PATERSON GROUP

Consulting Engineers
9 Auriga Drive
Ottawa, Ontario
K2E 7T9
Tel: (613) 226-7381

Geotechnical Engineering
Environmental Engineering
Hydrogeology
Materials Testing
Building Science
Rural Development Design
Retaining Wall Design
Noise and Vibration Studies

patersongroup.ca

February 24, 2025
File: PH4841-LET.01

Percy Pyper (1997) Ltd
1971 Old Prescott Road,
Greely, ON
K4P 1N6

Attention: **Brent Pyper**

Subject: **Septic System Impact Assessment (Terrain Analysis)**
Re-zoning and Site Plan Control Application
5360 Bank Street
Ottawa (Gloucester), Ontario

INTRODUCTION

Paterson Group Inc. (Paterson) was retained by Greely Sand and Gravel Inc. to carry out a Septic System Impact Assessment in support of a proposed Re-zoning application and a Site Plan Control application (hereby referred to as Site Plan application) for the aforementioned property. It is our understanding that the current property, identified as Part of Lot 29, Concession 4 and located at 5360 Bank Street, Ottawa, consists of a 6.74 hectares (ha) parcel with an existing development in the central portion of the site. The proposed Re-zoning application aims to rezone the 6.74 ha parcel from Rural Countryside (RU) to Light Industrial. Please refer to the Key Plan attached for more details.

The purpose of this study has been to carry out a septic system impact assessment using publicly available information and fieldwork performed by others to determine the site's suitability for private on-site wastewater systems. Specifically, the intent of this report is to provide a maximum sewage flow volume which the subject site can support from a nitrate attenuation standpoint and assess the theoretical septic impact of the proposed replacement sewage system. This hydrogeological study is required to assess the risk that the development's individual on-site sewage system will not cause concentrations of nitrate in groundwater to exceed 10 mg/L at the property boundary.

BACKGROUND

Hydrogeological Assessment

As the subject site is to be municipally serviced with a water supply, a Hydrogeological Assessment under the City of Ottawa's (City) Hydrogeological and Terrain Analysis Guidelines (HTAG) is not required to support the Re-zoning application and Site Plan application.

Subject Site

The subject property consists of a light industrial development with associated storage facilities and is located at 5360 Bank Street in the City of Ottawa, Ontario (refer to City of Ottawa, Plan of Survey, attached). The subject site is currently occupied by a maintenance garage, a site trailer and a number of covered storage areas with associated paved and gravel access lanes. The site is currently serviced by a private water supply and private septic system, however the Site Plan application is proposed to be serviced using municipal water supply. A proposed replacement septic system design has been approved by the Ottawa Septic System Office (OSSO) in support of the Site Plan application. There are no proposed building changes as part of the Site Plan application.

The subject site is largely rectangular in shape with a total area of 6.74 ha. The John Boyce Municipal Drain flows north-west to south-east through the western half of the severed property. The site and buildings are currently considered legal non-conforming as the site is currently zoned as RU (rural). The intention of the aforementioned Re-zoning application is to rezone the subject site as light industrial.

Regional Geology

Published surficial geology mapping (OGS MRD128) for the area in the vicinity of the subject site indicates that the majority of the site is underlain predominantly by glaciofluvial deposits consisting of river deposits and delta topset facies. The north-eastern portion of the site is mapped to consist of stone-poor, silty sand to sandy silt-textured till on Paleozoic terrain.

Published bedrock geology mapping (OGS MRD219) indicates that the subject lands are underlain by dolostone with minor shale and sandstone of the Beekmantown Group and Oxford Formation. The available bedrock mapping coincides with the well driller's description on the Ministry of the Environment, Conservation and Parks (MECP) Water Well Records (WWR) for the surrounding well supplies installed within the subject area, which generally indicate a grey limestone.

On-site Geological Studies

A series of boreholes were excavated on the subject parcel to delineate the subsurface soil conditions as part of the Phase II Environmental Site Assessment (ESA) completed by Gemtec (Project:100227.101 dated October 2, 2023).

The subsurface profile generally consisted of a sand to silt with varying amounts of trace clay or gravel extending to the depth of the borehole. Topsoil was recorded to extend to a maximum depth of 1.98 m bgs (BH23-06). A varying fill layer was identified on the site in the locations of BH 23-3, BH23-4, BH23-5 and BH23-6 and extended to a maximum depth of 6.1 m bgs.

Karst Mapping

Available Karst mapping (OGS GRS005) was reviewed as part of this assessment. The available mapping does not indicate the presence of any inferred or potential karstic features. Furthermore, no indication of karstic features were observed during the site visits completed by Paterson personnel.

Mississippi-Rideau Source Protection Plan

The Mississippi-Rideau Source Protection Plan (MRSPP) provides guidance as to which policies apply to a given property, municipality or specific activity and if there are specific designations that apply to the area. The subject site and surrounding areas have been designated as a Highly Vulnerable Aquifer (HVA), with parts of the site being mapped as an Intake Protection Zone (IPZ) Zone 3 and a Significant Groundwater Recharge Area (SGRA).

Based upon the designation of an SGRA, IPZ Zone 3 and HVA, the MRSPP provides a list of activities that are prohibited, managed or encouraged to change dependent upon the vulnerable area type. The subject site is mapped to be in IPZ zone 3 (Source Protection Atlas), however has a IPZ score of less than 8 (MRSPP). There is no prohibition of land uses on the subject site based upon its existing usage.

Therefore, there are no related requirements for an HVA, a IPZ with a score of less than 8 or SGRA at this location.

TERRAIN ANALYSIS

The fieldwork which was completed as part of the Phase II ESA by Gemtec for the site (Report 100227.101, dated October 2, 2023) was used in support of this assessment. Additional information pertaining to this investigation was gathered from available geological mapping and surrounding WWR’s.

Surficial Geology

A series of boreholes were put down on the subject parcel to delineate the subsurface soil conditions as part of the environmental investigation (Gemtec Report 100227.101 dated October 2, 2023). In August, 2023, seven (7) boreholes were completed on the property to delineate the subsurface profile. The location of the boreholes on the property are delineated on Gemtec's Borehole and Monitoring Well Location Plan, Figure A-4, attached.

The test hole locations were recorded and the subsurface conditions, including the soil morphology and depth to the groundwater table (if encountered), were carefully observed and recorded. The soils encountered were classified texturally in the field, and later reviewed in the laboratory.

The boreholes were advanced to a maximum depth of 6.9 m bgs. Auger refusal was recorded to occur at 4.0 m bgs in boreholes 23-01, 23-02, and 23-07, and the remainder of the boreholes extended past 4.0 m bgs to a maximum depth of 6.9 m bgs.

According to the borehole logs, the subsurface profile generally consisted of a sand to silt with varying amounts of clay or gravel extending to the depth of the borehole. Topsoil was recorded to extend to a maximum depth of 1.98 m bgs (BH23-06). A varying fill layer was identified on the site in the locations of BH 23-3, BH23-4, BH23-5 and BH23-6 and extended to a maximum depth of 6.1 m bgs.

Reference should be made to the borehole logs appended to this report for the details of the soil profiles encountered at each test hole location.

Materials encountered during Gemtec's Phase II ESA were consistent with the available surficial and bedrock geology mapping.

Hydrogeological Sensitivity of the Site

The subject site currently consists of a developed area which has been used for construction and light industrial use since prior to 1958 (Milestone Aggregate Consulting Services Inc. Chronological History – 5360 Bank Street dated March 21, 2023).

The topography of the site is generally sloping gently away from the central portion. The local flow direction of the surficial aquifer is expected to be towards the western portion of the site, where the John Boyce Municipal Drain runs from northwest to southeast across the site. The regional groundwater flow is considered to be in an southeasterly direction.

According to surrounding Water Well Records (WWR), the bedrock depths surrounding the proposed site vary from 0 to 13.4 m bgs. According to the field investigation, the overburden thickness was observed to be greater than 2 m at all borehole locations. As

the proposed site does not have bedrock within 2 m of the ground surface, the site is not considered hydrogeologically sensitive.

Conceptual Lot Development

The existing development is not anticipated to change as part of the Site Plan application. The Site Plan application is being completed to ensure that the existing site use conforms to current City of Ottawa policies.

Sewage System Design and Total Daily Design Sewage Flow

As this Terrain Analysis is completed to support both a Re-zoning and Site Plan application, the proposed sewage system will be analysed and the maximum predicted nitrate concentration for the Site will be determined.

An approved Ottawa Septic System Office (OSSO) Sewage System Installation Permit (SSIP) will be submitted as part of the Site Plan control application submission. The approved OSSO SSIP is for a Total Daily Design Sanitary Sewage Flow (TDDSSF) of 450 L/day. Please refer to the approved OSSO SSIP for additional details.

PREDICTIVE NITRATE IMPACT ASSESSMENT

Nitrate is considered to be a critical parameter of concern when assessing impacts to groundwater quality downgradient of an onsite sewage system. The City of Ottawa (City) annotated MECP Procedure D-5-4 in the City of Ottawa's (City) Hydrogeological and Terrain Analysis Guidelines (HTAG) applies for the proposed development. For the purpose of this guideline, the Ontario Drinking Water Objective of 10 mg/L of nitrate is the maximum allowable concentration detectable in the groundwater prior to the property line.

A detailed impact assessment is required due to the commercial nature of the site. In order to demonstrate that private services would adequately support the proposed Re-zoning application, a predictive nitrate impact assessment (NIA) for the subject site was completed. This calculation was completed to determine the maximum sewage flow volume which could be applied to the subject site with the current site conditions, to support the Re-zoning application. One calculation is completed using a conventional system (no nitrate reduction) (Scenario 1) and the other with an NSF 245/ BNQ tertiary treatment system with 50 % nitrate reduction (Scenario 2). A third calculation was completed using the TDDSSF of 450 L/day, as per the approved OSSO SSIP submitted as part of the Site Plan application, to demonstrate that the proposed usage will meet the City's minimum requirements (Scenario 3). The values shown in the Predictive Nitrate Impact Assessment calculation attached to this report are summarized below:

- ❑ Site area 6.74 ha
- ❑ Impervious area % 40 %
- ❑ Concentration of nitrate in effluent
  - *Scenario 1+3: Value based on conventional effluent concentration* 40 mg/L
  - *Scenario 2: Value based on NSF245/BNQ certified nitrate reduction system with 50% nitrate reduction* 20 mg/L
- ❑ Surplus Water 298 mm/year
  (The surplus water value was estimated based on Environment Canada Climate Office values with a soil type comprised of fine sandy loam (Mature Forest) and anthropogenic sources, which can be found attached.)
- ❑ Combined infiltration factor based on: 0.75
  - Topography infiltration factor 0.20
  - Soil texture infiltration factor 0.40
  - Cover infiltration factor 0.15

The topography infiltration factor of 0.20 is based upon rolling land (average slope of 2.8 to 3.8 m/km). The soil texture infiltration factor was based upon an “open sandy loam” with a value of 0.4 which is a reasonable generalization based upon the field investigation by others, available geological mapping and surrounding WWR’s. The “vegetative cover infiltration factor” was calculated as 0.15 based upon the site being approximately halfway between undeveloped land consisting of partially wooded areas and developed areas.

Scenario 1 – Site Maximum TDDSSF with Conventional Sewage system:

The Predictive Nitrate Impact Assessment was completed to determine the maximum sewage flow volume which could be applied to the subject site using the current site conditions and a conventional septic system without surpassing the maximum nitrate attenuation concentration of 10 mg/L in the groundwater prior to the property line. Based on the existing site conditions and the use of a conventional sewage system (40 mg/L nitrate concentration), the predicted maximum allowable sewage flow volume is **9.5 m^3/day** to attenuate the nitrate concentration to below the 10 mg/L nitrate concentration in the groundwater prior to the property line.

Scenario 2 – Site Maximum TDDSSF with Tertiary Sewage system (NSF 245/BNQ):

The Predictive Nitrate Impact Assessment was completed to determine the maximum sewage flow volume which could be applied to the subject site using the current site conditions and a NSF 245/BNQ certified tertiary treatment septic system without surpassing the maximum nitrate attenuation concentration of 10 mg/L in the groundwater prior to the property line. This type of system would have a minimum 50 % nitrate

reduction requirement. Based on the existing site conditions and the use of a NSF 245 / BNQ tertiary treatment sewage system (20 mg/L nitrate concentration), the predicted maximum allowable sewage flow volume is **greater than 10 m^3/day** to attenuate the nitrate concentration to below the 10 mg/L nitrate concentration in the groundwater prior to the property line. It should be noted that a sewage system with a TDDSSF of greater than 10,000 L/day would require a MECP Environmental Compliance approval (ECA).

Scenario 3 – OSSO SSIP System for Site Plan:

As per the approved OSSO SSIP permit that has been submitted as part of the Site Plan application, the proposed TDDSSF volumes are **0.45 m^3/day**. The proposed system is a conventional system (40 mg/L nitrate concentration). This TDDSSF is less than the maximum allowable sewage low volume presented for a conventional system.

Using the existing site conditions, a predictive NIA using a TDDSSF of 450 L/day results in a nitrate concentration of 0.31 mg/L at the property boundary. Please refer to the Predictive Nitrate Impact Assessment calculation attached to this report for further details.

The OSSO approved SSIP consists of a sewage system which would result in a predictive nitrate concentration of 0.31 mg/L at the property boundary. As the Ontario Drinking Water Objective of 10 mg/L of nitrate is the maximum allowable concentration detectable in the groundwater prior to the property line, it is our opinion that the property can adequately support the proposed Site Plan application without having an adverse impact on the underlying bedrock aquifer based on the results of the predictive NIA.

CONCLUSIONS

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

1.0 A Sewage System Permit and Building Permit need to be issued prior to the commencement of construction on the proposed sewage system.

2.0 As overburden thickness was recorded to be greater than 2 m, the site is not considered hydrogeologically sensitive.

3.0 Based on the existing site conditions and the use of a conventional sewage system (40 mg/L nitrate concentration), the predicted maximum allowable sewage flow volume is 9.5 m^3/day to attenuate the nitrate concentration to the maximum 10 mg/L nitrate concentration in the groundwater prior to the property line.

4.0 The predictive NIA completed on the OSSO approved SSIP with TDDSSF of 0.45 m^3/day resulted in a predictive nitrate concentration of 0.31 mg/L at the property boundary, which is below the Ontario Drinking Water Objective maximum allowable concentration of 10 mg/L of nitrate detectable in the groundwater prior to the property line.

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 Greely Sand and Gravel, 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.

Yours truly,

PATERSON GROUP INC.

Alex Schopf
PhD, E.I.T

PROFESSIONAL GEOSCIENTIST
EA
February 24, 2025
ERIK ARDLEY
PRACTISING MEMBER
3667
ONTARIO

Erik Ardley
P.Geo

Attachments:

- ❑ Key Plan
- ❑ MECP Water Well Records
- ❑ Nitrate Impact Assessment Calculation
- ❑ City of Ottawa Plan of Survey
- ❑ Gemtec Soil Profile and Test Data Sheets
- ❑ Gemtec – Figure A-4 Borehole and Monitoring Well Location Plan

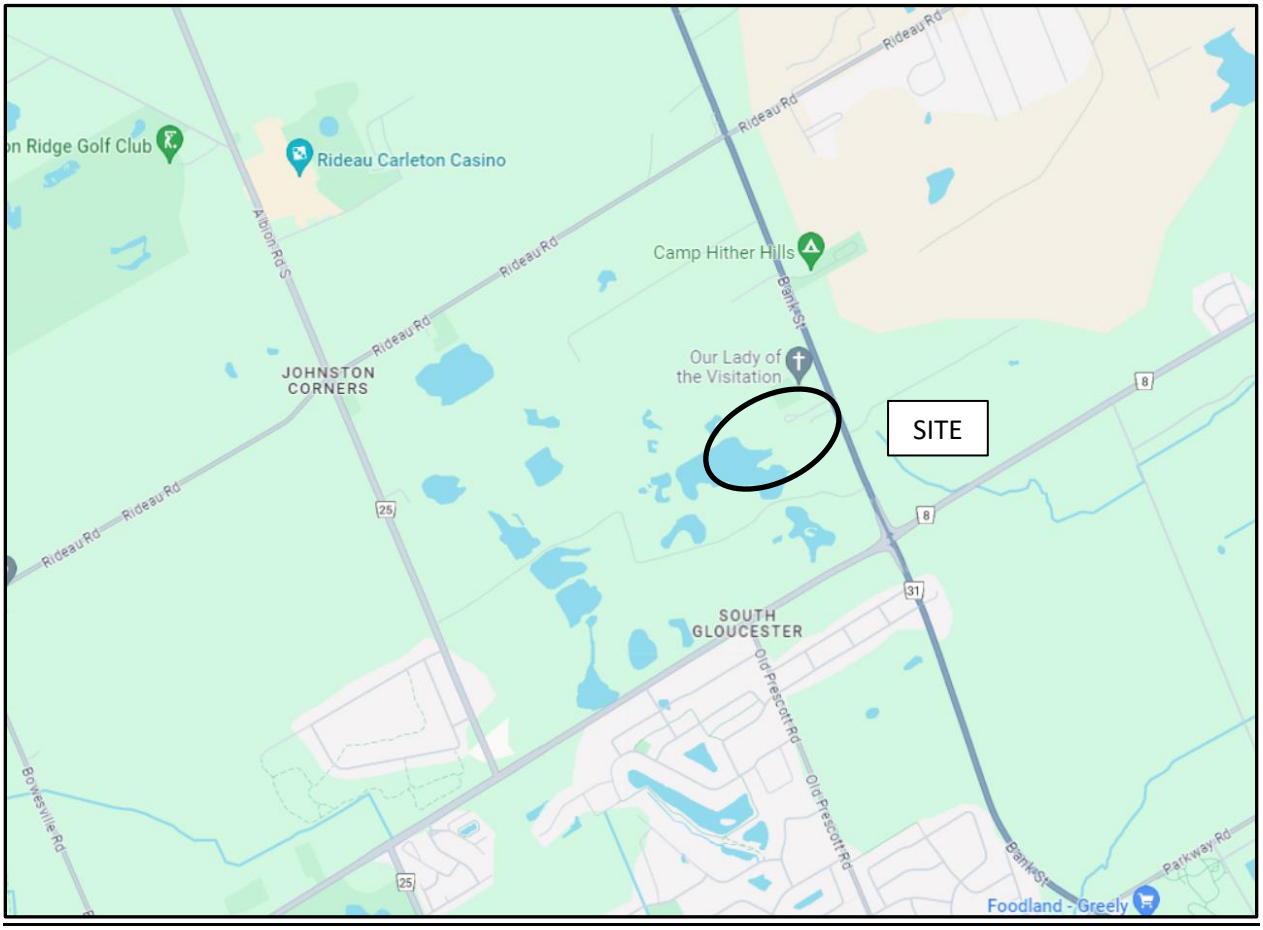


FIGURE 1

KEY PLAN

PATERSON GROUP

317/52

UTM | 18 Z | 4514917 10 E
| 5 R | 5101458 10 N

Elev. | 4 R | 0 3 4 6 | Rideau Front Con IV

Basin | 2 5 | | | Lot 29

ONTARIO

15 No. 2206

RECEIVED
SEP 20 1956
GEOLOGICAL BRANCH
DEPARTMENT of MINES

The Water-well Drillers Act, 1954
Department of Mines

Water-Well Record

County or Territorial District Carleton Township, Village, Town or City Gloucester

[redacted] Village, Town or City) S. Gloucester

[redacted] Address S. Gloucester

(day) (month) (year)

Pipe and Casing Record

Casing diameter(s) 4"
Length(s) 9
Type of screen
Length of screen

Pumping Test

Static level 10'
Pumping rate 260 G.P.H.
Pumping level 12'
Duration of test 1 hr.

Well Log

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, or sulphur)
Clay	1'	6'			
Limestone (Grey)	6'	45'	45'	35'	fresh

Water Record

For what purpose(s) is the water to be used?
HOUSE
Is water clear or cloudy? CLEAR
Is well on upland, in valley, or on hillside? UPLAND

Drilling firm M. Meagher
Address 639 Bowanwood Ave (24)

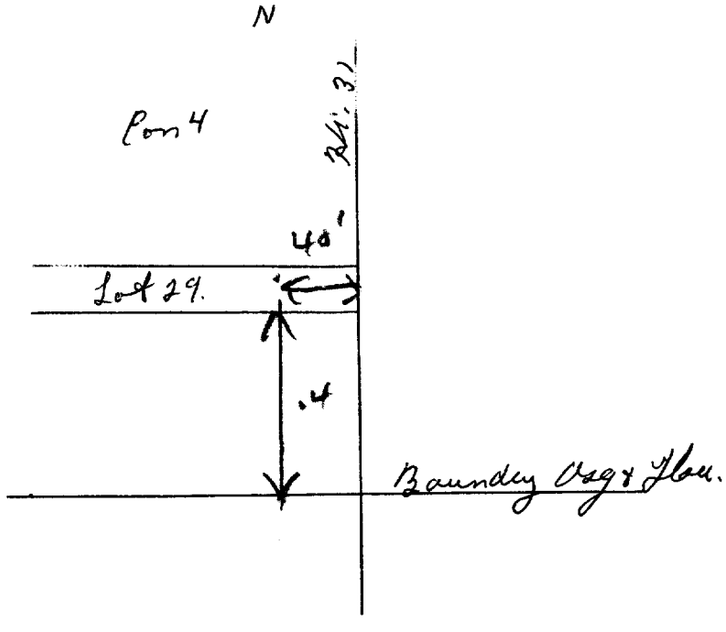
Name of Driller
Address M. Meagher
Licence Number

I certify that the foregoing statements of fact are true.

Date
Signature of Licensee

Location of Well

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



Form 5

31G/52

UTM 1 8 Z 4 5 4 9 2 0 E
5 R 5 0 1 4 8 9 0 N
Elev. ~~242~~ ~~E~~ 0 8 6 ~~8~~ 2 UNIT
Basin ~~C2251~~ K 1
LOT 28

ONTARIO

15 Nº 2272

GROUND WATER BRANCH
DEC 19 1958
ONTARIO WATER RESOURCES COMMISSION

X

C

The Water-well Drillers Act, 1954
Department of Mines

Water-Well Record

[redacted] CARLETON Township, Village, Town or City GLOUCESTER
[redacted] Village, Town or City)
[redacted] ddress
Date completed [redacted] (day) (month) (year)

Pipe and Casing Record

Casing diameter(s) 4"
Length(s) 21'
Type of screen NO
Length of screen

Pumping Test

Static level 8
Pumping rate 250 GPH
Pumping level 14
Duration of test 1 1/2

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, or sulphur)
CLAY + BOULDERS	0	12			
LIMESTONE	12	50	50	42	FRESH

For what purpose(s) is the water to be used? HOUSE
Is water clear or cloudy? CLEAR
Is well on upland, in valley, or on hillside? ✓

Drilling firm
Address

Name of Driller M MEAGHER
Address OTTAWA

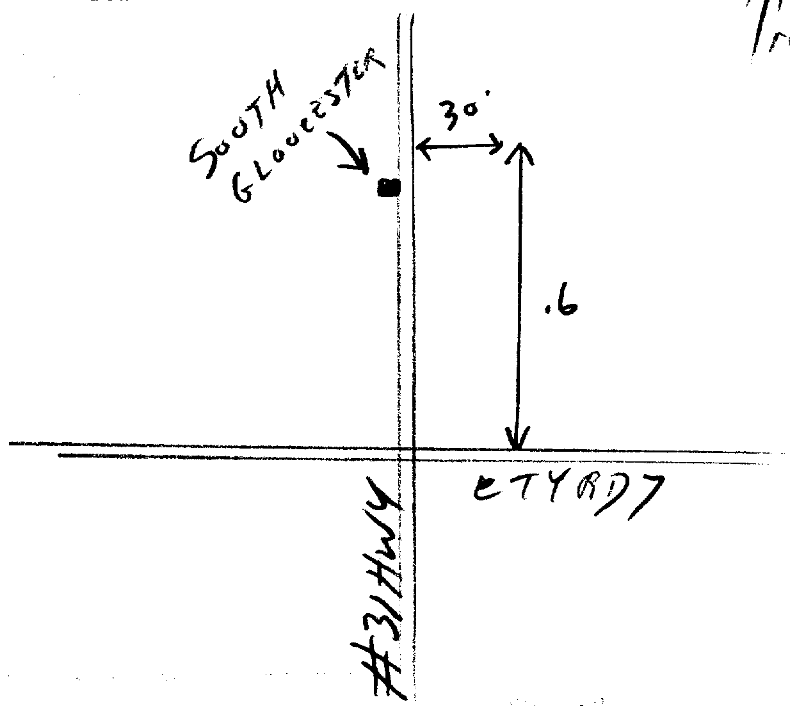
Licence Number 171

I certify that the foregoing statements of fact are true.

Date DEC 15 M Meagher
Signature of Licensee

Location of Well

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



Form 5

316/52

UTM 18 Z 454910 E
5 R 5014810 N
Elev. R 403 FEET
Basin 2 5 Con 5
Lot 28

15 No. 2273

The Ontario Water Resources Commission Act, 1957

WATER WELL RECORD

County or District: CARLETON
Township, Village, Town or City: GLOUCESTER
Con. 5 RF Lot 28
Date completed: 19 (day) JULY (month) 60 (year)
[redacted]ess S. GLOUCESTER

Casing and Screen Record

Inside diameter of casing: 4"
Total length of casing: 16'
Type of screen: —
Length of screen: —
Depth to top of screen: —
Diameter of finished hole: 4"

Pumping Test

Static level: 9
Test-pumping rate: 2 1/2 G.P.M.
Pumping level: 14
Duration of test pumping: 1 HR
Water clear or cloudy at end of test: CLEAR
Recommended pumping rate: 2 1/2 G.P.M.
with pumping ~~level of~~ SETTING 24

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)
LOAM	0	14			
GRAVEL	14	16			
GREY LIMESTONE	16	58	58	49	FRESH

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

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

Drilling Firm: M. MEAGHER
Address: OTTAWA

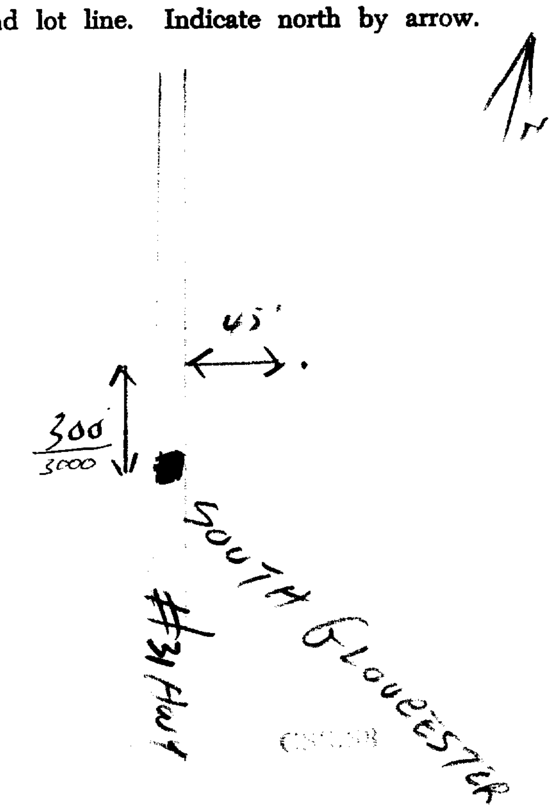
Licence Number:
Name of Driller: SAME
Address:
Date: AUG 26/60

M. Meagher
(Signature of Licensed Drilling Contractor)

Form 5

Location of Well

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



316/52

UTM 1 8 Z 4 5 4 9 3 0 E

Rideau F697 5 4 8 1 1 0 N

Elev C 4 R 0 3 5 0

Basin Lot 28 2 5

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District CARLETON Township, Village, Town or City GLOUCESTER

Con. 5 RF Lot 28 Date completed 2 (day) JULY (month) 61 (year)

[redacted]ddress BILLINGS BRIDGE

Casing and Screen Record	
Inside diameter of casing	4"
Total length of casing	10'
Type of screen	—
Length of screen	—
Depth to top of screen	—
Diameter of finished hole	4"

Pumping Test	
Static level	8'
Test-pumping rate	4 G.P.M.
Pumping level	8
Duration of test pumping	1 HR
Water clear or cloudy at end of test	CLEAR
Recommended pumping rate	4 G.P.M.
with pump setting of	25' feet below ground surface

Well Log / **Water Record**

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
GREY LIMESTONE	0	100	100	FRESH

For what purpose(s) is the water to be used? STORE – HOUSE & GARAGE

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

Drilling or Boring Firm M MEAGHER

Address OTTAWA

Licence Number 245

Name of Driller or Borer SAME

Address

Date AUG 9/61

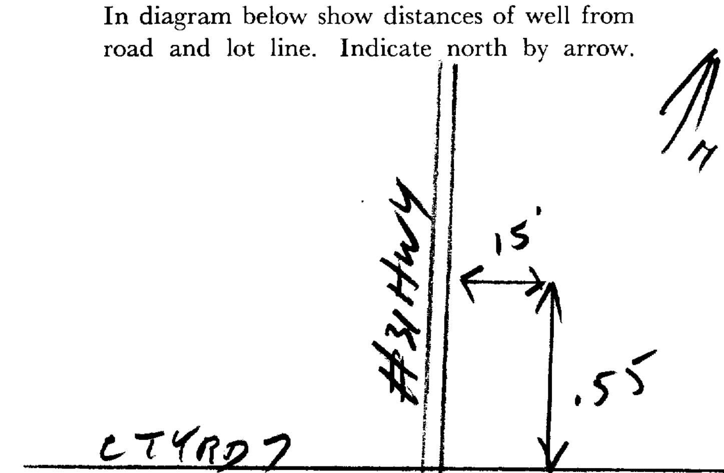
M Meagher
(Signature of Licensed Drilling or Boring Contractor)

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.



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)nE

UTM 18 Z 454940 E

KIDEAU FRONT 5 R 5014818510 N

CON I

Eley. 4 R 3 13516

LOT 28

Basin 25

WATER WELL RECORD

The Ontario Water Resources Commission Act

County or District Carleton Township, Village, Town or City Gloucester

Con. 5 RF Lot PT N½ 28 Date completed 8 (day) Oct (month) 1964 (year)

Owner [redacted] (print in block letters) Address RR 6 Ottawa

Casing and Screen Record

Inside diameter of casing 2

Total length of casing 34

Type of screen —

Length of screen —

Depth to top of screen —

Diameter of finished hole 2

Pumping Test

Static level 22

Test-pumping rate 2 G.P.M.

Pumping level 60

Duration of test pumping 2 hr

Water clear or cloudy at end of test Cloudy

Recommended pumping rate 2 G.P.M.

with pump setting of 60 feet below ground surface

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Water Record: Depth(s) at which water(s) found	Water Record: Kind of water (fresh, salty, sulphur)
Top Soil	0	4	152	Fresh
Sand	4	5		
Lime Stone	5	152		

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

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

Drilling or Boring Firm F. R. Caselli

Address 1510 Base line Rd. Ottawa

Licence Number 1472

Name of Driller or Borer Same

Address

Date Oct 9 - 1964

F. R. Caselli

(Signature of Licensed Drilling or Boring Contractor)

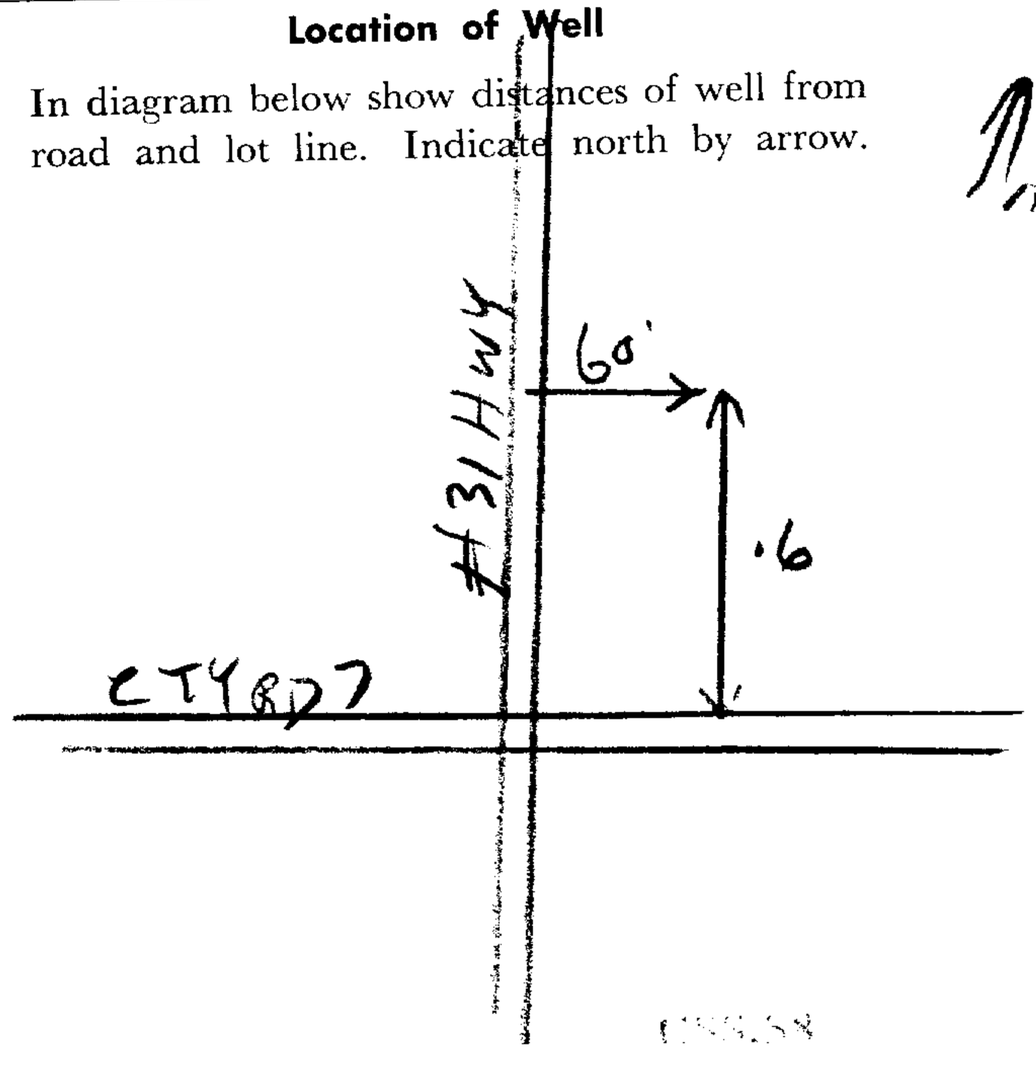
Form 7 15M-60-4138

OWRC COPY

SMALL FRAME

Location of Well

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



316/52 84

UTM [illegible] Z 4 1 5 5 1 1 4 1 0 E

1 5 R 5 0 1 1 4 3 9 0 N

Elev. 4 R 0 3 3 5

Basin 2 5

15 No. 2278

RECEIVED
JAN 5 1950
GEOLOGICAL BRANCH
DEPARTMENT OF MINES

ONTARIO

The Well Drillers Act

Department of Mines, Province of Ontario

Water Well Record

Carleton Co. Gloucester .... Con. V R.F. .... Lot 029 ~~27~~ ~~29~~ .... Pt. Lot ....

[redacted] Manotick station .... Acres ....

.... Cost of Well (not including pump) $165.00

Pipe and Casing Record		Pumping Test	
Casing diameter(s)	4"	Date	May 10/48
Length(s) of casing(s)	15 feet	Developed Capacity	400 gals a hr
Length of screen		Duration of Test	1/2 hr
Type of screen		Pumping Rate	74 gals
Type of pump		Drawdown	3 feet
Capacity of pump		Static level of completed well	~~64~~ 18 feet
Depth of pump setting		Is well a gravel-wall type?	no

Water Record

Kind (fresh or mineral) .... Fresh

Quality (hard, soft, contains iron, sulphur etc.) .... hard

Appearance (clear, cloudy, coloured) .... Clear

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

How far is well from possible source of contamination? .... 40 feet

What is source of contamination? .... septic tank

Enclose a copy of any mineral analysis that has been made of water ....

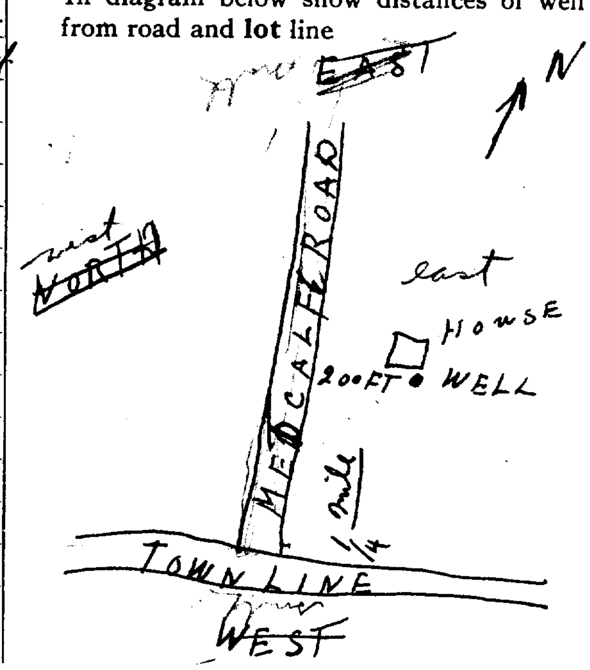
Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
64 feet	Fresh	~~54~~ feet
		42 ft

Well Log

Drift and Bedrock Record	From	To
	0 ft.	ft.
15 feet of hard Pan and bolders	1	15 feet
lime stone Rock	15	72

Location of Well

In diagram below show distances of well from road and lot line



Situation: Is well on upland, in valley, or on hillside? .... hill

Drilling Firm .... Gordon S Mulligan

Address .... Westboro R R #1

Recorded by .... Gordon S Mulligan .... Address .... Westboro R R #1

Date .... May 10/48 .... Licence Number ....

31G/52

67

UTM | 18 | Z | 415 5 1 0 | E

| 5 | R | 5101 1 4 3 9 10 | N

Elev. | 4 | R | 0 1 3 1 5 |

Basin | 2 5 | | | |

ONTARIO

The Well Drillers Act

Department of Mines, Province of Ontario

15 No. 2219

RECEIVED

NOV 28 1949

GEOLOGICAL BRANCH
DEPARTMENT OF MINES

Conc V-RF
Lot -29

Water Well Record

[redacted] Con. 4 Lot 29 Pt. Lot .....

Billing Bridges

Date Completed ..... Cost of Well (not including pump) .....

Pipe and Casing Record

Casing diameter(s) 4"

Length(s) of casing(s) 6'

Length of screen .....

Type of screen .....

Type of pump .....

Capacity of pump .....

Depth of pump setting .....

Pumping Test

Date July 28

Developed Capacity .....

Duration of Test 1

Pumping Rate .....

Drawdown .....

Static level of completed well 6'

Is well a gravel-wall type? .....

Water Record

Kind (fresh or mineral) fresh

Quality (hard, soft, contains iron, sulphur etc.) hard

Appearance (clear, cloudy, coloured) clear

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

How far is well from possible source of contamination? 60'

What is source of contamination? outhouse

Enclose a copy of any mineral analysis that has been made of water

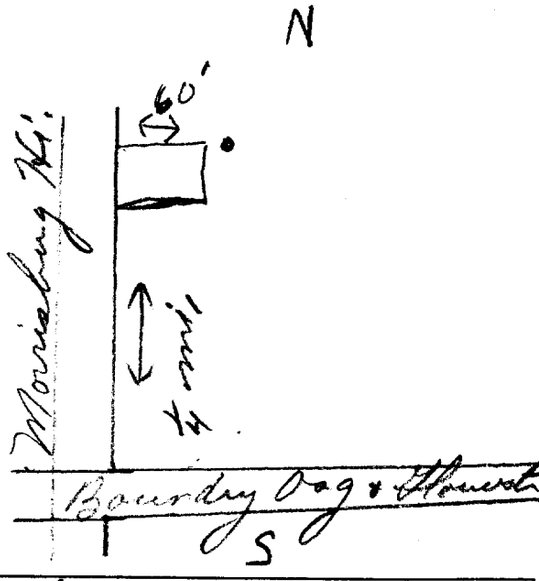
Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
40'	good	34'

Well Log

Drift and Bedrock Record	From	To
	0 ft.	..... ft.
Gravel	1'	6'
Limestone	6'	44'

Location of Well

In diagram below show distances of well from road and lot line



Situation: Is well on upland, in valley, or on hillside? uplands

Drilling Firm M. McGuire

Address Buttermilk Bay

Recorded by M. McGuire Address .....

Date ..... Licence Number 499

31G/5 2

UTM 18 Z 4515080 E
RIDEAU FRONT
5 R 5011414610 N

Elev. 4 R 0931316

Basin 215

Lot 29.

ONTARIO

The Water-well Drillers Act, 1954
Department of Mines

15 No 2281

RECEIVED
JAN 9 1957
GEOLOGICAL BRANCH
DEPARTMENT of MINES

Water-Well Record

County or Territorial District Carleton Township, Village, Town or City Gloucester

[redacted] in Village, Town or City S. Gloucester

Address S. Gloucester

(day) (month) (year)

Pipe and Casing Record

Casing diameter(s) 4"
Length(s) 10'
Type of screen
Length of screen

Pumping Test

Static level 11'
Pumping rate 300 g.p.h.
Pumping level 15'
Duration of test 1 hr

Well Log

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, or sulphur)
Clay	1'	7'			
Limestone	7'	102'	102'	91'	fresh

Water Record

For what purpose(s) is the water to be used?
home
Is water clear or cloudy? clear
Is well on upland, in valley, or on hillside?
valley
Drilling firm M McVeagh
Address c/39 Bourhillwood

Name of Driller M McVeagh
Address

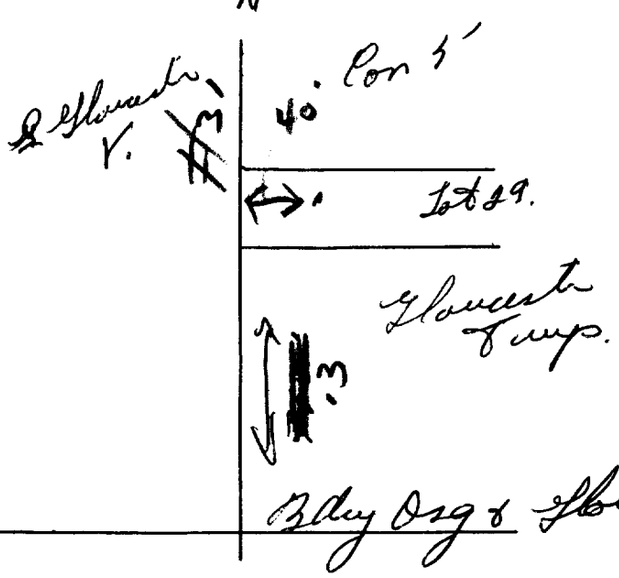
Licence Number 171

I certify that the foregoing statements of fact are true.

Date Nov 6 M McVeagh
Signature of Licensee

Location of Well

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



Form 5

31G/52

UTM 9 | 1 8 | z | 4 5 5 1 1 1 0 | E

R. 5 | R | 5 0 1 1 4 4 9 9 | N

Con. 4 | R | 0 3 3 6

Lot 29

Basin 25 | County or District Carleton

The Ontario Water Resources Commission Act

WATER WELL RECORD

Township, Village, Town or City Gloucester

Con. Conc. V RP Lot 29 Date completed 29 (day) March (month) 1965 (year)

[redacted]ess 33 Market St. North Bay

Casing and Screen Record

Inside diameter of casing 6 1/4"

Total length of casing 21 1/2'

Type of screen none

Length of screen —

Depth to top of screen —

Diameter of finished hole 6"

Pumping Test

Static level 18'

Test-pumping rate 5 G.P.M.

Pumping level 60'

Duration of test pumping 1/2 hr

Water clear or cloudy at end of test clear

Recommended pumping rate 5 G.P.M.

with pump setting of 60' feet below ground surface

Well Log / Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
Till	0	8		
Limestone	8	80	60-80	fresh

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

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

Drilling or Boring Firm McLean Water Supply Ltd.

Address 1532 Raven Ave Ottawa 3

Licence Number 1686

Name of Driller or Borer B. Smart

Address

Date April 1, 1965

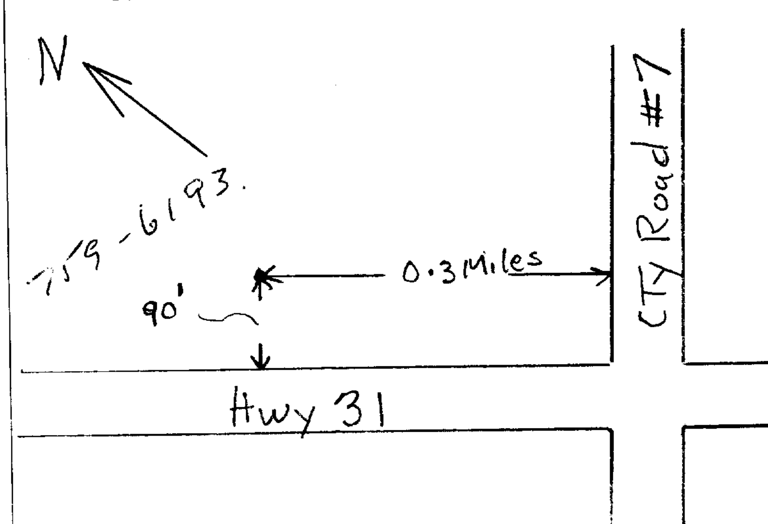
C D McLean
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M-60-4138

OWRC COPY

Location of Well

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



CSS.58

316/52

UTM |1|8|Z |4|5|6|7|0|0| E (corrected: 4970)

|5|R |5|0|1|1|5|5|5|0| N (corrected: 4520)

Elev. |4|R |0|3|3|0| (corrected: 42)

Lot 29

Basin |2|5|

15 № 2283

WATER RESOURCES DIVISION NOV 30 1965 ONTARIO WATER RESOURCES COMMISSION

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District: Carleton — Township, Village, Town or City: Gloucester

Con.: 4 RF — Lot: 29 — Date completed: 17 (day) SEP (month) 61 (year)

[redacted] Address: South Gloucester Ont

Casing and Screen Record	
Inside diameter of casing	5
Total length of casing	12
Type of screen	
Length of screen	
Depth to top of screen	
Diameter of finished hole	5

Pumping Test	
Static level	8
Test-pumping rate	4 G.P.M.
Pumping level	10
Duration of test pumping	1 Hr
Water clear or cloudy at end of test	Clear
Recommended pumping rate	4 G.P.M.
with pump setting of	30 feet below ground surface

Well Log: Overburden and Bedrock Record	From ft.	To ft.	Water Record: Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
Clay Loam	0	8		
Limestone	8	46	46	Fresh

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

Is well on upland, in valley, or on hillside? (upland circled)

Drilling or Boring Firm: M Meagher

Address: Ottawa

Licence Number: 1636

Name of Driller or Borer: Same

Address:

Date: Nov 8

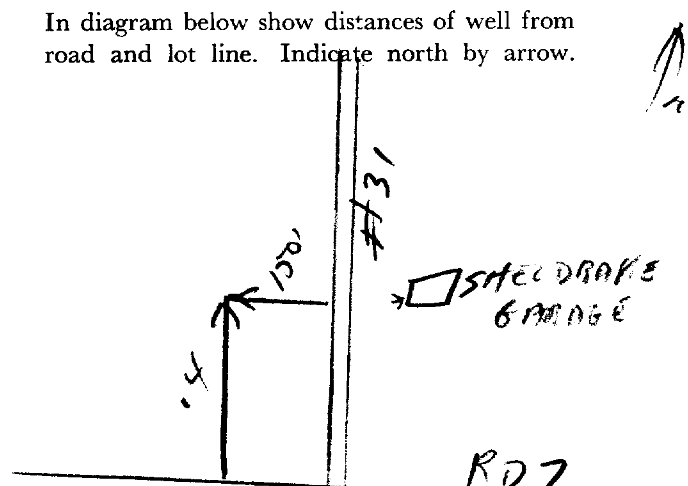
M Meagher
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M-60-4138

OWRC COPY

Location of Well

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



31G/52.

CO

UTM 18 Z 415101 10 E

5 R. 5 01 41 73 19 N

Elev. A R 013418

Lot 29

Basin 215

County or District GRENVILLE Township, Village, Town or City GLEN ROBERTSON

Con 5 RF Lot 29 Date completed 6 (day) NOV (month) 65 (year)

[redacted] ress BOX OTTAWA

WATER WELL RECORD

The Ontario Water Resources Commission Act

WATER RESOURCES DIVISION
NOV 8 1965
ONTARIO WATER RESOURCES COMMISSION

15 No. 2284

Casing and Screen Record

Inside diameter of casing 5

Total length of casing 12

Type of screen

Length of screen

Depth to top of screen

Diameter of finished hole 5

Pumping Test

Static level 5

Test-pumping rate 4 G.P.M.

Pumping level 5

Duration of test pumping 1 HR

Water clear or cloudy at end of test CLEAR

Recommended pumping rate 4 G.P.M.

with pump setting of 25 feet below ground surface

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Water Record: Depth(s) at which water(s) found	Water Record: Kind of water (fresh, salty, sulphur)
CLAY LOAM	0	4		
LIMESTONE	4	48	48	FRESH

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

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

Drilling or Boring Firm J MEAGHER

Address OTTAWA

Licence Number 1636

Name of Driller or Borer SAME

Address

Date Nov 8

(Signature of Licensed Drilling or Boring Contractor)

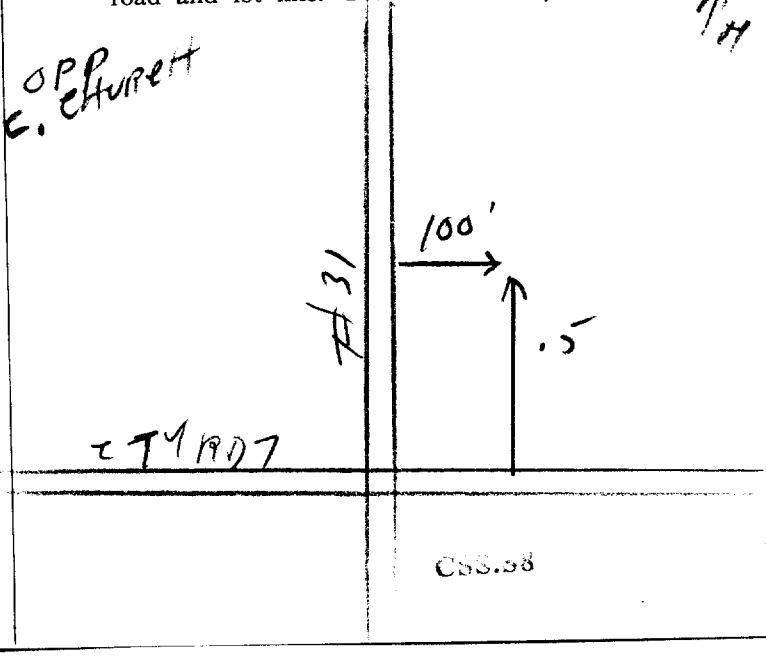
Form 7 15M-60-4138

OWRC COPY

OWRC

Location of Well

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



CSS.58

316/50. "B" 134

UTM |18|Z |415511210|E
|5|R |5011431510|N
Elev. |4|R |013315|
Basin |25| | | |
Conc - V R.F.
Lot - 30.

ONTARIO

The Well Drillers Act
Department of Mines, Province of Ontario

15 No 2286

DEPARTMENT OF MINES
NOV 1 - 1951
TO

Water Well Record

[redacted] Township, ~~Village, Town or City~~ S. Lawrence
~~Town or City~~ S. Lawrence
Address Manotick Sta.
Date Completed Sept 8/51 (day) (month) (year) Cost of Well (excluding pump)

Pipe and Casing Record

Casing diameter(s) 4"
Length(s) of casing(s) 7'
Type of screen
Length of screen
Distance from top of screen to ground level
Is well a gravel-wall type?

Pumping Test

Date Sept 8
Static level 4'
Pumping level
Pumping rate
Duration of test 1 hr
Distance from cylinder or bowls to ground level

Water Record

Kind (fresh or mineral) fresh
Quality (hard, soft, contains iron, sulphur, etc.) hard
Appearance (clear, cloudy, coloured) clear
For what purpose(s) is the water to be used? residential
How far is well from possible source of contamination? 50'
What is the source of contamination? septic tanks
Enclose a copy of any mineral analysis that has been made of water

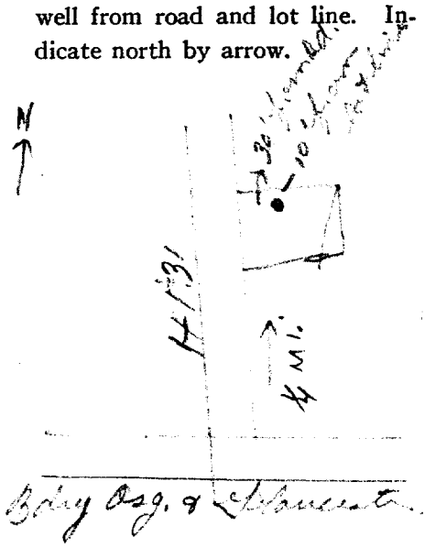
Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
44'	good	40'

Well Log

Overburden and Bedrock Record	From	To
	0 ft.	....ft.
Boulder clay	1'	6'
granite	6'	44'

Location of Well

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



Situation: Is well on upland, in valley, or on hillside? valley
Drilling Firm M. Meagher
Address Britannia Sta.
Name of Driller Address
Date Sept 10/51 Licence Number
M. Meagher
Signature of Licensee

FORM 5

CSS/58

The Ontario Water Resources Commission Act

WATER WELL RECORD

3/c 15f

Water management in Ontario

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

11 | 1510284 | MUNICIP. 15002 | CON. C&N | 05

COUNTY OR DISTRICT: Carl | TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: Gloucester | CON., BLOCK, TRACT, SURVEY, ETC.: 4 & 5 RF | LOT: 028

[redacted] R#6 Ottawa Ont

DATE COMPLETED: DAY 22 MO. 07 YR. 69

HING: 0 1 4 8 2 0 | RC. 4 | ELEVATION: 0 3 5 0 | 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
brown	sand		fill	0'	5'
red	sand	clay & boulders		5'	14'
blue	limestone			14'	50'

31 | 0005609 | 0014709057/3 | 0057/3 1ST

32

41 WATER RECORD

WATER FOUND AT – FEET	KIND OF WATER
0048	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
05	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ [redacted]	188	0	0018
8			18	50
05	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE			0050
	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	WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
010 FEET	010 FEET		010 FEET	010 FEET	010 FEET	010 FEET

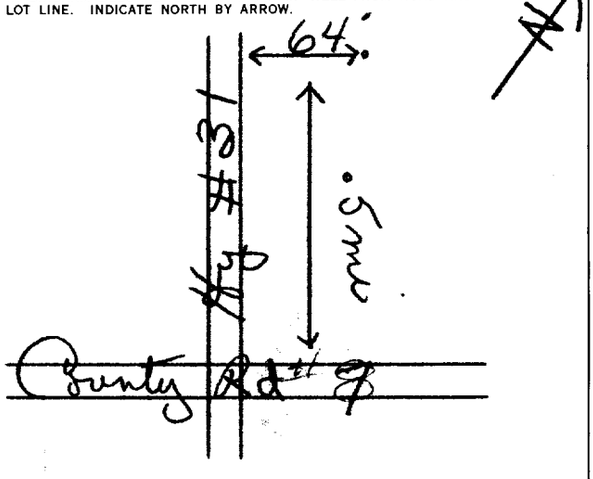
IF FLOWING, GIVE RATE: GPM. | PUMP INTAKE SET AT: FEET | WATER AT END OF TEST: 1 ☐ CLEAR 2 ☐ CLOUDY

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

50-53 020.0 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 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED

WATER USE 01

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: 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 | LICENCE NUMBER: 3216

ADDRESS: 14 Ashford Dr Ottawa

NAME OF DRILLER OR BORER: D. Myrice | LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: Walter Savanagh | SUBMISSION DATE: DAY ____ MO. ____ YR. ____

OFFICE USE ONLY

58 DATA SOURCE: 1 | 59-62 CONTRACTOR: 1503 | 63-68 DATE RECEIVED: 30 10 69

DATE OF INSPECTION | INSPECTOR

REMARKS:

OWRC COPY

MINISTRY OF THE ENVIRONMENT

The Ontario Water Resources Act

WATER WELL RECORD

316/5a

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

11 | 1515466 | MUNICIP 15002 | CON RF | 04

COUNTY OR DISTRICT: Carleton | TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: Gloucester | CON., BLOCK, TRACT, SURVEY, ETC.: Con 4, R.F. | 030 25-27 | 30

OWNER: ORME AND SONS LTD | ADDRESS | DATE COMPLETED 48-53 DAY 28 MO 06 YR 76

18 455100 5014230 4 0335 4 26

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
grey	sand	gravel		0	24
grey	limestone			24	143

31 0024228111 0143215

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
085	1 ☒ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
0142	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	027
64				

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: 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
020 FEET	100 FEET		100 FEET	100 FEET	100 FEET	100 FEET

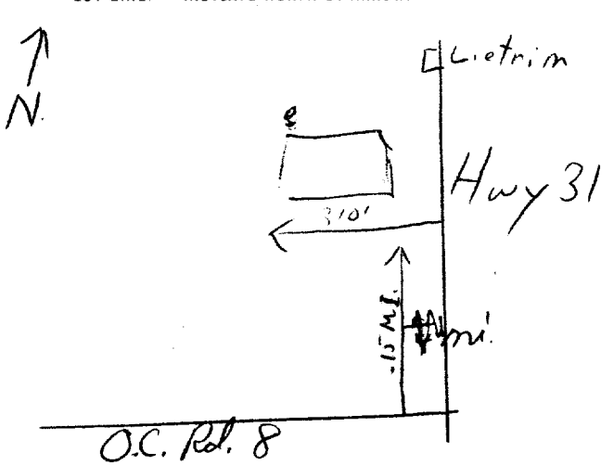
IF FLOWING, GIVE RATE: GPM | PUMP INTAKE SET AT: FEET | WATER AT END OF TEST: 1 ☐ CLEAR 2 ☒ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP | RECOMMENDED PUMP SETTING: 100 FEET | RECOMMENDED PUMPING RATE: 0010 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 ☒ 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 05: 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 Munn Well Drilling | LICENCE NUMBER: 3644

ADDRESS: Box 326 Richmond Ont.

NAME OF DRILLER OR BORER | LICENCE NUMBER

SIGNATURE OF CONTRACTOR | SUBMISSION DATE DAY 28 MO. 6 YR. 76

DRWO 2.9

MINISTRY OF THE ENVIRONMENT COPY

OFFICE USE ONLY

DATA SOURCE 58: 1 | CONTRACTOR 59-62: 3644 | DATE RECEIVED 63-68: 080776 | 80

DATE OF INSPECTION: 2 Sept 76 | INSPECTOR: P/R Doyle

REMARKS: P WI

FORM 7 MOE 07-091

MINISTRY OF THE ENVIRONMENT

The Ontario Water Resources Act

WATER WELL RECORD

Ontario

31G/5 9

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

11 | 1515658 | MINISTRY USE 15002 RF 05

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC	LOT
Carleton	Gloucester	Con 5 RF	23

[redacted] | DATE COMPLETED: DAY 24 MO 07 YR 76

NORTHING 014500 | EW | ELEVATION 0338 | SEC. | TWP 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
grey	clay			0	5
grey	shale rock			5	15
grey	limestone			15	130
white	sandstone			130	155

31 | 000205 | 001517 | 013215 | 015518

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0075	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
0152	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	188	0	042
6 1/4				
	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.)
10-13	14-17	
18-21	22-25	
26-29	30-33	

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☒ PUMP 2 ☐ BAILER

PUMPING RATE: 0025 GPM | DURATION OF PUMPING: 01 HOURS 00 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY
030 FEET	070 FEET	15 MINUTES: 070 FEET; 30 MINUTES: 070 FEET; 45 MINUTES: 070 FEET; 60 MINUTES: 070 FEET

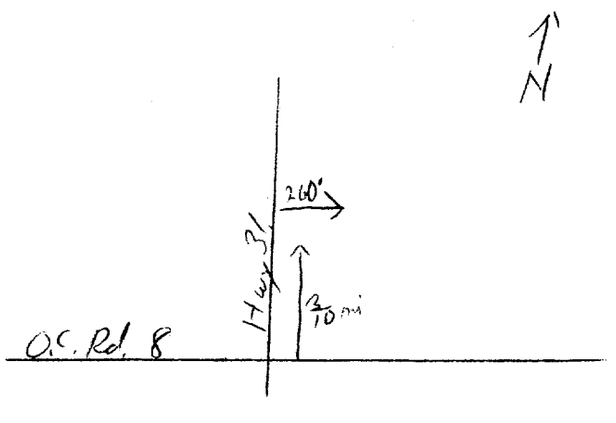
IF FLOWING, GIVE RATE: GPM | PUMP INTAKE SET AT: FEET | WATER AT END OF TEST: 1 ☐ CLEAR 2 ☒ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP | RECOMMENDED PUMP SETTING: 070 FEET | RECOMMENDED PUMP RATE: 0005 GPM

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 ☒ 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 Maire Well Drilling | LICENCE NUMBER: 3644

ADDRESS: Box 326, Richmond Ont.

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

SIGNATURE OF CONTRACTOR: [illegible] | SUBMISSION DATE: DAY 27 MO 2 YR 76

OFFICE USE ONLY

DATA SOURCE 58: 1 | CONTRACTOR 59-62: 3644 | DATE RECEIVED 63-68: 011276

DATE OF INSPECTION: 18/6/77 | INSPECTOR: [illegible] PV

REMARKS:

P V

WI

MINISTRY OF THE ENVIRONMENT COPY

FORM 7 MOE 07-091

3165a

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 1516981 MUNICIP 15002 CON. RF 05

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC	LOT
[redacted]	Gloucester	5 R.F. V	028 ~~28~~

[redacted] 737 Richmond Rd., Ottawa, Ont. DATE COMPLETED DAY 09 MO 04 YR. 79

UTM ZONE 18 0014699 RC 4 ELEVATION 0350 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
	Sand			0	8
	Limestone	*		8	98

31 0008 28 0098 15

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0075	1 ☒ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
0098	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	0022
	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	PUMPING RATE GPM	DURATION OF PUMPING HOURS / MINS
1 ☐ PUMP 2 ☒ BAILER	0012	01 HOURS 00 MINS

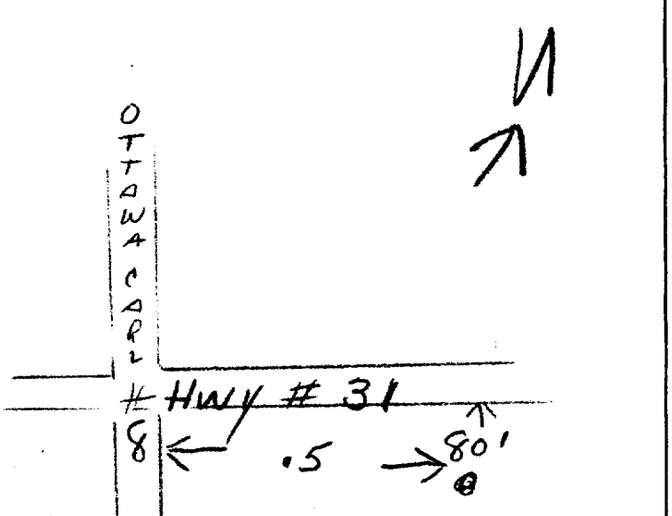
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
008 FEET	055 FEET	1 ☐ PUMPING 2 ☒ RECOVERY	010 FEET	010 FEET	010 FEET	010 FEET

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	0012 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
1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED POOR QUALITY 7 ☐ UNFINISHED

WATER USE 05
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

CONTRACTOR

NAME OF WELL CONTRACTOR	LICENCE NUMBER
McLean Water Supply Ltd.	3504

ADDRESS: 1532 Raven Ave. Ottawa, Ont.

NAME OF DRILLER OR BORER	LICENCE NUMBER
M. Mallon	

SIGNATURE OF CONTRACTOR: [signature] SUBMISSION DATE DAY 10 MO 4 YR. 79

OFFICE USE ONLY

DATA SOURCE	CONTRACTOR	DATE RECEIVED
1	3504	200679

DATE OF INSPECTION: INSPECTOR: JK

REMARKS: C35.58

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Ministry of the Environment
Ontario

50. 87789.

The Ontario Water Resources Act

WATER WELL RECORD

1523309

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MUNICIP 15002 CON. CON 04

COUNTY OR DISTRICT [redacted]

TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE GLOUCESTER

CON. BLOCK, TRACT, SURVEY 4

LOT 29

[redacted] 5410 BANK ST

DATE COMPLETED DAY 28 MO 2 YR 89

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
BROWN	SANDY	TOPSOIL	PACKED	0	2'
BROWN	SAND	GRAVEL & COBBLES.	LOOSE	2'	6'
BLACK	LIMESTONE	GREY LIMESTONE LAYERS	BROKEN	6'	11'
GREY	LIMESTONE	BLACK LIMESTONE LAYERS	HARD	11'	72'
BLACK	LIMESTONE		MED, HARD	72'	97'
GREY	LIMESTONE	QUARTZ LAYERS.	HARD	97'	125'

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
67'	1 ☒ FRESH 2 ☐ SALTY; 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
102'	1 ☒ FRESH 2 ☐ SALTY; 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
116'	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	22'
6"	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE 5 ☐ PLASTIC		22'	
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			

SCREEN

SIZE(S) OF OPENING (SLOT NO.) | DIAMETER | LENGTH

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.)
0	21'	CEMENT GROUT
		TYPE 10 PORTLAND

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☒ PUMP 2 ☐ BAILER

PUMPING RATE: 5 GPM

DURATION OF PUMPING: 2 HOURS ___ MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☐ PUMPING 2 ☐ RECOVERY) 15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
FEET	100 FEET	100 FEET	100 FEET	100 FEET	100 FEET

IF FLOWING, GIVE RATE: GPM

PUMP INTAKE SET AT: 100 FEET

WATER AT END OF TEST: 1 ☒ CLEAR 2 ☐ CLOUDY

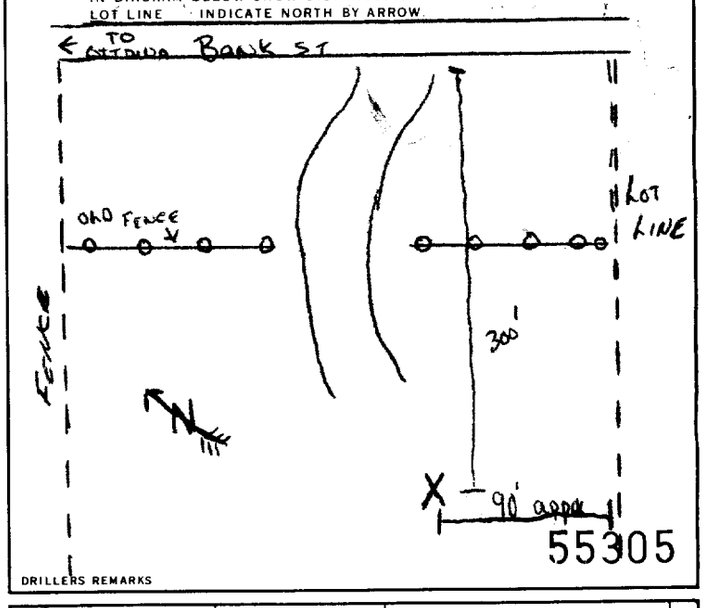
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP

RECOMMENDED PUMP SETTING: 100 FEET

RECOMMENDED PUMPING RATE: 5 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; ☐ 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: VALLEY DRILLING CO. LTD. | WELL CONTRACTOR'S LICENCE NUMBER: 5222

ADDRESS: P.O. BOX 437 CARP, ONT

NAME OF WELL TECHNICIAN: BILL BIGUET | WELL TECHNICIAN'S LICENCE NUMBER:

SIGNATURE OF TECHNICIAN/CONTRACTOR: BILL BIGUET | SUBMISSION DATE: T-0190 DAY ___ MO ___ YR ___

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR 5222 | DATE RECEIVED APR 04 1989

DATE OF INSPECTION | INSPECTOR

REMARKS

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FORM NO. 0506 (11/86) FORM 9

Ministry of the Environment
Ontario

50 - 43889

The Ontario Water Resources Act

WATER WELL RECORD

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1523342

MUNICIP 15002 CON. CON 04

COUNTY OR DISTRICT: OTTAWA CARLETON
TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: Gloucester
CON BLOCK, TRACT, SURVEY ETC: 4
LOT: 29
[redacted] Bank St Gloucester Ont.
DATE COMPLETED: DAY 18 MO 12 YR 88
RC: K1G-3N4
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
BROWN	TOPSOIL		PACKED	0	1'
BROWN	SAND	COBBLES, GRAVEL	WET LOOSE	1'	10'
BROWN	SAND	BOULDERS, GRAVEL, COBBLES	LOOSE	10'	15'
BRACK	LIMESTONE	GREY LIMESTONE	MED	15'	80'
GREY	LIMESTONE	BLACK LIMESTONE SOME QUARTZ	MED, HARD	80'	137'
GREY	LIMESTONE	LAYERS OF SANDSTONE	HARD	137'	150'
		QUARTZ			

31
32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
122'	1 ☑ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
143	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	22'
6"	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC		22'	150
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER	LENGTH
	INCHES	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.)
0	21	CEMENT GROUT

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☐ PUMP 2 ☐ BAILER — AIR
PUMPING RATE: 6 GPM
DURATION OF PUMPING: 2 HOURS ___ MINS

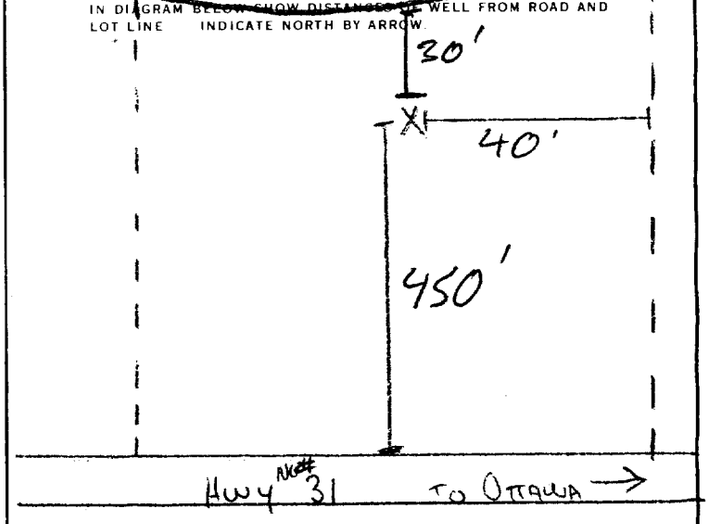
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☐ PUMPING 2 ☐ RECOVERY	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
6 FEET	60 FEET		60 FEET	60 FEET	60 FEET	60 FEET

IF FLOWING, GIVE RATE: GPM
PUMP INTAKE SET AT: 60 FEET
WATER AT END OF TEST: 1 ☑ CLEAR 2 ☐ CLOUDY
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☑ DEEP
RECOMMENDED PUMP SETTING: 60 FEET
RECOMMENDED PUMPING RATE: 4 GPM

LOCATION OF WELL

Ditch

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



39098

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 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING ☐ OTHER 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: VALLEY DRILLING CO. LTD
WELL CONTRACTOR'S LICENCE NUMBER: 5222
ADDRESS: P.O. Box 4137 CARP ONT
NAME OF WELL TECHNICIAN: BILL BIGSON
WELL TECHNICIAN'S LICENCE NUMBER: T-0190
SIGNATURE OF TECHNICIAN/CONTRACTOR:
SUBMISSION DATE: DAY ___ MO ___ YR ___

OFFICE USE ONLY

DATA SOURCE
CONTRACTOR: 5222
DATE RECEIVED: APR 04 1989
DATE OF INSPECTION
INSPECTOR
REMARKS

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Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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Regulation 903 — 1524825

15002 CON

MUNICIP. Bowesville Rd CON. 04

COUNTY OR DISTRICT: Carleton
TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: Gloucester
CON. BLOCK, TRACT, SURVEY, ETC.: Con 4
LOT: 25
DATE COMPLETED: DAY 18 MO 6 YR 90
[redacted] 5 Montreal Rd Ottawa K1K 0S9
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	stones		0	10
grey	hardpan	stones		10	44
grey white	sandstone			44	95

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
90	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	46
6	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☒ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC		46	95
	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.)

71 PUMPING TEST

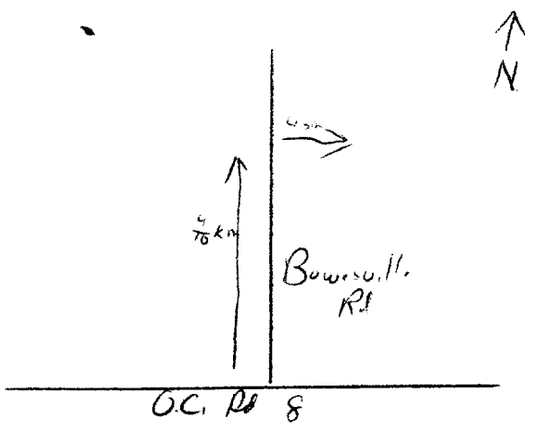
PUMPING TEST METHOD: 1 ☐ PUMP 2 ☐ BAILER
PUMPING RATE: 30 GPM
DURATION OF PUMPING: 1 HOURS 0 MINS
WATER LEVEL DURING: 1 ☐ PUMPING 2 ☐ RECOVERY

STATIC LEVEL	WATER LEVEL END OF PUMPING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
7 FEET	30 FEET	30 FEET	30 FEET	30 FEET	30 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: 30 FEET
RECOMMENDED PUMPING RATE: 10 GPM

LOCATION OF WELL

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



DRILLERS REMARKS: 56323

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: R. Mann 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 90

OFFICE USE ONLY

DATA SOURCE:
CONTRACTOR: 3644
DATE RECEIVED: SEP 17 1990
DATE OF INSPECTION:
INSPECTOR:
REMARKS:

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FORM NO. 0506 (11/86) FORM 9

patersongroup

5360 Bank Street, Ottawa

PREDICTIVE NITRATE IMPACT ASSESSEMENT - 40 mg/L

Infiltration Factors		
Topography	0.20	
Soil	0.40	
Cover	0.15	
Total	**0.75**	
Site Characteristics		
Area of Site :	67400	m^2
Roof + paved driveway areas	20723	m^2
Impervious Area	20723	m^2
Percent Impervious Area =	31	%
Infiltration Area =	46677	m^2
Septic Effluent		
Concentration of Effluent (Cs) =	40	mg/L
Infiltration Calculation		
Nitrate concentration in precipitation (C_i) =	0	mg/L
Surplus Water (Environment Canada)	298	mm/yr
Factored Water Surplus =	224	mm/yr
Infiltration % due to stormwater management measures	-	%
Infiltration rate from stormwater management measures =	0	mm/yr
Infiltration Flow Entering the System (Q_i) =	29	m^3/day
Mass Balance Model (MOEE, 1995)		
$C_T = (Q_bC_b+Q_eC_e+Q_iC_i)/(Q_b+Q_e+Q_i)$ = Cumulative Nitrate Concentration		
Q_b = flow entering the system across the upgradient area	0	m^3/day
C_b = background nitrate concentration	0	mg/L
Q_e = flow entering the system from the septic drainfield	9.5	m^3/day
C_e = concentration of nitrates in the septic effluent	40	mg/L
Q_i = flow entering the system from infiltration	29	m^3/day
C_i = Concentration of nitrates in the infiltrate	0	mg/L
C_T =	**9.98**	**mg/L**
Maximum Allowable Sewage Flow Volume		
Daily Sewage Flow (Qs)=	**9.5**	**m^3**

Notes: Site characteristic values were measured as approximate values from the available site plans and GeoOttawa.

patersongroup

5360 Bank Street, Ottawa

PREDICTIVE NITRATE IMPACT ASSESSEMENT - 20 mg/L

Infiltration Factors		
Topography	0.20	
Soil	0.40	
Cover	0.15	
Total	**0.75**	
Site Characteristics		
Area of Site :	67400	m^2
Roof + paved driveway areas	20723	m^2
Impervious Area	20723	m^2
Percent Impervious Area =	31	%
Infiltration Area =	46677	m^2
Septic Effluent		
Concentration of Effluent (Cs) =	20	mg/L
Infiltration Calculation		
Nitrate concentration in precipitation (C_i) =	0	mg/L
Surplus Water (Environment Canada)	298	mm/yr
Factored Water Surplus =	224	mm/yr
Infiltration % due to stormwater management measures	-	%
Infiltration rate from stormwater management measures =	0	mm/yr
Infiltration Flow Entering the System (Q_i) =	29	m^3/day
Mass Balance Model (MOEE, 1995)		
$C_T = (Q_bC_b+Q_eC_e+Q_iC_i)/(Q_b+Q_e+Q_i)$ = Cumulative Nitrate Concentration		
Q_b = flow entering the system across the upgradient area	0	m^3/day
C_b = background nitrate concentration	0	mg/L
Q_e = flow entering the system from the septic drainfield	10	m^3/day
C_e = concentration of nitrates in the septic effluent	20	mg/L
Q_i = flow entering the system from infiltration	29	m^3/day
C_i = Concentration of nitrates in the infiltrate	0	mg/L
C_T =	**5.18**	**mg/L**
Maximum Allowable Sewage Flow Volume		
Daily Sewage Flow (Qs)=	**10**	**m^3**

Notes: Site characteristic values were measured as approximate values from the available site plans and GeoOttawa.

patersongroup

5360 Bank Street, Ottawa

PREDICTIVE NITRATE IMPACT ASSESSEMENT - 450 L/day

Infiltration Factors		
Topography	0.20	
Soil	0.40	
Cover	0.15	
Total	**0.75**	
Site Characteristics		
Area of Site :	67400	m^2
Roof + paved driveway areas	20723	m^2
Impervious Area	20723	m^2
Percent Impervious Area =	31	%
Infiltration Area =	46677	m^2
Septic Effluent		
Concentration of Effluent (Cs) =	20	mg/L
Infiltration Calculation		
Nitrate concentration in precipitation (C_i) =	0	mg/L
Surplus Water (Environment Canada)	298	mm/yr
Factored Water Surplus =	224	mm/yr
Infiltration % due to stormwater management measures	-	%
Infiltration rate from stormwater management measures =	0	mm/yr
Infiltration Flow Entering the System (Q_i) =	29	m^3/day
Mass Balance Model (MOEE, 1995)		
$C_T = (Q_bC_b+Q_eC_e+Q_iC_i)/(Q_b+Q_e+Q_i)$ = Cumulative Nitrate Concentration		
Q_b = flow entering the system across the upgradient area	0	m^3/day
C_b = background nitrate concentration	0	mg/L
Q_e = flow entering the system from the septic drainfield	0.45	m^3/day
C_e = concentration of nitrates in the septic effluent	20	mg/L
Q_i = flow entering the system from infiltration	29	m^3/day
C_i = Concentration of nitrates in the infiltrate	0	mg/L
C_T =	**0.31**	**mg/L**
Sewage Flow Volume		
Daily Sewage Flow (Qs)=	**0.45**	**m^3**

Notes: Site characteristic values were measured as approximate values from the available site plans and GeoOttawa.

I REQUIRE THIS PLAN TO BE DEPOSITED UNDER THE LAND TITLES ACT.
DATE: FEB 25/22

STEFAN S. BAZAR
ONTARIO LAND SURVEYOR

PLAN 4R-34911
RECEIVED AND DEPOSITED
DATE: 2022 12 09

REPRESENTATIVE FOR
LAND REGISTRAR FOR THE
LAND TITLES DIVISION OF
OTTAWA-CARLETON NO. 4.

SCHEDULE

PART	LOT	CONCESSION	PIN
1 to 5 (both inclusive)	PART OF 29	4	All of 04327-0069

Part 2: Subject to easement, Inst. GL36799
Part 4: Subject to easement, Inst. OC670199

PLAN OF SURVEY OF

PART OF LOT 29
CONCESSION 4 (RIDEAU FRONT)
Geographic Township of Gloucester
CITY OF OTTAWA
Surveyed by Annis, O'Sullivan, Vollebekk Ltd.

Scale 1 : 1500
60 45 30 15 0 30 60 Metres

Metric
DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

Surveyor's Certificate
I CERTIFY THAT :
1. This survey and plan are correct and in accordance with the Surveys Act, the Surveyors Act and the Land Titles Act and the regulations made under them.
2. The survey was completed on the 10th day of February, 2021.

FEB 25/22 — Date
Stefan S Bazar — Ontario Land Surveyor

Notes & Legend
Denotes Survey Monument Planted
" " Survey Monument Found
SIB = Standard Iron Bar
SSIB = Short Standard Iron Bar
IB = Iron Bar
Meas. = Measured
(WIT) = Witness
(AOG) = Annis, O'Sullivan, Vollebekk Ltd.
(P1) = Plan 4R-15281
(P2) = Plan 4R-21514
(P3) = Plan by (857) dated June 19, 1986
(P4) = Plan 4R-19602
PWF = Post & Wire Fence
CLF = Chain Link Fence
C/L = Centreline
OHW = Overhead Wires
AN = Anchor
UP = Utility Pole

Distances shown on this plan are ground distances and can be converted to grid distances by multiplying by the combined scale factor of 0.999948.

Bearings are grid, derived from Can-Net 2016 Real Time Network GPS observations on reference points A and B, shown hereon, having a bearing of N58°38'30"E and are referenced to Specified Control Points 01919760735 and 01919871649, MTM Zone 9 (76°30' West Longitude) NAD-83 (original).

For bearing comparisons, a rotation of 0°38'25" counter-clockwise was applied to bearings on plan P1&P2 and a rotation of 00°02'40" to P4.

Coordinates are derived from Can-Net 2016 Real Time Network GPS observations referenced to Specified Control Points 01919760735 and 01919871649, MTM Zone 9 (76°30' West Longitude) NAD-83 (original).

Coordinate values are to urban accuracy in accordance with O. Reg. 216/10.

. 01919760735	Northing	5026903.34	Easting	376968.72
. 01919871649	Northing	5007189.87	Easting	372435.05
. Point A	Northing	5016475.64	Easting	377317.38
. Point B	Northing	5016568.25	Easting	377469.36

Caution: Coordinates cannot, in themselves, be used to re-establish corners or boundaries shown on this plan.

Committee of Adjustment
Received | Reçu le
2022-12-09
City of Ottawa | Ville d'Ottawa
Comité de dérogation

ANNIS, O'SULLIVAN, VOLLEBEKK LTD.
14 Concourse Gate, Suite 500
Nepean, Ont. K2E 7S6
Phone: (613) 727-0850 / Fax: (613) 727-1079
Email: Nepean@aovltd.com
Ontario Land Surveyors
Job No. 22367-21 GreelySandandGravel Pt1,Pt5 C4 GL R F SB

DETAIL 'A'
SCALE 1:500

DETAIL 'B'
SCALE 1:250

RECORD OF BOREHOLE 23-01

CLIENT: PERCY PYPER (1997) LTD.
PROJECT: 5360 Bank Street Phase Two ESA
JOB#: 100227.101
LOCATION: Salt Domes

SHEET: 1 OF 1
DATUM: CGVD28
BORING DATE: Aug 21 2023

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	SOIL PROFILE: STRATA PLOT	SOIL PROFILE: ELEV. / DEPTH (m)	SAMPLE DATA: NUMBER	SAMPLE DATA: TYPE	SAMPLE DATA: RECOVERY (mm)	SAMPLE DATA: BLOWS/0.3m	SAMPLE DATA: LABORATORY ANALYSES	COMBUSTIBLE VAPOUR CONCENTRATION (ppm)	ODOUR	TPH (mg/kg)	MONITORING WELL INSTALLATION AND NOTES
		Ground Surface											
0	Direct Push	Brown gravelly sand with trace silt			SA1	CS			M&I, BTEX, PHCs F1-F4		None		
					SA2	CS			M&I, BTEX, PHCs F1-F4		None		
1					NR								
					SA3	CS					None		
2					SA4	CS					None		
					NR								
3					SA5	CS					None		
					SA6	CS					None		
		End of Borehole Refusal		3.96									

GEMTEC
Consulting Engineers and Scientists

LOGGED: CZ
CHECKED: EW

ENV - BOREHOLE LOG 100227101_GINT_BOREHOLE LOGS.GPJ GEMTEC 2018.GDT 8/31/23

RECORD OF BOREHOLE 23-02

CLIENT: PERCY PYPER (1997) LTD.
PROJECT: 5360 Bank Street Phase Two ESA
JOB#: 100227.101
LOCATION: Cold Patch Pile

SHEET: 1 OF 1
DATUM: CGVD28
BORING DATE: Aug 21 2023

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLE DATA: NUMBER	TYPE	RECOVERY (mm)	BLOWS/0.3m	LABORATORY ANALYSES	COMBUSTIBLE VAPOUR CONCENTRATION (ppm)	ODOUR	TPH (mg/kg)	MONITORING WELL INSTALLATION AND NOTES
		Ground Surface											
0	Direct Push	Dark brown silty sand, trace clay (top soil)			SA1	CS			M&I, BTEX, PHCs F1-F4		None		
1					NR								
2		Orangey brown silty sand (beach sand)		1.83	SA2	CS			M&I, BTEX, PHCs F1-F4		None		
3					NR								
					SA3	CS					None		
		End of Borehole Refusal		3.96									

GEMTEC
Consulting Engineers and Scientists

LOGGED: CZ
CHECKED: EW

ENV - BOREHOLE LOG 100227101_GINT_BOREHOLE LOGS.GPJ GEMTEC 2018.GDT 8/31/23

RECORD OF BOREHOLE 23-03 (MW)

CLIENT: PERCY PYPER (1997) LTD.
PROJECT: 5360 Bank Street Phase Two ESA
JOB#: 100227.101
LOCATION: Tanks Outside CACE

SHEET: 1 OF 1
DATUM: CGVD28
BORING DATE: Aug 21 2023

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLE DATA: NUMBER	TYPE	RECOVERY (mm)	BLOWS/0.3m	LABORATORY ANALYSES	COMBUSTIBLE VAPOUR CONCENTRATION (ppm)	ODOUR	TPH (mg/kg)	MONITORING WELL INSTALLATION AND NOTES
		Ground Surface		108.84									
0	Auger	Light brown medium sand		0.03	NR								
		Dark brown silty sand, trace clay			SA1	CS				HEX: 115, IBI: 2	None		
1					NR								
					SA2	CS			BTEX, PHCs F1-F4	HEX: 160, IBI: 2	None		
		Crushed/ pulverized rock		107.01 1.83									
2				106.71	SA3	CS				HEX: 0, IBI: 1	None		
		Grey brown sand with gravel		2.13									
					NR								
3	Direct Push												
				105.49	SA4	CS					None		
		Crushed/ pulverized rock		3.35									
				105.18									
		Wet, brown grey medium sand with trace clay		3.66	SA5	CS				HEX: 0, IBI: 0	None		
4					NR								
													50mm diameter PVC well screen
5					SA6	CS			BTEX, PHCs F1-F4	HEX: 950, IBI: 2	None		
				103.51									
		Crushed rock		5.33									
				103.35									
		Brown sandy gravel with some silt		5.49	SA7	CS				HEX: 0, IBI: 2	None		
6					NR								
				102.74									
		End of Borehole Intersected Water Table		6.10									

GROUNDWATER OBSERVATIONS

DATE	DEPTH (m)	ELEVATION (m)
Aug. 23/23	3.86 ▽	104.94
Aug. 25/23	3.86 ▼	104.94

GEMTEC
Consulting Engineers and Scientists

LOGGED: CZ
CHECKED: EW

ENV - BOREHOLE LOG 100227101_GINT_BOREHOLE LOGS.GPJ GEMTEC 2018.GDT 8/31/23

RECORD OF BOREHOLE 23-04 (MW)

CLIENT: PERCY PYPER (1997) LTD.
PROJECT: 5360 Bank Street Phase Two ESA
JOB#: 100227.101
LOCATION: Side of Building

SHEET: 1 OF 1
DATUM: CGVD28
BORING DATE: Aug 21 2023

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLE DATA: NUMBER	TYPE	RECOVERY (mm)	BLOWS/0.3m	LABORATORY ANALYSES	COMBUSTIBLE VAPOUR CONCENTRATION (ppm)	ODOUR	TPH (mg/kg)	MONITORING WELL INSTALLATION AND NOTES
		Ground Surface		109.77									
0	Direct Push	Brown sandy gravel (Fill)			NR								
		Grey brown sand and gravel		0.30	SA1	CS			BTEX, PHCs F1-F4	HEX: 55, IBI: 0	None		
					SA2	CS				HEX: 10, IBI: 0	None		
1					NR								
2					SA3	CS				HEX: 15, IBI: 0	None		
					SA4	CS				HEX: 0, IBI: 0	None		
3					SA5	CS				HEX: 0, IBI: 0	None		
4		Grey sand and gravel, some silt		3.96 / 105.19	SA6	CS				HEX: 0, IBI: 1	None		
		Brown sand and silt with gravel		4.58 / 104.81	SA7	CS			BTEX, PHCs F1-F4	HEX: 290, IBI: 1	None		38 mm diameter PVC well screen
5		Grey sand and wilt with crushed rock		4.96									
					SA8	CS				HEX: 0, IBI: 0	None		
6				103.67									
		Grey clayey silt, wet		6.10 / 102.91	SA9	CS				HEX: 55, IBI: 0	None		
		End of Borehole Intersected Water Table		6.86									

GROUNDWATER OBSERVATIONS

DATE	DEPTH (m)	ELEVATION (m)
Aug. 23/23	3.24 ▽	106.45
Aug. 25/23	3.65 ▼	106.03

GEMTEC
Consulting Engineers and Scientists

LOGGED: CZ
CHECKED: EW

ENV - BOREHOLE LOG 100227101_GINT_BOREHOLE LOGS.GPJ GEMTEC 2018.GDT 8/31/23

RECORD OF BOREHOLE 23-05 (MW)

CLIENT: PERCY PYPER (1997) LTD.
PROJECT: 5360 Bank Street Phase Two ESA
JOB#: 100227.101
LOCATION: Beside Diesel Tank

SHEET: 1 OF 1
DATUM: CGVD28
BORING DATE: Aug 21 2023

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLE DATA: NUMBER	TYPE	RECOVERY (mm)	BLOWS/0.3m	LABORATORY ANALYSES	COMBUSTIBLE VAPOUR CONCENTRATION (ppm)	ODOUR	TPH (mg/kg)	MONITORING WELL INSTALLATION AND NOTES
		Ground Surface		110.60									
0	Auger	Greyish brown silty sand with crushed rock and gravel (Fill)			NR								
					SA1	CS			BTEX, PHCs F1-F4	HEX: 0, IBI: 0	None		
1					NR								
					SA2	CS				HEX: 0, IBI: 0	None		
2				108.47									
		Grey sandy silt, trace clay		2.13	SA3	CS				HEX: 0, IBI: 0	None		
					NR								
3	Direct Push			107.55									
		Grey brown silty sand and gravel, trace clay		3.05	SA4	CS				HEX: 0, IBI: 0	None		
					SA5	CS				HEX: 0, IBI: 0	None		38 mm diameter PVC well screen
4				106.33									
		Grey brown clayey silt with sand, wet to 5.64 mbgs		4.27	NR								
					SA6	CS			BTEX, PHCs F1-F4	HEX: 310, IBI: 1	None		
5					SA7	CS				HEX: 0, IBI: 0	None		
					NR								
6				104.50									
		End of borehole Intersection of Water Table Caved to 5.94 mbgs		6.10									

GROUNDWATER OBSERVATIONS

DATE	DEPTH (m)	ELEVATION (m)
Aug. 23/23	3.51 ▽	106.85
Aug. 25/23	3.70 ▼	106.66

GEMTEC
Consulting Engineers and Scientists

LOGGED: CZ
CHECKED: EW

ENV - BOREHOLE LOG 100227101_GINT_BOREHOLE LOGS.GPJ GEMTEC 2018.GDT 8/31/23

RECORD OF BOREHOLE 23-06 (MW)

CLIENT: PERCY PYPER (1997) LTD.
PROJECT: 5360 Bank Street Phase Two ESA
JOB#: 100227.101
LOCATION: Beside Sea Cans

SHEET: 1 OF 1
DATUM: CGVD28
BORING DATE: Aug 22 2023

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLE DATA: NUMBER	TYPE	RECOVERY (mm)	BLOWS/0.3m	LABORATORY ANALYSES	COMBUSTIBLE VAPOUR CONCENTRATION (ppm)	ODOUR	TPH (mg/kg)	MONITORING WELL INSTALLATION AND NOTES
		Ground Surface		110.29									
0	Auger	Dark brown silty sand, trace clay (Topsoil)			NR								
					SA1	CS			BTEX, PHCs F1-F4	HEX: 0, IBI: 0	None		
1					NR								
					SA2	CS				HEX: 0, IBI: 0	None		
2				108.31									
		Grey brown sand, trace silt (Beach sand)		1.98									
					NR								
3	Direct Push				SA3	CS				HEX: 0, IBI: 2	None		
				106.48									
		Wet, brown silty sand. Organic debris at 3.2 mbgs.		3.81									
4					SA4	CS				HEX: 0, IBI: 0	None		50 mm diameter PVC well screen
					SA5	CS				HEX: 0, IBI: 0	None		
5													
					SA6	CS			BTEX, PHCs F1-F4	HEX: 15, IBI: 1	None		
6				104.20									
		End of Borehole Intersection of Water Table		6.10									

GROUNDWATER OBSERVATIONS

DATE	DEPTH (m)	ELEVATION (m)
Aug. 23/23	3.92 ▽	106.22
Aug. 25/23	3.95 ▼	106.20

GEMTEC
Consulting Engineers and Scientists

LOGGED: CZ
CHECKED: EW

ENV - BOREHOLE LOG 100227101_GINT_BOREHOLE LOGS.GPJ GEMTEC 2018.GDT 8/31/23

RECORD OF BOREHOLE 23-07 (MW)

CLIENT: PERCY PYPER (1997) LTD.
PROJECT: 5360 Bank Street Phase Two ESA
JOB#: 100227.101
LOCATION: Asphalt Front of Building

SHEET: 1 OF 1
DATUM: CGVD28
BORING DATE: Aug 22 2023

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLE DATA: NUMBER	TYPE	RECOVERY (mm)	BLOWS/0.3m	LABORATORY ANALYSES	COMBUSTIBLE VAPOUR CONCENTRATION (ppm)	ODOUR	TPH (mg/kg)	MONITORING WELL INSTALLATION AND NOTES
		Ground Surface		110.20									
0	Auger	Asphalt			NR								
		Light brown silty sand, trace gravel and rock			SA1	CS			BTEX, PHCs F1-F4	HEX: 0, IBL: 0	None		
1					NR								
2	Direct Push				SA2	CS			BTEX, PHCs F1-F4	HEX: 0, IBL: 0	None		
					SA3	CS				HEX: 0, IBL: 0	None		
3					SA4	CS				HEX: 0, IBL: 0	None		
4					SA5	CS				HEX: 0, IBL: 0	None		38 mm diameter PVC well screen
		End of Borehole Auger Refusal at 3.96 mbgs, Core Refusal at 4.57 mbgs		105.63 4.57									

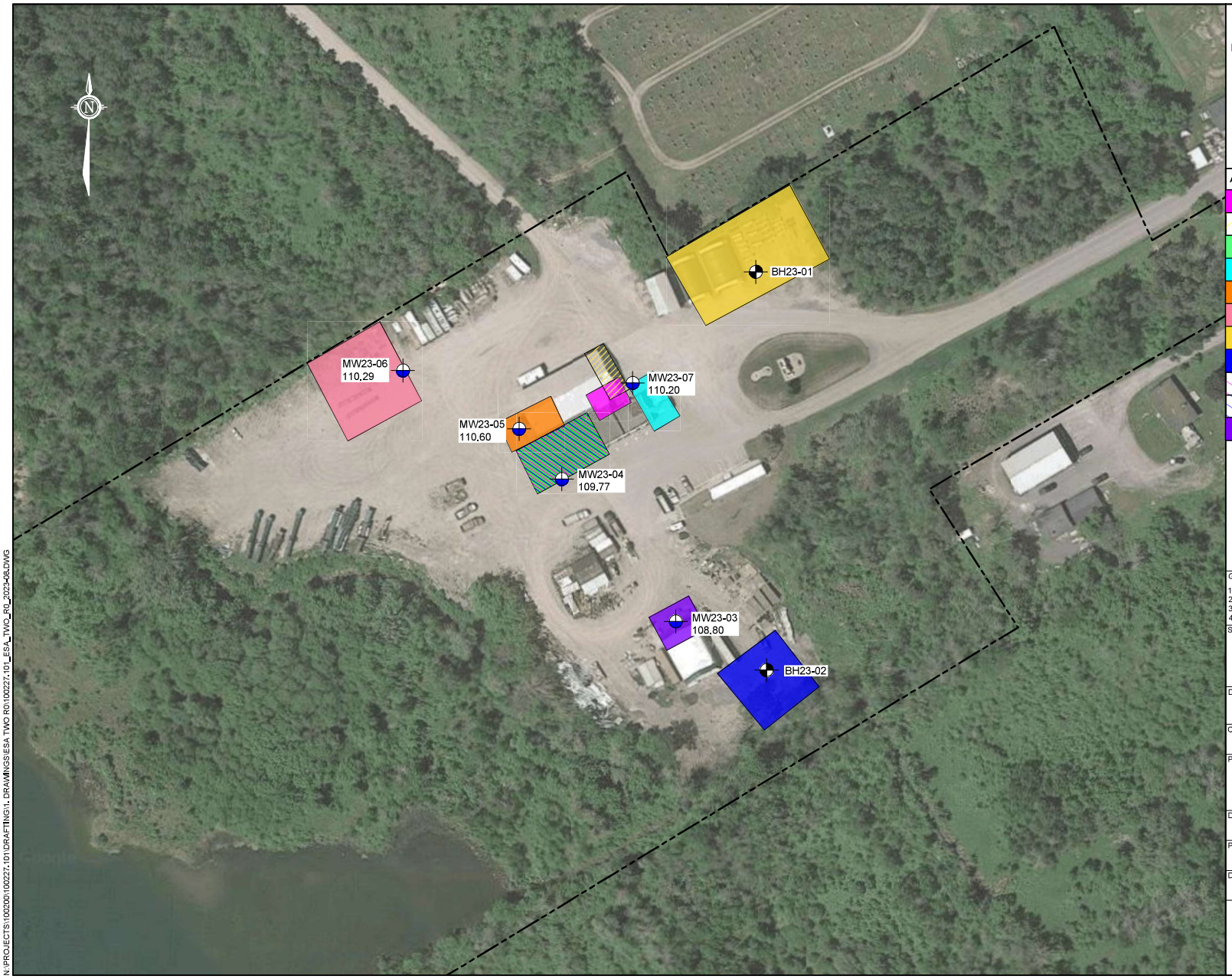
GROUNDWATER OBSERVATIONS

DATE	DEPTH (m)	ELEVATION (m)
Aug. 23/23	3.40 ▽	106.71
Aug. 23/23	3.43 ▼	106.68

GEMTEC
Consulting Engineers and Scientists

LOGGED: CZ
CHECKED: EW

ENV - BOREHOLE LOG 100227101_GINT_BOREHOLE LOGS.GPJ GEMTEC 2018.GDT 8/31/23



LEGEND

BH/ MW # — BOREHOLE/ MONITORING WELL ID

XX.XX — GROUND SURFACE ELEVATION, IN METRES GEODETIC DATUM

BOREHOLE LOCATION (current investigation by GEMTEC)

MONITORING LOCATION (current investigation by GEMTEC)

PHASE TWO PROPERTY

APEC NUMBER	AREA OF POTENTIAL ENVIRONMENTAL CONCERN
1	PCA #28, INTERIOR FURNACE OIL TANK
2	PCA #8, MOTOR OIL BENCH TANK
3	PCA #28, DYED DIESEL TANK
4	PCA #28, FIBERGLASS FURNACE OIL TANK
5	PCA #8, WASTE OIL STORAGE TANK
6	PCA #8, WASTE OIL STORAGE TOTES
7	PCA #48, BULK STORAGE OF ROAD SALTS
8	PCA OT.5 STOCKPILING OF ASPHALT COLD PATCH
9	PCA OT.6 OIL WATER SEPARATOR
10	PCA #28, FURNACE OIL TANK
11	PCA #28, TWO DYED DIESEL TANKS

GENERAL NOTE(S)

1. Coordinate system: NAD83, UTM ZONE 18.
2. Contains information licensed under the Open Government Licence - Ontario.
3. Maps Data: Google, @2023 CNES / Airbus, First Base Solutions, Maxar Technologies
4. Geographic dataset source: Ontario GeoHub.

SCALE

1:1250

0 25 50 75m

DRAWING

BOREHOLE AND MONITORING WELL LOCATIONS

CLIENT

PERCY PYPER (1997) LTD.
C/O MILESTONE AGGREGATE CONSULTING SERVICES INC.

PROJECT

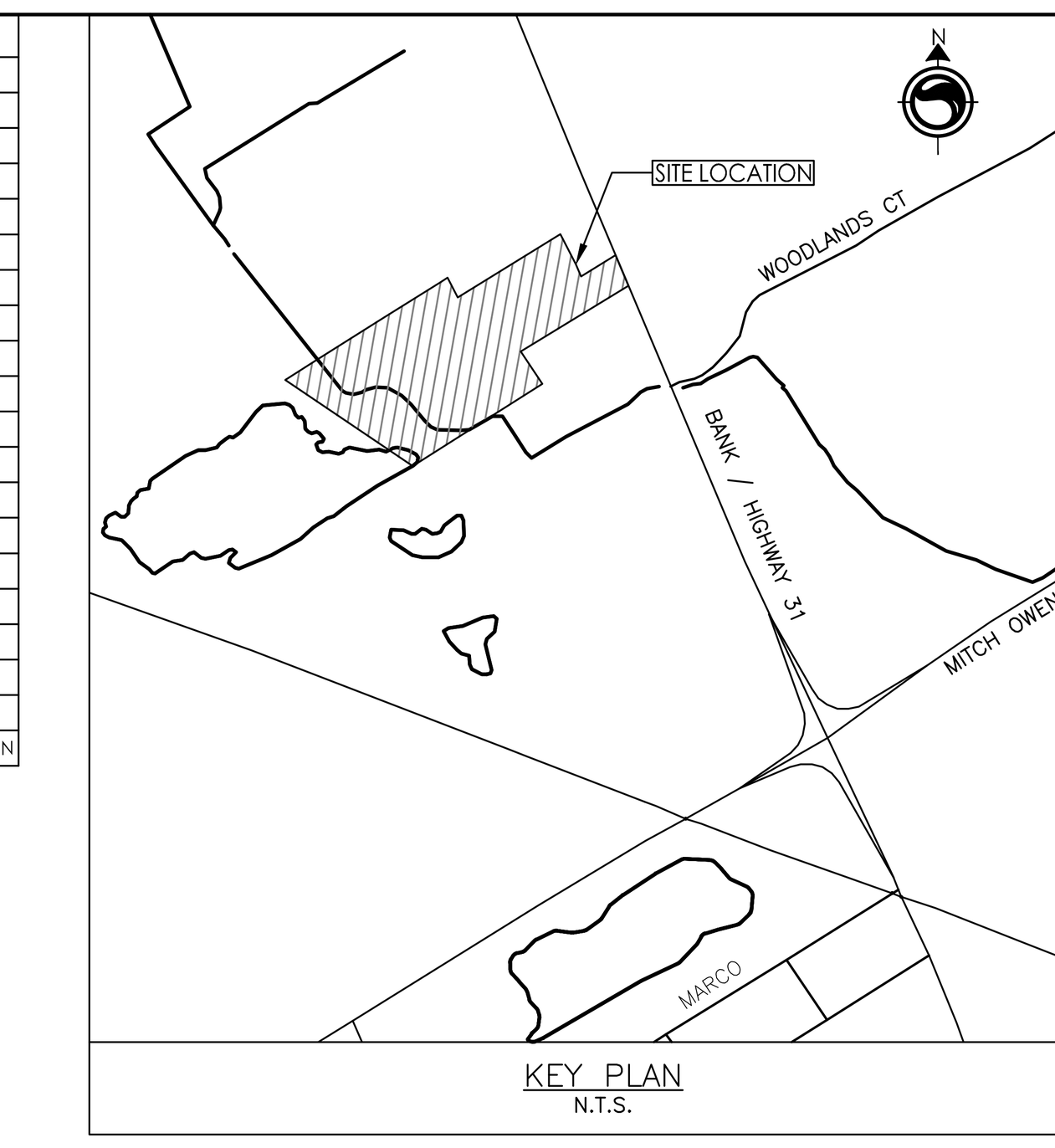
PHASE TWO
ENVIRONMENTAL SITE ASSESSMENT
5360 BANK STREET
OTTAWA, ONTARIO

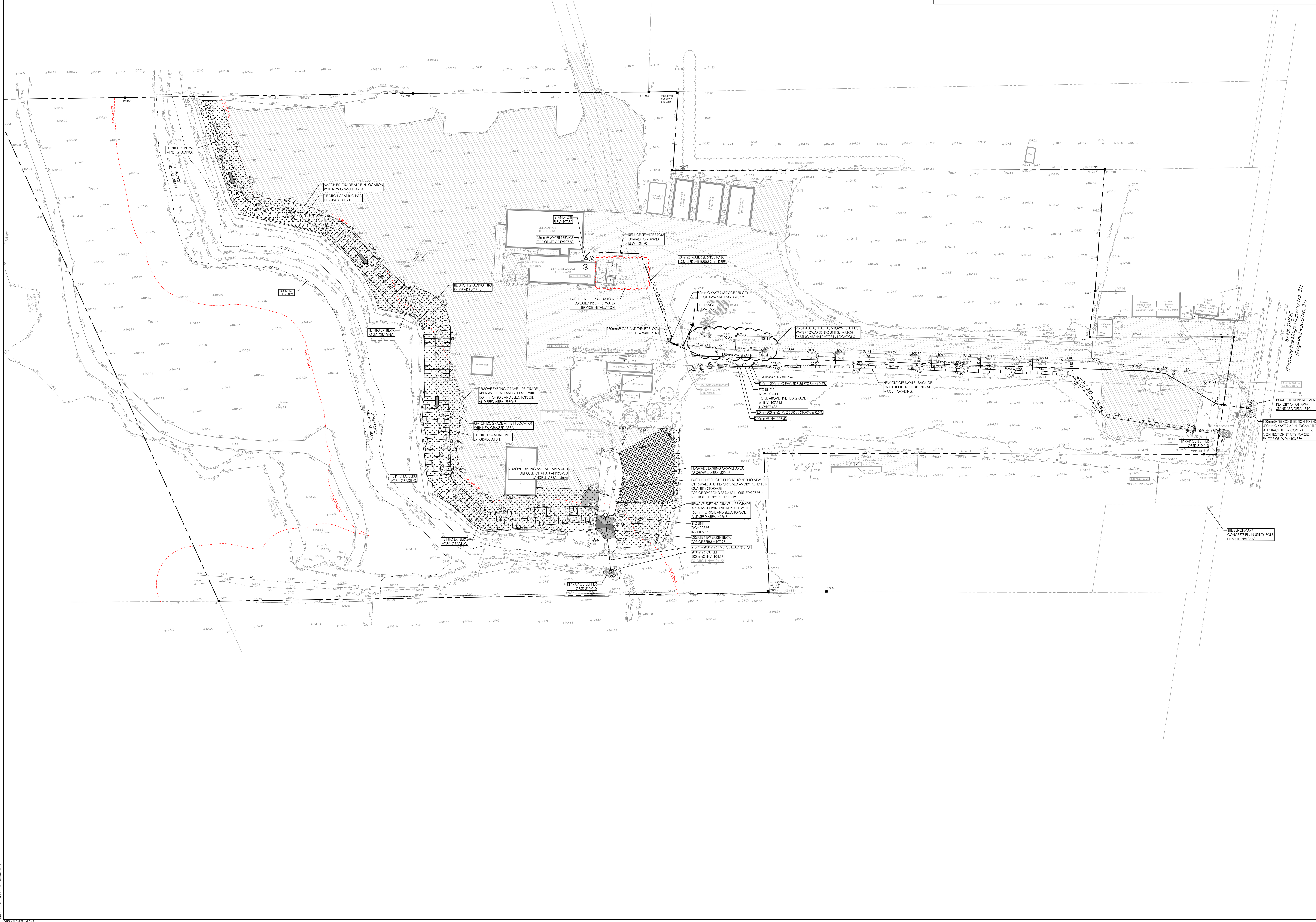
DRAWN BY	CHECKED BY
C.Z.	D.E./M.K.
PROJECT NO.	REVISION NO.
100227.101	0
DATE	FIGURE NO.
SEPTEMBER 2023	FIGURE A.4

GEMTEC
CONSULTING ENGINEERS AND SCIENTISTS
32 Steacie Drive
Ottawa, ON K2K 2A9
Tel: (613) 836-1422
www.gemtec.ca
ottawa@gemtec.ca

N:\PROJECTS\100200\100227.101\DRAFTING\1. DRAWINGS\ESA TWO R0\100227.101_ESA_TWO_R0_2023-08.DWG

150mmØ WATERMAIN TABLE			
STATION	FINISHED GRADE	TOP W/M	ITEM
0+000	109.47	107.070	150mmØ CAP AND THRUST BLOCK
0+000.6	109.47	107.070	50mmØ PEX SERVICE
0+003	109.44	107.040	150mmØ VALVE AND VALVE BOX
0+006	109.39	106.990	150mmØ FIRE HYDRANT TEE
0+014	108.73	106.330	22½° HORIZONTAL BEND
0+020	108.39	105.990	TOP OF PIPE
0+040	108.18	105.780	TOP OF PIPE
0+060	107.92	105.520	TOP OF PIPE
0+080	107.68	105.280	TOP OF PIPE
0+100	107.60	105.200	TOP OF PIPE
0+120	107.49	105.090	TOP OF PIPE
0+140	107.35	104.950	TOP OF PIPE
0+160	107.16	104.760	TOP OF PIPE
0+180	107.26	104.860	TOP OF PIPE
0+189.8	106.96	104.560	5° HORIZONTAL BEND
0+197.3	106.63	104.230	22½° HORIZONTAL BEND
0+220.3	105.55	103.150	22½° HORIZONTAL BEND
0+223.3	105.22	102.820	150mmØ VALVE AND VALVE BOX
0+233.9	105.73	103.33±	150mmØ TEE CONNECTION TO EX.400mmØ PVC WATERMAIN





Stantec

Stantec Consulting Ltd.
400 - 1331 Clyde Avenue
Ottawa ON
Tel. 613.722.4420
www.stantec.com

Legend

Symbol	Description
× 99.99	ORIGINAL GROUND ELEVATION
99.99 ×	PROPOSED ELEVATION
× 99.99 / 98.88	PROPOSED ELEVATION / EXISTING ELEVATION
2.0% ←	FLOW DIRECTION AND GRADE
	TERRACING 3:1 SLOPE MAXIMUM (UNLESS OTHERWISE SHOWN)
	DIRECTION OF OVERLAND FLOW
	PROPOSED STORM SEWER MANHOLE
	PROPOSED CATCHBASIN
	EXISTING STORM SEWER OR CULVERT
	PROPOSED STORM SEWER OR CB LEAD
	EXISTING CATCHBASIN
	EXISTING WATERMAIN
	PROPOSED WATERMAIN
	PROPOSED VALVE AND VALVE BOX
	PROPOSED FIRE HYDRANT
M	WATER METER
RM	REMOTE WATER METER
	EXISTING ASPHALT ACCESS AND PARKING
	EXISTING GRAVEL ACCESS AND PARKING
	NEW GRASSED AREA
	EXISTING GRAVEL AREA TO BE REGRADED
	EXISTING ASPHALT AREA TO BE REMOVED
	REGULATION LIMIT PER SNCA

Notes

Revision	By	Appd.	YY.MM.DD
0 ISSUED FOR REVIEW	MJS	PM	24.09.05

File Name: 160401995 DB	Dwn.	Chkd.	Dsgn.	YY.MM.DD
	MJS	DT	DT	24.08.16

Permit-Seal

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

Client/Project

5360 BANK STREET ZONING BYLAW AMENDMENT AND SITE PLAN CONTROL

GREELY SAND & GRAVEL INC.
1971 OLD PRESCOTT ROAD
GREELY, ON

Title

REMOVALS, SERVICING, GRADING AND RE-INSTATEMENT PLAN

Project No. 160401995

Scale 1:500 (0 5 15 25m)

Drawing No. RSGP-1

Sheet 4 of 4

Revision 0