Geotechnical Engineering

Environmental Engineering

Hydrogeology

Archaeological Studies

Geological Engineering

Materials Testing

Building Science

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patersongroup

Preliminary Groundwater Impact Assessment: Proposed Commercial Development

1966 Roger Stevens Drive
Ottawa, Ontario

Prepared For

Broccolini Development Group

July 10, 2019

Report PH3837-REP.01

TABLE OF CONTENTS

APPENDICES

1.0 INTRODUCTION

1.1 Terms of Reference

Paterson Group Inc. (Paterson) was retained by Broccolini Development Group (Broccolini) to carry out a preliminary groundwater impact assessment for a proposed commercial building to be constructed at 1966 Roger Stevens Drive, Ottawa, Ontario. The proposed building is expected to consist of a single-storey, slab-on-grade warehouse building with a footprint of approximately 65,000 m^2. It is anticipated that associated paved access lanes, vehicle parking areas and landscaped areas will surround the proposed building, and that the building will be privately serviced. Presently, the subject site is undeveloped and consists of agricultural land with a sparsely wooded farm compound that includes a dwelling, a barn and sheds. Reference should be made to Paterson Drawing PH3837 - 1 - Proposed Site Layout Plan in Appendix 2 for the site location and general proposed site layout.

The subject site is located in the rural area of the city where the water supplies of existing users are domestic wells. It is understood that the proposed development will be serviced by a private water well as no municipal water or wastewater services are available. A private wastewater treatment facility with surface discharge is being proposed to handle the wastewater generated by the proposed development. The treatment facility is proposed to discharge highly treated effluent into a proposed stormwater management facility (SWMF-2) that will outlet to the Johnston Municipal Drain located along the southeast boundary of the subject site.

The purpose of this study has been to carry out a groundwater impact assessment to determine the potential impacts related to a surficial discharge of the highly treated sewage effluent within the Johnston Municipal Drain. It is anticipated that the developer will be utilizing a Modified Sequencing Batch Reactor package plant, Membrane Bioreactor package plant or equivalent for the sewage treatment at the proposed development.

The following report has been prepared specifically and solely for the aforementioned project which is described herein. It contains our findings and recommendations pertaining to the private services for the subject development as it is understood at the time of writing this report.

2.0 BACKGROUND

2.1 Subject Site

The subject property is bordered by Highway 416 to the east, Roger Stevens Drive to the north, residential properties to the west and a forested lot along the south and southwest borders. Specifically, the property is located at 1966 Roger Stevens Drive, in the City of Ottawa, Ontario (refer to Paterson Drawing PH3837 - 1 in Appendix 2). The property is approximately rectangular in shape and has an approximate surface area of 48 ha with a section along the western boundary consisting of 6 ha slated to become future development. The property is currently zoned Rural Commercial and Rural General Industrial with an RC, RG and RC[55r] zoning designation.

Presently, the site is mostly undeveloped and consists of agricultural land with a sparsely wooded farm compound that includes a dwelling, a barn and sheds. The farm lands are relatively flat with a geodetic elevation of 87 to 88 m, whereas the farm compound is built on a hill which crosses between the southwest and northeast corners of the site at a geodetic elevation of 94 to 96 m.

The subject site is bounded to the north and south by the Dillon-Wallace and Johnston Municipal Drain, respectively, with roadside ditches transmitting surficial flows to the Drains on a seasonal (intermittent) basis. The Drains have been classified by the Department of Fisheries and Oceans (DFO) as a Class E Drain, which indicates that the Drain has permanent flows. A site specific risk assessment of the Drains may be required given the presence of sensitive fish species associated with the DFO classification. Refer to Paterson Drawing PH3837 - 2 - Municipal Drain Plan for the alignment of the existing municipal drains and ditches.

2.2 Proposed Treatment System(s)

At the time of writing this report, an on-site private collection and treatment facility has not been selected for review. However, it is anticipated that the system will consist of either a Modified Sequencing Batch Reactor (MSBR) package plant or a Membrane Bioreactor (MBR) package plant. Influent wastewater and effluent discharge design values are not available at the time of writing this report. It is expected design parameters will be available subsequent to the mandatory pre-consultation with the MECP for the onsite sewage design. The facility is anticipated to have a surface discharge of the treated effluent to the proposed stormwater management facility-2 (SWMF-2) where it will outlet to the Johnston Municipal Drain located along the southeast boundary of the subject site. The system will be selected based upon the following design parameters provided by Novatech Engineering and upcoming

consultations with the City of Ottawa, RVCA as well as the MECP:

Table 1: Water Supply Design Parameters

Parameter	Unit	Design Value
Average Daily Flow (ADF)	m^3/day	174
Maximum Daily Flow (MDF)	m^3/day	274

Based upon a cursory review of typical facility options, the available options are expected to meet or exceed the regulatory requirements to treat raw sewage of domestic quality and discharge in accordance to MECP guidelines. The discharge of the final effluent will be coordinated with the MECP and the City of Ottawa. An MECP Environmental Compliance Approval will be filed with the MECP for approval, along with any other required permits.

2.3 Surrounding Land Uses

The general zoning in the area immediately surrounding the subject site consist of the following:

- ❏ AG - Agricultural
- ❏ AG1 - Agricultural, Subzone 1
- ❏ AG2 - Agricultural, Subzone 2
- ❏ AG3 - Agricultural, Subzone 3
- ❏ V1A - Village Residential First Density Zone, Subzone A
- ❏ RG1[57r] - Rural General Industrial Zone, Subzone 1, with Agricultural Use Exception

The zoning outside of these areas have been designated primarily as AG - Agricultural to the north, east and south. The zoning to the west transitions from V1 - Village Residential First Density Zone to O1 - Parks and Open Space Zone followed by RI - Rural Institutional Zone and V1. Refer to Paterson Drawing PH3837 - 3 - Zoning Designations for the zoning surrounding the subject area.

The specific land uses for the above zones are summarized below.

- ❏ North:
  - Roger Stevens Drive
  - Agricultural - Crops with a single dwelling for farm use
  - Agricultural, Subzone 2 - Crops with a single residential dwelling and mature trees

- East:
  - Highway 416
  - Agricultural - Crops and grazing fields with a single residential dwelling and secondary dwellings for farm use
  - Agricultural, Subzone 1 -Crops

- South
  - Agricultural, Subzone 3 - Crops with mature trees and single detached residential dwelling

- West
  - Village Residential First Density Zone, Subzone A - Detached single residential dwellings and vacant lots with grass and/or mature trees

2.4 Regional and Site Geology

Published surficial geology mapping for the area in the vicinity of the subject site indicate the site is underlain predominantly by an intermittent glacial till deposit or a brown to grey silty clay stratum. The silty clay is underlain by the glacial till deposit prior to encountering bedrock. Refer to Paterson Drawing PH3837 - 4 - Surficial Geology in Appendix 2 for the Ontario Geological Survey (OGS) mapping.

Based on site specific investigative works carried out by this firm (Paterson Report No. PG4870-1, dated July 2, 2019), the general subsoil profile encountered within the farmland area consisted of a topsoil layer overlying a silty clay or silty sand layer underlain by a silty clay deposit, which is in turn underlain by a glacial till deposit. The subsoil profile encountered within the farm compound generally consisted of a topsoil overlying a glacial till deposit. Reference should be made to Paterson Drawing PG4870-1 - Test Hole Location Plan and the associated Soil Profile and Test Data sheets in Appendix 3 for specific details of the soil profiles encountered at each test hole location.

The overburden across the site ranges in thickness from approximately 6.5 to 16.5 m based upon dynamic cone penetration testing and water well supply installation on the surrounding properties. This information closely coincides with the available mapping from Natural Resources Canada for Drift Thickness.

The OGS mapping indicates that the subject lands are underlain by dolostone bedrock of the Oxford Formation which coincides with the well drillers description on the MECP

water well records (WWR) for the surrounding water well supplies installed within the subject area. Refer to Paterson Drawing PH3837-5 - Bedrock Geology in Appendix 2 for the OGS mapping.

3.0 METHOD OF STUDY

3.1 Geotechnical Investigations

The geotechnical investigation was conducted during the period of June 7 to 14, 2019. The field program consisted of advancing a total of 34 boreholes across the subject site to a maximum depth of 5.4 m bgs.

The boreholes were distributed in a manner to provide general coverage of the subject site taking into consideration underground utilities and site features. The boreholes were completed with a track-mounted auger drill rig operated by a two-person crew. All fieldwork was conducted under the full-time supervision of our personnel under the direction of a senior engineer.

Sampling and In Situ Testing

Soil samples were recovered using a 50 mm diameter split-spoon sampler, a Shelby tube, or from the auger flights. The split-spoon and auger samples were classified onsite and placed in sealed plastic bags. All samples were transported to our laboratory. The depths at which the split-spoon, Shelby tubes and auger samples were recovered from the boreholes are shown as SS, TW and AU, respectively, on the Soil Profile and Test Data sheets in Appendix 3.

A Standard Penetration Test (SPT) was conducted in conjunction with the recovery of the split spoon samples. The SPT results are recorded as "N" values on the Soil Profile and Test Data sheets. The "N" value is the number of blows required to drive the split spoon sampler 300 mm into the soil after a 150 mm initial penetration using a 63.5 kg hammer falling from a height of 760 mm. This testing was done in general accordance with ASTM D1586-11 - Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils.

Undrained shear strength testing, using a vane apparatus, was carried out at regular intervals of depth in cohesive soils. The overburden thickness was evaluated by a dynamic cone penetration test (DCPT) at 5 borehole locations. The DCPT consists of driving a steel drill rod, equipped with a 50 mm diameter cone at the tip, using a 63.5 kg hammer falling from a height of 760 mm. The number of blows required to drive the cone into the soil is recorded for each 300 mm increment.

3.2 Overburden Groundwater Observation

Groundwater levels were measured in the piezometers at the borehole locations using

an electronic water level tape on June 21, 2019. Based on our field observations, experience with the local area, moisture levels and the coloring of the recovered samples, it is expected that the long-term groundwater level can be estimated between 3 to 4 m below existing grade. The depths at which water was encountered in each test hole is indicated on the Soil Profile and Test Data sheets in Appendix 3.

4.0 HYDROGEOLOGICAL SETTING

4.1 REGIONAL GROUNDWATER FLOW DIRECTION

Site specific groundwater data from the current geotechnical study, as shown in Paterson Drawing PH3837-6 - Shallow Overburden Groundwater Flow in Appendix 2, indicates that the surficial groundwater flows in the overburden generally mirror the site topography. The regional groundwater flow is anticipated to be in an easterly direction towards the Rideau River. Based on surrounding WWRs and a previous hydrogeological study report completed by Sauriol Environmental Inc. (1999), the regional bedrock aquifer groundwater flow is also anticipated to be eastwards towards the Rideau River.

A review of the MECP online WWR database indicates that there are approximately 39 mapped water well locations within a 500 m radius surrounding the site. After reviewing the WWR, there are 33 domestic water supply wells, 4 monitoring/test well location and 2 abandoned locations. Upon further review of the MECP online WWR database, it is assumed that 11 domestic water supply wells have been incorrectly mapped. The related WWRs have been attached in Appendix 1 with the mapped water wells shown on Paterson Drawing PH3837 - 7 - MECP Water Well Location Plan in Appendix 2.

The water supply wells within a 500 m radius of the subject site are typically accessing water from the bedrock aquifer of the Oxford formation between 15.2 to 69.2 m below existing grade. The carbonate rich rock of the Oxford formation is considered to be a high quality groundwater aquifer. As shown on the aforementioned Paterson drawing, there are some water supply wells downgradient of the subject site. However, it should be noted that all wells downgradient and within 500 m of the subject site are either erroneously mapped or no longer in use. Furthermore, the existing water supply wells downgradient are accessing water from the bedrock aquifer. The downgradient direction of the Johnston Municipal Drain travels in the approximate northeast direction to Stevens Creek where the creek eventually outlets into the Rideau River.

4.2 LOCAL HYDROGEOLOGY

The shallow groundwater flow in the silty sand overburden stratum is generally influenced by topographical factors and may be affected by local barriers such as Highway 416 or Roger Stevens Drive. The silty clay underlying the site has minimal groundwater flow due to the low hydraulic conductivity and is considered to provide very limited recharge to the underlying glacial till or bedrock aquifers.

The shallow groundwater flow in the silty sand stratum is expected to move horizontally in the upper aquifer until it discharges into local ditches, swales, tile drains, municipal drains and/or watercourses. Groundwater intercepted by ditches, swales or tile drains will re-direct the groundwater directly to the larger surface water system.

4.3 SURFICIAL DRAINAGE SYSTEM

Roadside ditches and topographic relief on-site direct water towards the Dillon-Wallace and Johnston Municipal Drain located in the field to the north of Roger Stevens Drive and along the southeast property boundary, respectively, as illustrated in Paterson Drawing PH3837 - 2 - Municipal Drain Plan in Appendix 2. A minor northerly tributary to the Dillon-Wallace Municipal Drain has been identified along the north property boundary. The Dillon-Wallace Municipal Drain flows approximately 1.7 km in a northeast direction where it connects to the Johnston Municipal Drain. The Johnston Municipal Drain flows approximately 2.5 km in a northeast direction where it connects with the Dillon-Wallace Municipal Drain followed by an additional 0.8 km to Stevens Creek. Stevens Creek is a tributary to the Rideau River where it flows approximately 1.8 km south to the Rideau River. Minor flows from the Johnston Municipal Drain located at southeast corner of the subject site may reach Cranberry Creek via an unnamed tributary. The tributary is approximately 2.5 km in length and drains in a southeast direction.

5.0 GROUNDWATER AND SURFACE WATER QUALITY

Paterson sampled surface water from the Johnston Municipal Drain located along the south property boundary of the subject site and groundwater from BH 29 located within the proposed SWMF-2 for baseline values of nitrogen species. The results are attached in Appendix 4 with the borehole location illustrated on the Paterson Drawing PG4870-1 - Test Hole Location Plan in Appendix 3. The results did not show exceedances of the Ontario drinking water standards (ODWS), for the nitrogen species, in the on-site samples at that time. Nitrate concentrations at the Johnston Drain and BH 29 returned values of 1.02 and 3.16 mg/L, respectively, and is below the ODWS guidelines. It should be noted that groundwater and surface water results from BH 29 and the Johnston Municipal Drain shows total phosphorous values of 0.244 and 0.174 mg/L, respectively, and is above the regulatory interim limit of the Provincial Water Quality Objectives (PWQO).

5.1 GROUNDWATER IMPACT ASSESSMENT

The subsoil profile within the farmland area of the subject site generally consisted of a topsoil layer overlying a silty clay or silty sand layer followed by silty clay deposit, which in turn was underlain by a glacial till deposit. The subsoil profile encountered within the farm compound generally consisted of a topsoil overlying a glacial till deposit.

The hydraulic conductivity values were conservatively estimated based upon previous experience at similar sites in the area, typical values for silty clay and compact to very dense glacial till with a silty sand matrix. These values typically range from 1×10^{-7} to 1×10^{-9} m/sec for brown silty clay and 1×10^{-9} to 1×10^{-11} m/sec for grey silty clay. Compact to very dense glacial till typically ranges from 1×10^{-6} to 1×10^{-9} m/sec and is dependant on the ratios of the various materials in the deposit.

It is understood the discharge point for the treated effluent is proposed to be located within the southeast portion of the subject site where the underlying soil is comprised of a silty sand layer followed by a silty clay deposit. The low hydraulic conductivity of the silty clay reduces surficial infiltration to the glacial till and bedrock aquifer. Furthermore, the treated effluent is expected to meet the MECP guidelines for direct discharge with the potential for additional dilution from the SWMF-2. As such, it is not expected to negatively impact the glacial till/ bedrock aquifers from the proposed discharge.

The overburden groundwater test results at the approximate proposed treated effluent discharge area are as follows.

Table 4: Groundwater Summary of Nitrogen Species Testing - June 24, 2019			
Parameter	**Units**	**BH 29**	**Guideline (ODWS)**
N-NO2	mg/L	0.17	1
N-NO3	mg/L	3.16	10
pH	-	8.24	6.5-8.5
N-NH3	mg/L	0.10	-
TKN	mg/L	1.44	-

The current test results for the overburden aquifer was recovered from the BH 29 piezometer using low flow sampling techniques. The testing was compared to the ODWS and there were no exceedances of the on-site nitrogen species values.

5.2 SURFACE WATER IMPACT ASSESSMENT

The review of the surface water system provided an overview of the potential surficial connections to the shallow aquifer system. These consisted of potential water supply wells, on-site ditches/swales, municipal drains, and watercourses.

After reviewing the MECP water well mapping in the downgradient direction of the Johnston Municipal Drain and surrounding area, water supply wells were not identified within 100 m of the Johnston Municipal Drain, see Paterson Drawing PH3837 - 7 - MECP Water Well Location Plan in Appendix 2.

It is anticipated that the discharge point for the treated effluent will be to the proposed SWMF-2 located within the southeast portion of the subject site. It is anticipated the proposed SWMF-2 will outlet into the Johnston Municipal Drain located along the south property boundary.

Water sampling was also performed within the Johnston Municipal Drain at the southeast property corner, to provide existing background values. The surface water test results from the Johnston Drain were as follows:

Table 5: Surface Water Summary of Nitrogen Species Testing - June 24, 2019			
Parameter	**Units**	**Johnston Drain**	**Guideline (ODWS)**
N-NO2	mg/L	≤0.10	1
N-NO3	mg/L	1.02	10
pH	-	8.37	6.5-8.5
N-NH3	mg/L	0.06	-
TKN	mg/L	0.87	-

The current test results for the water recovered from the approximate effluent discharge point within the Johnston Drain was compared to the ODWS and there were no exceedances of the on-site nitrogen species values.

As the treated effluent discharge is anticipated to meet or exceed the MECP guidelines for direct discharge of treated sewage effluent, it is not expected that the treated effluent will be required to be diluted to meet MECP guidelines. These values are to be confirmed with the MECP during the pre-consultation meeting. However, the proposed SWMF-2 is expected to discharge into the Johnston Municipal Drain where further dilution is anticipated to further improve the quality of the mixing discharges.

It is expected that the treated effluent discharge will meet or exceed the MECP guidelines and will not negatively impact the surface water flows. The MECP, RVCA and City of Ottawa will be consulted throughout the ECA process. Further evaluation of the proposed effluent can be performed once a specific treatment facility is chosen.

6.0 CONCLUSIONS

Based on the information contained within the body of this study, the following conclusions can be drawn:

1. The proposed site is located in an isolated area with generally rural agricultural zoning.

2. The subject site will be serviced by a private water supply. Adjacent properties are also serviced by private water supplies (drilled wells).

3. The proposed direct discharge of treated sewage effluent is anticipated to meet and/or exceed the MECP guidelines for direct discharge to a dry ditch. The specific sewage facility requirements are still to be determined.

4. The Johnston Municipal Drain is a permanent Class E drain that flows year round and may contain sensitive fish species. A site specific risk assessment of the Drains may be required based upon the DFO drain class.

5. The treated effluent is expected to meet the MECP guidelines for direct discharge with the potential for additional dilution from the SWMF-2. As such, it is not expected to negatively impact the glacial till/ bedrock aquifers from the proposed discharge or the natural systems within the Johnston Municipal Drain downstream. Additionally, no WWRs were noted to exist in the downstream direction of the Johnston Municipal Drain, within 100 m laterally, for a distance of 2.8 km.

6. The subject site is an ideal location for the proposed treated effluent surface discharge due to the lack of potential downstream receptors.

7. Nitrate concentrations within the groundwater and surface water at the proposed treated effluent discharge location returned values below the ODWS guidelines. However, total phosphorous values were noted to be above the PWQO interim limit.

The present report applies only to the project described in this document. Use of this report for purposes other than those described herein or by person(s) other than Broccolini Development Group, or their agents is not authorized without review by Paterson for the applicability of our recommendations to the alternative use of the report.

We trust that this report satisfies your present requirements. Should you have any questions regarding this report, do not hesitate to contact us.

PATERSON GROUP INC.

Nicholas Zulinski, P.Geo., géo. Michael S. Killam, P.Eng.

Report Distribution:

- ❑ Broccolini Development Group (2 copies)
- ❑ Paterson Group (1 copy)

APPENDIX 1

PUBLISHED MECP WATER WELL RECORDS

UTM 18 Z 4461000 E 31549

C5 R 4998945 N

Elev 4 R 02951

Basin 25

GROUND WATER BRANCH
OCT 27 1961 15
ONTARIO WATER RESOURCES COMMISSION

№ 6817

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District Carleton   Township, Village, Town or City North Gower

Con. 2   Lot 20   Date completed 3 (day) August (month) 1961 (year)

[redacted] Address Kars Ont

Casing and Screen Record

Inside diameter of casing 4 in

Total length of casing 50 fts

Type of screen

Length of screen

Depth to top of screen

Diameter of finished hole 4 in

Pumping Test

Static level 18 fts

Test-pumping rate 16 G.P.M.

Pumping level 30

Duration of test pumping 1 hours

Water clear or cloudy at end of test clear

Recommended pumping rate 16 G.P.M.

with pump setting of 40 feet below ground surface

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
Hard Pan	0	30	49	fresh
Sand	30	48		
Gray Lime stone	48	50		

For what purpose(s) is the water to be used? Household

Is well on upland, in valley, or on hillside? hillside

Drilling or Boring Firm Armand Gauthier

Address Chesterville Ont

Licence Number 80

Name of Driller or Borer Armand Gauthier

Address

Date 3 August

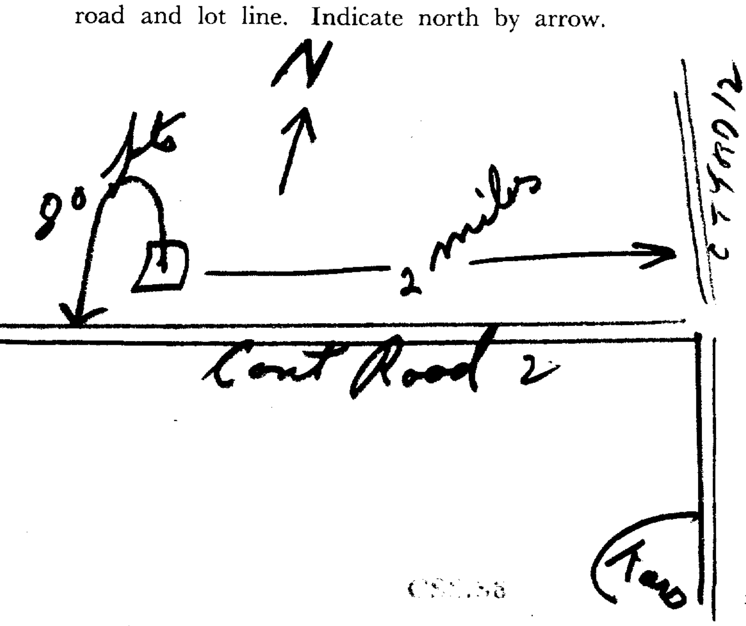
Armand Gauthier
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M Sets 60-5930

OWRC COPY

Location of Well

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



1179

UTM 1 8 Z 4 4 6 0 7 0 E 31G43
15 R 4 9 9 8 4 8 5 N
Elev. 5 R 0 3 0 0
Basin 25

The Ontario Water Resources Commission Act, 1957

WATER WELL RECORD

County or District Carleton Township, Village, Town or City North Gower

[redacted]ate completed 18 (day) April (month) 1961 (year)

[redacted]ddress KARS. Ont.

Casing and Screen Record

Inside diameter of casing 4 in

Total length of casing 41 fts

Type of screen

Length of screen

Depth to top of screen

Diameter of finished hole 4 in

Pumping Test

Static level 22 fts

Test-pumping rate 15 gal G.P.M.

Pumping level 24

Duration of test pumping 1 hours

Water clear or cloudy at end of test clear

Recommended pumping rate 10 G.P.M.

with pumping ~~level of~~ SET 40 fts

Well Log / Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, sulphur)
hardpan	0 ft	41 ft	79 ft	57 ft	fresh
Limestone	41 ft.	81 ft.			

For what purpose(s) is the water to be used? cattle

Is well on upland, in valley, or on hillside? upland

Drilling Firm Armand Gauthier

Address Chesterville Ont. R.R.3

Licence Number 80

Name of Driller Armand Gauthier

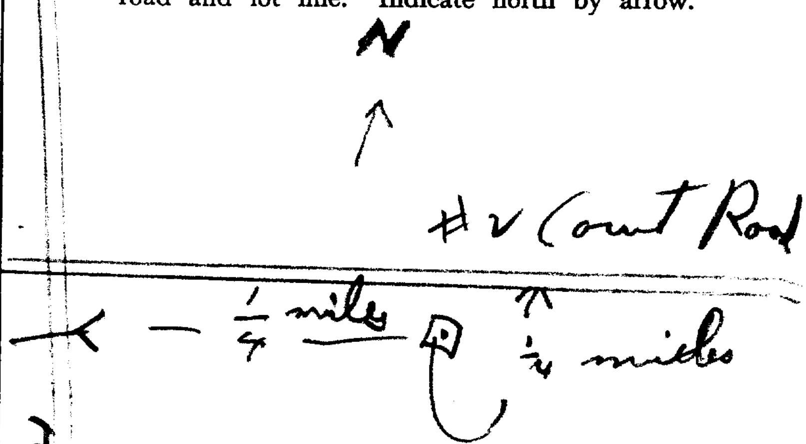
Address

Date April 18, 1961

Armand Gauthier
(Signature of Licensed Drilling Contractor)

Location of Well

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



Form 5

CSS.S8

The Ontario Water Resources Commission Act

WATER WELL RECORD

83

31 9 44

Water management in Ontario

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 1511679 | MUNICIP. 151004 | CON. C&N | 03

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
Carleton	North Gower	III	022

OWNER (SURNAME FIRST) [redacted] ADDRESS x 35 - North Gower, Ont.

DATE COMPLETED DAY 09 MO ~~Feb~~ 02 YR 72

[redacted] 98 020 | RC. 4 | ELEVATION 0300 | RC. 5 | BASIN CODE 25

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH – FEET FROM	DEPTH – FEET TO
	boulders			0	15
	hard pan			15	47
grey	limestone			47	100

31 0015 13 | 0047 14 | 0100 15

32

41 WATER RECORD

WATER FOUND AT – FEET	KIND OF WATER
0068 ~~68 95~~	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH – FEET FROM	DEPTH – FEET TO
06	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	3/16	0	~~50~~ 0050
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE			0100
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN	

61 PLUGGING & SEALING RECORD

DEPTH SET AT – FEET FROM	DEPTH SET AT – FEET TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☒ PUMP 2 ☐ BAILER	~~0005~~ fire GPM	01 HOURS 00 MINS.

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
022 FEET	085 FEET	1 ☐ PUMPING 2 ☒ RECOVERY	022 FEET	022 FEET	022 FEET	022 FEET

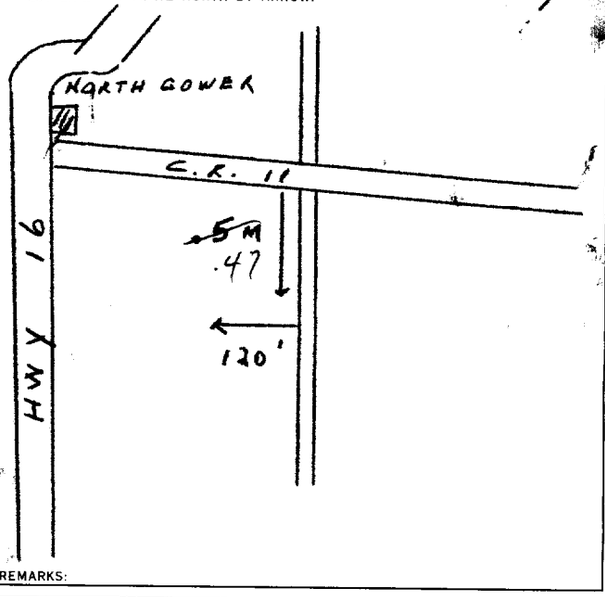
IF FLOWING, GIVE RATE ____ GPM. | PUMP INTAKE SET AT ____ FEET | WATER AT END OF TEST ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE ☐ SHALLOW ☒ DEEP | RECOMMENDED PUMP SETTING 090 FEET | RECOMMENDED PUMPING RATE 0004 GPM.

0001 GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

FINAL STATUS OF WELL
☒ 1 WATER SUPPLY ☐ 2 OBSERVATION WELL ☐ 3 TEST HOLE ☐ 4 RECHARGE WELL ☐ 5 ABANDONED, INSUFFICIENT SUPPLY ☐ 6 ABANDONED, POOR QUALITY ☐ 7 UNFINISHED

WATER USE 01
☒ 1 DOMESTIC ☐ 2 STOCK ☐ 3 IRRIGATION ☐ 4 INDUSTRIAL ☐ OTHER ☐ 5 COMMERCIAL ☐ 6 MUNICIPAL ☐ 7 PUBLIC SUPPLY ☐ 8 COOLING OR AIR CONDITIONING ☐ 9 NOT USED

METHOD OF DRILLING
☐ 1 CABLE TOOL ☐ 2 ROTARY (CONVENTIONAL) ☐ 3 ROTARY (REVERSE) ☒ 4 ROTARY (AIR) ☐ 5 AIR PERCUSSION ☐ 6 BORING ☐ 7 DIAMOND ☐ 8 JETTING ☐ 9 DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: DUFRESNE-LANIEL DRILLING LTD | LICENCE NUMBER: 1836
ADDRESS: 15 Corkstown road, Ottawa, Ont. K2H 7V4
NAME OF DRILLER OR BORER: R. Laniel | LICENCE NUMBER:
SIGNATURE OF CONTRACTOR: R. Laniel | SUBMISSION DATE: DAY 9 MO 2 YR 72

OFFICE USE ONLY

DATA SOURCE 1 | CONTRACTOR 1836 | DATE RECEIVED 150272
DATE OF INSPECTION | INSPECTOR
REMARKS: P WI

OWRC COPY

MINISTRY OF THE ENVIRONMENT
The Ontario Water Resources Act

WATER WELL RECORD

Ontario

31G/4

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 11514689 | MUNICIP. 1500 | CON. CON | 02

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
Carleton	Rideau N Gower	2	020

[redacted]
rth Gower, Ontario

DATE COMPLETED: DAY 09 M 05 YR 75

UTM ZONE | UTM NORTHING 4998971 | RC 4 | ELEVATION 0300 | RC 5 | BASIN CODE 26

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
brown	sand		loose	0	2
grey	clay	boulders	packed sticky	2	20
grey	hardpan	boulders	packed	20	58
grey	limestone		medium	58	73

SWO

31 | 0002628 | 0020205 13 | 0058214 13 | 0073215

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0070	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
~~6~~ 06	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	188	0	0060
~~5~~	~~4~~		~~60~~	~~73~~
06	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE			0073
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET	

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
10-13	14-17	
18-21	22-25	
26-29	30-33	

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☒ PUMP 2 ☐ BAILER
PUMPING RATE: 0010 GPM
DURATION OF PUMPING: 01 HOURS 00 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY			
		15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
015 FEET	040 FEET	040 FEET	040 FEET	040 FEET	040 FEET

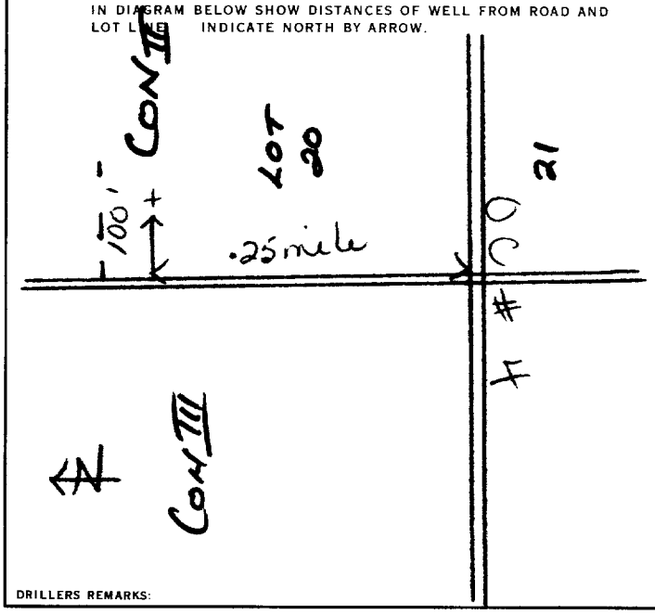
IF FLOWING GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☒ DEEP	050 FEET	005 GPM

000.4 GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL 4598

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

FINAL STATUS OF WELL 1
1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED

WATER USE 01
1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF DRILLING 5
1 ☐ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☒ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: Capital Water Supply Ltd. | LICENCE NUMBER: 1558
ADDRESS: Box 490 Stittsville, Ontario
NAME OF DRILLER OR BORER: M. Hamilton | LICENCE NUMBER:
SIGNATURE OF CONTRACTOR: [signature] | SUBMISSION DATE: DAY 12 MO. 5 YR 75

OFFICE USE ONLY

DATA SOURCE 1 | CONTRACTOR 1558 | D. [illegible] 050675
DATE OF INSPECTION | INSPECTOR
REMARKS: | P ✓ | WI

MINISTRY OF THE ENVIRONMENT COPY

FORM 7 MOE 07-091

MINISTRY OF THE ENVIRONMENT

The Ontario Water Resources Act

WATER WELL RECORD

3164

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 11514964 | MUNICIP. 15004 | CON. CON | 03

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
Carleton	Rideau North Gower	3	018

[redacted] 4 Byron Ave. Ottawa, Ontario

DATE COMPLETED: DAY 10 MO. 09 YR. 75

UTM: NORTHING 298500 RC 5 | ELEVATION 0300 RC 5 | BASIN CODE 26

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
brown	sand	boulders	packed	0	5
grey	hardpan	boulders	packed	5	61
grey	limestone			61	98

31: 0005628 1379 0061214 1379 0098215

32:

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0094	1 ☒ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6¼ 06	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE	188	0	0063
5¾			63	98
06	4 ☒ OPEN HOLE			0098

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE: | DEPTH TO TOP OF SCREEN FEET:

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☒ PUMP 2 ☐ BAILER

PUMPING RATE: 0020 GPM | DURATION OF PUMPING: 01 HOURS 00 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY			
		15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
040 FEET	055 FEET	055 FEET	055 FEET	055 FEET	055 FEET

IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☒ DEEP	075 FEET	0005 GPM

50-53 ——•—— GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.

50 ↑ 1.1 miles

Hwy # 16

OC #3

DRILLERS REMARKS:

FINAL STATUS OF WELL 54: 1 = 1 ☒ WATER SUPPLY; 2 ☐ OBSERVATION WELL; 3 ☐ TEST HOLE; 4 ☐ RECHARGE WELL; 5 ☐ ABANDONED, INSUFFICIENT SUPPLY; 6 ☐ ABANDONED, POOR QUALITY; 7 ☐ UNFINISHED

WATER USE 55-56: 01 = 1 ☒ DOMESTIC; 2 ☐ STOCK; 3 ☐ IRRIGATION; 4 ☐ INDUSTRIAL; 5 ☐ COMMERCIAL; 6 ☐ MUNICIPAL; 7 ☐ PUBLIC SUPPLY; 8 ☐ COOLING OR AIR CONDITIONING; ☐ OTHER; 9 ☐ NOT USED

METHOD OF DRILLING 57: 5 = 1 ☐ CABLE TOOL; 2 ☐ ROTARY (CONVENTIONAL); 3 ☐ ROTARY (REVERSE); 4 ☐ ROTARY (AIR); 5 ☒ AIR PERCUSSION; 6 ☐ BORING; 7 ☐ DIAMOND; 8 ☐ JETTING; 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: Capital Water Supply Ltd. | LICENCE NUMBER: 1558

ADDRESS: Box 490 Smiths Falls, Ontario

NAME OF DRILLER OR BORER: M. Hamilton | LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: [signature] | SUBMISSION DATE: DAY 15 MO. 9 YR. 75

OFFICE USE ONLY

DATA SOURCE 58: 1 | CONTRACTOR 59-62: 1558 | DATE RECEIVED 63-68: 061075

DATE OF INSPECTION: | INSPECTOR:

REMARKS: P WI

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MINISTRY OF THE ENVIRONMENT

The Ontario Water Resources Act

WATER WELL RECORD

Ontario

31G/49

1. PRINT ONLY IN SPACES PROVIDED
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11 | 1515152 | MUNICIP. 15004 | CON. CON | 03

COUNTY OR DISTRICT: Carleton | TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: North Gower | CON., BLOCK, TRACT, SURVEY, ETC.: Con 3, | LOT: 022

[redacted] RR#2, North Gower | DATE COMPLETED: DAY 11 MO 08 YR 75

UTHING: 998044 | RC: 4 | ELEVATION: 0298 | RL: 14 | BASIN CODE: 26

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
~~Brn~~					
grey	clay	stones		0	23
grey	limestone			23	75

31 | 0023 0512 | 0075 2815

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0073	1 ☒ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
06	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	0	26 0026
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET	

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☒ PUMP 2 ☐ BAILER

PUMPING RATE: 00/0 GPM | DURATION OF PUMPING: 01 HOURS 00 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY			
		15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
008 FEET	050 FEET	050 FEET	050 FEET	050 FEET	050 FEET

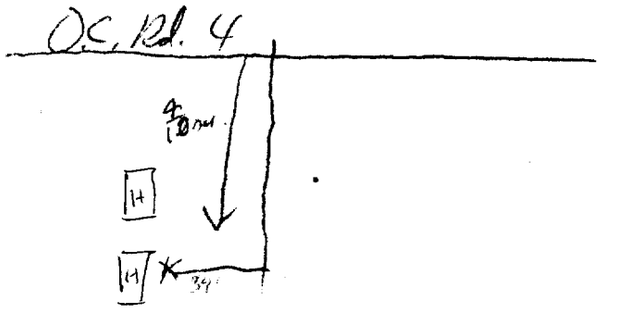
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	1 ☐ CLEAR 2 ☒ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☒ DEEP	050 FEET	0005 GPM

GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL 4598

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

FINAL STATUS OF WELL 54: 1

1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED

WATER USE 55-56: 01

1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF DRILLING 57: 5

1 ☐ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☒ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: Henry Mains Well Drilling | LICENCE NUMBER: 3644

ADDRESS: Box 326, Richmond Ont.

NAME OF DRILLER OR BORER: [redacted] | LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: [redacted] | SUBMISSION DATE: DAY 14 MO. 8 YR. 75

OFFICE USE ONLY

DATA SOURCE: 1 | CONTRACTOR: 3644 | DATE RECEIVED: 15 01 76

DATE OF INSPECTION: 28 May 74 | INSPECTOR: P/R Doyle.

REMARKS:

P

WI

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MINISTRY OF THE ENVIRONMENT

The Ontario Water Resources Act

WATER WELL RECORD

316/4

Ontario

1. PRINT ONLY IN SPACES PROVIDED
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11 — 1515488 — MUNICIP. 15004 — CON. CON 03

COUNTY OR DISTRICT Ottawa Carleton — TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE North Gower Rideau — CON., BLOCK, TRACT, SURVEY, ETC. 3 — LOT 020 of 20

[redacted] — ADDRESS North Gower Ont. — DATE COMPLETED DAY 23 MO. 07 YR. 76

21 — UTM ZONE 18 — EASTING 445250 — NORTHING 4998750 — RC. 5 — ELEVATION 0300 — RC. 5 — BASIN CODE 26

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
Brown	Gravel	Fill		0	5
Gray	hardpan	boulders		5	42
Gray	limestone			42	75

31 — 0005 6 1 1 0 9 1 — 0042 2 1 4 1 3 — 0075 2 1 5

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0070	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6 4 0 6	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	0	0044
			44	75
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE			0075
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET	80

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER, ETC.)
10-13	14-17	
18-21	22-25	
26-29	30-33	80

PUMPING TEST

71

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☒ PUMP 2 ☐ BAILER	0050 GPM	02 HOURS 00 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
010 FEET	030 FEET	1 ☒ PUMPING 2 ☐ RECOVERY	030 FEET	030 FEET	030 FEET	030 FEET

IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	1 ☐ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☒ SHALLOW ☐ DEEP	030 FEET	0005 GPM

50-53 — — — — • — — GPM./FT. SPECIFIC CAPACITY

FINAL STATUS OF WELL 1

1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED

WATER USE 01

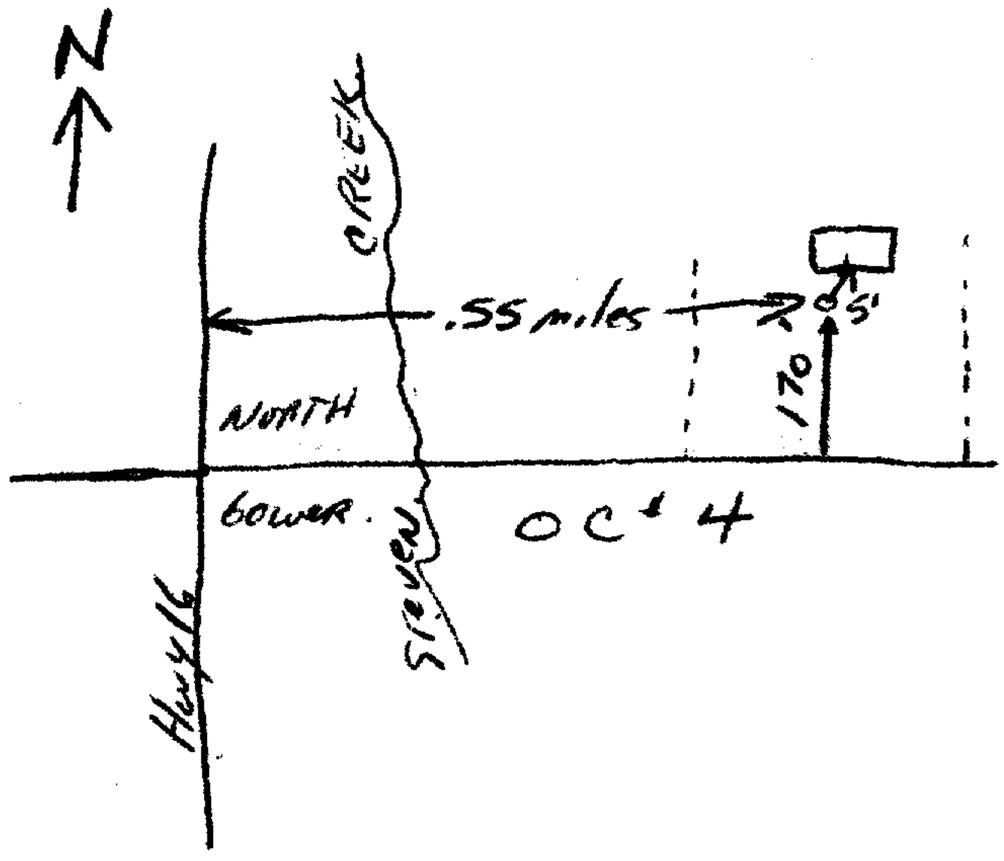
1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF DRILLING 5

1 ☐ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☒ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

CONTRACTOR

NAME OF WELL CONTRACTOR Maple Leaf Drilling — LICENCE NUMBER 3658

ADDRESS 877 Bid. Ottawa

NAME OF DRILLER OR BORING MACHINE OPERATOR — LICENCE NUMBER

SIGNATURE OF CONTRACTOR — SUBMISSION DATE DAY 28 MO July YR 76

OFFICE USE ONLY

DATA SOURCE 1 — CONTRACTOR 3658 — DATE RECEIVED 090876

DATE OF INSPECTION 8/6/77 — INSPECTOR KM R. Hobby

REMARKS: P WI

FORM 7 MOE 07-091

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The Ontario Water Resources Act

WATER WELL RECORD

Ontario

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 — 15498 — MUNICIP 15009 — CON. CON — 01

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
Carleton	Osgoode	1	040

OWNER (SURNAME FIRST)	ADDRESS	DATE COMPLETED
[redacted]	R.R. # 3 Manotick, Ontario	DAY 21 MO 06 YR 76

21 — ZONE 18 — EASTING 454700 — NORTHING 4994700 — RC 5 — ELEVATION 0302 — RC 5 — BASIN CODE 26

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
brown	sand	boulders		0	35
brown	sand	stones	packed	35	55
grey	sand		coarse	55	57
grey	gravel		packed	57	61

31 — D0356 2813 — D0556 2812 79 — D0572 10 — D0612 11 79

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0061	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☒ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	188	0	0060
06	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE		60	61
06	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE			0061
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE — DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE GPM	DURATION OF PUMPING HOURS	MINS
1 ☒ PUMP 2 ☐ BAILER	0075	01	60

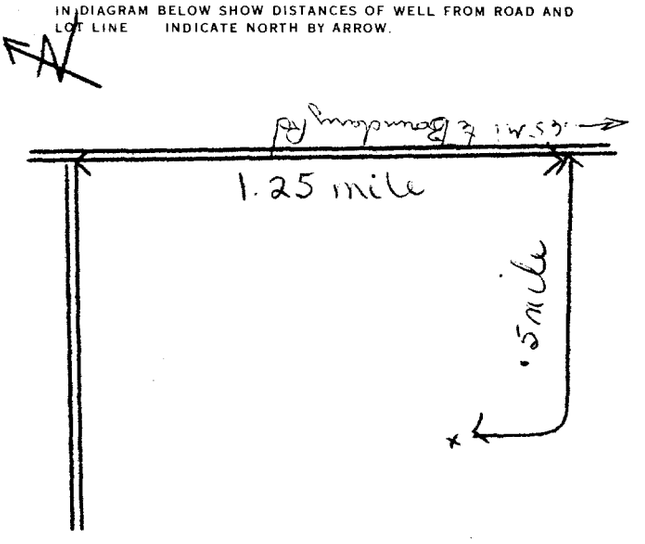
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
010 FEET	025 FEET	1 ☒ PUMPING 2 ☐ RECOVERY	025 FEET	025 FEET	025 FEET	025 FEET

IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST	RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
GPM	FEET	1 ☒ CLEAR 2 ☐ CLOUDY	☒ SHALLOW ☐ DEEP	025 FEET	0005 GPM

50-53 ——•—— GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

FINAL STATUS OF WELL	1 ☒ WATER SUPPLY; 2 ☐ OBSERVATION WELL; 3 ☐ TEST HOLE; 4 ☐ RECHARGE WELL; 5 ☐ ABANDONED, INSUFFICIENT SUPPLY; 6 ☐ ABANDONED, POOR QUALITY; 7 ☐ UNFINISHED
WATER USE 01	1 ☒ DOMESTIC; 2 ☐ STOCK; 3 ☐ IRRIGATION; 4 ☐ INDUSTRIAL; ☐ OTHER; 5 ☐ COMMERCIAL; 6 ☐ MUNICIPAL; 7 ☐ PUBLIC SUPPLY; 8 ☐ COOLING OR AIR CONDITIONING; 9 ☐ NOT USED
METHOD OF DRILLING 5	1 ☐ CABLE TOOL; 2 ☐ ROTARY (CONVENTIONAL); 3 ☐ ROTARY (REVERSE); 4 ☐ ROTARY (AIR); 5 ☒ AIR PERCUSSION; 6 ☐ BORING; 7 ☐ DIAMOND; 8 ☐ JETTING; 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: Capital Water Supply Ltd. — LICENCE NUMBER: 1558

ADDRESS: Box 490 [illegible] Ontario

NAME OF DRILLER OR BORE: D. McDo[illegible] — LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: [illegible] — SUBMISSION DATE: DAY 22 MO. 6 YR 76

28WO 7-9

OFFICE USE ONLY

DATA SOURCE	CONTRACTOR	DATE RECEIVED
1	1558	080776

DATE OF INSPECTION: 26 Aug 76 — INSPECTOR: KP/R Dyt

REMARKS: P WI

MINISTRY OF THE ENVIRONMENT COPY

FORM 7 MOE 07-091

MINISTRY OF THE ENVIRONMENT
The Ontario Water Resources Act

WATER WELL RECORD

316/4

Ontario

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 1515529 | MUNICIP. 15004 | CON. CON | 02

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT 020
Carleton	Rideau (North Gower)	2	

[redacted] R.R.# 1 Kars, Ontario — DATE COMPLETED: DAY 28 MO 07 YR 76

UTM NORTHING 999400 RC 5 | ELEVATION 0300 RC 5 | BASIN CODE 26

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
brown	clay		boulders	0	24
grey	clay	boulders & gravel		24	55
black	limestone			55	73

31 | 00246051 3 | 00552051 3 W | 007381 5

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0066	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. - INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	188	0	0057
06	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE		57	73
06	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE			0073
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☒ PUMP 2 ☐ BAILER | PUMPING RATE: 0020 GPM | DURATION OF PUMPING: 01 HOURS 00 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
010 FEET	020 FEET	☒ PUMPING ☐ RECOVERY	020 FEET	020 FEET	020 FEET	020 FEET

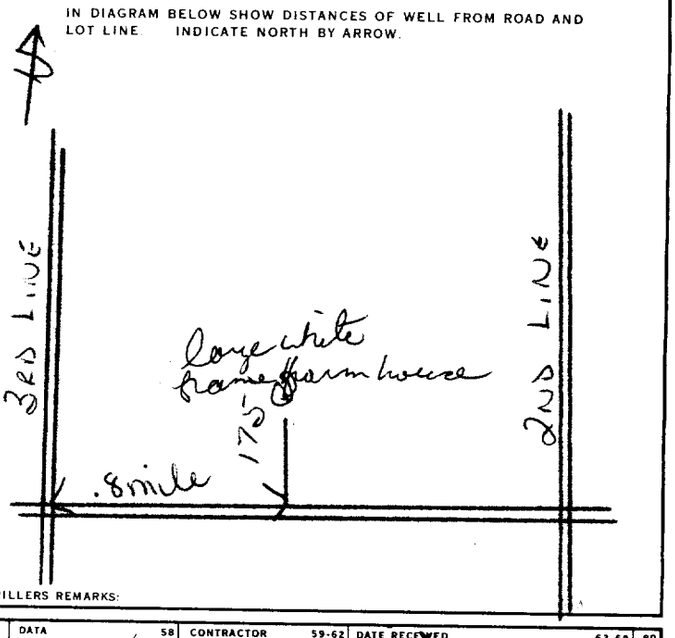
IF FLOWING, GIVE RATE: GPM | PUMP INTAKE SET AT: FEET | WATER AT END OF TEST: 1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☒ SHALLOW ☐ DEEP | RECOMMENDED PUMP SETTING: 025 FEET | RECOMMENDED PUMPING RATE: 0005 GPM

50-53 ——•—— GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

FINAL STATUS OF WELL 54: 1

1 ☒ WATER SUPPLY | 2 ☐ OBSERVATION WELL | 3 ☐ TEST HOLE | 4 ☐ RECHARGE WELL | 5 ☐ ABANDONED, INSUFFICIENT SUPPLY | 6 ☐ ABANDONED, POOR QUALITY | 7 ☐ UNFINISHED

WATER USE 55-56: 01

1 ☒ DOMESTIC | 2 ☐ STOCK | 3 ☐ IRRIGATION | 4 ☐ INDUSTRIAL | ☐ OTHER | 5 ☐ COMMERCIAL | 6 ☐ MUNICIPAL | 7 ☐ PUBLIC SUPPLY | 8 ☐ COOLING OR AIR CONDITIONING | 9 ☐ NOT USED

METHOD OF DRILLING 57: 5

1 ☐ CABLE TOOL | 2 ☐ ROTARY (CONVENTIONAL) | 3 ☐ ROTARY (REVERSE) | 4 ☐ ROTARY (AIR) | 5 ☒ AIR PERCUSSION | 6 ☐ BORING | 7 ☐ DIAMOND | 8 ☐ JETTING | 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: Capital Water Supply Ltd. | LICENCE NUMBER: 1558

ADDRESS: Box 490, S[illegible]tsville, Ontario

NAME OF DRILLER OR BORER: [illegible] | LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: [illegible] | SUBMISSION DATE: DAY 28 MO 7 YR 76

DWO 6-9

MINISTRY OF THE ENVIRONMENT COPY

OFFICE USE ONLY

DATA SOURCE 58: 1 | CONTRACTOR 59-62: 1558 | DATE RECEIVED 63-68: 090876

DATE OF INSPECTION: 8/6/77 | INSPECTOR: M. P. Holby

REMARKS:

P

WI

FORM 7 MOE 07-091

MINISTRY OF THE ENVIRONMENT

The Ontario Water Resources Act

WATER WELL RECORD

31G/4

Ontario

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 1515788 | MUNICIP 15004 | CON. CON 03

COUNTY OR DISTRICT: Ott - Carleton

TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: Rideau North Gower

CON., BLOCK, TRACT, SURVEY, ETC.: 3

LOT: 020

ADDRESS: [redacted] North Gower Ont

DATE COMPLETED: DAY 23 MO. 07 YR. 76

21 | UTM ZONE 18 | EASTING 445150 | NORTHING 4998850 | RC 5 | ELEVATION 0300 | RC 5 | BASIN CODE 26

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
Brown	Gravel	fill		0	5
Gray	hardpan	boulders		5	42
Gray	limestone			42	75

31 | 0005 6 1 1 0 1 | 0042 2 1 4 1 3 | 0075 2 1 5

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0070 (10-13)	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL (14)
15-18	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL (19)
20-23	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL (24)
25-28	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL (29)
30-33	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL (34) (60)

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
06 (10-11)	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE (12)	.188	0044 (16)	
06			44	75 (20-23)
(17-18)	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE (19)			0075 (27-30)
(24-25)	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE (26)			

SCREEN

SIZE(S) OF OPENING (SLOT NO.) 31-33	DIAMETER 34-38 INCHES	LENGTH 39-40 FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN 41-44 FEET	80

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
10-13	14-17	
18-21	22-25	
26-29	30-33	80

71 PUMPING TEST

PUMPING TEST METHOD 10	PUMPING RATE 11-14	DURATION OF PUMPING
1 ☒ PUMP 2 ☐ BAILER	0050 GPM	02 (15-16) HOURS 00 (17-18) MINS

STATIC LEVEL (19-21)	WATER LEVEL END OF PUMPING (22-24)	25 WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY	15 MINUTES (26-28)	30 MINUTES (29-31)	45 MINUTES (32-34)	60 MINUTES (35-37)
010 FEET	030 FEET		030 FEET	030 FEET	030 FEET	030 FEET

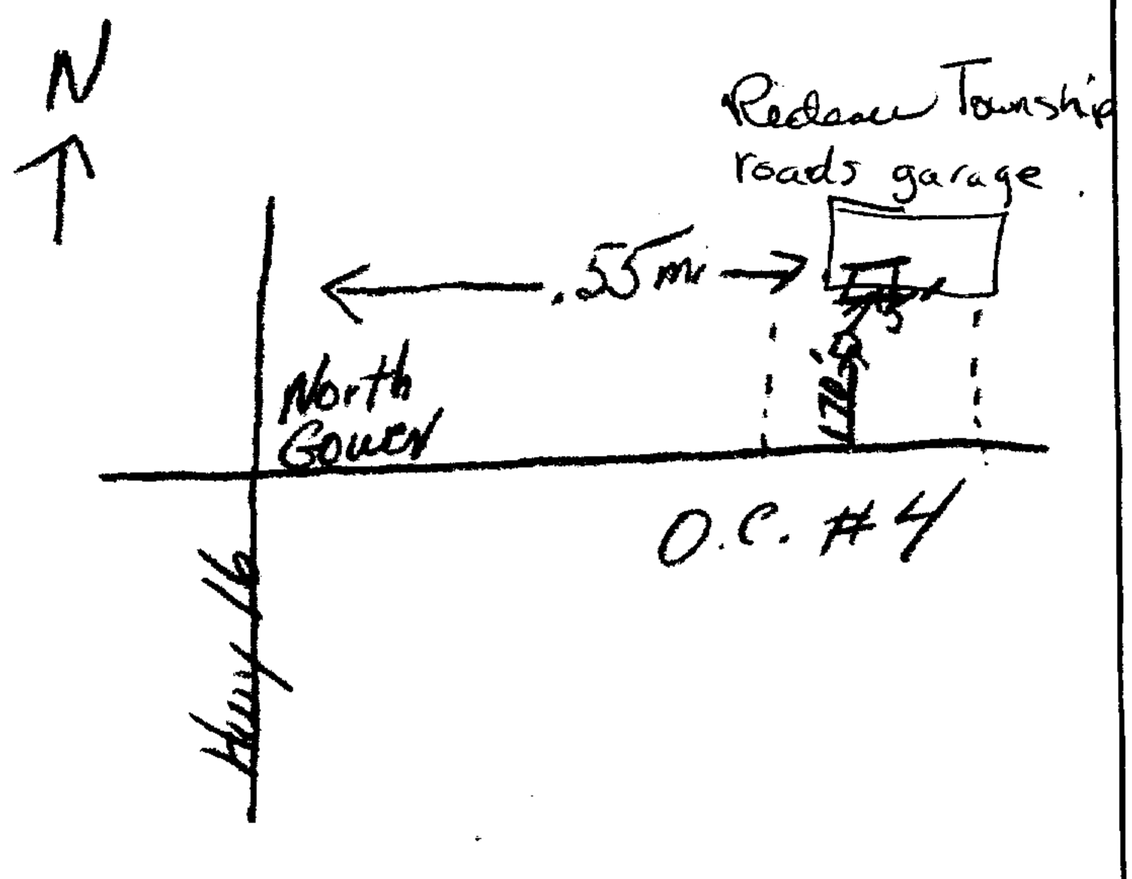
IF FLOWING, GIVE RATE (38-41)	PUMP INTAKE SET AT	WATER AT END OF TEST 42
GPM	FEET	1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING (43-45)	RECOMMENDED PUMPING RATE (46-49)
☒ SHALLOW ☐ DEEP	030 FEET	0005 GPM

50-53 ——— GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

FINAL STATUS OF WELL 54: 1

1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED

WATER USE (55-56): 01

1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF DRILLING (57): 5

1 ☐ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☒ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: Maple Leaf Drilling — LICENCE NUMBER: 3658

ADDRESS: 877 Ridley Blvd. Ott

NAME OF DRILLER OR BORER: M. Hamilton — LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: [signature] — SUBMISSION DATE: DAY 26 MO. 7 YR. 76

OFFICE USE ONLY

DATA SOURCE (58): 1 — CONTRACTOR (59-62): 3658 — DATE RECEIVED (63-68): 180177 — 80

DATE OF INSPECTION: 1/6/77 — INSPECTOR: Tim. P. Hobby

REMARKS: P

WI

FORM 7 MOE 07-091

MINISTRY OF THE ENVIRONMENT COPY

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

31649

1. PRINT ONLY IN SPACES PROVIDED
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(11) 1517312 MUNICIP. 1504 CON. CON 02

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC	LOT
[redacted]	~~Rideau~~ North Gower	Conc. 2	023

[redacted]. R. # 1, Manotick, Ontario K0A 2N0

DATE COMPLETED: DAY 09 MO 06 YR 80

UTM ZONE 18 | EASTING 397899 | RC 4 | ELEVATION 0300 | RC 4 | BASIN CODE 26

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
Brown	Sandy	Loam	Packed	0	1
Gray	Hardpan	Gravel & Boulders		1	51
Dark Gray	Limestone		Medium	51	90
Black	Limestone		Soft	90	180

(31) 000162818179 005121411113 009021578651 018081585

(32)

(41) WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0178	1 ☒ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL

(51) CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
06 61	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	188	0	0054
06	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE		54	0180
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET	

(61) PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

(71) PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☒ PUMP 2 ☐ BAILER	0010 GPM	01 HOURS 00 MINS

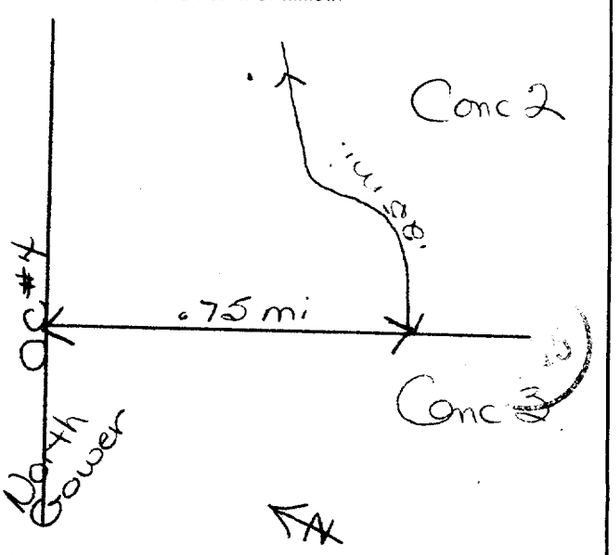
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
020 FEET	150 FEET	1 ☒ PUMPING 2 ☐ RECOVERY	150 FEET	150 FEET	150 FEET	150 FEET

IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☒ DEEP	160 FEET	0005 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS

FINAL STATUS OF WELL (54): 1

1 ☒ WATER SUPPLY; 2 ☒ OBSERVATION WELL; 3 ☐ TEST HOLE; 4 ☐ RECHARGE WELL; 5 ☐ ABANDONED, INSUFFICIENT SUPPLY; 6 ☐ ABANDONED, POOR QUALITY; 7 ☐ UNFINISHED

WATER USE (55-56)

1 ☐ DOMESTIC; 2 ☐ STOCK; 3 ☐ IRRIGATION; 4 ☐ INDUSTRIAL; ☐ OTHER; 5 ☐ COMMERCIAL; 6 ☐ MUNICIPAL; 7 ☐ PUBLIC SUPPLY; 8 ☐ COOLING OR AIR CONDITIONING; 9 ☐ NOT USED

METHOD OF DRILLING (57): 5

1 ☐ CABLE TOOL; 2 ☐ ROTARY (CONVENTIONAL); 3 ☐ ROTARY (REVERSE); 4 ☐ ROTARY (AIR); 5 ☒ AIR PERCUSSION; 6 ☐ BORING; 7 ☐ DIAMOND; 8 ☐ JETTING; 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: Capital Water Supply Ltd. — LICENCE NUMBER: 1558

ADDRESS: Box 490, Stittsville, Ontario K0A 3G0

NAME OF DRILLER OR BORER: S. Miller — LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: [signature] — SUBMISSION DATE: DAY 11 MO 06 YR 80

OFFICE USE ONLY

DATA SOURCE (58): 1 — CONTRACTOR (59-62): 1558 — DATE RECEIVED (63-68): 230680 — (80)

DATE OF INSPECTION — INSPECTOR: Km

REMARKS: CSSIES

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506—4—77 FORM 7

Ministry of the Environment
Ontario

The Ontario Water Resources Act 31649

WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

(11) 1519044 MUNICIP 15004 CON. CON 03

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
[redacted]	Rideau - NORTH GOWER	3 020	020

[redacted] ORTH GOWER

DATE COMPLETED: DAY 05 MO 06 YR 84

99849 9 RC 4 ELEVATION 0300 RC 4 BASIN CODE 26

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
Gray	Clay			0'	3'
Gray	Hardpan	Stones		3'	53'
Gray	Limestone			53'	105'

(31) 0003205 0053214 12 0105215

32

(41) WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0100	1 ☑ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL

(51) CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	TO
6 1/4 / 06 / 5 7/8	1 ☑ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	188	0' / 55	0055' / 105
06	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE			0105
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE — DEPTH TO TOP OF SCREEN FEET

(61) PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

(71) PUMPING TEST

PUMPING TEST METHOD: 1 ☑ PUMP 2 ☐ BAILER
PUMPING RATE: 0010 GPM
DURATION OF PUMPING: 01 HOURS 00 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
015 FEET	055 FEET	055 FEET	055 FEET	055 FEET	055 FEET

WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY

IF FLOWING, GIVE RATE: GPM
PUMP INTAKE SET AT: FEET
WATER AT END OF TEST: 1 ☐ CLEAR 2 ☑ CLOUDY
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☑ DEEP
RECOMMENDED PUMP SETTING: 055 FEET
RECOMMENDED PUMPING RATE: 0008 GPM

FINAL STATUS OF WELL: 1

1 ☑ WATER SUPPLY
2 ☐ OBSERVATION WELL
3 ☐ TEST HOLE
4 ☐ RECHARGE WELL
5 ☐ ABANDONED, INSUFFICIENT SUPPLY
6 ☐ ABANDONED, POOR QUALITY
7 ☐ UNFINISHED

WATER USE: 01

1 ☑ DOMESTIC
2 ☐ STOCK
3 ☐ IRRIGATION
4 ☐ INDUSTRIAL
☐ OTHER
5 ☐ COMMERCIAL
6 ☐ MUNICIPAL
7 ☐ PUBLIC SUPPLY
8 ☐ COOLING OR AIR CONDITIONING
9 ☐ NOT USED

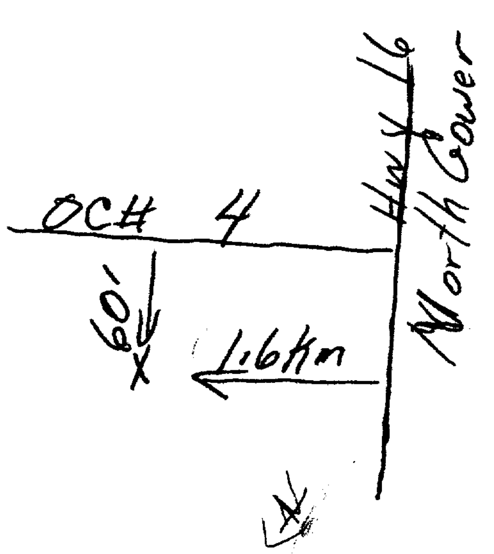
METHOD OF DRILLING: 1

1 ☑ CABLE TOOL
2 ☐ ROTARY (CONVENTIONAL)
3 ☐ ROTARY (REVERSE)
4 ☐ ROTARY (AIR)
5 ☐ AIR PERCUSSION
6 ☐ BORING
7 ☐ DIAMOND
8 ☐ JETTING
9 ☐ DRIVING

LOCATION OF WELL

1723

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS

CONTRACTOR

NAME OF WELL CONTRACTOR: M. Kavanagh & Son Well Drilling — LICENCE NUMBER 3142
ADDRESS: RR#2 Carleton Place Ont.
NAME OF DRILLER OR BORER: M. Kavanagh — LICENCE NUMBER 3142
SIGNATURE OF CONTRACTOR: Michael Kavanagh
SUBMISSION DATE: DAY 20 MO. 6 YR. 84

OFFICE USE ONLY

DATA SOURCE: 1 — CONTRACTOR: 3142 — DATE RECEIVED: 10 07 84
DATE OF INSPECTION — INSPECTOR
REMARKS
CSS.ES

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506—4—77 FORM 7

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 — 1520429 — MUNICIP — CON.

COUNTY OR DISTRICT: [redacted] Ottawa Carleton
TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: North Gower
CON. BLOCK, TRACT, SURVEY, ETC: 2
LOT: 21
DATE COMPLETED: DAY 9 MO 7 YR 85
Kars, Ont.

ELEVATION — RC — BASIN CODE

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
	clay			0	20
	" & boulders & gravel			20	54
grey	Limestone			54	84

31
32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
78	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	188	0	57
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE — DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☒ PUMP 2 ☐ BAILER
PUMPING RATE: 15 GPM
DURATION OF PUMPING: HOURS ____ MINS 30

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY			
		15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
10 FEET	40 FEET	40 FEET	40 FEET	FEET	FEET

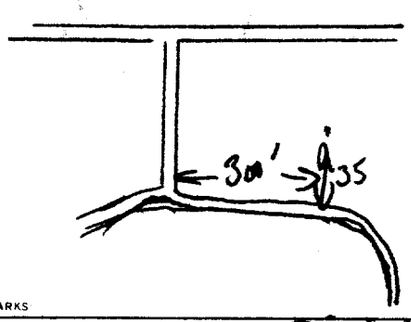
IF FLOWING GIVE RATE — GPM
PUMP INTAKE SET AT — FEET
WATER AT END OF TEST: 1 ☐ CLEAR 2 ☒ CLOUDY
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP
RECOMMENDED PUMP SETTING: 50 FEET
RECOMMENDED PUMPING RATE: 15 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.

Sub. Lot 14 Plan 4M439

N



DRILLERS REMARKS

FINAL STATUS OF WELL

1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED

WATER USE

1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF DRILLING

1 ☐ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☒ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: AIR ROCK DRILLING CO. LTD. — LICENCE NUMBER: 1119
ADDRESS: R.R. #2 Jasper, Ontario K0G 1G0
NAME OF DRILLER OR BORER: Wallace Desaulniers — LICENCE NUMBER: 1119
SIGNATURE OF CONTRACTOR
SUBMISSION DATE: DAY 10 MO. 2 YR. 86

OFFICE USE ONLY

DATA SOURCE — CONTRACTOR — DATE RECEIVED: 200286
DATE OF INSPECTION — INSPECTOR
REMARKS

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506—4—77 FORM 7

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

OTTAWA-CARLETON NORTH GOWER 11 1522073

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

MUNICIP | CON

COUNTY OR DISTRICT: Carleton
TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: [redacted] Rideau (North Gower)
CON., BLOCK, TRACT, SURVEY, ETC: Con 2.
LOT: 20
ADDRESS OF WELL LOCATION: [redacted] Manotick General Delivery
DATE COMPLETED: DAY 27 MO 11 YR 87
NG | RC | ELEVATION | RC | BASIN CODE
RC 01 02 21 10

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
grey	hardpan	stones		0	25
grey	hardpan			25	65
grey	gravel	stones		65	71
grey	limestone			71	105

31
32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
95	1 ☒ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
100	1 ☒ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6 5	1 ☒ STEEL; 2 ☐ GALVANIZED; 3 ☐ CONCRETE; 4 ☐ OPEN HOLE	.188	0	74
6	1 ☐ STEEL; 2 ☐ GALVANIZED; 3 ☐ CONCRETE; 4 ☒ OPEN HOLE		74	105
	1 ☐ STEEL; 2 ☐ GALVANIZED; 3 ☐ CONCRETE; 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER (INCHES)	LENGTH (FEET)

MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN (FEET)

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
10-13	14-17	pressure cement
18-21	22-25	grouted
26-29	30-33	

71 PUMPING TEST

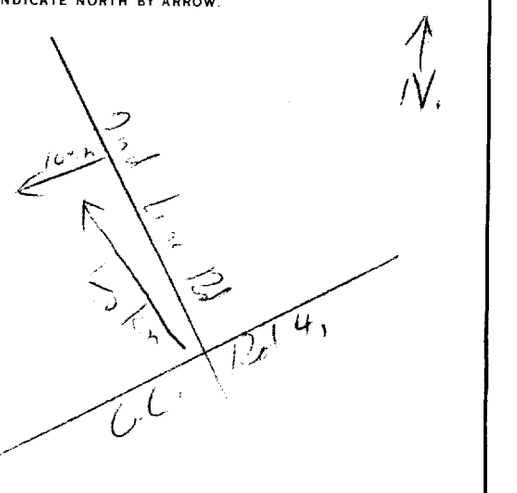
PUMPING TEST METHOD: 1 ☒ PUMP 2 ☐ BAILER
PUMPING RATE: 30 GPM
DURATION OF PUMPING: 1 HOURS 0 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☐ PUMPING 2 ☐ RECOVERY			
		15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
25 FEET	70 FEET	70 FEET	70 FEET	70 FEET	70 FEET

IF FLOWING, GIVE RATE: GPM
PUMP INTAKE SET AT: FEET
WATER AT END OF TEST: 1 ☐ CLEAR 2 ☒ CLOUDY
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP
RECOMMENDED PUMP SETTING: 70 FEET
RECOMMENDED PUMPING RATE: 15 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS: 08669

FINAL STATUS OF WELL

1 ☒ WATER SUPPLY; 2 ☐ OBSERVATION WELL; 3 ☐ TEST HOLE; 4 ☐ RECHARGE WELL; 5 ☐ ABANDONED, INSUFFICIENT SUPPLY; 6 ☐ ABANDONED, POOR QUALITY; 7 ☐ UNFINISHED

WATER USE

1 ☒ DOMESTIC; 2 ☐ STOCK; 3 ☐ IRRIGATION; 4 ☐ INDUSTRIAL; 5 ☐ COMMERCIAL; 6 ☐ MUNICIPAL; 7 ☐ PUBLIC SUPPLY; 8 ☐ COOLING OR AIR CONDITIONING; ☐ OTHER; ☐ NOT USED

METHOD OF DRILLING

1 ☐ CABLE TOOL; 2 ☐ ROTARY (CONVENTIONAL); 3 ☐ ROTARY (REVERSE); 4 ☐ ROTARY (AIR); 5 ☒ AIR PERCUSSION; 6 ☐ BORING; 7 ☐ DIAMOND; 8 ☐ JETTING; 9 ☐ DRIVING

3644

CONTRACTOR

NAME OF WELL CONTRACTOR: A. Mains Well Drilling
LICENCE NUMBER: 3644
ADDRESS: Box 326, Richmond, Ont
NAME OF DRILLER OR BORER:
LICENCE NUMBER:
SIGNATURE OF CONTRACTOR:
SUBMISSION DATE: DAY 27 MO 11 YR 87

OFFICE USE ONLY

DATE RECEIVED: JAN 14 1988
DATE OF INSPECTION:
INSPECTOR:
REMARKS:

CSS/GS

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506—4—77 FORM 7

Ministry of the Environment
Ontario

OTTAWA-CARLETON

The Ontario Water Resources Act

WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 1522165

MUNICIP | CON

COUNTY OR DISTRICT: Carleton
TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: Osgoode Rideau
CON., BLOCK, TRACT, SURVEY, ETC: Con 2
LOT: 20
[redacted] Manotick General Delivery
DATE COMPLETED: DAY 27 MO 11 YR 87
RC | ELEVATION | RC | BASIN CODE

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
grey	hardpan	stones		0	20
grey	hardpan			20	71
grey	gravel	stones		71	73
grey	limestone			73	100

31
32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
95	1 ☒ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6 1/4	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	0	76
6	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE		76	100
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET	

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
		pressure cement grouted

71 PUMPING TEST

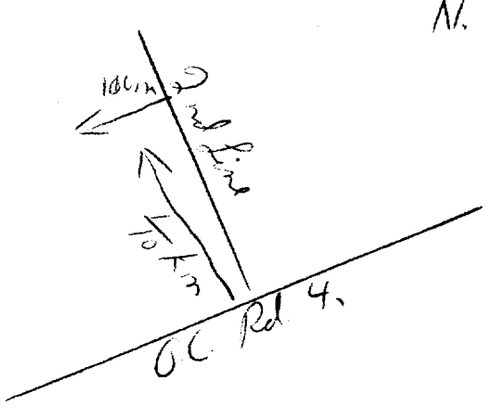
PUMPING TEST METHOD: 1 ☒ PUMP 2 ☐ BAILER
PUMPING RATE: 15 GPM
DURATION OF PUMPING: 1 HOURS 0 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☐ PUMPING 2 ☐ RECOVERY	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
18 FEET	90 FEET		90 FEET	90 FEET	90 FEET	90 FEET

IF FLOWING, GIVE RATE: GPM
PUMP INTAKE SET AT: FEET
WATER AT END OF TEST: 1 ☐ CLEAR 2 ☒ CLOUDY
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP
RECOMMENDED PUMP SETTING: 90 FEET
RECOMMENDED PUMPING RATE: 15 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS: 08668

FINAL STATUS OF WELL

1 ☐ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☒ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED

WATER USE

1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF DRILLING

☐ CABLE TOOL ☐ ROTARY (CONVENTIONAL) ☐ ROTARY (REVERSE) ☐ ROTARY (AIR) ☒ AIR PERCUSSION ☐ BORING ☐ DIAMOND ☐ JETTING ☐ DRIVING

3644

CONTRACTOR

NAME OF WELL CONTRACTOR: A. Mains Well Drilling — LICENCE NUMBER: 3644
ADDRESS: Box 326, Richmond Ont.
NAME OF DRILLER OR BORER — LICENCE NUMBER
SIGNATURE OF CONTRACTOR — SUBMISSION DATE: DAY 27 MO 11 YR 87

OFFICE USE ONLY

DATE RECEIVED: JAN 12 1988
DATE OF INSPECTION — INSPECTOR
REMARKS

CCS.ES

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506—4—77 FORM 7

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

1522795

15004

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11

MUNICIP: Manotick Estates Phase 2 | CON.

COUNTY OR DISTRICT: Carleton
TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: Manotick
CON., BLOCK, TRACT, SURVEY, ETC.: Cloutheer Court
LOT: 23

OWNER (SURNAME FIRST): Tinsen Const.
ADDRESS: RR#3 Merrickville K0G 1N0
DATE COMPLETED: DAY 16 MO 6 YR 88

21

UTM ZONE | EASTING | NORTHING | RC | ELEVATION | RC | BASIN CODE | II | III | IV

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
grey	clay			0	12
grey	hardpan	stones		12	24
grey	limestone			24	64

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
57	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6¼	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	.188	0	27
6	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE 5 ☐ PLASTIC		27	64
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
10-13	14-17	pressure cement
18-21	22-25	grouted
26-29	30-33	

71 PUMPING TEST

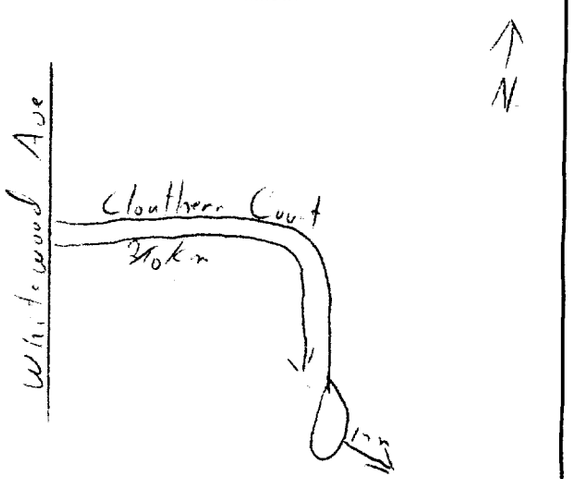
PUMPING TEST METHOD: 1 ☒ PUMP 2 ☐ BAILER
PUMPING RATE: 30 GPM
DURATION OF PUMPING: 1 HOURS 0 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☐ PUMPING 2 ☐ RECOVERY			
		15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
10 FEET	40 FEET	40 FEET	40 FEET	40 FEET	40 FEET

IF FLOWING, GIVE RATE: GPM
PUMP INTAKE SET AT: FEET
WATER AT END OF TEST: 1 ☐ CLEAR 2 ☒ CLOUDY
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP
RECOMMENDED PUMP SETTING: 40 FEET
RECOMMENDED PUMPING RATE: 15 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS: 18411

FINAL STATUS OF WELL

1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED 9 ☐ DEWATERING

WATER USE

1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF CONSTRUCTION

1 ☐ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☒ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING ☐ DIGGING ☐ OTHER

CONTRACTOR

NAME OF WELL CONTRACTOR: J. Morris Well Drilling
WELL CONTRACTOR'S LICENCE NUMBER: 3644
ADDRESS: Box 326, Richmond Ont.
NAME OF WELL TECHNICIAN:
WELL TECHNICIAN'S LICENCE NUMBER:
SIGNATURE OF TECHNICIAN/CONTRACTOR:
SUBMISSION DATE: DAY 18 MO. 6 YR. 88

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR 3644 | DATE RECEIVED OCT 26 1988
DATE OF INSPECTION | INSPECTOR
REMARKS

MINISTRY OF THE ENVIRONMENT COPY

FORM NO

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 — 1525259 — MUNICIP 15004 — CON. CON 03

COUNTY OR DISTRICT [redacted] — TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE North Gower — CON. BLOCK, TRACT, SURVEY, ETC 3 — LOT 20

North Gower Ont

DATE COMPLETED DAY 19 MO 12 YR 90

RC. ELEVATION RC. BASIN CODE

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
	Sand gravel & boulders			0	56
grey	Limestone			56	120

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
97	1 ☒ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
112	1 ☒ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6 1/4	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	188	0	61
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET	

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER ETC.)
10-13	14-17	
18-21	22-25	
26-29	30-33	

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☒ PUMP 2 ☐ BAILER

PUMPING RATE: 14 GPM — DURATION OF PUMPING: 1 HOURS — MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
16 FEET	90 FEET	90 FEET	90 FEET	90 FEET	90 FEET

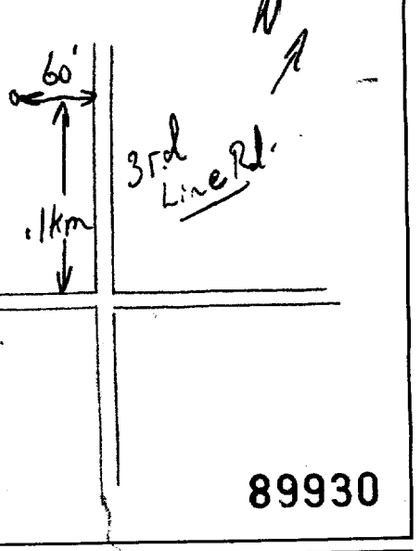
1 ☒ PUMPING 2 ☐ RECOVERY

IF FLOWING, GIVE RATE: GPM — PUMP INTAKE SET AT: FEET — WATER AT END OF TEST: 1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP — RECOMMENDED PUMP SETTING: 100 FEET — RECOMMENDED PUMPING RATE: 14 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



89930

DRILLERS REMARKS

FINAL STATUS OF WELL

1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED ☐ DEWATERING

WATER USE

1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF CONSTRUCTION

1 ☐ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☒ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING ☐ DIGGING ☐ OTHER

CONTRACTOR

NAME OF WELL CONTRACTOR: Air-Rock Drilling Ltd. — WELL CONTRACTOR'S LICENCE NUMBER: 1119

ADDRESS: RR #2 Jasper Ont

NAME OF WELL TECHNICIAN: Wesley Desaulniers — WELL TECHNICIAN'S LICENCE NUMBER: 7009

SIGNATURE OF TECHNICIAN/CONTRACTOR: [signature] — SUBMISSION DATE: DAY 29 MO 12 YR 90

OFFICE USE ONLY

DATA SOURCE — CONTRACTOR: 1119 — DATE RECEIVED: JAN 10 1991

DATE OF INSPECTION — INSPECTOR

REMARKS

CSS.ES

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506 (11/86) FORM 9

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 — 1526097 — MUNICIP 15004 — CON. CON 03

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC	LOT
OTTAWA-CARLETON	XXXXXXXXXXXXXX RIDEAU	Con. XXX 03 xPartxLotx29x32	21

[redacted] 314 North Gower K0A 2T0

DATE COMPLETED: DAY 13 MO 02 YR 92

1 ☒ DOMESTIC WATER WELL

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
Grey	Clay	Sand, silt, stones	Packed	0'	46'
Grey	Bedrock		Layered	46'	90'

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
65'	2 ☒ SALTY
85'	1 ☒ FRESH
	1 ☐ FRESH 2 ☐ SALTY
	1 ☐ FRESH 2 ☐ SALTY
	1 ☐ FRESH 2 ☐ SALTY

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
8"	5 ☒ PLASTIC		0'	46'
6"	1 ☒ STEEL	.188	+2'	46'
6"	5 ☒ PLASTIC		46'	90'

SCREEN: SIZE(S) OF OPENING (SLOT NO.) | DIAMETER INCHES | LENGTH FEET | MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
20'	46'	Cement Grout
		3 sacks of High Early Cement

71 PUMPING TEST

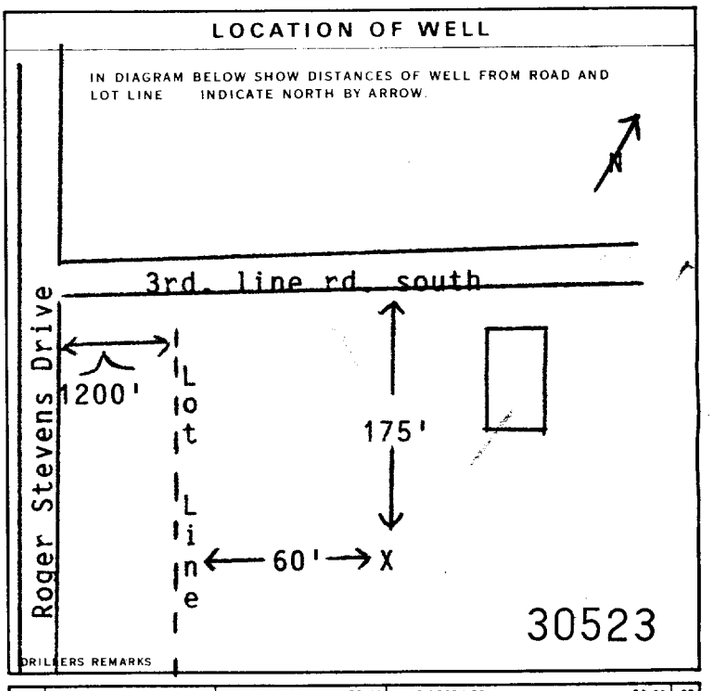
PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☒ PUMP 2 ☐ BAILER	15 GPM	1 HOURS ___ MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☐ PUMPING 2 ☐ RECOVERY)	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
15' FEET	16' FEET		15.2' FEET	15.35'	15.70' FEET	16' FEET

IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST	RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
GPM	40' FEET	1 ☐ CLEAR 2 ☐ CLOUDY	☒ SHALLOW ☐ DEEP	25'/40' FEET	10/15 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS

FINAL STATUS OF WELL

1 ☒ WATER SUPPLY; 2 ☐ OBSERVATION WELL; 3 ☐ TEST HOLE; 4 ☐ RECHARGE WELL; 5 ☐ ABANDONED, INSUFFICIENT SUPPLY; 6 ☐ ABANDONED, POOR QUALITY; 7 ☐ UNFINISHED; 9 ☐ DEWATERING

WATER USE

1 ☐ DOMESTIC; 2 ☒ STOCK; 3 ☐ IRRIGATION; 4 ☐ INDUSTRIAL; ☐ OTHER; 5 ☐ COMMERCIAL; 6 ☐ MUNICIPAL; 7 ☐ PUBLIC SUPPLY; 8 ☐ COOLING OR AIR CONDITIONING; 9 ☐ NOT USED

METHOD OF CONSTRUCTION

1 ☐ CABLE TOOL; 2 ☐ ROTARY (CONVENTIONAL); 3 ☐ ROTARY (REVERSE); 4 ☐ ROTARY (AIR); 5 ☒ AIR PERCUSSION; 6 ☐ BORING; 7 ☐ DIAMOND; 8 ☐ JETTING; 9 ☐ DRIVING; ☐ DIGGING; ☐ OTHER

CONTRACTOR

NAME OF WELL CONTRACTOR: OLYMPIC DRILLING CO.LIMITED — WELL CONTRACTOR'S LICENCE NUMBER: 4006

ADDRESS: Box 9180 OTTAWA, Ontario K1G 3T9

NAME OF WELL TECHNICIAN: Jodie Renwick — WELL TECHNICIAN'S LICENCE NUMBER: TO,460

SIGNATURE OF TECHNICIAN/CONTRACTOR: [signature] (Sec.) — SUBMISSION DATE: DAY 17 MO 02 YR 92

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR 4006 | DATE RECEIVED FEB 24 1992

DATE OF INSPECTION | INSPECTOR

REMARKS

CSS.ES

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506 (11/86) FORM 9

Ministry of Environment and Energy
Ontario

The Ontario Water Resources Act
WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11 (1 2) **1530288**

Municipality (10–14) 15004 Con (15–22) CON Lot (23–24) 02

County or District: Ottawa Carleton
Township/Borough/City/Town/Village: Rideau
Con block tract survey, etc.: 2
Lot (25–27): 21
Address: Box 519 RR2 North Gower Ont.
Date completed: 29 day 10 month 98 year

21 (1 2) T M (10) Northing (12–24) RC (25) Elevation (26–30) RC (31) Basin Code (i ii iii iv) (47)

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth – feet From	Depth – feet To
Brown	Till	Boulders	Dense	0	10
Grey	Boulders	Till	Dense	10	35
Grey	Limestone Rock	Sandstone	Layered	35	83

31 (10 14 15 21) 32 (32 43 54 65 75 80)

41 WATER RECORD

Water found at – feet	Kind of water
70 (10–13)	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas (14)
(15–18)	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas (19)
(20–23)	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas (24)
(25–28)	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas (29)
(30–33)	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas (34) (60)

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth – feet From	Depth – feet To
8 3/4 (10–11)	1 ☐ Steel (12) 2 ☐ Galvanized 3 ☐ Concrete 4 ☒ Open hole 5 ☐ Plastic		0	35 (13–16)
6 1/4 (17–18)	1 ☒ Steel (19) 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic	.188	+2	35 (20–23)
6 (24–25)	1 ☐ Steel (26) 2 ☐ Galvanized 3 ☐ Concrete 4 ☒ Open hole 5 ☐ Plastic		35	83 (27–30)

SCREEN

Sizes of opening (Slot No.) (31–33)	Diameter (34–38) inches	Length (39–40) feet
Material and type	Depth at top of screen (41–44) feet	(30)

61 PLUGGING & SEALING RECORD

☒ Annular space ☐ Abandonment

Depth set at – feet From	To	Material and type (Cement grout, bentonite, etc.)
0 (10–13)	35 (14–17)	Cement grout
(18–21)	(22–25)	
(26–29)	(30–33) (80)	

71 PUMPING TEST

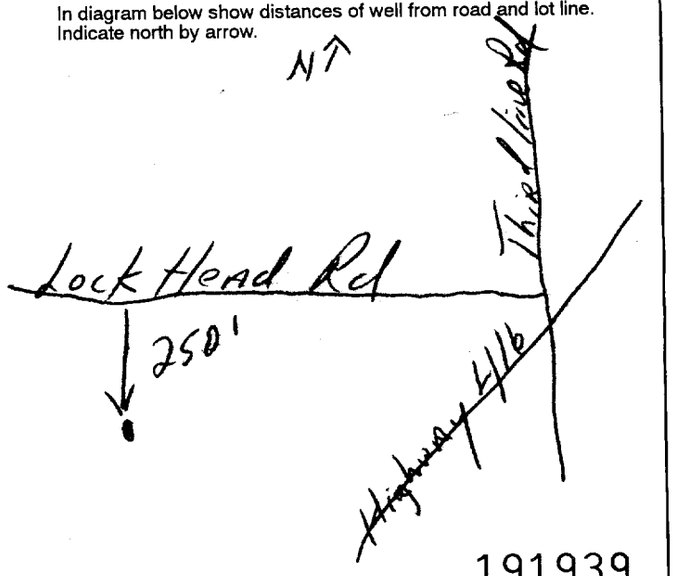
Pumping test method (10): 1 ☐ Pump 2 ☐ Bailer ~~3 AIR~~
Pumping rate: 7 GPM (11–14)
Duration of pumping (15–16): 1 Hours (17–18): 0 Mins

Static level	Water level end of pumping	Water levels during (25): 1 ☐ Pumping 2 ☒ Recovery			
30 feet (19–21)	83 feet (22–24)	15 minutes 45 feet (26–28)	30 minutes 40 feet (29–31)	45 minutes 35 feet (32–34)	60 minutes 30 feet (35–37)

If flowing give rate (38–41)	Pump intake set at	Water at end of test (42)
GPM	83 feet	☒ Clear ☐ Cloudy
Recommended pump type: ☐ Shallow ☒ Deep (50–53)	Recommended pump setting: 70 feet (43–45)	Recommended pump rate: 6 GPM (46–49)

LOCATION OF WELL

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



191939

FINAL STATUS OF WELL (54)

1 ☒ Water supply
2 ☐ Observation well
3 ☐ Test hole
4 ☐ Recharge well
5 ☐ Abandoned, insufficient supply
6 ☐ Abandoned, poor quality
7 ☐ Abandoned (Other)
8 ☐ Dewatering
9 ☐ Unfinished
10 ☐ Replacement well

WATER USE (55–56)

1 ☒ Domestic
2 ☐ Stock
3 ☐ Irrigation
4 ☐ Industrial
5 ☐ Commercial
6 ☐ Municipal
7 ☐ Public supply
8 ☐ Cooling & air conditioning
9 ☐ Not used
10 ☐ Other

METHOD OF CONSTRUCTION (57)

1 ☐ Cable tool
2 ☐ Rotary (conventional)
3 ☐ Rotary (reverse)
4 ☒ Rotary (air)
5 ☐ Air percussion
6 ☐ Boring
7 ☐ Diamond
8 ☐ Jetting
9 ☐ Driving
10 ☐ Digging
11 ☐ Other

Name of Well Contractor: Gilles Bourgeois Well Drilling — Well Contractor's Licence No.: 1414
Address: St-Albert Ont.
Name of Well Technician: Jacques Raymond — Well Technician's Licence No.: 0264
Signature of Technician/Contractor — Submission date: 29 day 10 mo 98 yr

MINISTRY USE ONLY

Data source (58) — Contractor (59–62): 1414 — Date received (63–68): NOV 20 1998 (80)
Date of inspection — Inspector
Remarks

CSS. ES9

0506 (07/94) Front Form 9

2 - MINISTER OF ENVIRONMENT & ENERGY COPY

Ontario **Ministry of the Environment**

The Ontario Water Resources Act
WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11 (1 2) **1530536**

Municipality (10 14) 15004 Con. (15 22 23 24) CON 02

County or District	Township/Borough/City/Town/Village	Con block tract survey, etc.	Lot (25-27)
Ottawa Carleton	Rideau	2	21
[redacted]	Address North Gower	Date completed (19-20) 19 day 05 month 99 year	99

21 (1 2) UTM (10 12 17 18 24 25 26 30 31 47) Northing RC Elevation RC Basin Code ii iii iv

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet From	Depth - feet To
Brown	Till	Boulders	Loose	0	8
Grey	"	"	"	8	36
Grey	limestone	Shale	Layered	36	58
Grey	limestone		Hard	58	79

31 (10 14 15 21 32 43 54 65 75 80)

32 (10 14 15 21 32 43 54 65 75 80)

41 WATER RECORD

Water found at - feet	Kind of water
10-12: 62	1 ☒ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas (14)
15-18	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas (19)
20-23	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas (24)
25-28	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas (29)
30-33	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas (34) (60)

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet From	Depth - feet To
10-11: 8 3/4 11	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic (12)		0	13-16: 40
17-18: 6 1/4 11	1 ☒ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic (19)	.188	+2	20-23: 40
24-25: 6 11	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☒ Open hole 5 ☐ Plastic (26)		40	27-30: 79

SCREEN

Sizes of opening (Slot No.) (31-33)	Diameter (34-38) inches	Length (39-40) feet
Material and type	Depth at top of screen (41-44) feet	(30)

61 PLUGGING & SEALING RECORD

☒ Annular space ☐ Abandonment

Depth set at - feet From (10-13)	Depth set at - feet To (14-17)	Material and type (Cement grout, bentonite, etc.)
0	40	Cement grout
18-21	22-25	
26-29	30-33	(80)

71 PUMPING TEST

Pumping test method (10): 1 ☐ Pump 2 ☒ Bailer

Pumping rate (11-14): 40 GPM

Duration of pumping (15-16): 1 Hours (17-18): 0 Mins

Static level (19-21)	Water level end of pumping (22-24)	Water levels during (25): 1 ☐ Pumping 2 ☒ Recovery			
		15 minutes (26-28)	30 minutes (29-31)	45 minutes (32-34)	60 minutes (35-37)
24 feet	79 feet	24 feet	24 feet	24 feet	24 feet

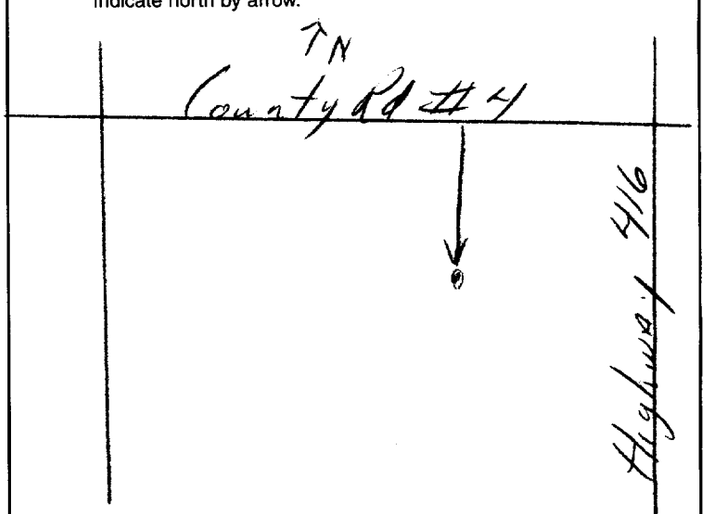
If flowing give rate (38-41)	Pump intake set at	Water at end of test (42)
GPM	79 feet	☐ Clear ☒ Cloudy

Recommended pump type	Recommended pump setting (43-45)	Recommended pump rate (46-49)
☐ Shallow ☒ Deep	70 feet	15 GPM

(50-53)

LOCATION OF WELL

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



206049

FINAL STATUS OF WELL (54)

1 ☒ Water supply 2 ☐ Observation well 3 ☒ Test hole 4 ☐ Recharge well 5 ☐ Abandoned, insufficient supply 6 ☐ Abandoned, poor quality 7 ☐ Abandoned (Other) 8 ☐ Dewatering 9 ☐ Unfinished 10 ☐ Replacement well

WATER USE (55-56)

1 ☒ Domestic 2 ☐ Stock 3 ☐ Irrigation 4 ☐ Industrial 5 ☐ Commercial 6 ☐ Municipal 7 ☐ Public supply 8 ☐ Cooling & air conditioning 9 ☐ Not use 10 ☐ Other

METHOD OF CONSTRUCTION (57)

1 ☐ Cable tool 2 ☐ Rotary (conventional) 3 ☐ Rotary (reverse) 4 ☒ Rotary (air) 5 ☐ Air percussion 6 ☐ Boring 7 ☐ Diamond 8 ☐ Jetting 9 ☐ Driving 10 ☐ Digging 11 ☐ Other

Name of Well Contractor	Well Contractor's Licence No.
Gille Bourgeois Well Drill	1414
Address: St-Albert Ont.	
Name of Well Technician: Jacques Raymond	Well Technician's Licence No. 0264
Signature of Technician/Contractor: Gille Bourgeois	Submission date: 19 day 05 mo 99 yr

MINISTRY USE ONLY

Data source (58)	Contractor (59-62)	Date received (63-68) (80)
	1414	JUN 01 1999
Date of inspection	Inspector	
Remarks		CSS.ES9

0506 (11/98) Front Form 9

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Ministry of Environment and Energy
Ontario

The Ontario Water Resources Act
WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11 | 1530539 | Municipality 15004 | Con. CON 02

County or District	Township/Borough/City/Town/Village	Con block tract survey, etc.	Lot
Ottawa Carleton	Rideau	2	21
[redacted]	Address: north Gower	Date completed: 19 (day) 05 (month) 99 (year)	

99

2 | Northing | RC | Elevation | RC | Basin Code | ii | iii | iv

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth – feet From	Depth – feet To
Brown	Clay		Dense	0	7
Grey	Till	Boulders	"	7	18
Grey	Gravel	Sand Boulders	Loose	18	24
Grey	limestone		Hard	24	39
Grey	"	Shale	Layered	39	104

31
32

WATER RECORD (41)

Water found at – feet	Kind of water
85	☑ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas
	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas
	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas
	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas
	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas

CASING & OPEN HOLE RECORD (51)

Inside diam inches	Material	Wall thickness inches	Depth – feet From	Depth – feet To
8 3/4"	☑ Open hole		0	31
6 1/4"	☑ Steel	.188	+2	31
6"	☑ Open hole		31	104

SCREEN

Sizes of opening (Slot No.)	Diameter (inches)	Length (feet)

Material and type | Depth at top of screen (feet)

PLUGGING & SEALING RECORD (61)

☒ Annular space ☐ Abandonment

Depth set at – feet From	To	Material and type (Cement grout, bentonite, etc.)
0	31	Cement grout

PUMPING TEST (71)

Pumping test method	Pumping rate	Duration of pumping
☐ Pump ☒ Bailer — Air	40 GPM	1 Hours 0 Mins

Water levels during ☐ Pumping ☒ Recovery

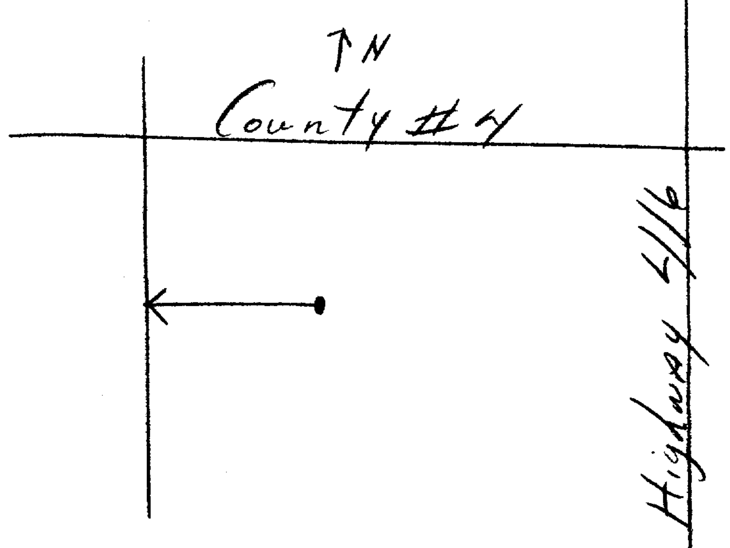
Static level	Water level end of pumping	15 minutes	30 minutes	45 minutes	60 minutes
6 feet	104 feet	6 feet	6 feet	6 feet	6 feet

If flowing give rate	Pump intake set at	Water at end of test
GPM	104 feet	☐ Clear ☒ Cloudy

Recommended pump type	Recommended pump setting	Recommended pump rate
☐ Shallow ☒ Deep	80 feet	15 GPM

LOCATION OF WELL

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



197100

FINAL STATUS OF WELL

1 ☑ Water supply
2 ☐ Observation well
3 ☑ Test hole
4 ☐ Recharge well
5 ☐ Abandoned, insufficient supply
6 ☐ Abandoned, poor quality
7 ☐ Abandoned (Other)
8 ☐ Dewatering
9 ☐ Unfinished
10 ☐ Replacement well

WATER USE

1 ☑ Domestic
2 ☐ Stock
3 ☐ Irrigation
4 ☐ Industrial
5 ☐ Commercial
6 ☐ Municipal
7 ☐ Public supply
8 ☐ Cooling & air conditioning
9 ☐ Not used
10 ☐ Other ....

METHOD OF CONSTRUCTION

1 ☐ Cable tool
2 ☐ Rotary (conventional)
3 ☐ Rotary (reverse)
4 ☑ Rotary (air)
5 ☐ Air percussion
6 ☐ Boring
7 ☐ Diamond
8 ☐ Jetting
9 ☐ Driving
10 ☐ Digging
11 ☐ Other ....

Name of Well Contractor	Well Contractor's Licence No.
Gilles Bourgeois Well Drill	1414
Address: St-Albert Ont	
Name of Well Technician	Well Technician's Licence No.
Jacques Raymond	0264
Signature of Technician/Contractor	Submission date: day 19 mo 05 yr 99

MINISTRY USE ONLY

Data source	Contractor	Date received
	1414	JUN 0 9 1999
Date of inspection	Inspector	
Remarks		CSS.ES9

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0506 (07/94) Front Form 9

Ministry of Environment and Energy
Ontario

The Ontario Water Resources Act
WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11 (1–2) **1530540**

Municipality 15004 (10–14) Con. CON (15–22) 02 (23–24)

County or District: Ottawa Carleton
Township/Borough/City/Town/Village: Rideau
Con block tract survey, etc.: 2
Lot (25–27): 21
Address: North Gower
Date completed: 18 day 05 month 99 year

#1

Northing | RC | Elevation | RC | Basin Code (ii, iii, iv)

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth – feet From	Depth – feet To
Brown	Clay		Dense	0	9
Grey	Till	Boulders	"	9	16
Grey	Gravel	Sand Boulders	Loose	16	24
Grey	limestone		Hard	24	30
Grey	limestone	Shale	Layered	30	122

31
32

41 WATER RECORD

Water found at – feet	Kind of water
50	1 Fresh 2 Salty 3 Sulphur 4 Minerals 5 Gas
105	1 Fresh 2 Salty 3 Sulphur 4 Minerals 5 Gas
	1 Fresh 2 Salty 3 Sulphur 4 Minerals 5 Gas
	1 Fresh 2 Salty 3 Sulphur 4 Minerals 5 Gas
	1 Fresh 2 Salty 3 Sulphur 4 Minerals 5 Gas

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth – feet From	Depth – feet To
8 3/4"	1 Steel 2 Galvanized 3 Concrete 4 Open hole 5 Plastic		0	30
6 1/4"	1 Steel 2 Galvanized 3 Concrete 4 Open hole 5 Plastic	1.88	+2 30	
6"	1 Steel 2 Galvanized 3 Concrete 4 Open hole 5 Plastic		30	122

SCREEN

Sizes of opening (Slot No.)	Diameter inches	Length feet
Material and type	Depth at top of screen feet	

61 PLUGGING & SEALING RECORD

Annular space ☒ Abandonment ☐

Depth set at – feet From	Depth set at – feet To	Material and type (Cement grout, bentonite, etc.)
0	30	Cement grout

71 PUMPING TEST

Pumping test method: 1 Pump 2 Bailer — A/R
Pumping rate: 35 GPM
Duration of pumping: 1 Hours 0 Mins

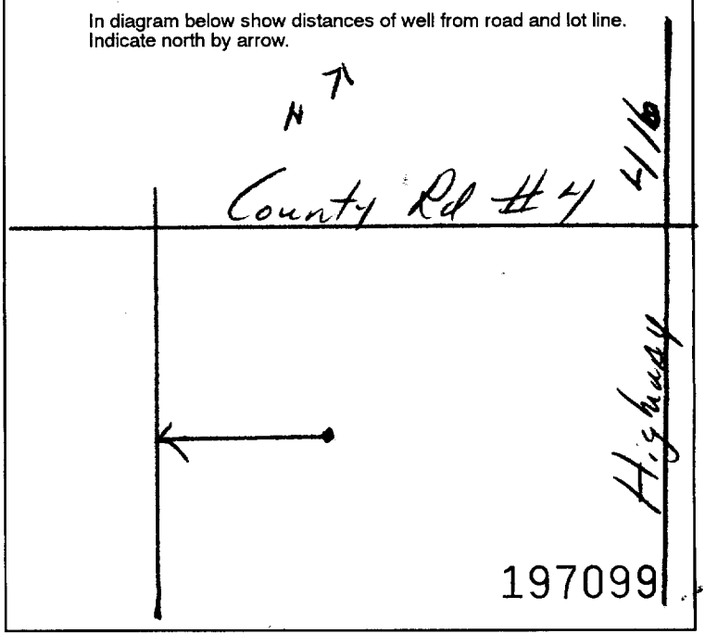
25 Water levels during: 1 Pumping 2 Recovery

Static level	Water level end of pumping	15 minutes	30 minutes	45 minutes	60 minutes
7 feet	122 feet	7 feet	7 feet	7 feet	7 feet

If flowing give rate: GPM
Pump intake set at: 122 feet
Water at end of test: ☐ Clear ☒ Cloudy
Recommended pump type: ☐ Shallow ☒ Deep
Recommended pump setting: 100 feet
Recommended pump rate: 15 GPM

LOCATION OF WELL

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



FINAL STATUS OF WELL (54)

1 ☒ Water supply 2 ☐ Observation well 3 ☒ Test hole 4 ☐ Recharge well
5 ☐ Abandoned, insufficient supply 6 ☐ Abandoned, poor quality 7 ☐ Abandoned (Other) 8 ☐ Dewatering
9 ☐ Unfinished 10 ☐ Replacement well

WATER USE (55–56)

1 ☒ Domestic 2 ☐ Stock 3 ☐ Irrigation 4 ☐ Industrial
5 ☐ Commercial 6 ☐ Municipal 7 ☐ Public supply 8 ☐ Cooling & air conditioning
9 ☐ Not used 10 ☐ Other

METHOD OF CONSTRUCTION (57)

1 ☐ Cable tool 2 ☐ Rotary (conventional) 3 ☐ Rotary (reverse) 4 ☒ Rotary (air)
5 ☐ Air percussion 6 ☐ Boring 7 ☐ Diamond 8 ☐ Jetting
9 ☐ Driving 10 ☐ Digging 11 ☐ Other

Name of Well Contractor	Well Contractor's Licence No.
Gilles Bourgeois Well Drill	1414
Address: St-ALBERT Ont	
Name of Well Technician: Jacques Raymond	Well Technician's Licence No. 0264
Signature of Technician/Contractor	Submission date: day mo yr

MINISTRY USE ONLY

Data source (58) | Contractor (59–62): 1414 | Date received (63–68): JUN 09 1999 (80)
Date of inspection | Inspector
Remarks: CSS.ES9

0506 (07/94) Front Form 9

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Ontario Ministry of the Environment

The Ontario Water Resources Act
WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11 (1 2) **1531768** Municipality 15004 (10 14) Con. CON (15 22 23 24) 03

County or District: CARLETON
Township/Borough/City/Town/Village: RIDEAU
Con block tract survey, etc.: 3
Lot (25-27): Part of 20 & 21
Address: 6626 3RD Line RD Kars
Date completed (48-53): 16 day 01 month 2001 year
Northing | RC | Elevation | RC | Basin Code (i ii iii iv)

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet From	Depth - feet To
Brown	clay		Thick	0	10
Grey	Clay		Runny	10	20
Grey	Clay Sandy	with Boulders,	Hard Pan	20	36
Grey	Limestone	Broken Layers, Sand	MED HARD	36	48
Grey	Limestone		MED HARD	48	65
		43' of 6 1/4" casing			
		20' of 5" casing			
		1 Heavy Duty Drive Shoe			
		1 well cap			
		10 Bags of Cement			

31
32

41 WATER RECORD

Water found at - feet	Kind of water
53 (13)	1 ☐ Fresh 3 ☐ Sulphur 14; 2 ☐ Salty 4 ☒ Minerals; 6 ☐ Gas
(15-18)	1 ☐ Fresh 3 ☐ Sulphur 19; 2 ☐ Salty 4 ☐ Minerals; 6 ☐ Gas
(20-23)	1 ☐ Fresh 3 ☐ Sulphur 24; 2 ☐ Salty 4 ☐ Minerals; 6 ☐ Gas
(25-28)	1 ☐ Fresh 3 ☐ Sulphur 29; 2 ☐ Salty 4 ☐ Minerals; 6 ☐ Gas
(30-33)	1 ☐ Fresh 3 ☐ Sulphur 34; 2 ☐ Salty 4 ☐ Minerals; 6 ☐ Gas (60)

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet From	Depth - feet To
6 1/4 (10-11)	1 ☒ Steel (12); 2 ☐ Galvanized; 3 ☐ Concrete; 4 ☐ Open hole; 5 ☐ Plastic	.188	0	38 (16)
5 (17-18)	1 ☒ Steel (19); 2 ☐ Galvanized; 3 ☐ Concrete; 4 ☒ Open hole; 5 ☐ Plastic	.188	30	50 (23)
4 7/8			50	65
(24-25)	1 ☐ Steel (26); 2 ☐ Galvanized; 3 ☐ Concrete; 4 ☐ Open hole; 5 ☐ Plastic			(27-30)

SCREEN

Sizes of opening (Slot No.) (31-33)	Diameter (34-38) inches	Length (39-40) feet
Material and type	Depth at top of screen (41-44) feet	(30)

61 PLUGGING & SEALING RECORD

☒ Annular space ☐ Abandonment

Depth set at - feet From	Depth set at - feet To	Material and type (Cement grout, bentonite, etc.)
0 (3)	38	Cement Grout
(18-21)	(22-25)	
(26-29)	(30-33) (80)	

71 PUMPING TEST

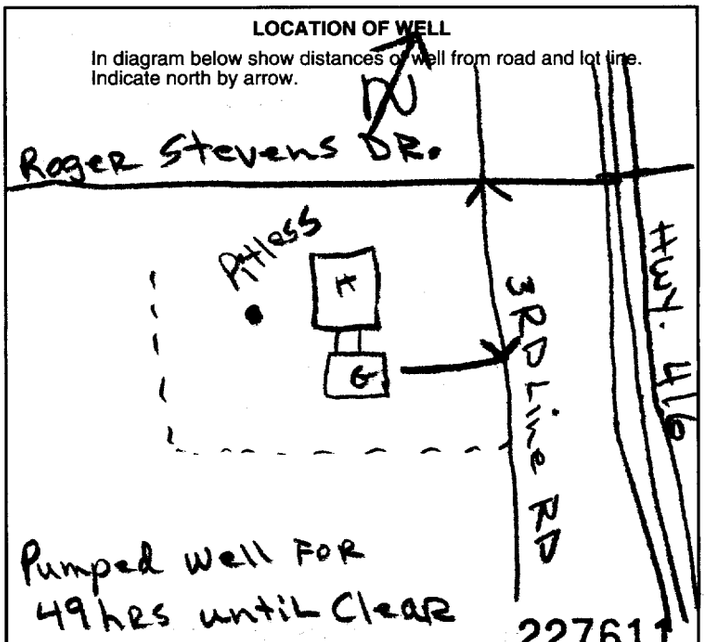
Pumping test method (10): 1 ☐ Pump 2 ☒ Bailer
Pumping rate (11-14): 10 GPM
Duration of pumping (15-16) Hours (17-18) Mins: 1 hour

Static level	Water level end of pumping	Water levels during (25): 1 ☒ Pumping 2 ☐ Recovery			
(19-21)	(22-24)	15 minutes (26-28)	30 minutes (29-31)	45 minutes (32-34)	60 minutes (35-37)
3 feet	40 feet	40 feet	40 feet	40 feet	40 feet

If flowing give rate (38-41): GPM
Pump intake set at: feet
Water at end of test (42): ☒ Clear ☐ Cloudy
Recommended pump type: ☐ Shallow ☒ Deep
Recommended pump setting (43-45): 50 feet
Recommended pump rate (46-49): 7 GPM
(50-53)

LOCATION OF WELL

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



Pumped well for 49 hrs until Clear

227611

FINAL STATUS OF WELL (54)

1 ☒ Water supply; 2 ☐ Observation well; 3 ☐ Test hole; 4 ☐ Recharge well; 5 ☐ Abandoned, insufficient supply; 6 ☐ Abandoned, poor quality; 7 ☐ Abandoned (Other); 8 ☐ Dewatering; 9 ☐ Unfinished; 10 ☐ Replacement well

WATER USE (55-56)

1 ☒ Domestic; 2 ☐ Stock; 3 ☐ Irrigation; 4 ☐ Industrial; 5 ☐ Commercial; 6 ☐ Municipal; 7 ☐ Public supply; 8 ☐ Cooling & air conditioning; 9 ☐ Not use; 10 ☐ Other

METHOD OF CONSTRUCTION (57)

1 ☒ Cable tool; 2 ☐ Rotary (conventional); 3 ☐ Rotary (reverse); 4 ☐ Rotary (air); 5 ☐ Air percussion; 6 ☐ Boring; 7 ☐ Diamond; 8 ☐ Jetting; 9 ☐ Driving; 10 ☐ Digging; 11 ☐ Other

Name of Well Contractor: B. Moore Well Drilling
Well Contractor's Licence No.: 6455
Address: Box 436 Osgoode ONT K0A2W0
Name of Well Technician: Bob Moore
Well Technician's Licence No.: T-0319
Signature of Technician/Contractor: Bob Moore
Submission date: day 17 mo 01 yr 2001

MINISTRY USE ONLY

Data source (58)	Contractor (59-62)	Date received (63-68) (80)
	6455	MAR 0 1 2001
Date of inspection	Inspector	
Remarks		CSS.ES1

0506 (07/00) Front Form 9

2 - MINISTRY OF THE ENVIRONMENT COPY

Ontario Ministry of the Environment

The Ontario Water Resources Act
WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11 (1 2) **1532141** Municipality 15004 (10 14) Con. CON (15 22 23 24) 02

County or District	Township/Borough/City/Town/Village	Con block tract survey, etc.	Lot (25-27)
Ottawa Carleton	Rideau	2	21

[redacted]

Address: 25-C Banner Rod. Nepean, ON. K2H 8T3

Date completed (48-53): 19 (year) 07 (month) 01 (day)

21 (1 2) UTM (10) Northing (12 17) RC (18 24) Elevation (25) RC (26) Basin Code (30) ii (31) iii iv (47)

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet From	Depth - feet To
Brown	clay			0	10
Grey	clay			10	23
Grey	limestone			23	125
	Note:	casing was left 1 1/2 feet above ground level at time of drilling.			

31 (10 14 15 21) 32 (32 43 54 65 75 80)

41 WATER RECORD

Water found at - feet	Kind of water
117 (10-13)	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas 6 ☐ (14) NOT TESTED
(15-18)	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas (19)
(20-23)	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas (24)
(25-28)	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas (29)
(30-33)	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas (34) (60)

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet From	Depth - feet To
6 1/4 (10-11)	1 ☒ Steel (12) 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic	.188	0	26 (12-16)
6 1/16 (17-18)	1 ☐ Steel (19) 2 ☐ Galvanized 3 ☐ Concrete 4 ☒ Open hole 5 ☐ Plastic		26	125 (20-23)
(24-25)	1 ☐ Steel (26) 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic			(27-30)

SCREEN

Sizes of opening (Slot No.) (31-33)	Diameter (34-38) inches	Length (39-40) feet
Material and type	Depth at top of screen (41-44) feet	(30)

61 PLUGGING & SEALING RECORD

☒ Annular space ☐ Abandonment

Depth set at - feet From	Depth set at - feet To	Material and type (Cement grout, bentonite, etc.)
26 (10-13)	0 (14-17)	Grouted-bentonite
(18-21)	(22-25)	& cement mix (2)
(26-29)	(30-33) (80)	

71 PUMPING TEST

Pumping test method (10): 1 ☒ Pump 2 ☐ Bailer

Pumping rate (11-14): 10 GPM

Duration of pumping (15-16): 1 Hours (17-18) Mins

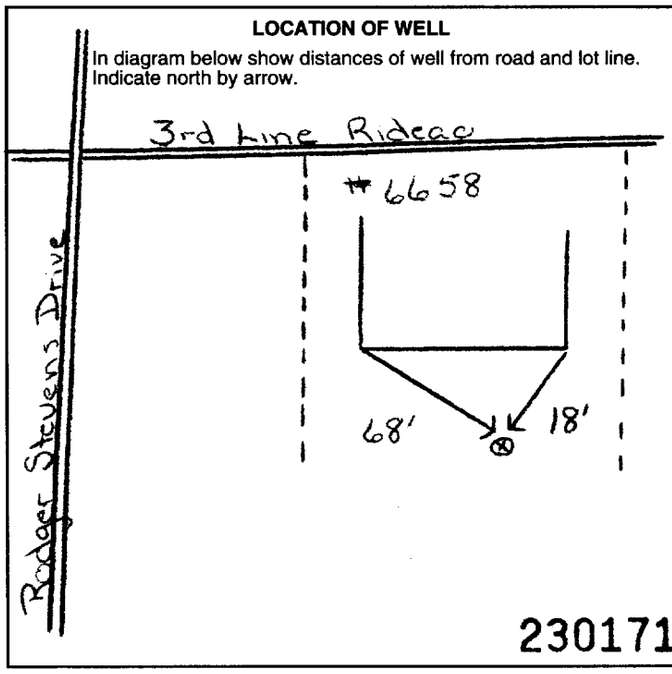
Static level (19-21)	Water level end of pumping (22-24)	Water levels during (25): 1 ☒ Pumping 2 ☐ Recovery			
		15 minutes (26-28)	30 minutes (29-31)	45 minutes (32-34)	60 minutes (35-37)
7 feet	60 feet	120 feet	100 feet	75 feet	60 feet

If flowing give rate (38-41)	Pump intake set at	Water at end of test (42)
GPM	feet	☐ Clear ☒ Cloudy
Recommended pump type: ☐ Shallow ☒ Deep	Recommended pump setting (43-45): 100 feet	Recommended pump rate (46-49): 5 GPM

(50-53)

LOCATION OF WELL

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



230171

FINAL STATUS OF WELL (54)

1 ☒ Water supply 2 ☐ Observation well 3 ☐ Test hole 4 ☐ Recharge well 5 ☐ Abandoned, insufficient supply 6 ☐ Abandoned, poor quality 7 ☐ Abandoned (Other) 8 ☐ Dewatering 9 ☐ Unfinished 10 ☐ Replacement well

WATER USE (55-56)

1 ☒ Domestic 2 ☐ Stock 3 ☐ Irrigation 4 ☐ Industrial 5 ☐ Commercial 6 ☐ Municipal 7 ☐ Public supply 8 ☐ Cooling & air conditioning 9 ☐ Not use 10 ☐ Other

METHOD OF CONSTRUCTION (57)

1 ☐ Cable tool 2 ☐ Rotary (conventional) 3 ☐ Rotary (reverse) 4 ☒ Rotary (air) 5 ☒ Air percussion 6 ☐ Boring 7 ☐ Diamond 8 ☐ Jetting 9 ☐ Driving 10 ☐ Digging 11 ☐ Other

Name of Well Contractor	Well Contractor's Licence No.
Capital Water Supply Ltd.	1558

Address: Box 490, Stittsville On. K2S 1A6

Name of Well Technician	Well Technician's Licence No.
S. Miller	T0097

Signature of Technician/Contractor: [signature]

Submission date: day 20 mo 7 yr 01

MINISTRY USE ONLY

Data source (58) | Contractor (59-62): 1558 | Date received (63-68): AUG 21 2001 (80)

Date of inspection | Inspector

Remarks: OSS.ES1

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2 - MINISTRY OF THE ENVIRONMENT COPY

Ontario **Ministry of the Environment**

The Ontario Water Resources Act
WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11 1533049 Municipality 15004 Con. CON 03

County or District	Township/Borough/City/Town/Village	Con block tract survey, etc.	Lot
Ottawa-Carleton	Rideau.	3	22

Address: North Gower, Ont

Date completed: 6 day 08 month 02 year

21 | UTM | Northing | RC | Elevation | RC | Basin Code | ii | iii | iv

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet From	Depth - feet To
Blue	Clay			0	24
Grey	limestone.			24	102

31 32

41 WATER RECORD

Water found at - feet	Kind of water
50	1 ☑ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas
58	1 ☑ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas
70	1 ☑ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas
90	1 ☑ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet From	Depth - feet To
6¼	1 ☑ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic	188	0	29
6 3/4	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☑ Open hole 5 ☐ Plastic		0	27
6	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☑ Open hole 5 ☐ Plastic		27	102

SCREEN

Sizes of opening (Slot No.)	Diameter inches	Length feet

Material and type | Depth at top of screen feet

61 PLUGGING & SEALING RECORD

☑ Annular space ☐ Abandonment

Depth set at - feet From	Depth set at - feet To	Material and type (Cement grout, bentonite, etc.)
2	29	Bentonite Rock

71 PUMPING TEST

Pumping test method: 1 ☑ Pump 2 ☐ Bailer

Pumping rate: 22 GPM

Duration of pumping: 1 Hours ... Mins

Water levels during: 1 ☐ Pumping 2 ☑ Recovery

Static level	Water level end of pumping	15 minutes	30 minutes	45 minutes	60 minutes
10 feet	90 feet	10 feet	10 feet	10 feet	10 feet

If flowing give rate: GPM

Pump intake set at: feet

Water at end of test: ☐ Clear ☑ Cloudy

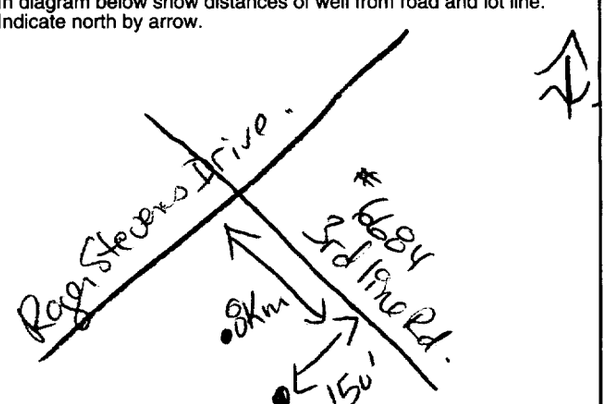
Recommended pump type: ☐ Shallow ☑ Deep

Recommended pump setting: 90 feet

Recommended pump rate: 22 GPM

LOCATION OF WELL

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



248064

FINAL STATUS OF WELL

1 ☑ Water supply 2 ☐ Observation well 3 ☐ Test hole 4 ☐ Recharge well 5 ☐ Abandoned, insufficient supply 6 ☐ Abandoned, poor quality 7 ☐ Abandoned (Other) 8 ☐ Dewatering 9 ☐ Unfinished 10 ☐ Replacement well

WATER USE

1 ☑ Domestic 2 ☐ Stock 3 ☐ Irrigation 4 ☐ Industrial 5 ☐ Commercial 6 ☐ Municipal 7 ☐ Public supply 8 ☐ Cooling & air conditioning 9 ☐ Not use 10 ☐ Other

METHOD OF CONSTRUCTION

1 ☐ Cable tool 2 ☐ Rotary (conventional) 3 ☐ Rotary (reverse) 4 ☐ Rotary (air) 5 ☑ Air percussion 6 ☐ Boring 7 ☐ Diamond 8 ☐ Jetting 9 ☐ Driving 10 ☐ Digging 11 ☐ Other

Name of Well Contractor	Well Contractor's Licence No.
Apr-Rock Drilling Ltd	1119
Address: RR#2 Jasper Ont	
Name of Well Technician: Shannon Purcell	Well Technician's Licence No. T2122
Signature of Technician/Contractor	Submission date: 23 day 08 mo 02 yr

MINISTRY USE ONLY

Data source	Contractor	Date received
	1119	AUG 27 2002
Date of inspection	Inspector	
Remarks: CSS.ES2		

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Ontario Ministry of the Environment

The Ontario Water Resources Act
WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11 1533105 Municipality 15004 Con. CON 03

County or District	Township/Borough/City/Town/Village	Con	block	tract	survey, etc.	Lot
Ottawa (Carleton)	Rideau	3				21

Address: North Gower, Ont

Date completed: 28 (day) 08 (month) 02 (year)

21 UTM Northing RC Elevation RC Basin Code ii iii iv

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet From	Depth - feet To
	sandy clay	gravel		0	40
grey	limestone			40	74

31

32

41 WATER RECORD

Water found at - feet	Kind of water
58	1 ☒ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas
67	1 ☒ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet From	Depth - feet To
6¼	1 ☒ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic	188	0	45
8¾	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☒ Open hole 5 ☐ Plastic		0	43
6	1 ☐ Steel 2 ☐ Galvanized 3 ☒ Concrete 4 ☐ Open hole 5 ☐ Plastic		43	74

SCREEN

Sizes of opening (Slot No.)	Diameter inches	Length feet

Material and type | Depth at top of screen feet

61 PLUGGING & SEALING RECORD

☒ Annular space ☐ Abandonment

Depth set at - feet From	To	Material and type (Cement grout, bentonite, etc.)
2	45	bentonite

71 PUMPING TEST

Pumping test method: 1 ☒ Pump 2 ☐ Bailer

Pumping rate: 22 GPM

Duration of pumping: 1 Hours Mins

Static level	Water level end of pumping	Water levels during: 1 ☐ Pumping 2 ☒ Recovery			
		15 minutes	30 minutes	45 minutes	60 minutes
7 feet	60 feet	7 feet	7 feet	7 feet	7 feet

If flowing give rate: GPM

Pump intake set at: feet

Water at end of test: ☐ Clear ☒ Cloudy

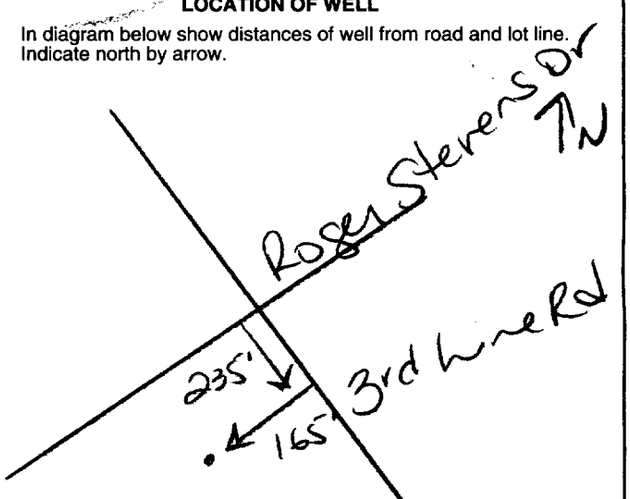
Recommended pump type: ☐ Shallow ☒ Deep

Recommended pump setting: 60 feet

Recommended pump rate: 22 GPM

LOCATION OF WELL

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



248104

FINAL STATUS OF WELL

1 ☒ Water supply 2 ☐ Observation well 3 ☐ Test hole 4 ☐ Recharge well 5 ☐ Abandoned, insufficient supply 6 ☐ Abandoned, poor quality 7 ☐ Abandoned (Other) 8 ☐ Dewatering 9 ☐ Unfinished 10 ☐ Replacement well

WATER USE

1 ☒ Domestic 2 ☐ Stock 3 ☐ Irrigation 4 ☐ Industrial 5 ☐ Commercial 6 ☐ Municipal 7 ☐ Public supply 8 ☐ Cooling & air conditioning 9 ☐ Not use 10 ☐ Other

METHOD OF CONSTRUCTION

1 ☐ Cable tool 2 ☐ Rotary (conventional) 3 ☐ Rotary (reverse) 4 ☐ Rotary (air) 5 ☒ Air percussion 6 ☐ Boring 7 ☐ Diamond 8 ☐ Jetting 9 ☐ Driving 10 ☐ Digging 11 ☐ Other

Name of Well Contractor	Well Contractor's Licence No.
AirRock Drilling Ltd	1119
Address: RR#1 Richmond Ont	
Name of Well Technician: Shannon Purcell	Well Technician's Licence No. T2122
Signature of Technician/Contractor	Submission date: 20 (day) 09 (mo) 02 (yr)

MINISTRY USE ONLY

Data source | Contractor: 1119 | Date received: SEP 27 2002

Date of inspection | Inspector

Remarks: CSS.ES2

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Ontario **Ministry of the Environment**

The Ontario Water Resources Act

WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11 **1533955**

Municipality 15004 Con. CON 02

Plan 4m1191 Sub lot 2.

County or District	Township/Borough/City/Town/Village	Con block tract survey, etc.	Lot
[redacted]	Rideau	2	22

Address: North Bower, Ont

Date completed: 25 (day) 07 (month) 03 (year)

21 | UTM | Northing | RC | Elevation | RC | Basin Code | ii | iii | iv

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet From	Depth - feet To
	Sandy soil	boulders		0	5
	gravel			5	51
grey	limestone			51	140

31

32

41 WATER RECORD

Water found at - feet	Kind of water
113	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☑ Minerals 5 ☐ Gas
132	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas
135	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet From	Depth - feet To
6 1/4	1 ☑ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic	.188	0	60
8 3/4	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☑ Open hole 5 ☐ Plastic		0	58
6	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☑ Open hole 5 ☐ Plastic		58	140

SCREEN

Sizes of opening (Slot No.)	Diameter inches	Length feet

Material and type | Depth at top of screen feet

61 PLUGGING & SEALING RECORD

☑ Annular space ☐ Abandonment

Depth set at - feet From	Depth set at - feet To	Material and type (Cement grout, bentonite, etc.)
58	0	bentonite

PUMPING TEST

71 Pumping test method: ☑ Pump 2 ☐ Bailer

Pumping rate: 15 GPM

Duration of pumping: 1 Hours Mins

Static level	Water level end of pumping	Water levels during: 1 ☐ Pumping 2 ☑ Recovery			
		15 minutes	30 minutes	45 minutes	60 minutes
38 feet	130 feet	38 feet	38 feet	38 feet	38 feet

If flowing give rate: GPM

Pump intake set at: feet

Water at end of test: ☐ Clear ☑ Cloudy

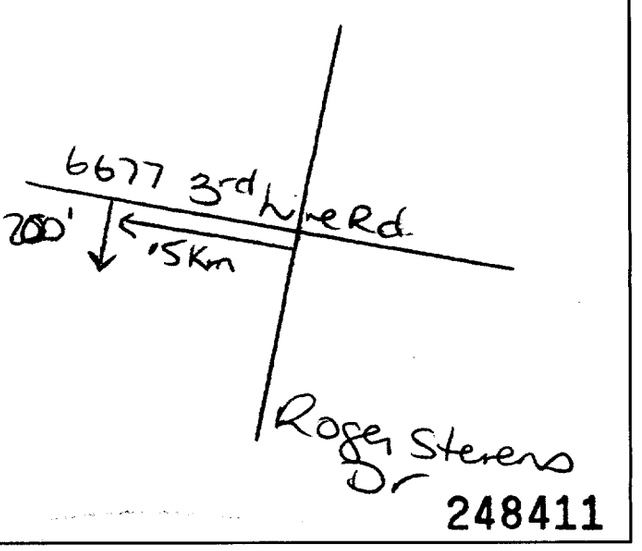
Recommended pump type: ☐ Shallow ☑ Deep

Recommended pump setting: 130 feet

Recommended pump rate: 15 GPM

LOCATION OF WELL

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



FINAL STATUS OF WELL

1 ☑ Water supply 2 ☐ Observation well 3 ☐ Test hole 4 ☐ Recharge well 5 ☐ Abandoned, insufficient supply 6 ☐ Abandoned, poor quality 7 ☐ Abandoned (Other) 8 ☐ Dewatering 9 ☐ Unfinished 10 ☐ Replacement well

WATER USE

1 ☑ Domestic 2 ☐ Stock 3 ☐ Irrigation 4 ☐ Industrial 5 ☐ Commercial 6 ☐ Municipal 7 ☐ Public supply 8 ☐ Cooling & air conditioning 9 ☐ Not use 10 ☐ Other

METHOD OF CONSTRUCTION

1 ☐ Cable tool 2 ☐ Rotary (conventional) 3 ☐ Rotary (reverse) 4 ☐ Rotary (air) 5 ☑ Air percussion 6 ☐ Boring 7 ☐ Diamond 8 ☐ Jetting 9 ☐ Driving 10 ☐ Digging 11 ☐ Other

Name of Well Contractor	Well Contractor's Licence No.
A.V. Rock Drilling Ltd	1119
Address	
RR#1 Richmond, Ont	
Name of Well Technician	**Well Technician's Licence No.**
Shannon Durell	T2122
Signature of Technician/Contractor	**Submission date**
	20 (day) 08 (mo) 03 (yr)

MINISTRY USE ONLY

Data source	Contractor	Date received
	1119	AUG 26 2003
Date of inspection	Inspector	
Remarks		

CSS.ES3

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Ontario — Ministry of Environment and Energy

The Ontario Water Resources Act
WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

1534320

Municipality 15004 Con. CON 02

County or District	Township/Borough/City/Town/Village	Con block tract survey, etc.	Lot
[redacted]	Rideau - North Gower	2	23

Address of Well Location: 6361 Prince of Wales Dr. North Gower

Date completed: 24 day 10 month 03 year

Zone: 21 | UTM Easting: | Northing: | RC: | Elevation: | RC: | Basin Code: Ontario K0A 2T0

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet From	Depth - feet To
Brown	Hardpan	Boulders	Packed	0	14
Gray	Hardpan	Boulders	Packed	14	35
Gray	Limestone			35	160
Gray & White	Sandstone			160	227

41 WATER RECORD

Water found at - feet	Kind of water
123	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas 6 ☐ — NOT TESTED
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas 6 ☐
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas 6 ☐
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas 6 ☐
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas 6 ☐

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet From	Depth - feet To
6 1/4	1 ☒ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic	.188	+ 1.5	43
6	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☒ Open hole 5 ☐ Plastic		43	227
	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic			

SCREEN

Sizes of opening (Slot No.)	Diameter inches	Length feet

Material and type: | Depth at top of screen feet:

61 PLUGGING & SEALING RECORD

☒ Annular space ☐ Abandonment

Depth set at - feet From	Depth set at - feet To	Material and type (Cement grout, bentonite, etc.)
43	0	Grouted - Bentonite (8)

71 PUMPING TEST

Pumping test method: 1 ☒ Pump 2 ☐ Bailer

Pumping rate: 30-40 GPM

Duration of pumping: 1 Hours ..... Mins

Static level	Water level end of pumping	Water levels during: 1 ☐ Pumping 2 ☒ Recovery 15 minutes	30 minutes	45 minutes	60 minutes
23'9" feet	60 feet	220 feet	150 feet	100 feet	60 feet

If flowing give rate: GPM

Pump intake set at: feet

Water at end of test: ☐ Clear ☒ Cloudy

Recommended pump type: ☐ Shallow ☒ Deep

Recommended pump setting: 100 feet

Recommended pump rate: 5 GPM

FINAL STATUS OF WELL

1 ☒ Water supply 2 ☐ Observation well 3 ☐ Test hole 4 ☐ Recharge well 5 ☐ Abandoned, insufficient supply 6 ☐ Abandoned, poor quality 7 ☐ Abandoned (Other) 8 ☐ Dewatering 9 ☐ Unfinished 10 ☐ Replacement well

WATER USE

1 ☒ Domestic 2 ☐ Stock 3 ☐ Irrigation 4 ☐ Industrial 5 ☐ Commercial 6 ☐ Municipal 7 ☐ Public supply 8 ☐ Cooling & air conditioning 9 ☐ Not use 10 ☐ Other .....

METHOD OF CONSTRUCTION

1 ☐ Cable tool 2 ☐ Rotary (conventional) 3 ☐ Rotary (reverse) 4 ☒ Rotary (air) 5 ☒ Air percussion 6 ☐ Boring 7 ☐ Diamond 8 ☐ Jetting 9 ☐ Driving 10 ☐ Digging 11 ☐ Other .....

LOCATION OF WELL

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

267036

Name of Well Contractor: Capital Water Supply Ltd. | Well Contractor's Licence No.: 1558

Address: P.O. Box 490 Stittsville, Ontario K2S 1A6

Name of Well Technician: S. Miller | Well Technician's Licence No.: T0097

Signature of Technician/Contractor

Submission date: day 27 mo 10 yr 03

MINISTRY USE ONLY

Data source | Contractor 1558 | Date received NOV 13 2003

Date of inspection | Inspector

Remarks

2 - MINISTRY OF ENVIRONMENT AND ENERGY COPY

0506 (06/02) Front Form 9

Ontario Ministry of the Environment

Well Tag Number A004750

A 004750

Well Record

Regulation 903 Ontario Water Resources Act

page ___ of ___

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.

bo **Ministry Use Only**

[redacted]

Address of Well Location (County/District/Municipality): Ottawa Carleton

Township: Rideau

Lot: 21

Concession: 2

RR#/Street Number/Name: 6653 3rd Line Rd.

City/Town/Village: North Gower

Site/Compartment/Block/Tract etc.

GPS Reading: NAD 83 | Zone 18 | Easting 445773 | Northing 4998576

Unit Make/Model: Magellan

Mode of Operation: ☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To (Metres)
	Clay			0	3.35
	Sand	boulders.		3.35	7.62
grey	limestone			7.62	17.37
grey	limestone		very soft.	17.37	25.91
grey	limestone			25.91	36.58

Hole Diameter

Depth From	Metres To	Diameter Centimetres
0	36.58	15.24

Water Record

Water found at ___ Metres | Kind of Water

33.83 ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other: NOT TESTED

___ 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 NOT TESTED

Chlorinated ☒ Yes ☐ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Metres To
Casing				
15.88	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.478	0	10.82
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☐ Open hole			

Test of Well Yield

Pumping test method: Submpump

	Draw Down Time min	Draw Down Water Level Metres	Recovery Time min	Recovery Water Level Metres
Pump intake set at - (metres)	Static Level	1.93		4.19
Pumping rate - (litres/min) 45.42	1	3.76	1	2.56
Duration of pumping 1 hrs + 0 min	2	3.84	2	2.18
Final water level end of pumping 4.42 metres	3	4.04	3	2.06
Recommended pump type. ☐ Shallow ☒ Deep	4	4.11	4	2.03
Recommended pump depth. 15 metres	5	4.16	5	2.03
Recommended pump rate. (litres/min)	10	4.19	10	2.03
	15	4.19	15	2.03
If flowing give rate - (litres/min)	20	4.34	20	2.01
	25	4.34	25	2.01
If pumping discontinued, give reason.	30	4.37	30	1.95
	40	4.37	40	1.93
	50	4.42	50	1.93
	60	4.42	60	1.93

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)
10.21	0	bentonite slurry	90 gallons

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

Well Contractor/Technician Information

Name of Well Contractor: A-1 Rock Drilling Ltd — Well Contractor's Licence No.: 1119

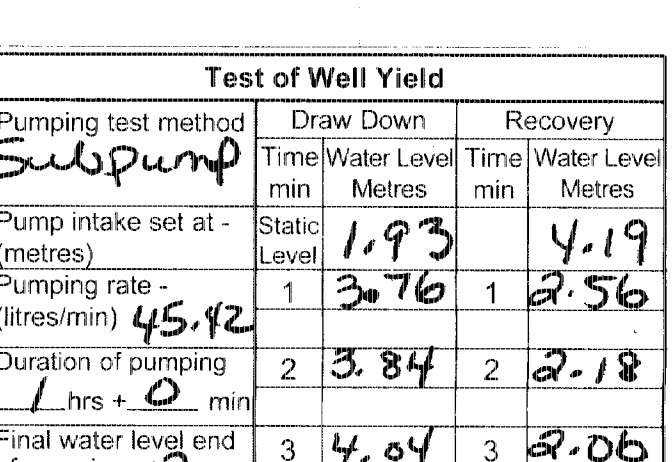
Business Address (street name, number, city etc.): RR#1 Richmond, Ont

Name of Well Technician (last name, first name): Shannon Purcell — Well Technician's Licence No.: 1212

Signature of Technician/Contractor: x [signature] — Date Submitted YYYY MM DD: 2003 12 02

Location of Well

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



Audit No. Z 04795

Date Well Completed YYYY MM DD: 2003 11 17

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

Date Delivered YYYY MM DD: 2003 11 27

Ministry Use Only

Data Source — Contractor: 1119

Date Received: FEB 06 2004 — Date of Inspection YYYY MM DD

Remarks: CSS ES4 — Well Record Number: 1534485

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

Cette formule est disponible en français

Ontario Ministry of the Environment

Well Tag Number (Pl A004838 A004838

Well Record

Regulation 903 Ontario Water Resources Act

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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

[redacted]

Address of Well Location (County/District/Municipality): Ottawa Carleton
Township: Rideau
Lot: 21
Concession: 2
RR#/Street Number/Name: 6623 - 3rd Line Rd South
City/Town/Village: North Gower
Site/Compartment/Block/Tract etc.:
GPS Reading: NAD 83 Zone 18 Easting 445619 Northing 4998746
Unit Make/Model: Magellan
Mode of Operation: ☐ Undifferentiated ☑ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To
	Sandy clay			0	7.3
Grey	limestone			7.3	18.3

Hole Diameter

Depth From	Depth To	Diameter Centimetres
0	18.3	14.91

Water Record

Water found at ___ Metres	Kind of Water
11.6 m	☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other: NOT
14.6 m	☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other: tested
16.4 m	☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

After test of well yield, water was
☑ Clear and sediment free
☐ Other, specify NOT tested

Chlorinated ☑ Yes ☐ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To
Casing				
15.88	☑ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	10.0
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☑ Open hole		9.4	18.3

Test of Well Yield

Pumping test method: Submersible

	Draw Down Time min	Draw Down Water Level Metres	Recovery Time min	Recovery Water Level Metres
Pump intake set at - (metres)	Static Level	1.52		2.32
Pumping rate - (litres/min) 91	1	2.20	1	1.68
Duration of pumping 1 hrs + ___ min	2	2.23	2	1.65
Final water level end of pumping 2.3 metres	3	2.25	3	1.64
Recommended pump type. ☐ Shallow ☑ Deep	4	2.26	4	1.63
Recommended pump depth. 15.2 metres	5	2.27	5	1.63
Recommended pump rate. 11.375 (litres/min)	10	2.28	10	1.61
	15	2.29	15	1.59
If flowing give rate - (litres/min)	20	2.29	20	1.58
	25	2.30	25	1.57
If pumping discontinued, give reason. -	30	2.30	30	1.57
	40	2.31	40	1.56
	50	2.31	50	1.56
	60	2.32	60	1.55

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)
9.4	0	Cement slurry	0.6356

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

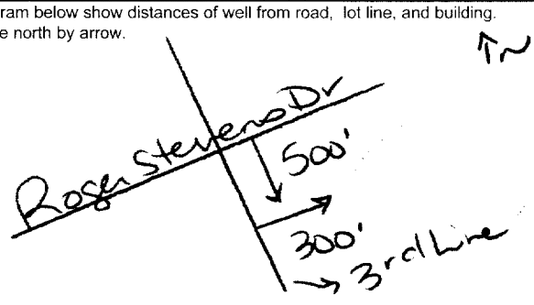
☑ Water Supply ☐ Recharge well ☐ Unfinished ☐ Abandoned, (Other)
☐ Observation well ☐ Abandoned, insufficient supply ☐ Dewatering
☐ Test Hole ☐ Abandoned, poor quality ☐ Replacement well

Well Contractor/Technician Information

Name of Well Contractor: A. Rock Drilling Ltd — Well Contractor's Licence No.: 1119
Business Address (street name, number, city etc.): RR#1 Richmond, Ont
Name of Well Technician (last name, first name): Purcell Shannon — Well Technician's Licence No.: 12122
Signature of Technician/Contractor: x [signature] — Date Submitted: 2004 06 01

Location of Well

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



Audit No. Z 04944
Date Well Completed: 2004 05 19
Was the well owner's information package delivered? ☑ Yes ☐ No
Date Delivered: 2004 05 19

Ministry Use Only

Data Source
Contractor: 1119
Date Received: JUN 07 2004
Date of Inspection
Remarks
Well Record Number: 1534648

0506E (09/03) Contractor's Copy ☐ Ministry's Copy ☐ Well Owner's Copy ☑ *Cette formule est disponible en français*

Ontario Ministry of the Environment

Well Tag (number below) A 052766

A052766

Well Record

Regulation 903 Ontario Water Resources Act

page ___ of ___

Instructions for Completing Form

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- 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

[redacted]

6659 Third Line Road | Ottawa Carlton | 21-22 | 2

RR#/Street Number/Name: 6659 Third Line Road | City/Town/Village: North Gower | Site/Compartment/Block/Tract etc.

GPS Reading ✓ | NAD 83 | Zone 18 | Easting 0445830 | Northing 4998560 | Unit Make/Model E-Tex | Mode of Operation: ☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To
Gray	Clay	Hard Pan Till		0	6.9
Gray	Limestone			6.9	8.7
Gray	Limestone			8.7	39.0

Hole Diameter

Depth From	Depth To	Diameter Centimetres
0	8.7	25.40

Water Record

Water found at ___ Metres / Kind of Water

___ 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
15.24	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	0.48	0	8.7
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			

Screen

Outside diam		Slot No.		
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			

No Casing or Screen

☐ Open hole

Test of Well Yield

Pumping test method: Pump

Pump intake set at (metres): 20

Pumping rate - (litres/min): 44

Duration of pumping ___ hrs + ___ min

Final water level end of pumping: 4.9 metres

Recommended pump type: ☐ Shallow ☒ Deep

Recommended pump depth: 30 metres

Recommended pump rate: 44 (litres/min)

If flowing give rate - 0 (litres/min)

If pumping discontinued, give reason: 0

	Draw Down Time min	Draw Down Water Level Metres	Recovery Time min	Recovery Water Level Metres
Static Level		4.1		4.9
1	1	4.4	1	4.3
2	2	4.8	2	4.1
3	3	4.9	3	—
4	4	—	4	—
5	5	—	5	—
10	10	—	10	—
15	15	—	15	—
20	20	—	20	—
25	25	—	25	—
30	30	—	30	—
40	40	—	40	—
50	50	—	50	—
60	60	—	60	—

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - Metres From	Depth set at - Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	8.7	Quick Grout	3 Bags

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

Well Contractor/Technician Information

Name of Well Contractor: Dave's Well Drilling | Well Contractor's Licence No.: 6565

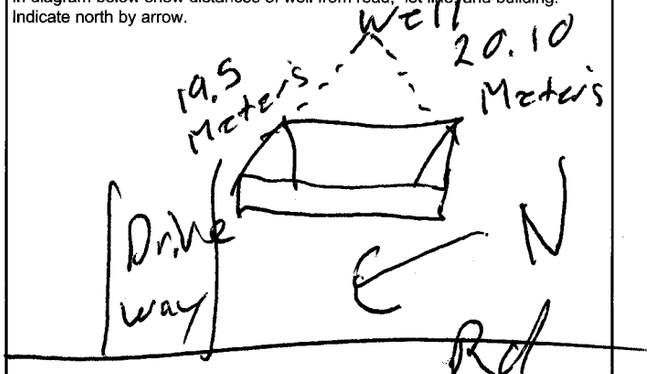
Business Address (street name, number, city etc.): RR 3 North Augusta

Name of Well Technician (last name, first name): Dave Fisher | Well Technician's Licence No.: 50-144

Signature of Technician/Contractor: x [signature] | Date Submitted: YYYY 2006 MM 11 DD 13

Location of Well

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



Audit No. Z 42756 | Date Well Completed: YYYY 2006 MM 11 DD 13

Was the well owner's information package delivered? ☐ Yes ☐ No | Date Delivered: YYYY 2006 MM 11 DD 13

Ministry Use Only

Data Source | Contractor 6565

Date Received DEC 27 2006 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

Ontario Ministry of the Environment

Well Ta A 059438 int Below)

A059438

Well Record

Regulation 903 Ontario Water Resources Act

Page _____ of _____

[redacted]

Address of Well Location (Street Number/Name, RR) #6614 3RD LINE ROAD

Township RIDEAU

Lot 22

Concession 3

County/District/Municipality Ottawa-Carleton

City/Town/Village North Gower

Province Ontario

Postal Code

UTM Coordinates NAD 8 3 Zone 18 Easting 445436 Northing 4997852

GPS Unit Make Magellan Model 2

Mode of Operation: ☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Overburden and Bedrock Materials *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (Metres) From	To
	Clay			0	7.62
	Gravel,	Boulders		7.62	12.19
	Grey Limestone			12.19	36.57

Annular Space/Abandonment Sealing Record

Depth Set at (Metres) From	To	Type of Sealant Used (Material and Type)	Volume Placed (Cubic Metres)
15.24	12.19	Neat Cement Slurry	
12.19	0	Bentonite Slurry	

Method of Construction

☐ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Rotary (Air) ☐ Digging
☒ Air percussion ☐ Boring
☐ Other, *specify* _____

Water Use

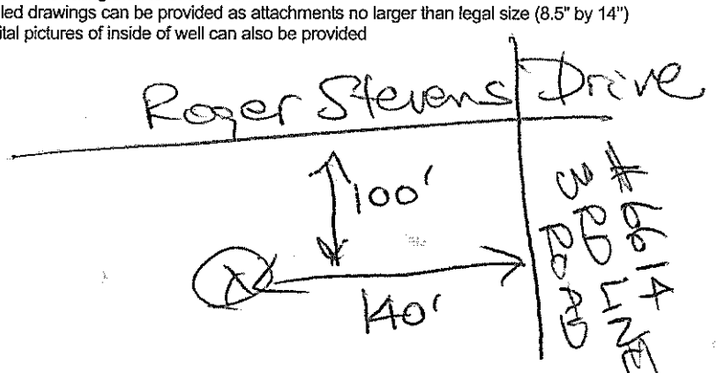
☐ Public ☐ Commercial ☐ Not used
☒ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ Industrial
☐ Other, *specify* _____

Status of Well

☒ Water Supply ☐ Dewatering Well ☐ Observation and/or Monitoring Hole
☐ Replacement Well ☐ Abandoned, Insufficient Supply ☐ Alteration (Construction)
☐ Test Hole ☐ Abandoned, Poor Water Quality ☐ Other, *specify* _____
☐ Recharge Well ☐ Abandoned, other, *specify* _____

Location of Well

Please provide a map below showing:
- all property boundaries, and measurements sufficient to locate the well in relation to fixed points,
- an arrow indicating the North direction
- detailed drawings can be provided as attachments no larger than legal size (8.5" by 14")
- vidigital pictures of inside of well can also be provided



Date Well Completed (yyyy/mm/dd)	Was the well owner's information package delivered?	Date the Well Record and Package Delivered to Well Owner (yyyy/mm/dd)
2007-11-19	☒ Yes ☐ No	2007-11-19

Well Contractor and Well Technician Information

Business Name of Well Contractor: AIR ROCK DRILLING CO LTD — Well Contractor's Licence No.: 1119

Business Address (Street No./Name, number, RR): RR#1 — Municipality: RICHMOND

Province: ONT — Postal Code: K0A 2Z0 — Business E-mail Address:

Bus. Telephone No. (inc. area code): 613 838 3170 — Name of Well Technician (Last Name, First Name): Desaulniers, Ken

Well Technician's Licence No.: T4 — Signature of Technician — Date Submitted (yyyy/mm/dd): 2007-12-03

Results of Well Yield Testing

Check box if after test of well yield, water was:
☐ Clear and sand free
☐ Cannot develop to sand-free state

If pumping discontinued, give reason: X

Pumping test method: SUBPUMP

Pump intake set at (Metres): 30.48

Pumping rate (Litres/min): 45.48

Duration of pumping: 1 hrs + 0 min

Final water level end of pumping (Metres): 10.16

Recommended pump type: ☐ Shallow ☒ Deep

Recommended pump depth: 30.48 Metres

Recommended pump rate (Litres/min): 45.48

If flowing give rate (Litres/min): X

Draw Down Time (Min)	Water Level (Metres)	Recovery Time (Min)	Water Level (Metres)
Static Level	3.82	Static Level	10.16
1	4.70	1	7.00
2	5.26	2	5.00
3	6.16	3	3.90
4	6.80	4	3.10
5	7.60	5	2.83
10	9.10	10	
15	9.90	15	
20	10.60	20	
25	10.83	25	
30	10.90	30	
40	10.70	40	
50	10.32	50	
60	10.16	60	

Water Details

Water found at Depth		Kind of Water
16	☐ Metres ☐ Gas	☐ Fresh ☒ Salty ☐ Sulphur ☐ Minerals
35	☐ Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals
	☐ Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals

Casing Used

☐ Galvanized ☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete

Screen Used

☐ Galvanized ☐ Steel ☐ Fibreglass ☐ Plastic ☒ Concrete

No Casing and Screen Used

☒ Open Hole 5.24 - 36.57

Disinfected? ☒ Yes ☐ No

Casing and Well Details

Diameter of the Hole (Centimetres): 15.23

Depth of the Hole (Metres): 36.57

Well Thickness (Metres): .48cm

Inside Diameter of the Casing (Metres): .1588

Depth of the Casing (Metres): 15.85

Ministry Use Only

Audit No.: Z 61180 — Well Contractor No.:

Date Received (yyyy/mm/dd): DEC 14 2007 — Date of Inspection (yyyy/mm/dd):

Remarks:

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Ontario — Ministry of the Environment

Measurements recorded in: ☐ Metric ☒ Imperial

Well Tag No. **A 079332**

A079332

Well Record

Regulation 903 Ontario Water Resources Act

Page ____ of ____

Well Owner's Information

First Name	Last Name / Organization	E-mail Address	☐ Well Constructed by Well Owner
	Parkview Homes		

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. (inc. area code)
RR#2	North Gower	Ont	K0A2T0	

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
6671 3rd Line Rd	Rideau (Marlborough)	22	2

County/District/Municipality	City/Town/Village	Province	Postal Code
Ottawa Carleton	North Gower	Ontario	

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 8 3	18	445828	4998498	PLAN 4M-1191	S/L 3

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
	Sand Clay and Gravel			0	44'
	Grey and Black Limestone			44	140'

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
50'	40'	Neat Cement Slurry	4.68'
40'	0	Bentonite Slurry	21'

Method of Construction

☐ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Boring ☐ Digging
☐ Air percussion
☐ Other, specify

Well Use

☐ Public ☐ Commercial ☐ Not used
☒ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ Industrial
☐ Other, specify

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To
6"	Steel	.188	+2	50'
6 1/8"	Open hole		50'	140'

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To

Status of Well

☒ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, specify
☐ Other, specify

Water Details

Water found at Depth (m/ft)	Gas	Kind of Water: Fresh	Untested	Other, specify
122'	☐	☐	☒	
129'	☐	☐	☒	
(m/ft)	☐	☐	☐	

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
0	140'	6 1/8"

Results of Well Yield Testing

After test of well yield, water was:
☐ Clear and sand free
☐ Other, specify
NOT TESTED

If pumping discontinued, give reason:

Pump intake set at (m/ft): 120

Pumping rate (l/min / GPM): 20

Duration of pumping: 1 hrs + 0 min

Final water level end of pumping (m/ft): 59.1

If flowing give rate (l/min / GPM):

Recommended pump depth (m/ft): 120

Recommended pump rate (l/min / GPM): 20

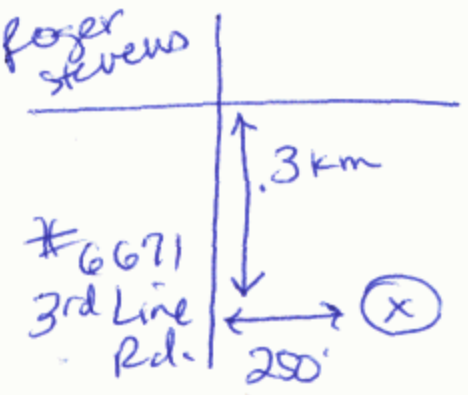
Well production (l/min / GPM): 20

Disinfected? ☐ Yes ☐ No

Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level	15		59.1
1	20	1	43
2	27	2	32.5
3	31	3	26
4	38	4	21
5	44	5	18
10	52.5	10	15
15	59	15	15
20	59	20	15
25	59	25	
30	59	30	
40	59	40	
50	59.1	50	
60	59.1	60	

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
AIR ROCK DRILLING CO LTD	1119

Business Address (Street Number/Name)	Municipality	Province	Postal Code	Business E-mail Address
RR1	Richmond	Ont	K0A2Z0	

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)	Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
6138382120	Hogan Dan	1358		2008/12/05

Well owner's information package delivered: ☒ Yes ☐ No

Date Package Delivered: 2008/12/12

Date Work Completed: 2008/11/11

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Ontario — Ministry of the Environment

Measurements recorded in: ☐ Metric ☒ Imperial

Well Tag No. *(Place Sticker and/or Print Below)* N/A

Well Record

Regulation 903 Ontario Water Resources Act

Page of

[redacted]

Address of Well Location (Street Number/Name): 6676 Third Line Road

Township: Rideau

Lot: PT L22

Concession: 3

County/District/Municipality: Ottawa-Carleton

City/Town/Village: North Gower

Province: Ontario

Postal Code:

UTM Coordinates: NAD 83 Zone 18 Easting 445812 Northing 4998378

Municipal Plan and Sublot Number: 5R-1231

Other: Part #1

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
	6" Drilled well Abandonment			0'	100'

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
100'	6'	hole plug	28 bags
6'	0'	Backfill	

Method of Construction

☐ Cable Tool ☐ Diamond ☐ Rotary (Conventional) ☐ Jetting ☐ Rotary (Reverse) ☐ Driving ☐ Boring ☐ Digging ☐ Air percussion ☐ Other, specify

Well Use

☐ Public ☐ Commercial ☐ Not used ☐ Domestic ☐ Municipal ☐ Dewatering ☐ Livestock ☐ Test Hole ☒ Monitoring ☐ Irrigation ☐ Cooling & Air Conditioning ☐ Industrial ☐ Other, specify

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To

Status of Well

☐ Water Supply ☐ Replacement Well ☐ Test Hole ☐ Recharge Well ☐ Dewatering Well ☐ Observation and/or Monitoring Hole ☐ Alteration (Construction) ☐ Abandoned, Insufficient Supply ☐ Abandoned, Poor Water Quality ☒ Abandoned, other, specify — NOT USEABLE ☐ Other, specify

Water Details

Water found at Depth (m/ft)	Gas	Kind of Water: ☐ Fresh ☐ Untested ☐ Other, specify
Water found at Depth (m/ft)	Gas	Kind of Water: ☐ Fresh ☐ Untested ☐ Other, specify
Water found at Depth (m/ft)	Gas	Kind of Water: ☐ Fresh ☐ Untested ☐ Other, specify

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)

Results of Well Yield Testing

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

If pumping discontinued, give reason:

Pump intake set at (m/ft)

Pumping rate (l/min / GPM)

Duration of pumping ____ hrs + ____ min

Final water level end of pumping (m/ft)

If flowing give rate (l/min / GPM)

Recommended pump depth (m/ft)

Recommended pump rate (l/min / GPM)

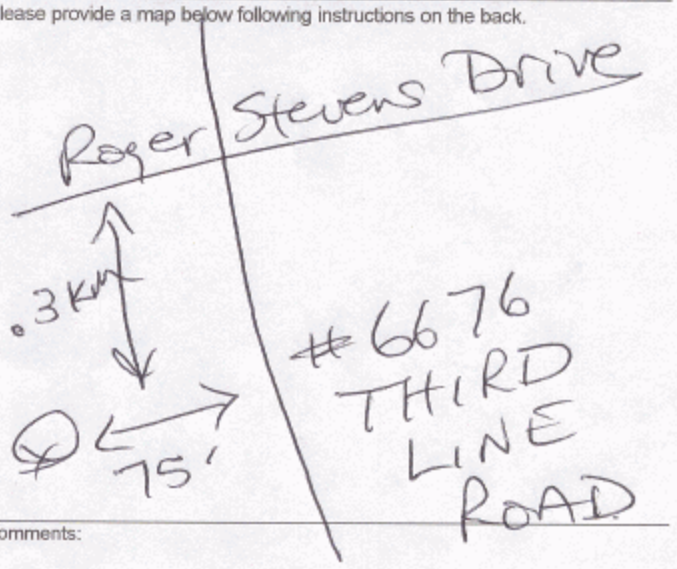
Well production (l/min / GPM)

Disinfected? ☒ Yes ☐ No

Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level			
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
50		50	
60		60	

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor: AIR ROCK DRILLING Co LTD — Well Contractor's Licence No.: 1119

Business Address (Street Number/Name): RR#1 — Municipality: RICHMOND

Province: ONT — Postal Code: K0A 2Z0 — Business E-mail Address:

Bus. Telephone No. (inc. area code): 6138388170 — Name of Well Technician (Last Name, First Name): Desaulniers Ken

Well Technician's Licence No.: T4 — Signature of Technician and/or Contractor: [signature] — Date Submitted: 2011/02/28

Well owner's information package delivered: ☐ Yes ☒ No

Date Package Delivered:

Date Work Completed: 2011/02/07

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Audit No. z119773

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AIR ROCK
DRILLING CO. LTD.
EST. 1970

February 14, 2011

Ministry of Environment
125 Resources Road
Toronto, Ontario
M9P 3V6

ATTACHED TO AND FORMING PART OF WELL RECORD

Audit # Z119773 – Well Abandonment
Audit # Z119915 – Tag # A105549 (Well # 1)
Audit # Z119774 – Tag # A105550 (Well # 2)

Property Owner Ralph Burwash

CORRECTION TO ''MAILING''
& ''TOWN''

From: 6676 Third Line Road,
North Gower, Ont K0A 2T0

TO 6676 Third Line Road
Kars, Ontario
K0A 2E0

Debbie Davis
Air Rock Drilling Co Ltd
Licence Number 1119
(O) 613-838-2170
(F) 613-838-3277

C-1119
Z119773
Z119915
Z119774

MAR 11 2011

A105549

Ontario — Ministry of the Environment

Measurements recorded in: ☐ Metric ☒ Imperial

Well Record

Regulation 903 Ontario Water Resources Act

Page ____ of ____

[redacted]

Address of Well Location (Street Number/Name)	Township	Lot	Concession
6676 Third Line Road	Rideau	P/L 22	3

County/District/Municipality	City/Town/Village	Province	Postal Code
Ottawa-Carleton	North Gower	Ontario	

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	18	445769	4998386	5R-1231	Part 1

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
Grey	Sandy Clay			0′	21′
	Gravel			21′	24′
Grey & Brown	Limestone			24′	38′
Grey & Brown	Limestone			38′	56′
Grey & Brown	Limestone			56′	71′
Grey & Brown	Limestone			71′	80′

* Well #1 *

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/gal)
31′	21′	Neat cement slurry	7.8
21′	0′	Bentonite slurry	16.8

Method of Construction

☐ Cable Tool ☐ Diamond ☐ Rotary (Conventional) ☐ Jetting ☐ Rotary (Reverse) ☐ Driving ☐ Boring ☐ Digging ☒ Air percussion ☐ Other, specify

Well Use

☐ Public ☐ Commercial ☐ Not used ☒ Domestic ☐ Municipal ☐ Dewatering ☐ Livestock ☐ Test Hole ☐ Monitoring ☐ Irrigation ☐ Cooling & Air Conditioning ☐ Industrial ☐ Other, specify

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To
6"	Steel	.188	+0	31′
5 7/8"	Openhole		31′	80′

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To

Status of Well

☒ Water Supply ☐ Replacement Well ☐ Test Hole ☐ Recharge Well ☐ Dewatering Well ☐ Observation and/or Monitoring Hole ☐ Alteration (Construction) ☐ Abandoned, Insufficient Supply ☐ Abandoned, Poor Water Quality ☐ Abandoned, other, specify ☐ Other, specify

Water Details

Water found at Depth (m/ft)	Gas	Kind of Water	Other, specify	
38	☐	☐ Fresh ☒ Untested		X
56	☐	☐ Fresh ☒ Untested		X
71	☐	☐ Fresh ☒ Untested		X

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
0′	31′	6"
31′	80′	5 7/8"

Results of Well Yield Testing

After test of well yield, water was: ☐ Clear and sand free ☐ Other, specify **Not tested**

If pumping discontinued, give reason: ☒

Pump intake set at (m/ft): 60

Pumping rate (l/min / GPM): 20

Duration of pumping: 1 hrs + 0 min

Final water level end of pumping (m/ft): 9.7"

If flowing give rate (l/min / GPM): ☒

Recommended pump depth (m/ft): 60′

Recommended pump rate (l/min / GPM): 20

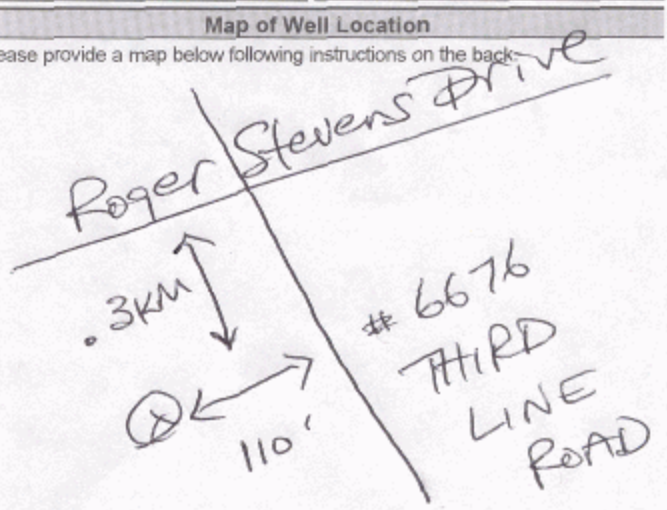
Well production (l/min / GPM): 20

Disinfected? ☒ Yes ☐ No

Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level	4.6′		9.7"
1	5.3	1	4.6
2	5.9	2	4.6
3	6.7	3	4.6
4	7.1	4	4.6
5	7.6	5	4.6
10	8.1	10	4.6
15	8.2	15	4.6
20	8.4	20	4.6
25	8.6	25	4.6
30	8.8	30	4.6
40	9.1	40	4.6
50	9.4	50	4.6
60	9.7"	60	4.6"

Map of Well Location

Please provide a map below following instructions on the back.



Comments: * Well #1 *

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Air Rock Drilling Co. Ltd.	1119

Business Address (Street Number/Name)	Municipality	Province	Postal Code	Business E-mail Address
6659 Franktown Road, RR#1	Richmond	ON	K0A 2Z0	air-rock@sympatico.ca

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)	Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
6138821170	GRAHAM RYAN	T3484		2011/02/28

Well owner's information package delivered: ☒ Yes ☐ No

Date Package Delivered: 2011/03/01

Date Work Completed: 2011/01/26

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Audit No. Z119915

MAR 11 2011 Received

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February 14, 2011

Ministry of Environment
125 Resources Road
Toronto, Ontario
M9P 3V6

ATTACHED TO AND FORMING PART OF WELL RECORD

Audit # Z119773 – Well Abandonment
Audit # Z119915 – Tag # A105549 (Well # 1)
Audit # Z119774 – Tag # A105550 (Well # 2)

Property Owner Ralph Burwash

CORRECTION TO ''MAILING''
& ''TOWN''

From: 6676 Third Line Road,
North Gower, Ont K0A 2T0

TO 6676 Third Line Road
Kars, Ontario
K0A 2E0

Debbie Davis
Air Rock Drilling Co Ltd
Licence Number 1119
(O) 613-838-2170
(F) 613-838-3277

C-1119
Z119773
Z119915
Z119774

MAR 11 2011

Ontario — Ministry of the Environment

A105550

Well Record

Regulation 903 Ontario Water Resources Act

Measurements recorded in: ☐ Metric ☒ Imperial

Page ____ of ____

[redacted]

Address of Well Location (Street Number/Name)	Township	Lot	Concession
6676 Third Line Road	Rideau	P/L 22	3

County/District/Municipality	City/Town/Village	Province	Postal Code
Ottawa Carleton	North Gower	Ontario	

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	18	445758	4998388	5R-1231	Part 1

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
Grey	Sandy Clay			0	20
	Gravel			20	23
Grey & Brown	Limestone			23	38
Grey & Brown	Limestone			38	56
Grey & Brown	Limestone			56	72
Grey & brown	Limestone			72	80

* well # 2 *

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
31	21	Neat cement slurry	7.8
21	0	Bentonite slurry	16.8

Method of Construction

☐ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Boring ☐ Digging
☒ Air percussion
☐ Other, specify

Well Use

☐ Public ☐ Commercial ☐ Not used
☒ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ Industrial
☐ Other, specify

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To
6"	Steel	.188"	+0	31
5 7/8"	Open Hole		31	80

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To

Status of Well

☒ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, specify
☐ Other, specify

Water Details

Water found at Depth (m/ft)	Kind of Water	Hole Depth From (m/ft)	Hole Depth To (m/ft)	Hole Diameter (cm/in)
38 ☐ Gas	☐ Fresh ☒ Untested ☐ Other, specify	0	31	6"
56 ☐ Gas	☐ Fresh ☒ Untested ☐ Other, specify	31	80	5 7/8"
72 ☐ Gas	☐ Fresh ☒ Untested ☐ Other, specify			

Results of Well Yield Testing

After test of well yield, water was:
☐ Clear and sand free
☐ Other, specify — Not tested

If pumping discontinued, give reason:

Pump intake set at (m/ft): 60

Pumping rate (l/min / GPM): 20

Duration of pumping: 1 hrs + 0 min

Final water level end of pumping (m/ft): 9.3"

If flowing give rate (l/min / GPM):

Recommended pump depth (m/ft): 60'

Recommended pump rate (l/min / GPM): 20

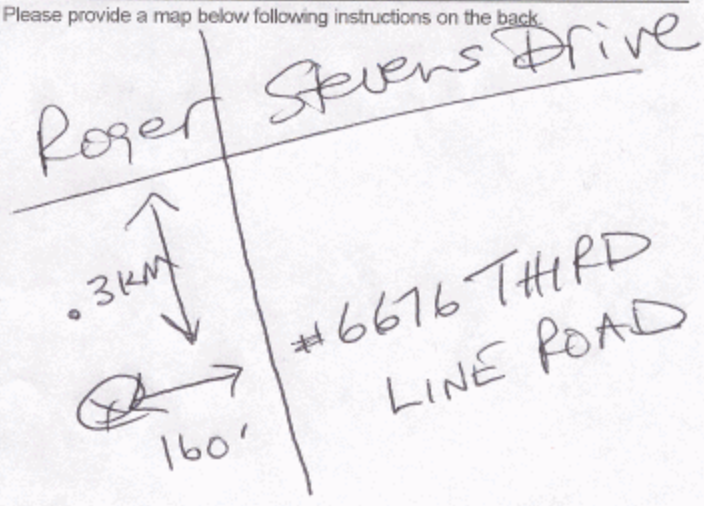
Well production (l/min / GPM): 20

Disinfected? ☒ Yes ☐ No

Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level	4.2		9.3"
1	6.1	1	6.1
2	6.7	2	4.2
3	6.9	3	4.2
4	7.1	4	4.2
5	7.3	5	4.2
10	7.7	10	4.2
15	7.9	15	4.2
20	8.1	20	4.2
25	8.2	25	4.2
30	8.4	30	4.2
40	8.6	40	4.2
50	9.1	50	4.2
60	9.3"	60	4.2"

Map of Well Location

Please provide a map below following instructions on the back.



Comments: * Well # 2 *

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Air Rock Drilling Co. Ltd.	1119

Business Address (Street Number/Name)	Municipality	Province	Postal Code	Business E-mail Address
6659 Franktown Road, RR#1	Richmond	ON	K0A 2Z0	air-rock@sympatico.ca

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)	Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
6138382170	Graham, Ryan	T3484		2011 02 28

Well owner's information package delivered: ☐ Yes ☐ No

Date Package Delivered: 2011 02 01

Date Work Completed: 2011 02 21

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Audit No. z119774

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February 14, 2011

Ministry of Environment
125 Resources Road
Toronto, Ontario
M9P 3V6

ATTACHED TO AND FORMING PART OF WELL RECORD

Audit # Z119773 – Well Abandonment
Audit # Z119915 – Tag # A105549 (Well # 1)
Audit # Z119774 – Tag # A105550 (Well # 2)

Property Owner Ralph Burwash

CORRECTION TO ''MAILING''
& ''TOWN''

From: 6676 Third Line Road,
North Gower, Ont K0A 2T0

TO 6676 Third Line Road
Kars, Ontario
K0A 2E0

Debbie Davis
Air Rock Drilling Co Ltd
Licence Number 1119
(O) 613-838-2170
(F) 613-838-3277

C-1119
Z119773
Z119915
Z119774

MAR 11 2011

Ontario — Ministry of the Environment

Measurements recorded in: ☐ Metric ☒ Imperial

Tag#: A128028 (r Print Below)

A128028

Well Record

Regulation 903 Ontario Water Resources Act

Page _____ of _____

[redacted]

Address of Well Location (Street Number/Name)	Township	Lot	Concession
6558 Third Line Road	Rideau	20	3

County/District/Municipality	City/Town/Village	Province	Postal Code
Ottawa-Carleton	North Gower	Ontario	

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 8 3	18	445159	4999013		

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
	Sand & Gravel	+ Boulders		0	54
Grey	Limestone			54	122
Grey	Limestone			122	128

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
60	50	Neat cement	12.5
50	0	Bentonite slurry	29.4

Method of Construction

☐ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Boring ☐ Digging
☒ Air percussion
☐ Other, specify _____

Well Use

☐ Public ☐ Commercial ☐ Not used
☒ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ Industrial
☐ Other, specify _____

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To
6 1/4"	Steel	.188"	+2	60
5 15/16"	Open Hole		60	128

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To

Status of Well

☒ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, specify
☐ Other, specify

Water Details

Water found at Depth (m/ft)	Kind of Water	Hole Diameter Depth From	Depth To	Diameter (cm/in)
122 ☐ Gas	☐ Fresh ☐ Untested ☐ Other, specify X			
	☐ Fresh ☐ Untested	0	60	8 7/8
☐ Gas	☐ Other, specify	60	128	5 15/16"
Water found at Depth (m/ft) ☐ Gas	Kind of Water: ☐ Fresh ☐ Untested ☐ Other, specify			

Results of Well Yield Testing

After test of well yield, water was:
☐ Clear and sand free
☐ Other, specify **Not tested**

If pumping discontinued, give reason: X

Pump intake set at (m/ft): 100

Pumping rate (l/min / GPM): 20

Duration of pumping: 1 hrs + 0 min

Final water level end of pumping (m/ft): 28.8

If flowing give rate (l/min / GPM): X

Recommended pump depth (m/ft): 100

Recommended pump rate (l/min / GPM): 20

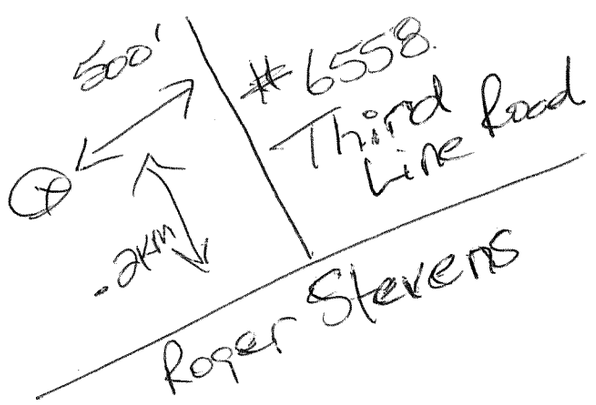
Well production (l/min / GPM): 20

Disinfected? ☒ Yes ☐ No

Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level	15.6		28.8
1	22.9	1	17
2	25.3	2	15.6
3	26.3	3	15.6
4	27.3	4	15.6
5	28.3	5	15.6
10	28.8	10	15.6
15	28.8	15	15.6
20	28.8	20	15.6
25	28.8	25	15.6
30	28.8	30	15.6
40	28.8	40	15.6
50	28.8	50	15.6
60	28.8	60	15.6

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

1/2 HP - 10 GPM SET @ 100 FT

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Air Rock Drilling Co. Ltd.	1119

Business Address (Street Number/Name)	Municipality
6659 Franktown Road, RR#1	Richmond

Province	Postal Code	Business E-mail Address
ON	K0A 2Z0	air-rock@sympatico.ca

Bus.Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
6138382170	Hogan, Dan

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
T3058		2012 08 31

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☒ Yes ☐ No	2012 08 20	2012 08 17

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Audit No. Z144688

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Go Back to Map

Well ID

Well ID Number: 7218730
Well Audit Number: *Z172464*
Well Tag Number: *A123438*

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

Well Location

Address of Well Location	6586 3RD LINE RD. SOUTH
Township	NORTH GOWER TOWNSHIP
Lot	020
Concession	CON 02
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	NORTH GOWER
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 445242.00 Northing: 4998982.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	LOAM	STNS		0 m	1.82 m
BRWN	TILL	BLDR	PCKD	1.82 m	4.87 m

GREY	TILL	BLDR	PCKD	4.87 m	18.59 m
GREY	LMSN	SNDS	HARD	18.59 m	44.8 m

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
19.81 m	0 m	GROUTED CEMENT & BENTONITE	

Method of Construction & Well Use

Method of Construction	Well Use
Rotary (Convent.)	Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
15.86 cm	STEEL	.45 m	19.81 m

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 1558

Results of Well Yield Testing

After test of well yield, water was	CLEAR
If pumping discontinued, give reason	
Pump intake set at	30.47 m
Pumping Rate	54.6 LPM
Duration of Pumping	1 h:0 m

Final water level	5.31 m
If flowing give rate	
Recommended pump depth	15.23 m
Recommended pump rate	45.5 LPM
Well Production	
Disinfected?	Y

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL	4.64 m		
1	5.24 m	1	5 m
2	5.26 m	2	4.83 m
3	5.26 m	3	4.69 m
4	5.27 m	4	4.65 m
5	5.27 m	5	4.63 m
10	5.28 m	10	4.64 m
15	5.29 m	15	4.64 m
20	5.29 m	20	4.64 m
25	5.29 m	25	4.64 m
30	2.29 m	30	4.64 m
40	5.3 m	40	4.64 m
45		45	
50	5.3 m	50	4.64 m
60	5.31 m	60	4.64 m

Water Details

Water Found at Depth	Kind
43.27 m	Untested

Hole Diameter

Depth From	Depth To	Diameter
0 m	19.81 m	15.86 cm
19.81 m	44.8 m	15.07 cm

Audit Number: Z172464

Date Well Completed: December 05, 2013

Date Well Record Received by MOE: March 31, 2014

Updated: March 7, 2019
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Tags

- Environment and energy,
- Drinking water

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Go Back to Map

Well ID

Well ID Number: 7256771
Well Audit Number: *Z191391*
Well Tag Number:

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

Well Location

Address of Well Location	1966 ROGER STEVENS DRIVE
Township	NORTH GOWER TOWNSHIP
Lot	
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	KARS
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 446241.00 Northing: 4998849.00
Municipal Plan and Sublot Number	
Other	

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
4 ft	0 ft	BACKFILL	
79 ft	4 ft	3/8 HOLEPLUG	
0 ft	79 ft	6' DRILLED WELL ABANDONMENT	

Method of Construction & Well Use

Method of Construction	Well Use

Status of Well

Abandoned-Other

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: 1119

Results of Well Yield Testing

After test of well yield, water was
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	
Disinfected?	Y

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL			
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

Hole Diameter

Depth From	Depth To	Diameter

Audit Number: Z191391

Date Well Completed: November 18, 2015

Date Well Record Received by MOE: January 21, 2016

Updated: March 7, 2019
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Tags

- Environment and energy,
- Drinking water

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- Taxes and benefits
- Travel and recreation

Go Back to Map

Well ID

Well ID Number: 7292235
Well Audit Number: *Z237464*
Well Tag Number: *A229258*

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

Well Location

Address of Well Location	6705 THIRD LINE RD S
Township	NORTH GOWER TOWNSHIP
Lot	022
Concession	CON 02
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 446011.00 Northing: 4998257.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	SAND	GRVL	CLAY	0 ft	48 ft
GREY	LMSN			48 ft	123 ft

GREY	LMSN	123 ft	158 ft
GREY	LMSN	158 ft	163 ft
GREY	LMSN	163 ft	170 ft

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 ft	44 ft	BENTONITE SLURRY	
44 ft	54 ft	CEMENT	

Method of Construction & Well Use

Method of Construction	Well Use
Air Percussion	
	Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
6.25 inch	STEEL	-2 ft	54 ft
6.125 inch	OPEN HOLE	54 ft	170 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 1119

Results of Well Yield Testing

After test of well yield, water was	OTHER
If pumping discontinued, give reason	
Pump intake set at	150 ft
Pumping Rate	20 GPM

Duration of Pumping	1 h:0 m
Final water level	49.5 ft
If flowing give rate	
Recommended pump depth	100 ft
Recommended pump rate	20 GPM
Well Production	
Disinfected?	Y

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL	33.167 ft		
1	41 ft	1	35.417 ft
2	43.583 ft	2	33.167 ft
3	45.167 ft	3	33.167 ft
4	46 ft	4	33.167 ft
5	46.5 ft	5	33.167 ft
10	47.5 ft	10	33.167 ft
15	47.75 ft	15	33.167 ft
20	48.167 ft	20	33.167 ft
25	48.333 ft	25	33.167 ft
30	48.5 ft	30	33.167 ft
40	49 ft	40	33.167 ft
45		45	
50	49.25 ft	50	33.167 ft
60	49.5 ft	60	33.167 ft

Water Details

Water Found at Depth	Kind
123 ft	Untested
158 ft	Untested
163 ft	Untested

Hole Diameter

Depth From	Depth To	Diameter
0 ft	54 ft	9.75 inch
54 ft	170 ft	6.125 inch

Audit Number: Z237464

Date Well Completed: June 14, 2017

Date Well Record Received by MOE: August 09, 2017

Updated: March 7, 2019
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Tags

- Environment and energy,
- Drinking water

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- Taxes and benefits
- Travel and recreation

APPENDIX 2

PH3837 - 1 - PROPOSED SITE LAYOUT PLAN

PH3837 - 2 - MUNICIPAL DRAIN PLAN

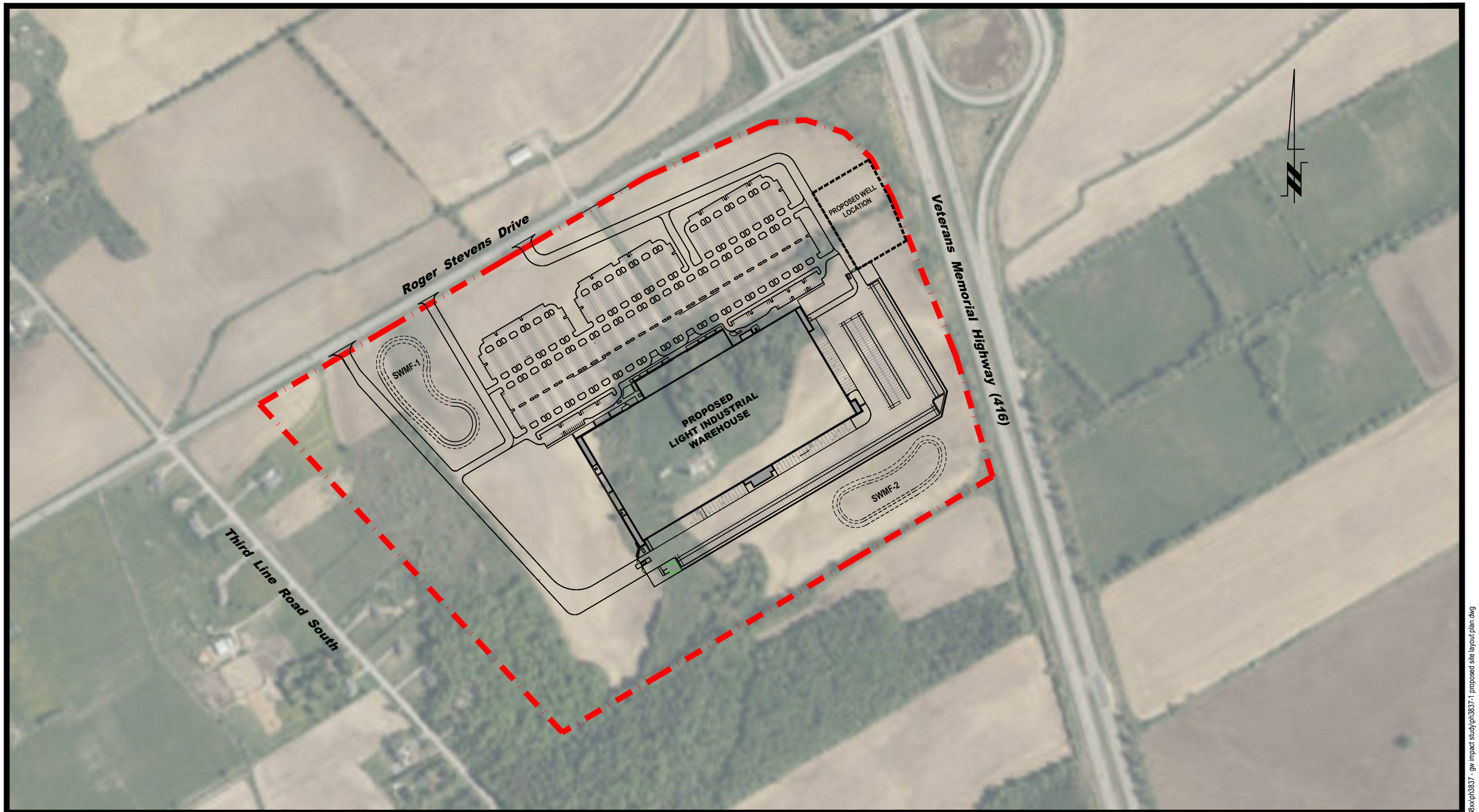
PH3837 - 3 - ZONING DESIGNATION

PH3837 - 4 - SURFICIAL GEOLOGY

PH3837 - 5 - BEDROCK GEOLOGY

PH3837 - 6 - SHALLOW OVERBURDEN GROUNDWATER FLOW

PH3837 - 7 - MECP WATER WELL LOCATION PLAN



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PROP. WAREHOUSE BUILDING - 1966 ROGER STEVENS DRIVE
OTTAWA, ONTARIO

Title:

PROPOSED SITE LAYOUT PLAN

Scale: 1:5000	Date: 07/2019
Drawn by: MPG	Report No.: PH3837-REP.01
Checked by: NZ	PH3837-1
Approved by: CDS	Revision No.:

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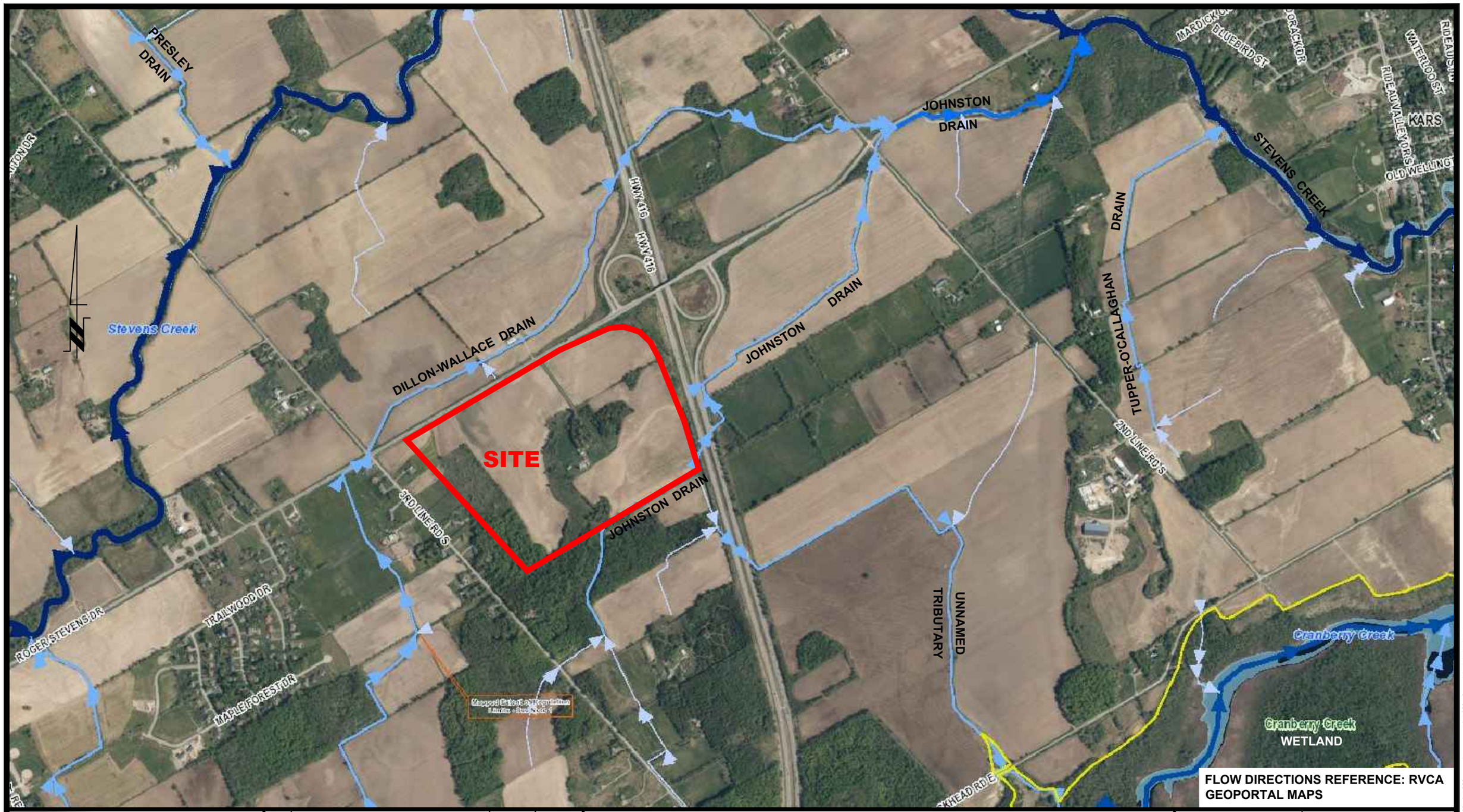

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Title:

MUNICIPAL DRAIN PLAN

Scale: 1:12500	Date: 07/2019
Drawn by: MPG	Report No.: PH3837-REP.01
Checked by: NZ	PH3837-2
Approved by: CDS	Revision No.:

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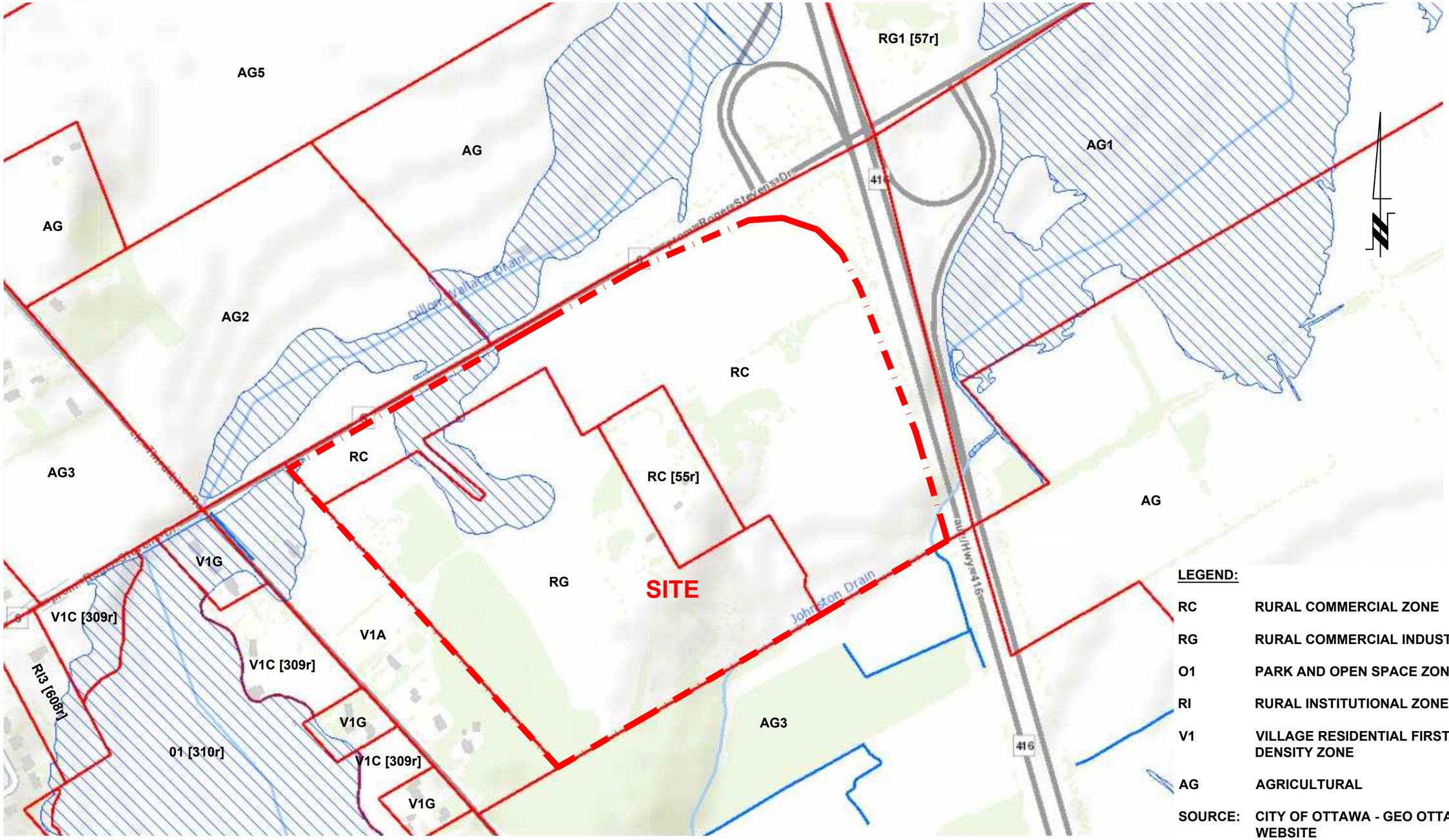

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Title:

ZONING DESIGNATIONS

Scale: 1:6000	Date: 07/2019
Drawn by: MPG	Report No.: PH3837-REP.01
Checked by: NZ	PH3837-3
Approved by: CDS	Revision No.:

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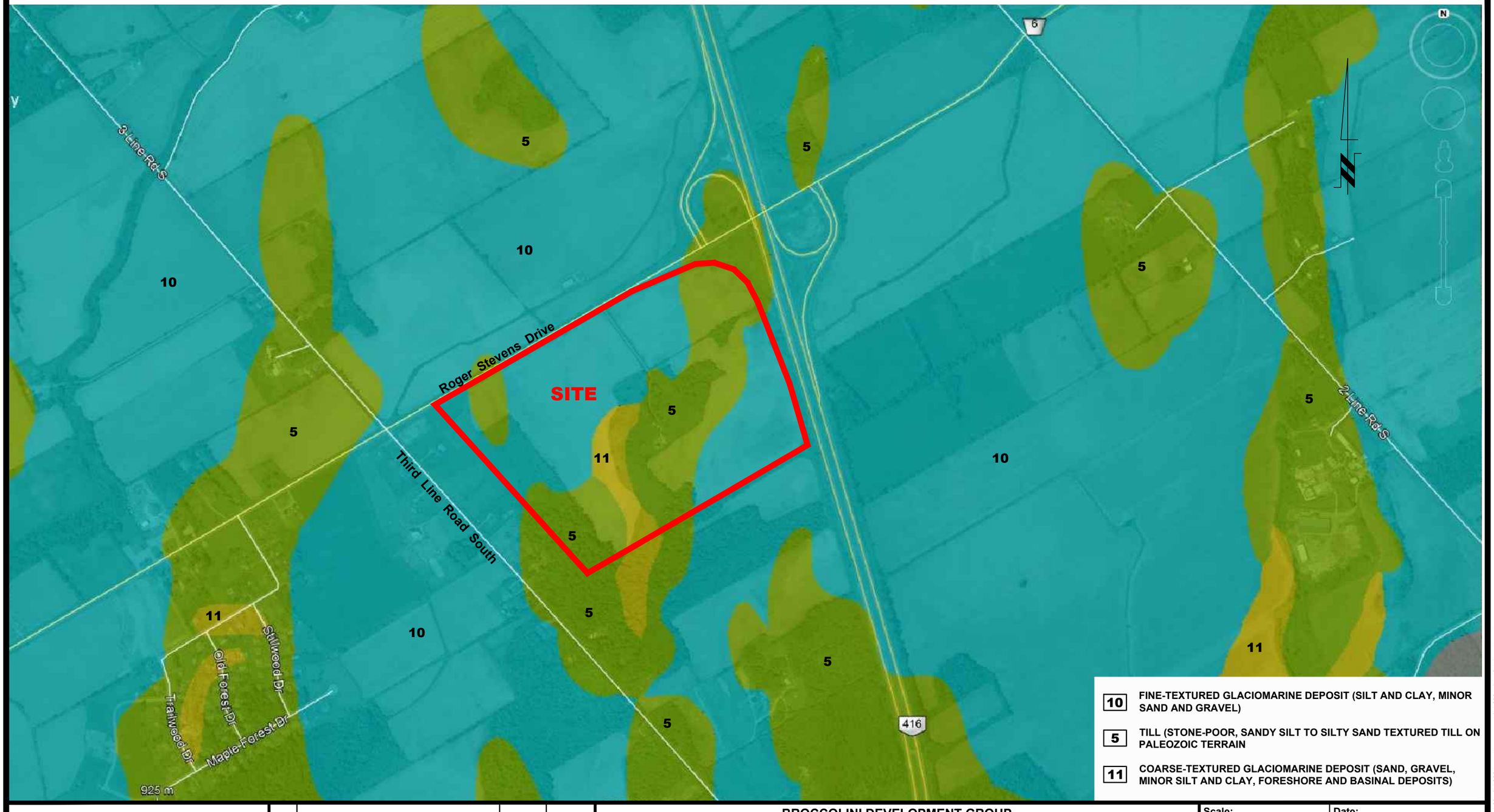

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Title:

SURFICIAL GEOLOGY

Scale: 1:10000	Date: 06/2019
Drawn by: MPG	Report No.: PH3837-REP.01
Checked by: NZ	PH3837-4
Approved by: CDS	Revision No.:

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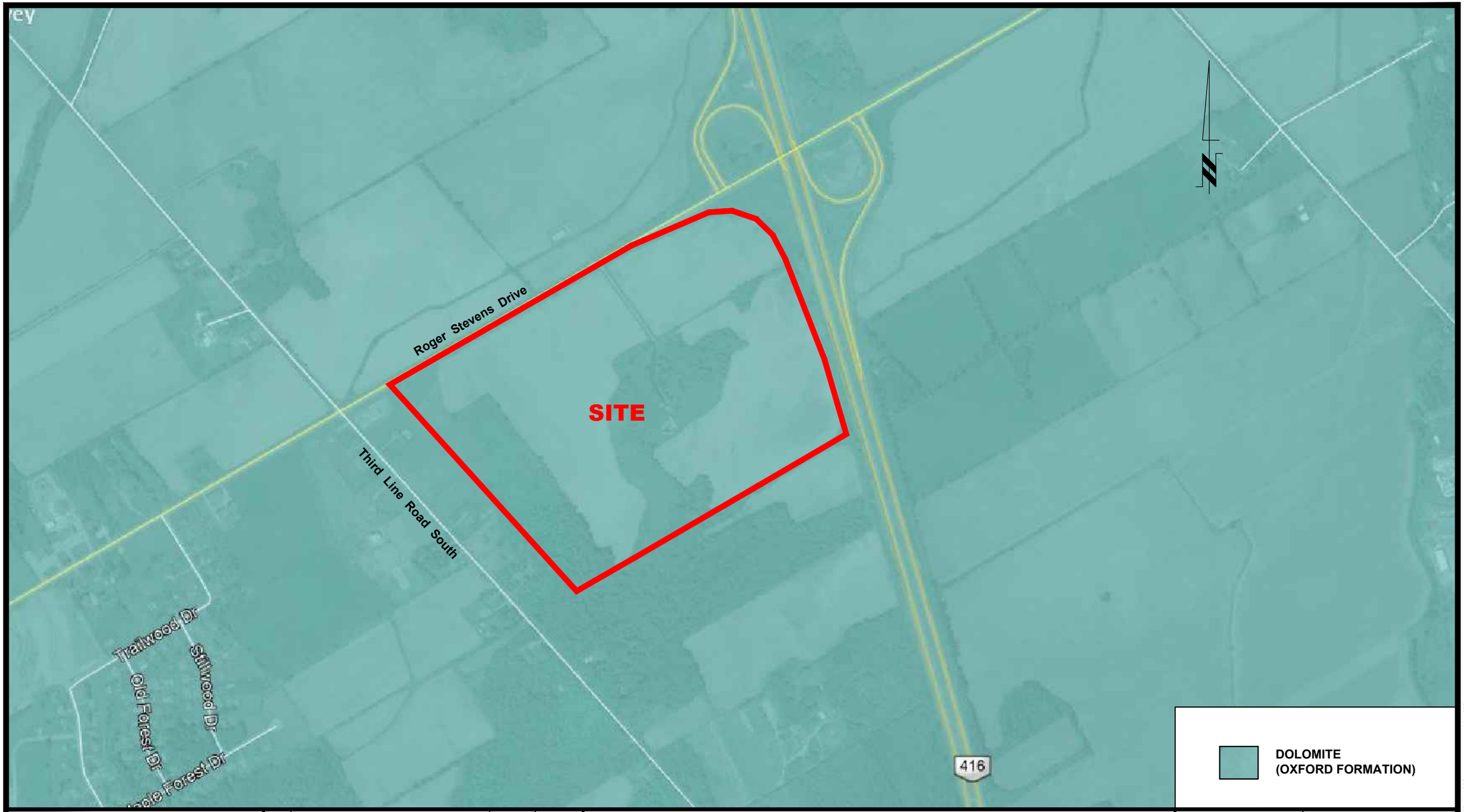

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Title:

BEDROCK GEOLOGY

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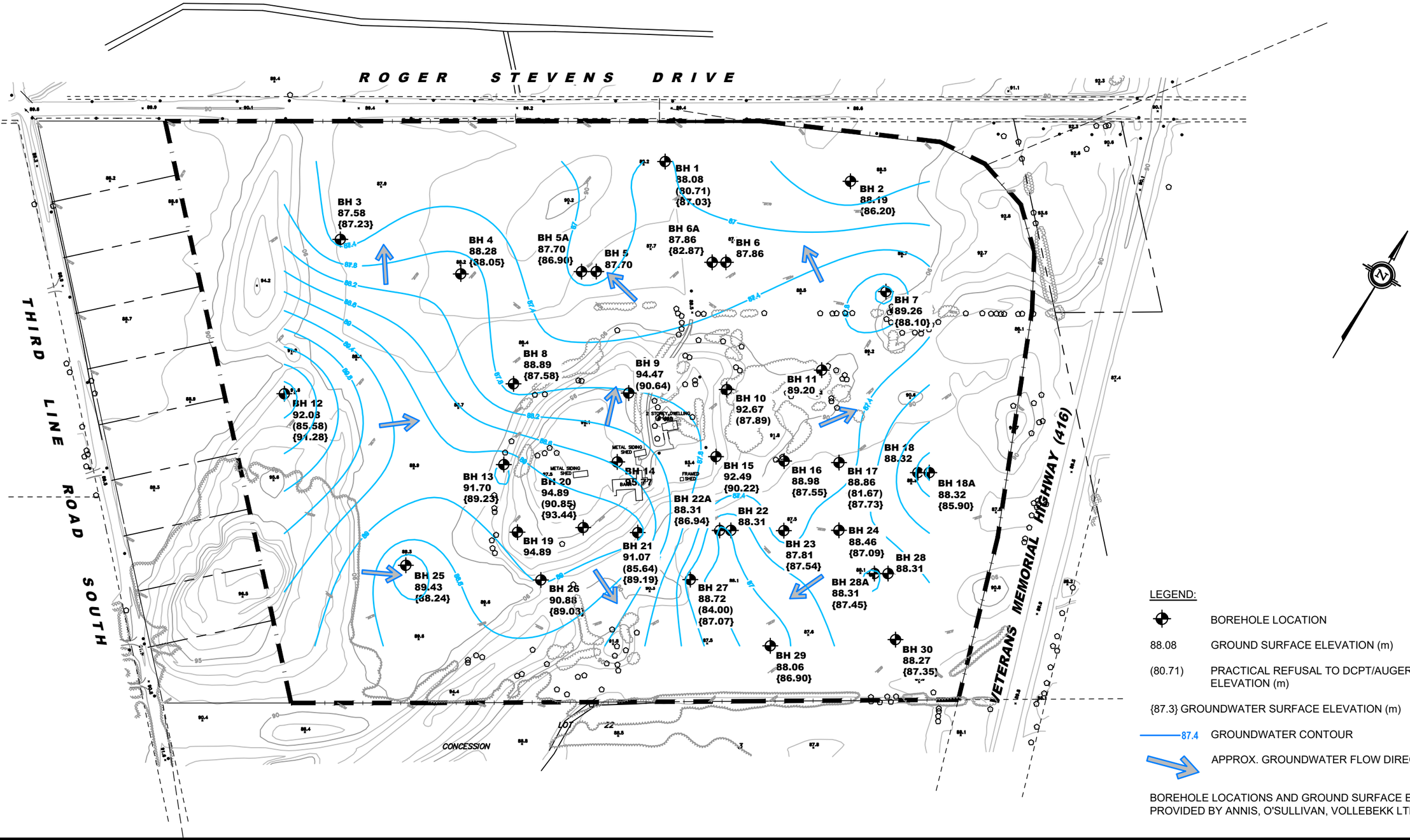

LEGEND:

- BOREHOLE LOCATION
- 88.08 GROUND SURFACE ELEVATION (m)
- (80.71) PRACTICAL REFUSAL TO DCPT/AUGERING ELEVATION (m)
- {87.3} GROUNDWATER SURFACE ELEVATION (m)
- 87.4 GROUNDWATER CONTOUR
- APPROX. GROUNDWATER FLOW DIRECTION

BOREHOLE LOCATIONS AND GROUND SURFACE ELEVATIONS PROVIDED BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD.

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Title:
SHALLOW OVERBURDEN GROUNDWATER FLOW

Scale: 1:4000	Date: 07/2019
Drawn by: MPG	Report No.: PH3837-REP.01
Checked by: NZ	PH3837-6
Approved by: CDS	Revision No.:

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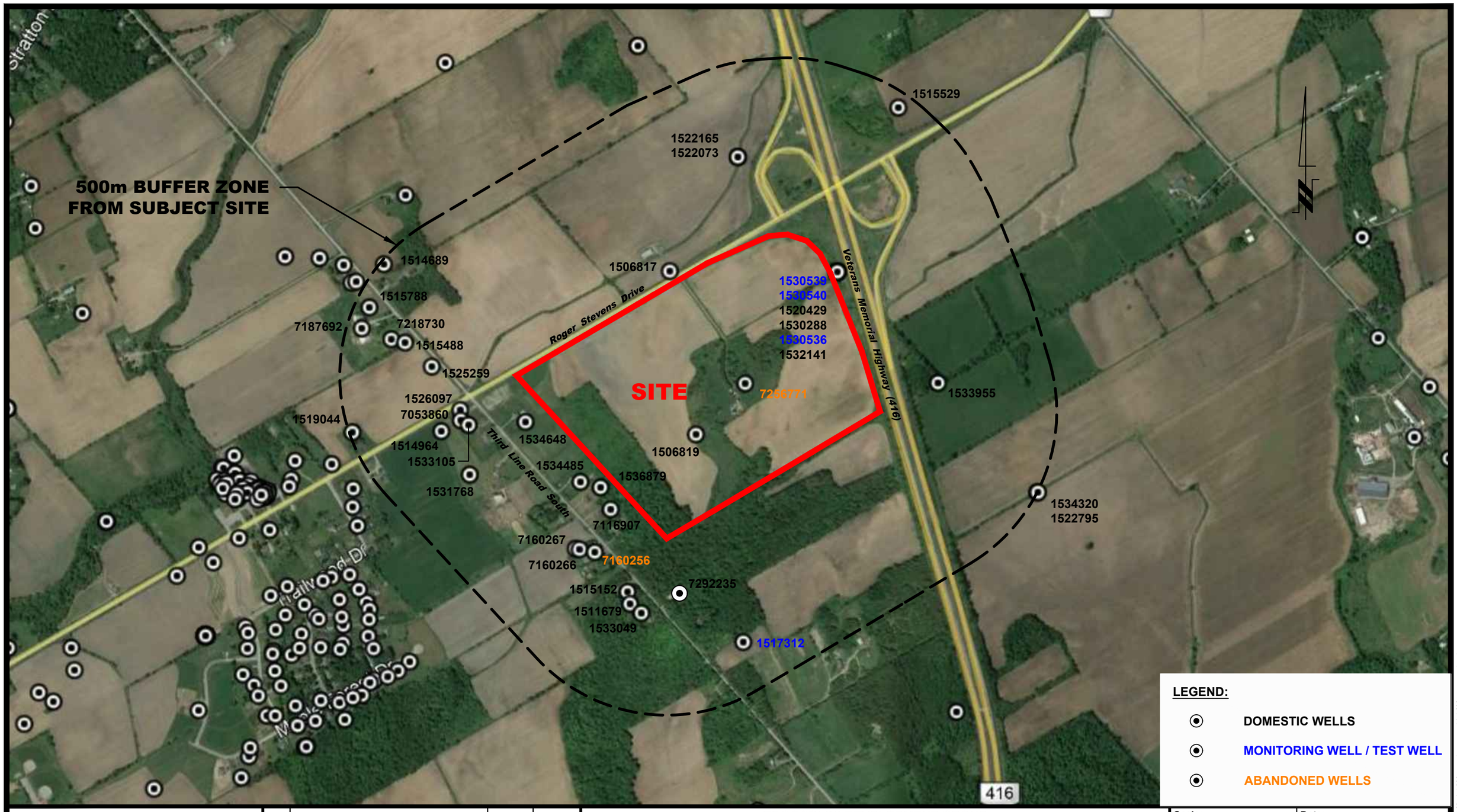

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Title:

MECP WATER WELL LOCATION PLAN

Scale: 1:10000	Date: 07/2019
Drawn by: MPG	Report No.: PH3837-REP.01
Checked by: NZ	PH3837-7
Approved by: CDS	Revision No.:

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APPENDIX 3

PG4870-1 - SOIL PROFILE AND TEST DATA

PG4870-1 - TEST HOLE LOCATION PLAN

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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

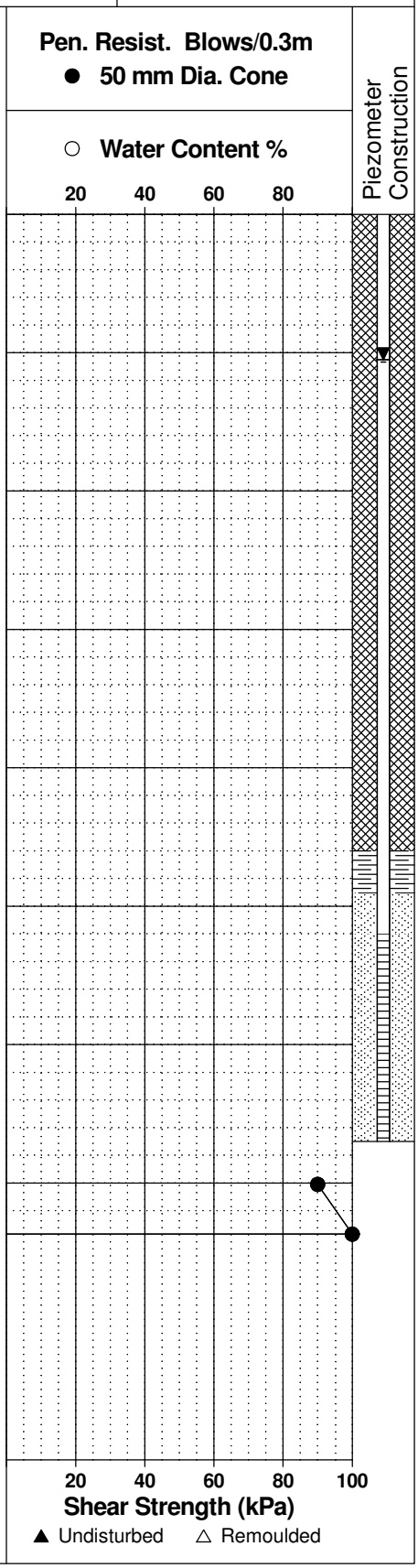
FILE NO. PG4870

REMARKS

HOLE NO. BH 1

BORINGS BY CME 55 Power Auger **DATE** 2019 June 10

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	88.08
TOPSOIL 0.20		AU	1				
Loose, brown **SILTY SAND,** some gravel		SS	2	100	5	1	87.08
		SS	3	100	3	2	86.08
2.64		SS	4	92	5		
Grey **SILTY CLAY** with sand		SS	5	71	2	3	85.08
		SS	6	38	8	4	84.08
4.93						5	83.08
GLACIAL TILL: Compact to dense, grey silty sand with gravel, cobbles and boulders		SS	7	88	36	6	82.08
		SS	8	83	35		
6.70						7	81.08
Dynamic Cone Penetration Test commenced at 6.70m depth. Inferred **GLACIAL TILL**							
7.37							
End of Borehole							
Practical DCPT refusal at 7.37m depth							
(GWL @ 1.05m - June 21, 2019)							



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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
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DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

FILE NO. PG4870

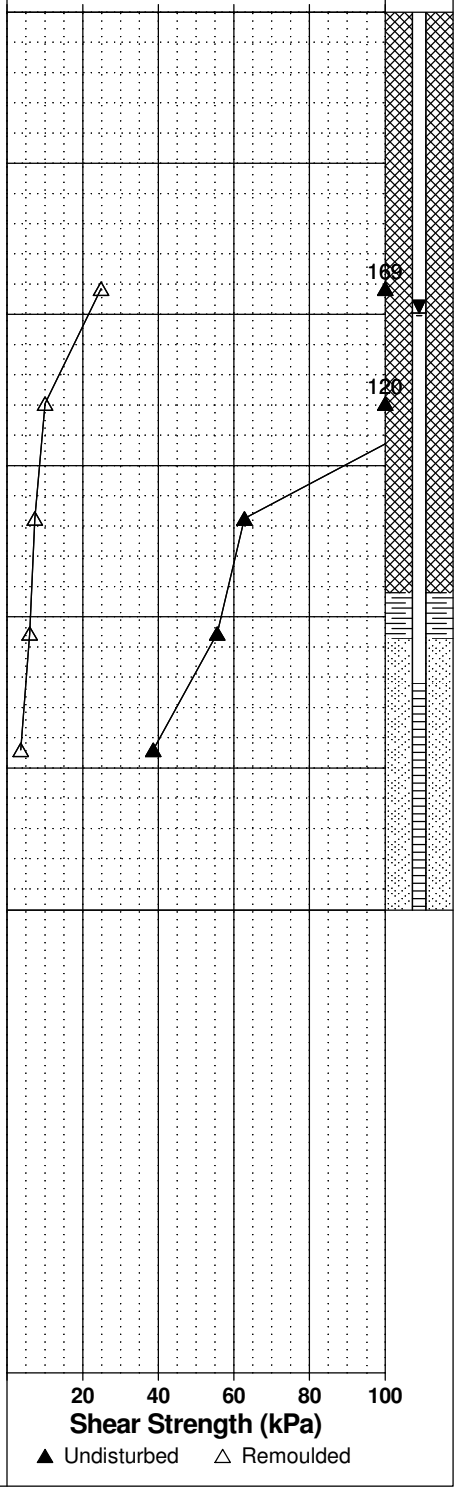
REMARKS

HOLE NO. BH 2

BORINGS BY CME 55 Power Auger **DATE** 2019 June 11

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	88.19
TOPSOIL 0.28		AU	1				
		SS	2	100	3	1	87.19
Very stiff to stiff, brown **SILTY CLAY**						2	86.19
						3	85.19
- firm by 4.5m depth						4	84.19
5.33						5	83.19
Loose, grey **SANDY SILT,** trace clay		SS	3	100	9		
5.94							
End of Borehole							
(GWL @ 1.99m - June 21, 2019)							

Pen. Resist. Blows/0.3m
● **50 mm Dia. Cone**
○ **Water Content %**



Piezometer Construction

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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

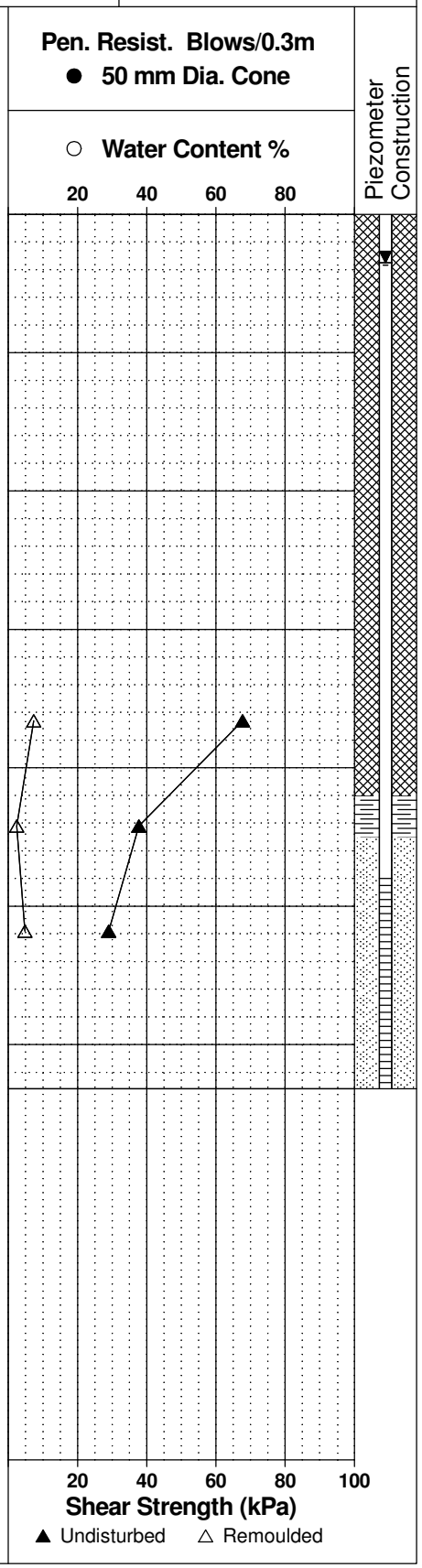
FILE NO. PG4870

REMARKS

HOLE NO. BH 3

BORINGS BY CME 55 Power Auger **DATE** 2019 June 7

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	87.58
TOPSOIL 0.30		AU	1				
Loose, brown **SILTY SAND,** some gravel		SS	2	100	6	1	86.58
		SS	3	100	4	2	85.58
2.29							
Stiff to firm, grey-brown **SILTY CLAY,** some sand		SS	4	100	2	3	84.58
- grey by 3.8m depth						4	83.58
		SS	5	100	15	5	82.58
6.32		SS	6	60	50+	6	81.58
End of Borehole							
(GWL @ 0.35m - June 21, 2019)							



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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

FILE NO. PG4870

REMARKS

HOLE NO. BH 4

BORINGS BY CME 55 Power Auger **DATE** 2019 June 7

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	88.28
TOPSOIL 0.25		AU	1				
Very loose, brown **SILTY SAND** with clay		SS	2	100	3	1	87.28
		SS	3	100	3	2	86.28
2.29							
Stiff, grey **SILTY CLAY**		SS	4	50	7	3	85.28
3.81							
		SS	5	38	25	4	84.28
GLACIAL TILL: Compact, grey silty sand with clay, gravel, cobbles and boulders		SS	6	75	31	5	83.28
		SS	7	46	37	6	82.28
		SS	8	33	20		
6.70							
End of Borehole							
(GWL @ 0.23m - June 21, 2019)							

Pen. Resist. Blows/0.3m
● 50 mm Dia. Cone
○ Water Content %

20 40 60 80

Piezometer Construction

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

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154 Colonnade Road South, Ottawa, Ontario K2E 7J5

SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

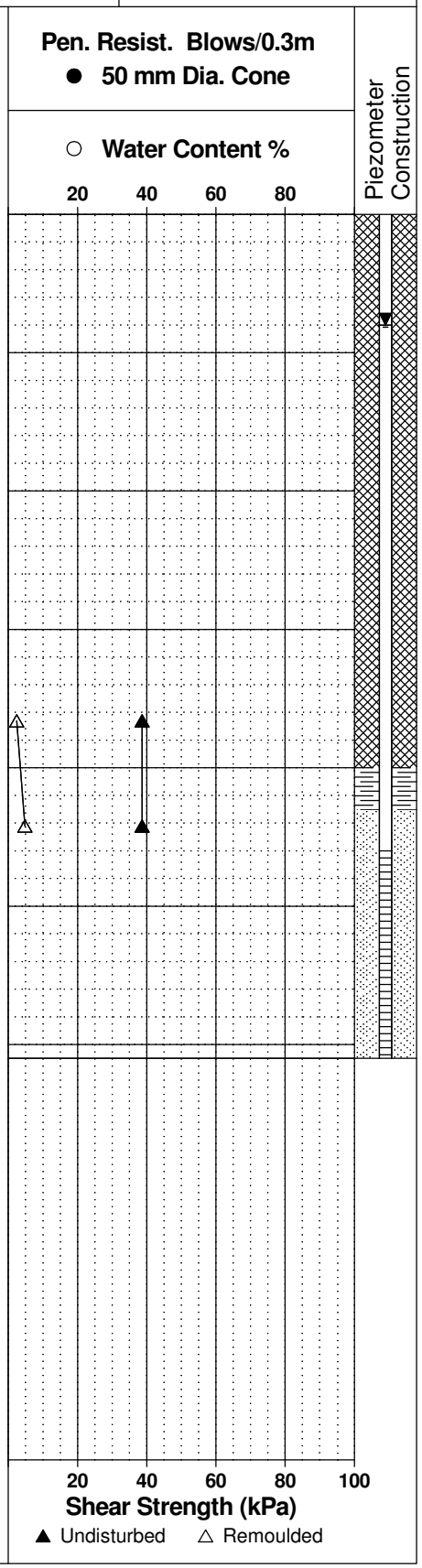
FILE NO. PG4870

REMARKS

HOLE NO. BH 5

BORINGS BY CME 55 Power Auger **DATE** 2019 June 7

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	87.70
TOPSOIL 0.23		AU	1				
Loose, brown **SILTY SAND,** some gravel		SS	2	100	6	1	86.70
		SS	3	100	4	2	85.70
2.29							
Firm, grey **SILTY CLAY** with sand		SS	4	92	1	3	84.70
						4	83.70
		SS	6	25	30	5	82.70
5.33							
Dense, grey **SAND** with gravel		SS	7	83	40	6	81.70
6.10							
End of Borehole							
(GWL @ 0.80m - June 21, 2019)							



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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

FILE NO. PG4870

REMARKS

HOLE NO. BH 5A

BORINGS BY CME 55 Power Auger **DATE** 2019 June 14

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone ○ Water Content %	Piezometer Construction
GROUND SURFACE						0	87.70		
OVERBURDEN						1	86.70		
						2	85.70		
						3	84.70		
3.05									
Firm, grey **SILTY CLAY**		TW	1						
4.11						4	83.70		
End of Borehole									

Pen. Resist. Blows/0.3m: ● 50 mm Dia. Cone; ○ Water Content %

20 40 60 80

20 40 60 80 100

Shear Strength (kPa)

▲ Undisturbed △ Remoulded

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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

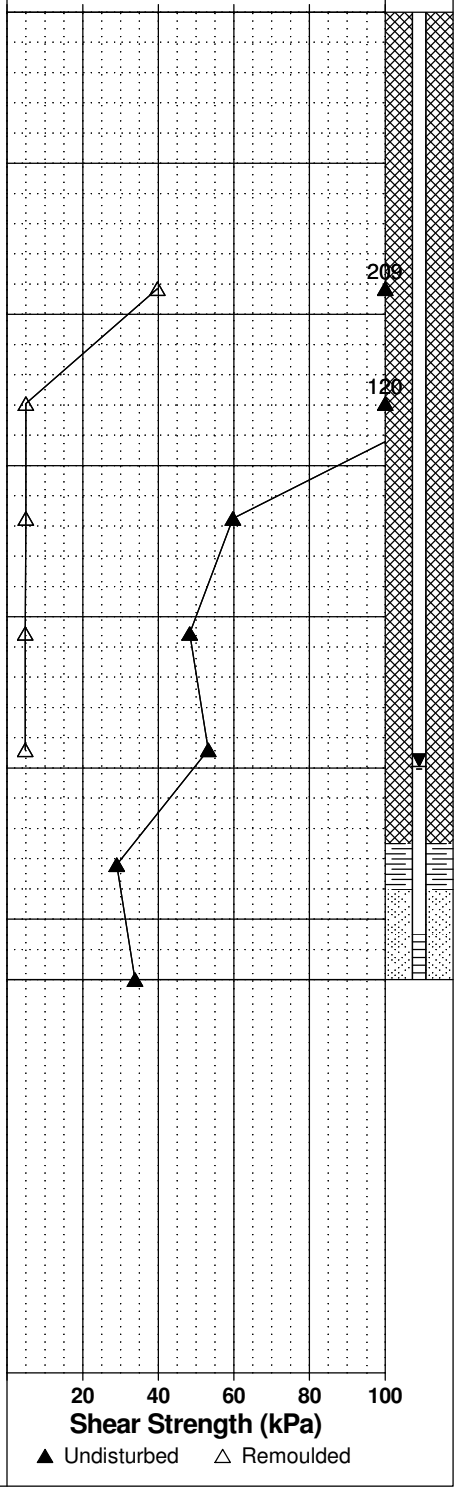
FILE NO. PG4870

REMARKS

HOLE NO. BH 6

BORINGS BY CME 55 Power Auger **DATE** 2019 June 11

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	87.86
TOPSOIL 0.28		AU	1				
		SS	2	100	4	1	86.86
						2	85.86
Hard to very stiff, brown **SILTY CLAY**						3	84.86
- stiff to firm and grey by 3.0m depth						4	83.86
						5	82.86
6.40						6	81.86
End of Borehole							
(GWL @ 4.99m - June 21, 2019)							



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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

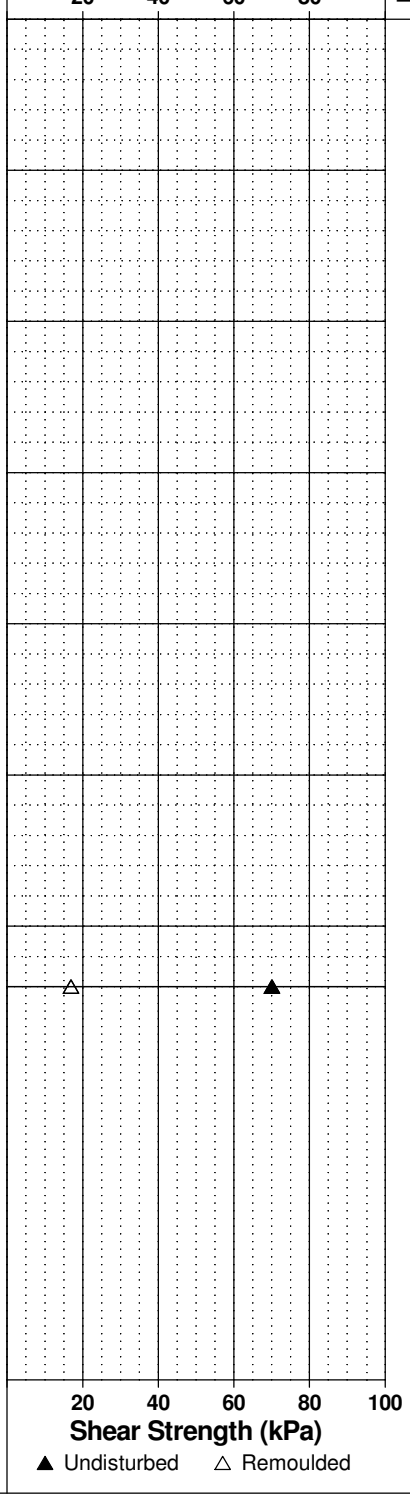
FILE NO. PG4870

REMARKS

HOLE NO. BH 6A

BORINGS BY CME 55 Power Auger **DATE** 2019 June 14

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone ○ Water Content %	Piezometer Construction
GROUND SURFACE						0	87.86		
						1	86.86		
						2	85.86		
OVERBURDEN						3	84.86		
						4	83.86		
						5	82.86		
5.33									
Stiff, grey **SILTY CLAY**		TW	1			6	81.86		
6.40									
End of Borehole									



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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

FILE NO. PG4870

REMARKS

HOLE NO. BH 7

BORINGS BY CME 55 Power Auger **DATE** 2019 June 11

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE							
TOPSOIL 0.30		AU	1			0	89.26
		SS	2	83	22	1	88.26
		SS	3	100	50+	2	87.26
		SS	4	100	50+		
GLACIAL TILL: Very dense to dense, brown **SILTY SAND** with clay, gravel, cobbles and boulders		SS	5	58	45	3	86.26
		SS	6	62	45	4	85.26
		SS	7	87	62	5	84.26
		SS	8	79	49	6	83.26
6.10 **GLACIAL TILL:** Grey silty clay with sand and gravel		SS	9	75	51		
6.70 End of Borehole							
(GWL @ 1.16m - June 21, 2019)							

Pen. Resist. Blows/0.3m
● 50 mm Dia. Cone
○ Water Content %

20 40 60 80

Piezometer Construction

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

FILE NO. PG4870

REMARKS

HOLE NO. BH 8

BORINGS BY CME 55 Power Auger **DATE** 2019 June 11

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	88.89
TOPSOIL							
0.36		AU	1				
		SS	2	100	7	1	87.89
Very stiff, brown **SILTY CLAY**		SS	3	100	5	2	86.89
3.05						3	85.89
		SS	4	67	23		
		SS	5	100	50+	4	84.89
GLACIAL TILL: Compact to dense, brown silty sand with gravel, cobbles and boulders, trace clay		SS	6	62	18	5	83.89
		SS	7	67	32		
		SS	8	100	50+	6	82.89
6.70							
End of Borehole							
(GWL @ 1.31m - June 21, 2019)							

Pen. Resist. Blows/0.3m
● **50 mm Dia. Cone**
○ **Water Content %**

20 40 60 80

Piezometer Construction

20 40 60 80 100

Shear Strength (kPa)

▲ Undisturbed △ Remoulded

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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

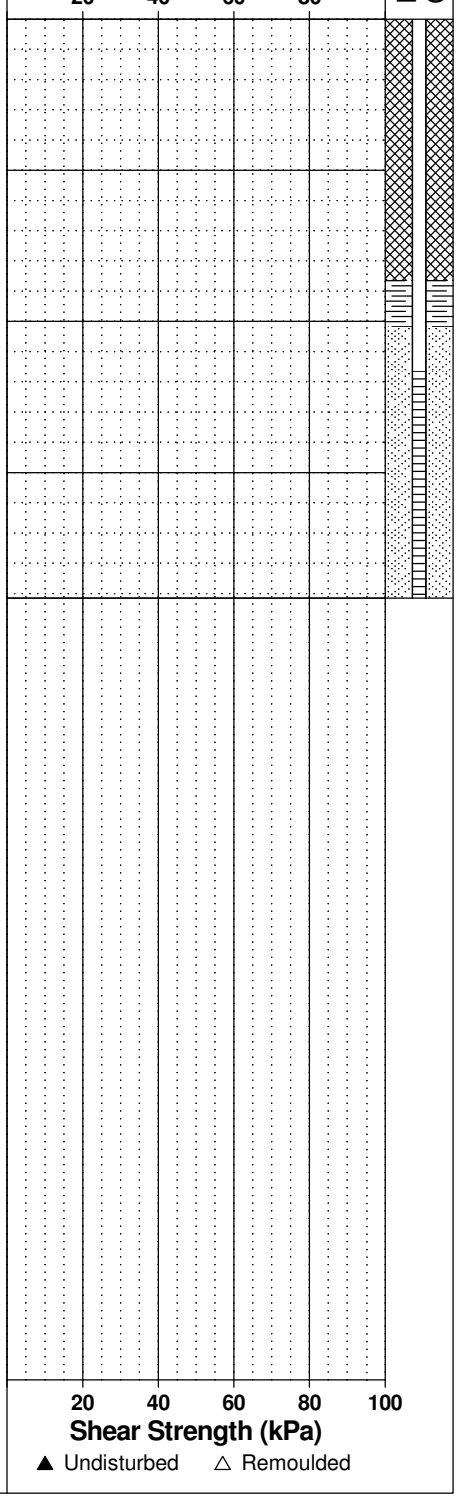
FILE NO. PG4870

REMARKS

HOLE NO. BH 9

BORINGS BY CME 55 Power Auger **DATE** 2019 June 13

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone ○ Water Content %	Piezometer Construction
GROUND SURFACE						0	94.47		
TOPSOIL 0.36		AU	1						
		SS	2	67	48	1	93.47		
		SS	3	100	50+				
GLACIAL TILL: Dense to very dense, brown silty sand with gravel, cobbles and boulders		SS	4	100	50+	2	92.47		
		SS	5	100	50+	3	91.47		
3.83		SS	6	0	50+				
End of Borehole Practical refusal to augering at 3.83m depth (Piezometer blocked and dry to 2.22m - June 21, 2019)									



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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

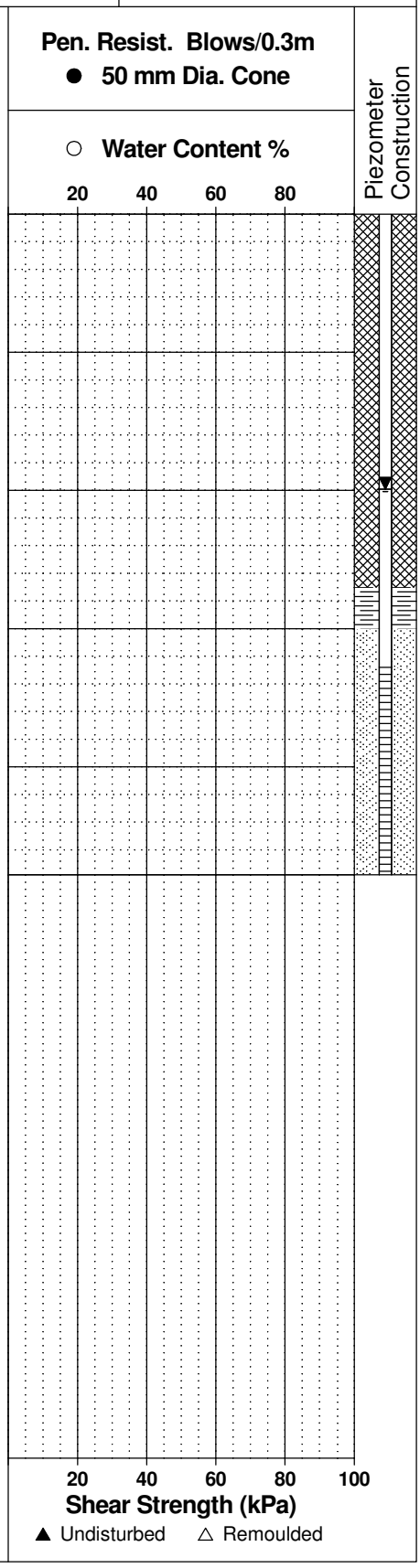
FILE NO. PG4870

REMARKS

HOLE NO. BH10

BORINGS BY CME 55 Power Auger **DATE** 2019 June 14

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE							
TOPSOIL						0	92.67
0.36		AU	1				
		SS	2	71	49	1	91.67
		SS	3	75	50+		
						2	90.67
GLACIAL TILL: Dense to very dense, brown silty sand with gravel, cobbles and boulders		SS	4	100	50+		
		SS	5	100	50+	3	89.67
		SS	6	42	60	4	88.67
4.78		SS	6	50	50+		
End of Borehole							
Practical refusal to augering at 4.78m depth							
(GWL @ 1.99m - June 21, 2019)							



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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

FILE NO. PG4870

REMARKS

HOLE NO. BH11

BORINGS BY CME 55 Power Auger **DATE** 2019 June 14

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	89.20
TOPSOIL 0.30		AU	1				
Loose, brown **SILTY SAND** with clay 0.76		SS	2	83	6	1	88.20
Brown **CLAYEY SAND** with silt		SS	3	75	1	2	87.20
2.29							
Compact, brown **SILTY SAND** with gravel 3.05		SS	4	79	28	3	86.20
		SS	5	29	50+		
		SS	6	67	25	4	85.20
GLACIAL TILL: Very dense, grey sandy silt with gravel, cobbles and boulders		SS	7	0	50+	5	84.20
		SS	8	75	50+	6	83.20
		SS	9	58	52		
6.70							
End of Borehole							
(GWL @ 1.32m - June 21, 2019)							

Pen. Resist. Blows/0.3m
● 50 mm Dia. Cone
○ Water Content %

20 40 60 80

Piezometer Construction

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

FILE NO. PG4870

REMARKS

HOLE NO. BH12

BORINGS BY CME 55 Power Auger **DATE** 2019 June 7

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE							
TOPSOIL 0.25		AU	1			0	92.08
		SS	2	75	23	1	91.08
		SS	3	79	52	2	90.08
		SS	4	67	37		
GLACIAL TILL: Compact to very dense, brown silty sand with gravel, cobbles and boulders		SS	5	100	50+	3	89.08
		SS	6	100	50+	4	88.08
		SS	7	67	50+		
		SS	8	100	50+	5	87.08
		SS	9	94	50+	6	86.08
6.50 End of Borehole							
Practical DCPT refusal at 6.50m depth							
(GWL @ 0.81m - June 21, 2019)							

Pen. Resist. Blows/0.3m
● 50 mm Dia. Cone
○ Water Content %
20 40 60 80

Piezometer Construction

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

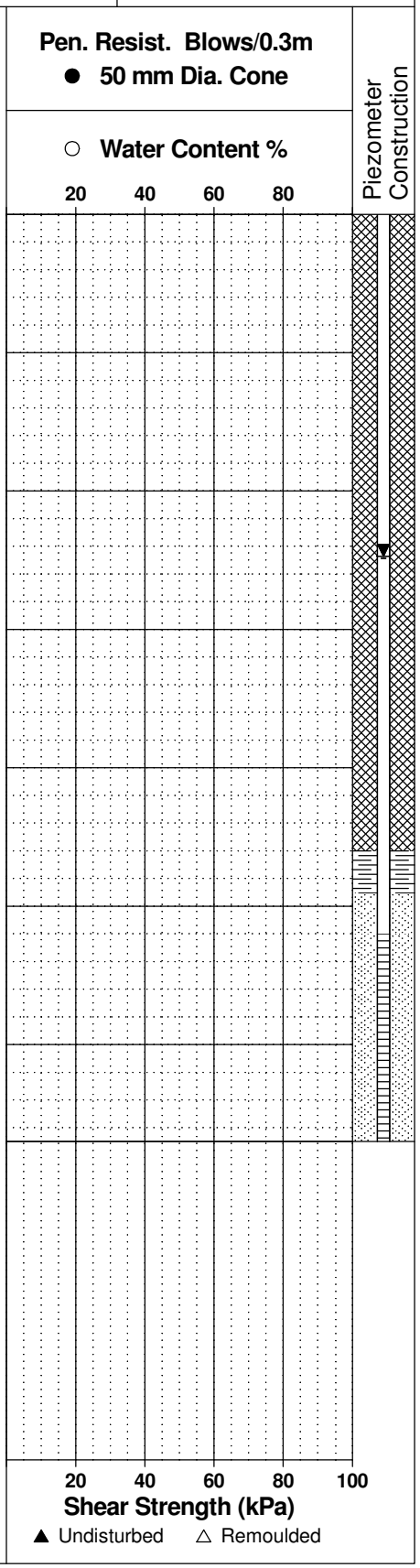
FILE NO. PG4870

REMARKS

HOLE NO. BH13

BORINGS BY CME 55 Power Auger **DATE** 2019 June 10

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE							
TOPSOIL 0.28		AU	1			0	91.70
Loose, brown **SILTY SAND** with clay and gravel		SS	2	71	4	1	90.70
1.83		SS	3	67	65	2	89.70
		SS	4	50	40		
		SS	5	83	23	3	88.70
GLACIAL TILL: Compact to very dense, brown silty sand with gravel, cobbles and boulders		SS	6	80	50+	4	87.70
		SS	7	29	16	5	86.70
- grey by 5.3m depth		SS	8	41	36		
		SS	9	80	50+	6	85.70
6.70							
End of Borehole							
(GWL @ 2.47m - June 21, 2019)							



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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

FILE NO. PG4870

REMARKS

HOLE NO. BH14

BORINGS BY CME 55 Power Auger **DATE** 2019 June 13

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone ○ Water Content % (20 40 60 80)	Piezometer Construction
GROUND SURFACE									
TOPSOIL						0	95.77		
0.33		AU	1						
		SS	2	67	35	1	94.77		
GLACIAL TILL: Dense to very dense, brown silty sand with gravel, cobbles and boulders		SS	3	0	50+	2	93.77		
		SS	4	76	62	3	92.77		
		SS	5	100	50+				
3.58									
End of Borehole									
Practical refusal to augering at 3.58m depth									
(Piezometer blocked and dry to 2.47m - June 21, 2019)									

Shear Strength (kPa) (20 40 60 80 100)
▲ Undisturbed △ Remoulded

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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

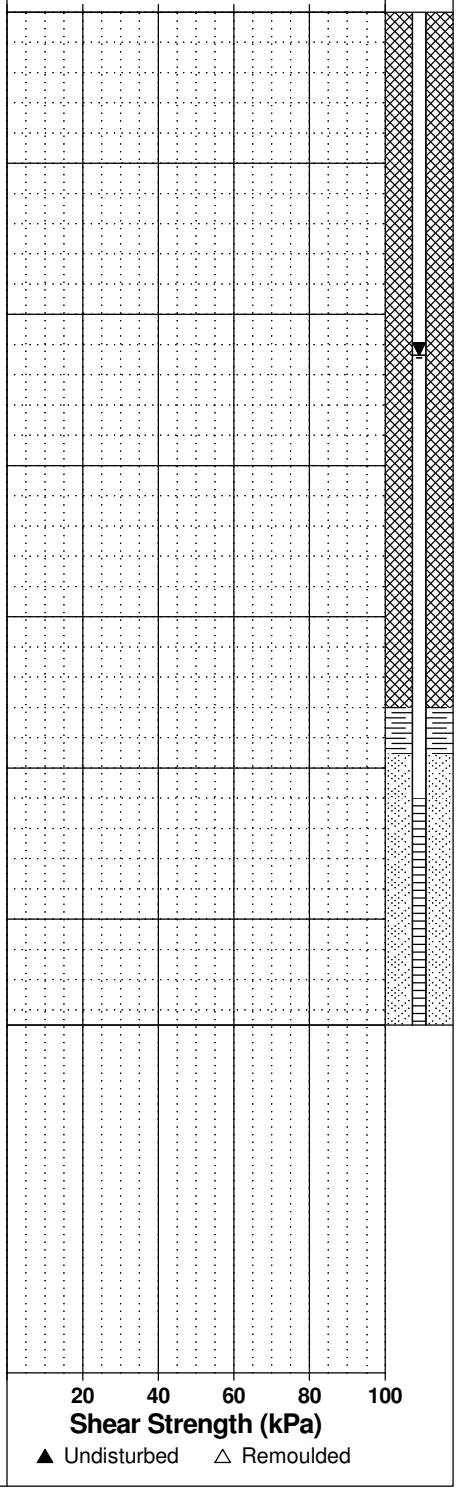
FILE NO. PG4870

REMARKS

HOLE NO. BH15

BORINGS BY CME 55 Power Auger **DATE** 2019 June 14

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE							
TOPSOIL						0	92.49
0.36		AU	1				
		SS	2	78	86	1	91.49
		SS	3	100	50+		
						2	90.49
		SS	4	75	58		
GLACIAL TILL: Very dense, brown silty sand/sandy silt with gravel, cobbles and boulders		SS	5	100	50+	3	89.49
		SS	6	100	50+		
						4	88.49
		SS	7	62	50+		
		SS	8	50	50+	5	87.49
						6	86.49
		SS	9	93	50+		
6.70							
End of Borehole							
(GWL @ 2.27m - June 21, 2019)							



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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

FILE NO. PG4870

REMARKS

HOLE NO. BH16

BORINGS BY CME 55 Power Auger **DATE** 2019 June 12

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	88.98
TOPSOIL 0.30		AU	1				
Compact, brown **SILTY SAND** with clay 1.12		SS	2	67	14	1	87.98
		SS	3	71	19	2	86.98
		SS	4	75	30		
GLACIAL TILL: Compact to dense, brown silty sand with gravel, cobbles and boulders		SS	5	0	50+	3	85.98
		SS	6	0	50+	4	84.98
- grey by 4.6m depth		SS	7	58	12	5	83.98
		SS	8	67	55	6	82.98
		SS	9		24		
6.70 End of Borehole							
(GWL @ 1.43m - June 21, 2019)							

Pen. Resist. Blows/0.3m
● **50 mm Dia. Cone**
○ **Water Content %**

20 40 60 80

Piezometer Construction

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

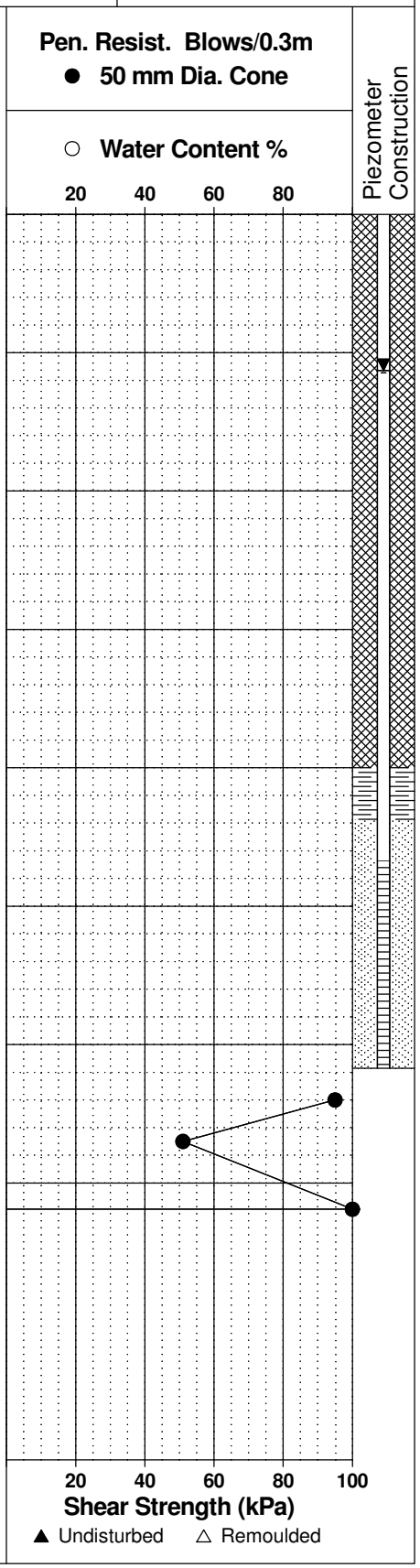
FILE NO. PG4870

REMARKS

HOLE NO. BH17

BORINGS BY CME 55 Power Auger **DATE** 2019 June 11

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	88.86
TOPSOIL 0.30		AU	1				
Brown **SILTY CLAY** with sand seams		SS	2	100	3	1	87.86
1.52		SS	3	88	49	2	86.86
		SS	4	42	68		
		SS	5	100	50+	3	85.86
GLACIAL TILL: Dense to very dense, brown silty sand with clay, gravel, cobbles and boulders		SS	6	100	65	4	84.86
		SS	7	100	50+		
		SS	8	100	50+	5	83.86
6.17		SS	9	100	50+	6	82.86
End of Borehole						7	81.86
Practical DCPT refusal at 7.19m depth							
(GWL @ 1.13m - June 21, 2019)							



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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
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DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

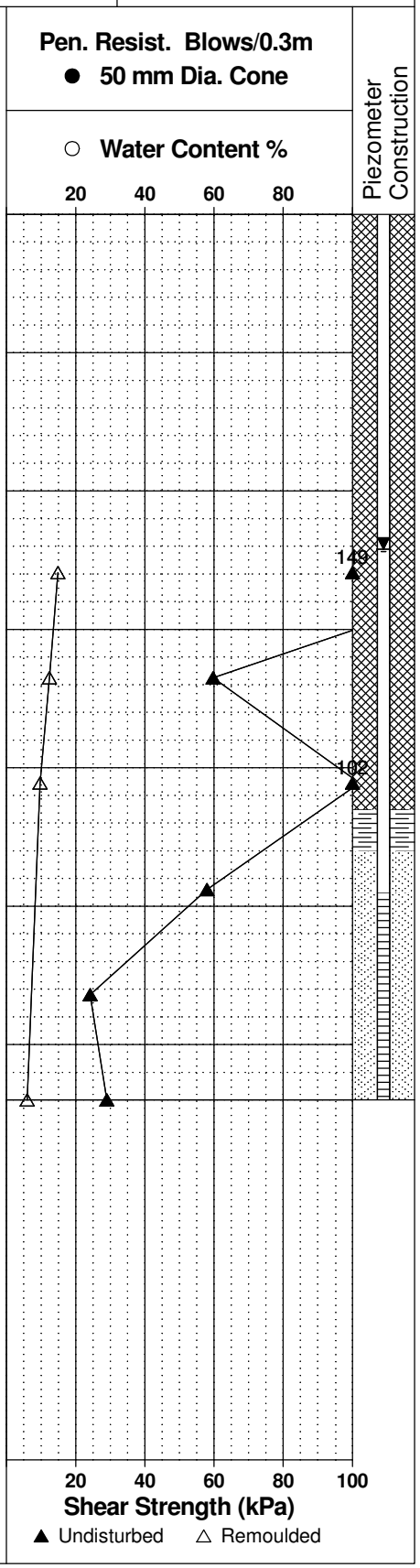
FILE NO. PG4870

REMARKS

HOLE NO. BH18

BORINGS BY CME 55 Power Auger **DATE** 2019 June 11

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	88.32
TOPSOIL							
0.33		AU	1				
		SS	2	100	2	1	87.32
		SS	3	100	5	2	86.32
Very stiff to stiff, brown **SILTY CLAY**							
- grey by 3.0m depth						3	85.32
						4	84.32
						5	83.32
- firm by 5.3m depth						6	82.32
6.40							
End of Borehole							
(GWL @ 2.42m - June 21, 2019)							



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SOIL PROFILE AND TEST DATA

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Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

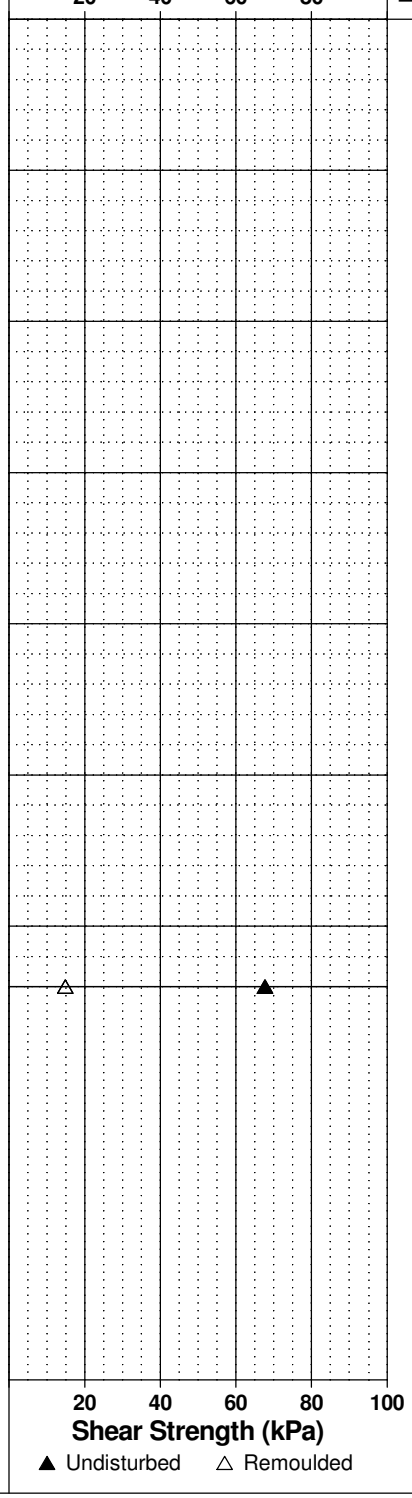
FILE NO. PG4870

REMARKS

HOLE NO. BH18A

BORINGS BY CME 55 Power Auger **DATE** 2019 June 14

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone ○ Water Content %	Piezometer Construction
GROUND SURFACE						0	88.32		
						1	87.32		
						2	86.32		
OVERBURDEN									
Stiff, grey **SILTY CLAY**						3	85.32		
						4	84.32		
						5	83.32		
5.33		TW	1			6	82.32		
6.40									
End of Borehole									



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SOIL PROFILE AND TEST DATA

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Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

FILE NO. PG4870

REMARKS

HOLE NO. BH19

BORINGS BY CME 55 Power Auger **DATE** 2019 June 10

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE							
TOPSOIL						0	94.89
0.36		AU	1				
		SS	2	81	66	1	93.89
		SS	3	50	50+		
						2	92.89
GLACIAL TILL: Very dense, brown silty sand with gravel, cobbles and boulders		SS	4	89	50+		
		SS	5	100	50+	3	91.89
- grey by 3.8m depth		SS	6	100	35	4	90.89
		SS	7	71	55	5	89.89
		SS	8	76	50		
						6	88.89
		SS	9	43	61		
6.70							
End of Borehole							
(Piezometer blocked and dry to 5.09m - June 21, 2019)							

Pen. Resist. Blows/0.3m
● 50 mm Dia. Cone
○ Water Content %

20 40 60 80

Piezometer Construction

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

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154 Colonnade Road South, Ottawa, Ontario K2E 7J5

SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

FILE NO. PG4870

REMARKS

HOLE NO. BH20

BORINGS BY CME 55 Power Auger **DATE** 2019 June 13

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone ○ Water Content %	Piezometer Construction
GROUND SURFACE									
TOPSOIL 0.25		AU	1			0	94.89		
		SS	2	55	50+	1	93.89		
GLACIAL TILL: Very dense, brown silty sand with gravel, cobbles and boulders		SS	3	40	50+	2	92.89		
		SS	4	100	50+	3	91.89		
		SS	5	100	50+	4	90.89		
4.04		SS	6	71	50+				
End of Borehole									
Practical refusal to augering at 4.04m depth.									
(GWL @ 1.45m - June 21, 2019)									

Pen. Resist. Blows/0.3m: 20 40 60 80

Water Content %: 20 40 60 80

Shear Strength (kPa): 20 40 60 80 100

▲ Undisturbed △ Remoulded

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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

FILE NO. PG4870

REMARKS

HOLE NO. BH21

BORINGS BY CME 55 Power Auger **DATE** 2019 June 13

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	91.07
TOPSOIL 0.25		AU	1				
Compact, brown **SAND** with gravel 0.97		SS	2	83	16	1	90.07
Compact, brown **SILTY SAND,** trace clay 1.98		SS	3	67	24	2	89.07
		SS	4	70	72		
		SS	5	64	50+	3	88.07
GLACIAL TILL: Compact to very dense, brown silty sand with gravel, cobbles and boulders		SS	6	62	29	4	87.07
		SS	7	42	33	5	86.07
5.43		SS	8	100	50+		
End of Borehole							
Practical refusal to augering at 5.43m depth							
(GWL @ 1.88m - June 21, 2019)							

Pen. Resist. Blows/0.3m
● 50 mm Dia. Cone
○ Water Content %

20 40 60 80

Piezometer Construction

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

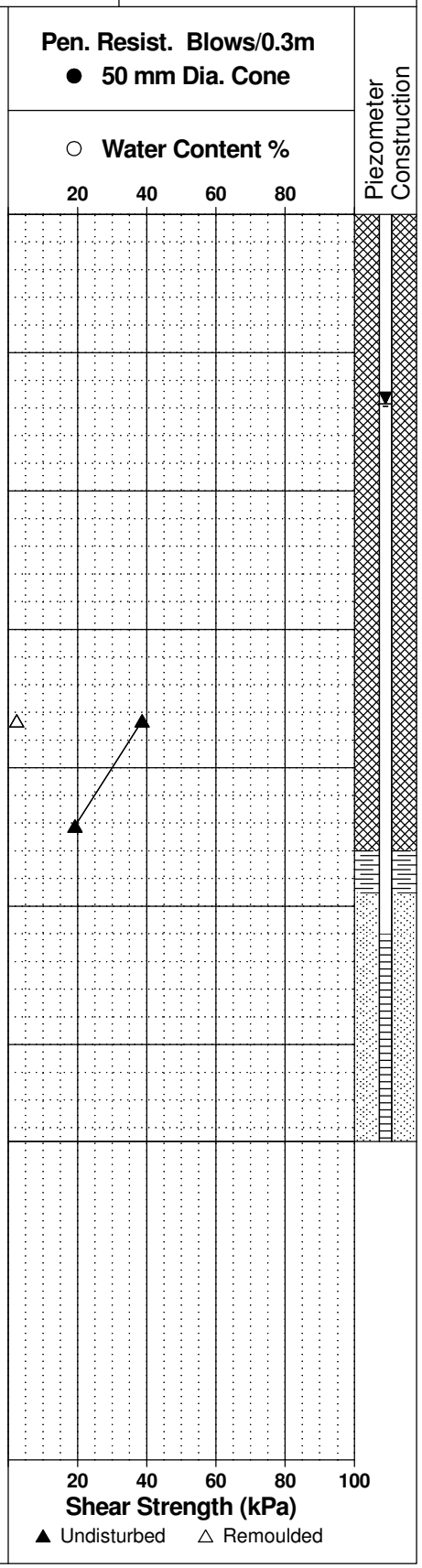
FILE NO. PG4870

REMARKS

HOLE NO. BH22

BORINGS BY CME 55 Power Auger **DATE** 2019 June 13

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	88.31
TOPSOIL 0.28		AU	1				
Loose, brown **SILTY SAND**, some clay		SS	2	83	4	1	87.31
		SS	3	100	5	2	86.31
2.34							
Firm to soft, brown **SILTY CLAY**		SS	4	100	3	3	85.31
4.42						4	84.31
GLACIAL TILL: Grey silty sand with gravel, cobbles and boulders		SS	6	21	9	5	83.31
		SS	7	71	22		
		SS	8	100	50+	6	82.31
6.70							
End of Borehole							
(GWL @ 1.37m - June 21, 2019)							



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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

FILE NO. PG4870

REMARKS

HOLE NO. BH22A

BORINGS BY CME 55 Power Auger **DATE** 2019 June 14

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone ○ Water Content %	Piezometer Construction
GROUND SURFACE						0	88.31	20 40 60 80	
						1	87.31		
OVERBURDEN						2	86.31		
						3	85.31		
3.05									
Stiff, grey **SILTY CLAY**		TW	1						
3.66									
End of Borehole									

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

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154 Colonnade Road South, Ottawa, Ontario K2E 7J5

SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

FILE NO. PG4870

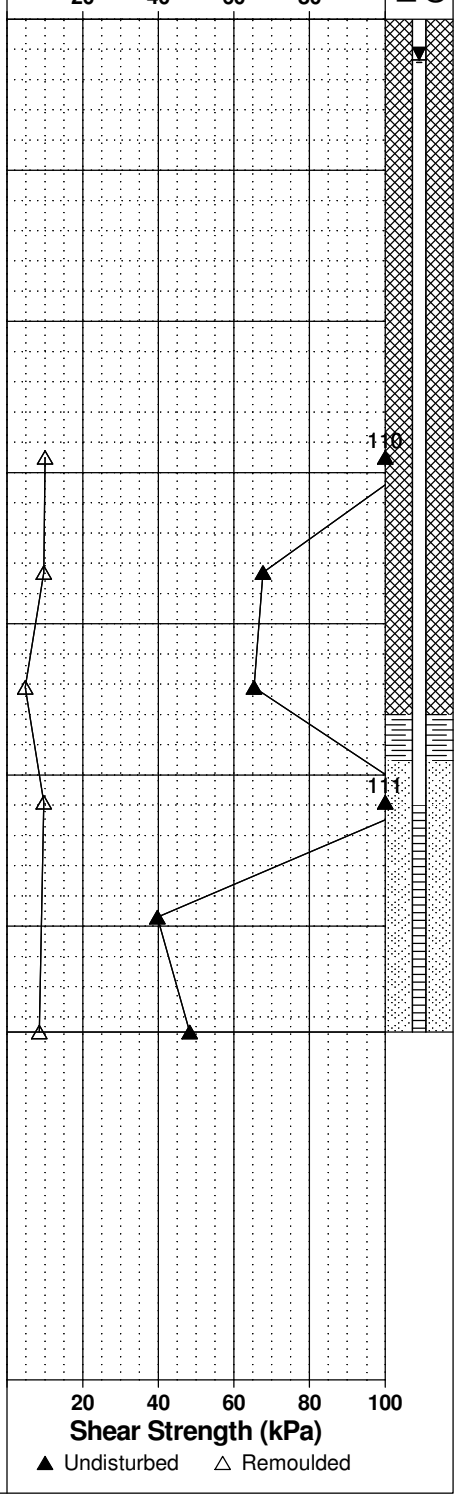
REMARKS

HOLE NO. BH23

BORINGS BY CME 55 Power Auger **DATE** 2019 June 12

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	87.81
TOPSOIL 0.23		AU	1				
Loose, brown **SILTY SAND** with clay, some gravel		SS	2	100	4	1	86.81
		SS	3	100	4	2	85.81
2.29							
Very stiff to stiff, brown **SILTY CLAY** with sand						3	84.81
- grey by 3.0m depth						4	83.81
						5	82.81
- firm by 5.3m depth						6	81.81
6.70							
End of Borehole							
(GWL @ 0.27m - June 21, 2019)							

Pen. Resist. Blows/0.3m
● **50 mm Dia. Cone**
○ **Water Content %**



Piezometer Construction

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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

FILE NO. PG4870

REMARKS

HOLE NO. BH24

BORINGS BY CME 55 Power Auger **DATE** 2019 June 12

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	88.46
TOPSOIL 0.20		AU	1				
Loose, brown **SILTY SAND** with clay		SS	2	100	4	1	87.46
1.62		SS	3	100	2	2	86.46
Stiff, brown **SILTY CLAY** with sand - grey by 3.0m depth						3	85.46
3.81		SS	4	67	3	4	84.46
		SS	5	83	7	5	83.46
Very loose to compact, grey **SILTY SAND**		SS	6	100	21	6	82.46
6.70		SS	7	100	16		
End of Borehole (GWL @ 1.37m - June 21, 2019)							

Pen. Resist. Blows/0.3m
● **50 mm Dia. Cone**
○ **Water Content %**

20 40 60 80

Piezometer Construction

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

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154 Colonnade Road South, Ottawa, Ontario K2E 7J5

SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

FILE NO. PG4870

REMARKS

HOLE NO. BH25

BORINGS BY CME 55 Power Auger **DATE** 2019 June 10

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	89.43
TOPSOIL 0.30		AU	1				
Loose, brown **SILTY SAND** with clay						1	88.43
1.17		SS	2	100	4		
Brown **SILTY CLAY** with sand, some gravel						2	87.43
1.83		SS	3	100	50+		
GLACIAL TILL: Compact to very dense, brown silty sand with gravel, cobbles and boulders		SS	4	62	28	3	86.43
		SS	5	65	58		
- grey by 3.0m depth		SS	6	70	50+	4	85.43
		SS	7	100	50+	5	84.43
		SS	8	60	50+		
		SS	9	80	50+	6	83.43
6.70							
End of Borehole							
(GWL @ 1.19m - June 21, 2019)							

Pen. Resist. Blows/0.3m
● 50 mm Dia. Cone
○ Water Content %

20 40 60 80

Piezometer Construction

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

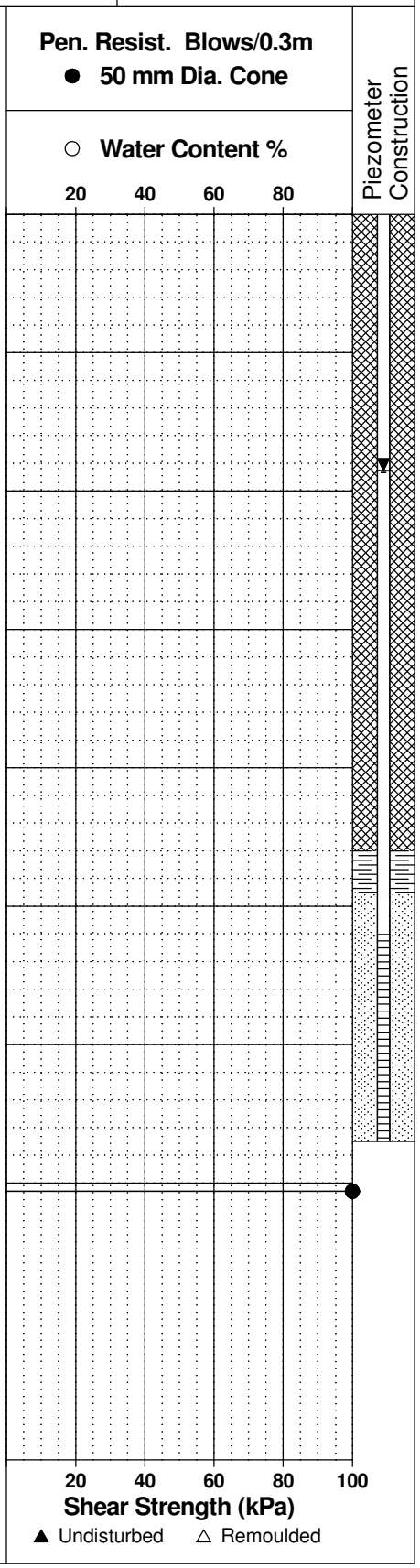
FILE NO. PG4870

REMARKS

HOLE NO. BH26

BORINGS BY CME 55 Power Auger **DATE** 2019 June 10

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	90.88
TOPSOIL 0.30		AU	1				
Brown **SAND** with organics 1.01		SS	2	92	17	1	89.88
Compact, brown **SANDY SILT** 1.83		SS	3	83	70	2	88.88
		SS	4	79	48		
GLACIAL TILL: Very dense, brown silty sand with gravel, cobbles and boulders		SS	5	80	50+	3	87.88
- grey by 3.8m depth		SS	6	79	88	4	86.88
		SS	7	100	50+		
		SS	8	79	44	5	85.88
		SS	9	100	50+	6	84.88
6.70 Dynamic Cone Penetration Test commenced at 6.70m depth. 7.06 Inferred **GLACIAL TILL**						7	83.88
End of Borehole							
Practical DCPT refusal at 7.06m depth							
(GWL @ 1.85m - June 21, 2019)							



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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

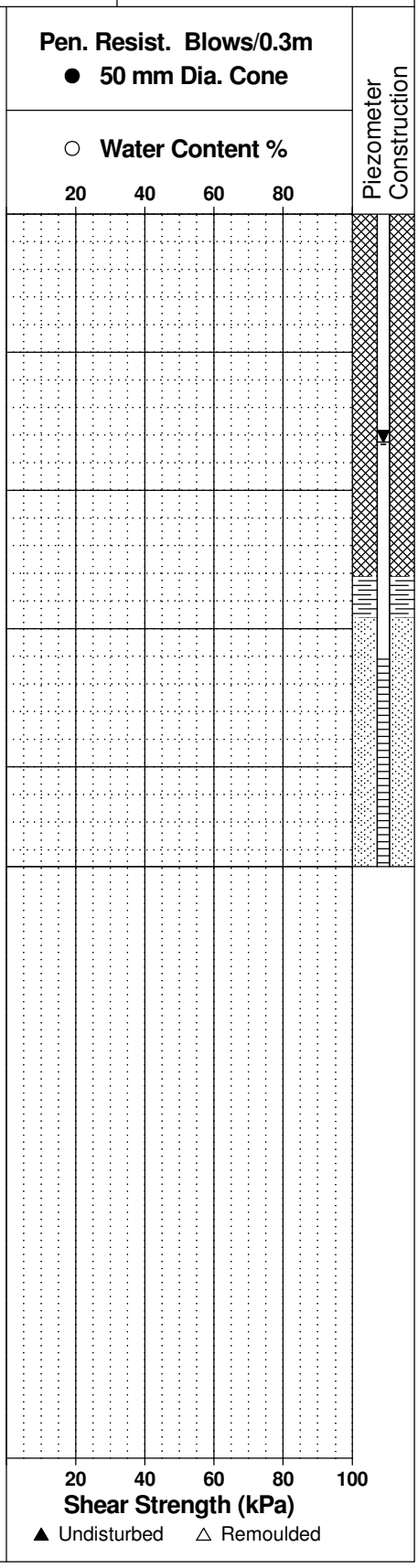
FILE NO. PG4870

REMARKS

HOLE NO. BH27

BORINGS BY CME 55 Power Auger **DATE** 2019 June 13

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	88.72
TOPSOIL 0.20		AU	1				
		SS	2	92	36	1	87.72
		SS	3	67	23	2	86.72
GLACIAL TILL: Dense to very dense, brown silty sand with gravel, cobbles and boulders		SS	4	42	17	3	85.72
		SS	5	79	46		
		SS	6	82	50+	4	84.72
4.72		SS	7	100	50+		
End of Borehole							
Practical refusal to augering at 4.72m depth							
(GWL @ 1.65m - June 21, 2019)							



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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

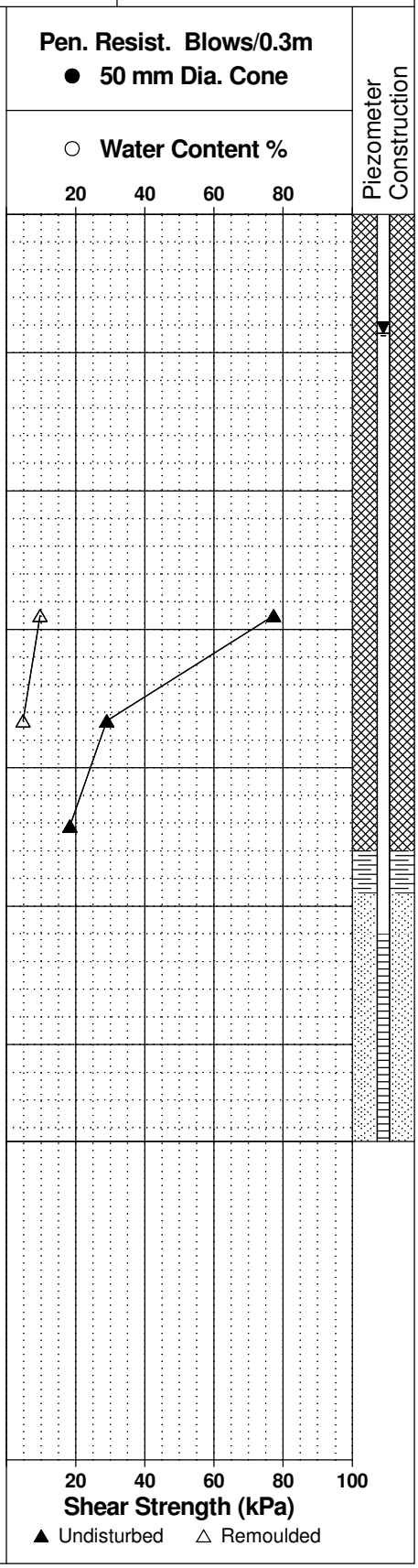
FILE NO. PG4870

REMARKS

HOLE NO. BH28

BORINGS BY CME 55 Power Auger **DATE** 2019 June 12

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	88.31
TOPSOIL 0.23		AU	1				
Loose, brown **SILTY SAND,** some clay		SS	2	100	4	1	87.31
1.62		SS	3	100	2	2	86.31
Stiff, brown **SILTY CLAY** with sand							
- grey by 3.0m depth						3	85.31
4.57		SS	5	67	45	4	84.31
GLACIAL TILL: Dense to compact, grey silty sand with gravel, cobbles and boulders		SS	6	25	19	5	83.31
		SS	7	62	26	6	82.31
6.70							
End of Borehole							
(GWL @ 0.86m - June 21, 2019)							



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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

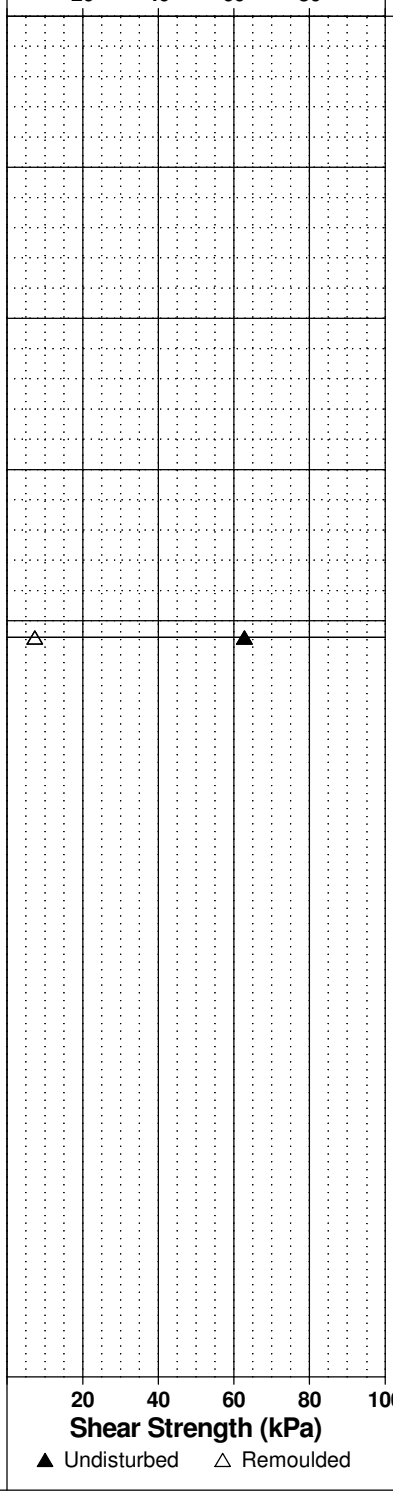
FILE NO. PG4870

REMARKS

HOLE NO. BH28A

BORINGS BY CME 55 Power Auger **DATE** 2019 June 14

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone ○ Water Content %	Piezometer Construction
GROUND SURFACE						0	88.31		
						1	87.31		
OVERBURDEN						2	86.31		
						3	85.31		
3.05									
Stiff, grey **SILTY CLAY**		TW	1						
4.11						4	84.31		
End of Borehole									



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SOIL PROFILE AND TEST DATA

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Prop. Warehouse Complex - 1966 Roger Stevens Drive
Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

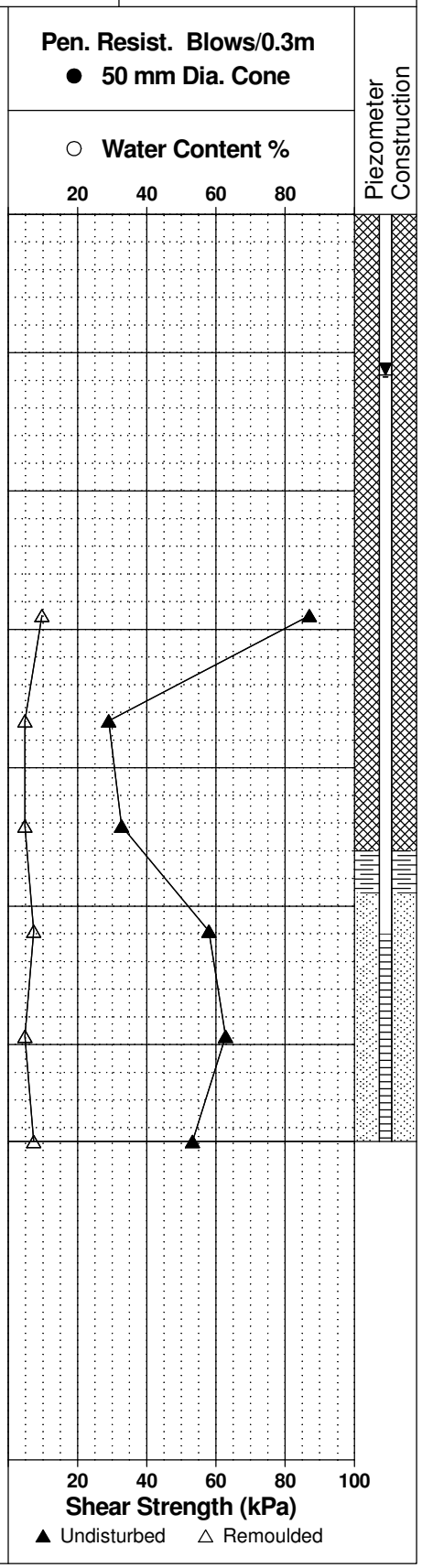
FILE NO. PG4870

REMARKS

HOLE NO. BH29

BORINGS BY CME 55 Power Auger **DATE** 2019 June 12

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	88.06
TOPSOIL 0.23		AU	1				
Loose, brown **SILTY SAND** with gravel		SS	2	100	5	1	87.06
1.52		SS	3	100	3	2	86.06
Stiff, brown **SILTY CLAY**						3	85.06
- firm to stiff and grey by 3.0m depth						4	84.06
						5	83.06
6.70						6	82.06
End of Borehole							
(GWL @ 1.16m - June 21, 2019)							



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SOIL PROFILE AND TEST DATA

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Ottawa, Ontario

DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd.

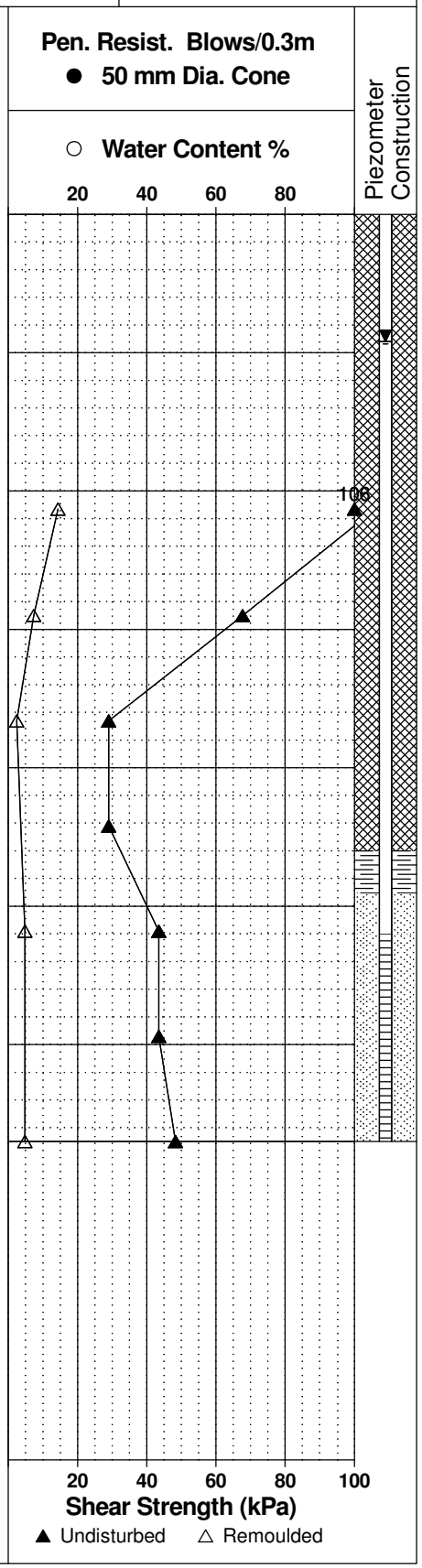
FILE NO. PG4870

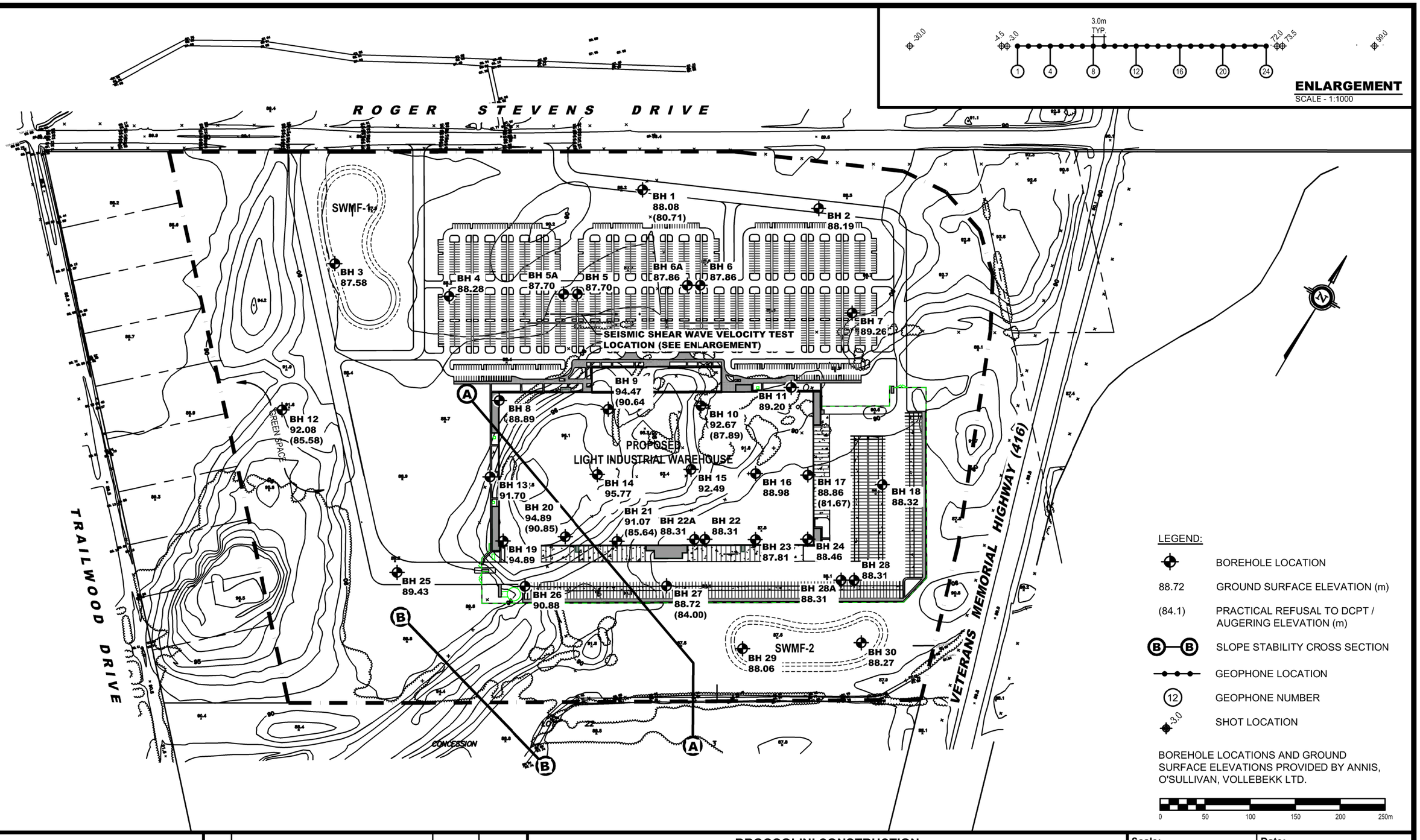
REMARKS

HOLE NO. BH30

BORINGS BY CME 55 Power Auger **DATE** 2019 June 12

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	88.27
TOPSOIL 0.28		AU	1				
Very loose, brown **SILTY SAND** with clay		SS	2	100	1	1	87.27
1.52							
Very stiff to stiff, brown **SILTY CLAY** with sand						2	86.27
- firm and grey by 3.0m depth						3	85.27
						4	84.27
						5	83.27
						6	82.27
6.70							
End of Borehole							
(GWL @ 0.92m - June 21, 2019)							





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consulting engineers

154 Colonnade Road South
Ottawa, Ontario K2E 7J5
Tel: (613) 226-7381 Fax: (613) 226-6344

NO.	REVISIONS	DATE	INITIAL
0			

BROCCOLINI CONSTRUCTION

GEOTECHNICAL INVESTIGATION
PROP. WAREHOUSE BUILDING - 1966 ROGER STEVENS DRIVE
OTTAWA, ONTARIO

Title:

TEST HOLE LOCATION PLAN

Scale: 1:4000	Date: 06/2019
Drawn by: MPG	Report No.: PG4870-1
Checked by: VD	PG4870-1
Approved by: DJG	Revision No.:

p:\autocad drawings\geotechnical\pg48xx\pg4870\pg4870-1(rev.1) thtp.dwg

APPENDIX 4

LABORATORY WATER QUALITY ANALYSIS REPORTS

Certificate of Analysis

eurofins | Environment Testing

Client: Paterson Group
154 Colonnade Rd. South
Nepean, ON
K2E 7T7
Attention: Mr. Mike Killam
PO#: 24752
Invoice to: Paterson Group

Report Number: 1910525
Date Submitted: 2019-06-25
Date Reported: 2019-07-02
Project: PH 3837
COC #: 90496

Group	Analyte	MRL	Units	Guideline	Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1435449 GW 2019-06-24 GW - Well	1435450 GW 2019-06-24 GW - Ditch
Anions	N-NO2	0.10	mg/L			0.17	<0.10
	N-NO3	0.10	mg/L			3.16	1.02
General Chemistry	pH	1.00				8.24	8.37
Metals	P	0.002	mg/L			0.244	0.174
Subcontract	N-NH3	0.010	mg/L			0.096	0.055
	Total Kjeldahl Nitrogen	0.15	mg/L			1.44	0.87

Guideline = *** = Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range