



GRIT
ENGINEERING INC

1 REGENT STREET
STRATFORD, ON N5A 3W2
www.gritengineering.ca

Legend:



SITE LOCATION

Note: Not to Scale
Reference: Aerial Imagery from Bing Maps

Project:

GE23-0504-1
AGGREGATE ASSESSMENT
6695 46TH LINE, WEST PERTH, ON

Figure Title:

SITE LOCATION
AGGREGATE ASSESSMENT

Figure No: 1



GRIT
ENGINEERING
133 REGENT STREET
STRATFORD, ON N5A 3W2
www.gritengineering.ca

- Legend:
- SITE LOCATION
 - STUDY AREA
 - PROPOSED SEVERANCE
 - WATERCOURSE

Project:
GE23-0504-1
AGGREGATE ASSESSMENT
6695 46TH LINE, WEST PERTH, ON

Figure Title:
SITE PLAN
AGGREGATE ASSESSMENT

Figure No: 2

Reference: Aerial Imagery from Bing Maps



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STRATFORD, ON N5A 3W2
www.gritengineering.ca

Legend:

- ☒ TEST PIT
- △ BENCHMARK:
TBM= Foundation lip on south corner of garage
- SITE LOCATION:
 - ☐ STUDY AREA
 - ☐ PROPOSED SEVERANCE

Project:

GE23-0504-1
AGGREGATE ASSESSMENT
6695 46TH LINE, WEST PERTH, ON

Figure Title:

PROPOSED SEVERANCE
AGGREGATE ASSESSMENT

Figure No: 3



Legend:



SITE LOCATION



STUDY AREA

Note: Not to Scale

Reference: Google Earth and Ontario Geological Survey

Project:

GE23-0504-1
 AGGREGATE ASSESSMENT
 6695 46TH LINE, WEST PERTH, ON

Figure Title:

SURFICIAL GEOLOGY
 AGGREGATE ASSESSMENT



Legend:



SITE LOCATION



STUDY AREA

Note: Not to Scale

Reference: Google Earth and Ontario Geological Survey

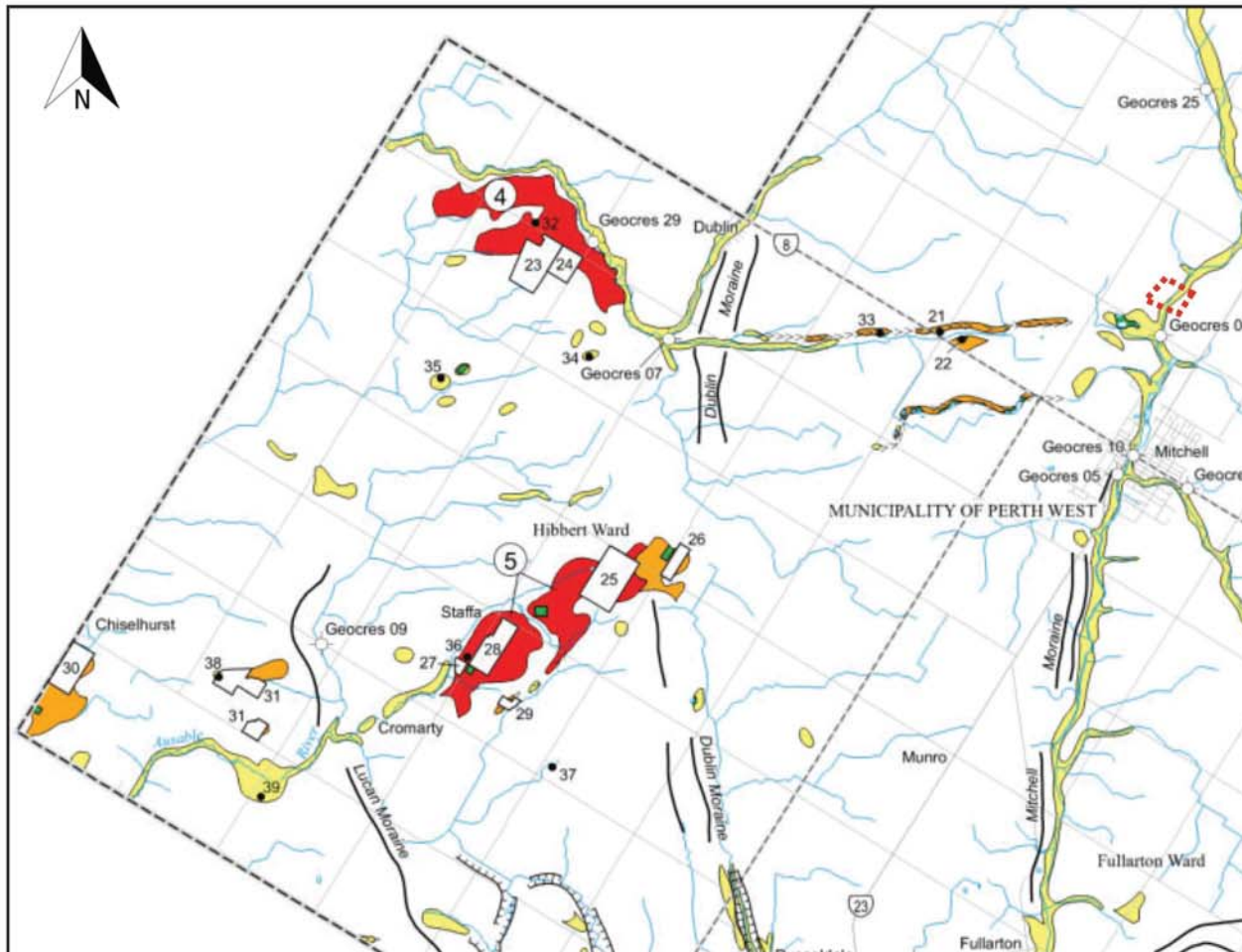
Project:

GE23-0504-1
AGGREGATE ASSESSMENT
6695 46TH LINE, WEST PERTH, ON

Figure Title:

SURFICIAL GEOLOGY 2
AGGREGATE ASSESSMENT

Figure No: 5



SAND AND GRAVEL RESOURCES

- 1 Selected Sand and Gravel Resource Area, primary significance; deposit number (see Table 3)
- Sand and gravel deposits that have been substantially extracted in the past, but where limited resources may still be available
- Selected sand and gravel resource area, secondary significance
- Sand and gravel deposit, tertiary significance
- Other surficial deposits or exposed bedrock

SYMBOLS

- 1 Licenced property boundary; property number (see Table 2)
- 18 Unlicensed sand or gravel pit (i.e., abandoned pit or wayside pit operating on demand under authority of a permit); property number (see Table 2).
- Geocres 05 Borehole location; identification number (see Table 7)
- Geological and aggregate thickness boundary of sand and gravel deposits
- Esker
- Moraine
- Terrace
- Administrative boundary (Township, Ward)

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Legend:



APPROXIMATE SITE LOCATION

Notes: Not to Scale

Reference: Map from OGS Aggregate Resource Inventory of the County of Perth, Ontario, Map 1-Sand and Gravel resources for the County of Perth, Paper 175, 2013.

Project:

GE2.0504-1
AGGREGATE ASSESSMENT

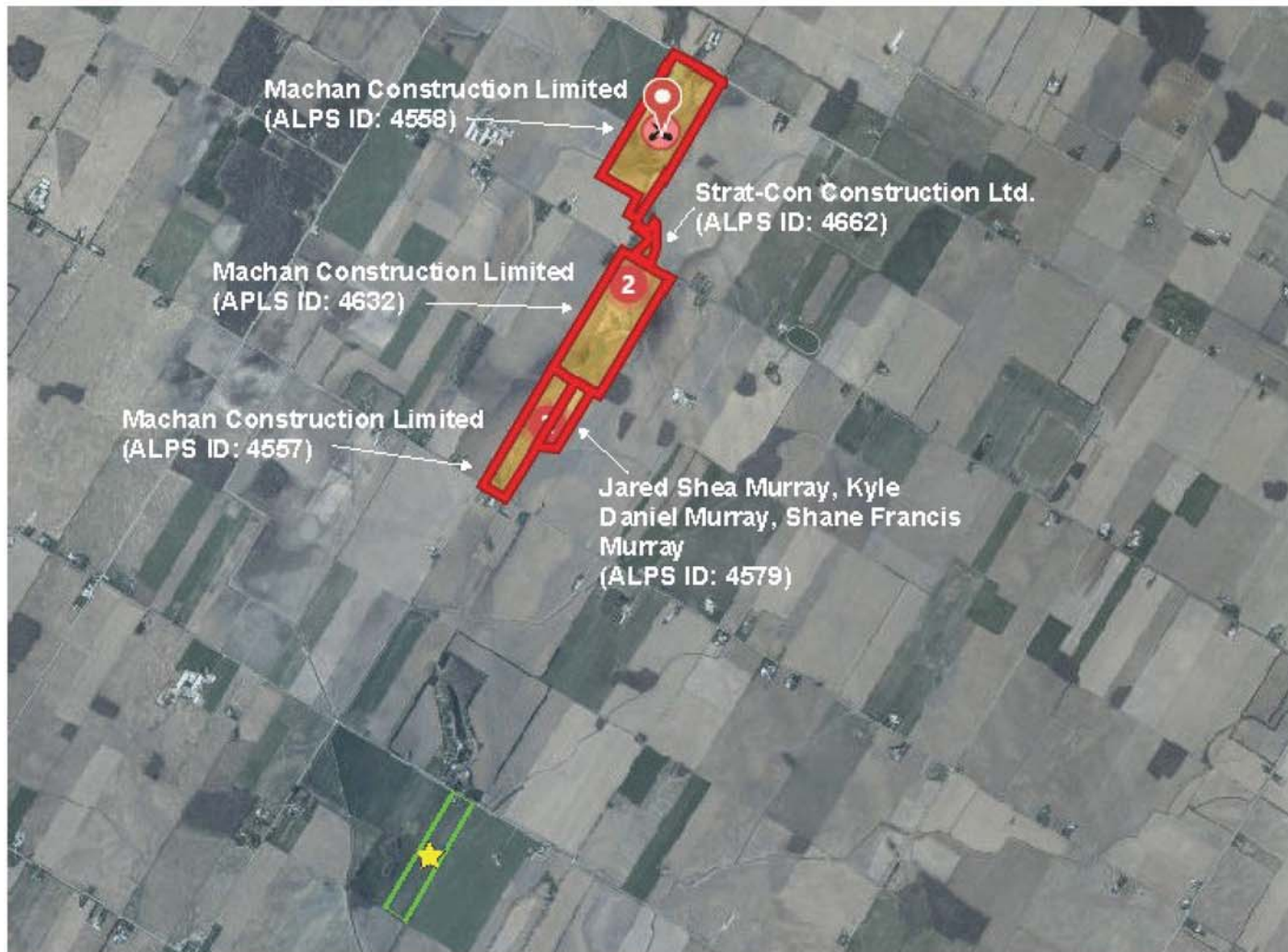
95 46TH LINE, WEST PERTH, ON

Figure Title:

MAP 1 - SAND AND GRAVEL RESOURCES (PERTH COUNTY)

AGGREGATE ASSESSMENT

Figure No:



GRIT
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1 REGENT STREET
STRATFORD, ON N5A 3W2
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Legend:



SITE LOCATION



STUDY AREA



PITS AND QUARRIES

Note: Not to Scale

Reference: Land Information Ontario Mapping

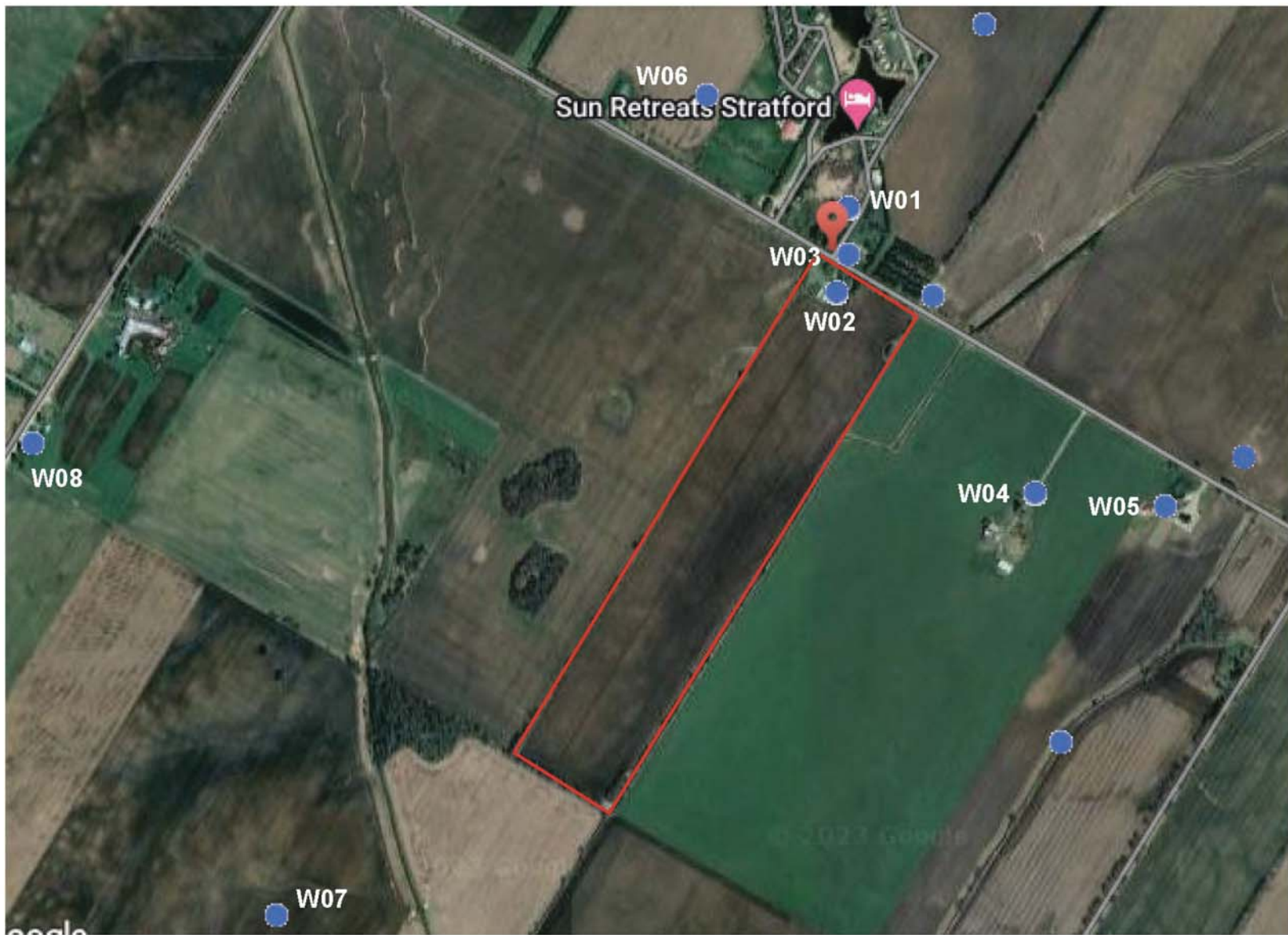
Project:

GE23-0504-1
AGGREGATE ASSESSMENT
6695 46TH LINE, WEST PERTH, ON

Figure Title:

PITS AND QUARRIES
AGGREGATE ASSESSMENT

Figure No: 7



GRIT
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Legend:

-  STUDY AREA
-  WELL

Note: Not to Scale
Reference: Ontario Well Records Mapping

Project:
GE23-0504-1
AGGREGATE ASSESSMENT
6695 46TH LINE, WEST PERTH, ON

Figure Title:
WELL LOCATIONS
AGGREGATE ASSESSMENT

Figure No: 8

40P/11E

BM 1.72 4.8 5.0 5.0 E

195R 24.8 24.1 5.0 N

150 150 150



WATER WELL RECORD

WATER RESOURCES
DIVISION
JUL 30 1964
ONTARIO WATER
RESOURCES COMMISSION

889

The Ontario Water Resources Commission Act

Basin 23 | Perth
County or District

Con. 4 XI Lot 28

Township, Village, Town or City: Logan

Date completed: 23 day 6th month 64 year

Press: RR# 1 Bernholm.

Casing and Screen Record

Inside diameter of casing: 4"
 Total length of casing: 62'
 Type of screen: ~
 Length of screen: ~
 Depth to top of screen: ~
 Diameter of finished hole: 4"

Pumping Test

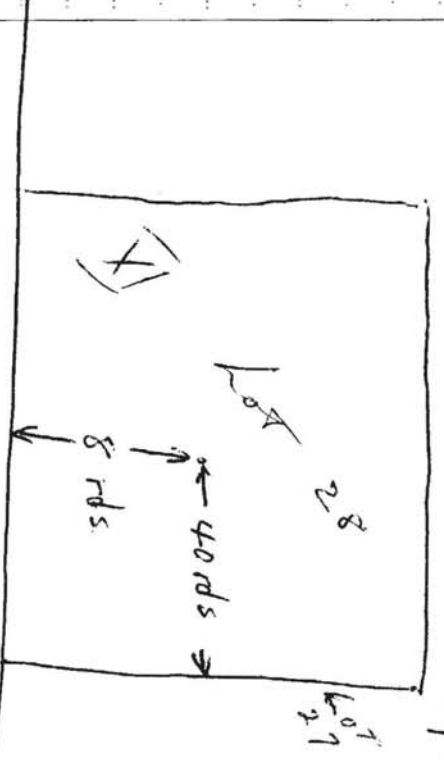
Static level: 18'
 Test-pumping rate: 10 G.P.M.
 Pumping level: 20'
 Duration of test pumping: 3 hrs.
 Water clear or cloudy at end of test: Clear
 Recommended pumping rate: 10 G.P.M.
 with pump setting of 30 feet below ground surface

Well Log

| Overburden and Bedrock Record | From ft. | To ft. | Depth(s) at which water(s) found | Kind of water (fresh, salty, sulphur) |
|-----------------------------------|----------|--------|----------------------------------|---------------------------------------|
| Topssoil & Fill | 0 | 2 | 90-100 | Fresh. |
| Yellow Clay | 2 | 10 | | |
| Blue Clay | 10 | 20 | | |
| Sandy Clay | 20 | 40 | | |
| Hardpan | 40 | 48 | | |
| Loose limestone Gravel | 48 | 56 | | |
| Loose limestone | 56 | 62 | | |
| Brown limestone | 62 | 100 | | |

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?
Farm. Prod.

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

Drilling or Boring Firm: W.D. Hopper & Sons.

Address: Sedforth Ont.

Licence Number: 1370

Name of Driller or Borer: Neil & Jim Hopper

Address: RR# 2 Sedforth Ont.

Date: Feb 29 / 64

Signature of Licensed Drilling or Boring Contractor: Neil Hopper



Ontario

Ministry of the Environment

Measurements recorded in: Metric Imperial

Well Tag No. (

A117215

Regulation 903 Ontario Water Resources Act

Well Record

A117215

Page of

Address of Well Location (Street Number/Name)

6895

LIVE 46

Township LOGAN

County/District/Municipality

PERTH

City/Town/Village

UTM Coordinates Zone Easting

NAD 83

17

485043

1

4824225

1

1

Municipal Plan and Sublot Number

Lot 28

28

Concession 10

10

Province Ontario

Postal Code

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) From To |
|----------------|----------------------|-----------------|---------------------|-------------------------|
| BLACK | TOPSOIL | | | 0 1 |
| BROWN | STONES | GRAVEL | | 1 25 |
| GREY | STONES | GREY CLAY | LAYERED | 25 49 |
| BROWN | LIMESTONE | | | 49 57 |

| Annular Space | | |
|--------------------------------|---|---|
| Depth Set at (m/ft) From To | Type of Sealant Used (Material and Type) | Volume Placed (m ³ /ft ³) |
| 0 50.5 | BENTONITE | 75 GAL |

| Method of Construction | | Well Use | |
|--|----------------------------------|---|---|
| <input type="checkbox"/> Cable Tool | <input type="checkbox"/> Diamond | <input type="checkbox"/> Public | <input type="checkbox"/> Commercial |
| <input type="checkbox"/> Rotary (Conventional) | <input type="checkbox"/> Jetting | <input type="checkbox"/> Domestic | <input type="checkbox"/> Municipal |
| <input type="checkbox"/> Rotary (Reverse) | <input type="checkbox"/> Driving | <input type="checkbox"/> Livestock | <input type="checkbox"/> Test Hole |
| <input type="checkbox"/> Boring | <input type="checkbox"/> Digging | <input type="checkbox"/> Irrigation | <input type="checkbox"/> Cooling & Air Conditioning |
| <input type="checkbox"/> Air percussion | | <input type="checkbox"/> Industrial | |
| <input type="checkbox"/> Other, specify | | <input type="checkbox"/> Other, specify | |

| Construction Record - Casing | | Status of Well | |
|------------------------------|---|------------------------|-------------------------|
| Inside Diameter (cm/ft) | Open Hole OR Material (Galvanized, Fiberglass Concrete, Plastic, Steel) | Well Thickness (cm/ft) | Depth (m/ft) From To |
| 6.25 | STEEL | .188 | 12 50.5 |

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

| Water Details | | Hole Diameter | |
|-----------------------------|---|-------------------------|------------------|
| Water found at Depth (m/ft) | Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Unstied <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify | Depth (m/ft) From To | Diameter (cm/ft) |
| 53 | | 50.5 | 57 |
| 56 | | | 6 |

Well Contractor and Well Technician Information

Business Name of Well Contractor

W. D. Hopper and Sons Ltd.

Well Contractor's Licence No.

2604

Business Address (Street Number/Name)

Municipality

RR#2, #32 Harpuley Rd

Seafarth

Province

Postal Code

Business E-mail Address

Business Telephone No. (inc. area code)

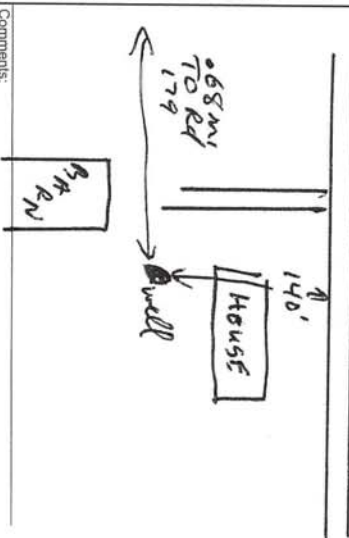
2576

Name of Well Technician (Last Name, First Name)

Signature of Technician and/or Contractor (Date Submitted)

| Results of Well Yield Testing | | | | | | | |
|--|---------------------------------------|---------------------------|----------------------------|------------|--------------------|------------|--------------------|
| Alter test of well yield, water was: <input type="checkbox"/> Clear and sand free <input checked="" type="checkbox"/> Other, specify | If pumping discontinued, give reason: | Pump intake set at (m/ft) | Pumping rate (l/min / GPM) | Draw Down | | Recovery | |
| | | | | Time (min) | Water Level (m/ft) | Time (min) | Water Level (m/ft) |
| | | 40 | 15 | 1 | 17 | 1 | 24 |
| | | 15 | 23 | 5 | 23 | 5 | 15.2 |
| | | 10 | 26.4 | 10 | 26.4 | 10 | 14.9 |
| | | 23 | 15 | 28 | 15 | 14 | |
| | | 20 | 30 | 20 | 30 | 20 | |
| | | 25 | 25 | 25 | 25 | 25 | |
| | | 30 | 33 | 30 | 33 | 30 | |
| | | 40 | 40 | 40 | 40 | 40 | |
| | | 50 | 50 | 50 | 50 | 50 | |
| | | 60 | 33 | 60 | 33 | 60 | |

Please provide a map below following instructions on the back.



PUMP BY W.D.HOPPER

Well owner's information package delivered Yes No

Date Package Delivered: 24/07/2012

Date Work Completed: 24/07/2012

Ministry Use Only

Audit No. Z 151498

Received: AUG 10 2012



Ontario

Ministry of the Environment

Measurements recorded in: Metric Imperial

Well Tag No. ()

A 066257

Regulation 903 Ontario Water Resources Act

Page 1 of 1

Well Record

Address of Well Location (Street Number/Name)

LOGAN

Lot 28

Concession 11

Council/District/Municipality

PERTH

City/Town/Village

UTM Coordinates: Zone Easting

NAD 83 17

485065

Northing

4824293

Municipal Plan and Sublot Number

Province

Ontario

Postal Code

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 To |
| BLACK | TOPSOIL | | | 0 1 |
| BROWN | CLAY | SMALL STONES | | 1 16 |
| GREY | CLAY | | | 16 26 |
| GREY | GRAVEL | | | 26 45 |
| GREY | CLAY | STONES | | 45 50 |
| GREY | LIMESTONE | | | 50 54 |
| BROWN | LIMESTONE | | MED. | 54 58 |

| Depth Set at (m/ft) From To | Type of Sealant Used (Material and Type) | Volume Placed (m ³ /ft ³) |
|-----------------------------|--|--|
| 0 52 | BENTONITE | |

| Method of Construction | Well Use |
|--|--|
| <input type="checkbox"/> Cable Tool <input checked="" type="checkbox"/> Rotary (Conventional) <input type="checkbox"/> Rotary (Reverse) <input type="checkbox"/> Boring <input type="checkbox"/> Air percussion <input type="checkbox"/> Other, specify _____ | <input type="checkbox"/> Public <input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Livestock <input type="checkbox"/> Irrigation <input type="checkbox"/> Industrial <input type="checkbox"/> Other, specify _____ |

| Construction Record - Casing | Status of Well | | | | | | | | |
|---|---|---|------------------------|----------------------|------|-------|------|-------|--|
| <table border="1"> <thead> <tr> <th>Inside Diameter (mm/ft)</th> <th>Open Hole OR Material (Galvanized Concrete, Plastic, Steel)</th> <th>Wall Thickness (mm/ft)</th> <th>Depth (m/ft) From To</th> </tr> </thead> <tbody> <tr> <td>6.25</td> <td>STEEL</td> <td>.188</td> <td>+2 52</td> </tr> </tbody> </table> | Inside Diameter (mm/ft) | Open Hole OR Material (Galvanized Concrete, Plastic, Steel) | Wall Thickness (mm/ft) | Depth (m/ft) From To | 6.25 | STEEL | .188 | +2 52 | <input type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned <input type="checkbox"/> Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify _____ <input type="checkbox"/> Other, specify _____ |
| Inside Diameter (mm/ft) | Open Hole OR Material (Galvanized Concrete, Plastic, Steel) | Wall Thickness (mm/ft) | Depth (m/ft) From To | | | | | | |
| 6.25 | STEEL | .188 | +2 52 | | | | | | |

| Results of Well Yield Testing | | | |
|---|----------------------|---------------------|---------------------|
| After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify _____ | Draw Down Time (min) | Static Level (m/ft) | Recovery Time (min) |
| | | | |
| | 1 | 15 | 1 |
| | 2 | 18 | 2 |
| | 3 | 18 | 3 |
| | 4 | 20 | 4 |
| | 5 | 20 | 5 |
| | 10 | 21 | 10 |
| | 15 | 21 | 15 |
| | 20 | 21 | 20 |
| | 25 | 21 | 25 |
| | 30 | 21 | 30 |
| | 40 | 21 | 40 |
| | 50 | 21 | 50 |
| | 60 | 21 | 60 |

| Construction Record - Screen | |
|------------------------------|--------------------------------------|
| Outside Diameter (mm/ft) | Material (Plastic, Galvanized Steel) |
| | Slot No. From To |

| Water Details | | Hole Diameter | |
|-----------------------------|---|----------------------|------------------|
| Water found at Depth (m/ft) | Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Unfiltered | Depth (m/ft) From To | Diameter (mm/ft) |
| 55 | <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____ | 52 | 58 |
| Water found at Depth (m/ft) | Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Unfiltered | | 6 |
| | <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____ | | |
| Water found at Depth (m/ft) | Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Unfiltered | | |
| | <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____ | | |

Business Name of Well Contractor
W. D. Hopper and Sons Ltd.

Well Contractor's Licence No.
2804

Business Address (Street Number/Name)
RR#2, #32 Harpaway Rd.

Municipality
Sealoch

Province
Ont.

Postal Code
N6K 1W0

Business E-mail Address
wthopper@ca

Bus. Telephone No. (inc. area code)
5195221737

Name of Well Technician (Last Name, First Name)
ALLAN HOPPER

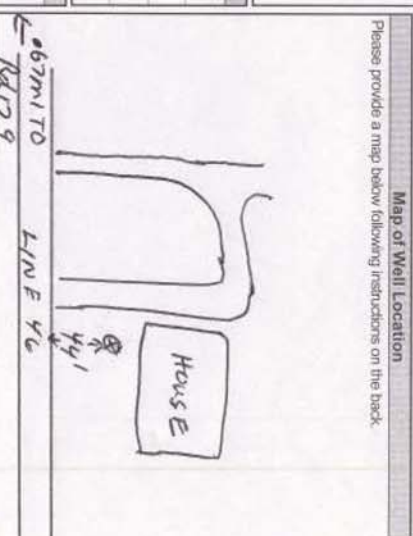
Well Contractor's Licence No.
2576

Signature of Technician and/or Contractor Date Submitted
9/30/2009

0504E (12/2007)

Ministry's Copy

© Queen's Printer for Ontario, 2007



Comments:
67M TO LINE YC 17m

PUMP BY W.D.HOPPER

Well owner's information package delivered
 Yes No

Date Package Delivered
9/29/2009

Date Work Completed
9/29/2009

Ministry Use Only
 Audit No. **Z 100634**
 Rec'd: 03 2009

40 P/11 E



UTM 172485379E

Elev 65R 811.40
County or District 23 649N

WATER WELL RECORD

Basin 23
Township, Village, Town or City

Con. 10
Date completed 17

Owner: [Redacted] Address: R.R. #1 Brampton

WATER RESOURCES DIVISION No. 881
JUL 3 1964
ONTARIO WATER RESOURCES COMMISSION

Casing and Screen Record

Inside diameter of casing 4"
 Total length of casing 62'
 Type of screen -
 Length of screen -
 Depth to top of screen -
 Diameter of finished hole 4"

Pumping Test

Static level 28'
 Test-pumping rate 10 G.P.M.
 Pumping level 22'
 Duration of test pumping 2 hrs
 Water clear or cloudy at end of test Clear.
 Recommended pumping rate 10 G.P.M.
 with pump setting of 35 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) |
|-------------------------------|----------|--------|------------------------------------|---------------------------------------|
| Shoulders & clay | 0 | 9 | 126-132 | fresh |
| clay + sand | 9 | 27 | | |
| caput gravel | 27 | 32 | | |
| hardpan | 32 | 50 | | |
| gravel | 50 | 61 | | |
| gypsum rock | 61 | 132 | | |

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? *From D & S*

Is well on upland, in valley, or on hillside? *upland*
Drilling or Boring Firm *W.A. Hopkins & Sons*

Address *Leacock Rd*

Licence Number *1370*

Name of Driller or Borer *Paul & Jim Hoppen*

Address *Leacock Rd.*

Date *April 1 64*
Signature of Licensed Drilling or Boring Contractor *James M. Hoppen*

Form 7 15M Sets 60-5930

OWRC COPY

0808



Measurements recorded in: Metric Imperial

Address of Well location (Street Number/Name)

TOUGASH

216

Provision

UTM Coordinates

City/Town/Village

Province

Postal Code

NAD 83 Zone Easting 485922 Northing 4823849

Municipal Plan and Sublot Number

Other

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

General Description

Depth (m/ft)

| General Colour | Most Common Material | Other Materials | From | To |
|----------------|----------------------|-----------------------|------|----|
| BROWN | CLAY | | 0 | 10 |
| GREY | CLAY | | 10 | 52 |
| GREY | CLAY | STONES | 52 | 66 |
| YELLOW | LIMESTONE | BROWN LIMESTONE | 66 | 71 |
| BROWN | LIMESTONE | SOFT, LAYERED MED. | 71 | 80 |

| Depth Set at (m/ft) | Type of Sealant Used (Material and Type) | Volume Placed (m ³ /ft ³) |
|---------------------|--|--|
| From 0 To 74 | BENTONITE | |

| Method of Construction | Well Use |
|---|---|
| <input type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary (Conventional) <input type="checkbox"/> Rotary (Reverse) <input type="checkbox"/> Boring <input type="checkbox"/> Air percussion <input type="checkbox"/> Other, specify _____ | <input type="checkbox"/> Public <input type="checkbox"/> Commercial <input type="checkbox"/> Not used <input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Municipal <input type="checkbox"/> Test Hole <input type="checkbox"/> Cooling & Air Conditioning <input type="checkbox"/> Livestock <input type="checkbox"/> Test Hole <input type="checkbox"/> Irrigation <input type="checkbox"/> Industrial <input type="checkbox"/> Other, specify _____ |

| Construction Record - Casing | Status of Well |
|---|--|
| Inside Diameter (cm/in) 6.25 STEEL Thickness (cm/in) .188 From +2 To 74 | <input type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input type="checkbox"/> Observation and/or Monitoring hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned <input type="checkbox"/> Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify _____ <input type="checkbox"/> Other, specify _____ |

| Construction Record - Screen | Water Details |
|---|--|
| Outside Diameter (cm/in) Material (Plastic, Galvanized, Steel) Screen No. Depth (m/ft) From To | Water found at Depth Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Unstated 75 (m/ft) <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____ Water found at Depth Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Unstated 79 (m/ft) <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____ Water found at Depth Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Unstated 80 (m/ft) <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____ |

| Well Contractor and Well Technician Information | Hole Diameter |
|---|--|
| Business Name of Well Contractor W. D. Hopper and Sons Ltd. Well Contractor's Licence No. 2804 | Depth (m/ft) From To 74 80 Diameter (cm/in) 6 |

Business Address (Street Number/Name)
RR#2, #32 Hamphrey Rd.

Province: Ont. Postal Code: N0K1W0 Business E-mail Address: wdhopper@tcc.on.ca

Bus Telephone No. (inc. area code): 5195221737 Name of Well Technician (Last Name, First Name): ALLAN HOPPER

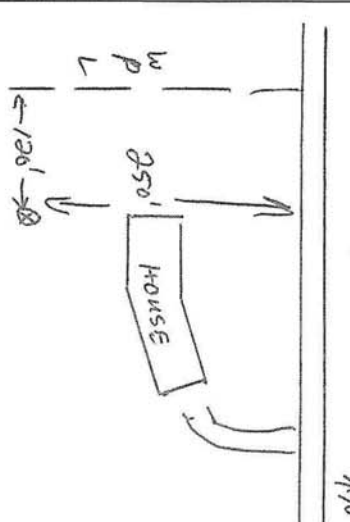
Well Technician's Licence No.: 2578 Signature of Technician and/or Contractor: [Signature] Date Submitted: 8/5/2009

Municipality: Seatonh

Results of Well Yield Testing

| After test of well yield, water was | Draw Down | Recovery |
|--|-------------------------|-------------------------|
| <input checked="" type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify _____ | Time Water Level (m/ft) | Time Water Level (m/ft) |
| If pumping discontinued, give reason: | Static Level | 11 |
| Pump intake set at (m/ft) | 1 | 1 |
| 35 | 2 | 13 |
| Pumping rate (l/min / GPM) | 3 | 3 |
| 30 | 4 | 4 |
| Duration of pumping | 5 | 5 |
| 1 hrs + _____ min | 10 | 10 |
| Final water level end of pumping (m/ft) | 15 | 15 |
| 17 | 17 | 17 |
| If flowing give rate (l/min / GPM) | 20 | 20 |
| Recommended pump depth (m/ft) | 25 | 25 |
| 40 | 30 | 30 |
| Recommended pump rate (l/min / GPM) | 40 | 40 |
| 20 | 50 | 50 |
| Well production (l/min / GPM) | 60 | 60 |
| 50 | 17 | 11 |
| Disinfected? <input type="checkbox"/> Yes <input type="checkbox"/> No | | |

Please provide a map below following instructions on the back.



Comments: PUMP BY W.D.HOPPER

Well owner's information packages delivered: YES No

Date Package Delivered: 7/10/2009

Date Work Completed: 7/10/2009

Ministry Use Only: Audit No. Z 100598

Revision: AUG 10 2009



Ontario

WATER WELL RECORD

MINISTRY OF THE ENVIRONMENT

The Ontario Water Resources Act

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

COUNTY OR DISTRICT: **Perth** TOWNSHIP: **Loosdun** CITY/TOWN/VILLAGE: **Rt. Barnholm**

WELL NO.: **24350** ELEVATION: **511.40** BASIN CODE: **R3**

DATE COMPLETED: **08-25-75** DATE: **05-05-75**

MUNICIPALITY: **50009** CON: **CPN** LOT: **829**

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

| GENERAL COLOUR | MOST COMMON MATERIAL | OTHER MATERIALS | GENERAL DESCRIPTION | DEPTH - FEET |
|----------------|----------------------|---------------------|---------------------|--------------|
| | | | FROM | TO |
| Black | Topsoil | | 0 | 1 |
| Yellow | Clay | Stones | 1 | 5 |
| Brown | Gravel | Streaks of Clay | 5 | 31 |
| Grey | Hard pan | Grey streaks, small | 31 | 44 |
| Brown | limestone | Broken | 44 | 47 |
| Brown | limestone | Grey streaks | 47 | 54 |
| Brown | limestone | medium | 54 | 68 |

| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
|-------------|--------------|-------------|-------------|-----------|----|----|----|----|----|
| 00011802105 | 000550518512 | 00316110574 | 00474153371 | 005441573 | | | | | |

| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 00571013 | 00571013 | 00571013 | 00571013 | 00571013 | 00571013 | 00571013 | 00571013 | 00571013 | 00571013 |

| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
|------|------|------|------|------|------|------|------|------|------|
| 0047 | 0205 | 0047 | 0047 | 0047 | 0047 | 0047 | 0047 | 0047 | 0047 |

71 PUMPING TEST METHOD: **2** PUMP 2. WATER LEVEL: **0010** DURATION OF PUMPING: **03:00**

RECOMMENDED PUMP TYPE: **DEEP** GPM / FT. SPECIFIC CAPACITY: **0.40**

FINAL STATUS OF WELL: **1** WATER SUPPLY **1** OBSERVATION WELL **5** ABANDONED, INSUFFICIENT SUPPLY

WATER USE: **1** DOMESTIC **5** COMMERCIAL **6** BORING **7** DIAMOND **8** LETTING **9** DRIVING

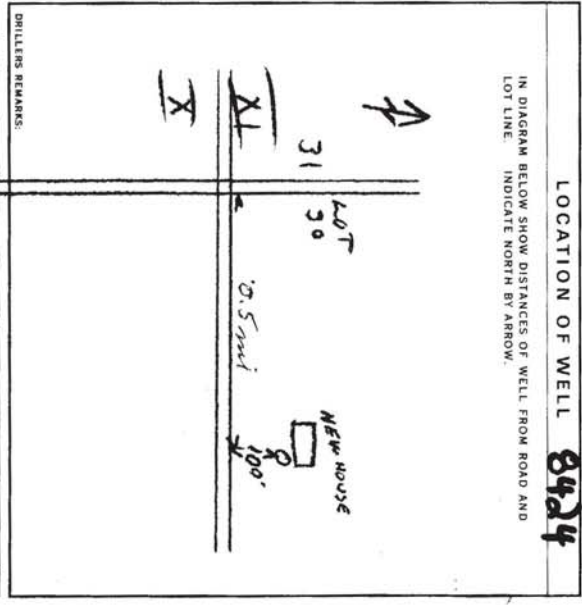
METHOD OF DRILLING: **2** ROTARY (CONVENTIONAL) **7** PUBLIC SUPPLY **3** STOCK **4** INDUSTRIAL **8** COOLING OR AIR CONDITIONING

CONTRACTOR: **W.D. HOPPER & Sons** LICENSE NUMBER: **2604**

ADDRESS: **RR#2 Seaforth**

NAME OF DRILLER OR BORER: **Ken Hopper**

SIGNATURE OF CONTRACTOR: **Ken Hopper** DAY: **9** NO: **408** YR: **76**



OFFICE USE ONLY

DATE OF INSPECTION: **08/10/75**

CONTRACTOR: **2604** DATE RECEIVED: **071076**

INSPECTOR: **WJ**



Ontario

Ministry of the Environment

Measurements recorded in: Metric Imperial

Well Tag No. A154468

Tag#: A154468

Well Record Regulation 903 Ontario Water Resources Act

Page 4 of 4

Address of Well Location (Street Number/Name)

Township

101

Concession

10

County/District/Municipality

City/Town/Village

Province

Postal Code

UTM Coordinates Zone Easting 483625 Northing 4823965

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) |
|----------------|----------------------|------------------|---------------------|--------------|
| | | | | From To |
| BLACK | TOPSOIL | | | 0 1 |
| BROWN | CLAY | | | 1 12 |
| GREY | CLAY | | | 12 45 |
| GREY | STONES | GREY CLAY | | 45 93 |
| BROWN | LIMESTONE | YELLOW LIMESTONE | | 93 105 |
| BROWN | LIMESTONE | | MED. | 105 130 |

| Depth Set at (m/ft) | Type of Sealant Used (Material and Type) | Volume Placed (m ³ /ft ³) |
|---------------------|--|--|
| 0 96 | BENTONITE | 140GA |

Method of Construction

Cable Tool Diamond
 Rotary (Conventional) Jetting
 Rotary (Reverse) Drilling
 Boring Digging
 Air Percussion Industrial
 Other, specify _____

Well Use

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

Construction Record - Casing

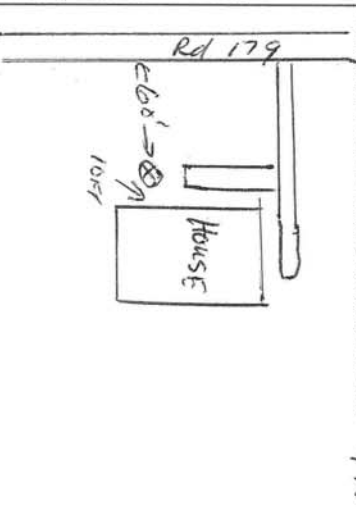
| Inside Diameter (cm/ft) | Open Hole OR Material (Concrete, Plastic, Steel) | Wall Thickness (cm/ft) | Depth (m/ft) |
|-------------------------|--|------------------------|--------------|
| | | | From To |
| 6.25 | STEEL | .188 | +2 96 |

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 _____

Map of Well Location

Please provide a map below following instructions on the back.



Water Details

Water found at Depth Kind of Water: Fresh Unlested
 115 (m/ft) Gas Other, specify _____
 Water found at Depth Kind of Water: Fresh Unlested
 120 (m/ft) Gas Other, specify _____
 Water found at Depth Kind of Water: Fresh Unlested
 (m/ft) Gas Other, specify _____

Hole Diameter

| Depth (m/ft) | Diameter (cm/ft) |
|--------------|------------------|
| From To | |
| 96 130 | 6 |

Well Contractor and Well Technician Information

Business Name of Well Contractor: W. D. Hopper and Sons Ltd.
 Well Contractor's Licence No. 2604

Business Address (Street Number/Name): RR#2, #32 Harpurhey Rd.
 Municipality: Seatons

Province: Ontario
 Postal Code: N0K1W0
 Business E-mail Address: wdhopper@tdc.on.ca

Bus. Telephone No. (inc. area code): \$195421737
 Name of Well Technician (Last Name, First Name): ALLAN HOPPER

Well Technician's Licence No.: 2576
 Signature of Technician and/or Contractor Date Submitted: 13/11/2014

Results of Well Yield Testing

| After test of well yield, water was: | Draw Down (min) | Time Water Level (min) | Recovery Time Water Level (min) |
|---|-----------------|------------------------|---------------------------------|
| <input type="checkbox"/> Clear and sand free | Static Level | 30 | |
| <input type="checkbox"/> Other, specify _____ | 1 | 31 | 1 |
| If pumping discontinued, give reason: | 2 | | 2 |
| Pump intake set at (m/ft) | 3 | 33 | 3 |
| 60 | | | |
| Pumping rate (l/min / GPM) | 4 | | 4 |
| 15 | | | |
| Duration of pumping | 5 | 35 | 5 |
| 1 hrs + min | | | |
| Final water level end of pumping (m/ft) | 10 | 38.5 | 10 |
| 41 | | | |
| If flowing give rate (l/min / GPM) | 15 | 40 | 15 |
| | | | |
| Recommended pump depth (m/ft) | 20 | 41 | 20 |
| 60 | | | |
| Recommended pump rate (l/min / GPM) | 25 | | 25 |
| 30 | | | |
| Well production (l/min / GPM) | 30 | | 30 |
| 12 | | | |
| 40 | | | 40 |
| 20 | | | |
| Disinfected? | 50 | | 50 |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 60 | 41 | 60 |
| | | | 30 |

Comments: PUMP BY W.D.HOPPER

Well owner's Information package delivered: Yes No
 Date Package Delivered: 23/08/2014
 Date Work Completed: 23/09/2014

Audit No. Ministry Use Only: Z 178244
 Received: NOV 17 2014