PRELIMINARY
GEOTECHNICAL INVESTIGATION

VACANT PROPERTY
406-408 Bank Street,
Ottawa, Ontario

Prepared for:
Mr. Ali Asgari,
Proprietor - Galaxy Camera
99 Bank Street
Ottawa, Ontario

Final Report
DST File No.: OG05373
January 2006

3 copies – Galaxy Camera
1 copy – DST Consulting Engineers Inc.

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APPENDICES

1.0 INTRODUCTION

DST Consulting Engineers Inc. (DST) has been retained by the proprietor of Galaxy Camera, Mr. Ali Asgari, to conduct a preliminary geotechnical investigation for a vacant property located at 406-408 Bank Street, located at the northwest corner of the intersection of Bank and Florence Streets. The purpose of this investigation is to evaluate the subsurface soil conditions within the vicinity of the vacant lot and to provide preliminary geotechnical recommendations for potential future development. A site location plan is provided in Figure 1 in Appendix B and a general site plan of the site is provided in Figure 2 in Appendix B.

Authorization to proceed with this work was received from Mr. Asgari in November 2005.

This report is prepared for the sole use of Mr. Asgari. Any use of the report, or any reliance on it by any other party, is the responsibility of such party. Refer to Appendix A for limitations of the report.

2.0 BACKGROUND INFORMATION

The subject lot was the site of a building fire that occurred on March 23, 2005, in which a three storey building with a basement was completely destroyed. The remnants of the building were removed and the property was backfilled with sand fill. The previous building was constructed in approximately 1965 with a shared building address of 406 and 408 Bank Street which consisted of two commercial establishments (a pizzeria and a Greek restaurant) on the first floor, apartment units on the second and third floors, and a basement. The approximate footprint of the building was 250 m^2.

It is DST's understanding the site is to be purchased for potential redevelopment of a new commercial establishment. It is understood that the new structure will be of similar construction as the previous structure (two storey building with a basement).

3.0 FIELD INVESTIGATION and LABORATORY TESTING

The geotechnical investigation included the advancement of four (4) boreholes on the subject property to depths between 4.4 and 9.0 m. Two (2) PVC standpipe peizometers (25 mm diameter) were installed at borehole locations BH2 and BH3 for the measurement of groundwater levels within the subject area. One monitoring well was installed at borehole location BH1 for the collection of groundwater samples

All boreholes were advanced using a Central Mining Equipment (CME) 75 track-mounted drill rig equipped for geotechnical testing. The drilling was carried out on December 9 and December 30, 2005 under the supervision of a geotechnical technologist from DST.

Soil samples were obtained utilizing standard penetration test (SPT) method. The SPT involves driving a 50 mm diameter thick-walled sampler into the soil under the energy of a 63.5 kg weight falling through 760 mm. The number of blows required to drive the sampler 0.3 m is known as the standard penetration blow count (N), which provides an indication of the relative density state or consistency of the soil. Representative soil samples were obtained from within the sampler. In addition, in-situ field vane testing was carried out within cohesive soils at borehole location BH4. The results are presented in the respective borehole logs included in Appendix C.

Classification and index tests were subsequently performed in the laboratory on samples collected from the boreholes to aid in the selection of engineering properties. Laboratory soil tests included natural moisture content and liquid and plastic limits, where applicable. Laboratory results are presented in Appendix D.

The soil samples retrieved during the field investigations were examined, classified, and logged according to soil type, moisture content, colour and consistency.

The Ontario MOE Well Regulation 903 of the Ontario Water Resources Act defines monitoring wells, standpipes and open piezometers as a special type of well referred to as "Test Hole". Installation and decommissioning of test holes must be in accordance with O. Reg. 903. It is the

owner's responsibility to either maintain these standpipes and well, or decommission the wells in accordance with the regulation. One copy of the MOE Well Record was submitted to the MOE, one copy was submitted to the owner, one copy was retained by DST, and one copy is included in Appendix E of this report.

4.0 SUBSURFACE CONDITIONS

Details of the encountered soil conditions at the borehole locations are presented on the borehole logs in Appendix C and are further discussed below.

Based on the subsurface conditions encountered at the borehole locations, the generalized subsurface stratigraphy at the site consists of surficial sand fill ranging in thickness of 2 to 3 m, underlain by a silty clay layer from approximately 3.0 m to 8.8 m below grade (at borehole location BH2). The silty clay is underlain by a silty sand layer consisting of some clay and trace gravel (possible till layer). Bedrock was not encountered at any of the borehole locations within the drilling depth of approximately 9.0 m.

A brief description of key attributes of the subsurface soil and fill layers is presented below to assist the designers of the project in developing a model of the dominant soil conditions at the site. However, for specific information at a particular location, the reader should consult the specific borehole logs included in Appendix C. It should also be noted that the soil and groundwater conditions were only confirmed at selected borehole locations for a specific period in time and will likely vary between these locations and with time.

4.1 Fill

In general, fill material was composed of silty sand with some gravel containing some debris such as concrete and burnt wood in certain areas. Borehole location BH1 contained approximately 2.0 m of dark brown silty sand fill with trace gravel. Borehole location BH2 contained approximately 3.0 m of brown and black sand with some gravel and trace silt. Concrete and wood debris were evident at this borehole location. Borehole location BH3 contained approximately 2.7 m of brown and black sand with some silt. This layer also contained burnt building materials.

4.2 Clay

A native clay layer was encountered underneath the fill layer at all borehole locations. The thickness of the clay layer starts at approximately 3.0 m below grade and ends at approximately 8.8 m below grade at borehole location BH2.

The clay layer is generally olive grey silty clay. Field vane shear test values were obtained from borehole location BH4, located approximately 1.5 m west of borehole location BH2. As indicated by the vane values (undrained shear strengths of 49 to 71 Kpa), the consistency of the clay is stiff. The ratio of intact to remolded undrained shear strengths as measured from field vane testing ranged from 5.4 to 7.1. This suggests the clay layers are generally considered as very sensitive. The in-situ moisture content for the clay ranges from approximately 60% to 80% between approximately 3.0 m and 6.5 m below grade at various locations, and from approximately 20 to 40% between approximately 6.5 m and 8.5 m below grade at various locations. The Atterberg limits range is as follows: liquid limit: 58 to 70%, plastic limit: 24 to 27% and plasticity index: 39 to 44 (i.e. high plasticity).

4.3 Silty Sand (Till)

Silty sand with trace gravel, some clay was encountered at borehole location BH2 at approximately 8.8 m below surface grade. The silty sand layer is considered loose and contained some clay and trace gravel. The in-situ moisture level is approximately 25%.

4.4 Groundwater Conditions

The groundwater level for the subject study area was measured from the borehole monitoring well BHMW1 on December 9, 2005, approximately two hours after installation. The groundwater level was 2.9 m below grade. Given the short duration between the installation of the monitoring well and the groundwater measurement, the groundwater condition may not have returned to its normal level. DST conducted a site visit a few days after the installation of the well and standpipes to obtain subsequent groundwater readings, however, the standpipes at borehole locations BH2 and BH3 were found damaged at the time of measurement. The groundwater level

measured on January 25, 2006 at borehole monitoring well location BH1 was 3.0 m below surface grade.

The groundwater table appears to be generally located within the silty clay layer. However, it is likely that at times it will be above the clay within the fill; groundwater levels are expected to fluctuate seasonally and are expected to be higher during wet periods of the year (i.e. spring freshet and prolonged or high precipitation events).

5.0 DISCUSSION AND RECOMMENDATIONS

5.1 General

DST's scope of work consisted of evaluating the underlying subsurface soil conditions at the existing vacant property located at 406-408 Bank Street. The purpose of this investigation was to evaluate the subsurface soil conditions at representative locations and provide preliminary recommendations regarding the geotechnical aspects of future development of this site.

Based on the soil conditions encountered within boreholes, the subsurface soil at the subject site consists of a fill layer ranging in thickness of 2.0 to 3.0 m, underlain by a stiff, silty clay layer of approximate thickness of 5.8 m (at borehole location BH2). The clay layer is underlain by a silty sand till layer consisting of some clay and trace gravel. Bedrock was not encountered at any of the borehole locations within the 9 m investigation depth.

Overall the site was found suitable for construction of a two storey building supported on shallow foundations. A detailed discussion of the subsurface conditions in relation to various elements of the project is presented in the following sections, together with pertinent design recommendations where appropriate. However, please note that the discussions presented herein are intended for the sole use of the designers of the project in terms of finalizing the proposed site development, preparation of tender documents and engineer's capital cost estimate. In particular, contractors undertaking or bidding on various elements of the work should make their own assessment of the factual data presented herein as it relates to such items as equipment requirements, working conditions, productivity and the like.

All foundation design recommendations presented in this report are based on the assumption that an adequate level of construction monitoring during foundation excavation and installation will be provided. An adequate level of construction monitoring is considered to be an examination of all foundation excavation surfaces prior to concrete or fill placement to ensure the integrity of the sub-grade and that fill and/or organic material has been removed

Foundations recommendations provided are for static concentrically loaded footings in compression. Should eccentric, inclined, dynamic and/or uplift loads be expected, the recommendations should be reviewed.

5.2 Shallow Foundations

Based on the geotechnical data encountered from borehole locations BH1 to BH4, shallow footings founded on a compacted granular pad may be designed on net allowable bearing capacity of 70 kPA for a strip footing between 0.5 and 1.0 m in width and 100 kPa for square footings between 0.5 and 1.0 m in width. The footings must have a minimum cover of 0.5 m and are to be underlain by a minimum of 1.0 m of compacted granular fill constructed as described below. The above is based on a minimum safety factor of 3 against bearing capacity failure, and a maximum settlement of 25 mm. Settlements have been estimated based on consolidation parameters derived from published correlations with index testing.

All existing fill material should be removed from beneath the area of the granular pad to expose undisturbed native soil. A granular pad consisting of a minimum of 1.0 m of compacted granular fill should then be constructed. The base of the granular pad should extend horizontally outward beyond the face of the bearing area a distance equal to the depth of the fill below the footing.

All granular fill placed should meet the Ontario Standard Specifications (OPSS) for Granular "B", Type II. The fill should be compacted to at least 98% of standard Proctor maximum dry density. As the subgrade soils are considered to be highly sensitive to disturbance, the fist lift placed should be not less than 0.3 m thick. Care should be exercised during compaction efforts to minimize disturbance. Where disturbance is suspected, compaction methodology may need to be modified.

Foundation excavations and bearing surfaces should be protected at all times from rain, freezing temperatures, excessive drying or the ingress of groundwater before, during and after construction. Alternatively, shallow footings founded on the silty native clay may be designed on a net allowable bearing capacity of 40 kPa for a strip footing between 0.5 and 1.0 m in width and 60 kPa for square footings between 0.5 and 1.0 in width. The footings must have a minimum cover of 0.5 m. A concrete mud slab placed over the clay immediately following excavation is recommended to avoid disturbance of the very sensitive clay.

5.3 Floor Slab-On-Grade

Conventional floor slabs-on-grade construction is considered feasible providing certain precautions are undertaken. All fill and burnt building materials within the confines of the slab-on-grade periphery should be removed; the fill material can be used for landscaping purposes only. The subgrade can then be restored to the required base elevation with a suitable granular fill such as Granular "B" or "A" fill material.

Some relative movement between floor slab-on-grade and adjacent walls or foundation and differential movement within the slab should be anticipated. Settlement of the native soil below the slab is expected to be limited to less than 10 mm for uniform slab loading of up to 10 kPa.

5.4 Frost Protection

For perimeter footing of heated basement structures, footings should be provided with a minimum depth of soil cover of 1.5 m to reduce the risk of frost heave (this assumes that the slab-on-grade is not insulated so as not to restrict some heat loss to the perimeter foundations). Where insufficient soil cover is provided, synthetic insulation may be utilized along the exterior of the foundation to provide frost protection.

For footings of non-heated structures, frost can be expected to extend to depths of up to 2.2 m. As such, footings for non-heated structures should be founded at a depth of 2.2 m, or placed over non-frost susceptible granular pad (less than 8% passing the 0.075 mm sieve) extending to a depth of 2.2 m below grade. The width of the pad should extend horizontally beyond the base of the

footing by a distance equal to the depth of fill below the foundation. Alternatively the foundation may be designed with sufficient insulation as frost protection.

To prevent frost jacking of the foundation walls, the footing excavation should have side slopes not greater than 1 horizontal to 1 vertical (1H:1V) and be backfilled with a non-frost susceptible granular fill such as Granular "A" or Granular "B" Type II fill (modified to have no more than 8% passing the 0.075 mm sieve) capped with an impervious layer.

5.5 Temporary Excavation and Groundwater Control

Excavations for footings should be constructed in accordance with the requirements of the Occupational Health and Safety Act of Ontario. Excavations through the very loose to compact sand fill will likely require excavation side slopes of 1H to 1V or flatter assuming that static groundwater level is below the excavation bottom, and shoring will be required if the excavation remains open for a long period or if groundwater is encountered within the excavation limit.

Generally, the measured groundwater level on December 9, 2005 is considered to be close to the anticipated level of new construction. It is also possible that groundwater condition at the time of construction will vary compared to what was encountered during this study (for example, the groundwater table may rise considerably during the spring freshet in March or April). Given the fact that the sand fill material will be removed to the silty clay layer (to a depth of approximately 3.0 m), it is expected that groundwater during construction can be successfully controlled with conventional pump and sump techniques.

Further, to achieve adequate compaction of fill material, it is important to keep the drainage system(s) in operation during placement and compaction of the fill material.

Attention should be paid to structures (adjacent foundations) or buried service lines close to the excavation. As a general rule, specified attention will have to be given to the design of underpinning systems where adjacent structures and buried utilities are located within an imaginary line emanating upwards behind the excavation wall at 45 degrees to the horizontal from

0.6 m below the base of the excavation. Potential movement of any structures within this zone should be monitored accurately for movement by surveying.

5.6 Earthquake Loads

The seismic provisions of Ontario Building Code (1997) should be consulted in designing the foundations. The recommended foundation factor, F, should conform to Table 4.1.9.1.C. The foundation factor, F, for this site should be taken as 1.0.

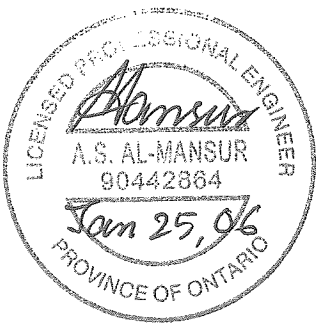
6.0 CLOSURE

This report provides preliminary geotechnical recommendations for general commercial construction on this site. When building design details are available, these should be reviewed by the geotechnical engineer to assess the suitability of this investigation, and the need for any additional data or analysis.

We trust this report is satisfactory for your present requirements. Should you have any questions or require clarification on any matter, please do not hesitate to contact us.

For DST CONSULTING ENGINEERS INC.

David Grant, P.Eng.
Project Manager



Shahid Mansur, P. Eng
Sr. Geotechnical Engineer

Encl.:
Appendices A to E

APPENDIX A

Limitations of Report

LIMITATIONS OF REPORT

The conclusions and recommendations presented in this report are based on information determined at the borehole locations. Subsurface conditions between and beyond the boreholes may differ from those encountered at the specific locations tested, and conditions may become apparent during construction which were not detected and could not be anticipated at the time of the site investigation. It is recommended practice that DST Consulting Engineers Inc. be retained during construction to confirm that the subsurface conditions throughout the site do not deviate materially from those encountered in the boreholes. The benchmark and elevations used in this report are primarily to establish relative elevation differences between the borehole locations and should not be used for other purposes, such as grading, excavation, planning, development, etc.

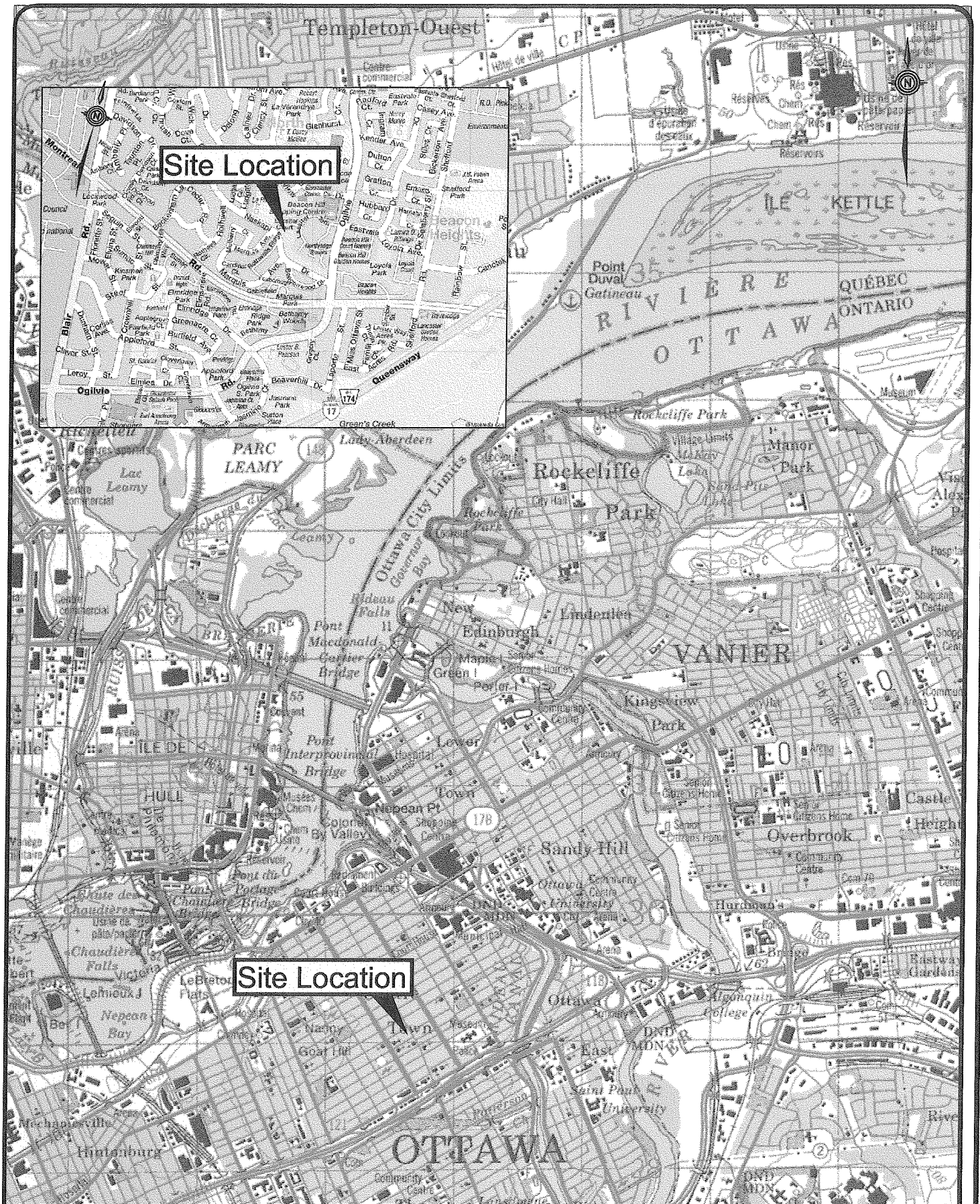
The design recommendations given in this report are applicable only to the project described in the text and then only if constructed substantially in accordance with details stated in this report. Since all details of the design may not be known, we recommend that we be retained during the final stage to verify that the design is consistent with our recommendations, and that assumptions made in our analyses are valid.

Unless otherwise noted, the information contained herein in no way reflects on environmental aspects of either the site or the subsurface conditions.

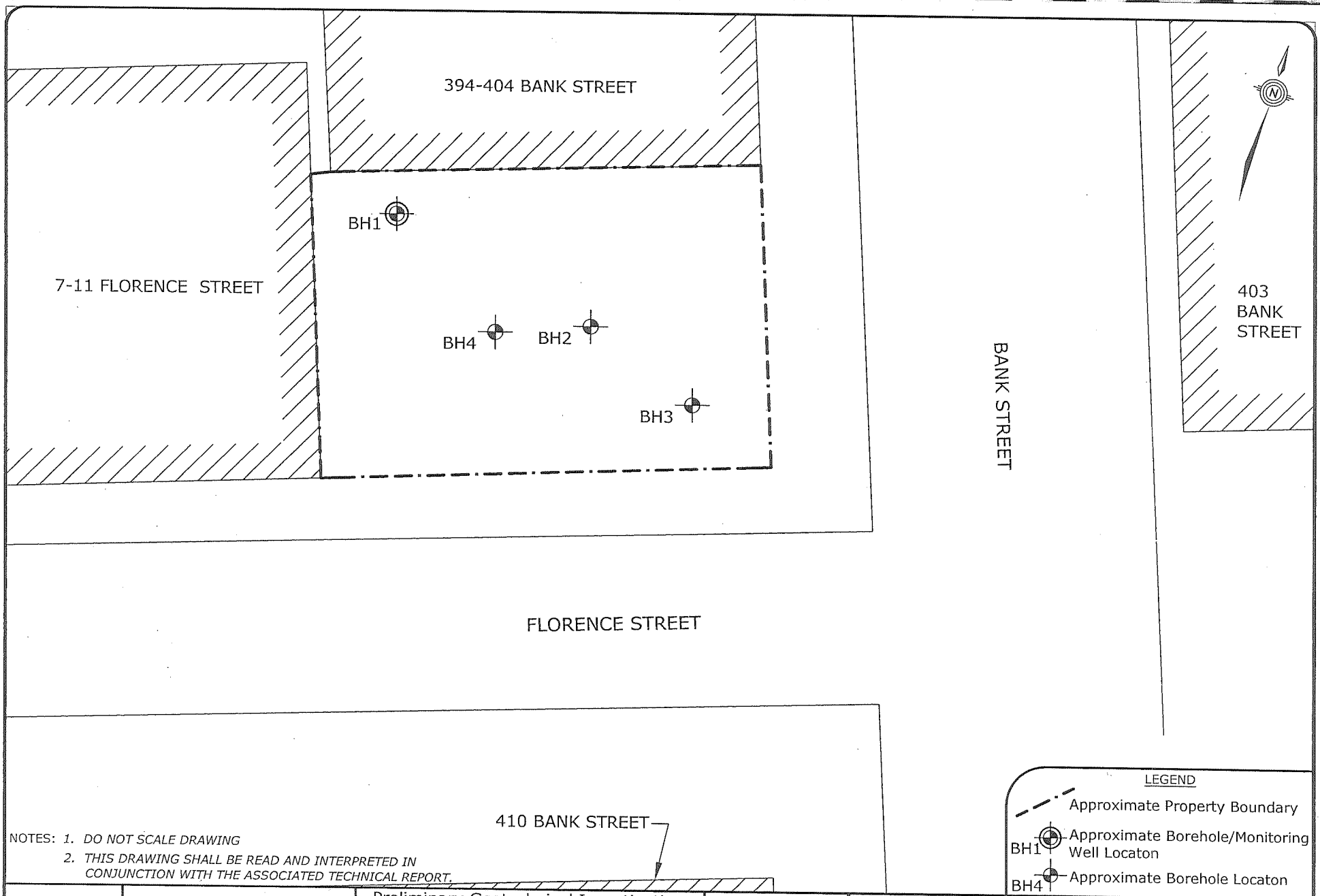
The comments given in this report on potential construction problems and possible methods are intended only for the guidance of the designer. The number of boreholes may not be sufficient to determine all the factors that may affect construction methods and costs, e.g. the thickness of surficial topsoil or fill layers may vary markedly and unpredictably. The contractors bidding on this project or undertaking the construction should, therefore, make their own interpretation of the factual information presented and draw their own conclusion as to how the subsurface conditions may affect their work.

APPENDIX B

Figures



DST CONSULTING ENGINEERS 1304 ALGOMA ROAD OTTAWA, ONTARIO K1B 3W8 TEL (613) 748-1415 FAX (613) 748-1356	Preliminary Geotechnical Investigation 406 - 408 Bank Street Ottawa, Ontario	PROJECT NO.: OG05373	DATE: January 2006
	SITE LOCATION PLAN	FIGURE 1	SCALE: Grid = 1 km



NOTES: 1. *DO NOT SCALE DRAWING*
2. *THIS DRAWING SHALL BE READ AND INTERPRETED IN CONJUNCTION WITH THE ASSOCIATED TECHNICAL REPORT.*

LEGEND
- Approximate Property Boundary
- BH1 — Approximate Borehole/Monitoring Well Locaton
- BH4 — Approximate Borehole Locaton

		Preliminary Geotechnical Investigation 406 - 408 Bank Street Ottawa, Ontario	PROJECT NO.: OG05373	DATE: January 2006
O	Original			
REV.	DESCRIPTION	BOREHOLE LOCATION	Figure 2	SCALE: Not to Scale

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APPENDIX C

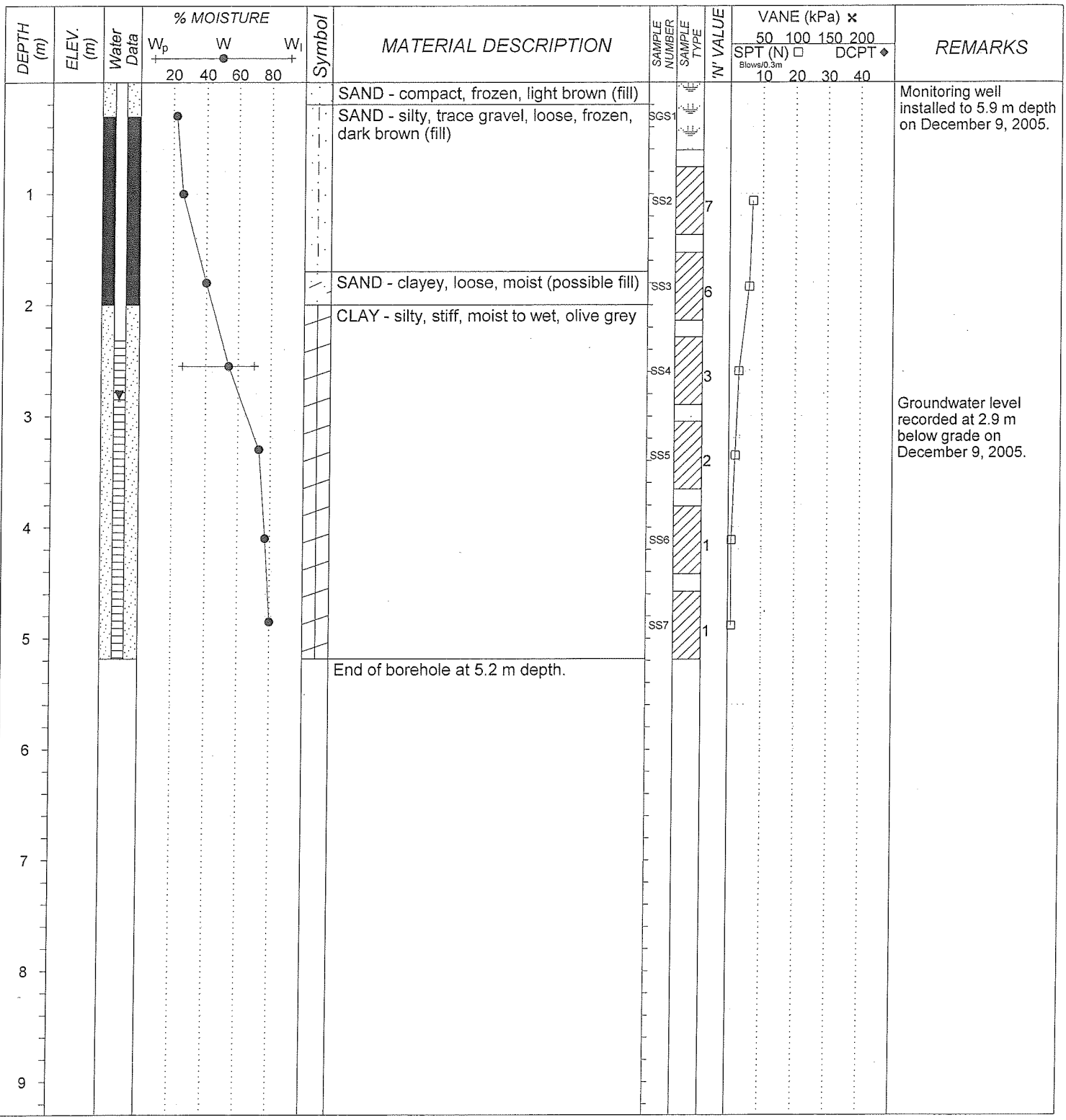
Borehole Logs

LOG OF BOREHOLE / MONITORING WELL BHMW1

DST REF. No.: **OG05373**
CLIENT: **Galaxy Camera**
PROJECT: **Preliminary Geotechnical Investigation**
LOCATION: **406 - 408 Bank Street, Ottawa, Ontario**
SURFACE ELEV.: **--/--**

Drilling Data
METHOD: **CME 75 Drill Rig**
DIAMETER: **100**

DATE: **December 09 2005**



BOREHOLE (STANDARD) OG05373.GPJ DST_MIN.GDT 1/24/06

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SAMPLE TYPE LEGEND

- Auger Sample
- Split Spoon Sample
- Thin Wall Tube
- Rock Core
- Side Sampler
- Grab Sample
- Ponar Sample

APPENDIX C

LOG OF BOREHOLE BH2

DST REF. No.: **OG05373**
CLIENT: **Galaxy Camera**
PROJECT: **Preliminary Geotechnical Investigation**
LOCATION: **406 - 408 Bank Street, Ottawa, Ontario**
SURFACE ELEV.: **--/--**

Drilling Data
METHOD: **CME 75 Drill Rig**
DIAMETER: **100**

DATE: **December 09 2005**

DEPTH (m)	Symbol	MATERIAL DESCRIPTION	SAMPLE NUMBER	'N' VALUE
0		SAND - compact, frozen, brown (fill)		
1		- some gravel, trace silt, trace debris (burnt material including concrete and wood), compact to very loose, frozen to moist, brown and black (fill)	SS2	31
2			SS3	1
			SS4	1
3		CLAY - silty, stiff, wet, olive grey	SS5	1
4			SS6	2
5		- silty, trace to some sand, trace gravel, stiff, wet to moist, olive grey	SS7	1
			SS8	1
6			SS9	1
7			SS10	1
8			SS11	1
9		SAND - silty, some clay, trace gravel, loose (possible till)	SS12	4
		End of borehole at 9.0 m depth.		

% MOISTURE: W_p W W_l — 20 40 60 80

VANE (kPa) × — 50 100 150 200
SPT (N) □ DCPT ◆ Blows/0.3m — 10 20 30 40

REMARKS

Standpipe installed to 4.4 m depth on December 9, 2005.

Slight hydrocarbon odour was noted at 0.8 m depth on December 9, 2005.

Groundwater level could not be measured on December 20, 2005, due to damaged standpipe.

DST CONSULTING ENGINEERS

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SAMPLE TYPE LEGEND

- Auger Sample
- Split Spoon Sample
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- Rock Core
- Side Sampler
- Grab Sample
- Ponar Sample

APPENDIX C

BOREHOLE (STANDARD) OG05373.GPJ DST_MIN.GDT 1/24/06

LOG OF BOREHOLE BH3

DST REF. No.: **OG05373**
CLIENT: **Galaxy Camera**
PROJECT: **Preliminary Geotechnical Investigation**
LOCATION: **406 - 408 Bank Street, Ottawa, Ontario**
SURFACE ELEV.: **--/--**

Drilling Data
METHOD: **CME 75 Drill Rig**
DIAMETER: **100**

DATE: **December 09 2005**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE (W_p W W_l) 20 40 60 80	Symbol	MATERIAL DESCRIPTION	SAMPLE NUMBER	SAMPLE TYPE	'N' VALUE	VANE (kPa) × 50 100 150 200; SPT (N) □ Blows/0.3m; DCPT ◆ 10 20 30 40	REMARKS
0					SAND - some silt, compact, frozen, light brown (fill)	SGS1				Standpipe installed to 4.4 m depth on December 9, 2005.
1						SS2		15		Groundwater level could not be measured on December 20, 2005, due to damaged standpipe.
2					- some debris (burnt building materials), some silt, loose, frozen to moist, light brown and black (fill)	SS3		7		
						SS4		10		
3					CLAY - silty, stiff, moist, olive grey	SS5		2		
4						SS6		1		
					End of borehole at 4.4 m depth.					
5										
6										
7										
8										
9										

BOREHOLE (STANDARD) OG05373.GPJ DST_MIN.GDT 1/24/06

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SAMPLE TYPE LEGEND

- Auger Sample
- Split Spoon Sample
- Thin Wall Tube
- Rock Core
- Side Sampler
- Grab Sample
- Ponar Sample

APPENDIX C

LOG OF BOREHOLE BH4

DST REF. No.: **OG05373**
CLIENT: **Galaxy Camera**
PROJECT: **Preliminary Geotechnical Investigation**
LOCATION: **406 - 408 Bank Street, Ottawa, Ontario**
SURFACE ELEV.: **--/--**

Drilling Data
METHOD: **CME 75 Drill Rig**
DIAMETER: **100**

DATE: **December 30 2005**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE (W_p W W_l) 20 40 60 80	Symbol	MATERIAL DESCRIPTION	SAMPLE NUMBER	SAMPLE TYPE	'N' VALUE	VANE (kPa) × 50 100 150 200 / SPT (N) □ DCPT ◆ Blows/0.3m 10 20 30 40	REMARKS
0					SAND - frozen to moist, light brown (fill)					From 3.4 m to 6.6 m depth, borehole was advanced solely for purpose of obtaining MTO vanes. BH4 was advanced 1 m west of BH2.
1										
2										
3					CLAY - silty, stiff, olive grey				×	
4									×	
5									×	
6									×	
7					End of borehole at 6.1 m depth.					
8										
9										

BOREHOLE (STANDARD) OG05373.GPJ DST_MIN.GDT 1/24/06

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SAMPLE TYPE LEGEND

- Auger Sample
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- Side Sampler
- Grab Sample
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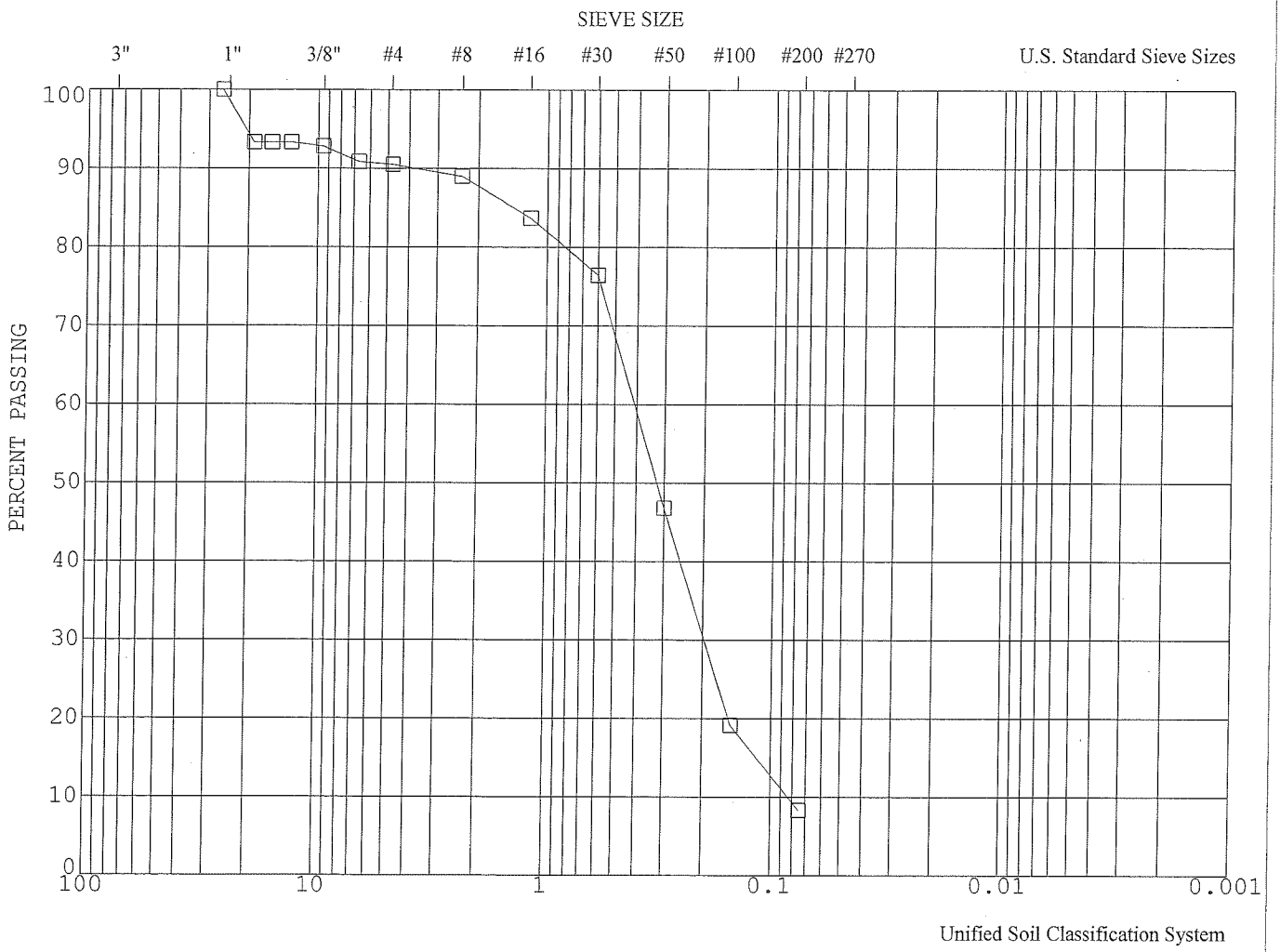
APPENDIX C

APPENDIX D

Laboratory Results:
Atterberg Limits and Grain Size Analysis

GRAINSIZE ANALYSIS



COB'L	GRAVEL		SAND		SILT & CLAY
	Coarse	Fine	Medium	Fine	

LEGEND:

□ BOREHOLE BH2 DEPTH 1.05 m

January 2006

Reference No. OG05373

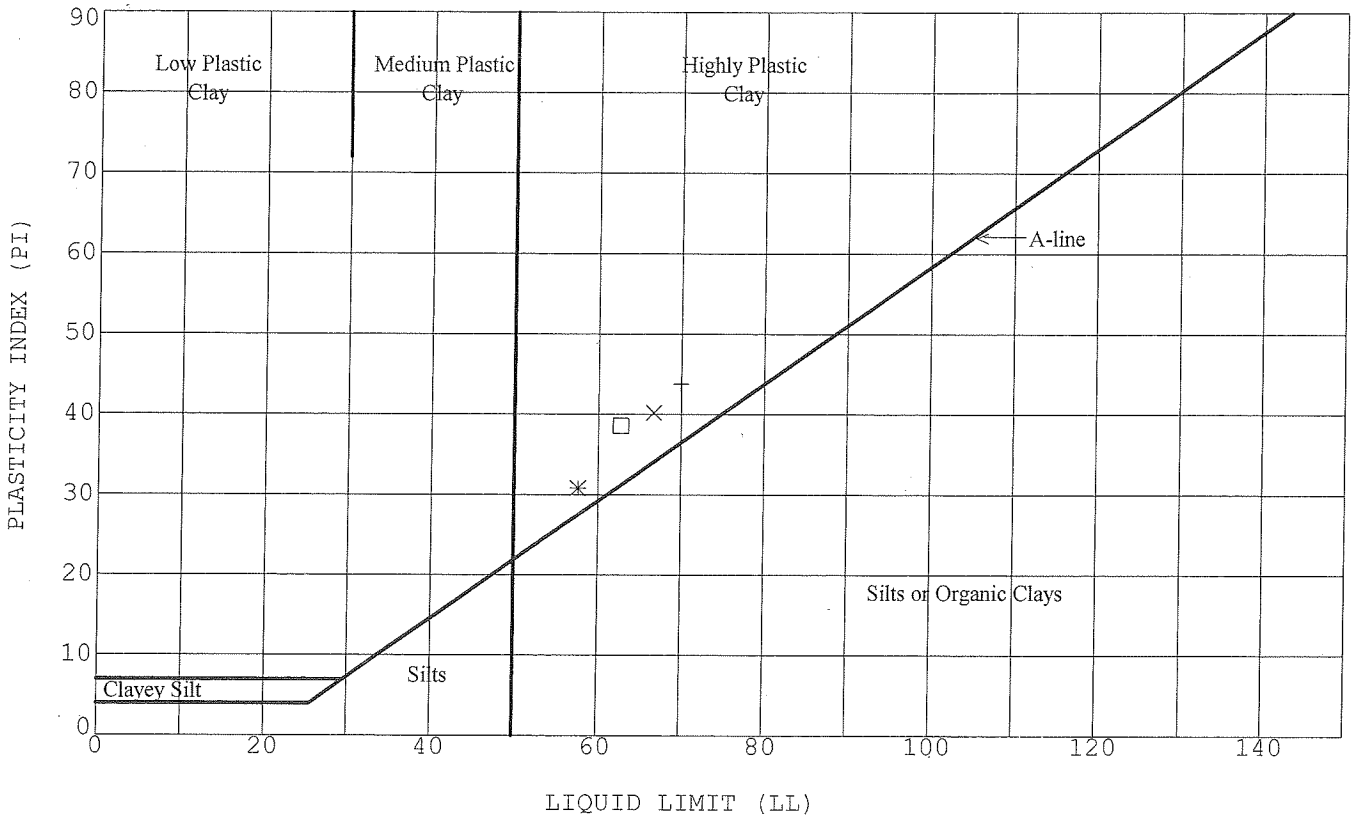
Preliminary Geotechnical Investigation
406 - 408 Bank Street, Ottawa, Ontario

DST CONSULTING ENGINEERS INC.

Appendix D

GS OG05373.GPJ DST_MIN.GDT 1/24/06

ATTERBERG LIMIT TEST RESULTS



LEGEND:

		W_L	W_P	PI	W
□	BOREHOLE BH2 DEPTH 4.10	63	24	39	77
✳	BOREHOLE BH2 DEPTH 6.40	58	27	31	74
×	BOREHOLE BH3 DEPTH 3.30	67	26	40	60
+	BOREHOLE BHMW1 DEPTH 2.55	70	26	44	54

APPENDIX E

Copy of MOE Well Record

Ontario Ministry of the Environment

Well Tag Number (Place sticker and print number below): A 019061

Well Record

Regulation 903 Ontario Water Resources Act

page 1 of 1

Instructions for Completing Form

- For use in the **Province of Ontario** only. This document is a permanent **legal** document. Please retain for future reference.
- All Sections **must** be completed in full to avoid delays in processing. Further instructions and explanations are available on the back of this form.
- Questions regarding completing this application can be directed to the Water Well Management Coordinator at 416-235-6203.
- **All metre measurements shall be reported to 1/10th of a metre.**
- Please print clearly in blue or black ink only.

Ministry Use Only

MUN | CON | LOT

Well Owner's Information and Location of Well Information

First Name	Last Name	Mailing Address (Street Number/Name, RR, Lot, Concession)
ALI	ASGARI.	99 BANK STREET

County/District/Municipality	Township/City/Town/Village	Province	Postal Code	Telephone Number (include area code)
		Ontario	K1P6B9	563-7997

Address of Well Location (County/District/Municipality)	Township	Lot	Concession
408 BANK STREET			

RR#/Street Number/Name	City/Town/Village	Site/Compartment/Block/Tract etc.
	OTTAWA	

GPS Reading: NAD 83 | Zone 18 | Easting 445641 | Northing 5029106 | Unit Make/Model: GARMIN GPS | Mode of Operation: MAP 76 | ☐ Undifferentiated ☐ Averaged ☑ Differentiated, specify 3D

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To
LT BROWN	SAND		SAND	0	0.2
DK BROWN	SAND	SILT, GRAVEL	SAND, SILTY TRACE GRAVEL	0.2	2.0
GREY	CLAY	SILT	CLAY, SILTY	2.0	5.4

Hole Diameter

Depth From	Depth To (Metres)	Diameter (Centimetres)
0	5.4	10

Water Record

Water found at (Metres)	Kind of Water
3.4 m	☑ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:
m	☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:
m	☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

After test of well yield, water was: ☑ Clear and sediment free ☐ Other, specify

Chlorinated ☐ Yes ☐ No

Construction Record

Casing

Inside diam (centimetres)	Material	Wall thickness (centimetres)	Depth From	Depth To (Metres)
5cm 2"	☐ Steel ☐ Fibreglass ☑ Plastic ☐ Concrete ☐ Galvanized	0.5	0	2.2
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			

Screen

Outside diam	Material	Slot No.	Depth From	Depth To (Metres)
6	☐ Steel ☐ Fibreglass ☑ Plastic ☐ Concrete ☐ Galvanized	10	2.2	5.4

No Casing or Screen

☐ Open hole

Test of Well Yield

Pumping test method

	Draw Down Time (min)	Draw Down Water Level (Metres)	Recovery Time (min)	Recovery Water Level (Metres)
Pump intake set at - (metres)	Static Level			
Pumping rate - (litres/min)	1		1	
Duration of pumping ____hrs +____ min	2		2	
Final water level end of pumping ____metres	3		3	
Recommended pump type. ☐ Shallow ☐ Deep	4		4	
Recommended pump depth. ____metres	5		5	
Recommended pump rate. (litres/min)	10		10	
	15		15	
If flowing give rate - (litres/min)	20		20	
	25		25	
If pumping discontinued, give reason. TEST HOLE	30		30	
	40		40	
	50		50	
	60		60	

Plugging and Sealing Record

☐ Annular space ☐ Abandonment

Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	01.8	BENTONITE	0.01 m³

Method of Construction

☐ Cable Tool ☐ Rotary (air) ☐ Diamond ☐ Digging
☐ Rotary (conventional) ☐ Air percussion ☐ Jetting ☐ Other
☐ Rotary (reverse) ☑ Boring ☐ Driving

Water Use

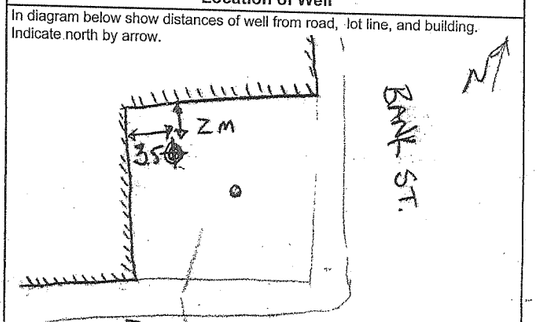
☐ Domestic ☐ Industrial ☐ Public Supply ☐ Other
☐ Stock ☐ Commercial ☑ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

☐ Water Supply ☐ Recharge well ☐ Unfinished ☐ Abandoned, (Other)
☐ Observation well ☐ Abandoned, insufficient supply ☐ Dewatering
☑ Test Hole ☐ Abandoned, poor quality ☐ Replacement well

Location of Well

In diagram below show distances of well from road, lot line, and building. Indicate north by arrow.



Audit No. Z 19282

Date Well Completed: 2005 12 09

Was the well owner's information package delivered? ☐ Yes ☐ No

Date Delivered: 2005 12 23

Well Contractor/Technician Information

Name of Well Contractor: GEORGE DOWNING ESTATE DRILLING — Well Contractor's Licence No.: 1844

Business Address (street name, number, city etc.): 410 RUE PRINCIPAL GRENVILLE SUR LA ROUGE.

Name of Well Technician (last name, first name): D'Arcy Warren — Well Technician's Licence No.: 3256

Signature of Technician/Contractor: X — Date Submitted: 2005 12 23

Ministry Use Only

Data Source	Contractor
Date Received YYYY MM DD	Date of Inspection YYYY MM DD
Remarks	Well Record Number

0506E (09/03) Contractor's Copy ☑ Ministry's Copy ☐ Well Owner's Copy ☐

Cette formule est disponible en français