Geotechnical Engineering

Environmental Engineering

Hydrogeology

Geological Engineering

Materials Testing

Building Science

Archaeological Services

patersongroup

Phase I-Environmental Site Assessment

Vacant Lots – Blocks 1, 2 and 21 255 and 285 Mountshannon Drive And 591 Longfields Drive Ottawa, Ontario

Prepared For

Mattino Developments Inc.

Paterson Group Inc.

Consulting Engineers 154 Colonnade Road South Ottawa (Nepean), Ontario Canada K2E 7J5

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Report: PE4589-1



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EXECUTIVE SUMMARY

Assessment

Paterson Group was retained by Mattino Developments Inc. to conduct a Phase I-Environmental Site Assessment (ESA) for the properties located at 255 and 285 Mountshannon Drive and 591 Longfields Drive, in the City of Ottawa, Ontario. The purpose of this Phase I-ESA was to research the past and current use of the subject site and the Phase I Study Area and to identify any environmental concerns with the potential to have impacted the Phase I Properties.

According to the historical research, the Phase I Properties have never been developed and were historically used for agricultural purposes. Historical land use of the neighbouring properties was for residential and agricultural purposes. No potentially contaminating activities were identified with the historical use of the subject site or surrounding lands.

Following the historical research, a site visit was conducted. The subject properties are currently vacant. No potential environmental concerns were noted with the current use of the Phase I Properties. Neighbouring properties in the Phase I Study Area consist of vacant lands, a residential subdivision with schools and a community centre and railway tracks. Railway tracks are considered a potentially contaminating activity, however, based on the nature of their use and distance from the subject site, they are not considered to represent an area of potential environmental concern. Therefore, no areas of potential environmental concern with respect to the Phase I Properties were identified.

Based on the results of the assessment, it is our opinion that a Phase II-Environmental Site Assessment is not required for the subject properties.



1.0 INTRODUCTION

At the request of Mattino Developments Inc., Paterson Group (Paterson) conducted a Phase I-Environmental Site Assessment (Phase I-ESA) for the properties located at 255 and 285 Mountshannon Drive (Blocks 1 and 2) and 591 Longfields Drive (Block 21), in the City of Ottawa, Ontario. The purpose of this Phase I-ESA was to research the past and current use of the site and study area and to identify any environmental concerns with the potential to have impacted the subject properties.

Paterson was engaged to conduct this Phase I-ESA by Mr. Giuseppe Matteucci of Mattino Developments Inc. The head office is located at 171 Claridge Drive, Ottawa, Ontario. Mr. Matteucci can be reached by telephone at (613) 254-9643.

This report has been prepared specifically and solely for the above noted project which is described herein. It contains all of our findings and results of the environmental conditions at this site.

This Phase I-ESA report has been prepared in general accordance with the requirements of Ontario Regulation (O.Reg.) 153/04, as amended, under the Environmental Protection Act, and also complies with the requirements of CSA Z768-01. The conclusions presented herein are based on information gathered from a limited historical review and field inspection program. The findings of the Phase I-ESA are based on a review of readily available geological, historical and regulatory information and a cursory review made at the time of the field assessment. The historical research relies on information supplied by others, such as, local, provincial and federal agencies and was limited within the scope-of-work, time and budget of the project herein.



2.0 PHASE I PROPERTIES INFORMATION

Address: 255 and 285 Mountshannon Drive and 591 Longfields

Drive, Ottawa, Ontario

Legal Description: Blocks 1, 2 and 21 on Plan 4M1527, in the City of

Ottawa

Location: The site is located on the northwest side of Longfields

Drive, where Mountshannon Drive transects with Longfields Drive, in the City of Ottawa, Ontario. Refer to Figure 1 - Key Plan in the Figures section following

the text.

PIN: 14568-0589, 14568-0590 and 14568-0609

Latitude and Longitude: 45°17' 13.78" N, 75° 44' 31.39" W

Site Description:

Configuration: Irregular

Area: 15,000 m² (approximately)

Zoning: R4A – Residential, 4th Density Zone

Current Use: The subject site is currently vacant and undeveloped

land.

Services: The subject site is situated in a municipally serviced

area.



3.0 SCOPE OF INVESTIGATION

e scope of work for this Phase I – Environmental Site Assessment was as ows:
Determine the historical activities on the subject site and study area by conducting a review of readily available records, reports, photographs, plans, mapping, databases, and regulatory agencies;
Investigate the existing conditions present at the subject site and study area by conducting site reconnaissance;
Conduct interviews with persons knowledgeable of current and historic operations on the subject properties, and if warranted, neighbouring properties;
Present the results of our findings in a comprehensive report in general accordance with the requirements of O.Reg. 269/11 amending O.Reg. 153/04 made under the Environmental Protection Act and in compliance with the requirements of CSA Z768-01;
Provide a preliminary environmental site evaluation based on our findings;
Provide preliminary remediation recommendations and further investigative work if contamination is suspected or encountered.



4.0 RECORDS REVIEW

4.1 General

Phase I-ESA Study Area Determination

A radius of approximately 250 m was determined to be appropriate as a Phase I Study Area for this assignment. Properties outside the 250 m radius are not considered to have impacted the subject land, based on their significant distance from the site.

First Developed Use Determination

Based on an aerial photograph from 1945, the subject site has never been developed.

Fire Insurance Plans

Fire Insurance Plans (FIPs) are not available for the subject area.

City of Ottawa Street Directories

There are no city directories for the subject site and study area.

Chain of Title

Paterson did not request a Chain of Title for the subject site as it was determined that sufficient information was gathered from other sources, such as personal interviews, aerial photographs and previous engineering reports.

Previous Engineering Reports

Paterson Group has conducted environmental investigations in the immediate vicinity of the subject site. Based on a review of our files, no potential environmental concerns were identified on the subject site or neighbouring lands.

A geotechnical investigation was conducted for the subject site in 2013. Based on the subsurface investigation, no signs of environmental contamination or deleterious fill material were observed during the course of the investigation.

Survey Plan and Plan of Subdivision

A grading plan of the Phase I Properties prepared by Novatech Engineering was reviewed as part of this assessment.



4.2 Environmental Source Information

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on March 22, 2019. The subject site and adjacent properties were not listed in the NPRI database. No records of pollutant release were listed in the database for properties located within the Phase I Study Area.

PCB Inventory

A search of national PCB waste storage sites was conducted. No PCB waste storage sites are located within the Phase I study area.

Ministry of the Environment, Conservation and Parks (MECP) Instruments

A request was submitted to the MECP Freedom of Information (FOI) office for information with respect to certificates of approval, permits to take water, certificates of property use or any other similar MECP issued instruments for the site. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

MECP Submissions

A request was submitted to the MECP FOI office for information with respect to reports related to environmental conditions for the properties. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

MECP Incident Reports

A request was submitted to the MECP FOI office for information with respect to records concerning environmental incidents, orders, offences, spills, discharges of contaminants or inspections maintained by the MECP for the site or adjacent properties. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.



MECP Waste Management Records

A request was submitted to the MECP FOI office for information with respect to waste management records. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

MECP Coal Gasification Plant Inventory

The Ontario Ministry of Environment document titled "Municipal Coal Gasification Plant Site Inventory, 1991" was reviewed to reference the locations of former plants with respect to the site. No Municipal Coal Gasification Plant Sites are located within the Phase I Study Area.

MECP Brownfields Environmental Site Registry

A search of the MECP Brownfields Environmental Site Registry was conducted as part of this assessment for the site, neighbouring properties and the general area of the site. No Records of Site Condition (RSCs) were filed for the subject site or properties within the Phase I Study Area.

MECP Waste Disposal Site Inventory

The Ontario Ministry of Environment document titled "Waste Disposal Site Inventory in Ontario, 1991" was reviewed as part of the historical research. This document includes all recorded active and closed waste disposal sites, industrial manufactured gas plants and coal tar distillation plants in the Province of Ontario. There are no former waste disposal sites located within 1 km of the Phase I Study Area.

Areas of Natural Significance

A search for areas of natural significance and features within the Phase I study area was conducted on the website of the Ontario Ministry of Natural Resources (MNR) on March 25, 2019. The search did not reveal areas of natural significance within the Phase I study area.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on March 25, 2019, to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties. No records are



listed in the TSSA registry for the subject site or the adjacent properties. A copy of the TSSA correspondence is included in Appendix 2.

City of Ottawa Landfill Document

The document entitled "Old Landfill Management Strategy, Phase I – Identification of Sites, City of Ottawa", was reviewed. There are no closed landfill sites within the vicinity of the Phase I study area.

City of Ottawa Historical Land Use Inventory (HLUI)

A search of the City of Ottawa's Historical Land Use Inventory (HLUI) database was conducted as part of this assessment. At the time of issuance of this report, the HLUI search results had not been received. A copy of the HLUI request form is provided in Appendix 2.

4.3 Physical Setting Sources

Aerial Photographs

Historical air photos from the National Air Photo Library were reviewed in approximate ten (10) year intervals. Based on the review, the following

1945	The subject site and surrounding lands appear as agricultural lands at this time. Fallowfield Road and Woodroffe Avenue can be seen in this photograph as well as the railroad tracks that lie to the west of the site.
1953	The subject site and surrounding lands appear unchanged from the previous photograph.
1963	No significant changes are apparent on the subject site or surrounding lands.
1983	The subject site and surrounding lands to the northeast, east, and south appear as agricultural fields. A residential subdivision to the North/northwest is present at this time.
1996	No significant changes are apparent to the subject site. Surrounding lands to the northeast, south and southwest appear as vacant lands. Residential and community developments are present east and west of the subject site.



The subject site remains unchanged from the previous photograph.

More residential and community developments are present further south and west of the subject site.

The northern portion of the site appears vacant with a stockpile present. The stockpile is expected to be excess soil from the initial phases of the site development. The remaining two portions of the site appear as vacant lots. Neighbouring lands to the north, east, south and west are occupied by residential dwellings, recreational fields and institutions.

Laser copies of selected aerial photographs reviewed are included in Appendix 1.

Topographic Maps

Topographic maps were obtained from Natural Resources Canada – The Atlas of Canada website and from the City of Ottawa website. The topographic maps indicate that the regional topography in the general area of the site slopes down in a north-easterly direction towards the Rideau River. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report.

Physiographic Maps

The Ontario Geological Survey publication 'The Physiography of Southern Ontario, Third Edition' was reviewed as a part of this assessment. According to the publication, the site is situated within the Ottawa Clay Plain physiographic region.

Geological Maps

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on this information, bedrock in the area consists of interbedded sandstone and dolomite, of the March Formation. The surficial geology in the area of the site consists of offshore marine sediments of clay and silt, with a drift thickness ranging from 5 to 10 m.

Water Well Records

A Well Record search was conducted on March 22, 2019 for all drilled wells within 250 m of the subject site. The well record search returned ten (10) well records, four (4) of which were identified as monitoring wells located outside of



the 250 m study area, three (3) domestic well records from 1975 and three (3) records of abandonment. Based on the new residential and community development in the area, these domestic wells are no longer in use. Copies of the well records have been included in Appendix 2.

Areas of Natural Significance and Water Bodies

No areas of natural significance or bodies of water were identified in the Phase I Study Area.

5.0 INTERVIEWS

Property Owner Representative

Mattino Developments Inc. was contacted via email as part of this assessment. The subject properties have always been vacant and undeveloped. Mattino Developments Inc. is not aware of any potential environmental concerns with respect to the subject or adjacent properties.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

The site visit was conducted on March 25, 2019. Weather conditions were sunny with a temperature of approximately -8°C. Ms. Mandy Witteman from the Environmental Department of Paterson conducted the site assessment. In addition to the site, the uses of neighbouring properties within the Phase I Study Area were also assessed at the time of the site visit.

6.2 Specific Observations at the Phase I Properties

Site Features

The subject properties are vacant and undeveloped land. At the time of the visit, the ground surface was covered in snow.

Site drainage consists primarily of infiltration. The site topography appeared to be at grade with the adjacent roadways.

The regional topography slopes down in an easterly direction towards the Rideau River.



No underground utilities were noted on-site. No drains or private sewage systems were observed on the subject properties at the time of the site visit. No evidence of current or former railway or spur lines was observed on the subject properties at the time of the site visit. No areas of stained snow or unidentified substances were observed on-site at this time.

Buildings and Structures

There are no buildings or structures present on the Phase I Properties.

Neighbouring Properties

An inspection of the neighbouring properties was conducted from publicly accessible roadways at the time of the site inspection.

Land use adjacent to the 255 Mountshannon Drive (Block 2) was as follows:

□ North -Residential, followed by Boulder Way: □ South -Mattino Way, followed by vacant land (Block 1); ☐ East -Mountshannon Drive, followed by a Community Centre and parkland; ■ West -Residential, followed by Mattino Way. Land use adjacent to the 285 Mountshannon Drive (Block 1) was as follows: □ North -Mattino Way, followed by vacant land (Block 2); ■ South -Longfields Drive, followed by vacant land; ☐ East -Mountshannon Drive, followed by a Community Centre and parkland; ■ West -Elementary School, followed by Residential. Land use adjacent to the 591 Longfields Drive (Block 21) was as follows: ■ North -Vacant land, followed by residential (northeast) and transit way (northwest); ☐ South -Mattino Way, followed by residential; ☐ East -Vacant land and residential, followed by Longfields Drive; □ West -Transit way, followed by railway tracks.



The current use of the immediately adjacent properties is not considered to pose an environmental concern to the Phase I Properties. The railway tracks situated 55 m west of Block 21 represents a potentially contaminating activity (PCA), however, they are not considered to represent an area of potential environmental concern (APEC) on the subject site. Current land use in the Phase I Study Area is illustrated on Drawing PE4589-2 – Surrounding Land Use Plan in the Figures section of this report.

7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 Land Use History

Based on the available historical records, the Phase I Properties have never been developed. No potential environmental concerns were noted with the historical and current land use of the subject properties.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

No potentially contaminating activities (PCAs)) were identified on the Phase I Properties. The railway tracks to the west of Block 21 were identified as a PCA within the Phase I Study Area. Based on the nature of the tracks and their distance from the site, the railway line is not considered to represent an area of potential environmental concern (APEC) on the Phase I Property.

Contaminants of Potential Concern

No Contaminants of Potential Concern (CPCs) were identified on the subject site.

7.2 Conceptual Site Model

Geological and Hydrogeological Setting

Based on the information from the Geological Survey of Canada, the overburden in the area consists of offshore marine sediments of clay and silt, with a drift thickness ranging from 5 to 10 m. Bedrock in the area consists of interbedded sandstone and dolomite, of the March Formation.

Groundwater flow is interpreted to be in an easterly direction towards the Rideau River.



Existing Buildings and Structures

There are no buildings or structures on the Phase I Properties.

Water Bodies and Areas of Natural Significance

No areas of natural significance or water bodies were identified on the Phase I Properties or within the Phase I Study Area.

Drinking Water Wells

There are no potable water wells on the subject site. Four (4) domestic well records were identified as well as their respective abandonment records.

Neighbouring Land Use

Neighbouring land use in the Phase I Study Area consists of vacant land, a residential subdivision with institutional and community centre as well as the transit way and railway tracks.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

As per Section 7.1 of this report, one PCA (railway tracks) was identified within the Phase I Study Area; however, as discussed previously, it does not represent an area of potential environmental concern to the Phase I Properties.

Contaminants of Potential Concern

As per Section 7.1 of this report, no Contaminants of Potential Concern (CPCs) were identified on the Phase I Properties.

Assessment of Uncertainty and/or Absence of Information

The information available for review as part of the preparation of this Phase I-ESA is considered to be sufficient to conclude that there are no APECs on the Phase I Properties. A variety of independent sources were consulted as part of this assessment, and as such, the conclusions of this report are not affected by uncertainty which may be present with respect to the individual sources.



8.0 CONCLUSIONS

Assessment

Paterson Group was retained by Mattino Developments Inc. to conduct a Phase I-Environmental Site Assessment (ESA) for the properties located at 255 and 285 Mountshannon Drive and 591 Longfields Drive, in the City of Ottawa, Ontario. The purpose of this Phase I-ESA was to research the past and current use of the subject site and the Phase I Study Area and to identify any environmental concerns with the potential to have impacted the Phase I Properties.

According to the historical research, the Phase I Properties have never been developed and were historically used for agricultural purposes. Historical land use of the neighbouring properties was for residential and agricultural purposes. No potentially contaminating activities were identified with the historical use of the subject site or surrounding lands.

Following the historical research, a site visit was conducted. The subject properties are currently vacant. No potential environmental concerns were noted with the current use of the Phase I Properties. Neighbouring properties in the Phase I Study Area consist of vacant lands, a residential subdivision with schools and a community centre and railway tracks. Railway tracks are considered a potentially contaminating activity, however, based on the nature of their use and distance from the subject site, they are not considered to represent an area of potential environmental concern. Therefore, no areas of potential environmental concern with respect to the Phase I Properties were identified.

Based on the results of the assessment, it is **our opinion that a Phase Il- Environmental Site Assessment is not required for the subject properties.**



9.0 STATEMENT OF LIMITATIONS

This Phase I - Environmental Site Assessment report has been prepared in general accordance with O.Reg. 153/04, as amended, and meets the requirements of CSA Z768-01. The conclusions presented herein are based on information gathered from a limited historical review and field inspection program. The findings of the Phase I - ESA are based on a review of readily available geological, historical and regulatory information and a cursory review made at the time of the field assessment. The historical research relies on information supplied by others, such as, local, provincial and federal agencies and was limited within the scope-of-work, time and budget of the project herein.

Should any conditions be encountered at the subject site and/or historical information that differ from our findings, we request that we be notified immediately in order to allow for a reassessment.

This report was prepared for the sole use of Mattino Developments Inc. Permission and notification from Mattino Developments Inc. and Paterson will be required to release this report to any other party.

PROFESSIONAL

M.S. D'ARCY

POVINCE OF O

Paterson Group Inc.

Mandy Witteman, M.A.Sc.

Mark S. D'Arcy, P.Eng.

ng.

Report Distribution:

- Mattino Developments Inc.
- Paterson Group



10.0 REFERENCES

Federal Records

Air photos at the Energy Mines and Resources Air Photo Library.

National Archives.

Maps and photographs (Geological Survey of Canada surficial and subsurface mapping).

Natural Resources Canada – The Atlas of Canada.

Environment Canada, National Pollutant Release Inventory.

PCB Waste Storage Site Inventory.

Provincial Records

MECP Freedom of Information and Privacy Office.

MECP Municipal Coal Gasification Plant Site Inventory, 1991.

MECP document titled "Waste Disposal Site Inventory in Ontario".

MECP Brownfields Environmental Site Registry.

Office of Technical Standards and Safety Authority, Fuels Safety Branch.

MNR Areas of Natural Significance.

MECP Water Well Record Inventory.

Chapman, L.J., and Putnam, D.F., 1984: 'The Physiography of Southern Ontario, Third Edition', Ontario Geological Survey Special Volume 2.

Municipal Records

City of Ottawa Document "Old Landfill Management Strategy, Phase I - Identification of Sites.", prepared by Golder Associates, 2004.

Intera Technologies Limited Report "Mapping and Assessment of Former Industrial Sites, City of Ottawa", 1988.

geoOttawa: City of Ottawa electronic mapping website.

City of Ottawa Historical Land Use Inventory (HLUI) Database

Local Information Sources

Personal Interviews.

Public Information Sources

Google Earth.

Google Maps/Street View.

FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE4589-1 – SITE PLAN

DRAWING PE4589-2 - SURROUNDING LAND USE PLAN

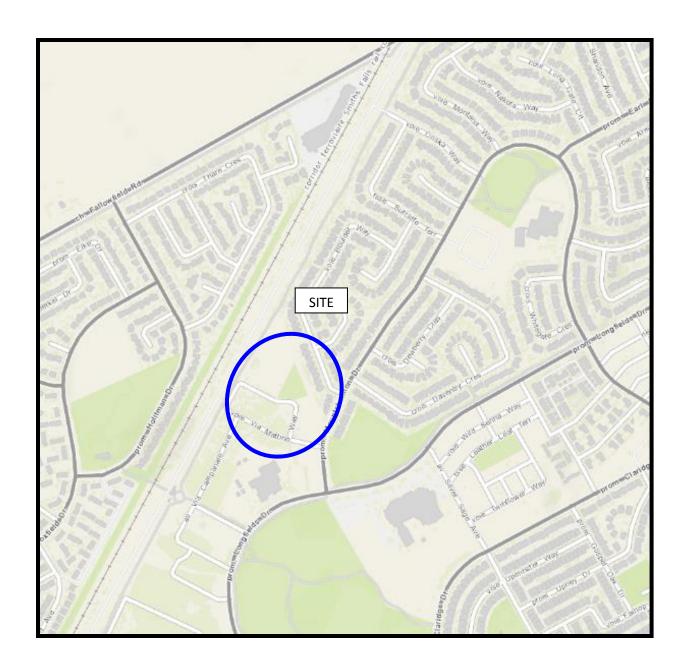


FIGURE 1 KEY PLAN

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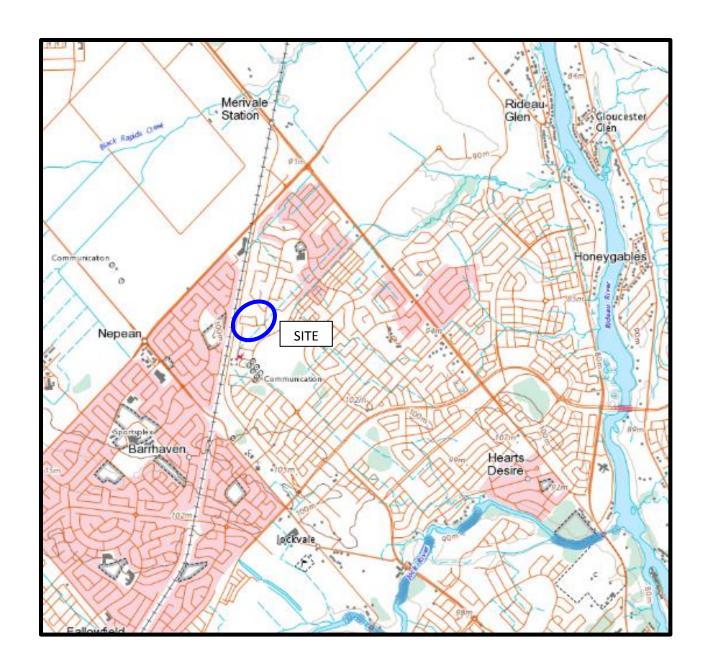
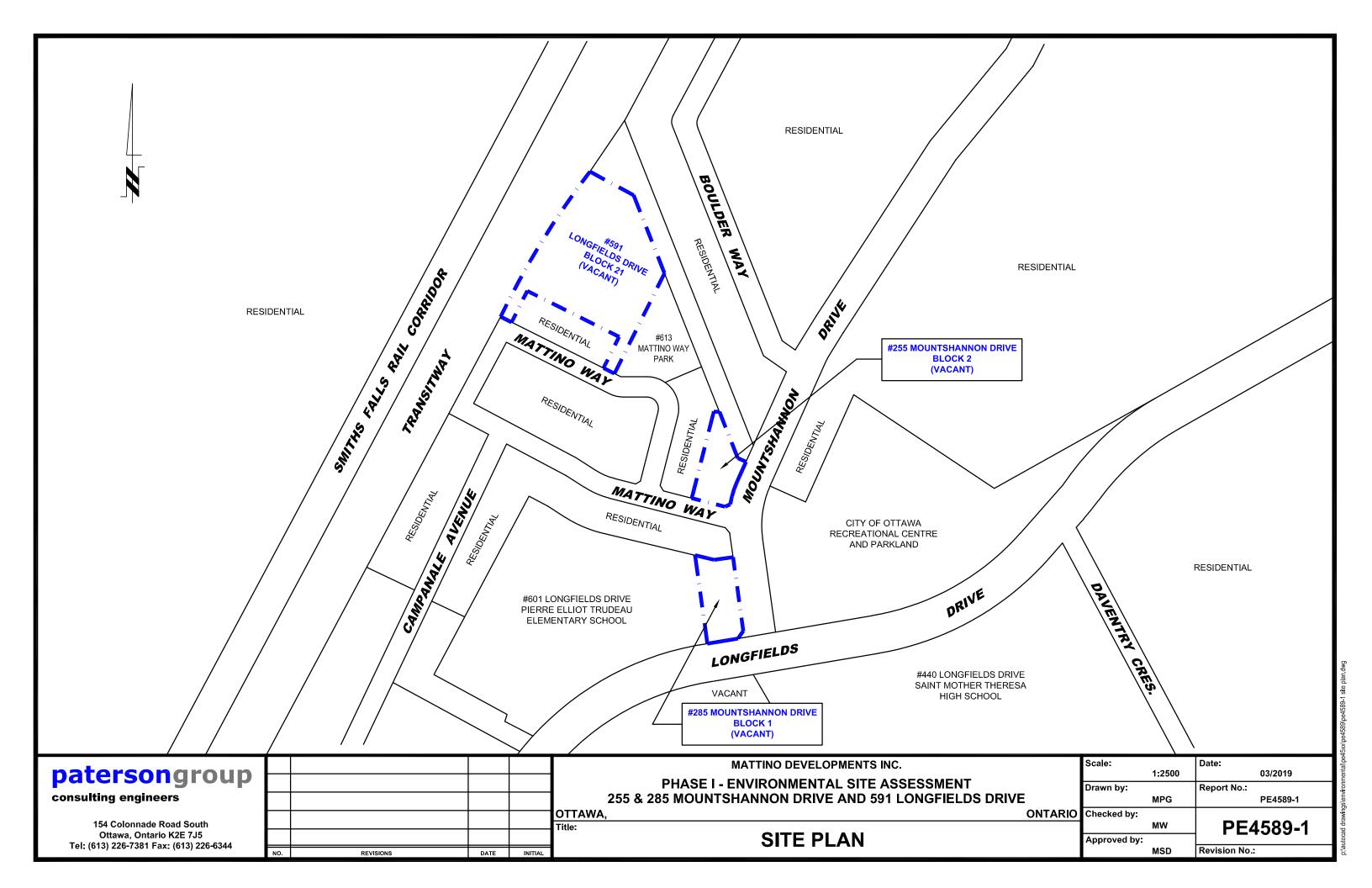
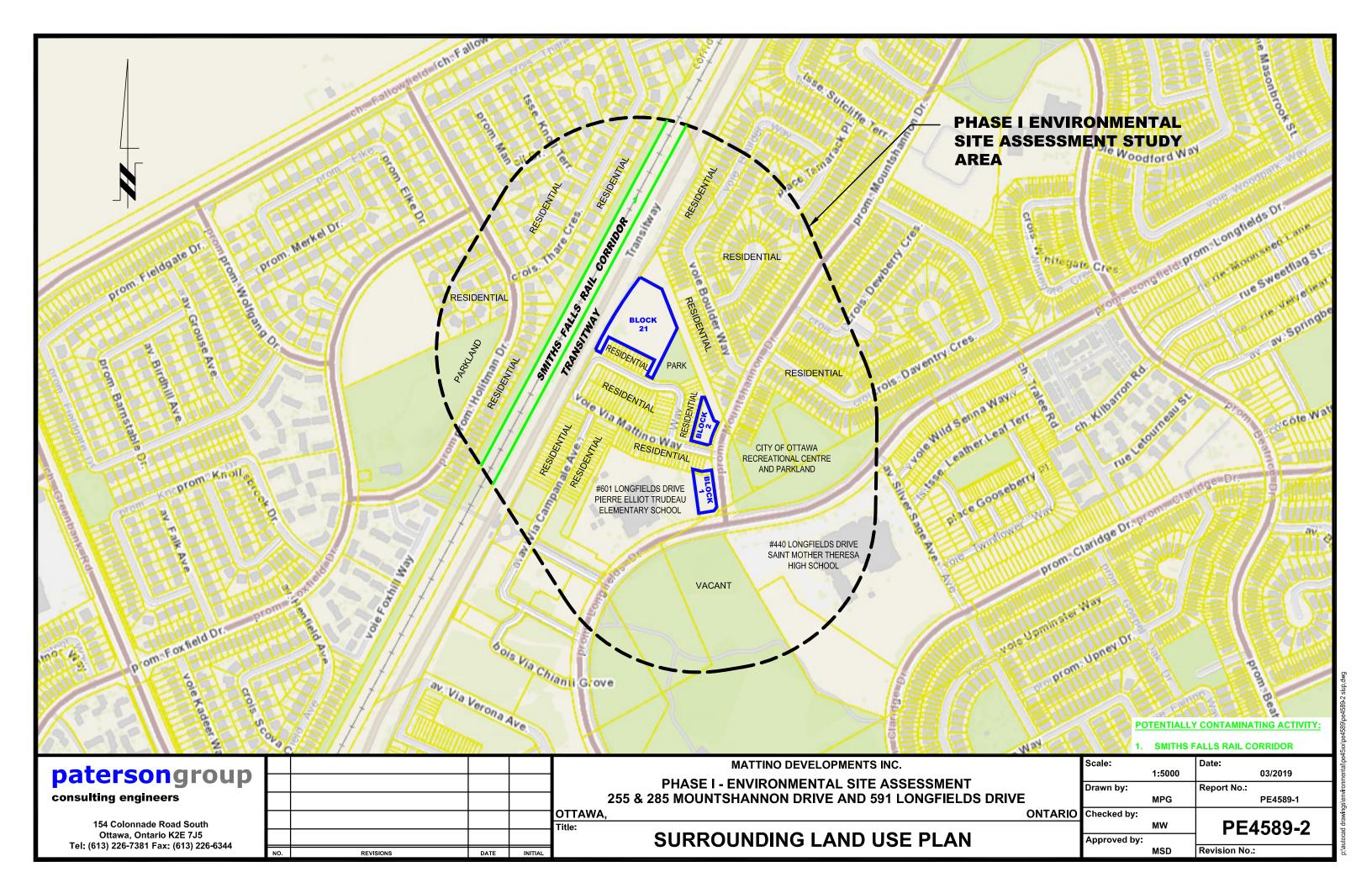


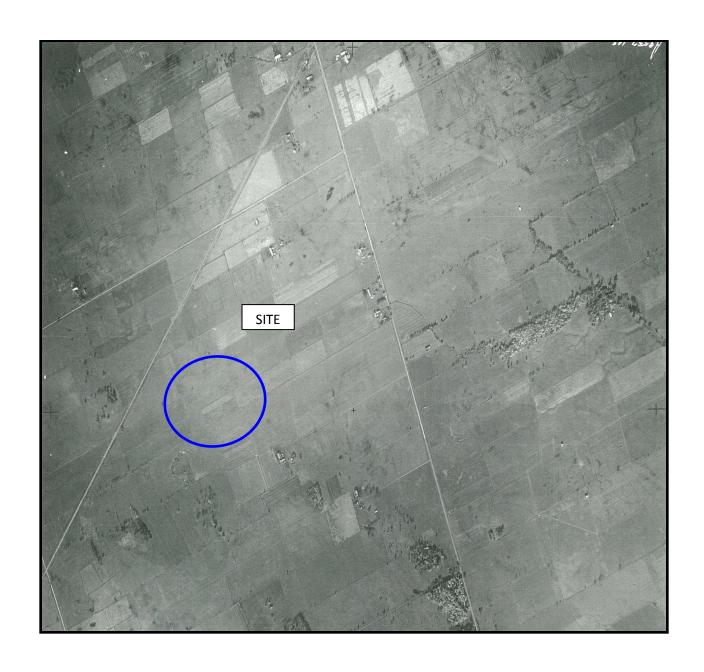
FIGURE 2 TOPOGRAPHIC MAP





APPENDIX 1

AERIAL PHOTOGRAPHS
SITE PHOTOGRAPHS



AERIAL PHOTOGRAPH 1945



AERIAL PHOTOGRAPH 1953

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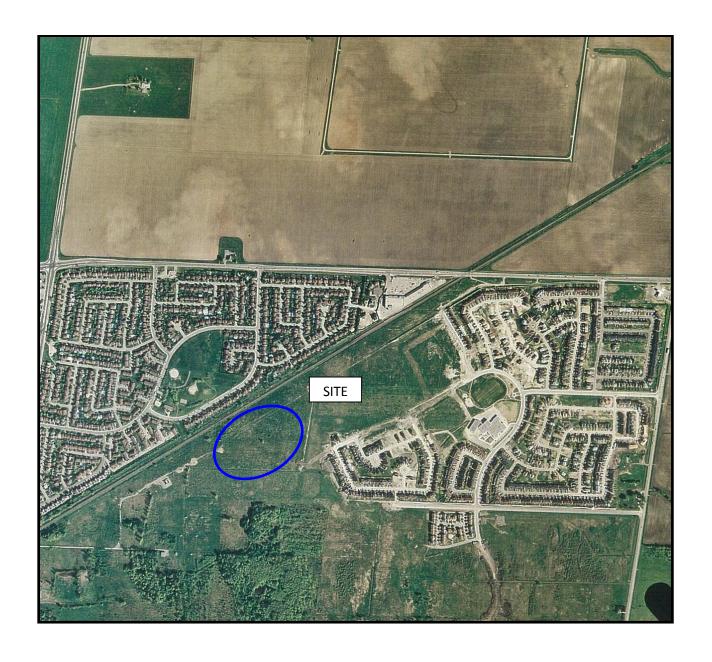
AERIAL PHOTOGRAPH 1963

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AERIAL PHOTOGRAPH 1983

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AERIAL PHOTOGRAPH 1996

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AERIAL PHOTOGRAPH 2005



AERIAL PHOTOGRAPH 2017

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Site Photographs

PE4589

255 and 285 Mountshannon Drive, and 591 Longfields Drive, Ottawa, ON

March 25, 2019



Photograph 1. View of 285 Mountshannon Drive (Block 1), taken from Mountshannon Drive, looking west.



Photograph 2: View of 255 Mountshannon Drive (Block 1), taken from the northeast property boundary, looking southwest.

Site Photographs

PE4589

255 and 285 Mountshannon Drive, and 591 Longfields Drive, Ottawa, ON

March 25, 2019



Photograph 3: View of 591 Longfields Drive (Block 21), taken from the western property boundary, looking northeast.



Photograph 4: View of 591 Longfields Drive (Block 21), taken from the western property boundary, looking east.

APPENDIX 2

MECP FREEDOM OF INFORMATION

TSSA CORRESPONDENCE

HLUI RESPONSE

MECP WELL RECORDS



Freedom of Information Request

This form is for requesting documents which are in the Ministry's files on environmental concerns related to properties. Please refer to the guide on completion and use of this form. Our fax no. is (416) 314-4285.

900	Requester Data		For Mir	istry Use Only			
Name, Company Name, Mailing Address and Ema	al Address of Requester		FOI Request No.	Date Request Received			
Mandy Witternan Paterson Group Inc.		Or Hoguest No.					
Paterson Group inc. 154 Colonnade Road			ee Paid				
Ottawa, ON K2E 7J5			VISA/MC CASH				
Email address: mwitteman@pate	ersongroup.ca		2 /1001	TIONING L CAGIT			
	our Project/Reference No.	Signature/Print /Name of Requester					
Fel. 613-226-7381 Fax 613-226-6344	PE-45xx	I IVIDITUY TYTICHIDIL	CNR ER NO	OR SWR WCR			
		Request Parameters					
771 Mattimo Way (resent Property Owner(s) and Date(s) of Ownershi Mattino Developments Inc.	Black 21),	address essential for cities, towns or regions, 255 + 285 Mountshape	on D., Ottawa, o	(this is one site/project+			
revious Property Owner(s) and Date(s) of Ownersh	hip						
Present/Previous Tenant(s), (d applicable)			Yan .	230000			
reaction to record terminally, for approximately							
F''		arch Parameters		Specify Year(s) Requested			
		ere is no guarantee that records responsive to	your request will be located.				
nvironmental concerns (Gener	ral correspondenc	ce, occurrence reports, abatement)		all			
Orders	all						
Spills		91-à		all			
Investigations/prosecutions >	Owner AND tena	nt information must be provided		all			
Vaste Generator number/classe		all					
	Certificate	s of Approval > Proponent informa	ition must be provided				
1985 and prior records are searche		h fees in excess of \$300.00 could be inc	•	s and years to be searched. She			
Certificates of Approval number(s) ((if known). If supp e	orting documents are also required, ma	ark SD box and specify type	e.g. maps, plans, reports, etc.			
			SD	Specify Year(s) Requested			
àir - emissions				1986-present			
water - mains, treatment, ground level,	1986-present						
sewage - sanitary, storm, treatment, st	1986-present						
vaste water - industrial discharges	1986-present						
	waste sites - disposal, landfill sites, transfer stations, processing sites, incinerator sites						
vaste sites - disposal, landfill sites, tr	anster stations, proces	sarry sites, incinerator sites		1986-present			
747-04-1-		ng units, haulers: sewage, non-hazardous & h	azardous waste	1986-present			

\$30.00/hour and 20 cents/page for photocopying and you will be contacted for approval for fees in excess of \$30.00.

Mandy Witteman

From: Public Information Services < publicinformationservices@tssa.org>

Sent: March-25-19 9:37 AM **To:** Mandy Witteman

Subject: RE: Records Search Request (PE4589)

Thank you for your inquiry.

We have no record in our database of any fuel storage tanks at the subject address (addresses).

For a further search in our archives please complete our release of public information form found at https://www.tssa.org/en/about-tssa/release-of-public-information.aspx?mid=392 and email the completed form to publicinformationservices@tssa.org or through mail along with a fee of \$56.50 (including HST) per location. The fee is payable with credit card (Visa or MasterCard) or with a Cheque made payable to TSSA.

Although TSSA believes the information provided pursuant to your request is accurate, please note that TSSA does not warrant this information in any way whatsoever.

Thank you and have a great day,

Roxana



Roxana Mashtaler | Public Information Agent

Facilities
345 Carlingview Drive
Toronto, Ontario M9W 6N9
Tel: +1-416-734-3472 | Fax: +1-416-231-6183 | E-Mail: rmashtaler@tssa.org









From: Mandy Witteman < MWitteman@Patersongroup.ca>

Sent: March 25, 2019 9:07 AM

To: Public Information Services <publicinformationservices@tssa.org>

Subject: Records Search Request (PE4589)

Good Morning,

Could you please complete a search of your records for underground/aboveground storage tanks, historical spills or other incidents/infractions for the following addresses in Ottawa (Cumberland), ON:

Mountshannon Drive: 255, 285 Longfields Drive: 601, 400, 625, 600

Foxfield Dr: 70,

Thank you.

Cheers,

Mandy Witteman

patersongroup

Solution Oriented Engineering

154 Colonnade Road South Ottawa - Ontario - K2E 7J5

Tel: (613) 226-7381 Fax: (613) 226-6344 Cell: (403)-921-1157

Email: <u>mwitteman@patersongroup.ca</u>

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March 25, 2019 File: PE4589-HLUI

City of Ottawa

110 Laurier Avenue W Ottawa, Ontario K1P 1J1

Subject:

Authorization Letter, HLUI Search

Phase I-Environmental Site Assessment

255 and 285 Mountshannon Drive and 591 Longsfield Drive,

Ottawa, Ontario

Dear Sir,

Please consider this letter as confirmation that Paterson Group has been retained to conduct a Phase I-Environmental Site Assessment at the aforementioned property.

With this letter, the property owner authorizes the City of Ottawa and other regulatory bodies to release, to Paterson Group, information requested for the purpose of completing an environmental assessment of the property.

Name of Company/Property Owner:

Name of Representative/Owner

Signature of Representative/Owner

Date

Mattino Developments inc.

March 25, 2019

Well ID Number: 7278712 Well Audit Number: *Z220185*

Well Tag Number:

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

Well Location

Address of Well Location	124 HOLITMAN DR
Township	NEPEAN TOWNSHIP
Lot	020
Concession	RF 02
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	NEPEAN
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 441279.00 Northing: 5015039.00
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
.8 m	4.9 m	BENTONITE GROUT	
.8 m	4.9 m	ABANDONMENT	

Method of Construction & Well Use

Method of Construction	Well Use

Not Used

Status of Well

Abandoned-Other

Construction Record - Casing

Inside	Open Hole or material	Depth	Depth
Diameter		From	To
5 cm	OTHER	.8 m	4.9 m

Construction Record - Screen

Outside Diameter Material Pepth Depth From To

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 4875

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

SWL 1	Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
2 2 3 3 4 4 5 5 10 10 15 15 20 20 25 25 30 30 40 40 45 45 50 50	SWL			
3 3 4 4 5 5 10 10 15 15 20 20 25 25 30 30 40 40 45 45 50 50	1		1	
4 4 5 5 5 10 10 10 115 15 20 20 20 25 25 30 30 40 40 45 45 50 50	2		2	
5 5 10 10 15 15 20 20 25 25 30 30 40 40 45 45 50 50	3		3	
10 10 15 15 20 20 25 25 30 30 40 40 45 45 50 50	4		4	
15 15 20 20 25 25 30 30 40 40 45 45 50 50	5		5	
20 20 25 25 30 30 40 40 45 45 50 50	10		10	
25 25 30 30 40 40 45 45 50 50	15		15	
30 30 40 40 45 45 50 50	20		20	
40 40 45 45 50 50	25		25	
45 45 50 50	30		30	
50 50	40		40	
	45		45	
60	50		50	
	50		60	

Water Details

Water Found at Depth Kind

Hole Diameter

Depth From	•	Diameter
.8 m	4.9 m	5 cm

Audit Number: Z220185

Date Well Completed: October 13, 2016

Date Well Record Received by MOE: January 10, 2017

Updated: March 7, 2019 Rate <u>Rate</u> Share <u>facebook twitter Print</u>

Tags

HISTRY OF THE ENVIRONMENT

ne Ontario Water Resources Act

316/51



Ontariò	.4 \$	FPACES PROVIDED	WEL		575 ; 💯		°R.f.	. 0
OUNTY OR DISTRICT	2. LHECK 🗵 CORR	TOWNSHIP, BOROUGH, C	1	1317	CON. BLOCK, T	RACT, SURVEY, ET	C.	22 23 LOT 25.1
C1		Nepean	. (#1 21	TE COMPLETED	
		Box (4218 Statio	n "E" Otte	wa, Ont. K	15 5A7 0	21 NO 2	48-53 YR
					rc. BASIN CC	•	1 28, 1977	. " 30
1514575	18 4412	90 5014	• • •				20, 2,,,	
ENERAL COLOUR	MOST COMMON MATERIAL		MATERIALS		GENERAL DESC		DEPTH FROM	- FEET
	clay						O	17
	clay	sand crave	l, boulder	,			17	22
	bedrock	limestone					22	27
orown	limestone						27.8	38
IT CONTA	limestone	sandstone					38	44
	sandstone	limestone	streaks				44	50
	limestone	sandstone					50	62
shite	sandstone	limestons					62	75
	limestone	sandstone	s treaks				75	81
white	sendstone						81	83
	limestone	sandstone	streaks				63	88
hite	sandstone						88	91
31 DOUG	7 05 1 002	2 052811 00	28 2615	0.038615	0044	H 1518	0050 187	#
	2 15/874 007				CIZE(S) OF OPE	ENING 31-3	65 33 DIAMETER 34-38	75 LENGTH
41 WAT	TER RECORD	INSTOR	& OPEN HOLE	RECORD DEPTH - FEET	(SLOT NO.)		INCHES	:
AT - FEET	KIND OF WATER FRESH 3 SULPHUR 14	DIAM. MATERIAL	inches	FROM TO	MATERIAL AND	D TYPE	DEPTH TO TOP OF SCREEN	41-44 FEI
030 2 [SALTY 4 MINERAL FRESH 3 SULPHUR 19	2 ☐ GALVANIZ O 3 ☐ CONCRETI	ED	0029	61 F	PLUGGING	& SEALING REC	
2	SALTY 4 MINERAL	17-18 1 STEEL	19	20.8 250	DEPTH SET AT -	FEET MAT	CEM	IENT GROUT
² □] FRESH ³ ∏ SULPHUR ²⁴] SALTY ⁴ ∏ MINERAL	2 GALVANIZ 3 CONCRET	E	2000	FROM 10-13	14-17		
25-28 1 2] FRESH 3 □ SULPHUR ²⁹] SALTY 4 □ MINERAL	24-25 1 STEEL 2 GALVANIZ	26	0250	18-21	22-25		
] FRESH 3 SULPHUR ³⁴ B SALTY 4 MINERAL	3 CONCRET	E		26-29	30-33 80		
PUMPING TEST ME	THOD 10 PUMPING RA		OF PUMPING		LOCA	TION OF	WELL 4/1	7
	2 □ BAILER 020		15-16 00 17-18 HOURS 00 MINS				OF WELL FROM ROAD	AND (
STATIC LEVEL	END OF WATER PUMPING	LEVELS DURING 2	RECOVERY	Lot	_	NORTH BY ARRO	0.	当る
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	MOT TECTED	-28 29-31 EET FEET	32-34 35-3 FEET FEE		1	10.07,		
IF FLOWING. GIVE RATE RECOMMENDED PU	38-41 PUMP INTAK	50	END OF TEST 42				Lot	-
RECOMMENDED PU	PUMP	ED 43-45 RECOMMEN	NDED 46-45				121	
SHALLOV		PECIFIC CAPACITY	O O O GPN		200 JO			170
FINAL	1 WATER SUPPLY		INSUFFICIENT SUPPLY	7	O		Fallo Fallo	·
STATUS OF WELL	2 OBSERVATION W	7 UNFINISHED	POOR QUALITY			\star	335 E	
	4 RECHARGE WELL 55-56 1 DOMESTIC	5 COMMERCIAL		-{		·		
WATER	2 STOCK 3 IRRIGATION	6 MUNICIPAL 7 DE PUBLIC SUPPLY	CONDITIONING				12	
USE () (4 INDUSTRIAL OTHER	8 COOLING OR AIR (NOT USED		1.		1/2	
METHOD	57 1 CABLE TOOL 2 ROTARY (CONVE	6 ☐ BORI		 TW#	1 15			
OF	3 ROTARY (REVER:		ING	7 W ***	•			
DRILLING	5 AIR PERCUSSION			DRILLERS REMA				
NAME OF WELL			LICENCE NUMBER	DATA	58 CONTRACT	558"	TE 1 0 3 7	5 "
ADDRESS	ital Water Supp			DATE OF INS		INSPECTOR SO	Pentney	
ADDRESS BOX NAME OF DRILL	490 Stittsvil	lle, Ont. KOA	3GD	S REMARKS:	ne 17, 1716	b CC	,	P

DAY <u>26</u> MO._

FORM 7 MOE 07-091

The Ontario Water Resources Act

RWELL RECORD

Ontario	1. PRINT ONLY IN S	PACES PROVIDED 11	e Page		con.	22 23 24
COUNTY OR DISTRICT	2. CHECK 🗵 CORRI	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	-101-	CON., BLOCK, TRACT, SUF	14 15 RVEY, ETC. 2RF	LOT 25-27
Caml and		Norman		N H	DATE COMPLETED	48-53
		Box 4218 Stati	on "E" Otta		DAY_21 MO	2 YR, 75
		ING RC.	ELEVATION	RC. BASIN CODE	11 1 1 1	10
2	M 10 12	OG OF OVERBURDEN AND BEDRO	CK MATERIALS	(SEE INSTRUCTIONS)		
SENERAL COLOUR	MOST	OTHER MATERIALS		GENERAL DESCRIPTION	DE FROM	PTH - FEET
GENERAL COLOUR	COMMON MATERIAL			<u> </u>	91	95
CONT*	limestone				95	108
white	sandstone				108	124
	sandstone	limestone streaks			124	165
	limestone	sandstone streaks			165	183
	sandstone	limestone streaks			183	201
	sandstons	183			201	208
	sandstone				208	212
	sandstone	limestone streaks			212	214
white	sendstone				212	226
	* sands tone	limestone streaks			214	250
	sandstone				220	230
	11 1 1 1			1,11,,,11,1		1,1,1
	<u> </u>	<u> </u>				
41 WA	TER RECORD	51 CASING & OPEN HOLE	RECORD :	SIZE(S) OF OPENING (SLOT NO.)	55 31-33 DIAMETER 34-	
WATER FOUND AT - FEET	KIND OF WATER	INSIDE WALL DIAM. MATERIAL THICKNESS FE	DEPTH - FEET	MATERIAL AND TYPE	DEPTH TO	TOP 41-44
10-13	C FRESH 3 □ SULPHUR 14 □ SALTY 4 □ MINERAL	10-11 1 STEEL 12	13-16	S .	OF SCREEN	FEET
15-18 1	☐ FRESH 3 ☐ SULPHUR 19	2 GALVANIZED 3 CONCRETE		61 PLUGG	ING & SEALING RE	CORD
1	SALTY 4 MINERAL FRESH 3 SULPHUR 24	4 OPEN HOLE 17-18 1 STEEL 19	20-23	DEPTH SET AT - FEET FROM TO		(CEMENT GROUT, EAD PACKER, ETC.)
2	SALTY 4 MINERAL	2 GALVANIZED 3 CONCRETE 4 OPEN HOLE		10-13 14-17		
25-28 l 2	☐ FRESH 3 ☐ SULPHUR ²⁹ ☐ SALTY 4 ☐ MINERAL	24-25 1 STEEL 26 2 GALVANIZED	27-30	18-21 22-25		
	☐ FRESH 3 ☐ SULPHUR ³⁴ E	3 CONCRETE		26-29 30-33	80	
PUMPING TEST M		E 11-14 DURATION OF PUMPING		LOCATION	I OF WELL	
	2 □ BAILER 25	GPM 15-16 17-18 HOURS MINS.	IN DIAGR	RAM BELOW SHOW DISTA	ANCES OF WELL FROM RC	AD AND
STATIC LEVEL	END OF WATER PUMPING	LEVELS DURING 2 RECOVERY	LOT LINE		_	
TEST 20	26	28 29-31 32-34 35-37		GREEN	BANK RO	AU
IF FLOWING.	ET FEET F 38-41 PUMP INTAK	E SET AT WATER AT END OF TEST 42		'\		
IF FLOWING. GIVE RATE RECOMMENDED F	GPM. PUMP TYPE RECOMMEND			<i>a</i>),		
☐ SHALLO	DW DEEP SETTING	FEET RATE GPM.		80° jo		
50-53	GPM./FT. S			. \		
FINAL STATUS	2 OBSERVATION W	5 ABANDONED, INSUFFICIENT SUPPLY 6 ABANDONED, POOR QUALITY			135	
OF WELL	3 TEST HOLE 4 RECHARGE WELL	7 UNFINISHED			Po	
	55-56 1 DOMESTIC 2 STOCK	5 COMMERCIAL 6 MUNICIPAL				
WATER USE	3 IRRIGATION 4 INDUSTRIAL	7 PUBLIC SUPPLY 8 COOLING OR AIR CONDITIONING		1 -		7.0
	OTHER	9 NOT USED	TW#	1/15		1
METHOD	- - -					
OF DRILLING	3 ROTARY (REVER	9 🔲 DRIVING				
	S AIR PERCUSSION		DRILLERS REMARKS:		59-62 DATE RECEIVE A 3	7 5 63-68
	L CONTRACTOR tal Water Supp	LICENCE NUMBER	SOURCE		1100	• •
ADDRESS ROY	490 Stittsvil	-		12/2/	at lentner	^
NAME OF DRI	LLER OR BORER	A LICENCE NUMBER	D REMARKS:	Tope 2012		P (F)
No H	lamilton & D. M	C Dougal Submission Date	FFICE	'		WI
		10 CAX 26 NO. 2 YAS				OPM 7 MOF 07

	nistry of Well Va	Number (Place sticker and		7	Well Record
the	Environment	402309		Regulation 903 Onta	rio Water Resources Act
 Instructions for Completing For use in the Province of 	Ontario only. This docum	- nent is a permanent le	gal document. P	◆ lease retain for future refe	page of erence.
 All Sections must be comple Questions regarding comple 	leted in full to avoid delay eting this application can	s in processing. Furthe be directed to the Wat	er instructions an	d explanations are available	on the back of this form.
 All metre measurements s Please print clearly in blue of 	shall be reported to 1/10 or black ink only.			Ministry Use Only	
		MUN	C	ON	LOT
Address of Well Location (County/DI	istnet/Municipality)	Townseip(1	EM TR	370 Y	Concession
RR#/Street Number/Name	ETON	City/Town	NEPEA Willage	Site/Compartmen	t/Block/Tract etc.
GPS Reading NAD Zone	Easting Nor	thing Unit Make	e/Model Mode	e of Operation: Undifferenti	
8 3 18 Log of Overburden and Bed	rock Materials (see ins		BELAN	Differentiate	
General Colour Most common ma	aterial Other M	laterials	Genera	al Description	Depth Metres From To
GRAJEL	SAND	:			3,35 11,88
SREY SAN	DSTONE				11,88 54,25
DEA L'UN	KGRANITE		·		24.00 61.01
				Maria Dina Bishamera	(all Viole SEE)
Hole Diameter Depth Metres Diameter	Inside	struction Record Wall Depth	Metres	I I amping toot mounds	aw Down Recovery Water Level Time Water Level
From To Centimetres 0 1387 3112	diam Material entimetres	thickness centimetres From	То	Subfund min Pump intake set at - Static	Metres min Metres
387 6187 20.3	Steel Fibreglas	Casing		(metres) Level	
Water Record	Plastic Concrete		14,32	(litres/mis) Duration of pumping 2	2 139
at Metres Kind of Water	Steel Fibreglas			hrs to min Final water level end 3	3 0,1
Gas Sally Minerals	Plastic Concrete			of perping metres Recommended pump 4	4 7.4
57 30 ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salby	Steel Fibreglas			type. Deep Recommended pump 5	5 5.5
Other Fresh Sulphur	Galvanized	Screen		Recommended pump 10	10 2.7
Gas Salty Minerals Other:	Outside Steel Fibreglas		Secretary and	rate (litres/min) 15 If flowing give rate - 20	15 2.4 20 23
After test of well yield, water was	Plastic Concrete			(litres/min) 25 If pumping discontinued, give reason.	25 8,9 35 33
Other, specify		Casing or Screen	1 6187	45 40 50	17.9 40 50 1,8
Chlorinated Yes No	Open hole	J3.7		Location of We	(B, S 60)
Plugging and Seal Depth set at - Metres From To Material and type	(bentonite slurry, neat cement slur	Value Blacca		ow show distances of well from ro	ad, lot line, and building.
13.71 O NEAT C	CEMENT SLL	PRY ,8173	1 12 .		JO LONG FIELDS DRING
					1 <u>E</u>
				Ku /	1 &
	ethod of Construction	- Dississ	<u>-</u> •`	h /	一首
☐ Cable Tool ☐ Rotary (ai ☐ Rotary (conventional) ☐ Air percus ☐ Rotary (reverse) ☐ Boring	··/	Digging Other		GD= 58M	I Po B
	Water Use	ipply Other	Pausb	Y FIELD	1 8
Stock Commercial Industrial	cial Not used	··· -	Audit No.	23173 Date Wel	Completed
► Water Supply Recharge well	Final Status of Well Unfinishe	d Abandoned, (Oth	7 1	owner's information Date Deli	vered YYYY MM DD
Observation well Abandoned, in Test Hole Abandoned, p		nent well	package delive	red?	lv
Well Contr	ractor/Technician Informa	Well Contractor's Licence No	Data Source	Contract	
	ir, city etc.) HYNOND ON	- KOA 220	Date Received	Date of Ir	
Name of Well Technician (last name, fir		Well Technician's Licence N	o. Remarks	Well Rec	cord Number
Signature of Technician/Contractor		Date Committed	X		
0506E (09/03)	Contractor's Copy	Ministry's Copy Well	Owner's Copy	Cette formu	le est disponible en français

well tag # A023058

Well for the rugby field (new irrigation system)

Flow USGPM	Time, min	Measured Level, in	Measured Le
0.0	0	38.4	1.0
N/A*	15	N/A	N/A N
41.0	30	350.4	8.9
61.3	45	704.4	17.9 -
60.5	60	741.6	16.8 ≨
80.0	75	782.4	19.9
81.5	90	1332.0	33.8 ♀
81.5	105	1684.8	42.8
60.0	120	1227.6	31.2 년
60.5	135	1226.4	31.2 $\overset{\circ}{\circ}$
61.0	150	1231.2	31.3 🛱
60.5	165	1202.4	30.5 ₀
60.5	180	1200.0	30 .5 ω

*Flow meter, problem couldn't retest without risking going over 50 000L

hambind frace	7741 77
Measured	Level in the well
in	meters
744.0	18.9
546.0	13.9
396.0	10.1
291.6	7.4
216.0	5,5
106,8	2.7
96.0	2.4
90.0	2.3
90.0	2.3
69.6	1.8
To come	
To come	
	Measured in 744.0 546.0 396.0 291.6 216.0 106.8 96.0 90.0 90.0 69.6 To come

OCT 12 2005 ZQ3173

1119

Instructions for Completing Form - For use in the Province of Ordinato only. The document is a permanent legal document. These retain for huber enference. - So use in the Province of Ordinato only. The document is a permanent legal document. These retains for huber enference. - All neter measurements shall be reported to 1/19° of a noter phisses print closely in but of black highly in black h		Ministry of the Environment	Tag Number (Place to 230)	sticker and print	t number below)	Regulation 903 Ontai	Well Record			
All Sections must be completed in fail to awold delays in processing. Putter instructions and avoidation as a seasable on the back of this farm. Considering regional completing this application has been described in the Well with Management Controllance at 162-256 miles. Phase print clearly in tous or black influenty. Will Owner's Information and Location of Well Information. TOUR INFORMATION TO THE PROPERTY OF THE PROPERT	Instructions for Completin									
Control Contro	• For use in the Province	of Ontario only. This docu	ument is a perma	nent legal Further in	document. F	– Please retain for future refer of explanations are available	rence.			
## Will Owner's Information and Location of Well Information Will Owner's Information and Location of Well Information Will Will Owner's Information Will Will Owner's Information Will	 Questions regarding com 	ipleting this application ca	n be directed to t	he Water V	Well Manage	ment Coordinator at 416-2	35-6203.			
TRIPS and Numbers and Bedock Materials (see instructions) Ober Numbers Fig. 1	 Please print clearly in blu 	e or black ink only.		MUN						
September Septem	Well Owner's Information	and Location of Well In	normation	A 11)			
Comment Column										
The Diameter Cobus Modes Section										
Construction Bactrook Materials (see Instructions) General Color of New Common and Bedrincok Materials (see Instructions) General Color of New Common and Bedrincok Materials (see Instructions) General Color of New Common and Bedrincok Materials (see Instructions) General Color of New Common and Bedrincok Materials (see Instructions) General Color of New Common and Bedrincok Materials (see Instructions) General Color of New Common and Bedrincok Materials (see Instructions) General Color of New Common and Bedrincok Materials (see Instructions) General Color of New Common and Bedrincok Materials (see Instructions) General Color of New Common and Bedrincok Materials (see Instructions) General Color of New Common and Bedrincok Materials (see Instructions) General Color of New Common and Bedrincok Materials (see Instructions) Hole Dammater Debth Middles Dammater Debth Middl	RR#/Street Number/Name		(Ic)	ty/Town/Vill	age					
Content Column Not common match Construction	GPS Reading NAD Zon	e Easting QAQ G	orthing 450a Ur	nit Make/Mo	odel Mode		<u>~</u>			
SAND SPATIET BOULDES LINES LIN				TIAE	DELLAN	Differentiated				
Hole Diameter Depth Merces Observation Indiana Indi		<u> </u>	Materials		Genera	al Description	From To			
Hole Diameter Purple Memory Depth Memory Depth Memory Depth Memory Depth	HME'ST	PHET BONT)EK2							
Depth Metres Depth Dep	SANDSTO	NE								
Depth Metres Depth Dep										
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Depth Metres Dameter From Contented Depth										
Depth Metres Depth Dep							CETE			
The controllers Controller		Co								
Casing	From To Centimetres	diam Material	thickness -		,	T	Vater Level Time Water Level			
Water Record Water Record Constitution Cons		centimetres		FIOIII	10	Pump intake set at - Static				
Section Sect	13.4 51.00 70.3		ass	*	1-71	Pumping rate1	156			
Steel Stee		Galvanized		0	13,"		2 5.3			
Gas Suphur Gas Suphur Gas Suphur Gas Suphur Gas Suphur Gas Suphur Gas	The Fresh Sulphur		1			Final water level end 3	3 5.2			
Pleastic Concrete Pleastic	Gas Sally Miggrals		nee .			Recommended pump 4	45.0			
Recommended pump 10 10 10 10 10 10 10 1		Plastic Concre				Recommended pump 5	5 5.0			
Gate Tool Rotary (arr) Demonstrated Rotary (conventional) Rotary (co		Galvanized	Screen			Recommended pump 10				
After test of well yield, water was Galvanized Galvanized	Gas Salty S Nings Is	diam Steel Fibregia	1		-	(litres/min) 15 15 15 15 15 15 15 15 15 15 15 15 15	20 4			
Other, specify No Casing or Screen So So So So So So So S	1		te .			If pumping discontin- 30				
Plugging and Sealing Record Annular space Abandoment	Other, specify ESTED		o Casing or Scree			deu, give reason.	40			
Depth set af - Metres From To Material and type (bentionite sturry, neat coment sturry) stc. (clubic metres) The property of t					01.00.	60	<u>5.8 60 </u>			
Method of Construction	Depth set at - Metres Material and tyr		Volume	Placed	Daniel and a manufacture	w show distances of well from road				
Method of Construction		COMENT SU			Indicate north b	of Knoon DRIVE	*			
Method of Construction					Nok	TH TIMPO	18 1			
Cathe Tool	3.		•	\		不	1 E			
Cathe Tool		Method of Construction				Iku	1 200			
Rotary (reverse) Boring Driving	Cabite Tool . Rotary	(air) Diamon	=			et an	188 1885			
Stock	I -	☐ Driving				() ()	185			
Municipal		ial Public S	—	Other	EOT BALL	LFIELD	1\			
Water Supply Recharge well Unfinished Abandoned, (Other) Description well Abandoned, insufficient supply Dewatering Dew		oal Cooling			Audit No. Z	23172 Date Well	Completed MM 25			
Deservation well Abandoned, poor quality Replacement well	Tatel Capping	rell Unfinish		ed, (Other)	1	WHEISINDITION	ered YYYY MM DD			
Name of Well Contractor Licence No. Business Address (street name number, city etc.) Name of Well Contractor's Licence No. Data Source Data Source Data Source Data Source Contractor 1 1 9 Date of Inspection YYYY MM DD Remarks Well Record Number Well Record Number	Test Hole Abandoned,	, poor quality 💢 🔲 Replace	ement well			Ministry Use Only				
Business Address (street name number, city etc.) Name of Well-Technician (last name) Name of Well-Technician (last name) Signature of Technician Contractor X Date Received 2 YXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	Name of Well Contractor	, ,		ence No.	Data Source	Contractor	1119			
Name of Well Technician (last name) Signature of Technician Contractor X Well Record Number Well Record Number	Business Address (street name, numl	ber, city etc.) CHAOLD, Dr	ST KOA E	720		2 2005 MM DD Date of Ins	pection YYYY MM DD			
Signature of Techniciam/Contractor Date Submitted And DD DD Date Submitted And DD And DD	Name of Well Technician (last name,	first name) 13N	1019	cence No.			rd Number			
0506E (09/03) Contractor's Copy ☐ Ministry's Copy ☐ Well Owner's Copy ☐ Cette formule est disponible en français	Signature of Technician/Contractor		05×5	MOSOD	<u> </u>					
	0506E (09/03)	Contractor's Copy ☐	Ministry's Copy	Well Owr	ner's Copy 🗌	Cette formule	est aisponible en français			

Well tag A023059

Well for the existing irrigation system

Flow USGPM	Time, min	Measured Level, in	Measured Level, m
0.0	0	164.4	4.2
22.0	15	196.8	5.0
39.7	30	223.2	5.7
60.6	45	252.0	6.4
80.0	60	268.8	6.8
80.0	75	273.6	6.9
80.0	90	277.2	7.0
80.0	105	279.6	7.1
80.0	120	282.0	7.2
80.0	135	284.4	7.2
80.0	150	284.4	7.2
80.0	165	286.8	7.3
80.0	180	288.0	7.3

After pumping (recovery)

Time elapsed	Measured	Level in the well
min	in	meters
1	220.8	5.6
2	208.8	5.3
3	205.2	5.2
4	200.4	5.1
5	196.8	5.0
10	187.2	4.8
15	184.8	4.7
20	182.4	4.6
35	177.6	4.5
50	175.2	4.5
80	172.8	4.4
110	172.8	4.4

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	পি) (Dnta	rio	Ministry of the Enviro		Well Ta	g Number (Pla	ce sticker and prir	t number below)			• •			ecord
			_		illioni.		1/	7		_ Reg	ulation 903	Ontar	1		urces Act
		I	-	eting Form	only Thi	s docum	ent is a nern	nanent lega	document. P	∐ lease reta	in for futur	e refei			_
	All SeQues	ctions n tions reg	nust be o arding o	completed in	full to avo s applicat	id delays ion can b	s in procession directed to	ng. Further in the Water	nstructions and Well Manager	d explanati ment Coor	ons are ava	ilable (416-23	on the ba		his form.
	• Pleas	e print c	learly in	blue or black	ink only.			MUN	C	N ON	linistry Use	Only		LOT	
i	Well Ow	ner's In	formation	on and Loc	ation of v	Vell Into	rmation	MOIV							
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	RR#/Stree	Number/	o La	SUEF	JEL.	is d	DRIVE		er em	N	Site/Compa	rtment			
	GPS Read		NAD 8 3	18 44	1802	50	17457	Unit Make/M		e of Operati		fferentia rentiated	ted i, specify	Overa	ged
		+	len and	Bedrock M	aterials (see inst		· · · · · · · · · · · · · · · · · · ·	Canara	l December			Dep	th	Metres
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٠.				<u> </u>	0)1017	m to	MIL	144	м.			• .	0		(,, 0 2
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			.			· · · · · · · · · · · · · · · · · · ·				1		 			
	Depth	ole Diame Metres	eter Diamet	er Inside	· .	Cons	truction Rec	Ord Depth	Metres	Pumping	Tes test method		ell Yield v Down	Re	ecovery
	From	То	Centimet		Mate	erial	thickness centimetres	From	То			Time V min	Vater Level Metres	Time min	Water Level Metres
							Casing			Pump into	ake set at -	Static Level			
			· ·			Fibreglass				Pumping (litres/mir		1			
		ater Rec	ord		Plastic Galvanize	_			-	II .	of pumping	2		2	
	Water found at Metre		d of Wate			Fibreglass				Final wat	+ min er level end	13		3	
	Gas Other:	Fresh Salty	Sulpr	11	Plastic Galvanize	_				of pumpi	ng metres ended pamp	4		4	
	m	Fresh	Sulpt	nur		Fibreglass Concrete			100	type.	allow ☐ Deep				
	☐ Gas ☐ Other:	Salty	Miner	3 8	Galvanize	- /				depth	metres	5		5	
	m □ Gas	Fresh	Sulph			_	Screen	T	· · · · · · · · · · · · · · · · · · ·	rate.	ended pump es/min)	10 15		10 15	
	Other:			diam	Steel	☐ Fibreglass ☐ Concrete	Slot No.			If flowing	give rate -	20		20 25	
•		nd sedimen		s .	Galvaniz	ed .					es/min) g discontin- reason.	30		30	
	Other, s	specify					Casing or Sci	reen		-		40 50		40 50	
.,	Chlorinated	Yes	☐ No		Open hol	le]		60		60	
	Depth set a	t - Metres		I Sealing Rec		Annula	Value	bandonment me Placed	In diagram belo	w show dista	Location on the control of the contr			and bui	ding.
	1768 1768	To A	٠.	d type (bentonite	JG	errient starry	(cub	ic metres)	Indicate north b						
	061	0.01	NEX	不合	rent	Du	ARRY.			'A	2.1	Y.W			
										A C	0		<u>, </u>	个	•
									لير	[A]	K	Hous	3 E	4	
				Method of	Construct	tion			In LONSFIE		<u>.</u>			X) '
	☐ Cable To ☐ Rotary (ool conventions		ary (air) percussion	<u>=</u>	Diamond Jetting	. [Digging Other	7			5			
	Rotary (reverse)	Bo		er Use	Driving			2	3/4	PARKIN	3.")		
	Domesti	¢		ustria!		Public Sup	ply	er	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \						
	Stock	1		mmercial nicipal			air conditioning		Audit No. 7	233	61	te Well	Completed	T 1	79 13
	☐ Water S		Rechar	ge well		Unfinished		oned, (Other)	Was the well o	wner's inform	nation Da	te Delive		77Y .	MM DD
100	☐ Observa ☐ Test Ho		Abando	ned, insufficient ned, poor quality		Dewatering Replaceme	ent well	WALTY	package deliver						
Carrier Charge	Namoe of W	e/ Contract		Contractor/Te		Informati V	on Vell Contractor's	Licence No.	Data Source		Ministry Us Co	e Only ntractor		1 (<u> </u>
*	Business A	ddress (etre	et name.	number city etc.		N.A	inc	1	Date Received	C TYYYO EN	n ∧∩∩π Da	te of Ins	pection s	1 E	MM DD
		14	- T	TRA	mon!	. IV	Vell Technician's		Remarks	CTYYZ 5'	2003		rd Number		
	Signatur	SAY	LN	me, first name)	KEN	Į į	ate Selemitted	•	Tomarko						
	Signature o		20	<u> </u>			005	Y 18 85			0.4-	orm: I	act dia-	onih!^	en français
	0506E (09/0	03)		Co	ntractor's C	opy∐ 「	Ministry's Copy	y 🗱 vveil Ow	пет ѕ Сору 📋		Cette 1	omul6	esi uisp(, iiiiii e	on nançak



Well Tag No. for Master Well (Place Sticker and/or Print Below)
BH8B
AC19093
AC19093

Master Well Record for Cluster Well Construction

Regulation 903 Ontario Water Resources Act
Page _____ of _____

Address of	Well Location (Stree	et Number/Name, RR)	ad	Towns	hip				Lot	Concessio	n
County/Dis	strict/Municipality	3414XC1 11			wn/Villag					Province	Postal Code
UTM Coord	linates Zone Eastin	ng Northing)	GPS Unit	\sim 1 · · ·	Model	Mode of Operation: Undifferentiated Ave				
NAD		k Materials (see inst	54	218 GARY	the state of the s	[El	let.	Differer	ntiated, specify	e Details	^
General	Most Common	Other		General	Depth	(Metres)		(Metres)	ПОІЕ	Diamete	
Colour	Material	Materials	0	escription	From	To	From	To 4.3	2-	(Centimetr	res)
Grey	Sand Lil			re graina	01	0.1	4.3	79	20		
Crey	Sand + G			grained	0.1	2.4	4.7	1.1	10		
Brown	I the same with the same of the	ravel Silt	. 1	ise graina	4.3	79					
Uruq	MINESTONE	- i weather	a)		7. 2	1.1			Wat	ter Use	
							Public		dustrial	Not used	Other, specify
							☐ Domes	ock M	lunicipal 🔽	Dewatering Monitoring	
							☐ Irrigation	on 📋 I		Cooling & Air Cond Construction	itioning
							Cable	Tool (Convention	Air Pe	rcussion Digg	
							Rotary	(Reverse)	☐ Jetting	Oth	er, specify
							Rotary	(AIr)	☐ Driving	HSA s of Well	
							Pest H		Aband	loned, Insufficient Su	
							Replace Dewate	ement Well ering Well	Aband Other,	loned, Poor Water Q specify	uality
							☐ Alterat	ion (Constru	ction)	loned, other, specify	
							No Cas Open Hole		creen Used	1 1 1	er Level Test
Incide Disa		Construction De	tails		D-#-1	44-4		Yes V		reen	tres
Inside Dian (Centimet		Material fibreglass, concrete, g	alvanize	All the control of th	Depth (To	Galvan	h-mand.	Steel Fibre	eglass Concre	te Plastic
5.1	PVC			Sched 40	0	4.6	Outside Di	ameter (Ce	ntimetres)	Slot No.	
							144		Water De	tails	
							1	ind at Dept Metres		of Water sh	ulphur Minerals
115/7/44/8	Annular	Successible and a successible	4.01			5.77L/15.5	I	nd at Dept Metres		f Water sh Salty S	ulphur Minerals
Depth Set a	The state of the s	Type of Sealant L	Jsed	ig Record	Volume		Water fou	nd at Dept	h Kind o	f Water	
0		(Material and Typ	ne)		(Cubic I				,		ulphur Minerals laster Well Completed
	1, 5 1201	Julute			00	Kqs	A 4		wells	(yyyy/m 200	m/dd)
							Cluster la	nformation	(Please also	fill out the addition	nal Cluster Well
								ion for Wells in Cluste	and the second s	Please indicate N	of land and cluster.) umber of Cluster Well
							Total Wel	ls on this P	roperty	Information Log S	Sheets Submitted
								Know	\	SIMOU Obverse	
									e provided as a		rger than legal size
								,	s are not allowe fi <mark>rm detailed m</mark> a	ed. ap is provided as pe	er Section 11.1 (3)
								o release a		rmation concerning	ng the cluster to
Business Na	ame of Well Contracto	actor and Well Tech		Well Contra	actor's Lice	nce No.					
George Business Ave	ge Down in	ng Estate I)F://:	ng / S	814	4					
410 R	ve Princip	pale Grent Business E-ma	ille	sur-19-1	Rouge	9			winnsuy	ose Omy	
							Audit No.	04	460	Well Contractor No.	
Bus.Telephor	ne No. (inc. area code)	Bo downing Name of Well Technici	an Last		me)		Date Rece			Date of Inspection ()	yyyy/mm/dd)
Well Technicis	an's Licence No. Signa	Downing ature of Technician	15	Date Subn	nitted (yyy)	y/mm/dd)	Remarks	41 60			
1992 (11/2006)	736	France / Lee		2009	104/2	27.	200				District
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Ministry of the Environment

Well Tag No. for Master Well	(Print Well	Tag No
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A019093

Cluster Well Information for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

Page ____ of ___

Address of Well Location (Street Number/Name, RR	b Lot	Con	cession To	wnship			County	//District/Mur	nicipality	upon request	
51 611 7 60	Load							, , , , , , , , , , , , , , , , , , , ,	/	Signature of Technician/Contract	or Date (yyyy/mm/dd)
City/Town/Village Proving Onta	nce Postal Code		Unit Make M	Hex	Unit Mod	e of Oper entiated, s		lifferentiated	Averaged	Bunchen	2009/04/27
Well # UTM Coordinates on Sketch Zone Easting Northing	Full Depth of Hole Diameter Hole (metres)	Method of Construction	Casing Material	Casing Length (metres)	Screen Inte	rval (metres) To	Annular Space Sealant Used	Static Water Level (metres)	Abandonment Sealant Used	Comments	Date of Completion (yyyy/mm/dd)
184410205015411	6.3 20/10	HSA/DIA	PVC	3.2	3.2	6.3	Benjonite				2009/04/07
8th 184410315015437	4.4 20/16	HSA DIA	μ	3.0	3.0	W	IC.				2009/04/04.
BH 184419995015428	4.3 20	HsA	<u>, (i</u>	1.2	1.2	4.3	1Í				2009/04/08
Well Contractor and Well Technician Inf		iness Address (Str	eet Number/Nai	me, RR)		Municipa	lity		Province	Date 1st Well in Cluster Constructed (yyyy/mm/dd) 2009/04/07	Date Last Well in Cluster Constructed (yyyy/mm/dd) 2009 104 108
George Downing Estate Dril	ling Std. 4	Olue Prin	ripale	Bienv	11	D	Le Rouge)	QC,	Ministry Use Only	
Fostal Code Business Telephone N	10. (incl area code) 2 4 4 49	Well Contractor's	$f \mid Y \mid c$	ness E-mail A	ddress	rawk	1 195 - N	1			DatMAY 2 0 (y2009 1/dd)
Name of Well Technician (First Name, Last Name)		Well Technician's	icence No. Date	Submitted (y	vyý/mm/dd) 1	Signature	of Technician		~	Audit No. c 05166	Remarks 44 60
1991 (11/2006)		0- 1			/ inistry's		and (m			© Queen's Printer for Ontario, 2006

A O CONTOR ASSOCIATES

MAY 2 0 2009

C-1844 M04460 COST66



Well Tag No. for Master Well (Place Sticker and/or Print Below)
BH8B
AC19093
AC19093

Master Well Record for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

Address of	Well Location (Stree	t Number/Name, RR)		Townsl	hip				Lot	Concession	n		
368	4 Fallow strict/Municipality	Stield Ro	ad	City/To	wn/Villag	10				Province	Postal Code		
				(Otto	ewa				Ontario	rostal code		
UTM Coord NAD	1 . 4 11.00	ng Northing Northing	5141	GPS Unit		Model	Mode of Operation: ☐ Undifferentiated ☐ Averaged ☐ Differentiated, specify ☐						
Overb	urden and Bedrock	Materials (see inst		on the back	of this fo			(Metres)	Hole	e Details			
Colour	Material	Other Materials	programme and a second	General escription	From	To	From	To		Diamete (Centimetr			
Grey	Gravel Fi		Coar	re grained	0	0.1	0	4.3	20				
Grey	Sand Fil	l	med	grained	0.1	2.4	4.3	7.9	10				
Brown	Sand + 6	pravel silt		ise graina	24	4.3							
Grey	dimestone	. (Weathere	d)		4.3	7.9							
							Public Domes Livesto Irrigatio	tic Cock Mon Te	dustrial ommercial lunicipal ommercial ommerci		ging		
							Rotary Rotary	(Reverse) (Air)	☐ Jetting ☐ Driving	11-1	er, specify		
							Dewate	ement Well ering Well	Aband Aband Other,	doned, Insufficient Sudoned, Poor Water Questifydoned, other, specifydoned, other, specify	luality		
							No Casi Open Hole		creen Used	Static Wate	er Level Test		
		Construction De	tails					Yes 📈		Met	res		
Inside Dian (Centimeti	res) (steel, plastic,	Material fibreglass, concrete, ga	alvanize	Wall Thickness 5Ched	From	Metres) To	Galvani	through,	Steel Fibre		te Plastic		
5.1	PVC			40	0	4.6	F	5.8	nameures)	10			
							Water fou	nd at Dept	h Kind o	etails of Water			
								Metres nd at Dept	000	sh Salty Su	ulphur Minerals		
	The second secon	Space/Abandonmen	t Sealin	g Record				Metres	Gas Fre	sh Salty S	ulphur Minerals		
Depth Set a	То	Type of Sealant L (Material and Typ			Volume (Cubic I			nd at Dept Metres		of Water sh	ulphur Minerals		
0	4.3 Ben:	tonite			88	Kqs	Cluster In Information	or incomplete on for Well as in Cluster	(Please also Il Construction	fill out the addition for each parcel o	nal Cluster Well of land and cluster.) umber of Cluster Well		
								s on this Pr		1			
							Detailed M (8.5" x 14"	lap must be	Location of a provided as a sare not allowed		rger than legal size er Section 11.1 (3)		
							Consent to	o release a	ndditional info	rmation concernin	g the cluster to		
	Well Contr	actor and Well Tech	nician	Information									
Business Na	ame of Well Contracto	r		Well Contra	actor's Lice	ence No.							
Business Ad	dress (Street No./Nar.	ng Estate I	11	Municipality	2	7							
410 R	Postal Code	pale Grenz Business E-ma	il Addre	Sur-19-1	roug.	e	Audit No.	- 0:		Well Contractor No.			
Bus Telepho	JOUL	Bo downing Name of Well Technicia	190	nawk.ig	Sin	et	N		460				
8 1 9 2	426469	Downing of Technician	R	ruce			Date Recei	14 500	2009	Date of Inspection ()	ryyy/mm/dd)		
Well Technicia	an's Licence No. Signa	tune of Technician	N:	Date Subm 2009	itted (yyy	y/mm/dd)	Remarks						
1992 (11/2006)		4			M	inistry's	s Сору			© Queen's I	Printer for Ontario, 2006		



Ministry of the Environment

Well Tag No. for Master Well	(Print Well	Tag No
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A019093

Cluster Well Information for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

Page ____ of ___

Address of Well Location (Street Number/Name, RR	b Lot	Con	cession To	wnship			County	//District/Mur	nicipality	upon request	
51 611 7 60	Load							, , , , , , , , , , , , , , , , , , , ,	/	Signature of Technician/Contract	or Date (yyyy/mm/dd)
City/Town/Village Proving Onta	nce Postal Code		Unit Make M	Hex	Unit Mod	e of Oper entiated, s		lifferentiated	Averaged	Bunchen	2009/04/27
Well # UTM Coordinates on Sketch Zone Easting Northing	Full Depth of Hole Diameter Hole (metres)	Method of Construction	Casing Material	Casing Length (metres)	Screen Inte	rval (metres) To	Annular Space Sealant Used	Static Water Level (metres)	Abandonment Sealant Used	Comments	Date of Completion (yyyy/mm/dd)
184410205015411	6.3 20/10	HSA/DIA	PVC	3.2	3.2	6.3	Benjonite				2009/04/07
8th 184410315015437	4.4 20/16	HSA DIA	μ	3.0	3.0	W	IC.				2009/04/04.
BH 184419995015428	4.3 20	HsA	<u>, (i</u>	1.2	1.2	4.3	1Í				2009/04/08
Well Contractor and Well Technician Inf		iness Address (Str	eet Number/Nai	me, RR)		Municipa	lity		Province	Date 1st Well in Cluster Constructed (yyyy/mm/dd) 2009/04/07	Date Last Well in Cluster Constructed (yyyy/mm/dd) 2009 104 108
George Downing Estate Dril	ling Std. 4	Olue Prin	ripale	Bienv	11	D	Le Rouge)	QC,	Ministry Use Only	
Fostal Code Business Telephone N	10. (incl area code) 2 4 4 49	Well Contractor's	$f \mid Y \mid c$	ness E-mail A	ddress	rawk	1 195 - N	1			DatMAY 2 0 (y2009 1/dd)
Name of Well Technician (First Name, Last Name)		Well Technician's	icence No. Date	Submitted (y	vyý/mm/dd) 1	Signature	of Technician		~	Audit No. c 05166	Remarks 44 60
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MAY 2 0 2009

C-1844 M04460 COST66



Well Tag No. for Master Well (Place Sticker and/or Print Below) 4 m.w. Abandonments Tag A 019093

Master Well Record for **Cluster Well Construction**

Regulation 903 Ontario Water Resources Act

Address of Wel	Il Location (Stree	t Number/Name, RR)		Township Lot Concession								
クリカリ County/District	Municipality	ela Koaa		City/To	own/Villag	•				Province	Postal Co	ode
UTM Coordinate	. 6			 iPS Uni	t Make	Model		Mode of O	peration:	Ontario Undifferentiated	j []-Áverag	Jed J
NAD 8 Overburde		9 9 9 5 6 k Materials (see inst	15 ARS		of this fo	1 C+	rex	Differen	tilated, specify_	Details		
マント・ウィン・スクセスがたから したい 集 カスティス・カー	Most Common Material	Other Materials	Genera Descripti	ja ja	***************************************	(Metres)	Depth From	(Metres)		Diam (Centim		
Δ	banden	4 Monst	oline c	اعد	S		0	n 9	20/10		hadran versus	
1	The first of the first of the second of the										· · · · · · · · · · · · · · · · · · ·	
R	enere c	asing & s Il borehal from 70	ereen	ر ز	yreic	will						THE STATE OF THE S
and.	back fi	11 Dozehol	les us	Th	Den	enst.						
- Cinyni	- Amy	from 7.9	in belo	W/	furto	ice	Public	□ln	Control Control Control Control Control	e r Use Not used	Γ`l Other, s	pecify
70 Di	inface	ad per On	11 1106	Keg	1403		☐ Domes		ommercial 🔲 unicipal 🔲	Dewatering Monitoring		
	200000000000000000000000000000000000000	***************************************	***************************************	**************************************			Imigatio	m ∏Te	enter a contrata de la contrata del contrata de la contrata del contrata de la contrata del contrata de la contrata de la contrata de la contrata del contrata de la contrata del la contrata	Cooling & Air Co	nditioning	
	* , , ,		A1444444	***************************************			Cable	Fool (Convention	☐ Air Per	cussion 🔲 C	Xigging Koring	<u> </u>
	1,000,174,174,174,174,174,174,174,174,174,174	99VVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVV	NAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA					(Reverse)	Jetting	. Üc	ither, specify	
~~~~		The state of the second of the								of Well		
	***************************************	######################################	***************************************				☐Test H	ole ement Welt		oned, Insufficient oned, Poor Wate		
	18000000000000000000000000000000000000		34A+f6d************************************				1	iring Well on (Construc	Other.	specify oned, other, spec	m M. L.	) .
									reen Used	Static W	der Level To	58
		Construction De	ails				Open Hole	Yes [Y/N	unimonal Decrees Names of Order Safeharra (www.		Aetres	Personal Control of the Control of t
Inside Diameter (Centimetres)		Material fibreglass, concrete, ga		Vall ckness	Depth ( From		[ Galvan	zed [~]S	tecl []Fibre	r <b>oen</b> glass [] Con	rete []Pla	stic
							Outside Di	ameter (Cer	ntimetres)	Slot No.	- A CONTRACTOR OF THE CONTRACT	
,				,,,,			Water fou	nd at Depti	Water De	22,500,000,000,000,000,000,000,000,000,0	**************************************	Ministrativa de la companya del companya del companya de la companya de la companya de la companya del comp
							a programme	Metres [	]Gas ⊟Fres	sh Salty	Sulphur [] /	dinerals
		Space/Abandonmen	***************************************	ird				44.4.4.4	]Gas ☐Fres	h []Salty [	Sulphur	Vinerals
Depth Set at (M	letres) o	Type of Sealant U (Material and Type	a)		Volume (Cubic f			nd at Depti Metres	2	Water h	Sulphur []]	Vinerals
0 7	9 Bens	onite Come	J		1001	404	Disinfected	∐Yes [S	Mo. If no, provid	de reason: Date	Master Well G	ompleted billioneted
							Cluster	de verenium.	(District Section )	<u> </u>	<u> </u>	
		444,999994					Informati	on for Well s in Cluster	Construction	for each parce  Please indicate	li of land and i	cluster.)
							Total Well	s on this Pr	operty	Information Log	Sheets Submi	tted
	,,						<u>unl</u>	Mou		Well Cluster		
							(8.5" x/14"	<ol> <li>Sketches</li> </ol>	provided as ar are not allowed	attachment no	larger than leg	gal size
		<b>19</b> ,794, 19,794, p.,				~	☑-Check	box to confi	irm detailed ma	p is provided as mation concer		
		, AAS					the Direct	or upon rec	quest an/Contractor		(yyyy/qnm/dd)	
Business Name o	Well Contra of Well Contractor	actor and Well Tech		2000 11 11 12 12 11 11 12 20 CCC	actor's Lice	nce No	Saster We	W Owner's	li and Owner's	consent to us	<u> </u>	<u> 23</u>
Gerrge	Down	ne rumber RR)	Irillina	118	14	14	Signature	1/L		Date	(yyyyimmidd) ;	3.compensor
410 Ku	l Knne	u palle 101	very i Ve		LaF	Rough	/\/ 	741	Ministry	Use Only	<u>09   10   0</u>	<u> </u>
Province	Postal Code	Business E-mail Bio Communication Business E-mail Business E-m		u.K			Audit No.	0.4	520	Well Contractor N	ló.	Ti company
SUSTELEPHONE NO	o. (inp. area code) 🕻	Name of Well Technicia			me) F	William Co.	Date Race	^{ve} 2077/2	¹ 200	Date of Inspection	i (vyyvirumkid)	
Well Technician's L	icence No. Signat	ure of Technician	// Da	te Subm	nitted (yyy)		Remarks		Stewart Grant Grant Grant Andrews And Angles on the sign			
1992 (11/2006)			<u> </u>	<u> 70ux</u>	/09 12	<u>'D'  </u>				© Queer	's Printer for Onl	ario, 2006



Ministry of the Environment

Well	Tag	No.	for	Ma	ster	Well	(Pr	int We	ell Tag	(No.)
	4	m	, (,	).	C	DELV	V-	on	me	nts
		<u>a</u> 9	L	10	)10	0	9	3		
		-		3		• •		<u> </u>		

# **Cluster Well Information for Cluster Well Construction**

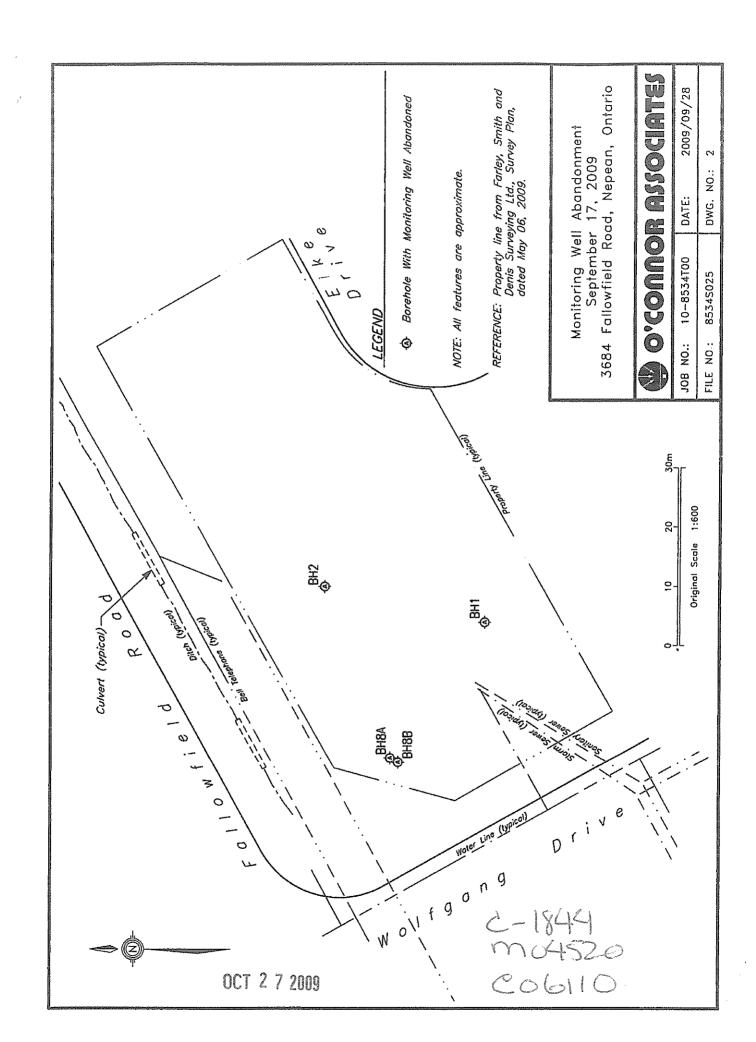
Regulation 903 Ontario Water Resources Act

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Page

3 	Ses of Well Location (Street Number/Name, RR  LESY Fallow Field  WIND Proving Onta	nce Postal Code	G	S Unit Make A	ownship Aodel Elyex	į.	e of Opera	tion 🗍 Und	y/District/Mun	icipality  Averaged	Signature of Technician/Contractor	Date (yyyy/mm/dd)
Well # on Sketch	UTM Coordinates Zone Easting Northing	Full Depth of Hole Diamete Hole (metres) (cm)	Method of Construction	Casing Material	£	Screen Inte	-	Annular Space Sealant Used	Static Water Level (metres)	Abandonment Seafant Used	Comments	Date of 28030000010
BH 1 BH	184410205015411	1								Bentonitea	ement Slurry	2009/09/17
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***************************************												
Well	Contractor and Well Technician Inf	formation									Date 1st Well in Cluster Constructed Date Last V	/ell in Cluster Constructed
Busine	SS Name of Well Contractor  MY DEN INGUAS (STATE DA	, Bu	iness Address (Si	logianin	la Gra	iville!	Municipali	& Rain	2 <u>9</u> .	Province	Ministry Use Only	9/09/17
Name o	of Well Technician (First Name, Last Name)	10. (inc. are) code)        2     6   4   6   6	Well Contractor's	S Licence No. Bus	Siness E-mail / CO MUN e Submitted (y	Address (yy)/mm/dd)	Cuch e Signature	105 Ne	} /	<	Date Insp.  Audit No.   C   C   C   C   C   C   C   C   C	ected (yyyy/mm/dd)
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# Well Tag No. for Master Well (Place Sticker and/or Print Below) 4 m.w. Abandonments Tag A 019093

# Master Well Record for **Cluster Well Construction**

Regulation 903 Ontario Water Resources Act

Address of Wel	Il Location (Stree	t Number/Name, RR)		Towns	hip				Lot	Conces	sion	
クリカリ County/District	Municipality	ela Koaa		City/To	own/Villag	•				Province	Postal Co	ode
UTM Coordinate	. 6			 iPS Uni	t Make	Model		Mode of O	peration:	Ontario Undifferentiated	j []-Áverag	Jed J
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マント・ウィン・スクセスがたから したい 集 カスティス・カー	Most Common Material	Other Materials	Genera Descripti	ja ja	***************************************	(Metres)	Depth From	(Metres)		Diam (Centim		
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and.	back fi	11 borehal	les us	Th	Den	enst.						
- Grynl	- Amy	from 7.9	in belo	W/	furto	ice	Public	□ln	Control Control Control Control Control	e <b>r Use</b> Not used	Γ`l Other, s	pecify
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	* , , ,		A1444444	***************************************			Cable	Fool (Convention	☐ Air Per	cussion 🔲 C	Xigging Koring	<u> </u>
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	***************************************	######################################	***************************************				☐Test H	ole ement Welt		oned, Insufficient oned, Poor Wate		
	18000000000000000000000000000000000000		34A+f6d************************************				1	iring Well on (Construc	Other.	specify oned, other, spec	m M. L.) .
									reen Used	Static W	der Level To	58
		Construction De	ails				Open Hole	Yes [Y/N	unimonal Decrees Names of Order Safeharra (www.		Aetres	Personal Control of the Control of t
Inside Diameter (Centimetres)		Material fibreglass, concrete, ga		Vall ckness	Depth (From		[Galvan	zed [~]S	tecl []Fibre	r oen glass [] Con	rete []Pla	stic
							Outside Di	ameter (Cer	ntimetres)	Slot No.	- A CONTRACTOR OF THE CONTRACT	
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							a programme	Metres []Gas ⊟Fres	sh Salty	Sulphur [] /	dinerals
		Space/Abandonmen	***************************************	ird				44.4.4.4]Gas ☐Fres	h []Salty [Sulphur	Vinerals
Depth Set at (M	letres) o	Type of Sealant U (Material and Type	a)		Volume (Cubic f			nd at Depti Metres	2	Water h	Sulphur []]	Vinerals
0 7	9 Bens	onite Come	J		1001	404	Disinfected	∐Yes [S	Mo. If no, provid	de reason: Date	Master Well G	ompleted billioneted
							Cluster	de verezione	(District Section)	<u> </u>	<u> </u>	
		444,999994					Informati	on for Well s in Cluster	Construction	for each parce Please indicate	li of land and i	cluster.)
							Total Well	s on this Pr	operty	Information Log	Sheets Submi	tted
	,,						<u>unl</u>	Mou		Well Cluster		
							(8.5" x/14"	 Sketches 	provided as ar are not allowed	attachment no	larger than leg	gal size
		19 ,774,				~	☑-Check	box to confi	irm detailed ma	p is provided as mation concer		
		, AAS					the Direct	or upon rec	quest an/Contractor		(yyyy/qnm/dd)	
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410 Ku	l Knne	u palle 101	very i Ve		LaF	Rough	/\/ 	741	Ministry	Use Only	<u>09 10 0</u>	<u> </u>
Province	Postal Code	Business E-mail Bio Communication Business E-mail Business E-m		u.K			Audit No.	0.4	520	Well Contractor N	ló.	Ti company
SUSTELEPHONE NO	o. (inp. area code) 🕻	Name of Well Technicia			me) F	William Co.	Date Race	^{ve} 2077/2	0 009 [Date of Inspection	i (vyyvirumkid)	
Well Technician's L	icence No. Signat	ure of Technician	// Da	te Subm	nitted (yyy)		Remarks		Stewart Grant Grant Grant Andrews And Angles on the sign			
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Ministry of the Environment

Well	Tag	No.	for	Ma	ster	Well	(Pr	int We	ell Tag	(No.)
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Cluster Well Information for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

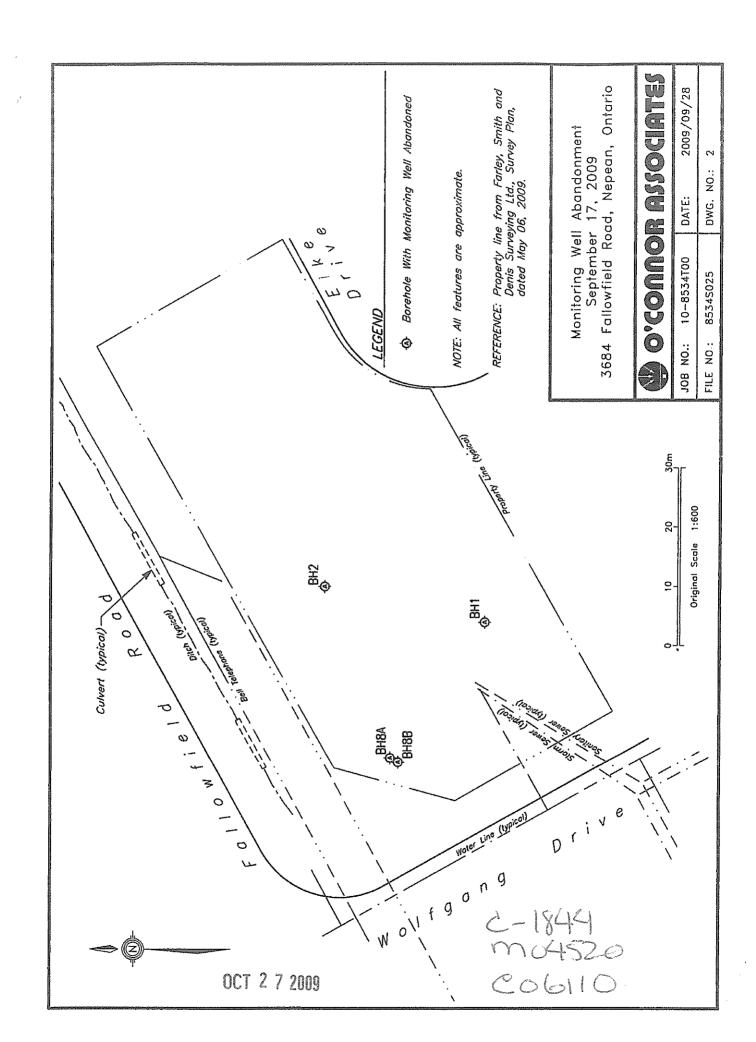
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3 	Ses of Well Location (Street Number/Name, RR LESY Fallow Field WIND Proving Onta	nce Postal Code	G	S Unit Make A	ownship Aodel Elyex	į.	e of Opera	tion 🗍 Und	y/District/Mun	icipality Averaged	Signature of Technician/Contractor	Date (yyyy/mm/dd)
Well # on Sketch	UTM Coordinates Zone Easting Northing	Full Depth of Hole Diamete Hole (metres) (cm)	Method of Construction	Casing Material	£	Screen Inte	-	Annular Space Sealant Used	Static Water Level (metres)	Abandonment Seafant Used	Comments	Date of 28030000010
BH 1 BH	184410205015411	1								Bentonitea	ement Slurry	2009/09/17
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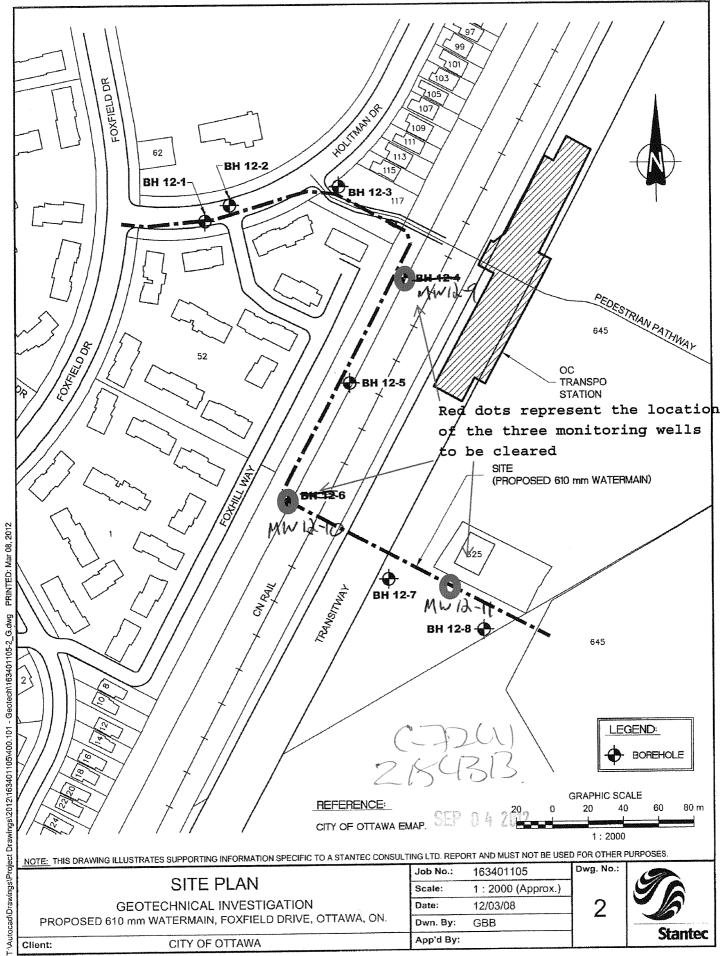
Well	Contractor and Well Technician Inf	formation									Date 1st Well in Cluster Constructed Date Last V	/ell in Cluster Constructed
Busine	SS Name of Well Contractor MY DEN INGUAS (STATE DA	, Bu	iness Address (Si	logianin	la Gra	iville!	Municipali	& Rain	2 <u>9</u> .	Province	Ministry Use Only	9/09/17
Name o	of Well Technician (First Name, Last Name)	10. (inc. are) code) 2 6 4 6 6	Well Contractor's	S Licence No. Bus	Siness E-mail / CO MUN e Submitted (y	Address (yy)/mm/dd)	Cuch e Signature	105 Ne	} /	<	Date Insp. Audit No. C C C C C C C C C	ected (yyyy/mm/dd)
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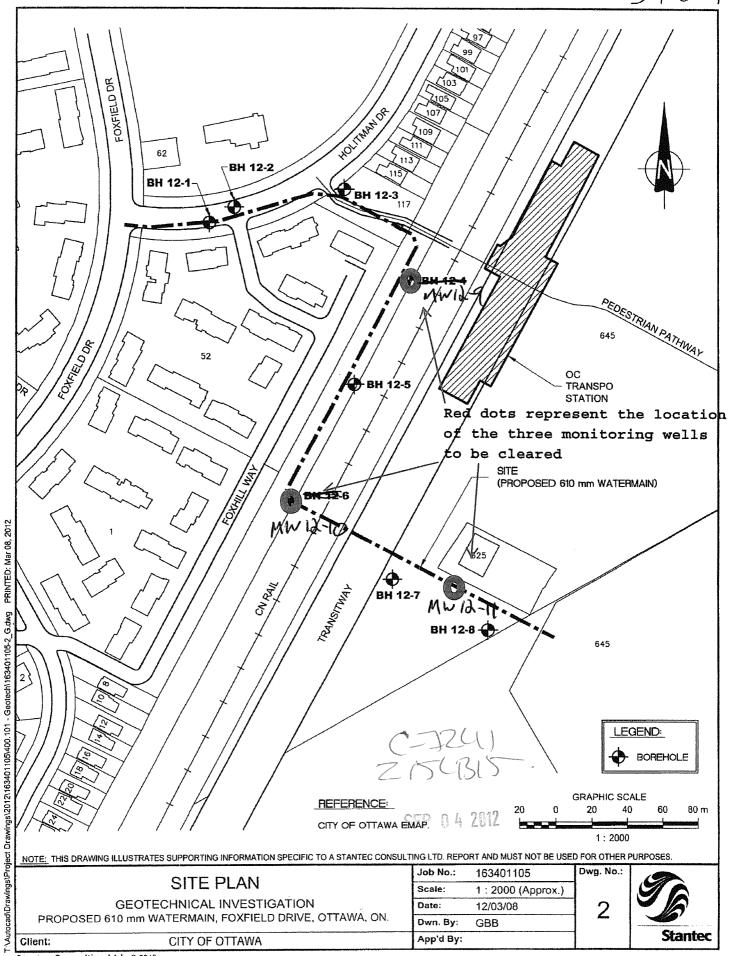
Po)ntario	O Minis the E	try of nvironmen	t	, I			and/or Print Below) A 1334	S-12	859 n 903 Ont	Well F	Record
Measurem	nents reco	rded in:	Metric	Imperial	Tag	j#: A13	33499	/////	37		Page	of
Well Ow First Name		ormation	Last Name	Organizati	op			E-mail Address				
			Cily	Cod l	OTI	ANA	***************************************				by W	Constructed ell Owner
		et Number/Na		west	···	Municipality otta	wa	Province O M	Postal Code	Tel	ephone No. (inc.	area code)
Well Loc	ation											
	Well Aocal	tion (Street Nu $igl) {\mathcal N}$		e)		Township			Lot	Co	ncession	
County/Dis	strict/Munic	ipality				City/Town/Vi	_	, , , , , , , , , , , , , , , , , , , ,		Province	Postal	Code
UTM Coord		ne Easting		lorthing	_	Municipal Pl		lot Number		Ontar Other	10	
		8 4 4 11				•						
General C			ials/Aband mon Materia			ord (see instr ther Materials		e back of this form) Gene	eral Description	 1		th (<i>m/ft</i>)
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Bom		clay			5 !	14		soft.	met		3,1	5.49
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			Annula	r Snace					Results of We	JI Viald T	estina	
Depth Se	et at (<i>m/ft</i>)		Type of Se (Material a	alant Used			e Placed	After test of well yield,	water was:	Draw	Down Re	ecovery
0	213	T	Pe sol) _,		(111	³/ft³)	☐ Clear and sand t☐ Other, specify	ree	(min)	ater Level Time (m/ft) (min)	Water Level (m/ft)
2.13	5.49	1	and.					If pumping discontinue	ed, give reason:	Static Level		
	3' * 1									1	1	
								Pump intake set at (r	n/ft)	2	2	
Meth	od of Co	nstruction			Well U	se		Pumping rate (I/min /	GPM)	3		
Cable To		☐ Diamono		iblic omestic	Comme	_	Not used Dewatering	Duration of pumping		4	4	
☐ Rotary (R		Driving	Liv	estock	Municip	ole 😸	Monitoring		nin	5	5	
☐ Boring ☐ Air percu	ssion	☐ Digging	☐ Inc	gation Iustrial	☐ Cooling	3 & Air Conditio	oning	Final water level end o	of pumping (m/ft)	10	10	<u> </u>
Other, sp				her, specify				If flowing give rate (I/r	nin / GPM)	15	15	
Inside	Open Hole	nstruction R o OR Material	Wall	1	h (<i>m/ft</i>)	☐ Water S	of Well Supply	Recommended pump	depth (m/ft)	20	20	
Diameter (cm/in)		ed, Fibreglass, Plastic, Steel)	Thickness (cm/in)	From	То	Replace Test Ho	ement Well le			25	25	
3.45	pla	stre	DE 8.	0	2-44	Recharg	·	Recommended pump (I/min / GPM)	rate	30	30	
	1					☐ Observa Monitorir	ition and/or	Well production (I/min	/ GPM)	40	40	
						Alteratio	on l	Disinfected?		50	50	
		-				Abando	· · · · · · · · · · · · · · · · · · ·	Yes No		60	60	
Outside		onstruction Relaterial	ecord - Scre	T The state of the	ו (<i>m/ft</i>)	Abandor Water Q	ned, Poor	Please provide a map	Map of We below following i			
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		Kind of Water Other, spe		Untested	From	th (<i>m/ft</i>) To	Diameter (cm/in)		•			
	.	Kind of Water		Untested	0	5.49	8,52					
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(m/		Other, spe										
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SKAD-	- Soy(Semy et Number/Nai	Lz		<i>a</i>	7 2 4	1 /	Compression		****		
Dusiness Add	uress (Stree イン しゃ	et Number/Mai	ne)-	KRI	Mu	inicipality	411	Comments:				
rovince	Po	stal Code	Business	E-mail Add	ress	1 - 11		TAZ-II		T Essential	W citil nervanomiza	- 100 h
Bus.Telephon	ne No. (inc. a	rea code) Nai	6 പ ⁄ല ne of Well T				con	Well owner's Date Pa information package	eckage Delivered	(0.000000000000000000000000000000000000	Ministry Use of No.	
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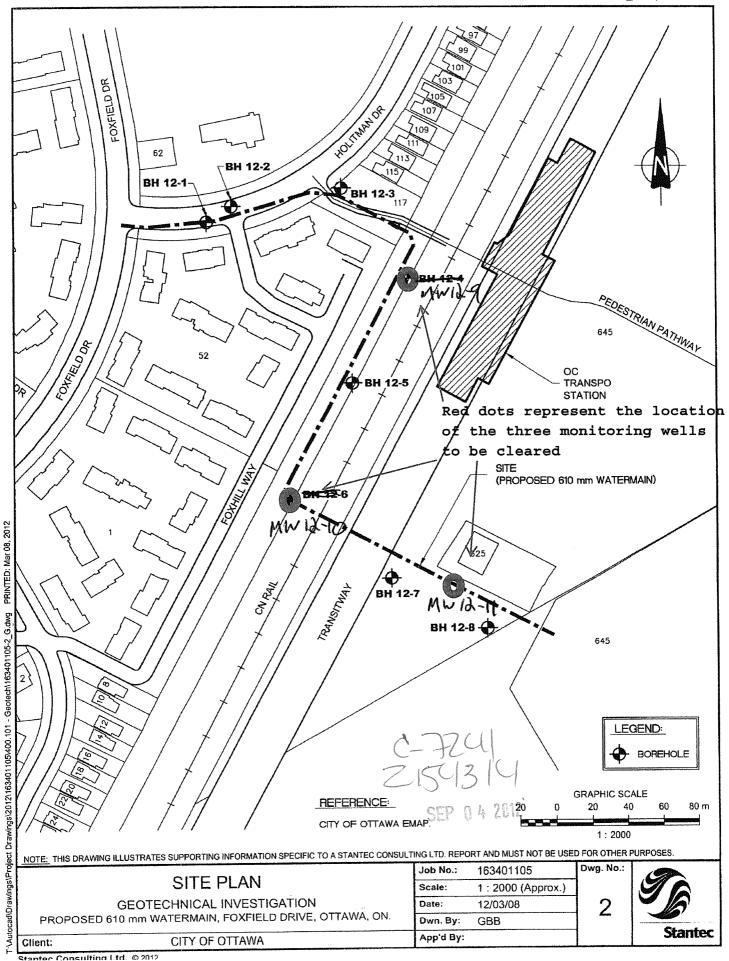
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Ontario	Ministry of	Well Ta	g No. (Place Sticker a	nd/or Print Below)	15-12	2859	Well I	Record	
Measurements recorded	the Environment	Tag	j#: A133500	A133500	Regulatio	rulation 903 Ontario Water Resources Act Page of			
Well Owner's Inform	garden a	al				Pi	age	of	
First Name	Last Name Organi			E-mail Address			_	Constructed	
Mailing Address (Street N	umber/Name)	OHawa	Municipality OTAWA	Province	Postal Code	Telepho		Vell Owner c. area code)	
Well Location	Avenue mest		Olitora	ON	<u> </u>	7 11			
Address of Well Location (1	Township		Lot	Conce	ssion		
County/District/Municipality	ty	C	City/Town/Village			Province	Posta	al Code	
UTM Coordinates Zone , E	Easting , Northing		OTAWA, Municipal Plan and Suble	ot Number		Ontario Other			
NAD 8 3 1 8	4411298501	4 824	Mullicipal Flam and Oubli	ot Number		Other			
	ck Materials/Abandonmen Aost Common Material		ord (see instructions on the er Materials		al Description	1	Der	pth (<i>m/ft)</i>	
	Topsoil	ļ	✓ .	O co. a	ar Description	1	From	To .07	
***************************************	Clas	-ْ ک		soft.			,07	3.1	
Brun Brun Brun / Cry	clay	5) /	.4	Soft, a	. Ken		3.1	5.79	
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		Titi in see oo oo oo o							
	Annular Space	INCOME AND DESIGNATION OF THE PROPERTY OF THE	,			ell Yield Test			
Depth Set at (m/ft) From To	Type of Sealant Us (Material and Type		Volume Placed (m³/ft³)	After test of well yield, v		Draw Dow	Level Time		
© Q 3\$	Flushmand/ca	vete		Other, specify If pumping discontinued	d, give reason:	(min) (m/t	ft) (min)	(m/ft)	
31 2.13	Be sel.				•	Level 1	1		
2.13 5.79	Sand			Pump intake set at (m.	/ft)	2	2		
				Pumping rate (I/min / G	GPM)	3	3		
	Diamond Dublic	Well Us	rcial Not used	Duration of pumping		4	4		
Rotary (Conventional)	☐ Jetting ☐ Domestic ☐ Driving ☐ Livestock	☐ Municipa , ☐ Test Hol		hrs + m	in	5	5		
Air percussion	☐ Digging ☐ Irrigation ☐ Industrial	Cooling	& Air Conditioning	Final water level end of	pumping (m/ft)	10	10	·	
Other, specify Direct	<u> </u>	cify		If flowing give rate (I/m	in / GPM)	15	15	-	
Inside Open Hole OR		Depth (<i>m/ft)</i>	Status of Well Water Supply	Recommended pump	depth (m/ft)	20	20		
Diameter (Galvanized, Fi	tic, Steel) (cm/in) From		Replacement Well Test Hole	Recommended pump	rate	25	25		
3.45 plast	ic 356 0	2.74	Recharge Well Dewatering Well	(I/min / GPM)		30	30		
			Observation and/or Monitoring Hole	Well production (I/min /	/ GPM)	50	50		
			Alteration (Construction)	Disinfected? Yes No		60	60		
Const	ruction Record - Screen		Abandoned, Insufficient Supply Abandoned, Poor	tes no	Map of W	ell Location			
Outside Diameter (Plastic, Galvania	Slot No.	Depth (<i>m/ft</i>)	Water Quality Abandoned, other,	Please provide a map b	elow following	instructions on t			
(cŋvin)			specify	L	shelle	12-1 May	17		
1.21 plat	e 10 2:1	7 3.7/	Other, specify		MW	12-1	U		
	Vater Details	H	ole Diameter		on	May	0		
Water found at Depth Kind	d of Water: ☐ Fresh ☐ Unte		h (<i>m/ft</i>) Diameter To (can be described)						
(m/ft) Gas Gas Water found at Depth Kind	Other, <i>specify</i> d of Water:	sted O	5.79 8.25						
(m/ft) Gas G	Other, <i>specify</i> d of Water:	sted							
(m/ft) Gas G									
Well C Business, Name of Well Cor	Contractor and Well Technotractor		ion I Contractor's Licence Ņo.						
Strata Soil	Samphie	7	1241	Commente					
Business Address (Street N 2 - 147 W.est	lumber/Name) Bover week f		hrond Hill	Comments:					
Province Postal	I Code Business E-mail	Address		Well owner's Date Pa	ckage Delivere	d][inistry Use	e Only	
Bus.Telephone No. (inc. area	code) Name of Well Technici	an (Last Name, F	First Name)	information package		Audit N	o. <u>-</u>	-	
10576993 Well Technician's Licence No.	Signature of Technician and/o	Brian or Contractor Date	e Submitted	Yes	ork Completed			4315	
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UP Or		Environmer	nt	Tand	4. A122501	V1356W		n 903 O			ources Act
Measuremer	nts recorded in:	Metric [] Imperial	rag	#: A133501	A133.50			Pag	е	of
Well Owner	er's Information	Last Name	Organizat	ion		E-mail Addre	ess			□ Well (Constructed
First Name		City	<u> </u>	Other						by We	ell Owner
	ess (Street Number		rad		Municipality ONAWA	Province	Postal Code	ااد	elephon	e No. (inc.	area code)
Well Locat	~~· ~	9000	~ ~								
	∉ll Location (Street	Number/Nam	e)		Township		Lot		Concess	ion	
fort	of Driv	₹.			City/Town/Village			Province	ce	Postal	Code
County/Distr	ict/Municipality				AWAVT O			Onta	rio		-
	ates Zone Easting		Northing		Municipal Plan and Subl	ot Number		Other			
NAD 8			5014		ord (see instructions on the	back of this form)					
General Col		ommon Mater			ner Materials		Seneral Description)		Dept From	th (<i>m/ft)</i> To
BIK	Topso	o i 1		5,	-1	Dry	,			0	,07
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Born	TILL			***************************************		Hard.			1	7.5	3-1
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							***************************************				and the second
100		Annul	ar Space				Results of W	A STATE OF THE PARTY OF THE PAR			
Depth Set From	at (<i>m/ft</i>) To		ealant Used and Type)	i	Volume Placed (m³/ft³)	After test of well y			w Down Water Le		ecovery Water Level
0		Wishoon		vale		Other, speci		(min) Static	(m/ft)	(min)	(m/ft)
3)	2.13	Re. 50-1				If pumping discor	ntinued, give reason:	Level			
213	5,79	C /						1		1	
2.17		20-1				Pump intake set	at (m/ft)	2		2	
				VAZ-11-11.		Pumping rate (I/r	nin / GPM)	3		3	
Metho ☐ Cable Too	od of Construction ☐ Diar		Public	Well Us				4		4	
Rotary (Co	onventional) 🗌 Jetti		Domestic _ivestock	☐ Municip		Duration of pum hrs +	pıng min	5		5	
☐ Rotary (Re ☐ Boring	everse)		rrigation	Cooling	& Air Conditioning	Final water level of	end of pumping (m/ft)	10		10	ALEXANDER CONTRACTOR C
Air percus	sion ocity over pu		ndustrial Other, <i>specif</i>	v		If flowing give rai	to (Umin / CDM)	15	1.0.1.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0	15	
***************************************		n Record - C	asing		Status of Well	I III IIOWIIIG GIVE IA	te (//////// GE/W/	20		20	
Inside Diameter	Open Hole OR Mater (Galvanized, Fibregla	ial Wall ss, Thicknes		pth (<i>m/ft</i>)	☐ Water Supply ☐ Replacement Well	Recommended	pump depth (m/ft)	25		25	
(o m∕in)	Concrete, Plastic, Ste		From	То	Test Hole	Recommended	pump rate	1			
3.45	plastic	-356	0	2.74	Recharge Well Dewatering Well	(I/min / GPM)		30		30	
	/				Observation and/or Monitoring Hole	Well production	(I/min / GPM)	40	A-10-24-11-11-11-11-11-11-11-11-11-11-11-11-11	40	
					Alteration	Disinfected?		50	***************************************	50	
					(Construction) Abandoned,	Yes No)	60		60	
	Construction	on Record - So	reen		Insufficient Supply Abandoned, Poor	Discounting	Map of W map below following			o book	
Outside Diameter	Material (Plastic, Galvanized, SI	teel) Slot No.		pth (<i>m/ft)</i> To	Water Quality Abandoned, other,		1 M 1			e back.	
(Emyin)	·		2.70		specify		Labella	, A	11		
9-01	plushe	10	W.	1 3/11	Other, specify		MW	12-	i j		
							Mn	M	ap:		
Water found	at Depth Kind of V	Details	Untest		Hole Diameter oth (<i>m/ft</i>) Diameter		07		<i>"</i>		
	ft) Gas Other,	t/		From O	To (cm/in)						
	at Depth Kind of V		n Untest	3u -	274 8-25						
	ft) Gas Other, at Depth Kind of W		n Untest	2.7	5.79 5.71						
	f) Gas Other										
		actor and W	ell Technic		etion fell Contractor's Licence No.						
Susiness Nai	me of Well Contracto	Somyl	l No	V	7 2 4 1						
Business Add	dress (Street Number	er/Name)	7/2	2 / M	unicipality	Comments:			·····		
2-/47 Province	Postal Code		ess E-mail A	ddress.	Frank Hill					_	
OW	24B1	166 W	recero	bo Od	stasoil, am		ate Package Deliver	ed		nistry Use	Only
	e No. (inc. area code)	Name of We	II Techniciar	(Last Name	, First Name)	information package delivered	YYYMM	o o	Audit No		1314
	6 4 9 5 0 7 n's Licence No. Signa		Seath cian and/or	Bri a Contractor Da		Yes D	ate Work Completed	11	Est timo torr		
3 6	1 6				01/208/03	□ No >	401208	00	rðild.	142	012
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Well ID Number: 1514574 Well Audit Number: Well Tag Number:

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

Well Location

Address of Well Location	
Township	NEPEAN TOWNSHIP
Lot	020
Concession	RF 02
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 441421.70 Northing: 5015601.00
Municipal Plan and Sublot Number	
Other	_

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	CLAY	GRVL		0 ft	13 ft
	ROCK	LMSN		13 ft	19 ft
	SNDS	LMSN	LYRD	19 ft	64 ft
	LMSN			64 ft	69 ft
	SNDS	LMSN	LYRD	69 ft	72 ft
WHIT	SNDS			72 ft	82 ft
	SNDS	LMSN	LYRD	82 ft	132 ft
GREY	LMSN			132 ft	133 ft
	SNDS	LMSN	LYRD	133 ft	146 ft
WHIT	SNDS			146 ft	155 ft
WHIT	SNDS	LYRD		155 ft	175 ft

Annular Space/Abandonment Sealing Record

Depth	Depth	Type of Sealant Used	Volume
From	To	(Material and Type)	Placed

Method of Construction & Well Use

Method of Construction	Well Use
Rotary (Reverse)	
	Municipal

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
10 inch	STEEL		19 ft
10 inch	OPEN HOLE		175 ft

Construction Record - Screen

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 1558

Results of Well Yield Testing

After test of well yield, water was	
If pumping discontinued, give reason	
Pump intake set at	
Pumping Rate	20 GPM
Duration of Pumping	
Final water level	
If flowing give rate	
Recommended pump depth	
Recommended pump rate	
Well Production	PUMP
Disinfected?	

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL	34 ft		
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
	Fresh

Hole Diameter

From To Diameter		Depth To	Diameter
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APPENDIX 3

QUALIFICATIONS OF ASSESSORS

Mandy Witteman, E.I.T.



Geotechnical Engineering

Environmental Engineering

Hydrogeology

Geological Engineering

Materials Testing

Building Science

Archaeological Services

POSITION

Environmental Engineer

EDUCATION

Carleton University, M.A.Sc., Environmental Engineering, 2013 Carleton University, B.Eng., Environmental Engineering, 2008

MEMBERSHIPS & AWARDS

Alberta Professional Engineers and Geoscience Association NSERC Industry R&D Scholarship

EXPERIENCE

2018 - Present

Paterson Group Inc.

Consulting Engineers Geotechnical and Environmental Division Environmental Engineer

2014 - 2015

Thurber Engineering Limited

Oil Sand Tailings Group Tailings Engineer

2014 - 2013

Carleton University

Department of Civil & Environmental Engineering Research Engineer

2013 - 2009

Carleton University

Department of Civil & Environmental Engineering Research Assistant and Teachers Assistant

2008 - 2009

SLR Consulting Limited

Contaminated Sites

Junior Environmental Engineer

Mark S. D'Arcy, P. Eng.

patersongroup

Geotechnical Engineering

Environmental Engineering

Hydrogeology

Geological Engineering

Materials Testing

Building Science

Archaeological Services

POSITION

Associate and Supervisor of the Environmental Division Senior Environmental/Geotechnical Engineer

EDUCATION

Queen's University, B.A.Sc.Eng, 1991 Geotechnical / Geological Engineering

MEMBERSHIPS

Ottawa Geotechnical Group Professional Engineers of Ontario

EXPERIENCE

1991 to Present

Paterson Group Inc.

Associate and Senior Environmental/Geotechnical Engineer Environmental and Geotechnical Division Supervisor of the Environmental Division

SELECT LIST OF PROJECTS

Mary River Exploration Mine Site - Northern Baffin Island Agricultural Supply Facilities - Eastern Ontario

Laboratory Facility – Edmonton (Alberta)

Ottawa International Airport - Contaminant Migration Study - Ottawa

Richmond Road Reconstruction - Ottawa

Billings Hurdman Interconnect - Ottawa

Bank Street Reconstruction - Ottawa

Environmental Review - Various Laboratories across Canada - CFIA

Dwyer Hill Training Centre - Ottawa

Nortel Networks Environmental Monitoring - Carling Campus - Ottawa

Remediation Program - Block D Lands - Kingston

Investigation of former landfill sites - City of Ottawa

Record of Site Condition for Railway Lands - North Bay

Commercial Properties - Guelph and Brampton

Brownfields Remediation - Alcan Site - Kingston

Montreal Road Reconstruction - Ottawa

Appleford Street Residential Development - Ottawa

Remediation Program - Ottawa Train Yards

Remediation Program - Bayshore and Heron Gate

Gladstone Avenue Reconstruction – Ottawa

Somerset Avenue West Reconstruction - Ottawa