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PRELIMINARY REPORT ON

**SECONDARY SOURCE GROUNDWATER
INVESTIGATION 407 TRANSITWAY
FROM EAST OF HIGHWAY 400
TO KENNEDY ROAD**

Submitted to:
LGL Limited
22 Fisher Street
King City, Ontario
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October 2007 (Revised 2010)

07-1181-0009



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1.0 INTRODUCTION

Golder Associates Ltd. (Golder), was retained by LGL Limited to carry out a Secondary Source Groundwater Investigation (SSGI) for the 407 Transitway extending from east of Highway 400 to Kennedy Road (see Figures 1 to 3). The purpose of the SSGI was to characterize the existing groundwater resources and hydrogeology in the vicinity of the study area and to predict potential impact on groundwater resources which may arise as a result of the proposed construction work.

The type, design and route selection of the transportation alternatives being considered for development within the transitway are currently in the planning and preliminary design phase. Therefore, the objective of the preliminary SSGI is to identify potential hydrogeological constraints to the transitway development within the identified transitway study corridor (See Figures 1 to 3).

2.0 METHOD OF INVESTIGATION

Information reviewed as part of the investigation consisted of:

- A limited “windshield reconnaissance” of selected portions of the study area within the Highway 407 study corridor on August 27, 2007 to visually corroborate the background information reviewed.
- Aerial photographs, topographic and geologic mapping, available MOE water well records and related reports within the study area, including geotechnical investigations and MTO reports including;
- Golder Associates Ltd., 2004. Preliminary Geotechnical Study York Rapid Transit Plan Highway 7 Corridor and Vaughan North-South Regional Municipality of York, Ontario.
- LGL Limited, 2003. Natural Sciences Report, Highway 7 Corridor and Vaughan North-South Link Public Transit Improvements Individual Environmental Assessments.
- Ontario Ministry of the Environment, Water Well Records.
- Ontario Ministry of Transportation and Communications. Preliminary Design Report (Environmental Status Statement) Volume 1: Highway 407 From Jane Street Easterly 9.5 miles to Woodbine Avenue and New Highway 7 From West of Dufferin Street Easterly 4.0 Miles to Bayview Avenue, W.P. 89-78-00.
- Ontario Ministry of Transportation. Predesign Report Volume 1: Highway 404/407 Interchange Including Highway 407 From Leslie Street Easterly 2.6 Kilometres to Woodbine Avenue and Highway 404 From South of John Street Northerly 4.0 Kilometres to North of Highway 7, W.P. 617-89-01.
- Ontario Ministry of Transportation. Preliminary Design Report Volume 1: Highway 407 Woodbine Avenue Easterly to Highway 48 W.P.90-78-00.

- Sharpe, D.R., Barnett, P.J., Russell, H.A.J., Brennand, T.A., Finley, D., Gorrell, G., and Stacey, P., 1997. *Regional geological mapping of the Oak Ridges Moraine, Greater Toronto Area, southern Ontario*; Geological Survey of Canada, Open File 3062, Scale 1:200,000.

The purpose of the SSGI was to identify the following:

- General groundwater usage including aquifers, well types and locations;
- Areas of high water table and up-welling;
- Areas of groundwater recharge and discharge;
- Areas of high overburden permeability;
- Locations and usage of large volume wells;
- Wells with known quality and quantity problems; and,
- Groundwater dependent commercial enterprises.

Based on the above information, a groundwater impact assessment was carried out to determine, to the extent possible based on the accessible information, the following:

- Areas of groundwater altered by physical intrusion and the likelihood of interception, draw-down, compaction and impoundment of groundwater;
- Areas of obstruction to groundwater recharge and discharge;
- Likelihood and significance of releases of contaminants to groundwater;
- Likelihood and significance of interference with wells; and,
- Impacts of areas of high groundwater table on the project.

This groundwater investigation presents a generalized interpretation of hydrogeologic conditions and has been based on available background information and a limited “windshield reconnaissance” as outlined above. Actual hydrogeologic conditions within the project limit will vary and are subject to confirmation with actual site specific investigations including boreholes, monitoring wells, test pits, groundwater hydraulic testing, chemical analyses and the like. For this stage of the proposed project, the general geologic conditions are defined only on a preliminary basis from existing data and mapping. The study area includes a 1000 m wide corridor centred on the existing Highway 407.

3.0 EXISTING CONDITIONS

3.1 Regional Geology

The Quaternary geology of the study area is illustrated on Figure 4. According to Sharpe et. al. (1997), the overburden at ground surface within the study area consists of the following soil units:

- Glacial till deposits (Unit 3f) known as Newmarket Till. The unit is characterized as a dense, stony silty sand to sandy silt till formation.

- Glacial till deposits (Unit 4b) known as Halton Till. This unit is predominately clayey silt to silt till with interbedded sand and silt.
- Glacial lake deposits (Unit 7) that are primarily comprised of silt and clay.
- Glacial lake deposits (Unit 8a) that are primarily comprised of sand and gravel.
- River deposits (Unit 10), primarily along existing surface water courses and are generally comprised of gravel, sand, silt and clay.

3.2 Study Area Hydrogeology

Hydrogeologic cross sections along Highway 407 are presented in seven sections, on Figures 5 to 11. The cross sections are based on Ontario Ministry of Environment (MOE) water well records. The ground surface shown on the sections is based on borehole or well elevations and is not intended to accurately represent the ground surface elevation in any one particular location.

The sections indicate that the geology of the study area consists of thick overburden units resting upon bedrock. The thickness of the overburden is variable and undefined as in most cases the wells do not reach the bedrock surface when drilled. The Paleozoic bedrock in the area consists primarily of the Georgian Bay Formation. This sedimentary rock formation includes shale, siltstone, sandstone and interbeds of limestone. Within the area of the planned project, it is expected that the bedrock will be at depths exceeding conventional excavation necessary for the construction works.

The stratigraphy, as described in the well records, indicates variable geologic conditions ranging from clay to gravel. In many areas, there is not a strong consistent correlation between the encountered geologic units in adjacent boreholes. The distribution of wells along the transitway is not uniform and there are portions where subsurface data is not available.

Clay and till formations are the most common units in the subsurface, with some local aquifer materials identified within the finer grained deposits. Interpreted generalized aquifer zones are shown on the cross section figures.

- Section 1 Highway 400 to Keele Street – Limited available well record data with deep aquifer materials identified near Highway 400 in the 130 masl range.
- Section 2 Keele to west of Dufferin Street - Aquifer materials identified in a unit in the range of approximately 150 masl. Smaller discontinuous units are interpreted at elevation ranges of 175 to 190 masl.

- Section 3 Bathurst Street area - Limited available well record data.
- Section 4 West of Yonge Street to Bayview Avenue – Aquifer materials identified in a unit in the range of 125 to 175 masl. The unit appears to become shallower in depth in an easterly direction. Sporadic discontinuous shallow aquifer units are interpreted along this section.
- Section 5 Bayview Avenue to Highway 404 – Aquifer units identified at elevation ranges of 140 to 175 masl.
- Section 6 Woodbine Avenue to east of Warden Avenue - Presence of aquifer type materials, with thicker units identified in the Woodbine Avenue area.
- Section 7 Kennedy Road Area – Relatively shallow aquifer material units identified in this section in the range of 150 masl up to 170 masl. Most wells in this area are relatively shallow.

3.3 Groundwater Flow and Water Table Depth

Groundwater conditions are expected to vary considerably along the transitway. Shallow groundwater flow will be dependent on local topography and will generally be towards water courses, with deeper regional groundwater flow expected to be to the south. The aquifer material units identified in the cross sections generally provide the water table depth at a given location. Since these aquifer units are found within low-permeability materials there is potential for areas of groundwater that are perched above the main aquifer units. These low-permeability materials act as an aquitard and therefore the aquifer units may also exhibit flowing artesian conditions (groundwater flows to the ground surface). The potential for artesian pressures cannot be further defined at this stage of evaluation based on the accuracy in the well record surface elevations.

Groundwater levels will be highly controlled by the local subsurface stratigraphy, where groundwater conditions may be critical for planning, design, or construction, they should be investigated by means of observation wells or piezometers installed so as to differentiate between perched and aquifer groundwater levels.

Wells with high static water levels, that are above or within 3 m of ground surface are located along the study area and are highlighted on the location maps (Figure 1 to 3). Clusters of high static water level wells are observed near Keele Street, between Bathurst Street and Yonge Street and near Woodbine Avenue.

3.4 Groundwater Discharge and Recharge

Groundwater recharge areas were assessed based on local topographic and geologic conditions. Recharge will occur over the majority of the study area away from watercourses, which are generally associated with groundwater discharge and in areas of high water table. Recharge is expected to be more significant in areas of relatively permeable surficial geological units such as the Newmarket Till (Unit 3f) and Glacial lake deposits (Unit 8a). Generally, these are not considered regionally significant recharge areas.

As stated, groundwater discharge areas will most likely correlate with areas surface water courses such as near Black Creek, West Don River, East Don River, German Mills Creek, Apple Creek and Beaver Creek.

3.5 Groundwater Usage

MOE water well records indicate that approximately 143 water wells are located within the 407 study corridor. Additional wells may exist within the study area, but construction records were not submitted to the MOE and are not included in the database.

A summary of the well records within the study area is presented in Table 1. There is no information available to confirm if the wells still exist or are currently in operation. The majority of well records indicate construction in the 1950's and 1960's. It is likely that a number of these wells have been destroyed or decommissioned as the study area has become fully serviced with municipal supplies. Possible well locations still dependant on well supply include industrial/manufacturing facilities which are located along the transitway and golf courses located between Bayview Avenue and Yonge Street.

Golder is not aware of known well contamination and/or water quality/quantity issues within the study area. However, it should be noted that records of such issues are not usually available in the public sources reviewed. Such information is usually only available directly from well owners and residents as part of a door-to-door well survey. Nevertheless, it is our experience that there are groundwater supply problems typical of the hydrogeologic setting of this project. These include:

- Water quality in shallow overburden aquifers. Bacterial contamination is common with shallow bored/dug wells and the wells are generally susceptible to impact from infiltrating surface water, including road salt impact.
- Shallow bored/dug wells commonly experience quantity problems in summer and early autumn, resulting from a seasonal drop in water table elevation. Of concern is that this is

typical peak construction season and the causes of such quantity interruptions can be misinterpreted by residents.

There are 44 shallow wells, defined as less than 15 m deep, within the study area. Within Area 1 (Figure 1) there are 23 wells, Area 2 (Figure 2) 10 wells, and within Area 3 (Figure 3) 11 shallow wells recorded.

4.0 GROUNDWATER IMPACT ASSESSMENT

Based on the above information, a groundwater impact assessment has been carried out. The planning and design for works within the 407 Transitway are preliminary at this time. The groundwater impact assessment as a result of the proposed works is outlined in the following sections and is based on common transportation network construction projects. Once the final design is selected, the potential impact of the proposed construction works should be re-assessed. Further investigation and monitoring may be necessary based on the final design.

4.1 Physical Alteration of Existing Groundwater Regime

Based on potential construction works and the hydrogeologic conditions, potential alterations to the groundwater regime include;

- Profile lowering and drainage improvements have the potential to dewater or lower the local water table if the water table is intercepted and preferentially drained by ditches, swales or culverts.
- Bridge construction extension or widening over water courses may cause temporary impact to the groundwater regime, however, this impact is expected to be negligible post-construction once water table conditions equilibrate around the new structures.
- Temporary alteration of the groundwater regime may occur as a result of any positive dewatering that is implemented during construction. The measured impacts and effective radius of influence from the dewatering will be dependant on the hydrogeologic conditions. The impacts associated with the dewatering activities are expected to be temporary only.
- Overall the most significant potential impacts are expected to be associated with the construction of structures near valley corridors.

4.2 Impact on Groundwater Recharge and Discharge

A reduction in groundwater recharge to the subsurface will occur as a result of the construction of impermeable surfaces. The reduction will be dependant on the final design of the transitway construction works. Recharge lost to impermeable surfaces can in part be mitigated by direction of runoff to ground surfaces. Based on the relatively large regional areas from which the local watersheds and aquifers derive recharge, the potential reduction in overall groundwater recharge is not expected to be significant. It is unlikely that the potential reduction in recharge would produce a measurable effect on groundwater recharge and discharge functions, including baseflow in streams and water well supply quantity. Enhanced infiltration techniques could be utilized to mitigate against the small loss in recharge and would require site-specific testing to assess the need for and the suitability of the areas for enhanced infiltration techniques.

Discharge functions within the study area may be reduced depending on the final design of the proposed works. Profile lowering activities could reduce the existing hydraulic gradients to an extent where a reduction in groundwater discharge would be measurable. The effect of construction activities on the high water table areas and the associated potential discharge should be re-assessed following final design.

4.3 Water Well Interference

The presence of municipal water supply servicing within the study area will result in many water wells identified in the well records being inactive, decommissioned, or demolished. Concerns regarding well supply will be for only those wells that remain in active use. There is no information available to confirm if the wells still exist or are currently in operation, however, we consider it unlikely that many of these wells remain in use. Normally the most susceptible wells to either quantity or quality interference related to highway construction are the shallow overburden wells. As discussed in Section 3.5, shallow overburden wells are located throughout the study area.

Should positive dewatering be required, it is recommended that a water well survey be conducted within 500 m of locations at which the dewatering may occur. The pre-construction survey should be followed by monitoring of water levels in the selected wells during positive dewatering activities.

Alternatively, passive dewatering may be implemented during construction which has the potential to temporarily lower the water table and affect nearby shallow overburden wells. Passive dewatering would involve managing groundwater inflow but not actively promoting its withdrawal using wells as is the case with positive dewatering techniques. Such dewatering is likely to be temporary while construction is active and will subside when water table conditions stabilize with the structures that are installed and the fill materials used in construction. The

effective radius of influence is expected to be significantly lower than with positive dewatering activities.

Profile lowering, ditch relocations, embankments and drainage improvements which intersect the water table may result in water table lowering in the vicinity of the structure. If deep excavations or permanent service installations below the water table are to be carried out, then some long term lowering of the water table in the vicinity of these installations may result. This may result in a corresponding reduction in the groundwater supplies in shallow wells. If such excavations or installations are anticipated, the actual soil and groundwater conditions in those areas should be assessed along with a water well survey to identify wells, if any, which may be potentially impacted.

4.4 Potential for Groundwater Contamination

Shallow wells located near the study area may be susceptible to impact by de-icing salt application should a paved transitway alternative be implemented. Chloride, which is highly mobile in the subsurface, is a major constituent of road salt. Chloride at high concentrations (> 250 mg/L) may produce an aesthetic impact on the taste of water. Sodium, which is the other major constituent of road salt, is less mobile in the subsurface, but elevated concentrations may be of concern to persons suffering from hypertension or other medical conditions.

Because of the mobility of road salt constituents, mitigation of road salt impacts is difficult. However, where practical, road salt application within the right-of-way should be at the minimum levels allowed within the context of MTO's standard road salt application procedures.

Mobile vehicle re-fuelling during construction presents a risk of impact to local wells as a result of accidental releases of fuel. It is our opinion that shallow wells are the most susceptible to fuel impacts. In general only large volume releases (i.e. >100 L) are likely to have an adverse impact on local water well supplies. This risk can be minimized or managed by allowing re-fuelling only in designated areas preferably situated on a paved, impermeable surface and by having an emergency response plan in place to clean up all releases of fuel.

4.5 Impact of Areas of High Water Table

Areas of high water table (i.e. less than 1 metre below ground surface) may affect construction progress and technique. Wells with static water levels above or within 3 m of ground surface are shown on Figures 1 to 3. As well, based on observations made during our windshield survey, areas of high water table are likely generally limited to valley corridors. Proposed construction works which may impact high water table areas include positive or passive dewatering, expansion and replacement of culverts and construction/relocation of drainage ditches. The effect of the

high water table on these proposed construction activities should be carefully reviewed by the design engineers and the contractor.

5.0 SUMMARY

Sensitive ground water features within the study corridor are associated with generally north-south trending valley features. A significant numbers of wells are not expected to remain in use in the immediate (i.e. <1 km) vicinity of the corridor study area. Generally given the orientation and location of sensitive groundwater features and the current level of detail for this study all potential east-west alignments within the transitway study corridor are equal with regard to potential for groundwater impacts or constraints during construction.

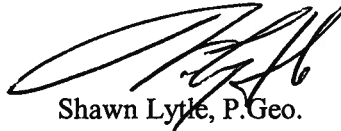
6.0 CLOSURE

We trust that this report meets your immediate requirements. The assessment of potential groundwater and water well interference effects is based on our understanding of the proposed construction works at the time of reporting. The findings of this report should be re-assessed in light of any changes to the proposed construction project.

GOLDER ASSOCIATES LTD.



Mike Fairbanks, P.Geo.
Hydrogeologist



Shawn Lytle, P.Geo.
Managing Principal

MRF/SDL/plc

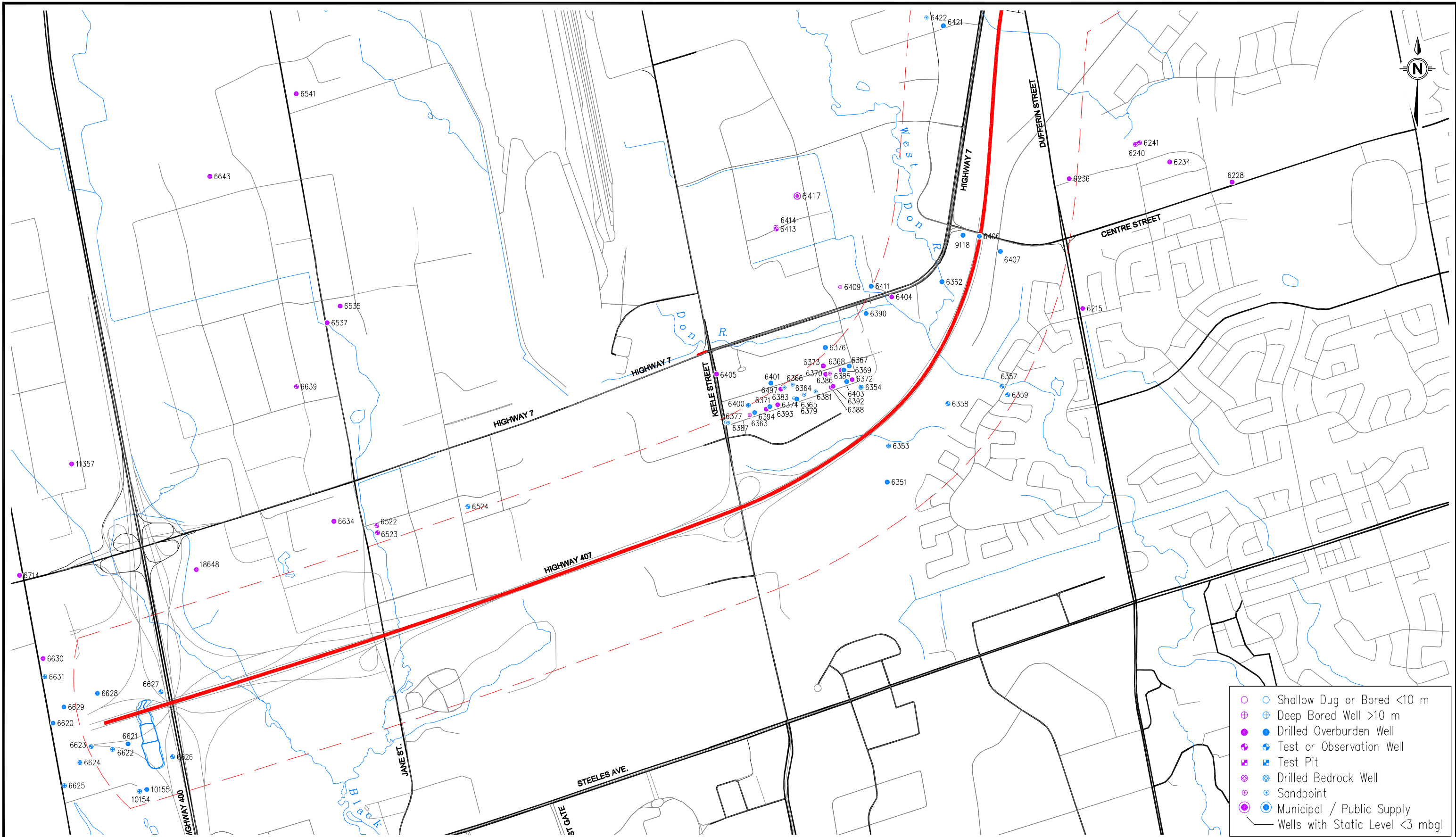
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7.0 REFERENCES

- Golder Associates Ltd., 2004. *Preliminary Geotechnical Study York Rapid Transit Plan Highway 7 Corridor and Vaughan North-South Regional Municipality of York, Ontario.*
- LGL Limited, 2003. *Natural Sciences Report, Highway 7 Corridor and Vaughan North-South Link Public Transit Improvements Individual Environmental Assessments.*
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FIGURES

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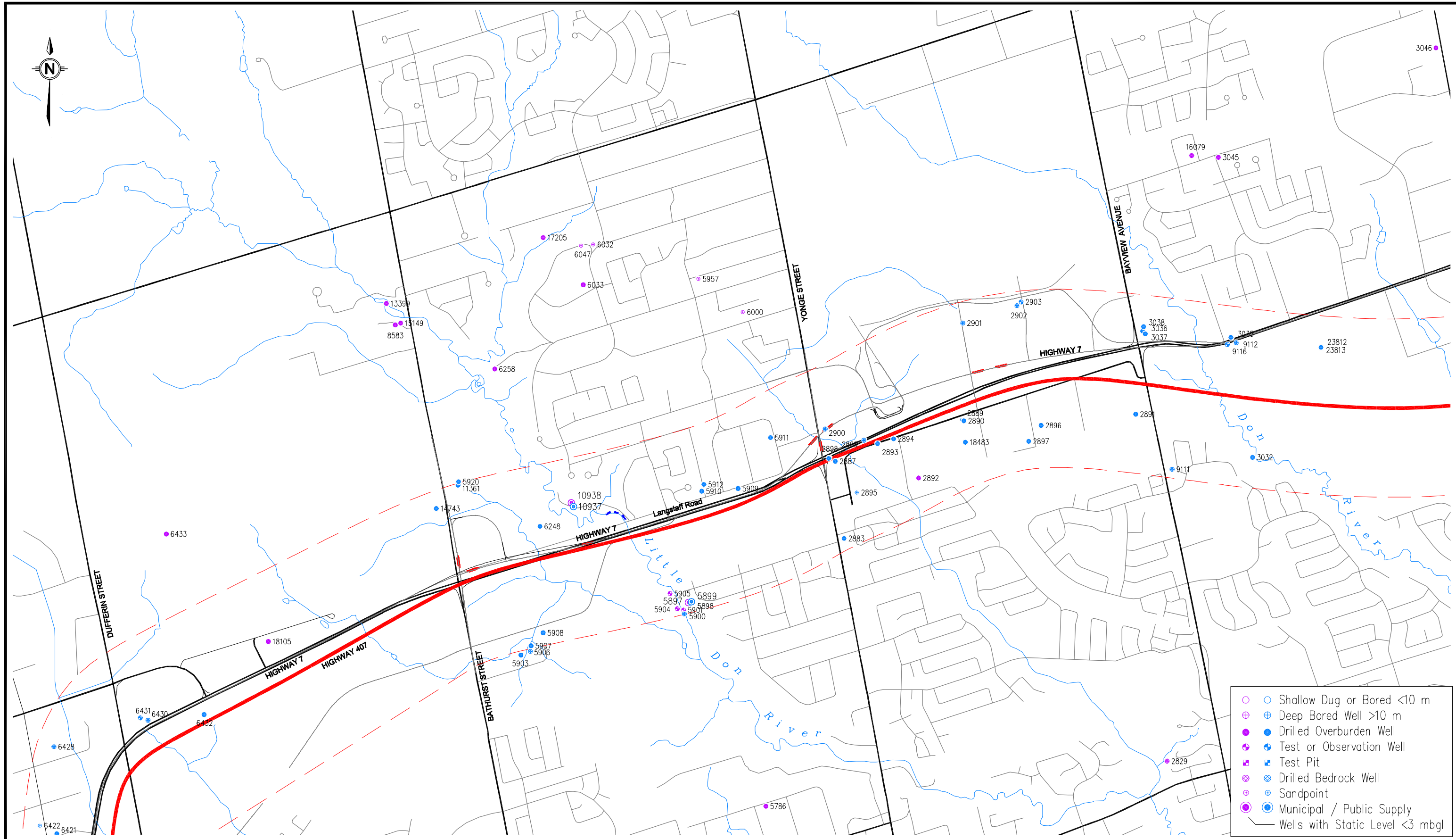
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LOCATION MAP 1
HIGHWAY 400 TO DUFFERIN STREET
HWY 407 TRANSITWAY
GROUNDWATER INVESTIGATION
FIGURE 1

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- Shallow Dug or Bored <10 m
- ⊕ Deep Bored Well >10 m
- Drilled Overburden Well
- ⊕ Test or Observation Well
- Test Pit
- ⊗ Drilled Bedrock Well
- ⊙ Sandpoint
- ⊕ Municipal / Public Supply
- Wells with Static Level <3 mbgl

Highway 407
Study Area Boundary

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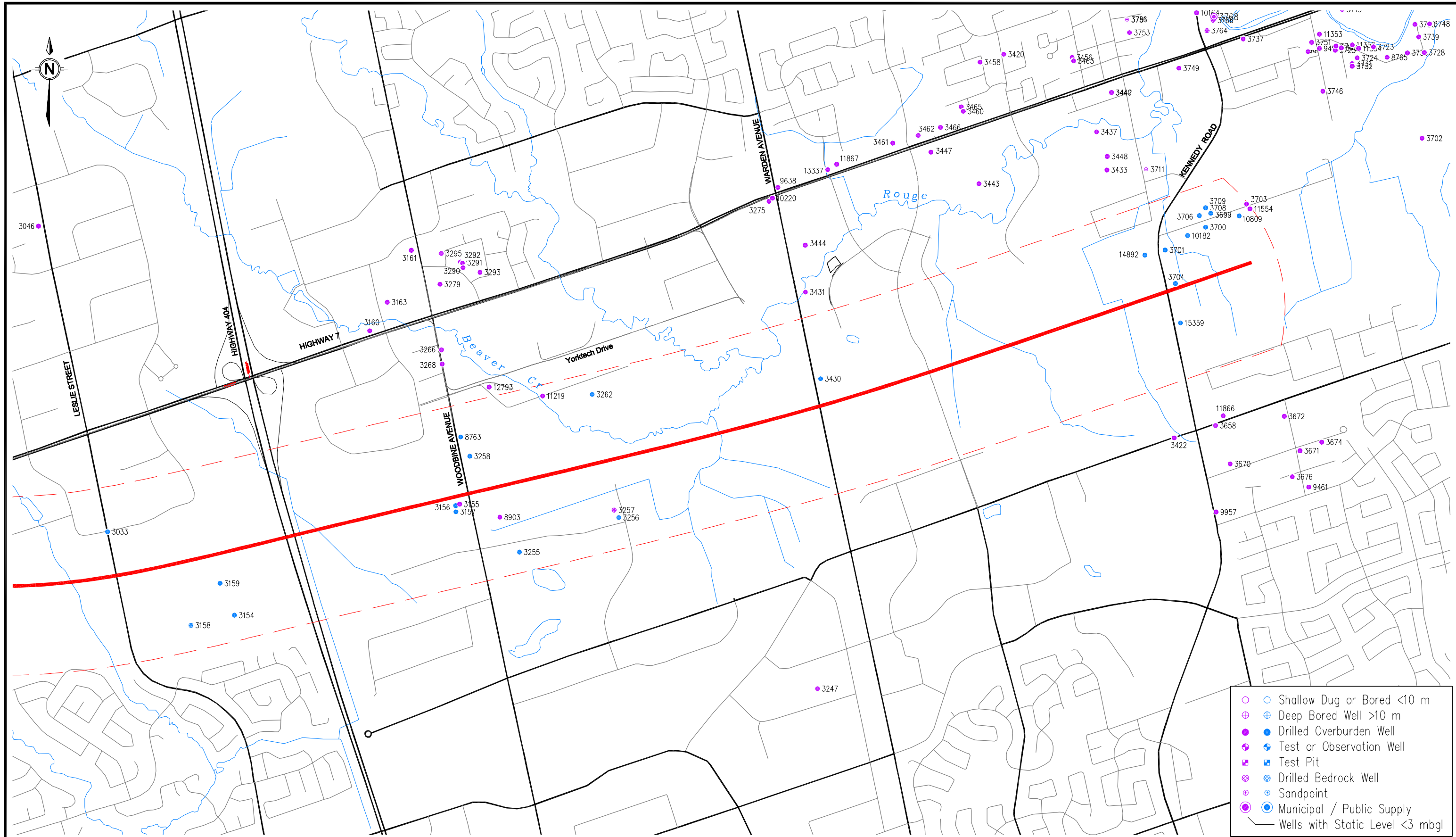


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**LOCATION MAP 2
DUFFERIN STREET TO BAYVIEW**
HWY 407 TRANSITWAY
GROUNDWATER INVESTIGATION
FIGURE 2

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- Shallow Dug or Bored <10 m
- ⊕ Deep Bored Well >10 m
- Drilled Overburden Well
- ⊕ Test or Observation Well
- Test Pit
- ⊗ Drilled Bedrock Well
- ⊙ Sandpoint
- Municipal / Public Supply
- Wells with Static Level <3 mbgl

— Highway 407
--- Study Area Boundary

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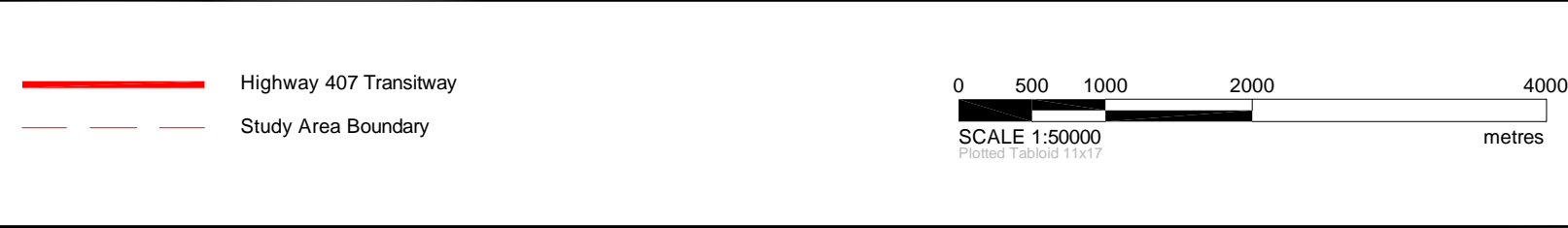
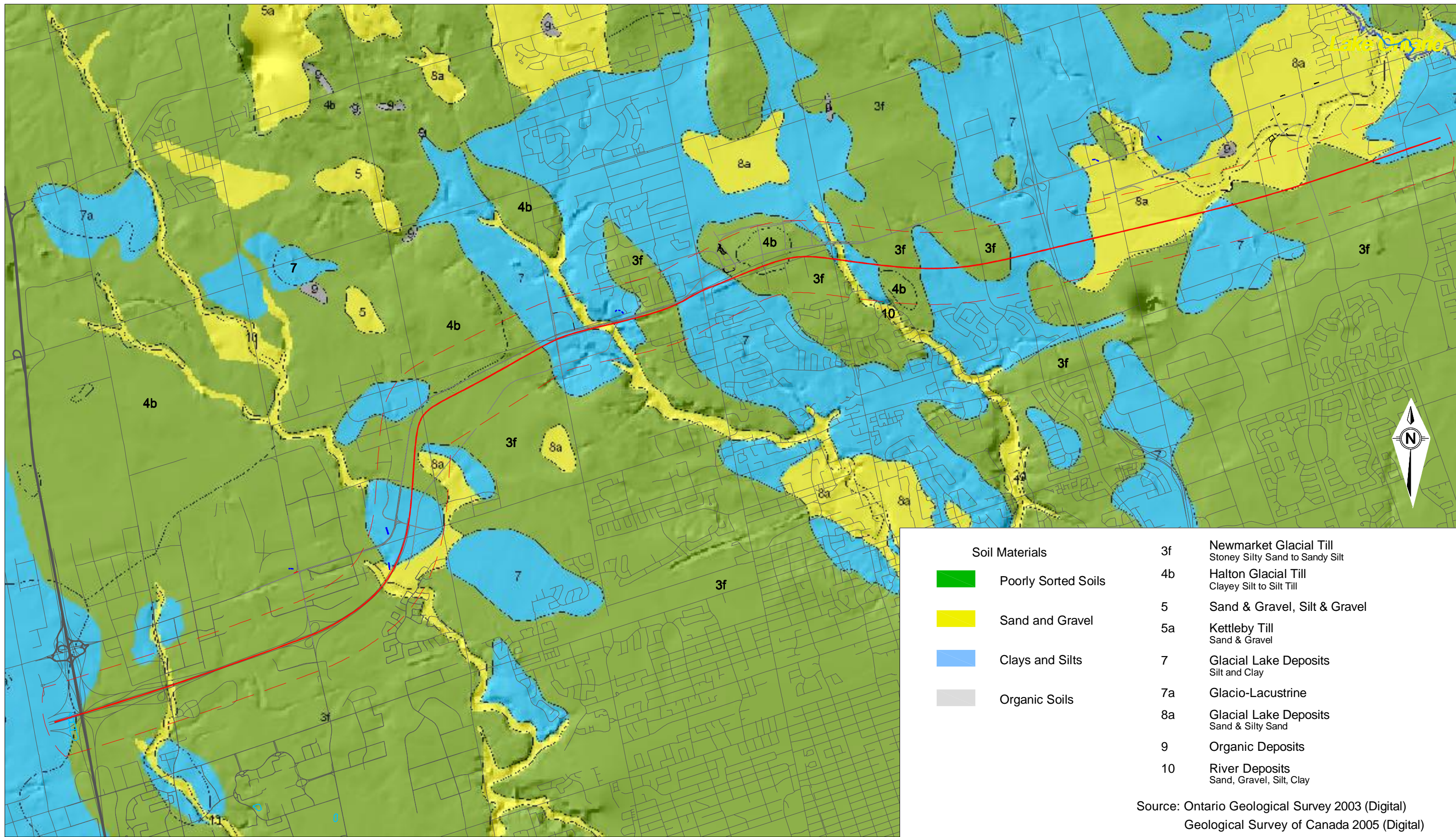



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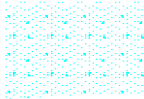
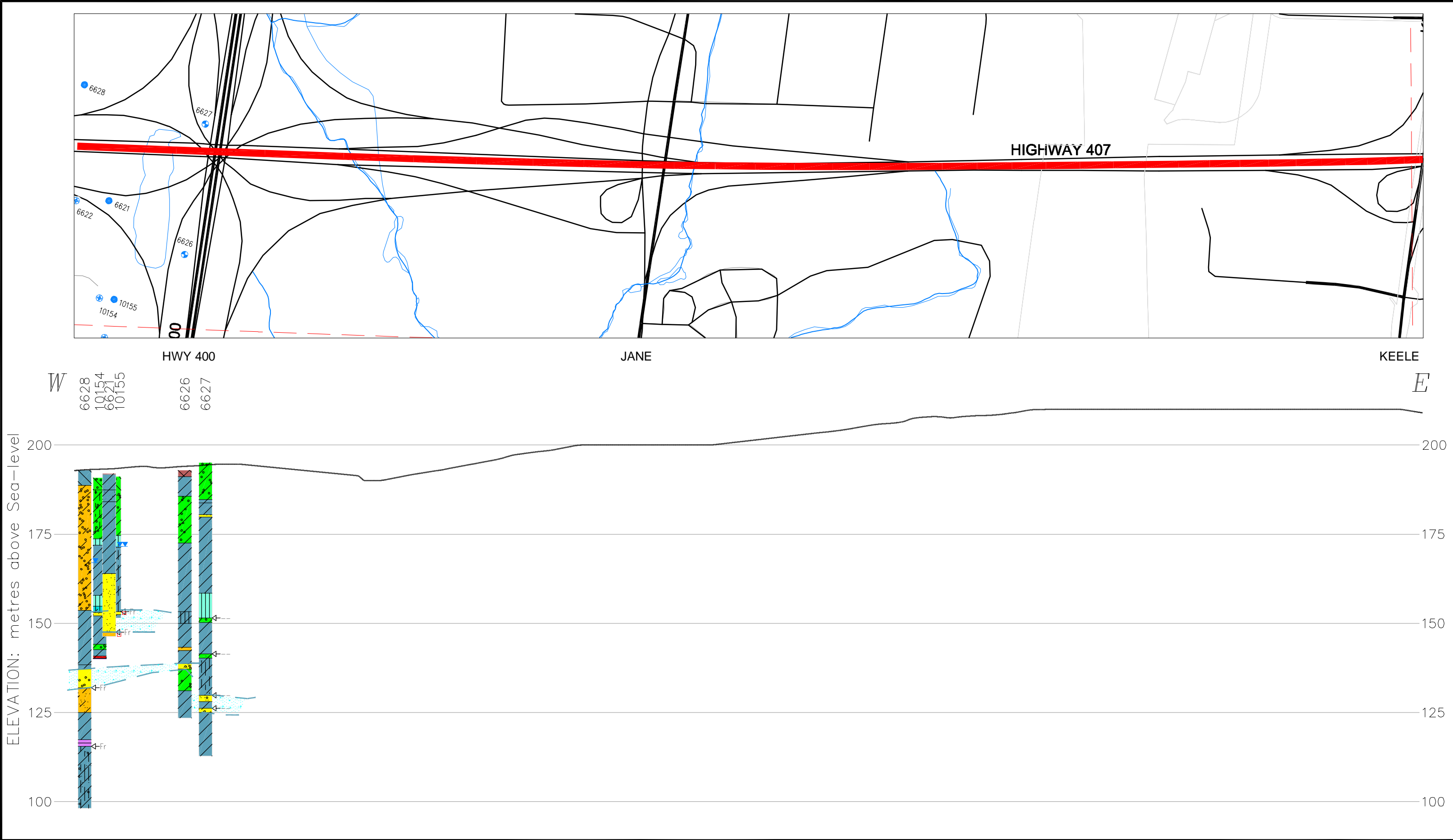
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**LOCATION MAP 3
BAYVIEW TO KENNEDY**
HWY 407 TRANSITWAY
GROUNDWATER INVESTIGATION
FIGURE **3**

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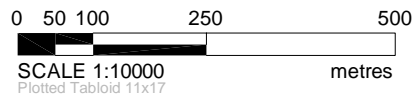
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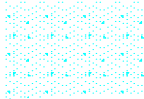
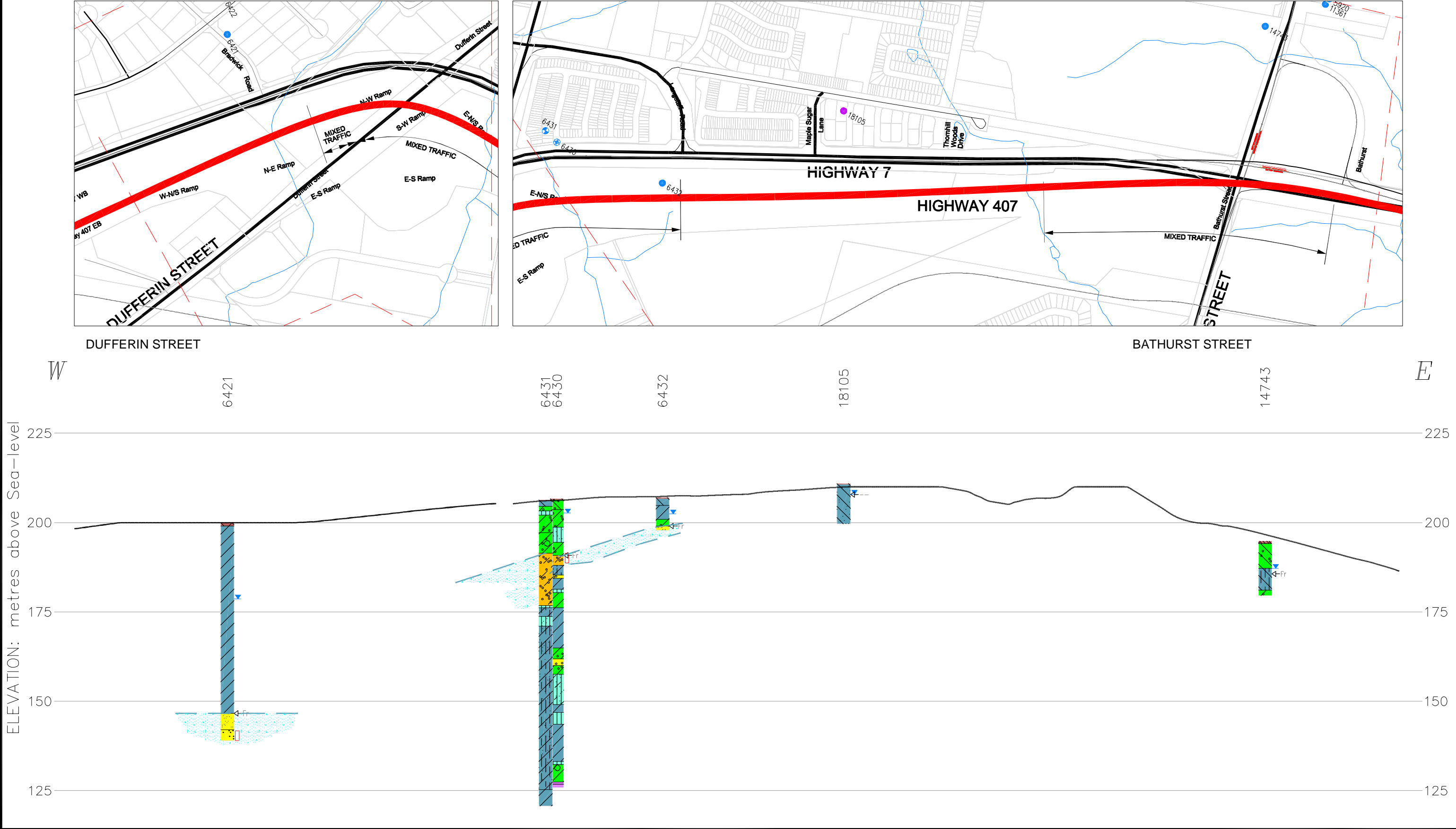
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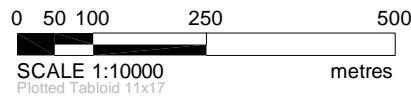
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HWY 407 TRANSITWAY GROUNDWATER INVESTIGATION	FIGURE 5

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Refer to FIGURE 11 for Legend and Notes



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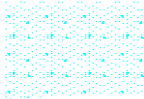
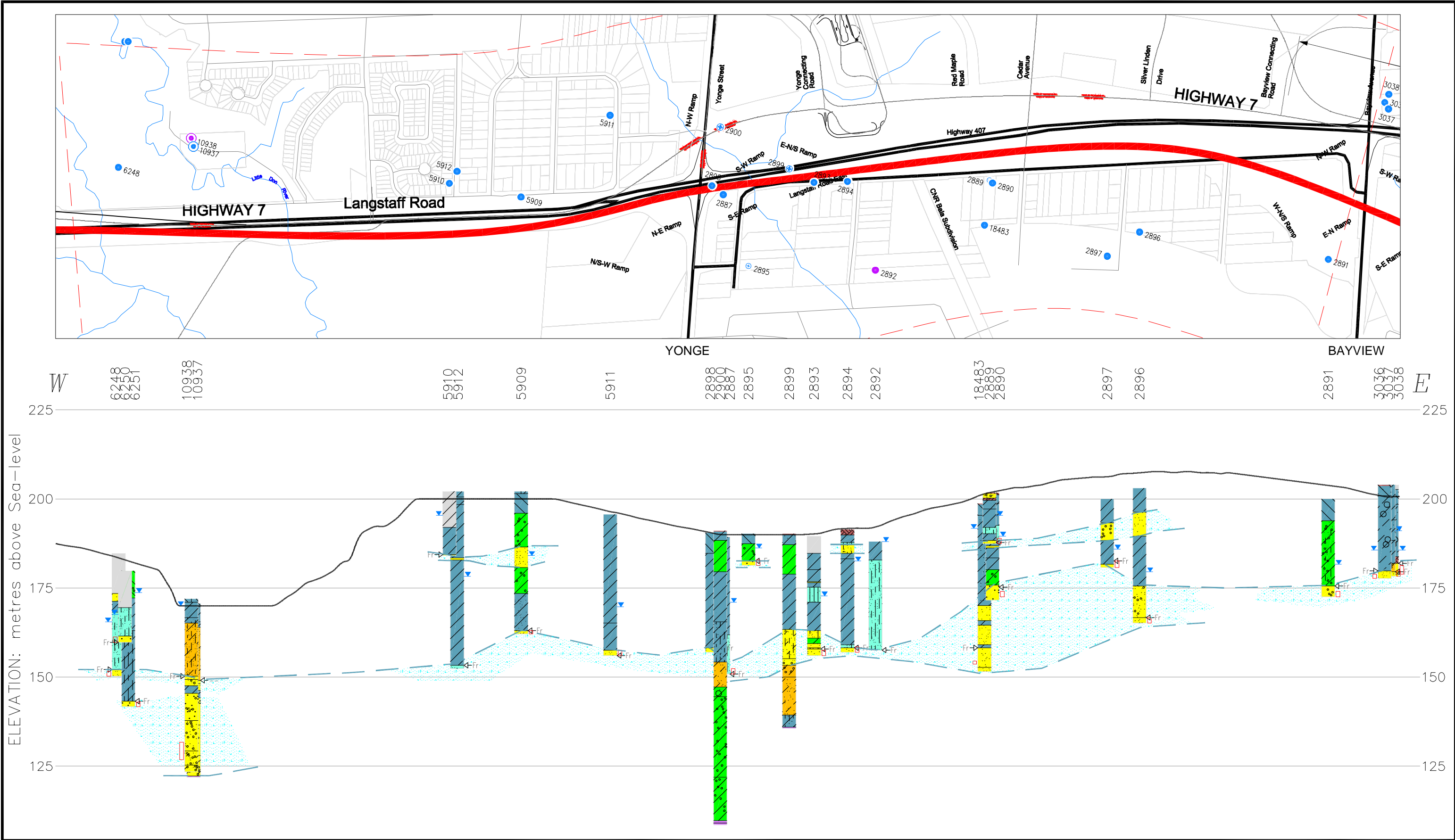
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HWY 407 TRANSITWAY GROUNDWATER INVESTIGATION	FIGURE 7

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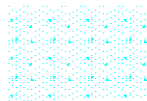
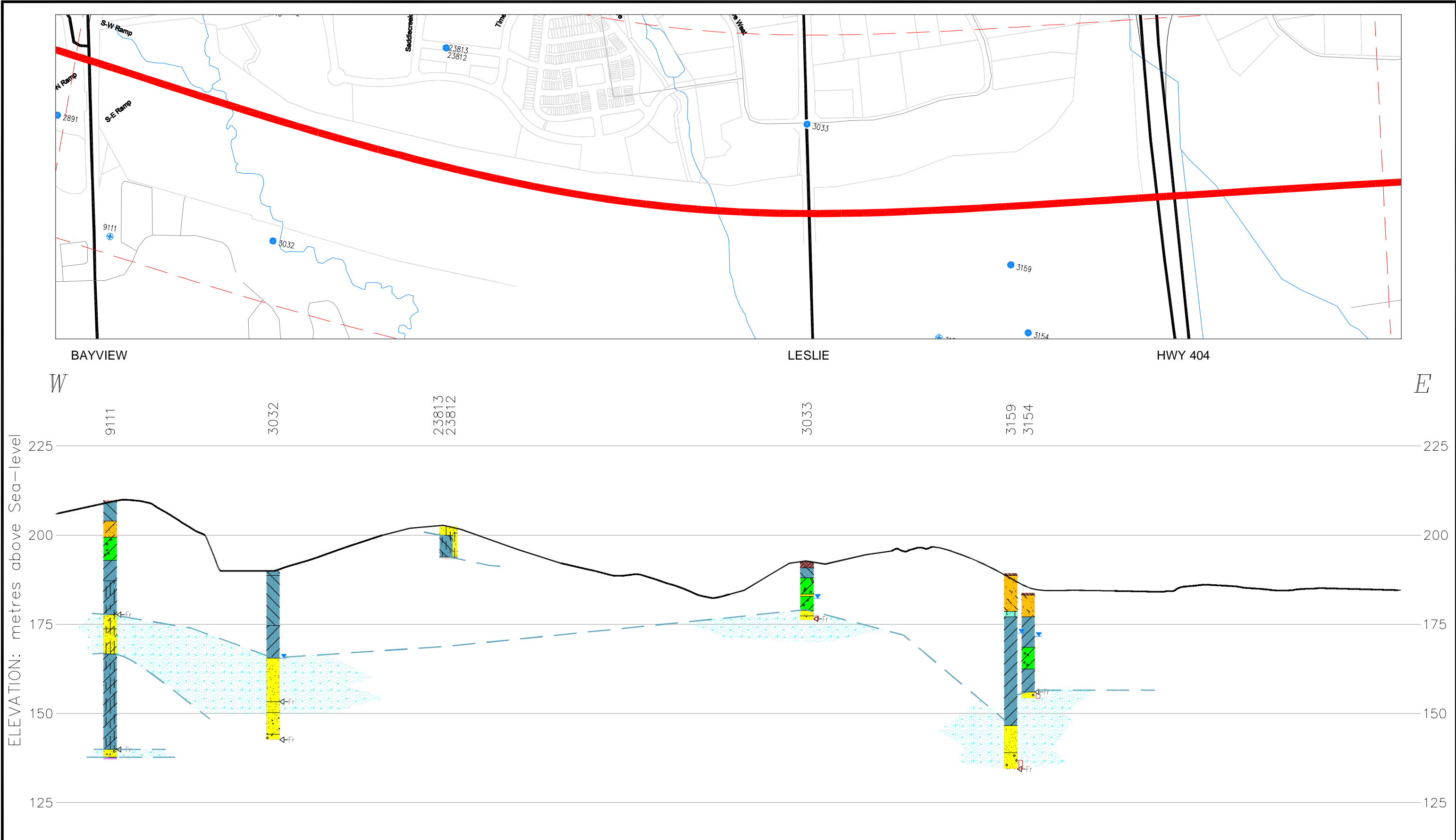
SECTION 4

HWY 407 TRANSITWAY
GROUNDWATER INVESTIGATION

FIGURE

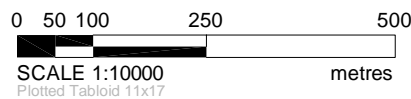
8

PLOT DATE: September 11, 2007
FILENAME: T:\Projects\2007\07-1181-0009 (407, Transitway)\-AA-0711810009AASCT.dwg



AQUIFER

Refer to FIGURE 11 for Legend and Notes



FILE No. 0711810009AASCT.dwg

PROJECT No. 07-1181-0009

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SCALE AS SHOWN

DATE 28 AUG 2007

DESIGN

CAD J REGIER

CHECK

REVIEW

TITLE

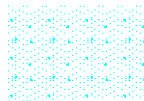
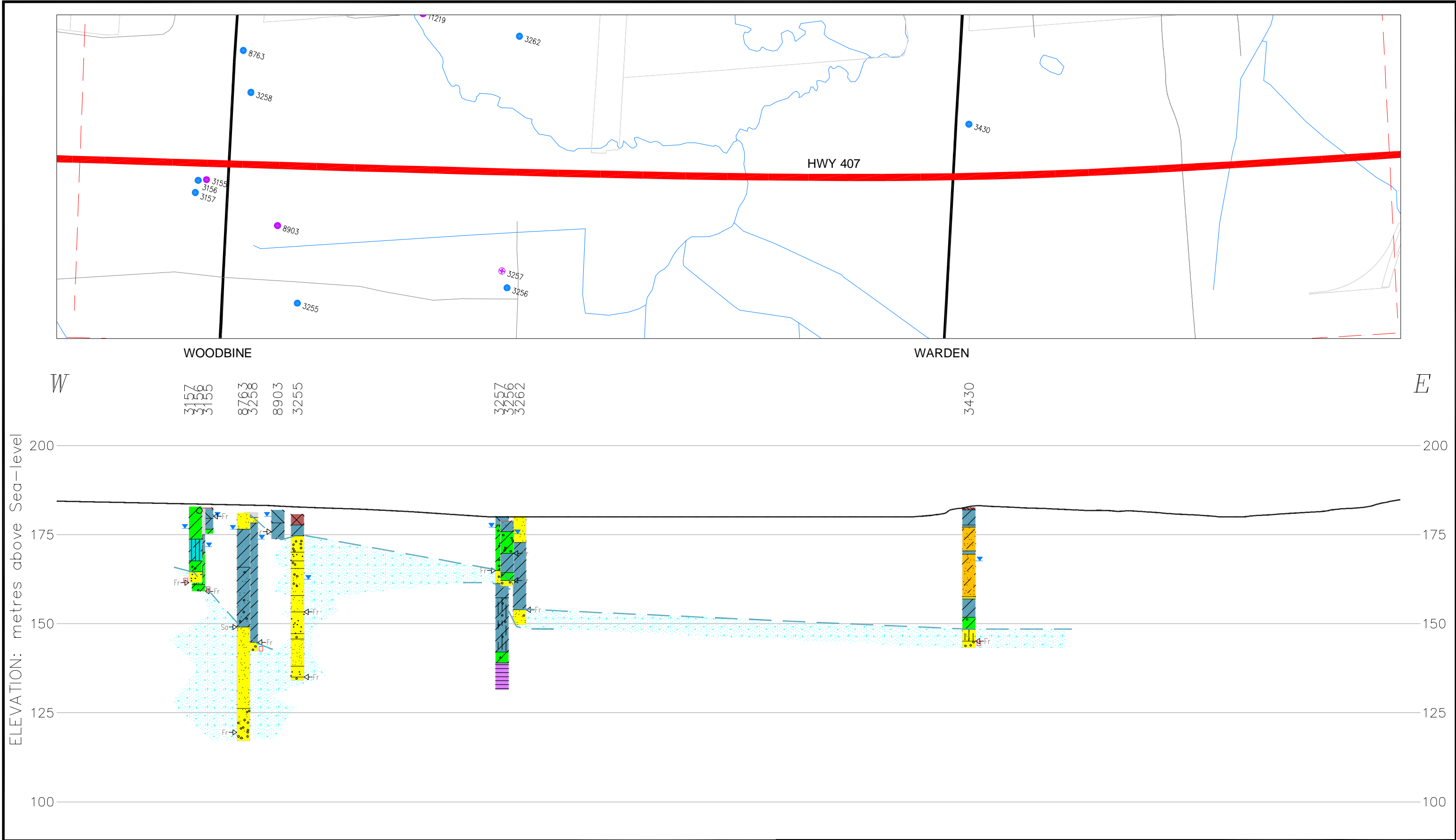
SECTION 5

HWY 407 TRANSITWAY
GROUNDWATER INVESTIGATION

FIGURE

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Refer to FIGURE 11 for Legend and Notes

0 50 100 250 500
metres
SCALE 1:10000
Plotted Tabloid 11x17



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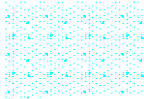
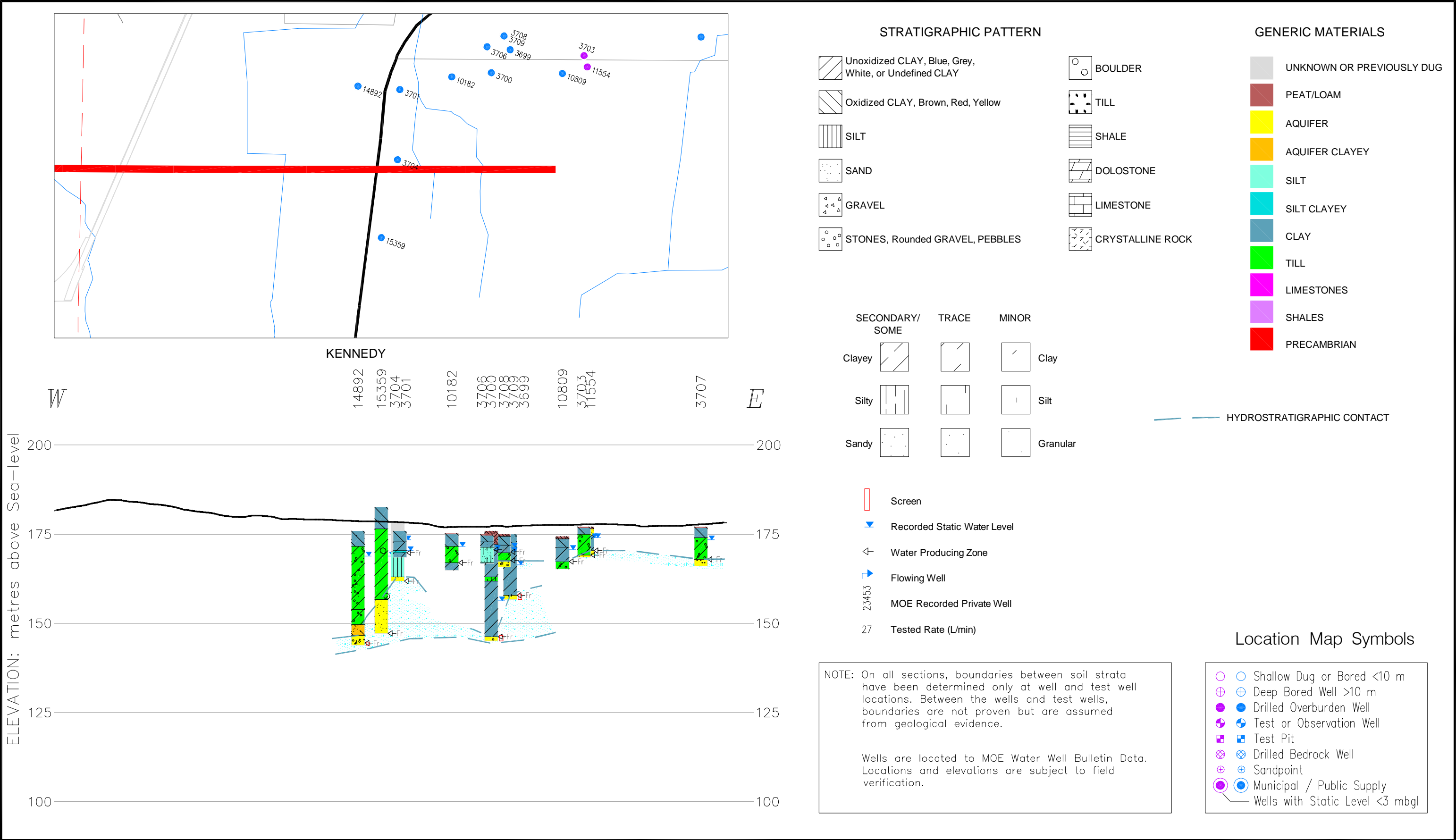
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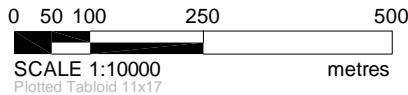
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SECTION 6	
HWY 407 TRANSITWAY GROUNDWATER INVESTIGATION	FIGURE 10

PLOT DATE: September 11, 2007
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Refer to FIGURE 11 for Legend and Notes



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SECTION 7

HWY 407 TRANSITWAY
GROUNDWATER INVESTIGATION

FIGURE

11

TABLES

WELL	CON LOT	DATE	EASTING NORTHING	ELEV ft ASL	WATER FOUND ft Type	HOLE DIA in	SCREEN TOS ft	SCREEN LN ft	SCREEN SL #	SWL ft	RATE IGM	TIME min	PL ft	TYPE / USE	METHOD DRLR	OWNER DESCRIPTION OF MATERIALS
Location Map 1																
6351	03 003	Jul-59	621707 5 4850056	656	71 Fr	4	76	6	6	50	4	240	82	WS DO,ST	CT 3108	-- PRDG 0020 BLUE CLAY 0071 CSND 0082
6353	03 004	Sep-53	621715 9 4850259	643	200 Fr	4				72	3	480		WS IN	CT 4623	-- BRWN CLAY 0020 BLUE CLAY 0030 HPAN 0070 BLUE CLAY 0118 BLUE MSND CLAY 0180 BLUE SHLE 0213
6354	03 004	Jul-55	621560 9 4850588	657		6								TH	RC 2801	-- TPSL 0002 BLUE CLAY GRVL 0013 SILT MSND CLAY 0058 CLAY GRVL FSND 0068 FSND GRVL 0087 GREY CLAY GRVL 0110 GREY CLAY FSND 0145 CLAY SILT 0155 GREY CLAY MSND 0160 SHLE 0161
6357	03 004	Aug-55	622351 9 4850594	611		6								TH	RC 2801	-- TPSL 0002 YLLW MSND GRVL 0012 GREY CLAY MSND GRVL 0028 CLAY GRVL 0031 HPAN 0032 CLAY FSND GRVL 0103 CLAY MSND GRVL 0149 CLAY 0165 CLAY GRVL MSND 0188 HPAN 0189 MSND CLAY GRVL 0196 CLAY GRVL 0211
6358	03 004	Aug-55	622047 9 4850496	630		6								TH	RC 2801	-- TPSL 0002 MSND GRVL 0010 CLAY BLDR GRVL 0096 CLAY GRVL 0126 FSND SILT GRVL 0140 CLAY GRVL 0152 CLAY 0167
6359	03 004	Aug-55	622383 9 4850546	620		6								TH	RC 2801	-- TPSL 0002 BRWN CLAY 0010 FSND CLAY BLDR 0028 CLAY FSND SILT 0052 CLAY GRVL 0076 GREY CLAY 0135 CLAY MSND GRVL 0167 GREY CLAY 0177 CLAY GRVL 0187 CLAY BLDR 0191 CLAY GRVL 0195
6362	03 005	Sep-51	622014 9 4851180	620	116 Fr	2	122	5	7	57	2	1200		WS DO	JT 2527	-- BLUE CLAY 0022 MSND 0060 BLUE CLAY 0085 QSND 0094 WHITE CLAY 0116 FSND 0124 GREY MSND 0127
6363	03 005	Oct-55	620936 9 4850432	664	50 Fr	2	45	5	7	5	3	120	49	WS DO	JT 4508	-- BRWN CLAY 0010 BRWN MSND 0015 BLUE CLAY 0035 BRWN MSND 0045 BLUE CLAY 0046 GRVL 0050
6364	03 005	Aug-56	621241 9 4850546	663	43 Fr	2	42	5	7	18	4	270		WS DO	JT 2105	-- BRWN CLAY 0014 BLUE CLAY MSND 0043 CSND 0047
6365	03 005	Jun-56	621199 9 4850522	653	147 Fr	2	146	5	6	40	4	120		WS DO	JT 4501	-- TPSL 0001 YLLW CLAY 0022 GREY CLAY MSND GRVL 0054 GREY CLAY GRVL 0067 BLUE CLAY 0147 GREY MSND 0153
6366	03 005	Jun-56	621176 9 4850603	663	46 Fr	2	52	5	7	40	4	60		WS DO	JT 4501	-- YLLW CLAY 0023 CLAY MSND 0046 BRWN MSND 0057
6367	03 005	Sep-56	621494 9 4850707	659	54 Fr	2	56	5	7	18	8	180		WS DO	JT 2318	-- TPSL 0002 BLUE CLAY 0030 YLLW MSND 0032 BLUE CLAY 0054 BLUE CSND 0061
6368	03 005	Oct-56	621450 9 4850684	662	20 Fr	24				5	5			WS DO	BR 2627	-- YLLW CLAY 0014 BLUE CLAY 0020 MSND 0021
6369	03 005	Oct-56	621463 9 4850685	661		24								AS	BR 2627	-- YLLW CLAY 0014 BLUE CLAY 0020 QSND 0026
6370	03 005	Nov-56	621362 9 4850661	663	47 Fr	4	47	3	6	7	6	960		WS DO	CT 2318	-- PRDG 0006 BLUE CLAY 0047 BLUE FSND 0050
6371	03 005	Dec-56	621048 9 4850479	662	37 Fr	2					1			AS	JT 2105	-- BRWN CLAY MSND 0021 BLUE CLAY 0037 MSND 0041 BLUE CLAY 0110
6372	03 005	Aug-57	621510 9 4850631	659	24 Fr	24				7	5			WS DO	BR 2627	-- YLLW CLAY 0016 BLUE CLAY 0021 QSND 0023 GRVL 0024
6373	03 005	Sep-57	621348 9 4850708	666	22 Fr	24				6	8			WS DO	BR 3016	-- YLLW CLAY BLDR 0012 BLUE CLAY 0019 CSND 0022
6374	03	Apr-58	621092 9	661	29 Fr	36				10	10			WS	BR	--

WELL	CON LOT	DATE	EASTING NORTHING	ELEV ft ASL	WATER FOUND ft Type	HOLE DIA in	SCREEN TOS ft	SCREEN LN ft	SL #	SWL ft	RATE IGM	TIME min	PL ft	TYPE / USE	METHOD DRLR	OWNER DESCRIPTION OF MATERIALS
	005		4850490											DO	1307	BRWN TPSL 0010 BLUE CLAY 0027 CSND 0029
6376	03 005	Aug-58	621360 9 4850811	661	49 Fr					20	2	60	30	WS DO	CT 2318	-- PRDG 0030 BLUE CLAY 0049 GRVL 0050
6377	03 005	Oct-58	620802 5 4850391	664	33 Fr	2	28	5	10	20	2	60		WS DO	JT 2527	-- TPSL 0001 BLUE CLAY 0020 MSND CLAY 0033
6379	03 005	Oct-58	621130 5 4850587	663	33 Fr		28	5	10	21	5	60		WS DO	JT 2527	-- PRDG 0022 MSND CLAY 0033
6381	03 005	Nov-58	621305 5 4850564	653	41 Fr		40	5	10	22	3	60		WS DO	JT 2527	-- PRDG 0022 MSND 0041 CSND 0045
6383	03 005	Dec-58	621185 5 4850526	655	51 Fr	2	51	5	10	20	3	120		WS DO	JT 2527	-- BRWN CLAY 0026 MSND 0051 CSND 0056
6385	03 005	Oct-59	621384 5 4850665	663	17 Fr	2	17	5	10	10	4	30		WS DO	JT 2527	-- BRWN CLAY 0005 FSND 0017 CSND 0022
6386	03 005	Nov-59	621385 5 4850665	663	17 Fr	2	17	5	10	10	4	30		WS DO	JT 2527	-- BRWN CLAY 0005 FSND 0017 CSND 0022
6387	03 005	Nov-59	620814 5 4850389	664	20 Fr	2	22	5	10	19	5	60		WS DO	JT 2527	-- BRWN CLAY 0012 FSND CLAY 0020 FSND 0027
6388	03 005	May-60	621394 5 4850588	653	20 Fr	30				8	10			WS DO	BR 1307	-- BRWN CLAY 0008 BLUE CLAY 0020 FSND 0024
6390	03 005	Aug-60	621588 5 4851002	627	118 Fr	4	148	4	12	50	4	420	138	WS DO	CT 4623	-- PRDG 0005 BLUE CLAY 0045 CLAY QSND 0060 CLAY GRVL 0070 BLUE CLAY 0118 FSND 0150 GRVL FSND 0154 BLUE CLAY 0157
6392	03 005	May-61	621403 5 4850594	653	28 Fr	30				8	10			WS DO	BR 1307	-- BRWN TPSL 0010 GREY CLAY 0026 GREY MSND 0028
6393	03 005	Jun-61	621028 5 4850465	663	20 Fr	30				10				WS DO	BR 1307	-- BRWN CLAY MSND 0012 BLUE CLAY 0020 BLUE FSND 0028
6394	03 005	Oct-61	620963 5 4850446	664	32 Fr	34				15	5			WS DO	BR 5420	-- YLLW CLAY 0008 BLUE CLAY STNS 0032 BLUE MSND 0033
6400	03 005	Dec-61	620927 9 4850487	667		6								TH RC	2801	VAUGHAN TWP BRWN CLAY 0009 BLUE CLAY GRVL 0012 FSND GRVL 0017 MSND GRVL CLAY 0040 BLUE CLAY 0097 MSND SILT CLAY 0131 GRVL MSND CLAY 0141 FSND SILT CLAY 0167 BLUE CLAY 0193 BLUE SHLE 0200
6401	03 005	Mar-62	621054 5 4850611	663		4								AS CT	3108	-- PRDG 0002 BLUE CLAY MSND 0040 BLUE FSND 0046 BLUE CLAY 0095
6403	03 005	Sep-62	621479 5 4850620	659	21 Fr	30				18	2			WS DO	BR 2610	-- BRWN CLAY 0010 GREY CLAY STNS 0018 CLAY MSND 0021 GREY FSND 0025
6404	03 005	Jun-63	621732 9 4851095	623	30 Fr	34				7				WS DO	BR 5420	-- TPSL 0001 YLLW CLAY 0010 BLUE CLAY 0030 FSND 0032
6406	03 006	Aug-52	622224 9 4851435	631	129 Fr	4	126	3	10	60	3	600		WS DO	CT 4501	-- CLAY 0012 GRVL 0020 CLAY MSND STNS 0063 BLUE CLAY 0092 GREY FSND 0097 GREY CLAY 0123 FSND 0126 GRVL 0129
6407	03 006	May-53	622342 9 4851350	633	25 Fr 42 Fr 110 Fr					20	3	600	20	WS DO	CT 1340	-- PRDG 0022 BLUE CLAY 0025 GREY MSND 0026 BLUE CLAY 0042 GREY MSND SILT 0045 BLUE CLAY 0100 GREY SHLE 0101 BLUE CLAY 0110 GREY MSND SILT 0120
6411	03 006	Apr-63	621617 5 4851155	623	35 Fr	34				18				WS DO	BR 5420	-- TPSL 0001 YLLW CLAY 0012 BLUE CLAY 0035 MSND CLAY 0042
6421	03 009	Sep-60	622022 5 4852616	666	175 Fr	7	191	9	8	70	32	120	80	WS ST,DO	CT 3108	-- FILL 0003 BLUE CLAY 0175 BLUE FSND 0190 BLUE CSND 0200
6422	03	Aug-54	621927 9	664	41 Fr	2	38	7	10	25	3	300	35	WS	JT	--

WELL	CON LOT	DATE	EASTING NORTHING	ELEV ft ASL	WATER FOUND ft Type	HOLE DIA in	SCREEN TOS LN SL ft ft #	SWL ft	RATE IGM	TIME min	PL ft	TYPE / USE	METHOD DRLR	OWNER DESCRIPTION OF MATERIALS
	010		4852662									DO	4501	TPSL 0002 YLLW CLAY 0015 STNS GRVL 0017 BLUE CLAY 0039 STNS GRVL 0041 BLUE MSND 0045
6497	03 005	Jul-55	621110 9 4850578	663	62 Fr	2	57 5 10	8	4	240	62	WS DO	JT 4527	-- BRWN CLAY STNS 0025 BRWN MSND STNS 0053 BLUE CLAY 0055 BRWN MSND 0062
6524	04 005	Aug-59	619354 5 4849919	680		5						TH	RC 2801	VAUGHAN TOWNSHIP TPSL 0001 CLAY MSND GRVL 0059 BLUE CLAY GRVL 0116 GREY CLAY 0338
6620	05 003	Mar-53	617026 9 4848704	625	142 Fr	5		72	5	300	90	WS DO	CT 4623	-- PRDG 0040 BLUE CLAY 0110 HPAN MSND 0142 GRVL 0146
6621	05 003	Jun-57	617447 5 4848587	630	146 Fr	4	146 4	67	3	180	146	WS CO	CT 3414	SWANEK CONSTRUCTION TPSL 0001 CLAY 0015 CLAY MSND 0026 CLAY 0092 MSND 0146 GRVL CLAY 0150
6622	05 003	Jul-57	617360 5 4848557	630		5						TH	RC 3414	SWANEK CONSTRUCTION TPSL 0006 CLAY 0018 CLAY MSND 0030 CLAY 0091 CLAY SILT 0130 SILT 0136 CLAY SILT 0218 SHLE 0230
6623	05 003	Nov-57	617240 9 4848572	630	180 --	5						TH NU	RC 3414	SWANER CONSTRUCTION TPSL 0001 CLAY 0016 SILT 0019 CLAY 0026 MSND GRVL 0029 CLAY 0058 BLUE CLAY 0127 SILT 0138 GREY CLAY 0162 GRVL CLAY 0164 GRVL MSND 0168 CLAY GRVL 0180
6624	05 003	Nov-57	617177 9 4848483	627		5						TH	RC 3414	SWANEK CONSTRUCTION TPSL 0001 CLAY 0023 MSND 0024 CLAY 0027 GRVL 0034 CLAY 0050 BLUE CLAY 0108 SILT CLAY 0140 GREY CLAY 0170 SHLE 0175
6625	05 003	Nov-57	617090 9 4848353	623		5						TH	RC 3414	SWANEK CONSTRUCTION TPSL 0001 YLLW CLAY 0014 GREY CLAY 0038 BLUE CLAY 0104 SILT CLAY 0125 CLAY 0143 SILT 0145 SHLE 0148
6626	05 003	Nov-57	617697 9 4848515	633		5						TH	RC 3414	SWANEK CONSTRUCTION FILL 0006 CLAY 0024 CLAY STNS 0067 CLAY 0130 CLAY SILT 0141 CLAY 0163 GRVL CLAY 0166 CLAY 0178 GRVL MSND 0183 CLAY GRVL 0203 CLAY 0228
6627	05 003	Dec-57	617631 9 4848879	639	143 -- 176 -- 214 --	4			25			TH NU	RC 3414	SWANEK CONSTRUCTION CLAY STNS 0034 BLDR CLAY 0037 CLAY 0048 MSND 0050 CLAY 0120 SILT 0143 CLAY GRVL 0147 CLAY 0176 CLAY GRVL MSND 0180 CLAY SILT 0214 MSND GRVL 0220 CLAY 0226 MSND GRVL CLAY 0230 CLAY 0270
6628	05 004	May-59	617275 9 4848871	633	200 Fr 254 Fr	4		85	6	240	85	WS IN	RC 4813	SWANEK CONSTRUCTION BRWN CLAY 0014 GRVL CLAY 0129 BLUE CLAY 0179 BLDR CLAY 0183 GRVL 0200 MSND CLAY 0223 GREY CLAY 0248 GREY SHLE 0254 HPAN MSND 0311
6629	05 004	Apr-54	617087 9 4848794	633	30 Fr 136 Fr	6		18	30	120	180	WS CO	CT 1429	RAINBOW THEATRE CLAY 0015 FSND SILT 0092 GREY CLAY 0136 QSND SILT 0180
6630	05 004	Jul-54	616970 9 4849066	636	29 Fr	6		10	7	1440	22	WS CO	CT 4823	RAINBOW THEATRE YLLW MSND CLAY STNS 0012 BLUE CLAY MSND 0024 GRVL 0026 MSND CLAY 0029
6631	05 004	Oct-59	616980 5 4848964	633		7						AS	CT 4823	RAINBOW THEATRE TPSL 0002 YLLW CLAY MSND 0012 GREY CLAY MSND GRVL 0060 CLAY 0065 GREY CLAY MSND 0080 GREY CLAY 0125 CLAY MSND GRVL 0374 SHLE 0375

WELL	CON LOT	DATE	EASTING NORTHING	ELEV	WATER FOUND	HOLE DIA	SCREEN TOS	LN	SL	SWL	RATE	TIME	PL	TYPE / USE	METHOD DRLR	OWNER DESCRIPTION OF MATERIALS
				ft ASL	ft Type	in	ft	ft	#	ft	IGM	min	ft			
9118	03 006	Feb-69	622132 4851441	629	155 Fr	6	156	8	14	58	15	720	95	WS PS	DM 1104	DEPT OF HIGHWAYS ONT TPSL 0002 STNS CLAY 0022 GRVL 0027 GREY CLAY 0041 GRVL 0043 GREY CLAY 0047 GRVL 0048 CLAY 0130 CLAY MSND 0155 CSND GRVL 0165
10154	05 002	Jan-71	617512 4848321	626	100 Fr	2	122	5	****	65	8	60	72	OW NU	RC 2801	TORONTO STAR BRWN CLAY GRVL 0011 GREY CLAY GRVL SILT 0056 GREY SILT 0062 GREY CLAY 0108 GREY SILT 0118 GREY SILT CLAY 0124 BRWN GRVL SAND 0127 GREY CLAY 0153 GREY CLAY GRVL 0158 GREY CLAY 0164 GREY ROCK CLAY 0166 GREY SHLE 0167
10155	05 002	Jan-71	617552 4848331	627	124 Fr	4	124	3	20	64	20	360	73	WS IN	RC 2801	TORONTO STAR LTD BRWN CLAY GRVL 0017 GREY CLAY GRVL 0054 GREY SILT 0065 GREY CLAY SILT 0124 BRWN GRVL SAND 0127 GREY CLAY 0130
Location Map 2																
2883	01 034	Jan-55	626441 4854273	625	238 Fr	3	230	8	10	80	2	120	210	WS PS	CT 4527	HOLY CROSS CEMETERY CLAY MSND STNS 0025 BRWN FSND 0035 BLUE CLAY 0118 GREY FSND 0161 GRVL MSND 0174 BLUE CLAY STNS 0224 GRVL 0238
2887	01 035	Jan-48	626392 4854706	621	126 Fr	2	121	5		60				WS DO	JT 2527	-- CLAY 0090 WHITE QSND 0126
2889	01 035	Jul-50	627103 4854938	661	45 Fr	2	41	5	6	20	2	540		WS DO	JT 4915	-- MSND GRVL 0004 TPSL 0006 CLAY 0014 BLUE CLAY 0031 QSND 0037 BLUE CLAY 0043 FSND 0046
2890	01 035	Aug-50	627113 4854933	662	87 Fr	2	91	5	6	40	3	300		WS DO	JT 4915	-- TPSL CLAY 0002 CLAY 0010 BLUE CLAY 0030 QSND 0045 CLAY 0049 GRVL 0051 CLAY 0060 BLUE CLAY 0071 CLAY STNS 0085 CSND 0099
2891	01 035	Sep-50	628078 4854970	676	80 Fr	2	85	5	10	60	3	480	90	WS DO	JT 1439	-- YLLW CLAY 0020 BLUE CLAY GRVL QSND 0080 GRVL 0090
2892	01 035	Oct-50	626859 4854612	617	100 Fr	2								WS DO	JT 2527	-- CLAY 0017 QSND 0100
2893	01 035	Apr-51	626629 4854805	622	104 Fr	2	105	5	7	55	2	240		WS DO	JT 4915	-- PRDG 0016 GREY CLAY 0031 BLUE CLAY 0042 GRVL 0043 CLAY 0047 SILT FSND 0061 BLUE CLAY 0087 FSND SILT 0094 GREY CLAY STNS 0099 BRWN FSND 0103 GREY QSND FSND 0104 WHITE MSND 0110
2894	01 035	Sep-52	626719 4854832	628	109 Fr	2	108	5	7	29	3	180		WS DO	JT 4915	-- TPSL 0005 CLAY 0012 QSND 0014 QSND CSND 0022 CLAY 0027 BLUE CLAY 0106 QSND 0109 MSND 0113
2895	01 035	Aug-54	626512 4854531	624	25 Fr	2	24	5	10	13	3			WS DO	JT 2105	-- BRWN CLAY 0009 BLUE CLAY STNS 0025 CSND 0029
2896	01 035	Jun-55	627547 4854907	666	119 Fr	2	119	5	10	77	3	240	77	WS DO	JT 2527	-- CLAY 0022 MSND 0044 BLUE CLAY 0090 MSND GRVL 0119 MSND 0124
2897	01 035	Jun-56	627477 4854818	656	57 Fr	2	57	6	10	46	2	180		WS DO	JT 2527	-- CLAY 0022 GRVL 0038 BLUE CLAY 0060 GRVL 0063
2898	01 035	Feb-58	626355 4854722	624	106 Fr	2	105	5	7	73	2	240		WS DO	JT 2105	-- BRWN CLAY 0019 BLUE CLAY 0106 MSND 0110
2899	01 036	Feb-51	626552 4854824	624		6								TH	RC 2801	DEPT PUBLIC WORKS TPSL 0001 CLAY MSND 0010 CLAY BLDR 0037 CLAY 0088 MSND SILT CLAY 0115 FSND GRVL 0121 GRVL CLAY 0132 MSND CLAY 0167 CLAY MSND SILT 0178 SHLE 0179

WELL	CON LOT	DATE	EASTING NORTHING	ELEV	WATER FOUND	HOLE DIA	SCREEN TOS	LN	SL	SWL	RATE	TIME	PL	TYPE / USE	METHOD DRLR	OWNER DESCRIPTION OF MATERIALS
				ft ASL	ft Type	in	ft	ft	#	ft	IGM	min	ft			
2900	01 036	Mar-51	626335 5 4854887	627		6								TH	RC 2801	DEPT PUBLIC WORKS TPSL 0001 CLAY 0009 CLAY BLDR 0038 BLUE CLAY 0084 CLAY MSND SILT 0121 MSND CLAY 0144 CLAY BLDR MSND 0153 CLAY GRVL 0227 BLUE CLAY GRVL 0267 SHLE 0271
2901	01 037	Feb-51	627107 5 4855481	689		6								TH	RC 2801	DEPT PUBLIC WORKS TPSL 0001 CLAY MSND 0004 CLAY BLDR 0039 CLAY 0055 MSND SILT CLAY 0069 CLAY MSND SILT 0178 MSND CLAY 0185 SHLE 0198
2902	01 037	Mar-51	627411 5 4855579	697		6								TH	RC 2801	DEPT PUBLIC WORKS TPSL 0001 CLAY MSND 0007 FSND GRVL BLDR 0038 BLUE CLAY BLDR 0078 CLAY MSND SILT 0084 FSND GRVL CLAY 0197 CLAY GRVL FSND 0200 SHLE 0201
2903	01 037	Apr-51	627435 5 4855600	697		6								TH	RC 2801	DEPT PUBLIC WORKS TPSL 0001 CLAY 0007 FSND GRVL BLDR 0040 FSND STNS BLDR 0052 BLUE CLAY BLDR 0079 CLAY MSND SILT 0144 MSND CLAY BLDR 0176 CLAY BLDR 0186 BLDR FSND CLAY 0193 CLAY BLDR GRVL 0196 GRVL 0198 GRVL FSND SHLE 0202
3032	02 009	May-52	628734 5 4854728	670	120 Fr 155 Fr	4				80	5	480	80	WS ST	CT 4619	LEITCHCRAFT FARMS BLCK CLAY 0004 BRWN CLAY 0050 BLUE CLAY 0080 BRWN MSND 0120 FSND 0130 FSND CSND 0150 CSND GRVL 0155
3035	02 011	May-54	628612 4 4855401	661	207 Fr	4				50	10	4320	80	WS DO	CT 4619	LEITCHCRAFT FARMS BRWN CLAY 0010 BRWN MSND 0020 BRWN MSND STNS 0026 BLDR 0035 BLUE HPAN 0090 CLAY 0115 GREY CSND 0135 GRVL 0142 BRWN FSND 0172 BLUE HPAN 0187 GRVL 0209
3036	02 011	Feb-55	628117 4 4855436	669	79 Fr	4	82	4	8	60	2	3600	63	WS DO	CT 4823	-- TPSL 0001 YLLW CLAY MSND 0010 BLDR CLAY 0079 BLCK FSND 0086
3037	02 011	Sep-55	628132 4 4855421	669	72 Fr	4	74	8	10	60	10	1440	62	WS PS	CT 4823	THORNLEA SCHOOL PRDG 0004 YLLW CLAY MSND 0018 BLDR CLAY MSND 0066 MUCK GRVL 0072 BLCK CSND 0082 BLCK FSND 0084
3038	02 011	Jun-58	628122 4 4855461	669	80 Fr	2	79	5	10	42	3	240		WS DO	JT 2527	-- CLAY 0032 CLAY MSND 0051 BLUE CLAY 0072 GRVL CLAY 0080 MSND 0084
5897	01 034	Nov-54	625567 5 4853913	561	20 Fr 100 Fr	4	93	10	10	10	33		20	WS MU	CT 3107	UPLANDS GARDENS LTD BLCK TPSL 0005 GRVL 0010 BLUE CLAY 0040 GRVL 0045 GREY FSND 0058 BRWN FSND 0066 BRWN CSND 0087 FSND STNS 0103
5898	01 034	Dec-54	625579 9 4853907	564		6								TH	CT 3107	UPLANDS GARDENS LTD BLCK TPSL 0002 YLLW CLAY 0012 YLLW CLAY STNS 0019 BLUE CLAY 0022 GRVL 0023 CLAY STNS 0036 QSND 0056 BLUE CLAY 0058 BLDR 0059
5899	01 034	Dec-54	625584 9 4853918	567	72 Fr	6	119	10	25	72	3	5760	75	WS MU	RC 3107	UPLANDS GARDENS LTD BLCK TPSL 0002 YLLW CLAY 0012 YLLW CLAY STNS 0019 BLUE CLAY 0022 GRVL 0023 GREY CLAY 0036 QSND 0056 BLUE CLAY 0058 BRWN FSND 0059 BRWN MSND STNS 0061 BLUE CLAY 0075 GRVL 0077 BLUE CLAY 0082 GREY FSND 0104 GRVL 0114 BRWN FSND 0116 GRVL 0127
5900	01 034	Feb-55	625544 9 4853850	549		6								TH	RC 2801	UPLANDS GARDENS LTD TPSL 0002 BRWN CLAY GRVL BLDR 0016 GREY CLAY FSND GRVL 0035 SILT MSND CLAY 0050 SILT MSND GRVL 0069 GREY CLAY FSND GRVL 0096 FSND SILT CLAY 0110 GRVL MSND CLAY 0118 GRVL FSND 0122 FSND GRVL CLAY 0145 CLAY GRVL BLDR 0158 GREY CLAY GRVL 0176 SHLE 0179

WELL	CON LOT	DATE	EASTING NORTHING	ELEV ft ASL	WATER FOUND ft Type	HOLE DIA in	SCREEN TOS ft	SCREEN LN ft	SCREEN SL #	SWL ft	RATE IGM	TIME min	PL ft	TYPE / USE	METHOD DRLR	OWNER DESCRIPTION OF MATERIALS
5901	01 034	Feb-55	625540 9 4853872	549		1	132	10		7	27	360	15	TH NU	RC 2801	UPLANDS GARDENS LTD TPSL 0003 CLAY MSND 0006 GRVL CSND 0014 CLAY GRVL BLDR 0058 GREY CLAY FSND GRVL 0079 FSND GRVL CLAY 0090 GREY CLAY FSND BLDR 0101 GREY CLAY FSND GRVL 0115 CLAY FSND GRVL 0118 GREY CLAY GRVL 0132 GRVL MSND CLAY 0145 GREY CLAY GRVL 0163
5903	01 034	Oct-55	624627 9 4853619	617	87 Fr	6	86	8 10		34	8	60	75	WS NU	CT 4527	-- BRWN CLAY 0006 BLUE CLAY STNS 0087 CSND 0094
5904	01 034	Feb-55	625505 9 4853879	549	141 Fr	6				5	30	480	7	TH NU	RC 2801	UPLANDS GARDENS LTD FILL TPSL 0008 GRVL MSND 0013 CLAY GRVL 0018 CLAY SILT 0048 GREY CLAY 0055 GRVL MSND CLAY 0069 GREY CLAY GRVL MSND 0082 GRVL MSND BLDR 0101 GRVL CLAY BLDR 0131 GRVL MSND CLAY 0141 CLAY GRVL BLDR 0153
5905	01 034	Apr-58	625464 9 4853964	548		2	118	20		1	25	180	4	TH NU	RC 2801	VAUGHAN TWP TPSL 0001 MUCK 0009 CLAY GRVL 0022 MSND SILT GRVL 0054 GRVL SILT 0057 MSND SILT GRVL 0089 GRVL CLAY MSND 0093 MSND GRVL CLAY 0102 MSND GRVL SILT 0138
5906	01 034	Oct-59	624680 5 4853640	615	400 Sa	7				34	20		304	AQ	CT 3512	WIGSTON AL TPSL 0003 BLUE CLAY 0088 MSND GRVL 0096 HPAN 0188 BLUE CLAY 0298 RED SHLE 0398 GRVL 0399 LMSN 0438
5907	01 034	Feb-60	624684 5 4853671	608		4								AS	CT 4823	-- TPSL 0001 RED MSND CLAY 0028 CLAY GRVL 0057 SILT CLAY 0072 SILT CLAY GRVL 0120 BLUE CLAY 0121
5908	01 034	May-60	624752 5 4853744	601	37 Fr	30				37				WS DO	BR 1308	-- BRWN CLAY 0020 MSND 0037 QSND 0047
5909	01 035	Jun-63	625846 5 4854553	663	128 Fr	4	128	3 6		59	8	120	125	WS DO	CT 3108	-- CLAY TPSL 0002 BRWN CLAY 0020 CLAY STNS 0051 MSND FSND 0070 BLUE CLAY STNS 0094 BLUE CLAY FSND 0128 BLUE FSND 0131
5910	01 036	May-49	625642 9 4854538	663	58 Fr					22				WS DO	CT 2527	-- PRDG CLAY 0033 BLUE CLAY 0058 GRVL 0059
5911	01 036	May-50	626028 5 4854839	642	130 Fr	2	125	5		85	2			WS DO	JT 2527	-- WHITE CLAY 0100 BLUE CLAY 0125 WHITE FSND 0130
5912	01 036	Aug-51	625654 5 4854576	663	160 Fr	2				78				AS	JT 4915	-- CLAY 0005 GREY CLAY 0012 BLUE CLAY 0061 MSND 0063 BLUE CLAY 0160 QSND 0163
5920	01 037	May-58	624277 5 4854591	625	95 Fr	4	91	4		45	3	720	60	WS DO	CT 1622	-- TPSL 0001 BRWN MSND 0020 BLUE CLAY 0050 QSND 0065 BLUE CLAY 0075 FSND 0095
6248	02 011	Aug-64	624734 5 4854341	606	107 Fr	2	109	4		63	3	240		WS DO	JT 1714	-- PRDG 0037 YLLW MSND 0044 CLAY MSND 0054 QSND 0107 FSND 0113
6421	03 009	Sep-60	622022 5 4852616	666	175 Fr	7	191	9 8		70	32	120	80	WS ST,DO	CT 3108	-- FILL 0003 BLUE CLAY 0175 BLUE FSND 0190 BLUE CSND 0200
6422	03 010	Aug-54	621927 9 4852662	664	41 Fr	2	38	7 10		25	3	300	35	WS DO	JT 4501	-- TPSL 0002 YLLW CLAY 0015 STNS GRVL 0017 BLUE CLAY 0039 STNS GRVL 0041 BLUE MSND 0045
6428	03 010	Jul-61	622006 9 4853105	670	96 Fr	2	101	11						TH NU	RC 2801	VAUGHAN TOWNSHIP TPSL 0001 BRWN CLAY GRVL 0010 BLUE CLAY GRVL 0016 SILT MSND 0032 CLAY GRVL BLDR 0046 MSND SILT 0051 CLAY GRVL BLDR 0096 SILT MSND BLDR 0112 CLAY GRVL 0145 SILT CLAY 0208 CLAY BLDR 0268 SHLE 0270

WELL	CON LOT	DATE	EASTING NORTHING	ELEV ft ASL	WATER FOUND ft Type	HOLE DIA in	SCREEN TOS LN SL ft ft #	SWL ft	RATE IGM	TIME min	PL ft	TYPE / USE	METHOD DRLR	OWNER DESCRIPTION OF MATERIALS
6430	03 010	Jul-61	622534 9 4853253	676	52 Fr	5	50 9	13	15	180	21	TH NU	RC 2801	VAUGHAN TWP TPSL 0001 BRWN CLAY GRVL 0010 BLUE CLAY GRVL BLDR 0026 SILT MSND GRVL 0040 CLAY GRVL BLDR 0052 GRVL CLAY 0061 CLAY SILT 0070 GRVL BLDR 0073 CLAY 0083 SILT MSND 0086 CLAY BLDR 0100 CLAY 0137 CLAY GRVL BLDR 0147 GRVL 0153 CLAY GRVL BLDR 0161 SILT MSND CLAY 0189 CLAY 0196 SILT 0207 CLAY 0241 SILT MSND 0244 CLAY BLDR 0260 SHLE 0265
6431	03 010	Aug-61	622491 9 4853267	677		5						TH	RC 2801	VAUGHAN TWP TPSL 0001 BRWN CLAY 0006 BLUE CLAY GRVL 0010 SILT 0014 CLAY GRVL 0030 CLAY GRVL BLDR 0049 GRVL CLAY 0097 SILT 0099 CLAY SILT 0107 SILT MSND 0116 CLAY SILT MSND 0266 CLAY 0281
6432	03 010	Sep-61	622849 5 4853285	679	26 Fr	30		15				WS DO	BR 5420	-- TPSL 0001 YLLW CLAY 0007 BLUE CLAY 0020 BLUE CLAY GRVL 0026 BLUE MSND 0030
9111	02 009	Feb-69	628282 4 4854661	688	105 Fr 229 Fr	2						TH NU	RC 1621	CORP OF MARKHAM TWP TPSL 0001 BRWN CLAY 0019 MSND CLAY 0034 GREY CLAY GRVL 0055 GREY CLAY 0074 GREY CLAY SILT 0105 MSND SILT CLAY 0118 FSND SILT CLAY 0141 GREY CLAY SILT MSND 0229 FSND CSND GRVL 0236 BLCK SHLE 0238
9112	02 010	Feb-69	628642 4 4855371	657	153 Fr 165 Fr							TH NU	RC 1621	CORP OF MARKHAM TWP TPSL 0001 GREY CLAY GRVL 0076 CLAY 0153 FSND 0162 CLAY 0165 MSND FSND CLAY 0173 CLAY 0203 CLAY SILT GRVL 0219 GRVL MSND CLAY 0230 MSND GRVL 0282 CLAY 0287 SHLE 0289
9116	02 010	Feb-69	628592 4 4855361	656	72 Fr 164 Fr 209 Fr							TH NU	RC 1621	CORP OF MARKHAM TWP TPSL 0001 BRWN CLAY 0009 MSND GRVL 0038 CLAY GRVL 0066 CLAY 0072 FSND 0076 CLAY 0152 CLAY SILT 0164 CSND FSND 0174 CLAY GRVL MSND 0209 FSND GRVL 0211 CLAY 0297
10937	01 036	Aug-72	624922 4 4854452	560	71 --							UN MU	RC 2081	VAUGHAN TWP BRWN CLAY FILL 0003 GREY CLAY 0017 GREY CLAY SILT 0022 GREY FSND CLAY SILT 0071 GREY FSND 0074 GREY FSND GRVL 0080 GREY CLAY 0087 GREY CSND GRVL 0112 GREY GRVL SAND 0140 GREY GRVL SAND CLAY 0153 GREY GRVL SAND CLAY 0159 GREY SHLE 0160
10938	01 036	Aug-72	624910 4 4854473	564	71 Fr	8	132 16 30	6	180	360	15	WS MU	RC 2081	VAUGHAN TWP BRWN CLAY FILL 0003 GREY CLAY 0017 GREY CLAY SILT 0022 GREY FSND CLAY SILT 0071 GREY FSND 0074 GREY FSND GRVL 0080 GREY CLAY 0087 GREY CSND GRVL 0112 GREY GRVL SAND 0140 GREY GRVL SAND CLAY 0153 GREY GRVL SAND CLAY 0159
11361	01 037	Sep-72	624274 4 4854572	626	34 Fr	30		20				WS DO	BR 5459	-- BRWN CLAY 0007 BLUE CLAY 0034 GREY FSND 0042
14743	02 011	Sep-78	624152 4 4854441	639	30 Fr	30		25				WS DO	BR 3109	-- TPSL 0002 BRWN CLAY STNY 0025 BRWN CLAY SLTY 0045 BLUE CLAY STNY 0050
18105	02 010	Jan-85	623209 D 4853695	692	10 --	10		10				WS DO	BR 4919	-- BRWN TPSL HARD 0001 BRWN CLAY SAND HARD 0037
18483	01 035	Oct-86	627122 D 4854813	652	133 Fr	6	145 3 18	23	50	90	145	WS DO	RC 1663	-- BLCK TPSL 0001 BRWN CLAY 0011 BLUE CLAY SAND LYRD 0094 GREY MSND 0108 BLUE CLAY 0112 GRN FSND 0130 BLUE CLAY 0133 GREY MSND 0151 GREY FSND 0155
23812	02 010	Dec-96	629118 D 4855345	0		72						0 NU	DM 1663	LEECHCROFT FARM BRWN SAND FILL 0008 BRWN CLAY SAND FILL 0028 PRDG 0029

WELL	CON LOT	DATE	EASTING NORTHING	ELEV ft ASL	WATER FOUND ft Type	HOLE DIA in	SCREEN TOS ft	SCREEN LN ft	SCREEN SL #	SWL ft	RATE IGM	TIME min	PL ft	TYPE / USE	METHOD DRLR	OWNER DESCRIPTION OF MATERIALS
23813	02 010	Dec-96	629118 4855345	0		72								0 DM NU 1663		LEECHCROFT FARM BRWN SAND FILL 0006 BRWN SAND FILL 0028 PRDG 0030
Location Map 3																
3033	02 010	Oct-46	630151 4855310	620	53 Fr	6	50	4		34	25			WS ST,DO	CT 4841	MASTER FEEDS FARM TPSL 0006 RED CLAY MSND 0015 BLUE CLAY STNS 0030 MSND 0032 BLUE CLAY STNS GRVL 0045 WHITE FSND 0050 CSND STNS 0054
3154	03 007	Jun-64	630863 4854842	603	91 Fr	5	93	4	8	40	6	120	70	WS ST,DO	CT 2407	-- TPSL 0002 BRWN MSND CLAY 0022 BLUE CLAY 0050 BLUE CLAY GRVL 0070 BLUE CLAY 0091 GRVL 0097
3155	03 008	Sep-60	632127 4855465	599	8 Fr	34				8	3			WS CO	BR 5420	B AND M MOTORS TPSL MSND 0001 YLLW CLAY MSND 0010 BLUE CLAY 0020 BLUE CLAY GRVL 0024
3156	03 008	Jan-61	632105 4855457	598	76 Fr	6	72	4		35	8	120	60	WS CO	CT 1413	B AND M MOTORS PRDG 0024 BLUE CLAY SILT 0040 HPAN STNS 0070 CLAY GRVL 0076
3157	03 008	Jun-61	632106 4855422	600	70 Fr	5	66	4	20	20	9	120	30	WS CO	CT 1413	-- CLAY BLDR 0030 SILT CLAY 0050 CLAY STNS 0060 CSND 0070
3158	03 008	Jan-67	630619 4854785	600	70 Fr 118 Fr	7	120	514	14	21	20	240	60	WS PS	CT 4610	SMIDT CONSTRUCTION BRWN CLAY 0009 BRWN CLAY STNS 0018 BLUE CLAY STNS 0033 BLUE CLAY 0070 GRVL CLAY 0071 BLUE CLAY 0102 CLAY 0118 MSND 0134 FSND 0145 SHLE 0155
3159	03 009	Jun-49	630782 4855021	640	180 Fr	4	172	8		55	30			WS ST,DO	CT 4841	MASTER FEEDS FARM TPSL 0002 RED MSND CLAY 0035 RED QSND 0040 BLUE CLAY 0140 WHITE FSND 0165 BLCK FSND STNS 0180
3255	04 007	Oct-55	632463 4855196	611	90 Fr 150 Fr	4				60	5	360	60	WS IN	CT 4619	MARKHAM SAND CO FILL 0010 BLUE CLAY 0020 GRVL 0035 CSND 0043 GRVL 0050 MSND GRVL 0075 MSND 0090 CSND 0110 GRVL 0115 FSND 0140 CSND 0150 GRVL 0153
3256	04 007	Oct-65	633020 4855390	587	30 Fr 55 Fr	34				12	8	180		WS IN	BR 5420	CANADA WIRE CO TPSL 0001 CLAY MSND 0010 BLUE CLAY STNS 0030 CLAY 0048 CLAY STNS 0055 GRVL 0060
3257	04 007	Jun-65	632994 4855432	591	50 Fr	7				10	10	180	60	AS NU	CT 5420	CANADA WIRE CO BRWN CLAY 0008 BLUE CLAY GRVL 0050 MSND GRVL 0062 BLUE CLAY 0075 HPAN 0125 GRN CLAY SHLE 0135 BLUE SHLE 0160
3258	04 008	Sep-54	632184 4855734	595	120 Fr	4	124	4	10	25	12	180	40	WS DO	CT 1622	-- PRDG 0005 YLLW MSND 0010 BLUE CLAY 0120 GRVL 0128
3262	04 009	Jun-66	632871 4856081	591	86 Fr	4								AS NU	CT 1313	-- MSND 0024 CLAY 0086 MSND GRVL 0100
3430	05 008	Dec-59	634153 4856169	599	123 Fr	4	123	4	50	49	10	1440	56	WS ST,DO	CT 4823	-- TPSL 0002 CLAY 0016 BLDR 0018 MSND CLAY 0040 BLDR 0043 MSND CLAY 0082 GRVL 0084 CLAY 0101 CLAY GRVL 0112 MSND SILT 0123 GRVL 0129
3699	06 008	Aug-57	636343 4857097	574	56 Fr	2	55	5	7	28	5	240		WS DO	JT 2105	-- BRWN CLAY MSND 0016 BLUE CLAY 0056 CSND 0060
3700	06 008	Apr-58	636314 4857019	577	97 Fr	2	96	5	10	64	4	270		WS DO	JT 2105	-- TPSL MSND 0012 BRWN CLAY 0018 BLUE CLAY 0042 HPAN GRVL 0046 BLUE CLAY 0097 GRVL 0101
3701	06 008	Sep-60	636087 4856891	577	20 Fr	34				18				WS IN	BR 5420	-- YLLW CLAY 0010 BLUE CLAY 0018 QSND CLAY 0020 CLAY 0024

WELL	CON LOT	DATE	EASTING NORTHING	ELEV	WATER FOUND	HOLE DIA	SCREEN TOS	LN	SL	SWL	RATE	TIME	PL	TYPE / USE	METHOD DRLR	OWNER DESCRIPTION OF MATERIALS
				ft ASL	ft Type	in	ft	ft	#	ft	IGM	min	ft			
3703	06 008	Nov-60	636544 5 4857149	581	26 Fr	34				10	1			WS DO	BR 5420	-- BLCK TPSSL 0001 YLLW CLAY 0007 BLUE CLAY STNS 0026 GREY MSND 0028
3704	06 008	Feb-61	636145 5 4856703	585	54 Fr	5				16	8	120	20	WS IR	CT 1413	-- PRDG 0027 SILT 0050 MSND GRVL 0054
3706	06 008	Sep-63	636279 5 4857084	574	14 Fr	34				14	2			WS DO	BR 5420	-- TPSSL 0001 YLLW CLAY 0007 BLUE CLAY 0012 QSND 0026 BLUE CLAY 0027
3708	06 008	Jul-64	636314 5 4857128	574	24 Fr	34				12				WS DO	BR 5420	-- TPSSL 0002 YLLW CLAY 0010 BLUE CLAY 0017 CLAY GRVL 0024 CSND 0025
3709	06 008	Nov-64	636314 5 4857128	574	16 Fr	30				16	20			WS IR	BR 5420	-- TPSSL 0001 BRWN CLAY 0009 BLUE CLAY 0016 CSND GRVL 0030
8763	04 009	Jul-68	632133 4 4855842	594	105 Sa 202 Fr	2				15	10	1920	20	WS IN	CT 1313	RYAN BROS MSND 0015 BLUE CLAY 0050 BLUE CLAY MSND STNS 0105 GREY MSND 0180 GREY GRVL MSND 0210
8903	04 008	Jun-68	632353 4 4855392	607	20 Fr	34				6				WS CO	BR 5420	DON MILL TRUCK SALES BRWN CLAY 0012 BLUE CLAY 0027
10182	06 008	Oct-70	636213 4 4856972	575	27 Fr	34				12				WS DO	BR 5459	-- TPSSL 0001 BRWN CLAY 0012 BLUE CLAY STNS 0027 BLUE CLAY MSND 0034
10809	06 013	Dec-71	636503 4 4857082	572	23 Fr	30				12				WS DO	BR 5459	-- TPSSL 0002 BRWN CLAY 0010 BLUE CLAY 0023 BLUE CLAY GRVL 0030
11219	04 009	May-72	632593 4 4856072	591	12 Fr	30				6				WS DO	BR 5459	TRAIN TRAILER RENTAL BRWN CLAY 0012 BLUE CLAY STNS SAND 0023
11554	06 008	Jul-73	636563 6 4857122	581	22 Fr	30				10	4			WS DO	BR 5459	CULLEN J FILL 0002 BRWN SAND 0008 BLUE CLAY 0022 BLUE CSND 0026
14892	05 008	Nov-78	635973 4 4856862	577	103 Fr	6	102	3	18	23	6	60	27	WS DO	RC 4006	-- BRWN CLAY SAND SOFT 0014 GREY CLAY STNS SAND 0072 GREY CLAY STNS PCKD 0086 BRWN SAND CLAY LYRD 0096 BLCK FGV L MGVL PCKD 0105
15359	06 007	Apr-79	636173 4 4856482	599	116 Fr	6				45	12	120	60	WS DO	CT 2517	-- BRWN CLAY 0020 GREY CLAY BLDR 0085 GREY SAND 0116

QUAL	Fresh	TYPE:	WS	Water Sup	Comercial	METHOD :	CT	Cable Tool
Fr	Mineral		AQ	Abandoner	Domestic		JT	Jetting
Mn	Salty		AS	Abandoner	Municipal		RC	Rotary Conventional
Sa	Sulphur				Public		RA	Rotary Air
Su	Unrecorded				Stock		BR	Boring
--								