

Hydrogeology and Terrain Evaluation

PROPOSED RURAL RESIDENTIAL LOTS

3024 OLD BEVERLY ROAD

TOWNSHIP OF NORTH DUMFRIES

JUNE 26, 2026

Project # 26-6001A





Author and Review Panel

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1 Introduction

Greer Galloway, a division of Jp2g Consultants Inc. (Jp2g) was retained by 12649161 Canada Inc. to complete a water supply and terrain evaluation for a proposed report in support of a five-lot severance (plus one retained parcel) at 3024 Old Beverly Road, Township of North Dumfries, Regional Municipality of Waterloo.

The purpose of the work was to demonstrate the availability of sufficient potable groundwater supply to service the proposed new lots without adversely impacting surrounding wells; and to demonstrate that the property is able to accommodate private sewage treatment/disposal systems in accordance with Provincial standards without affecting surrounding private water sources.

2 Investigation Methods

The assessment was carried out in general accordance with the Ministry of the Environment, Conservation, and Parks (MECP) procedures D-5-4 (Individual On-Site Sewage Systems)¹ and D-5-5 (Private Well: Well Assessment)². The proposed scope was provided to the Township's peer Reviewer and slight modifications were made as a result.

The investigation included a review of water well records, a review of available geologic and hydrogeologic information for the area, an inventory of water supply wells within a reasonable distance of the subject property, a pumping test on a new drilled well located on one of the proposed severed lots, along with a similar test on an existing well on another of the proposed lots. The investigation methods are described further in the following subsections.

2.1 Well Records Search and Survey

Information about nearby wells was obtained from available MECP water well records on the MECP wells database using a search radius of 500 m from the subject property. MECP Water Well Record sheets for the searched area are provided in Appendix A.

In January 2026, a door-to-door well survey was carried out for neighbouring wells within a 300 m radius of the subject property. Introductory letters were left at all residences at this time with a description of the proposed work and a request to contact Greer Galloway by email or phone to confirm water supply information and to indicate whether the homeowner would consent to have their well used as an observation well during the testing. No response was received from any of the neighbouring properties. Another attempt to contact the closest homeowners was made in May 2026 but again none of the adjacent homeowners were present.

2.2 Water Supply Assessment

2.2.1 Test Well 1 (A417126, 560059E; 4801235N).

A new well was drilled on May 20, 2026 by Martin Well Drilling Inc. of Alma, Ontario. The well was sited on proposed Lot 2 and was predicted, based on a review of well records for the area, to yield in excess of 45 L/m if completed within the upper Guelph Formation bedrock. This well is a nominal 150 mm diameter drilled well

¹ MECP (Ministry of Environment Conservation and Parks) 1996: D-5-4 Individual On-Site Sewage Systems: Water Quality Impact Risk Assessment.

² MECP (Ministry of Environment Conservation and Parks) 1996: D-5-5 Private Wells: Water Supply Assessment.



sourcing the bedrock aquifer beneath 23 m of overburden. The total well depth is 33.5 m with water reportedly found at the top of bedrock. The driller-reported yield was in excess of 90 L/min.

A 6-hour pumping test was completed on May 28, 2026. The test was initiated at 10:15 AM at a rate of 25 ± 1 L/min. The pumping rate was checked periodically throughout the test using the time-volume method. Greer Galloway's datalogger optical interface malfunctioned so water levels were recorded manually during the testing. The discharge water was directed away from the pumped well a distance of approximately 30 m to the west (downgradient of the well). The water level observations during the test and the recovery period following the testing are included in Appendix B. The well was not chlorinated prior to the pumping test.

2.2.2 Test Well 2 (WWR# 6808737, 560127E; 4801141N).

A second six-hour test was completed for the existing well located at proposed Lot 5 (3024 Old Beverly Road). This well is a nominal 150 mm diameter drilled well sourcing the bedrock aquifer beneath 29 m of overburden (described as "grey clay with gravel and stones"). The total well depth is 30 m with water reportedly found at the top of bedrock. The driller-reported yield was 136 L/min.

The well was located in a pit and it was used in this configuration as an observation well for the pumping test on TW-1 on May 28th. The well was subsequently converted to O.Reg. 903 Standards by welding a pitless adaptor to the existing casing and backfilling the pit before completing the pumping test on June 4, 2026.

A 6-hour pumping test was completed for TW-2 on June 4, 2026. The test was initiated at 10:40 AM at a rate of 25 ± 15 L/min. The pumping rate was checked periodically throughout the test using the time-volume method. Water levels were recorded during the pumping and recovery using datalogging pressure transducers (Solinst Model 3001) set to 10 s intervals. The discharge water was directed away from the pumped well a distance of approximately 30 m to the east (downgradient of the well). The water level observations during the test and the recovery period following the testing are included in Appendix B. The well was not chlorinated prior to the pumping test.

2.3 Water Quality Assessment

A groundwater sample was obtained during the last hour of each pumping test. The sample was placed into a variety of laboratory-prepared sample containers that were sealed, placed into a cooler with ice packs to maintain a temperature of approximately 4 °C, and transported to Caduceon Laboratories in Kingston, Ontario. Analytical parameters included E. coli and Total Coliform bacteria and a variety of additional parameters including Alkalinity, pH, Conductivity, Colour, Turbidity, Fluoride, Chloride, Nitrite and Nitrate, Sulphate, DOC, Hardness, Iron, Magnesium, Manganese, and Sodium (refer to the Laboratory Certificates of Analysis in Appendix C).

3 Summarized Findings

3.1 Site Description

The approximately 11 ha property is located at 3024 Old Beverly Road, Part of Lot 9, RP 67R834 Part 1, Township of North Dumfries, County of Dufferin. The rectangular property is located at the east limit of the City of Cambridge, approximately 4.5 km east of Cambridge Downtown and approximately 20 km south of the City of Guelph. The property is just outside of the City of Cambridge. It is bounded to the north by agricultural land,



rural residential development and forest; to the south by Old Beverly Road, forest, commercial and rural development; to the east by North Dumfries Township Road 17, agricultural land and rural development; and to the west by Robinson Road, and residential development.

There is a dwelling and a garage on the property. On the east side of the property, there is an abandoned agricultural field, the rest of the property is vegetated. The existing dwelling and driveway will be within the largest lot located on the southwest part of the property. The other four (4) lots will have access from Robinson Road. A new driveway will be needed for each of these lots. Future residential development in four of the severed lots and retained land will be serviced by private wells and septic systems.

The topography on the property is gently undulating. Elevations in the property were determined from the Ontario Base Mapping (MNR), ranging from 295 to 300 metres Above Sea Level (mASL). The highest elevation is reported in the east part of the property in the form of a small ridge. The lowest elevation is reported along the central part of the property. Local drainage is either towards Robinson Road or eastward to a low wetland area within the central portion of the property.

The area is north of direct lake effects and is characterized by cool winters and relatively warm humid summers. Snow typically occurs during 5 months of the year from December to April with lake effect precipitation resulting in variable levels of winter precipitation from year to year. Precipitation is approximately 900 mm/a with an average annual evapotranspiration (ET) of about 500 mm/a.

Mapping shows primarily surficial soils classified as silty sand to silt-textured till (OGS, 2011³). Infiltration factors for the area were calculated as per the Ontario Ministry of the Environment 1995 Hydrogeological Technical Information Requirements for Land Development Applications.

It is based on three sub-factors which are:

- Topography sub-factor
- Soil sub-factor
- Cover sub-factor

Table 1 presents infiltration factors based on the details of the ground cover factors for the subject property under current conditions.

Table 1: Estimated Infiltration Factors

Site Characteristic	Infiltration Factor
<u>Topography</u>	
Flat Land	0.3
Rolling Land	0.2
Hilly Land	0.1
<u>Soils</u>	
Tight impervious clay	0.1
Medium combinations of clay and loam	0.2
Open Sandy loam	0.4
<u>Cover</u>	
Cultivated Land	0.1

³ Ontario Geological Survey (OGS), 2011. 1:250 000 Scale Bedrock Geology of Ontario, Miscellaneous Release – Data 126 – Revision 1.



Site Characteristic	Infiltration Factor
Woodland	0.2
Sum of Infiltration Factors	0.6

Given an average annual moisture surplus (P-ET) of approximately 400 mm, we estimate an average annual infiltration of approximately 240 mm for the subject property.

3.2 Geology and Hydrogeology

Overburden deposits in the study area were formed by glacial processes during the Wisconsin glacialation approximately 12,000 to 25,000 years before present. Thick glacial ice sheets (lobes) advanced several times into the southern part of Ontario from various directions and then receded, creating the present configuration of till sheets, moraines, abandoned spillways, drumlins, eskers, abandoned shorelines, and various stillwater sediments.

The study area is located within the eastern edge of the physiographic region described by Chapman and Putnam (1984) as the Waterloo Hills. The surficial deposits within the area are primarily till plain with alluvial deposits of silt, sand, and gravel were laid down locally by meltwater during deglaciation of the area and organic soils occur within low-lying or poorly drained areas. The Quaternary Geology Map of the Cambridge Area (Ontario Geological Survey Map 2508) shows that the area is underlain by deposits of the sandy silt Port Stanley Till.

Bedrock of the Silurian age Guelph Formation is found at depths of approximately 30 m beneath the site. The Guelph Formation typically consists of brown to beige dolostone with a fine to medium crystalline structure.

Twenty-eight (28) well records were obtained from the general area of the proposed severances with 24 of these containing useful information. Yields ranged from 16 to >200 L/min with average and median yields of about 71 and 57 L/min respectively.

A summary of the water well data is included on the following table:

Table 2: Summary of well depths and yields within a 500 m radius of the property

Well No.	Water Found (m)	Static Level (m)	Yield (L/min)	Overburden Depth (m)	Hole Depth (m)	Water Type	Aquifer
6500545	5.5	0.0	204.3	24.4	25.0	Fresh	Overburden
6500543		0.0	204.3	30.2	48.5	Fresh	Bedrock
6505578	13.1	0.6	90.8	0.0	14.9	Fresh	Overburden
6505572		0.9	90.8		15.2	Fresh	Overburden
6808737	29.9	5.2	136.2	29.0	30.5	Fresh	Bedrock
7296945	25.9	5.2	45.4		25.9	Fresh	Overburden
6508648	26.5	3.7	68.1	23.5	27.1	Fresh	Bedrock
6508649	28.7	3.7	90.8	26.2	29.0	Fresh	Bedrock
7134794	28.0	6.4	68.1	25.0	28.3	Fresh	Bedrock
6505583	27.1	1.8	45.4	26.8	27.4	Fresh	Bedrock
7185276					6.1		Monitoring
7185275					6.1		Monitoring
7185277					6.1		Monitoring
6503841	12.5	4.9	45.4		12.5	Fresh	Overburden
6503835	32.3	0.9	45.4	29.3	32.9	Fresh	Bedrock
6500541	44.8	4.6	81.7	32.6	49.1	Fresh	Bedrock
6503039	24.4	2.1	15.9	0.0	25.0	Fresh	Overburden



Well No.	Water Found (m)	Static Level (m)	Yield (L/min)	Overburden Depth (m)	Hole Depth (m)	Water Type	Aquifer
6500542	30.5	3.0	36.3	27.4	33.5	Fresh	Bedrock
6503146	17.4	3.0	18.2		17.7	Fresh	Overburden
7194992							Abandonment
7181930	16.2	4.2	68.1		17.7	Fresh	Overburden
6508145	27.4	3.0	45.4		27.4	Fresh	Overburden
6500544	27.9	5.5	45.4		28.0	Fresh	Overburden
7294308	32.0	5.4	45.4	30.8	32.3	Fresh	Bedrock
6504079	19.2	5.2	22.7		19.2	Fresh	Overburden
6507294	25.0	2.4	68.1		25.0	Fresh	Overburden
6505663	30.5	7.6	68.1		32.0	Fresh	Overburden
6505574	32.0	4.3	45.4	31.1	32.3	Fresh	Bedrock

Individual well records are provided with this report as Appendix A.

Based on the recorded static levels and the topographic setting, the dominant deep groundwater flow direction is in a southwesterly direction towards the Grand River valley. Shallow flow within overburden is governed by the local topography and generally parallels the surface drainage.

3.3 Water Availability

3.3.1 Test Well 1 (A417126)

Pumping was carried out over a 6-hour period. The flow rate was maintained at 25 L/min for the duration of the test. The final water level reading before the test was stopped was 4.60 m bgs, indicating a maximum drawdown of 0.2 m. A volume of 9,000 L was pumped from the well over the course of the test. 80% recovery of the water column was observed within 60 minutes of the end of the test. Water level measurements at the existing residential well (WWR# 6808737, 113 m to the southeast) yielded a nearly identical drawdown consistent with a high aquifer transmissivity. Hydrographs for this pumping test are included in Appendix B.

3.3.2 Test Well 2 (WWR# 6808737)

Pumping was carried out over a 6-hour period. The flow rate was maintained at 25 L/min for the duration of the test. The final water level reading before the test was stopped was 4.80 m bgs, indicating a maximum drawdown of 0.3 m. A volume of 9,000 L was pumped from the well over the course of the test. 80% recovery of the water column was observed within 60 minutes of the end of the test. Water level measurements at Well A417126 yielded a similar drawdown consistent with a high aquifer transmissivity. Hydrographs for this pumping test are included in Appendix B.

3.3.3 Adequacy of Supply

According to MECP Guideline D-5-5, the per-person requirement is 450 L/day (though recent data shows that actual per-person usage in Ontario is approximately 225 L/day), with peak demand occurring for a period of 120 minutes each day. Assuming a family of four, this is equivalent to a peak demand of 15 L/min. The wells on the subject property were able to sustain a yield exceeding this peak demand for a period of 6 hours, with rapid recovery.



The tested yields are considered to be representative, and wells completed within the upper bedrock aquifer are expected to support normal residential water demands throughout the year.

3.4 Water Quality

Groundwater was clear and free from any visible colour, sediment, turbidity and odour except for a noticeable iron taste and odour. A groundwater sample was obtained from each tested well just before the end of the pumping, and analyzed at Caduceon Laboratories Ltd. in Kingston, Ontario for selected parameters. Key results are summarized in Table 3, with exceedances being formatted in bold. The full results of this testing are included with the Laboratory Certificates of Analysis in Appendix C.

Table 3: Summary of key analytical results

Parameter	Units	RL	A417126 (May 28, 2026)	# 6808737 (June 4, 2026)	Limit (MECP D-5-5)
<u>Bacteriological Parameters</u>					
Total Coliform	cfu/100mL	1	0	0	0 (5)
E coli	cfu/100mL	1	0	0	0
Background	cfu/100mL	1	5	26	N/A
<u>Physical/Chemical parameters with Health-related Criteria</u>					
Turbidity (Laboratory)	NTU	0.1	12	5.7	5
Nitrite (N)	mg/L	0.1	<0.05	<0.05	1
Nitrate (N)	mg/L	0.1	<0.05	<0.05	10
Fluoride	mg/L	0.1	<0.1	<0.1	2.4
<u>Physical/Chemical parameters with Aesthetic Criteria/Operational Guidelines</u>					
Alkalinity (as CaCO ₃)	mg/L	5	248	244	500 ^{OG}
pH @25°C	pH Units	-	8.07	7.99	6.5 – 8.5 ^{OG}
Chloride	mg/L	0.5	40.4	120	250 ^{AO}
Sulphate	mg/L	1	66	78	500 ^{AO}
Dissolved Organic Carbon	mg/L	0.2	2.8	2.8	5 ^{AO}
Hardness (as CaCO ₃)	mg/L	1	345	426	100 ^{OG}
Iron	mg/L	0.005	0.906	0.619	0.3 ^{AO}
Manganese	mg/L	0.001	0.013	0.01	0.05 ^{AO}
Sodium	mg/L	0.2	11.1	38	200 ^{AO}

Water quality was good for all parameters except for turbidity which exceeded the health-related ODWS and for iron which exceeded the Aesthetic Objective in both wells. The groundwater exhibited elevated hardness as is ubiquitous for carbonate aquifers in this part of Ontario. Sodium at 38 mg/L exceeds the 20 mg/L threshold above which notification to the Medical Officer of Health is required for regulated systems so that sodium intake from drinking water may be taken into account for patients on a sodium restricted diet. However, this threshold is not a health-related standard, and the advisory requirement applies only to regulated water systems.

Treatment for elevated dissolved iron will be required as the observed levels are high enough that they would result in staining of fixtures as well as an unpleasant taste. Based on low field turbidity, we expect that the elevated laboratory turbidity is related to the elevated iron concentrations and reflects the precipitation of iron after sampling. This is a common occurrence, and we expect that the elevated turbidity will be eliminated through treatment for iron. Iron treatment systems are readily available and effective.



While no sulphide odour was noted in either well and sulphate concentrations are low, the bedrock aquifer in this area is prone to development of sulphate reducing bacteria over time and these may result in a detectable sulphide odour.

3.5 Potential for Well Interference

The radius of influence (r, metres) between a pumped well and the neighbouring properties may be estimated using the estimated value for Q (i.e., the average amount pumped per day in litres) and the average recharge (R, mm per year) to the aquifer according to:

$$Q = \frac{R\pi r^2}{365} \quad [1]$$

This calculation yields zone of influence distances of less than 30 m based on a bedrock well, pumping at a rate of 1,000 L/day over the course of a year.

We note that the “radius of influence” in this simple calculation is actually the radius where natural recharge equals the amount pumped from the well. In a confined aquifer system, the influence of pumping a well may be observed in other wells at a considerable distance and near instantaneously.

To provide a more realistic assessment of the potential for interference between wells, we must add the transient effect of pumping to any secular decline in the water table attributable to water takings from the new wells. Figure B-6 (appendix B) shows brief transient effects of nearby well pumping amounting to about 0.02 m per pump cycle. Such transient effects will be reciprocal (i.e. pumping from wells at the new lots will cause a similar effect on neighbouring wells).

To estimate secular drawdown, we first used the Theim equation for a confined aquifer to determine the effective Transmissivity of the aquifer in the vicinity of the tested wells:

$$T = \frac{Q}{2\pi(s_1 - s_2)} \ln\left(\frac{r_2}{r_1}\right) \quad [2]$$

Where,

- Q = pumping rate (m³/day);
- T = aquifer transmissivity (m²/day),
- S_1 = observed drawdown at observation well 1 (m)
- S_2 = observed drawdown at observation well 2 (m)
- r_1 = distance to observation well 1 (m)
- r_2 = distance to observation well 2 (m)

Rearranging Equation [2] in terms of Q gives:

$$Q = 2\pi T \frac{(s_1 - s_2)}{\ln\left(\frac{r_2}{r_1}\right)} \quad [3]$$

Since the values for Q, s and r are known, we can use Equation 3 to solve for T. This results in Transmissivity of greater than 300 m²/day.

Applying the Theis analytical solution, the lateral extent of groundwater level drawdown can be estimated as follows:

$$s(r, t) = \frac{Q}{4\pi T} W\left(\frac{r^2 S}{4Tt}\right) \quad [4]$$



where $s(r, t)$ = drawdown at distance (r) and time (t = 365 days) after the start of pumping, and

Q = average pumping rate for five new homes (5 m³/day);

T = aquifer transmissivity (300 m²/day);

S = aquifer storativity (an estimate of 0.01); and

W = Theis well function.

Under these assumptions the pumping of 5 m³/day for one year yields a maximum drawdown of less than 0.1 m at 70 m (the approximate distance to the nearest well). Given the minimal predicted drawdown and the depth of the wells, we do not consider well interference to be a concern for the proposed severances.

3.8 Onsite Sewage Treatment

The proposed new lots range from 0.93 to 1.73 ha in area. The average lot size is greater than 1 ha with none of the individual lots being smaller than 0.9 ha, and as such, the risk of contamination of neighbouring properties via nitrate-rich sewage effluent is considered to be low under MECP Guideline D-5-4.

For comparison purposes, we have calculated the concentration of nitrate at the property boundary for the smallest of the new lots according to:

$$C_T = \frac{(Q_O \times C_O) + (Q_O \times C_{bk}) + (Q_R \times C_R)}{Q_R + Q_O} \quad [5]$$

Where:

C_T = Nitrate concentration at property boundary (mg/L as N)

Q_O = Sewage Effluent Volume (L/day)

C_O = Nitrate concentration of sewage effluent (mg/L as N)

C_{bk} = Nitrate concentration in background groundwater (mg/L as N)

Q_R = Groundwater recharge or precipitation infiltration (L/day)

C_R = Nitrate concentration of groundwater recharge (mg/L as N)

Each of these parameters are discussed as follows:

Q_O – Daily sewage flows will be dependent on the number of persons at each residence. Based on a 4 to 5 person household, the daily flow per lot is 1 m³/day (1,000 L/day).

C_O – For conventional sewage systems for residential developments, an effluent nitrate flux of 40 mg/L per building lot is typically assumed for residential developments.

C_{bk} – Background nitrate levels of 0mg/L were detected from the samples taken during the pumping tests.

Q_R – A groundwater recharge rate of 240 mm/year and an area of 0.93 ha yields a groundwater recharge of 6,115 L/day.

C_R – Nitrate levels in groundwater recharge are ignored since precipitation does not typically contain detectable levels of nitrate.

C_T – The calculated groundwater nitrate at the property boundary.

These quantities yield a nitrate concentration of less than 10 mg/L in groundwater leaving the property:



$$C_T = \frac{(1,000L \times 40 \text{ mg/L}) + (1,000 \times 0.0 \text{ mg/L}) + (6115 \times 0 \text{ mg/L})}{6,115 + 1,000} = 5.6 \text{ mg/L}$$

The site conditions are considered suitable for private sewage treatment systems and the thick low-permeability overburden deposits provide good protection to the water supply aquifer. The generally low permeability of the shallow overburden will require the use of a raised septic system. A standard filter bed sufficient to service a three-bedroom home will require a footprint of approximately 15 x 24 m. Any system must be constructed in accordance with Section 8 of the Ontario Building Code and must meet the setback distances outlined in Table 4.

Table 4: Minimum Clearances for Distribution Piping

Object	Minimum Setback (m)
Structure	5
Well with a watertight casing to a depth of 6 m	15
Any other well	30
Pond	15
Stream	15
Property Line	3

Based on the topography of the property we recommend that water supply wells be drilled in the west part of the new lots with septic systems located in the east (i.e. downgradient).

4 Summary

The purpose of this study was to determine whether the proposed new residential lots are likely to obtain adequate quantities of potable water over both the short and long term without water quantity interference conflicts with users on the adjoining lands. The study was carried out in general accordance with the Ministry of the Environment, Conservation and Parks (MECP) Procedure D-5-4 (Individual On-Site Sewage Systems) and Procedure D-5-5 (Private Wells: Water Supply Assessment).

Our assessment found the following:

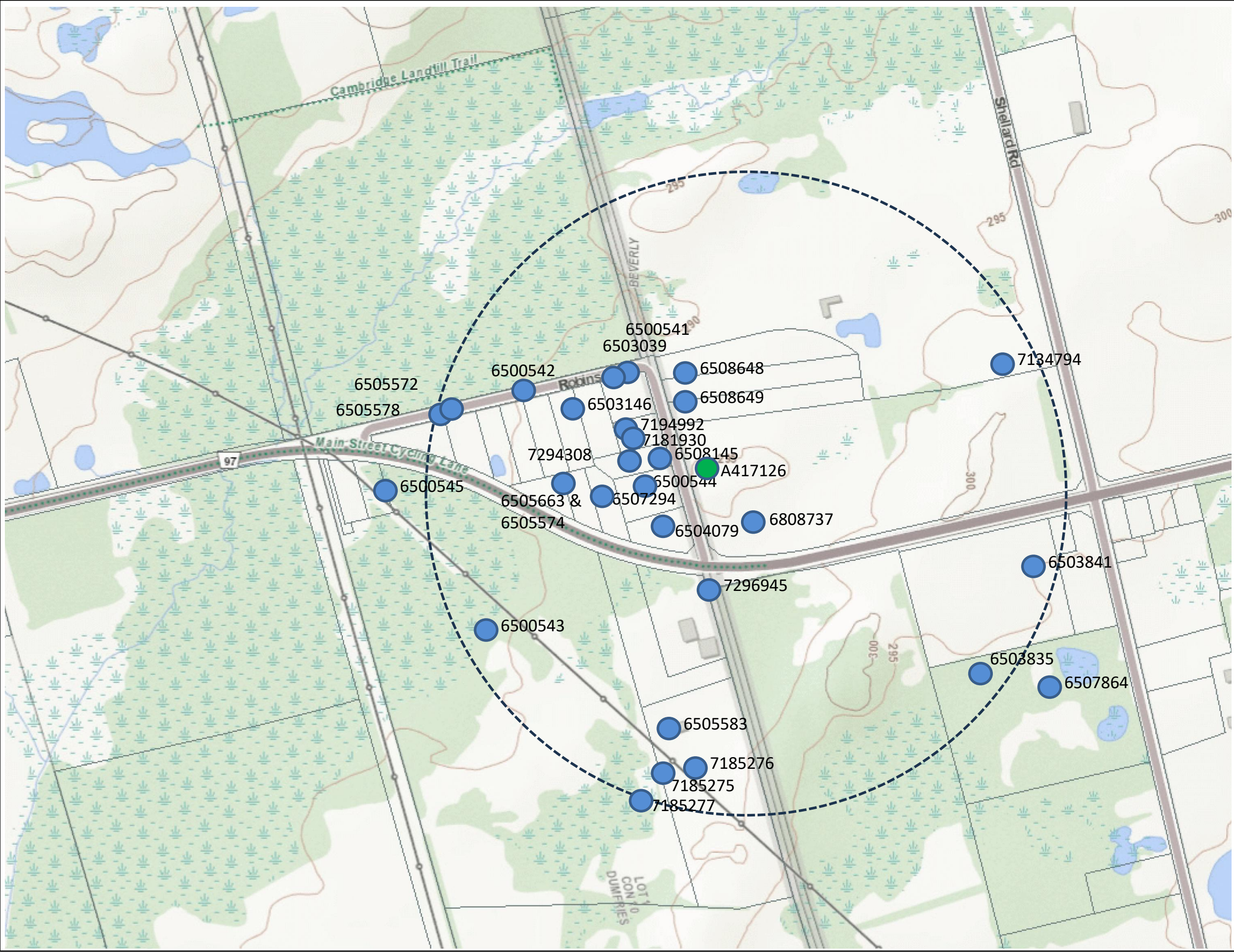
1. The upper bedrock aquifer is able to meet normal residential water demands for the proposed new lots without adversely affecting existing water users in the area.
2. Based on our calculations and the proximity of the nearest wells, well interference problems are not anticipated for the proposed severances.
3. Water quality results from the samples taken during the pumping tests showed generally good water quality, with no exceedances of any parameters under MECP Guideline D-5-5 apart from iron and iron-related turbidity. Water treatment for iron is recommended as is ultraviolet sterilization.
4. The proposed new lots are large enough to accommodate private septic systems without exceeding nitrate loading limits established in MECP Guideline D-5-4.



PROJECT 26-6001A:
HYDROGEOLOGY AND TERRAIN EVALUATION
PROPOSED RURAL RESIDENTIAL LOTS
3024 OLD BEVERLY ROAD

FIGURE1:

PROPOSED LOT CONFIRGURATION



- NOTES:**
- 1) Base drawing and information: obtained from the Ontario Ministry of Natural Resources and Forestry (MNR); "Make a Map" Natural Heritage Areas; <https://www.gisapplication.lrc.gov.on.ca/>, accessed June 2026
 - 2) Limits of the proposed severance are approximate and subject to change

KEY PLAN:

 **7051341** MECP WATER WELL



PROJECT 26-6001A:
HYDROGEOLOGY AND TERRAIN EVALUATION
PROPOSED RURAL RESIDENTIAL LOTS
3024 OLD BEVERLY ROAD

FIGURE 2:
MECP WATER WELL RECORDS



Appendix A: Water Well Records

CSS.58

RECEIVED 40980



UTM, 17 1965 59725

5 R 4800750 N

Elev. 4 R 0940

Basin 23 Waterloo

County or District X Lot 1

Owner P.U.C. (print in block letters)

The Ontario Water Resources Commission Act

WATER WELL RECORD

65 No. 543

Galt Township, Village, Town or City North Dumfries

Date completed 15 8 1966 (day month year)

Address Galt

Casing and Screen Record

Inside diameter of casing
Total length of casing
Type of screen
Length of screen
Depth to top of screen
Diameter of finished hole

Pulled out casing

Pumping Test

Static level 0
Test-pumping rate 45 G.P.M.
Pumping level 12'
Duration of test pumping 4 HRS.
Water clear or cloudy at end of test CLEAR
Recommended pumping rate NA G.P.M.
with pump setting of feet below ground surface

top soil + boulders
Hard clay + gravel
Soft clay + gravel
Sandy clay + gravel Hard streaks
Silty sand
dirty gravel
Sandy clay
Brown clay
Cemented gravel + boulders
Cemented sand + gravel
grey limestone
grey + brown limestone
brown + grey limestone
Brown limestone

Overburden and Bedrock Record

		Water Record	
From	ft	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
0'	1'		
1'	2'		
2'	3'		
3'	4'		
4'	5'		
5'	6'		
6'	7'		
7'	8'		
8'	9'		
9'	10'		
10'	11'		
11'	12'		
12'	13'		
13'	14'		
14'	15'		
15'	16'		
16'	17'		
17'	18'		
18'	19'		
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28'	29'		
29'	30'		
30'	31'		
31'	32'		
32'	33'		
33'	34'		
34'	35'		
35'	36'		
36'	37'		
37'	38'		
38'	39'		
39'	40'		
40'	41'		
41'	42'		
42'	43'		
43'	44'	44	F 400ppm
44'	45'		
45'	46'		
46'	47'		
47'	48'		
48'	49'		
49'	50'	105	F 1600ppm
50'	51'		
51'	52'		
52'	53'		
53'	54'		
54'	55'		
55'	56'		
56'	57'		
57'	58'		
58'	59'		
59'	60'		
60'	61'		
61'	62'		
62'	63'		
63'	64'		
64'	65'		
65'	66'		
66'	67'		
67'	68'		
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81'	82'		
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86'	87'		
87'	88'		
88'	89'		
89'	90'		
90'	91'		
91'	92'		
92'	93'		
93'	94'		
94'	95'		
95'	96'		
96'	97'		
97'	98'		
98'	99'		
99'	100'		

For what purpose is the well drilled?

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

Drilling or Boring Firm International Water Supply

Address 12 Maitland St. London Ont.

Licence Number

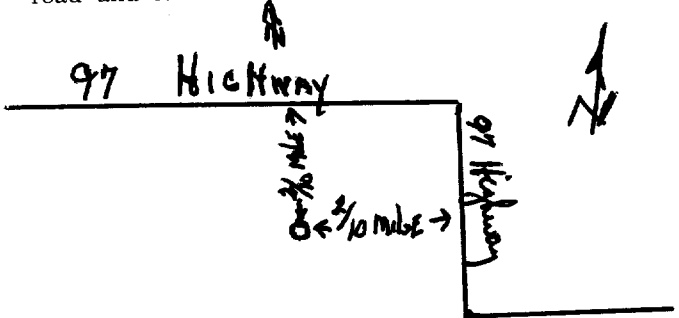
Name of Driller or Borer Don W. Bauerlein

Address 3001 Dundas St. London Ont.

Date Sept 2/66

(Signature of Licensed Drilling or Boring Contractor) DW Hanay

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



CSS.S8

40P80

UTM 17 Z 559570 E

5 R 4800925 N

Elev. 4 R 0940

Basin 23 WATERLOO

County or District WATERLOO

Con. 10 Lot 1

Owner Galt PUC (print in block letters)

Township, Village, Town or City (N. DUMFRIES)

Date completed 20 3 67
(day month year)

Address Galt Ont.

Test 1/67 B

65⁴ N° 545

WATER WELL RECORD

The Ontario Water Resources Commission Act

Casing and Screen Record	OBSERVATION WELL.	Pumping Test
Inside diameter of casing <u>3 1/4" DIAM.</u>	<u>8" DIAM.</u>	Static level <u>FLOW</u> ✓
Total length of casing <u>64</u>	<u>37'</u>	Test-pumping rate <u>45</u> G.P.M.
Type of screen <u>SLOPED</u>	<u>NA</u>	Pumping level <u>15.5'</u>
Length of screen <u>5</u>	<u>NA</u>	Duration of test pumping <u>2 HRS.</u>
Depth to top of screen <u>59.</u>	<u>NA.</u>	Water clear or cloudy at end of test <u>CLEAR</u>
Diameter of finished hole <u>8" DIAM.</u>		Recommended pumping rate <u>NA.</u> G.P.M.
		with pump setting of _____ feet below ground surface

Well Log	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
Overburden and Bedrock Record				
<u>Black muck</u>	<u>0</u>	<u>1</u>		
<u>Silty clay, sand and gravel</u>	<u>1</u>	<u>18</u>		
<u>Fine & coarse sand & gravel</u>	<u>18</u>	<u>29</u>	<u>18'</u>	<u>FRESH.</u>
<u>" " gravel & boulders</u>	<u>29</u>	<u>39</u>		
<u>Cemented gravel</u>	<u>39</u>	<u>42</u>		
<u>Fine & coarse gravel & sand (cemented streaks)</u>	<u>42</u>	<u>64</u>		
<u>Clay (some gravel)</u>	<u>64</u>	<u>73</u>		
<u>Cemented coarse gravel (fine sand)</u>	<u>73</u>	<u>80</u>		
<u>Rock</u>	<u>80</u>	<u>82</u>		

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

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

Drilling or Boring Firm Int water supply Ltd.

Address 12 Maitland Street
London Ont.

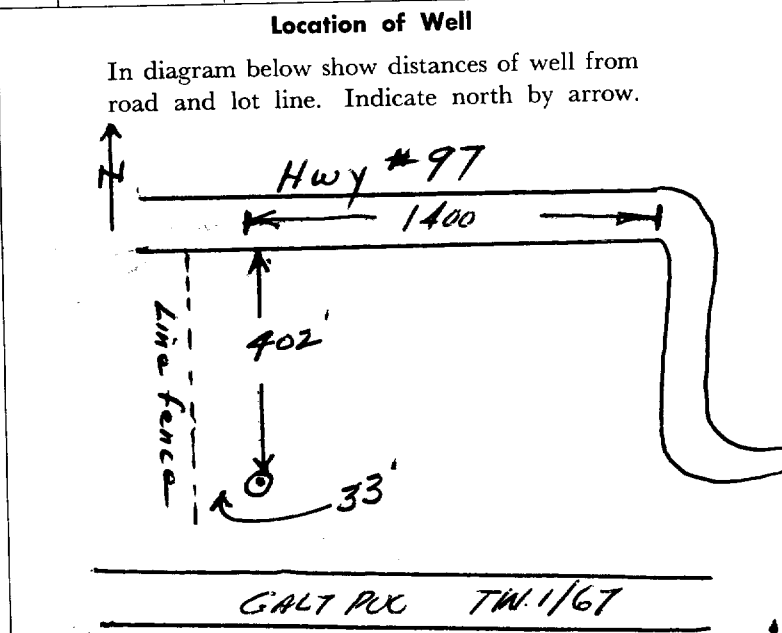
Licence Number _____

Name of Driller or Borer H. Duncan

Address 377 Davis St. E. E. Ontario

Date Mar 21, 1967

(Signature of Licensed Drilling or Boring Contractor)



County or District Waterloo

Con 10 Lot I

Township, Village, Town or City (North Dumfries)

Date completed 29 April 69

(day month year)

Address 37 Elgin St. S., Galt.
RR #6 Galt

Casing and Screen Record

Inside diameter of casing 6 1/4"

Total length of casing 73

Type of screen —

Length of screen —

Depth to top of screen —

Diameter of finished hole 6 1/4"

Pumping Test

Static level 7

Test-pumping rate 5 G.P.M.

Pumping level 75

Duration of test pumping 1 hour

Water clear or cloudy at end of test Clear

Recommended pumping rate 3 1/2 G.P.M.

with pump setting of 74 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)
<u>Br Soil, Stones</u>	<u>0</u>	<u>12</u>		
<u>Sand & Gravel</u>	<u>12</u>	<u>44</u>		
<u>Grey Silt Sand</u>	<u>44</u>	<u>70</u>		
<u>Silt sand & Gravel</u>	<u>70</u>	<u>80</u>		
<u>Fine Gravel</u>	<u>80</u>	<u>82</u>	<u>80</u>	<u>Fresh</u>

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

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

Drilling or Boring Firm C. J. Wallis

Address R.R. #2
Stoney Creek

Licence Number 3383

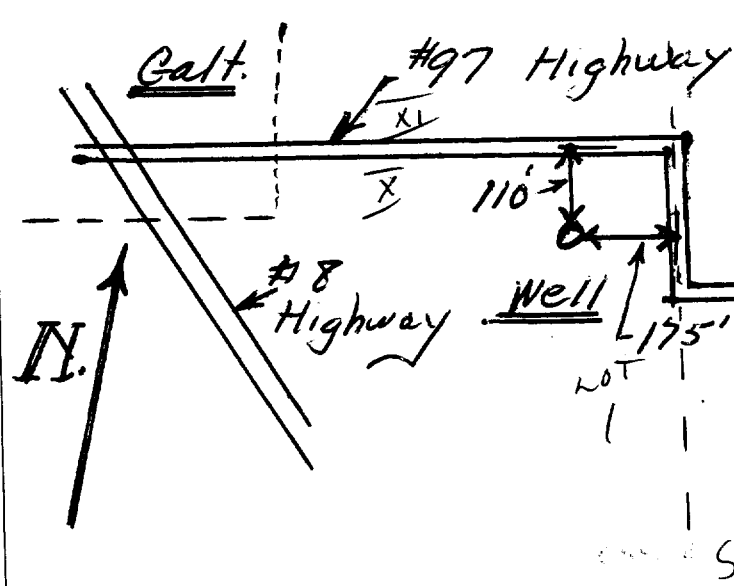
Name of Driller or Borer Same

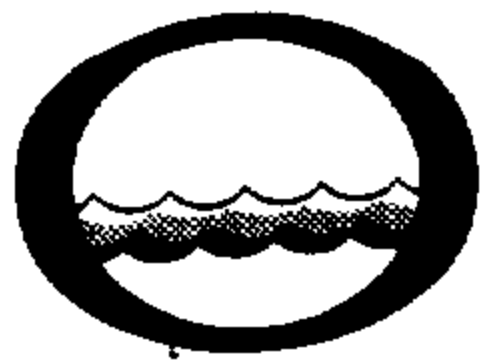
Address

Date April 29/69
George J. Wallis
(Signature of Licensed Drilling or Boring Contractor)

Location of Well

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





Water management in Ontario

CODED

The Ontario Water Resources Commission Act

WATER WELL RECORD

GALT

County or District

Wat.

Township, Village, Town or City

Northampton

Con.

10

Lot

1

Date completed

26

(day)

7

month

69

year

Address

R R #6 Galt.

Owner

Pumping Test

Casing and Screen Record

Inside diameter of casing

5"

Total length of casing

58

Type of screen

Length of screen

Depth to top of screen

Diameter of finished hole

5"

Static level

10 feet

Test-pumping rate

6

G.P.M.

Pumping level

50

Duration of test pumping

8

Water clear or cloudy at end of test

Clear

Recommended pumping rate

4

G.P.M.

with pump setting of

50

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)

Long well
Sandy sand & clay
Sand & gravel

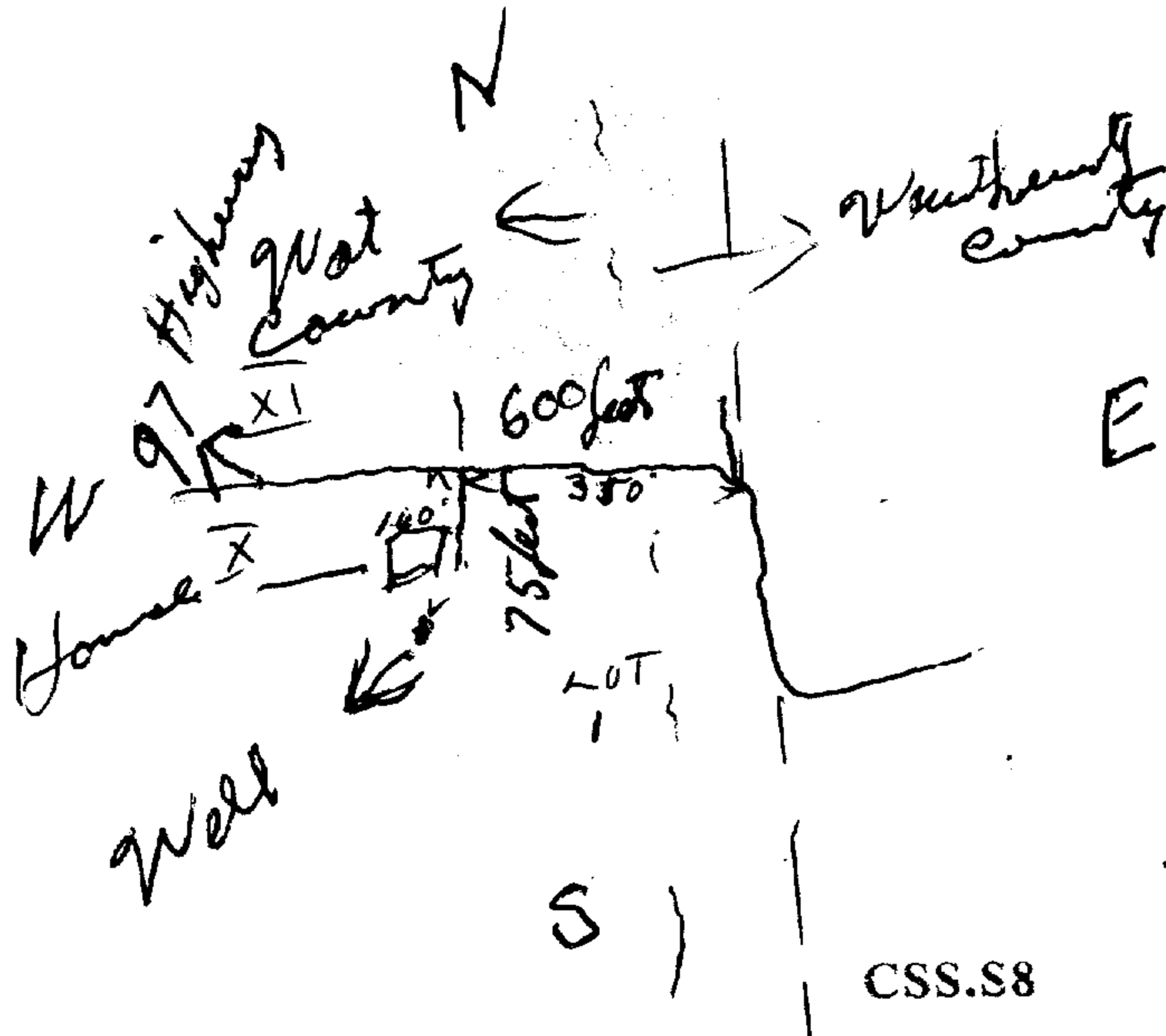
0
14
55
58

57-58

Fresh

Location of Well

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



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 Hardyman

Address 123 Southern St. Preston

Licence Number 3376

Name of Driller or Borer Same

Address Same

Date Nov 26/69

Hardyman
(Signature of Licensed Drilling or Boring Contractor)

Form 7

OWRC COPY

CSS.S8

UTM 17 560466 E

5R 4800687 N



6503835

68 No 955

Elev. 4R 0962

The Ontario Water Resources Commission Act

Basin 23

WATER WELL RECORD

N. DUMFRIES

County or District (WENTWORTH) WATERLOO Township, Village, Town or City (Beverley)

Con. VIII Lot H Date completed 24 Oct. 66
 Address 18 Dendonald Rd, Galt.

Casing and Screen Record

Inside diameter of casing 6 1/4"
 Total length of casing 97'-4"
 Type of screen -
 Length of screen -
 Depth to top of screen -
 Diameter of finished hole 6 1/4"

Pumping Test

Static level 35'
 Test-pumping rate 20 G.P.M.
 Pumping level 65'
 Duration of test pumping 45 min.
 Water clear or cloudy at end of test Clear
 Recommended pumping rate 10 G.P.M.
 with pump setting of 90 feet below ground surface

Well Log

Overburden and Bedrock Record

Br. Sand & Gravel
 Blue Clay
 Silt Sand & Clay
 Br. Limestone

From ft.

To ft.

Depth(s) at which water(s) found

Kind of water (fresh, salty, sulphur)

0	45		
45	80		
80	96		
96	108	106	Fresh.

Water Record

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

Home

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

Drilling or Boring Firm G. J. Wallis

Address RR #2 Grey Creek

Licence Number 2113

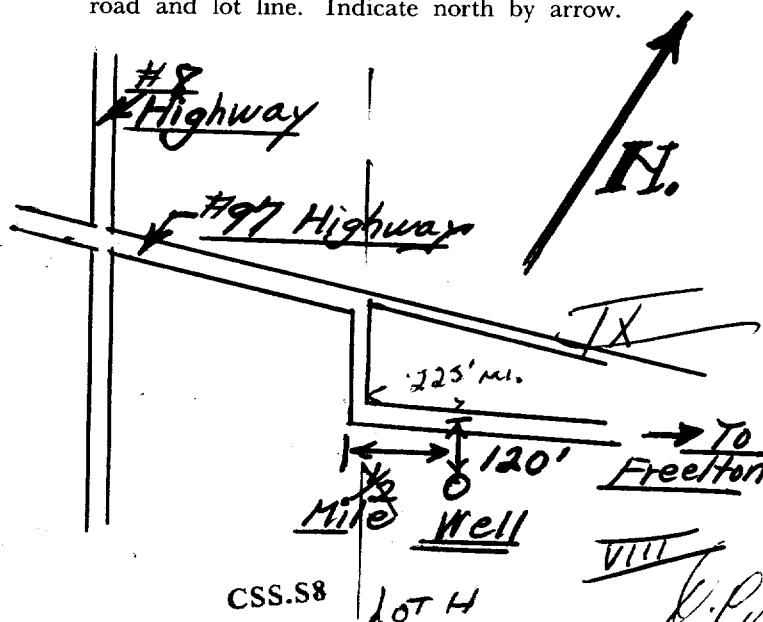
Name of Driller or Borer Same

Address

Date Oct 25/66
 (Signature of Licensed Drilling or Boring Contractor)

Location of Well

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



CSS.S8

LOT H

VIII

WATER WELL RECORD

40 P/8C

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

11

6504079

MUNICIP
165001

CON. *[Signature]*

10

COUNTY OR DISTRICT
Waterloo

TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE
N Dunblair

CON., BLOCK, TRACT, SURVEY, ETC.

	22	23	24
LOT	25,27		

DATE COMPLETED	08	48-53
----------------	----	-------

DAY 7 MO. 05

THING

BC.

ELEVATION

RC.

BASIN COD

5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	
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100

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

[illegible]

31 0025605

2060205

00632281

32

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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WATER RECORD

WATER FOUND AT - FEET		KIND OF WATER	
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

CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES		MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
				FROM	TO
06 11 6 1/4	10-11	☒ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE	12	188	0
	17-18	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE	19		5063
24-25		☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE	26		

PLUGGING & SEALING RECORD

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

PUMPING TEST	PUMPING TEST METHOD		10	PUMPING RATE		11-14	DURATION OF PUMPING	
	1 ☐ PUMP 2 ☒ BAILER			0008			02 15-16 00 17-18 MIN.	
	STATIC LEVEL		25	WATER LEVELS DURING		2 ☐ PUMPING 3 ☒ RECOVERY		
	WATER LEVEL END OF PUMPING							
	19-21 017 22-24 040		25 MINUTES 018 26-28 018 29-31 018 32-34 017 35-37					
IF FLOWING, GIVE RATE		38-41	PUMP INTAKE SET AT		WATER AT END OF TEST			
		GPM			1 ☒ CLEAR 2 ☐ CLOUDY			
RECOMMENDED PUMP TYPE			RECOMMENDED PUMP SETTING		43-45	RECOMMENDED PUMPING RATE		46-48
☐ SHALLOW ☒ DEEP			055			0005		GPM
50-53		060.4	GPM / FT. SPECIFIC CAPACITY					

LOCATION OF WELL

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

Salt
 97 Hwy
 225
 97 Hwy
 new house
 50 ft N of corner
 DRILLERS REMARKS:

DRILLERS REMARKS:

OFFICE USE ONLY	DATA SOURCE	58	CONTRACTOR	59-62	DATE RECEIVED	63-68	80
	1		4208		29 01 74		
	DATE OF INSPECTION	INSPECTOR					
	REMARKS:						
					CSS.S8	P	WI

CSS 58

w i

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

11

6505574

MUNICIPALITY: 10
CON. BLOCK/TRACT. SURVEY, ETC.: 10
LOT: 25-27

COUNTY OR DISTRICT: 1
TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: 10
DATE COMPLETED: 24
DAY: 24
MO: 24
YR: 84

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
Grey	clay	stony		0	50
Grey	muddy	sand		50	70
Grey	clay		Gravelly	70	100
Grey	brn			100	102
Grey	limestone			102	106

31

32

41 WATER RECORD

WATER FOUND AT - FEET: 105	KIND OF WATER
1 ☒ FRESH 3 ☐ SULPHUR	14
2 ☐ SALTY 4 ☐ MINERAL	15-18
1 ☐ FRESH 3 ☐ SULPHUR	19
2 ☐ SALTY 4 ☐ MINERAL	20-23
1 ☐ FRESH 3 ☐ SULPHUR	24
2 ☐ SALTY 4 ☐ MINERAL	25-28
1 ☐ FRESH 3 ☐ SULPHUR	29
2 ☐ SALTY 4 ☐ MINERAL	30-33

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES: 6 1/4	MATERIAL: STEEL	WALL THICKNESS INCHES: 188	DEPTH - FEET: 102
---------------------------	-----------------	----------------------------	-------------------

SCREEN

SIZE (S) OF OPENING (SLOT NO 1)	DIAMETER: 31-33	LENGTH: 39-40
MATERIAL AND TYPE	INCHES: 41-44	FEET: 45

61 PLUGGING & SEALING RECORD

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

71 PUMPING TEST

PUMPING TEST METHOD: 10	PUMPING RATE: 100 GPM	DURATION OF PUMPING: 1 HOURS
STATIC LEVEL: 14 FEET	WATER LEVELS DURING: 14 FEET	WATER AT END OF TEST: 14 FEET
RECOMMENDED PUMP SETTING: 25-50 FEET	RECOMMENDED PUMPING RATE: 10 GPM	

FINAL STATUS OF WELL: 1 ☒ WATER SUPPLY

WATER USE: 1 ☒ DOMESTIC

METHOD OF DRILLING: 1 ☒ CABLE TOOL

LOCATION OF WELL

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

Cambridge

Hwy 97

Meyers Rd

Branch Rd

Well

3 2 1

Hwy 8

CONTRACTOR: Wally Packham

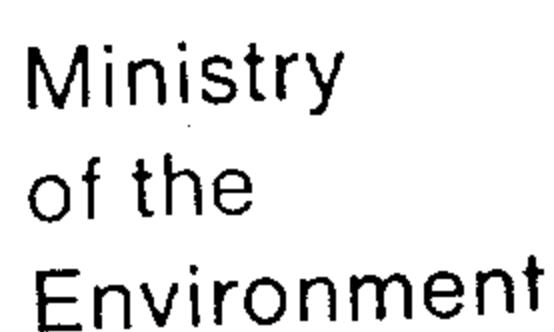
ADDRESS: RR2 Oneonta

SIGNATURE OF CONTRACTOR: [Signature]

DATA SOURCE: 58

DATE OF INSPECTION: 170185

REMARKS:



6505583

MUNICIP.

CON.

1. PRINT ONLY IN SPACES PROVIDED

2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11

1 2

10

15

2 23 24

COUNTY OR DISTRICT Waterloo		TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE N Dumfries		CON. BLOCK, TRACT, SURVEY, ETC. X		LOT 1	
OWNER (SURNAME FIRST) CAMBRIDGE AUTO WRECKERS		ADDRESS Hwy 97 East Cambridge		DATE COMPLETED June 84		48-53 84	
ZONE 21		EASTING (2 miles E of Hwy 8 Hwy)		NORTHING (2 miles E of Hwy 8 Hwy)		BASIN CODE II III IV	

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

[illegible]

31

32

WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER	
89 ¹⁰⁻¹³	1 ☒ FRESH 2 ☒ SALTY	3 ☐ SULPHUR 4 ☐ MINERAL
15-18	1 ☐ FRESH 2 ☐ SALTY	3 ☐ SULPHUR 4 ☐ MINERAL
20-23	1 ☐ FRESH 2 ☐ SALTY	3 ☐ SULPHUR 4 ☐ MINERAL
25-28	1 ☐ FRESH 2 ☐ SALTY	3 ☐ SULPHUR 4 ☐ MINERAL
30-33	1 ☐ FRESH 2 ☐ SALTY	3 ☐ SULPHUR 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
10-11 6 1/4	1 ☒ STEEL 2 ☒ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	12 188	0	13-14 88
17-18	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	19		20-21
24-25	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	26		27-28

PLUGGING & SEALING RECORD

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

PUMPING TEST	PUMPING TEST METHOD		10		PUMPING RATE		11-16		DURATION OF PUMPING				
	☒ PUMP 2 ☐ BAILER		100		GPM		1		15-16 17-18 HOURS MINS				
	STATIC LEVEL		WATER LEVEL END OF PUMPING		25				1 ☐ PUMPING 2 ☒ RECOVERY				
	19-21 6 FEET		22-24 85 FEET		15 MINUTES 26-28 6 FEET		30 MINUTES 29-31 6 FEET		45 MINUTES 32-34 6 FEET		60 MINUTES 35-37 6 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				RECOMMENDED PUMPING RATE				46-49	
☒ SHALLOW ☐ DEEP				25 FEET				10				GPM	
50-53													

LOCATION OF WELL

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

Cambridge

XI

HWY 97

X

well →

HWY 15

3 2 1

DRILLERS REMARKS

DRILLERS REMARKS

**FINAL
STATUS
OF WELL**

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

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

CONTRACTOR	NAME OF WELL CONTRACTOR <i>Wesley Packham</i>		LICENCE NUMBER <i>4208</i>
	ADDRESS <i>1982 Ancester</i>		
	NAME OF DRILLER OR BORER <i>Menyn Packham</i>		LICENCE NUMBER <i>4207</i>
	SIGNATURE OF CONTRACTOR <i>Wesley Packham</i>		SUBMISSION DATE DAY <i>12</i> MO. <i>June</i> YEAR <i>84</i>

OFFICE USE ONLY	DATA SOURCE	58	CONTRACTOR	59-62	250185	63-68	69
	DATE OF INSPECTION		INSPECTOR				
	REMARKS APL May 185						

CSS:ES

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FORM NO. 0506-4-77 FORM 7



Ontario

Ministry
of the
Environment

WATER WELL RECORD

The Ontario Water Resources Act

6505663

MUNICIP

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11

1 2

10 14 15 22 23 24

COUNTY OR DISTRICT

TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE

CON. BLOCK TRACT SURVEY, ETC.

LOT 25-27

PART OF ONE

DATE COMPLETED

48-53

KING ST. S. WATERLOO ONT N2J1M7 DAY 25 MO 06 YR 85

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
GRAY	SAND	STONES	LOOSE	0	15
TAN	HARD PAN			15	45
GRAY	SAND	GRAVEL	LAYERED	45	80
GRAY	SAND	SILT		80	100
GRAY	GRAVEL			100	105

31

32

41

WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
100	1 ☒ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
To-105	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

CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET
10-11	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	280	0 104
17-18	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE		20-23
24-25	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE		27-30

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

PLUGGING & SEALING RECORD

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

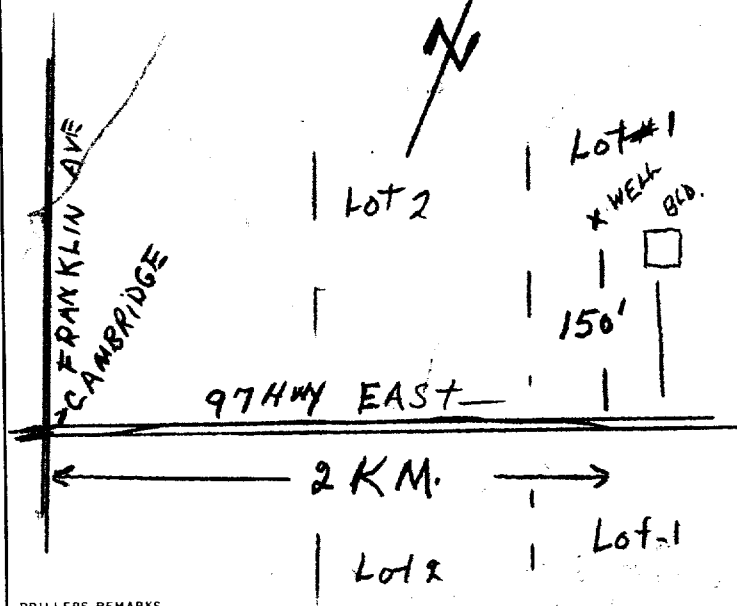
71

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☐ PUMP 2 ☒ BAILER	15 GPM	4 15-16 HOURS 30 MINS
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING
19-21 25	22-24 35	15 MINUTES 26-28 26 30 MINUTES 25 45 MINUTES 32-34 35-37
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
	GPM	FEET
RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☒ DEEP	40	15

506

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

- 1 ☒ DOMESTIC
2 ☐ STOCK
3 ☐ IRRIGATION
4 ☐ INDUSTRIAL
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	LICENCE NUMBER
	MCLAUGHLIN WATER WELLS	3518
	ADDRESS	
	38 DOLMAN ST BRESLAU, ONT.	
	NAME OF DRILLER OR BORER	LICENCE NUMBER
	ROB. MCLAUGHLIN	
	SIGNATURE OF CONTRACTOR	SUBMISSION DATE
	R. M. Laughlin	DAY 27 MO 07 YR 85

OFFICE USE ONLY	DATA SOURCE	CONTRACTOR	DATE RECEIVED
			230485
	DATE OF INSPECTION	INSPECTOR	
	REMARKS		

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The Ontario Water Resources Act

WATER WELL RECORD

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COUNTY OR DISTRICT

TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE

CON	BLOCK, TRACT, SURVEY ETC
-----	--------------------------

LOT 25-27

DATE COMPLETED 48-53
DAY 15 MO 06 YR. 92

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

OFFICE USE ONLY	DATA SOURCE	58	CONTRACTOR	59-62	DATE RECEIVED	63-68	80
			4552		JUN 29 1992		
	DATE OF INSPECTION			INSPECTOR			
	REMARKS						
	CSS.ES						

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FORM NO. 0506 (11/86) FORM 9



Municipality

65506

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11

79-97

County or District

Township/Borough/City/Town/Village

Con block tract survey, etc.

Lot 25-27

WATERLOO

CAMBRIDGE

111 ROBINSON	AK.
--------------	-----

Owner's surname 28-47 First name

T. H. Collins **CONST.**

Address
29 SIMONA PLACE, AYR, ONT. N0B-1E0

Date completed 03 09 97
day month year

Zone _____ Easting _____ Northing _____ RC _____ Elevation _____ RC _____ Basin Code _____ II _____ III _____ IV _____

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

LOG OF OVERBORER				Depth - feet	
General colour	Most common material	Other materials	General description	From	To
BROWN	CLAY	STONES		0	25
GREY	CLAY	STONES		25	60
GREY	CLAY	SAND		60	80
GREY	CLAY	SAND - GRAVEL		80	85
BROWN	GRAVEL		COARSE	85	90
			TOTAL DEPTH	90'	
		6" DRIVE SHOE			

[illegible][illegible]

WATER RECORD

Water found at - feet	Kind of water			
10-13	1 ☒ Fresh	3 ☐ Sulphur	14	
90	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		

CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet		
			From	To	
10-11	1 ☒ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic				13-16
6"		.188	+1	90	
17-18	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic				20-23
24-25	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic				27-30

Sizes of opening	31-33	Diameter	34-38	Length	39
------------------	-------	----------	-------	--------	----

SCREEN	(Slot No.)	inches	feet
	Material and type	Depth at top of screen 41-44	feet

PLUGGING & SEALING RECORD

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

71	Pumping test method ¹⁰		Pumping rate ¹¹⁻¹⁴		Duration of pumping ¹⁷⁻¹⁸	
	1 ☒ Pump 2 ☐ Bailer		10 GPM		1 ... Hours ... 0 Mins	
	Static level		Water level end of pumping		Water levels during 1 ☒ Pumping 2 ☐ Recovery	
	19-21	22-24	25			
PUMP TEST	19-21		22-24		25	
	15 minutes ²⁶⁻²⁸		30 minutes ²⁹⁻³¹		45 minutes ³²⁻³⁴	
	60 minutes ³⁵⁻³⁷					
	20 feet		65 feet		42 feet	
If flowing give rate ³⁸⁻⁴¹		Pump intake set at		Water at end of test ⁴²		
GPM		feet		feet		
Recommended pump type		Recommended pump setting ⁴³⁻⁴⁵		Recommended pump rate ⁴⁶⁻⁴⁹		
☐ Shallow ☒ Deep		75-80 feet		10 GPM		

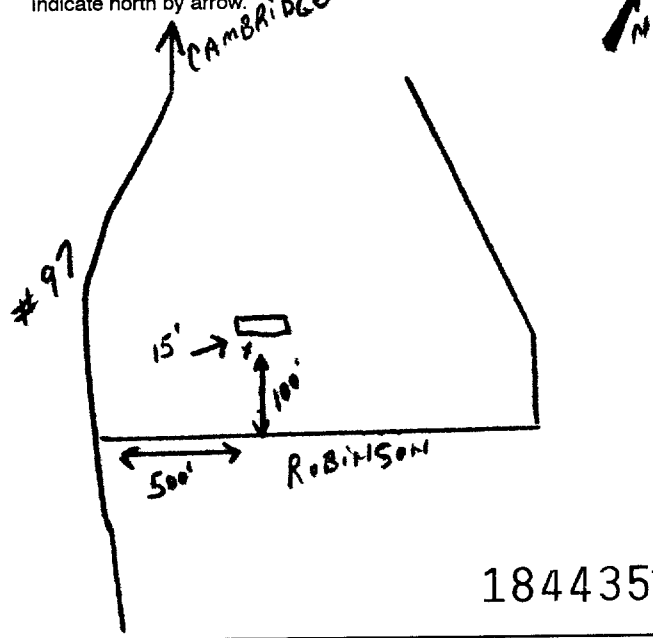
FINAL STATUS OF WELL			54
1	☒ Water supply	5	☐ Abandoned, insufficient supply
2	☐ Observation well	6	☐ Abandoned, poor quality
3	☐ Test hole	7	☐ Abandoned (Other)
4	☐ Recharge well	8	☐ Dewatering
		9	☐ Unfinished
		10	☐ Replacement well

WATER USE			55-56
1	☒ Domestic	5	☐ Commercial
2	☐ Stock	6	☐ Municipal
3	☐ Irrigation	7	☐ Public supply
4	☐ Industrial	8	☐ Cooling & air conditioning
		9	☐ Not used
		10	☐ Other

METHOD OF CONSTRUCTION			57
1	☐ Cable tool	5	☐ Air percussion
2	☐ Rotary (conventional)	6	☐ Boring
3	☐ Rotary (reverse)	7	☐ Diamond
4	☒ Rotary (air)	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.



184435

Name of Well Contractor	Well Contractor's Licence No
GRAHAM WELL DRILLING LTD	2336
Address	
RR#5 ROCKWOOD, ONT. N0B-2K0	
Name of Well Technician	Well Technician's Licence No
Jim Wilson	T-1924
Signature of Technician/Contractor	Submission date
P. Wilson	08 day 09 mo 97 yr

MINISTRY USE ONLY	Data source	58 Contractor	59-62	Date received	63-68
		2336		OCT 0 8 1997	
	Date of inspection	Inspector			
	Remarks				
	 CSS.S8				



Mark correct box with a checkmark, where applicable.

11

6508648

Municipality

65505

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09

County or District <i>Waterloo</i>	Township/Borough/City/Town/Village <i>North Dumfries</i>	Con block tract survey, etc. <i>9</i>	Lot <i>I</i>
	Address <i>RR#6 Cambridge Ontario</i>	Date completed <i>29 Nov 78</i> day month year	

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)[illegible]

41		WATER RECORD	
Water found at - feet		Kind of water	
10-13	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

51 CASING & OPEN HOLE RECORD				
Inside diam inches	Material	Wall thickness inches	Depth - feet	
			From	To
3-11 6 1/4	1 ☒ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic	12 188	0	13-16 77
17-18 6 1/4	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic	19	77	20-23 89
24-25	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic	26		27-30

SCREEN	Sizes of opening (Slot No.)	31-33	Diameter	34-38	Length	39-41
			inches		feet	
	Material and type			Depth at top of screen		43
				feet		

61 PLUGGING & SEALING RECORD			
☐ Annular space		☐ Abandonment	
Depth set at - feet		Material and type (Cement grout, bentonite, etc.)	
From	To		
10-13	14-17		
18-21	22-25		
26-29	30-33		

PUMPING TEST	Pumping test method ¹⁰ ☒ Pump ☐ Bailer		Pumping rate ¹¹⁻¹⁴ 20 GPM		Duration of pumping ¹⁷⁻¹⁸ 1 ¹⁶ Hours 0 ¹⁷⁻¹⁸ Mins	
	Static level ¹⁹⁻²¹ 12 feet	Water level end of pumping ²²⁻²⁴ 85 feet	Water levels during ²⁵ 15 minutes ²⁶⁻²⁸ 12 feet 30 minutes ²⁹⁻³¹ 12 feet		45 minutes ³²⁻³⁴ 12 feet 60 minutes ³⁵⁻³⁷ 12 feet	
	If flowing give rate ³⁸⁻⁴¹ GPM	Pump intake set at ⁴² feet		Water at end of test ☒ Clear ☐ Cloudy		
	Recommended pump type ☐ Shallow ☒ Deep	Recommended pump setting ⁴³⁻⁴⁵ 50 feet		Recommended pump rate ⁴⁶⁻⁴⁹ 15 GPM		
	50-53					

FINAL STATUS OF WELL			54
1	☒ Water supply	5	☐ Abandoned, insufficient supply
2	☐ Observation well	6	☐ Abandoned, poor quality
3	☐ Test hole	7	☐ Abandoned (Other)
4	☐ Recharge well	8	☐ Dewatering
		9	☐ Unfinished
		10	☐ Replacement well

WATER USE			55-56
1	☒ Domestic	5	☐ Commercial
2	☐ Stock	6	☐ Municipal
3	☐ Irrigation	7	☐ Public supply
4	☐ Industrial	8	☐ Cooling & air conditioning
		9	☐ Not use
		10	☐ Other

METHOD OF CONSTRUCTION			57
1	☐ Cable tool	5	☐ Air percussion
2	☐ Rotary (conventional)	6	☐ Boring
3	☐ Rotary (reverse)	7	☐ Diamond
4	☒ Rotary (air)	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.

210986

Name of Well Contractor <i>Packham Well Drilling Inc</i>	Well Contractor's Licence No. <i>4207</i>
Address <i>RR#2 Ancaster Ontario</i>	
Name of Well Technician <i>Mervyn Packham</i>	Well Technician's Licence No. <i>T0058</i>
Signature of Technician/Contractor <i>Mervyn Packham</i>	Submission date <i>30 Nov 99</i> day mo yr

MINISTRY USE ONLY	Data source	58 Contractor	59-62	Date received	63-66	80
		4207		APR 17 2000		
	Date of inspection	Inspector				
	Remarks					
	CSS.ES0					

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Mark correct box with a checkmark, where applicable.

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Municipality

65.505

Con

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09

County or District <i>W. Toronto</i>		Township/Borough/City/Town/Village <i>North Dumfries</i>		Con block tract survey, etc. <i># 9</i>		Lot <i># 1</i>	
[Redacted Address]		Address <i>RR #6 Cambridge Ontario</i>		Date completed <i>27 Nov 88</i>		[Redacted Date]	
		Northing <i>154 Robinson Rd</i>		Elevation 		Basin Code 	

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)[illegible]

41		WATER RECORD				42	
Water found at - feet		Kind of water					
15-18	1	☒ Fresh	3	☐ Sulphur	74		
	2	☐ Salty	4	☐ Minerals			
			6	☐ Gas			
15-18	1	☐ Fresh	3	☐ Sulphur	12		
	2	☐ Salty	4	☐ Minerals			
			6	☐ Gas			
20-25	1	☐ Fresh	3	☐ Sulphur	24		
	2	☐ Salty	4	☐ Minerals			
			6	☐ Gas			
25-26	1	☐ Fresh	3	☐ Sulphur	29		
	2	☐ Salty	4	☐ Minerals			
			6	☐ Gas			
30-35	1	☐ Fresh	3	☐ Sulphur	34		
	2	☐ Salty	4	☐ Minerals			
			6	☐ Gas			

CASING & OPEN HOLE RECORD				
Inside diam inches	Material	Wall thickness inches	Depth - feet	
			From	To
6 1/4	☒ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic	188	0	86
6 1/8	☐ Steel ☐ Galvanized ☐ Concrete ☒ Open hole ☐ Plastic		86	95
4 25	☐ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic			27-30

SCREEN	Sizes of opening (Slot No.)	31-33	Diameter	34-38	Length	39-42
				inches	feet	
	Material and type			Depth at top of screen		
				feet		

61	PLUGGING & SEALING RECORD			
☐ Annular space		☐ Abandonment		
Depth set at - feet		Material and type (Cement grout, bentonite, etc.)		
From	To			
10-13	14-17			
18-21	22-25			
26-29	30-33			
		80		

PUMPING TEST	7-1 Pumping test method ¹⁰ ☒ Pump ☐ Bailer		Pumping rate ¹¹⁻¹² 50 GPM		Duration of pumping ¹³⁻¹⁶ 1 Hours 0 Mins	
	Static level ¹⁷⁻²¹ 12 feet		Water level end of pumping ²²⁻²⁴ 95 feet		Water levels during ²⁵ ☐ Pumping ☒ Recovery	
			15 minutes ²⁶⁻²⁸ 12 feet	30 minutes ²⁹⁻³¹ 12 feet	45 minutes ³²⁻³⁴ 12 feet	60 minutes ³⁵⁻³⁷ 12 feet
	If flowing give rate ³⁸⁻⁴¹ GPM		Pump intake set at ⁴² feet		Water at end of test ⁴³ ☒ Clear ☐ Cloudy	
	Recommended pump type ⁴⁴⁻⁴⁵ ☐ Shallow ☒ Deep		Recommended pump setting ⁴⁶⁻⁴⁹ 50 feet		Recommended pump rate ⁵⁰⁻⁵³ 20 GPM	

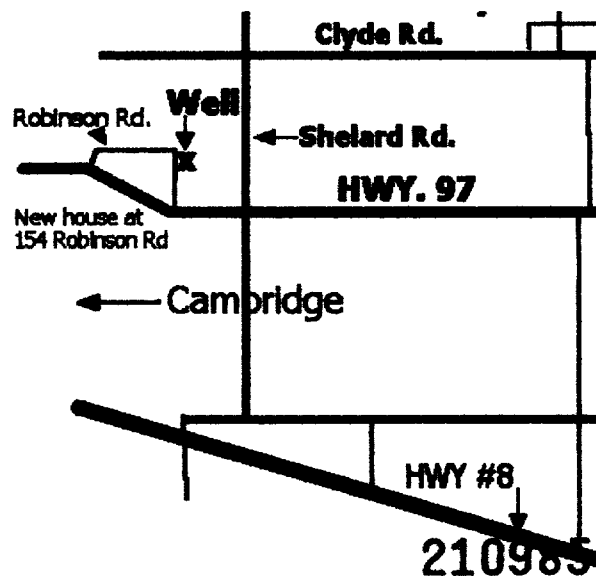
FINAL STATUS OF WELL			54
1	☒ Water supply	5	☐ Abandoned, insufficient supply
2	☐ Observation well	6	☐ Abandoned, poor quality
3	☐ Test hole	7	☐ Abandoned (Other)
4	☐ Recharge well	8	☐ Dewatering
9	☐ Unfinished		
10	☐ Replacement well		

WATER USE			55-56
1	☒ Domestic	5	☐ Commercial
2	☐ Stock	6	☐ Municipal
3	☐ Irrigation	7	☐ Public supply
4	☐ Industrial	8	☐ Cooling & air conditioning
9	☐ Not use		
10	☐ Other		

METHOD OF CONSTRUCTION			57
1	☐ Cable tool	5	☐ Air percussion
2	☐ Rotary (conventional)	6	☐ Boring
3	☐ Rotary (reverse)	7	☐ Diamond
4	☒ Rotary (air)	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.



Name of Well Contractor <i>Packham Well Drilling Inc.</i>	Well Contractor's Licence No. <i>4207</i>
Address <i>RR#2 Ancaster Ontario</i>	
Name of Well Technician <i>Mervyn Packham</i>	Well Technician's Licence No. <i>T0058</i>
Signature of Technician/Contractor <i>Mervyn Packham</i>	Submission date day <i>30</i> mo <i>Nov</i> yr <i>99</i>

MINISTRY USE ONLY	Data source	58 Contractor	59-62	Date received	63-68	69
		4207		APR 17 2000		
	Date of inspection		Inspector			
	Remarks					
	CSS.ES0					



WATER WELL RECORD

40P/8C

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

11 6808737 6.8.003 15 09 001
COUNTY OR DISTRICT Forth TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE Barrie CON., BLOCK, TRACT, SURVEY, ETC. 9
DATE COMPLETED DAY 09 MO. Sept YR. 73
ELEVATION 0094.0 BASIN CODE 23

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
Grey	clay	some gravel		1	90
Grey	clay	stones		90	95
Grey	limestone			95	100

31 009020511 009520512 0100215
32

WATER RECORD

WATER FOUND AT - FEET
KIND OF WATER
1 ☒ FRESH 3 ☐ SULPHUR
2 ☐ SALTY 4 ☐ MINERAL
15-18 1 ☐ FRESH 3 ☐ SULPHUR
2 ☐ SALTY 4 ☐ MINERAL
20-23 1 ☐ FRESH 3 ☐ SULPHUR
2 ☐ SALTY 4 ☐ MINERAL
25-28 1 ☐ FRESH 3 ☐ SULPHUR
2 ☐ SALTY 4 ☐ MINERAL
30-33 1 ☐ FRESH 3 ☐ SULPHUR
2 ☐ SALTY 4 ☐ MINERAL

CASING & OPEN HOLE RECORD

51
INSIDE DIAM. INCHES MATERIAL WALL THICKNESS INCHES DEPTH - FEET
FROM TO
10-11 1 ☒ STEEL 12 13-16
2 ☐ GALVANIZED
3 ☐ CONCRETE
4 ☐ OPEN HOLE
17-18 1 ☐ STEEL 19
2 ☐ GALVANIZED
3 ☐ CONCRETE
4 ☐ OPEN HOLE
24-25 1 ☐ STEEL 26
2 ☐ GALVANIZED
3 ☐ CONCRETE
4 ☐ OPEN HOLE

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

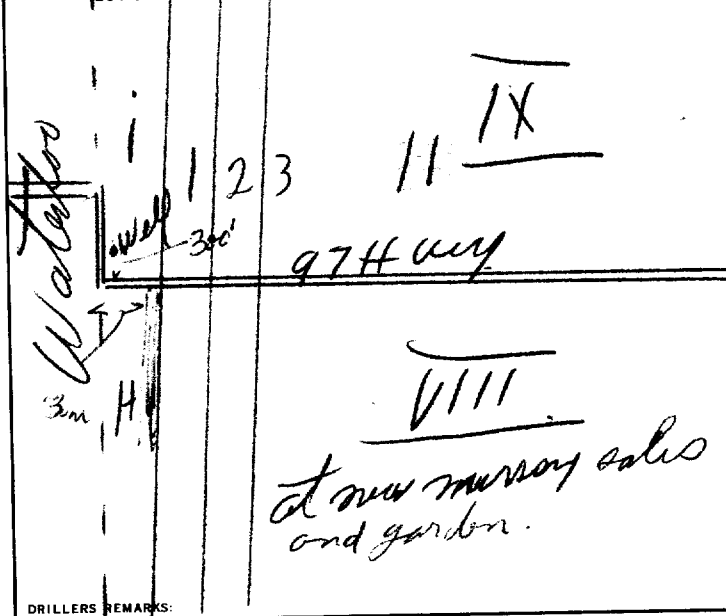
PLUGGING & SEALING RECORD

61
DEPTH SET AT - FEET MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
FROM TO
10-13 14-17
18-21 22-25
26-29 30-33 80

71 PUMPING TEST METHOD 10 PUMPING RATE 11-14 DURATION OF PUMPING
1 ☒ PUMP 2 ☐ BAILER 0050 GPM 01 15-16 00 17-18
19-21 22-24 25 WATER LEVELS DURING 1 ☐ PUMPING
STATIC LEVEL WATER LEVEL END OF PUMPING 2 ☒ RECOVERY
017 090 020 018 018 018
IF FLOWING, GIVE RATE 38-41 PUMP INTAKE SET AT WATER AT END OF TEST 42
RECOMMENDED PUMP TYPE GPM FEET 1 ☒ CLEAR 2 ☐ CLOUDY
☐ SHALLOW ☒ DEEP 53-45 RECOMMENDED PUMP SETTING 46-49
075 FEET RATE 0030 GPM
50-53 000.1 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:

54 FINAL STATUS OF WELL 1 ☒ WATER SUPPLY 5 ☐ ABANDONED, INSUFFICIENT SUPPLY
2 ☐ OBSERVATION WELL 6 ☐ ABANDONED, POOR QUALITY
3 ☐ TEST HOLE 7 ☐ UNFINISHED
4 ☐ RECHARGE WELL
55-56 WATER USE 1 ☒ DOMESTIC 5 ☐ COMMERCIAL
2 ☐ STOCK 6 ☐ MUNICIPAL
3 ☐ IRRIGATION 7 ☐ PUBLIC SUPPLY
4 ☐ INDUSTRIAL 8 ☐ COOLING OR AIR CONDITIONING
☐ OTHER 9 ☐ NOT USED
57 METHOD OF DRILLING 1 ☐ CABLE TOOL 6 ☐ BORING
2 ☒ ROTARY (CONVENTIONAL) 7 ☐ DIAMOND
3 ☐ ROTARY (REVERSE) 8 ☐ JETTING
4 ☐ ROTARY (AIR) 9 ☐ DRIVING
5 ☐ AIR PERCUSSION

CONTRACTOR NAME OF WELL CONTRACTOR Wesley Rockham LICENCE NUMBER 4208
ADDRESS RR2 Ancaster
NAME OF DRILLER OR BORER Maryn Rockham LICENCE NUMBER 4207
SIGNATURE OF CONTRACTOR Wesley Rockham SUBMISSION DATE DAY 9 MO. Sept YR. 73

OFFICE USE ONLY DATA SOURCE 58 CONTRACTOR 59-62 DATE RECEIVED 63-68 80
1 4208 29 01 74
DATE OF INSPECTION INSPECTOR
REMARKS: Owner Said Ventel & Sealed. P
C.S.S. 58 WI

Address of Well Location (Street Number/Name) 1440 Shellard Rd.		Township N. Dumfries	Lot 1	Concession 9
County/District/Municipality Waterloo		City/Town/Village .	Province Ontario	Postal Code .
UTM Coordinates NAD 83	Zone 17	Easting 560508	Northing 4801372	Municipal Plan and Sublot Number .

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
brown	gravel	stones clay		0 ft	48 ft
brown	clay	gravel		4 ft	82 ft
grey	limestone			82 ft	93 ft

Annular Space		
Depth Set at (m/ft) From	Type of Sealant Used (Material and Type)	Volume Placed (m ³ /ft ³)
0 ft 20 ft	Bentonite	10 cu. ft.

Method of Construction		Well Use	
☐ Cable Tool	☐ Diamond	☐ Public	☐ Commercial
☒ Rotary (Conventional)	☐ Jetting	☒ Domestic	☐ Municipal
☐ Rotary (Reverse)	☐ Driving	☐ Livestock	☐ Test Hole
☐ Boring	☐ Digging	☐ Irrigation	☐ Cooling & Air Conditioning
☐ Air percussion		☐ Industrial	
☐ Other, specify		☐ Other, specify	

Construction Record - Casing			Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To
6.25 in.	steel	188	+2 ft.	82 ft
6.125	open hole	.	82 ft	93 ft

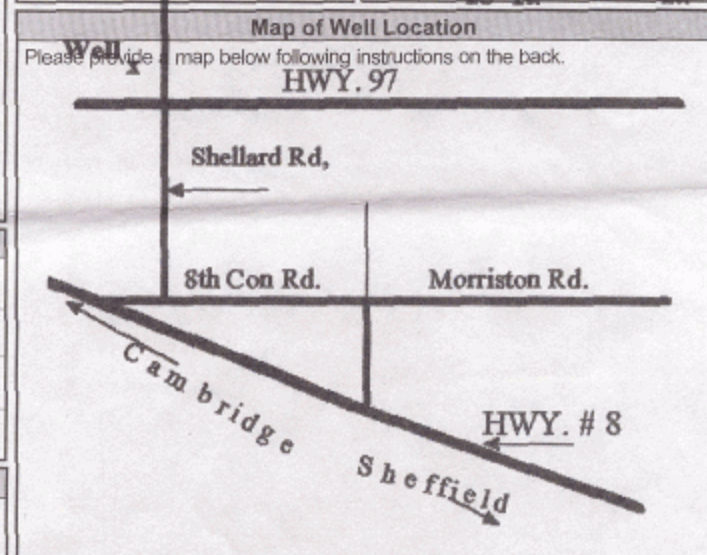
Construction Record - Screen			Status of Well	
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To

Water Details		Hole Diameter	
Water found at Depth (m/ft)	Kind of Water: ☒ Fresh ☒ Untested	Depth (m/ft) From	Diameter (cm/in)
292 (m/ft)	☐ Gas ☐ Other, specify	+2 ft. 82 ft	6.25
		82 ft 93 ft	6.125

Well Contractor and Well Technician Information	
Business Name of Well Contractor Packham Well Drilling Inc.	Well Contractor's Licence No. 4 2 0 7
Business Address (Street Number/Name) 1235 Trinity Road	Municipality Ancaster
Province Ontario	Business E-mail Address packhamwelldrilling@gmail.com

Bus. Telephone No. (inc. area code) 905 648 2909	Name of Well Technician (Last Name, First Name) Packham Mervyn
Well Technician's Licence No. 0058	Signature of Technician and/or Contractor Date Submitted 20090909

Results of Well Yield Testing			
After test of well yield, water was:		Draw Down	
☒ Clear and sand free		Time (min)	Water Level (m/ft)
☐ Other, specify		Time (min)	Water Level (m/ft)
If pumping discontinued, give reason:		Static Level	21 ft
Pump intake set at (m/ft)		1	24 ft
Pumping rate (l/min / GPM)		2	23 ft
Duration of pumping		3	23 ft
hrs + min		4	23 ft
Final water level end of pumping (m/ft)		5	23 ft
If flowing give rate (l/min / GPM)		10	24 ft
Recommended pump depth (m/ft)		15	24 ft
Recommended pump rate (l/min / GPM)		20	24 ft
Well production (l/min / GPM)		25	24 ft
Disinfected? ☒ Yes ☐ No		30	24 ft
		40	24 ft
		50	25 ft
		60	25 ft



Well owner's information package delivered ☒ Yes ☐ No	Date Package Delivered 20090805	Date Work Completed 20090805
Ministry Use Only		Audit No. 93733
Received NOV 27 2009		

Measurements recorded in: ☒ Metric ☒ Imperial

Address of Well Location (Street Number/Name) #155 Robinson Rd.		Township NORTH DUMFRIES	Lot 1	Concession BLK. TRACK 10
County/District/Municipality WATERLOO		City/Town/Village CAMBRIDGE	Province Ontario	Postal Code N1R5S7
UTM Coordinates NAD 83	Zone 17	Easting 599574	Northings 801254	Municipal Plan and Sublot Number

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
Brown	Top Soil			0	2
Brown	Silt	SAND →	Silt	2	12
Brown	Clay			12	52
Grey	GRAVEL			52	58
TOTAL = 58 FT.					
6 1/8" CASING DRIVE SHAFT					

Annular Space				Results of Well Yield Testing				
Depth Set at (m/ft) From	Depth Set at (m/ft) To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)	After test of well yield, water was: ☒ Clear and sand free ☐ Other, specify	Draw Down Time (min)	Water Level (m/ft)	Recovery Time (min)	Water Level (m/ft)
0	20	Quick GROUT	90 GAL.	If pumping discontinued, give reason:	Static Level	13.8		26.1
					1	17.7	1	21.9
				Pump intake set at (m/ft) 46	2	19.3	2	20.4
				Pumping rate (l/min / GPM) 15	3	20.6	3	19.3
				Duration of pumping 1 hrs + 5 min	4	21.7	4	18.1
				Final water level end of pumping (m/ft) 26.1	5	22.4	5	14.5
				If flowing give rate (l/min / GPM)	10	25.4	10	15.5
					15	25.7	15	14.8
				Recommended pump depth (m/ft) 46	20	25.7	20	14.5
				Recommended pump rate (l/min / GPM) 15	25	25.8	25	14.4
				Well production (l/min / GPM) 15+	30	25.8	30	14.3
				Disinfected? ☒ Yes ☐ No	40	25.9	40	14.2
					50	26.0	50	14.1
					60	26.1	60	14.0

Construction Record - Casing				Status of Well	
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 Casing	.188	+2	53	☒ 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

Construction Record - Screen			Water Details			Hole Diameter		
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To	Kind of Water: ☐ Fresh ☒ Untested	Depth (m/ft) From	Depth (m/ft) To	Diameter (cm/in)
5"	STAINLESS STEEL	#30	53	58	Water found at Depth (m/ft) 53 to 58	0	20	10"
					Water found at Depth (m/ft) 20 to 58	20	58	6 1/8"

Well Contractor and Well Technician Information				Map of Well Location	
Business Name of Well Contractor HANSON WELL DRILLING LTD.		Well Contractor's Licence No. 2663			
Business Address (Street Number/Name) #5896 Cnr Rte #7 RR#5		Municipality GUELPH			
Province ON	Postal Code N1H 6J2	Business E-mail Address hansonwellth@bell.net			
Bus. Telephone No. (inc. area code) 519 763 8239		Name of Well Technician (Last Name, First Name) LANGER TRAVIS		Comments:	
Well Technician's Licence No. 3580		Signature of Technician and/or Contractor <i>[Signature]</i>		Date Submitted 20120418	

Well owner's information package delivered	Date Package Delivered	Ministry Use Only
☒ Yes	20120315	Audit No. 2143167
☐ No	20120315	Received JUN 1 2012



Ministry of the Environment

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

Tag#: A133614

5-12663 Well Record
Regulation 903 Ontario Water Resources Act

Measurements recorded in: ☐ Metric ☒ Imperial

Page 1 of 1

Well Owner's Information

First Name	Last Name / Organization	E-mail Address	☐ Well Constructed by Well Owner
	Bolton Recycling Inc.		
Mailing Address (Street Number/Name)	Municipality	Province	Postal Code
2155 Main Street East	Cambridge	ON	N1R5S7

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
2155 Main Street East			
County/District/Municipality	City/Town/Village	Province	Postal Code
	Hamilton (Cambridge)	Ontario	
UTM Coordinates	Zone	Easting	Northing
NAD 83	17	560054	4800769
Municipal Plan and Sublot Number	Other		
	WKQ-005047	A 0 - A 02	

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)
Brown	fill	Sand	Loose	0 to 5'
Brown	Sand	Rock	wet	5' to 20'

Annular Space			
Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)	
0 to 1'	Concrete		
1' to 9'	Holeplug		
9' to 20'	Sand		

Method of Construction	Well Use
☐ Cable Tool ☐ Rotary (Conventional) ☐ Rotary (Reverse) ☐ Boring ☐ Air percussion ☐ Other, specify Direct Push	☐ Public ☐ Domestic ☐ Livestock ☐ Irrigation ☐ Industrial ☐ Other, specify
☐ Diamond ☐ Jetting ☐ Driving ☐ Digging	☐ Commercial ☐ Municipal ☐ Test Hole ☒ Cooling & Air Conditioning ☐ Not used ☐ Dewatering ☐ Monitoring

Construction Record - Casing				Status of Well
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)	
2"	PVC	0.25"	0 to 10'	☐ 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

Construction Record - Screen				Status of Well
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)	
2.25"	PVC	10	10' to 20'	☐ Other, specify

Water Details		Hole Diameter	
Water found at Depth (m/ft)	Kind of Water: ☐ Fresh ☐ Untested ☐ Gas ☐ Other, specify	Depth (m/ft)	Diameter (cm/in)
		From To	
		0 to 20'	8"

Well Contractor and Well Technician Information			
Business Name of Well Contractor		Well Contractor's Licence No.	
Strata Soil Sampling Inc.		7 2 4 1	
Business Address (Street Number/Name)		Municipality	
147-2 West Beaver Creek Road		Richmond Hill	
Province	Postal Code	Business E-mail Address	
Ontario	L4B 1C6	wrecords@stratasoil.com	
Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)		
905-764-9804	Mark Make		
Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted	
3 4 4 8		2012 06 29	

Results of Well Yield Testing			
After test of well yield, water was:	Draw Down		
☐ Clear and sand free ☐ Other, specify	Time (min)	Water Level (m/ft)	Recovery
			Time (min)
If pumping discontinued, give reason:	Static Level		
	1		1
Pump intake set at (m/ft)	2		2
Pumping rate (l/min / GPM)	3		3
Duration of pumping	4		4
hrs + min	5		5
Final water level end of pumping (m/ft)	10		10
If flowing give rate (l/min / GPM)	15		15
	20		20
Recommended pump depth (m/ft)	25		25
Recommended pump rate (l/min / GPM)	30		30
Well production (l/min / GPM)	40		40
Disinfected?	50		50
☐ Yes ☐ No	60		60

Map of Well Location

Please provide a map below following instructions on the back.

Comments:		General contractor: Pinchin Environmental	
Well owner's information package delivered	Date Package Delivered	Ministry Use Only	
☐ Yes ☒ No	2012 06 15	Audit No. z152642	
Date Work Completed		AUG 09 2012	



Tag#: A133615

Page 12 of 12

Measurements recorded in: ☐ Metric ☒ Imperial

Well Owner's Information

First Name [REDACTED]	Last Name / Organization Borret Recycling Inc.	E-mail Address	☐ Well Constructed by Well Owner
Mailing Address (Street Number/Name) 2155 Main Street East	Municipality Cambridge	Province ON	Postal Code N1R5S7
		Telephone No. (inc. area code) [REDACTED]	

Well Location

Address of Well Location (Street Number/Name) 2155 Main Street East				Township		Lot		Concession			
County/District/Municipality				City/Town/Village Hamilton <i>Canbidge</i>				Province Ontario		Postal Code 	
UTM Coordinates NAD 83		Zone Easting 17559973		Northing 4800722		Municipal Plan and Sublot Number				Other WKQ-005047 A 0 - A 02	

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

[illegible]

Annular Space

Depth Set at (m/ft)		Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
From	To		
0	1'	Concrete	
1'	9'	Grout	
9'	20'	Sand	

Results of Well Yield Testing

After test of well yield, water was: ☐ Clear and sand free ☐ Other, <i>specify</i> _____	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason:	Static Level			
	1		1	
Pump intake set at (m/ft)	2		2	
Pumping rate (l/min / GPM)	3		3	
	4		4	
Duration of pumping _____ hrs + _____ min	5		5	
Final water level end of pumping (m/ft)	10		10	
	15		15	
If flowing give rate (l/min / GPM)	20		20	
	25		25	
Recommended pump depth (m/ft)	30		30	
	40		40	
Recommended pump rate (l/min / GPM)	50		50	
	60		60	
Well production (l/min / GPM)				
Disinfected? ☐ Yes ☐ No				

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		☐ Water Supply ☐ Replacement Well ☒ Test Hole ☐ Recharge Well ☐ Dewatering Well ☒ Observation and/or Monitoring Hole ☐ Alteration (Construction) ☐ Abandoned, Insufficient Supply
			From	To	
2"	PVC	0.25"	0	10'	

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*

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)	
			From	To
2.25"	PVC	10	10'	20'

Water Details

Water found at Depth		Depth (m/ft)		Diameter (cm/in)
(m/ft) ☐ Gas	Kind of Water: ☐ Fresh ☐ Untested ☐ Other, specify _____	From	To	
Water found at Depth (m/ft) ☐ Gas	Kind of Water: ☐ Fresh ☐ Untested ☐ Other, specify _____	0	20'	9"
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

Water found at Depth		Depth (m/ft)		Diameter (cm/in)
(m/ft) ☐ Gas	Kind of Water: ☐ Fresh ☐ Untested ☐ Other, specify _____	From	To	
Water found at Depth (m/ft) ☐ Gas	Kind of Water: ☐ Fresh ☐ Untested ☐ Other, specify _____	0	20'	9"
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 _____			

Well Contractor and Well Technician Information

Business Name of Well Contractor Strata Soil Sampling Inc.		Well Contractor's Licence No. 7 2 4 1
Business Address (Street Number/Name) 147-2 West Beaver Creek Road		Municipality Richmond Hill
Province Ontario	Postal Code L4B 1G6	Business E-mail Address wrecords@stratasoil.com
Bus.Telephone No. (inc. area code) 905-764-9304	Name of Well Technician (Last Name, First Name) Muir, Mike	
Well Technician's Licence No. 3 4 4 8	Signature of Technician and/or Contractor 	Date Submitted 2012 0620

Comments:	General contractor: Pinchin Environmental
-----------	--

Well owner's information package delivered	Date Package Delivered
☐ Yes ☒ No	YYYYMMDD Date Work Completed 20120615

Ministry Use Only	
Audit No.	z 152641
Received	AUG 09 2012

Well ID

Well ID Number: 7194992
Well Audit Number: Z65675
Well Tag Number:

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

Well Location

Address of Well Location	155 ROBINSON RD.
Township	NORTH DUMFRIES TOWNSHIP
Lot	001
Concession	CON 10
County/District/Municipality	WATERLOO
City/Town/Village	CAMBRIDGE
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 17 Easting: 559946.00 Northing: 4801272.00
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
-24.38 m	-1.52 m	3/8 " HOLEPLUG/ BENTONITE CHIPS	
-1.52 m	-.6096 m	CLEAN FILL	
-.6096 m	0 m	3/8" HOLEPLUG	
0 m	.305 m	CLEAN FILL	

Method of Construction & Well Use

Method of Construction Well Use

Status of Well

Abandoned-Quality

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth	
		From	To

Construction Record - Screen

Outside Diameter	Material	Depth	
		From	To

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7348

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?

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 Depth
From To Diameter

Audit Number: Z65675

Date Well Completed:

Date Well Record Received by MOE: January 09, 2013

Measurements recorded in: ☒ Metric ☐ Imperial

Address of Well Location (Street Number/Name) 175 ROBINSON ROAD		Township CITY OF CAMBRIDGE	Lot 1	Concession 9
County/District/Municipality		City/Town/Village CAMBRIDGE	Province Ontario	Postal Code N1A5S7
UTM Coordinates Zone 18N	Easting 559718	Northings 4861221	Municipal Plan and Sublot Number	

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)				
General Colour	Most Common Material	Other Materials	General Description	
			From	To
BROWN	SILTY SAND	GRAVEL	0	3.1
BROWN	SILTY CLAY	STONE & ROCKS	3.1	17.4
GREY	SILTY CLAY	STONES	17.4	25.3
GREY	CLAY	GRAVEL	25.3	28.7
BROWN	SAND	GRAVEL & SILT	28.7	30.8
GREY	LIMESTONE		30.8	32.3

Annular Space			
Depth Set at (m)	Type of Sealant Used (Material and Type)	Volume Placed (m³)	
0	7.6 BENTONITE HOLE PLUG	0.2	

Method of Construction ☐ Cable Tool ☒ Rotary (Conventional) ☐ Rotary (Reverse) ☐ Boring ☐ Air percussion ☐ Other, specify _____	Well Use ☐ Diamond ☐ Jetting ☐ Driving ☐ Digging ☐ Public ☒ Domestic ☐ Livestock ☐ Irrigation ☐ Industrial ☐ Other, specify _____	☐ Commercial ☐ Municipal ☐ Test Hole ☐ Cooling & Air Conditioning ☐ Not used ☐ Dewatering ☐ Monitoring
---	---	---

Construction Record - Casing				Status of Well	
Inside Diameter (cm)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm)	Depth (m)	From	To
16.0	STEEL	0.5	7.6	31.4	
15.6	OPEN HOLE		31.4	32.3	

Construction Record - Screen				Status of Well	
Outside Diameter (cm)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m)	From	To

Water Details		Hole Diameter	
Water found at Depth (m)	Kind of Water: ☐ Fresh ☒ Untested	Depth (m)	Diameter (cm)
32	☐ Gas ☐ Other, specify _____	From To	
		0 7.6	25.0
		7.6 31.4	20.0
		31.4 32.3	15.6

Business Name of Well Contractor WELL INITIATIVES		Well Contractor's Licence No. 7221
Business Address (Street Number/Name) 15 TOWNLINE		Municipality ORANGEVILLE
Province ON	Postal Code L9W3R4	Business E-mail Address INFO@WELLINITIATIVES.COM

Bus. Telephone No. (inc. area code) 5198468285	Name of Well Technician (Last Name, First Name) BROADFOOT JUN
Well Technician's Licence No. 0370	Signature of Technician and/or Contractor Jim Broadfoot
Date Submitted 20170831	

Results of Well Yield Testing			
After test of well yield, water was:		Draw Down	
☒ Clear and sand free ☐ Other, specify _____		Time (min)	Water Level (m)
If pumping discontinued, give reason:		Static Level	Recovery
Pump intake set at (m)		1	5.48
Pumping rate (l/min / GPM)		2	5.52
Duration of pumping		3	5.52
Final water level end of pumping (m)		4	5.52
If flowing give rate (l/min / GPM)		5	5.54
Recommended pump depth (m)		10	5.54
Recommended pump rate (l/min / GPM)		15	5.54
Well production (l/min / GPM)		20	5.54
Disinfected?		25	5.54
☒ Yes ☐ No		30	5.54
		40	5.54
		50	5.54
		60	5.54

Map of Well Location

Please provide a map below following instructions on the back.

Well owner's information package delivered ☐ Yes ☒ No	Date Package Delivered Y Y Y Y M M D D 20170829	Date Work Completed Y Y Y Y M M D D 20170829
Ministry Use Only Audit No. 2264039		Received SEP 08 2017

Measurements recorded in: ☐ Metric ☒ Imperial

Well Owner's Information

First Name
AKA

Last Name/Organization
Ltd.

E-mail Address

☐ Well Constructed by Well Owner

Mailing Address (Street Number/Name)
3024 Old Beverly

Municipality
Waterloo

Province
Ont

Postal Code
N1R5W6

Telephone No. (inc. area code)
519 865 1956

Well Location

Address of Well Location (Street Number/Name)
Lot 4 Robinson Rd

Township
City of Cambridge

Lot
1

Concession
9

County/District/Municipality
Waterloo

City/Town/Village
Cambridge

Province
Ontario

Postal Code
N1R5W6

UTM Coordinates Zone
NAD 83

Easting
17560059

Northing
4801235

Municipal Plan and Sublot Number

Other

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)
				FromTo
brown	clay	rocks, 10cm		03
brown	clay	stones		38
brown	gravel	sand, clay, stones		855
grey	clay	stones		5575
grey	limestone		hard	7580
grey	limestone		soft	8091
grey	limestone	stones		9198
grey	limestone			98110

Annular Space			
Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)	
FromTo			
020	bentonite clay	3.75 ft³	

Method of Construction

☐ Cable Tool
☒ Rotary (Conventional)
☐ Rotary (Reverse)
☐ Boring
☐ Air percussion
☐ Other, specify

Well Use

☐ Public
☐ Domestic
☐ Livestock
☐ Irrigation
☐ Industrial
☐ Other, specify

☐ Commercial
☐ Municipal
☒ Test Hole
☐ Cooling & Air Conditioning
☐ Not used
☐ Dewatering
☐ Monitoring

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)	From	To
6.25	steel	.188	42	98	
6"	open hole		98	110	

☐ 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

Construction Record - Screen			
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)
			FromTo

Water Details		Hole Diameter	
Water found at Depth (m/ft)	Kind of Water: ☐ Fresh ☒ Untested	Depth (m/ft)	Diameter (cm/in)
110 (m/ft) ☐ Gas	☐ Other, specify	FromTo	
Water found at Depth (m/ft) ☐ Gas	☐ Fresh ☐ Untested	098	8"
Water found at Depth (m/ft) ☐ Gas	☐ Other, specify	98110	6"

Business Name of Well Contractor
Martin Well Drilling Inc.

Well Contractor's Licence No.
7557

Business Address (Street Number/Name)
PO Box 60 Alma

Municipality
Wellington

Province
Ontario

Postal Code
N0B1A0

Business E-mail Address

Bus. Telephone No. (inc. area code)
519 846 9162

Name of Well Technician (Last Name, First Name)
Martin, Jeff

Well Technician's Licence No.
3253

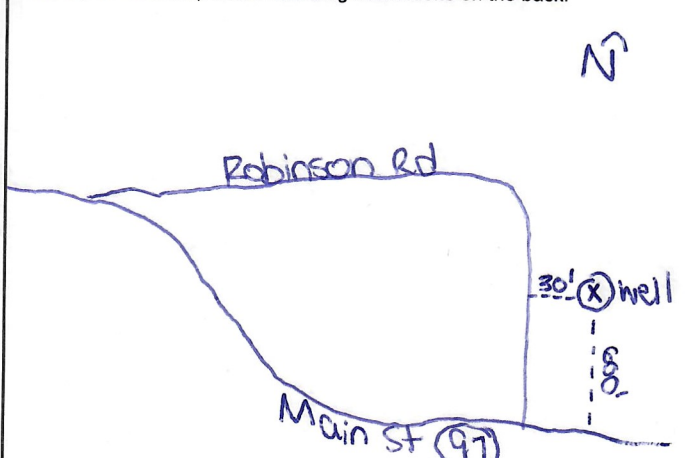
Signature of Technician and/or Contractor
[Signature]

Date Submitted
YYMMDD

Results of Well Yield Testing			
After test of well yield, water was: ☒ Clear and sand free ☐ Other, specify		Draw Down	
If pumping discontinued, give reason:		Time (min)	Water Level (m/ft)
Pump intake set at (m/ft) 65'		Time (min)	Water Level (m/ft)
Pumping rate (l/min / GPM) 20 gpm		1	17.5
Duration of pumping 1 hrs + 0 min		2	17.5
Final water level end of pumping (m/ft) 17.9		3	17.5
If flowing give rate (l/min/GPM)		4	17.5
Recommended pump depth (m/ft) 50'		5	17.5
Recommended pump rate (l/min/GPM) 20 gpm		10	17.4
Well production (l/min/GPM) 20+ gpm		15	17.4
Disinfected? ☒ Yes ☐ No		20	17.4
		25	17.4
		30	17.3
		40	17.3
		50	17.3
		60	17.2

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well owner's information package delivered
☐ Yes ☐ No

Date Package Delivered
YYMMDD
20260520

Date Work Completed
YYMMDD

Ministry Use Only

Audit No.
2453509

Received

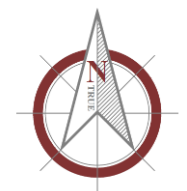
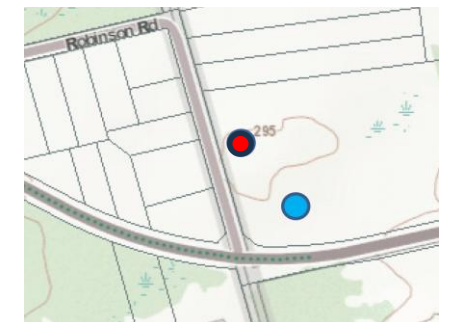


Appendix B – Well Hydrographs

NOTES:

- 1) Test completed May 28, 2026

KEY PLAN:

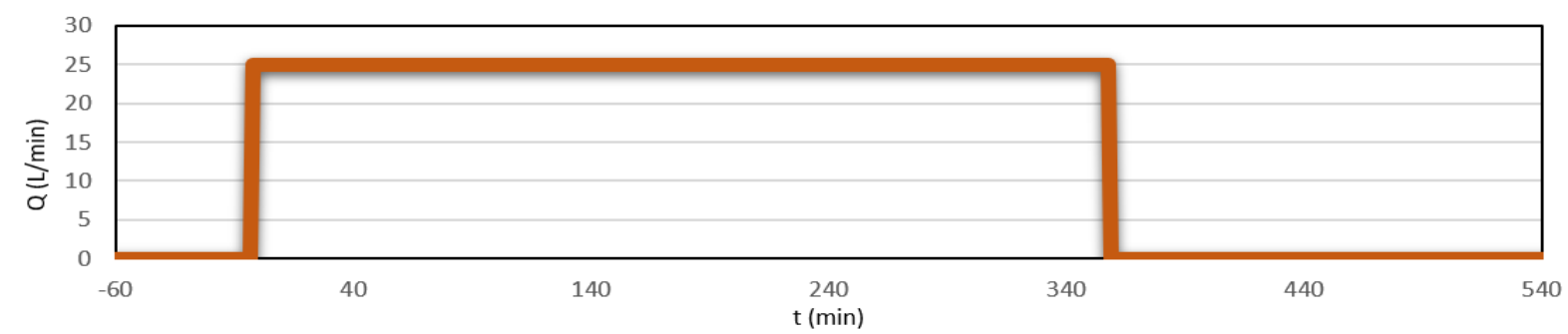
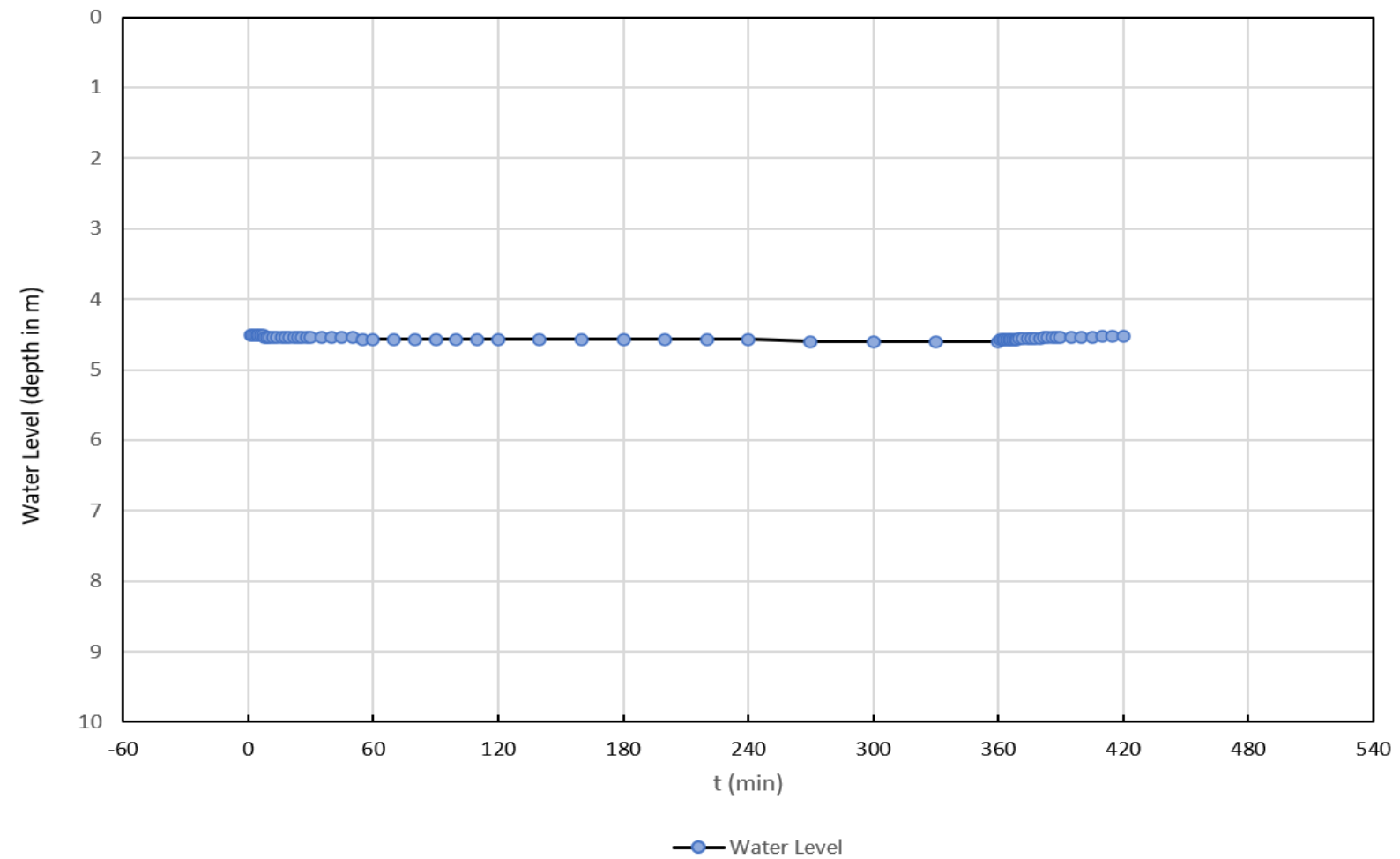


PROJECT 26-6001A:

**HYDROGEOLOGY AND TERRAIN EVALUATION
PROPOSED RURAL RESIDENTIAL LOTS
3024 OLD BEVERLY ROAD**

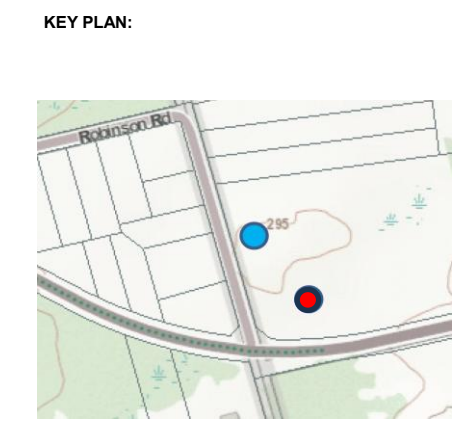
FIGURE B-1:

WELL HYDROGRAPH – TW-1 (A417126)



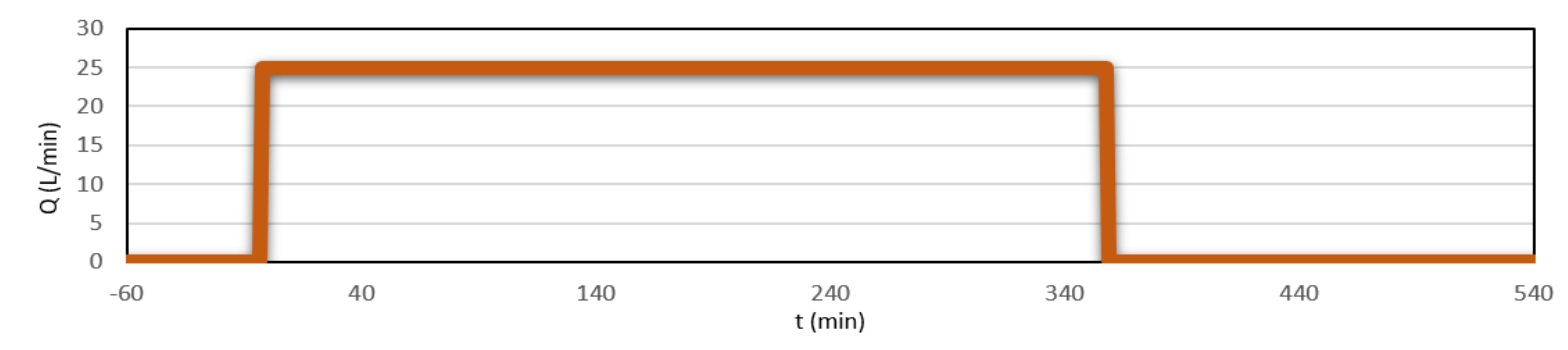
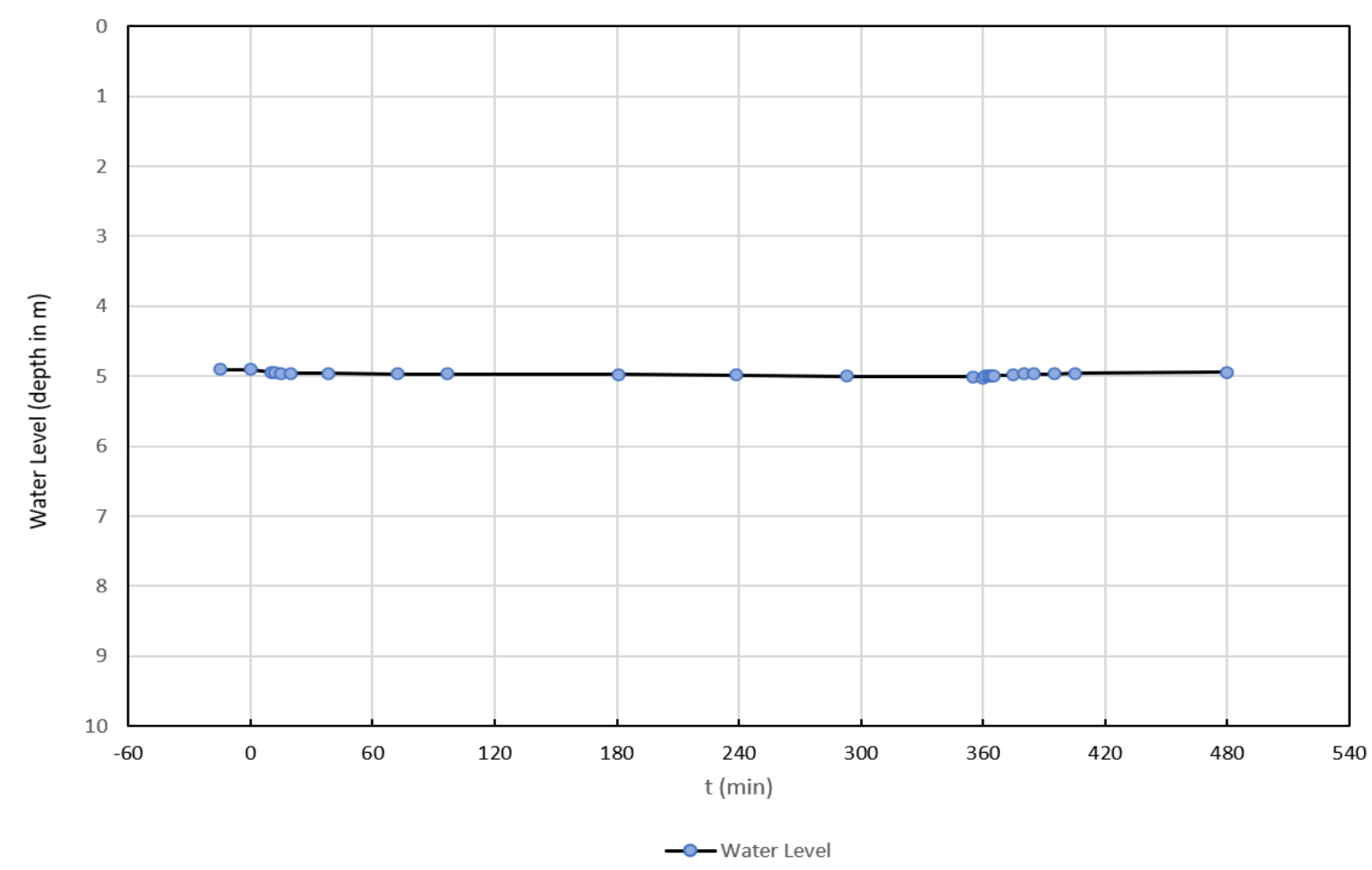
NOTES:

1) Test completed May 28, 2026



PROJECT 26-6001A:
HYDROGEOLOGY AND TERRAIN EVALUATION
PROPOSED RURAL RESIDENTIAL LOTS
3024 OLD BEVERLY ROAD

FIGURE B-2:
WELL HYDROGRAPH – OW-2 (WWR# 6808737)



NOTES:

1) Test completed May 28, 2026

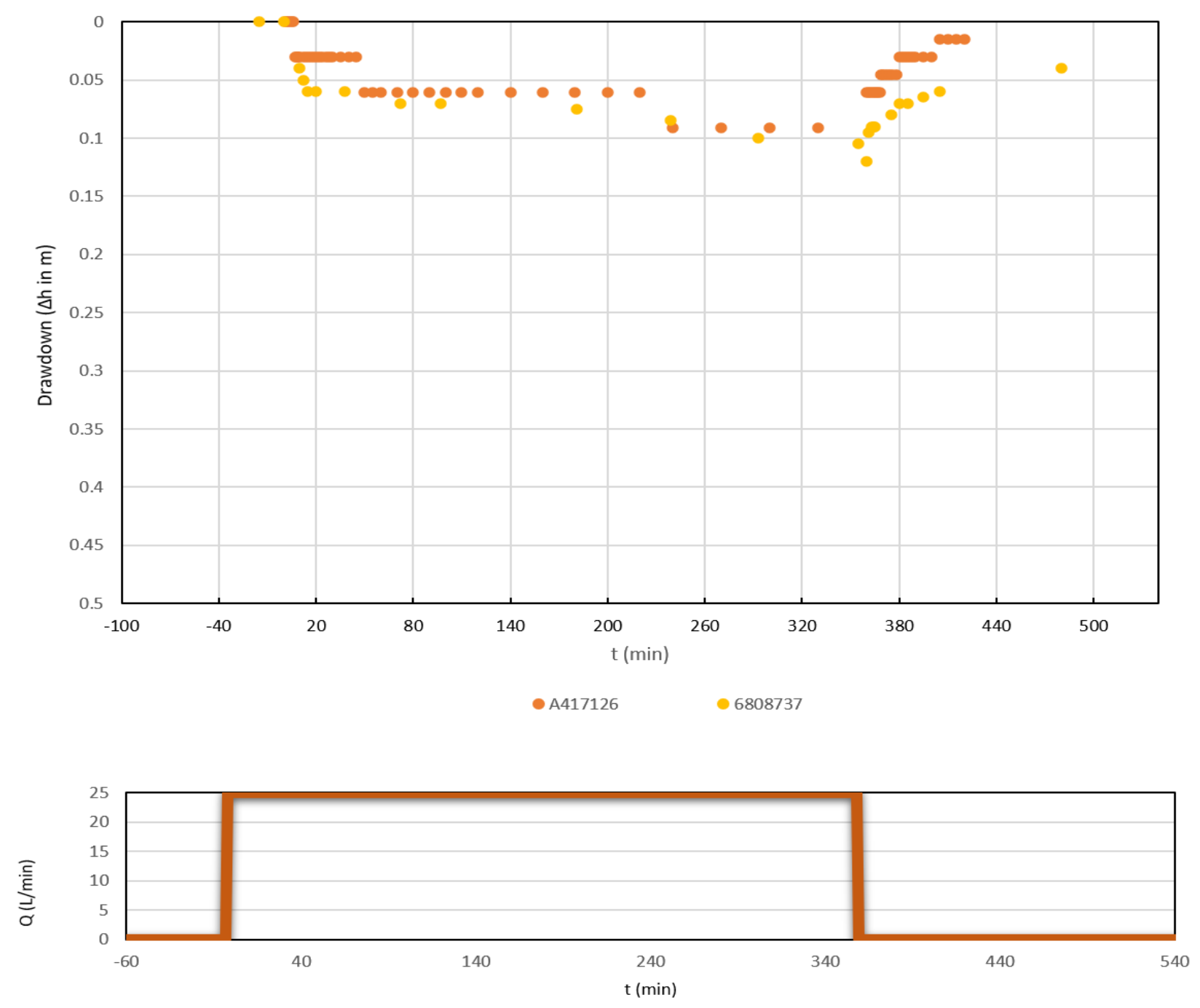
KEY PLAN:



PROJECT 26-6001A:
HYDROGEOLOGY AND TERRAIN EVALUATION
PROPOSED RURAL RESIDENTIAL LOTS
3024 OLD BEVERLY ROAD

FIGURE B-3:

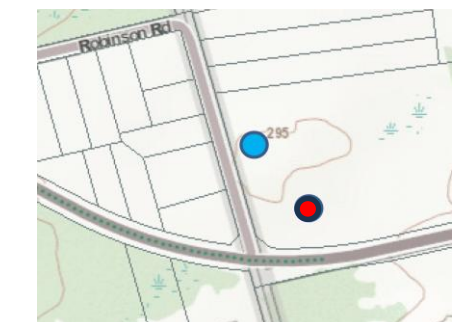
ΔH OVERLAY



NOTES:

- 1) Test completed June 4, 2026
- 2) On-site pressure and temperature data collected using a Solinst Model 3001 datalogging transducer using 10 s intervals
- 3) Water level data is not corrected for fluctuations in barometric pressure

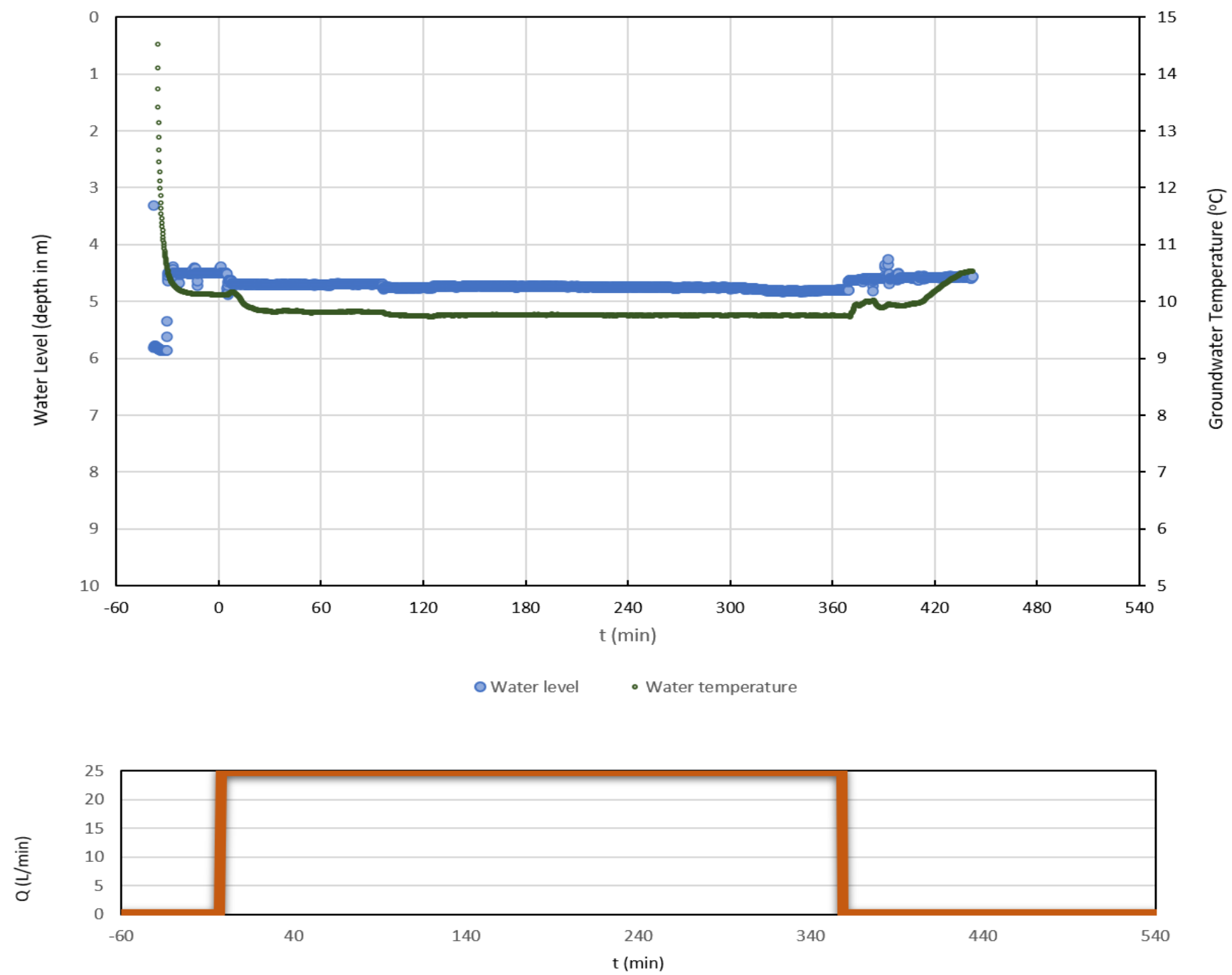
KEY PLAN:



PROJECT 26-6001A:
HYDROGEOLOGY AND TERRAIN EVALUATION
PROPOSED RURAL RESIDENTIAL LOTS
3024 OLD BEVERLY ROAD

FIGURE B-4:

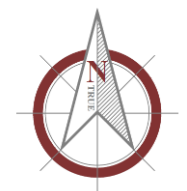
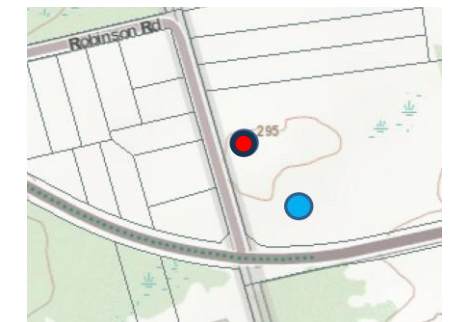
WELL HYDROGRAPH – TW-2 (WWR# 6808737)



NOTES:

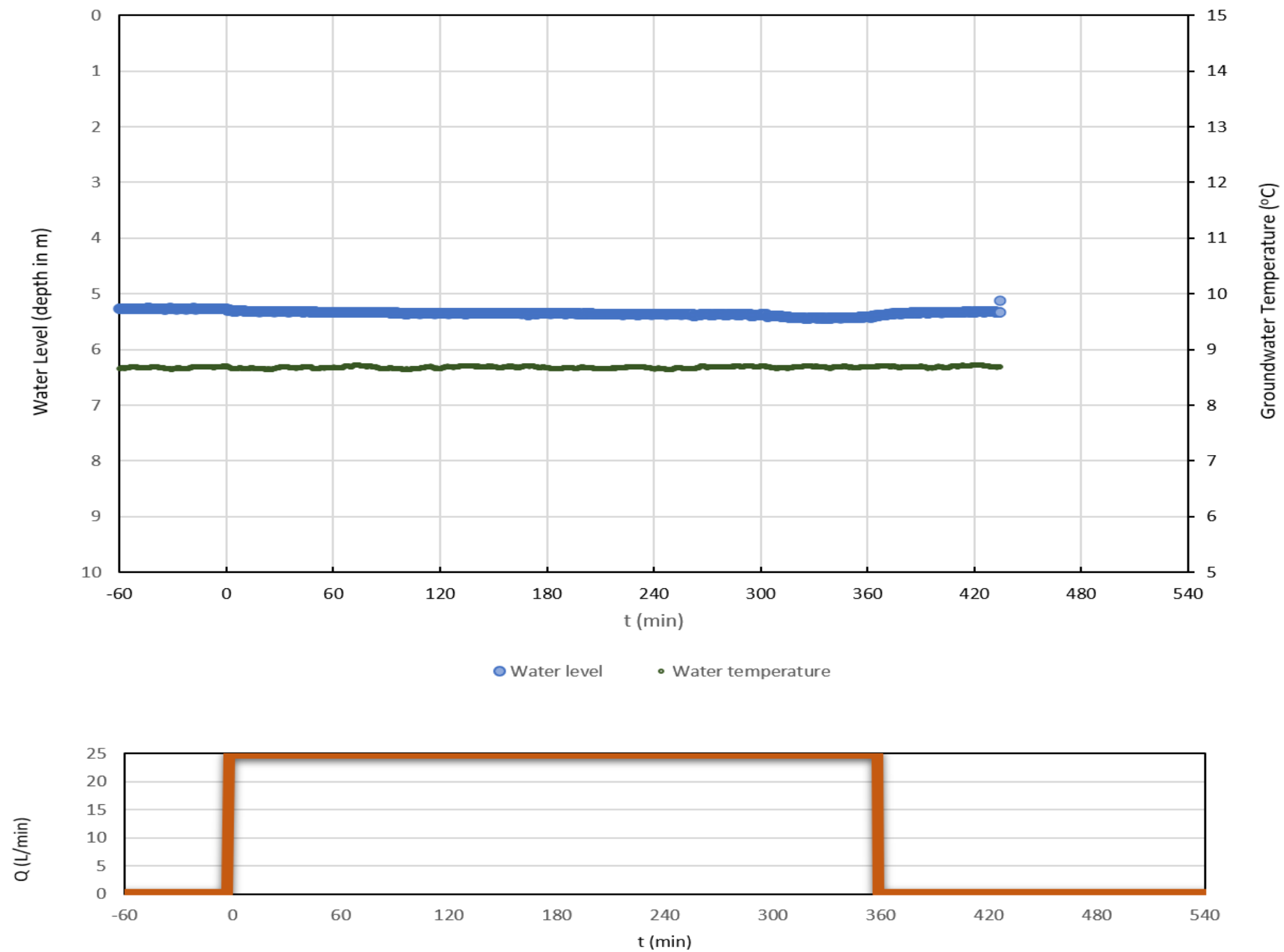
- 1) Test completed June 4, 2026
- 2) On-site pressure and temperature data collected using a Solinst Model 3001 datalogging transducer using 10 s intervals
- 3) Water level data is not corrected for fluctuations in barometric pressure

KEY PLAN:

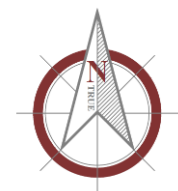
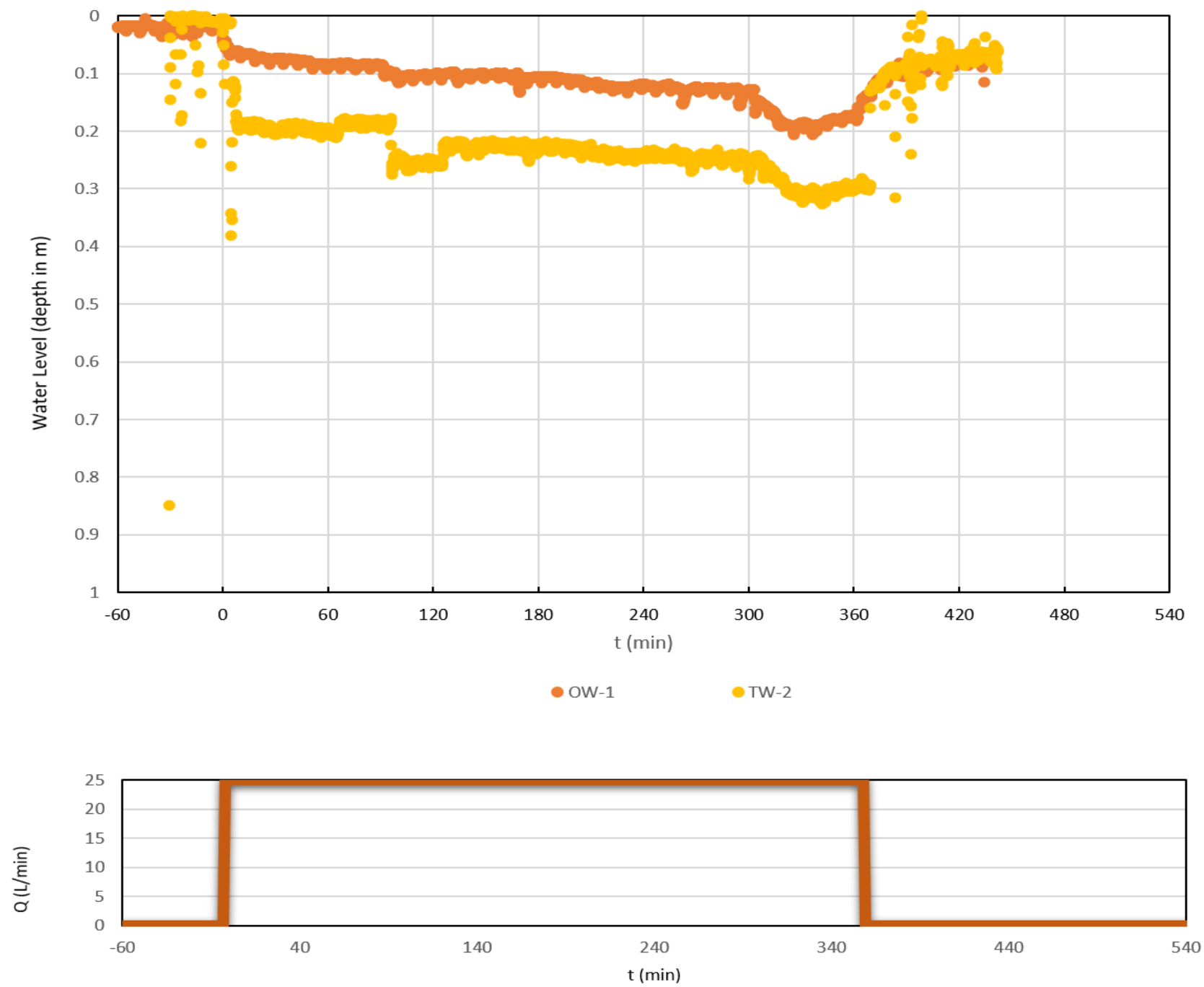


PROJECT 26-6001A:
**HYDROGEOLOGY AND TERRAIN EVALUATION
PROPOSED RURAL RESIDENTIAL LOTS
3024 OLD BEVERLY ROAD**

FIGURE B-5:
WELL HYDROGRAPH – OW-1 (A417126)



- NOTES:
- 1) Test completed June 4, 2026
 - 2) On-site pressure and temperature data collected using a Solinst Model 3001 datalogging transducer using 10 s intervals
 - 3) Water level data is not corrected for fluctuations in barometric pressure



PROJECT 26-6001A:
HYDROGEOLOGY AND TERRAIN EVALUATION
PROPOSED RURAL RESIDENTIAL LOTS
3024 OLD BEVERLY ROAD

FIGURE B-6:
 ΔH OVERLAY



Appendix C – Laboratory Certificates of Analysis

C.O.C.: G

REPORT No: 26-015647 - Rev. 0

Report To:

Greer Galloway, a division of Jp2g Consultants Inc.
 1620 Wallbridge-Loyalist Road, RR #5
 Belleville, ON K8N 4Z5

CADUCEON Environmental Laboratories

285 Dalton Ave
 Kingston, ON K7K 6Z1

Attention: Charles Mitz

DATE RECEIVED: 2026-May-29
 DATE REPORTED: 2026-Jun-08
 SAMPLE MATRIX: Ground Water

CUSTOMER PROJECT: Old Beverly Rd
 P.O. NUMBER: PO#26-6001A

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Anions (Liquid)	1	OTTAWA	LMACGREGOR	2026-Jun-03	A-IC-01	SM 4110B
Colour (Liquid)	1	OTTAWA	STAILLON	2026-Jun-02	A-COL-01	SM 2120C
Cond/pH/Alk Auto (Liquid)	1	OTTAWA	SBOUDREAU	2026-Jun-01	COND-02/PH-02/A LK-02	SM 2510B/4500H/ 2320B
Coliforms - DC Media (Liquid)	1	KINGSTON	BBURTCH	2026-May-29	ECTC-001	MECP E3407
DOC (Liquid)	1	OTTAWA	MMACMILLAN	2026-Jun-02	C-OC-01	EPA 415.2
Ion Balance (Calc)	1	OTTAWA	TPRICE		CP-028	MECP E3196
ICP/OES (Liquid)	1	OTTAWA	NSAUNDERS	2026-Jun-02	D-ICP-01	SM 3120B
Ammonia (Liquid)	1	KINGSTON	DCASSIDY	2026-Jun-05	NH3-001	SM 4500NH3
Turbidity (Liquid)	1	OTTAWA	AGRAF	2026-Jun-01	A-TURB-01	SM 2130B

R.L. = Reporting Limit

NC = Not Calculated

Test methods may be modified from specified reference method unless indicated by an *



Michelle Dubien
Data Specialist

CADUCEON Environmental Laboratories Certificate of Analysis

Final Report
REPORT No: 26-015647 - Rev. 0

		Client I.D.	TW1
		Sample I.D.	26-015647-1
		Date Collected	2026-05-28
Parameter	Units	R.L.	-
Total Coliform (DC Media)	CFU/100mL	1	0
E coli (DC Media)	CFU/100mL	1	0
Background (DC Media)	CFU/100mL	1	5
Alkalinity(CaCO3) to pH4.5	mg/L	5	248
TDS (Calc. from Cond.) (Calculated)	mg/L	3	365
Conductivity @25°C	uS/cm	1	703
pH @25°C	pH units	-	8.07
Colour	TCU	2	<2
Turbidity	NTU	0.1	12.0
Fluoride	mg/L	0.1	<0.1
Chloride	mg/L	0.5	40.4
Nitrate (N)	mg/L	0.05	<0.05
Nitrite (N)	mg/L	0.05	<0.05
Sulphate	mg/L	1	66
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05	<0.05
Dissolved Organic Carbon	mg/L	0.8	2.8
Hardness (as CaCO3)	mg/L	0.02	345
Calcium	mg/L	0.02	73.4
Iron	mg/L	0.005	0.906
Magnesium	mg/L	0.02	39.2
Manganese	mg/L	0.001	0.013



Michelle Dubien
Data Specialist

The analytical results reported herein refer to the samples as received and relate only to the items tested. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

CADUCEON Environmental Laboratories Certificate of Analysis

Final Report
REPORT No: 26-015647 - Rev. 0

		Client I.D.	TW1
		Sample I.D.	26-015647-1
		Date Collected	2026-05-28
Parameter	Units	R.L.	-
Potassium	mg/L	0.1	1.2
Sodium	mg/L	0.2	11.1
Anion Sum (Calculated)	meq/L	-	7.48
Cation Sum (Calculated)	meq/L	-	7.46
% Difference (Calculated)	%	-	0.172
TDS (Ion Sum Calc) (Calculated)	mg/L	1	382
Conductivity Calc	µmho/cm	-	700



Michelle Dubien
Data Specialist

The analytical results reported herein refer to the samples as received and relate only to the items tested. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: G

REPORT No: 26-016595 - Rev. 0

Report To:

Greer Galloway, a division of Jp2g Consultants Inc.
 1620 Wallbridge-Loyalist Road, RR #5
 Belleville, ON K8N 4Z5

CADUCEON Environmental Laboratories

285 Dalton Ave
 Kingston, ON K7K 6Z1

Attention: Charles Mitz

DATE RECEIVED: 2026-Jun-05
 DATE REPORTED: 2026-Jun-16
 SAMPLE MATRIX: Ground Water

CUSTOMER PROJECT: Old Beverly Rd
 P.O. NUMBER: PO#26-6001A

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Anions (Liquid)	1	OTTAWA	PCURIEL	2026-Jun-08	A-IC-01	SM 4110B
Colour (Liquid)	1	OTTAWA	STAILLON	2026-Jun-09	A-COL-01	SM 2120C
Cond/pH/Alk Auto (Liquid)	1	OTTAWA	SBOUDREAU	2026-Jun-08	COND-02/PH-02/A LK-02	SM 2510B/4500H/ 2320B
Coliforms - DC Media (Liquid)	1	KINGSTON	BBURTCH	2026-Jun-05	ECTC-001	MECP E3407
DOC (Liquid)	1	OTTAWA	MMACMILLAN	2026-Jun-13	C-OC-01	EPA 415.2
Fecal Coliforms (Liquid)	1	KINGSTON	BBURTCH	2026-Jun-05	FC-001	SM 9222D
Ion Balance (Calc)	1	OTTAWA	ASCHNEIDER		CP-028	MECP E3196
ICP/OES (Liquid)	1	OTTAWA	SGORMAN	2026-Jun-09	D-ICP-01	SM 3120B
Ammonia (Liquid)	1	KINGSTON	BHANNAH	2026-Jun-15	NH3-001	SM 4500NH3
Turbidity (Liquid)	1	OTTAWA	AGRAF	2026-Jun-08	A-TURB-01	SM 2130B

R.L. = Reporting Limit

NC = Not Calculated

Test methods may be modified from specified reference method unless indicated by an *



Michelle Dubien
Data Specialist

CADUCEON Environmental Laboratories Certificate of Analysis

Final Report
REPORT No: 26-016595 - Rev. 0

		Client I.D.	TW2
		Sample I.D.	26-016595-1
		Date Collected	2026-06-04
Parameter	Units	R.L.	-
Total Coliform (DC Media)	CFU/100mL	1	0
E coli (DC Media)	CFU/100mL	1	0
Background (DC Media)	CFU/100mL	1	26
Fecal Coliform	CFU/100mL	1	0
Alkalinity(CaCO3) to pH4.5	mg/L	5	244
TDS (Calc. from Cond.) (Calculated)	mg/L	3	512
Conductivity @25°C	uS/cm	1	962
pH @25°C	pH units	-	7.99
Colour	TCU	2	<2
Turbidity	NTU	0.1	5.7
Fluoride	mg/L	0.1	<0.1
Chloride	mg/L	0.5	120
Nitrate (N)	mg/L	0.05	<0.05
Nitrite (N)	mg/L	0.05	<0.05
Sulphate	mg/L	1	78
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05	<0.05
Dissolved Organic Carbon	mg/L	0.8	2.8
Hardness (as CaCO3)	mg/L	0.02	426
Calcium	mg/L	0.02	96.5
Iron	mg/L	0.005	0.619
Magnesium	mg/L	0.02	45.0



Michelle Dubien
Data Specialist

The analytical results reported herein refer to the samples as received and relate only to the items tested. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

CADUCEON Environmental Laboratories Certificate of Analysis

Final Report
REPORT No: 26-016595 - Rev. 0

		Client I.D.	TW2
		Sample I.D.	26-016595-1
		Date Collected	2026-06-04
Parameter	Units	R.L.	-
Manganese	mg/L	0.001	0.010
Potassium	mg/L	0.1	1.3
Sodium	mg/L	0.2	38.0
Anion Sum (Calculated)	meq/L	-	9.88
Cation Sum (Calculated)	meq/L	-	10.2
% Difference (Calculated)	%	-	1.75
TDS (Ion Sum Calc) (Calculated)	mg/L	1	526
Conductivity Calc	µmho/cm	-	972



Michelle Dubien
Data Specialist

The analytical results reported herein refer to the samples as received and relate only to the items tested. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.