned-Other
Prim. Use: n/a
Sec. Use: n/a
Boring Method: n/a

Well Depth (m): 0
Depth to Bedrock (m): n/a
Depth to Water:
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930872728	76.2	cm	CONCRETE	5.79	0 m

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

17		
	Easting:	634470.60
	Northing:	4908234.00
	Elev (masl):	258.10

Latitude: 43.966162
Longitude: -79.271992

Well ID: 6928789

LOCATION

Lot: 001
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street: 5508 STOUFFVILLE RD
City: STOUFFVILLE

Tag: A022148
Audit No: Z22376
Contractor License: 5459
Well Completion Date: 02-25-2005
Received Date: 03-29-2005

WELL

Well Status: Abandoned-Other
Prim. Use: n/a
Sec. Use: n/a
Boring Method: n/a

Well Depth (m): 0
Depth to Bedrock (m): n/a
Depth to Water:
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930872729	76.2	cm	CONCRETE	4.87	0 m

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

17		
	Easting:	622741.10
	Northing:	4853613.00
	Elev (masl):	258.80

Latitude: 43.963477
Longitude: -79.283201

Well ID: 6929288

LOCATION

Lot: 001
Con: 07
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street: 5166 STONFFVILLE RD
City: RINGWOOD

Tag: A029430
Audit No: Z31519
Contractor License: 1350
Well Completion Date: 07-15-2005
Received Date: 08-23-2005

WELL

Well Status: Abandoned-Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Cable Tool

Well Depth (m): 26
Depth to Bedrock (m): n/a
Depth to Water:
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	CLAY	n/a	n/a	BROWN	0	1.8 m

2	CLAY	GRAVEL	STONES	YELLOW	1.8	3.6	m
3	CLAY	GRAVEL	BOULDERS	GREY	3.6	26	m

End of Record

17

Easting:	616147.80
Northing:	4869288.00
Elev (masl):	256.64

Latitude: 43.965324
Longitude: -79.273088

Well ID: 6929696

LOCATION

Lot: n/a
Con: n/a
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)
Street: 5505 MAIN ST
City: STOUFFVILLE

Tag: A031751
Audit No: Z34970
Contractor License: 6607
Well Completion Date: 08-29-2005
Received Date: 12-15-2005

WELL

Well Status: Observation Wells
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Boring

Well Depth (m): 3.6
Depth to Bedrock (m): n/a
Depth to Water: m
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth	
1	930873679	5.1	cm	PLASTIC	0	2.1	m

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth	
1	SAND	GRAVEL	FILL	BROWN	0	0.6	m
2	SILT	SAND	LOOSE	GREY	0.6	2.4	m
3	SILT	SAND	TILL	GREY	2.4	3.6	m

End of Record

17

Easting:	635023.60
Northing:	4908431.00
Elev (masl):	261.08

Latitude: 43.96961
Longitude: -79.281479

Well ID: 6929910

LOCATION

Lot: n/a
Con:
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street: 12479 HWY 48
City: WHITCHURCH-STOUFVILLE

Tag: A036873
Audit No: Z42273
Contractor License: 6607
Well Completion Date: 02-03-2006
Received Date: 02-27-2006

WELL

Well Status: Observation Wells
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Boring

Well Depth (m): 6
Depth to Bedrock (m): n/a
Depth to Water: m
Water Kind: FRESH

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth	
1	930874113	5	cm	PLASTIC	0	4.5	m

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	SILT	SAND	CLAY	BROWN	0	4 m
2	SAND	SILT	n/a	GREY	4	4.9 m
3	SILT	SAND	CLAY	GREY	4.9	6 m

End of Record

17

Easting:	530673.00
Northing:	4838627.00
Elev (masl):	260.88

Latitude: 43.969845
Longitude: -79.275588

Well ID: 7043010

LOCATION

Lot: 001
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street: HWY 48 AND STOUFFVILLE RD
City: STOUFFVILLE

Tag: A049346
Audit No: Z66983
Contractor License: 7341
Well Completion Date: 04-03-2007
Received Date: 04-25-2007

WELL

Well Status: Dewatering
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Jetting

Well Depth (m): 6
Depth to Bedrock (m): n/a
Depth to Water: m
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): n/a
SWL (ft) n/a
Final Level: n/a ft
Pump Rate: n/a GPM
Recom. Rate: n/a GPM

Pipe ID: 11773145
Pump Test ID 997043010
Flowing: N
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	930898465	4.31	cm	PLASTIC	0	4.5 m

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	SAND	SILTY	DENSE	BROWN	0	3.5 m
2	SILT	SANDY	WATER-BEARING	GREY	3.5	4.5 m
3	SAND	SILTY	WATER-BEARING	GREY	4.5	5.7 m
4	CLAY	SILT	TILL	GREY	5.7	6 m

End of Record

17

Easting:	637862.00
Northing:	4869240.00
Elev (masl):	256.57

Latitude: 43.963371
Longitude: -79.281534

Well ID: 7047744

LOCATION

Lot: n/a
Con: n/a
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)
Street: 5241 STOUFFVILLE ROAD
City: n/a

Tag: A046388
Audit No: Z52236
Contractor License: 6490
Well Completion Date: 06-05-2007
Received Date: 08-08-2007

WELL

Well Status: <null>
Prim. Use: n/a
Sec. Use: n/a
Boring Method:

Well Depth (m): 6
Depth to Bedrock (m): n/a
Depth to Water:
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	42147744	5	cm	PLASTIC	0	3 m

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	SAND	GRAVEL	FILL	BROWN	0	2.8 m
2	SILT	CLAY	SAND	GREY	2.8	5 m
3	SAND	WATER-BEARING	n/a	BROWN	5	6 m

End of Record

17

Easting:	637849.00
Northing:	4869254.00
Elev (masl):	256.84

Latitude: 43.9635
Longitude: -79.281692

Well ID: 7051198

LOCATION

Lot: n/a
Con: n/a
Municipality: YORK
Township: STOUFFVILLE VILLAGE
Street: 5241 STOUFFVILLE ROAD
City: STOUFFVILLE

Tag: A063681
Audit No: Z63654
Contractor License: 7241
Well Completion Date: 09-11-2007
Received Date: 10-22-2007

WELL

Well Status: Observation Wells
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Other Method

Well Depth (m): 4.88
Depth to Bedrock (m): n/a
Depth to Water: m
Water Kind:

PUMP TEST

Test Method: n/a
Pump Set (m): n/a
SWL (ft) n/a
Final Level: n/a m
Pump Rate: n/a LPM
Recom. Rate: n/a LPM

Pipe ID: 1001511312
Pump Test ID 1001511313
Flowing: N
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
0	1001511323	3.81	cm	PLASTIC	n/a	1.83 m

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	FILL	SAND	LOOSE	BROWN	0	0.81 m
2	CLAY	SILT	SOFT	BROWN	0.81	2.44 m
3	CLAY	SILT	DENSE	GREEN	2.44	3.35 m
4	CLAY	SILT	n/a	GREY	3.35	4.88 m

End of Record

17

Easting:	484624.00
Northing:	4848213.00
Elev (masl):	256.65

Latitude: 43.965265
Longitude: -79.273364

Well ID: 7112724

LOCATION

Lot: n/a
Con: n/a
Municipality: YORK
Township: STOUFFVILLE VILLAGE
Street: 15 RINGWOOD DR.
City: STOUFFVILLE

Tag: A070286
Audit No: Z81552
Contractor License: 7215
Well Completion Date: 08-29-2008
Received Date: 10-07-2008

WELL

Well Status: Test Hole
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Driving

Well Depth (m): 6.096
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind:

TEST

Test Method:
Pump Set (m):
SWL (ft)

Pipe ID:
Pump Test ID
Flowing:

PUMP

Final Level: **Pump Duration (hr):**
Pump Rate: **Pump Duration (m):**
Recom. Rate:

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1001922384	1.25	inch	PLASTIC	10	0 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	FILL	n/a	WATER-BEARING	BROWN	0	10 ft
2	CLAY	TILL	WATER-BEARING	GREY	10	14 ft
3	CLAY	n/a	WATER-BEARING	GREY	14	20 ft

End of Record

17

Easting:	554203.00
Northing:	4847382.00
Elev (masl):	256.77

Latitude: 43.963445
Longitude: -79.281657

Well ID: 7126408

LOCATION

Lot: n/a **Tag:** A086578
Con: n/a **Audit No:** Z100258
Municipality: YORK **Contractor License:** 7241
Township: STOUFFVILLE VILLAGE **Well Completion Date:** 06-17-2009
Street: 5241 STOUFFVILLE RD. **Received Date:** 07-29-2009
City: STOUFFVILLE

WELL

Well Status: Monitoring and Test Hole **Well Depth (m):** 6.096
Prim. Use: n/a **Depth to Bedrock (m):** n/a
Sec. Use: n/a **Depth to Water:** ft
Boring Method: Direct Push **Water Kind:**

PUMP TEST

Test Method: **Pipe ID:**
Pump Set (m): **Pump Test ID**
SWL (ft) **Flowing:**
Final Level: **Pump Duration (hr):**
Pump Rate: **Pump Duration (m):**
Recom. Rate:

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1002636551	5.2	inch	PLASTIC	0	10 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	FILL	SAND	GRAVEL	BROWN	0	4 ft
2	SAND	SILT	DENSE	BROWN	4	12 ft
3	CLAY	SILT	WATER-BEARING	GREY	12	20 ft

End of Record

17

Easting:	560405.00
Northing:	4845909.00
Elev (masl):	256.46

Latitude: 43.963334
Longitude: -79.28146

Well ID: 7126409

LOCATION

Lot: n/a **Tag:** A086579
Con: n/a **Audit No:** Z100255
Municipality: YORK **Contractor License:** 7241
Township: STOUFFVILLE VILLAGE **Well Completion Date:** 06-17-2009
Street: 5241 STOUFFVILLE RD. **Received Date:** 07-29-2009
City: STOUFFVILLE

WELL

Well Status: Monitoring and Test Hole **Well Depth (m):** 6.096
Prim. Use: n/a **Depth to Bedrock (m):** n/a
Sec. Use: n/a **Depth to Water:** ft
Boring Method: Direct Push **Water Kind:**

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth	
1	1002636586	5.2	inch	PLASTIC	0	10	ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth	
1	FILL	SAND	GRAVEL	BROWN	0	4	ft
2	SAND	SILT	DENSE	BROWN	4	12	ft
3	CLAY	SILT	WATER-BEARING	GREY	12	20	ft

End of Record

17

Easting:	567242.00
Northing:	4814811.00
Elev (masl):	256.47

Latitude: 43.963433
Longitude: -79.281457

Well ID: 7126410

LOCATION

Lot: n/a
Con: n/a
Municipality: YORK
Township: STOUFFVILLE VILLAGE
Street: 5241 STOUFFVILLE RD.
City: STOUFFVILLE

Tag: A086580
Audit No: Z100257
Contractor License: 7241
Well Completion Date: 06-17-2009
Received Date: 07-29-2009

WELL

Well Status: Monitoring and Test Hole
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Direct Push

Well Depth (m): 5.18
Depth to Bedrock (m): n/a
Depth to Water: m
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth	
1	1002636619	5.2	cm	PLASTIC	0	2.13	m

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth	
1	FILL	SAND	GRAVEL	BROWN	0	2.44	m
2	SAND	SILT	DENSE	BROWN	2.44	3.66	m
3	CLAY	SILT	DENSE	GREY	3.66	5.18	m

End of Record

18

Easting:	395587.00
Northing:	5004791.00
Elev (masl):	257.04

Latitude: 43.963232
Longitude: -79.281887

Well ID: 7126411

LOCATION

Lot: n/a
Con: n/a
Municipality: YORK
Township: STOUFFVILLE VILLAGE
Street: 5241 STOUFFVILLE RD.
City: STOUFFVILLE

Tag: A086581
Audit No: Z100256
Contractor License: 7241
Well Completion Date: 06-17-2009
Received Date: 07-29-2009

ELL

Well Status: Monitoring and Test Hole
Prim. Use:

Well Depth (m): 6.1
Depth to Bedrock (m): n/a

WELL

Sec. Use: n/a
Boring Method: Direct Push

Depth to Water: m
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1002636724	5.2	cm	PLASTIC	0	3.1 m

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	FILL	SAND	GRAVEL	BROWN	0	1.22 m
2	SAND	SILT	DENSE	BROWN	1.22	3.66 m
3	CLAY	SILT	WATER-BEARING	GREY	3.66	6.1 m

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	255.88

Latitude: 43.964154
Longitude: -79.280302

Well ID: 7130184

LOCATION

Lot: 001
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street: STOUFFVILLE RD.
City: RINGWOOD

Tag: A075302
Audit No: Z101450
Contractor License: 5459
Well Completion Date: 01-01-2009
Received Date: 09-22-2009

WELL

Well Status: Abandoned-Other
Prim. Use: n/a
Sec. Use: n/a
Boring Method: n/a

Well Depth (m): 0
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1002858058	n/a	inch	<null>	n/a	n/a ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	257.04

Latitude: 43.963232
Longitude: -79.281887

Well ID: 7133785

LOCATION

Lot: n/a
Con: n/a
Municipality: YORK
Township: STOUFFVILLE VILLAGE
Street: 5241 STOUFFVILLE ROAD
City: STOUFFVILLE

Tag: A086581
Audit No: Z104753
Contractor License: 7241
Well Completion Date: 10-28-2009
Received Date: 11-13-2009

WELL

Well Status: Abandoned-Other
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Direct Push

Well Depth (m): 0
Depth to Bedrock (m): n/a
Depth to Water: m
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1003008308	5.2	cm	PLASTIC	0	3 m

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	256.47

Latitude: 43.963433
Longitude: -79.281457

Well ID: 7133786

LOCATION

Lot: n/a
Con: n/a
Municipality: YORK
Township: STOUFFVILLE VILLAGE
Street: 5241 STOUFFVILLE ROAD
City: STOUFFVILLE

Tag: A086580
Audit No: Z104750
Contractor License: 7241
Well Completion Date: 10-28-2009
Received Date: 11-13-2009

WELL

Well Status: Abandoned-Other
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Direct Push

Well Depth (m): 0
Depth to Bedrock (m): n/a
Depth to Water: m
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1003008360	5.2	cm	PLASTIC	0	3 m

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	256.77

Latitude: 43.963445
Longitude: -79.281657

Well ID: 7133787

TION

Lot: n/a
Con: n/a
Municipality:

Tag: A086578
Audit No: Z104749
Contractor License: 7241

LOCA

Township: YORK STOUFFVILLE VILLAGE
Street: 5241 STOUFFVILLE ROAD
City: STOUFFVILLE

Well Completion Date: 10-28-2009
Received Date: 11-13-2009

WELL

Well Status: Abandoned-Other
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Direct Push

Well Depth (m): 0
Depth to Bedrock (m): n/a
Depth to Water: m
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1003008372	5.2	cm	PLASTIC	0	3 m

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	256.46

Latitude: 43.963334
Longitude: -79.28146

Well ID: **7133788**

LOCATION

Lot: n/a
Con: n/a
Municipality: YORK
Township: STOUFFVILLE VILLAGE
Street: 5241 STOUFFVILLE ROAD
City: STOUFFVILLE

Tag: A086579
Audit No: Z104751
Contractor License: 7241
Well Completion Date: 10-28-2009
Received Date: 11-13-2009

WELL

Well Status: Abandoned-Other
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Direct Push

Well Depth (m): 0
Depth to Bedrock (m): n/a
Depth to Water: m
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1003008384	5.2	cm	PLASTIC	0	3 m

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	262.51

Latitude: 43.971503
Longitude: -79.281661

Well ID: **7187085**

LOCATION

Lot:	002	**Tag:**	
Con:	08	**Audit No:**	Z141343
Municipality:	YORK	**Contractor License:**	5459
Township:	WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI	**Well Completion Date:**	08-23-2012
Street:	HWY 48	**Received Date:**	09-13-2012
City:	WHITCHURCH		

WELL

Well Status:	Abandoned-Other	**Well Depth (m):**	0
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	n/a	**Depth to Water:**	ft
Boring Method:	n/a	**Water Kind:**	

PUMP TEST

Test Method:		**Pipe ID:**	
Pump Set (m):		**Pump Test ID**	
SWL (ft)		**Flowing:**	
Final Level:		**Pump Duration (hr):**	
Pump Rate:		**Pump Duration (m):**	
Recom. Rate:			

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1004462702	5	inch	<null>	n/a	n/a ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

---

n/a		
Easting:	<null>	
Northing:	<null>	
Elev (masl):	260.42	

Latitude: 43.967239
Longitude: -79.273519

Well ID: **7229651**

LOCATION

Lot:	n/a	**Tag:**	A160663
Con:	n/a	**Audit No:**	C27151
Municipality:	YORK	**Contractor License:**	6926
Township:	WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI	**Well Completion Date:**	07-18-2014
Street:		**Received Date:**	10-17-2014
City:	n/a		

WELL

Well Status:	<null>	**Well Depth (m):**	0
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	n/a	**Depth to Water:**	
Boring Method:		**Water Kind:**	

PUMP TEST

Test Method:		**Pipe ID:**	
Pump Set (m):		**Pump Test ID**	
SWL (ft)		**Flowing:**	
Final Level:		**Pump Duration (hr):**	
Pump Rate:		**Pump Duration (m):**	
Recom. Rate:			

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

n/a		
	Easting:	<null>
	Northing:	<null>
	Elev (masl):	260.42

Latitude: 43.967239
Longitude: -79.273519

Well ID: 7231010

LOCATION

Lot:	n/a	**Tag:**	A160663
Con:	n/a	**Audit No:**	C27191
Municipality:	YORK	**Contractor License:**	6926
Township:	WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI	**Well Completion Date:**	09-30-2014
Street:		**Received Date:**	11-04-2014
City:	n/a		

WELL

Well Status:	<null>	**Well Depth (m):**	0
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	n/a	**Depth to Water:**	
Boring Method:		**Water Kind:**	

PUMP TEST

Test Method:		**Pipe ID:**	
Pump Set (m):		**Pump Test ID**	
SWL (ft)		**Flowing:**	
Final Level:		**Pump Duration (hr):**	
Pump Rate:		**Pump Duration (m):**	
Recom. Rate:			

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

n/a		
	Easting:	<null>
	Northing:	<null>
	Elev (masl):	258.27

Latitude: 43.965932
Longitude: -79.273445

Well ID: 7231823

LOCATION

Lot:	n/a	**Tag:**	
Con:	n/a	**Audit No:**	C08460
Municipality:	YORK	**Contractor License:**	6490
Township:	WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI	**Well Completion Date:**	05-07-2013
Street:		**Received Date:**	07-05-2013
City:	n/a		

WELL

Well Status:	<null>	**Well Depth (m):**	0
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	n/a	**Depth to Water:**	
Boring Method:		**Water Kind:**	

PUMP TEST

Test Method:		**Pipe ID:**	
Pump Set (m):		**Pump Test ID**	
SWL (ft)		**Flowing:**	
Final Level:		**Pump Duration (hr):**	
Pump Rate:		**Pump Duration (m):**	
Recom. Rate:			

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

n/a		
	Easting:	<null>
	Northing:	<null>
	Elev (masl):	260.81

Latitude: 43.968831
Longitude: -79.275243

Well ID: 7235625

LOCATION

Lot:	001	**Tag:**	A176399
Con:	08	**Audit No:**	Z200949
Municipality:	YORK	**Contractor License:**	7219
Township:	WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI	**Well Completion Date:**	11-11-2014
Street:	N/E CORNER OF STOUFFVILLE RD. STRADFORD	**Received Date:**	01-16-2015
City:	n/a		

WELL

Well Status:	Abandoned-Other	**Well Depth (m):**	0
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	n/a	**Depth to Water:**	ft
Boring Method:	n/a	**Water Kind:**	

PUMP TEST

Test Method:		**Pipe ID:**	
Pump Set (m):		**Pump Test ID**	
SWL (ft)		**Flowing:**	
Final Level:		**Pump Duration (hr):**	
Pump Rate:		**Pump Duration (m):**	
Recom. Rate:			

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth	
0	1005512739	n/a	inch	<null>	n/a	n/a	ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth	
0	n/a	n/a	n/a	n/a	n/a	n/a	m

End of Record

---

n/a		
	Easting:	<null>
	Northing:	<null>
	Elev (masl):	260.62

Latitude: 43.967378
Longitude: -79.273764

Well ID: 7236027

LOCATION

Lot:	001	**Tag:**	A161490
Con:	08	**Audit No:**	Z185108
Municipality:	YORK	**Contractor License:**	7219
Township:	WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI	**Well Completion Date:**	06-04-2014
Street:	N/E CORNER OF STOUFFVILLE RD	**Received Date:**	01-20-2015
City:	n/a		

WELL

Well Status:	<null>	**Well Depth (m):**	0
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	n/a	**Depth to Water:**	ft
Boring Method:	n/a	**Water Kind:**	

PUMP TEST

Test Method:		**Pipe ID:**	
Pump Set (m):		**Pump Test ID**	
SWL (ft)		**Flowing:**	
Final Level:		**Pump Duration (hr):**	
Pump Rate:		**Pump Duration (m):**	
Recom. Rate:			

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth	
0	1005496546	n/a	inch	<null>	n/a	n/a	ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	258.59

Latitude: 43.966043
Longitude: -79.273616

Well ID: 7238803

LOCATION

Lot:	n/a	**Tag:**	A167953
Con:	n/a	**Audit No:**	C26999
Municipality:	YORK	**Contractor License:**	7230
Township:	WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI	**Well Completion Date:**	07-22-2014
Street:		**Received Date:**	03-24-2015
City:	n/a		

WELL

Well Status:	<null>	**Well Depth (m):**	0
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	n/a	**Depth to Water:**	
Boring Method:		**Water Kind:**	

PUMP TEST

Test Method:		**Pipe ID:**	
Pump Set (m):		**Pump Test ID**	
SWL (ft)		**Flowing:**	
Final Level:		**Pump Duration (hr):**	
Pump Rate:		**Pump Duration (m):**	
Recom. Rate:			

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	256.91

Latitude: 43.965875
Longitude: -79.27862

Well ID: 7239494

LOCATION

Lot:	n/a	**Tag:**	A174028
Con:	n/a	**Audit No:**	Z198477
Municipality:	YORK	**Contractor License:**	7247
Township:	WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI	**Well Completion Date:**	12-02-2014
Street:	FOCKLER LANE	**Received Date:**	04-08-2015
City:	STOUFFVILLE		

WELL

Well Status:	Monitoring and Test Hole	**Well Depth (m):**	6.096
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	n/a	**Depth to Water:**	ft
Boring Method:	Rotary (Convent.)	**Water Kind:**	Untested

PUMP TEST

Test Method:		**Pipe ID:**	
Pump Set (m):		**Pump Test ID**	
SWL (ft)		**Flowing:**	
Final Level:		**Pump Duration (hr):**	
Pump Rate:		**Pump Duration (m):**	
Recom. Rate:			

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1005578491	2	inch	PLASTIC	0	10 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	GRAVEL	SAND	FILL	BROWN	0	8.5 ft
2	SILT	n/a	SANDY	BROWN	8.5	11.5 ft
3	TILL	CLAY	SAND	GREY	11.5	20 ft

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	261.98

Latitude: 43.967923
Longitude: -79.286053

Well ID: 7243458

LOCATION

Lot: 002
Con: 07
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street: HWY 48
City: STOUFFVILLE

Tag: A175258
Audit No: Z210485
Contractor License: 5459
Well Completion Date: 06-10-2015
Received Date: 06-25-2015

WELL

Well Status: <null>
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Rotary (Air)

Well Depth (m): 16.764
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: FRESH

PUMP TEST

Test Method: CLEAR
Pump Set (m): 41
SWL (ft) 8.5
Final Level: 12.6ft
Pump Rate: 12 GPM
Recom. Rate: 25 GPM

Pipe ID: 1005670147
Pump Test ID 1005670148
Flowing: n/a
Pump Duration (hr): 1
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1005670154	8	inch	STEEL	0	45 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	CLAY	n/a	SOFT	GREY	0	43 ft
2	GRAVEL	SAND	LOOSE	GREY	43	55 ft

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	258.77

Latitude: 43.966106
Longitude: -79.273639

Well ID: 7247667

LOCATION

Lot: n/a
Con: n/a
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street: MAIN STREET & BAKER HILL BLVD.
City: STOUFFVILLE

Tag:
Audit No: Z208477
Contractor License: 7247
Well Completion Date: 06-19-2015
Received Date: 09-02-2015

WELL

Well Status: Abandoned-Other
Prim. Use: n/a
Sec. Use: n/a
Boring Method: n/a

Well Depth (m): 0
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: Untested

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
0	1005726879	n/a	inch	<null>	n/a	n/a ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	255.63

Latitude: 43.964866
Longitude: -79.272005

Well ID: 7258235

LOCATION

Lot: n/a
Con: n/a
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)
Street:
City: n/a

Tag: A189647
Audit No: C30671
Contractor License: 6946
Well Completion Date: 01-22-2016
Received Date: 02-23-2016

WELL

Well Status: <null>
Prim. Use: n/a
Sec. Use: n/a
Boring Method:

Well Depth (m): 0
Depth to Bedrock (m): n/a
Depth to Water:
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	260.91

Latitude: 43.966545
Longitude: -79.284833

Well ID: 7261539

LOCATION

Lot: 001
Con: 07
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street: 9 BURNIE RD.
City: PEFFERLAW

Tag:
Audit No: Z227322
Contractor License: 1413
Well Completion Date: 02-02-2016
Received Date: 04-18-2016

WELL

Well Status: Abandoned-Supply
Prim. Use: n/a
Sec. Use: n/a
Boring Method: n/a

Well Depth (m): 0
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind:

TEST

Test Method: n/a
Pump Set (m): n/a
SWL (ft)

Pipe ID: 1006031748
Pump Test ID 1006031749
Flowing: N

PUMP

Final Level: n/a ft
Pump Rate: n/a GPM
Recom. Rate: n/a GPM

Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1006031753	5	inch	STEEL	0	28 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	260.87

Latitude: 43.97174
Longitude: -79.275882

Well ID: 7271131

LOCATION

Lot: n/a
Con: n/a
Municipality: YORK
Township: STOUFFVILLE VILLAGE
Street: BACKHILL BLVD./ N OF MILLARD STREET
City: STOUFFVILLE

Tag:
Audit No: Z236802
Contractor License: 7148
Well Completion Date: 08-04-2016
Received Date: 09-12-2016

WELL

Well Status: <null>
Prim. Use: n/a
Sec. Use: n/a
Boring Method: n/a

Well Depth (m): 0
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
0	1006283417	n/a	inch	<null>	n/a	n/a ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
0	n/a	n/a	n/a	n/a	n/a	n/a ft

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	253.21

Latitude: 43.962215
Longitude: -79.272319

Well ID: 7278445

LOCATION

Lot: 035
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)
Street: 100 RINGWOOD DR
City: STOUFFVILLE

Tag:
Audit No: Z240635
Contractor License: 2576
Well Completion Date: 08-26-2016
Received Date: 01-06-2017

WELL

Well Status: Abandoned-Other
Prim. Use: n/a
Sec. Use: n/a
Boring Method: n/a

Well Depth (m): 0
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind:

PUMP TEST

Test Method:	n/a	**Pipe ID:**	1006479330
Pump Set (m):	n/a	**Pump Test ID**	1006479331
SWL (ft)	10.67	**Flowing:**	N
Final Level:	n/a ft	**Pump Duration (hr):**	n/a
Pump Rate:	n/a GPM	**Pump Duration (m):**	n/a
Recom. Rate:	n/a GPM		

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1006479335	2	inch	PLASTIC	n/a	n/a ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	n/a	n/a	n/a	n/a	0	n/a ft

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	260.88

Latitude: 43.971851
Longitude: -79.276664

Well ID: 7284079

LOCATION

Lot:	n/a	**Tag:**	A197419
Con:	n/a	**Audit No:**	C32692
Municipality:	YORK	**Contractor License:**	6809
Township:	WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI	**Well Completion Date:**	03-04-2016
Street:		**Received Date:**	03-31-2017
City:	n/a		

WELL

Well Status:	<null>	**Well Depth (m):**	0
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	n/a	**Depth to Water:**	
Boring Method:		**Water Kind:**	

PUMP TEST

Test Method:		**Pipe ID:**	
Pump Set (m):		**Pump Test ID**	
SWL (ft)		**Flowing:**	
Final Level:		**Pump Duration (hr):**	
Pump Rate:		**Pump Duration (m):**	
Recom. Rate:			

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	259.75

Latitude: 43.966322
Longitude: -79.275378

Well ID: 7292517

LOCATION

Lot:	001	**Tag:**	A221183
Con:	08	**Audit No:**	Z257167
Municipality:	YORK	**Contractor License:**	7424
Township:	WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI	**Well Completion Date:**	06-29-2017
Street:	25 BAKER HILL BLVD	**Received Date:**	08-15-2017
City:	Whitchurch-Stouffville		

ELL

Well Status:	<null>	**Well Depth (m):**	6.096
Prim. Use:		**Depth to Bedrock (m):**	n/a

WE

Sec. Use: n/a
Boring Method: Auger

Depth to Water: ft
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1006865504	2	inch	PLASTIC	0	10 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	SAND	GRAVEL	n/a	BROWN	0	4 ft
2	SILT	SAND	n/a	BROWN	4	10 ft
3	SILT	CLAY	WATER-BEARING	GREY	10	20 ft

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	260.42

Latitude: 43.967269
Longitude: -79.2755

Well ID: 7292518

LOCATION

Lot: 001
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street: 25 BAKER HILL BLVD
City: WHITCHURCH-STOUFFVILLE

Tag: A221184
Audit No: Z257168
Contractor License: 7472
Well Completion Date: 06-29-2017
Received Date: 08-15-2017

WELL

Well Status: <null>
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Auger

Well Depth (m): 6.096
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1006865524	2	inch	PLASTIC	0	10 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	SAND	GRAVEL	n/a	BROWN	0	3 ft
2	SILT	SAND	n/a	BROWN	3	10 ft
3	SILT	CLAY	n/a	GREY	10	20 ft

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	260.02

Latitude: 43.966499
Longitude: -79.275236

Well ID: 7292950

LOCATION

Lot: 001
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street: 25 BAKER HILL BLVD.
City: STOUFFVILLE

Tag:
Audit No: Z263398
Contractor License: 7241
Well Completion Date: 07-24-2017
Received Date: 08-18-2017

WELL

Well Status: Abandoned-Other
Prim. Use: n/a
Sec. Use: n/a
Boring Method: n/a

Well Depth (m): 0
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1006844231	2	inch	PLASTIC	n/a	n/a ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	260.45

Latitude: 43.96715
Longitude: -79.275392

Well ID: 7292951

LOCATION

Lot: 001
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWP
Street: 25 BAKER HILL BLVD.
City: STOUFFVILLE

Tag:
Audit No: Z263400
Contractor License: 7241
Well Completion Date: 07-24-2017
Received Date: 08-18-2017

WELL

Well Status: Abandoned-Other
Prim. Use: n/a
Sec. Use: n/a
Boring Method: n/a

Well Depth (m): 0
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1006844240	2	inch	PLASTIC	n/a	n/a ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	259.44

Latitude: 43.966287
Longitude: -79.276077

Well ID: 7292952

TION

Lot: 001
Con: 08
Municipality:

Tag:
Audit No: Z263399
Contractor License: 7241

LOCA

Township: YORK WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street: 25 BAKER HILL BLVD.
City: STOUFFVILLE

Well Completion Date: 07-24-2017
Received Date: 08-18-2017

WELL

Well Status: Abandoned-Other
Prim. Use: n/a
Sec. Use: n/a
Boring Method: n/a

Well Depth (m): 0
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1006844249	2	inch	PLASTIC	n/a	n/a ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	

Latitude: 43.968089
Longitude: -79.279142

Well ID: **7303224**

LOCATION

Lot: n/a
Con: n/a
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag: A235075
Audit No: C39394
Contractor License: 7464
Well Completion Date: 11-10-2017
Received Date: 01-12-2018

WELL

Well Status: <null>
Prim. Use: n/a
Sec. Use: n/a
Boring Method:

Well Depth (m): 0
Depth to Bedrock (m): n/a
Depth to Water:
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	

Latitude: 43.966883
Longitude: -79.272034

Well ID: **7303234**

LOCATION

Lot:	n/a	**Tag:**	A233439
Con:	n/a	**Audit No:**	C39861
Municipality:	YORK	**Contractor License:**	7464
Township:	WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI	**Well Completion Date:**	11-14-2017
Street:		**Received Date:**	01-12-2018
City:	n/a		

WELL

Well Status:	<null>	**Well Depth (m):**	0
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	n/a	**Depth to Water:**	
Boring Method:		**Water Kind:**	

PUMP TEST

Test Method:		**Pipe ID:**	
Pump Set (m):		**Pump Test ID**	
SWL (ft)		**Flowing:**	
Final Level:		**Pump Duration (hr):**	
Pump Rate:		**Pump Duration (m):**	
Recom. Rate:			

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	

Latitude: 43.96304
Longitude: -79.27925

Well ID: 7325321

LOCATION

Lot:	035	**Tag:**	A227657
Con:	08	**Audit No:**	C38247
Municipality:	YORK	**Contractor License:**	7437
Township:	WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)	**Well Completion Date:**	12-20-2017
Street:		**Received Date:**	12-28-2018
City:	n/a		

WELL

Well Status:	<null>	**Well Depth (m):**	0
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	n/a	**Depth to Water:**	
Boring Method:		**Water Kind:**	

PUMP TEST

Test Method:		**Pipe ID:**	
Pump Set (m):		**Pump Test ID**	
SWL (ft)		**Flowing:**	
Final Level:		**Pump Duration (hr):**	
Pump Rate:		**Pump Duration (m):**	
Recom. Rate:			

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	

Latitude: 43.964394
Longitude: -79.280707

Well ID: 7328681

LOCATION

Lot:	001	**Tag:**	A260026
Con:	07	**Audit No:**	Z301614
Municipality:	YORK	**Contractor License:**	7644
Township:	WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI	**Well Completion Date:**	11-21-2018
Street:	48 Highway 48 & Stouffville Rd	**Received Date:**	02-15-2019
City:	STOUFFVILLE		

WELL

Well Status:	Test Hole	**Well Depth (m):**	6.096
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	n/a	**Depth to Water:**	ft
Boring Method:	Boring	**Water Kind:**	Untested

PUMP TEST

Test Method:	n/a	**Pipe ID:**	1007733215
Pump Set (m):	n/a	**Pump Test ID**	1007733273
SWL (ft)	n/a	**Flowing:**	N
Final Level:	n/a ft	**Pump Duration (hr):**	n/a
Pump Rate:	n/a GPM	**Pump Duration (m):**	n/a
Recom. Rate:	n/a GPM		

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth	
1	1007733261	2	Inch	PLASTIC	0	5	ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth	
1	SILT	SAND	n/a	BROWN	0	3	ft
2	SILT	CLAY	n/a	BROWN	3	8	ft
3	SAND	SILT	n/a	BROWN	8	15	ft
4	CLAY	SILT	n/a	GREY	15	20	ft

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	

Latitude: 43.96307
Longitude: -79.281293

Well ID: 7328682

LOCATION

Lot:	035	**Tag:**	A260027
Con:	08	**Audit No:**	Z301613
Municipality:	YORK	**Contractor License:**	7644
Township:	WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)	**Well Completion Date:**	11-22-2018
Street:	48 Highway 48 & Stouffville Rs	**Received Date:**	02-15-2019
City:	STOUFFVILLE		

WELL

Well Status:	Monitoring and Test Hole	**Well Depth (m):**	6.096
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	n/a	**Depth to Water:**	ft
Boring Method:	Boring	**Water Kind:**	Untested

PUMP TEST

Test Method:	n/a	**Pipe ID:**	1007733216
Pump Set (m):	n/a	**Pump Test ID**	1007733274
SWL (ft)	n/a	**Flowing:**	n/a
Final Level:	n/a ft	**Pump Duration (hr):**	n/a
Pump Rate:	n/a GPM	**Pump Duration (m):**	n/a
Recom. Rate:	n/a GPM		

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth	
1	1007733262	2	Inch	PLASTIC	0	5	ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth	
1	CLAY	SILT	n/a	BROWN	0	5	ft
2	SILT	SAND	n/a	BROWN	5	12	ft
3	CLAY	SILT	n/a	GREY	12	20	ft

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	

Latitude: 43.963266
Longitude: -79.281138

Well ID: 7328683

LOCATION

Lot:	035	**Tag:**	A260028
Con:	08	**Audit No:**	Z301612
Municipality:	YORK	**Contractor License:**	7644
Township:	WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)	**Well Completion Date:**	11-22-2018
Street:	48 Highway 48 & Stouffville Rd	**Received Date:**	02-15-2019
City:	STOUFFVILLE		

WELL

Well Status:	Monitoring and Test Hole	**Well Depth (m):**	6.096
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	Monitoring	**Depth to Water:**	ft
Boring Method:	Boring	**Water Kind:**	Untested

PUMP TEST

Test Method:	n/a	**Pipe ID:**	1007733217
Pump Set (m):	n/a	**Pump Test ID**	1007733275
SWL (ft)	n/a	**Flowing:**	N
Final Level:	n/a ft	**Pump Duration (hr):**	n/a
Pump Rate:	n/a GPM	**Pump Duration (m):**	n/a
Recom. Rate:	n/a GPM		

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1007733263	2	Inch	PLASTIC	0	5 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	n/a	n/a	n/a	BLACK	0	0.5 ft
2	CLAY	n/a	n/a	BROWN	0.5	6 ft
3	SILT	SAND	n/a	BROWN	6	12 ft
4	CLAY	SILT	n/a	GREY	12	20 ft

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	

Latitude: 43.964454
Longitude: -79.280518

Well ID: 7338259

LOCATION

Lot:	001	**Tag:**	A271730
Con:	07	**Audit No:**	J293I53C
Municipality:	YORK	**Contractor License:**	6607
Township:	WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI	**Well Completion Date:**	06-21-2019
Street:	5262 MAIN ST. WHITCHURCH-STOUFVILLE	**Received Date:**	08-02-2019
City:	STOUFVILLE		

WELL

Well Status:	Observation Wells	**Well Depth (m):**	10.6
Prim. Use:	n/a	**Depth to Bedrock (m):**	n/a
Sec. Use:	n/a	**Depth to Water:**	m
Boring Method:	Boring	**Water Kind:**	Untested

PUMP TEST

Test Method:	n/a	**Pipe ID:**	1007554406
Pump Set (m):	n/a	**Pump Test ID**	1007554407
SWL (ft)	n/a	**Flowing:**	n/a
Final Level:	n/a m	**Pump Duration (hr):**	n/a
Pump Rate:	n/a LPM	**Pump Duration (m):**	n/a
Recom. Rate:	n/a LPM		

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1007554724	5.1	cm	PLASTIC	0.1	9.1 m

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

1	SAND	GRAVEL	PACKED	BROWN	0	0.3	m
2	CLAY	n/a	SOFT	GREY	0.3	2.1	m
3	SILT	CLAY	DENSE	GREY	2.1	10.6	m

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	

Latitude: 43.961837
Longitude: -79.280706

Well ID: 7339194

LOCATION

Lot: 035
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)
Street: Highway 48 Stouffville Road
City: STOUFFVILLE

Tag: A271957
Audit No: Z314888
Contractor License: 7644
Well Completion Date: 06-14-2019
Received Date: 08-06-2019

WELL

Well Status: Monitoring and Test Hole
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Auger

Well Depth (m): 4.572
Depth to Bedrock (m): n/a
Depth to Water:
Water Kind:

PUMP TEST

Test Method: n/a
Pump Set (m): n/a
SWL (ft) n/a
Final Level: n/a ft
Pump Rate: n/a GPM
Recom. Rate: n/a GPM

Pipe ID: 1007864934
Pump Test ID 1007870681
Flowing: n/a
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth	
1	1007869574	2	Inch	PLASTIC	0	10	ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth	
1	CLAY	TILL	n/a	n/a	0	15	ft

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	

Latitude: 43.963652
Longitude: -79.280429

Well ID: 7340263

LOCATION

Lot: 035
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)
Street: Highway 48 Main Street
City: STOUFFVILLE

Tag: A269451
Audit No: Z318187
Contractor License: 7644
Well Completion Date: 07-17-2019
Received Date: 08-30-2019

WELL

Well Status: Monitoring and Test Hole
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Rotary (Convent.)

Well Depth (m): 8.2296
Depth to Bedrock (m): n/a
Depth to Water:
Water Kind:

PUMP TEST

Test Method: n/a
Pump Set (m): n/a
SWL (ft) n/a
Final Level: n/a ft
Pump Rate: n/a GPM
Recom. Rate: n/a GPM

Pipe ID: 1007879051
Pump Test ID 1007886579
Flowing: n/a
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth	
1	1007885156	2	Inch	PLASTIC	0	17	ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	SAND	n/a	n/a	n/a	0	10 ft
2	CLAY	n/a	n/a	n/a	10	27 ft

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	

Latitude: 43.964702
Longitude: -79.271885

Well ID: 7342549

LOCATION

Lot: n/a
Con: n/a
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (MARKHAM TWP)
Street: 5531 Main St
City: STOUFFVILLE

Tag: A267494
Audit No: Z312034
Contractor License: 7615
Well Completion Date: 08-29-2019
Received Date: 09-30-2019

WELL

Well Status: Observation Wells
Prim. Use: n/a
Sec. Use: n/a
Boring Method: Other Method

Well Depth (m): 6.096
Depth to Bedrock (m): n/a
Depth to Water: ft
Water Kind: Untested

PUMP TEST

Test Method: n/a
Pump Set (m): n/a
SWL (ft) n/a
Final Level: n/a ft
Pump Rate: n/a GPM
Recom. Rate: n/a GPM

Pipe ID: 1008050728
Pump Test ID 1008053827
Flowing: n/a
Pump Duration (hr): n/a
Pump Duration (m): n/a

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth
1	1008053124	2	Inch	PLASTIC	-2	10 ft

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth
1	FILL	SAND	GRAVEL	BROWN	0	6 ft
2	TILL	SAND	SILT	GREY	6	15 ft
3	SAND	SILT	CLAY	GREY	15	20 ft

End of Record

---

n/a

Easting:	<null>
Northing:	<null>
Elev (masl):	

Latitude: 43.9656
Longitude: -79.278864

Well ID: 7349960

LOCATION

Lot: 001
Con: 08
Municipality: YORK
Township: WHITCHURCH-STOUFFVILLE TOWN (WHITCHURCH TWI
Street:
City: n/a

Tag: A253333
Audit No: C43343
Contractor License: 7654
Well Completion Date: 05-01-2019
Received Date: 12-20-2019

WELL

Well Status: <null>
Prim. Use: n/a
Sec. Use: n/a
Boring Method:

Well Depth (m): 0
Depth to Bedrock (m): n/a
Depth to Water:
Water Kind:

PUMP TEST

Test Method:
Pump Set (m):
SWL (ft)
Final Level:
Pump Rate:
Recom. Rate:

Pipe ID:
Pump Test ID
Flowing:
Pump Duration (hr):
Pump Duration (m):

CASING DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Case ID	Casing Diamter	Diamter Units	Material	Top Depth	Bottom Depth

FORMATION DETAILS

Layer Value of "0" denotes a Null value and cannot be stratified and ordered.

Layer	Material	Material 2	Material 3	Colour	Top Depth	Bottom Depth

End of Record

Appendix D

Analytical Data

CADUCEON ENVIRONMENTAL LABORATORIES
Client committed. Quality assured.

CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G49038 **REPORT No. B14-31931**

Report To:

Geologic Inc. (Peterborough)
347 Pido Road, Unit 29
Peterborough ON K9J 6X7 Canada
Attention: Kyle Plumpton

Caduceon Environmental Laboratories
110 West Beaver Creek Rd Unit 14
Richmond Hill ON L4B 1J9
Tel: 289-475-5442
Fax: 289-562-1963

DATE RECEIVED: 10-Dec-14
DATE REPORTED: 16-Dec-14
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Fockler Ln Stouffville/G030337E1
P.O. NUMBER: 23729
WATERWORKS NO.

			Client I.D.		W - 1	BH - 7		
			Sample I.D.		B14-31931-1	B14-31931-2		
			Date Collected		09-Dec-14	09-Dec-14		
Parameter	**Units**	**M.D.L.**	**Reference Method**	**Date/Site Analyzed**				
pH @25°C	pH Units		SM 4500	15-Dec-14/R	7.75	7.55		
Conductivity @25°C	µmho/cm	1	SM 2510	12-Dec-14/R	900	980		
Alkalinity(CaCO3) to pH4.5	mg/L	1.0	SM 2320-B	15-Dec-14/R	332	597		
Hardness (as CaCO3)	mg/L	1	SM 3120	12-Dec-14/O	390	567		
Chloride	mg/L	0.5	SM4110C	11-Dec-14/O	75.8	12.7		
Fluoride	mg/L	0.1	SM4110C	11-Dec-14/O	0.2	0.2		
Nitrite (N)	mg/L	0.1	SM4110C	11-Dec-14/O	< 0.1	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	11-Dec-14/O	0.4	< 0.1		
Sulphate	mg/L	1	SM4110C	11-Dec-14/O	31	16		
Colour	TCU	2	SM 2120C	12-Dec-14/O	9	8		
Turbidity	NTU	1.0	SM2130	15-Dec-14/R	25.0	127		
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	15-Dec-14/O	0.02	1.85		
o-Phosphate (P)	mg/L	0.01	MOEE 3366	15-Dec-14/O	< 0.01	< 0.01		
Sodium	mg/L	0.2	SM 3120	12-Dec-14/O	64.1	21.6		
Potassium	mg/L	0.1	SM 3120	12-Dec-14/O	7.9	8.3		
Calcium	mg/L	0.02	SM 3120	12-Dec-14/O	125	158		
Magnesium	mg/L	0.01	SM 3120	12-Dec-14/O	19.2	41.6		
Iron	mg/L	0.005	SM 3120	12-Dec-14/O	0.316	0.306		
Copper	mg/L	0.002	SM 3120	12-Dec-14/O	< 0.002	< 0.002		
Manganese	mg/L	0.001	SM 3120	12-Dec-14/O	0.106	1.21		
Zinc	mg/L	0.005	SM 3120	12-Dec-14/O	< 0.005	< 0.005		
Anion Sum	meq/L		Calc.	15-Dec-14/O	9.47	12.6		
Cation Sum	meq/L		Calc.	15-Dec-14/O	10.8	12.7		
% Difference	%		Calc.	15-Dec-14/O	6.56	0.129		
Ion Ratio	AS/CS		Calc.	15-Dec-14/O	0.877	0.997		

M.D.L. = Method Detection Limit
Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

Christine Burke
Lab Supervisor

CADUCEON ENVIRONMENTAL LABORATORIES
Client committed. Quality assured.

CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G49038 **REPORT No. B14-31931**

Report To:

Geologic Inc. (Peterborough)
347 Pido Road, Unit 29
Peterborough ON K9J 6X7 Canada
Attention: Kyle Plumpton

Caduceon Environmental Laboratories
110 West Beaver Creek Rd Unit 14
Richmond Hill ON L4B 1J9
Tel: 289-475-5442
Fax: 289-562-1963

DATE RECEIVED: 10-Dec-14
DATE REPORTED: 16-Dec-14
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Fockler Ln Stouffville/G030337E1
P.O. NUMBER: 23729
WATERWORKS NO.

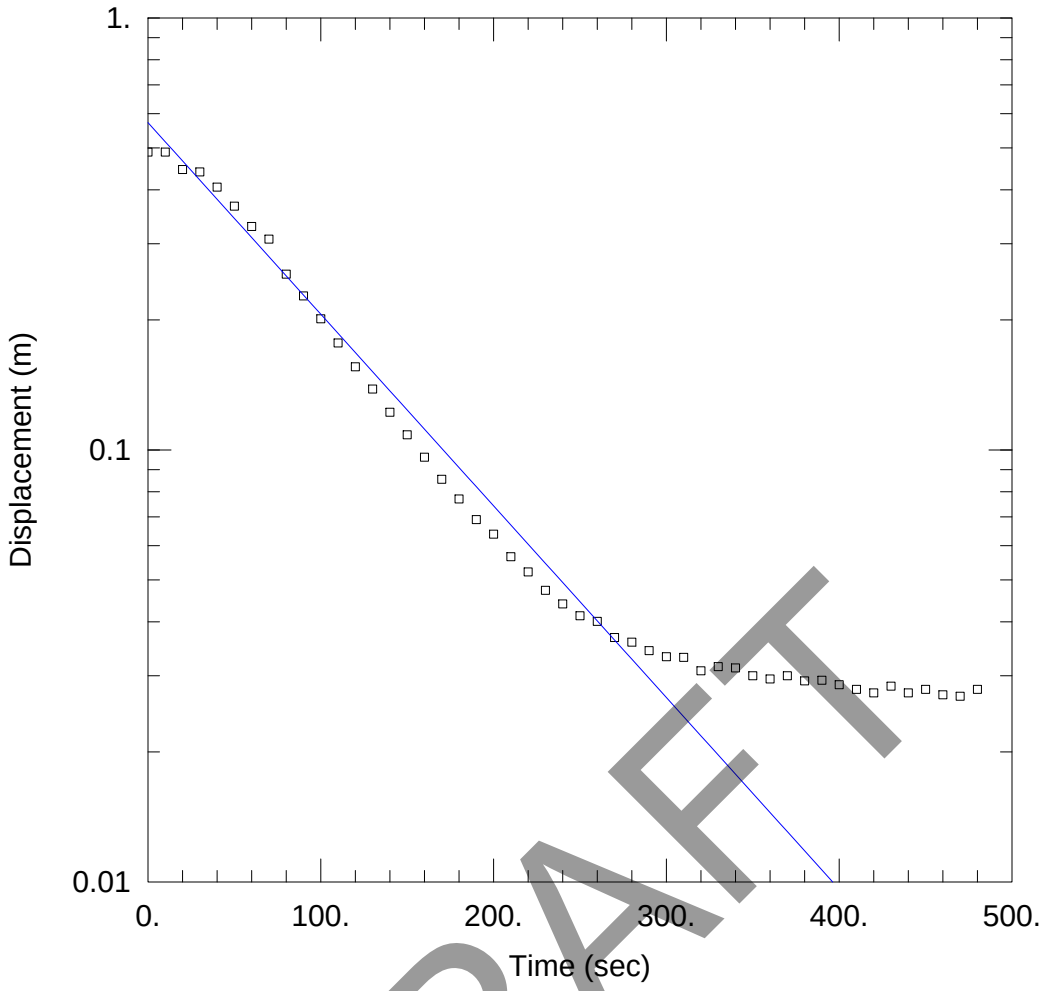
			Client I.D.		W - 1	BH - 7		
			Sample I.D.		B14-31931-1	B14-31931-2		
			Date Collected		09-Dec-14	09-Dec-14		
Parameter	**Units**	**M.D.L.**	**Reference Method**	**Date/Site Analyzed**				
Sodium Adsorption Ratio	-		Calc.	15-Dec-14/O	1.41	0.396		
TDS(ion sum calc.)	mg/L		Calc.	15-Dec-14/O	525	621		
Conductivity (calc.)	µmho/cm		Calc.	15-Dec-14/O	948	1070		
TDS(calc.)/EC(actual)	-		Calc.	15-Dec-14/O	0.583	0.634		
EC(calc.)/EC(actual)	-		Calc.	15-Dec-14/O	1.05	1.09		
Langelier Index(25°C)	S.I.		Calc.	15-Dec-14/O	0.904	1.05		

M.D.L. = Method Detection Limit
Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

Christine Burke
Lab Supervisor

Appendix E

Single Well Response Testing Data



BH-1 - FALLING HEAD TEST

Data Set: \...\G030337A1, 15-01-27, BH-1 (OW-1).aqt
Date: 01/27/15 Time: 13:55:52

PROJECT INFORMATION

Company: Geo-Logic
Client: 2440332 Ontario Inc.
Project: G030337E1
Location: Whitchurch-Stouffville, ON
Test Well: BH-1
Test Date: December 9, 2014

AQUIFER DATA

Saturated Thickness: 2.8 m Anisotropy Ratio (Kz/Kr): 1.

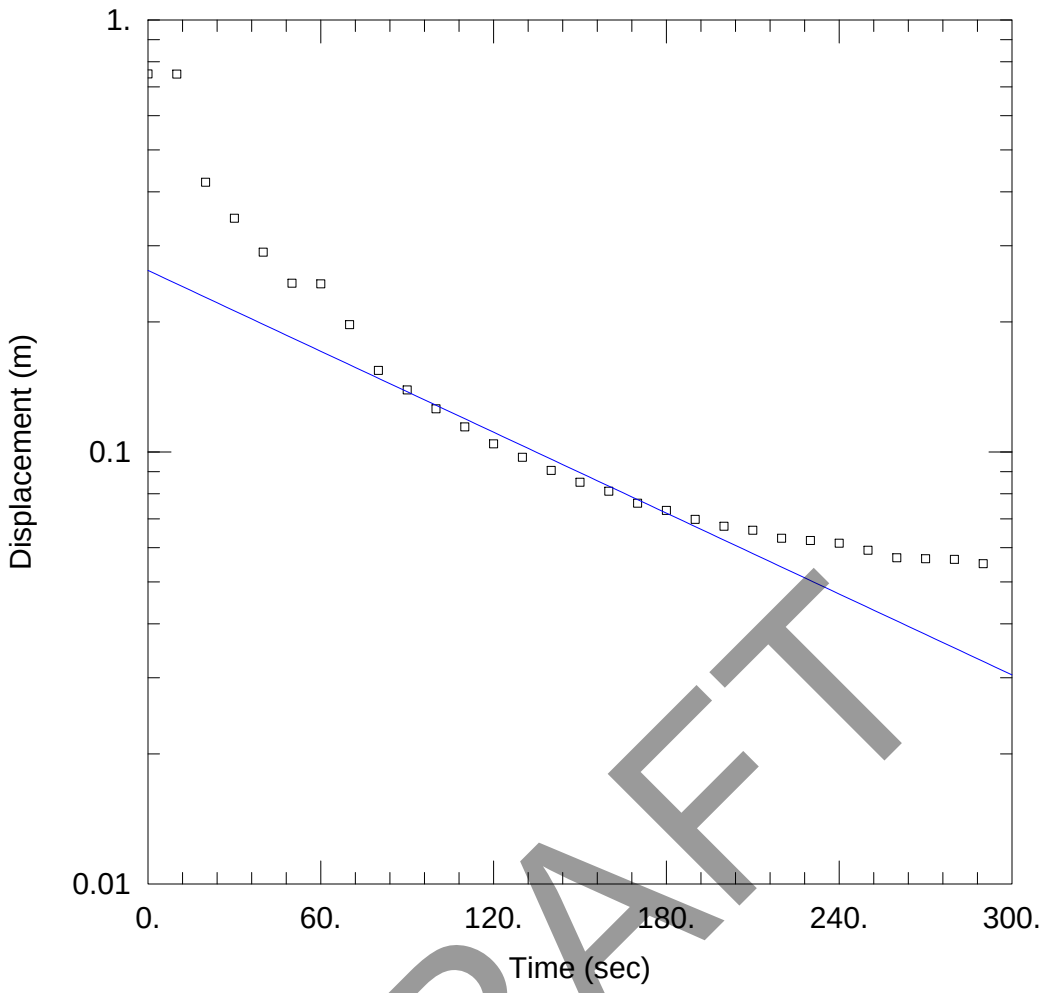
WELL DATA (BH-1)

Initial Displacement: 0.489 m
Total Well Penetration Depth: 2.74 m
Casing Radius: 0.025 m
Static Water Column Height: 2.8 m
Screen Length: 1.5 m
Well Radius: 0.025 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.0007133 cm/sec
y0 = 0.5724 m



BH-12 - FALLING HEAD TEST

Data Set: I:\...\G030337A1, 15-01-27, BH-12 (OW-3)rev1.aqt
Date: 01/27/15 Time: 14:16:47

PROJECT INFORMATION

Company: Geo-Logic
Client: 2440332 Ontario Inc.
Project: G030337E1
Location: Whitchurch-Stouffville, ON
Test Well: BH-12
Test Date: December 9, 2014

AQUIFER DATA

Saturated Thickness: 3.2 m Anisotropy Ratio (Kz/Kr): 1.

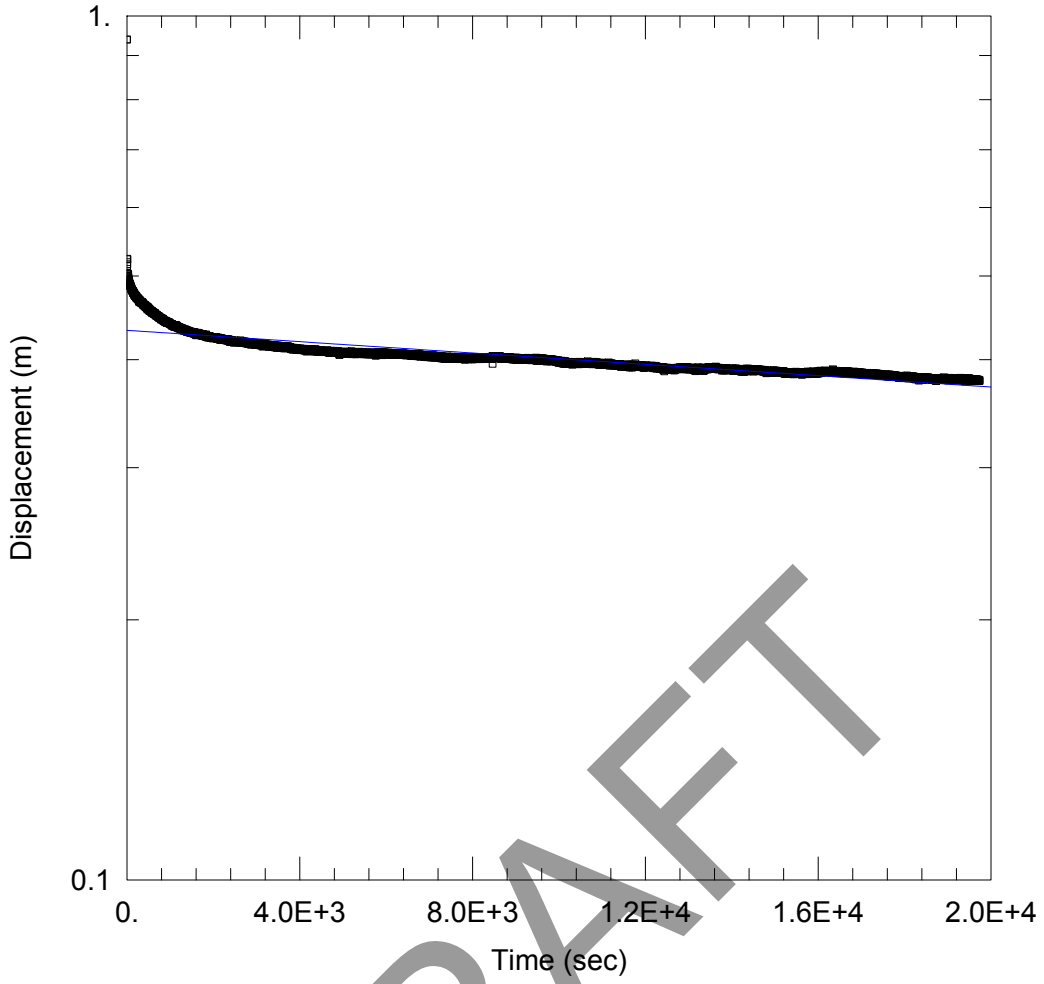
WELL DATA (BH-12)

Initial Displacement: 0.75 m Static Water Column Height: 2.8 m
Total Well Penetration Depth: 3.15 m Screen Length: 1.5 m
Casing Radius: 0.025 m Well Radius: 0.025 m

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0005164 cm/sec y0 = 0.2631 m



MW-15 FALLING HEAD TEST

Data Set: I:\...\MW-15 Falling Head Test.aqt
Date: 06/11/19 Time: 13:17:21

PROJECT INFORMATION

Company: GHD
Client: 2440332 Ontario Inc
Project: 11192167-02
Location: Main Street, Stouffville
Test Well: MW-15
Test Date: April 24, 2019

AQUIFER DATA

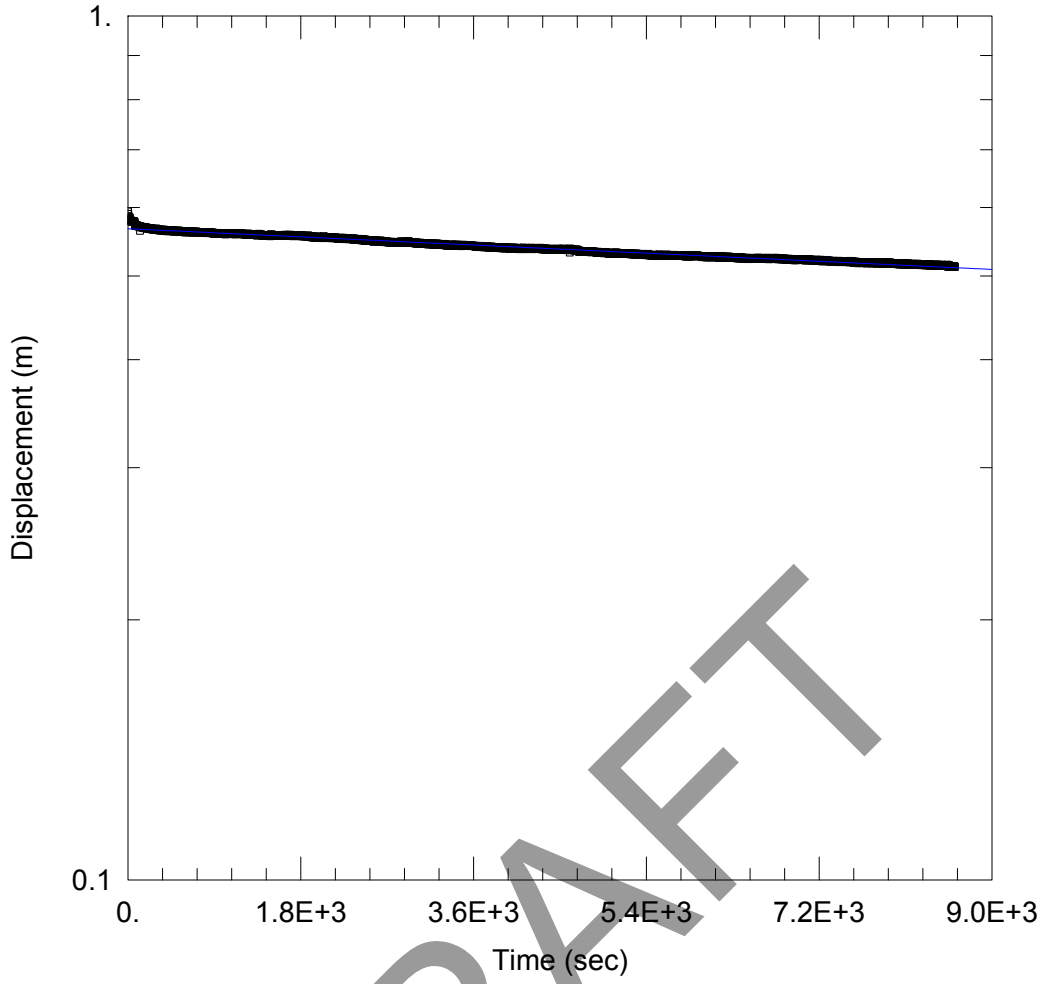
Saturated Thickness: 4.345 m
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-15)

Initial Displacement: 0.9391 m
Total Well Penetration Depth: 4.345 m
Casing Radius: 0.0254 m
Static Water Column Height: 4.345 m
Screen Length: 3.048 m
Well Radius: 0.0254 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 3.133E-7 cm/sec
y0 = 0.4326 m



MW-15 RISING HEAD TEST

Data Set: I:\...\MW-15 Rising Head Test.aqt
Date: 06/11/19 Time: 13:22:34

PROJECT INFORMATION

Company: GHD
Client: 2440332 Ontario Inc
Project: 11192167-02
Location: Main Street, Stouffville
Test Well: MW-15
Test Date: April 24, 2019

AQUIFER DATA

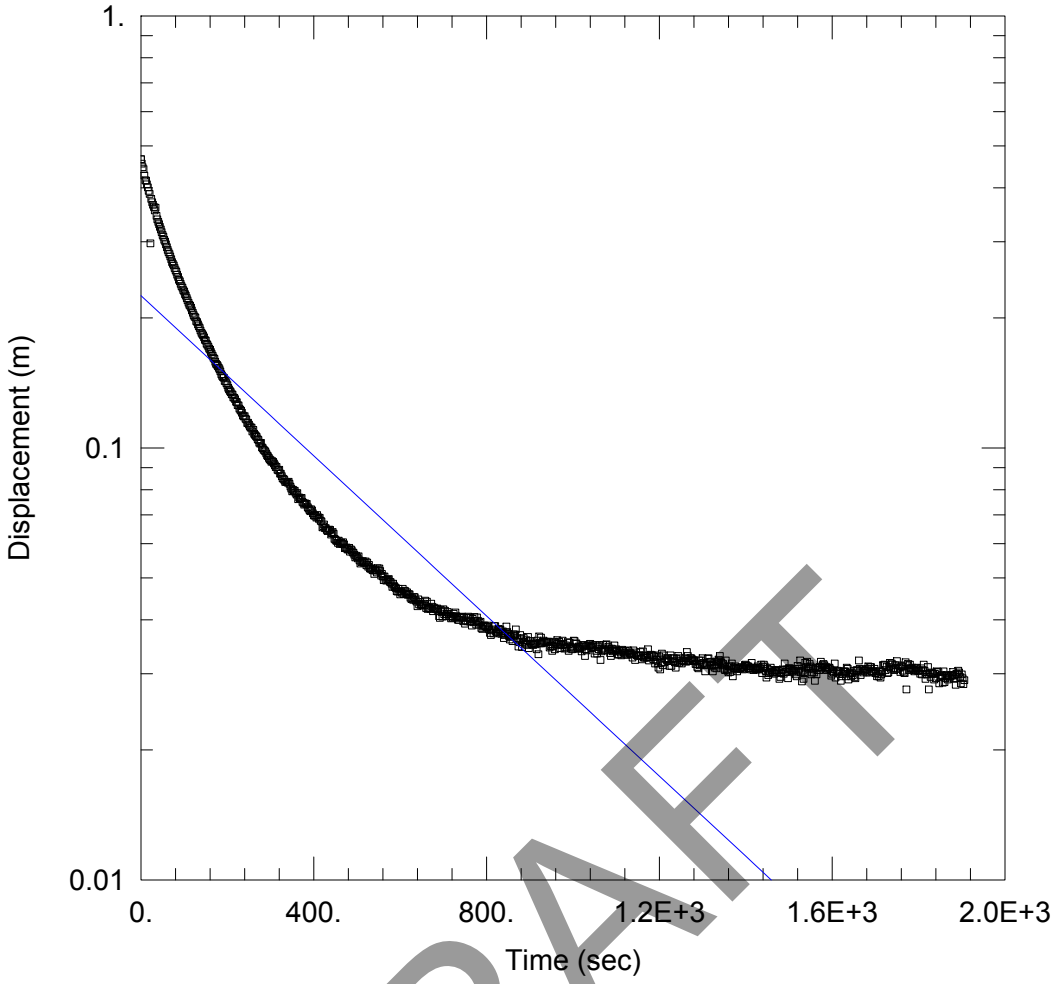
Saturated Thickness: 4.345 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-15)

Initial Displacement: 0.5942 m
Total Well Penetration Depth: 4.345 m
Casing Radius: 0.0254 m
Static Water Column Height: 4.345 m
Screen Length: 3.048 m
Well Radius: 0.0254 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 5.003E-7 cm/sec
y0 = 0.5671 m



MW-16 FALLING HEAD TEST

Data Set: I:\...\MW-16 Falling Head Test.aqt
Date: 06/11/19 Time: 13:30:09

PROJECT INFORMATION

Company: GHD
Client: 2440332 Ontario Inc
Project: 11192167-02
Location: Main Street, Stouffville
Test Well: MW-16
Test Date: April 24, 2019

AQUIFER DATA

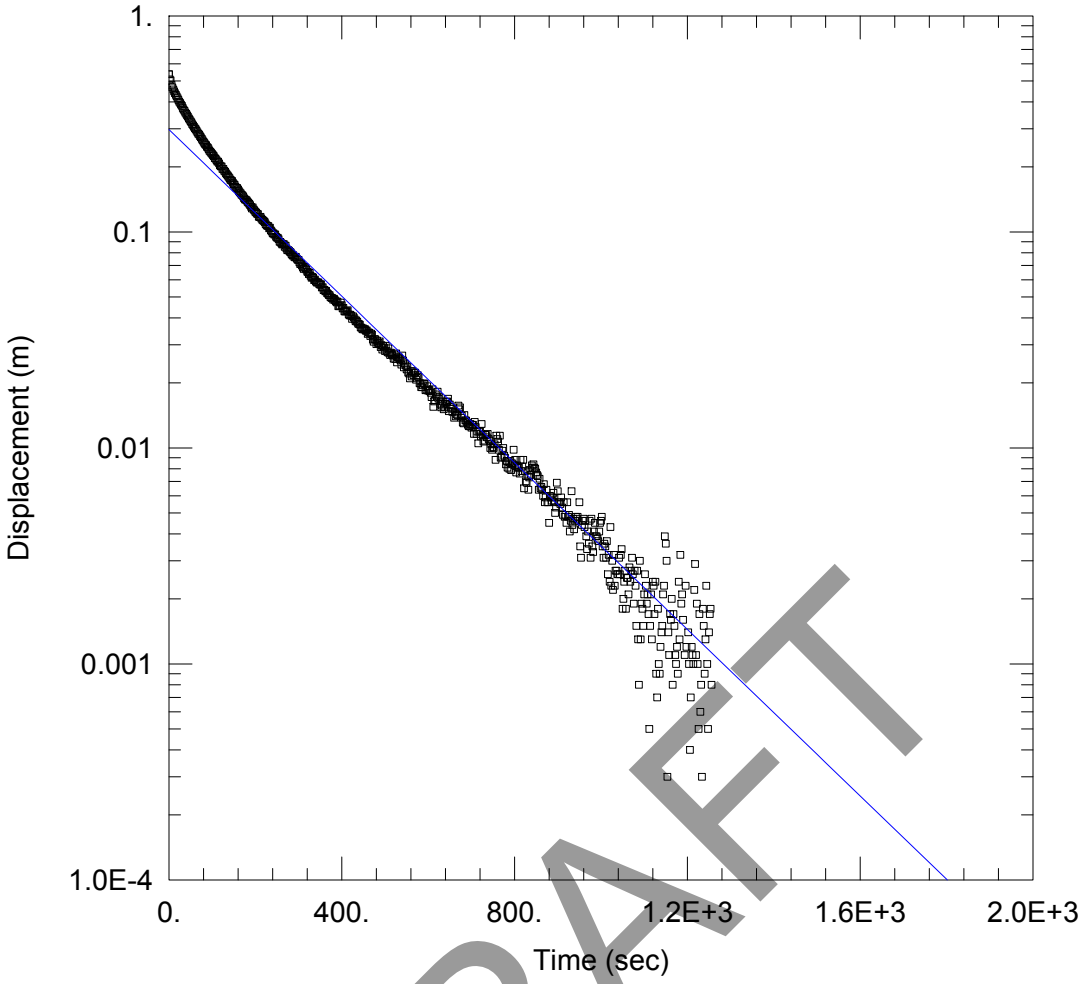
Saturated Thickness: 14.82 m
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-16)

Initial Displacement: 0.4659 m
Total Well Penetration Depth: 14.82 m
Casing Radius: 0.0254 m
Static Water Column Height: 14.82 m
Screen Length: 3.048 m
Well Radius: 0.0254 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.0001056 cm/sec
y0 = 0.2252 m



MW-16 RISING HEAD TEST

Data Set: I:\...\MW-16 Rising Head Test.aqt
Date: 06/11/19 Time: 13:31:54

PROJECT INFORMATION

Company: GHD
Client: 2440332 Ontario Inc
Project: 11192167-02
Location: Main Street, Stouffville
Test Well: MW-16
Test Date: April 24, 2019

AQUIFER DATA

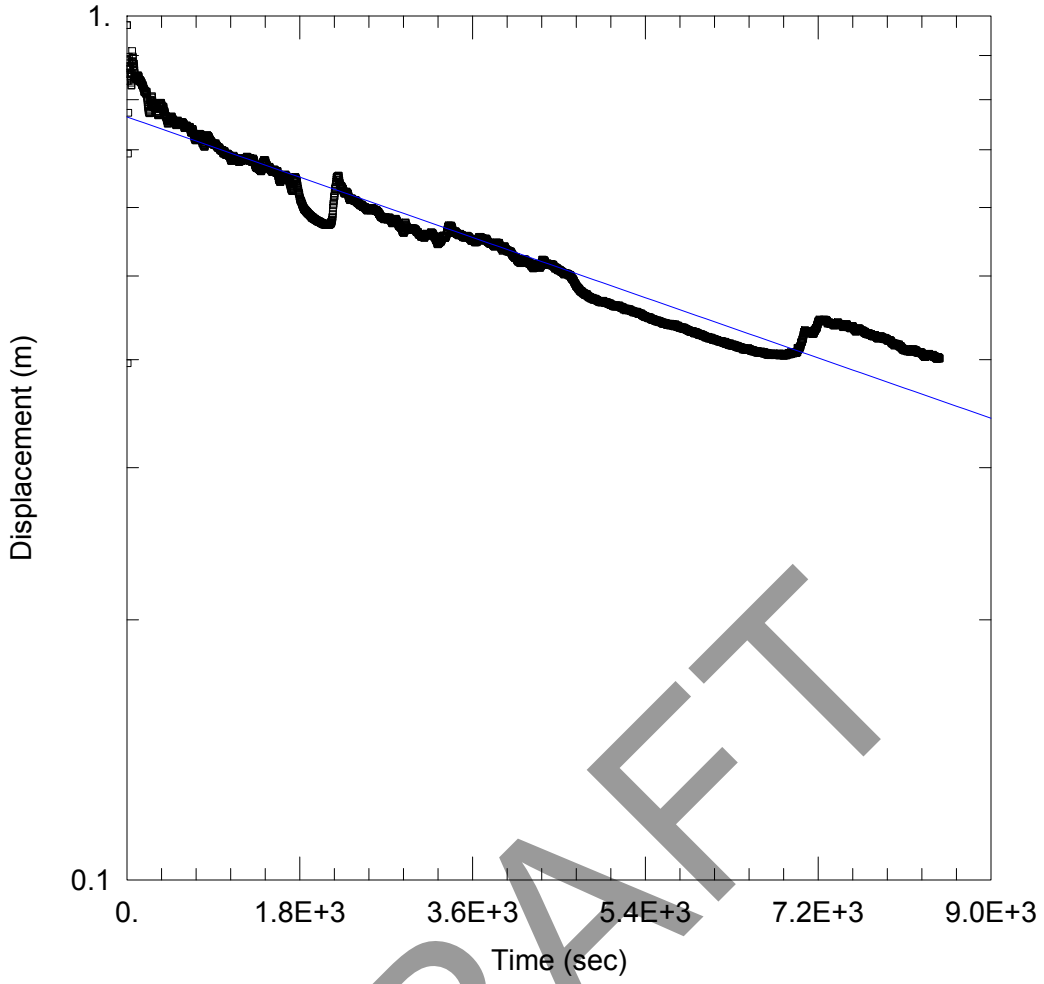
Saturated Thickness: 14.82 m
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-16)

Initial Displacement: 0.5369 m
Total Well Penetration Depth: 14.82 m
Casing Radius: 0.0254 m
Static Water Column Height: 14.82 m
Screen Length: 3.048 m
Well Radius: 0.0254 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.0002197 cm/sec
y0 = 0.2975 m



MW-17 FALLING HEAD TEST

Data Set: I:\...\MW-17 Falling Head Test.aqt
Date: 06/12/19 Time: 15:02:07

PROJECT INFORMATION

Company: GHD
Client: 2440332 Ontario Inc
Project: 11192167-02
Location: Main Street, Stouffville
Test Well: MW-17
Test Date: June 12, 2019

AQUIFER DATA

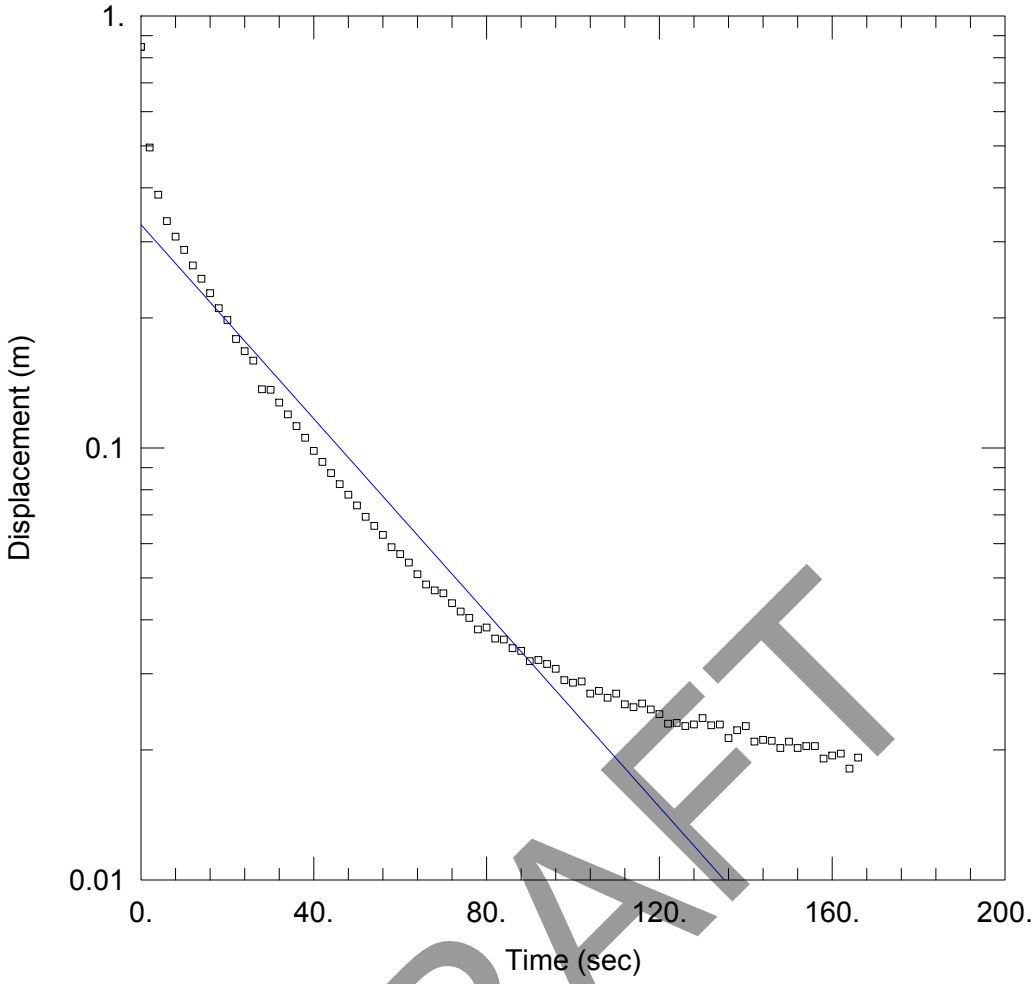
Saturated Thickness: 13.95 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-17)

Initial Displacement: 0.9759 m Static Water Column Height: 13.95 m
Total Well Penetration Depth: 13.95 m Screen Length: 3.048 m
Casing Radius: 0.0254 m Well Radius: 0.0254 m

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 4.382E-6 cm/sec y0 = 0.764 m



MW-18 FALLING HEAD TEST ONE

Data Set: I:\...\MW-18 Falling Head Test 1.aqt
Date: 06/11/19 Time: 13:45:36

PROJECT INFORMATION

Company: GHD
Client: 2440332 Ontario Inc
Project: 11192167-02
Location: Main Street, Stouffville
Test Well: MW-18
Test Date: April 24, 2019

AQUIFER DATA

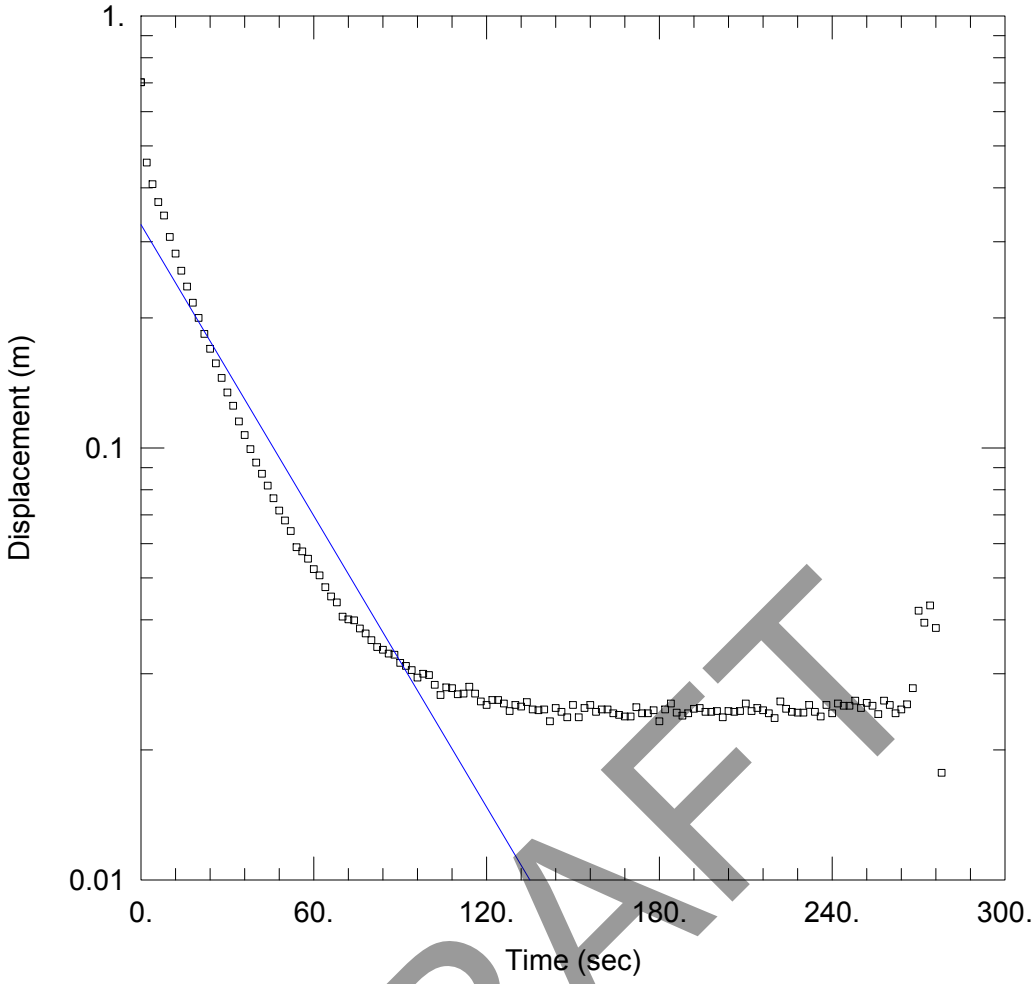
Saturated Thickness: 4.61 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-18)

Initial Displacement: 0.8477 m
Total Well Penetration Depth: 4.61 m
Casing Radius: 0.0254 m
Static Water Column Height: 4.61 m
Screen Length: 3.048 m
Well Radius: 0.0254 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.001084 cm/sec
y0 = 0.3288 m



MW-18 FALLING HEAD TEST TWO

Data Set: I:\...\MW-18 Falling Head Test 2.aqt
Date: 06/11/19 Time: 13:46:58

PROJECT INFORMATION

Company: GHD
Client: 2440332 Ontario Inc
Project: 11192167-02
Location: Main Street, Stouffville
Test Well: MW-18
Test Date: April 24, 2019

AQUIFER DATA

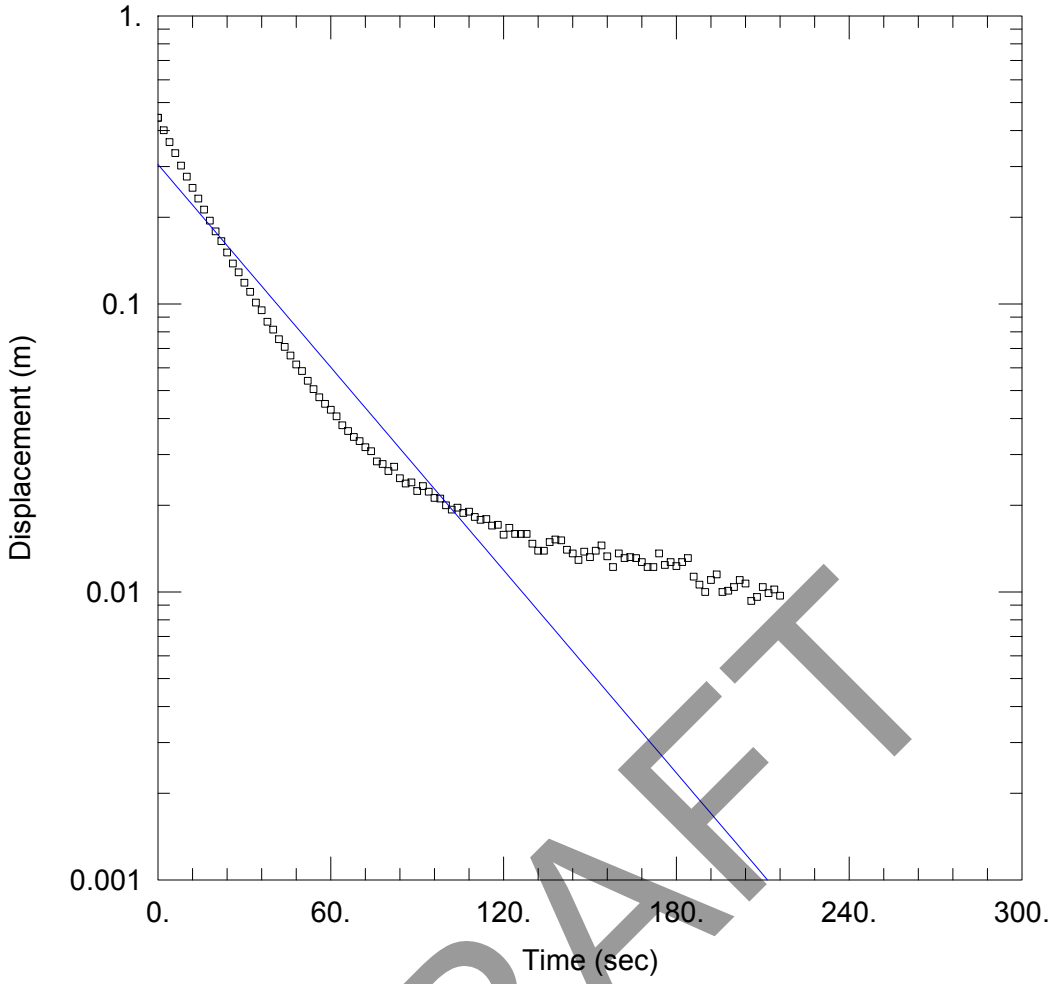
Saturated Thickness: 4.61 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-18)

Initial Displacement: 0.7021 m Static Water Column Height: 4.61 m
Total Well Penetration Depth: 4.61 m Screen Length: 3.048 m
Casing Radius: 0.0254 m Well Radius: 0.0254 m

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 0.001084 cm/sec y0 = 0.3288 m



MW-18 RISING HEAD TEST

Data Set: I:\...\MW-18 Rising Head Test.aqt
Date: 06/11/19 Time: 13:48:29

PROJECT INFORMATION

Company: GHD
Client: 2440332 Ontario Inc
Project: 11192167-02
Location: Main Street, Stouffville
Test Well: MW-18
Test Date: April 24, 2019

AQUIFER DATA

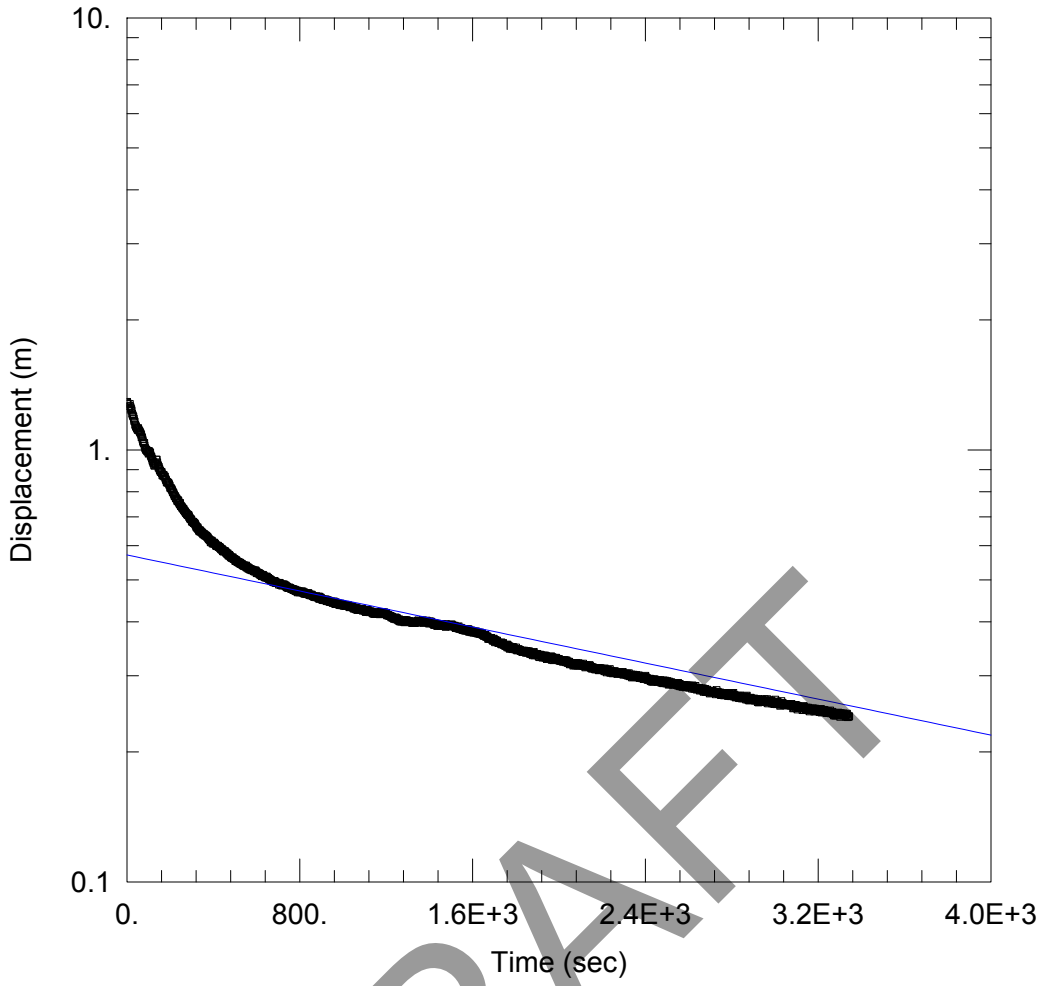
Saturated Thickness: 4.61 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-18)

Initial Displacement: 0.4432 m Static Water Column Height: 4.61 m
Total Well Penetration Depth: 4.61 m Screen Length: 3.048 m
Casing Radius: 0.0254 m Well Radius: 0.0254 m

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 0.001132 cm/sec y0 = 0.305 m



MW-19 FALLING HEAD TEST

Data Set: I:\...\MW-19 Falling Head Test.aqt
Date: 06/12/19 Time: 15:08:33

PROJECT INFORMATION

Company: GHD
Client: 2440332 Ontario Inc
Project: 11192167-02
Location: Main Street, Stouffville
Test Well: MW-19
Test Date: June 12, 2019

AQUIFER DATA

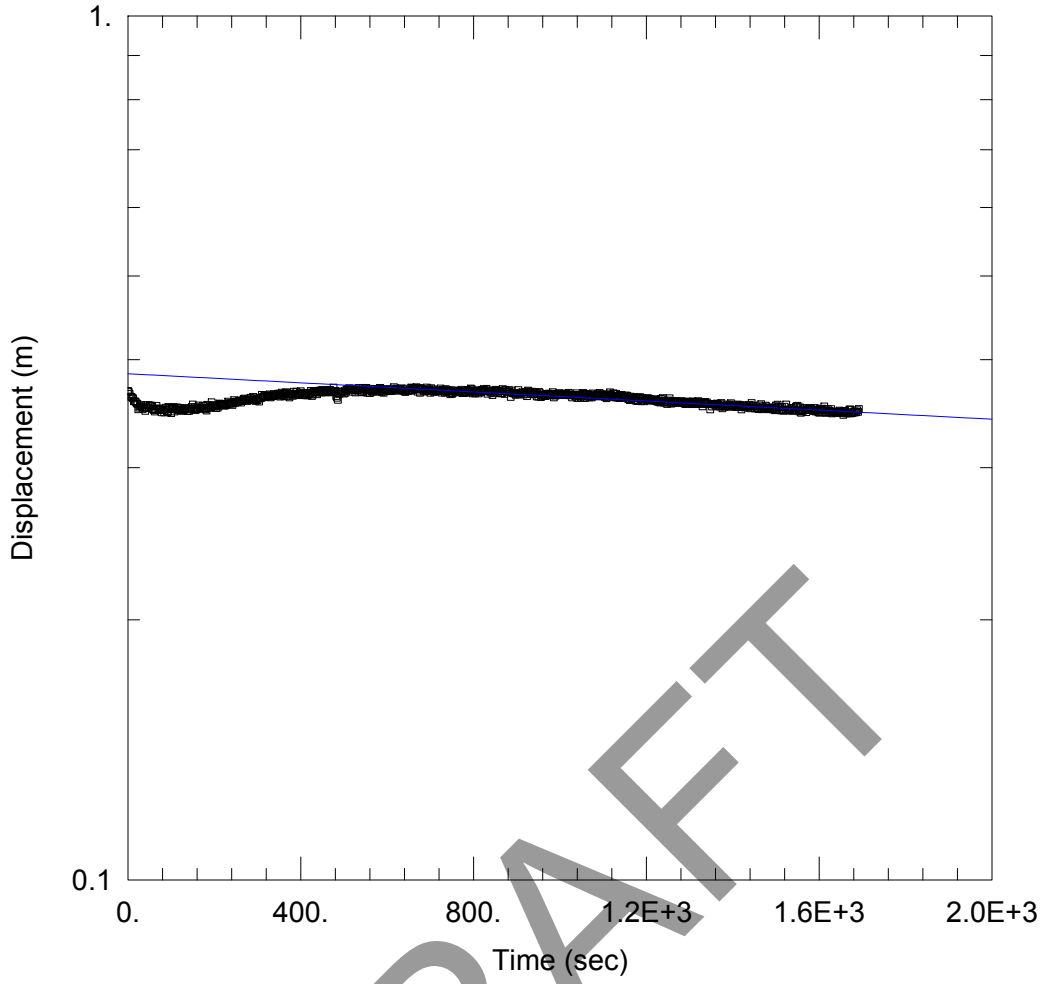
Saturated Thickness: 5.45 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-19)

Initial Displacement: 1.292 m Static Water Column Height: 5.45 m
Total Well Penetration Depth: 5.45 m Screen Length: 3.048 m
Casing Radius: 0.0254 m Well Radius: 0.0254 m

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 1.033E-5 cm/sec y0 = 0.5713 m



MW-19 RISING HEAD TEST

Data Set: I:\...\MW-19 RIsing Head Test.aqt
Date: 06/12/19 Time: 15:10:09

PROJECT INFORMATION

Company: GHD
Client: 2440332 Ontario Inc
Project: 11192167-02
Location: Main Street, Stouffville
Test Well: MW-19
Test Date: June 12, 2019

AQUIFER DATA

Saturated Thickness: 5.45 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-19)

Initial Displacement: 0.368 m
Total Well Penetration Depth: 5.45 m
Casing Radius: 0.0254 m
Static Water Column Height: 5.45 m
Screen Length: 3.048 m
Well Radius: 0.0254 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 2.607E-6 cm/sec
y0 = 0.3853 m

Appendix F

Updated Water Balance

Appendix F.1

Water Budget (Thornthwaite Method) - Average Values*

Composite Station - 1991 - 2020 data set

Toronto Buttonville (Airport) - 6158409, 6158410, 615HMAK **Elevation:** 198.1 masl **Distance Away:** ~ 13.5 km

Month	Mean Temperature (°C)	Heat Index	Potential ET (mm)	Daylight Correction Factor	Adjusted ET (mm)	Total Precipitation (mm)	Surplus (mm)	Deficit (mm)
January	-6	0	0	0.82	0	63.5	63.5	
February	-5.6	0	0	0.82	0	51.1	51.1	
March	-0.2	0	0	1.03	0	52.3	52.3	
April	6.5	1.49	27.60	1.12	30.9	78.9	48.0	
May	13.4	4.45	62.35	1.27	79.2	80	0.8	
June	18.8	7.43	91.30	1.28	116.9	86.7	0	30.16
July	21.5	9.10	106.19	1.29	137.0	85.2	0	51.79
August	20.6	8.53	101.20	1.15	116.4	71.9	0	44.48
September	16.2	5.93	77.20	1.04	80.3	83.1	2.8	
October	9.4	2.60	41.82	0.95	39.7	70.6	30.9	
November	3.3	0.53	12.86	0.81	10.4	76.7	66.3	
December	-2.2	0	0	0.78	0	62.5	62.5	
TOTAL	8.0	40.1	520.5		610.8	862.5	378.2	126.4
				TOTAL WATER SURPLUS:		251.7	mm	

Notes:

*Average values of precipitation were used. Average values of temperature were also used.

Water budget adjusted for latitude and daylight

Total Water Surplus is calculated as total precipitation minus adjusted potential evapotranspiration

Appendix F.2

Water Budget Pre-Development

Catchment Designation	EXISTING SITE					TOTAL
	Forested Areas	Existing Rooftops	Existing Gravel Areas	Open Areas	Environmental Protection Area	
Area (m^2)	1200	1625	3240	36105	29200	71370
Pervious Area (m^2)	1200	0	3240	36105	29200	69745
% Pervious (m^2) of development	1.7%	0%	4.5%	50.6%	40.9%	97.7%
Impervious Area (m^2)	0	1625	0	0	0	1625
% Impervious (m^2) of development	0%	2.3%	0%	0%	0%	2.3%
INFILTRATION FACTORS						
Topography Infiltration Factor	0.2	0	0.3	0.2	0.15	
Soil Infiltration Factor	0.2	0	0.15	0.2	0.2	
Land Cover Infiltration Factor	0.15	0	0	0.15	0.15	
MECP Infiltration Factor	0.55	0	0.45	0.55	0.5	
Actual Infiltration Factor	0.55	0	0.2	0.55	0.5	
Runoff Coefficient	0.45	1	0.8	0.45	0.5	
Runoff from Impervious Surfaces*	0	0.8	0.8	0	0	
INPUTS (PER UNIT AREA)						
Precipitation (mm/yr)	863	863	863	863	863	863
Run On (mm/yr)	0	0	0	0	0	0
Other Inputs (mm/yr)	0	0	0	0	0	0
Total Inputs (mm/yr)	863	863	863	863	863	863
OUTPUTS (PER UNIT AREA)						
Precipitation Surplus (mm/yr)	252	690	690	252	252	282
Net Surplus (mm/yr)	252	690	690	252	252	282
Evaportranspiration (mm/yr)	611	173	173	611	611	581
Infiltration (mm/yr)	138	0	138	138	126	130
Rooftop Infiltration %	0	37.5%	0	0	0	0
Rooftop Infiltration (mm/yr)	0	259	0	0	0	6
Total Infiltration (mm/yr)	138	259	138	138	126	136
Runoff Pervious Areas	113	0	0	113	126	111
Runoff Impervious Areas	0	431	552	0	0	35
Total Runoff (mm/yr)	113	431	552	113	126	146
Total Outputs (mm/yr)	863	863	863	863	863	863
Difference (Inputs - Outputs)	0	0	0	0	0	0
INPUTS (VOLUMES)						
Precipitation (m^3/yr)	1035	1402	2795	31141	25185	61557
Run On (m^3/yr)	0	0	0	0	0	0
Other Inputs (m^3/yr)	0	0	0	0	0	0
Total Inputs (m^3/yr)	1035	1402	2795	31141	25185	61557
OUTPUTS (VOLUMES)						
Precipitation Surplus (m^3/yr)	302	1121	2236	9089	7351	20098
Net Surplus (m^3/yr)	302	1121	2236	9089	7351	20098
Evaportranspiration (m^3/yr)	733	280	559	22052	17834	41458
Infiltration (m^3/yr)	166	0	447	4999	3675	9287
Rooftop Infiltration (m^3/yr)	0	420	0	0	0	420
Total Infiltration (m^3/yr)	166	420	447	4999	3675	9708
Runoff Pervious Areas (m^3/yr)	136	0	0	4090	3675	7901
Runoff Impervious Areas (m^3/yr)	0	701	1788	0	0	2489
Total Runoff (m^3/yr)	136	701	1788	4090	3675	10390
Total Outputs (m^3/yr)	1035	1402	2795	31141	25185	61557
Difference (Inputs - Outputs)	0	0	0	0	0	0

Notes:

Appendix F.3

Water Budget Post-Development - No Mitigation Strategies

Catchment Designation	POST-DEVELOPMENT SITE												TOTAL AREA
	SWM Pond		EP	Open Space	Residential Area			Other Site Areas		Future Commercial Area			
	Pond	Grass	Naturalized	Grass	Rooftop	Lawns	Driveways	Landscaping	Road / Parking Areas	Rooftop	Lawn	Parking	
Area (m^2)	1250	1250	29200	600	11818	4179	6093	4125	7785	1775	507	2789	71370
Pervious Area (m^2)	0	1250	29200	600	0	4179	0	4125	0	0	507	0	39861
% Pervious (m^2) of development	0%	1.8%	40.9%	0.8%	0%	5.9%	0%	5.8%	0%	0%	0.7%	0%	55.9%
Impervious Area (m^2)	1250	0	0	0	11818	0	6093	0	7785	1775	0	2789	31509
% Impervious (m^2) of development	1.8%	0%	0%	0%	16.6%	0%	8.5%	0%	10.9%	2.5%	0%	3.9%	44.1%
Topography Infiltration Factor	0	0.15	0.15	0.2	0	0.2	0.2	0.2	0.2	0	0.15	0.2	
Soil Infiltration Factor	0	0.2	0.2	0.2	0	0.2	0	0.2	0	0	0.2	0	
Land Cover Infiltration Factor	0	0.15	0.15	0.15	0	0.15	0	0.15	0	0	0.15	0	
MECP Infiltration Factor	0	0.5	0.5	0.55	0	0.55	0.2	0.55	0.2	0	0.5	0.2	
Actual Infiltration Factor	0.05	0.5	0.5	0.55	0	0.55	0	0.55	0	0	0.5	0	
Runoff Coefficient	0.95	0.5	0.5	0.45	1	0.45	1	0.45	1	1	0.5	1	
Runoff from Impervious Surfaces*	0.8	0	0	0	0.8	0	0.8	0	0.8	0.8	0	0.8	
Precipitation (mm/yr)	863	863	863	863	863	863	863	863	863	863	863	863	863
Run On (mm/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Inputs (mm/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Inputs (mm/yr)	863	863	863	863	863	863	863	863	863	863	863	863	863
Precipitation Surplus (mm/yr)	690	252	252	252	690	252	690	252	690	690	252	690	445
Net Surplus (mm/yr)	690	252	252	252	690	252	690	252	690	690	252	690	445
Evaportranspiration (mm/yr)	173	611	611	611	173	611	173	611	173	173	611	173	417
Infiltration (mm/yr)	35	126	126	138	0	138	0	138	0	0	126	0	72
Rooftop Infiltration (mm/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Infiltration (mm/yr)	35	126	126	138	0	138	0	138	0	0	126	0	72
Runoff Pervious Areas	0	126	126	113	0	113	0	113	0	0	126	0	69
Runoff Impervious Areas	656	0	0	0	690	0	690	0	690	690	0	690	304
Total Runoff (mm/yr)	656	126	126	113	690	113	690	113	690	690	126	690	373
Total Outputs (mm/yr)	863	863	863	863	863	863	863	863	863	863	863	863	863
Difference (Inputs - Outputs)	0	0	0	0	0	0	0	0	0	0	0	0	0
Precipitation (m^3/yr)	1078	1078	25185	518	10193	3605	5255	3558	6714	1531	437	2405	61557
Run On (m^3/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Inputs (m^3/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Inputs (m^3/yr)	1078	1078	25185	518	10193	3605	5255	3558	6714	1531	437	2405	61557
Precipitation Surplus (m^3/yr)	863	315	7351	151	8154	1052	4204	1038	5371	1224	128	1924	31775
Net Surplus (m^3/yr)	863	315	7351	151	8154	1052	4204	1038	5371	1224	128	1924	31775
Evaportranspiration (m^3/yr)	216	763	17834	366	2039	2553	1051	2519	1343	306	310	481	29781
Infiltration (m^3/yr)	43	157	3675	83	0	579	0	571	0	0	64	0	5172
Rooftop Infiltration (m^3/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Infiltration (m^3/yr)	43	157	3675	83	0	579	0	571	0	0	64	0	5172
Runoff Pervious Areas (m^3/yr)	0	157	3675	68	0	473	0	467	0	0	64	0	4905
Runoff Impervious Areas (m^3/yr)	819	0	0	0	8154	0	4204	0	5371	1224	0	1924	21698
Total Runoff (m^3/yr)	819	157	3675	68	8154	473	4204	467	5371	1224	64	1924	26603
Total Outputs (m^3/yr)	1078	1078	25185	518	10193	3605	5255	3558	6714	1531	437	2405	61557
Difference (Inputs - Outputs)	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:

*Evaporation from impervious areas was assumed to be 20% of precipitation.

EP denotes Environmental Protection Area

Areas based upon Stouffville Main Street, City Park Homes, Concept Project Number: 25065, dated 12-NOV-25

Appendix F.4

Water Budget Post-Development - Downspout Disconnection and Underground Chamber Infiltation Mitigation Strategy

Catchment Designation	**POST-DEVELOPMENT SITE**												**TOTAL AREA**
	SWM Pond		EP	Open Space	Residential Area			Other Site Areas		Future Commercial Area			
	Pond	Grass	Naturalized	Grass	Rooftop	Lawns	Driveways	Landscaping	Road / Parking Areas	Rooftop	Lawn	Parking	
Area (m^2)	1250	1250	29200	600	11818	4179	6093	4125	7785	1775	507	2789	71370
Pervious Area (m^2)	0	1250	29200	600	0	4179.3	0	4125	0	0	507	0	39861
% Pervious (m^2) of development	0%	1.8%	40.9%	0.8%	0%	5.9%	0%	5.8%	0%	0%	0.7%	0%	55.9%
Impervious Area (m^2)	1250	0	0	0	11818	0	6093	0	7785	1775	0	2789	31509
% Impervious (m^2) of development	1.8%	0%	0%	0%	16.6%	0%	8.5%	0%	10.9%	2.5%	0%	3.9%	44.1%
Topography Infiltration Factor	0	0.15	0.15	0.2	0	0.2	0.2	0.2	0.2	0	0.15	0.2	
Soil Infiltration Factor	0	0.2	0.2	0.2	0	0.2	0	0.2	0	0	0.2	0	
Land Cover Infiltration Factor	0	0.15	0.15	0.15	0	0.15	0	0.15	0	0	0.15	0	
MECP Infiltration Factor	0	0.5	0.5	0.55	0	0.55	0.2	0.55	0.2	0	0.5	0.2	
Actual Infiltration Factor	0.05	0.5	0.5	0.55	0	0.55	0	0.55	0.1	0	0.5	0	
Runoff Coefficient	0.95	0.5	0.5	0.45	1	0.45	1	0.45	0.9	1	0.5	1	
Runoff from Impervious Surfaces*	0.8	0	0	0	0.8	0	0.8	0	0.8	0.8	0	0.8	
Precipitation (mm/yr)	863	863	863	863	863	863	863	863	863	863	863	863	863
Run On (mm/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Inputs (mm/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Inputs (mm/yr)	863	863	863	863	863	863	863	863	863	863	863	863	863
Precipitation Surplus (mm/yr)	690	252	252	252	690	252	690	252	690	690	252	690	445
Net Surplus (mm/yr)	690	252	252	252	690	252	690	252	690	690	252	690	445
Evaportranspiration (mm/yr)	173	611	611	611	173	611	173	611	173	173	611	173	417
Infiltration (mm/yr)	35	126	126	138	0	138	0	138	69	0	126	0	80
% of Annual Rooftop Runoff Infiltrating to the Ground	--	--	--	--	37.5%	--	--	--	--	--	--	--	--
% of Annual Rooftop Runoff to Infiltration Chamber	--	--	--	--	--	--	--	--	--	85%	--	--	--
Rooftop Infiltration (mm/yr)	0	0	0	0	259	0	0	0	0	587	0	0	57
Total Infiltration (mm/yr)	35	126	126	138	259	138	0	138	69	587	126	0	137
Runoff Pervious Areas	0	126	126	113	0	113	0	113	0	0	126	0	69
Runoff Impervious Areas	656	0	0	0	431	0	690	0	621	104	0	690	239
Total Runoff (mm/yr)	656	126	126	113	431	113	690	113	621	104	126	690	308
Total Outputs (mm/yr)	863	863	863	863	863	863	863	863	863	863	863	863	863
Difference (Inputs - Outputs)	0	0	0	0	0	0	0	0	0	0	0	0	0
Precipitation (m^3/yr)	1078	1078	25185	518	10193	3605	5255	3558	6714	1531	437	2405	61557
Run On (m^3/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Inputs (m^3/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Inputs (m^3/yr)	1078	1078	25185	518	10193	3605	5255	3558	6714	1531	437	2405	61557
Precipitation Surplus (m^3/yr)	863	315	7351	151	8154	1052	4204	1038	5371	1224	128	1924	31775
Net Surplus (m^3/yr)	863	315	7351	151	8154	1052	4204	1038	5371	1224	128	1924	31775
Evaportranspiration (m^3/yr)	216	763	17834	366	2039	2553	1051	2519	1343	306	310	481	29781
Infiltration (m^3/yr)	43	157	3675	83	0	579	0	571	537	0	64	0	5710
Rooftop Infiltration (m^3/yr)	0	0	0	0	3058	0	0	0	0	0	0	0	3058
Chamber Infiltration (m^3/yr)	0	0	0	0	0	0	0	0	0	1041	0	0	1041
Total Infiltration (m^3/yr)	43	157	3675	83	3058	579	0	571	537	1041	64	0	9808
Runoff Pervious Areas (m^3/yr)	0	157	3675	68	0	473	0	467	0	0	64	0	4905
Runoff Impervious Areas (m^3/yr)	819	0	0	0	5097	0	4204	0	4834	184	0	1924	17062
Total Runoff (m^3/yr)	819	157	3675	68	5097	473	4204	467	4834	184	64	1924	21967
Total Outputs (m^3/yr)	1078	1078	25185	518	10193	3605	5255	3558	6714	1531	437	2405	61557
Difference (Inputs - Outputs)	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:

*Evaporation from impervious areas was assumed to be 20% of precipitation.

EP denotes Environmental Protection Area

Areas based upon Stouffville Main Street, City Park Homes, Concept Project Number: 25065, dated 12-NOV-25

Appendix F.5

Water Budget Summary

PARAMETER	SITE				
	Pre-Development	***Post-Development No Mitigation***	***Difference Pre- vs. Post-***	***Post-Development Mitigation***	***Difference Pre- vs. Post-***
INPUTS (VOLUMES)					
Precipitation (m^3/yr)	61557	61557	0%	61557	0%
Run On (m^3/yr)	0	0	0%	0	0%
Other Inputs (m^3/yr)	0	0	0%	0	0
Total Inputs (m^3/yr)	61557	61557	0%	61557	0%
OUTPUTS (VOLUMES)					
Precipitation Surplus (m^3/yr)	20098	31775	58%	31775	58%
Net Surplus (m^3/yr)	20098	31775	58%	31775	58%
Evapotranspiration (m^3/yr)	41458	29781	-28%	29781	-28%
Infiltration (m^3/yr)	9287	5172	-44%	5710	-39%
% Rooftop Runoff Infiltrating	--	--	--	37.5%	52%
Rooftop Infiltration (m^3/yr)	420	0	-100%	3058	627%
% Infiltration Chamber Infiltrating	--	--	--	85%	--
Infiltration Chamber Infiltration (m^3/yr)	--	--	--	1041	--
Total Infiltration (m^3/yr)	9708	5172	-47%	9808	1.0%
Runoff Pervious Areas (m^3/yr)	7901	4905	-38%	4905	-38%
Runoff Impervious Areas (m^3/yr)	2489	21698	--	17062	--
Total Runoff (m^3/yr)	10390	26603	156%	21967	111%
Total Outputs (m^3/yr)	61557	61557	0%	61557	0%