HYDROGEOLOGICAL ASSESSMENT REPORT

PROPOSED RESIDENTIAL DEVELOPMENT
TOWERHILL DEVELOPMENT FALLIS LINE
MILLBROOK, ONTARIO

PROJECT NO. G024822A1

Prepared for:

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1.0 INTRODUCTION

This report presents the results of a hydrogeological assessment that was completed for the proposed design and construction of a new residential development to be located at Part of Lots 11 & 12, Concession 5 and part of Lot 12, Concession 6, within the Township of Cavan-Monaghan, in the County of Peterborough, Ontario (herein referred to as "the Site"). Geo-Logic Inc. (Geo-Logic) was retained by the Towerhill Developments Inc. (the Client), being represented by Innovative Planning Solutions (IPS), to complete this hydrogeological assessment. This investigation was authorized by Mr. Darren Vella of IPS, representing the Client, in accordance with our proposal PG-2466 dated February 14, 2014.

It is Geo-Logic's understanding that this project shall include design and construction of a new residential development, containing typical 1- and 2-storey homes, with associated stormwater management ponds (SWPs), asphalt-paved roadways, and servicing. The proposed servicing will be installed at depths of up to approximately 10 metres below existing grade (mbeg) or shallower. The Site is comprised of agricultural lands with an abandoned farm house and barns north of Fallis Line. The lands are privately serviced for water and septic at this time; however, the Site will be municipally serviced for water and sewer. Geo-Logic has also completed a geotechnical report for this Site which is provided under separate cover.

The location of the Site relative to nearby roads and watercourses is illustrated on the Vicinity Plan, Plate 1. The plan has been compiled from Centre for Topographic Information' map 31 D/1 at a scale of 1:50,000. More specific ground surface characteristics are depicted on the Site Plan, Plate 2 that has been produced by CRA under license from Ontario Ministry of Natural Resources, MNRNRVIS, 2014 at a scale of 1:10,000.

The surrounding features were observed to be agricultural lands with several rural residential homes and a Township office in close proximity. Fallis Line runs east-west and bisects the property. The Site is generally bounded by County Road 10, Larmer Line, Brookside Street and agricultural lands. A Plot Plan, Plate 3 is provided showing the Site and adjacent lands based upon a recent aerial photograph. The proposed layout showing the streets and boreholes/test pits is provided as the Test Hole Location Plan, Plate 4.

2.0 PURPOSE AND SCOPE

The purpose of this assessment was to investigate the hydrogeological conditions of the Site and the potential for a future residential development including standard one- or two-storey dwellings on municipal servicing. The purpose of the hydrogeologic assessment was three-fold:

1. Define prevailing hydrogeologic conditions at the site, including, groundwater movement and local hydrochemistry, subsurface soil stratigraphy, and shallow groundwater movement;

2. Evaluate the suitability of the planned land use and assess existing and adjacent groundwater resources within the study area; and

3. Carry out engineering analyses to assess the potential impacts and provide appropriate recommendations for the site.

To accomplish the foregoing purposes, the following scope of work was carried out:

1. Reviewed available background information relevant to the Site such as geologic, physiographic and water resources reports and maps. The review included historical climatic data for the general area.

2. Carried out an inventory of available well record data on file with the Ministry of the Environment (MOE) for the immediate area to evaluate the physical characteristics of the aquifer complexes that underlie the region. A well survey of neighbouring properties was conducted at local homes that were privately serviced. Water samples were collected for analysis.

3. A walkover inspection was conducted to review surficial ground characteristics.

4. Underground services were cleared prior to advancing the test holes. The test holes were located as shown on the Test Hole Location Plan (Plate 4). The subsurface conditions were explored by advancing, sampling and logging a total of thirty-nine (39) test holes. The subsurface conditions were recorded and are summarized in detail on the logs attached in Appendix A including physical laboratory analyses data such as grain size and moisture content.

5. Piezometers were installed in seven (7) of the test holes to facilitate water level measurements and slug testing.

6. Completed a water balance considering pre- and post-development conditions and evaluated groundwater baseflow conditions.

7. Prepared a detailed report using engineering analyses of the acquired data outlining our conclusions and recommendations.

3.0 SITE CONDITIONS

3.1 GENERAL

The field program consisted of a site inspection, a soils exploration investigation, a well survey and sampling, and water levels and hydraulic testing at the installed piezometers. A site inspection was conducted on March 27, 2014 by Geo-Logic to observe the general surficial characteristics. The Site is comprised predominantly of agricultural lands with some forested and lawn areas that are not farmed. The area exhibited rolling to hilly topography with relief on the order of 15 m (north) and on the order of 20 m (south). A small creek was observed in the northern area of the Site that is a tributary of Baxter Creek and flows to the east. Surface water runoff would flow according to the local topography and eventually to Baxter Creek. Seepage areas were observed within the forested areas on the south slope of the Site. The relief drops 20 m in this area where groundwater appears to seep from the slope. Photographs are provided in Appendix B.

3.2 SUBSURFACE CONDITIONS

3.2.1 REGIONAL GEOLOGY

This area is underlain by Paleozoic sedimentary rocks (i.e. limestone) of Upper Middle Ordovician age. The Site is situated in the physiographic region known at the Peterborough drumlin field (Chapman and Putnam, 1984). To the south along the border of the Oak Ridges Moraine, the till is somewhat more sandy with silt and fine sand. Locally, the Site is identified to be within an area known as "sand plains" (Department of Mines and Northern Affairs, 1972) with drumlinized till plains to the south and north. The Ontario Geological Survey indicates the Quaternary geology to be of glaciofluvial ice deposits in the southern area and glaciofluvial outwash deposits in the northern area with till materials to the north and west. The available MOE well records indicate the soils were generally clay with sand and gravel layers and limestone at depth. The bedrock was encountered at depths ranging from 30 m (98 feet) to 94 m (307 feet). Further discussion of the MOE well records is provided in Section 4.

3.2.2 LOCAL GEOLOGY

The subsurface stratigraphy was investigated by drilling 15 boreholes on March 14, 17 and 18, 2014; and excavating twenty-four (24) test pits on March 17 and 18, 2014. The test holes were advanced up to 9.8 m in depth. The locations of the test holes are illustrated on the Test Hole Plan, Plate 4. Details of the subsurface conditions encountered are presented graphically in Appendix A. It should be noted that the boundaries between the strata have been inferred from the test hole observations and non-continuous samples. They generally represent a transition from one soil type to another, and should not be inferred to represent an exact plane of geological change. Further, conditions may vary between and beyond the test holes.

The test holes typically encountered a surficial layer of topsoil, occasionally over fill, then native soils consisting of till. The following paragraphs describe the soils that were encountered.

A layer of surficial topsoil was encountered in each of the test holes. The topsoil ranged in thickness from approximately 150 to 600 mm. This soil was observed to be in a moist, 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 beneath the topsoil in test hole TP-34, and extended to a depth of 1.8 mbeg. This fill consisted of brown sand and gravel, and was in a generally moist in-situ state. A moisture content test conducted on a sample of this fill yielded a value of 11% moisture by weight.

A layer of till was encountered immediately beneath the fill layer in test hole TP-34 and immediately beneath the topsoil in the other test holes. This soil was first encountered at depths ranging from approximately 0.6 to 2.0 mbeg and extended to the full depth of the investigation. The till generally appeared brown grading to grey in colour and typically consisted of clayey silt or silt clay with varying amounts of sand and gravel and occasional cobbles / boulders. This soil was typically compact to very dense, with a few finer-grained zones of soil exhibiting firm to hard consistency.

Moisture content tests conducted on samples of the till yielded values that ranged from approximately 4 to 31% moisture by weight. Grain size distribution tests performed on representative samples of the till suggest the following compositional ranges: 1 to 26% gravel, 3 to 36% sand, and 40 to 96% silt and clay-sized particles. Hydrometer analyses conducted on finer-grained samples of the till suggest it contains between approximately 23 to 48% particles between 5 and 75 μm in size. The gradation curves are provided in Appendix A and the grain size distributions are summarized in Table 1.

TABLE 1: GRAIN SIZE DISTRIBUTION SUMMARY

Location	Depth (m)	Grain Size Distribution			Soil Unit	Estimated K* (cm/s)
		%Gravel	%Sand	%Fines		
BH-5	9.1 – 9.8	26	34	40	Silty sand	10^{-3} to 10^{-5}
BH-6	3.0 – 3.5	12	19	69	Clayey silt with sand till	10^{-5} to 10^{-6}
BH-9	3.0 – 3.5	16	36	48	Clayey silty sand till	10^{-4} to 10^{-6}
TP-16	2.7 – 3.0	8	31	61	Clayey sandy silt till	10^{-5} to 10^{-6}
TP-17	2.7 – 3.0	1	3	96	Clayey silt till	10^{-5} to 10^{-7}
TP-21	1.2 – 1.5	12	31	57	Clayey sandy silt till	10^{-5} to 10^{-6}
TP-26	1.2 – 1.5	9	40	51	Silty sand till	10^{-4} to 10^{-6}

Notes:
*K indicates hydraulic conductivity estimated based upon the field data and Freeze and Cherry "Groundwater", 1979.
%Fines indicates silt and clay particles.

3.3 GROUNDWATER

3.3.1 Water Levels

Seventeen (17) of the open test holes encountered groundwater seepage or accumulation during the drilling/excavation operations at depths ranging from about 0.8 to 4.6 mbeg with the exception of TP-20 (northern area near tributary of Baxter Creek) where seepage was observed throughout the test pit from surface to 3.0 m. The remaining 22 test holes stayed dry throughout the drilling/excavation operations. The groundwater seepage was observed to be slow and minor accumulation and seepage was generally observed from within the till where more permeable seams may have been encountered.

On March 25 and April 15, 2014, water levels were obtained from six (6) piezometers. Table 2 summarizes the shallow water level and piezometer information. A flow divide appears to exist where the shallow groundwater flow direction is toward the north and south from Fallis Line based upon the data collected and generally follows the ground elevations illustrated on the topographical mapping provided (Site Plan, Plate 2).

TABLE 2: WATER LEVEL SUMMARY

Piezometer	Ground Elevation*	Stick up (m)	Water Encountered	WL (mbeg)	Elevation (masl)*	WL (mbeg)	Elevation (masl)*
Date Measured				March 25, 2014		April 15, 2014	
BH-1	230.8	1.79	~4.6 m	0.4	230.5	0.1	230.7
BH-3	242.9	1.61	~3.2 m	2.2	240.0	2.2	240.7
BH-5	249.3	1.37	~2.3 m	0.1	249.2	0.02	249.3
BH-7	245.3	1.90	~2.1 m	-0.1	245.4	-0.02	245.3
BH-13	250.1	1.21	~3.0 m	1.3	248.8	0.2	249.9
BH-15	245.2	1.85	~1.5 m	0.7	244.5	0.4	244.8

Notes: *Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment" and Test Hole Location Plan, Plate 4. Elevation survey would be required to determine actual ground elevations. WL = water level; GW = groundwater; masl = metres above sea level; mbeg = metres below existing grade.

It is Geo-Logic's opinion that there is not a shallow water table aquifer at this Site within the till material where seepage was observed and where water levels in Table 2 suggest that water exists. Fine grained materials have high moisture content as they are able to retain more water but this does not indicate that they comprise a water table aquifer. Though the moisture content of fine grained materials may be higher, the yield of water at significant quantities from these soils, in comparison with a water table aquifer that is comprised generally of sand and gravel, is not expected. The water levels also reflect seasonal spring conditions such as at BH-7 which is located in a low-lying area and ponded surface water was surrounding the piezometer. At BH-1, BH-5, BH-13 and BH-15, hydrostatic pressure from water encountered within the sand seams appears to have created a potentiometric water level near the surface. However, the potentiometric surface is not a water table surface but a potential water level from the water-bearing sand seams encountered at depth. There is not a shallow water table at this Site and the shallow soils are not saturated.

Thus, significant quantities of groundwater within the shallow soils are not expected at this Site. Stormwater infiltrated through the topsoil is expected to drain horizontally along the interface of lower permeable soils to ditches or gullies or adjacent water bodies or drain vertically via fractures or fissures or sand seams within the till. It should be noted that groundwater levels are transient and tend to fluctuate with the seasons, periods of precipitation and temperature.

3.3.2 Hydraulic Conductivity Testing

Hydraulic conductivity (K) testing (i.e. slug testing) was completed at BH-5 and BH-15. The data was analyzed using AQTESOLV and the Bouwer-Rice solution for each rising and falling head test (Appendix C for solution data). At BH-5 and BH-15, the K for the hydraulic conductivity testing is on the order of 10^{-4} to 10^{-6} cm/sec (geometric mean of $3x10^{-5}$ cm/sec). The K values from the slug test data indicate that the wells are screened in relatively poor hydraulic conductivity units which confirm the observations made during the field activities.

4.0 HYDROGEOLOGY

4.1 GENERAL

Information regarding groundwater resources of the immediate area was obtained from an inventory of well records on file with the MOE. In total, 75 representative water wells were identified within 500 m of the Site (Appendix D). It is our understanding that the residents of Millbrook are not dependent upon individually drilled wells and receive municipal water; however, rural residential properties outside of Millbrook utilize wells for consumption purposes. The proposed subdivision is to be municipally serviced.

4.2 EXISTING WATER SUPPLIES

Physical and hydraulic data are presented on MOE well records and the information indicates the presence of two (2) aquifer systems:

1. A confined overburden aquifer within sand and gravel tapped by drilled wells; and
2. A confined bedrock aquifer within limestone tapped by drilled wells.

A summary of the MOE data is presented in Table 3. The information from the MOE data indicates that the majority of wells in this area are drilled into the overburden with some bedrock wells. 83% of the wells reported to have “fresh” water while 13% were not indicated (one well had gas and one indicated to be mineralized and one was abandoned). The overburden and bedrock wells are inferred to be confined based upon deposits of clay and till above the water bearing zones. No dug/bored wells were identified in the well records.

Sixty-four (64) drilled overburden wells were identified in the well records. The overburden wells yielded an average flow rate of 167 litres per minute (L/min) or 37 Imperial gallons per minute (Igpm). Water was encountered at 27 m (88 feet) within sand and/or gravel soil units. The average depth of these wells was 31 m (101 feet).

The remaining eleven (11) well records were related to bedrock wells. The depth to bedrock was 52 m (172 feet) on average. The bedrock wells yielded an average flow rate of 40 L/min (8.8 Igpm). Water was encountered at 52 m (170 feet) within the bedrock wells. The average depth of these wells was 56 m (184 feet).

TABLE 3: MOE WELL DATA SUMMARY

Total Number of Wells Inventoried:	75	
Dug/Bored Wells:	0	0%
Drilled Wells (Overburden):	64	85%
Drilled Wells (Bedrock):	11	15%

PARAMETERS	STATISTICAL SUMMARY Dug/Bored Well		STATISTICAL SUMMARY Drilled Overburden Wells		STATISTICAL SUMMARY Drilled Bedrock Wells	
	Metric Data	Imperial Data	Metric Data	Imperial Data	Metric Data	Imperial Data
WELL YIELDS						
Range			9 to 1589 L/min	2 to 350 gpm	4.5 to 140.7 L/min	1.0 to 31 gpm
Average			166.7 L/min	36.7 gpm	40.0 L/min	8.8 gpm
REPORTED YIELDS	Frequency		Frequency		Frequency	
Not Reported	0	0%	7	11%	0	0%
Dry	0	0%	0	0%	0	0%
0 to 1 Igpm	0	0%	0	0%	1	9%
2 to 4 Igpm	0	0%	9	14%	4	36.5%
5 to 9 Igpm	0	0%	25	39%	2	18%
≥10 Igpm	0	0%	23	36%	4	36.5%
STATIC WATER LEVELS						
Range			0.3 to 30.5 m	1 to 100 ft	1.8 to 36.6 m	6 to 120 ft
Average			10.4 m	34.0 ft	17.1 m	56.2 ft
WATER ENCOUNTERED						
Range			5.5 to 65.8 m	18 to 216 ft	22.3 to 103.6 m	73 to 340 ft
Average			26.7 m	87.6 ft	51.9 m	170.3 ft
WELL DEPTH						
Range			4.0 to 70.7 m	13 to 232 ft	29.9 to 93.6 m	98 to 307 ft
Average			30.9 m	101.4 ft	52.3 m	171.5 ft

Notes: Data based on MOE well record information (see Appendix D). L/min represents litres per minute, Igpm indicates Imperial gallons per minute and m is metres.

The Site, based upon the test holes, does not have significant discharge or recharge characteristics, and thus only a minor portion of the existing infiltration is expected to recharge the deeper aquifer complexes that are confined below the clay and till deposits. A limited amount of the surface water is expected to infiltrate into the shallow overburden through undisturbed till deposits. The remainder of the surface water will be conveyed as overland flow via drainage ditches, gullies, or to low-lying areas.

4.3 WELL SURVEY

A well survey was completed of homes in the immediate vicinity of the Site on April 4, 2014 to complement the MOE well records. A total of five (5) homes were visited (locations are provided on the Plot Plan, Plate 3). A summary of the well survey is provided in Appendix D. The well survey found that two (2) dug wells and two (2) drilled wells are in use near the Site. The final location could not be accessed and had a concrete casing suggesting a possible dug well. The MOE well record for this location suggests it is a drilled well (i.e. within a well pit). The well survey indicated that the residents close to the Site generally have good water quality and quantity (one of the wells exhibited artesian conditions). The residents with dug wells indicated that they had previously had drilled wells with elevated sulphur and iron. Two water samples were collected during the well survey and are discussed in Section 4.4.

4.4 BACKGROUND DRINKING WATER QUALITY

The water quality in the surrounding area was generally indicated to be “fresh” water and confirmed by local residents during our well survey. A sample of the groundwater was obtained from two wells on April 4, 2014 for the purpose of chemical analyses. The water samples were collected from active dug wells on Fallis Line and County Road 10. The water samples were delivered to SGS Laboratories in Lakefield and the Certificate of Analysis of the testing is presented in Appendix E. Selected data is summarized and compared with the ODWS in Table 4.

In general, the majority of the parameters from the wells are within the ODWS. Exceptions were hardness and total coliform. No fecal coliform or E.coli was reported. Elevated hardness is a common trait of groundwater supplies in Southern Ontario due to the presence of limestone bedrock and calcareous glacial tills. If desired it can be reduced by the use of a water softener. Total coliform are groups of bacteria commonly found in the environment and are not likely to cause illness (particularly in the absence of fecal coliform and E.coli) but may indicate that the water supply may be susceptible to contamination by more harmful microorganisms. In general, shallow dug/bored wells are generally more difficult to seal and therefore considered to be susceptible to shallow sources of contamination such as total coliform and nitrate. The remaining parameters indicate relatively good water quality.

TABLE 4: BACKGROUND WATER QUALITY SUMMARY

PARAMETER	SAMPLE LOCATIONS		ODWS	
	Drilled Well CR-10*	Dug Well Fallis*	MAC	AO
Alkalinity (as $CaCO_3$)	307	248	--	30 to 500
Ammonia+Ammonium-N	<0.04	<0.04	--	--
Arsenic	0.0005	0.0002	0.025	--
Calcium	117	100	--	--
Chloride	2	8.3	--	250
Colour (T.C.U.)	5	<3	--	5
Conductivity (µS/cm)	598	544	--	--
Copper	0.0384	0.038	--	1.0
Fluoride	<0.06	<0.06	1.5	--
Hardness (as $CaCO_3$)	**316**	**296**	--	80 to 100
Iron	0.014	0.015	--	0.3
Magnesium	6.04	10.9	--	--
Manganese	0.00018	0.00054	--	0.05
Nitrite –N	<0.003	<0.003	1.0	--
Nitrate –N	3.9	7.78	10	--
pH (units)	8.18	8.31	--	6.5 to 8.5
Phosphorus	0.072	0.009	--	--
Potassium	1.91	1.0	--	--
Sodium	5.53	3.11	--	200
Sulphate	3.8	9.8	500	500
Turbidity (N.T.U.)	0.87	0.12	1	5
Zinc	0.014	0.087	--	5.0
Total Coliform (CFU/100 mL)	**32**	**193**	0	--
Fecal Coliform (CFU/100 mL)	0	0	0	--
E.coli (CFU/100 mL)	0	0	0	--

Notes: Units are ppm (mg/L) unless otherwise stated. "<" indicates concentrations are below the detectable limits.
ODWS = Ontario Drinking Water Standards Bolded values exceed ODWS.
*Locations are illustrated on the Plot Plan, Plate 3.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 GENERAL

Supporting data upon which our recommendations are based have been presented in the foregoing sections of this report. The following 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.

Based on the results of our hydrogeologic review, it is our professional opinion that the Site is suitable for residential development. The shallow water observed within the test holes is in the opinion of Geo-Logic not expected to represent a groundwater aquifer and any water within the shallow overburden would be localized and handled through good construction techniques. It is our professional opinion that there is negligible potential for groundwater and surface water impact as a result of the planned construction. It is recommended that good construction and mitigation techniques must be used to minimize the potential for any impact.

5.2 WATER BALANCE EVALUATION

An evaluation of the water balance has been completed to evaluate potential impacts that may occur relating to the proposed development. The computations consider parameters such as local precipitation (weather data collected at Peterborough from 1971 to 2000), regional evapotranspiration values, temperature and details observed during the subsurface exploration activities and the site inspection walkover.

The water balance also considers the area covered by impervious surfaces such as asphalt and roof tops; and areas covered by cultivated fields. The water balance is preliminary in nature at this time as the development is still in its conceptual stages. Geo-Logic utilized the water balance procedures established in the "Hydrogeological Assessment Submission – Conservation Authority Guidelines to Support Development Applications", June 2013 as a guide for computation of the water budget.

The primary objective of the water balance is to capture and manage annual rainfall to preserve the pre-development hydrology consisting of runoff, infiltration and evapotranspiration. The preservation of the water balance is completed through a combination of infiltration, evapotranspiration, landscaping, rainwater re-use and other low impact development practices.

The preliminary water balance calculations for the Site are calculated. Ultimately, the flow of surface water is conveyed to Baxter Creek. Below is a summary of the expected pre-development water balance values for the Site. The Site is 65 ha based on information provided to Geo-Logic. The pre-development calculations are found in Appendix F.

TABLE 5: PRE-DEVELOPMENT SUMMARY

1.	Total Precipitation (Peterborough A):	- 840.3 mm/year
2.	Regional Evapotranspiration:	- 566.3 mm/year
3.	Recharge Available:	- 274.0 mm/year
4.	Area of Recharge On-site:	- 65 ha
5.	Infiltration Factor:	- 0.52
6.	Estimated Annual Infiltration:	- 92,330 m^3/year
7.	Estimated Annual Runoff:	- 86,578 m^3/year

The infiltration factor for the current Site condition was determined based on areas of the Site having hilly topography (slope 28 m to 47 m/km) and other areas having rolling topography (slope 2.8 m to 3.8 m/km), a vegetation cover of cultivated lands, forested areas, house and barns and a gravel road and soil type of medium combinations of clay and loam based upon the subsurface exploration program. The table of values presented in the "Land Development Guidelines" (MOEE, 1995) was used to determine the infiltration factor of 0.52 (average value considering each of the uses at the Site) which is calculated by adding the values for slope, vegetation and soil.

A preliminary computation of the water budget was repeated for the proposed development based on the concept plan provided to Geo-Logic showing the Site, proposed road layout and two (2) stormwater ponds. The residential density for the Site was assumed that the houses would cover 40% of the lots and roads would cover 15% of the lands (taking into consideration the forested areas were assumed to remain a constant area from pre-development values). At this time, the lots are assumed to be the remaining land after deducting the area covered by roads, forested areas and stormwater ponds. The anticipated impact of the development is related to increased runoff and decreased infiltration from imperious surfaces such as road surfaces and roof tops. A summary of the repeated computations is as follows with detailed calculations found in Appendix F:

TABLE 6: POST-DEVELOPMENT SUMMARY NO ENHANCEMENTS

1.	Impervious surface area:	- 22.6 ha
2.	Pervious surface area:	- 42.4 ha
3.	Infiltration Factor:	- 0.24
4.	Estimated Annual Infiltration:	- 65,023 m^3/year
	% Difference (Infiltration pre- vs. post-):	- 29% decrease in infiltration
5.	Estimated Annual Runoff:	- 203,009 m^3/year
	% Difference (Runoff pre- vs. post-):	- 134% increase in runoff

Based on these calculations and the proposed post-development, the infiltration has dropped by 29% compared with pre-development values.

These post-development conditions indicate that mitigation techniques are required in order to maintain the infiltration capacity of the pre-development subsurface soil conditions and maintain baseflow. Therefore, the post-construction water budget computations should be repeated considering enhancements for the development. The primary enhancement is to promote infiltration and to move water from impervious surfaces to areas where infiltration can occur and there are various methodologies to promote infiltration and reduce runoff such as low impact development (LIDs) strategies. These strategies can be implemented to help achieve and potentially maintain pre-development water budget values and minimize groundwater baseflow losses.

The primary enhancements are to promote clean roof water to rear sodded lots. It is also assumed that asphalt surfaces will have 10% infiltration through cracks in the paved surface, infiltration at the side margins etc. In order to maintain the pre-development infiltration values, each house/roof top will require that 174 mm/year be infiltrated to the ground. Assessment of potential LIDs such as infiltration trenches would be required and can be considered at the detailed design stage. In general, it is best to incorporate LID features away from private lots and in maintained areas.

TABLE 7: POST-DEVELOPMENT SUMMARY WITH ENHANCEMENTS

1.	Infiltration Factor:	- 0.34
2.	Roof top Infiltration required (per roof top)	- 174 mm/yr
3.	Estimated Annual Infiltration:	- 92,330 m^3/year
	% Difference (Infiltration pre- vs. post-):	- 0%
4.	Estimated Annual Runoff:	- 175,702 m^3/year
	% Difference (Runoff pre- vs. post-):	- 103% increase in runoff

It is our professional opinion that there will be little impact to the local groundwater and surface water regimes and their interactions due to the proposed development. It is Geo-Logic's professional opinion that the Site is a minor contributor to the shallow baseflow that supports creeks such as Baxter Creek and groundwater aquifers below the till and within the bedrock.

The baseflow can be maintained with good construction and infiltration techniques. It is Geo-Logic's opinion that the Site will have a negligible impact on these water regimes.

5.3 IMPACT ON GROUNDWATER RESOURCES

There is negligible net loss to the groundwater baseflow expected as a result of the development since little infiltration of groundwater occurs through the till units to the deeper water bearing units. There are few drinking water wells in the vicinity of the proposed development, the town of Millbrook utilizes municipal drinking water and this new development will also utilize municipal drinking water. Thus groundwater impact is not an issue or anticipated.

5.4 IMPACT TO SURFACE WATER BODIES

The impacts to surface water bodies such as creeks are related to the reduction of the groundwater baseflow and water quality concerns related to human activities such as road salting, minor fuel and oil leaks, fertilizer application etc. The Site is a minor contributor of baseflow to Baxter Creek; however, promotion of infiltration will result in negligible impacts to shallow baseflow and impacts to the creek from a quantity perspective are not expected.

It is expected that a stormwater management plan will be incorporated to reduce stormwater impacts downstream. With the proper design and construction of the subdivision, contaminants will be minimized and impacts should be minor.

5.5 MITIGATION MEASURES

Several mitigative techniques have been recommended in order to address concerns relating to the potential for impact to the base flow. The impact and mitigation measures can be arranged into two (2) distinct categories: construction phase and operational phase. During the course of the planned construction, there is the possibility of silt or other fine-grained soil particles becoming mobile and entering drainage channels during the construction phase of development.

Prior to construction, storm water management techniques will control additional surface water runoff and permit enhanced infiltration into the surrounding ground. This will minimize the potential for groundwater impact and also minimize the amount of runoff. The installation of strategically placed silt fences will filter any excess storm water runoff prior to entering the infiltration areas. The stormwater management plan will be designed to reduce/minimize flooding impacts. It is recommended that to all extents practical that clean storm water be directed and discharged onto the ground surface to promote natural infiltration.

Though significant quantities of groundwater within the shallow soils are not expected, a Category 2 Permit To Take Water (PTTW) for the Site may be considered in the event that groundwater or surface water volumes greater than 50,000 L per day are encountered during the construction phase.

Geo-Logic recommends that a PTTW be in place during the construction activities.

5.6 WATER SUPPLY

The water supply for the development will be provided by a regulated, municipal water supply.

5.7 SEPTIC WASTE DISPOSAL

The septic waste disposal of the development will be provided by the municipal system.

5.8 SUMMARY CONCLUSIONS

In summary, the proposed residential development is to be supported by municipal services set upon approximately 65 ha. It is Geo-Logic's opinion that the Site is suitable for the development. The following conclusions and recommendations are made in support of this report:

- A total of 39 test holes were excavated and drilled across the Site to depths of up to 9.8 m. Bedrock was not encountered in any of the test holes;
- The Site is characterized by a surficial layer of topsoil, occasionally over fill, then native soils consisting of till;
- The area has hilly to rolling topography with relief on the order of 15 to 20 m;
- Seventeen (17) of the open test holes encountered groundwater seepage or accumulation during the drilling/excavation operations at depths ranging from about 0.8 to 4.6 mbeg. The groundwater seepage was observed to be slow and minor accumulation and generally occurred within the till unit where more permeable seams may have been encountered. It is Geo-Logic's opinion that there is not a shallow water table aquifer at this Site within the till material where seepage was observed. The shallow water levels are generally reflective of spring conditions or hydrostatic pressure creating a potentiometric surface. The soils were not observed to be saturated during the test pit activities;
- A PTTW is recommended for the Site during the construction activities to handle groundwater or surface at volumes greater than 50,000 L/day.
- Water should be directed to re-infiltrate the ground wherever possible to promote natural attenuation of precipitation and LID strategies may be considered to maintain infiltration (to be engineered at the detailed design stage); and
- It is our professional opinion, provided infiltration is maintained, that there will be negligible impact to the local shallow water table, surface water regimes and deeper groundwater and their interactions due to the proposed development.

It is Geo-Logic's opinion that the results of this hydrogeological assessment support the approval of the proposed residential subdivision at this Site. Following the References section of this report is the Statement of Limitations. These limitations are an integral part of this report.

We trust this report meets your immediate needs. Should any questions arise regarding any aspect of our report, please contact our office.

Sincerely yours,

Geo-Logic Inc.
GEOTECHNICAL ENGINEERS
AND HYDROGEOLOGISTS

Robert Neck, M.Eng., P.Geo. (Limited)
Project Manager

Nyle C. McIlveen, P.Eng.
Senior Engineer

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STATEMENT OF LIMITATIONS

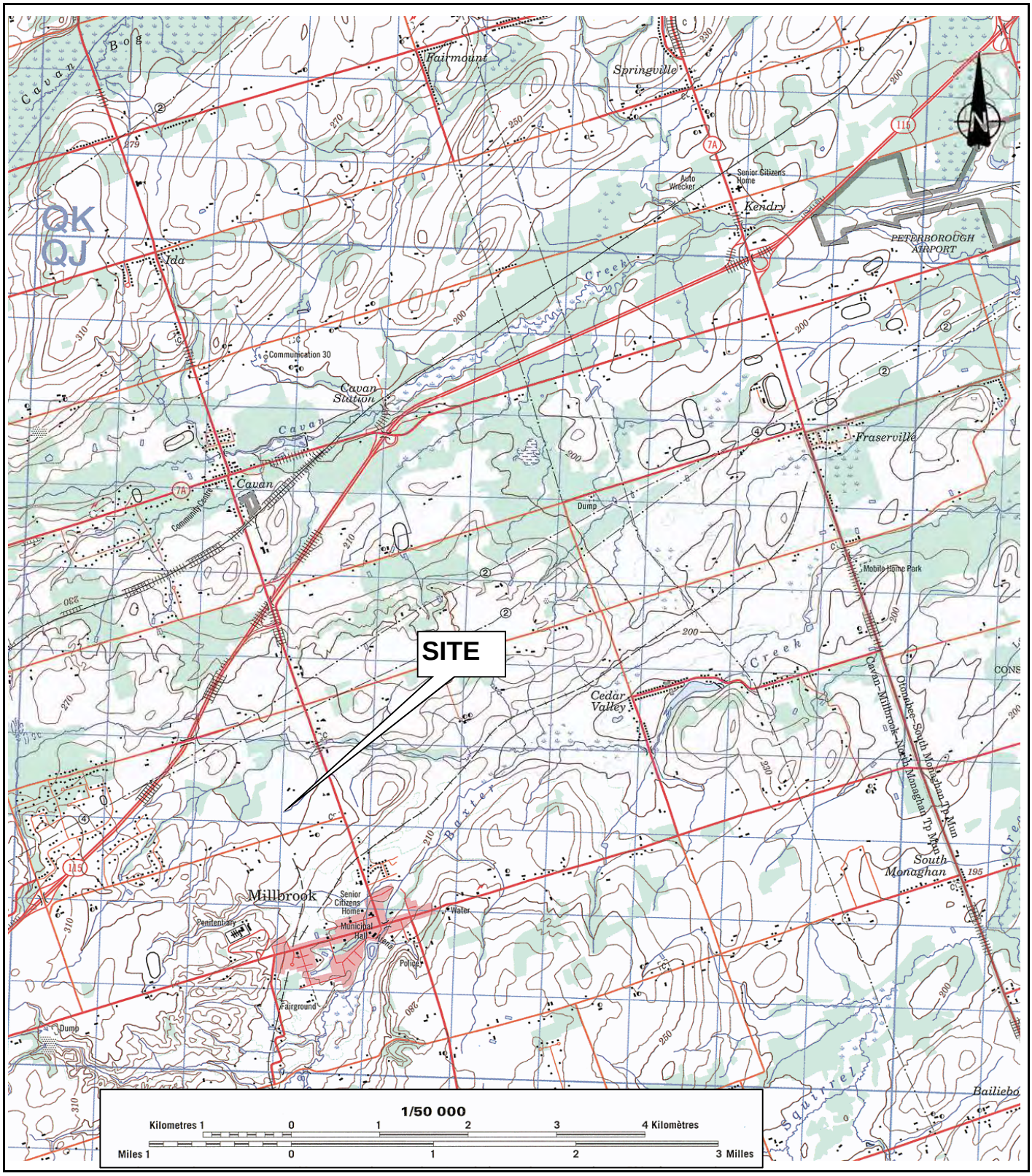
This report is intended solely for Towerhill Developments Inc. in assessing the hydrogeological concerns of the property identified as Part of Lots 11 & 12, Concession 5 and part of Lot 12, Concession 6, within the Township of Cavan- Monaghan, in the County of Peterborough, Ontario and is prohibited for use by others without Geo-Logic's prior written consent. This report is considered Geo-Logic's professional work product and shall remain the sole property of Geo-Logic. Any unauthorized reuse, redistribution of or reliance on the report shall be at the Client and recipient's sole risk, without liability to Geo-Logic. Client shall defend, indemnify and hold Geo-Logic 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 geotechnical engineering professions 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, Geo-Logic will not be liable for any misunderstanding of our recommendations or their application and adaptation into the final design.

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

ENCLOSURES



VICINITY PLAN

Hydrogeological Assessment
Proposed Residential Development
Towerhill Development Fallis Line
Millbrook, Ontario

Base map compiled from Canada Centre for Centre for Topographic Information, Natural Resources Canada. Map 31 D/01 dated 1992 published 2001. Edition 7, UTM Zone 17.

DATE: APRIL 2014

SCALE: 1:50,000

JOB NUMBER: G024822A1

DRAWING NUMBER: PLATE 1

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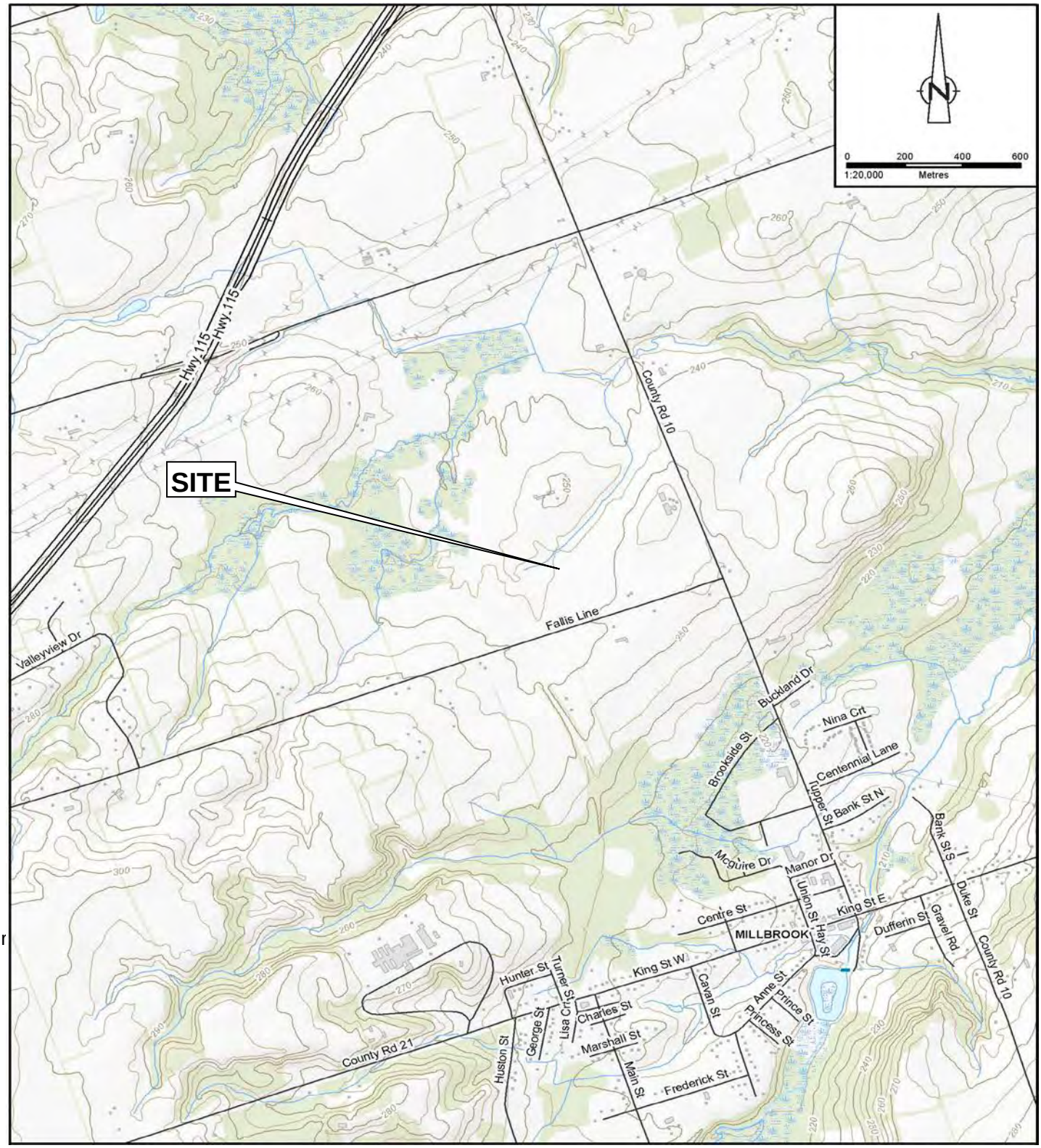

SITE PLAN

Hydrogeological Assessment
Proposed Residential Development
Towerhill Development Fallis Line
Millbrook, Ontario

Source: MNR NRVIS, 2013. Produced by CRA under license from Ontario Ministry of Natural Resources, © Queen's Printer 2014

DATE: APRIL 2014

SCALE: 1:10,000

JOB NUMBER: G024822A1

DRAWING NUMBER: PLATE 2

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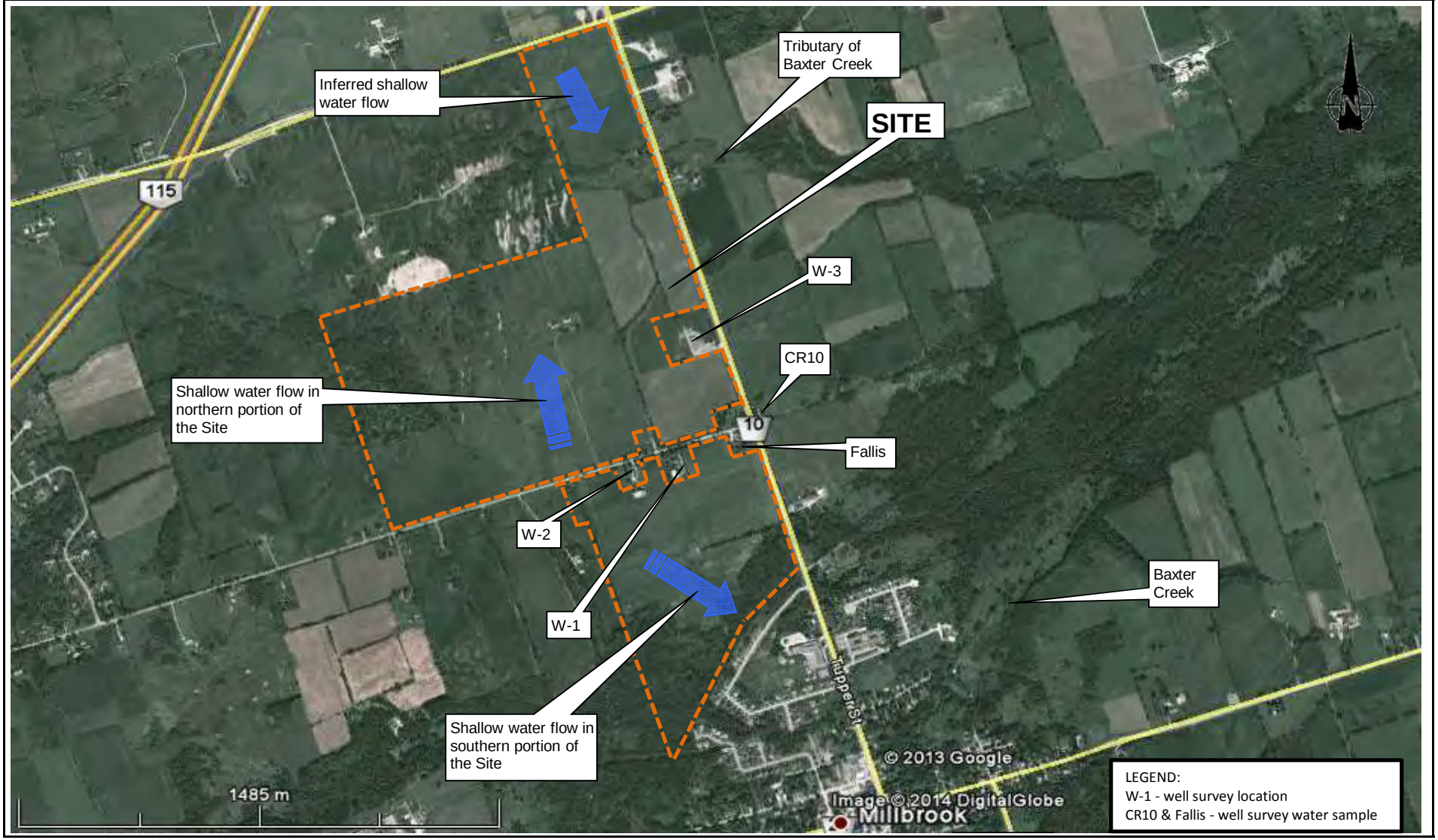
(705) 749-3317 FAX (705) 749-9248 www.geo-logic.ca



PLOT PLAN

Hydrogeological Assessment
Proposed Residential Development
Towerhill Development Fallis Line
Millbrook, Ontario

Image obtained from Google Earth. ©2013 Google ©2014 DigitalGlobe

DATE: APRIL 2014

SCALE: SEE SCALE BAR

JOB NUMBER: G024822A1

DRAWING NUMBER: PLATE 3

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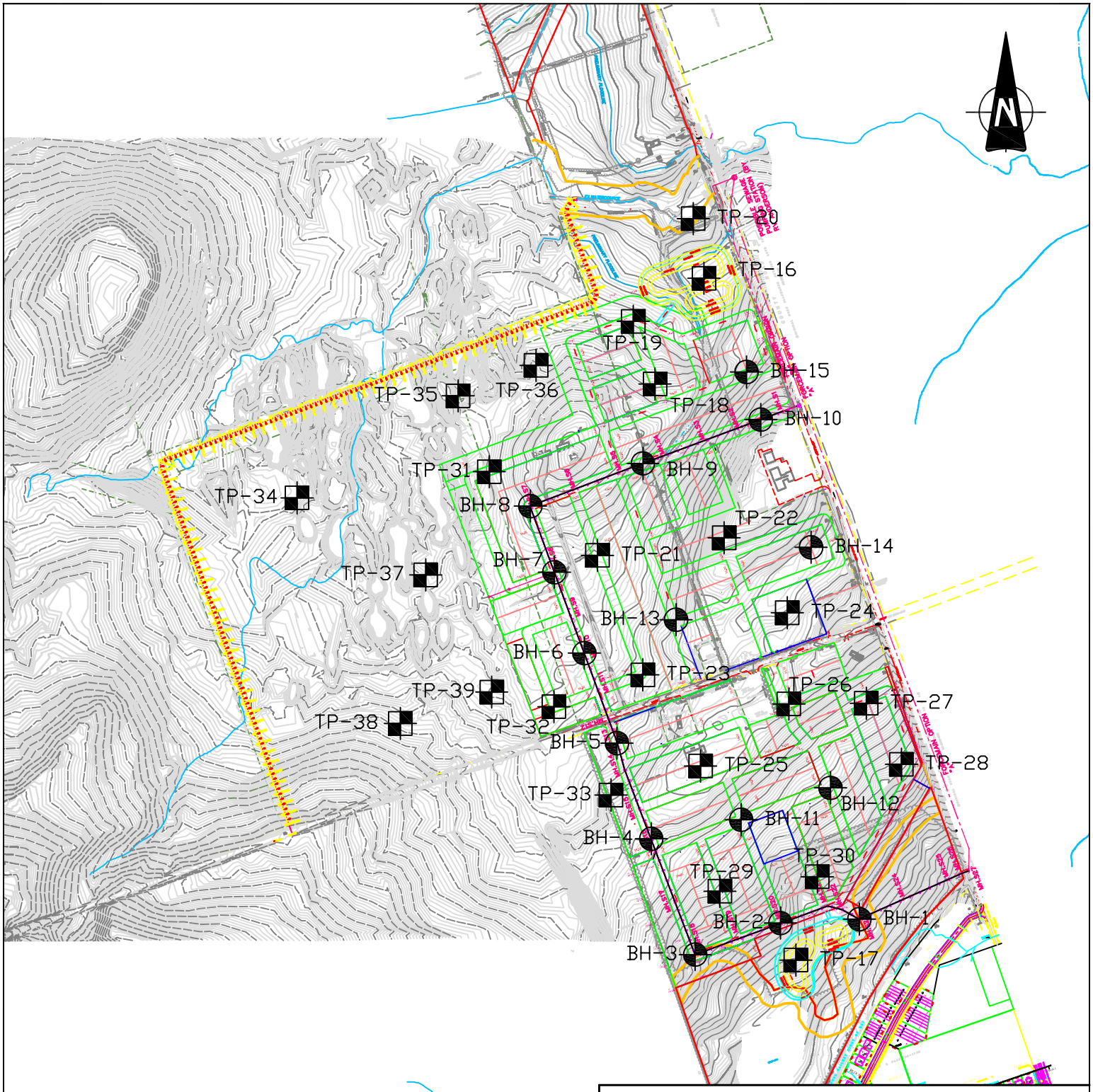

Source:
Portion of drawing prepared by Valdor Engineering Inc., entitled "preliminary Sewer Alignment", provided to Geo-Logic on February 27, 2014.

TEST HOLE LOCATION PLAN

HYDROGEOLOGICAL ASSESSMENT
PROPOSED RESIDENTIAL DEVELOPMENT
FALLIS LINE
CAVAN-MONAGHAN, ONTARIO

PROJECT NO. :	G024822A1
SCALE :	1:10,000
DATE :	APRIL, 2014
PLATE NO. :	4

GEO-LOGIC INC.
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APPENDIX A

SOILS EXPLORATION DATA

REFERENCE No.: G024822A1 ENCLOSURE No.: A-1

www.geo-logic.ca

BOREHOLE No.: BH-1
ELEVATION: 230.8 m

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: B. McFarlane DATE: March 14, 2014
DRILLING COMPANY: Eastern Soil Investigation METHOD: Track mounted drill rig
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

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 (10 20 30 40 50 60 70 80 90)	COMMENTS
		0.0		GROUND SURFACE							
		0.3		**TOPSOIL** (300 mm)							
				TILL - Light brown Clayey Silt, trace Sand, moist to wet, compact	SS-1	100	18	1 3 5	8		WL - 0.1 m 4/15/2014
	1.0										WL - 0.4 m 3/25/2014
					SS-2	100	21	5 7 11	18		
	2.0										
	3.0				SS-3	100	20	7 11 15	16		
	4.0				AS-4		26				
	5.0										WL - 4.6 m 3/14/2014 Upon completion of drilling
	6.0				AS-5		19				Borehole caved at 5.9 m
		6.1		END OF BOREHOLE							
	7.0										
	8.0										
	9.0										
	10.0										

BOREHOLE LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/21/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-2

www.geo-logic.ca

BOREHOLE No.: BH-2
ELEVATION: 238.1 m

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: B. McFarlane DATE: March 14, 2014
DRILLING COMPANY: Eastern Soil Investigation METHOD: Track mounted drill rig
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

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 10 20 30 40 50 60 70 80 90	COMMENTS
		0.0		GROUND SURFACE							
		0.3		**TOPSOIL** (300 mm)							
				TILL - Light brown Clayey Silt, wtih Sand, trace Gravel, moist, compact							
		1.5		Dense	SS-1	50	12	16 17 11	28	○ ×	Open borehole remained dry throughout drilling operation
					SS-2	100	10	23 30 17	47	○ ×	
					AS-3		16			○	
					AS-4		13			○	
		6.1		END OF BOREHOLE							

BOREHOLE LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/21/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-3

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BOREHOLE No.: BH-3
ELEVATION: 242.9 m

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: B. McFarlane DATE: March 14, 2014
DRILLING COMPANY: Eastern Soil Investigation METHOD: Track mounted drill rig
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

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					
		0.2		**TOPSOIL** (200 mm)					
1				**TILL** - Light brown Clayey Silt, wtih Sand, trace Gravel, moist, compact					
2									
3	1.0				SS-1	100	14	6 7 9	16
4									
5		1.5		Brown Silty Sand, moist, very dense to dense					
6	2.0				SS-2	100	9	15 29 41	70
7									
8					SS-3	100	13	15 21 19	40
9									
10	3.0	3.0		Wet					
11					SS-4	100	17	10 19 21	40
12									
13	4.0								
14									
15		4.6		Trace Gravel, compact					
16	5.0				SS-5	100	19	11 23 34	67
17									
18									
19									
20	6.0								
21					SS-6	100	17	7 7 21	28
22		6.6		END OF BOREHOLE					
23	7.0								
24									
25									
26	8.0								
27									
28									
29									
30	9.0								
31									
32									
33	10.0								
34									

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 - 2.2 m 4/15/2014
WL - 2.2 m 4/15/2014
WL - 2.8 m 3/14/2014 Upon completion of drilling

Borehole caved at 3.4 m

BOREHOLE LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/21/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-4

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BOREHOLE No.: BH-4
ELEVATION: 251.4 m

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: B. McFarlane DATE: March 14, 2014
DRILLING COMPANY: Eastern Soil Investigation METHOD: Track mounted drill rig
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

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 (10 20 30 40 50 60 70 80 90)	COMMENTS
		0.0		GROUND SURFACE							
		0.3		**TOPSOIL** (300 mm)							Open borehole remained dry throughout drilling operation
				TILL - Light brown Clayey Silt, wtih Sand, trace Gravel, moist, compact to very dense							
	1.0				SS-1	100	6	50=4"	100+		
	2.0										
	3.0				SS-2	100	8	14 17 16	33		
	4.0										
		4.6		Light brown Silty Sand, trace Gravel, damp, very dense	SS-3	100	8	50=5"	100+		
	5.0										
	6.0				SS-4	100	4	50=5"	100+		
	7.0										
	8.0				SS-5	100	5	28 50=5"	100+		
	9.0										
		9.3		END OF BOREHOLE	SS-6	100	6	50=5"	100+		
	10.0										

BOREHOLE LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/21/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-5

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BOREHOLE No.: BH-5
ELEVATION: 249.3 m

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: B. McFarlane DATE: March 14, 2014
DRILLING COMPANY: Eastern Soil Investigation METHOD: Track mounted drill rig
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

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					
		0.4		**TOPSOIL** (350 mm)					
1				**TILL** - Light brown Clayey Silt, wtih Sand, moist, compact	SS-1	100	27	2 3 7	10
3	1.0								
5		1.5		Moist to wet	SS-2	100	19	12 13 11	24
7	2.0								
		2.3		Wet, very dense	SS-3	100	9	11 15 17	32
9									
10	3.0	3.0		Light brown Silty Clay, wet, firm to hard	SS-4	100	11	12 23 26	49
13	4.0								
15		4.6		Trace Gravel	SS-5	100	31	3 4 3	7
16	5.0								
20	6.0	6.1		Light brown Silty Sand, with Clay and Gravel, wet, compact to dense	SS-6	100	9	5 19 7	26
23	7.0								
25					SS-7	100	10	9 21 18	39
26	8.0								
30	9.0				SS-8	50	8	11 8 8 7	16
32		9.8		END OF BOREHOLE					
33	10.0								

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

WL - 0.0 m 4/15/2014

WL - 0.1 m 3/25/2014

WL - 2.4 m 3/14/2014 Upon completion of drilling

SS-8: 26% Gravel 34% Sand 40% Silt and Clay 23% between 5-75 µm

BOREHOLE LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/21/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-6

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BOREHOLE No.: BH-6
ELEVATION: 246.1 m

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: B. McFarlane DATE: March 17, 2014
DRILLING COMPANY: Eastern Soil Investigation METHOD: Track mounted drill rig
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

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						
		0.0		**TOPSOIL** (400 mm)						
		0.4		**TILL** - Light brown Clayey Silt, wtih Sand, moist, compact	SS-1	25	69	2 3 3	6	▼ WL - 0.9 m 3/17/2014 Upon completion of drilling
	1.0	1.5		Light brown Silty Clay, wet, stiff	SS-2	100	16	4 5 9	14	
	2.0	2.3		Trace Gravel	SS-3	100	27	7 9 7	16	
	3.0	3.0		Light brown Clayey Silt, with Sand, trace Gravel, wet, very dense	SS-4	100	17	4 6 4	10	SS-4: 12% Gravel 19% Sand 69% Silt and Clay 36% between 5-75 µm PI: 7 % LL: 21 %
	4.0				SS-5	100	7	16 30 50=3"	100+	Borehole caved at 5.0 m
	5.0									
	6.0				SS-6	100	7	36 22 28	50	
		6.6		END OF BOREHOLE						
	7.0									
	8.0									
	9.0									
	10.0									

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

BOREHOLE LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/21/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-7

www.geo-logic.ca

BOREHOLE No.: BH-7
ELEVATION: 245.3 m

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: B. McFarlane DATE: March 17, 2014
DRILLING COMPANY: Eastern Soil Investigation METHOD: Track mounted drill rig
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

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						WL - -0.1 m 3/25/2014
		0.2		**TOPSOIL** (200 mm)						
1				**TILL** - Light brown Clayey Silt, wtih Sand, trace Gravel, moist, compact						WL - 0.0 m 4/15/2014
2										
3	1.0				SS-1	100	22	5 8 11	19	
4										
5										
6	2.0				SS-2	100	17	7 8 10	18	
7										
8					SS-3	100	11	6 11 11	22	WL - 2.1 m 3/17/2014 Upon completion of drilling
9										
10	3.0	3.0		Wet						
11					SS-4	100	16	6 7 8	15	
12										
13	4.0									
14										
15					SS-5	100	10	5 4 6	10	
16	5.0									
17										Borehole caved at 5.2 m
18										
19										
20	6.0				SS-6	100	10	8 10 10	20	
21										
22		6.6		END OF BOREHOLE						
23	7.0									
24										
25										
26	8.0									
27										
28										
29	9.0									
30										
31										
32										
33	10.0									
34										

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

BOREHOLE LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/21/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-8

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BOREHOLE No.: BH-8
ELEVATION: 247.5 m

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: B. McFarlane DATE: March 17, 2014
DRILLING COMPANY: Eastern Soil Investigation METHOD: Track mounted drill rig
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

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					
		0.3		**TOPSOIL** (300 mm)					
1				**TILL** - Light brown Clayey Silt, wtih Sand, trace Gravel, moist, compact					
2									
3	1.0				SS-1	50	30	4 6 6	12
4									
5									
6	2.0				SS-2	100	19	6 8 9	17
7									
8					SS-3	100	19	9 13 14	27
9									
10	3.0				SS-4	100	17	7 13 13	26
11									
12									
13	4.0								
14									
15		4.6		Very dense	SS-5	75	10	10 8 10	18
16	5.0								
17									
18									
19									
20	6.0				SS-6	100	11	30 38 27	65
21									
22		6.6		END OF BOREHOLE					
23	7.0								
24									
25									
26	8.0								
27									
28									
29									
30	9.0								
31									
32									
33	10.0								
34									

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

Open borehole remained dry throughout drilling operation

BOREHOLE LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/21/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-9

www.geo-logic.ca

BOREHOLE No.: BH-9
ELEVATION: 245.7 m

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: B. McFarlane DATE: March 18, 2014
DRILLING COMPANY: Eastern Soil Investigation METHOD: Track mounted drill rig
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

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						
		0.3		**TOPSOIL** (300 mm)						
				TILL - Light brown Clayey Silty Sand, wtih Gravel, moist, compact	SS-1	50	25	2 5 7	12	Open borehole remained dry throughout drilling operation
		1.5		Very dense	SS-2	100	25	4 10 12	22	
					SS-3	100	9	49 37 50=3"	100+	
					SS-4	100	8	26 28 44	72	SS-4: 16% Gravel 36% Sand 48% Silt and Clay 27% between 5-75 µm
					SS-5	100	6	37 50=4"	100+	
					AS-6		11			
		6.1		END OF BOREHOLE						

Shear test (Cu) △ Field ☐ Lab
Sensitivity (S)
○ 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

BOREHOLE LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/21/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-10

www.geo-logic.ca

BOREHOLE No.: BH-10
ELEVATION: 253.1 m

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: B. McFarlane DATE: March 18, 2014
DRILLING COMPANY: Eastern Soil Investigation METHOD: Track mounted drill rig
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

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	
		0.3		**TOPSOIL** (300 mm)							
	1.0			**TILL** - Brown Sandy Silt, wtih Clay, trace Gravel, moist, compact to very dense	SS-1	100	10	5 11 22	33		
					SS-2	100	7	12 20 17	37		
	2.0				SS-3	100	6	18 25 28	53		
	3.0	3.0		Wet	SS-4	100	10	50=2"	100+		
	4.0										▼ WL - 4.3 m 3/18/2014 Upon completion of drilling Borehole caved at 5.0 m
					SS-5	100	9	7 10 11	21		
	5.0										
	6.0	6.2		END OF BOREHOLE	SS-6	100	10	50=4"	100+		
	7.0										
	8.0										
	9.0										
	10.0										

BOREHOLE LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/21/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-11

www.geo-logic.ca

BOREHOLE No.: BH-11
ELEVATION: 248.8 m

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: B. McFarlane DATE: March 14, 2014
DRILLING COMPANY: Eastern Soil Investigation METHOD: Track mounted drill rig
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

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	
		0.3		**TOPSOIL** (250 mm)							
	1.0			**TILL** - Brown Clayey Silt, wtih Sand, trace Gravel, moist, compact to very dense	SS-1	100	18	4 6 7	13		Open borehole remained dry throughout drilling operation
	2.0				SS-2	75	18	21 16 17	33		
	3.0				SS-3	100	14	9 15 18	33		
	4.0				SS-4	100	11	6 20 31	51		
	5.0				AS-5		8				
	6.0	6.1		END OF BOREHOLE	AS-6		8				
	7.0										
	8.0										
	9.0										
	10.0										

BOREHOLE LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/21/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-12

www.geo-logic.ca

BOREHOLE No.: BH-12
ELEVATION: 246.2 m

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: B. McFarlane DATE: March 14, 2014
DRILLING COMPANY: Eastern Soil Investigation METHOD: Track mounted drill rig
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

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							
		0.3		**TOPSOIL** (300 mm)							Open borehole remained dry throughout drilling operation
				TILL - Brown Clayey Silt, wtih Sand, trace Gravel, moist, compact to very dense	SS-1	100	23	3 3 7	10		
					SS-2	100	11	6 7 15	22		
					SS-3	100	9	50=3"	100+		
					SS-4	100	9	13 17 17	34		
					AS-5		9				
					AS-6		9				
		6.1		END OF BOREHOLE							

BOREHOLE LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/21/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-13

www.geo-logic.ca

BOREHOLE No.: BH-13
ELEVATION: 250.1 m

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: B. McFarlane DATE: March 18, 2014
DRILLING COMPANY: Eastern Soil Investigation METHOD: Track mounted drill rig
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

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					
		0.4		**TOPSOIL** (350 mm)					
		0.8		**TILL** - Light brown Clayey Silt, wtih Sand, moist, compact					
	1.0			Trace Gravel, compact to very dense	SS-1	25	30	4 8 17	25
	2.0				SS-2	100	13	13 20 20	40
	3.0	3.0		Wet	SS-3	100	11	10 20 19	39
					SS-4	25	13	20 25 39	64
	4.0				SS-5	100	10	38 50=4"	100+
	5.0								
	6.0	6.2		END OF BOREHOLE	SS-6	100	8	50=4"	100+
	7.0								
	8.0								
	9.0								
	10.0								

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

WL - 0.1 m
4/15/2014

WL - 1.3 m
3/25/2014

WL - 3.7 m
3/18/2014
Upon completion of drilling

REFERENCE No.: G024822A1 ENCLOSURE No.: A-14

www.geo-logic.ca

BOREHOLE No.: BH-14
ELEVATION: 251.3 m

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: B. McFarlane DATE: March 18, 2014
DRILLING COMPANY: Eastern Soil Investigation METHOD: Track mounted drill rig
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

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			%	%		N	10 20 30 40 50 60 70 80 90	
		0.4		**TOPSOIL** (350 mm)								
	1.0			**TILL** - Brown Sandy Silt, wtih Clay, trace Gravel, moist, compact to very dense		SS-1	25	19	4 5 7	12		Open borehole remained dry throughout drilling operation
	2.0					SS-2	100	14	6 11 30	41		
	3.0					SS-3	75	13	21 23 43	66		
						SS-4	100	10	18 16 20	36		
	4.0					AS-5		5				
	5.0											
	6.0	6.1				AS-6		5				
				END OF BOREHOLE								
	7.0											
	8.0											
	9.0											
	10.0											

BOREHOLE LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/21/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-15

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BOREHOLE No.: BH-15
ELEVATION: 245.2 m

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: B. McFarlane DATE: March 18, 2014
DRILLING COMPANY: Eastern Soil Investigation METHOD: Track mounted drill rig
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

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						
		0.3		**TOPSOIL** (300 mm)						
		0.8		**TILL** - Brown Clayey Silt, wtih Sand, trace Gravel, moist, compact to dense						
	1.0			Wet	SS-1	50	27	3 4 6	10	WL - 0.4 m 4/15/2014 WL - 0.7 m 3/25/2014
					SS-2	100	31	5 8 12	20	
	2.0				SS-3	100	9	14 22 22	44	
	3.0				SS-4	100	8	21 22 20	42	WL - 3.0 m 3/18/2014 Upon completion of drilling
	4.0									
	5.0				SS-5	75	17	10 12 15	27	
	6.0	6.1			AS-6		12			
				END OF BOREHOLE						
	7.0									
	8.0									
	9.0									
	10.0									

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

BOREHOLE LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/21/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-16

www.geo-logic.ca

TEST PIT No.: TP-16
ELEVATION: 240.6 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: P. Hynes DATE: March 17, 2014
EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND
GS - GRAB SAMPLE
▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) (△ Field, □ Lab)	COMMENTS
0.0	0.0		GROUND SURFACE			10 20 30 40 50 60 70 80 90	
	0.3		**TOPSOIL** (300 mm)				No seepage observed during the excavation of the test pit
	0.6		**SANDY LOAM** - Brown to reddish brown Sandy Loam				
1.0			**TILL** - Brown to grey Clayey Silty Sand, with Gravel, mottled, moist, compact	GS-1	9	○	
2.0	2.1		Brown Clayey Sandy Silt, trace Gravel, moist, very dense	GS-2	10	○	GS-2: 8% Gravel 31% Sand 61% Silt and Clay 30% between 5-75 µm
3.0							
4.0				GS-3	23	○	
5.0	4.9		END OF TEST PIT				
6.0							
7.0							
8.0							
9.0							
10.0							

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-17

www.geo-logic.ca

TEST PIT No.: TP-17
ELEVATION: 233.8 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: P. Hynes DATE: March 18, 2014
EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND
GS - GRAB SAMPLE
▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	COMMENTS
0 / 0.0	0.0		GROUND SURFACE			
	0.2		**TOPSOIL** (200 mm)			
			TILL - Brown to grey Clayey Silty Sand, with Gravel, mottled, moist, compact	GS-1	23	No seepage observed during the excavation of the test pit
	2.1		Brown Clayey Silt, trace Sand, occasional Cobbles and Boulders, moist, compact	GS-2	21	GS-2: 1% Gravel 3% Sand 96% Silt and Clay 48% between 5-75 µm
	3.7		With Gravel, moist to wet	GS-3	12	
	4.9		END OF TEST PIT			

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
w_p w_l Atterberg limits (%)

10 20 30 40 50 60 70 80 90

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-18

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TEST PIT No.: TP-18
ELEVATION: 244.6 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development

PROJECT: Proposed Fallis Line Residential Development

LOGGED BY: P. Hynes DATE: March 17, 2014

EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator

NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND

GS - GRAB SAMPLE

▼ - WATER LEVEL

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	COMMENTS
		0.0		GROUND SURFACE			
		0.4		**TOPSOIL** (350 mm)			No seepage observed during the excavation of the test pit
				TILL - Brown to grey Clayey Silty Sand, with Gravel, mottled, moist, compact			
		2.1		With Boulders	GS-1	11	
		3.7		Brown Silty Sand, with Clay and Gravel, moist, very dense			
					GS-2	8	
		6.1		END OF TEST PIT			

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
w_p w_l Atterberg limits (%)

10 20 30 40 50 60 70 80 90

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-19

www.geo-logic.ca

TEST PIT No.: TP-19
ELEVATION: 241.7 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development

PROJECT: Proposed Fallis Line Residential Development

LOGGED BY: P. Hynes DATE: March 17, 2014

EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator

NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND

GS - GRAB SAMPLE

▼ - WATER LEVEL

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	COMMENTS
		0.0		GROUND SURFACE			
				TOPSOIL (450 mm)			
		0.5		**TILL** - Brown to grey Clayey Silty Sand, with Gravel, mottled, moist, compact			
	1.0						
	2.0				GS-1	12	
	3.0	3.0		Grey Silty Clay to Clayey Silt, stiff, moist to wet			
	4.0						
	5.0				GS-2	18	
	6.0	6.1		END OF TEST PIT			
	7.0						
	8.0						
	9.0						
	10.0						

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
w_p w_l Atterberg limits (%)

10 20 30 40 50 60 70 80 90

WL - 0.5 m
3/25/2014

Seepage observed at 0.9 m and 1.5 m

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-20

www.geo-logic.ca

TEST PIT No.: TP-20
ELEVATION: 235.2 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: P. Hynes DATE: March 17, 2014
EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND
GS - GRAB SAMPLE
▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) (△ Field, □ Lab)	COMMENTS
0.0	0.0		GROUND SURFACE			10 20 30 40 50 60 70 80 90	▼ WL - 0.0 m 3/17/2014 Seepage observed throughout
1	0.3		**PEAT** (300 mm)				
2			**TILL** - Brown Silty Sand, with Gravel, moist				
3	0.9		Grey Silty Clay to Clayey Silt, stiff, moist to wet				
1.0				GS-1	10	○	
4							
5							
6							
2.0							
7							
8							
9							
10	3.0		END OF TEST PIT				Excavation terminated at 3.0 m due to seepage and cave
3.0							
11							
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							
10.0							
33							
34							

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-21

www.geo-logic.ca

TEST PIT No.: TP-21
ELEVATION: 245.1 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: P. Hynes DATE: March 17, 2014
EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND
GS - GRAB SAMPLE
▼ - WATER LEVEL

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	COMMENTS
0	0.0	0.0		GROUND SURFACE			
1		0.3		**TOPSOIL** (325 mm)			
2				**TILL** - Brown to grey Clayey Sandy Silt, with Gravel, occasional Cobbles and Boulders, mottled, moist, compact			▼ Seepage observed at 0.9 m
3	1.0				GS-1	11	GS-1: 12% Gravel, 31% Sand, 57% Silt and Clay, 26% between 5-75 µm
4							
5							
6							
7	2.0						
8							
9							
10	3.0	3.0		Grey			
11							
12							
13	4.0						
14							
15		4.6		Brown Silty Sand, with Clay and Gravel, moist, very dense	GS-2	10	
16	5.0						
17							
18							
19							
20	6.0	6.1		END OF TEST PIT			
21							
22							
23	7.0						
24							
25							
26	8.0						
27							
28							
29							
30	9.0						
31							
32							
33	10.0						
34							

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
w_p w_l Atterberg limits (%)
10 20 30 40 50 60 70 80 90 %

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-22

www.geo-logic.ca

TEST PIT No.: TP-22
ELEVATION: 256.6 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: P. Hynes DATE: March 17, 2014
EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND
GS - GRAB SAMPLE
▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	Shear test (Cu) △ Field □ Lab; Sensitivity (S); ○ Water content (%); w_p w_l Atterberg limits (%)	COMMENTS
ft / m	0.0		GROUND SURFACE		%	10 20 30 40 50 60 70 80 90	
	0.3		**TOPSOIL** (300 mm)				No seepage observed during the excavation of the test pit
1			**TILL** - Brown Silty Sand, with Gravel, trace Clay, occasional Cobbles and Boulders, moist				
1.0							
2.0				GS-1	10	○	
3.0							
4.0				GS-2	6	○	
5.0							
6.0	6.1		END OF TEST PIT				
7.0							
8.0							
9.0							
10.0							

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-23

www.geo-logic.ca

TEST PIT No.: TP-23
ELEVATION: 249.1 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: P. Hynes DATE: March 17, 2014
EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND
GS - GRAB SAMPLE
▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) (△ Field, □ Lab)	COMMENTS
ft / m	0.0		GROUND SURFACE		%	10 20 30 40 50 60 70 80 90	
	0.2		**TOPSOIL** (200 mm)				No seepage observed during the excavation of the test pit
			SANDY LOAM - Brown to reddish brown Sandy Loam, moist				
	0.6		**TILL** - Brown to grey Clayey Silty Sand, with Gravel, occasional Cobbles and Boulders, mottled, moist, compact				
1.0				GS-1	22	○	
	1.8		Very dense				
2.0							
3.0				GS-2	11	○	
4.0							
	4.6		END OF TEST PIT				Test pit terminated at practical refusal (due to presence of very dense till)
5.0							
6.0							
7.0							
8.0							
9.0							
10.0							

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-24

www.geo-logic.ca

TEST PIT No.: TP-24
ELEVATION: 252.2 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: P. Hynes DATE: March 17, 2014
EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND
GS - GRAB SAMPLE
▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	Shear test (Cu) △ Field □ Lab; Sensitivity (S); ○ Water content (%); w_p w_l Atterberg limits (%)	COMMENTS
ft / m	0.0		GROUND SURFACE		%	10 20 30 40 50 60 70 80 90	
			TOPSOIL (400 mm)				No seepage observed during the excavation of the test pit
	0.4		**TILL** - Brown Clayey Silt, with Sand, trace Gravel, mottled, moist				
1.0				GS-1	19	○	
	1.5		Brown Silty Sand, with Gravel, trace Clay, occasional Cobbles and Boulders, moist				
2.0							
3.0							
				GS-2	5	○	
4.0							
5.0							
6.0	6.1		END OF TEST PIT				
7.0							
8.0							
9.0							
10.0							

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-25

www.geo-logic.ca

TEST PIT No.: TP-25
ELEVATION: 253.3 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: P. Hynes DATE: March 18, 2014
EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND
GS - GRAB SAMPLE
▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	COMMENTS
0.0	0.0		GROUND SURFACE			
	0.3		**TOPSOIL** (250 mm)			No seepage observed during the excavation of the test pit
			TILL - Brown Silty Sand, with Gravel, trace Clay, occasional Cobbles and Boulders, moist, compact	GS-1	26	
	2.3		With Clay, very dense	GS-2	12	
				GS-3	8	
	4.6		END OF TEST PIT			Test pit terminated at practical refusal (due to presence of very dense till)

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
w_p w_l Atterberg limits (%)
10 20 30 40 50 60 70 80 90

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-26

www.geo-logic.ca

TEST PIT No.: TP-26
ELEVATION: 253.4 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: P. Hynes DATE: March 18, 2014
EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND
GS - GRAB SAMPLE
▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) (△ Field, □ Lab)	COMMENTS
ft / m	0.0		GROUND SURFACE		%	10 20 30 40 50 60 70 80 90	
	0.3		**TOPSOIL** (300 mm)				No seepage observed during the excavation of the test pit
1			**TILL** - Brown Silty Sand, with Gravel, trace Clay, occasional Cobbles and Boulders, moist, compact				
1.0				GS-1	8	○	GS-1: 9% Gravel 40% Sand 51% Silt and Clay 30% between 5-75 µm
2.0							
3.0							
	3.7		With Clay				
4.0				GS-2	10	○	
5.0							
6.0				GS-3	12	○	
	6.1		END OF TEST PIT				
7.0							
8.0							
9.0							
10.0							

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-27

www.geo-logic.ca

TEST PIT No.: TP-27
ELEVATION: 249.2 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: P. Hynes DATE: March 18, 2014
EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND
GS - GRAB SAMPLE
▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) (△ Field, □ Lab)	COMMENTS
ft / m	0.0		GROUND SURFACE		%	10 20 30 40 50 60 70 80 90	
	0.3		**TOPSOIL** (300 mm)				No seepage observed during the excavation of the test pit
1			**TILL** - Brown Silty Sand, with Gravel, trace Clay, occasional Cobbles and Boulders, moist, compact				
1.0				GS-1	14	○	
2.0							
3.0							
	3.7		With Clay				
4.0				GS-2	8	○	
5.0							
6.0				GS-3	7	○	
	6.1		END OF TEST PIT				
7.0							
8.0							
9.0							
10.0							

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-28

www.geo-logic.ca

TEST PIT No.: TP-28
ELEVATION: 243.4 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: P. Hynes DATE: March 18, 2014
EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND
GS - GRAB SAMPLE
▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) (△ Field, □ Lab)	COMMENTS
ft / m	0.0		GROUND SURFACE		%	10 20 30 40 50 60 70 80 90	
	0.3		**TOPSOIL** (300 mm)				No seepage observed during the excavation of the test pit
1			**TILL** - Brown Silty Sand, with Gravel, trace Clay, occasional Cobbles and Boulders, moist, compact				
1.0				GS-1	14	○	
2.0							
3.0							
	3.7		With Clay				
4.0				GS-2	8	○	
5.0							
6.0				GS-3	8	○	
	6.1		END OF TEST PIT				
7.0							
8.0							
9.0							
10.0							

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-29

www.geo-logic.ca

TEST PIT No.: TP-29
ELEVATION: 246.9 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: P. Hynes DATE: March 18, 2014
EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND
GS - GRAB SAMPLE
▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) (△ Field, □ Lab)	COMMENTS
ft / m	0.0		GROUND SURFACE		%	10 20 30 40 50 60 70 80 90	
	0.3		**TOPSOIL** (250 mm)				No seepage observed during the excavation of the test pit
1			**TILL** - Brown Silty Sand, with Gravel, trace Clay, occasional Cobbles and Boulders, moist, compact				
2							
3	1.0						
4				GS-1	19	○	
5							
6							
7	2.0						
8							
9	2.7		With Clay	GS-2	22	○	
10	3.0						
11							
12							
13	4.0						
14				GS-3	7	○	
15							
16	5.0						
17							
18							
19							
20	6.0						
	6.1		END OF TEST PIT				
21							
22							
23	7.0						
24							
25							
26	8.0						
27							
28							
29	9.0						
30							
31							
32							
33	10.0						
34							

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-30

www.geo-logic.ca

TEST PIT No.: TP-30
ELEVATION: 237.5 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: P. Hynes DATE: March 18, 2014
EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND
GS - GRAB SAMPLE
▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	Shear test (Cu) △ Field □ Lab; Sensitivity (S); ○ Water content (%); w_p w_l Atterberg limits (%)	COMMENTS
ft / m	0.0		GROUND SURFACE		%	10 20 30 40 50 60 70 80 90	
	0.4		**TOPSOIL** (350 mm)				
1 /			**TILL** - Brown to grey Clayey Silty Sand, with Gravel, occasional Cobbles, mottled, moist, compact				
1.0				GS-1	10	○	
	1.5		Grey Sandy Silt, with Gravel, trace Clay, occasional Cobbles and Boulders, moist to wet, compact				▼ Slight seepage observed at 1.5 m
2.0				GS-2	8	○	
3.0							
4.0				GS-3	9	○	
5.0							
6.0				GS-4	10	○	
	6.1		END OF TEST PIT				
7.0							
8.0							
9.0							
10.0							

REFERENCE No.: G024822A1 ENCLOSURE No.: A-31

www.geo-logic.ca

TEST PIT No.: TP-31
ELEVATION: 245.5 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: P. Hynes DATE: March 17, 2014
EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND
GS - GRAB SAMPLE
▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	COMMENTS
0.0	0.0		GROUND SURFACE			
	0.0		**TOPSOIL** (325 mm)			
	0.3		**TILL** - Brown to grey Clayey Silty Sand, with Gravel, occasional Cobbles, mottled, moist, compact	GS-1	18	
	1.8		Brown to grey Silty Sand to Sandy Silt, with Clay, occasional gravel, moist, compact	GS-2	19	
	3.7		Grey Silty Clay, moist to wet, firm	GS-3	26	
	5.5		Occasional Cobbles and Boulders			▼ Slight seepage observed at 5.8 m
	6.1		END OF TEST PIT			

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
w_p w_l Atterberg limits (%)

10 20 30 40 50 60 70 80 90

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-32

www.geo-logic.ca

TEST PIT No.: TP-32
ELEVATION: 246.4 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development

PROJECT: Proposed Fallis Line Residential Development

LOGGED BY: P. Hynes DATE: March 17, 2014

EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator

NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND

GS - GRAB SAMPLE

▼ - WATER LEVEL

Depth ft	Depth m	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content %
		0.0		GROUND SURFACE		
		0.4		**TOPSOIL** (350 mm)		
	1.0			**TILL** - Brown to grey Clayey Silty Sand, with Gravel, occasional Cobbles, mottled, moist, compact	GS-1	19
	2.0					
	3.0					
		3.7		Moist to wet, occasional Boulders	GS-2	16
	4.0	4.3		Brown Silty Sand, with Clay and Gravel, moist, very dense	GS-3	11
	5.0					
	6.0	6.1		END OF TEST PIT		
	7.0					
	8.0					
	9.0					
	10.0					

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
w_p w_l Atterberg limits (%)

10 20 30 40 50 60 70 80 90

COMMENTS

WL - 0.3 m
3/25/2014

Seepage observed at 1.5 m

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-33

www.geo-logic.ca

TEST PIT No.: TP-33
ELEVATION: 250.7 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: P. Hynes DATE: March 18, 2014
EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND
GS - GRAB SAMPLE
▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) (△ Field, □ Lab)	COMMENTS
ft / m	0.0		GROUND SURFACE		%	10 20 30 40 50 60 70 80 90	
			TOPSOIL (375 mm)				No seepage observed during the excavation of the test pit
	0.4		**TILL** - Brown Clayey Silty Sand, with Gravel, occasional Cobbles and Boulders, mottled, moist, compact				
1.0				GS-1	12	○	
2.0							
3.0				GS-2	13	○	
4.0				GS-3	13	○	
5.0							
6.0	6.1		END OF TEST PIT				
7.0							
8.0							
9.0							
10.0							

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-34

www.geo-logic.ca

TEST PIT No.: TP-34
ELEVATION: 246.1 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: P. Hynes DATE: March 17, 2014
EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND
GS - GRAB SAMPLE
▼ - WATER LEVEL

Depth ft	Depth m	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content %	COMMENTS
		0.0		GROUND SURFACE			
		0.2		**TOPSOIL** (150 mm)			
1–5	1.0			**FILL** - Brown Sand and Gravel, moist	GS-1	11	
6		1.8		**TOPSOIL**			
7	2.0	2.0		**TILL** - Brown to grey Clayey Silty Sand, with Gravel, occasional Cobbles, mottled, moist, compact			
8–9					GS-2	19	▼ Seepage observed at 3.0 m
10	3.0						
11–19	4.0–6.0						
20		6.1		END OF TEST PIT			
21–34	7.0–10.0						

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
W_p W_l Atterberg limits (%)

10 20 30 40 50 60 70 80 90

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-35

www.geo-logic.ca

TEST PIT No.: TP-35
ELEVATION: 244.6 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: P. Hynes DATE: March 17, 2014
EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND
GS - GRAB SAMPLE
▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) (△ Field, □ Lab)	COMMENTS
ft / m	0.0		GROUND SURFACE		%	10 20 30 40 50 60 70 80 90	
	0.2		**TOPSOIL** (150 mm)				No seepage observed during the excavation of the test pit
1 2 3 4 5 6 / 1.0 2.0			**TILL** - Brown to grey Clayey Silty Sand, with Gravel, occasional Cobbles, mottled, moist, compact	GS-1	18	○	
7 8 9 10 / 3.0	3.0		Brown to grey Silty Sand to Sandy Silt, with Clay, occasional gravel, moist, compact				
11 12 13 14 / 4.0 5.0				GS-2	19	○	
15 16 17 18 19 20 / 6.0	6.1		END OF TEST PIT				
21 22 23 24 25 26 / 7.0 8.0							
27 28 29 30 31 32 / 9.0							
33 34 / 10.0							

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-36

www.geo-logic.ca

TEST PIT No.: TP-36
ELEVATION: 245.0 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development

PROJECT: Proposed Fallis Line Residential Development

LOGGED BY: P. Hynes DATE: March 17, 2014

EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator

NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND

GS - GRAB SAMPLE

▼ - WATER LEVEL

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%)	COMMENTS
		0.0		GROUND SURFACE				
		0.4		**TOPSOIL** (375 mm)				No seepage observed during the excavation of the test pit
				TILL - Brown to grey Clayey Silty Sand, with Gravel, occasional Cobbles, mottled, moist, compact	GS-1	10		
					GS-2	10		
		6.1		END OF TEST PIT				

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-37

www.geo-logic.ca

TEST PIT No.: TP-37
ELEVATION: 244.7 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: P. Hynes DATE: March 17, 2014
EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND
GS - GRAB SAMPLE
▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	COMMENTS
0 / 0.0	0.0		GROUND SURFACE			
	0.2		**TOPSOIL** (150 mm)			
1 to 3 / 1.0			**TILL** - Brown to grey Clayey Silty Sand, with Gravel, occasional Cobbles, mottled, moist, compact	GS-1	23	WL - 0.7 m 3/25/2014
9 to 10 / 3.0	3.0		Brown to grey Silty Sand to Sandy Silt, with Clay, occasional gravel, moist, compact	GS-2	24	Seepage observed at 3.0 m
15 / 4.6	4.6		Grey Silty Clay, moist to wet, firm			
20 / 6.0	6.1		END OF TEST PIT			

Shear test (Cu) △ Field □ Lab
Sensitivity (S)
○ Water content (%)
w_p w_l Atterberg limits (%)
10 20 30 40 50 60 70 80 90

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-38

www.geo-logic.ca

TEST PIT No.: TP-38
ELEVATION: 250.6 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: P. Hynes DATE: March 17, 2014
EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND
GS - GRAB SAMPLE
▼ - WATER LEVEL

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	COMMENTS
		0.0		GROUND SURFACE			
				TOPSOIL (300 mm)			
1		0.3		**TILL** - Brown to grey Clayey Silty Sand, with Gravel, occasional Cobbles, mottled, moist, compact			
2							
3	1.0						
4							
5							
6							
7	2.0	2.1		Occasional Boulders, moist to wet			▼ Seepage observed at 2.1 m
8							
9					GS-1	14	
10	3.0						
11							
12							
13	4.0						
14							
15		4.6		Brown Silty Sand, with Clay and Gravel, moist, very dense	GS-2	11	
16	5.0						
17							
18							
19							
20	6.0	6.1		END OF TEST PIT			
21							
22							
23	7.0						
24							
25							
26	8.0						
27							
28							
29	9.0						
30							
31							
32							
33	10.0						
34							

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
w_p w_l Atterberg limits (%)

10 20 30 40 50 60 70 80 90 %

TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

REFERENCE No.: G024822A1 ENCLOSURE No.: A-39

www.geo-logic.ca

TEST PIT No.: TP-39
ELEVATION: 246.8 m

TEST PIT REPORT

Page: 1 of 1

CLIENT: Towerhill Development
PROJECT: Proposed Fallis Line Residential Development
LOGGED BY: P. Hynes DATE: March 17, 2014
EXCAVATION COMPANY: Terry Dunford Excavating METHOD: Track mounted excavator
NOTES: Elevations interpolated from Valdor Engineering's drawing "Preliminary Sewer Alignment", provided on February 27, 2014

LEGEND
GS - GRAB SAMPLE
▼ - WATER LEVEL

Depth (ft / m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Moisture Content (%)	COMMENTS
ft / m	0.0		GROUND SURFACE		%	
	0.3		**TOPSOIL** (275 mm)			
1 /			**TILL** - Brown to grey Clayey Silty Sand, with Gravel, occasional Cobbles, mottled, moist, compact			
1.0				GS-1	21	▼ Seepage observed at 1.5 m
2.0						
	2.7		Occasional Boulders, moist to wet	GS-2	12	
3.0						
4.0						
	4.6		Grey Silty Clay to Clayey Silt, moist to wet, stiff	GS-3	28	
5.0						
6.0	6.1		END OF TEST PIT			
7.0						
8.0						
9.0						
10.0						

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
w_p w_l Atterberg limits (%)

10 20 30 40 50 60 70 80 90

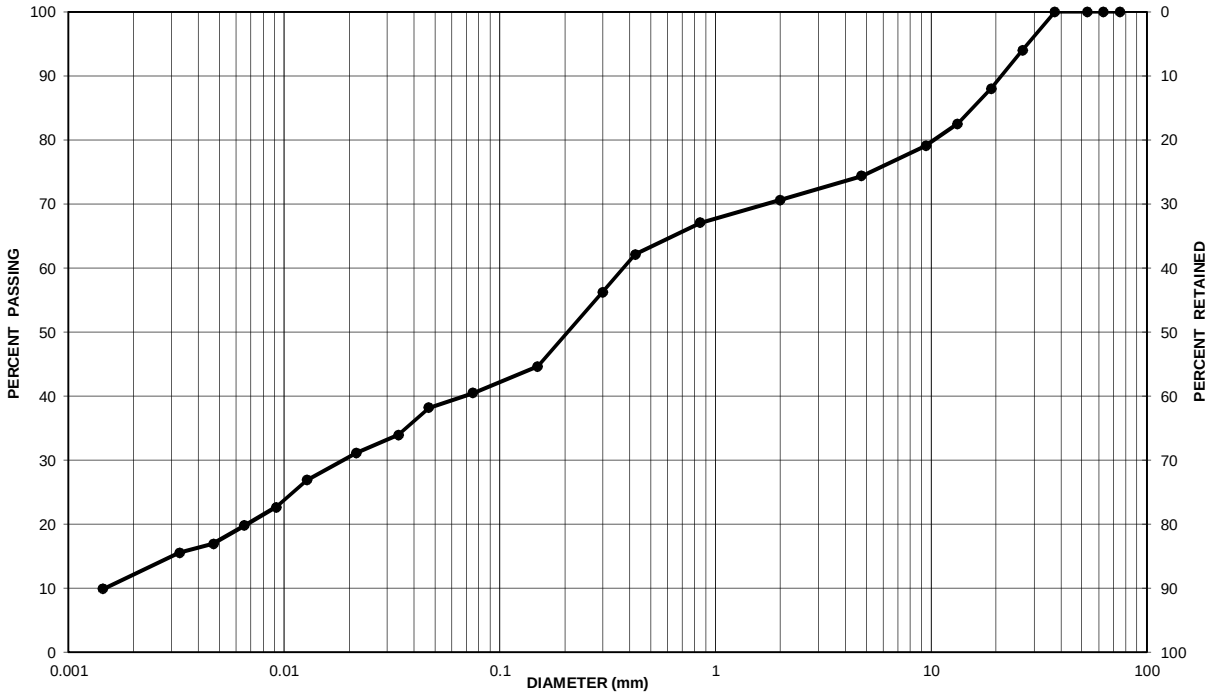
TEST PIT LOG GEOTECH G024822A1, 14-04-02, TESTHOLE LOGS.GPJ GEOLOGIC.GDT 4/2/14

Member of the INSPEC-SOL Group

PARTICLE-SIZE ANALYSIS OF SOILS (GEOTECHNICAL) (USCS) (ASTM D422)

CLIENT:	Towerhill Developments	**LAB No.:**	SS-14-24
PROJECT/ SITE:	Proposed Fallis Line Residential Development	**PROJECT No.:**	G024822A1

Borehole No.:	BH-5	Sample No.:	SS-8
Depth:	9.1-9.8 mbeg	Enclosure:	A-40



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

Soil Description	Gravel	Sand	Clay & Silt
BH-5, SS-8	26	34	40

REMARKS:

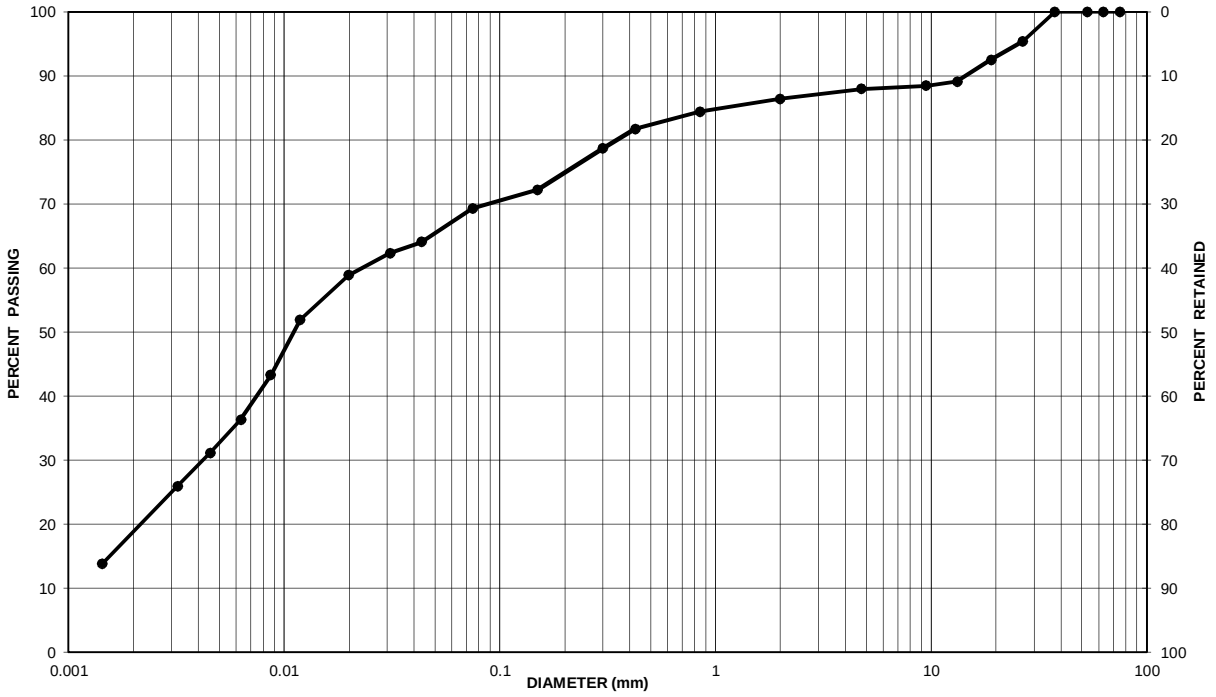
PERFORMED BY:		**DATE:**	March 26, 2014
VERIFIED BY:		**DATE:**	March 26, 2014

Member of the INSPEC-SOL Group

PARTICLE-SIZE ANALYSIS OF SOILS (GEOTECHNICAL) (USCS) (ASTM D422)

CLIENT:	Towerhill Developments	**LAB No.:**	SS-14-24
PROJECT/ SITE:	Proposed Fallis Line Residential Development	**PROJECT No.:**	G024822A1

Borehole No.:	BH-6	Sample No.:	SS-4
Depth:	3.0-3.5 mbeg	Enclosure:	A-41



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

Soil Description	Gravel	Sand	Clay & Silt
BH-6, SS-4	12	19	69

REMARKS:

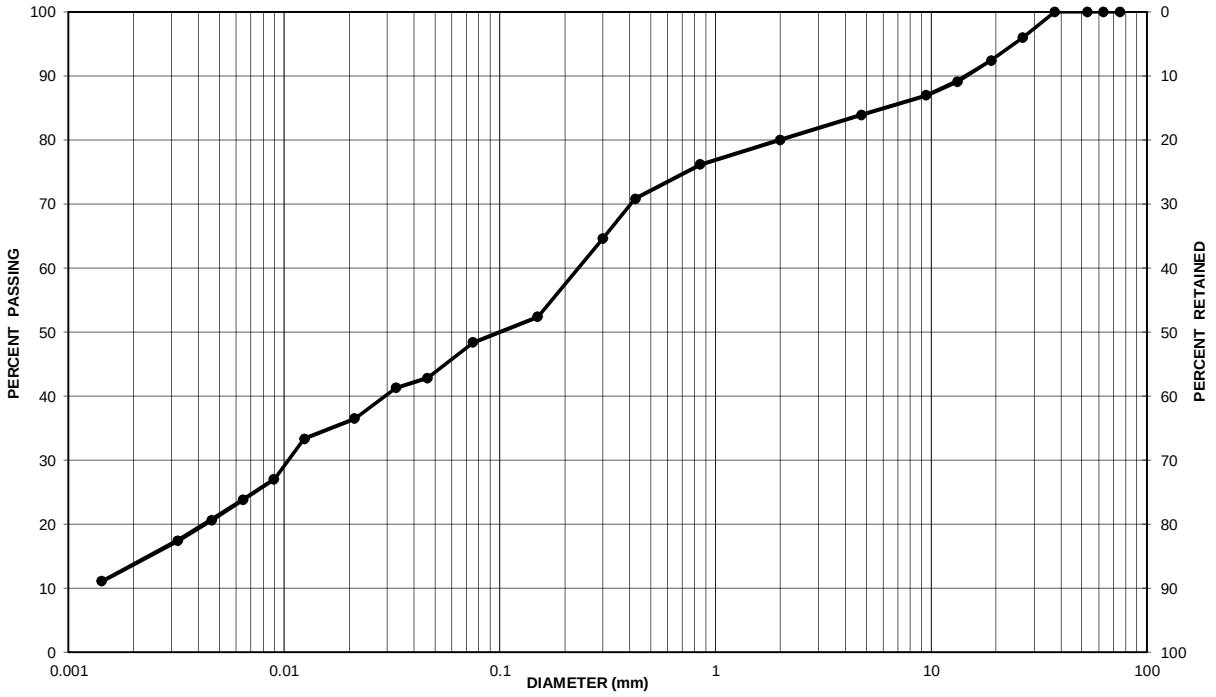
PERFORMED BY:		**DATE:**	March 26, 2014
VERIFIED BY:		**DATE:**	March 26, 2014

Member of the INSPEC-SOL Group

PARTICLE-SIZE ANALYSIS OF SOILS (GEOTECHNICAL) (USCS) (ASTM D422)

CLIENT:	Towerhill Developments	**LAB No.:**	SS-14-24
PROJECT/ SITE:	Proposed Fallis Line Residential Development	**PROJECT No.:**	G024822A1

Borehole No.:	BH-9	Sample No.:	SS-4
Depth:	3.0-3.5 mbeg	Enclosure:	A-42



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

Soil Description	Gravel	Sand	Clay & Silt
BH-9, SS-4	16	36	48

REMARKS:

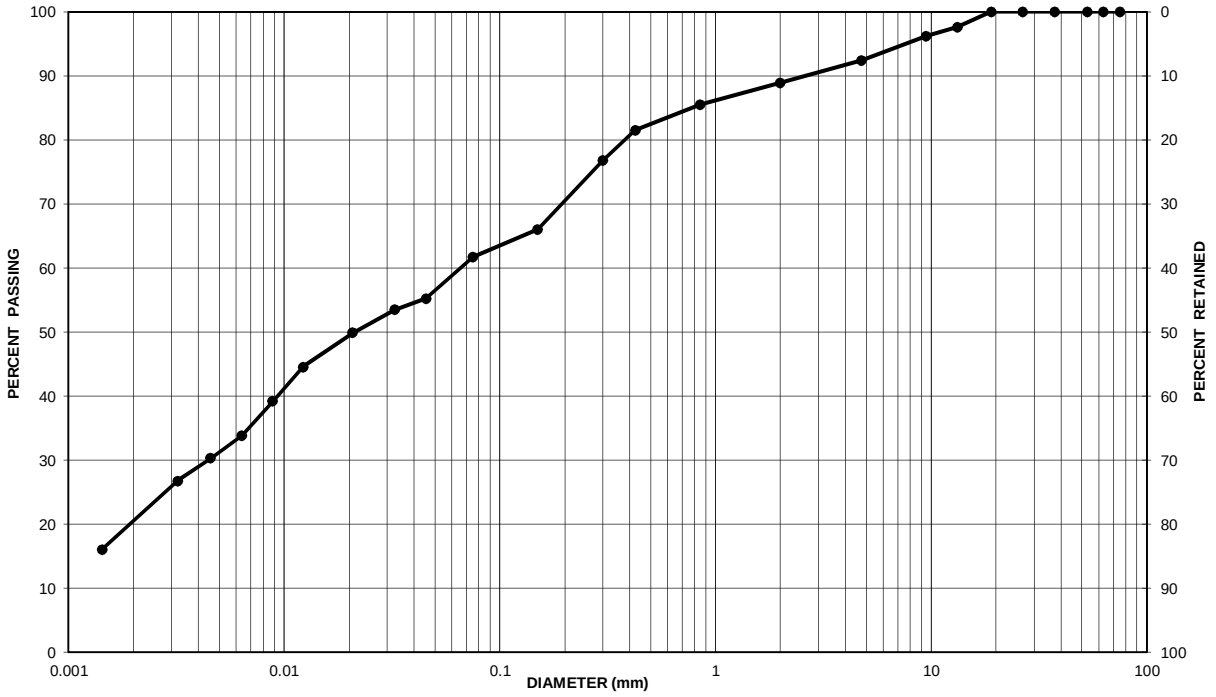
PERFORMED BY:		**DATE:**	March 26, 2014
VERIFIED BY:		**DATE:**	March 26, 2014

Member of the INSPEC-SOL Group

PARTICLE-SIZE ANALYSIS OF SOILS (GEOTECHNICAL) (USCS) (ASTM D422)

CLIENT:	Towerhill Developments	**LAB No.:**	SS-14-24
PROJECT/ SITE:	Proposed Fallis Line Residential Development	**PROJECT No.:**	G024822A1

Borehole No.:	TP-16	Sample No.:	GS-2
Depth:	2.7-3.0 mbeg	Enclosure:	A-43



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

Soil Description	Gravel	Sand	Clay & Silt
TP-16, GS-2	8	31	61

REMARKS:

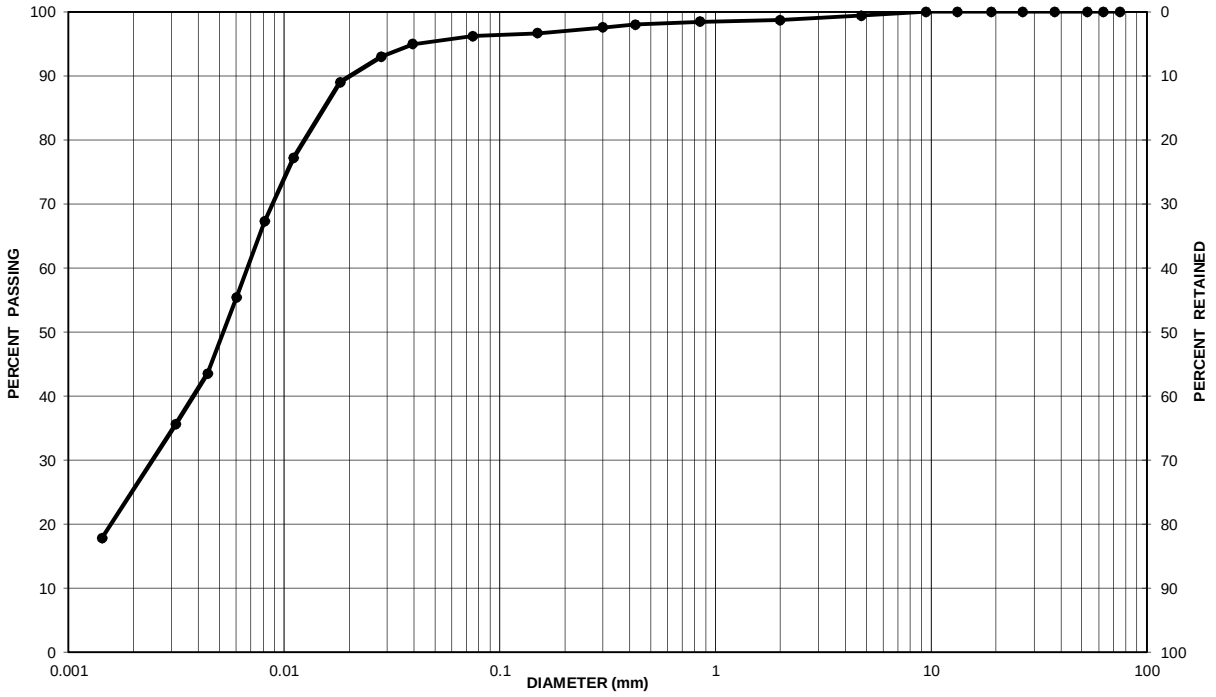
PERFORMED BY:		**DATE:**	March 2014
VERIFIED BY:		**DATE:**	March 2014

Member of the INSPEC-SOL Group

PARTICLE-SIZE ANALYSIS OF SOILS (GEOTECHNICAL) (USCS) (ASTM D422)

CLIENT:	Towerhill Developments	**LAB No.:**	SS-14-24
PROJECT/ SITE:	Proposed Fallis Line Residential Development	**PROJECT No.:**	G024822A1

Borehole No.:	TP-17	Sample No.:	GS-2
Depth:	2.7-3.0 mbeg	Enclosure:	A-44



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

Soil Description	Gravel	Sand	Clay & Silt
TP-17, GS-2	1	3	96

REMARKS:

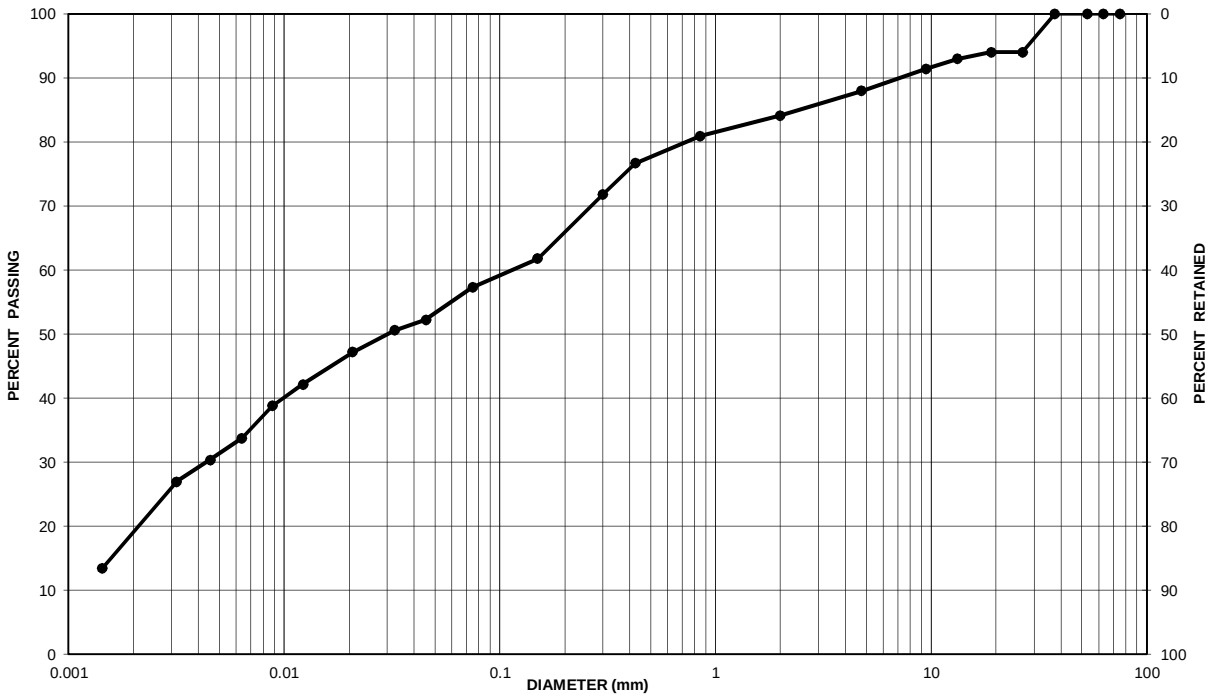
PERFORMED BY:		**DATE:**	March 2014
VERIFIED BY:		**DATE:**	March 2014

Member of the INSPEC-SOL Group

PARTICLE-SIZE ANALYSIS OF SOILS (GEOTECHNICAL) (USCS) (ASTM D422)

CLIENT:	Towerhill Developments	**LAB No.:**	SS-14-24
PROJECT/ SITE:	Proposed Fallis Line Residential Development	**PROJECT No.:**	G024822A1

Borehole No.:	TP-21	Sample No.:	GS-1
Depth:	1.2-1.5 mbeg	Enclosure:	A-45



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

Soil Description	Gravel	Sand	Clay & Silt
TP-21, GS-1	12	31	57

REMARKS:

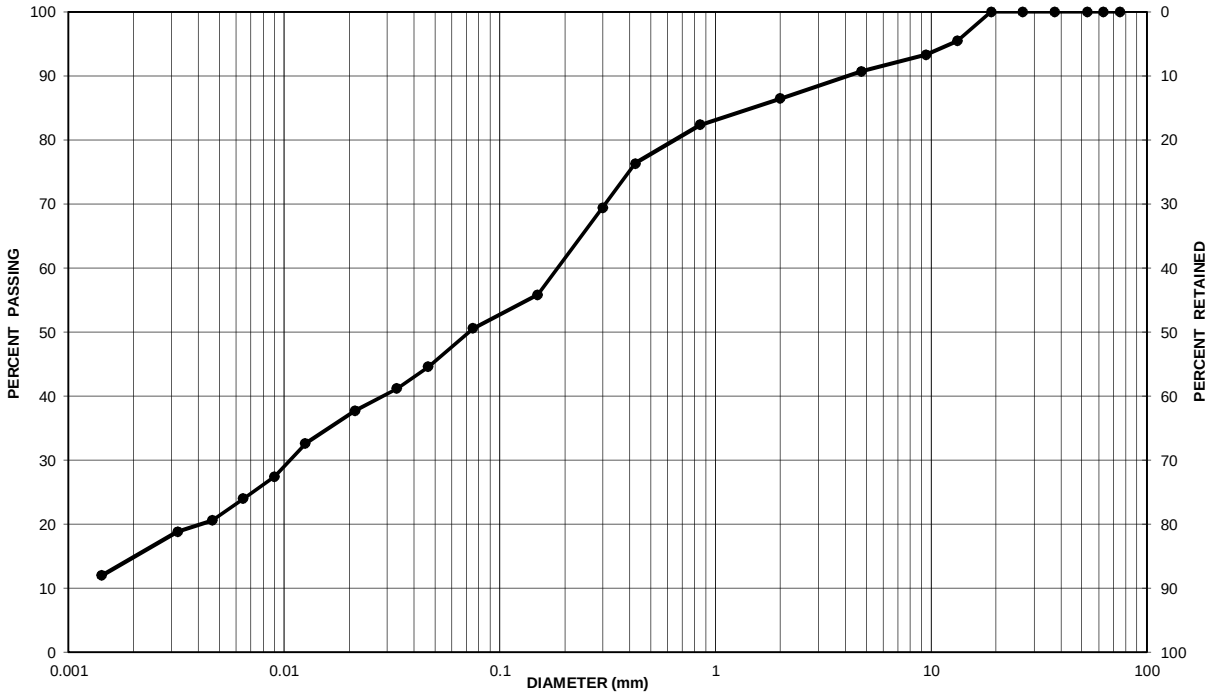
PERFORMED BY:		**DATE:**	March 26, 2014
VERIFIED BY:		**DATE:**	March 26, 2014

Member of the INSPEC-SOL Group

PARTICLE-SIZE ANALYSIS OF SOILS (GEOTECHNICAL) (USCS) (ASTM D422)

CLIENT:	Towerhill Developments	**LAB No.:**	SS-14-24
PROJECT/ SITE:	Proposed Fallis Line Residential Development	**PROJECT No.:**	G024822A1

Borehole No.:	TP-26	Sample No.:	GS-1
Depth:	1.2-1.5 mbeg	Enclosure:	A-46



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

Soil Description	Gravel	Sand	Clay & Silt
TP-26, GS-1	9	40	51

REMARKS:

PERFORMED BY:		**DATE:**	March 26, 2014
VERIFIED BY:		**DATE:**	March 26, 2014

APPENDIX B

PHOTOGRAPHS

Photo 1: Looking north across the Site from Fallis Line.

Photo 2: Looking north at the abandoned farm north of Fallis Line.

Photo 3: Topography in northwest area of Site.

Photo 4: Looking southeast across Site from northern area.

Photo 5: Looking southeast toward Township Building.

Photo 6: Looking east across Site south of Fallis Line.

Photo 7: Looking southeast across the Site from south of Fallis Line.

Photo 8: Looking south across the Site from south of Fallis Line.

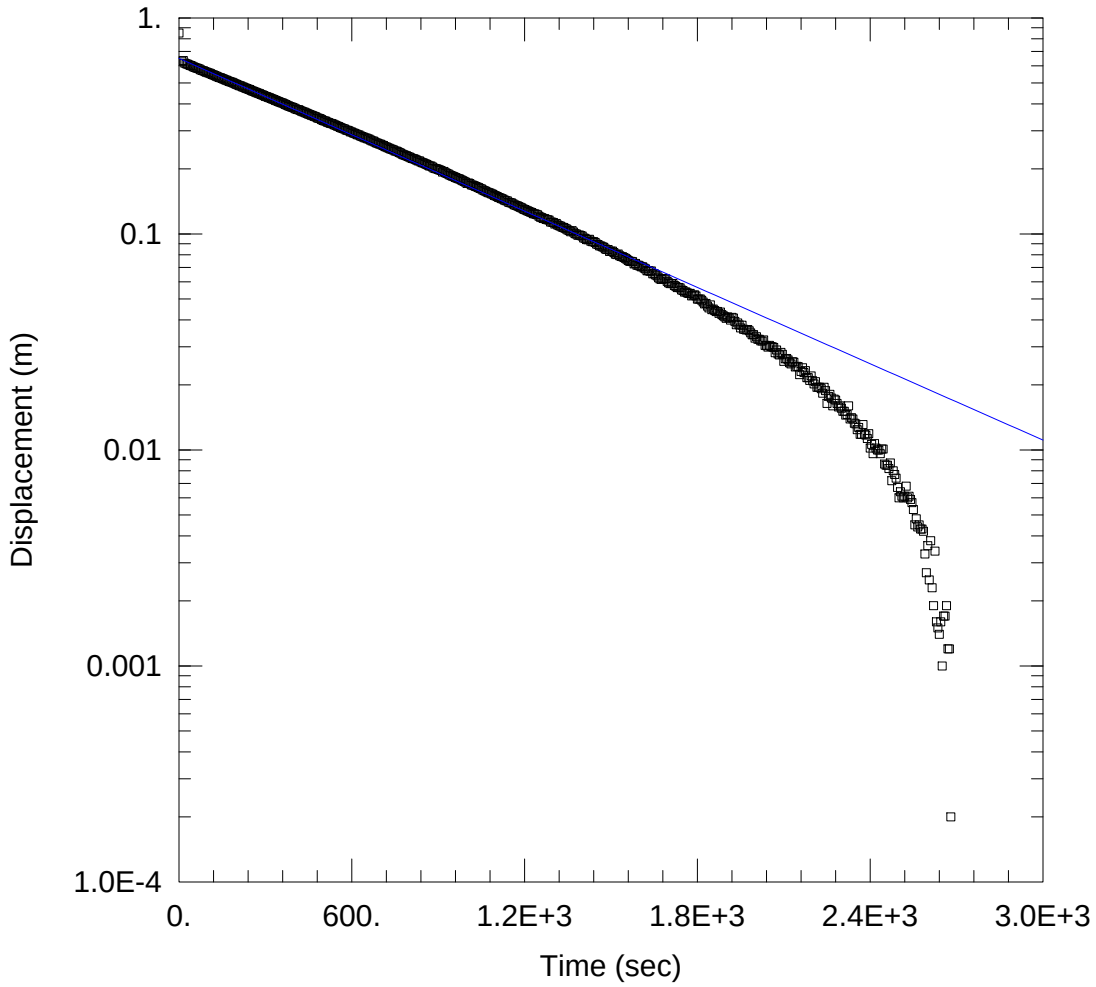
Photo 9: Seepage area within forest area to the south of Fallis Line.

Photo 10: Looking north across Site from south area toward Fallis Line.

Photo 11: Seepage area adjacent to County Road 10 in southeast area.

APPENDIX C

SLUG TEST DATA



BH-5 RISING HEAD

Data Set:
Date: 04/11/14 Time: 09:17:17

PROJECT INFORMATION

Company: Geo-Logic Inc.
Client: Cortel Group
Project: G024822A1
Location: Millbrook, ON
Test Well: BH-5
Test Date: March 25, 2014

AQUIFER DATA

Saturated Thickness: 7.51 m Anisotropy Ratio (Kz/Kr): 1.

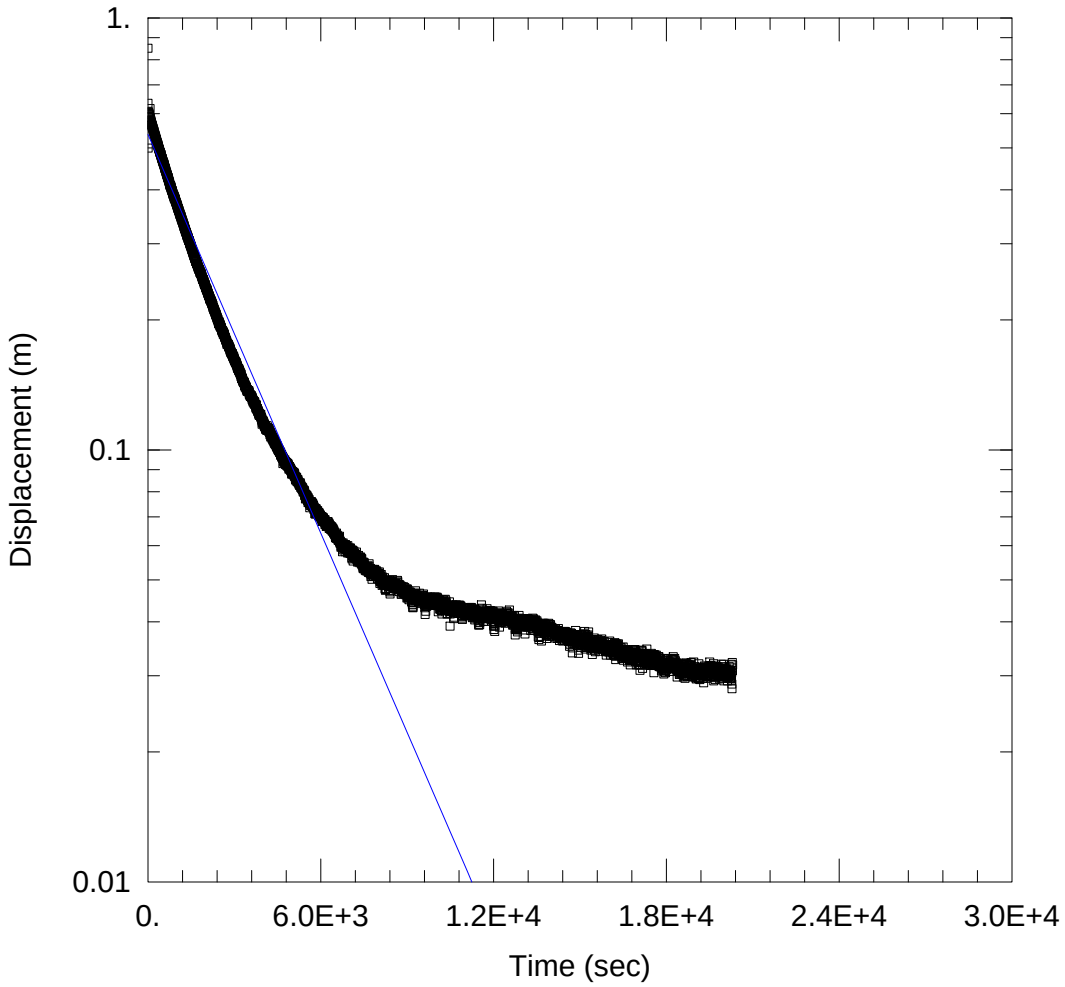
WELL DATA (BH-5)

Initial Displacement: 0.851 m Static Water Column Height: 1.54 m
Total Well Penetration Depth: 8.3 m Screen Length: 3.05 m
Casing Radius: 0.05 m Well Radius: 0.15 m

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.000156 cm/sec y0 = 0.6495 m



BH-5 FALLING HEAD

Data Set:
Date: 04/11/14 Time: 09:13:27

PROJECT INFORMATION

Company: Geo-Logic Inc.
Client: Cortel Group
Project: G024822A1
Location: Millbrook, ON
Test Well: BH-5
Test Date: March 25, 2014

AQUIFER DATA

Saturated Thickness: 7.51 m Anisotropy Ratio (Kz/Kr): 1.

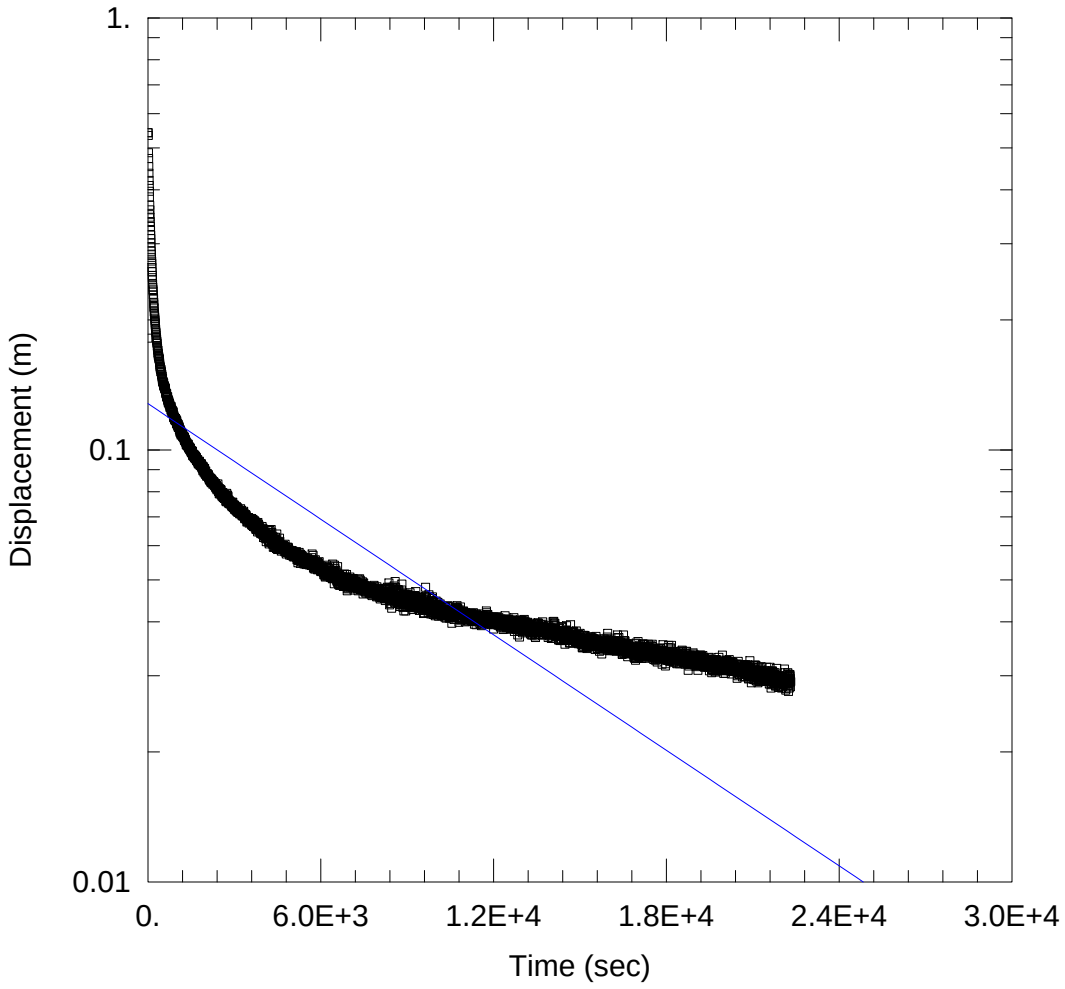
WELL DATA (BH-5)

Initial Displacement: 0.6347 m
Total Well Penetration Depth: 8.3 m
Casing Radius: 0.05 m
Static Water Column Height: 1.54 m
Screen Length: 3.05 m
Well Radius: 0.15 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 4.075E-5 cm/sec
y0 = 0.5374 m



BH-15 RISING HEAD

Data Set:
Date: 04/11/14 Time: 09:40:15

PROJECT INFORMATION

Company: Geo-Logic Inc.
Client: Cortel Group
Project: G024822A1
Location: Millbrook, ON
Test Well: BH-15
Test Date: March 25, 2014

AQUIFER DATA

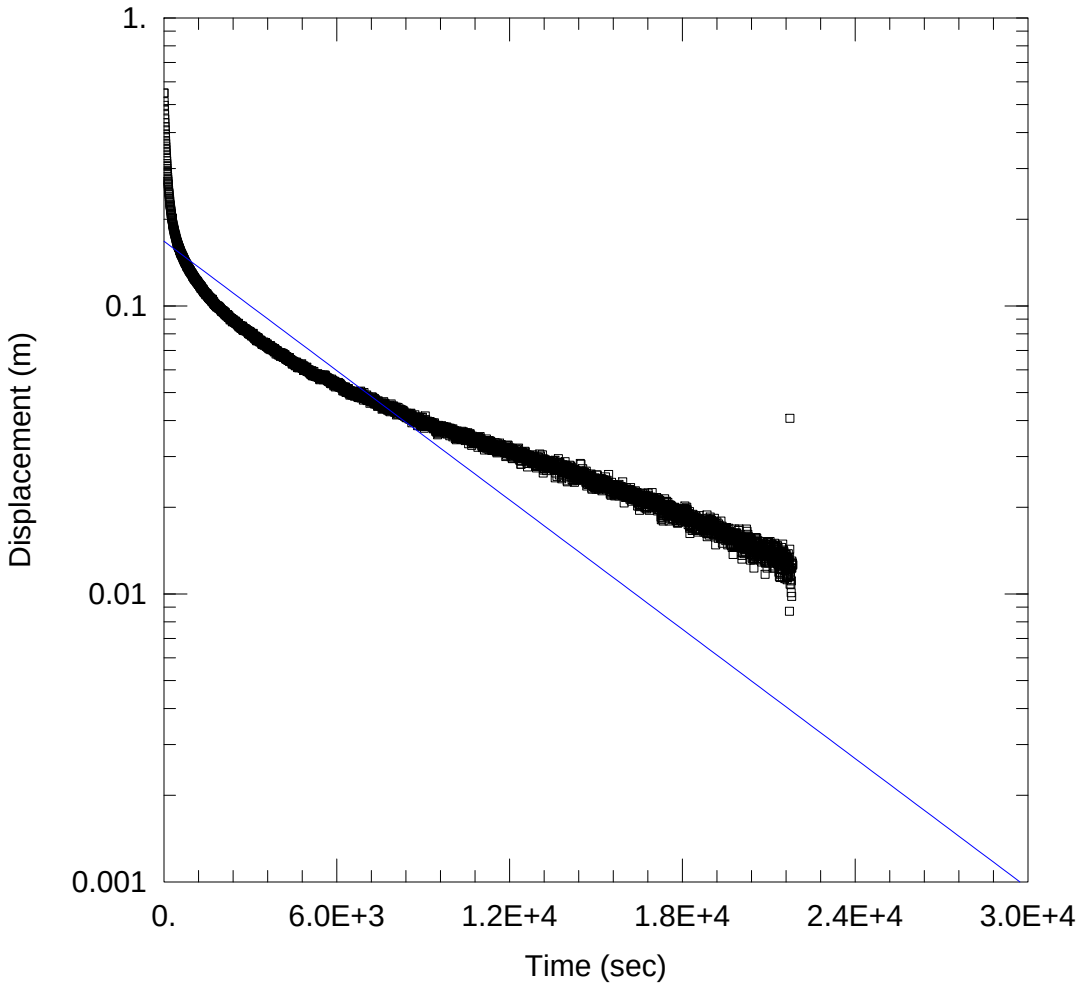
Saturated Thickness: 4.63 m
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (BH-15)

Initial Displacement: 0.5421 m
Total Well Penetration Depth: 4.25 m
Casing Radius: 0.05 m
Static Water Column Height: 2.41 m
Screen Length: 3.05 m
Well Radius: 0.15 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 9.335E-6 cm/sec
y0 = 0.128 m



BH-15 FALLING HEAD

Data Set: I:\...\BH-15 falling head.aqt
Date: 04/11/14 Time: 09:36:56

PROJECT INFORMATION

Company: Geo-Logic Inc.
Client: Cortel Group
Project: G024822A1
Location: Millbrook, ON
Test Well: BH-15
Test Date: March 25, 2014

AQUIFER DATA

Saturated Thickness: 4.63 m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (BH-15)

Initial Displacement: 0.5483 m
Total Well Penetration Depth: 4.25 m
Casing Radius: 0.05 m
Static Water Column Height: 2.41 m
Screen Length: 3.05 m
Well Radius: 0.15 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 1.567E-5 cm/sec
y0 = 0.1677 m

APPENDIX D

WELL SURVEY AND MOE WELL RECORDS

APPENDIX D: WATER WELL INFORMATION SURVEY

PROJECT: G024822A1

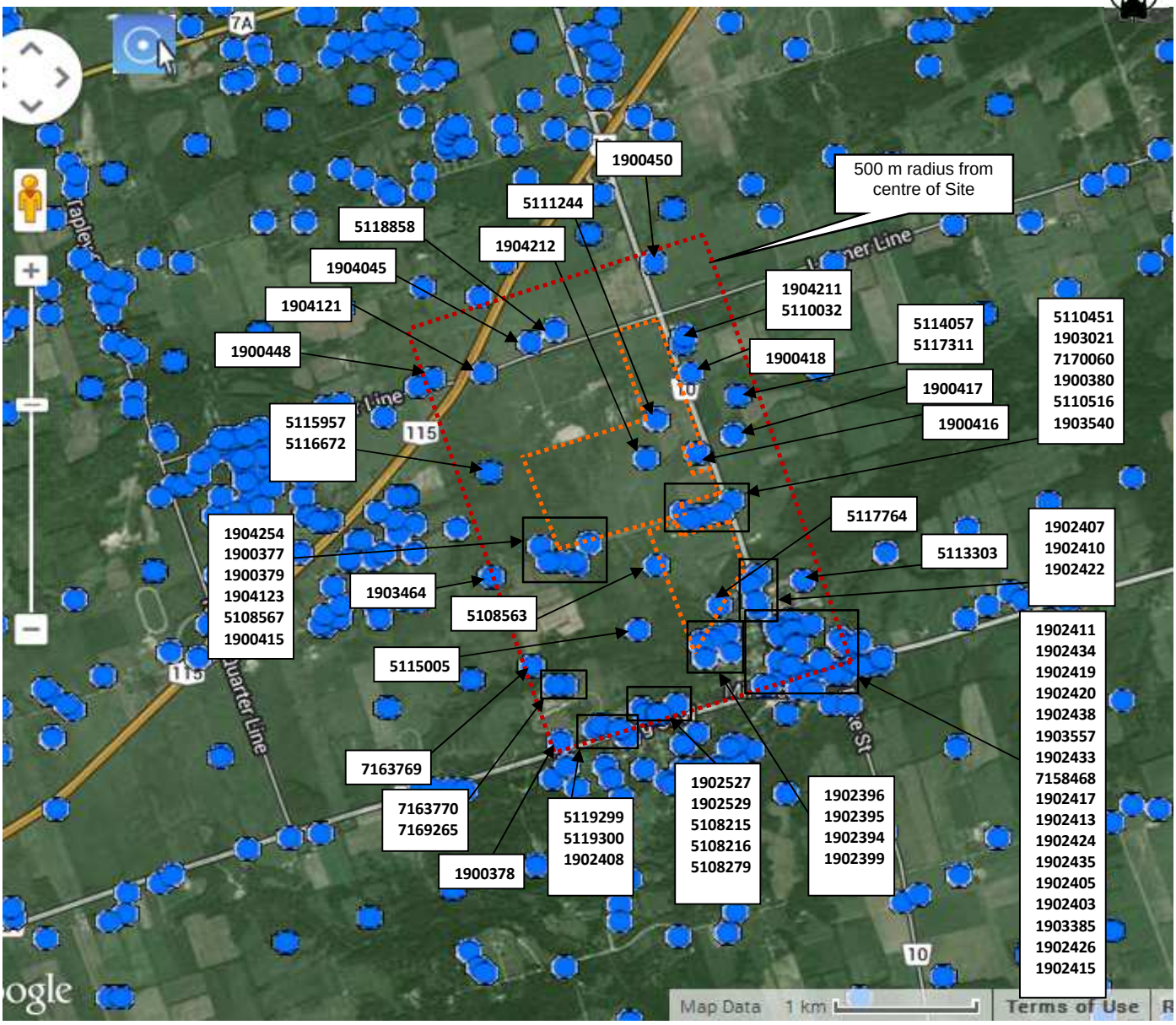
LOCATION: Fallis Line and County Road 10, Millbrook, ON

DATE: April 4, 2014

Address	Well ID for map	Type	Year Constructed	Well Data		Quality	Quantity	Sampled	Comments
				Water Level (m)	Depth (m)				
893 Fallis Line	**W-1**	Drilled	~2010	Not known	70.1	UV treatment, cloudy	~45 L/min (10 gpm)	No	Had a dug well that was replaced with a drilled well.
963 CR-10	**CR10**	Dug	1980s	~13 - 15 m	18.3	Good	Good	Yes	Had a deep drilled well that had poor quality with iron and sulfur issues. Put in new dug well 75 m east of the house.
919 Fallis Line	**Fallis**	Dug	~1988	Artesian	9.8	Good	~230 L/min (50+ gpm)	Yes	Had a drilled well with poor quality with iron and sulfur issues. Put in new dug well south of home (~375 m south)
879 Fallis Line	**W-2**	Drilled	Before 1973	Not known	19.8	Good	Good	No	
988 CR 10	**W-3**	Not known	Not known	Not known	---	Good	Good	No	Township of Cavan-Monaghan office; well records suggest a drilled well. Observed to have concrete casing around the well (unable to access) - could be dug/bored well or drilled well within a well pit.

Notes:

L/min = litres per minute; gpm = gallons per minute



LEGEND

MOE Well Location

MOE WELLS

Hydrogeological Assessment
Proposed Residential Development
Towerhill Development, Fallis Line
Millbrook, Ontario

Base map compiled from MOE Well Records database.

DATE: APRIL 2014

SCALE: REFER TO SCALE BAR

JOB NUMBER: G024822A1

DRAWING NUMBER: APPENDIX D

GEO-LOGIC INC.

347 PIDO ROAD, UNIT 29
PETERBOROUGH, ON K9J 6X7
(705) 749-3317 FAX (705) 749-9248 www.geo-logic.ca

APPENDIX D.1: WELL SUMMARY - DUG/BORED

Well Record Summary
Project No.: G024822A1
MILLBROOK, ONTARIO

Lot. No.	M.O.E. Well No.	Well Date	Well Use	Water Type	Water Found Feet	Water Found Metres	Static Level Feet	Static Level Metres	Test Rate Igpm	Test Rate L/min	Well Depth Feet	Well Depth Metres	Depth to Bedrock Feet	Depth to Bedrock Metres	Comments
No dug/bored wells															

Number of wells= 0

	Water Found Feet	Water Found Metres	Static Level Feet	Static Level Metres	Test Rate Igpm	Test Rate L/min	Well Depth Feet	Well Depth Metres	Depth to Bedrock Feet	Depth to Bedrock Metres
AVERAGE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	--
MAXIMUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	--
MINIMUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	--

APPENDIX D.2: WELL SUMMARY - BEDROCK

Well Record Summary
Project No.: G024822A1
MILLBROOK, ONTARIO

Lot. No.	M.O.E. Well No.	Well Date	Well Use	Water Type	Water Found Feet	Water Found Metres	Static Level Feet	Static Level Metres	Test Rate Igpm	Test Rate L/min	Well Depth Feet	Well Depth Metres	Depth to Bedrock Feet	Depth to Bedrock Metres	Comments
Cavan Township Conc. 5															
10	1900378	1957	Domestic	Fresh	340	103.6	120	36.6	15	68.1	357	108.8	307	93.6	Brown clay from surface to 20', then blue clay with boulders to 200', then fine sand to 278', then gravel to 279', then clay to 307', then limestone to 357'
11	1902527	1968	Domestic	Fresh	73	22.3	23	7.0	31	140.7	164	50.0	160	48.8	Gravel and clay from surface to 11', then sand and clay to 46', then clay with gravel to 63', then clay with silt and sand to 73', then fine sand and gravel to 81', then gravel, sand and clay to 91', then sand and gravel to 102', then clay with sand, silt and gravel to 120', then clay and gravel to 125', then clay to 146', then sand and gravel to 157', then clay and gravel to 160', then clay and shale to 164'
12	5117764	1998	Domestic	Gas	219	66.8	100	30.5	5	22.7	233	71.0	214	65.2	Predug to 214', then shale and clay to 226', then limestone to 233'
12	1903021	1970	Domestic	Fresh	216	65.8	66	20.1	3	13.6	237	72.2	215	65.5	Clay with stones from surface to 130', then clay with sand to 135', then clay with stones to 215', then limestone to 237'
13	5113303	1988	Domestic	Fresh	101	30.8	6	1.8	5	22.7	101	30.8	98	29.9	Sand and clay from surface to 20', then clay to 60', gravel and clay to 98', then limestone and shale to 101'
13	1903385	1972	Domestic	Minerial	136	41.5	30	9.1	4	18.2	139	42.4	129	39.3	Loam from surface to 10', then clay with boulders to 129', then limestone to 139'
Cavan Township Conc. 6															
12	5110451	1982	Domestic	Fresh	209	63.7	82	25.0	4	18.2	210	64.0	208	63.4	Clay from surface to 16', then sand and gravel to 37', then snad and clay to 98', then sand to 123', then clay and gravel to 129', then sand to 146', then sand and gravel to 208', then shale to 210'
13	1903540	1972	Domestic	Fresh	225	68.6	70	21.3	2	9.1	230	70.1	225	68.6	Clay with stones from surface to 135', then sand and clay to 144', then sand with gravel to 155', then gravel with fine sand to 170', then fine sand with clay and gravel to 225', then limestone to 230'
Millbrook Village Conc. N/A															
Village	1902400	1951	Domestic	Fresh	100	30.5	9	2.7	10	45.4	101	30.8	100	30.5	Loam from surface to 2', then blue clay to 99', then gravel to 100', then limestone to 101'
Village	1902405	1953	Domestic	Fresh	133	40.5	--	--	1	4.5	133	40.5	120	36.6	Grey clay from surface to 120', then limestone to 133'
Village	1902407	1954	Domestic	Fresh	121	36.9	--	--	17	77.2	121	36.9	110	33.5	Loam from surface to 2', then blue clay with stones to 110', then clay with gravel and shale to 121'

Number of wells= 11

	Water Found Feet	Water Found Metres	Static Level Feet	Static Level Metres	Test Rate Igpm	Test Rate L/min	Well Depth Feet	Well Depth Metres	Depth to Bedrock Feet	Depth to Bedrock Metres
AVERAGE	170.3	51.9	56.2	17.1	8.8	40.0	184.2	56.1	171.5	52.3
MAXIMUM	340.0	103.6	120.0	36.6	31.0	140.7	357.0	108.8	307.0	93.6
MINIMUM	73.0	22.3	6.0	1.8	1.0	4.5	101.0	30.8	98.0	29.9

APPENDIX D.3: WELL SUMMARY - OVERBURDEN

Well Record Summary
Project No.: G024822A1
MILLBROOK, ONTARIO

Lot. No.	M.O.E. Well No.	Well Date	Well Use	Water Type	Water Found Feet	Water Found Metres	Static Level Feet	Static Level Metres	Test Rate Igpm	Test Rate L/min	Well Depth Feet	Well Depth Metres	Comments
Cavan Township Conc. 5													
9	1903464	1972	Domestic	Fresh	169	51.5	90	27.4	10	45.4	169	51.5	Gravel and sand from surface to 60', then clay and sand to 167', then gravel, sand and clay to 169'
10	1900377	1951	Livestock/Domestic	Fresh	65	19.8	60	18.3	8	36.3	125	38.1	Clay from surface to 40', then sand to 60', then sand and clay to 120', then gravel to 125'
10	5119299	2002	Municipal	Not Stated	101	30.8	17	5.2	350	1589.0	106	32.3	Clay with stones and gravel from surface to 28', then sand and gravel to 105', then clay and gravel to 106'
10	5119300	2002	Not Given	Abandoned	--	--	--	--	--	--	29	8.8	Clay with stones and gravel from surface to 26', then sand and gravel to 29'
10	5108567	1976	Domestic	Fresh	90	27.4	50	15.2	5	22.7	93	28.3	Clay and gravel from surface to 8', then sand to 70', then gravel to 72', then fine sand to 83', then clay and gravel to 90', then gravel and coarse sand to 93'
10	1904123	1975	Domestic	Fresh	55	16.8	45	13.7	5	22.7	59	18.0	Clay and gravel from surface tp 15', then gravel and sand to 59'
10	1900379	1964	Livestock/Domestic	Fresh	105	32.0	50	15.2	5	22.7	105	32.0	Predug from surface to 50', then medium sand to 104', then gravel to 105'
11	1902529	1968	Fresh	Domestic	74	22.6	23	7.0	--	--	118	36.0	Gravel and boulders from surface to 12', then clay and sand to 66', then clay, sand and gravel to 74', then fine sand and silt to 78', then clay and sand to 85', then sand to 101', then sand and gravel to 104', then clay, silt and gravel to 118'
11	5108563	1976	Fresh	Domestic	61	18.6	32	9.8	5	22.7	65	19.8	Clay and gravel from surface to 45', then sand and silt to 28', then sand and gravel to 65'
11	5115005	1990	Fresh	Domestic	47	14.3	--	--	2	9.1	105	32.0	Clay and rock from surface to 12', then clay and sand to 105'
12	1900380	1953	Livestock	Fresh	53	16.2	40	12.2	12	54.5	54	16.5	Loam from surface to 2', then brown clay with sand and stones to 20', then blue clay with stones to 53', then gravel to 54'
12	5110516	1981	Domestic	Fresh	115	35.1	49	14.9	6	27.2	119	36.3	Clay from surface to 37', then gravel to 44', then clay to 102', then gravel and sand to 119'
12	7170060	2011	Domestic	Fresh	208	63.4	75	22.9	8	36.3	208	63.4	Clay with stones from surface to 15', then sand and gravel to 38', then clay to 110', then silt and clay to 168', then clay to 195', then sand and silt to 203', then sand to 208'
Cavan Township Conc. 6													
10	5119277	2002	Domestic	Fresh	81	24.7	25	7.6	6	27.2	81	24.7	Sand and clay from surface to 38', then clay to 64', then gravel and clay to 80', then gravel and sand to 81'
10	5116672	1994	Domestic	Fresh	78	23.8	40	12.2	5	22.7	78	23.8	Clay and gravel from surface to 20', then sand and clay to 70', then coarse sand to 78'
10	5115957	1992	Domestic	Not Stated	202	61.6	65	19.8	8	36.3	216	65.8	Sand and gravel from surface to 12', then clay till to 72', then sand to 202', then gravel and sand to 212', then clay till to 216'
10	1900416	1961	Livestock/Domestic	Fresh	120	36.6	60	18.3	2	9.1	123	37.5	Medium sand and gravel from surface to 14', then clay with sand and boulders to 28', then clay to 70', then clay with sand to 120', then coarse sand to 123'
10	1904121	1974	Domestic	Fresh	89	27.1	10	3.0	10	45.4	91	27.7	Boulders and clay from surface to 15', then gravel and stones to 25', then gravel and clay to 89', then sand and clay to 91'
11	1904254	1975	Domestic	Fresh	50	15.2	6	1.8	5	22.7	56	17.1	Gravel from surface to 33', then sandy clay to 41', then fine sand to 56'
12	1900416	1964	Public	Fresh	216	65.8	65	19.8	30	136.2	232	70.7	Clay with sand and stones from surface to 207', then gravel with sand and clay to 216', then gravel to 220', then clay with stones to 227', then gravel to 232'
12	1904212	1975	Livestock	Fresh	34	10.4	15	4.6	10	45.4	36	11.0	Sand and gravel from surface to 12', then clay with stones to 34', then gravel to 36'
12	5111244	1984	Domestic	Fresh	67	20.4	60	18.3	4	18.2	67	20.4	Clay and stones from surface to 30', then gravel to 58', then sand and gravel to 67'
12	5114057	1989	Domestic	Fresh	28	8.5	26	7.9	4	18.2	50	15.2	Clay and stones from surface to 20', then sand and gravel to 28', then clay and rock to 50'
13	1900417	1952	Livestock/Domestic	Fresh	107	32.6	--	--	60	272.4	107	32.6	Predug from surface to 30', then grey clay with boulders to 107"
13	1900418	1967	Livestock/Domestic	Fresh	25	7.6	18	5.5	5	22.7	34	10.4	Predug from surface to 24', then clay to 26', then gravel and boulders to 34'
13	1904211	1974	Domestic	Fresh	50	15.2	8	2.4	10	45.4	50	15.2	Clay with boulders from surface to 40', then clay with gravel to 48', then gravel and sand to 50'
13	5110032	1980	Municipal	Fresh	72	21.9	6	1.8	10	45.4	76	23.2	Clay and stones from surface to 12', then sand and gravel to 26', then gravel and clay to 69', then sand and gravel to 76'
13	5117311	1996	Domestic	Not Stated	78	23.8	8	2.4	5	22.7	78	23.8	Clay from surface to 18', then clay and gravel to 77', then gravel and sand to 78'
Cavan Township Conc. 7													
10	5118858	2001	Domestic	Fresh	137	41.8	34	10.4	10	45.4	137	41.8	Clay and gravel from surface to 100', then clay and sand to 136', then gravel and sand to 137'
10	1900448	1961	Livestock/Domestic	Fresh	172	52.4	16	4.9	20	90.8	181	55.2	Brown clay with boulders from surface to 20', then grey clay with stones to 39', then brown gravel and clay to 40', then grey clay with stones to 114', then brown sand to 172', then brown sand and gravel to 181'
11	1904045	1975	Livestock	Fresh	74	22.6	25	7.6	20	90.8	90	27.4	Clay with stones from surface to 26', then gravel to 48', then clay with stones to 74', then gravel to 90'
13	1900450	1963	Livestock/Domestic	Fresh	67	20.4	37	11.3	3	13.6	73	22.3	Brown clay from surface to 10', then grey clay to 50', then clay with medium sand and stones to 73'
Cavan Township Conc. N/A													
N/A	7169265	2011	Monitoring	Untested	90	27.4	--	--	--	--	95	29.0	Sand and gravel from surface to 95'
N/A	7158468	2010	Monitoring	--	--	--	--	--	--	--	13	4.0	Silt from surface to 8', then clay to 13'
N/A	7163770	2011	Monitoring	--	--	--	--	--	--	--	72	21.9	Fine Sand from surface to 72'
N/A	7163769	2011	Monitoring	--	--	--	--	--	--	--	44	13.4	Fine Sand from surface to 44'

Continued D.3 Well Records Summary

Millbrook Village Conc. N/A													
Village	1903557	1972	Domestic	Fresh	121	36.9	16	4.9	5	22.7	121	36.9	Clay with stones from surface to 24', then clay to 118', then sand and gravel to 121'
Village	5108215	1976	Municipal	Not Stated	30	9.1	16	4.9	300	1362.0	105	32.0	Clay with stones from surface to 28', then clay with sand and gravel to 55', then clay with sand to 105'
Village	5108216	1976	Municipal	Not Stated	30	9.1	--	--	300	1362.0	110	33.5	Clay with stones from surface to 30', then clay with sand to 53', then sand to 56', then gravel to 108', then clay with gravel to 110'
Village	5108279	1976	Not Used/Municipal	Fresh	18	5.5	16	4.9	170	771.8	111	33.8	Clay with stones and gravel from surface to 46', then fine sand with gravel to 60', then gravel to 74', then fine sand to 78', then gravel to 111'
Village	5108280	1976	Not Used/Municipal	Fresh	25	7.6	20	6.1	150	681.0	102	31.1	Clay with stones and gravel from surface to 51', then gravel and sand to 56', then gravel to 102'
Village	1902438	1966	Domestic	Fresh	96	29.3	9	2.7	10	45.4	96	29.3	Clay from surface to 11', then sand to 16', then clay with sand to 95', then gravel to 96'
Village	1902396	1955	Public	Fresh	94	28.7	94	28.7	6	27.2	205	62.5	Boulder with medium sand and clay from surface to 85', then fine sand to 180', then coarse sand to 205'
Village	1902393	1953	Not used	Not Stated	--	--	4	1.2	64	290.6	100	30.5	Clay from surface to 3', then clay with sand to 5', then gravel with sand and clay to 10', then clay with gravel to 22', then gravel with medium sand to 60', then clay with sand to 69', then clay with gravel to 71', then medium sand and gravel to 82', then clay with gravel and sand to 91', then gravel and medium sand to 98', then clay to 100'
Village	1902394	1955	Public	Fresh	98	29.9	98	29.9	60	272.4	223	68.0	Boulder with medium sand and clay from surface to 90', then fine sand and clay to 185', then coarse sand to 223'
Village	1902395	1955	Public	Fresh	96	29.3	96	29.3	6	27.2	140	42.7	Boulder with medium sand and clay from surface to 80', then fine sand to 115', then coarse sand to 140'
Village	1902397	1955	Public	Fresh	100	30.5	100	30.5	5	22.7	218	66.4	Boulder with medium sand and clay from surface to 85', then fine sand to 180', then coarse sand to 218'
Village	1902399	1955	Public	Fresh	58	17.7	48	14.6	5	22.7	58	17.7	Clay from surface to 50', then coarse sand to 58'
Village	1902403	1953	Domestic	Fresh	136	41.5	1	0.3	3	13.6	136	41.5	Blue clay from surface to 135', then clay with stones to 136'
Village	1902404	1953	Domestic	Fresh	90	27.4	40	12.2	3	13.6	90	27.4	Blue clay from surface to 88', then gravel to 90'
Village	1902408	1955	Public	Fresh	60	18.3	6	1.8	280	1271.2	98	29.9	Clay with sand from surface to 6', then sand to 28', then clay to 32', then coarse sand to 50', then medium sand with gravel to 61', then gravel to 73', then clay with gravel to 78', then gravel to 98'
Village	1902410	1956	Domestic	Fresh	106	32.3	--	--	3	13.6	106	32.3	Brown clay from surface to 23', then blue clay to 100', then gravel to 106'
Village	1902411	1956	Domestic	Fresh	42	12.8	--	--	4	18.2	46	14.0	Clay from surface to 42', then gravel to 46'
Village	1902435	1964	Domestic	Fresh	97	29.6	9	2.7	6	27.2	91	27.7	Predug from surface to 10', then blue clay to 94', then medium sand to 95', then gravel to 97'
Village	1902434	1964	Domestic	Fresh	124	37.8	20	6.1	5	22.7	124	37.8	Predug from surface to 28', then blue clay to 123', then gravel to 124'
Village	1902433	1963	Domestic	Fresh	121	36.9	20	6.1	5	22.7	123	37.5	Brown clay from surface to 6', then blue clay to 121', then gravel to 123'
Village	1902413	1956	Domestic	Fresh	88	26.8	--	--	5	22.7	89	27.1	Clay from surface to 40', then fine sand to 60', then clay to 85', then gravel to 89'
Village	1902415	1957	Domestic	Fresh	56	17.1	--	--	--	--	58	17.7	Blue clay from surface to 45', then hardpan to 48', then fine sand to 50', then coarse sand to 56', then gravel to 58'
Village	1902417	1958	Commercial	Fresh	30	9.1	--	--	6	27.2	30	9.1	Loam from surface to 3', then clay to 28', then coarse sand to 30'
Village	1902419	1959	Domestic	Fresh	90	27.4	12	3.7	5	22.7	90	27.4	Clay with stones from surface to 18', then blue clay to 88', then gravel to 90'
Village	1902420	1959	Domestic	Fresh	100	30.5	8	2.4	5	22.7	100	30.5	Clay with stones from surface to 20', then blue clay to 98', then gravel to 100'
Village	1902422	1960	Domestic	Fresh	129	39.3	10	3.0	10	45.4	129	39.3	Sand from surface to 30', then clay to 124', then gravel to 129'
Village	1902424	1960	Domestic	Fresh	66	20.1	2	0.6	9	40.9	66	20.1	Brown clay from surface to 4', then blue clay to 65', then gravel to 66'
Village	1902426	1961	Commercial	Fresh	86	26.2	--	--	20	90.8	87	26.5	Clay from surface to 36', then fine sand to 47', then clay to 86', then gravel to 87'

Number of wells= 64

	Water Found		Static Level		Test Rate		Well Depth	
	Feet	Metres	Feet	Metres	Igpm	L/min	Feet	Metres
AVERAGE	87.6	26.7	34.0	10.4	36.7	166.7	101.4	30.9
MAXIMUM	216.0	65.8	100.0	30.5	350.0	1589.0	232.0	70.7
MINIMUM	18.0	5.5	1.0	0.3	2.0	9.1	13.0	4.0

Full Well Record Information

Well ID Number: 1904212

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	CAVAN TOWNSHIP	012	CON 06
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703128.20
Northing: 4893392.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	LOAM			0 ft	1 ft
BRWN	SAND	GRVL		1 ft	12 ft
WHIT	CLAY	STNS		12 ft	34 ft
BRWN	GRVL			34 ft	36 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction
Cable Tool

Well Use
Livestock

Status of Well
Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
6 inch	STEEL		36 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2104

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
10 GPM

Duration of Pumping
3 h:0 m

Final water level
21 ft

If flowing give rate

Recommended pump depth
31 ft

Recommended pump rate
10 GPM

Well Production
BAILER

Disinfected?

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
SWL	15 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15	21 ft	15	
20		20	
25		25	
30	21 ft	30	
40		40	
45	21 ft	45	
50		50	
60	21 ft	60	

Water Details

Water Found at Depth	Kind
34 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: March 13, 1975
Date Well Record Received by MOE: April 08, 1975

Full Well Record Information

Well ID Number: 5117764

Well Audit Number: *186950*
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	012	CON 05
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703653.20
Northing: 4892360.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
	PRDG			0 ft	214 ft
GREY	SHLE	CLAY		214 ft	226 ft
GREY	LMSN			226 ft	233 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
6 inch	STEEL		219 ft
4 inch			233 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2104

Results of Well Yield Testing

After test of well yield, water was
CLOUDY

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
5 GPM

Duration of Pumping
5 h:0 m

Final water level
153 ft

If flowing give rate

Recommended pump depth
0 ft

Recommended pump rate
5 GPM

Well Production
BAILER

Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
SWL	100 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
219 ft	Gas
233 ft	Gas
	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number: 186950
Date Well Completed: April 09, 1998
Date Well Record Received by MOE: April 17, 1998

Full Well Record Information

Well ID Number: 5111244

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	CAVAN TOWNSHIP	012	CON 06
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703182.20
Northing: 4893667.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	CLAY	STNS	HARD	0 ft	30 ft
BRWN	GRVL	DRY		30 ft	58 ft
BRWN	SAND	GRVL	LOOS	58 ft	67 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Rotary (Convent.)

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
6 inch	STEEL		67 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 1413

Results of Well Yield Testing

After test of well yield, water was: CLEAR

If pumping discontinued, give reason:

Pump intake set at:

Pumping Rate: 4 GPM

Duration of Pumping: 2 h:0 m

Final water level: 62 ft

If flowing give rate:

Recommended pump depth: 66 ft

Recommended pump rate: 4 GPM

Well Production: BAILER

Disinfected?:

	Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
	SWL	60 ft		
	1		1	
	2		2	
	3		3	
	4		4	
	5		5	
	10		10	
	15	62 ft	15	
	20		20	
	25		25	
	30	62 ft	30	
	40		40	
	45	62 ft	45	
	50		50	
	60	62 ft	60	

Water Details

Water Found at Depth	Kind
67 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: November 09, 1984
Date Well Record Received by MOE: December 14, 1984

Full Well Record Information

Well ID Number: 1900377

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	010	CON 05
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 702673.20
Northing: 4892611.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
BLUE	CLAY			0 ft	40 ft
	MSND			40 ft	60 ft
	CSND	CLAY	QSND	60 ft	120 ft
	GRVL			120 ft	125 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Cable Tool

Well Use

Livestock
Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
6 inch	STEEL		125 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2116

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
8 GPM

Duration of Pumping
3 h:0 m

Final water level
90 ft

If flowing give rate

Recommended pump depth

Recommended pump rate

Well Production
PUMP

Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
SWL	60 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
65 ft	Fresh
125 ft	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number:
Date Well Completed: October 19, 1951
Date Well Record Received by MOE: January 22, 1952

Full Well Record Information

Well ID Number: 7170060

Well Audit Number: *Z128143*
Well Tag Number: *A108386*

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
893 FALLIS LINE	CAVAN TOWNSHIP	012	CON 05
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH	MILLBROOK	ON	n/a
UTM Coordinates	*Municipal Plan and Sublot Number*	*Other*	

NAD83 — Zone 17
Easting: 703452.00
Northing: 4892976.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
BRWN	CLAY	STNS	HARD	0 ft	15 ft
BRWN	SAND	GRVL	LOOS	15 ft	38 ft
GREY	CLAY	HARD	DNSE	38 ft	110 ft
GREY	SILT	CLAY	SOFT	110 ft	168 ft
GREY	CLAY		HARD	168 ft	195 ft
GREY	FSND	SILT		195 ft	203 ft
GREY	SAND		FGRD	203 ft	208 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 ft	20 ft	WYOBEN	

Method of Construction
Rotary (Convent.)

Well Use
Domestic

Status of Well
Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
6.25 inch	STEEL	0 ft	203 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*
5.5 inch	STEEL	203 ft	208 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 1413

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at
175 ft

Pumping Rate
10 GPM

Duration of Pumping
1 h:0 m

Final water level
175 ft

If flowing give rate

Recommended pump depth
175 ft

Recommended pump rate
8 GPM

Well Production

Disinfected?
Y

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
	SWL 75 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
208 ft	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*
0 ft	20 ft	10 inch

Audit Number: Z128143
Date Well Completed: July 12, 2011
Date Well Record Received by MOE: October 14, 2011

Full Well Record Information

Well ID Number: 7169265

Well Audit Number: *Z136603*
Well Tag Number: *A120751*

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
706 COUNTY RD. 21	CAVAN TOWNSHIP		
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates — *Municipal Plan and Sublot Number* — *Other*

NAD83 — Zone 17
Easting: 702557.00
Northing: 4891757.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	SAND	GRVL	LOOS	0 ft	5 ft
BRWN	SAND		DNSE	5 ft	90 ft
BRWN	SAND	GRVL	DNSE	90 ft	95 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 ft	90 ft	BENTONITE GROUT	

Method of Construction
Rotary (Convent.)

Well Use
Test Hole

Status of Well
Test Hole

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
2 inch		0 ft	90 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
.25 inch		90 ft	95 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 7247

Results of Well Yield Testing

	Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
After test of well yield, water was	SWL			
	1		1	
If pumping discontinued, give reason	2		2	
	3		3	
Pump intake set at	4		4	
Pumping Rate	5		5	
	10		10	
Duration of Pumping	15		15	
Final water level	20		20	
	25		25	
If flowing give rate	30		30	
Recommended pump depth	40		40	
	45		45	
Recommended pump rate	50		50	
Well Production	60		60	

Disinfected?

Water Details

Water Found at Depth	Kind
90 ft	Untested

Hole Diameter

Depth From	Depth To	Diameter
0 ft	95 ft	8 inch

Audit Number: Z136603
Date Well Completed: August 22, 2011
Date Well Record Received by MOE: September 28, 2011

Full Well Record Information
Well ID Number: 7163770

Well Audit Number: *Z131001*
Well Tag Number: *A115631*

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
706 CR-21	CAVAN TOWNSHIP		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH	MILLBROOK	ON	n/a
UTM Coordinates	*Municipal Plan and Sublot Number*	*Other*	

NAD83 — Zone 17
Easting: 702629.00
Northing: 4891747.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
BRWN	FSND	SOFT	DRY	0 m	6.1 m
BRWN	FSND	DNSE	PCKD	6.1 m	15.24 m
BRWN	FSND	DNSE	WBRG	15.24 m	20.11 m

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 m	17.98 m	BENSEAL	
17.98 m	20.11 m	SAND	

Method of Construction
Rotary (Convent.)

Well Use
Test Hole
Monitoring

Status of Well

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
4.03 cm	PLASTIC	0 m	17.98 m

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*
4.82 cm	PLASTIC	17.98 m	20.11 m

Well Contractor and Well Technician Information

Well Contractor's Licence Number 7241

Results of Well Yield Testing

	Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
After test of well yield, water was	SWL			
	1		1	
If pumping discontinued, give reason	2		2	
	3		3	
Pump intake set at	4		4	
	5		5	
Pumping Rate	10		10	
Duration of Pumping	15		15	
Final water level	20		20	
	25		25	
If flowing give rate	30		30	
Recommended pump depth	40		40	
	45		45	
Recommended pump rate	50		50	
Well Production	60		60	

Disinfected?

Water Details

Water Found at Depth *Kind*

Hole Diameter

Depth From	*Depth To*	*Diameter*
0 m	20.11 m	10.92 cm

Audit Number: Z131001
Date Well Completed: April 25, 2011
Date Well Record Received by MOE: June 02, 2011

Full Well Record Information

Well ID Number: 7163769

Well Audit Number: *Z111747*
Well Tag Number: *A102983*

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
706 CR-21	CAVAN TOWNSHIP		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH	MILLBROOK	ON	n/a
UTM Coordinates	*Municipal Plan and Sublot Number*	*Other*	

NAD83 — Zone 17
Easting: 702398.00
Northing: 4891882.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
BRWN	FSND	SOFT	DRY	0 m	6.1 m
BRWN	FSND	DNSE	DRY	6.1 m	10.76 m
BRWN	FSND	DNSE	PCKD	10.76 m	13.4 m

Annular Space / Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 m	11.58 m	BENSEAL	
11.58 m	13.4 m	SAND	

Method of Construction

Rotary (Convent.)

Well Use

Test Hole
Monitoring

Status of Well

Test Hole

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*
4.03 cm	PLASTIC	0 m	11.8 m

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*To*
4.82 cm	PLASTIC	11.8 m	13.4 m

Well Contractor and Well Technician Information

Well Contractor's Licence Number 7241

Results of Well Yield Testing

	Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
After test of well yield, water was	SWL			
	1		1	
If pumping discontinued, give reason	2		2	
	3		3	
Pump intake set at	4		4	
Pumping Rate	5		5	
	10		10	
Duration of Pumping	15		15	
Final water level	20		20	
	25		25	
If flowing give rate	30		30	
Recommended pump depth	40		40	
Recommended pump rate	45		45	
	50		50	
Well Production	60		60	
Disinfected?				

Water Details

Water Found at Depth *Kind*

Hole Diameter

Depth From	*To*	*Diameter*
0 m	13.4 m	10.92 cm

Audit Number: Z111747
Date Well Completed: April 20, 2011
Date Well Record Received by MOE: June 02, 2011

Full Well Record Information

Well ID Number: 7159632

Well Audit Number: *M07029*
Well Tag Number: *A112841*

This table contains information from the original well record and any subsequent updates.

This well is part of a well cluster.
The information below is extracted from the cluster well record.
More information on the cluster well record (related to other wells in the cluster)
is also available. ***(en_wells_report?wellid=7159632)***

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	MILLBROOKE VILLAGE		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 704191.00
Northing: 4892091.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Well Use

Status of Well

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 7241

Results of Well Yield Testing

	Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
After test of well yield, water was	SWL			
	1		1	
If pumping discontinued, give reason	2		2	
	3		3	
Pump intake set at	4		4	
Pumping Rate	5		5	
	10		10	
Duration of Pumping	15		15	
Final water level	20		20	
	25		25	
If flowing give rate	30		30	
Recommended pump depth	40		40	
Recommended pump rate	45		45	
	50		50	
Well Production	60		60	

Disinfected?

Water Details

Water Found at Depth *Kind*

Hole Diameter

Depth From *Depth To* *Diameter*

Audit Number: M07029
Date Well Completed: January 23, 2011
Date Well Record Received by MOE: February 25, 2011

Full Well Record Information

Well ID Number: 7158468

Well Audit Number: *Z128009*
Well Tag Number: *A107662*

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
3 BANK ST NORTH	MILLBROOKE VILLAGE		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH	MILLBROOK	ON	n/a
UTM Coordinates	*Municipal Plan and Sublot Number*	*Other*	

NAD83 — Zone 17
Easting: 704184.00
Northing: 4892097.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
BRWN	SILT	CLAY	LOOS	0 ft	8 ft
GREY	CLAY	SILT	DNSE	8 ft	13 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 ft	3 ft	BENTONITE	
3 ft	13 ft	SAND	

Method of Construction

Direct Push

Well Use

Test Hole
Monitoring

Status of Well

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
1.25 inch	PLASTIC	0 ft	4 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*
1.53 inch	PLASTIC	4 ft	14 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 7241

Results of Well Yield Testing

	Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
After test of well yield, water was	SWL			
	1		1	
If pumping discontinued, give reason	2		2	
	3		3	
Pump intake set at	4		4	
Pumping Rate	5		5	
	10		10	
Duration of Pumping	15		15	
Final water level	20		20	
	25		25	
If flowing give rate	30		30	
Recommended pump depth	40		40	
	45		45	
Recommended pump rate	50		50	
Well Production	60		60	

Disinfected?

Water Details

Water Found at Depth	*Kind*

Hole Diameter

Depth From	*Depth To*	*Diameter*
0 ft	14 ft	2.25 inch

Audit Number: Z128009
Date Well Completed: December 22, 2010
Date Well Record Received by MOE: January 24, 2011

Full Well Record Information

Well ID Number: 5120398

Well Audit Number: *Z29375*
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
COUNTY RD #10	CAVAN TOWNSHIP	013	CON 06
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH	MILLBROOK	ON	n/a
UTM Coordinates	*Municipal Plan and Sublot Number*	*Other*	

NAD83 — Zone 17
Easting: 703369.00
Northing: 4894286.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 m	48 m	HOLEPLUG	

Method of Construction

Well Use

Status of Well

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 3367

Results of Well Yield Testing

	Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
After test of well yield, water was	SWL			
	1		1	
If pumping discontinued, give reason	2		2	
	3		3	
Pump intake set at	4		4	
Pumping Rate	5		5	
	10		10	
Duration of Pumping	15		15	
Final water level	20		20	
	25		25	
If flowing give rate	30		30	
Recommended pump depth	40		40	
Recommended pump rate	45		45	
	50		50	
Well Production	60		60	

Disinfected?

Water Details

Water Found at Depth *Kind*

Hole Diameter

Depth From *Depth To* *Diameter*

Audit Number: Z29375
Date Well Completed: July 14, 2005
Date Well Record Received by MOE: September 20, 2005

Full Well Record Information

Well ID Number: 5119300

Well Audit Number: *252384*
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	010	CON 05
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703008.00
Northing: 4891459.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
BLCK	LOAM			0 ft	2 ft
GREY	CLAY	STNS	HARD	2 ft	5 ft
GREY	CLAY	GRVL	SOFT	5 ft	26 ft
BRWN	SAND	GRVL	WBRG	26 ft	29 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 ft	29 ft		

Method of Construction

Rotary (Convent.)

Well Use

Status of Well

Abandoned-Quality

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2662

Results of Well Yield Testing

	Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
After test of well yield, water was	SWL			
	1		1	
If pumping discontinued, give reason	2		2	
	3		3	
Pump intake set at	4		4	
Pumping Rate	5		5	
	10		10	
Duration of Pumping	15		15	
Final water level	20		20	
	25		25	
If flowing give rate	30		30	
Recommended pump depth	40		40	
Recommended pump rate	45		45	
	50		50	
Well Production	60		60	

Disinfected?

Water Details

Water Found at Depth *Kind*

Hole Diameter

Depth From *Depth To* *Diameter*

Audit Number: 252384
Date Well Completed: October 15, 2002
Date Well Record Received by MOE: February 19, 2003

Full Well Record Information

Well ID Number: 5119299

Well Audit Number: *252383*
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	010	CON 05
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703009.00
Northing: 4891456.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
BLCK	LOAM			0 ft	2 ft
GREY	CLAY	STNS	HARD	2 ft	5 ft
GREY	CLAY	GRVL	SOFT	5 ft	28 ft
BRWN	SAND	GRVL	WBRG	28 ft	33 ft
BRWN	CSND	CGVL	WBRG	33 ft	74 ft
BRWN	GRVL	SAND	WBRG	74 ft	105 ft
GREY	CLAY	GRVL		105 ft	106 ft

Annular Space / Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 ft	20 ft		

Method of Construction

Rotary (Convent.)

Well Use

Municipal

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*
14 inch	STEEL		20 ft
10 inch	STEEL		85 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*To*
10 inch		86 ft	101 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2662

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
350 GPM

Duration of Pumping
24 h:0 m

Final water level
3 ft

If flowing give rate

Recommended pump depth
40 ft

Recommended pump rate
350 GPM

Well Production
PUMP

Disinfected?

Draw Down Time (min)	*Water level*	*Recovery Time (min)*	*Water level*
SWL	-17 ft FLW		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15	10 ft	15	
20		20	
25		25	
30	10 ft	30	
40		40	
45	10 ft	45	
50		50	
60	11 ft	60	

Water Details

Water Found at Depth	*Kind*
101 ft	Not Stated

Hole Diameter

Depth From	*To*	*Diameter*

Audit Number: 252383
Date Well Completed: November 21, 2002
Date Well Record Received by MOE: February 19, 2003

Full Well Record Information

Well ID Number: 5119277

Well Audit Number: *250814*
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	010	CON 06
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 702066.00
Northing: 4893264.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
BRWN	LOAM	LOOS		0 ft	1 ft
BRWN	SAND	CLAY	PCKD	1 ft	38 ft
GREY	CLAY	PCKD		38 ft	64 ft
GREY	GRVL	CLAY	PCKD	64 ft	80 ft
GREY	GRVL	SAND	PORS	80 ft	81 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 ft	5 ft		
5 ft	15 ft		

Method of Construction
Cable Tool

Well Use
Domestic

Status of Well
Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
6 inch	STEEL		81 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 3367

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
8 GPM

Duration of Pumping
3 h:0 m

Final water level
60 ft

If flowing give rate

Recommended pump depth
76 ft

Recommended pump rate
6 GPM

Well Production
BAILER

Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
SWL	25 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15	60 ft	15	
20		20	
25		25	
30	60 ft	30	
40		40	
45	60 ft	45	
50		50	
60	60 ft	60	

Water Details

Water Found at Depth	*Kind*
81 ft	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number: 250814
Date Well Completed: December 30, 2002
Date Well Record Received by MOE: January 28, 2003

Full Well Record Information

Well ID Number: 5118858

Well Audit Number: *228855*
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	011	CON 07
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 702485.00
Northing: 4894290.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
BRWN	CLAY	GRVL	STNS	0 ft	20 ft
GREY	CLAY	GRVL	CMTD	20 ft	77 ft
GREY	CLAY	GRVL	LOOS	77 ft	100 ft
GREY	CLAY	SAND	PCKD	100 ft	136 ft
BRWN	CGVL	CSND	LOOS	136 ft	137 ft

Annular Space / Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 ft	10 ft		
10 ft	20 ft		

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*
6 inch	STEEL		

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 3367

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
15 GPM

Duration of Pumping
4 h:20 m

Final water level
84 ft

If flowing give rate

Recommended pump depth
130 ft

Recommended pump rate
10 GPM

Well Production
PUMP

Disinfected?

Draw Down Time (min)	*Water level*	*Recovery Time (min)*	*Water level*
SWL	34 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15	40 ft	15	
20		20	
25		25	
30	50 ft	30	
40		40	
45	60 ft	45	
50		50	
60	70 ft	60	

Water Details

Water Found at Depth	*Kind*
137 ft	Fresh

Hole Diameter

Depth From	*To*	*Diameter*

Audit Number: 228855
Date Well Completed: September 14, 2001
Date Well Record Received by MOE: October 12, 2001

Full Well Record Information

Well ID Number: 5117311

Well Audit Number: *166446*
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	013	CON 06
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates — *Municipal Plan and Sublot Number* — *Other*

NAD83 — Zone 17
Easting: 703735.20
Northing: 4893869.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
BRWN	LOAM	SOFT		0 ft	2 ft
BRWN	CLAY	DNSE		2 ft	18 ft
GREY	CLAY	GRVL	PCKD	18 ft	77 ft
BRWN	CGVL	SAND	WBRG	77 ft	78 ft

Annular Space / Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 ft	10 ft		

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*
6 inch	STEEL		78 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 3367

Results of Well Yield Testing

After test of well yield, water was: CLEAR

If pumping discontinued, give reason:

Pump intake set at:

Pumping Rate: 7 GPM

Duration of Pumping: 6 h:0 m

Final water level: 60 ft

If flowing give rate:

Recommended pump depth: 73 ft

Recommended pump rate: 5 GPM

Well Production: PUMP

Disinfected?:

Draw Down Time (min)	*Water level*	*Recovery Time (min)*	*Water level*
SWL	8 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15	48 ft	15	
20		20	
25		25	
30	56 ft	30	
40		40	
45	60 ft	45	
50		50	
60	60 ft	60	

Water Details

Water Found at Depth	*Kind*
78 ft	Not Stated

Hole Diameter

Depth From	*To*	*Diameter*

Audit Number: 166446
Date Well Completed: September 16, 1996
Date Well Record Received by MOE: October 18, 1996

Full Well Record Information

Well ID Number: 5116672

Well Audit Number: *150737*
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	010	CON 06
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 702069.20
Northing: 4893263.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
BRWN	LOAM	SOFT		0 ft	2 ft
BRWN	CLAY	GRVL	PCKD	2 ft	20 ft
BRWN	FSND	CLAY	PCKD	20 ft	70 ft
BRWN	CSND	WBRG	LOOS	70 ft	78 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 ft	8 ft		
8 ft	10 ft		

Method of Construction
Cable Tool

Well Use
Domestic

Status of Well
Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
5 inch	STEEL		74 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*
5 inch		74 ft	78 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 3367

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
7 GPM

Duration of Pumping
3 h:0 m

Final water level
64 ft

If flowing give rate

Recommended pump depth
70 ft

Recommended pump rate
5 GPM

Well Production
BAILER

Disinfected?

Draw Down Time (min)	*Water level*	*Recovery Time (min)*	*Water level*
	SWL		40 ft
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15	60 ft	15	
20		20	
25		25	
30	63 ft	30	
40		40	
45	64 ft	45	
50		50	
60	64 ft	60	

Water Details

Water Found at Depth	*Kind*
78 ft	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number: 150737
Date Well Completed: August 26, 1994
Date Well Record Received by MOE: September 02, 1994

Full Well Record Information
Well ID Number: 5115957

Well Audit Number: *86360*
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	010	CON 06
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 702069.20
Northing: 4893263.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
	LOAM	STNS		0 ft	1 ft
BRWN	SAND	GRVL	STNS	1 ft	12 ft
BRWN	CLAY	TILL		12 ft	27 ft
GREY	CLAY			27 ft	72 ft
GREY	SAND	CMTD	CLAY	72 ft	117 ft
BRWN	FSND	PGVL	DRTY	117 ft	127 ft
BRWN	FSND	CMTD		127 ft	202 ft
GREY	FGVL	SAND		202 ft	212 ft
GREY	CLAY	TILL		212 ft	216 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 ft	7 ft		
7 ft	10 ft		
10 ft	210 ft		

Method of Construction
Rotary (Convent.)

Well Use
Domestic

Status of Well
Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
6 inch	STEEL		207 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*
6 inch		207 ft	210 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 5022

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
10 GPM

Duration of Pumping
1 h:0 m

Final water level
195 ft

If flowing give rate

Recommended pump depth
180 ft

Recommended pump rate
8 GPM

Well Production
PUMP

Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
SWL	65 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	109 ft
20		20	
25		25	
30		30	81 ft
40		40	
45		45	70 ft
50		50	
60		60	68 ft

Water Details

Water Found at Depth	*Kind*
202 ft	Not Stated
212 ft	Not Stated

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number: 86360
Date Well Completed: July 13, 1992
Date Well Record Received by MOE: August 05,

1992

Full Well Record Information

Well ID Number: 5115005

Well Audit Number: *76225*
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	011	CON 05
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703104.20
Northing: 4892165.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
	LOAM			0 ft	1 ft
BRWN	CLAY	ROCK		1 ft	12 ft
GREY	CLAY	SAND		12 ft	76 ft
GREY	CLAY	SAND		76 ft	105 ft

Annular Space / Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 ft	15 ft		

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*
6 inch	STEEL		43 ft
5 inch	STEEL		105 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*To*
5 inch		36 ft	103 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 4332

Results of Well Yield Testing

After test of well yield, water was
SWL

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
7 GPM

Duration of Pumping
4 h:0 m

Final water level
30 ft

If flowing give rate

Recommended pump depth
2 ft

Recommended pump rate
2 GPM

Well Production
BAILER

Disinfected?

Draw Down Time (min)	*Water level*	*Recovery Time (min)*	*Water level*
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	10 ft
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
47 ft	Fresh
74 ft	Fresh

Hole Diameter

Depth From	*To*	*Diameter*

Audit Number: 76225
Date Well Completed: September 13, 1990
Date Well Record Received by MOE: December 10, 1990

Full Well Record Information

Well ID Number: 5114057

Well Audit Number: *54924*
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	013	CON 06
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703735.20
Northing: 4893869.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
	LOAM			0 ft	1 ft
BRWN	CLAY	STNS	HARD	1 ft	20 ft
	SAND	GRVL	ROCK	20 ft	28 ft
GREY	CLAY	ROCK	HARD	28 ft	50 ft

Annular Space / Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Boring

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*
30 inch	CONCRETE		50 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 3129

Results of Well Yield Testing

After test of well yield, water was: CLEAR
If pumping discontinued, give reason:
Pump intake set at:
Pumping Rate: 8 GPM
Duration of Pumping: 1 h:0 m
Final water level: 34 ft
If flowing give rate:
Recommended pump depth: 48 ft
Recommended pump rate: 4 GPM
Well Production: BAILER
Disinfected?:

Draw Down Time (min)	*Water level*	*Recovery Time (min)*	*Water level*
SWL	26 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15	28 ft	15	
20		20	
25		25	
30	30 ft	30	
40		40	
45	32 ft	45	
50		50	
60	34 ft	60	

Water Details

Water Found at Depth	*Kind*
28 ft	Fresh

Hole Diameter

Depth From	*To*	*Diameter*

Audit Number: 54924
Date Well Completed: August 24, 1989
Date Well Record Received by MOE: September 14, 1989

Full Well Record Information

Well ID Number: 5113303

Well Audit Number: *32710*
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	MILLBROOKE VILLAGE	013	05
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 704212.20
Northing: 4892553.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
BRWN	SAND	CLAY	PCKD	0 ft	20 ft
GREY	CLAY	DNSE		20 ft	60 ft
BRWN	GRVL	CLAY	SNDY	60 ft	98 ft
GREY	LMSN	SHLE	LYRD	98 ft	101 ft

Annular Space / Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 ft	8 ft		
8 ft	12 ft		

Method of Construction
Cable Tool

Well Use
Domestic

Status of Well
Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*
6 inch	STEEL		101 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 3367

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
12 GPM

Duration of Pumping
2 h:30 m

Final water level
50 ft

If flowing give rate

Recommended pump depth
90 ft

Recommended pump rate
5 GPM

Well Production
BAILER

Disinfected?

Draw Down Time (min)	*Water level*	*Recovery Time (min)*	*Water level*
SWL	6 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15	50 ft	15	
20		20	
25		25	
30	50 ft	30	
40		40	
45	50 ft	45	
50		50	
60	50 ft	60	

Water Details

Water Found at Depth	*Kind*
101 ft	Fresh

Hole Diameter

Depth From	*To*	*Diameter*

Audit Number: 32710
Date Well Completed: July 22, 1988
Date Well Record Received by MOE: September 27, 1988

Full Well Record Information

Well ID Number: 5110516

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	012	CON 05
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703655.20
Northing: 4893023.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
	LOAM			0 ft	1 ft
WHIT	CLAY	STNS		1 ft	37 ft
BRWN	CGVL			37 ft	44 ft
WHIT	CLAY			44 ft	102 ft
BRWN	FGVL	FSND		102 ft	119 ft

Annular Space / Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*
6 inch	STEEL		119 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*To*
6 inch		111 ft	119 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 4635

Results of Well Yield Testing

After test of well yield, water was SWL 49 ft

If pumping discontinued, give reason

Pump intake set at

Pumping Rate 6 GPM

Duration of Pumping 4 h:0 m

Final water level 113 ft

If flowing give rate

Recommended pump depth

Recommended pump rate

Well Production BAILER

Disinfected?

	Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
	1		1	
	2		2	
	3		3	
	4		4	
	5		5	
	10		10	
	15		15	
	20		20	
	25		25	
	30		30	
	40		40	
	45		45	
	50		50	
	60		60	

Water Details

Water Found at Depth	*Kind*
115 ft	Fresh

Hole Diameter

Depth From	*To*	*Diameter*

Audit Number:
Date Well Completed: June 03, 1981
Date Well Record Received by MOE: July 09, 1982

Full Well Record Information

Well ID Number: 5110451

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	012	CON 06
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703395.20
Northing: 4893023.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
BRWN	CLAY	STNS	PCKD	0 ft	16 ft
GREY	SAND	GRVL	LOOS	16 ft	37 ft
GREY	MSND	CLAY	MGVL	37 ft	98 ft
BLCK	SAND	SOFT		98 ft	123 ft
GREY	CLAY	GRVL	PCKD	123 ft	129 ft
GREY	SAND	SOFT		129 ft	146 ft
GREY	MSND	MGVL	CLAY	146 ft	208 ft
BLCK	SHLE	GRVL	LOOS	208 ft	209 ft
	UNKN			209 ft	210 ft

Annular Space / Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*
6 inch	STEEL		210 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2104

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
5 GPM

Duration of Pumping
2 h:40 m

Final water level
199 ft

If flowing give rate

Recommended pump depth
204 ft

Recommended pump rate
4 GPM

Well Production
BAILER

Disinfected?

Draw Down Time (min)	*Water level*	*Recovery Time (min)*	*Water level*
SWL	82 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	119 ft
20		20	
25		25	
30		30	82 ft
40		40	
45		45	82 ft
50		50	
60		60	82 ft

Water Details

Water Found at Depth	*Kind*
209 ft	Fresh

Hole Diameter

Depth From	*To*	*Diameter*

Audit Number:
Date Well Completed: April 16, 1982
Date Well Record Received by MOE: May 11, 1982

Full Well Record Information

Well ID Number: 5110032

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	013	CON 06
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703355.20
Northing: 4894223.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
BRWN	LOAM	SOFT		0 ft	1 ft
BRWN	CLAY	STNS	PCKD	1 ft	12 ft
BRWN	SAND	GRVL	STNS	12 ft	26 ft
BRWN	GRVL	CLAY	STNS	26 ft	69 ft
BRWN	CSND	GRVL	LOOS	69 ft	76 ft
BRWN	CLAY	GRVL	DNSE	76 ft	76 ft

Annular Space / Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Cable Tool

Well Use

Municipal

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*
6 inch	STEEL		73 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*To*
6 inch		66 ft	70 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2104

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
10 GPM

Duration of Pumping
9 h:10 m

Final water level
38 ft

If flowing give rate

Recommended pump depth
70 ft

Recommended pump rate
10 GPM

Well Production
BAILER

Disinfected?

	Draw Down Time (min)	*Water level*	*Recovery Time (min)*	*Water level*
	SWL	6 ft		
1			1	
2			2	
3			3	
4			4	
5			5	
10			10	
15			15	28 ft
20			20	
25			25	
30			30	20 ft
40			40	
45			45	12 ft
50			50	
60			60	6 ft

Water Details

Water Found at Depth	*Kind*
72 ft	Fresh

Hole Diameter

Depth From	*To*	*Diameter*

Audit Number:
Date Well Completed: November 20, 1980
Date Well Record Received by MOE: December 16, 1980

Full Well Record Information

Well ID Number: 5108567

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	CAVAN TOWNSHIP	010	CON 05
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 702495.20
Northing: 4892623.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	LOAM	DKCL		0 ft	1 ft
BRWN	CLAY	GRVL	FSND	1 ft	8 ft
	FSND			8 ft	70 ft
	FGVL			70 ft	72 ft
	FSND			72 ft	83 ft
GREY	CLAY	GRVL	FSND	83 ft	90 ft
	GRVL	CSND		90 ft	93 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
6 inch	STEEL		93 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 1904

Results of Well Yield Testing

After test of well yield, water was: CLEAR

If pumping discontinued, give reason:

Pump intake set at:

Pumping Rate: 20 GPM

Duration of Pumping: 12 h:0 m

Final water level: 52 ft

If flowing give rate:

Recommended pump depth: 70 ft

Recommended pump rate: 5 GPM

Well Production: BAILER

Disinfected?:

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
SWL	50 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
90 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: July 14, 1976
Date Well Record Received by MOE: August 31, 1977

Full Well Record Information

Well ID Number: 5108563

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	011	CON 05
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703215.20
Northing: 4892623.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
	LOAM	DKCL		0 ft	1 ft
BRWN	CLAY	GRVL		1 ft	45 ft
	SAND	SILT		45 ft	48 ft
	CSND	FGVL		48 ft	65 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction
Cable Tool

Well Use
Domestic

Status of Well
Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
6 inch	STEEL		61 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*
6 inch		61 ft	65 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 1904

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
7 GPM

Duration of Pumping
12 h:0 m

Final water level
53 ft

If flowing give rate

Recommended pump depth
60 ft

Recommended pump rate
5 GPM

Well Production
BAILER

Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
SWL	32 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
61 ft	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number:
Date Well Completed: June 29, 1976
Date Well Record Received by MOE: August 31, 1977

Full Well Record Information

Well ID Number: 5108280

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	MILLBROOKE VILLAGE		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703265.20
Northing: 4891573.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
GREY	CLAY	STNS		0 ft	25 ft
GREY	CLAY	GRVL		25 ft	29 ft
GREY	CLAY	STNS		29 ft	30 ft
BRWN	CLAY	GRVL		30 ft	51 ft
BRWN	GRVL	SAND		51 ft	56 ft
BRWN	GRVL			56 ft	102 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 ft	26 ft		
26 ft	102 ft		

Method of Construction

Cable Tool

Well Use

Not Used
Municipal

Status of Well

Test Hole

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
13 inch	CONCRETE		25 ft
8 inch	STEEL		26 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*
6 inch		96 ft	102 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2517

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
150 GPM

Duration of Pumping

Final water level

If flowing give rate
150 GPM

Recommended pump depth

Recommended pump rate

Well Production

Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
SWL	-20 ft FLW		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
25 ft	Fresh
51 ft	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number:
Date Well Completed: April 01, 1976
Date Well Record Received by MOE: December 10, 1976

Full Well Record Information

Well ID Number: 5108279

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	MILLBROOKE VILLAGE		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703265.20
Northing: 4891573.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
GREY	CLAY	STNS		0 ft	29 ft
GREY	CLAY	GRVL		29 ft	36 ft
BRWN	CLAY	GRVL		36 ft	46 ft
BRWN	FSND	GRVL		46 ft	60 ft
BRWN	GRVL			60 ft	74 ft
BRWN	FSND			74 ft	78 ft
BRWN	GRVL			78 ft	111 ft

Annular Space / Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*
0 ft	26 ft		
26 ft	102 ft		

Method of Construction

Cable Tool

Well Use

Not Used
Municipal

Status of Well

Test Hole

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*
13 inch	CONCRETE		25 ft
8 inch	STEEL		26 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*To*
6 inch		103 ft	111 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2517

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
170 GPM

Duration of Pumping
24 h:0 m

Final water level

If flowing give rate
170 GPM

Recommended pump depth

Recommended pump rate

Well Production

Disinfected?

Draw Down Time (min)	*Water level*	*Recovery Time (min)*	*Water level*
SWL	-16 ft		
	FLW		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
18 ft	Fresh
29 ft	Fresh
46 ft	Fresh

Hole Diameter

Depth From	*To*	*Diameter*

Audit Number:
Date Well Completed: May 01, 1976
Date Well Record Received by MOE: December 10, 1976

Full Well Record Information

Well ID Number: 5108216

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	MILLBROOKE VILLAGE		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703265.20
Northing: 4891573.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
GREY	CLAY	STNS		0 ft	30 ft
GREY	CLAY	SAND	GRVL	30 ft	53 ft
BRWN	SAND			53 ft	56 ft
BRWN	GRVL			56 ft	108 ft
BRWN	CLAY	GRVL		108 ft	110 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Cable Tool

Well Use

Municipal

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
10 inch	STEEL		88 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*
10 inch		88 ft	103 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2517

Results of Well Yield Testing

	Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
After test of well yield, water was	SWL			
	1		1	
If pumping discontinued, give reason	2		2	
	3		3	
Pump intake set at	4		4	
	5		5	
Pumping Rate 300 GPM	10		10	
Duration of Pumping 24 h:0 m	15		15	
Final water level	20		20	
	25		25	
If flowing give rate	30		30	
Recommended pump depth	40		40	
	45		45	
Recommended pump rate	50		50	
Well Production	60		60	

Disinfected?

Water Details

Water Found at Depth	*Kind*
30 ft	Not Stated

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number:
Date Well Completed: June 01, 1976
Date Well Record Received by MOE: October 06, 1976

Full Well Record Information

Well ID Number: 5108215

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	MILLBROOKE VILLAGE		
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703265.20
Northing: 4891573.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
GREY	CLAY	STNS		0 ft	28 ft
GREY	CLAY	SAND	GRVL	28 ft	55 ft
BRWN	GRVL	SAND		55 ft	105 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Municipal

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
10 inch	STEEL		90 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
10 inch		86 ft	101 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2517

Results of Well Yield Testing

After test of well yield, water was: CLEAR

If pumping discontinued, give reason:

Pump intake set at:

Pumping Rate: 300 GPM

Duration of Pumping: 24 h:0 m

Final water level:

If flowing give rate: 300 GPM

Recommended pump depth:

Recommended pump rate:

Well Production:

Disinfected?:

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
SWL	-16 ft FLW		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
30 ft	Not Stated

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: June 01, 1976
Date Well Record Received by MOE: October 06, 1976

Full Well Record Information

Well ID Number: 1904254

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	CAVAN TOWNSHIP	011	CON 06
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 702755.20
Northing: 4892783.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	LOAM			0 ft	1 ft
BRWN	GRVL			1 ft	33 ft
BRWN	CLAY	SNDY		33 ft	41 ft
BRWN	FSND			41 ft	56 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
6 inch	STEEL		56 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 4635

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
5 GPM

Duration of Pumping
3 h:30 m

Final water level
28 ft

If flowing give rate

Recommended pump depth

Recommended pump rate

Well Production
BAILER

Disinfected?

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
	SWL 6 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
50 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: October 17, 1975
Date Well Record Received by MOE: December 16, 1975

Full Well Record Information

Well ID Number: 1904211

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	CAVAN TOWNSHIP	013	CON 06
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates — *Municipal Plan and Sublot Number* — *Other*

NAD83 — Zone 17
Easting: 703345.20
Northing: 4894208.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	CLAY	BLDR		0 ft	40 ft
BLUE	CLAY	GRVL		40 ft	48 ft
BRWN	GRVL	SAND		48 ft	50 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
6 inch	STEEL		47 ft
6 inch	OPEN HOLE		50 ft
			500 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
5 inch		42 ft	50 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 4713

Results of Well Yield Testing

After test of well yield, water was SWL

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
1	8 ft	1	
2		2	
3		3	
4		4	
5		5	
10		10	
15	40 ft	15	
20		20	
25		25	
30	40 ft	30	
40		40	
45	40 ft	45	
50		50	
60	40 ft	60	

If pumping discontinued, give reason

Pump intake set at

Pumping Rate 12 GPM

Duration of Pumping 2 h:30 m

Final water level 40 ft

If flowing give rate

Recommended pump depth 45 ft

Recommended pump rate 10 GPM

Well Production BAILER

Disinfected?

Water Details

Water Found at Depth	Kind
50 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: December 26, 1974
Date Well Record Received by MOE: March 13, 1975

Full Well Record Information

Well ID Number: 1904123

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	CAVAN TOWNSHIP	010	CON 05
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 702555.20
Northing: 4892643.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	CLAY	BLDR	GRVL	0 ft	15 ft
BRWN	GRVL	SAND	DRY	15 ft	55 ft
BRWN	GRVL	SAND	WBRG	55 ft	59 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
6 inch	STEEL		61 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2104

Results of Well Yield Testing

After test of well yield, water was: CLEAR

If pumping discontinued, give reason:

Pump intake set at:

Pumping Rate: 5 GPM

Duration of Pumping: 4 h:30 m

Final water level: 50 ft

If flowing give rate:

Recommended pump depth: 55 ft

Recommended pump rate: 5 GPM

Well Production: BAILER

Disinfected?:

	Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
	SWL	45 ft		
	1		1	
	2		2	
	3		3	
	4		4	
	5		5	
	10		10	
	15	50 ft	15	
	20		20	
	25		25	
	30	50 ft	30	
	40		40	
	45	50 ft	45	
	50		50	
	60	50 ft	60	

Water Details

Water Found at Depth	Kind
55 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: April 29, 1975
Date Well Record Received by MOE: July 05, 1975

Full Well Record Information

Well ID Number: 1904121

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	010	CON 06
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 702015.20
Northing: 4893963.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
BRWN	BLDR	CLAY		0 ft	15 ft
GREY	GRVL	STNS	DRY	15 ft	25 ft
GREY	GRVL	CLAY	HARD	25 ft	89 ft
GREY	SAND	CLAY	GRVL	89 ft	91 ft

Annular Space / Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*
6 inch	STEEL		87 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*To*
5 inch		81 ft	85 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2104

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
10 GPM

Duration of Pumping
5 h:30 m

Final water level
40 ft

If flowing give rate

Recommended pump depth
75 ft

Recommended pump rate
10 GPM

Well Production
BAILER

Disinfected?

Draw Down Time (min)	*Water level*	*Recovery Time (min)*	*Water level*
SWL	10 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15	40 ft	15	
20		20	
25		25	
30	40 ft	30	
40		40	
45	40 ft	45	
50		50	
60	40 ft	60	

Water Details

Water Found at Depth	*Kind*
89 ft	Fresh

Hole Diameter

Depth From	*To*	*Diameter*

Audit Number:
Date Well Completed: April 25, 1975
Date Well Record Received by MOE: July 05, 1975

Full Well Record Information

Well ID Number: 1904045

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	011	CON 07
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 702315.20
Northing: 4894203.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
	LOAM			0 ft	2 ft
WHIT	CLAY	STNS	DNSE	2 ft	26 ft
BRWN	GRVL	WBRG	LOOS	26 ft	48 ft
WHIT	CLAY	STNS	DNSE	48 ft	74 ft
BRWN	GRVL	LOOS		74 ft	90 ft

Annular Space / Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Cable Tool

Well Use

Livestock

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*
6 inch	STEEL		90 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2104

Results of Well Yield Testing

After test of well yield, water was: CLEAR

If pumping discontinued, give reason:

Pump intake set at:

Pumping Rate: 20 GPM

Duration of Pumping: 2 h:0 m

Final water level: 65 ft

If flowing give rate:

Recommended pump depth: 85 ft

Recommended pump rate: 20 GPM

Well Production: BAILER

Disinfected?:

Draw Down Time (min)	*Water level*	*Recovery Time (min)*	*Water level*
SWL	25 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	25 ft
20		20	
25		25	
30		30	25 ft
40		40	
45		45	25 ft
50		50	
60		60	25 ft

Water Details

Water Found at Depth	*Kind*
74 ft	Fresh
90 ft	Not Stated

Hole Diameter

Depth From	*To*	*Diameter*

Audit Number:
Date Well Completed: January 08, 1975
Date Well Record Received by MOE: January 13, 1975

Full Well Record Information

Well ID Number: 1903557

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	MILLBROOKE VILLAGE		
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 704155.20
Northing: 4892203.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	CLAY	STNS		0 ft	24 ft
BLUE	CLAY			24 ft	118 ft
BRWN	SAND	GRVL		118 ft	121 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
6 inch	STEEL		121 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 4713

Results of Well Yield Testing

After test of well yield, water was: CLOUDY

If pumping discontinued, give reason:

Pump intake set at:

Pumping Rate: 10 GPM

Duration of Pumping: 2 h:0 m

Final water level: 95 ft

If flowing give rate:

Recommended pump depth: 80 ft

Recommended pump rate: 5 GPM

Well Production: BAILER

Disinfected?:

	Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
	SWL	16 ft		
	1		1	
	2		2	
	3		3	
	4		4	
	5		5	
	10		10	
	15	80 ft	15	
	20		20	
	25		25	
	30	95 ft	30	
	40		40	
	45	95 ft	45	
	50		50	
	60	95 ft	60	

Water Details

Water Found at Depth	Kind
121 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: December 16, 1972
Date Well Record Received by MOE: April 09, 1973

Full Well Record Information
Well ID Number: 1903540

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	013	CON 06
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703715.20
Northing: 4893123.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
	LOAM			0 ft	1 ft
BRWN	CLAY	STNS		1 ft	45 ft
GREY	CLAY	STNS		45 ft	135 ft
	FSND	CLAY		135 ft	144 ft
	FSND	GRVL	CLAY	144 ft	155 ft
	GRVL	FSND	CLAY	155 ft	170 ft
	FSND	CLAY	GRVL	170 ft	225 ft
GREY	LMSN			225 ft	230 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction
Cable Tool

Well Use
Domestic

Status of Well
Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
6 inch	STEEL		225 ft
6 inch	OPEN HOLE		230 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 4814

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
2 GPM

Duration of Pumping
8 h:0 m

Final water level
225 ft

If flowing give rate

Recommended pump depth
225 ft

Recommended pump rate
2 GPM

Well Production
BAILER

Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
SWL	70 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	210 ft
20		20	
25		25	
30		30	190 ft
40		40	
45		45	175 ft
50		50	
60		60	165 ft

Water Details

Water Found at Depth	*Kind*
225 ft	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number:
Date Well Completed: November 13, 1972
Date Well Record Received by MOE: April 09, 1973

Full Well Record Information

Well ID Number: 1903464

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	CAVAN TOWNSHIP	009	CON 05
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 702115.20
Northing: 4892503.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	LOAM			0 ft	2 ft
	GRVL	SAND		2 ft	60 ft
GREY	CLAY	SAND		60 ft	167 ft
	GRVL	SAND	CLAY	167 ft	169 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
6 inch	STEEL		169 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2104

Results of Well Yield Testing

After test of well yield, water was: CLEAR

If pumping discontinued, give reason:

Pump intake set at:

Pumping Rate: 10 GPM

Duration of Pumping: 4 h:30 m

Final water level: 140 ft

If flowing give rate:

Recommended pump depth: 164 ft

Recommended pump rate: 10 GPM

Well Production: BAILER

Disinfected?:

	Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
	SWL	90 ft		
	1		1	
	2		2	
	3		3	
	4		4	
	5		5	
	10		10	
	15		15	90 ft
	20		20	
	25		25	
	30		30	90 ft
	40		40	
	45		45	90 ft
	50		50	
	60		60	90 ft

Water Details

Water Found at Depth	Kind
169 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: August 10, 1972
Date Well Record Received by MOE: December 20, 1972

Full Well Record Information

Well ID Number: 1903385

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	CAVAN TOWNSHIP	013	CON 05
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates — *Municipal Plan and Sublot Number* — *Other*

NAD83 — Zone 17
Easting: 704355.20
Northing: 4891973.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	LOAM			0 ft	10 ft
BLUE	CLAY	BLDR		10 ft	129 ft
	LMSN			129 ft	139 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
6 inch	STEEL		129 ft
6 inch	OPEN HOLE		139 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 4761

Results of Well Yield Testing

After test of well yield, water was: CLEAR

If pumping discontinued, give reason:

Pump intake set at:

Pumping Rate: 5 GPM

Duration of Pumping: 2 h:30 m

Final water level: 124 ft

If flowing give rate:

Recommended pump depth: 135 ft

Recommended pump rate: 4 GPM

Well Production: BAILER

Disinfected?:

	Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
	SWL	30 ft		
	1		1	
	2		2	
	3		3	
	4		4	
	5		5	
	10		10	
	15	45 ft	15	
	20		20	
	25		25	
	30	65 ft	30	
	40		40	
	45	95 ft	45	
	50		50	
	60	120 ft	60	

Water Details

Water Found at Depth	Kind
136 ft	Minerial

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: June 15, 1972
Date Well Record Received by MOE: August 24, 1972

Full Well Record Information

Well ID Number: 1903021

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	CAVAN TOWNSHIP	012	CON 05
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703425.20
Northing: 4893003.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	CLAY	STNS		0 ft	27 ft
BLUE	CLAY	STNS		27 ft	130 ft
BLUE	CLAY	MSND		130 ft	135 ft
BLUE	CLAY	STNS		135 ft	215 ft
GREY	LMSN			215 ft	237 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
6 inch	STEEL		216 ft
	OPEN HOLE		237 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 4713

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
3 GPM

Duration of Pumping
1 h:0 m

Final water level
230 ft

If flowing give rate

Recommended pump depth
230 ft

Recommended pump rate
3 GPM

Well Production
BAILER

Disinfected?

	Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
		SWL		66 ft
	1		1	
	2		2	
	3		3	
	4		4	
	5		5	
	10		10	
	15	100 ft	15	
	20		20	
	25		25	
	30	150 ft	30	
	40		40	
	45	200 ft	45	
	50		50	
	60	230 ft	60	

Water Details

Water Found at Depth	Kind
216 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: September 17, 1970
Date Well Record Received by MOE: February 04, 1971

Full Well Record Information

Well ID Number: 1902529

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	CAVAN TOWNSHIP	011	CON 05
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703190.20
Northing: 4891573.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	LOAM			0 ft	1 ft
	GRVL	BLDR	CLAY	1 ft	12 ft
	CLAY	MSND		12 ft	66 ft
	CLAY	MSND	GRVL	66 ft	74 ft
	FSND	SILT	GRVL	74 ft	78 ft
	CLAY	MSND	STNS	78 ft	85 ft
	FSND	CSND		85 ft	101 ft
	MSND	GRVL	BLDR	101 ft	104 ft
	CLAY	SILT	GRVL	104 ft	118 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Not Used

Status of Well

Test Hole

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
2 inch			

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2801

Results of Well Yield Testing

	Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
After test of well yield, water was	SWL	-23 ft FLW		
	1		1	
If pumping discontinued, give reason	2		2	
	3		3	
Pump intake set at	4		4	
	5		5	
Pumping Rate	10		10	
Duration of Pumping	15		15	
	20		20	
Final water level	25		25	
If flowing give rate	30		30	
Recommended pump depth	40		40	
	45		45	
Recommended pump rate	50		50	
Well Production	60		60	

Disinfected?

Water Details

Water Found at Depth	Kind
74 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: February 23, 1968
Date Well Record Received by MOE: April 16, 1968

Full Well Record Information

Well ID Number: 1902527

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	011	CON 05
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703165.20
Northing: 4891623.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
	LOAM			0 ft	1 ft
	GRVL	CLAY		1 ft	11 ft
	MSND	CLAY		11 ft	45 ft
	BLDR	CLAY		45 ft	46 ft
	CLAY	GRVL		46 ft	63 ft
	CLAY	SILT	MSND	63 ft	73 ft
	FSND	GRVL		73 ft	81 ft
	GRVL	MSND	CLAY	81 ft	91 ft
	FSND	CSND	GRVL	91 ft	95 ft
	MSND	GRVL	BLDR	95 ft	102 ft
	CLAY	MSND	SILT	102 ft	107 ft
	CLAY	MSND	GRVL	107 ft	118 ft
	CLAY	GRVL	BLDR	118 ft	120 ft
	CLAY	GRVL		120 ft	125 ft
	CLAY			125 ft	146 ft
	FSND	CSND	GRVL	146 ft	157 ft
	CLAY	GRVL		157 ft	160 ft
	CLAY	SHLE		160 ft	162 ft
	SHLE			162 ft	164 ft

Annular Space / Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*
2 inch			

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2801

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
31 GPM

Duration of Pumping
8 h:0 m

Final water level
-15 ft

If flowing give rate

Recommended pump depth

Recommended pump rate

Well Production
PUMP

Disinfected?

Draw Down Time (min)	*Water level*	*Recovery Time (min)*	*Water level*
SWL	-23 ft		
	FLW		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details		Hole Diameter	
Water Found at Depth	*Kind*	*Depth*	*Diameter*
		From *To*	
73 ft	Fresh		

Audit Number:
Date Well Completed: February 14, 1968
Date Well Record Received by MOE: April 16, 1968

Full Well Record Information

Well ID Number: 1902438

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	MILLBROOKE VILLAGE		
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 704070.20
Northing: 4892140.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	LOAM			0 ft	1 ft
BRWN	CLAY			1 ft	11 ft
BRWN	MSND			11 ft	16 ft
GREY	CLAY	MSND		16 ft	95 ft
	GRVL			95 ft	96 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
6 inch	STEEL		96 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2104

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
10 GPM

Duration of Pumping
2 h:0 m

Final water level
20 ft

If flowing give rate

Recommended pump depth
91 ft

Recommended pump rate
10 GPM

Well Production
PUMP

Disinfected?

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
	SWL 9 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
96 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: May 12, 1966
Date Well Record Received by MOE: October 21, 1966

Full Well Record Information

Well ID Number: 1902435

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	MILLBROOKE VILLAGE		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 704001.20
Northing: 4891803.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
	PRDG			0 ft	10 ft
BLUE	CLAY			10 ft	94 ft
	MSND			94 ft	95 ft
	GRVL			95 ft	97 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
6 inch	STEEL		97 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 1415

Results of Well Yield Testing

After test of well yield, water was
CLOUDY
If pumping discontinued, give reason

Pump intake set at

Pumping Rate
10 GPM
Duration of Pumping
3 h:0 m
Final water level
20 ft
If flowing give rate

Recommended pump depth
40 ft
Recommended pump rate
6 GPM
Well Production
PUMP
Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
	SWL 9 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
97 ft	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number:
Date Well Completed: August 21, 1964
Date Well Record Received by MOE: November 23, 1964

Full Well Record Information

Well ID Number: 1902434

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	MILLBROOKE VILLAGE		
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 704270.20
Northing: 4892240.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	PRDG			0 ft	28 ft
BLUE	CLAY			28 ft	123 ft
	GRVL			123 ft	124 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
6 inch	STEEL		124 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 1415

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
10 GPM

Duration of Pumping
3 h:0 m

Final water level
30 ft

If flowing give rate

Recommended pump depth
70 ft

Recommended pump rate
5 GPM

Well Production
PUMP

Disinfected?

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
	SWL	20 ft	
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
124 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: January 10, 1964
Date Well Record Received by MOE: February 26, 1964

Full Well Record Information

Well ID Number: 1902433

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	MILLBROOKE VILLAGE		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 704187.20
Northing: 4892186.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
BRWN	CLAY			0 ft	6 ft
BLUE	CLAY			6 ft	121 ft
	GRVL			121 ft	123 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
6 inch	STEEL		123 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 1415

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
30 GPM

Duration of Pumping
4 h:0 m

Final water level
22 ft

If flowing give rate

Recommended pump depth
50 ft

Recommended pump rate
5 GPM

Well Production
PUMP

Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
SWL	20 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
121 ft	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number:
Date Well Completed: November 05, 1963
Date Well Record Received by MOE: January 13, 1964

Full Well Record Information

Well ID Number: 1902426

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	MILLBROOKE VILLAGE		
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 704488.20
Northing: 4891921.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	CLAY			0 ft	10 ft
BLUE	CLAY			10 ft	36 ft
	FSND			36 ft	47 ft
GREY	CLAY			47 ft	80 ft
BLUE	CLAY			80 ft	86 ft
	GRVL			86 ft	87 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Commerical

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
6 inch	STEEL		87 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 5422

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
30 GPM

Duration of Pumping
8 h:0 m

Final water level
0 ft

If flowing give rate

Recommended pump depth
10 ft

Recommended pump rate
20 GPM

Well Production
PUMP

Disinfected?

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
SWL	FLW		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
86 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: May 09, 1961
Date Well Record Received by MOE:
September 25, 1961

Full Well Record Information

Well ID Number: 1902424

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	MILLBROOKE VILLAGE		
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 704153.20
Northing: 4891925.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	CLAY			0 ft	4 ft
BLUE	CLAY			4 ft	65 ft
	GRVL			65 ft	66 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
6 inch	STEEL		66 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2501

Results of Well Yield Testing

After test of well yield, water was: CLEAR

If pumping discontinued, give reason:

Pump intake set at:

Pumping Rate:

Duration of Pumping:

Final water level:

If flowing give rate: 9 GPM

Recommended pump depth:

Recommended pump rate:

Well Production: PUMP

Disinfected?:

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
	SWL		-2 ft
	FLW		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
66 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: December 23, 1960
Date Well Record Received by MOE: January 09, 1961

Full Well Record Information

Well ID Number: 1902422

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	MILLBROOKE VILLAGE		
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703898.20
Northing: 4892380.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	MSND			0 ft	30 ft
	CLAY			30 ft	124 ft
	GRVL			124 ft	129 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
6 inch	STEEL		129 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2113

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
10 GPM

Duration of Pumping
4 h:0 m

Final water level
40 ft

If flowing give rate

Recommended pump depth

Recommended pump rate

Well Production
PUMP

Disinfected?

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
	SWL 10 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
129 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: January 15, 1960
Date Well Record Received by MOE: April 25, 1960

Full Well Record Information

Well ID Number: 1902420

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	MILLBROOKE VILLAGE		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 704058.20
Northing: 4892188.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
	LOAM			0 ft	2 ft
	CLAY	STNS		2 ft	20 ft
BLUE	CLAY			20 ft	98 ft
	GRVL			98 ft	100 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
6 inch	STEEL		100 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 4713

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
40 GPM

Duration of Pumping
4 h:0 m

Final water level
30 ft

If flowing give rate

Recommended pump depth
15 ft

Recommended pump rate
5 GPM

Well Production
PUMP

Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
	SWL 8 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
100 ft	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number:
Date Well Completed: September 09, 1959
Date Well Record Received by MOE: November 16, 1959

Full Well Record Information

Well ID Number: 1902419

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	MILLBROOKE VILLAGE		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 704045.20
Northing: 4892210.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
	LOAM			0 ft	2 ft
	CLAY	STNS		2 ft	18 ft
BLUE	CLAY			18 ft	88 ft
	GRVL			88 ft	90 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction
Cable Tool

Well Use
Domestic

Status of Well
Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
6 inch	STEEL		90 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 4713

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
40 GPM

Duration of Pumping
3 h:0 m

Final water level
40 ft

If flowing give rate

Recommended pump depth
25 ft

Recommended pump rate
5 GPM

Well Production
PUMP

Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
	SWL 12 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
90 ft	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number:
Date Well Completed: August 17, 1959
Date Well Record Received by MOE: November 16, 1959

Full Well Record Information

Well ID Number: 1902417

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	MILLBROOKE VILLAGE		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 704061.20
Northing: 4891965.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
	LOAM			0 ft	3 ft
	CLAY			3 ft	28 ft
	CSND			28 ft	30 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Rotary (Convent.)

Well Use

Commerical

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
2 inch	STEEL		30 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 1527

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
6 GPM

Duration of Pumping
1 h:0 m

Final water level
4 ft

If flowing give rate

Recommended pump depth

Recommended pump rate

Well Production
PUMP

Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
SWL	FLW		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
30 ft	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number:
Date Well Completed: August 27, 1958
Date Well Record Received by MOE: September 09, 1958

Full Well Record Information

Well ID Number: 1902415

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	MILLBROOKE VILLAGE		
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 704521.20
Northing: 4892096.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	LOAM			0 ft	2 ft
BLUE	CLAY			2 ft	45 ft
	HPAN			45 ft	48 ft
	FSND			48 ft	50 ft
	CSND			50 ft	56 ft
	GRVL			56 ft	58 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Rotary (Convent.)

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
2 inch	STEEL		58 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 1527

Results of Well Yield Testing

After test of well yield, water was: CLEAR

If pumping discontinued, give reason:

Pump intake set at:

Pumping Rate:

Duration of Pumping:

Final water level:

If flowing give rate:

Recommended pump depth:

Recommended pump rate:

Well Production: PUMP

Disinfected?

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
SWL	FLW		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
56 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: June 23, 1957
Date Well Record Received by MOE: July 26, 1957

Full Well Record Information

Well ID Number: 1902413

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	MILLBROOKE VILLAGE		
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 704086.20
Northing: 4891892.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	CLAY			0 ft	40 ft
	FSND			40 ft	60 ft
	CLAY			60 ft	85 ft
	GRVL			85 ft	89 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction
Rotary (Convent.)

Well Use
Domestic

Status of Well
Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
2 inch	STEEL		89 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 1527

Results of Well Yield Testing

After test of well yield, water was: CLEAR
If pumping discontinued, give reason:
Pump intake set at:
Pumping Rate: 5 GPM
Duration of Pumping: 3 h:0 m
Final water level: 74 ft
If flowing give rate:
Recommended pump depth:
Recommended pump rate:
Well Production: PUMP
Disinfected?:

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
SWL	FLW		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
88 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: July 14, 1956
Date Well Record Received by MOE: July 26, 1956

Full Well Record Information

Well ID Number: 1902411

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	MILLBROOKE VILLAGE		
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 704133.20
Northing: 4892267.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	CLAY			0 ft	42 ft
	GRVL			42 ft	46 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Rotary (Convent.)

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
1 inch	STEEL		46 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 1527

Results of Well Yield Testing

After test of well yield, water was: CLEAR

If pumping discontinued, give reason:

Pump intake set at:

Pumping Rate: 4 GPM

Duration of Pumping: 3 h:0 m

Final water level: 0 ft

If flowing give rate:

Recommended pump depth:

Recommended pump rate:

Well Production: PUMP

Disinfected?:

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
SWL	FLW		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
42 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: June 19, 1956
Date Well Record Received by MOE: August 01, 1956

Full Well Record Information

Well ID Number: 1902410

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	MILLBROOKE VILLAGE		
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703865.20
Northing: 4892527.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	LOAM			0 ft	2 ft
BRWN	CLAY			2 ft	23 ft
BLUE	CLAY			23 ft	100 ft
	GRVL			100 ft	106 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
6 inch	STEEL		106 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 4713

Results of Well Yield Testing

After test of well yield, water was: CLEAR

If pumping discontinued, give reason:

Pump intake set at:

Pumping Rate: 15 GPM

Duration of Pumping: 3 h:0 m

Final water level: 93 ft

If flowing give rate: 3 GPM

Recommended pump depth:

Recommended pump rate:

Well Production: PUMP

Disinfected?:

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
SWL	FLW		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
106 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: May 15, 1956
Date Well Record Received by MOE: June 06, 1956

Full Well Record Information

Well ID Number: 1902408

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	MILLBROOKE VILLAGE		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 702889.20
Northing: 4891471.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
	LOAM			0 ft	2 ft
	CLAY	MSND		2 ft	6 ft
	MSND			6 ft	28 ft
GREY	CLAY			28 ft	32 ft
	CSND			32 ft	50 ft
	MSND	GRVL		50 ft	61 ft
	GRVL			61 ft	73 ft
	CLAY	GRVL		73 ft	78 ft
	GRVL			78 ft	98 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Boring

Well Use

Public

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
24 inch	STEEL		64 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*
12 inch		64 ft	74 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2415

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
280 GPM

Duration of Pumping
40 h:0 m

Final water level
62 ft

If flowing give rate

Recommended pump depth

Recommended pump rate

Well Production
PUMP

Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
	SWL 6 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
60 ft	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number:
Date Well Completed: July 01, 1955
Date Well Record Received by MOE: August 08, 1955

Full Well Record Information

Well ID Number: 1902407

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	MILLBROOKE VILLAGE		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703913.20
Northing: 4892601.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
	LOAM			0 ft	2 ft
BLUE	CLAY	STNS		2 ft	110 ft
	CLAY	GRVL	SHLE	110 ft	121 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction
Cable Tool

Well Use
Domestic

Status of Well
Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
6 inch	STEEL		121 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2113

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
17 GPM

Duration of Pumping
1 h:0 m

Final water level
60 ft

If flowing give rate

Recommended pump depth

Recommended pump rate

Well Production
PUMP

Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
SWL	FLW		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
121 ft	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number:
Date Well Completed: March 15, 1954
Date Well Record Received by MOE: December 29, 1954

Full Well Record Information

Well ID Number: 1902405

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	MILLBROOKE VILLAGE		
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 704249.20
Northing: 4891898.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
GREY	CLAY			0 ft	120 ft
	LMSN			120 ft	133 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
4 inch	STEEL		133 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2113

Results of Well Yield Testing

	Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
After test of well yield, water was	SWL	FLW		
CLEAR	1		1	
If pumping discontinued, give reason	2		2	
	3		3	
Pump intake set at	4		4	
	5		5	
Pumping Rate	10		10	
Duration of Pumping	15		15	
Final water level	20		20	
	25		25	
If flowing give rate	30		30	
1 GPM				
Recommended pump depth	40		40	
	45		45	
Recommended pump rate	50		50	
Well Production	60		60	
Disinfected?				

Water Details

Water Found at Depth	Kind
133 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: October 23, 1953
Date Well Record Received by MOE: January 14, 1954

Full Well Record Information

Well ID Number: 1902404

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	MILLBROOKE VILLAGE		
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 704474.20
Northing: 4892138.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BLUE	CLAY			0 ft	88 ft
	GRVL			88 ft	90 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
4 inch	STEEL		90 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 3908

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
3 GPM

Duration of Pumping

Final water level
60 ft

If flowing give rate

Recommended pump depth

Recommended pump rate

Well Production
PUMP

Disinfected?

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
	SWL 40 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
90 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: April 20, 1953
Date Well Record Received by MOE:
September 28, 1953

Full Well Record Information

Well ID Number: 1902403

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	MILLBROOKE VILLAGE		
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 704373.20
Northing: 4891940.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BLUE	CLAY			0 ft	135 ft
	CLAY	STNS		135 ft	136 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
4 inch	STEEL		135 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 3908

Results of Well Yield Testing

After test of well yield, water was CLOUDY

If pumping discontinued, give reason

Pump intake set at

Pumping Rate

Duration of Pumping

Final water level

If flowing give rate 3 GPM

Recommended pump depth

Recommended pump rate

Well Production PUMP

Disinfected?

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
SWL	-1 ft FLW		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
136 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: April 09, 1953
Date Well Record Received by MOE: September 28, 1953

Full Well Record Information

Well ID Number: 1902400

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	MILLBROOKE VILLAGE		
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703925.20
Northing: 4892351.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	LOAM			0 ft	2 ft
BLUE	CLAY			2 ft	99 ft
	GRVL			99 ft	100 ft
	LMSN			100 ft	101 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction
Cable Tool

Well Use
Domestic

Status of Well
Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
5 inch	STEEL		100 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2116

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
10 GPM

Duration of Pumping
6 h:0 m

Final water level
50 ft

If flowing give rate

Recommended pump depth

Recommended pump rate

Well Production
PUMP

Disinfected?

	Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
		SWL	9 ft	
	1		1	
	2		2	
	3		3	
	4		4	
	5		5	
	10		10	
	15		15	
	20		20	
	25		25	
	30		30	
	40		40	
	45		45	
	50		50	
	60		60	

Water Details

Water Found at Depth	Kind
100 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: February 15, 1951
Date Well Record Received by MOE: March 19, 1951

Full Well Record Information

Well ID Number: 1902399

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	MILLBROOKE VILLAGE		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703573.20
Northing: 4891971.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
	CLAY			0 ft	50 ft
	CSND			50 ft	58 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Cable Tool

Well Use

Public

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
4 inch	STEEL		53 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*
4 inch		53 ft	58 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2415

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
5 GPM

Duration of Pumping
8 h:0 m

Final water level
50 ft

If flowing give rate

Recommended pump depth

Recommended pump rate

Well Production
PUMP

Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
	SWL 48 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
48 ft	Fresh
58 ft	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number:
Date Well Completed: July 06, 1955
Date Well Record Received by MOE: August 24, 1955

Full Well Record Information

Well ID Number: 1902397

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	MILLBROOKE VILLAGE		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703754.20
Northing: 4892027.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
	BLDR	MSND	CLAY	0 ft	85 ft
	FSND			85 ft	180 ft
	CSND			180 ft	218 ft

Annular Space / Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Cable Tool

Well Use

Public

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*
5 inch	STEEL		213 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*To*
4 inch		213 ft	218 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2415

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
5 GPM

Duration of Pumping
8 h:0 m

Final water level
106 ft

If flowing give rate

Recommended pump depth

Recommended pump rate

Well Production
PUMP

Disinfected?

Draw Down Time (min)	*Water level*	*Recovery Time (min)*	*Water level*
SWL	100 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
100 ft	Fresh

Hole Diameter

Depth From	*To*	*Diameter*

Audit Number:
Date Well Completed: July 13, 1955
Date Well Record Received by MOE:
September 06, 1956

Full Well Record Information

Well ID Number: 1902396

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	MILLBROOKE VILLAGE		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703539.20
Northing: 4892087.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
	BLDR	MSND	CLAY	0 ft	85 ft
	FSND			85 ft	180 ft
	CSND			180 ft	205 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Cable Tool

Well Use

Public

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
4 inch	STEEL		200 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*
		200 ft	205 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2415

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
6 GPM

Duration of Pumping
8 h:0 m

Final water level
100 ft

If flowing give rate

Recommended pump depth

Recommended pump rate

Well Production
PUMP

Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
	SWL 94 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
94 ft	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number:
Date Well Completed: July 15, 1955
Date Well Record Received by MOE: August 24, 1955

Full Well Record Information

Well ID Number: 1902395

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	MILLBROOKE VILLAGE		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703627.20
Northing: 4892124.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
	BLDR	MSND	CLAY	0 ft	80 ft
	FSND			80 ft	115 ft
	CSND			115 ft	140 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Cable Tool

Well Use

Public

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
4 inch	STEEL		135 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*
4 inch		135 ft	140 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2415

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
6 GPM

Duration of Pumping
8 h:0 m

Final water level
100 ft

If flowing give rate

Recommended pump depth

Recommended pump rate

Well Production
PUMP

Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
SWL	96 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
96 ft	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number:
Date Well Completed: July 14, 1955
Date Well Record Received by MOE: August 24, 1955

Full Well Record Information

Well ID Number: 1902394

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	MILLBROOKE VILLAGE		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703717.20
Northing: 4892157.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
	BLDR	MSND	CLAY	0 ft	90 ft
	FSND	CLAY		90 ft	185 ft
	CSND			185 ft	223 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Cable Tool

Well Use

Public

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
5 inch	STEEL		215 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*
4 inch		215 ft	220 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2415

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
60 GPM

Duration of Pumping
8 h:0 m

Final water level
106 ft

If flowing give rate

Recommended pump depth

Recommended pump rate

Well Production
PUMP

Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
	SWL 98 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
98 ft	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number:
Date Well Completed: July 20, 1955
Date Well Record Received by MOE: August 24, 1955

Full Well Record Information

Well ID Number: 1902393

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	MILLBROOKE VILLAGE		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a
UTM Coordinates	*Municipal Plan and Sublot Number*	*Other*	

NAD83 — Zone 17
Easting: 702846.20
Northing: 4891450.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
	LOAM			0 ft	1 ft
BRWN	CLAY			1 ft	3 ft
BLUE	CLAY	MSND		3 ft	5 ft
	GRVL	MSND	BLDR	5 ft	7 ft
	GRVL	FSND	CLAY	7 ft	10 ft
BLUE	CLAY	GRVL		10 ft	22 ft
	MSND	GRVL		22 ft	32 ft
	CLAY	MSND		32 ft	54 ft
	MSND	GRVL		54 ft	57 ft
	BLDR	GRVL	MSND	57 ft	59 ft
	MSND	GRVL		59 ft	60 ft
	CLAY	MSND		60 ft	69 ft
	CLAY	GRVL		69 ft	71 ft
	MSND	GRVL		71 ft	73 ft
	BLDR	GRVL	MSND	73 ft	82 ft
	CLAY	GRVL	MSND	82 ft	91 ft
	GRVL	MSND	BLDR	91 ft	97 ft
	BLDR	GRVL	MSND	97 ft	98 ft
	CLAY			98 ft	100 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Rotary (Convent.)

Well Use

Not Used

Status of Well

Test Hole

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
2 inch	STEEL		87 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*
		87 ft	97 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2801

Results of Well Yield Testing

	Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
After test of well yield, water was	SWL	4 ft		
	1		1	
If pumping discontinued, give reason	2		2	
	3		3	
Pump intake set at	4		4	
	5		5	
Pumping Rate 64 GPM	10		10	
Duration of Pumping 4 h:0 m	15		15	
	20		20	
Final water level 6 ft	25		25	
If flowing give rate	30		30	
Recommended pump depth	40		40	
	45		45	
Recommended pump rate	50		50	
Well Production PUMP	60		60	
Disinfected?				

Water Details

Water Found at Depth *Kind*

Hole Diameter

Depth From *Depth To* *Diameter*

Audit Number:
Date Well Completed: July 27, 1953
Date Well Record Received by MOE: February 26, 1954

Full Well Record Information

Well ID Number: 1900450

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	013	CON 07
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703140.20
Northing: 4894818.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
	LOAM			0 ft	1 ft
BRWN	CLAY			1 ft	10 ft
GREY	CLAY	BLDR		10 ft	50 ft
GREY	CLAY	MSND	STNS	50 ft	67 ft
	MSND	STNS	CLAY	67 ft	73 ft

Annular Space / Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Cable Tool

Well Use

Livestock
Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*
6 inch	STEEL		73 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2113

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
3 GPM

Duration of Pumping
3 h:0 m

Final water level
65 ft

If flowing give rate

Recommended pump depth
67 ft

Recommended pump rate
3 GPM

Well Production
PUMP

Disinfected?

Draw Down Time (min)	*Water level*	*Recovery Time (min)*	*Water level*
	SWL 37 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
67 ft	Fresh

Hole Diameter

Depth From	*To*	*Diameter*

Audit Number:
Date Well Completed: July 31, 1963
Date Well Record Received by MOE: October 07, 1963

Full Well Record Information

Well ID Number: 1900448

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	CAVAN TOWNSHIP	010	CON 07
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 701669.20
Northing: 4893925.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	LOAM			0 ft	1 ft
BRWN	CLAY	BLDR		1 ft	20 ft
GREY	CLAY	STNS		20 ft	39 ft
BRWN	GRVL	CLAY		39 ft	40 ft
GREY	CLAY	STNS		40 ft	114 ft
BRWN	MSND			114 ft	172 ft
BRWN	MSND	GRVL		172 ft	181 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Livestock
Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
6 inch	STEEL		177 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
5 inch		177 ft	181 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2113

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
20 GPM

Duration of Pumping
3 h:0 m

Final water level
36 ft

If flowing give rate

Recommended pump depth
36 ft

Recommended pump rate
20 GPM

Well Production
PUMP

Disinfected?

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
SWL	16 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
172 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: January 04, 1961
Date Well Record Received by MOE: February 23, 1961

Full Well Record Information

Well ID Number: 1900418

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	CAVAN TOWNSHIP	013	CON 06
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703414.20
Northing: 4894013.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	PRDG			0 ft	24 ft
	CLAY			24 ft	26 ft
	GRVL	BLDR		26 ft	34 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Livestock
Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
6 inch	STEEL		24 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
		24 ft	34 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 1904

Results of Well Yield Testing

After test of well yield, water was
CLOUDY

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
20 GPM

Duration of Pumping
4 h:0 m

Final water level
25 ft

If flowing give rate

Recommended pump depth
30 ft

Recommended pump rate
5 GPM

Well Production
PUMP

Disinfected?

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
	SWL 18 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
25 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: January 11, 1967
Date Well Record Received by MOE: May 16, 1967

Full Well Record Information

Well ID Number: 1900417

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	CAVAN TOWNSHIP	013	CON 06
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703719.20
Northing: 4893582.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	PRDG			0 ft	30 ft
GREY	CLAY	BLDR		30 ft	107 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction
Cable Tool

Well Use
Livestock
Domestic

Status of Well
Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
5 inch	STEEL		107 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2501

Results of Well Yield Testing

After test of well yield, water was: CLEAR

If pumping discontinued, give reason:

Pump intake set at:

Pumping Rate: 60 GPM

Duration of Pumping:

Final water level:

If flowing give rate:

Recommended pump depth:

Recommended pump rate:

Well Production: PUMP

Disinfected?:

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
SWL	FLW		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
107 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: November 22, 1952
Date Well Record Received by MOE: January 19, 1953

Full Well Record Information

Well ID Number: 1900416

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	012	CON 06
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703474.20
Northing: 4893440.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*To*
	LOAM			0 ft	1 ft
BRWN	CLAY	MSND	STNS	1 ft	45 ft
GREY	CLAY	MSND	STNS	45 ft	207 ft
	GRVL	CSND	CLAY	207 ft	216 ft
BRWN	GRVL			216 ft	220 ft
GREY	CLAY	STNS		220 ft	227 ft
BRWN	GRVL			227 ft	232 ft

Annular Space / Abandonment Sealing Record

Depth From	*To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Cable Tool

Well Use

Public

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*To*
6 inch	STEEL		217 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*To*
4 inch		217 ft	226 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2113

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
40 GPM

Duration of Pumping
24 h:0 m

Final water level
202 ft

If flowing give rate

Recommended pump depth
205 ft

Recommended pump rate
30 GPM

Well Production
PUMP

Disinfected?

Draw Down Time (min)	*Water level*	*Recovery Time (min)*	*Water level*
SWL	65 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
216 ft	Fresh
227 ft	Fresh

Hole Diameter

Depth From	*To*	*Diameter*

Audit Number:
Date Well Completed: January 24, 1964
Date Well Record Received by MOE: May 04, 1964

Full Well Record Information
Well ID Number: 1900415

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	010	CON 06
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 702441.20
Northing: 4892740.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
	MSND	GRVL		0 ft	14 ft
	CLAY	MSND	BLDR	14 ft	28 ft
BLUE	CLAY			28 ft	70 ft
BRWN	CLAY	MSND		70 ft	120 ft
BRWN	CSND			120 ft	123 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction
Cable Tool

Well Use
Livestock
Domestic

Status of Well
Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
6 inch	STEEL		123 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 5422

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
2 GPM

Duration of Pumping
4 h:0 m

Final water level
90 ft

If flowing give rate

Recommended pump depth
100 ft

Recommended pump rate
2 GPM

Well Production
PUMP

Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
	SWL 60 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
120 ft	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number:
Date Well Completed: May 05, 1961
Date Well Record Received by MOE: September 25, 1961

Full Well Record Information

Well ID Number: 1900380

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP	012	CON 05
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703525.20
Northing: 4893004.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*
	LOAM			0 ft	2 ft
BRWN	CLAY	MSND	STNS	2 ft	20 ft
BLUE	CLAY	STNS		20 ft	53 ft
	GRVL			53 ft	54 ft

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Cable Tool

Well Use

Livestock

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*
6 inch	STEEL		54 ft

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 4713

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
12 GPM

Duration of Pumping
2 h:0 m

Final water level
44 ft

If flowing give rate

Recommended pump depth

Recommended pump rate

Well Production
PUMP

Disinfected?

Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
SWL	40 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	*Kind*
53 ft	Fresh

Hole Diameter

Depth From	*Depth To*	*Diameter*

Audit Number:
Date Well Completed: December 09, 1953
Date Well Record Received by MOE: February 22, 1954

Full Well Record Information

Well ID Number: 1900379

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	CAVAN TOWNSHIP	010	CON 05
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 702667.20
Northing: 4892632.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	PRDG			0 ft	50 ft
	MSND			50 ft	104 ft
	GRVL			104 ft	105 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction
Cable Tool

Well Use
Livestock
Domestic

Status of Well
Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
6 inch	STEEL		100 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 1415

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
10 GPM

Duration of Pumping
3 h:0 m

Final water level
60 ft

If flowing give rate

Recommended pump depth
95 ft

Recommended pump rate
5 GPM

Well Production
PUMP

Disinfected?

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
	SWL 50 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
105 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: June 12, 1964
Date Well Record Received by MOE: September 08, 1964

Full Well Record Information

Well ID Number: 1900378

Well Audit Number:
Well Tag Number:

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	Township	Lot	Concession
	CAVAN TOWNSHIP	010	CON 05
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 702620.20
Northing: 4891353.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	CLAY			0 ft	20 ft
BLUE	CLAY	BLDR		20 ft	200 ft
GREY	FSND			200 ft	278 ft
	GRVL			278 ft	279 ft
	CLAY			279 ft	307 ft
GREY	LMSN			307 ft	357 ft

Annular Space / Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction

Cable Tool

Well Use

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole OR material	Depth From	Depth To
7 inch	STEEL		307 ft
7 inch	OPEN HOLE		357 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number 2402

Results of Well Yield Testing

After test of well yield, water was
CLEAR

If pumping discontinued, give reason

Pump intake set at

Pumping Rate
15 GPM

Duration of Pumping
10 h:0 m

Final water level
150 ft

If flowing give rate

Recommended pump depth

Recommended pump rate

Well Production
PUMP

Disinfected?

Draw Down Time (min)	Draw Down Water level	Recovery Time (min)	Recovery Water level
SWL	120 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
340 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:
Date Well Completed: June 26, 1957
Date Well Record Received by MOE: July 08, 1957

Full Well Record Information

Well ID Number: 7178731

Well Audit Number: *M10743*
Well Tag Number: *A118358*

This table contains information from the original well record and any subsequent updates.

This well is part of a well cluster.
The information below is extracted from the cluster well record.
More information on the cluster well record (related to other wells in the cluster)
is also available. ***(en_wells_report?wellid=7178731)***

Well Location

Address of Well Location	*Township*	*Lot*	*Concession*
	CAVAN TOWNSHIP		
County/District/Municipality	*City/Town/Village*	*Province*	*Postal Code*
PETERBOROUGH		ON	n/a

UTM Coordinates *Municipal Plan and Sublot Number* *Other*

NAD83 — Zone 17
Easting: 703973.00
Northing: 4891792.00

Overburden and Bedrock Materials Interval

General Colour	*Most Common Material*	*Other Materials*	*General Description*	*Depth From*	*Depth To*

Annular Space / Abandonment Sealing Record

Depth From	*Depth To*	*Type of Sealant Used (Material and Type)*	*Volume Placed*

Method of Construction

Well Use

Status of Well

Construction Record - Casing

Inside Diameter	*Open Hole OR material*	*Depth From*	*Depth To*

Construction Record - Screen

Outside Diameter	*Material*	*Depth From*	*Depth To*

Well Contractor and Well Technician Information

Well Contractor's Licence Number 6988

Results of Well Yield Testing

	Draw Down Time (min)	*Draw Down Water level*	*Recovery Time (min)*	*Recovery Water level*
After test of well yield, water was	SWL			
	1		1	
If pumping discontinued, give reason	2		2	
	3		3	
Pump intake set at	4		4	
Pumping Rate	5		5	
	10		10	
Duration of Pumping	15		15	
Final water level	20		20	
	25		25	
If flowing give rate	30		30	
Recommended pump depth	40		40	
Recommended pump rate	45		45	
	50		50	
Well Production	60		60	

Disinfected?

Water Details

Water Found at Depth *Kind*

Hole Diameter

Depth From *Depth To* *Diameter*

Audit Number: M10743
Date Well Completed: October 27, 2011
Date Well Record Received by MOE: March 30, 2012

APPENDIX E

ANALYTICAL DATA

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

14-April-2014

Geo-Logic Inc.
Attn : Bob Neck

347 Pido Rd., Unit #29
Peterborough, ON
K9J 6Z8,

Phone: 705-749-3317
Fax:

Date Rec. : 04 April 2014
LR Report: **CA14093-APR14**
Reference: G024822A1 PO#17489

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Approval Date	4: Analysis Approval Time	5: MAC	6: AO/OG	7: NR Fallis
Sample Date & Time							04-Apr-14
Temperature Upon Receipt [°C]	---	---	---	---	---	---	12.0
Total Coliform [cfu/100mL]	04-Apr-14	15:35	07-Apr-14	11:13	0	---	193
E. Coli [cfu/100mL]	04-Apr-14	15:35	07-Apr-14	11:13	0	---	0
Fecal Coliform [cfu/100mL]	04-Apr-14	15:35	07-Apr-14	11:13	0	---	0
UV Transmittance [%]	07-Apr-14	10:50	10-Apr-14	10:59	---	---	96.0
Alkalinity [mg/L as CaCO3]	07-Apr-14	09:08	08-Apr-14	15:14	---	30-500	248
Colour [TCU]	07-Apr-14	10:38	08-Apr-14	15:21	---	5	< 3
Conductivity [µS/cm]	07-Apr-14	09:08	08-Apr-14	15:14	---	---	544
pH [no unit]	07-Apr-14	09:08	08-Apr-14	15:14	---	6.5-8.5	8.31
Total Suspended Solids [mg/L]	08-Apr-14	10:56	09-Apr-14	15:59	---	---	< 2
Turbidity [NTU]	04-Apr-14	15:39	07-Apr-14	13:37	1	5	0.12
Organic Nitrogen [mg/L]	08-Apr-14	08:25	08-Apr-14	08:25	---	0.15	<0.05
Total Kjeldahl Nitrogen [mg/L]	04-Apr-14	21:00	08-Apr-14	11:32	---	---	< 0.05
Ammonia+Ammonium (N) [mg/L]	07-Apr-14	07:53	08-Apr-14	08:25	---	---	< 0.04
Total Organic Carbon [mg/L]	08-Apr-14	06:25	09-Apr-14	11:07	---	5	1.2
Chloride [mg/L]	07-Apr-14	14:31	09-Apr-14	20:44	---	250	8.3
Fluoride [mg/L]	07-Apr-14	09:15	14-Apr-14	13:01	1.5	---	< 0.06
Nitrite (as N) [mg/L]	08-Apr-14	01:04	08-Apr-14	21:28	1	---	< 0.003
Nitrate (as N) [mg/L]	08-Apr-14	01:04	08-Apr-14	21:28	10	---	7.78
Sulphate [mg/L]	07-Apr-14	14:31	09-Apr-14	20:44	---	500	9.8
Hardness (dissolved) [mg/L as CaCO3]	07-Apr-14	11:30	07-Apr-14	13:17	---	80-100	296
Aluminum (dissolved) [mg/L]	07-Apr-14	13:31	08-Apr-14	09:40	---	0.1	0.0263
Arsenic (dissolved) [mg/L]	07-Apr-14	13:31	08-Apr-14	09:40	0.025	---	0.0002
Boron (dissolved) [mg/L]	07-Apr-14	13:31	08-Apr-14	09:40	5	---	0.0042
Barium (dissolved) [mg/L]	07-Apr-14	13:31	08-Apr-14	09:40	1	---	0.0579
Calcium (dissolved) [mg/L]	07-Apr-14	11:30	07-Apr-14	13:17	---	---	100
Cadmium (dissolved) [mg/L]	07-Apr-14	13:31	08-Apr-14	09:40	0.005	---	0.000011
Copper (dissolved) [mg/L]	07-Apr-14	13:31	08-Apr-14	09:40	---	1	0.0380
Chromium (dissolved) [mg/L]	07-Apr-14	13:31	08-Apr-14	09:40	0.05	---	0.0010
Iron (dissolved) [mg/L]	07-Apr-14	11:30	07-Apr-14	13:17	---	0.3	0.015

OnLine LIMS

00000142238

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

LR Report : **CA14093-APR14**

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Approval Date	4: Analysis Approval Time	5: MAC	6: AO/OG	7: NR Fallis
Potassium (dissolved) [mg/L]	07-Apr-14	11:30	07-Apr-14	13:17	---	---	1.00
Magnesium (dissolved) [mg/L]	07-Apr-14	11:30	07-Apr-14	13:17	---	---	10.9
Manganese (dissolved) [mg/L]	07-Apr-14	13:31	08-Apr-14	09:41	---	0.05	0.00054
Sodium (dissolved) [mg/L]	07-Apr-14	11:30	07-Apr-14	13:17	20*	200	3.11
Phosphorus (dissolved) [mg/L]	07-Apr-14	11:30	07-Apr-14	13:17	---	---	0.009
Lead (dissolved) [mg/L]	07-Apr-14	13:31	08-Apr-14	09:41	0.01	---	0.00245
Antimony (dissolved) [mg/L]	07-Apr-14	13:31	08-Apr-14	09:41	0.006	---	< 0.0002
Selenium (dissolved) [mg/L]	07-Apr-14	13:31	08-Apr-14	09:41	0.01	---	< 0.001
Uranium (dissolved) [mg/L]	07-Apr-14	13:31	08-Apr-14	09:41	0.02	---	0.000358
Zinc (dissolved) [mg/L]	07-Apr-14	13:31	08-Apr-14	09:41	---	5	0.087
Cation sum [meq/L]	---	---	---	---	---	---	6.05
Anion Sum [meq/L]	---	---	---	---	---	---	5.39
Anion-Cation Balance [% difference]	---	---	---	---	---	---	5.76
Ion Ratio	---	---	---	---	---	---	1.12
Total Dissolved Solids (calculated) [mg/L]	---	---	---	---	---	---	282
Conductivity (calculated) [µS/cm]	---	---	---	---	---	---	572
Langelier's Index [@4°C]	---	---	---	---	---	---	0.75
Saturation pH [pHs @ 4°C]	---	---	---	---	---	---	7.56

MAC - Maximum Acceptable Concentration
AO/OG - Aesthetic Objective / Operational Guideline
NR - Not reportable under applicable Provincial drinking water regulations as per client.

Brian Graham B.Sc.
Project Specialist
Environmental Services, Analytical

OnLine LIMS

0000142238

APPENDIX F

WATER BALANCE

Appendix F.1

Water Budget (Thornthwaite Method 1948) - Average Values*

Peterborough A **Elevation:** 191.4 masl

Month	Mean Temperature (^{o}C)	Heat Index	Potential ET (mm)	Daylight Correction Factor	Adjusted ET (mm)	Total Precipitation (mm)	Surplus (mm)	Deficit (mm)
January	-8.9	0	0	0.82	0	58.4	58.40	
February	-7.7	0	0	0.82	0	50.6	50.60	
March	-2	0	0	1.03	0	65	65.00	
April	5.7	1.22	28.10	1.12	31.47	68.8	37.33	
May	12.4	3.96	61.96	1.27	78.69	73.2	0.00	5.49
June	16.8	6.26	84.39	1.28	108.02	76.7	0.00	31.32
July	19.4	7.79	97.69	1.3	127.00	66.7	0.00	60.30
August	18.2	7.07	91.55	1.2	109.86	83.2	0.00	26.66
September	13.5	4.50	67.56	1.04	70.26	78.4	8.14	
October	7.3	1.77	36.14	0.95	34.34	70	35.66	
November	1.7	0.20	8.21	0.81	6.65	79	72.35	
December	-5.3	0	0	0.78	0	70.3	70.30	
TOTAL	5.9	32.8	475.6		566.3	840.3	397.8	123.8
				TOTAL WATER SURPLUS:		274.0	mm	

Notes:

Peterborough A weather station utilized: 44^{o} 14' N, 78^{o} 22' W

*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

Total Moisture Surplus is calculated as total precipitation minus actual evapotranspiration

Formulas utilized:

$I = (T_i/5)^{1.514}$

$E=0$ when $T_i<0$ ^{o}C

$E=16(10T_i/I_{tot})^{a}$ when $0<T_i<26.5$ ^{o}C

$E=-415.85+32.24T_i-0.43T_i^{2}$ when $T_i>26.5$ ^{o}C

$a=6.7x10^{-7}I^{3}-7.71x10^{-5}I^{2}+1.79x10^{-2}I+0.49$

a = 1.017325321

Appendix F.2

Water Budget Pre-Development

Catchment Designation	Site				
	Cultivated	Gravel Road	Buildings	Forested	Total
Area (m^2)	390000	2500	2000	255500	650000
Pervious Area (m^2)	390000	2500	0	255500	648000
Impervious Area (m^2)	0	0	2000	0	2000
INFILTRATION FACTORS					
Topography Infiltration Factor	0.2	0	0.2	0.15	
Soil Infiltration Factor	0.2	0.4	0.2	0.2	
Land Cover Infiltration Factor	0.1	0	0.15	0.2	
MOE Infiltration Factor	0.5	0.4	0.55	0.55	
Actual Infiltration Factor	0.5	0.4	0	0.55	0.52
Runoff Coefficient	0.5	0.6	0.45	0.45	0.48
Runoff from Impervious Surfaces*	0	0	0.8	0	
INPUTS (PER UNIT AREA)					
Precipitation (mm/yr)	840	840	840	840	840
Run On (mm/yr)	0	0	0	0	0
Other Inputs (mm/yr)	0	0	0	0	0
Total Inputs (mm/yr)	840	840	840	840	840
OUTPUTS (PER UNIT AREA)					
Precipitation Surplus (mm/yr)	274	274	672	274	275
Net Surplus (mm/yr)	274	274	672	274	275
Evaportranspiration (mm/yr)	566	566	168	566	565
Infiltration (mm/yr)	137	110	0	151	142
Rooftop Infiltration (mm/yr)	0	0	58	0	1
Total Infiltration (mm/yr)	137	110	58	151	142
Runoff Pervious Areas	137	164	614	123	133
Runoff Impervious Areas	0	0	0	0	0
Total Runoff (mm/yr)	137	164	614	123	133
Total Outputs (mm/yr)	840	840	840	840	840
Difference (Inputs - Outputs)	0	0	0	0	
INPUTS (VOLUMES)					
Precipitation (m^3/yr)	327717	2101	1681	214697	546195
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)	327717	2101	1681	214697	546195
OUTPUTS (VOLUMES)					
Precipitation Surplus (m^3/yr)	106867	685	1344	70012	178908
Net Surplus (m^3/yr)	106867	685	1344	70012	178908
Evaportranspiration (m^3/yr)	220850	1416	336	144685	367287
Infiltration (m^3/yr)	53434	274	0	38506	92214
Rooftop Infiltration (m^3/yr)	0	0	117	0	117
Total Infiltration (m^3/yr)	53434	274	117	38506	92330
Runoff Pervious Areas (m^3/yr)	53434	411	1228	31505	86578
Runoff Impervious Areas (m^3/yr)	0	0	0	0	0
Total Runoff (m^3/yr)	53434	411	1228	31505	86578
Total Outputs (m^3/yr)	327717	2101	1681	214697	546195
Difference (Inputs - Outputs)	0	0	0	0	0

Notes:

*Evaporation from impervious areas was assumed to be 20% of precipitation.

Appendix F.3

Water Budget Post-Development - No Mitigation Strategies

Catchment Designation	**Site**					
	Asphalt	Homes	SWP	Forested	Lawns	Total
Area (m^2)	59175	134130	32500	255500	168695	650000
Pervious Area (m^2)	0	0	0	255500	168695	424195
Impervious Area (m^2)	59175	134130	32500	0	0	225805
INFILTRATION FACTORS						
Topography Infiltration Factor	0.2	0.2	0.2	0.15	0.2	
Soil Infiltration Factor	0.2	0.2	0.2	0.2	0.2	
Land Cover Infiltration Factor	0	0.15	0.15	0.2	0.15	
MOE Infiltration Factor	0.4	0.55	0.55	0.55	0.55	
Actual Infiltration Factor	0	0	0.05	0.55	0.55	0.24
Runoff Coefficient	1	1	0.95	0.45	0.45	0.76
Runoff from Impervious Surfaces*	0.8	0.8	0.8	0	0	
INPUTS (PER UNIT AREA)						
Precipitation (mm/yr)	840	840	840	840	840	840
Run On (mm/yr)	0	0	0	0	0	0
Other Inputs (mm/yr)	0	0	0	0	0	0
Total Inputs (mm/yr)	840	840	840	840	840	840
OUTPUTS (PER UNIT AREA)						
Precipitation Surplus (mm/yr)	672	672	672	274	274	271
Net Surplus (mm/yr)	672	672	672	274	274	271
Evaportranspiration (mm/yr)	168	168	168	566	566	197
Infiltration (mm/yr)	0	0	34	151	151	39
Rooftop Infiltration (mm/yr)	0	0	0	0	0	0
Total Infiltration (mm/yr)	0	0	34	151	151	39
Runoff Pervious Areas	0	0	0	123	123	32
Runoff Impervious Areas	672	672	639	0	0	200
Total Runoff (mm/yr)	672	672	639	123	123	232
Total Outputs (mm/yr)	840	840	840	840	840	468
Difference (Inputs - Outputs)	0	0	0	0	0	
INPUTS (VOLUMES)						
Precipitation (m^3/yr)	49725	112709	27310	214697	141754	546195
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)	49725	112709	27310	214697	141754	546195
OUTPUTS (VOLUMES)						
Precipitation Surplus (m^3/yr)	39780	90168		70012	46225	246184
Net Surplus (m^3/yr)	39780	90168	21848	70012	46225	268032
Evaportranspiration (m^3/yr)	9945	22542	5462	144685	95529	278163
Infiltration (m^3/yr)	0	0	1092	38506	25424	65023
Rooftop Infiltration (m^3/yr)	0	0	0	0	0	0
Total Infiltration (m^3/yr)	0	0	1092	38506	25424	65023
Runoff Pervious Areas (m^3/yr)	0	0	0	31505	20801	52307
Runoff Impervious Areas (m^3/yr)	39780	90168	20755	0	0	150703
Total Runoff (m^3/yr)	39780	90168	20755	31505	20801	203009
Total Outputs (m^3/yr)	49725	112709	27310	214697	141754	546195
Difference (Inputs - Outputs)	0	0	0	0	0	0

Notes:

*Evaporation from impervious areas was assumed to be 20% of precipitation.
In this scenario, runoff from roofttops and asphalt is lost. No infiltration.
Building footprints (i.e. building rooftops) assumed to cover 40% of lot

Appendix F.4

Water Budget Post-Development - With Mitigation Strategies

Catchment Designation	Site					
	Asphalt	Homes	SWP	Forested	Lawns	Total
Area (m^2)	59175	134130	32500	255500	168695	650000
Pervious Area (m^2)	0	0	0	255500	168695	424195
Impervious Area (m^2)	59175	134130	32500	0	0	225805
INFILTRATION FACTORS						
Topography Infiltration Factor	0.2	0.2	0.2	0.15	0.2	
Soil Infiltration Factor	0.2	0.2	0.2	0.2	0.2	
Land Cover Infiltration Factor	0	0.15	0.15	0.2	0.15	
MOE Infiltration Factor	0.4	0.55	0.55	0.55	0.55	
Actual Infiltration Factor	0.1	0.55	0.05	0.55	0.55	0.34
Runoff Coefficient	0.9	0.45	0.95	0.45	0.45	0.66
Runoff from Impervious Surfaces*	0.8	0.8	0.8	0	0	
INPUTS (PER UNIT AREA)						
Precipitation (mm/yr)	840	840	840	840	840	840
Run On (mm/yr)	0	0	0	0	0	0
Other Inputs (mm/yr)	0	0	0	0	0	0
Total Inputs (mm/yr)	840	840	840	840	840	840
OUTPUTS (PER UNIT AREA)						
Precipitation Surplus (mm/yr)	672	672	672	274	274	271
Net Surplus (mm/yr)	672	672	672	274	274	271
Evaportranspiration (mm/yr)	168	168	168	566	566	197
Infiltration (mm/yr)	67	0	34	151	151	45
Rooftop Infiltration (mm/yr)	0	174	0	0	0	36
Total Infiltration (mm/yr)	67	174	34	151	151	81
Runoff Pervious Areas	0	0	0	123	123	32
Runoff Impervious Areas	605	498	639	0	0	158
Total Runoff (mm/yr)	605	498	639	123	123	190
Total Outputs (mm/yr)	840	840	840	840	840	468
Difference (Inputs - Outputs)	0	0	0	0	0	
INPUTS (VOLUMES)						
Precipitation (m^3/yr)	49725	112709	27310	214697	141754	546195
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)	49725	112709	27310	214697	141754	546195
OUTPUTS (VOLUMES)						
Precipitation Surplus (m^3/yr)	39780	90168	21848	70012	46225	268032
Net Surplus (m^3/yr)	39780	90168	21848	70012	46225	268032
Evaportranspiration (m^3/yr)	9945	22542	5462	144685	95529	278163
Infiltration (m^3/yr)	3978	0	1092	38506	25424	69001
Rooftop Infiltration (m^3/yr)	0	23329	0	0	0	23329
Total Infiltration (m^3/yr)	3978	23329	1092	38506	25424	92330
Runoff Pervious Areas (m^3/yr)	0	0	0	31505	20801	52307
Runoff Impervious Areas (m^3/yr)	35802	66838	20755	0	0	123396
Total Runoff (m^3/yr)	35802	66838	20755	31505	20801	175702
Total Outputs (m^3/yr)	49725	112709	27310	214697	141754	546195
Difference (Inputs - Outputs)	0	0	0	0	0	0

Notes:

*Evaporation from impervious areas was assumed to be 20% of precipitation.

In this scenario, runoff from roofttops infiltrated to the ground.

Building footprints (i.e. building rooftops) assumed to cover 40% of lot

Approximately 93 mm/yr per roof top is needed to be infiltrated to match pre-development infiltration.

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)	546195	546195	0%	546195	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)	546195	546195	0%	546195	0%
OUTPUTS (VOLUMES)					
Precipitation Surplus (m^3/yr)	178908	246184	38%	268032	50%
Net Surplus (m^3/yr)	178908	268032	50%	268032	50%
Evapotranspiration (m^3/yr)	367287	278163	-24%	278163	-24%
Infiltration (m^3/yr)	92214	65023	-29%	69001	-25%
Rooftop Infiltration (m^3/yr)	117	0	-100%	23329	19916%
Total Infiltration (m^3/yr)	92330	65023	-30%	92330	0%
Runoff Pervious Areas (m^3/yr)	86578	52307	-40%	52307	-40%
Runoff Impervious Areas (m^3/yr)	0	150703	15070276%	123396	12339555%
Total Runoff (m^3/yr)	86578	203009	134%	175702	103%
Total Outputs (m^3/yr)	546195	546195	0%	546195	0%