

**ALBERTA TRANSPORTATION SPRINGBANK OFF-STREAM RESERVOIR PROJECT  
RESPONSE TO NRCB AND AEP SUPPLEMENTAL INFORMATION REQUEST 1, JULY 28, 2018**

Appendix IR375-1 Limited Phase I Environmental Site Assessment  
May 2019

**APPENDIX IR375-1 LIMITED PHASE I ENVIRONMENTAL SITE  
ASSESSMENT**

**ALBERTA TRANSPORTATION SPRINGBANK OFF-STREAM RESERVOIR PROJECT  
RESPONSE TO NRCB AND AEP SUPPLEMENTAL INFORMATION REQUEST 1, JULY 28, 2018**

Appendix IR375-1 Limited Phase I Environmental Site Assessment  
May 2019



**Springbank Off-Stream Project  
Limited Phase I Environmental Site  
Assessment**

January 30, 2019

Prepared for:

Alberta Transportation

Prepared by:

Stantec Consulting Ltd.

Project Number: 110773396

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## Sign-off Sheet

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**SPRINGBANK OFF-STREAM PROJECT  
LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT**

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# SPRINGBANK OFF-STREAM PROJECT LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT

## Executive Summary

Stantec Consulting Ltd. (Stantec) was retained by Alberta Transportation (AT) to conduct a Limited Phase I Environmental Site Assessment (ESA) of the Springbank Off-stream Reservoir Project (SR1), herein referred to as the "Project Area". The Project Area is proposed to be centred in Section 24 Township 024 Range 04 West of the Fifth Meridian (24-024-04 W5M) and covers all or part of the following:

- NW ¼ 17-024-03 W5M
- 18-024-03 W5M
- 19-024-03 W5M
- 03-024-04 W5M
- NE ¼ 04-024-04 W5M
- 10-024-04 W5M
- 13-024-04 W5M
- 14-024-04 W5M
- 15-024-04 W5M
- E ½ 22-024-04 W5M
- 23-024-04 W5M
- 24-024-04 W5M
- 25-024-04 W5M
- 26-024-04 W5M
- 27-024-04 W5M
- NE ¼ 28-024-04 W5M

The purpose of the Limited Phase I ESA is to determine if evidence of potential or actual contamination exists in connection with the Project Area, which may be present as a result of current or past activities within the Project Area or neighbouring properties (within 100 metres [m] of the Site). A site visit was not conducted as part of this Limited Phase I ESA.

Based on the records review, multiple pipelines were identified within the Project Area. The contents of the pipelines consisted of high vapour (HV) product (i.e., butane, ethylene, propane, pentanes, liquid ethane), light vapour (LV) product (i.e., condensate, diesel fuel, gasoline, heating oil, hydrocarbon diluents, kerosene, solvents), natural gas and condensate. The pipelines have been operating within the Project Area since at least 1987 and the status of the pipelines is either operational, discontinued or abandoned. Additionally, a proposed pit was identified within the Project Area at SW ¼ 10-024-04 W5M. The status date of the proposed pit was February 23, 1995. No additional information was provided and it is unknown if the pit was active.

Several releases and valve sites were located within 100 m of the Project Area. The information obtained indicated that reclamation certificates were issued for these locations. A Volker Stevin Highway Maintenance yard was located within the NE ¼ 10-024-04 W5M, approximately 50 m southwest of the Project Area. A records review indicated that two aboveground storage tanks (ASTs) were located on the property. Additionally, a groundwater monitoring program had been conducted on the property.

A decommissioned pit was identified within the NE ¼ 10-024-04 W5M, approximately 50 m southwest of the Project Area. The status date of the decommissioned pit was February 23, 1995. No additional information was provided.



## **SPRINGBANK OFF-STREAM PROJECT LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT**

Based on the findings of the Limited Phase I ESA, the following potential environmental concerns were identified:

- A Volker Stevin Highway Maintenance Yard was identified within the NE ¼ 10-024-04 W5M, approximately 50 m southwest of the Project Area. Two ASTs were reported to be present at this maintenance yard. Maintenance yard activities, including the presence of two ASTs, are considered to represent a potential environmental concern to the Project Area.
- A decommissioned pit was located offsite within the NE ¼ 10-024-04 W5M, approximately 50 m southwest of the Project Area. It is unknown as to what the pit was utilized for, or what the quality/source of the fill material was during backfilling activities. Additionally, it is unknown if any waste debris was placed in the pit during backfilling. Historically, pits had fuel storage tanks associated with them. The presence of the decommissioned pit is considered to represent a potential environmental concern to the Project Area.
- Multiple pipelines were identified within the Project Area. The contents of the pipelines included HV products, LV products, natural gas and condensate. The presence of multiple pipelines within the Project Area are considered to represent a potential environmental concern.
- The regulatory databases indicated that a proposed pit was located onsite within the Project Area at SW ¼ 10-024-04 W5M. The status date of the proposed pit was February 23, 1995. No additional information was provided. It is unknown as to what pit was utilized for, or what the quality/source of the fill material was during backfilling activities. Additionally, it is unknown if any waste debris was placed in the pit during backfilling. Historically, pits had fuel storage tanks associated with them. The presence of a potential pit is considered to represent a potential environmental concern to the Project Area.

Based on the findings of this Limited Phase I ESA, it is recommended that should staining or unusual odours be encountered during disturbance or excavation associated any construction activities, a qualified environmental professional should be engaged to assess the potential for environmental impacts within the Project Area.



**SPRINGBANK OFF-STREAM PROJECT  
LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT**

Introduction  
January 30, 2019

## 1.0 INTRODUCTION

Stantec Consulting Ltd. (Stantec) was retained by Alberta Transportation (AT) to conduct a Limited Phase I Environmental Site Assessment (ESA) of the Springbank Off-stream Reservoir Project (SR1), herein referred to as the "Project Area". The storage reservoir (dry pond) is proposed to be centred in Section 24, Township 024, Range 04, West of the Fifth Meridian (24-024-04 W5M). The northwest and southeast corner points<sup>1</sup> of the Project Area are as follows:

- NW: -34703.218 E, 5660917.356 N
- SE: -27570.395 E, 5652979.442 N
- NW: 51° 5' 0.33" N, -114° 29' 43.09" W
- SE: 51° 0' 44.84" N, -114° 23' 34.44" W

The Project Area would cover all or part of the following:

- |                      |                      |                      |
|----------------------|----------------------|----------------------|
| • NW ¼ 17-024-03 W5M | • 03-024-04 W5M      | • 23-024-04 W5M      |
| • 18-024-03 W5M      | • NE ¼ 04-024-04 W5M | • 24-024-04 W5M      |
| • 19-024-03 W5M      | • 10-024-04 W5M      | • 25-024-04 W5M      |
|                      | • 13-024-04 W5M      | • 26-024-04 W5M      |
|                      | • 14-024-04 W5M      | • 27-024-04 W5M      |
|                      | • 15-024-04 W5M      | • NE ¼ 28-024-04 W5M |
|                      | • E ½ 22-024-04 W5M  |                      |

A Site Plan is provided as Figure 1.0 in **Appendix A**.

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<sup>1</sup> Coordinate values are in 3TM NAD83





# SPRINGBANK OFF-STREAM PROJECT LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT

Scope of Work  
January 30, 2019

## 2.0 SCOPE OF WORK

The Limited Phase I ESA carried out by Stantec for the Project Area was carried out in general accordance with the Canadian Standards Association's (CSA) *Phase I Environmental Site Assessment* Standard Z768-01 (R2016). The Phase I ESA consisted of the following:

- Records review including, but not limited to, aerial photographs, geological and topographic maps
- Review of available environmental databases and records for properties located within 100 m of the Site
- Review of Ecolog Environmental Risk Information Services (Ecolog ERIS) report
- Review of previous environmental reports (if available)
- Evaluation of information and preparation of the report provided herein

A Phase I ESA does not include sampling or testing of air, soil, groundwater, surface water or building materials. For this Limited Phase I ESA, no enhancements to the CSA standard were made. This assessment did not include entering any buildings located within the Site, a review or audit of operational environmental compliance issues, or of any environmental management systems, which may exist for the Site. No assessment of the Site for the potential presence of hazardous building materials, microbial contamination or moisture damage was conducted. No sampling or intrusive investigation was conducted. A site visit was not conducted as part of this Limited Phase I ESA.

The professional qualifications of the project team are provided in **Appendix B**.

## 2.1 REGULATORY FRAMEWORK

In Alberta, the management and investigation of contaminated sites is regulated under the Environmental Protection and Enhancement Act (EPEA) and the Water Act. EPEA prohibits the release of substances in an amount that causes or may cause a significant adverse effect. When a release occurs, the release must be reported, and remedial measures must be implemented. The EPEA authorizes the Director (i.e., a person designated as the Director by the Minister as per EPEA) to issue Remediation Certificates when contaminated land has been remediated. The Remediation Certificate protects the responsible party from future environmental protection orders related to the remediated site. The Water Act regulates the management of water supplies and water quality, including groundwater.

In January 2019, Alberta Environment and Parks (AEP) finalized and released new remediation guidelines (Alberta Tier 1 and Tier 2) Soil and Groundwater Remediation Guidelines. These guidelines allow three management options: Tier 1, Tier 2 and Exposure Control. Remediation of a site under a Tier 1 approach involves the use of generic guidelines. A Tier 2 approach allows for the consideration of site-specific conditions through the modification of generic (Tier 1) guidelines. Exposure Control management involves risk management through exposure barriers or administrative controls based on site-specific risk assessment. Unconditional regulatory closure is available for sites managed to Tier 1 and Tier 2 objectives (AEP 2019a and AEP 2019b). Stantec understands that starting on January 1,



**SPRINGBANK OFF-STREAM PROJECT  
LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT**

Scope of Work  
January 30, 2019

2019, AEP will provide a letter of compliance when Tier 2 objectives have been met. The AEP letter of compliance is not expected to protect the responsible party from future environmental protection orders as provided by the Remediation Certificate when sites meet Tier 1 objectives.

A Phase I ESA can involve a review of any site buildings for the potential presence of hazardous materials related to building components and materials. Specific federal or provincial regulations, guidelines or codes of practice exist for these individual hazardous materials. However, as noted above, this Phase I ESA did not include assessment for the potential presence of hazardous building materials, microbial contamination or moisture damage due to the absence of buildings on the Site. However, a site visit was not conducted as part of this Limited Phase I ESA.

**2.2 METHODOLOGY**

The applicable search distance for the records review included the neighbouring properties within 100 m of the Site. The exceptions were water well records, which were searched within a 500 m search radius, and topographic, drainage and regional geological/hydrogeological data, which included a 300 m search radius. For select records, the Site was also included. Supporting documentation is included in **Appendix C**. Information sources are summarized below in Table 1.

**Table 1 Summary of Information Sources**

Source	Information/Contact
Aerial Photographs	1949 – AS 01688 1962 – AS 0831 1974 – AS 1316 1987 – AS 3660 1997 – AS 4837, AS 4803 2008 – AS 5459, AS 5458 2010 to 2017 – Google Earth Pro
Previous Environmental Reports	No previous environmental reports were provided to Stantec for review.
Geological and Geotechnical Reports	The following topographic and geological maps were reviewed: Alberta Energy Regulator and Alberta Geological Survey, 2013. “Bedrock Geology of Alberta”. Scale 1:1,000,000 Moran, S.R., 1986. “Surface Materials for the Calgary Urban Area: Calgary Sheet”. Scale 1:50,000
Environmental Control Orders, Stop Orders, Prosecutions, or Tickets	Alberta Environment and Parks (AEP) Freedom of information and Protection of Privacy (FOIP) office, Edmonton, Alberta, (780) 427-4429 Environmental Law Centre (ELC) Enforcement, <a href="http://elc.ab.ca">http://elc.ab.ca</a>
Reportable Spill/Release Occurrences	Abacus Datagraphics: Alberta Energy Regulator (AER) pipeline and oil well database, <a href="http://www.abacusdatagraphics.com">http://www.abacusdatagraphics.com</a> Ecolog ERIS report, <a href="http://www.erisinfo.com/ca/">http://www.erisinfo.com/ca/</a>
Contaminated Sites	AEP, Environmental Site Assessment Repository (ESAR), <a href="http://www.esar.alberta.ca/esarmain.aspx">http://www.esar.alberta.ca/esarmain.aspx</a> Ecolog ERIS report, <a href="http://www.erisinfo.com/ca/">http://www.erisinfo.com/ca/</a>



**SPRINGBANK OFF-STREAM PROJECT  
LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT**

Scope of Work  
January 30, 2019

**Table 1 Summary of Information Sources**

Source	Information/Contact
Environmental Approvals, Licenses, Registrations, and Permits	Abacus Datagraphics, AER pipeline and oil well database, <a href="http://www.abacusdatagraphics.com">http://www.abacusdatagraphics.com</a> AEP, ESAR, <a href="http://www.esar.alberta.ca/esarmain.aspx">http://www.esar.alberta.ca/esarmain.aspx</a>
Landfill Records	Help End Landfill Pollution (HELP) database (1988) Alberta Environment (AENV) and Environment Canada: Active and Inactive Land Disposal Sites (1982) AENV Industrial Landfill Sites (1982)
Underground & Aboveground Storage Tanks	AEP, ESAR, <a href="http://www.esar.alberta.ca/esarmain.aspx">http://www.esar.alberta.ca/esarmain.aspx</a> Ecolog ERIS report, <a href="http://www.erisinfo.com/ca/">http://www.erisinfo.com/ca/</a>
Water Well Records	AEP Water Well Information Database, <a href="http://groundwater.alberta.ca/waterwells">http://groundwater.alberta.ca/waterwells</a>
Other Available Information	Alberta Environment and Parks (AEP). 2019a. "Alberta Tier 1 Soil and Groundwater Remediation Guidelines". Edmonton, AB AEP. 2019b. "Alberta Tier 2 Soil and Groundwater Remediation Guidelines". Edmonton, AB Abacus Datagraphics, AER pipeline and oil well database, <a href="http://www.abacusdatagraphics.com">http://www.abacusdatagraphics.com</a> Ecolog ERIS report, <a href="http://www.erisinfo.com/ca/">http://www.erisinfo.com/ca/</a>







# SPRINGBANK OFF-STREAM PROJECT LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT

Site Description  
January 30, 2019

## 3.0 SITE DESCRIPTION

### 3.1 GENERAL SITE INFORMATION

The Project Area is located 15 km west of the City of Calgary, in Rocky View County. Most of the land in the Project Area is privately owned and lies within land use districts identified by the Rocky View County Land Use Bylaw (Bylaw C-4841-97). Rocky View County's Land Use Bylaw outlines the types of development allowed in each land use district and provides planning guidance for development in those areas. The land use districts within the Project Area include the:

- Ranch and Farm District
- Agricultural Holdings District
- Farmstead District
- Residential District
- Public Services District
- Direct Control District

Most privately-owned land within the Project Area is used for ranching and farming. There are six farmsteads, eight residential areas and four agricultural areas. There are also three regions within the Project Area that are designated as either 'direct control' or 'public service' lands, and these lands are owned by local organizations that operate summer camps on these properties. Boundaries between privately owned areas of land appear to be fenced.

### 3.2 PHYSICAL SETTING

#### 3.2.1 Geology and Hydrogeology

The Quaternary deposits in the Project Area consist of glaciolacustrine silt and clay from the Calgary Formation and till of the lower Spy Hill Formation (Moran 1986). Post-glacial fluvial channel sediments can be found next to the Elbow River, in the southern part of the Project Area. These sediments developed as the Elbow River exported eroded material from upstream areas and deposited coarse alluvium (sand and gravel) in the floodplain of the Elbow River valley.

#### 3.2.2 Topography and Drainage

The Project Area is in the Foothills Parkland Natural Subregion of Alberta, and the regional topography is considered to be rolling. Additionally, the Project Area is within the Elbow River Watershed, which is part of the Bow River Basin. The regional surface drainage (anticipated shallow groundwater flow direction) appears to be to the south towards the Elbow River. Portions of the Project Area borders the north bank of the Elbow River.





# SPRINGBANK OFF-STREAM PROJECT LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT

Regulatory Database and Records Review  
January 30, 2019

## 4.0 REGULATORY DATABASE AND RECORDS REVIEW

Available environmental databases and records were searched to determine if the Site, adjacent or neighbouring properties were listed. The databases and search results are presented below. The federal, provincial, and municipal departments, which provided regulatory information for the Site, are listed in **Appendix C**.

### 4.1 REGULATORY INFORMATION

#### 4.1.1 Ecolog ERIS

An Ecolog ERIS database report was commissioned for the Project Area and surrounding properties within 250 m radius of the Project Area. Below is a summary of the Ecolog ERIS report.

**Table 2 ERIS Database Records**

Database	Number of Plottable Records for the Site	Number of Records within 250 m of the Site	Total Number of Records
Well Licenses (AER OGW)	1	0	1
Alberta Oil and Gas Wells (AOGW)	1	0	1
ERIS Historical Searches (EHS)	1	0	1
Environmental Site Assessment Repository (ESAR)	0	1	1
Field Inspection Incident Report (FIS)	0	1	1
PTMAA Fuel Storage Tanks (FST)	0	3	3
Conglomerate and Waste Management Facilities (PITS)	1	1	2
Alberta Water Well Information Database (WWIS)	23	14	37

##### 4.1.1.1 Well Licenses and Alberta Oil and Gas Wells (AER OGW and AOGW) Databases

The AER OGW and AOGW databases identified one domestic use water well located onsite within 10-024-04 W5M. The water well was drilled in 1955 to a total depth of 125.6 m.

##### 4.1.1.2 ERIS Historical Searches (EHS) Database

The EHS database identified one record located within the Project Area. The EHS database identifies properties where ERIS reports have been requested.



## **SPRINGBANK OFF-STREAM PROJECT LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT**

Regulatory Database and Records Review  
January 30, 2019

### **4.1.1.3 Environmental Site Assessment Repository (ESAR) Database**

The ESAR database identified one record associated with the Volker Stevin Maintenance Yard located approximately 50 m southwest of the Project Area. The record indicated that a semi-annual groundwater monitoring report was completed for the project in 2007.

### **4.1.1.4 Field Inspection Incident Report (FIS) Database**

The FIS database identified one record associated with a complaint located at 06-13-024-04 W5M, 175 m southeast of the Project Area. The record was associated with Plains Midstream Canada ULC and was issued on June 4, 2015. The complaint was with respect to a physical impact of a pipeline and was determined to be attributed to a natural phenomenon. No additional information was provided.

### **4.1.1.5 PTMAA Fuel Storage Tanks (FST) Database**

The FST database identified three records associated with properties located within 250 m of the Project Area. All three of the records were associated with the Volker Stevin Highway Maintenance yard located within the NE ¼ 10-024-04 W5M, approximately 50 m southwest of the Project Area. The records identified two aboveground storage tanks (ASTs) associated with the property. One of the steel ASTs contained diesel and had a capacity of 4,550 litres, and the second steel AST contained gasoline and had a capacity of 2,500 L. Both of the ASTs were installed in 2011 and were in service. The third record indicated that two ASTs were active on the property. No additional information was provided.

### **4.1.1.6 Conglomerate and Waste Management Facilities (PITS) Database**

The PITS database identified one record associated with a proposed pit located onsite within the SW ¼ 10-024-04 W5M. The status date of the proposed pit was February 23, 1995. No additional information was provided.

The PITS database also identified one record associated with a decommissioned pit located offsite within the NE ¼ 10-024-04 W5M, approximately 50 m southwest of the Project Area. The status date of the decommissioned pit was February 23, 1995. No additional information was provided.

### **4.1.1.7 Alberta Water Well Information Database (WWIS) Database**

The WWIS database identified 23 water well records within 250 m of the Site. The records indicated that 14 water wells were for domestic use, 4 were for stock use, 1 was for domestic and stock use, 1 was for investigation use, 1 was for industrial use, and 2 were for an unknown use. The water wells were drilled to depths ranging 11 m to 412 m between 1955 and 2014.



**SPRINGBANK OFF-STREAM PROJECT  
LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT**

Regulatory Database and Records Review  
January 30, 2019

**4.1.2 Abacus Abadata**

The AER Abacus Datagraphics database did not identify and oil and gas leases, facilities or spills/complaints within the Project Area. The database identified multiple pipelines within the Project Area. Table 3 provides a summary of the pipelines identified within the Project Area.

**Table 3 Summary of Pipelines**

Legal Location	Licensee	License No.	License Date	Substance	Status
10-024-04 W5M	Alberta Ethane Development Company Ltd.	14766-18	October 7, 1987	High Vapour Product (HV)	Operating
	Caledonian Midstream Corporation	7850-23	May 17, 2010 (permit date)	HV	Operating
	ATCO Gas (South)	Low pressure pipeline, no additional information provided			
13-024-04 W5M	Plains Midstream Canada ULC	3084-6	February 17, 1994	Light Vapour Products (LV)	Discontinued
	Plains Midstream Canada ULC	3084-19	April 8, 1994	LV	Abandoned
	Plains Midstream Canada ULC	5844-15	October 19, 2016 (permit date)	Butane (BU)	Operating
	Plains Midstream Canada ULC	24631-1	February 17, 1994	Condensate	Abandoned
14-024-04 W5M	ATCO Gas (South)	Low pressure pipeline, no additional information provided			
15-024-04 W5M 22-024-04 W5M	Foothills Pipelines Ltd.	80006-3	June 16, 1997 (permit date)	Natural gas	Operating
	NOVA Gas Transmission Ltd.	80096-28	June 1, 2009	Natural gas	Operating
19-024-03 W5M	ATCO Gas (South)	Low pressure pipeline, no additional information provided			
23-024-04 W5M 24-024-04 W5M	Plains Midstream Canada ULC	3084-17	October 7, 2015 (permit date)	LV	Abandoned
	Plains Midstream Canada ULC	5844-15	October 19, 2016 (permit date)	BU	Operating
	Plains Midstream Canada ULC	24631-1	February 17, 1994	Condensate	Abandoned
	ATCO Gas (South)	Low pressure pipeline, no additional information provided			
25-024-04 W5M	ATCO Gas (South)	Low pressure pipeline, no additional information provided			
26-024-04 W5M	Plains Midstream Canada ULC	3084-1	October 7, 2015 (permit date)	LV	Discontinued
	Plains Midstream Canada ULC	5844-15	October 19, 2016 (permit date)	BU	Operating
	Plains Midstream Canada ULC	24631-2	February 17, 1994	Condensate	Discontinued



**SPRINGBANK OFF-STREAM PROJECT  
LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT**

Regulatory Database and Records Review  
January 30, 2019

**Table 3 Summary of Pipelines**

Legal Location	Licensee	License No.	License Date	Substance	Status
27-024-04 W5M	Alberta Ethane Development Company Ltd.	14766-18	October 7, 1987	HV	Operating
	Caledonian Midstream Corporation	7850-23	May 17, 2010 (permit date)	HV	Operating
	Foothills Pipelines Ltd.	80006-3	June 16, 1997 (permit date)	Natural gas	Operating
	NOVA Gas Transmission Ltd.	80096-28	June 1, 2009	Natural gas	Operating
	Plains Midstream Canada ULC	3084-1	October 7, 2015 (permit date)	LV	Discontinued
	Plains Midstream Canada ULC	24631-2	February 17, 1994	Condensate	Discontinued

Notes:

HV – Butane, ethylene, propane, pentanes, liquid ethane

LV – condensate, diesel fuel, gasoline, heating oil, hydrocarbon diluents, kerosene, solvents

A total of 18 water wells were located within the Project Area. Eleven water wells were for domestic use purposes, three water wells were for stock use, two water wells were for domestic and stock use and two water wells had an unknown use. The water wells were drilled between 1955 and 2014 to depths ranging between 3.4 m below grade (mbg) to 125.6 mbg.

**4.1.3 AENV Active and Inactive Landfill Disposal Sites and Industrial Landfill Sites**

A search of these databases did not identify any active or inactive landfills on the Site or within a 250 m radius of the Site.

**4.1.4 AEP Environmental Site Assessment Repository**

A search of the AEP Environmental Site Assessment Repository (ESAR) database did not identify any records associated with the Project Area. Several records were identified on surrounding properties within 100 m. A brief summary of the records is provided below.

- Three records were associated with 08-10-024-04 W5M, located approximately 80 m east of the Project Area. The records were associated with a reclamation certificate for a valve site. The reclamation certificate was issued to Imperial Oil Resources Limited (IOL) on August 24, 1993.
- Two records were associated with SW ¼ 13-024-04 W5M, located approximately 95 m south of the Project Area. The records were associated with a reclamation certificate (No. 1527) in connection with a release that occurred in the quarter section. The reclamation certificate was issued on March 31, 1967 to Hudson’s Bay Oil and Gas Company Limited.



## **SPRINGBANK OFF-STREAM PROJECT LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT**

Regulatory Database and Records Review  
January 30, 2019

- Four records were associated with the SW ¼ 35-024-04 W5M, located approximately 40 m north of the Project Area. The records indicated that a release occurred at a valve site. However, no information as to what was released and quantity was provided. Additionally, surface reclamation was completed at this location and a reclamation certificate was issued.

### **4.1.5 AEP Regulatory Approvals Centre**

Information obtained from the Regulatory Approvals Centre Internet Search Service Authorizations/ Approval Viewer) indicated that there were multiple approvals within the Project Area. The approvals included, but were not limited to, Water Act approvals for flood recovery, construction, dust control and water hauling for Rocky View County.

Approvals issued to oil and gas companies, telecommunications and rail companies included, but were not limited to, reclamation certificates, flood recovery, pipeline and telecommunication lines crossing a water body.

Approvals issued to private landowners and private companies included, but were not limited to, erosion control, registrations and irrigation.

### **4.1.6 AEP Freedom of Information and Protection of Privacy (FOIP) Office**

A response from the AEP FOIP office indicated that no records for routinely available information was identified for the Project Area.

### **4.1.7 AEP Water Wells**

The AEP Water Wells database search identified 15 water well records within the Project Area. Nine of the water wells were for domestic use, four were for stock use, one was for domestic and stock use, and one was for an unknown use. The wells were drilled to a depth ranging between 3.35 m to 77.72 m between 1960 to 2014. The static water levels ranged from 0.73 m to 27.43 m.

### **4.1.8 Environmental Law Centre (ELC)**

Due to the number of property owners within the Project Area, an ELC (enforcement history) request was submitted for the following selected landowners:

- Elbow River Cattle Company Ltd.
- Copithorne Group Inc.
- Marsha Ethel Wagner
- Raymond Allan Nicoll
- El Condor Lands Inc.
- Brian James Copithorne
- Eskomas Inc.
- Robert Louis Copithorne
- Honey-King Industries Ltd.



**SPRINGBANK OFF-STREAM PROJECT  
LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT**

Regulatory Database and Records Review  
January 30, 2019

The ELC request indicated that they have no enforcement actions that were issued to any of the landowners listed above.

**4.1.9 Government of Alberta Spin II Database**

The results of a land title search completed for the Project area are summarized in Table 4.

**Table 4 Summary of Land Titles**

<b>Location</b>	<b>Owner</b>	<b>Date (DD/MM/YY)</b>
SE ¼ 03-024-04 W5M	David Brian Edge	9/9/2014
SE ¼ 03-024-04 W5M	Janet Dilys Hawes Rhonda Elizabeth Gervais	15/12/2003
SW ¼ 03-024-04 W5M	Mary Ellen Robinson	13/02/2015
SW ¼ 18-024-03 W5M	Susan McMurray	27/09/2001
	Western Securities Limited	17/02/2004, 21/01/2008
	Entheos Lodge Foundation	22/03/1989
	Donald Gilchrist Curry and Michele Diane Curry	04/03/1993
SW ¼ 15-024-04 W5M	Altalink Management Ltd.	07/06/2002
	Duane C Griffin	16/08/1989
NW ¼ 15-024-04 W5M	Honey-King Industries Ltd.	06/03/2014
NE ¼ 19-024-03 W5M	Copithorne Group Inc.	17/01/2012
S ½ 13-024-04 W5M	1218835 Alberta Ltd.	19/01/2005
SE ¼ 13-024-04 W5M	Zine and Mona Hussein	02/04/2007
	Seaid Hussein	18/07/2012
	Her Majesty the Queen In Right of Alberta as Represented by the Minister of Transportation	04/02/2014
	Ho Soon Lee and Hae-ok Lee	27/01/2015
	Loreta F Klinck	12/12/1991
	Alena Friess and Eugene Friess	22/12/1999
NE ¼ 15-024-04 W5M	1358788 Alberta Ltd.	15/01/2008
	Ernest Hon	17/07/2015
E ½ 14-024-04 W5M	Elbow River Cattle Company	24/01/2012
NW ¼ 17-024-03 W5M	Mable Pauline Brown and George J Robinson	01/10/1954
	John Rodger Robinson	30/06/1992
NW ¼ 25-024-04 W5M	Brian J Copithorne	04/04/2001
NE ¼ 15-024-04 W5M	El Condor Lands Inc.	02/10/2006
NE ¼ 25-024-04 W5M	John R Robinson	06/05/2009
W ½ 03-024-04-05	Brian James Copithorne	28/04/1994





**SPRINGBANK OFF-STREAM PROJECT  
LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT**

Regulatory Database and Records Review  
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**Table 4 Summary of Land Titles**

<b>Location</b>	<b>Owner</b>	<b>Date (DD/MM/YY)</b>
NE ¼ 28-024-04 W5M	Raymond Allan Nicoll	13/02/1997
SW ¼ 10-024-04 W5M	Jen Allison Weatherley	09/04/2015
04-024-04 W5M	Brian James Copithorne	31/12/1993
10-024-04 W5M	James G Jones and Suzanne C Jones	03/12/1997
NE ¼ 23-024-04 W5M	Elbow River Cattle Company Ltd.	24/01/2012
W ½ 23-024-04 W5M	Robert Louis Copithorne	20/01/1994
SE ¼ 23-024-04 W5M	William Allan Copithorne	11/01/1991
NE ¼ 24-024-04 W5M	John R. Robinson	09/11/2011
NW ¼ 24-024-04 W5M	Kathleen Raeburn Copithorne	01/11/1985
SE ¼ 24-024-04 W5M	Ryan John Robinson	29/04/2000
SW ¼ 24-024-04 W5M	Keith Samuel Robinson	19/11/1987
N ½ 27-024-04 W5M	Marsha Ethel Wagner	13/12/1989
SW ¼ 27-024-04 W5M	Marsha Wagner	06/02/2001
SE ¼ 27-024-04 W5M	Marsha Wagner	06/02/2001

Multiple utility rights-of-way (URoW) and caveats were issued to oil and gas, power and telecommunication companies on the land titles. The companies identified included, but were not limited to, The Alberta Gas Trunk Line Co. Ltd., Plains Midstream Canada ULC, Canadian Western Natural Gas Company Limited, Fortis Alberta Inc. and TELUS Communications Inc. The URoW and caveats date back to as early as 1926.

## 4.2 HISTORICAL OVERVIEW

Historical aerial photographs were reviewed as part of this Limited Phase I ESA and the findings are summarized below.

**Table 5 Summary of Historical Aerial Photographs**

<b>Period Date</b>	<b>Land Use</b>
1950	The Project Area and surrounding areas appeared to be primarily used as undeveloped agricultural land for ranching. Some parcels also appeared to be cultivated. The property located in 10-024-04 W5M appeared to be partially developed as Kamp Kiwanis.
1962	No significant changes were observed within the Project Area. Highway 22 appeared to have been developed with a bridge crossing the Elbow River within 10-024-04 W5M within approximately 200 m of the Site.
1974	A residential property and farm yard appeared to have been developed adjacent to the north of the Project Area in 24-024-04 W5M. Aerial photographs were not available for the entire Project Area.



**SPRINGBANK OFF-STREAM PROJECT  
LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT**

Regulatory Database and Records Review  
January 30, 2019

**Table 5 Summary of Historical Aerial Photographs**

<b>Period Date</b>	<b>Land Use</b>
1987	The residential property located in 24-024-04 W5M appeared to have been expanded to include a large fenced area containing livestock. Bridge construction for Highway 22, crossing over the Elbow River, was underway into its current configuration.
1997	A road leading to a residential dwelling located in 27-024-04 W5M appeared to have been developed. The adjoining residential dwelling was located directly adjacent and to the north of the Project Area. A second road and residential dwelling were observed in 23-024-05 W5M.
2008	A total of three residential dwellings were visible in the available 2008 aerial photographs. No significant changes to the surrounding area were observed.
2010's	No significant changes to the Project Area or surrounding area were observed.

### **4.3 PREVIOUS ENVIRONMENTAL REPORTS**

No previous environmental reports were provided to Stantec for review.



## SPRINGBANK OFF-STREAM PROJECT LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT

Conclusion  
January 30, 2019

### 5.0 CONCLUSION

Based on the findings of the Limited Phase I ESA, the following potential environmental concerns were identified:

- A Volker Stevin Highway Maintenance Yard was identified within the NE ¼ 10-024-04 W5M, approximately 50 m southwest of the Project Area. Two ASTs were reported to be present at this maintenance yard. Maintenance yard activities, including the presence of two ASTs, are considered to represent a potential environmental concern to the Project Area.
- A decommissioned pit was located offsite within the NE ¼ 10-024-04 W5M, approximately 50 m southwest of the Project Area. It is unknown as to what the pit was utilized for, or what the quality/source of the fill material was during backfilling activities. Additionally, it is unknown if any waste debris was placed in the pit during backfilling. Historically, pits had fuel storage tanks associated with them. The presence of the decommissioned pit is considered to represent a potential environmental concern to the Project Area.
- Multiple pipelines were identified within the Project Area. The contents of the pipelines included HV products, LV products, natural gas and condensate. The presence of multiple pipelines within the Project Area are considered to represent a potential environmental concern.
- The regulatory databases indicated that a proposed pit was located onsite within the Project Area at SW ¼ 10-024-04 W5M. The status date of the proposed pit was February 23, 1995. No additional information was provided. It is unknown as to what pit was utilized for, or what the quality/source of the fill material was during backfilling activities. Additionally, it is unknown if any waste debris was placed in the pit during backfilling. Historically, pits had fuel storage tanks associated with them. The presence of a potential pit is considered to represent a potential environmental concern to the Project Area.

Based on the findings of this Limited Phase I ESA, it is recommended that should staining or unusual odours be encountered during disturbance or excavation associated any construction activities, a qualified environmental professional should be engaged to assess the potential for environmental impacts within the Project Area.





## SPRINGBANK OFF-STREAM PROJECT LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT

Limitations  
January 30, 2019

### 6.0 LIMITATIONS

This report documents work that was performed in accordance with generally accepted professional standards at the time and location in which the services were provided. No other representations, warranties or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report, including no assurance that this work has uncovered all potential liabilities associated with the identified property.

This report provides an evaluation of selected environmental conditions associated with the identified portion of the property that was assessed at the time the work was conducted and is based on information obtained by and/or provided to Stantec at that time. There are no assurances regarding the accuracy and completeness of this information. All information received from the client or third parties in the preparation of this report has been assumed by Stantec to be correct. Stantec assumes no responsibility for any deficiency or inaccuracy in information received from others.

The opinions in this report can only be relied upon as they relate to the condition of the portion of the identified property that was assessed at the time the work was conducted. Activities at the property subsequent to Stantec's assessment may have significantly altered the property's condition. Stantec cannot comment on other areas of the property that were not assessed.

Conclusions made within this report consist of Stantec's professional opinion as of the time of the writing of this report and are based solely on the scope of work described in the report, the limited data available and the results of the work. They are not a certification of the property's environmental condition. This report should not be construed as legal advice.

This report has been prepared for the exclusive use of the client identified herein and any use by any third party is prohibited. Stantec assumes no responsibility for losses, damages, liabilities or claims, howsoever arising, from third party use of this report.

This report is limited by the following:

- Time constraints
- Budgetary constraints
- A site visit was not conducted
- No interviews were conducted

The locations of any utilities, buildings and structures, and property boundaries illustrated in or described within this report, if any, including pole lines, conduits, water mains, sewers and other surface or sub-surface utilities and structures are not guaranteed. Before starting work, the exact location of all such utilities and structures should be confirmed and Stantec assumes no liability for damage to them.



**SPRINGBANK OFF-STREAM PROJECT  
LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT**

Limitations  
January 30, 2019

The conclusions are based on the site conditions encountered by Stantec at the time the work was performed at the specific testing and/or sampling locations, and conditions may vary among sampling locations. Factors such as areas of potential concern identified in previous studies, site conditions (e.g., utilities) and cost may have constrained the sampling locations used in this assessment. In addition, analysis has been carried out for only a limited number of chemical parameters, and it should not be inferred that other chemical species are not present. Due to the nature of the investigation and the limited data available, Stantec does not warrant against undiscovered environmental liabilities nor that the sampling results are indicative of the condition of the entire Site. As the purpose of this report is to identify site conditions which may pose an environmental risk; the identification of non-environmental risks to structures or people on the Site is beyond the scope of this assessment.

Should additional information become available, which differs significantly from our understanding of conditions presented in this report, Stantec specifically disclaims any responsibility to update the conclusions in this report.



**SPRINGBANK OFF-STREAM PROJECT  
LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT**

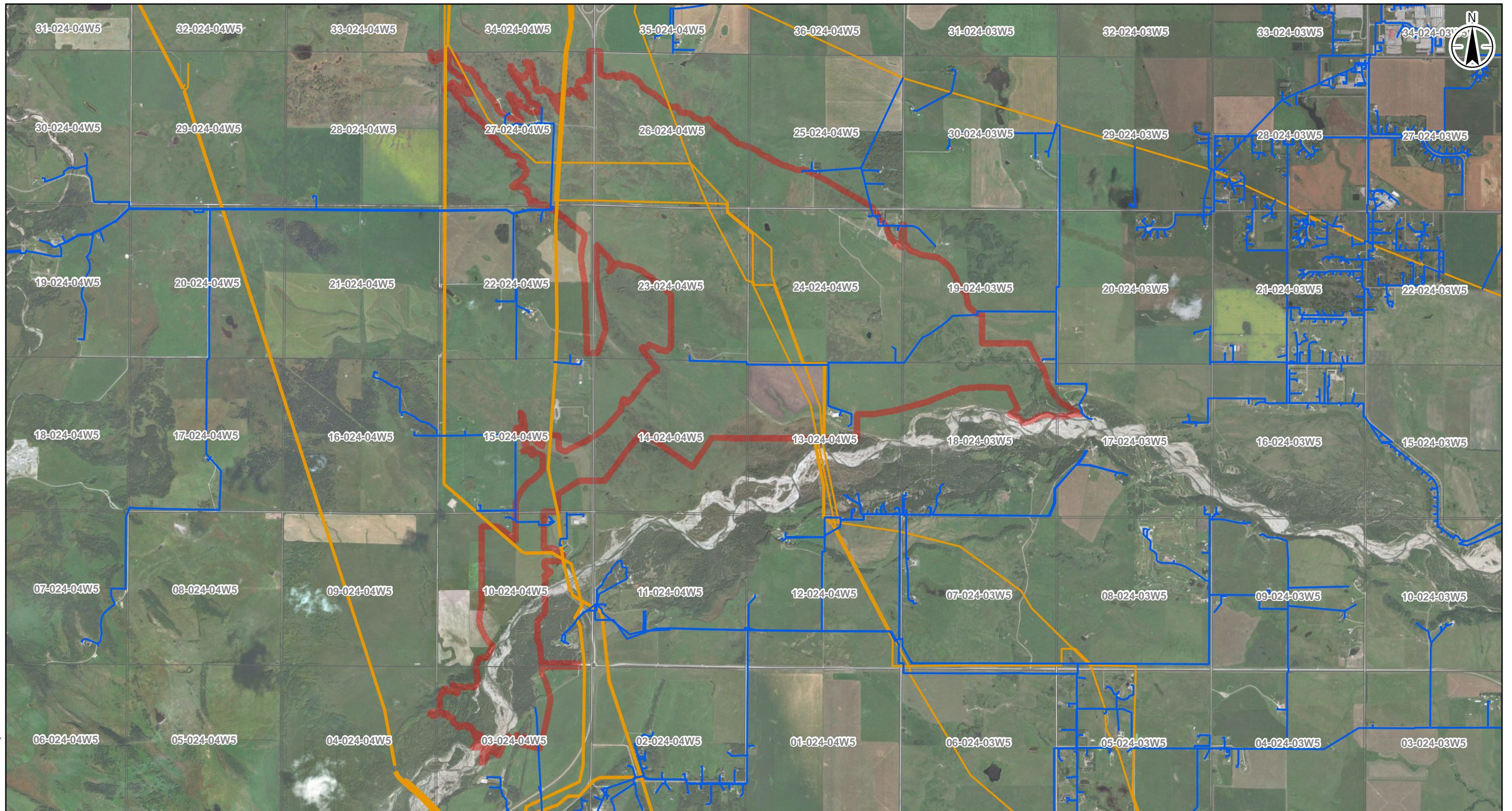
Appendix A Figures  
January 30, 2019

## Appendix A FIGURES









\\cd1002-04\SHARED\_PROJECTS\110773396\component\_work\environmental\disciplines\phase 1\Figure\_1\_0.mxd  
 12/6/2018 03:30 PM By: calocwen

ORIGINAL SHEET - ANSI B - COLOR

December, 2018  
110773396

- Low Pressure Pipeline
- ERCB Pipeline
- ATS Section Grid
- PDA



200 - 325 25th St. SE Calgary, AB T2A 7H8  
 Stantec does not certify the accuracy of the data.  
 This map is for reference only and should not be used for construction

Sources: Ministry of Natural Resources Canada (GeoGratis) and Altalis Ltd. (SDW), Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Client/Project  
 ALBERTA TRANSPORTATION  
 LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT  
 SPRINGBANK OFF-STREAM PROJECT (SR1), SOUTHERN ALBERTA

Figure No.  
 1.0

Title  
 Site Plan





**SPRINGBANK OFF-STREAM PROJECT  
LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT**

Appendix B Assessor Qualifications  
January 30, 2019

**Appendix B ASSESSOR QUALIFICATIONS**





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Ms. Erica Andrew has been working in the area of Environmental Site Assessments (ESAs) since 2006. She has conducted Phase I and Phase II ESAs and remedial excavations on undeveloped, industrial and commercial sites, which have included industrial plant sites, retail and office buildings, downstream petroleum retail/production/distribution sites and property acquisitions. She is familiar with the identification of environmental compliance issues that may result in contamination of the assessed sites.

Ms. Andrew has also completed Phase II ESA field work, proposals, and reports for various sites in Alberta and British Columbia, including commercial, industrial and undeveloped properties. As part of this work, she has coordinated drilling equipment and other sub-contractor services, public and private utility locates, and the other components of subsurface investigations. Ms. Andrew is familiar with the field components associated with Phase II ESAs. She is familiar with the field and technical elements of Phase II ESAs, including, borehole logging, supervising the installation of groundwater monitoring wells, soil and groundwater sampling, analytical analysis, hydraulic conductivity testing and report writing.

#### EDUCATION

B.Sc. Environmental Science, University of Calgary, 2002.

#### COMPETENCIES

Project Coordinator  
Researcher  
Site Visits  
Field Sampling  
Supervision Technical  
Technical Report Writer



Amin Kassam is the Environmental Services Discipline Leader for the Site Investigation & Remediation group in the Calgary office.

Amin has conducted over 1,500 Phase I and Phase II ESAs of undeveloped, industrial, commercial, and residential lands in Alberta, British Columbia, Saskatchewan and Manitoba for acquisition, financing, disposition, environmental compliance, and due diligence. He has also completed Phase II field work, proposals and reports for commercial, residential and undeveloped properties in western Canada.

As a senior project manager and Principal, Amin provides technical and management input into environmental due-diligence, commercial, industrial, transportation, and oil & gas projects. His responsibilities include budgeting, scheduling, planning, interpretation of field investigation results, contract management, report preparation and client liaison.

## EDUCATION

B.Sc., Biological Sciences (Zoology), University of Alberta, Calgary, Alberta, 1996

Cert., Environmental Technology, Mount Royal College, Calgary, Alberta, 1998

Executive Development Program, Queen's School of Business, Kingston, Ontario, 2011

## PROJECT EXPERIENCE

### Environmental Site Assessments Phase I, II, III

Phase I Environmental Site Assessments and Environmental Assessments, Disaster Recovery Housing Program for Siksika Nation, Government of Alberta (Data Analysis, Document Review, Technical Advisor, and Senior Quality Reviewer)

*Conducted Phase I ESAs on several proposed housing sites on Siksika Nation's land, assessed a potential gravel source site and coordinated a CEAA screening level EA for temporary housing sites following the 2013 southern Alberta floods.*

Phase I and II Environmental Site Assessments, Various Transportation Projects in Calgary (Data Analysis, Document Review, and Technical Advisor, Senior Quality and Independent Reviewer)

*Projects have included the Bowfort Road Interchange, McKnight Boulevard Road Improvements, 17 Avenue SW Road Works, 15 and 16 Avenue SW Triple Bottom Line Study, Peigan Trail Transportation Corridor Extension, Southwest Ring Road connections, Southwest Transitway Project, 17 Avenue SE Transitway Project, Green Line North LRT Corridor Functional Planning, Environmental Discipline Lead for Southwest Calgary Ring Road P3 pursuit team. Roles and*

*responsibilities have consisted of identifying potential environmental liabilities associated with adjacent and on-site land uses that would impact road works and providing solutions to the transportation team as required during the planning, design, and construction phases.*

Phase I Environmental Site Assessment, The City of Calgary (Site Assessor, Report Writer)

*Phase I Environmental Site Assessment, proposed re-development of 46 ha of vacant land, roadways, light-rail transit infrastructure and commercial, industrial, and residential developments for the City of Calgary East Village. Purpose of the project was to report potential environmental liabilities associated with current and historical land uses and provide recommendations for further assessment, if necessary. Project deliverables included GIS database and maps. Responsible for historical research for the entire study area, site visits, data collection and report writing.*

Calgary Municipal Land Corporation, Calgary, Alberta (Senior Quality Reviewer)

*Project consists of Phase I and Phase II environmental site assessments, remediation, and risk management planning for various phases of the East Village brownfield redevelopment project, including the River-Walk pathway. The East Village area includes over 100 acres of former commercial/industrial land currently being redeveloped into mixed residential, parkland and commercial land. Environmental impacts are widespread, specifically in soils, and contaminants of concern include polycyclic aromatic hydrocarbons (PAHs), petroleum hydrocarbons, chlorinated compounds and metals. Assist Project Manager and project team with preparation and delivery of reports to the client.*

# Amin Kassam B.Sc.

Discipline Leader - Environmental Services

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## First Capital Asset Management Commercial Due-Diligence Program, Alberta (Senior Quality and Independent Reviewer)

*Currently involved as a senior quality and independent reviewer for a portfolio of commercial real estate sites within Alberta. This includes senior quality and independent review of programs involving all aspects of environmental site assessment and remediation requirements at commercial real estate sites throughout Alberta. Assist Project Manager and Senior Technical Quality Reviewer with preparation and delivery of reports to the client.*

## Phase I and II Environmental Site Assessments, Calgary, Alberta (Project Manager, Overall Project Coordinator and Senior Reviewer for the Environmental Component)

*Conducted a Phase I and II ESA of an existing Canada Post Depot located in a commercial district within Calgary, Alberta. Stantec also conducted a Property Condition Assessment (PCA), a Geotechnical Assessment, Hazardous Materials Assessment, and a Physical Planning Assessment concurrently with this Phase I and II ESA for pre-acquisition due-diligence purposes.*

## Phase I and II Environmental Site Assessments, Edmonton, Alberta (Project Manager, Overall Project Coordinator and Senior Quality Reviewer for the Environmental Component)

*Conducted a Phase I and II ESA of an existing Canada Post maintenance facility located in over a 100 year old commercial district within Edmonton, Alberta. Stantec conducted a Hazardous Materials Assessment, a Geotechnical Assessment, and a Zoning Assessment concurrently with this Phase I and II ESA for pre-acquisition due-diligence purposes.*

## Phase I ESA Blackspring Ridge, Vulcan County, Alberta (Project Manager and Senior Quality Reviewer)

*Conducted a Phase I ESA on Canada's largest wind energy project. The project consisted of assessing 89 sections of land in general accordance to the CSA Phase I ESA Standard Z768-01 (R2012). Responsible for making important project management decisions, meeting with the Client and providing feedback and updates to the Client contact throughout the project. The report was delivered to the Client on time and on budget.*

## Heartland Transmission Project, Alberta (Technical Advisor and Senior Quality Reviewer)

*Responsible for ensuring the successful completion of a large-scale Phase I ESA of AltaLink's Heartland Transmission Project. The Phase I ESA included an extensive and comprehensive review of available current and historical information. Systematically compiled and organized the current and historical records according to each parcel of land so that the information could be clearly documented in the report.*

## Environmental Site Assessments Phase I, II, III University of Calgary West Campus Lands, Calgary, Alberta (Senior Project Manager and Senior Quality Reviewer)

*Phase I Environmental Site Assessment of over 113 hectares (280 acres) of land within the University of Calgary's West Campus Lands. The Phase I ESA was completed for due-diligence purposes to secure mortgage financing and to support an Outlined Plan for the City of Calgary. The purpose of the project was to assess if evidence of potential or actual environmental contamination existed in connection with the Study Area, as a result of current or past activities on the Study Area or neighbouring properties. Responsible for project management, client liaison, site visit, and peer review. The Phase I ESA report was delivered to the Client on time and within budget. The Phase II and III ESAs are on-going.*

## Phase I and II Environmental Site Assessments and Air Quality Assessment, Grande Prairie, Alberta (Project Manager)

*Management of the Phase I and II ESAs and the Air Quality Assessment of Ainsworth Lumber OSB Plant for corporate due diligence and application for approvals from Alberta Environment.*

## Phase I Environmental Site Assessment, Calgary, Alberta (Project Manager, Site Assessor, Report Writer)

*Phase I Environmental Site Assessment of 15 fast food establishments in Southern Alberta (portion of a 120-site portfolio across Canada) for pre-disposition due diligence purposes. Purpose of the project was to report potential environmental liabilities associated with current and historical land uses and provide recommendations for further assessment. Responsible for project management, historical research, site visits, data collection and report writing.*

\* denotes projects completed with other firms



# Garry Bain, B.Sc., P.Eng.

Principal, Senior Project Engineer



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Mr. Bain is experienced in all aspects of environmental site assessment and remediation and has been involved in a wide variety of assessment and remediation projects across Western Canada and internationally. He has undertaken and senior reviewed Phase I Environmental Site Assessment (ESA) since approximately 1995. Due to his background, he has a thorough understanding of due diligence requirements, intrusive site characterization, contaminant risk evaluation, implementation of field sampling programs, determination of subsurface contaminant migration and design/implementation of remedial or risk management measures.

## EDUCATION

B.Sc. in Civil Engineering, University of Calgary, Calgary, Alberta, 1987

Dip. in Civil Engineering Technology, Southern Alberta Institute of Technology, Calgary, Alberta, 1983

## COMPETENCIES

Senior Reviewer  
Site Visits  
Technical Report Writer



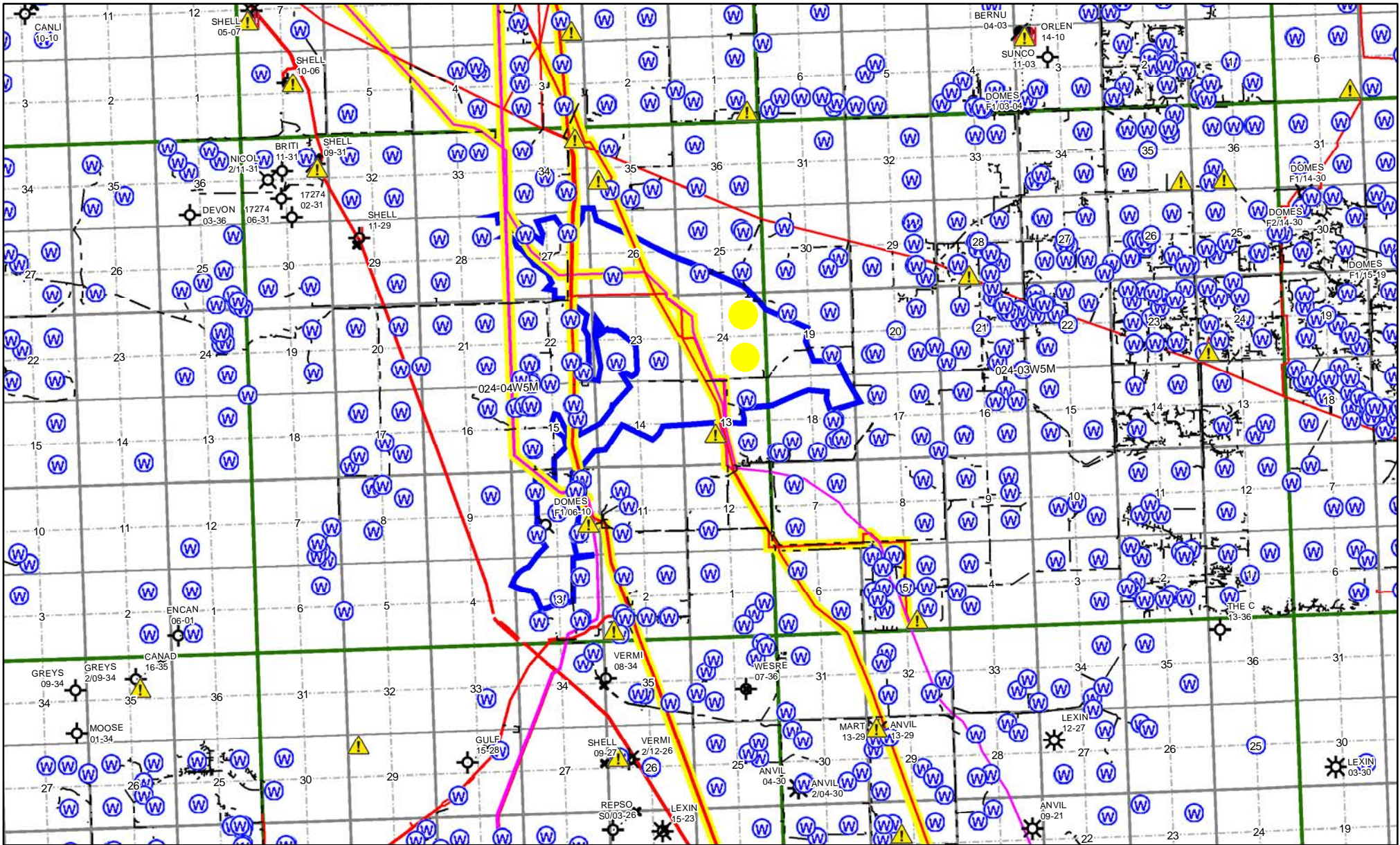
**SPRINGBANK OFF-STREAM PROJECT  
LIMITED PHASE I ENVIRONMENTAL SITE ASSESSMENT**

Appendix C Supporting Documentation  
January 30, 2019

**Appendix C SUPPORTING DOCUMENTATION**

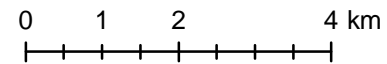


# SR1



Monday, October 22, 2018

1:98,926





# Low Pressure Pipeline Information

## NATURAL GAS CO-OPERATIVE CONTACT INFORMATION

Data Current To January 1, 2018

**Name:** Atco Gas (South)  
**Address:** 909 - 11 Ave SW Calgary, Alberta T2R 1L8  
**Phone #:** (403) 245-7864 **Fax #:** (780) 245-7400  
**Email:** hotline@atcogas.com  
**Comments:**



# Pipeline Information

ALBERTA ETHANE DEVELOPMENT COMPANY LTD. | 14766 - 18

## AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	September 12, 2018	<b>License Date:</b>	October 7, 1987
<b>From Location:</b>	9-10-24-4 W5M PL	<b>To Location:</b>	15-16-26-4 W5M PL
<b>Length:</b>	23.11 kms   14.44 mi	<b>Status:</b>	O
<b>Substance:</b>	HV	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	168.3 mm   6.63 "	<b>Wall Thickness:</b>	3.96 mm   0.16 "
<b>Material:</b>	S	<b>Type:</b>	Z245.5
<b>Grade:</b>	3592	<b>Max Operating Pressure:</b>	9930 kPa   1440 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	59 %	<b>Environment:</b>	
<b>Original Permit Date:</b>		<b>Construction Date:</b>	
<b>Original License/Line No:</b>	14766 - 2	<b>NEB Registration:</b>	
<b>Abacus No:</b>	N/A		



# Pipeline Information

CALEDONIAN MIDSTREAM CORPORATION | 7850 - 23

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	May 17, 2010	<b>License Date:</b>	
<b>From Location:</b>	9-10-24-4 W5M PL	<b>To Location:</b>	4-3-26-4 W5M PL
<b>Length:</b>	17.2 kms   10.75 mi	<b>Status:</b>	O
<b>Substance:</b>	HV	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	114.3 mm   4.5 "	<b>Wall Thickness:</b>	3.96 mm   0.16 "
<b>Material:</b>	S	<b>Type:</b>	5L
<b>Grade:</b>	B	<b>Max Operating Pressure:</b>	7700 kPa   1117 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	46 %	<b>Environment:</b>	
<b>Original Permit Date:</b>		<b>Construction Date:</b>	
<b>Original License/Line No:</b>	0 - 0	<b>NEB Registration:</b>	
<b>Abacus No:</b>	N/A		



# Low Pressure Pipeline Information

## NATURAL GAS CO-OPERATIVE CONTACT INFORMATION

Data Current To January 1, 2018

**Name:** Atco Gas (South)  
**Address:** 909 - 11 Ave SW Calgary, Alberta T2R 1L8  
**Phone #:** (403) 245-7864 **Fax #:** (780) 245-7400  
**Email:** hotline@atcogas.com  
**Comments:**





# Low Pressure Pipeline Information

## NATURAL GAS CO-OPERATIVE CONTACT INFORMATION

Data Current To January 1, 2018

**Name:** Atco Gas (South)  
**Address:** 909 - 11 Ave SW Calgary, Alberta T2R 1L8  
**Phone #:** (403) 245-7864 **Fax #:** (780) 245-7400  
**Email:** hotline@atcogas.com  
**Comments:**



# Pipeline Information

PLAINS MIDSTREAM CANADA ULC | 3084 - 6

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	September 25, 2015	<b>License Date:</b>	February 17, 1994
<b>From Location:</b>	14-13-24-4 W5M BE	<b>To Location:</b>	15-12-24-4 W5M BE
<b>Length:</b>	2.1 kms   1.31 mi	<b>Status:</b>	D
<b>Substance:</b>	LV	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	114.3 mm   4.5 "	<b>Wall Thickness:</b>	4.8 mm   0.19 "
<b>Material:</b>	S	<b>Type:</b>	Z245.1
<b>Grade:</b>	2902	<b>Max Operating Pressure:</b>	0 kPa   0 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	0 %	<b>Environment:</b>	RC
<b>Original Permit Date:</b>	August 13, 1993	<b>Construction Date:</b>	
<b>Original License/Line No:</b>	3084 - 6	<b>NEB Registration:</b>	
<b>Abacus No:</b>	N/A		



# Pipeline Information

PLAINS MIDSTREAM CANADA ULC | 3084 - 19

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	November 26, 2015	<b>License Date:</b>	April 8, 1994
<b>From Location:</b>	6-13-24-4 W5M BE	<b>To Location:</b>	14-13-24-4 W5M BE
<b>Length:</b>	0.9 kms   0.56 mi	<b>Status:</b>	A
<b>Substance:</b>	LV	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	114.3 mm   4.5 "	<b>Wall Thickness:</b>	4.78 mm   0.19 "
<b>Material:</b>	S	<b>Type:</b>	5L
<b>Grade:</b>	B	<b>Max Operating Pressure:</b>	0 kPa   0 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	0 %	<b>Environment:</b>	
<b>Original Permit Date:</b>		<b>Construction Date:</b>	
<b>Original License/Line No:</b>	3084 - 4	<b>NEB Registration:</b>	
<b>Abacus No:</b>	N/A		



# Pipeline Information

PLAINS MIDSTREAM CANADA ULC | 5844 - 15

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	October 19, 2016	<b>License Date:</b>	
<b>From Location:</b>	3-10-25-4 W5M PL	<b>To Location:</b>	16-7-20-2 W5M PL
<b>Length:</b>	56.58 kms   35.36 mi	<b>Status:</b>	O
<b>Substance:</b>	BU	<b>H<sub>2</sub>S:</b>	0.32 mol/kmol   320 ppm
<b>Outside Diameter:</b>	323.9 mm   12.75 "	<b>Wall Thickness:</b>	4.78 mm   0.19 "
<b>Material:</b>	S	<b>Type:</b>	5LX
<b>Grade:</b>	X46	<b>Max Operating Pressure:</b>	6760 kPa   980 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	72 %	<b>Environment:</b>	RC
<b>Original Permit Date:</b>	June 12, 1996	<b>Construction Date:</b>	
<b>Original License/Line No:</b>	5844 - 15	<b>NEB Registration:</b>	
<b>Abacus No:</b>	24643		



# Pipeline Information

PLAINS MIDSTREAM CANADA ULC | 26431 - 1

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	October 10, 2014	<b>License Date:</b>	February 17, 1994
<b>From Location:</b>	2-5-24-3 W5M BE	<b>To Location:</b>	16-23-24-4 W5M BE
<b>Length:</b>	9.95 kms   6.22 mi	<b>Status:</b>	A
<b>Substance:</b>	CN	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	168.3 mm   6.63 "	<b>Wall Thickness:</b>	4 mm   0.16 "
<b>Material:</b>	S	<b>Type:</b>	Z245.1
<b>Grade:</b>	3592	<b>Max Operating Pressure:</b>	0 kPa   0 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	0 %	<b>Environment:</b>	RC
<b>Original Permit Date:</b>	May 10, 1993	<b>Construction Date:</b>	
<b>Original License/Line No:</b>	26431 - 1	<b>NEB Registration:</b>	
<b>Abacus No:</b>	N/A		



# Low Pressure Pipeline Information

## NATURAL GAS CO-OPERATIVE CONTACT INFORMATION

Data Current To January 1, 2018

**Name:** Atco Gas (South)  
**Address:** 909 - 11 Ave SW Calgary, Alberta T2R 1L8  
**Phone #:** (403) 245-7864 **Fax #:** (780) 245-7400  
**Email:** hotline@atcogas.com  
**Comments:**



# Pipeline Information

FOOTHILLS PIPE LINES LTD. | 80006 - 3

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	June 16, 1997	<b>License Date:</b>	
<b>From Location:</b>	15-32-28-4 W5M PL	<b>To Location:</b>	9-10-24-4 W5M PL
<b>Length:</b>	46.7 kms   29.19 mi	<b>Status:</b>	O
<b>Substance:</b>	NG	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	914 mm   35.98 "	<b>Wall Thickness:</b>	10.28 mm   0.4 "
<b>Material:</b>	S	<b>Type:</b>	Z245.1
<b>Grade:</b>	4482	<b>Max Operating Pressure:</b>	8690 kPa   1260 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	86 %	<b>Environment:</b>	CC
<b>Original Permit Date:</b>	June 16, 1997	<b>Construction Date:</b>	
<b>Original License/Line No:</b>	80006 - 3	<b>NEB Registration:</b>	
<b>Abacus No:</b>	N/A		



# Pipeline Information

NOVA GAS TRANSMISSION LTD. | 80096 - 28

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>		<b>License Date:</b>	June 1, 2009
<b>From Location:</b>	1-34-24-4 W5M PL	<b>To Location:</b>	15-31-7-3 W5M PL
<b>Length:</b>	189.05 kms   118.16 mi	<b>Status:</b>	O
<b>Substance:</b>	NG	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	914 mm   35.98 "	<b>Wall Thickness:</b>	10.3 mm   0.41 "
<b>Material:</b>	S	<b>Type:</b>	5L
<b>Grade:</b>	X52	<b>Max Operating Pressure:</b>	5830 kPa   846 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	72 %	<b>Environment:</b>	RC
<b>Original Permit Date:</b>		<b>Construction Date:</b>	
<b>Original License/Line No:</b>	0 - 0	<b>NEB Registration:</b>	
<b>Abacus No:</b>	29195		





# Low Pressure Pipeline Information

## NATURAL GAS CO-OPERATIVE CONTACT INFORMATION

Data Current To January 1, 2018

**Name:** Atco Gas (South)  
**Address:** 909 - 11 Ave SW Calgary, Alberta T2R 1L8  
**Phone #:** (403) 245-7864 **Fax #:** (780) 245-7400  
**Email:** hotline@atcogas.com  
**Comments:**



# Pipeline Information

FOOTHILLS PIPE LINES LTD. | 80006 - 3

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	June 16, 1997	<b>License Date:</b>	
<b>From Location:</b>	15-32-28-4 W5M PL	<b>To Location:</b>	9-10-24-4 W5M PL
<b>Length:</b>	46.7 kms   29.19 mi	<b>Status:</b>	O
<b>Substance:</b>	NG	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	914 mm   35.98 "	<b>Wall Thickness:</b>	10.28 mm   0.4 "
<b>Material:</b>	S	<b>Type:</b>	Z245.1
<b>Grade:</b>	4482	<b>Max Operating Pressure:</b>	8690 kPa   1260 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	86 %	<b>Environment:</b>	CC
<b>Original Permit Date:</b>	June 16, 1997	<b>Construction Date:</b>	
<b>Original License/Line No:</b>	80006 - 3	<b>NEB Registration:</b>	
<b>Abacus No:</b>	N/A		



# Pipeline Information

NOVA GAS TRANSMISSION LTD. | 80096 - 28

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>		<b>License Date:</b>	June 1, 2009
<b>From Location:</b>	1-34-24-4 W5M PL	<b>To Location:</b>	15-31-7-3 W5M PL
<b>Length:</b>	189.05 kms   118.16 mi	<b>Status:</b>	O
<b>Substance:</b>	NG	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	914 mm   35.98 "	<b>Wall Thickness:</b>	10.3 mm   0.41 "
<b>Material:</b>	S	<b>Type:</b>	5L
<b>Grade:</b>	X52	<b>Max Operating Pressure:</b>	5830 kPa   846 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	72 %	<b>Environment:</b>	RC
<b>Original Permit Date:</b>		<b>Construction Date:</b>	
<b>Original License/Line No:</b>	0 - 0	<b>NEB Registration:</b>	
<b>Abacus No:</b>	29195		



# Pipeline Information

PLAINS MIDSTREAM CANADA ULC | 3084 - 17

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	October 7, 2015	<b>License Date:</b>	
<b>From Location:</b>	16-23-24-4 W5M BE	<b>To Location:</b>	14-13-24-4 W5M BE
<b>Length:</b>	1.73 kms   1.08 mi	<b>Status:</b>	D
<b>Substance:</b>	LV	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	114.3 mm   4.5 "	<b>Wall Thickness:</b>	4.78 mm   0.19 "
<b>Material:</b>	S	<b>Type:</b>	5L
<b>Grade:</b>	B	<b>Max Operating Pressure:</b>	0 kPa   0 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	0 %	<b>Environment:</b>	RC
<b>Original Permit Date:</b>		<b>Construction Date:</b>	
<b>Original License/Line No:</b>	3084 - 1	<b>NEB Registration:</b>	
<b>Abacus No:</b>	N/A		



# Pipeline Information

PLAINS MIDSTREAM CANADA ULC | 5844 - 15

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	October 19, 2016	<b>License Date:</b>	
<b>From Location:</b>	3-10-25-4 W5M PL	<b>To Location:</b>	16-7-20-2 W5M PL
<b>Length:</b>	56.58 kms   35.36 mi	<b>Status:</b>	O
<b>Substance:</b>	BU	<b>H<sub>2</sub>S:</b>	0.32 mol/kmol   320 ppm
<b>Outside Diameter:</b>	323.9 mm   12.75 "	<b>Wall Thickness:</b>	4.78 mm   0.19 "
<b>Material:</b>	S	<b>Type:</b>	5LX
<b>Grade:</b>	X46	<b>Max Operating Pressure:</b>	6760 kPa   980 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	72 %	<b>Environment:</b>	RC
<b>Original Permit Date:</b>	June 12, 1996	<b>Construction Date:</b>	
<b>Original License/Line No:</b>	5844 - 15	<b>NEB Registration:</b>	
<b>Abacus No:</b>	24643		



# Pipeline Information

PLAINS MIDSTREAM CANADA ULC | 26431 - 1

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	October 10, 2014	<b>License Date:</b>	February 17, 1994
<b>From Location:</b>	2-5-24-3 W5M BE	<b>To Location:</b>	16-23-24-4 W5M BE
<b>Length:</b>	9.95 kms   6.22 mi	<b>Status:</b>	A
<b>Substance:</b>	CN	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	168.3 mm   6.63 "	<b>Wall Thickness:</b>	4 mm   0.16 "
<b>Material:</b>	S	<b>Type:</b>	Z245.1
<b>Grade:</b>	3592	<b>Max Operating Pressure:</b>	0 kPa   0 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	0 %	<b>Environment:</b>	RC
<b>Original Permit Date:</b>	May 10, 1993	<b>Construction Date:</b>	
<b>Original License/Line No:</b>	26431 - 1	<b>NEB Registration:</b>	
<b>Abacus No:</b>	N/A		



# Low Pressure Pipeline Information

## NATURAL GAS CO-OPERATIVE CONTACT INFORMATION

Data Current To January 1, 2018

**Name:** Atco Gas (South)  
**Address:** 909 - 11 Ave SW Calgary, Alberta T2R 1L8  
**Phone #:** (403) 245-7864 **Fax #:** (780) 245-7400  
**Email:** hotline@atcogas.com  
**Comments:**



# Pipeline Information

PLAINS MIDSTREAM CANADA ULC | 3084 - 17

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	October 7, 2015	<b>License Date:</b>	
<b>From Location:</b>	16-23-24-4 W5M BE	<b>To Location:</b>	14-13-24-4 W5M BE
<b>Length:</b>	1.73 kms   1.08 mi	<b>Status:</b>	D
<b>Substance:</b>	LV	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	114.3 mm   4.5 "	<b>Wall Thickness:</b>	4.78 mm   0.19 "
<b>Material:</b>	S	<b>Type:</b>	5L
<b>Grade:</b>	B	<b>Max Operating Pressure:</b>	0 kPa   0 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	0 %	<b>Environment:</b>	RC
<b>Original Permit Date:</b>		<b>Construction Date:</b>	
<b>Original License/Line No:</b>	3084 - 1	<b>NEB Registration:</b>	
<b>Abacus No:</b>	N/A		





# Pipeline Information

PLAINS MIDSTREAM CANADA ULC | 5844 - 15

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	October 19, 2016	<b>License Date:</b>	
<b>From Location:</b>	3-10-25-4 W5M PL	<b>To Location:</b>	16-7-20-2 W5M PL
<b>Length:</b>	56.58 kms   35.36 mi	<b>Status:</b>	O
<b>Substance:</b>	BU	<b>H<sub>2</sub>S:</b>	0.32 mol/kmol   320 ppm
<b>Outside Diameter:</b>	323.9 mm   12.75 "	<b>Wall Thickness:</b>	4.78 mm   0.19 "
<b>Material:</b>	S	<b>Type:</b>	5LX
<b>Grade:</b>	X46	<b>Max Operating Pressure:</b>	6760 kPa   980 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	72 %	<b>Environment:</b>	RC
<b>Original Permit Date:</b>	June 12, 1996	<b>Construction Date:</b>	
<b>Original License/Line No:</b>	5844 - 15	<b>NEB Registration:</b>	
<b>Abacus No:</b>	24643		



# Pipeline Information

PLAINS MIDSTREAM CANADA ULC | 26431 - 1

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	October 10, 2014	<b>License Date:</b>	February 17, 1994
<b>From Location:</b>	2-5-24-3 W5M BE	<b>To Location:</b>	16-23-24-4 W5M BE
<b>Length:</b>	9.95 kms   6.22 mi	<b>Status:</b>	A
<b>Substance:</b>	CN	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	168.3 mm   6.63 "	<b>Wall Thickness:</b>	4 mm   0.16 "
<b>Material:</b>	S	<b>Type:</b>	Z245.1
<b>Grade:</b>	3592	<b>Max Operating Pressure:</b>	0 kPa   0 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	0 %	<b>Environment:</b>	RC
<b>Original Permit Date:</b>	May 10, 1993	<b>Construction Date:</b>	
<b>Original License/Line No:</b>	26431 - 1	<b>NEB Registration:</b>	
<b>Abacus No:</b>	N/A		



# Low Pressure Pipeline Information

## NATURAL GAS CO-OPERATIVE CONTACT INFORMATION

Data Current To January 1, 2018

**Name:** Atco Gas (South)  
**Address:** 909 - 11 Ave SW Calgary, Alberta T2R 1L8  
**Phone #:** (403) 245-7864 **Fax #:** (780) 245-7400  
**Email:** hotline@atcogas.com  
**Comments:**



# Pipeline Information

PLAINS MIDSTREAM CANADA ULC | 3084 - 1

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	October 7, 2015	<b>License Date:</b>	
<b>From Location:</b>	6-16-26-5 W5M BE	<b>To Location:</b>	16-23-24-4 W5M BE
<b>Length:</b>	23.59 kms   14.74 mi	<b>Status:</b>	D
<b>Substance:</b>	LV	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	114.3 mm   4.5 "	<b>Wall Thickness:</b>	4.78 mm   0.19 "
<b>Material:</b>	S	<b>Type:</b>	5L
<b>Grade:</b>	B	<b>Max Operating Pressure:</b>	0 kPa   0 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	0 %	<b>Environment:</b>	RC
<b>Original Permit Date:</b>		<b>Construction Date:</b>	
<b>Original License/Line No:</b>	3084 - 1	<b>NEB Registration:</b>	
<b>Abacus No:</b>	97310		



# Pipeline Information

PLAINS MIDSTREAM CANADA ULC | 5844 - 15

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	October 19, 2016	<b>License Date:</b>	
<b>From Location:</b>	3-10-25-4 W5M PL	<b>To Location:</b>	16-7-20-2 W5M PL
<b>Length:</b>	56.58 kms   35.36 mi	<b>Status:</b>	O
<b>Substance:</b>	BU	<b>H<sub>2</sub>S:</b>	0.32 mol/kmol   320 ppm
<b>Outside Diameter:</b>	323.9 mm   12.75 "	<b>Wall Thickness:</b>	4.78 mm   0.19 "
<b>Material:</b>	S	<b>Type:</b>	5LX
<b>Grade:</b>	X46	<b>Max Operating Pressure:</b>	6760 kPa   980 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	72 %	<b>Environment:</b>	RC
<b>Original Permit Date:</b>	June 12, 1996	<b>Construction Date:</b>	
<b>Original License/Line No:</b>	5844 - 15	<b>NEB Registration:</b>	
<b>Abacus No:</b>	24643		



# Pipeline Information

PLAINS MIDSTREAM CANADA ULC | 26431 - 2

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	September 17, 2015	<b>License Date:</b>	February 17, 1994
<b>From Location:</b>	16-23-24-4 W5M BE	<b>To Location:</b>	16-18-27-3 W5M BE
<b>Length:</b>	37.41 kms   23.38 mi	<b>Status:</b>	D
<b>Substance:</b>	CN	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	168.3 mm   6.63 "	<b>Wall Thickness:</b>	4 mm   0.16 "
<b>Material:</b>	S	<b>Type:</b>	Z245.1
<b>Grade:</b>	3592	<b>Max Operating Pressure:</b>	0 kPa   0 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	0 %	<b>Environment:</b>	RC
<b>Original Permit Date:</b>	May 10, 1993	<b>Construction Date:</b>	
<b>Original License/Line No:</b>	26431 - 1	<b>NEB Registration:</b>	
<b>Abacus No:</b>	N/A		



# Pipeline Information

ALBERTA ETHANE DEVELOPMENT COMPANY LTD. | 14766 - 18

## AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	September 12, 2018	<b>License Date:</b>	October 7, 1987
<b>From Location:</b>	9-10-24-4 W5M PL	<b>To Location:</b>	15-16-26-4 W5M PL
<b>Length:</b>	23.11 kms   14.44 mi	<b>Status:</b>	O
<b>Substance:</b>	HV	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	168.3 mm   6.63 "	<b>Wall Thickness:</b>	3.96 mm   0.16 "
<b>Material:</b>	S	<b>Type:</b>	Z245.5
<b>Grade:</b>	3592	<b>Max Operating Pressure:</b>	9930 kPa   1440 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	59 %	<b>Environment:</b>	
<b>Original Permit Date:</b>		<b>Construction Date:</b>	
<b>Original License/Line No:</b>	14766 - 2	<b>NEB Registration:</b>	
<b>Abacus No:</b>	N/A		



# Pipeline Information

CALEDONIAN MIDSTREAM CORPORATION | 7850 - 23

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	May 17, 2010	<b>License Date:</b>	
<b>From Location:</b>	9-10-24-4 W5M PL	<b>To Location:</b>	4-3-26-4 W5M PL
<b>Length:</b>	17.2 kms   10.75 mi	<b>Status:</b>	O
<b>Substance:</b>	HV	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	114.3 mm   4.5 "	<b>Wall Thickness:</b>	3.96 mm   0.16 "
<b>Material:</b>	S	<b>Type:</b>	5L
<b>Grade:</b>	B	<b>Max Operating Pressure:</b>	7700 kPa   1117 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	46 %	<b>Environment:</b>	
<b>Original Permit Date:</b>		<b>Construction Date:</b>	
<b>Original License/Line No:</b>	0 - 0	<b>NEB Registration:</b>	
<b>Abacus No:</b>	N/A		





# Pipeline Information

FOOTHILLS PIPE LINES LTD. | 80006 - 3

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	June 16, 1997	<b>License Date:</b>	
<b>From Location:</b>	15-32-28-4 W5M PL	<b>To Location:</b>	9-10-24-4 W5M PL
<b>Length:</b>	46.7 kms   29.19 mi	<b>Status:</b>	O
<b>Substance:</b>	NG	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	914 mm   35.98 "	<b>Wall Thickness:</b>	10.28 mm   0.4 "
<b>Material:</b>	S	<b>Type:</b>	Z245.1
<b>Grade:</b>	4482	<b>Max Operating Pressure:</b>	8690 kPa   1260 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	86 %	<b>Environment:</b>	CC
<b>Original Permit Date:</b>	June 16, 1997	<b>Construction Date:</b>	
<b>Original License/Line No:</b>	80006 - 3	<b>NEB Registration:</b>	
<b>Abacus No:</b>	N/A		



# Pipeline Information

NOVA GAS TRANSMISSION LTD. | 80096 - 28

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>		<b>License Date:</b>	June 1, 2009
<b>From Location:</b>	1-34-24-4 W5M PL	<b>To Location:</b>	15-31-7-3 W5M PL
<b>Length:</b>	189.05 kms   118.16 mi	<b>Status:</b>	O
<b>Substance:</b>	NG	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	914 mm   35.98 "	<b>Wall Thickness:</b>	10.3 mm   0.41 "
<b>Material:</b>	S	<b>Type:</b>	5L
<b>Grade:</b>	X52	<b>Max Operating Pressure:</b>	5830 kPa   846 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	72 %	<b>Environment:</b>	RC
<b>Original Permit Date:</b>		<b>Construction Date:</b>	
<b>Original License/Line No:</b>	0 - 0	<b>NEB Registration:</b>	
<b>Abacus No:</b>	29195		



# Pipeline Information

PLAINS MIDSTREAM CANADA ULC | 3084 - 1

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	October 7, 2015	<b>License Date:</b>	
<b>From Location:</b>	6-16-26-5 W5M BE	<b>To Location:</b>	16-23-24-4 W5M BE
<b>Length:</b>	23.59 kms   14.74 mi	<b>Status:</b>	D
<b>Substance:</b>	LV	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	114.3 mm   4.5 "	<b>Wall Thickness:</b>	4.78 mm   0.19 "
<b>Material:</b>	S	<b>Type:</b>	5L
<b>Grade:</b>	B	<b>Max Operating Pressure:</b>	0 kPa   0 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	0 %	<b>Environment:</b>	RC
<b>Original Permit Date:</b>		<b>Construction Date:</b>	
<b>Original License/Line No:</b>	3084 - 1	<b>NEB Registration:</b>	
<b>Abacus No:</b>	97310		



# Pipeline Information

PLAINS MIDSTREAM CANADA ULC | 26431 - 2

AER Pipeline Data Current to September 6, 2018

<b>Permit Date:</b>	September 17, 2015	<b>License Date:</b>	February 17, 1994
<b>From Location:</b>	16-23-24-4 W5M BE	<b>To Location:</b>	16-18-27-3 W5M BE
<b>Length:</b>	37.41 kms   23.38 mi	<b>Status:</b>	D
<b>Substance:</b>	CN	<b>H<sub>2</sub>S:</b>	0 mol/kmol   0 ppm
<b>Outside Diameter:</b>	168.3 mm   6.63 "	<b>Wall Thickness:</b>	4 mm   0.16 "
<b>Material:</b>	S	<b>Type:</b>	Z245.1
<b>Grade:</b>	3592	<b>Max Operating Pressure:</b>	0 kPa   0 psi
<b>Joints:</b>	W	<b>Internal Coating:</b>	U
<b>Stress Level:</b>	0 %	<b>Environment:</b>	RC
<b>Original Permit Date:</b>	May 10, 1993	<b>Construction Date:</b>	
<b>Original License/Line No:</b>	26431 - 1	<b>NEB Registration:</b>	
<b>Abacus No:</b>	N/A		

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## Authorization Viewer - Search Results



### The Search Used the Following Values:

Legal Land Location:	03-024-04-W5
Act / Document Type:	Water Act, EPEA
Show Inactive Authorizations:	Yes





The resulting Authorizations based on the search criteria will be displayed below. A  will appear next to the Authorization when documentation is available for viewing or downloading. Please click [Viewer Help](#) if you encounter problems viewing the Authorization document.

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28 Result(s)

	<a href="#">Document 00042981-00-00 PIRMEZ CREEK IRR SOC, WR, 05162 is held by Pirmez Creek Irrigation Society, under the provisions of the <i>Water Resources Act</i>. This Licence is currently issued as of Nov. 20, 1984 and does not expire.</a>
	<a href="#">Document 00042981-00-01 PIRMEZ CREEK/STOCK WATERING/PIRMEZ CREEK IRRIGATION SOCIETY - F00042981 is held by Pirmez Creek Irrigation Society, under the provisions of the <i>Water Resources Act</i>. This Licence is currently issued as of Feb. 22, 2017 and does not expire.</a>

	Document 00046133-00-00 VAUDIN, WR, 00068 is held by E. Vaudin, under the provisions of the <i>Water Resources Act</i> . This Licence is currently cancelled by department.
	Document 00138934-00-00 BRAGG CREEK/EROSION CONTROL/YOUNG F-00138934 is held by Hamlet of Diamond City, under the provisions of the <i>Water Act</i> . This Approval is currently expired.
	Document 00138934-00-00 BRAGG CREEK/EROSION CONTROL/YOUNG F-00138934 is held by Hamlet of Diamond City, under the provisions of the <i>Water Act</i> . This Approval is currently expired.
	Document 00138934-00-01 BRAGG CREEK/EROSION CONTROL/YOUNG F:00138934 is held by Hamlet of Diamond City, under the provisions of the <i>Water Act</i> . This Approval is currently expired.
	Document 00138934-00-01 BRAGG CREEK/EROSION CONTROL/YOUNG F:00138934 is held by Hamlet of Diamond City, under the provisions of the <i>Water Act</i> . This Approval is currently expired.
	Document 00141833-00-00 BRAGG CREEK/EROSION CONTROL/YOUNG - F00141833 is held by Young, Mary Ellen and Alan, under the provisions of the <i>Water Act</i> . This Approval is currently expired.
	Document 00141833-00-01 BRAGG CREEK/EROSION CONTROL/YOUNG - F00141833 is held by Young, Mary Ellen and Alan, under the provisions of the <i>Water Act</i> . This Approval is currently expired.
	<a href="#">Document 00155886-00-00 CALGARY/REGISTRATION/JANET RAMSEY - F00155886 is held by Janet Ramsay, under the provisions of the <i>Water Act</i>. This Registration is currently issued as of Feb. 15, 2002 and does not expire.</a>
	<a href="#">Document 00163271-00-00 COCHRANE/REGISTRATION/COPITHORNE BRIAN - F00163271 is held by Brian Copithorne, under the provisions of the <i>Water Act</i>. This Registration is currently issued as of May. 08, 2002 and does not expire.</a>
	<a href="#">Document 00172847-00-00 CALGARY/REGISTRATION/ALAN &amp; MARY YOUNG - F00172847 is held by Young, Mary Ellen and Alan, under the provisions of the <i>Water Act</i>. This Registration is currently issued as of Apr. 14, 2003 and does not expire.</a>
	Document 00186519-00-00 BRAGG CREEK/WEIR/PIRMEZ IRRIGATION SOCIETY - F00186519 is held by Pirmez Creek Irrigation Society, under the provisions of the <i>Water Act</i> . This Approval is currently expired.
	Document 00218274-00-00 COCHRANE/CONSTRUCTION/MUNICIPAL DISTRICT OF ROCKY VIEW F-5-03-26-32 is held by Rocky View County, under the provisions of the <i>Water Act</i> . This Licence is currently expired.
	Document 00218274-00-01 COCHRANE/CONSTRUCTION/MUNICIPAL DISTRICT OF ROCKY VIEW F-5-03-26-32 is held by Rocky View County, under the provisions of the <i>Water Act</i> . This Licence is currently expired.
	Document 00223675-00-00 REDWOOD MEADOWS/INTAKE/PIRMEZ CREEK IRRIGATION SOCIETY F-00223 is held by Pirmez Creek Irrigation Society, under the provisions of the <i>Water Act</i> . This Approval is currently expired.
	Document 00228167-00-00 AIRDRIE/DUST CONTROL/MUNICIPAL DISTRICT OF ROCKY VIEW NO 44 F-47800-RV is held by Rocky View County, under the provisions of the <i>Water Act</i> . This Licence is currently expired.
	Document 00236639-00-00 COCHRANE/DRILLING/MUNICIPAL DISTRICT OF ROCKY VIEW NO 44 F-47800-RV is held by Rocky View County, under the provisions of the <i>Water Act</i> . This Licence is currently cancelled by department.

	Document 00246742-00-00 COCHRANE/DUST CONTROL/MUNICIPAL DISTRICT OF ROCKY VIEW NO.44 F- 47800-RV is held by Rocky View County, under the provisions of the <i>Water Act</i> . This Licence is currently expired.
	Document 00253085-00-00 AIRDRIE/CONSTRUCTION/MUNICIPAL DISTRICT OF ROCKY VIEW NO.31 - F47800-RV is held by Rocky View County, under the provisions of the <i>Water Act</i> . This Licence is currently expired.
	Document 00253085-00-01 AIRDRIE/CONSTRUCTION/MUNICIPAL DISTRICT OF ROCKY VIEW NO. 44 - F47800-RV is held by Rocky View County, under the provisions of the <i>Water Act</i> . This Licence is currently expired.
	Document 00266348-00-00 COCHRANE/CONSTRUCTION/ROCKY VIEW COUNTY F- is held by Rocky View County, under the provisions of the <i>Water Act</i> . This Licence is currently expired.
	Document 00288679-00-00 COCHRANE/CONSTRUCTION/ROCKY VIEW COUNTY F- is held by Rocky View County, under the provisions of the <i>Water Act</i> . This Licence is currently expired.
	Document 00309378-00-00 CALGARY/WATER HAULING/ROCKY VIEW COUNTY F-47800-RV is held by Rocky View County, under the provisions of the <i>Water Act</i> . This Licence is currently expired.
	Document 00354605-00-00 CALGARY/FLOOD RECOVERY/ROCKY VIEW COUNTY - F00354605 is held by Rocky View County, under the provisions of the <i>Water Act</i> . This Approval is currently expired.
	Document 00354605-00-00 CALGARY/FLOOD RECOVERY/ROCKY VIEW COUNTY - F00354605 is held by Rocky View County, under the provisions of the <i>Water Act</i> . This Approval is currently expired.
	Document 00354605-00-01 CALGARY/FLOOD RECOVERY/ROCKY VIEW COUNTY - F00354605 is held by Rocky View County, under the provisions of the <i>Water Act</i> . This Approval is currently expired.
	Document 00354605-00-01 CALGARY/FLOOD RECOVERY/ROCKY VIEW COUNTY - F00354605 is held by Rocky View County, under the provisions of the <i>Water Act</i> . This Approval is currently expired.

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### Authorization Viewer - Search Results

<b>The Search Used the Following Values:</b>	
Legal Land Location:	10-024-04-W5
Act / Document Type:	Water Act, EPEA
Show Inactive Authorizations:	Yes






The resulting Authorizations based on the search criteria will be displayed below. A  will appear next to the Authorization when documentation is available for viewing or downloading. Please click [Viewer Help](#) if you encounter problems viewing the Authorization document.

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24 Result(s)

	Document 00010636-00-00 EASTERN ALBERTA SYS. MAINLINE (BURTON CREEK) PIPELINE SYSTEM is held by NOVA Gas Transmission Ltd., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently issued as of Sep. 01, 1993 and does not expire.
	Document 00025968-00-00 GRIERSON, WR, 25463 is held by Margaret Grierson, under the provisions of the <i>Water Resources Act</i> . This Licence is currently issued as of Apr. 19, 1993 and does not expire.

	<a href="#">Document 00025968-00-01 OYEN/HOMES/GRIERSON, MARGARET - F25463</a> is held by Margaret Grierson, under the provisions of the <i>Water Resources Act</i> . This Licence is currently issued as of Apr. 07, 2011 and does not expire.
	Document 00046202-00-00 CAN PAC RWY, WR, 00002 is held by Canadian Pacific Railway Company, under the provisions of the <i>Water Resources Act</i> . This Licence is currently cancelled by department.
	<a href="#">Document 00095067-00-00 A VALVE SITE IN SE 10- 24- 4 W5M</a> is held by Imperial Oil Resources Limited, under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Reclamation Certificate is currently issued as of Aug. 25, 1992 and does not expire.
	Document 00222822-00-00 BRAGG CREEK/OTHER/NOVA CHEMICALS COPR F-5-04-24-10 is held by NOVA Chemicals Corporation, under the provisions of the <i>Water Act</i> . This Licence is currently expired.
	Notice 00231012-00-00 under the provisions of the <i>Water Act</i> , Code of Practice for <i>Pipelines and Telecommunication Lines Crossing a Water Body</i> at 10-24-4-W5 affecting the Elbow River was received from NOVA CHEMICALS CORPORATION on May. 01, 2006.
	Notice 00263247-00-00 under the provisions of the <i>Water Act</i> , Code of Practice for <i>Pipelines and Telecommunication Lines Crossing a Water Body</i> at NE 10-24-4-W5 affecting the Elbow River was received from NOVA CHEMICALS CORPORATION on Aug. 20, 2009.
	Notice 00266770-00-00 under the provisions of the <i>Water Act</i> , Code of Practice for <i>Watercourse Crossings</i> at SE 10-24-4-W5 affecting the Elbow River was received from IMPERIAL OIL RESOURCES - DO NOT USE on Mar. 30, 2010.
	Notice 00267172-00-00 under the provisions of the <i>Water Act</i> , Code of Practice for <i>Pipelines and Telecommunication Lines Crossing a Water Body</i> at SW 10-24-4-W5 affecting the Elbow River was received from IMPERIAL OIL RESOURCES - DO NOT USE on Apr. 22, 2010.
	Notice 00268365-00-00 under the provisions of the <i>Water Act</i> , Code of Practice for <i>Pipelines and Telecommunication Lines Crossing a Water Body</i> at SE 10-24-4-W5 affecting the Elbow River was received from IMPERIAL OIL RESOURCES - DO NOT USE on Jun. 22, 2010.
	Document 00335730-00-00 COCHRANE/FLOOD RECOVERY/NOVA GAS TRANSMISSION LIMITED - F00335730 is held by NOVA Gas Transmission Ltd., under the provisions of the <i>Water Act</i> . This Approval is currently expired and renewable.
	Document 00335730-00-01 COCHRANE/FLOOD RECOVERY/NOVA GAS TRANSMISSION LIMITED - F00335730 is held by NOVA Gas Transmission Ltd., under the provisions of the <i>Water Act</i> . This Approval is currently expired.
	Document 00335735-00-00 REDWOOD MEADOWS/FLOOD RECOVERY/ALBERTA TRANSPORTATION - F00335735 is held by Alberta Transportation - Southern Region, under the provisions of the <i>Water Act</i> . This Approval is currently expired and renewable.
	Document 00335735-00-01 REDWOOD MEADOWS/FLOOD RECOVERY/ALBERTA TRANSPORTATION - F00335735 is held by Alberta Transportation - Southern Region, under the provisions of the <i>Water Act</i> . This Approval is currently expired.
	Document 00338348-00-00 CALGARY/FLOOD RECOVERY/ALTALINK MANAGEMENT - F00338348 is held by AltaLink Management Ltd., under the provisions of the <i>Water Act</i> . This Approval is currently expired and renewable.
	<a href="#">Document 00344541-00-00 COCHRANE/FLOOD RECOVERY/NOVA GAS TRANSMISSION LTD - F00344541</a> is held by NOVA Gas Transmission Ltd., under the provisions of the <i>Water Act</i> . This Approval is currently issued as of Mar. 14, 2014 and expires on Oct. 11, 2018.
	<a href="#">Document 00344541-00-01 COCHRANE/FLOOD RECOVERY/NOVA GAS TRANSMISSION LTD. - F00344541</a> is held by NOVA Gas Transmission Ltd., under the provisions of the <i>Water Act</i> . This Approval is currently issued as of Mar. 13, 2017 and expires on Sep. 15, 2017.

	Document 00344541-00-02 COCHRANE/FLOOD RECOVERY/NOVA GAS TRANSMISSION LTD. - F00344541 is held by NOVA Gas Transmission Ltd., under the provisions of the <i>Water Act</i> . This Approval is currently issued as of Sep. 15, 2017 and expires on Sep. 15, 2018.
	Notice 00348714-00-00 under the provisions of the <i>Water Act</i> , Code of Practice for <i>Watercourse Crossings</i> at SE 10-24-4-W5 affecting the Elbow River was received from NOVA GAS TRANSMISSION LTD. on Mar. 07, 2014.
	Document 00350919-00-00 NA/CONSTRUCTION/ROCKY VIEW COUNTY - F00350919 is held by Rocky View County, under the provisions of the <i>Water Act</i> . This Licence is currently expired.
	Document 00367616-00-00 NA/CONSTRUCTION/ROCKY VIEW COUNTY - F00367616 is held by Rocky View County, under the provisions of the <i>Water Act</i> . This Licence is currently expired.
	Document 00380321-00-00 REDWOOD MEADOWS/GEOTECHNICAL/ALBERTA TRANSPORTATION - F00380321 is held by Alberta Transportation, under the provisions of the <i>Water Act</i> . This Approval is currently issued as of Apr. 22, 2016 and expires on Apr. 21, 2017.
	Document 00411192-00-00 REDWOOD MEADOWS/GEOTECHNICAL INVESTIGATION/ALBERTA TRANSPORTATION - F00411192 is held by Alberta Transportation, under the provisions of the <i>Water Act</i> . This Approval is currently expired.

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## Authorization Viewer - Search Results


### The Search Used the Following Values:

Legal Land Location:	13-024-04-W5
Act / Document Type:	Water Act, EPEA
Show Inactive Authorizations:	Yes

The resulting Authorizations based on the search criteria will be displayed below. A  will appear next to the Authorization when documentation is available for viewing or downloading. Please click [Viewer Help](#) if you encounter problems viewing the Authorization document.

5 Result(s)

	Document 00120243-00-00 R OF E CANCELLATION (NOT ABANDONED) IN SW 13- 24- 4 W5M is held by Plains Midstream Canada ULC, under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Reclamation Certificate is currently issued as of Dec. 31, 1966 and does not expire.
	Document 00120594-00-00 PIPELINE R OF E CANCELLATION (NOT ABANDONED) IN SE 13- 24- 4 W5M is held by Plains Midstream Canada ULC, under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Reclamation Certificate is currently issued as of Feb. 10, 1968 and does not expire.
	Document 00208038-00-00 CALGARY/TREE WATERING/MORRISON, WELDON F-5-01-24-13 is held by WELDON MORRISON, under the provisions of the <i>Water Act</i> . This Licence is currently expired.

	Document 00253778-00-00 REDWOOD MEADOWS/EROSION CONTROL/ANWAR & MARIA NOUR - F00253778 is held by Anwar & Maria Nour, under the provisions of the <i>Water Act</i> . This Approval is currently expired.
	Notice 00296899-00-00 under the provisions of the <i>Water Act</i> , Code of Practice for <i>Pipelines and Telecommunication Lines Crossing a Water Body</i> at SE 7-24-3-W5 * affecting the Unnamed Stream - Unclassified was received from ATCO GAS on Sep. 02, 2011. * Additional locations and water bodies, including the queried location, are associated with this notice.

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### Authorization Viewer - Search Results

#### The Search Used the Following Values:

Legal Land Location:	14-024-04-W5
Act / Document Type:	Water Act, EPEA
Show Inactive Authorizations:	Yes

The resulting Authorizations based on the search criteria will be displayed below. A  will appear next to the Authorization when documentation is available for viewing or downloading. Please click [Viewer Help](#) if you encounter problems viewing the Authorization document.

1 Result(s)

Document 00046144-00-00 ELLIS, WR, 00058 is held by John Ellis, under the provisions of the <i>Water Resources Act</i> . This Licence is currently cancelled by department.
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## Authorization Viewer - Search Results

### The Search Used the Following Values:

Legal Land Location:	15-024-04-W5
Act / Document Type:	Water Act, EPEA
Show Inactive Authorizations:	Yes

The resulting Authorizations based on the search criteria will be displayed below. A  will appear next to the Authorization when documentation is available for viewing or downloading. Please click [Viewer Help](#) if you encounter problems viewing the Authorization document.

4 Result(s)

Document 00159911-00-00 CALGARY/REGISTRATION/BURWASH SHANNON - F00159911 is held by Shannon Burwash, under the provisions of the <i>Water Act</i> . This Registration is currently issued as of Feb. 26, 2002 and does not expire.
Document 00162017-00-00 COCHRANE/REGISTRATION/GRIFFIN DUANE is held by Duane Griffin, under the provisions of the <i>Water Act</i> . This Registration is currently issued as of Feb. 25, 2002 and does not expire.
Document 00163401-00-00 COCHRANE/REGISTRATION/COPITHORNE ROBERT - F00163401 is held by Robert Copithorne, under the provisions of the <i>Water Act</i> . This Registration is currently issued as of Feb. 27, 2002 and does not expire.
Notice 00349223-00-00 under the provisions of the <i>Water Act</i> , Code of Practice for <i>Pipelines and Telecommunication Lines Crossing a Water</i>



Body at NE 15-24-4-W5 affecting the Unnamed Stream - Unclassified was received from ATCO GAS on Mar. 20, 2014.

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### Authorization Viewer - Search Results





#### The Search Used the Following Values:

Legal Land Location:	18-024-03-W5
Act / Document Type:	Water Act, EPEA
Show Inactive Authorizations:	Yes

The resulting Authorizations based on the search criteria will be displayed below. A  will appear next to the Authorization when documentation is available for viewing or downloading. Please click [Viewer Help](#) if you encounter problems viewing the Authorization document.

8 Result(s)

Document 00160591-00-00 CALGARY/REGISTRATION/GARDNER CATTLE CO - F00160591 is held by Gardner Cattle Company Ltd, under the provisions of the <i>Water Act</i> . This Registration is currently issued as of Feb. 22, 2002 and does not expire.
Document 00160591-00-00 CALGARY/REGISTRATION/GARDNER CATTLE CO - F00160591 is held by Gardner Cattle Company Ltd, under the provisions of the <i>Water Act</i> . This Registration is currently issued as of Feb. 22, 2002 and does not expire.
Document 00160591-00-00 CALGARY/REGISTRATION/GARDNER CATTLE CO - F00160591 is held by Gardner Cattle Company Ltd, under the provisions of the <i>Water Act</i> . This Registration is currently issued as of Feb. 22, 2002 and does not expire.
Document 00160591-00-00 CALGARY/REGISTRATION/GARDNER CATTLE CO - F00160591 is held by Gardner Cattle Company Ltd,

	under the provisions of the <i>Water Act</i> . This Registration is currently issued as of Feb. 22, 2002 and does not expire.
	Document 00308950-00-00 BRAGG CREEK/SINGLE HOME/CURRY, DONALD AND MICHELE F-308950 is held by Donald & Michele Curry, under the provisions of the <i>Water Act</i> . This Licence is currently issued as of Sep. 05, 2012 and does not expire.
	Document 00308953-00-00 BRAGG CREEK/SINGLE HOME/MCMURRAY, SUSAN F-308953 is held by Susan McMurray, under the provisions of the <i>Water Act</i> . This Licence is currently cancelled by department.
	Document 00308954-00-00 BRAGG CREEK/CENTRE/ENTHOES LODGE FOUNDATION F-30895 is held by Entheos Lodge Foundation, under the provisions of the <i>Water Act</i> . This Licence is currently issued as of Sep. 05, 2012 and does not expire.
	Document 00308969-00-00 BRAGG CREEK/IRRIGATION/WESTERN SECURITIES LIMITED F-308969 is held by Western Securities Limited, under the provisions of the <i>Water Act</i> . This Licence is currently issued as of Sep. 05, 2012 and does not expire.

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<b>The Search Used the Following Values:</b>	
Legal Land Location:	19-024-03-W5
Act / Document Type:	Water Act, EPEA
Show Inactive Authorizations:	Yes

The resulting Authorizations based on the search criteria will be displayed below. A  will appear next to the Authorization when documentation is available for viewing or downloading. Please click [Viewer Help](#) if you encounter problems viewing the Authorization document.

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163 Result(s)

	Document 00001298-00-00 WESTRIDGE WATER SUPPLY WATERWORKS SYSTEM is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-00-00 WESTRIDGE WATER SUPPLY WATERWORKS SYSTEM is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-00-00 WESTRIDGE WATER SUPPLY WATERWORKS SYSTEM is held by Westridge Utilities Inc., under the

	provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-00-01 WESTRIDGE WATERWORKS SYSTEM-AUXILIARY WATER SUPPLY LINE is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-00-01 WESTRIDGE WATERWORKS SYSTEM-AUXILIARY WATER SUPPLY LINE is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-00-01 WESTRIDGE WATERWORKS SYSTEM-AUXILIARY WATER SUPPLY LINE is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-00-02 WESTRIDGE WATERWORKS SYSTEM is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-00-02 WESTRIDGE WATERWORKS SYSTEM is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-00-02 WESTRIDGE WATERWORKS SYSTEM is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-01-00 WESTRIDGE WATERWORKS SYSTEM is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-01-00 WESTRIDGE WATERWORKS SYSTEM is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-01-00 WESTRIDGE WATERWORKS SYSTEM is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-01-01 WESTRIDGE WATERWORKS - ELBOW VALLEY WELL is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-01-01 WESTRIDGE WATERWORKS - ELBOW VALLEY WELL is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-01-01 WESTRIDGE WATERWORKS - ELBOW VALLEY WELL is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-01-02 WESTRIDGE WATERWORKS - TWR, PUMP STN, RAW WATER INTAKE is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-01-02 WESTRIDGE WATERWORKS - TWR, PUMP STN, RAW WATER INTAKE is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-01-02 WESTRIDGE WATERWORKS - TWR, PUMP STN, RAW WATER INTAKE is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.

	Document 00001298-01-03 WESTRIDGE WATERWORKS SYSTEM - TRANSFER is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-01-03 WESTRIDGE WATERWORKS SYSTEM - TRANSFER is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-01-03 WESTRIDGE WATERWORKS SYSTEM - TRANSFER is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-01-04 WESTRIDGE WATERWORKS SYSTEM - CHANGES TO SECTIONS 4.1.1 AND 6.1.2 is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-01-04 WESTRIDGE WATERWORKS SYSTEM - CHANGES TO SECTIONS 4.1.1 AND 6.1.2 is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-01-04 WESTRIDGE WATERWORKS SYSTEM - CHANGES TO SECTIONS 4.1.1 AND 6.1.2 is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-01-05 WESTRIDGE WATERWORKS SYSTEM - CLAUSES 3.1.1, 4.3.1, 4.5.3 AND 4.5.4 is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-01-05 WESTRIDGE WATERWORKS SYSTEM - CLAUSES 3.1.1, 4.3.1, 4.5.3 AND 4.5.4 is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-01-05 WESTRIDGE WATERWORKS SYSTEM - CLAUSES 3.1.1, 4.3.1, 4.5.3 AND 4.5.4 is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-01-06 WESTRIDGE WATERWORKS SYSTEM - AMEND TABLE 5.1 TURBIDITY is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-01-06 WESTRIDGE WATERWORKS SYSTEM - AMEND TABLE 5.1 TURBIDITY is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-01-06 WESTRIDGE WATERWORKS SYSTEM - AMEND TABLE 5.1 TURBIDITY is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-02-00 WESTRIDGE WATERWORKS SYSTEM is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-02-00 WESTRIDGE WATERWORKS SYSTEM is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-02-00 WESTRIDGE WATERWORKS SYSTEM is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-02-01 WESTRIDGE WATERWORKS SYSTEM - DRINKING WATER SAFETY PLAN is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.

	Document 00001298-02-01 WESTRIDGE WATERWORKS SYSTEM - DRINKING WATER SAFETY PLAN is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-02-01 WESTRIDGE WATERWORKS SYSTEM - DRINKING WATER SAFETY PLAN is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-02-02 WESTRIDGE WATERWORKS SYSTEM - UPGRADE is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-02-02 WESTRIDGE WATERWORKS SYSTEM - UPGRADE is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-02-02 WESTRIDGE WATERWORKS SYSTEM - UPGRADE is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-02-03 WESTRIDGE WATERWORKS SYSTEM - CHANGE TO SCHEDULE 3A, NORTH AND ELBOW VALLEY TWR'S is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-02-03 WESTRIDGE WATERWORKS SYSTEM - CHANGE TO SCHEDULE 3A, NORTH AND ELBOW VALLEY TWR'S is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-02-03 WESTRIDGE WATERWORKS SYSTEM - CHANGE TO SCHEDULE 3A, NORTH AND ELBOW VALLEY TWR'S is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-02-04 WESTRIDGE WATERWORKS SYSTEM - EXPIRY DATE EXTENSION is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-02-04 WESTRIDGE WATERWORKS SYSTEM - EXPIRY DATE EXTENSION is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-02-04 WESTRIDGE WATERWORKS SYSTEM - EXPIRY DATE EXTENSION is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-03-00 WESTRIDGE WATERWORKS SYSTEM is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently issued as of Jul. 25, 2018 and expires on Jul. 01, 2028.
	Document 00001298-03-00 WESTRIDGE WATERWORKS SYSTEM is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently issued as of Jul. 25, 2018 and expires on Jul. 01, 2028.
	Document 00001298-03-00 WESTRIDGE WATERWORKS SYSTEM is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently issued as of Jul. 25, 2018 and expires on Jul. 01, 2028.
	Document 00067623-00-00 WESTRIDGE WATERWORKS - ELBOW VALLEY DEVELOP, PH 2 is held by Westridge Inc., under the

	provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Apr. 21, 1998 and does not expire.
	Document 00067623-00-00 WESTRIDGE WATERWORKS - ELBOW VALLEY DEVELOP, PH 2 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Apr. 21, 1998 and does not expire.
	Document 00067623-00-00 WESTRIDGE WATERWORKS - ELBOW VALLEY DEVELOP, PH 2 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Apr. 21, 1998 and does not expire.
	Document 00067623-00-01 WESTRIDGE WATERWORKS - ELBOW VALLEY DEVELOP, PH 1 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Aug. 20, 1998 and does not expire.
	Document 00067623-00-01 WESTRIDGE WATERWORKS - ELBOW VALLEY DEVELOP, PH 1 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Aug. 20, 1998 and does not expire.
	Document 00067623-00-01 WESTRIDGE WATERWORKS - ELBOW VALLEY DEVELOP, PH 1 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Aug. 20, 1998 and does not expire.
	Document 00067623-00-02 WESTRIDGE WATERWORKS - ELBOW VALLEY DEVELOP, PH 1 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Apr. 21, 1998 and does not expire.
	Document 00067623-00-02 WESTRIDGE WATERWORKS - ELBOW VALLEY DEVELOP, PH 1 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Apr. 21, 1998 and does not expire.
	Document 00067623-00-02 WESTRIDGE WATERWORKS - ELBOW VALLEY DEVELOP, PH 1 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Apr. 21, 1998 and does not expire.
	Document 00067623-00-03 WESTRIDGE WATERWORKS - ELBOW VALLEY DEVELOP, MAJESTIC GATE is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Aug. 18, 1998 and does not expire.
	Document 00067623-00-03 WESTRIDGE WATERWORKS - ELBOW VALLEY DEVELOP, MAJESTIC GATE is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Aug. 18, 1998 and does not expire.
	Document 00067623-00-03 WESTRIDGE WATERWORKS - ELBOW VALLEY DEVELOP, MAJESTIC GATE is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Aug. 18, 1998 and does



	not expire.
	Document 00067623-00-04 WESTRIDGE WATERWORKS - ELBOW VALLEY DEVELOPM PH 3A,3B is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jan. 25, 1999 and does not expire.
	Document 00067623-00-04 WESTRIDGE WATERWORKS - ELBOW VALLEY DEVELOPM PH 3A,3B is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jan. 25, 1999 and does not expire.
	Document 00067623-00-04 WESTRIDGE WATERWORKS - ELBOW VALLEY DEVELOPM PH 3A,3B is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jan. 25, 1999 and does not expire.
	Document 00067624-00-00 WESTRIDGE WATER - PINEBROOK GOLF & COUNTRY CLUB is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Apr. 21, 1998 and does not expire.
	Document 00067624-00-00 WESTRIDGE WATER - PINEBROOK GOLF & COUNTRY CLUB is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Apr. 21, 1998 and does not expire.
	Document 00067624-00-00 WESTRIDGE WATER - PINEBROOK GOLF & COUNTRY CLUB is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Apr. 21, 1998 and does not expire.
	Document 00073448-00-00 WESTRIDGE/MUNICIPAL - MENZIES SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-00 WESTRIDGE/MUNICIPAL - MENZIES SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-00 WESTRIDGE/MUNICIPAL - MENZIES SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-01 WESTRIDGE/MUNICIPAL -HORIZON VIEW SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-01 WESTRIDGE/MUNICIPAL -HORIZON VIEW SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-01 WESTRIDGE/MUNICIPAL -HORIZON VIEW SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-02 WESTRIDGE/MUNICIPAL -DOROFTEI/SUNSET SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-02 WESTRIDGE/MUNICIPAL -DOROFTEI/SUNSET SUBDIVISION is held by Westridge Inc., under the

	provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-02 WESTRIDGE/MUNICIPAL -DOROFTEI/SUNSET SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-03 WESTRIDGE/MUNICIPAL -WEST BLUFF SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-03 WESTRIDGE/MUNICIPAL -WEST BLUFF SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-03 WESTRIDGE/MUNICIPAL -WEST BLUFF SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-04 WESTRIDGE/MUNICIPAL -APPLEBY SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-04 WESTRIDGE/MUNICIPAL -APPLEBY SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-04 WESTRIDGE/MUNICIPAL -APPLEBY SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-05 WESTRIDGE/MUNICIPAL -HENKER SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-05 WESTRIDGE/MUNICIPAL -HENKER SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-05 WESTRIDGE/MUNICIPAL -HENKER SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-06 WESTRIDGE/MUNICIPAL -G NELSON SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-06 WESTRIDGE/MUNICIPAL -G NELSON SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-06 WESTRIDGE/MUNICIPAL -G NELSON SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-07 WESTRIDGE/MUNICIPAL -TRUTINA SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-07 WESTRIDGE/MUNICIPAL -TRUTINA SUBDIVISION is held by Westridge Inc., under the provisions of the

	<p><i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of May. 14, 1999 and does not expire.</p>
	<p>Document 00073448-00-07 WESTRIDGE/MUNICIPAL -TRUTINA SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of May. 14, 1999 and does not expire.</p>
	<p>Document 00073448-00-08 WESTRIDGE/MUNICIPAL -SPRING MEADOWS ESTATES SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of May. 14, 1999 and does not expire.</p>
	<p>Document 00073448-00-08 WESTRIDGE/MUNICIPAL -SPRING MEADOWS ESTATES SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of May. 14, 1999 and does not expire.</p>
	<p>Document 00073448-00-08 WESTRIDGE/MUNICIPAL -SPRING MEADOWS ESTATES SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of May. 14, 1999 and does not expire.</p>
	<p>Document 00073448-00-09 WESTRIDGE/MUNICIPAL -TRUTINA SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of May. 14, 1999 and does not expire.</p>
	<p>Document 00073448-00-09 WESTRIDGE/MUNICIPAL -TRUTINA SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of May. 14, 1999 and does not expire.</p>
	<p>Document 00073448-00-09 WESTRIDGE/MUNICIPAL -TRUTINA SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of May. 14, 1999 and does not expire.</p>
	<p>Document 00073448-00-10 WESTRIDGE/MUNICIPAL -PINEBROOK AND ANATAPI SUBDIVISIONS is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of May. 14, 1999 and does not expire.</p>
	<p>Document 00073448-00-10 WESTRIDGE/MUNICIPAL -PINEBROOK AND ANATAPI SUBDIVISIONS is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of May. 14, 1999 and does not expire.</p>
	<p>Document 00073448-00-10 WESTRIDGE/MUNICIPAL -PINEBROOK AND ANATAPI SUBDIVISIONS is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of May. 14, 1999 and does not expire.</p>
	<p>Document 00073448-00-11 WESTRIDGE/MUNICIPAL -SPRING HAVEN ESTATES, 5 LOTS is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of May. 14, 1999 and does not expire.</p>
	<p>Document 00073448-00-11 WESTRIDGE/MUNICIPAL -SPRING HAVEN ESTATES, 5 LOTS is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of May. 14, 1999 and does not expire.</p>

	Document 00073448-00-11 WESTRIDGE/MUNICIPAL -SPRING HAVEN ESTATES, 5 LOTS is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-12 WESTRIDGE/MUNICIPAL -URBCO DEVELOPMENT SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-12 WESTRIDGE/MUNICIPAL -URBCO DEVELOPMENT SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-12 WESTRIDGE/MUNICIPAL -URBCO DEVELOPMENT SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-13 WESTRIDGE/MUNICIPAL -STERLING SPRINGS RESIDENTIAL SUBDIVISION,SW 24-24-3-W5 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Sep. 15, 2000 and does not expire.
	Document 00073448-00-13 WESTRIDGE/MUNICIPAL -STERLING SPRINGS RESIDENTIAL SUBDIVISION,SW 24-24-3-W5 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Sep. 15, 2000 and does not expire.
	Document 00073448-00-13 WESTRIDGE/MUNICIPAL -STERLING SPRINGS RESIDENTIAL SUBDIVISION,SW 24-24-3-W5 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Sep. 15, 2000 and does not expire.
	Document 00074721-00-00 WESTRIDGE/MUNICIPAL - ESCARPMENT PARK SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jul. 05, 1999 and does not expire.
	Document 00074721-00-00 WESTRIDGE/MUNICIPAL - ESCARPMENT PARK SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jul. 05, 1999 and does not expire.
	Document 00074721-00-00 WESTRIDGE/MUNICIPAL - ESCARPMENT PARK SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jul. 05, 1999 and does not expire.
	Document 00074721-00-01 WESTRIDGE/MUNICIPAL - ESCARPMENT DRIVE, APPLYBEY TO ESCARPM is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Sep. 16, 1999 and does not expire.
	Document 00074721-00-01 WESTRIDGE/MUNICIPAL - ESCARPMENT DRIVE, APPLYBEY TO ESCARPM is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Sep. 16, 1999 and does not expire.
	Document 00074721-00-01 WESTRIDGE/MUNICIPAL - ESCARPMENT DRIVE, APPLYBEY TO ESCARPM is held by Westridge Inc.,

	under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Sep. 16, 1999 and does not expire.
	Document 00074726-00-00 WESTRIDGE/MUNICIPAL - WATERWORKS CHEMICAL USE is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Mar. 20, 1995 and does not expire.
	Document 00074726-00-00 WESTRIDGE/MUNICIPAL - WATERWORKS CHEMICAL USE is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Mar. 20, 1995 and does not expire.
	Document 00074726-00-00 WESTRIDGE/MUNICIPAL - WATERWORKS CHEMICAL USE is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Mar. 20, 1995 and does not expire.
	Document 00074726-00-01 WESTRIDGE/MUNICIPAL - WATERWORKS CHEMICAL USE is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jun. 02, 1998 and does not expire.
	Document 00074726-00-01 WESTRIDGE/MUNICIPAL - WATERWORKS CHEMICAL USE is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jun. 02, 1998 and does not expire.
	Document 00074726-00-01 WESTRIDGE/MUNICIPAL - WATERWORKS CHEMICAL USE is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jun. 02, 1998 and does not expire.
	Document 00077224-00-00 WESTRIDGE/MUNICIPAL - GLENCOE CROSSING SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Oct. 27, 1999 and does not expire.
	Document 00077224-00-00 WESTRIDGE/MUNICIPAL - GLENCOE CROSSING SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Oct. 27, 1999 and does not expire.
	Document 00077224-00-00 WESTRIDGE/MUNICIPAL - GLENCOE CROSSING SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Oct. 27, 1999 and does not expire.
	Document 00077224-00-01 WESTRIDGE/MUNICIPAL - WATERMAIN ALONG LOWER SPRINGBANK ROAD is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Dec. 04, 2000 and does not expire.
	Document 00077224-00-01 WESTRIDGE/MUNICIPAL - WATERMAIN ALONG LOWER SPRINGBANK ROAD is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Dec. 04, 2000 and does not expire.
	Document 00077224-00-01 WESTRIDGE/MUNICIPAL - WATERMAIN ALONG LOWER SPRINGBANK ROAD is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Dec. 04, 2000 and does not expire.
	Document 00079268-00-00 WESTRIDGE/MUNICIPAL - BONTORIN SUBDIVISION is held by Westridge Inc., under the provisions of the

	<i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of Jan. 13, 2000 and does not expire.
	Document 00079268-00-00 WESTRIDGE/MUNICIPAL - BONTORIN SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of Jan. 13, 2000 and does not expire.
	Document 00079268-00-00 WESTRIDGE/MUNICIPAL - BONTORIN SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of Jan. 13, 2000 and does not expire.
	Document 00079268-00-01 WESTRIDGE/MUNICIPAL - BONTORIN SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of Feb. 20, 2001 and does not expire.
	Document 00079268-00-01 WESTRIDGE/MUNICIPAL - BONTORIN SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of Feb. 20, 2001 and does not expire.
	Document 00079268-00-01 WESTRIDGE/MUNICIPAL - BONTORIN SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of Feb. 20, 2001 and does not expire.
	Document 00136800-00-00 WESTRIDGE/MUNICIPAL -TARADAR SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of Jul. 12, 2000 and does not expire.
	Document 00136800-00-00 WESTRIDGE/MUNICIPAL -TARADAR SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of Jul. 12, 2000 and does not expire.
	Document 00136800-00-00 WESTRIDGE/MUNICIPAL -TARADAR SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of Jul. 12, 2000 and does not expire.
	Document 00136800-00-01 WESTRIDGE/MUNICIPAL - ELBOW VALLEY PHASE 5 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of Jul. 03, 2001 and does not expire.
	Document 00136800-00-01 WESTRIDGE/MUNICIPAL - ELBOW VALLEY PHASE 5 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of Jul. 03, 2001 and does not expire.
	Document 00136800-00-01 WESTRIDGE/MUNICIPAL - ELBOW VALLEY PHASE 5 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of Jul. 03, 2001 and does not expire.
	Document 00136800-00-02 WESTRIDGE/MUNICIPAL - SPRUCE LANE FARMS is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of Jul. 12, 2001 and does not expire.
	Document 00136800-00-02 WESTRIDGE/MUNICIPAL - SPRUCE LANE FARMS is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of Jul. 12, 2001 and does not expire.
	Document 00136800-00-02 WESTRIDGE/MUNICIPAL - SPRUCE LANE FARMS is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of Jul. 12, 2001 and does not expire.
	Document 00136800-00-03 WESTRIDGE/MUNICIPAL - ELBOW VALLEY PHASE 4 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of Jul. 12, 2000 and does not expire.

	Document 00136800-00-03 WESTRIDGE/MUNICIPAL - ELBOW VALLEY PHASE 4 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jul. 12, 2000 and does not expire.
	Document 00136800-00-03 WESTRIDGE/MUNICIPAL - ELBOW VALLEY PHASE 4 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jul. 12, 2000 and does not expire.
	Document 00136800-00-04 WESTRIDGE/MUNICIPAL - ELBOW VALLEY PHASE 6 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jul. 03, 2002 and does not expire.
	Document 00136800-00-04 WESTRIDGE/MUNICIPAL - ELBOW VALLEY PHASE 6 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jul. 03, 2002 and does not expire.
	Document 00136800-00-04 WESTRIDGE/MUNICIPAL - ELBOW VALLEY PHASE 6 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jul. 03, 2002 and does not expire.
	Document 00136800-00-05 WESTRIDGE/MUNICIPAL - SIMPSON DEVELOPMENT, WATERMAIN is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Aug. 13, 2002 and does not expire.
	Document 00136800-00-05 WESTRIDGE/MUNICIPAL - SIMPSON DEVELOPMENT, WATERMAIN is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Aug. 13, 2002 and does not expire.
	Document 00136800-00-05 WESTRIDGE/MUNICIPAL - SIMPSON DEVELOPMENT, WATERMAIN is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Aug. 13, 2002 and does not expire.
	Document 00136800-00-06 WESTRIDGE/MUNICIPAL - SUN VALLEY DEVELOPMENT is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Aug. 15, 2002 and does not expire.
	Document 00136800-00-06 WESTRIDGE/MUNICIPAL - SUN VALLEY DEVELOPMENT is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Aug. 15, 2002 and does not expire.
	Document 00136800-00-06 WESTRIDGE/MUNICIPAL - SUN VALLEY DEVELOPMENT is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Aug. 15, 2002 and does not expire.
	Document 00160911-00-00 CALGARY/REGISTRATION/ELBOW RIVER RANCH LTD. is held by 1576955 Alberta Ltd., under the provisions of the <i>Water Act</i> . This Registration is currently cancelled by department.
	Document 00160911-00-00 CALGARY/REGISTRATION/ELBOW RIVER RANCH LTD. is held by Harmony Developments Inc., under the provisions of the <i>Water Act</i> . This Registration is currently cancelled by department.
	Document 00160911-00-00 CALGARY/REGISTRATION/ELBOW RIVER RANCH LTD. is held by Copithorne Group Inc., under the provisions of the <i>Water Act</i> . This Registration is currently cancelled by department.
	Document 00160911-00-01 CALGARY/REGISTRATION/1576955 ALBERTA LTD., COPITHORNE GROUP INC. & HARMONY

	DEVELOPMENTS INC. is held by Copithorne Group Inc., under the provisions of the <i>Water Act</i> . This Registration is currently cancelled by department.
	Document 00160911-00-01 CALGARY/REGISTRATION/1576955 ALBERTA LTD., COPITHORNE GROUP INC. & HARMONY DEVELOPMENTS INC. is held by Harmony Developments Inc., under the provisions of the <i>Water Act</i> . This Registration is currently cancelled by department.
	Document 00160911-00-01 CALGARY/REGISTRATION/1576955 ALBERTA LTD., COPITHORNE GROUP INC. & HARMONY DEVELOPMENTS INC. is held by 1576955 Alberta Ltd., under the provisions of the <i>Water Act</i> . This Registration is currently cancelled by department.
	Document 00161652-00-00 COCHRANE/REGISTRATION/COPITHORNE SAM - F00161652 is held by Sam Copithorne, under the provisions of the <i>Water Act</i> . This Registration is currently issued as of Feb. 27, 2002 and does not expire.
	Document 00161875-00-00 COCHRANE/REGISTRATION/COPITHORNE PHIL is held by Phil Copithorne, under the provisions of the <i>Water Act</i> . This Registration is currently issued as of Feb. 25, 2002 and does not expire.
	Document 00333125-00-00 CALGARY/REGISTRATION/COPITHORNE GROUP INC. F-333125 is held by Copithorne Group Inc., under the provisions of the <i>Water Act</i> . This Registration is currently issued as of Aug. 21, 2013 and does not expire.
	Document 00333126-00-00 CALGARY/REGISTRATION/1576955 ALBERTA LTD. F-333126 is held by 1576955 Alberta Ltd., under the provisions of the <i>Water Act</i> . This Registration is currently issued as of Aug. 21, 2013 and does not expire.

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### Authorization Viewer - Search Results

#### The Search Used the Following Values:

Legal Land Location:	23-024-04-W5
Act / Document Type:	Water Act, EPEA
Show Inactive Authorizations:	Yes

The resulting Authorizations based on the search criteria will be displayed below. A  will appear next to the Authorization when documentation is available for viewing or downloading. Please click [Viewer Help](#) if you encounter problems viewing the Authorization document.

3 Result(s)

	<a href="#">Document 00161619-00-00 COCHRANE/REGISTRATION/COPITHORNE ALAN - F00161619 is held by Alan Copithorne, under the provisions of the <i>Water Act</i>. This Registration is currently issued as of Feb. 26, 2002 and does not expire.</a>
	<a href="#">Document 00163401-00-00 COCHRANE/REGISTRATION/COPITHORNE ROBERT - F00163401 is held by Robert Copithorne, under the provisions of the <i>Water Act</i>. This Registration is currently issued as of Feb. 27, 2002 and does not expire.</a>
	<a href="#">Document 00381162-00-00 NA/CONSTRUCTION/PIDHERNEY'S INC. - F00381162 is held by Pidherney's Inc., under the provisions of the <i>Water Act</i>. This Licence is currently expired.</a>

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### Authorization Viewer - Search Results

#### The Search Used the Following Values:

Legal Land Location:	24-024-04-W5
Act / Document Type:	Water Act, EPEA
Show Inactive Authorizations:	Yes

The resulting Authorizations based on the search criteria will be displayed below. A  will appear next to the Authorization when documentation is available for viewing or downloading. Please click [Viewer Help](#) if you encounter problems viewing the Authorization document.

4 Result(s)

	<a href="#">Document 00027703-00-00 COPITHORNE, WR, 23670 is held by Brian Copithorne, under the provisions of the <i>Water Resources Act</i>. This Licence is currently issued as of Jan. 16, 1990 and does not expire.</a>
	<a href="#">Document 00027703-00-00 COPITHORNE, WR, 23670 is held by Robert Copithorne, under the provisions of the <i>Water Resources Act</i>. This Licence is currently issued as of Jan. 16, 1990 and does not expire.</a>
	<a href="#">Document 00163116-00-00 BRAGG CREEK/REGISTRATION/COPITHORNE KATHLEEN - F00163116 is held by Kathleen Copithorne, under the provisions of the <i>Water Act</i>. This Registration is currently issued as of Feb. 27, 2002 and does not expire.</a>
	<a href="#">Notice 00420781-00-00 under the provisions of the <i>Water Act</i>, Code of Practice for <i>Pipelines and Telecommunication Lines Crossing a Water</i></a>

Body at SW 24-24-4-W5 affecting the Tongue Coulee was received from PLAINS MIDSTREAM CANADA ULC on Jan. 21, 2015.

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### The Search Used the Following Values:

Legal Land Location:	25-024-04-W5
Act / Document Type:	Water Act, EPEA
Show Inactive Authorizations:	Yes

The resulting Authorizations based on the search criteria will be displayed below. A  will appear next to the Authorization when documentation is available for viewing or downloading. Please click [Viewer Help](#) if you encounter problems viewing the Authorization document.

5 Result(s)

	Document 00027704-00-00 COPITHORNE, WR, 23670 is held by Brian Copithorne, under the provisions of the <i>Water Resources Act</i> . This Licence is currently issued as of Jan. 16, 1990 and does not expire.
	Document 00027704-00-00 COPITHORNE, WR, 23670 is held by Robert Copithorne, under the provisions of the <i>Water Resources Act</i> . This Licence is currently issued as of Jan. 16, 1990 and does not expire.
	Document 00027705-00-00 COPITHORNE, WR, 23670 is held by Brian Copithorne, under the provisions of the <i>Water Resources Act</i> . This Licence is currently issued as of Jan. 16, 1990 and does not expire.
	Document 00027705-00-00 COPITHORNE, WR, 23670 is held by Robert Copithorne, under the provisions of the <i>Water Resources Act</i> . This



Licence is currently issued as of Jan. 16, 1990 and does not expire.

Document 00163271-00-00 COCHRANE/REGISTRATION/COPITHORNE BRIAN - F00163271 is held by Brian Copithorne, under the provisions of the *Water Act*. This Registration is currently issued as of May. 08, 2002 and does not expire.

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#### The Search Used the Following Values:

Legal Land Location:	27-024-04-W5
Act / Document Type:	Water Act, EPEA
Show Inactive Authorizations:	Yes

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4 Result(s)

	Document 00027701-00-00 COPITHORNE, WR, 23670 is held by Brian Copithorne, under the provisions of the <i>Water Resources Act</i> . This Licence is currently issued as of Jan. 16, 1990 and does not expire.
	Document 00027701-00-00 COPITHORNE, WR, 23670 is held by Robert Copithorne, under the provisions of the <i>Water Resources Act</i> . This Licence is currently issued as of Jan. 16, 1990 and does not expire.
	Document 00183452-00-00 CALGARY/REGISTRATION/WAGNER MARSHA - F00183452 is held by Marsha Wagner, under the provisions of the <i>Water Act</i> . This Registration is currently issued as of Mar. 23, 2002 and does not expire.
	Document 00183452-00-00 CALGARY/REGISTRATION/WAGNER MARSHA - F00183452 is held by Marsha Wagner, under the provisions

of the *Water Act*. This Registration is currently issued as of Mar. 23, 2002 and does not expire.

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Legal Land Location:	NE 04-024-04-W5
Act / Document Type:	Water Act, EPEA
Show Inactive Authorizations:	Yes

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#### The Search Used the Following Values:

Legal Land Location:	NE 28-024-04-W5
Act / Document Type:	Water Act, EPEA
Show Inactive Authorizations:	Yes

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Legal Land Location:	NW 17-024-03-W5
Act / Document Type:	Water Act, EPEA
Show Inactive Authorizations:	Yes

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51 Result(s)








	Document 00001298-00-00 WESTRIDGE WATER SUPPLY WATERWORKS SYSTEM is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-00-01 WESTRIDGE WATERWORKS SYSTEM-AUXILIARY WATER SUPPLY LINE is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Approval is currently renewed.
	Document 00001298-00-02 WESTRIDGE WATERWORKS SYSTEM is held by Westridge Utilities Inc., under the provisions of the

	<i>Environmental Protection &amp; Enhancement Act.</i> This Approval is currently renewed.
	Document 00001298-01-00 WESTRIDGE WATERWORKS SYSTEM is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Approval is currently renewed.
	Document 00001298-01-01 WESTRIDGE WATERWORKS - ELBOW VALLEY WELL is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Approval is currently renewed.
	Document 00001298-01-02 WESTRIDGE WATERWORKS - TWR, PUMP STN, RAW WATER INTAKE is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Approval is currently renewed.
	Document 00001298-01-03 WESTRIDGE WATERWORKS SYSTEM - TRANSFER is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Approval is currently renewed.
	Document 00001298-01-04 WESTRIDGE WATERWORKS SYSTEM - CHANGES TO SECTIONS 4.1.1 AND 6.1.2 is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Approval is currently renewed.
	Document 00001298-01-05 WESTRIDGE WATERWORKS SYSTEM - CLAUSES 3.1.1, 4.3.1, 4.5.3 AND 4.5.4 is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Approval is currently renewed.
	Document 00001298-01-06 WESTRIDGE WATERWORKS SYSTEM - AMEND TABLE 5.1 TURBIDITY is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Approval is currently renewed.
	Document 00001298-02-00 WESTRIDGE WATERWORKS SYSTEM is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Approval is currently renewed.
	Document 00001298-02-01 WESTRIDGE WATERWORKS SYSTEM - DRINKING WATER SAFETY PLAN is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Approval is currently renewed.
	Document 00001298-02-02 WESTRIDGE WATERWORKS SYSTEM - UPGRADE is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Approval is currently renewed.
	Document 00001298-02-03 WESTRIDGE WATERWORKS SYSTEM - CHANGE TO SCHEDULE 3A, NORTH AND ELBOW VALLEY TWR'S is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Approval is currently renewed.
	Document 00001298-02-04 WESTRIDGE WATERWORKS SYSTEM - EXPIRY DATE EXTENSION is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Approval is currently renewed.
	Document 00001298-03-00 WESTRIDGE WATERWORKS SYSTEM is held by Westridge Utilities Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Approval is currently issued as of Jul. 25, 2018 and expires on Jul. 01, 2028.
	Document 00067623-00-00 WESTRIDGE WATERWORKS - ELBOW VALLEY DEVELOP, PH 2 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act.</i> This Authorization is currently issued as of Apr. 21, 1998 and does not expire.
	Document 00067623-00-01 WESTRIDGE WATERWORKS - ELBOW VALLEY DEVELOP, PH 1 is held by Westridge Inc., under the

	provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Aug. 20, 1998 and does not expire.
	Document 00067623-00-02 WESTRIDGE WATERWORKS - ELBOW VALLEY DEVELOP, PH 1 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Apr. 21, 1998 and does not expire.
	Document 00067623-00-03 WESTRIDGE WATERWORKS - ELBOW VALLEY DEVELOP, MAJESTIC GATE is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Aug. 18, 1998 and does not expire.
	Document 00067623-00-04 WESTRIDGE WATERWORKS - ELBOW VALLEY DEVELOPM PH 3A,3B is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jan. 25, 1999 and does not expire.
	Document 00067624-00-00 WESTRIDGE WATER - PINEBROOK GOLF & COUNTRY CLUB is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Apr. 21, 1998 and does not expire.
	Document 00073448-00-00 WESTRIDGE/MUNICIPAL - MENZIES SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-01 WESTRIDGE/MUNICIPAL -HORIZON VIEW SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-02 WESTRIDGE/MUNICIPAL -DOROFTEI/SUNSET SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-03 WESTRIDGE/MUNICIPAL -WEST BLUFF SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-04 WESTRIDGE/MUNICIPAL -APPLEBY SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-05 WESTRIDGE/MUNICIPAL -HENKER SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-06 WESTRIDGE/MUNICIPAL -G NELSON SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-07 WESTRIDGE/MUNICIPAL -TRUTINA SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-08 WESTRIDGE/MUNICIPAL -SPRING MEADOWS ESTATES SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.

	Document 00073448-00-09 WESTRIDGE/MUNICIPAL -TRUTINA SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-10 WESTRIDGE/MUNICIPAL -PINEBROOK AND ANATAPI SUBDIVISIONS is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-11 WESTRIDGE/MUNICIPAL -SPRING HAVEN ESTATES, 5 LOTS is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-12 WESTRIDGE/MUNICIPAL -URBCO DEVELOPMENT SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of May. 14, 1999 and does not expire.
	Document 00073448-00-13 WESTRIDGE/MUNICIPAL -STERLING SPRINGS RESIDENTIAL SUBDIVISION,SW 24-24-3-W5 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Sep. 15, 2000 and does not expire.
	Document 00074721-00-00 WESTRIDGE/MUNICIPAL - ESCARPMENT PARK SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jul. 05, 1999 and does not expire.
	Document 00074721-00-01 WESTRIDGE/MUNICIPAL - ESCARPMENT DRIVE, APPLYBEY TO ESCARPM is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Sep. 16, 1999 and does not expire.
	Document 00074726-00-00 WESTRIDGE/MUNICIPAL - WATERWORKS CHEMICAL USE is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Mar. 20, 1995 and does not expire.
	Document 00074726-00-01 WESTRIDGE/MUNICIPAL - WATERWORKS CHEMICAL USE is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jun. 02, 1998 and does not expire.
	Document 00077224-00-00 WESTRIDGE/MUNICIPAL - GLENCOE CROSSING SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Oct. 27, 1999 and does not expire.
	Document 00077224-00-01 WESTRIDGE/MUNICIPAL - WATERMAIN ALONG LOWER SPRINGBANK ROAD is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Dec. 04, 2000 and does not expire.
	Document 00079268-00-00 WESTRIDGE/MUNICIPAL - BONTORIN SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jan. 13, 2000 and does not expire.
	Document 00079268-00-01 WESTRIDGE/MUNICIPAL - BONTORIN SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Feb. 20, 2001 and does not expire.



	Document 00136800-00-00 WESTRIDGE/MUNICIPAL - TARADAR SUBDIVISION is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jul. 12, 2000 and does not expire.
	Document 00136800-00-01 WESTRIDGE/MUNICIPAL - ELBOW VALLEY PHASE 5 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jul. 03, 2001 and does not expire.
	Document 00136800-00-02 WESTRIDGE/MUNICIPAL - SPRUCE LANE FARMS is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jul. 12, 2001 and does not expire.
	Document 00136800-00-03 WESTRIDGE/MUNICIPAL - ELBOW VALLEY PHASE 4 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jul. 12, 2000 and does not expire.
	Document 00136800-00-04 WESTRIDGE/MUNICIPAL - ELBOW VALLEY PHASE 6 is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Jul. 03, 2002 and does not expire.
	Document 00136800-00-05 WESTRIDGE/MUNICIPAL - SIMPSON DEVELOPMENT, WATERMAIN is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Aug. 13, 2002 and does not expire.
	Document 00136800-00-06 WESTRIDGE/MUNICIPAL - SUN VALLEY DEVELOPMENT is held by Westridge Inc., under the provisions of the <i>Environmental Protection &amp; Enhancement Act</i> . This Authorization is currently issued as of Aug. 15, 2002 and does not expire.

Clear & Return

Comments regarding the Authorization Viewer page may be directed to the Regulatory Approvals Centre [RAC.Environment@gov.ab.ca](mailto:RAC.Environment@gov.ab.ca).



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December 3, 2018

Our File: 123316

Ms. Erica Andrew  
Stantec Consulting Ltd.  
200, 325 - 25th Street SE  
Calgary, AB T2A 7H8

Dear Ms. Andrew:

**RE: Search Requested - Elbow River Cattle Company Ltd.**

In response to your request of November 30, 2018, we have searched the Environmental Enforcement Historical Search Service database for an exact match with respect to the above request, and can advise that as of today's date, there have been NO enforcement actions issued by Alberta Environment and Parks (AEP) pursuant to the Alberta "Environmental Protection and Enhancement Act" ("EPEA") and its predecessor legislation, the "Hazardous Chemicals Act", "Agricultural Chemicals Act", "Clean Water Act" and "Clean Air Act" to 1971, and/or pursuant to the "Water Act" from 1999 onwards.


This search is limited to the following enforcement actions under EPEA and its predecessor legislation: Tickets, Prosecutions, Administrative Penalties, Warnings, Enforcement Orders, Enforcement Orders Concerning Waste, Environmental Protection Orders, Emergency Environmental Protection Orders, Emission Control Orders, Chemical Control Orders, Water Quality Control Orders and Stop Orders. This search is limited to the following enforcement actions under the Water Act: Prosecutions, Administrative Penalties, Water Management Orders, Warnings and Enforcement Orders. It does not include Clean Up Orders issued under the Litter Act or Environmental Protection Orders respecting unsightly property issued under EPEA; this information may be available from the local municipality.

Enforcement actions are entered in the database following: (1) the decision date, for prosecutions; (2) the date an administrative penalty was paid or due (30 days after issuance), whichever is sooner; and (3) the date the document was issued for all other enforcement actions.

These search results are based on information provided by AEP. AEP advises that they try to provide the best information possible. However, AEP advises that it cannot guarantee that the information provided is complete or accurate and that any person relying on these search results does so at their own risk. More information may be gained by referring to original enforcement documents. Alberta Energy Regulator (AER) enforcement actions are not included (see the AER Public Compliance dashboard database).

Copies of orders are available from the Environmental Law Centre. Any other enforcement information may be available directly from Alberta Environment.

Yours sincerely,



Cindy Dewing  
Enforcement Search Service  
Encl.

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December 3, 2018

Our File: 123317

Ms. Erica Andrew  
Stantec Consulting Ltd.  
200, 325 - 25th Street SE  
Calgary, AB T2A 7H8

Dear Ms. Andrew:

**RE: Search Requested - Copithorne Group Inc.**

In response to your request of November 30, 2018, we have searched the Environmental Enforcement Historical Search Service database for an exact match with respect to the above request, and can advise that as of today's date, there have been NO enforcement actions issued by Alberta Environment and Parks (AEP) pursuant to the Alberta "Environmental Protection and Enhancement Act" ("EPEA") and its predecessor legislation, the "Hazardous Chemicals Act", "Agricultural Chemicals Act", "Clean Water Act" and "Clean Air Act" to 1971, and/or pursuant to the "Water Act" from 1999 onwards.

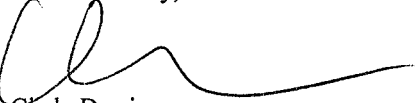
This search is limited to the following enforcement actions under EPEA and its predecessor legislation: Tickets, Prosecutions, Administrative Penalties, Warnings, Enforcement Orders, Enforcement Orders Concerning Waste, Environmental Protection Orders, Emergency Environmental Protection Orders, Emission Control Orders, Chemical Control Orders, Water Quality Control Orders and Stop Orders. This search is limited to the following enforcement actions under the Water Act: Prosecutions, Administrative Penalties, Water Management Orders, Warnings and Enforcement Orders. It does not include Clean Up Orders issued under the Litter Act or Environmental Protection Orders respecting unsightly property issued under EPEA; this information may be available from the local municipality.

Enforcement actions are entered in the database following: (1) the decision date, for prosecutions; (2) the date an administrative penalty was paid or due (30 days after issuance), whichever is sooner; and (3) the date the document was issued for all other enforcement actions.

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Copies of orders are available from the Environmental Law Centre. Any other enforcement information may be available directly from Alberta Environment.

Yours sincerely,



Cindy Dewing  
Enforcement Search Service  
Encl.

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December 3, 2018

Our File: 123318

Ms. Erica Andrew  
Stantec Consulting Ltd.  
200, 325 - 25th Street SE  
Calgary, AB T2A 7H8

Dear Ms. Andrew:

**RE: Search Requested - Marsha Ethel Wagner**

In response to your request of November 30, 2018, we have searched the Environmental Enforcement Historical Search Service database for an exact match with respect to the above request, and can advise that as of today's date, there have been NO enforcement actions issued by Alberta Environment and Parks (AEP) pursuant to the Alberta "Environmental Protection and Enhancement Act" ("EPEA") and its predecessor legislation, the "Hazardous Chemicals Act", "Agricultural Chemicals Act", "Clean Water Act" and "Clean Air Act" to 1971, and/or pursuant to the "Water Act" from 1999 onwards.

This search is limited to the following enforcement actions under EPEA and its predecessor legislation: Tickets, Prosecutions, Administrative Penalties, Warnings, Enforcement Orders, Enforcement Orders Concerning Waste, Environmental Protection Orders, Emergency Environmental Protection Orders, Emission Control Orders, Chemical Control Orders, Water Quality Control Orders and Stop Orders. This search is limited to the following enforcement actions under the Water Act: Prosecutions, Administrative Penalties, Water Management Orders, Warnings and Enforcement Orders. It does not include Clean Up Orders issued under the Litter Act or Environmental Protection Orders respecting unsightly property issued under EPEA; this information may be available from the local municipality.

Enforcement actions are entered in the database following: (1) the decision date, for prosecutions; (2) the date an administrative penalty was paid or due (30 days after issuance), whichever is sooner; and (3) the date the document was issued for all other enforcement actions.

These search results are based on information provided by AEP. AEP advises that they try to provide the best information possible. However, AEP advises that it cannot guarantee that the information provided is complete or accurate and that any person relying on these search results does so at their own risk. More information may be gained by referring to original enforcement documents. Alberta Energy Regulator (AER) enforcement actions are not included (see the AER Public Compliance dashboard database).

Copies of orders are available from the Environmental Law Centre. Any other enforcement information may be available directly from Alberta Environment.

Yours Sincerely,



Cindy Dewing  
Enforcement Search Service  
Encl.

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December 3, 2018

Our File: 123319

Ms. Erica Andrew  
Stantec Consulting Ltd.  
200, 325 - 25th Street SE  
Calgary, AB T2A 7H8

Dear Ms. Andrew:

**RE: Search Requested - Raymond Allan Nicoll**

In response to your request of November 30, 2018, we have searched the Environmental Enforcement Historical Search Service database for an exact match with respect to the above request, and can advise that as of today's date, there have been NO enforcement actions issued by Alberta Environment and Parks (AEP) pursuant to the Alberta "Environmental Protection and Enhancement Act" ("EPEA") and its predecessor legislation, the "Hazardous Chemicals Act", "Agricultural Chemicals Act", "Clean Water Act" and "Clean Air Act" to 1971, and/or pursuant to the "Water Act" from 1999 onwards.

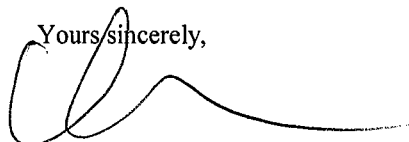
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Enforcement actions are entered in the database following: (1) the decision date, for prosecutions; (2) the date an administrative penalty was paid or due (30 days after issuance), whichever is sooner; and (3) the date the document was issued for all other enforcement actions.

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Copies of orders are available from the Environmental Law Centre. Any other enforcement information may be available directly from Alberta Environment.

Yours sincerely,



Cindy Dewing  
Enforcement Search Service  
Encl.

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December 3, 2018

Our File: 123320

Ms. Erica Andrew  
Stantec Consulting Ltd.  
200, 325 - 25th Street SE  
Calgary, AB T2A 7H8

Dear Ms. Andrew:

**RE: Search Requested - El Condor Lands Inc.**

In response to your request of November 30, 2018, we have searched the Environmental Enforcement Historical Search Service database for an exact match with respect to the above request, and can advise that as of today's date, there have been NO enforcement actions issued by Alberta Environment and Parks (AEP) pursuant to the Alberta "Environmental Protection and Enhancement Act" ("EPEA") and its predecessor legislation, the "Hazardous Chemicals Act", "Agricultural Chemicals Act", "Clean Water Act" and "Clean Air Act" to 1971, and/or pursuant to the "Water Act" from 1999 onwards.

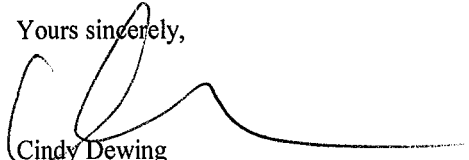
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Copies of orders are available from the Environmental Law Centre. Any other enforcement information may be available directly from Alberta Environment.

Yours sincerely,

  
Cindy Dewing  
Enforcement Search Service  
Encl.

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December 3, 2018

Our File: 123322

Ms. Erica Andrew  
Stantec Consulting Ltd.  
200, 325 - 25th Street SE  
Calgary, AB T2A 7H8

Dear Ms. Andrew:

**RE: Search Requested - Brian James Copithorne**

In response to your request of November 30, 2018, we have searched the Environmental Enforcement Historical Search Service database for an exact match with respect to the above request, and can advise that as of today's date, there have been NO enforcement actions issued by Alberta Environment and Parks (AEP) pursuant to the Alberta "Environmental Protection and Enhancement Act" ("EPEA") and its predecessor legislation, the "Hazardous Chemicals Act", "Agricultural Chemicals Act", "Clean Water Act" and "Clean Air Act" to 1971, and/or pursuant to the "Water Act" from 1999 onwards.

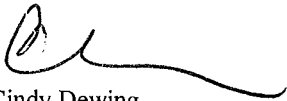
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Enforcement actions are entered in the database following: (1) the decision date, for prosecutions; (2) the date an administrative penalty was paid or due (30 days after issuance), whichever is sooner; and (3) the date the document was issued for all other enforcement actions.

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Copies of orders are available from the Environmental Law Centre. Any other enforcement information may be available directly from Alberta Environment.

Yours sincerely,



Cindy Dewing  
Enforcement Search Service  
Encl.

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---

December 3, 2018

Our File: 123323

Ms. Erica Andrew  
Stantec Consulting Ltd.  
200, 325 - 25th Street SE  
Calgary, AB T2A 7H8

Dear Ms. Andrew:

**RE: Search Requested - Eskomas Inc.**

In response to your request of November 30, 2018, we have searched the Environmental Enforcement Historical Search Service database for an exact match with respect to the above request, and can advise that as of today's date, there have been NO enforcement actions issued by Alberta Environment and Parks (AEP) pursuant to the Alberta "Environmental Protection and Enhancement Act" ("EPEA") and its predecessor legislation, the "Hazardous Chemicals Act", "Agricultural Chemicals Act", "Clean Water Act" and "Clean Air Act" to 1971, and/or pursuant to the "Water Act" from 1999 onwards.


This search is limited to the following enforcement actions under EPEA and its predecessor legislation: Tickets, Prosecutions, Administrative Penalties, Warnings, Enforcement Orders, Enforcement Orders Concerning Waste, Environmental Protection Orders, Emergency Environmental Protection Orders, Emission Control Orders, Chemical Control Orders, Water Quality Control Orders and Stop Orders. This search is limited to the following enforcement actions under the Water Act: Prosecutions, Administrative Penalties, Water Management Orders, Warnings and Enforcement Orders. It does not include Clean Up Orders issued under the Litter Act or Environmental Protection Orders respecting unsightly property issued under EPEA; this information may be available from the local municipality.

Enforcement actions are entered in the database following: (1) the decision date, for prosecutions; (2) the date an administrative penalty was paid or due (30 days after issuance), whichever is sooner; and (3) the date the document was issued for all other enforcement actions.

These search results are based on information provided by AEP. AEP advises that they try to provide the best information possible. However, AEP advises that it cannot guarantee that the information provided is complete or accurate and that any person relying on these search results does so at their own risk. More information may be gained by referring to original enforcement documents. Alberta Energy Regulator (AER) enforcement actions are not included (see the AER Public Compliance dashboard database).

Copies of orders are available from the Environmental Law Centre. Any other enforcement information may be available directly from Alberta Environment.

Yours sincerely,



Cindy Dewing  
Enforcement Search Service  
Encl.



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---

December 3, 2018

Our File: 123324

Ms. Erica Andrew  
Stantec Consulting Ltd.  
200, 325 - 25th Street SE  
Calgary, AB T2A 7H8

Dear Ms. Andrew:

### **RE: Search Requested - Robert Louis Copithorne**

In response to your request of November 30, 2018, we have searched the Environmental Enforcement Historical Search Service database for an exact match with respect to the above request, and can advise that as of today's date, there have been NO enforcement actions issued by Alberta Environment and Parks (AEP) pursuant to the Alberta "Environmental Protection and Enhancement Act" ("EPEA") and its predecessor legislation, the "Hazardous Chemicals Act", "Agricultural Chemicals Act", "Clean Water Act" and "Clean Air Act" to 1971, and/or pursuant to the "Water Act" from 1999 onwards.


This search is limited to the following enforcement actions under EPEA and its predecessor legislation: Tickets, Prosecutions, Administrative Penalties, Warnings, Enforcement Orders, Enforcement Orders Concerning Waste, Environmental Protection Orders, Emergency Environmental Protection Orders, Emission Control Orders, Chemical Control Orders, Water Quality Control Orders and Stop Orders. This search is limited to the following enforcement actions under the Water Act: Prosecutions, Administrative Penalties, Water Management Orders, Warnings and Enforcement Orders. It does not include Clean Up Orders issued under the Litter Act or Environmental Protection Orders respecting unsightly property issued under EPEA; this information may be available from the local municipality.

Enforcement actions are entered in the database following: (1) the decision date, for prosecutions; (2) the date an administrative penalty was paid or due (30 days after issuance), whichever is sooner; and (3) the date the document was issued for all other enforcement actions.

These search results are based on information provided by AEP. AEP advises that they try to provide the best information possible. However, AEP advises that it cannot guarantee that the information provided is complete or accurate and that any person relying on these search results does so at their own risk. More information may be gained by referring to original enforcement documents. Alberta Energy Regulator (AER) enforcement actions are not included (see the AER Public Compliance dashboard database).

Copies of orders are available from the Environmental Law Centre. Any other enforcement information may be available directly from Alberta Environment.

Yours sincerely,



Cindy Dewing  
Enforcement Search Service  
Encl.

## **ENVIRONMENTAL LAW CENTRE**

#410, 10115 - 100A Street, Edmonton, AB T5J 2W2

Phone: (780) 424-5099 Fax: (780) 424-5133

Internet: [www.elc.ab.ca](http://www.elc.ab.ca) E-Mail: [elc@elc.ab.ca](mailto:elc@elc.ab.ca)

---

December 3, 2018

Our File: 123325

Ms. Erica Andrew  
Stantec Consulting Ltd.  
200, 325 - 25th Street SE  
Calgary, AB T2A 7H8

Dear Ms. Andrew:

**RE: Search Requested - Honey-King Industries Ltd.**

In response to your request of November 30, 2018, we have searched the Environmental Enforcement Historical Search Service database for an exact match with respect to the above request, and can advise that as of today's date, there have been NO enforcement actions issued by Alberta Environment and Parks (AEP) pursuant to the Alberta "Environmental Protection and Enhancement Act" ("EPEA") and its predecessor legislation, the "Hazardous Chemicals Act", "Agricultural Chemicals Act", "Clean Water Act" and "Clean Air Act" to 1971, and/or pursuant to the "Water Act" from 1999 onwards.

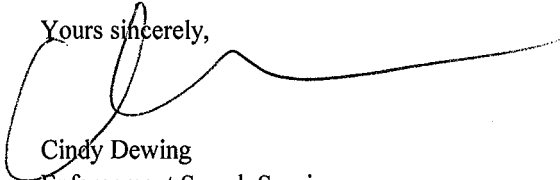
This search is limited to the following enforcement actions under EPEA and its predecessor legislation: Tickets, Prosecutions, Administrative Penalties, Warnings, Enforcement Orders, Enforcement Orders Concerning Waste, Environmental Protection Orders, Emergency Environmental Protection Orders, Emission Control Orders, Chemical Control Orders, Water Quality Control Orders and Stop Orders. This search is limited to the following enforcement actions under the Water Act: Prosecutions, Administrative Penalties, Water Management Orders, Warnings and Enforcement Orders. It does not include Clean Up Orders issued under the Litter Act or Environmental Protection Orders respecting unsightly property issued under EPEA; this information may be available from the local municipality.

Enforcement actions are entered in the database following: (1) the decision date, for prosecutions; (2) the date an administrative penalty was paid or due (30 days after issuance), whichever is sooner; and (3) the date the document was issued for all other enforcement actions.

These search results are based on information provided by AEP. AEP advises that they try to provide the best information possible. However, AEP advises that it cannot guarantee that the information provided is complete or accurate and that any person relying on these search results does so at their own risk. More information may be gained by referring to original enforcement documents. Alberta Energy Regulator (AER) enforcement actions are not included (see the AER Public Compliance dashboard database).

Copies of orders are available from the Environmental Law Centre. Any other enforcement information may be available directly from Alberta Environment.

Yours sincerely,



Cindy Dewing  
Enforcement Search Service  
Encl.



# DATABASE REPORT

**Project Property:** *Desktop Assessment  
Desktop  
Bragg Creek AB*

**Project No:**

**Report Type:** *Quote - Custom-Build Your Own Report*

**Order No:** *20180920150*

**Requested by:** *Stantec Consulting Ltd.*

**Date Completed:** *October 16, 2018*

**Environmental Risk  
Information Services**  
A division of Glacier Media Inc.  
P: 1.866.517.5204  
E: [info@erisinfo.com](mailto:info@erisinfo.com)

**[www.erisinfo.com](http://www.erisinfo.com)**

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# Executive Summary

## **Property Information:**

**Project Property:** *Desktop Assessment  
Desktop Bragg Creek AB*

**Project No:**

## **Order Information:**

**Order No:** *20180920150*  
**Date Requested:** *September 20, 2018*  
**Requested by:** *Stantec Consulting Ltd.*  
**Report Type:** *Quote - Custom-Build Your Own Report*

## **Historical/Products:**

## Executive Summary: Report Summary

<b>Database</b>	<b>Name</b>	<b>Searched</b>	<b>Project Property</b>	<b>Boundary to 0.25km</b>	<b>Total</b>
AER OGW	Well Licenses	Y	1	0	1
AGR	Agriculture and Fisheries - Certificates of Approval	Y	0	0	0
AOGW	Alberta Oil and Gas Wells	Y	1	0	1
AUWR	Automobile Wrecking & Supplies	Y	0	0	0
CAWD	Waste Management Facilities - Certificates of Approval	Y	0	0	0
CFO	Confined Feeding Operations	Y	0	0	0
CHEM	Chemical Processing Operations - Certificates of Approval	Y	0	0	0
CNG	Compressed Natural Gas Stations	Y	0	0	0
CONV	Compliance and Convictions	Y	0	0	0
DRYCLEANERS	Dry Cleaning Facilities	Y	0	0	0
EAS	Enforcement Action Summary	Y	0	0	0
EEM	Environmental Effects Monitoring	Y	0	0	0
EHS	ERIS Historical Searches	Y	1	0	1
EIIS	Environmental Issues Inventory System	Y	0	0	0
EPST	Alberta Environment & Parks Storage Tanks	Y	0	0	0
ESAR	Environmental Site Assessment Repository	Y	0	1	1
FAC	Facility List	Y	0	0	0
FCON	Federal Convictions	Y	0	0	0
FCS	Contaminated Sites on Federal Land	Y	0	0	0
FIS	Field Inspection Incident Report	Y	0	1	1
FOOD	Food Processing Operations - Certificates of Approval	Y	0	0	0
FST	PTMAA Fuel Storage Tanks	Y	0	3	3
GEN	Waste Generators Summary	Y	0	0	0
GHG	Greenhouse Gas Emissions from Large Facilities	Y	0	0	0
GPP	Gas Processing Plants	Y	0	0	0
HELP	Alberta Environment's H.E.L.P. (Help End Landfill Pollution) Program Database	Y	0	0	0
HORW	Horizontal Wells	Y	0	0	0
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0
LDS	Identification and Verification of Active and Inactive Land Disposal Sites	Y	0	0	0
LDSI	Land Disposal Sites on Indian Reserves	Y	0	0	0
LUM	Lumber Related Operations - Certificates of Approval	Y	0	0	0
MINE	Canadian Mine Locations	Y	0	0	0
MMB	Metals, Minerals and Building Materials Operations - Certificates of Approval	Y	0	0	0
MNR	Mineral Occurrences	Y	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0

<b>Database</b>	<b>Name</b>	<b>Searched</b>	<b>Project Property</b>	<b>Boundary to 0.25km</b>	<b>Total</b>
NCST	<i>PTMAA Non-Compliant Storage Tanks</i>	Y	0	0	0
NDFT	<i>National Defense &amp; Canadian Forces Fuel Tanks</i>	Y	0	0	0
NDSP	<i>National Defense &amp; Canadian Forces Spills</i>	Y	0	0	0
NDWD	<i>National Defence &amp; Canadian Forces Waste Disposal Sites</i>	Y	0	0	0
NEBI	<i>National Energy Board Pipeline Incidents</i>	Y	0	0	0
NEBW	<i>National Energy Board Wells</i>	Y	0	0	0
NEES	<i>National Environmental Emergencies System (NEES)</i>	Y	0	0	0
NPCB	<i>National PCB Inventory</i>	Y	0	0	0
NPRI	<i>National Pollutant Release Inventory</i>	Y	0	0	0
OAM	<i>Operating and Abandoned Mines</i>	Y	0	0	0
OGW	<i>Oil and Gas Wells</i>	Y	0	0	0
OIL & GAS FACILITIES	<i>Oil and Gas Facilities - ST102 &amp; ST50</i>	Y	0	0	0
ORP	<i>Alberta Orphan Wells</i>	Y	0	0	0
PAP	<i>Canadian Pulp and Paper</i>	Y	0	0	0
PCFT	<i>Parks Canada Fuel Storage Tanks</i>	Y	0	0	0
PCG	<i>Petrochemical, Coal and Gas Operations - Certificates of Approval</i>	Y	0	0	0
PES	<i>Pesticide Register</i>	Y	0	0	0
PITS	<i>Conglomerate and Waste Management Facilities</i>	Y	1	1	2
PSP	<i>Alberta Private Sewage Disposal Permits</i>	Y	0	0	0
PTAP	<i>PTMAA Approved (Open) Permits</i>	Y	0	0	0
REC	<i>Hazardous Waste Receivers Summary</i>	Y	0	0	0
RST	<i>Retail Fuel Storage Tanks</i>	Y	0	0	0
SCT	<i>Scott's Manufacturing Directory</i>	Y	0	0	0
SPEC	<i>Special Operation Classifications - Certificates of Approval</i>	Y	0	0	0
WDS	<i>Inventory of Waste Disposal Sites</i>	Y	0	0	0
WSTE	<i>Wastewater Operations</i>	Y	0	0	0
WWIS	<i>Alberta Water Well Information Database</i>	Y	23	14	37
<b>Total:</b>			27	20	47

## Executive Summary: Site Report Summary - Project Property

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Dir/Dist (m)</i>	<i>Elev diff (m)</i>	<i>Page Number</i>
<a href="#">1</a>	WWIS		AB <i>Well ID: 387813</i>	-/0.0	-5.61	<a href="#">20</a>
<a href="#">2</a>	WWIS		AB <i>Well ID: 492942</i>	-/0.0	-21.61	<a href="#">24</a>
<a href="#">3</a>	WWIS		AB <i>Well ID: 367657</i>	-/0.0	-19.69	<a href="#">30</a>
<a href="#">4</a>	WWIS		AB <i>Well ID: 349308</i>	-/0.0	-10.65	<a href="#">34</a>
<a href="#">5</a>	WWIS		AB <i>Well ID: 12021191</i>	-/0.0	-14.22	<a href="#">37</a>
<a href="#">5</a>	WWIS		AB <i>Well ID: 387819</i>	-/0.0	-14.22	<a href="#">42</a>
<a href="#">5</a>	WWIS		AB <i>Well ID: 387817</i>	-/0.0	-14.22	<a href="#">46</a>
<a href="#">5</a>	WWIS		AB <i>Well ID: 491787</i>	-/0.0	-14.22	<a href="#">51</a>



<b>Map Key</b>	<b>DB</b>	<b>Company/Site Name</b>	<b>Address</b>	<b>Dir/Dist (m)</b>	<b>Elev diff (m)</b>	<b>Page Number</b>
<a href="#">5</a>	WWIS		AB <i>Well ID: 387820</i>	-/0.0	-14.22	<a href="#">57</a>
<a href="#">6</a>	WWIS		AB <i>Well ID: 387825</i>	-/0.0	-0.15	<a href="#">60</a>
<a href="#">7</a>	EHS		210 5 Ave Cochrane AB <i>Order ID: 233376</i>	-/0.0	0.44	<a href="#">64</a>
<a href="#">8</a>	WWIS		AB <i>Well ID: 498385</i>	-/0.0	1.93	<a href="#">64</a>
<a href="#">8</a>	WWIS		AB <i>Well ID: 389065</i>	-/0.0	1.93	<a href="#">70</a>
<a href="#">8</a>	WWIS		AB <i>Well ID: 387570</i>	-/0.0	1.93	<a href="#">72</a>
<a href="#">8</a>	WWIS		AB <i>Well ID: 497688</i>	-/0.0	1.93	<a href="#">74</a>
<a href="#">8</a>	WWIS		AB <i>Well ID: 389064</i>	-/0.0	1.93	<a href="#">78</a>
<a href="#">9</a>	WWIS		AB <i>Well ID: 11365353</i>	-/0.0	3.39	<a href="#">81</a>
<a href="#">9</a>	WWIS		AB	-/0.0	3.39	<a href="#">85</a>

<b>Map Key</b>	<b>DB</b>	<b>Company/Site Name</b>	<b>Address</b>	<b>Dir/Dist (m)</b>	<b>Elev diff (m)</b>	<b>Page Number</b>
			<b>Well ID:</b> 10878469			
<a href="#">10</a>	WWIS		AB	-/0.0	38.47	<a href="#">91</a>
			<b>Well ID:</b> 469216			
<a href="#">11</a>	WWIS		AB	-/0.0	18.61	<a href="#">97</a>
			<b>Well ID:</b> 387571			
<a href="#">12</a>	WWIS		AB	-/0.0	-1.07	<a href="#">99</a>
			<b>Well ID:</b> 492943			
<a href="#">12</a>	WWIS		AB	-/0.0	-1.07	<a href="#">107</a>
			<b>Well ID:</b> 387831			
<a href="#">13</a>	AOGW		AB	-/0.0	21.12	<a href="#">113</a>
<a href="#">14</a>	AERW	D.BODNARUK REPLACEMENT W 6-10-24-4	AB	-/0.0	24.39	<a href="#">113</a>
<a href="#">15</a>	PITS		Municipal District of Rocky View No. 44 AB	-/0.0	24.37	<a href="#">113</a>
<a href="#">16</a>	WWIS		AB	-/0.0	26.39	<a href="#">113</a>
			<b>Well ID:</b> 387569			
<a href="#">17</a>	WWIS		AB	-/0.0	5.39	<a href="#">118</a>
			<b>Well ID:</b> 387563			

## Executive Summary: Site Report Summary - Surrounding Properties

<b>Map Key</b>	<b>DB</b>	<b>Company/Site Name</b>	<b>Address</b>	<b>Dir/Dist (m)</b>	<b>Elev Diff (m)</b>	<b>Page Number</b>
<a href="#">18</a>	WWIS		AB <i>Well ID:</i> 387562	SSW/14.9	1.39	<a href="#">121</a>
<a href="#">19</a>	WWIS		AB <i>Well ID:</i> 11365296	SSW/27.1	-0.61	<a href="#">124</a>
<a href="#">20</a>	FST	VOLKER STEVIN HWY MAINT.- ELBOW RIVER	ROCKY VIEW COUNTY (A) AB	SSW/50.0	-0.35	<a href="#">130</a>
<a href="#">20</a>	FST	VOLKER STEVIN HWY MAINT.- ELBOW RIVER	ROCKY VIEW COUNTY (A) AB	SSW/50.0	-0.35	<a href="#">130</a>
<a href="#">20</a>	PITS		Municipal District of Rocky View No. 44 AB	SSW/50.0	-0.35	<a href="#">131</a>
<a href="#">21</a>	WWIS		AB <i>Well ID:</i> 364650	NNW/60.6	1.51	<a href="#">131</a>
<a href="#">22</a>	FST	VOLKER STEVIN HWY MAINT.- ELBOW RIVER	42025-TWP RD 242 ROCKY VIEW #44 AB AB	SW/65.2	48.16	<a href="#">134</a>
<a href="#">23</a>	WWIS		AB <i>Well ID:</i> 388875	ENE/101.0	7.43	<a href="#">135</a>
<a href="#">24</a>	WWIS		AB <i>Well ID:</i> 387801	W/123.6	19.67	<a href="#">139</a>
<a href="#">25</a>	WWIS		AB <i>Well ID:</i> 388874	E/125.5	-11.94	<a href="#">144</a>
<a href="#">25</a>	WWIS		AB <i>Well ID:</i> 402318	E/125.5	-11.94	<a href="#">148</a>
<a href="#">26</a>	ESAR	VOLKER STEVIN MAINTENANCE YARD	Rocky View County SPRINGBANK - AB	SSW/164.0	-1.61	<a href="#">154</a>

<b>Map Key</b>	<b>DB</b>	<b>Company/Site Name</b>	<b>Address</b>	<b>Dir/Dist (m)</b>	<b>Elev Diff (m)</b>	<b>Page Number</b>
<a href="#"><u>27</u></a>	WWIS		AB <b>Well ID:</b> 341639	SSW/165.0	-5.61	<a href="#"><u>154</u></a>
<a href="#"><u>28</u></a>	FIS	Plains Midstream Canada ULC	06-13-024-04W5 AB	SE/175.3	-29.61	<a href="#"><u>162</u></a>
<a href="#"><u>29</u></a>	WWIS		AB <b>Well ID:</b> 390430	SSW/175.6	-5.61	<a href="#"><u>163</u></a>
<a href="#"><u>29</u></a>	WWIS		AB <b>Well ID:</b> 387568	SSW/175.6	-5.61	<a href="#"><u>169</u></a>
<a href="#"><u>30</u></a>	WWIS		AB <b>Well ID:</b> 12022646	SW/192.6	5.44	<a href="#"><u>174</u></a>
<a href="#"><u>31</u></a>	WWIS		AB <b>Well ID:</b> 12009083	ESE/217.5	-43.61	<a href="#"><u>179</u></a>
<a href="#"><u>32</u></a>	WWIS		AB <b>Well ID:</b> 388866	E/238.2	-47.61	<a href="#"><u>184</u></a>
<a href="#"><u>33</u></a>	WWIS		AB <b>Well ID:</b> 12009086	ESE/242.4	-43.61	<a href="#"><u>188</u></a>

# Executive Summary: Summary By Data Source

## **AER OGW - Well Licenses**

A search of the AER OGW database, dated Feb 28, 2018 has found that there are 1 AER OGW site(s) within approximately 0.25 kilometers of the project property.

<b><u>Site</u></b>	<b><u>Address</u></b>	<b><u>Distance (m)</u></b>	<b><u>Map Key</u></b>
D.BODNARUK REPLACEMENT W 6-10-24-4	AB	0.0	<a href="#">14</a>

## **AOGW - Alberta Oil and Gas Wells**

A search of the AOGW database, dated 1883-Sept 2003\* has found that there are 1 AOGW site(s) within approximately 0.25 kilometers of the project property.

<b><u>Site</u></b>	<b><u>Address</u></b>	<b><u>Distance (m)</u></b>	<b><u>Map Key</u></b>
	AB	0.0	<a href="#">13</a>

## **EHS - ERIS Historical Searches**

A search of the EHS database, dated 1999-Feb 28, 2018 has found that there are 1 EHS site(s) within approximately 0.25 kilometers of the project property.

<b><u>Site</u></b>	<b><u>Address</u></b>	<b><u>Distance (m)</u></b>	<b><u>Map Key</u></b>
	210 5 Ave Cochrane AB  <i>Order ID: 233376</i>	0.0	<a href="#">7</a>

## **ESAR - Environmental Site Assessment Repository**

A search of the ESAR database, dated 1960-Jun 2018 has found that there are 1 ESAR site(s) within approximately 0.25 kilometers of the project property.

<b><u>Site</u></b>	<b><u>Address</u></b>	<b><u>Distance (m)</u></b>	<b><u>Map Key</u></b>
VOLKER STEVIN MAINTENANCE YARD	Rocky View County SPRINGBANK - AB	164.0	<a href="#">26</a>

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
-------------	----------------	---------------------	----------------

### **FIS - Field Inspection Incident Report**

A search of the FIS database, dated 1975-Jul 2018 has found that there are 1 FIS site(s) within approximately 0.25 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
Plains Midstream Canada ULC	06-13-024-04W5 AB	175.3	<a href="#">28</a>

### **FST - PTMAA Fuel Storage Tanks**

A search of the FST database, dated 1985-Jun 2018 has found that there are 3 FST site(s) within approximately 0.25 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
VOLKER STEVIN HWY MAINT.- ELBOW RIVER	ROCKY VIEW COUNTY (A) AB	50.0	<a href="#">20</a>
VOLKER STEVIN HWY MAINT.- ELBOW RIVER	ROCKY VIEW COUNTY (A) AB	50.0	<a href="#">20</a>
VOLKER STEVIN HWY MAINT.- ELBOW RIVER	42025-TWP RD 242 ROCKY VIEW #44 AB AB	65.2	<a href="#">22</a>

### **PITS - Conglomerate and Waste Management Facilities**

A search of the PITS database, dated 1993-2012 has found that there are 2 PITS site(s) within approximately 0.25 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
	Municipal District of Rocky View No. 44 AB	0.0	<a href="#">15</a>
	Municipal District of Rocky View No. 44 AB	50.0	<a href="#">20</a>

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
-------------	----------------	---------------------	----------------

**WWIS - Alberta Water Well Information Database**

A search of the WWIS database, dated 1880-Apr 30, 2018 has found that there are 37 WWIS site(s) within approximately 0.25 kilometers of the project property.

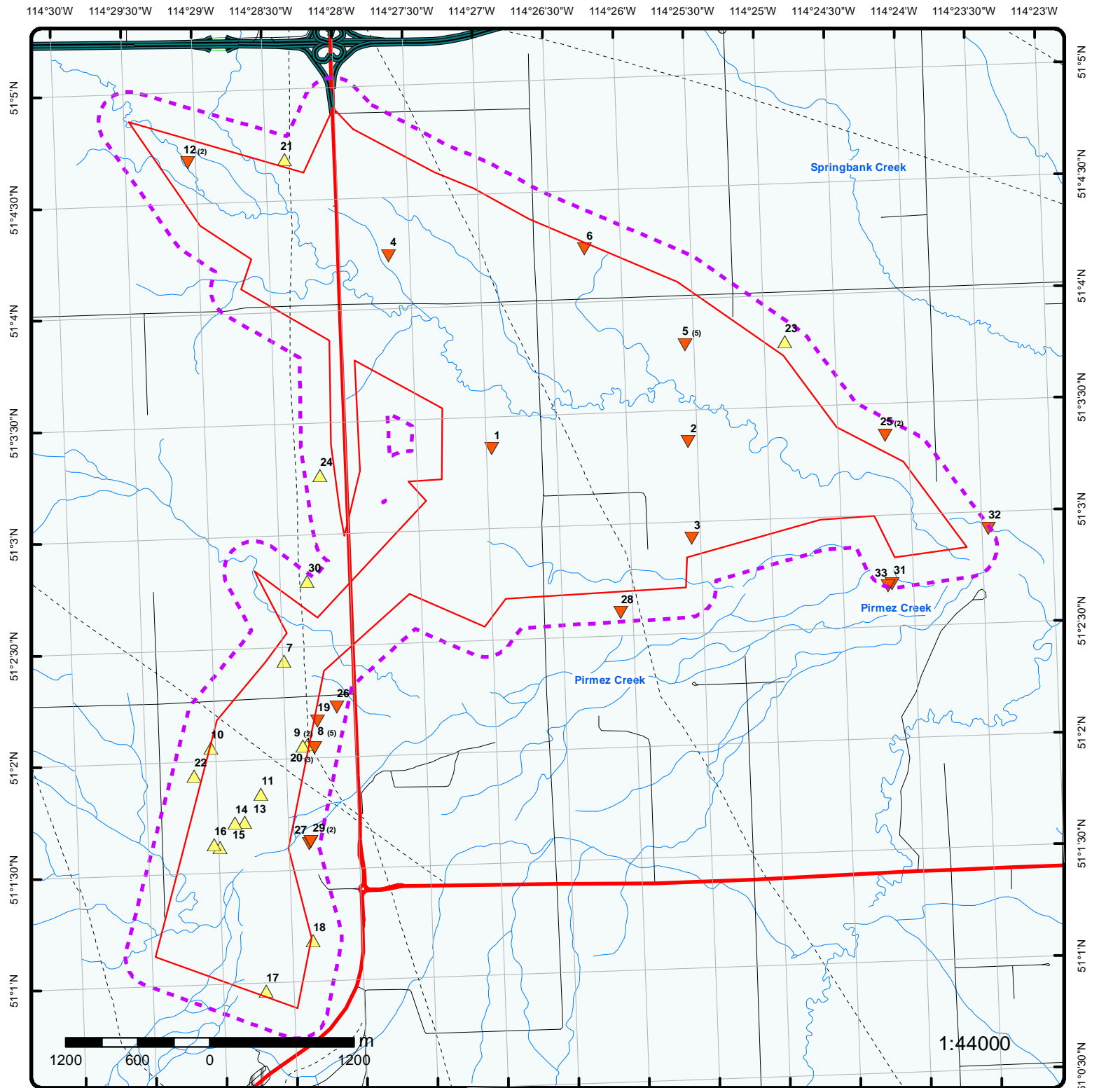
<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
	AB <i>Well ID: 387813</i>	0.0	<a href="#"><u>1</u></a>
	AB <i>Well ID: 492942</i>	0.0	<a href="#"><u>2</u></a>
	AB <i>Well ID: 367657</i>	0.0	<a href="#"><u>3</u></a>
	AB <i>Well ID: 349308</i>	0.0	<a href="#"><u>4</u></a>
	AB <i>Well ID: 387820</i>	0.0	<a href="#"><u>5</u></a>
	AB <i>Well ID: 491787</i>	0.0	<a href="#"><u>5</u></a>
	AB <i>Well ID: 387817</i>	0.0	<a href="#"><u>5</u></a>
	AB <i>Well ID: 387819</i>	0.0	<a href="#"><u>5</u></a>
	AB <i>Well ID: 12021191</i>	0.0	<a href="#"><u>5</u></a>

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
	AB <i>Well ID: 387825</i>	0.0	<u>6</u>
	AB <i>Well ID: 498385</i>	0.0	<u>8</u>
	AB <i>Well ID: 389065</i>	0.0	<u>8</u>
	AB <i>Well ID: 387570</i>	0.0	<u>8</u>
	AB <i>Well ID: 497688</i>	0.0	<u>8</u>
	AB <i>Well ID: 389064</i>	0.0	<u>8</u>
	AB <i>Well ID: 11365353</i>	0.0	<u>9</u>
	AB <i>Well ID: 10878469</i>	0.0	<u>9</u>
	AB <i>Well ID: 469216</i>	0.0	<u>10</u>
	AB <i>Well ID: 387571</i>	0.0	<u>11</u>
	AB <i>Well ID: 492943</i>	0.0	<u>12</u>
	AB	0.0	<u>12</u>



<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
	<i>Well ID:</i> 387831		
	AB	0.0	<a href="#">16</a>
	<i>Well ID:</i> 387569		
	AB	0.0	<a href="#">17</a>
	<i>Well ID:</i> 387563		
	AB	14.9	<a href="#">18</a>
	<i>Well ID:</i> 387562		
	AB	27.1	<a href="#">19</a>
	<i>Well ID:</i> 11365296		
	AB	60.6	<a href="#">21</a>
	<i>Well ID:</i> 364650		
	AB	101.0	<a href="#">23</a>
	<i>Well ID:</i> 388875		
	AB	123.6	<a href="#">24</a>
	<i>Well ID:</i> 387801		
	AB	125.5	<a href="#">25</a>
	<i>Well ID:</i> 388874		
	AB	125.5	<a href="#">25</a>
	<i>Well ID:</i> 402318		
	AB	165.0	<a href="#">27</a>
	<i>Well ID:</i> 341639		
	AB	175.6	<a href="#">29</a>
	<i>Well ID:</i> 390430		

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
	AB <i>Well ID:</i> 387568	175.6	<a href="#"><u>29</u></a>
	AB <i>Well ID:</i> 12022646	192.6	<a href="#"><u>30</u></a>
	AB <i>Well ID:</i> 12009083	217.5	<a href="#"><u>31</u></a>
	AB <i>Well ID:</i> 388866	238.2	<a href="#"><u>32</u></a>
	AB <i>Well ID:</i> 12009086	242.4	<a href="#"><u>33</u></a>



### Map : 0.25 Kilometer Radius

Order No: 20180920150  
 Address: Desktop, Bragg Creek, AB



Project Property	Expressway	Industrial and Resource - Regions	National Park
Buffer Outline	Principal Highway	Main Line	Provincial or Territorial Park
Eris Sites with Higher Elevation	Secondary Highway	Sidetrack	Other Park
Eris Sites with Same Elevation	Major Road	Transit Line	Golf Course or Driving Range
Eris Sites with Lower Elevation	Local road	Abandoned Line	Park or Sports Field
Eris Sites with Unknown Elevation	Trail	Proposed Road	Other Recreation Area
	Proposed Road		
	Ferry Route/Ice Road		

114°30'W

114°28'30"W

114°27'W

114°25'30"W

114°24'W

51°4'30"N

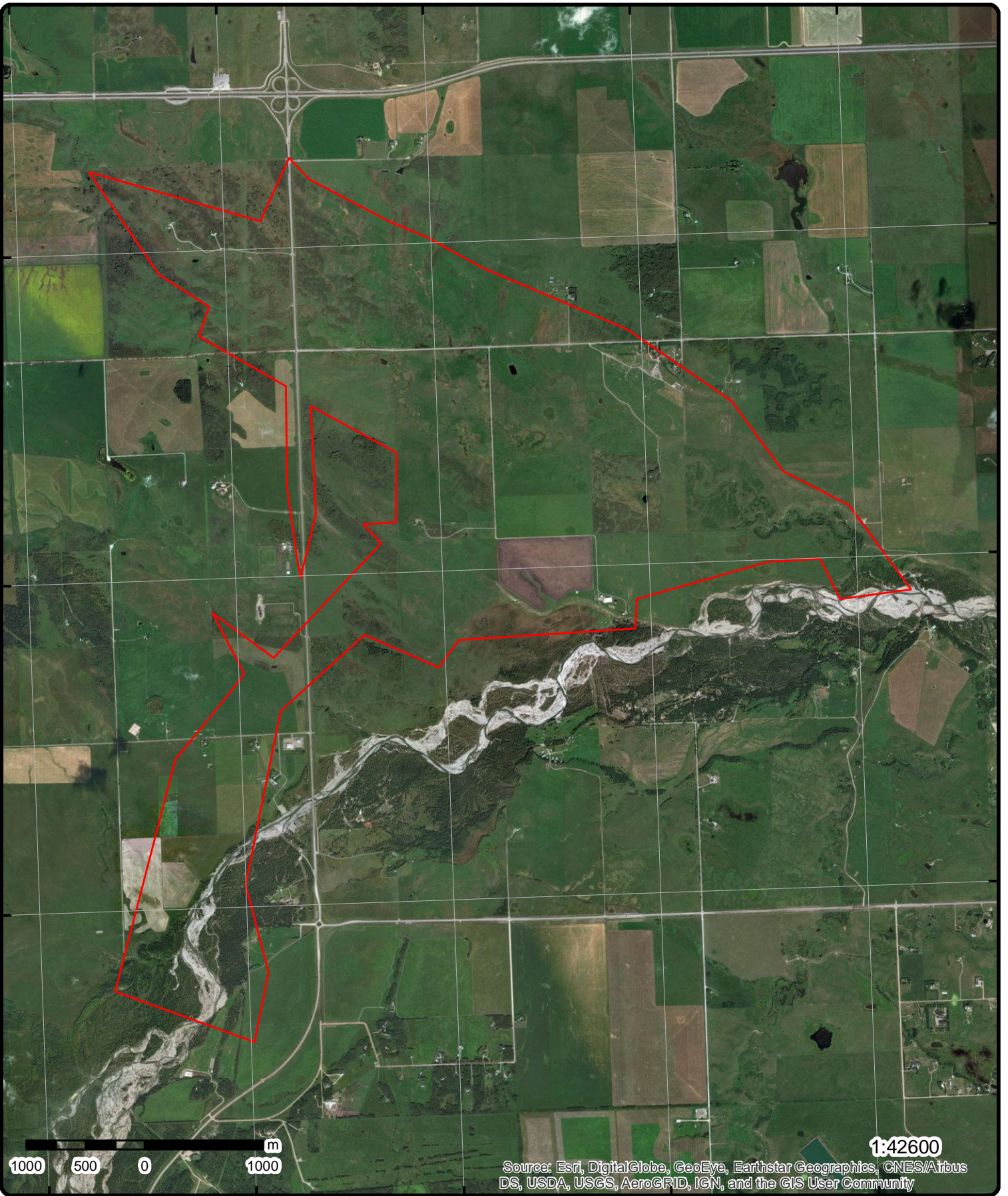
51°3'N

51°1'30"N

51°4'30"N

51°3'N

51°1'30"N



1:42600

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

# Aerial (2016)

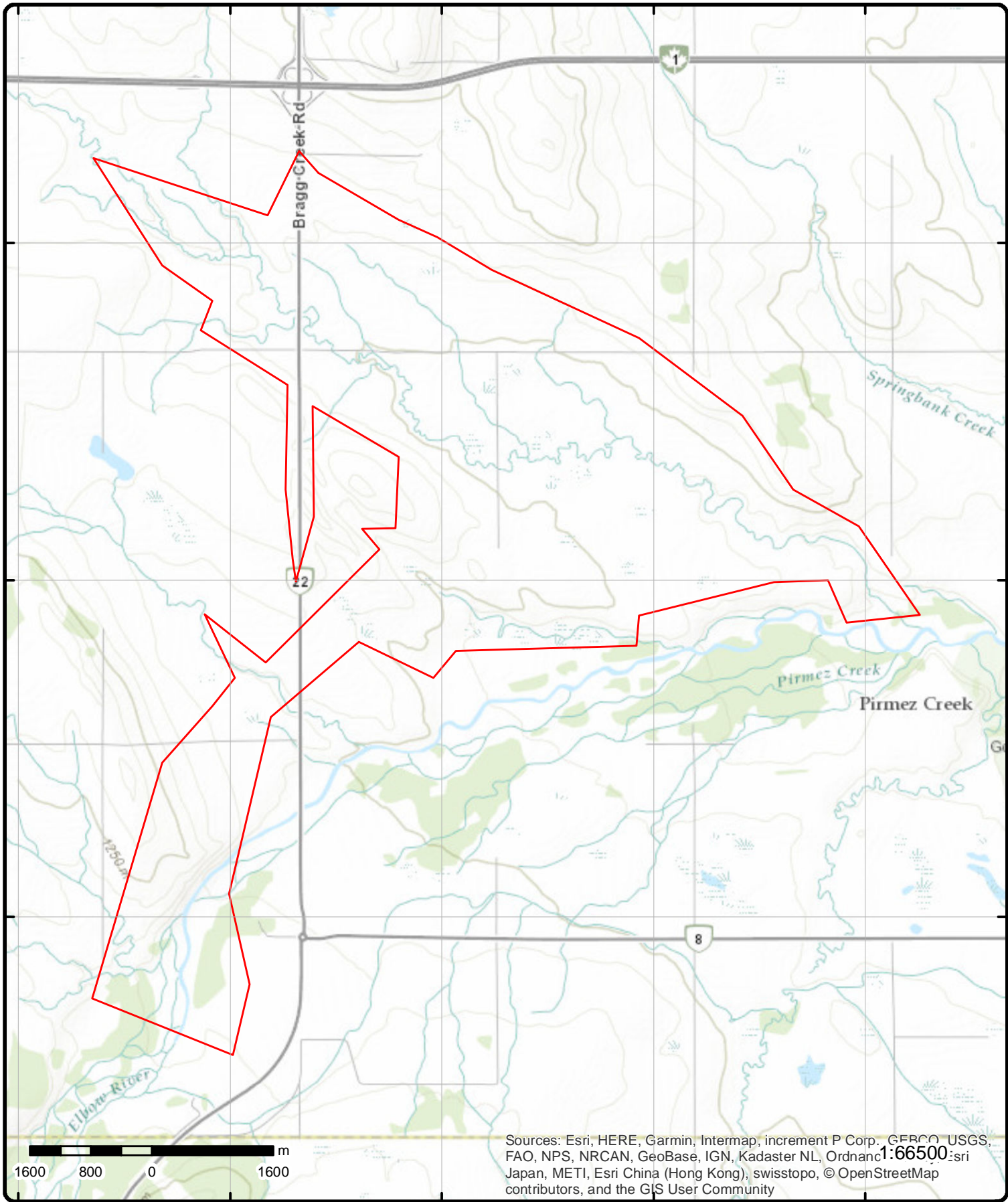
Address: Desktop, Bragg Creek, AB

Source: ESRI World Imagery

Order No: 20180920150



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Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

# Topographic Map

Address: Desktop, Bragg Creek, AB

Source: ESRI World Topographic Map

Order No: 20180920150



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# Detail Report

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>1</u>	1 of 1	-/0.0	1,210.0 / -5.61	AB	WWIS
<b>Well ID:</b> 387813 <b>Driller ID:</b> 24084 <b>Licence No:</b> <b>GIC Well ID:</b> 387813 <b>GOA Well Tag No:</b> <b>Elevation (ft):</b> <b>Depth (ft):</b> <b>Date Completed:</b> <b>Proposed Use:</b> <b>Lot:</b> <b>Block:</b> <b>Plan:</b> <b>Type of Work:</b> <b>Flowing Well:</b> <b>Date Started:</b> <b>Water Req Per Day:</b> <b>Gas Present:</b> <b>Oil Present:</b> <b>Flow Rate:</b> <b>Drilling Company:</b> <b>Owner Mailing Address:</b> <b>Driller Mailing Address:</b>		<b>Elevation Source:</b> Not Obtained <b>Method of Drilling:</b> <b>GPS Obtained:</b> Map <b>Boundary From:</b> <b>Distance North:</b> <b>Distance South:</b> <b>Distance East:</b> <b>Distance West:</b> <b>Additional Desc:</b> <b>Validated?:</b> Yes <b>Submitted?:</b> Yes <b>Location Locked?:</b> Yes <b>Longitude:</b> -114.449422 <b>Latitude:</b> 51.055994 <b>LSD:</b> SE <b>Section:</b> 23 <b>Township:</b> 24 <b>Range:</b> 4 <b>Meridian:</b> 5 <b>DLS Coordinates:</b> SE-23-24-4-5			

**Well Reports**

<b>Well Report ID:</b> 387813 <b>Well Owner ID:</b> 10660178 <b>Driller ID:</b> 2533726 <b>Drill Company ID:</b> 24084 <b>Drill Instance ID:</b> 8337970 <b>Drill Comp Well ID:</b> <b>Existing Well ID:</b> <b>Date Received:</b> 1983/01/20 <b>Type of Work:</b> New Well <b>Plug Date:</b> <b>Plug Material Type:</b> <b>Plug Mat Amount:</b> <b>Plugged Units:</b> <b>Well Use:</b> Stock <b>Other Well Use:</b> <b>Total Depth Drill:</b> 210.00 <b>Finish Well Depth:</b> <b>Casing Material:</b> Steel <b>Casing OD:</b> 6.00 <b>Casing Thickness:</b> 0.188 <b>Casing Bottom:</b> 35.00 <b>Liner Material:</b> Steel <b>Liner OD:</b> 5.00 <b>Liner Thickness:</b> 0.156 <b>Liner Top:</b> 0.00 <b>Liner Bottom:</b> 210.00 <b>Perforation by:</b> Torch	<b>Annular Seal Mat:</b> Driven <b>Annular Seal from:</b> 0.00 <b>Annular Seal to:</b> 35.00 <b>Annular Seal Amt:</b> <b>Annular Seal Units:</b> <b>Drilling Method:</b> Cable Tool <b>Drilling Start Dt:</b> <b>Drilling End Dt:</b> 1982/10/25 <b>Pack Type:</b> <b>Pack Grain Size:</b> <b>Pack Amount:</b> <b>Pack Units:</b> <b>Loc Verify Method:</b> Map <b>Dist Casing Ground:</b> <b>Artesian Flow?:</b> No <b>Artesian Flow Rate:</b> <b>Gas Depth:</b> <b>Encounter Gas?:</b> No <b>Flow Ctrl Install?:</b> No <b>Recommended Rate:</b> 0.00 <b>Recom Intake Depth:</b> 200.00 <b>Pump Installed?:</b> No <b>Pump Install Depth:</b> <b>Pump Model:</b> <b>Pump Horsepower:</b> <b>Well Disinfected?:</b> No <b>Other Log:</b>
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Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Screen Material:				Divert Water Src:	
Screen Size OD:	0.00			Divert Water Amt:	
Screen Attachment:				Diversion Dt/Time:	
Screen Top Fitting:				Is Submitted?:	Yes
Screen Bot Fitting:				Is Validated?:	Yes
Encounter Saline Water?:	No				
Saline Water Depth:					
Potability Sample Taken?:	No				
Potable Sample Sent to AENV?:	No				
Approval Holder Sign Date:					
Drilling Report Given to Owner:	No				
Model Output Rating:					
Remedial Action:					
Flow Control Description:					
Pump Type Installed:					
Created by:					
Submitted by:					
Additional Comments:					

#### Well Owners

Well Owner ID:	10660178
Owner Name:	ELBOW RIVER RANCH
PO Box:	
Address:	RR2, CALGARY
City:	
Postal Code:	T2P 2G5
Province:	
Country:	

#### Drillers

Driller ID:	2533726
Last Name:	DRILLER
Middle Initial:	NA
First Name:	UNKNOWN
Journeyman No:	1
Is Active?:	Yes

#### Drilling Companies

Starting Well ID:	1893200
Ending Well ID:	1893299
Last Well ID Used:	1893200
Company Name:	INTERPROVINCIAL DRILLING CONTRACTORS
Street Address:	SUB PO 36
City:	CALGARY
Province:	AB
Country:	CA
Postal Code:	
E-Mail:	GWINFO@GOV.AB.CA
Is Active?:	No

#### Perforations

Perforation ID:	4202519
From:	156
To:	170
Diameter:	0.125
Interval:	12

#### Perforations

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<i>Perforation ID:</i>		4260956			
<i>From:</i>		180			
<i>To:</i>		200			
<i>Diameter:</i>		0			
<i>Interval:</i>		0			
 <b><u>Geophysical Logs</u></b>					
<i>Geophysical Log ID:</i>		5552321			
<i>Log Type:</i>		Electric			
<i>Log Taken?:</i>		No			
<i>Sent to AENV?:</i>		No			
 <b><u>Geophysical Logs</u></b>					
<i>Geophysical Log ID:</i>		5955396			
<i>Log Type:</i>		Gamma			
<i>Log Taken?:</i>		No			
<i>Sent to AENV?:</i>		No			
 <b><u>Boreholes</u></b>					
<i>Borehole ID:</i>		653821			
<i>Diameter:</i>		0			
<i>From:</i>		0			
<i>To:</i>		210			
 <b><u>Lithologies</u></b>					
<i>Depth:</i>		15			
<i>Water Bearing:</i>		No			
<i>Colour:</i>		Brown			
<i>Description:</i>					
<i>Material:</i>		Clay			
 <b><u>Lithologies</u></b>					
<i>Depth:</i>		91			
<i>Water Bearing:</i>		No			
<i>Colour:</i>		Gray			
<i>Description:</i>					
<i>Material:</i>		Shale			
 <b><u>Lithologies</u></b>					
<i>Depth:</i>		2			
<i>Water Bearing:</i>		No			
<i>Colour:</i>					
<i>Description:</i>					
<i>Material:</i>		Topsoil			
 <b><u>Lithologies</u></b>					
<i>Depth:</i>		23			
<i>Water Bearing:</i>		No			
<i>Colour:</i>		Brown			
<i>Description:</i>		Fractured			
<i>Material:</i>		Sandstone			



<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b><u>Lithologies</u></b>					
<b>Depth:</b>			116		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>			Sandy		
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			161		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			40		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Brown		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			166		
<b>Water Bearing:</b>			Yes		
<b>Colour:</b>					
<b>Description:</b>			Water Bearing		
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			186		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>			Sandy		
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			210		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			73		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Brown		
<b>Description:</b>					
<b>Material:</b>			Sand & Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			136		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Blue Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		196			
<b>Water Bearing:</b>		Yes			
<b>Colour:</b>					
<b>Description:</b>		Water Bearing			
<b>Material:</b>		Sandstone			
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>		10332136			
<b>Test Date:</b>		1982/10/25			
<b>Start Time:</b>		12:00 AM			
<b>Taken from Top of Casing:</b>		No			
<b>Static Water Level:</b>		90			
<b>End Water Level:</b>		130			
<b>Water Removal Type:</b>		Bailer			
<b>Water Removal Rate:</b>		7			
<b>Removal Depth from:</b>		130			
<b>Reason for Short Test:</b>					

2      1 of 1      -/0.0      1,194.0 / -21.61      AB      WWIS

<b>Well ID:</b>	492942	<b>Elevation Source:</b>	Not Obtained
<b>Driller ID:</b>	24053	<b>Method of Drilling:</b>	
<b>Licence No:</b>		<b>GPS Obtained:</b>	Not Verified
<b>GIC Well ID:</b>	492942	<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>		<b>Distance North:</b>	
<b>Elevation (ft):</b>		<b>Distance South:</b>	
<b>Depth (ft):</b>		<b>Distance East:</b>	
<b>Date Completed:</b>		<b>Distance West:</b>	
<b>Proposed Use:</b>		<b>Additional Desc:</b>	
<b>Lot:</b>		<b>Validated?:</b>	Yes
<b>Block:</b>		<b>Submitted?:</b>	Yes
<b>Plan:</b>		<b>Location Locked?:</b>	Yes
<b>Type of Work:</b>		<b>Longitude:</b>	-114.426122
<b>Flowing Well:</b>		<b>Latitude:</b>	51.055994
<b>Date Started:</b>		<b>LSD:</b>	SE
<b>Water Req Per Day:</b>		<b>Section:</b>	24
<b>Gas Present:</b>		<b>Township:</b>	24
<b>Oil Present:</b>		<b>Range:</b>	4
<b>Flow Rate:</b>		<b>Meridian:</b>	5
<b>Drilling Company:</b>		<b>DLS Coordinates:</b>	SE-24-24-4-5
<b>Owner Mailing Address:</b>			
<b>Driller Mailing Address:</b>			

**Well Reports**

<b>Well Report ID:</b>	492942	<b>Annular Seal Mat:</b>	Driven
<b>Well Owner ID:</b>	10751209	<b>Annular Seal from:</b>	1.00
<b>Driller ID:</b>	2533726	<b>Annular Seal to:</b>	42.00
<b>Drill Company ID:</b>	24053	<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8335386	<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>		<b>Drilling Method:</b>	Rotary
<b>Existing Well ID:</b>		<b>Drilling Start Dt:</b>	1999/04/07
<b>Date Received:</b>	1999/07/05	<b>Drilling End Dt:</b>	1999/04/07

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Type of Work:</b>	New Well			<b>Pack Type:</b>	
<b>Plug Date:</b>				<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>				<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>				<b>Pack Units:</b>	
<b>Plugged Units:</b>				<b>Loc Verify Method:</b>	Not Verified
<b>Well Use:</b>	Domestic			<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>				<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	142.00			<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>				<b>Gas Depth:</b>	
<b>Casing Material:</b>	Steel			<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	6.62			<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.188			<b>Recommended Rate:</b>	10.00
<b>Casing Bottom:</b>	42.00			<b>Recom Intake Depth:</b>	130.00
<b>Liner Material:</b>	Plastic			<b>Pump Installed?:</b>	Yes
<b>Liner OD:</b>	4.50			<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.237			<b>Pump Model:</b>	
<b>Liner Top:</b>	30.00			<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	142.00			<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>	Saw			<b>Other Log:</b>	
<b>Screen Material:</b>				<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00			<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>				<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>				<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>				<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No				
<b>Saline Water Depth:</b>					
<b>Potability Sample Taken?:</b>	No				
<b>Potable Sample Sent to AENV?:</b>	No				
<b>Approval Holder Sign Date:</b>					
<b>Drilling Report Given to Owner:</b>	No				
<b>Model Output Rating:</b>					
<b>Remedial Action:</b>					
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>	SUB				
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>				DRILLER REPORTS DISTANCE FROM TOP OF CASING TO GROUND LEVEL: 14".	

#### Well Owners

**Well Owner ID:** 10751209  
**Owner Name:** HALF DIAMOND J.E. RANCH  
**PO Box:**  
**Address:** 1230 MERIDIAN RD NE, CALGARY  
**City:**  
**Postal Code:** T2A 2N9  
**Province:**  
**Country:**

#### Drillers

**Driller ID:** 2533726  
**Last Name:** DRILLER  
**Middle Initial:** NA  
**First Name:** UNKNOWN  
**Journeyman No:** 1  
**Is Active?:** Yes

#### Drilling Companies

**Starting Well ID:** 1465000  
**Ending Well ID:** 1469999  
**Last Well ID Used:** 1465064

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b>Company Name:</b>		LOU'S WATER WELL DRILLING			
<b>Street Address:</b>		BOX 1021			
<b>City:</b>		COCHRANE			
<b>Province:</b>		AB			
<b>Country:</b>		CA			
<b>Postal Code:</b>		T4C 1B1			
<b>E-Mail:</b>		gwinfo@gov.ab.ca			
<b>Is Active?:</b>		Yes			
<b><u>Perforations</u></b>					
<b>Perforation ID:</b>		4202523			
<b>From:</b>		80			
<b>To:</b>		120			
<b>Diameter:</b>		0.125			
<b>Interval:</b>		10			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5955402			
<b>Log Type:</b>		Gamma			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5552327			
<b>Log Type:</b>		Electric			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		653827			
<b>Diameter:</b>		0			
<b>From:</b>		0			
<b>To:</b>		142			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		35			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Clay			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		42			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Clay			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		95			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		142			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		120			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		70			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>		Soft			
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		60			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Light Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		90			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		75			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		123			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Depth:</b>		37			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Gravel			
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>		10386708			
<b>Test Date:</b>		1999/04/16			
<b>Start Time:</b>		12:00 AM			
<b>Taken from Top of Casing:</b>		No			
<b>Static Water Level:</b>		17			
<b>End Water Level:</b>		28			
<b>Water Removal Type:</b>		Pump			
<b>Water Removal Rate:</b>		30			
<b>Removal Depth from:</b>		120			
<b>Reason for Short Test:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8238530			
<b>Minutes:</b>		0			
<b>Pumping Depth:</b>		17.5522			
<b>Recovery Depth:</b>		28.2478			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8238536			
<b>Minutes:</b>		6			
<b>Pumping Depth:</b>		20.9971			
<b>Recovery Depth:</b>		17.5522			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8238539			
<b>Minutes:</b>		20			
<b>Pumping Depth:</b>		23.1294			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8238543			
<b>Minutes:</b>		120			
<b>Pumping Depth:</b>		28.2476			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8238540			
<b>Minutes:</b>		30			
<b>Pumping Depth:</b>		23.8841			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8238541			
<b>Minutes:</b>		60			
<b>Pumping Depth:</b>		25.7214			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8238531			
<b>Minutes:</b>		1			
<b>Pumping Depth:</b>		18.6349			
<b>Recovery Depth:</b>		20.0129			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8238538			
<b>Minutes:</b>		10			
<b>Pumping Depth:</b>		21.7844			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8238542			
<b>Minutes:</b>		90			
<b>Pumping Depth:</b>		26.9024			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8238535			
<b>Minutes:</b>		5			
<b>Pumping Depth:</b>		20.7347			
<b>Recovery Depth:</b>		17.6507			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8238537			
<b>Minutes:</b>		8			
<b>Pumping Depth:</b>		21.4563			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8238532			
<b>Minutes:</b>		2			
<b>Pumping Depth:</b>		19.4879			
<b>Recovery Depth:</b>		18.8974			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8238533			
<b>Minutes:</b>		3			
<b>Pumping Depth:</b>		20.0128			
<b>Recovery Depth:</b>		178.738			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8238534			
<b>Minutes:</b>		4			
<b>Pumping Depth:</b>		20.4066			
<b>Recovery Depth:</b>		17.8803			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>3</u>	1 of 1	-0.0	1,195.9 / -19.69	AB	WWIS
<b>Well ID:</b>	367657			<b>Elevation Source:</b>	Not Obtained
<b>Driller ID:</b>	24053			<b>Method of Drilling:</b>	
<b>Licence No:</b>				<b>GPS Obtained:</b>	Map
<b>GIC Well ID:</b>	367657			<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>				<b>Distance North:</b>	
<b>Elevation (ft):</b>				<b>Distance South:</b>	
<b>Depth (ft):</b>				<b>Distance East:</b>	
<b>Date Completed:</b>				<b>Distance West:</b>	
<b>Proposed Use:</b>				<b>Additional Desc:</b>	
<b>Lot:</b>				<b>Validated?:</b>	Yes
<b>Block:</b>				<b>Submitted?:</b>	Yes
<b>Plan:</b>				<b>Location Locked?:</b>	Yes
<b>Type of Work:</b>				<b>Longitude:</b>	-114.426098
<b>Flowing Well:</b>				<b>Latitude:</b>	51.048768
<b>Date Started:</b>				<b>LSD:</b>	NE
<b>Water Req Per Day:</b>				<b>Section:</b>	13
<b>Gas Present:</b>				<b>Township:</b>	24
<b>Oil Present:</b>				<b>Range:</b>	4
<b>Flow Rate:</b>				<b>Meridian:</b>	5
<b>Drilling Company:</b>				<b>DLS Coordinates:</b>	NE-13-24-4-5
<b>Owner Mailing Address:</b>					
<b>Driller Mailing Address:</b>					

**Well Reports**

<b>Well Report ID:</b>	367657	<b>Annular Seal Mat:</b>	Driven
<b>Well Owner ID:</b>	10640251	<b>Annular Seal from:</b>	0.00
<b>Driller ID:</b>	2533726	<b>Annular Seal to:</b>	43.00
<b>Drill Company ID:</b>	24053	<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8335386	<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>		<b>Drilling Method:</b>	Rotary
<b>Existing Well ID:</b>		<b>Drilling Start Dt:</b>	1992/10/04
<b>Date Received:</b>	1993/02/04	<b>Drilling End Dt:</b>	1992/10/04
<b>Type of Work:</b>	New Well	<b>Pack Type:</b>	
<b>Plug Date:</b>		<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>		<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>		<b>Pack Units:</b>	
<b>Plugged Units:</b>		<b>Loc Verify Method:</b>	Map
<b>Well Use:</b>	Domestic & Stock	<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>		<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	142.00	<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>		<b>Gas Depth:</b>	
<b>Casing Material:</b>	Steel	<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	6.62	<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.188	<b>Recommended Rate:</b>	10.00
<b>Casing Bottom:</b>	43.00	<b>Recom Intake Depth:</b>	135.00
<b>Liner Material:</b>	Steel	<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	4.50	<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.156	<b>Pump Model:</b>	
<b>Liner Top:</b>	36.00	<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	142.00	<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>	Torch	<b>Other Log:</b>	
<b>Screen Material:</b>		<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00	<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>		<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>		<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>		<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No		
<b>Saline Water Depth:</b>			
<b>Potability Sample Taken?:</b>	No		
<b>Potable Sample Sent to AENV?:</b>	No		
<b>Approval Holder Sign Date:</b>			



<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b>Drilling Report Given to Owner:</b> No					
<b>Model Output Rating:</b>					
<b>Remedial Action:</b>					
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>					
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>					
<b><u>Well Owners</u></b>					
<b>Well Owner ID:</b> 10640251					
<b>Owner Name:</b> COPITHORNE, EDWARD					
<b>PO Box:</b>					
<b>Address:</b> RR2, CALGARY					
<b>City:</b>					
<b>Postal Code:</b> T2P 2G5					
<b>Province:</b>					
<b>Country:</b>					
<b><u>Drillers</u></b>					
<b>Driller ID:</b> 2533726					
<b>Last Name:</b> DRILLER					
<b>Middle Initial:</b> NA					
<b>First Name:</b> UNKNOWN					
<b>Journeyman No:</b> 1					
<b>Is Active?:</b> Yes					
<b><u>Drilling Companies</u></b>					
<b>Starting Well ID:</b> 1465000					
<b>Ending Well ID:</b> 1469999					
<b>Last Well ID Used:</b> 1465064					
<b>Company Name:</b> LOU'S WATER WELL DRILLING					
<b>Street Address:</b> BOX 1021					
<b>City:</b> COCHRANE					
<b>Province:</b> AB					
<b>Country:</b> CA					
<b>Postal Code:</b> T4C 1B1					
<b>E-Mail:</b> gwinfo@gov.ab.ca					
<b>Is Active?:</b> Yes					
<b><u>Perforations</u></b>					
<b>Perforation ID:</b> 4205516					
<b>From:</b> 55					
<b>To:</b> 142					
<b>Diameter:</b> 0.125					
<b>Interval:</b> 10					
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b> 5964208					
<b>Log Type:</b> Gamma					
<b>Log Taken?:</b> No					
<b>Sent to AENV?:</b> No					
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b> 5561133					

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b>Log Type:</b>		Electric			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		662633			
<b>Diameter:</b>		0			
<b>From:</b>		0			
<b>To:</b>		142			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		22			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Gravel			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		122			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>		Hard			
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		62			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>		Hard			
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		25			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		White			
<b>Description:</b>		Hard			
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		43			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		142			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Dark Gray			
<b>Description:</b>		Hard			
<b>Material:</b>		Shale			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b><u>Lithologies</u></b>					
<b>Depth:</b>			50		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			55		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			120		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>			Hard		
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			20		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Brown		
<b>Description:</b>					
<b>Material:</b>			Clay		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			100		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>			Hard		
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			12		
<b>Water Bearing:</b>			No		
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>			Gravel		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			40		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Brown		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			90		
<b>Water Bearing:</b>			No		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Colour:</b>		Gray			
<b>Description:</b>		Hard			
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		10			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Clay			
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>		10320873			
<b>Test Date:</b>		1993/02/04			
<b>Start Time:</b>		12:00 AM			
<b>Taken from Top of Casing:</b>		No			
<b>Static Water Level:</b>		80			
<b>End Water Level:</b>		142			
<b>Water Removal Type:</b>		Air			
<b>Water Removal Rate:</b>		15			
<b>Removal Depth from:</b>		142			
<b>Reason for Short Test:</b>					

<u>4</u>	1 of 1	-0.0	1,205.0 / -10.65	AB	WWIS
<b>Well ID:</b>	349308			<b>Elevation Source:</b>	Not Obtained
<b>Driller ID:</b>	24041			<b>Method of Drilling:</b>	
<b>Licence No:</b>				<b>GPS Obtained:</b>	Not Verified
<b>GIC Well ID:</b>	349308			<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>				<b>Distance North:</b>	
<b>Elevation (ft):</b>				<b>Distance South:</b>	
<b>Depth (ft):</b>				<b>Distance East:</b>	
<b>Date Completed:</b>				<b>Distance West:</b>	
<b>Proposed Use:</b>				<b>Additional Desc:</b>	
<b>Lot:</b>				<b>Validated?:</b>	Yes
<b>Block:</b>				<b>Submitted?:</b>	Yes
<b>Plan:</b>				<b>Location Locked?:</b>	Yes
<b>Type of Work:</b>				<b>Longitude:</b>	-114.460892
<b>Flowing Well:</b>				<b>Latitude:</b>	51.070653
<b>Date Started:</b>				<b>LSD:</b>	SW
<b>Water Req Per Day:</b>				<b>Section:</b>	26
<b>Gas Present:</b>				<b>Township:</b>	24
<b>Oil Present:</b>				<b>Range:</b>	4
<b>Flow Rate:</b>				<b>Meridian:</b>	5
<b>Drilling Company:</b>				<b>DLS Coordinates:</b>	SW-26-24-4-5
<b>Owner Mailing Address:</b>					
<b>Driller Mailing Address:</b>					

**Well Reports**

<b>Well Report ID:</b>	349308	<b>Annular Seal Mat:</b>	Driven
<b>Well Owner ID:</b>	10688813	<b>Annular Seal from:</b>	84.00
<b>Driller ID:</b>	2533726	<b>Annular Seal to:</b>	84.00
<b>Drill Company ID:</b>	24041	<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8335136	<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>		<b>Drilling Method:</b>	Cable Tool
<b>Existing Well ID:</b>		<b>Drilling Start Dt:</b>	1987/09/22
<b>Date Received:</b>		<b>Drilling End Dt:</b>	1987/09/22
<b>Type of Work:</b>	New Well	<b>Pack Type:</b>	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Plug Date:</b>				<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>				<b>Pack Amount:</b>	0.00
<b>Plug Mat Amount:</b>				<b>Pack Units:</b>	
<b>Plugged Units:</b>				<b>Loc Verify Method:</b>	Not Verified
<b>Well Use:</b>	Stock			<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>				<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	160.00			<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>				<b>Gas Depth:</b>	
<b>Casing Material:</b>	Steel			<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	6.62			<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.188			<b>Recommended Rate:</b>	5.00
<b>Casing Bottom:</b>	84.00			<b>Recom Intake Depth:</b>	155.00
<b>Liner Material:</b>	Steel			<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	5.56			<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.156			<b>Pump Model:</b>	
<b>Liner Top:</b>	71.00			<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	160.00			<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>	Torch			<b>Other Log:</b>	
<b>Screen Material:</b>				<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00			<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>				<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>				<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>				<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No				
<b>Saline Water Depth:</b>					
<b>Potability Sample Taken?:</b>	No				
<b>Potable Sample Sent to AENV?:</b>	No				
<b>Approval Holder Sign Date:</b>					
<b>Drilling Report Given to Owner:</b>	No				
<b>Model Output Rating:</b>					
<b>Remedial Action:</b>					
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>					
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>		WATER ANALYSIS TDS: 800 PPM IRON: .5 PPM HARDNESS: 17 PPM			

#### Well Owners

**Well Owner ID:** 10688813  
**Owner Name:** COPITHORNE, BOB/BRIAN  
**PO Box:**  
**Address:** RR2, CALGARY  
**City:**  
**Postal Code:**  
**Province:**  
**Country:**

#### Drillers

**Driller ID:** 2533726  
**Last Name:** DRILLER  
**Middle Initial:** NA  
**First Name:** UNKNOWN  
**Journeyman No:** 1  
**Is Active?:** Yes

#### Drilling Companies

**Starting Well ID:** 1020000  
**Ending Well ID:** 1024999  
**Last Well ID Used:** 1022979  
**Company Name:** AARON DRILLING INC.

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b>Street Address:</b>		242222 2nd Street East			
<b>City:</b>		Foothills			
<b>Province:</b>		ALBERTA			
<b>Country:</b>		CANADA			
<b>Postal Code:</b>		T1S 3K9			
<b>E-Mail:</b>		admin@aarondrilling.com			
<b>Is Active?:</b>		Yes			
<b><u>Perforations</u></b>					
<b>Perforation ID:</b>		4202527			
<b>From:</b>		120			
<b>To:</b>		160			
<b>Diameter:</b>		0.25			
<b>Interval:</b>		12			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5955408			
<b>Log Type:</b>		Gamma			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5552333			
<b>Log Type:</b>		Electric			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		653833			
<b>Diameter:</b>		0			
<b>From:</b>		0			
<b>To:</b>		160			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		75			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>		Sandy			
<b>Material:</b>		Clay			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		86			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		138			
<b>Water Bearing:</b>		Yes			
<b>Colour:</b>		Gray			
<b>Description:</b>		Water Bearing			
<b>Material:</b>		Sandstone			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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**Lithologies**

Depth: 160  
 Water Bearing: No  
 Colour: Blue  
 Description:  
 Material: Shale

**Lithologies**

Depth: 151  
 Water Bearing: No  
 Colour: Gray  
 Description:  
 Material: Shale

**Lithologies**

Depth: 81  
 Water Bearing: No  
 Colour: Gray  
 Description:  
 Material: Shale

**Lithologies**

Depth: 131  
 Water Bearing: No  
 Colour: Gray  
 Description:  
 Material: Shale

**Pump Tests**

Pump Test ID: 10350746  
 Test Date: 1987/09/22  
 Start Time: 12:00 AM  
 Taken from Top of Casing: No  
 Static Water Level: 25  
 End Water Level: 0  
 Water Removal Type: Bailer  
 Water Removal Rate: 5  
 Removal Depth from: 155  
 Reason for Short Test:

<u>5</u>	1 of 5	-/0.0	1,201.4 / -14.22	AB	WWIS
Well ID:	12021191			Elevation Source:	Not Obtained
Driller ID:	12000012			Method of Drilling:	
Licence No:				GPS Obtained:	Not Verified
GIC Well ID:	9546128			Boundary From:	
GOA Well Tag No:				Distance North:	
Elevation (ft):				Distance South:	
Depth (ft):				Distance East:	
Date Completed:				Distance West:	
Proposed Use:				Additional Desc:	GERALD MEGUINIS PROPERTY
Lot:				Validated?:	No
Block:				Submitted?:	No
Plan:				Location Locked?:	No

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Type of Work:</b>				<b>Longitude:</b>	-114.42613
<b>Flowing Well:</b>				<b>Latitude:</b>	51.063225
<b>Date Started:</b>				<b>LSD:</b>	NE
<b>Water Req Per Day:</b>				<b>Section:</b>	24
<b>Gas Present:</b>				<b>Township:</b>	24
<b>Oil Present:</b>				<b>Range:</b>	4
<b>Flow Rate:</b>				<b>Meridian:</b>	5
<b>Drilling Company:</b>				<b>DLS Coordinates:</b>	NE-24-24-4-5
<b>Owner Mailing Address:</b>					
<b>Driller Mailing Address:</b>					

### Well Reports

<b>Well Report ID:</b>	12022757	<b>Annular Seal Mat:</b>	Bentonite Chips/Tablets
<b>Well Owner ID:</b>	12023290	<b>Annular Seal from:</b>	18.00
<b>Driller ID:</b>	10776288	<b>Annular Seal to:</b>	23.00
<b>Drill Company ID:</b>	12000012	<b>Annular Seal Amt:</b>	2.00
<b>Drill Instance ID:</b>		<b>Annular Seal Units:</b>	Bags
<b>Drill Comp Well ID:</b>		<b>Drilling Method:</b>	Rotary - Air
<b>Existing Well ID:</b>		<b>Drilling Start Dt:</b>	2014/09/17
<b>Date Received:</b>	2014/10/07	<b>Drilling End Dt:</b>	2014/09/17
<b>Type of Work:</b>	New Well	<b>Pack Type:</b>	
<b>Plug Date:</b>		<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>		<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>		<b>Pack Units:</b>	
<b>Plugged Units:</b>		<b>Loc Verify Method:</b>	
<b>Well Use:</b>	Domestic	<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>		<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	40.00	<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>	40.00	<b>Gas Depth:</b>	
<b>Casing Material:</b>	Steel	<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	6.62	<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.188	<b>Recommended Rate:</b>	6.00
<b>Casing Bottom:</b>	40.00	<b>Recom Intake Depth:</b>	35.00
<b>Liner Material:</b>		<b>Pump Installed?:</b>	No
<b>Liner OD:</b>		<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>		<b>Pump Model:</b>	
<b>Liner Top:</b>		<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>		<b>Well Disinfected?:</b>	Yes
<b>Perforation by:</b>		<b>Other Log:</b>	
<b>Screen Material:</b>		<b>Divert Water Src:</b>	HIGH RIVER FIRE HALL
<b>Screen Size OD:</b>		<b>Divert Water Amt:</b>	350.00
<b>Screen Attachment:</b>		<b>Diversion Dt/Time:</b>	2014/09/17 07:00:00 AM
<b>Screen Top Fitting:</b>		<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>		<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No		
<b>Saline Water Depth:</b>			
<b>Potability Sample Taken?:</b>	No		
<b>Potable Sample Sent to AENV?:</b>	No		
<b>Approval Holder Sign Date:</b>	2014/10/07 12:00:00 AM		
<b>Drilling Report Given to Owner:</b>	Yes		
<b>Model Output Rating:</b>			
<b>Remedial Action:</b>			
<b>Flow Control Description:</b>			
<b>Pump Type Installed:</b>			
<b>Created by:</b>			
<b>Submitted by:</b>			
<b>Additional Comments:</b>			

### Well Owners

<b>Well Owner ID:</b>	12023290
<b>Owner Name:</b>	TSUU TINA NATION
<b>PO Box:</b>	



<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Address:</b>		9911-CHULLA BLVD			
<b>City:</b>		CALGARY			
<b>Postal Code:</b>		T2W 6H6			
<b>Province:</b>		ALBERTA			
<b>Country:</b>		CANADA			
<b><u>Drillers</u></b>					
<b>Driller ID:</b>		10776288			
<b>Last Name:</b>		PARKHOUSE			
<b>Middle Initial:</b>					
<b>First Name:</b>		LEWIS			
<b>Journeyman No:</b>		4161Q			
<b>Is Active?:</b>		Yes			
<b><u>Drilling Companies</u></b>					
<b>Starting Well ID:</b>		9546000			
<b>Ending Well ID:</b>		9550999			
<b>Last Well ID Used:</b>		9546337			
<b>Company Name:</b>		AQUACLEAR DRILLING INC.			
<b>Street Address:</b>		912 15 ST SE			
<b>City:</b>		HIGH RIVER			
<b>Province:</b>		AB			
<b>Country:</b>		CA			
<b>Postal Code:</b>		T1V 1L6			
<b>E-Mail:</b>					
<b>Is Active?:</b>		Yes			
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		819876			
<b>Diameter:</b>		7.78			
<b>From:</b>		0			
<b>To:</b>		40			
<b><u>Other Seals</u></b>					
<b>Other Seal ID:</b>		18443			
<b>Other Seal Type:</b>		Driven			
<b>From:</b>					
<b>To:</b>					
<b>At:</b>		39			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		40			
<b>Water Bearing:</b>		Yes			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Gravel			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		23			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Till			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b><u>Lithologies</u></b>					
<b>Depth:</b>		1			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Topsoil			
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>		16015978			
<b>Test Date:</b>		2014/09/18			
<b>Start Time:</b>		11:00 AM			
<b>Taken from Top of Casing:</b>		Yes			
<b>Static Water Level:</b>		11.37			
<b>End Water Level:</b>					
<b>Water Removal Type:</b>		Pump			
<b>Water Removal Rate:</b>		9			
<b>Removal Depth from:</b>		35			
<b>Reason for Short Test:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12264037			
<b>Minutes:</b>		3			
<b>Pumping Depth:</b>		12.72			
<b>Recovery Depth:</b>		13.11			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12264040			
<b>Minutes:</b>		10			
<b>Pumping Depth:</b>		13.07			
<b>Recovery Depth:</b>		12.93			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12264043			
<b>Minutes:</b>		25			
<b>Pumping Depth:</b>		13.33			
<b>Recovery Depth:</b>		12.78			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12264046			
<b>Minutes:</b>		50			
<b>Pumping Depth:</b>		13.68			
<b>Recovery Depth:</b>		12.48			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12264034			
<b>Minutes:</b>		0			
<b>Pumping Depth:</b>		11.37			
<b>Recovery Depth:</b>		14.51			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12264041			
<b>Minutes:</b>		15			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Pumping Depth:</b>			13.19		
<b>Recovery Depth:</b>			12.85		
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			12264039		
<b>Minutes:</b>			5		
<b>Pumping Depth:</b>			12.9		
<b>Recovery Depth:</b>			13.02		
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			12264042		
<b>Minutes:</b>			20		
<b>Pumping Depth:</b>			13.25		
<b>Recovery Depth:</b>			12.8		
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			12264047		
<b>Minutes:</b>			60		
<b>Pumping Depth:</b>			13.79		
<b>Recovery Depth:</b>			12.32		
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			12264044		
<b>Minutes:</b>			30		
<b>Pumping Depth:</b>			13.42		
<b>Recovery Depth:</b>			12.76		
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			12264049		
<b>Minutes:</b>			90		
<b>Pumping Depth:</b>			14.15		
<b>Recovery Depth:</b>			11.93		
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			12264035		
<b>Minutes:</b>			1		
<b>Pumping Depth:</b>			12.45		
<b>Recovery Depth:</b>			13.23		
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			12264050		
<b>Minutes:</b>			105		
<b>Pumping Depth:</b>			14.37		
<b>Recovery Depth:</b>			11.87		
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			12264051		
<b>Minutes:</b>			120		
<b>Pumping Depth:</b>			14.51		
<b>Recovery Depth:</b>			11.79		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			12264045		
<b>Minutes:</b>			40		
<b>Pumping Depth:</b>			13.55		
<b>Recovery Depth:</b>			12.62		
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			12264048		
<b>Minutes:</b>			75		
<b>Pumping Depth:</b>			14		
<b>Recovery Depth:</b>			12.12		
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			12264036		
<b>Minutes:</b>			2		
<b>Pumping Depth:</b>			12.62		
<b>Recovery Depth:</b>			13.11		
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			12264038		
<b>Minutes:</b>			4		
<b>Pumping Depth:</b>			12.8		
<b>Recovery Depth:</b>			13.05		

<b><u>5</u></b>	<b>2 of 5</b>	<b>-/0.0</b>	<b>1,201.4 / -14.22</b>	<b>AB</b>	<b>WWIS</b>
<b>Well ID:</b>	387819			<b>Elevation Source:</b>	Estimated
<b>Driller ID:</b>	24084			<b>Method of Drilling:</b>	
<b>Licence No:</b>				<b>GPS Obtained:</b>	Map
<b>GIC Well ID:</b>	387819			<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>				<b>Distance North:</b>	
<b>Elevation (ft):</b>	4000			<b>Distance South:</b>	
<b>Depth (ft):</b>				<b>Distance East:</b>	
<b>Date Completed:</b>				<b>Distance West:</b>	
<b>Proposed Use:</b>				<b>Additional Desc:</b>	
<b>Lot:</b>				<b>Validated?:</b>	Yes
<b>Block:</b>				<b>Submitted?:</b>	Yes
<b>Plan:</b>				<b>Location Locked?:</b>	Yes
<b>Type of Work:</b>				<b>Longitude:</b>	-114.426122
<b>Flowing Well:</b>				<b>Latitude:</b>	51.063226
<b>Date Started:</b>				<b>LSD:</b>	NE
<b>Water Req Per Day:</b>				<b>Section:</b>	24
<b>Gas Present:</b>				<b>Township:</b>	24
<b>Oil Present:</b>				<b>Range:</b>	4
<b>Flow Rate:</b>				<b>Meridian:</b>	5
<b>Drilling Company:</b>				<b>DLS Coordinates:</b>	NE-24-24-4-5
<b>Owner Mailing Address:</b>					
<b>Driller Mailing Address:</b>					

**Well Reports**

<b>Well Report ID:</b>	387819	<b>Annular Seal Mat:</b>	Driven
<b>Well Owner ID:</b>	10660183	<b>Annular Seal from:</b>	0.00
<b>Driller ID:</b>	2533726	<b>Annular Seal to:</b>	30.00
<b>Drill Company ID:</b>	24084	<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8337970	<b>Annular Seal Units:</b>	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Drill Comp Well ID:</b>				<b>Drilling Method:</b>	Cable Tool
<b>Existing Well ID:</b>				<b>Drilling Start Dt:</b>	
<b>Date Received:</b>				<b>Drilling End Dt:</b>	1977/10/22
<b>Type of Work:</b>	New Well			<b>Pack Type:</b>	
<b>Plug Date:</b>				<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>				<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>				<b>Pack Units:</b>	
<b>Plugged Units:</b>				<b>Loc Verify Method:</b>	Map
<b>Well Use:</b>	Unknown			<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>				<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	120.00			<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>				<b>Gas Depth:</b>	
<b>Casing Material:</b>	Steel			<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	6.00			<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.188			<b>Recommended Rate:</b>	0.00
<b>Casing Bottom:</b>	30.00			<b>Recom Intake Depth:</b>	110.00
<b>Liner Material:</b>	Steel			<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	5.00			<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.000			<b>Pump Model:</b>	
<b>Liner Top:</b>	0.00			<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	120.00			<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>	Torch			<b>Other Log:</b>	
<b>Screen Material:</b>				<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00			<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>				<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>				<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>				<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No				
<b>Saline Water Depth:</b>					
<b>Potability Sample Taken?:</b>	No				
<b>Potable Sample Sent to AENV?:</b>	No				
<b>Approval Holder Sign Date:</b>					
<b>Drilling Report Given to Owner:</b>	No				
<b>Model Output Rating:</b>					
<b>Remedial Action:</b>					
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>					
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>					

#### Well Owners

**Well Owner ID:** 10660183  
**Owner Name:** ROBINSON, JOHN  
**PO Box:**  
**Address:** RR2, CALGARY  
**City:**  
**Postal Code:**  
**Province:**  
**Country:**

#### Drillers

**Driller ID:** 2533726  
**Last Name:** DRILLER  
**Middle Initial:** NA  
**First Name:** UNKNOWN  
**Journeyman No:** 1  
**Is Active?:** Yes

#### Drilling Companies

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b>Starting Well ID:</b>		1893200			
<b>Ending Well ID:</b>		1893299			
<b>Last Well ID Used:</b>		1893200			
<b>Company Name:</b>		INTERPROVINCIAL DRILLING CONTRACTORS			
<b>Street Address:</b>		SUB PO 36			
<b>City:</b>		CALGARY			
<b>Province:</b>		AB			
<b>Country:</b>		CA			
<b>Postal Code:</b>					
<b>E-Mail:</b>		GWINFO@GOV.AB.CA			
<b>Is Active?:</b>		No			
<b><u>Perforations</u></b>					
<b>Perforation ID:</b>		4260957			
<b>From:</b>		85			
<b>To:</b>		105			
<b>Diameter:</b>		0			
<b>Interval:</b>		0			
<b><u>Perforations</u></b>					
<b>Perforation ID:</b>		4202520			
<b>From:</b>		60			
<b>To:</b>		75			
<b>Diameter:</b>		0.125			
<b>Interval:</b>		12			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5955399			
<b>Log Type:</b>		Gamma			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5552324			
<b>Log Type:</b>		Electric			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		653824			
<b>Diameter:</b>		0			
<b>From:</b>		0			
<b>To:</b>		120			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		2			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Topsoil			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		27			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Clay & Boulders			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		65			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		120			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Dark Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		98			
<b>Water Bearing:</b>		Yes			
<b>Colour:</b>					
<b>Description:</b>		Water Bearing			
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		48			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>		Silty			
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		90			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		72			
<b>Water Bearing:</b>		Yes			
<b>Colour:</b>					
<b>Description:</b>		Water Bearing			
<b>Material:</b>		Sandstone			
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>		10332139			
<b>Test Date:</b>		1977/10/22			
<b>Start Time:</b>		12:00 AM			
<b>Taken from Top of Casing:</b>		No			
<b>Static Water Level:</b>		60			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
End Water Level:		90			
Water Removal Type:		Bailer			
Water Removal Rate:		12			
Removal Depth from:		90			
Reason for Short Test:					

<u>5</u>	3 of 5	-0.0	1,201.4 / -14.22	AB	WWIS
Well ID:	387817			Elevation Source:	Estimated
Driller ID:	11110			Method of Drilling:	
Licence No:				GPS Obtained:	Map
GIC Well ID:	387817			Boundary From:	
GOA Well Tag No:				Distance North:	
Elevation (ft):	3960			Distance South:	
Depth (ft):				Distance East:	
Date Completed:				Distance West:	
Proposed Use:				Additional Desc:	
Lot:				Validated?:	Yes
Block:				Submitted?:	Yes
Plan:				Location Locked?:	Yes
Type of Work:				Longitude:	-114.426122
Flowing Well:				Latitude:	51.063226
Date Started:				LSD:	NE
Water Req Per Day:				Section:	24
Gas Present:				Township:	24
Oil Present:				Range:	4
Flow Rate:				Meridian:	5
Drilling Company:				DLS Coordinates:	NE-24-24-4-5
Owner Mailing Address:					
Driller Mailing Address:					

#### Chemical Analysis

Chem Analysis ID:	2081526
Well Report ID:	387817
Sample No:	8916-W
Sample Date:	9/15/1976
Analysis Date:	10/9/1976
Laboratory:	AE
Water Level:	
Aquifer:	
Remarks:	SAMPLED FROM TAP.

#### Analysis Items

Chemical Analysis ID:	2081526
Element Name:	Iron
Element Symbol:	FE
Decimal Places:	4
Value:	-0.1

#### Analysis Items

Chemical Analysis ID:	2081526
Element Name:	Total Dissolved Solids
Element Symbol:	TDS
Decimal Places:	0
Value:	965

#### Analysis Items



<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Chemical Analysis ID:</b>		2081526			
<b>Element Name:</b>		Electrical Conductivity			
<b>Element Symbol:</b>		EC			
<b>Decimal Places:</b>		0			
<b>Value:</b>		1550			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081526			
<b>Element Name:</b>		Sodium			
<b>Element Symbol:</b>		NA			
<b>Decimal Places:</b>		4			
<b>Value:</b>		360.0006			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081526			
<b>Element Name:</b>		Chloride			
<b>Element Symbol:</b>		CL			
<b>Decimal Places:</b>		4			
<b>Value:</b>		2.0022			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081526			
<b>Element Name:</b>		Potassium			
<b>Element Symbol:</b>		K			
<b>Decimal Places:</b>		4			
<b>Value:</b>		2.352			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081526			
<b>Element Name:</b>		Nitrate plus Nitrite			
<b>Element Symbol:</b>		NO2_NO3_N			
<b>Decimal Places:</b>		4			
<b>Value:</b>		1.3986			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081526			
<b>Element Name:</b>		pH			
<b>Element Symbol:</b>		PH			
<b>Decimal Places:</b>		2			
<b>Value:</b>		8			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081526			
<b>Element Name:</b>		Fluoride			
<b>Element Symbol:</b>		F			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0.24			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081526			
<b>Element Name:</b>		Magnesium			
<b>Element Symbol:</b>		MG			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Decimal Places:</b>		4			
<b>Value:</b>		1.000768			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081526			
<b>Element Name:</b>		total Kjeldahl nitrogen			
<b>Element Symbol:</b>		TKN			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081526			
<b>Element Name:</b>		Calcium			
<b>Element Symbol:</b>		CA			
<b>Decimal Places:</b>		4			
<b>Value:</b>		1.999992			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081526			
<b>Element Name:</b>		Ion Balance			
<b>Element Symbol:</b>		IONBAL			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0.94			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081526			
<b>Element Name:</b>		Total Alkalinity			
<b>Element Symbol:</b>		TA			
<b>Decimal Places:</b>		4			
<b>Value:</b>		590			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081526			
<b>Element Name:</b>		Total Phosphorus			
<b>Element Symbol:</b>		TP			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081526			
<b>Element Name:</b>		Hydroxide			
<b>Element Symbol:</b>		OH			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081526			
<b>Element Name:</b>		Bicarbonate			
<b>Element Symbol:</b>		HCO3			
<b>Decimal Places:</b>		4			
<b>Value:</b>		719.069358			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081526			
<b>Element Name:</b>		Total Hardness			
<b>Element Symbol:</b>		TH			
<b>Decimal Places:</b>		4			
<b>Value:</b>		9			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081526			
<b>Element Name:</b>		Sulphate			
<b>Element Symbol:</b>		SO4			
<b>Decimal Places:</b>		4			
<b>Value:</b>		237.34464			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081526			
<b>Element Name:</b>		Nitrite			
<b>Element Symbol:</b>		NO2			
<b>Decimal Places:</b>		4			
<b>Value:</b>		-0.0994			
<b><u>Well Reports</u></b>					
<b>Well Report ID:</b>	387817			<b>Annular Seal Mat:</b>	
<b>Well Owner ID:</b>	10660181			<b>Annular Seal from:</b>	0.00
<b>Driller ID:</b>	2533726			<b>Annular Seal to:</b>	0.00
<b>Drill Company ID:</b>	11110			<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8337868			<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>				<b>Drilling Method:</b>	Not Applicable
<b>Existing Well ID:</b>				<b>Drilling Start Dt:</b>	
<b>Date Received:</b>	1976/09/20			<b>Drilling End Dt:</b>	
<b>Type of Work:</b>	Chemistry			<b>Pack Type:</b>	
<b>Plug Date:</b>				<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>				<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>				<b>Pack Units:</b>	
<b>Plugged Units:</b>				<b>Loc Verify Method:</b>	Map
<b>Well Use:</b>	Domestic			<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>				<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	100.00			<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>				<b>Gas Depth:</b>	
<b>Casing Material:</b>				<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	0.00			<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.000			<b>Recommended Rate:</b>	
<b>Casing Bottom:</b>	0.00			<b>Recom Intake Depth:</b>	
<b>Liner Material:</b>				<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	0.00			<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.000			<b>Pump Model:</b>	
<b>Liner Top:</b>	0.00			<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	0.00			<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>				<b>Other Log:</b>	
<b>Screen Material:</b>				<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00			<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>				<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>				<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>				<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No				
<b>Saline Water Depth:</b>					
<b>Potability Sample Taken?:</b>	No				
<b>Potable Sample Sent to AENV?:</b>	No				
<b>Approval Holder Sign Date:</b>					

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Drilling Report Given to Owner:</b> No					
<b>Model Output Rating:</b>					
<b>Remedial Action:</b>					
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>					
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>					
<b><u>Well Owners</u></b>					
<b>Well Owner ID:</b> 10660181					
<b>Owner Name:</b> ROBINSON, J.R.					
<b>PO Box:</b>					
<b>Address:</b> RR2, CALGARY					
<b>City:</b>					
<b>Postal Code:</b>					
<b>Province:</b>					
<b>Country:</b>					
<b><u>Drillers</u></b>					
<b>Driller ID:</b> 2533726					
<b>Last Name:</b> DRILLER					
<b>Middle Initial:</b> NA					
<b>First Name:</b> UNKNOWN					
<b>Journeyman No:</b> 1					
<b>Is Active?:</b> Yes					
<b><u>Drilling Companies</u></b>					
<b>Starting Well ID:</b> 1973500					
<b>Ending Well ID:</b> 1973599					
<b>Last Well ID Used:</b> 1973599					
<b>Company Name:</b> UNKNOWN DRILLER					
<b>Street Address:</b> UNKNOWN					
<b>City:</b> UNKNOWN					
<b>Province:</b> AB					
<b>Country:</b> CA					
<b>Postal Code:</b>					
<b>E-Mail:</b> gwinfo@gov.ab.ca					
<b>Is Active?:</b> No					
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b> 5552323					
<b>Log Type:</b> Electric					
<b>Log Taken?:</b> No					
<b>Sent to AENV?:</b> No					
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b> 5955398					
<b>Log Type:</b> Gamma					
<b>Log Taken?:</b> No					
<b>Sent to AENV?:</b> No					
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b> 653823					
<b>Diameter:</b> 0					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
From:		0			
To:		100			

<a href="#">5</a>	4 of 5	-/0.0	1,201.4 / -14.22	AB	WWIS
<b>Well ID:</b>	491787			<b>Elevation Source:</b>	Not Obtained
<b>Driller ID:</b>	24053			<b>Method of Drilling:</b>	
<b>Licence No:</b>				<b>GPS Obtained:</b>	Not Verified
<b>GIC Well ID:</b>	491787			<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>				<b>Distance North:</b>	
<b>Elevation (ft):</b>				<b>Distance South:</b>	
<b>Depth (ft):</b>				<b>Distance East:</b>	
<b>Date Completed:</b>				<b>Distance West:</b>	
<b>Proposed Use:</b>				<b>Additional Desc:</b>	
<b>Lot:</b>				<b>Validated?:</b>	Yes
<b>Block:</b>				<b>Submitted?:</b>	Yes
<b>Plan:</b>				<b>Location Locked?:</b>	Yes
<b>Type of Work:</b>				<b>Longitude:</b>	-114.426122
<b>Flowing Well:</b>				<b>Latitude:</b>	51.063226
<b>Date Started:</b>				<b>LSD:</b>	NE
<b>Water Req Per Day:</b>				<b>Section:</b>	24
<b>Gas Present:</b>				<b>Township:</b>	24
<b>Oil Present:</b>				<b>Range:</b>	4
<b>Flow Rate:</b>				<b>Meridian:</b>	5
<b>Drilling Company:</b>				<b>DLS Coordinates:</b>	NE-24-24-4-5
<b>Owner Mailing Address:</b>					
<b>Driller Mailing Address:</b>					

#### Well Reports

<b>Well Report ID:</b>	491787	<b>Annular Seal Mat:</b>	Driven
<b>Well Owner ID:</b>	10750056	<b>Annular Seal from:</b>	1.00
<b>Driller ID:</b>	2533726	<b>Annular Seal to:</b>	35.00
<b>Drill Company ID:</b>	24053	<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8335386	<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>		<b>Drilling Method:</b>	Rotary
<b>Existing Well ID:</b>		<b>Drilling Start Dt:</b>	1999/02/22
<b>Date Received:</b>	1999/03/17	<b>Drilling End Dt:</b>	1999/02/22
<b>Type of Work:</b>	New Well	<b>Pack Type:</b>	
<b>Plug Date:</b>		<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>		<b>Pack Amount:</b>	0.00
<b>Plug Mat Amount:</b>		<b>Pack Units:</b>	
<b>Plugged Units:</b>		<b>Loc Verify Method:</b>	Not Verified
<b>Well Use:</b>	Domestic	<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>		<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	142.00	<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>		<b>Gas Depth:</b>	
<b>Casing Material:</b>	Steel	<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	6.62	<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.188	<b>Recommended Rate:</b>	12.00
<b>Casing Bottom:</b>	35.00	<b>Recom Intake Depth:</b>	120.00
<b>Liner Material:</b>	Plastic	<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	4.50	<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.237	<b>Pump Model:</b>	
<b>Liner Top:</b>	20.00	<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	142.00	<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>	Saw	<b>Other Log:</b>	
<b>Screen Material:</b>		<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00	<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>		<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>		<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>		<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No		

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Saline Water Depth:</b>					
<b>Potability Sample Taken?:</b>		No			
<b>Potable Sample Sent to AENV?:</b>		No			
<b>Approval Holder Sign Date:</b>					
<b>Drilling Report Given to Owner:</b>		No			
<b>Model Output Rating:</b>					
<b>Remedial Action:</b>					
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>					
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>		DRILLER REPORTS DISTANCE FROM TOP OF CASING TO GROUND LEVEL: 13".			
<b><u>Well Owners</u></b>					
<b>Well Owner ID:</b>		10750056			
<b>Owner Name:</b>		ROBERTSON, JOHN/HALF DIAMOND			
<b>PO Box:</b>					
<b>Address:</b>		J.E. RANCH 1230 MERIDIAN RD NE, CALGARY			
<b>City:</b>					
<b>Postal Code:</b>		T2A 2N9			
<b>Province:</b>					
<b>Country:</b>					
<b><u>Drillers</u></b>					
<b>Driller ID:</b>		2533726			
<b>Last Name:</b>		DRILLER			
<b>Middle Initial:</b>		NA			
<b>First Name:</b>		UNKNOWN			
<b>Journeyman No:</b>		1			
<b>Is Active?:</b>		Yes			
<b><u>Drilling Companies</u></b>					
<b>Starting Well ID:</b>		1465000			
<b>Ending Well ID:</b>		1469999			
<b>Last Well ID Used:</b>		1465064			
<b>Company Name:</b>		LOU'S WATER WELL DRILLING			
<b>Street Address:</b>		BOX 1021			
<b>City:</b>		COCHRANE			
<b>Province:</b>		AB			
<b>Country:</b>		CA			
<b>Postal Code:</b>		T4C 1B1			
<b>E-Mail:</b>		gwinfo@gov.ab.ca			
<b>Is Active?:</b>		Yes			
<b><u>Perforations</u></b>					
<b>Perforation ID:</b>		4202522			
<b>From:</b>		82			
<b>To:</b>		122			
<b>Diameter:</b>		0.125			
<b>Interval:</b>		12			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5552326			
<b>Log Type:</b>		Electric			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5955401			
<b>Log Type:</b>		Gamma			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		653826			
<b>Diameter:</b>		0			
<b>From:</b>		0			
<b>To:</b>		142			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		34			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		72			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		105			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		38			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		74			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		40			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		103			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone & Shale Ledges			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		32			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Dark Gray			
<b>Description:</b>					
<b>Material:</b>		Clay			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		45			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Light Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		140			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Dark Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		121			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Light Gray			
<b>Description:</b>		Hard			
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		96			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		130			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			



<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b><u>Lithologies</u></b>					
<b>Depth:</b>		15			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Clay			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		142			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>		Hard			
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		37			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>		10385654			
<b>Test Date:</b>		1999/03/10			
<b>Start Time:</b>		10:48 AM			
<b>Taken from Top of Casing:</b>		No			
<b>Static Water Level:</b>		10			
<b>End Water Level:</b>		19			
<b>Water Removal Type:</b>		Pump			
<b>Water Removal Rate:</b>		22			
<b>Removal Depth from:</b>		120			
<b>Reason for Short Test:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8227714			
<b>Minutes:</b>		2			
<b>Pumping Depth:</b>		11.9091			
<b>Recovery Depth:</b>		16.1087			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8227717			
<b>Minutes:</b>		5			
<b>Pumping Depth:</b>		14.173			
<b>Recovery Depth:</b>		15.2557			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8227722			
<b>Minutes:</b>		60			
<b>Pumping Depth:</b>		17.5849			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Pump Test Item ID:</b>		8227724			
<b>Minutes:</b>		120			
<b>Pumping Depth:</b>		19.0284			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8227716			
<b>Minutes:</b>		4			
<b>Pumping Depth:</b>		13.4512			
<b>Recovery Depth:</b>		15.4853			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8227715			
<b>Minutes:</b>		3			
<b>Pumping Depth:</b>		13.2871			
<b>Recovery Depth:</b>		15.715			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8227721			
<b>Minutes:</b>		35			
<b>Pumping Depth:</b>		16.6992			
<b>Recovery Depth:</b>		10.6625			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8227713			
<b>Minutes:</b>		1			
<b>Pumping Depth:</b>		11.6467			
<b>Recovery Depth:</b>		16.6664			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8227720			
<b>Minutes:</b>		20			
<b>Pumping Depth:</b>		15.9773			
<b>Recovery Depth:</b>		12.795			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8227723			
<b>Minutes:</b>		90			
<b>Pumping Depth:</b>		18.4379			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8227712			
<b>Minutes:</b>		0			
<b>Pumping Depth:</b>		10.4984			
<b>Recovery Depth:</b>		19.0286			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8227718			
<b>Minutes:</b>		6			
<b>Pumping Depth:</b>		14.4354			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Recovery Depth:		15.0588			
<b><u>Pump Test Items</u></b>					
Pump Test Item ID:		8227719			
Minutes:		10			
Pumping Depth:		15.1243			
Recovery Depth:		14.4354			

<u>5</u>	5 of 5	-/0.0	1,201.4 / -14.22	AB	WWIS
Well ID:	387820	Elevation Source:	Not Obtained		
Driller ID:	24084	Method of Drilling:			
Licence No:		GPS Obtained:	Map		
GIC Well ID:	387820	Boundary From:			
GOA Well Tag No:		Distance North:			
Elevation (ft):	3925	Distance South:			
Depth (ft):		Distance East:			
Date Completed:		Distance West:			
Proposed Use:		Additional Desc:			
Lot:		Validated?:	Yes		
Block:		Submitted?:	Yes		
Plan:		Location Locked?:	Yes		
Type of Work:		Longitude:	-114.426122		
Flowing Well:		Latitude:	51.063226		
Date Started:		LSD:	NE		
Water Req Per Day:		Section:	24		
Gas Present:		Township:	24		
Oil Present:		Range:	4		
Flow Rate:		Meridian:	5		
Drilling Company:		DLS Coordinates:	NE-24-24-4-5		
Owner Mailing Address:					
Driller Mailing Address:					

**Well Reports**

Well Report ID:	387820	Annular Seal Mat:	Driven
Well Owner ID:	10660184	Annular Seal from:	0.00
Driller ID:	2533726	Annular Seal to:	30.00
Drill Company ID:	24084	Annular Seal Amt:	
Drill Instance ID:	8337970	Annular Seal Units:	
Drill Comp Well ID:		Drilling Method:	Cable Tool
Existing Well ID:		Drilling Start Dt:	
Date Received:	1980/01/07	Drilling End Dt:	1979/10/24
Type of Work:	New Well	Pack Type:	
Plug Date:		Pack Grain Size:	
Plug Material Type:		Pack Amount:	
Plug Mat Amount:		Pack Units:	
Plugged Units:		Loc Verify Method:	Map
Well Use:	Stock	Dist Casing Ground:	
Other Well Use:		Artesian Flow?:	No
Total Depth Drill:	130.00	Artesian Flow Rate:	
Finish Well Depth:		Gas Depth:	
Casing Material:	Steel	Encounter Gas?:	No
Casing OD:	6.63	Flow Ctrl Install?:	No
Casing Thickness:	0.188	Recommended Rate:	0.00
Casing Bottom:	30.00	Recom Intake Depth:	125.00
Liner Material:	Steel	Pump Installed?:	No
Liner OD:	5.00	Pump Install Depth:	
Liner Thickness:	0.000	Pump Model:	
Liner Top:	0.00	Pump Horsepower:	
Liner Bottom:	130.00	Well Disinfected?:	No

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Perforation by:</b>	Torch			<b>Other Log:</b>	
<b>Screen Material:</b>				<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00			<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>				<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>				<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>				<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No				
<b>Saline Water Depth:</b>					
<b>Potability Sample Taken?:</b>	No				
<b>Potable Sample Sent to AENV?:</b>	No				
<b>Approval Holder Sign Date:</b>					
<b>Drilling Report Given to Owner:</b>	No				
<b>Model Output Rating:</b>					
<b>Remedial Action:</b>					
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>					
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>					

#### Well Owners

**Well Owner ID:** 10660184  
**Owner Name:** ROBINSON FARMS  
**PO Box:**  
**Address:** 5B 925 30 ST NE, CALGARY  
**City:**  
**Postal Code:**  
**Province:**  
**Country:**

#### Drillers

**Driller ID:** 2533726  
**Last Name:** DRILLER  
**Middle Initial:** NA  
**First Name:** UNKNOWN  
**Journeyman No:** 1  
**Is Active?:** Yes

#### Drilling Companies

**Starting Well ID:** 1893200  
**Ending Well ID:** 1893299  
**Last Well ID Used:** 1893200  
**Company Name:** INTERPROVINCIAL DRILLING CONTRACTORS  
**Street Address:** SUB PO 36  
**City:** CALGARY  
**Province:** AB  
**Country:** CA  
**Postal Code:**  
**E-Mail:** GWINFO@GOV.AB.CA  
**Is Active?:** No

#### Perforations

**Perforation ID:** 4202521  
**From:** 110  
**To:** 128  
**Diameter:** 0.125  
**Interval:** 12

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5955400			
<b>Log Type:</b>		Gamma			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5552325			
<b>Log Type:</b>		Electric			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		653825			
<b>Diameter:</b>		0			
<b>From:</b>		0			
<b>To:</b>		130			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		2			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Topsoil			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		124			
<b>Water Bearing:</b>		Yes			
<b>Colour:</b>		Brown			
<b>Description:</b>		Water Bearing			
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		130			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		18			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Clay			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		41			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Shale			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b><u>Lithologies</u></b>					
<b>Depth:</b>		118			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>		Sandy			
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		27			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Clay & Rocks			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		63			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>		Sandy			
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		87			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>		10332140			
<b>Test Date:</b>		1979/10/24			
<b>Start Time:</b>		12:00 AM			
<b>Taken from Top of Casing:</b>		No			
<b>Static Water Level:</b>		40			
<b>End Water Level:</b>		55			
<b>Water Removal Type:</b>		Bailer			
<b>Water Removal Rate:</b>		15			
<b>Removal Depth from:</b>		65			
<b>Reason for Short Test:</b>					

<b><u>6</u></b>	1 of 1	-/0.0	1,215.5 / -0.15	AB	WWIS
<b>Well ID:</b>	387825			<b>Elevation Source:</b>	Estimated
<b>Driller ID:</b>	24084			<b>Method of Drilling:</b>	
<b>Licence No:</b>				<b>GPS Obtained:</b>	Map
<b>GIC Well ID:</b>	387825			<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>				<b>Distance North:</b>	
<b>Elevation (ft):</b>	3955			<b>Distance South:</b>	
<b>Depth (ft):</b>				<b>Distance East:</b>	
<b>Date Completed:</b>				<b>Distance West:</b>	
<b>Proposed Use:</b>				<b>Additional Desc:</b>	
<b>Lot:</b>				<b>Validated?:</b>	Yes
<b>Block:</b>				<b>Submitted?:</b>	Yes
<b>Plan:</b>				<b>Location Locked?:</b>	Yes

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Type of Work:</b>				<b>Longitude:</b>	-114.437629
<b>Flowing Well:</b>				<b>Latitude:</b>	51.070632
<b>Date Started:</b>				<b>LSD:</b>	SW
<b>Water Req Per Day:</b>				<b>Section:</b>	25
<b>Gas Present:</b>				<b>Township:</b>	24
<b>Oil Present:</b>				<b>Range:</b>	4
<b>Flow Rate:</b>				<b>Meridian:</b>	5
<b>Drilling Company:</b>				<b>DLS Coordinates:</b>	SW-25-24-4-5
<b>Owner Mailing Address:</b>					
<b>Driller Mailing Address:</b>					

### Well Reports

<b>Well Report ID:</b>	387825	<b>Annular Seal Mat:</b>	Driven
<b>Well Owner ID:</b>	10660189	<b>Annular Seal from:</b>	0.00
<b>Driller ID:</b>	2533726	<b>Annular Seal to:</b>	30.00
<b>Drill Company ID:</b>	24084	<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8337970	<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>		<b>Drilling Method:</b>	Cable Tool
<b>Existing Well ID:</b>		<b>Drilling Start Dt:</b>	
<b>Date Received:</b>	1980/09/12	<b>Drilling End Dt:</b>	1980/08/14
<b>Type of Work:</b>	New Well	<b>Pack Type:</b>	
<b>Plug Date:</b>		<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>		<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>		<b>Pack Units:</b>	
<b>Plugged Units:</b>		<b>Loc Verify Method:</b>	Map
<b>Well Use:</b>	Stock	<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>		<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	100.00	<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>		<b>Gas Depth:</b>	
<b>Casing Material:</b>	Steel	<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	6.63	<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.188	<b>Recommended Rate:</b>	0.00
<b>Casing Bottom:</b>	30.00	<b>Recom Intake Depth:</b>	90.00
<b>Liner Material:</b>	Steel	<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	5.00	<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.156	<b>Pump Model:</b>	
<b>Liner Top:</b>	0.00	<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	100.00	<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>	Torch	<b>Other Log:</b>	
<b>Screen Material:</b>		<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00	<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>		<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>		<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>		<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No		
<b>Saline Water Depth:</b>			
<b>Potability Sample Taken?:</b>	No		
<b>Potable Sample Sent to AENV?:</b>	No		
<b>Approval Holder Sign Date:</b>			
<b>Drilling Report Given to Owner:</b>	No		
<b>Model Output Rating:</b>			
<b>Remedial Action:</b>			
<b>Flow Control Description:</b>			
<b>Pump Type Installed:</b>			
<b>Created by:</b>			
<b>Submitted by:</b>			
<b>Additional Comments:</b>			

### Well Owners

<b>Well Owner ID:</b>	10660189
<b>Owner Name:</b>	COPITHORNE, LOUIS
<b>PO Box:</b>	

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b>Address:</b>		RR2, CALGARY			
<b>City:</b>					
<b>Postal Code:</b>					
<b>Province:</b>					
<b>Country:</b>					
 <b><u>Drillers</u></b>					
<b>Driller ID:</b>		2533726			
<b>Last Name:</b>		DRILLER			
<b>Middle Initial:</b>		NA			
<b>First Name:</b>		UNKNOWN			
<b>Journeyman No:</b>		1			
<b>Is Active?:</b>		Yes			
 <b><u>Drilling Companies</u></b>					
<b>Starting Well ID:</b>		1893200			
<b>Ending Well ID:</b>		1893299			
<b>Last Well ID Used:</b>		1893200			
<b>Company Name:</b>		INTERPROVINCIAL DRILLING CONTRACTORS			
<b>Street Address:</b>		SUB PO 36			
<b>City:</b>		CALGARY			
<b>Province:</b>		AB			
<b>Country:</b>		CA			
<b>Postal Code:</b>					
<b>E-Mail:</b>		GWINFO@GOV.AB.CA			
<b>Is Active?:</b>		No			
 <b><u>Perforations</u></b>					
<b>Perforation ID:</b>		4205535			
<b>From:</b>		40			
<b>To:</b>		55			
<b>Diameter:</b>		0.125			
<b>Interval:</b>		12			
 <b><u>Perforations</u></b>					
<b>Perforation ID:</b>		4261179			
<b>From:</b>		50			
<b>To:</b>		95			
<b>Diameter:</b>		0			
<b>Interval:</b>		0			
 <b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5561190			
<b>Log Type:</b>		Electric			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
 <b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5964265			
<b>Log Type:</b>		Gamma			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
 <b><u>Boreholes</u></b>					



<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Borehole ID:</b>		662690			
<b>Diameter:</b>		0			
<b>From:</b>		0			
<b>To:</b>		100			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		42			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		44			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		16			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Clay			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		2			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Topsoil			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		72			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		26			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Clay			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		50			
<b>Water Bearing:</b>		Yes			
<b>Colour:</b>					
<b>Description:</b>		Water Bearing			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		100			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>		Shale			
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		84			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>		Sand & Shale			
<b>Material:</b>		Sand & Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		92			
<b>Water Bearing:</b>		Yes			
<b>Colour:</b>					
<b>Description:</b>		Water Bearing			
<b>Material:</b>		Sandstone			
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>		10332145			
<b>Test Date:</b>		1980/08/14			
<b>Start Time:</b>		12:00 AM			
<b>Taken from Top of Casing:</b>		No			
<b>Static Water Level:</b>		15			
<b>End Water Level:</b>		30			
<b>Water Removal Type:</b>		Bailer			
<b>Water Removal Rate:</b>		25			
<b>Removal Depth from:</b>		30			
<b>Reason for Short Test:</b>					
<u>7</u>	1 of 1	-/0.0	1,216.0 / 0.44	210 5 Ave Cochrane AB	EHS
<b>Order ID:</b>		233376		<b>Date Received:</b> 15-JAN-13	
<b>Order No:</b>		20130115054		<b>Lot/Building Size:</b> 1.365 Hectares	
<b>Customer ID:</b>		91167		<b>Municipality:</b> City of Calgary	
<b>Company ID:</b>		56		<b>Client Prov/State:</b> AB	
<b>Status:</b>		C		<b>Search Radius (km):</b> .15	
<b>Report Code:</b>		4CAN		<b>Large Radius:</b> .15	
<b>Report Type:</b>		Custom Report		<b>X:</b> -114.474865	
<b>Report Date:</b>		24-JAN-13		<b>Y:</b> 51.040651	
<b>Report Requested by:</b>		Stantec Consulting Ltd.			
<b>Nearest Intersection:</b>					
<b>Previous Site Name:</b>					
<b>Additional Info Ordered:</b>					
<u>8</u>	1 of 5	-/0.0	1,217.5 / 1.93	AB	WWIS
<b>Well ID:</b>		498385		<b>Elevation Source:</b> Not Obtained	
<b>Driller ID:</b>		24428		<b>Method of Drilling:</b>	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Licence No:				GPS Obtained:	Map
GIC Well ID:	498385			Boundary From:	
GOA Well Tag No:				Distance North:	
Elevation (ft):				Distance South:	
Depth (ft):				Distance East:	
Date Completed:				Distance West:	
Proposed Use:				Additional Desc:	
Lot:				Validated?:	Yes
Block:				Submitted?:	Yes
Plan:				Location Locked?:	Yes
Type of Work:				Longitude:	-114.472406
Flowing Well:				Latitude:	51.034359
Date Started:				LSD:	NE
Water Req Per Day:				Section:	10
Gas Present:				Township:	24
Oil Present:				Range:	4
Flow Rate:				Meridian:	5
Drilling Company:				DLS Coordinates:	NE-10-24-4-5
Owner Mailing Address:					
Driller Mailing Address:					

### Well Reports

Well Report ID:	498385	Annular Seal Mat:	
Well Owner ID:	10764718	Annular Seal from:	0.00
Driller ID:	2533726	Annular Seal to:	0.00
Drill Company ID:	24428	Annular Seal Amt:	
Drill Instance ID:	8335152	Annular Seal Units:	
Drill Comp Well ID:		Drilling Method:	Rotary
Existing Well ID:		Drilling Start Dt:	2001/05/11
Date Received:	2001/05/22	Drilling End Dt:	2001/05/11
Type of Work:	New Well-Abandoned	Pack Type:	
Plug Date:	2001/05/11	Pack Grain Size:	
Plug Material Type:	Bentonite Product	Pack Amount:	
Plug Mat Amount:		Pack Units:	
Plugged Units:		Loc Verify Method:	Map
Well Use:	Domestic	Dist Casing Ground:	
Other Well Use:		Artesian Flow?:	No
Total Depth Drill:	300.00	Artesian Flow Rate:	
Finish Well Depth:		Gas Depth:	
Casing Material:		Encounter Gas?:	No
Casing OD:	0.00	Flow Ctrl Install?:	No
Casing Thickness:	0.000	Recommended Rate:	0.00
Casing Bottom:	0.00	Recom Intake Depth:	0.00
Liner Material:		Pump Installed?:	No
Liner OD:	0.00	Pump Install Depth:	
Liner Thickness:	0.000	Pump Model:	
Liner Top:	0.00	Pump Horsepower:	
Liner Bottom:	0.00	Well Disinfected?:	No
Perforation by:		Other Log:	
Screen Material:		Divert Water Src:	
Screen Size OD:	0.00	Divert Water Amt:	
Screen Attachment:		Diversion Dt/Time:	
Screen Top Fitting:		Is Submitted?:	Yes
Screen Bot Fitting:		Is Validated?:	Yes
Encounter Saline Water?:	No		
Saline Water Depth:			
Potability Sample Taken?:	No		
Potable Sample Sent to AENV?:	No		
Approval Holder Sign Date:			
Drilling Report Given to Owner:	No		
Model Output Rating:			
Remedial Action:			
Flow Control Description:			
Pump Type Installed:			

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
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Created by:  
Submitted by:  
Additional Comments:

**Well Owners**

Well Owner ID: 10764718  
Owner Name: BOOM CONSTR (GAUTHIER, TED)  
PO Box: 100  
Address: CREMONA  
City:  
Postal Code: T0M 0Z0  
Province:  
Country:

**Drillers**

Driller ID: 2533726  
Last Name: DRILLER  
Middle Initial: NA  
First Name: UNKNOWN  
Journeyman No: 1  
Is Active?: Yes

**Drilling Companies**

Starting Well ID: 1065000  
Ending Well ID: 1069999  
Last Well ID Used: 1067648  
Company Name: ALKEN BASIN DRILLING LTD.  
Street Address: BOX 9 Site 1, RR 4  
City: Red Deer County  
Province: AB  
Country: CANADA  
Postal Code: T4N 5E4  
E-Mail: jeffd@alkenbasindrilling.com  
Is Active?: Yes

**Geophysical Logs**

Geophysical Log ID: 6059129  
Log Type: Gamma  
Log Taken?: No  
Sent to AENV?: No

**Geophysical Logs**

Geophysical Log ID: 5656054  
Log Type: Electric  
Log Taken?: No  
Sent to AENV?: No

**Boreholes**

Borehole ID: 758127  
Diameter: 0  
From: 0  
To: 300

**Lithologies**

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Depth:</b>		169			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		19			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Clay & Rocks			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		257			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>		Hard			
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		50			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		267			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>		Hard			
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		190			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Black			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		196			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		276			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Description:</b>					
<b>Material:</b>				Hard Sandstone	
<b><u>Lithologies</u></b>					
<b>Depth:</b>			171		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Black		
<b>Description:</b>					
<b>Material:</b>				Shale	
<b><u>Lithologies</u></b>					
<b>Depth:</b>			238		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>				Shale	
<b><u>Lithologies</u></b>					
<b>Depth:</b>			259		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>				Sandstone	
<b><u>Lithologies</u></b>					
<b>Depth:</b>			183		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>				Sandstone	
<b><u>Lithologies</u></b>					
<b>Depth:</b>			251		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>				Shale	
<b><u>Lithologies</u></b>					
<b>Depth:</b>			200		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Black		
<b>Description:</b>					
<b>Material:</b>				Shale	
<b><u>Lithologies</u></b>					
<b>Depth:</b>			47		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>			Clayey		
<b>Material:</b>				Till & Rocks	

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b><u>Lithologies</u></b>					
<b>Depth:</b>			166		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			209		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			230		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			300		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			235		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			240		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			254		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>			Hard		
<b>Material:</b>			Sandstone		
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>			10395243		
<b>Test Date:</b>			2001/05/11		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Start Time:</b>		12:00 AM			
<b>Taken from Top of Casing:</b>		No			
<b>Static Water Level:</b>		0			
<b>End Water Level:</b>					
<b>Water Removal Type:</b>		Air			
<b>Water Removal Rate:</b>		0.33			
<b>Removal Depth from:</b>		0			
<b>Reason for Short Test:</b>					

8	2 of 5	-/0.0	1,217.5/ 1.93	AB	WWIS
<b>Well ID:</b>	389065			<b>Elevation Source:</b>	Estimated
<b>Driller ID:</b>	11110			<b>Method of Drilling:</b>	
<b>Licence No:</b>				<b>GPS Obtained:</b>	Not Verified
<b>GIC Well ID:</b>	389065			<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>				<b>Distance North:</b>	
<b>Elevation (ft):</b>	4000			<b>Distance South:</b>	
<b>Depth (ft):</b>				<b>Distance East:</b>	
<b>Date Completed:</b>				<b>Distance West:</b>	
<b>Proposed Use:</b>				<b>Additional Desc:</b>	
<b>Lot:</b>				<b>Validated?:</b>	Yes
<b>Block:</b>				<b>Submitted?:</b>	Yes
<b>Plan:</b>				<b>Location Locked?:</b>	Yes
<b>Type of Work:</b>				<b>Longitude:</b>	-114.472406
<b>Flowing Well:</b>				<b>Latitude:</b>	51.034359
<b>Date Started:</b>				<b>LSD:</b>	NE
<b>Water Req Per Day:</b>				<b>Section:</b>	10
<b>Gas Present:</b>				<b>Township:</b>	24
<b>Oil Present:</b>				<b>Range:</b>	4
<b>Flow Rate:</b>				<b>Meridian:</b>	5
<b>Drilling Company:</b>				<b>DLS Coordinates:</b>	NE-10-24-4-5
<b>Owner Mailing Address:</b>					
<b>Driller Mailing Address:</b>					

**Well Reports**

<b>Well Report ID:</b>	389065	<b>Annular Seal Mat:</b>	
<b>Well Owner ID:</b>	10661424	<b>Annular Seal from:</b>	0.00
<b>Driller ID:</b>	2533726	<b>Annular Seal to:</b>	0.00
<b>Drill Company ID:</b>	11110	<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8337868	<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>		<b>Drilling Method:</b>	Unknown
<b>Existing Well ID:</b>		<b>Drilling Start Dt:</b>	
<b>Date Received:</b>		<b>Drilling End Dt:</b>	
<b>Type of Work:</b>	Test Hole	<b>Pack Type:</b>	
<b>Plug Date:</b>		<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>		<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>		<b>Pack Units:</b>	
<b>Plugged Units:</b>		<b>Loc Verify Method:</b>	Not Verified
<b>Well Use:</b>	Investigation	<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>		<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	25.00	<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>		<b>Gas Depth:</b>	
<b>Casing Material:</b>		<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	0.00	<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.000	<b>Recommended Rate:</b>	
<b>Casing Bottom:</b>	0.00	<b>Recom Intake Depth:</b>	
<b>Liner Material:</b>		<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	0.00	<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.000	<b>Pump Model:</b>	
<b>Liner Top:</b>	0.00	<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	0.00	<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>		<b>Other Log:</b>	



<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Screen Material:</b>				<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00			<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>				<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>				<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>				<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>		No			
<b>Saline Water Depth:</b>					
<b>Potability Sample Taken?:</b>		No			
<b>Potable Sample Sent to AENV?:</b>		No			
<b>Approval Holder Sign Date:</b>					
<b>Drilling Report Given to Owner:</b>		No			
<b>Model Output Rating:</b>					
<b>Remedial Action:</b>					
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>					
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>					

**Well Owners**

**Well Owner ID:** 10661424  
**Owner Name:** ELBOW RIVER BRIDGE #TH2  
**PO Box:**  
**Address:**  
**City:**  
**Postal Code:**  
**Province:**  
**Country:**

**Drillers**

**Driller ID:** 2533726  
**Last Name:** DRILLER  
**Middle Initial:** NA  
**First Name:** UNKNOWN  
**Journeyman No:** 1  
**Is Active?:** Yes

**Drilling Companies**

**Starting Well ID:** 1973500  
**Ending Well ID:** 1973599  
**Last Well ID Used:** 1973599  
**Company Name:** UNKNOWN DRILLER  
**Street Address:** UNKNOWN  
**City:** UNKNOWN  
**Province:** AB  
**Country:** CA  
**Postal Code:**  
**E-Mail:** gwinfo@gov.ab.ca  
**Is Active?:** No

**Geophysical Logs**

**Geophysical Log ID:** 5964590  
**Log Type:** Gamma  
**Log Taken?:** No  
**Sent to AENV?:** No

**Geophysical Logs**

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Geophysical Log ID:</b> 5561515					
<b>Log Type:</b> Electric					
<b>Log Taken?:</b> No					
<b>Sent to AENV?:</b> No					
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b> 663015					
<b>Diameter:</b> 0					
<b>From:</b> 0					
<b>To:</b> 25					
<b><u>Lithologies</u></b>					
<b>Depth:</b> 9					
<b>Water Bearing:</b> No					
<b>Colour:</b>					
<b>Description:</b> Dry					
<b>Material:</b> Sandstone					
<b><u>Lithologies</u></b>					
<b>Depth:</b> 7					
<b>Water Bearing:</b> No					
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b> Sand & Gravel					
<b><u>Lithologies</u></b>					
<b>Depth:</b> 25					
<b>Water Bearing:</b> No					
<b>Colour:</b> Black					
<b>Description:</b> Hard					
<b>Material:</b> Shale					

<u>8</u>	3 of 5	-/0.0	1,217.5 / 1.93	AB	WWIS
<b>Well ID:</b>	387570			<b>Elevation Source:</b>	Not Obtained
<b>Driller ID:</b>	11110			<b>Method of Drilling:</b>	
<b>Licence No:</b>				<b>GPS Obtained:</b>	Not Verified
<b>GIC Well ID:</b>	387570			<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>				<b>Distance North:</b>	
<b>Elevation (ft):</b>				<b>Distance South:</b>	
<b>Depth (ft):</b>				<b>Distance East:</b>	
<b>Date Completed:</b>				<b>Distance West:</b>	
<b>Proposed Use:</b>				<b>Additional Desc:</b>	
<b>Lot:</b>				<b>Validated?:</b>	Yes
<b>Block:</b>				<b>Submitted?:</b>	Yes
<b>Plan:</b>				<b>Location Locked?:</b>	Yes
<b>Type of Work:</b>				<b>Longitude:</b>	-114.472406
<b>Flowing Well:</b>				<b>Latitude:</b>	51.034359
<b>Date Started:</b>				<b>LSD:</b>	NE
<b>Water Req Per Day:</b>				<b>Section:</b>	10
<b>Gas Present:</b>				<b>Township:</b>	24
<b>Oil Present:</b>				<b>Range:</b>	4
<b>Flow Rate:</b>				<b>Meridian:</b>	5
<b>Drilling Company:</b>				<b>DLS Coordinates:</b>	NE-10-24-4-5
<b>Owner Mailing Address:</b>					
<b>Driller Mailing Address:</b>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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**Well Reports**

<b>Well Report ID:</b>	387570	<b>Annular Seal Mat:</b>	
<b>Well Owner ID:</b>	10659939	<b>Annular Seal from:</b>	0.00
<b>Driller ID:</b>	2533726	<b>Annular Seal to:</b>	0.00
<b>Drill Company ID:</b>	11110	<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8337868	<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>		<b>Drilling Method:</b>	Not Applicable
<b>Existing Well ID:</b>		<b>Drilling Start Dt:</b>	
<b>Date Received:</b>	1988/12/14	<b>Drilling End Dt:</b>	
<b>Type of Work:</b>	Chemistry	<b>Pack Type:</b>	
<b>Plug Date:</b>		<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>		<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>		<b>Pack Units:</b>	
<b>Plugged Units:</b>		<b>Loc Verify Method:</b>	Not Verified
<b>Well Use:</b>	Domestic	<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>		<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	0.00	<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>		<b>Gas Depth:</b>	
<b>Casing Material:</b>		<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	0.00	<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.000	<b>Recommended Rate:</b>	
<b>Casing Bottom:</b>	0.00	<b>Recom Intake Depth:</b>	
<b>Liner Material:</b>		<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	0.00	<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.000	<b>Pump Model:</b>	
<b>Liner Top:</b>	0.00	<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	0.00	<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>		<b>Other Log:</b>	
<b>Screen Material:</b>		<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00	<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>		<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>		<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>		<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No		
<b>Saline Water Depth:</b>			
<b>Potability Sample Taken?:</b>	No		
<b>Potable Sample Sent to AENV?:</b>	No		
<b>Approval Holder Sign Date:</b>			
<b>Drilling Report Given to Owner:</b>	No		
<b>Model Output Rating:</b>			
<b>Remedial Action:</b>			
<b>Flow Control Description:</b>			
<b>Pump Type Installed:</b>			
<b>Created by:</b>			
<b>Submitted by:</b>			
<b>Additional Comments:</b>			

**Well Owners**

<b>Well Owner ID:</b>	10659939
<b>Owner Name:</b>	LUIDER, GEORGE/MICHELLE
<b>PO Box:</b>	7
<b>Address:</b>	SITE 14 RR2, CALGARY
<b>City:</b>	
<b>Postal Code:</b>	T2J 3R1
<b>Province:</b>	
<b>Country:</b>	

**Drillers**

<b>Driller ID:</b>	2533726
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Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Last Name:</b>		DRILLER			
<b>Middle Initial:</b>		NA			
<b>First Name:</b>		UNKNOWN			
<b>Journeyman No:</b>		1			
<b>Is Active?:</b>		Yes			
<b><u>Drilling Companies</u></b>					
<b>Starting Well ID:</b>		1973500			
<b>Ending Well ID:</b>		1973599			
<b>Last Well ID Used:</b>		1973599			
<b>Company Name:</b>		UNKNOWN DRILLER			
<b>Street Address:</b>		UNKNOWN			
<b>City:</b>		UNKNOWN			
<b>Province:</b>		AB			
<b>Country:</b>		CA			
<b>Postal Code:</b>					
<b>E-Mail:</b>		gwinfo@gov.ab.ca			
<b>Is Active?:</b>		No			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5964588			
<b>Log Type:</b>		Gamma			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5561513			
<b>Log Type:</b>		Electric			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		663013			
<b>Diameter:</b>		0			
<b>From:</b>		0			
<b>To:</b>		0			

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4 of 5

-/0.0

1,217.5 / 1.93

AB

WWIS

<b>Well ID:</b>	497688	<b>Elevation Source:</b>	Not Obtained
<b>Driller ID:</b>	24053	<b>Method of Drilling:</b>	
<b>Licence No:</b>		<b>GPS Obtained:</b>	Map
<b>GIC Well ID:</b>	497688	<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>		<b>Distance North:</b>	
<b>Elevation (ft):</b>		<b>Distance South:</b>	
<b>Depth (ft):</b>		<b>Distance East:</b>	
<b>Date Completed:</b>		<b>Distance West:</b>	
<b>Proposed Use:</b>		<b>Additional Desc:</b>	
<b>Lot:</b>		<b>Validated?:</b>	Yes
<b>Block:</b>		<b>Submitted?:</b>	Yes
<b>Plan:</b>		<b>Location Locked?:</b>	Yes
<b>Type of Work:</b>		<b>Longitude:</b>	-114.472406
<b>Flowing Well:</b>		<b>Latitude:</b>	51.034359
<b>Date Started:</b>		<b>LSD:</b>	NE
<b>Water Req Per Day:</b>		<b>Section:</b>	10
<b>Gas Present:</b>		<b>Township:</b>	24

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Oil Present:</b>				<b>Range:</b>	4
<b>Flow Rate:</b>				<b>Meridian:</b>	5
<b>Drilling Company:</b>				<b>DLS Coordinates:</b>	NE-10-24-4-5
<b>Owner Mailing Address:</b>					
<b>Driller Mailing Address:</b>					
<b><u>Well Reports</u></b>					
<b>Well Report ID:</b>	497688			<b>Annular Seal Mat:</b>	
<b>Well Owner ID:</b>	10764021			<b>Annular Seal from:</b>	0.00
<b>Driller ID:</b>	2533726			<b>Annular Seal to:</b>	0.00
<b>Drill Company ID:</b>	24053			<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8335386			<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>				<b>Drilling Method:</b>	Rotary
<b>Existing Well ID:</b>				<b>Drilling Start Dt:</b>	2000/12/07
<b>Date Received:</b>	2001/01/08			<b>Drilling End Dt:</b>	2000/12/08
<b>Type of Work:</b>	Dry Hole-Abandoned			<b>Pack Type:</b>	
<b>Plug Date:</b>	2000/12/08			<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>	Bentonite Product			<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>				<b>Pack Units:</b>	
<b>Plugged Units:</b>				<b>Loc Verify Method:</b>	Map
<b>Well Use:</b>	Domestic			<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>				<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	200.00			<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>				<b>Gas Depth:</b>	
<b>Casing Material:</b>				<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	0.00			<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.000			<b>Recommended Rate:</b>	
<b>Casing Bottom:</b>	0.00			<b>Recom Intake Depth:</b>	
<b>Liner Material:</b>				<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	0.00			<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.000			<b>Pump Model:</b>	
<b>Liner Top:</b>	0.00			<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	0.00			<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>				<b>Other Log:</b>	
<b>Screen Material:</b>				<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00			<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>				<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>				<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>				<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No				
<b>Saline Water Depth:</b>					
<b>Potability Sample Taken?:</b>	No				
<b>Potable Sample Sent to AENV?:</b>	No				
<b>Approval Holder Sign Date:</b>					
<b>Drilling Report Given to Owner:</b>	No				
<b>Model Output Rating:</b>					
<b>Remedial Action:</b>					
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>					
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>					

**Well Owners**

**Well Owner ID:** 10764021  
**Owner Name:** GAUTHIER, TED  
**PO Box:** 7  
**Address:** SITE 14 RR2, CALGARY  
**City:**  
**Postal Code:** T2P 2T5  
**Province:**  
**Country:**

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b><u>Drillers</u></b>					
<b>Driller ID:</b>		2533726			
<b>Last Name:</b>		DRILLER			
<b>Middle Initial:</b>		NA			
<b>First Name:</b>		UNKNOWN			
<b>Journeyman No:</b>		1			
<b>Is Active?:</b>		Yes			
<b><u>Drilling Companies</u></b>					
<b>Starting Well ID:</b>		1465000			
<b>Ending Well ID:</b>		1469999			
<b>Last Well ID Used:</b>		1465064			
<b>Company Name:</b>		LOU'S WATER WELL DRILLING			
<b>Street Address:</b>		BOX 1021			
<b>City:</b>		COCHRANE			
<b>Province:</b>		AB			
<b>Country:</b>		CA			
<b>Postal Code:</b>		T4C 1B1			
<b>E-Mail:</b>		gwinfo@gov.ab.ca			
<b>Is Active?:</b>		Yes			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5651461			
<b>Log Type:</b>		Electric			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		6054536			
<b>Log Type:</b>		Gamma			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		753562			
<b>Diameter:</b>		0			
<b>From:</b>		0			
<b>To:</b>		200			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		50			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Dark Gray			
<b>Description:</b>					
<b>Material:</b>		Clay			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		190			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b><u>Lithologies</u></b>					
<b>Depth:</b>			200		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Dark Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			81		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			120		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			76		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Light Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			82		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			175		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Dark Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			178		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Light Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Depth:		140			
Water Bearing:		No			
Colour:		Gray			
Description:					
Material:		Shale			
<b><u>Lithologies</u></b>					
Depth:		60			
Water Bearing:		No			
Colour:		Dark Gray			
Description:					
Material:		Shale			
<b><u>Lithologies</u></b>					
Depth:		75			
Water Bearing:		No			
Colour:		Gray			
Description:					
Material:		Shale			
<b><u>Lithologies</u></b>					
Depth:		93			
Water Bearing:		No			
Colour:		Light Gray			
Description:					
Material:		Shale			
<b><u>Lithologies</u></b>					
Depth:		121			
Water Bearing:		No			
Colour:					
Description:					
Material:		Coal			

<u>8</u>	5 of 5	-/0.0	1,217.5 / 1.93	AB	WWIS
Well ID:	389064			Elevation Source:	Estimated
Driller ID:	11110			Method of Drilling:	
Licence No:				GPS Obtained:	Not Verified
GIC Well ID:	389064			Boundary From:	
GOA Well Tag No:				Distance North:	
Elevation (ft):	4000			Distance South:	
Depth (ft):				Distance East:	
Date Completed:				Distance West:	
Proposed Use:				Additional Desc:	
Lot:				Validated?:	Yes
Block:				Submitted?:	Yes
Plan:				Location Locked?:	Yes
Type of Work:				Longitude:	-114.472406
Flowing Well:				Latitude:	51.034359
Date Started:				LSD:	NE
Water Req Per Day:				Section:	10
Gas Present:				Township:	24
Oil Present:				Range:	4
Flow Rate:				Meridian:	5
Drilling Company:				DLS Coordinates:	NE-10-24-4-5



Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Owner Mailing Address:

Driller Mailing Address:

**Well Reports**

<b>Well Report ID:</b>	389064	<b>Annular Seal Mat:</b>	
<b>Well Owner ID:</b>	10661423	<b>Annular Seal from:</b>	0.00
<b>Driller ID:</b>	2533726	<b>Annular Seal to:</b>	0.00
<b>Drill Company ID:</b>	11110	<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8337868	<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>		<b>Drilling Method:</b>	Unknown
<b>Existing Well ID:</b>		<b>Drilling Start Dt:</b>	
<b>Date Received:</b>		<b>Drilling End Dt:</b>	
<b>Type of Work:</b>	Test Hole	<b>Pack Type:</b>	
<b>Plug Date:</b>		<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>		<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>		<b>Pack Units:</b>	
<b>Plugged Units:</b>		<b>Loc Verify Method:</b>	Not Verified
<b>Well Use:</b>	Industrial	<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>		<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	29.00	<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>		<b>Gas Depth:</b>	
<b>Casing Material:</b>		<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	0.00	<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.000	<b>Recommended Rate:</b>	
<b>Casing Bottom:</b>	0.00	<b>Recom Intake Depth:</b>	
<b>Liner Material:</b>		<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	0.00	<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.000	<b>Pump Model:</b>	
<b>Liner Top:</b>	0.00	<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	0.00	<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>		<b>Other Log:</b>	
<b>Screen Material:</b>		<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00	<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>		<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>		<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>		<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No		
<b>Saline Water Depth:</b>			
<b>Potability Sample Taken?:</b>	No		
<b>Potable Sample Sent to AENV?:</b>	No		
<b>Approval Holder Sign Date:</b>			
<b>Drilling Report Given to Owner:</b>	No		
<b>Model Output Rating:</b>			
<b>Remedial Action:</b>			
<b>Flow Control Description:</b>			
<b>Pump Type Installed:</b>			
<b>Created by:</b>			
<b>Submitted by:</b>			
<b>Additional Comments:</b>			

**Well Owners**

**Well Owner ID:** 10661423  
**Owner Name:** ELBOW RIVER BRIDGE #TH1  
**PO Box:**  
**Address:**  
**City:**  
**Postal Code:**  
**Province:**  
**Country:**

**Drillers**

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Driller ID:</b>		2533726			
<b>Last Name:</b>		DRILLER			
<b>Middle Initial:</b>		NA			
<b>First Name:</b>		UNKNOWN			
<b>Journeyman No:</b>		1			
<b>Is Active?:</b>		Yes			
<b><u>Drilling Companies</u></b>					
<b>Starting Well ID:</b>		1973500			
<b>Ending Well ID:</b>		1973599			
<b>Last Well ID Used:</b>		1973599			
<b>Company Name:</b>		UNKNOWN DRILLER			
<b>Street Address:</b>		UNKNOWN			
<b>City:</b>		UNKNOWN			
<b>Province:</b>		AB			
<b>Country:</b>		CA			
<b>Postal Code:</b>					
<b>E-Mail:</b>		gwinfo@gov.ab.ca			
<b>Is Active?:</b>		No			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5561514			
<b>Log Type:</b>		Electric			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5964589			
<b>Log Type:</b>		Gamma			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		663014			
<b>Diameter:</b>		0			
<b>From:</b>		0			
<b>To:</b>		29			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		29			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		12			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Gravel & Boulders			
<b><u>Lithologies</u></b>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Depth:		21			
Water Bearing:		No			
Colour:					
Description:					
Material:		Clay & Gravel			

<u>9</u>	1 of 2	-/0.0	1,219.0 / 3.39	AB	WWIS
Well ID:	11365353			Elevation Source:	Not Obtained
Driller ID:	24288			Method of Drilling:	
Licence No:				GPS Obtained:	Not Verified
GIC Well ID:	1245223			Boundary From:	
GOA Well Tag No:				Distance North:	
Elevation (ft):				Distance South:	
Depth (ft):				Distance East:	
Date Completed:				Distance West:	
Proposed Use:				Additional Desc:	
Lot:				Validated?:	Yes
Block:				Submitted?:	Yes
Plan:				Location Locked?:	Yes
Type of Work:				Longitude:	-114.473
Flowing Well:				Latitude:	51.0343
Date Started:				LSD:	NE
Water Req Per Day:				Section:	10
Gas Present:				Township:	24
Oil Present:				Range:	4
Flow Rate:				Meridian:	5
Drilling Company:				DLS Coordinates:	NE-10-24-4-5
Owner Mailing Address:					
Driller Mailing Address:					

#### Well Reports

Well Report ID:	11365355	Annular Seal Mat:	Unknown
Well Owner ID:	11365354	Annular Seal from:	
Driller ID:	11576192	Annular Seal to:	
Drill Company ID:	24288	Annular Seal Amt:	
Drill Instance ID:	11594333	Annular Seal Units:	
Drill Comp Well ID:		Drilling Method:	Rotary
Existing Well ID:		Drilling Start Dt:	2006/11/06
Date Received:		Drilling End Dt:	2006/11/07
Type of Work:	Test Hole-Abandoned	Pack Type:	Unknown
Plug Date:	2006/11/07	Pack Grain Size:	
Plug Material Type:	Bentonite Product	Pack Amount:	
Plug Mat Amount:		Pack Units:	Unknown
Plugged Units:		Loc Verify Method:	Not Verified
Well Use:	Unknown	Dist Casing Ground:	
Other Well Use:		Artesian Flow?:	No
Total Depth Drill:	240.00	Artesian Flow Rate:	
Finish Well Depth:		Gas Depth:	
Casing Material:	Unknown	Encounter Gas?:	No
Casing OD:		Flow Ctrl Install?:	No
Casing Thickness:		Recommended Rate:	
Casing Bottom:		Recom Intake Depth:	
Liner Material:	Unknown	Pump Installed?:	No
Liner OD:		Pump Install Depth:	
Liner Thickness:		Pump Model:	
Liner Top:		Pump Horsepower:	
Liner Bottom:		Well Disinfected?:	No
Perforation by:	Unknown	Other Log:	
Screen Material:		Divert Water Src:	
Screen Size OD:		Divert Water Amt:	

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Screen Attachment:</b>				<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>				<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>				<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>		No			
<b>Saline Water Depth:</b>					
<b>Potability Sample Taken?:</b>		No			
<b>Potable Sample Sent to AENV?:</b>		No			
<b>Approval Holder Sign Date:</b>					
<b>Drilling Report Given to Owner:</b>		No			
<b>Model Output Rating:</b>					
<b>Remedial Action:</b>					
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>					
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>		68' - 79' SS GRAY VFINE WB 1/4 GPM, 190' - 197' SS GRAY MED FINE, ABADNONED WITH CUTTINGS 150-240,BENT 128-150, PEA GRAVEL 80-128, BENT 68-80, PEA GRAVEL 35-68, BENT 29-35, CUTTINGS 0-29,			
<b><u>Well Owners</u></b>					
<b>Well Owner ID:</b>		11365354			
<b>Owner Name:</b>		VOLKER, STEVIN			
<b>PO Box:</b>					
<b>Address:</b>		4540 - 54 AVE SE			
<b>City:</b>		CALGARY			
<b>Postal Code:</b>		T2H 1Y3			
<b>Province:</b>		AB			
<b>Country:</b>		CA			
<b><u>Drillers</u></b>					
<b>Driller ID:</b>		11576192			
<b>Last Name:</b>		WAGNER			
<b>Middle Initial:</b>					
<b>First Name:</b>		RORY			
<b>Journeyman No:</b>		14061Q			
<b>Is Active?:</b>		Yes			
<b><u>Drilling Companies</u></b>					
<b>Starting Well ID:</b>		1245000			
<b>Ending Well ID:</b>		1249999			
<b>Last Well ID Used:</b>		1245342			
<b>Company Name:</b>		DOERING DRILLING LTD.			
<b>Street Address:</b>		BOX 4028			
<b>City:</b>		OLDS			
<b>Province:</b>		AB			
<b>Country:</b>		CA			
<b>Postal Code:</b>		T4H 1P6			
<b>E-Mail:</b>		GWINFO@GOV.AB.CA			
<b>Is Active?:</b>		No			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		6092412			
<b>Log Type:</b>		Gamma			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5689337			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Log Type:</b>				Electric	
<b>Log Taken?:</b>				No	
<b>Sent to AENV?:</b>				No	
<b><u>Lithologies</u></b>					
<b>Depth:</b>			136		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>			Very Fine Grained		
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			33		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Till & Clay		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			35		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Brown		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			79		
<b>Water Bearing:</b>			Yes		
<b>Colour:</b>			Gray		
<b>Description:</b>			Water Bearing		
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			240		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Dark Gray		
<b>Description:</b>					
<b>Material:</b>			Shale & Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			22		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Sand & Till		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			45		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Brownish Gray		
<b>Description:</b>			Carbonaceous		
<b>Material:</b>			Sandstone		

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b><u>Lithologies</u></b>					
<b>Depth:</b>			68		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Dark Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			104		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>			Very Fine Grained		
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			175		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>			Very Fine Grained		
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			190		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Dark Gray		
<b>Description:</b>			Carbonaceous		
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			99		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Dark Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			126		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Dark Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			153		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Dark Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			18		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brownish Gray			
<b>Description:</b>					
<b>Material:</b>		Till & Clay			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		197			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>		Medium Grained			
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		155			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Green			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		163			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Dark Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>		11365356			
<b>Test Date:</b>		2006/11/07			
<b>Start Time:</b>		12:00 AM			
<b>Taken from Top of Casing:</b>		No			
<b>Static Water Level:</b>		9.19			
<b>End Water Level:</b>					
<b>Water Removal Type:</b>		Air			
<b>Water Removal Rate:</b>		0.25			
<b>Removal Depth from:</b>		240			
<b>Reason for Short Test:</b>					

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<b>Well ID:</b>	10878469	<b>Elevation Source:</b>	Not Obtained
<b>Driller ID:</b>	24428	<b>Method of Drilling:</b>	
<b>Licence No:</b>		<b>GPS Obtained:</b>	Not Verified
<b>GIC Well ID:</b>	1063104	<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>		<b>Distance North:</b>	
<b>Elevation (ft):</b>		<b>Distance South:</b>	
<b>Depth (ft):</b>		<b>Distance East:</b>	
<b>Date Completed:</b>		<b>Distance West:</b>	
<b>Proposed Use:</b>		<b>Additional Desc:</b>	
<b>Lot:</b>		<b>Validated?:</b>	Yes
<b>Block:</b>		<b>Submitted?:</b>	Yes
<b>Plan:</b>		<b>Location Locked?:</b>	Yes
<b>Type of Work:</b>		<b>Longitude:</b>	-114.473
<b>Flowing Well:</b>		<b>Latitude:</b>	51.0343
<b>Date Started:</b>		<b>LSD:</b>	NE
<b>Water Req Per Day:</b>		<b>Section:</b>	10

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Gas Present:				Township:	24
Oil Present:				Range:	4
Flow Rate:				Meridian:	5
Drilling Company:				DLS Coordinates:	NE-10-24-4-5
Owner Mailing Address:					
Driller Mailing Address:					

### Well Reports

Well Report ID:	10878471	Annular Seal Mat:	Clay Cap
Well Owner ID:	10878470	Annular Seal from:	0.00
Driller ID:	10776517	Annular Seal to:	10.00
Drill Company ID:	24428	Annular Seal Amt:	
Drill Instance ID:	10776521	Annular Seal Units:	
Drill Comp Well ID:		Drilling Method:	Backhoe
Existing Well ID:		Drilling Start Dt:	2002/10/15
Date Received:		Drilling End Dt:	2002/10/15
Type of Work:	New Well	Pack Type:	Unknown
Plug Date:		Pack Grain Size:	
Plug Material Type:	Unknown	Pack Amount:	
Plug Mat Amount:		Pack Units:	Unknown
Plugged Units:		Loc Verify Method:	Not Verified
Well Use:	Domestic	Dist Casing Ground:	8.00
Other Well Use:		Artesian Flow?:	No
Total Depth Drill:	16.00	Artesian Flow Rate:	
Finish Well Depth:		Gas Depth:	
Casing Material:	Galvanized Steel	Encounter Gas?:	No
Casing OD:	60.00	Flow Ctrl Install?:	No
Casing Thickness:	0.125	Recommended Rate:	10.00
Casing Bottom:	16.00	Recom Intake Depth:	14.00
Liner Material:	Unknown	Pump Installed?:	No
Liner OD:		Pump Install Depth:	
Liner Thickness:		Pump Model:	
Liner Top:		Pump Horsepower:	
Liner Bottom:		Well Disinfected?:	No
Perforation by:	Saw	Other Log:	
Screen Material:		Divert Water Src:	
Screen Size OD:		Divert Water Amt:	
Screen Attachment:		Diversion Dt/Time:	
Screen Top Fitting:		Is Submitted?:	Yes
Screen Bot Fitting:		Is Validated?:	Yes
Encounter Saline Water?:	No		
Saline Water Depth:			
Potability Sample Taken?:	No		
Potable Sample Sent to AENV?:	No		
Approval Holder Sign Date:			
Drilling Report Given to Owner:	No		
Model Output Rating:			
Remedial Action:			
Flow Control Description:			
Pump Type Installed:			
Created by:			
Submitted by:			
Additional Comments:	GAL STEEL CULVERT,		

### Well Owners

Well Owner ID:	10878470
Owner Name:	BOOM CONST / GOSSICK, TED
PO Box:	100
Address:	
City:	CREMONA
Postal Code:	TOM ORO
Province:	AB



<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Country:</b>		CA			
<b><u>Drillers</u></b>					
<b>Driller ID:</b>		10776517			
<b>Last Name:</b>		ANDERSON			
<b>Middle Initial:</b>					
<b>First Name:</b>		ALLAN			
<b>Journeyman No:</b>		VA4790			
<b>Is Active?:</b>		Yes			
<b><u>Drilling Companies</u></b>					
<b>Starting Well ID:</b>		1065000			
<b>Ending Well ID:</b>		1069999			
<b>Last Well ID Used:</b>		1067648			
<b>Company Name:</b>		ALKEN BASIN DRILLING LTD.			
<b>Street Address:</b>		BOX 9 Site 1, RR 4			
<b>City:</b>		Red Deer County			
<b>Province:</b>		AB			
<b>Country:</b>		CANADA			
<b>Postal Code:</b>		T4N 5E4			
<b>E-Mail:</b>		jeffd@alkenbasindrilling.com			
<b>Is Active?:</b>		Yes			
<b><u>Perforations</u></b>					
<b>Perforation ID:</b>		4232234			
<b>From:</b>		11			
<b>To:</b>		16			
<b>Diameter:</b>		0.25			
<b>Interval:</b>		8			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		6061116			
<b>Log Type:</b>		Gamma			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5658041			
<b>Log Type:</b>		Electric			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		760190			
<b>Diameter:</b>		60			
<b>From:</b>		0			
<b>To:</b>		16			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		2			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Material:</b>		Topsoil			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		12			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Gravel			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		1			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Black			
<b>Description:</b>					
<b>Material:</b>		Topsoil			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		16			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Blue			
<b>Description:</b>					
<b>Material:</b>		Clay			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		8			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Clay			
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>		10878477			
<b>Test Date:</b>		2002/10/15			
<b>Start Time:</b>		12:00 AM			
<b>Taken from Top of Casing:</b>		No			
<b>Static Water Level:</b>		10			
<b>End Water Level:</b>		11.3			
<b>Water Removal Type:</b>		Unknown			
<b>Water Removal Rate:</b>		5			
<b>Removal Depth from:</b>		14			
<b>Reason for Short Test:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		10878481			
<b>Minutes:</b>		3			
<b>Pumping Depth:</b>		11			
<b>Recovery Depth:</b>		10.8			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		10878483			
<b>Minutes:</b>		5			
<b>Pumping Depth:</b>		11.3			
<b>Recovery Depth:</b>		10.5			

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			10878486		
<i>Minutes:</i>			8		
<i>Pumping Depth:</i>			11.3		
<i>Recovery Depth:</i>			10.2		
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			10878496		
<i>Minutes:</i>			40		
<i>Pumping Depth:</i>			11.3		
<i>Recovery Depth:</i>					
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			10878484		
<i>Minutes:</i>			6		
<i>Pumping Depth:</i>			11.3		
<i>Recovery Depth:</i>			10.4		
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			10878494		
<i>Minutes:</i>			30		
<i>Pumping Depth:</i>			11.3		
<i>Recovery Depth:</i>					
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			10878497		
<i>Minutes:</i>			50		
<i>Pumping Depth:</i>			11.3		
<i>Recovery Depth:</i>					
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			10878498		
<i>Minutes:</i>			60		
<i>Pumping Depth:</i>			11.3		
<i>Recovery Depth:</i>					
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			10878480		
<i>Minutes:</i>			2		
<i>Pumping Depth:</i>			10.5		
<i>Recovery Depth:</i>			11		
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			10878478		
<i>Minutes:</i>			0		
<i>Pumping Depth:</i>			10		
<i>Recovery Depth:</i>			11.3		
<b><u>Pump Test Items</u></b>					

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Pump Test Item ID:</b>		10878479			
<b>Minutes:</b>		1			
<b>Pumping Depth:</b>		10.5			
<b>Recovery Depth:</b>		11.2			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		10878495			
<b>Minutes:</b>		35			
<b>Pumping Depth:</b>		11.3			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		10878500			
<b>Minutes:</b>		90			
<b>Pumping Depth:</b>		11.3			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		10878501			
<b>Minutes:</b>		105			
<b>Pumping Depth:</b>		11.3			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		10878490			
<b>Minutes:</b>		14			
<b>Pumping Depth:</b>		11.3			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		10878499			
<b>Minutes:</b>		75			
<b>Pumping Depth:</b>		11.3			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		10878485			
<b>Minutes:</b>		7			
<b>Pumping Depth:</b>		11.3			
<b>Recovery Depth:</b>		10.3			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		10878493			
<b>Minutes:</b>		25			
<b>Pumping Depth:</b>		11.3			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		10878502			
<b>Minutes:</b>		120			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Pumping Depth:</b>		11.3			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		10878489			
<b>Minutes:</b>		12			
<b>Pumping Depth:</b>		11.3			
<b>Recovery Depth:</b>		10			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		10878491			
<b>Minutes:</b>		16			
<b>Pumping Depth:</b>		11.3			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		10878482			
<b>Minutes:</b>		4			
<b>Pumping Depth:</b>		11			
<b>Recovery Depth:</b>		10.5			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		10878487			
<b>Minutes:</b>		9			
<b>Pumping Depth:</b>		11.3			
<b>Recovery Depth:</b>		10.1			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		10878488			
<b>Minutes:</b>		10			
<b>Pumping Depth:</b>		11.3			
<b>Recovery Depth:</b>		10.1			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		10878492			
<b>Minutes:</b>		20			
<b>Pumping Depth:</b>		11.3			
<b>Recovery Depth:</b>					

<b><u>10</u></b>	1 of 1	-/0.0	1,254.1 / 38.47	AB	WWIS
<b>Well ID:</b>	469216			<b>Elevation Source:</b>	Not Obtained
<b>Driller ID:</b>	24053			<b>Method of Drilling:</b>	
<b>Licence No:</b>				<b>GPS Obtained:</b>	Not Verified
<b>GIC Well ID:</b>	469216			<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>				<b>Distance North:</b>	
<b>Elevation (ft):</b>				<b>Distance South:</b>	
<b>Depth (ft):</b>				<b>Distance East:</b>	
<b>Date Completed:</b>				<b>Distance West:</b>	
<b>Proposed Use:</b>				<b>Additional Desc:</b>	
<b>Lot:</b>				<b>Validated?:</b>	Yes
<b>Block:</b>				<b>Submitted?:</b>	Yes
<b>Plan:</b>				<b>Location Locked?:</b>	Yes

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Type of Work:</b>				<b>Longitude:</b>	-114.483879
<b>Flowing Well:</b>				<b>Latitude:</b>	51.034359
<b>Date Started:</b>				<b>LSD:</b>	NW
<b>Water Req Per Day:</b>				<b>Section:</b>	10
<b>Gas Present:</b>				<b>Township:</b>	24
<b>Oil Present:</b>				<b>Range:</b>	4
<b>Flow Rate:</b>				<b>Meridian:</b>	5
<b>Drilling Company:</b>				<b>DLS Coordinates:</b>	NW-10-24-4-5
<b>Owner Mailing Address:</b>					
<b>Driller Mailing Address:</b>					

### Well Reports

<b>Well Report ID:</b>	469216	<b>Annular Seal Mat:</b>	Driven
<b>Well Owner ID:</b>	10743158	<b>Annular Seal from:</b>	1.00
<b>Driller ID:</b>	2533726	<b>Annular Seal to:</b>	26.00
<b>Drill Company ID:</b>	24053	<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8335386	<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>		<b>Drilling Method:</b>	Rotary
<b>Existing Well ID:</b>		<b>Drilling Start Dt:</b>	1997/10/14
<b>Date Received:</b>	1998/02/13	<b>Drilling End Dt:</b>	1997/10/15
<b>Type of Work:</b>	New Well	<b>Pack Type:</b>	
<b>Plug Date:</b>		<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>		<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>		<b>Pack Units:</b>	
<b>Plugged Units:</b>		<b>Loc Verify Method:</b>	Not Verified
<b>Well Use:</b>	Domestic	<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>		<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	150.00	<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>		<b>Gas Depth:</b>	
<b>Casing Material:</b>	Steel	<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	6.62	<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.188	<b>Recommended Rate:</b>	6.00
<b>Casing Bottom:</b>	26.00	<b>Recom Intake Depth:</b>	140.00
<b>Liner Material:</b>	Plastic	<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	4.50	<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.237	<b>Pump Model:</b>	
<b>Liner Top:</b>	20.00	<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	150.00	<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>	Saw	<b>Other Log:</b>	
<b>Screen Material:</b>		<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00	<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>		<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>		<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>		<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No		
<b>Saline Water Depth:</b>			
<b>Potability Sample Taken?:</b>	No		
<b>Potable Sample Sent to AENV?:</b>	No		
<b>Approval Holder Sign Date:</b>			
<b>Drilling Report Given to Owner:</b>	No		
<b>Model Output Rating:</b>			
<b>Remedial Action:</b>			
<b>Flow Control Description:</b>			
<b>Pump Type Installed:</b>			
<b>Created by:</b>			
<b>Submitted by:</b>			
<b>Additional Comments:</b>	DRILLER REPORTS DISTANCE FROM TOP OF CASING TO GROUND LEVEL: 16".		

### Well Owners

<b>Well Owner ID:</b>	10743158
<b>Owner Name:</b>	JONES, JIM
<b>PO Box:</b>	

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Address:</b>		12 SHAWNEE GARDENS SW			
<b>City:</b>					
<b>Postal Code:</b>		T2Y 2V1			
<b>Province:</b>					
<b>Country:</b>					
<b><u>Drillers</u></b>					
<b>Driller ID:</b>		2533726			
<b>Last Name:</b>		DRILLER			
<b>Middle Initial:</b>		NA			
<b>First Name:</b>		UNKNOWN			
<b>Journeyman No:</b>		1			
<b>Is Active?:</b>		Yes			
<b><u>Drilling Companies</u></b>					
<b>Starting Well ID:</b>		1465000			
<b>Ending Well ID:</b>		1469999			
<b>Last Well ID Used:</b>		1465064			
<b>Company Name:</b>		LOU'S WATER WELL DRILLING			
<b>Street Address:</b>		BOX 1021			
<b>City:</b>		COCHRANE			
<b>Province:</b>		AB			
<b>Country:</b>		CA			
<b>Postal Code:</b>		T4C 1B1			
<b>E-Mail:</b>		gwinfo@gov.ab.ca			
<b>Is Active?:</b>		Yes			
<b><u>Perforations</u></b>					
<b>Perforation ID:</b>		4205677			
<b>From:</b>		90			
<b>To:</b>		150			
<b>Diameter:</b>		0.125			
<b>Interval:</b>		12			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5964591			
<b>Log Type:</b>		Gamma			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5561516			
<b>Log Type:</b>		Electric			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		663016			
<b>Diameter:</b>		0			
<b>From:</b>		0			
<b>To:</b>		150			
<b><u>Lithologies</u></b>					

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Depth:</b>		14			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Sand			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		140			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		10			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Clay			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		24			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Clay & Boulders			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		26			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		114			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		141			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		150			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					



<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		90			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		125			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		127			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>		10380500			
<b>Test Date:</b>		1997/10/18			
<b>Start Time:</b>		12:00 AM			
<b>Taken from Top of Casing:</b>		No			
<b>Static Water Level:</b>		41.8			
<b>End Water Level:</b>		141			
<b>Water Removal Type:</b>		Pump & Air			
<b>Water Removal Rate:</b>		8.8			
<b>Removal Depth from:</b>		140			
<b>Reason for Short Test:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8202352			
<b>Minutes:</b>		0			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		141.074			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8202356			
<b>Minutes:</b>		4			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		103.016			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8202359			
<b>Minutes:</b>		7			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		70.2094			

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8202363			
<b>Minutes:</b>		12			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		47.0794			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8202354			
<b>Minutes:</b>		2			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		129.919			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8202358			
<b>Minutes:</b>		6			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		93.8314			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8202365			
<b>Minutes:</b>		20			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		44.2907			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8202368			
<b>Minutes:</b>		40			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		42.355			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8202361			
<b>Minutes:</b>		9			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		58.3984			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8202362			
<b>Minutes:</b>		10			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		53.8051			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8202367			
<b>Minutes:</b>		60			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		41.8956			
<b><u>Pump Test Items</u></b>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Pump Test Item ID:</b>		8202353			
<b>Minutes:</b>		1			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		138.449			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8202355			
<b>Minutes:</b>		3			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		114.499			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8202360			
<b>Minutes:</b>		8			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		64.3039			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8202366			
<b>Minutes:</b>		30			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		43.0441			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8202357			
<b>Minutes:</b>		5			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		98.0309			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8202364			
<b>Minutes:</b>		16			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		44.947			

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<b>Well ID:</b>	387571	<b>Elevation Source:</b>	Estimated
<b>Driller ID:</b>	673	<b>Method of Drilling:</b>	
<b>Licence No:</b>		<b>GPS Obtained:</b>	Not Verified
<b>GIC Well ID:</b>	387571	<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>		<b>Distance North:</b>	
<b>Elevation (ft):</b>	3975	<b>Distance South:</b>	
<b>Depth (ft):</b>		<b>Distance East:</b>	
<b>Date Completed:</b>		<b>Distance West:</b>	
<b>Proposed Use:</b>		<b>Additional Desc:</b>	
<b>Lot:</b>		<b>Validated?:</b>	Yes
<b>Block:</b>		<b>Submitted?:</b>	Yes
<b>Plan:</b>		<b>Location Locked?:</b>	Yes
<b>Type of Work:</b>		<b>Longitude:</b>	-114.478142
<b>Flowing Well:</b>		<b>Latitude:</b>	51.030743
<b>Date Started:</b>		<b>LSD:</b>	
<b>Water Req Per Day:</b>		<b>Section:</b>	10
<b>Gas Present:</b>		<b>Township:</b>	24
<b>Oil Present:</b>		<b>Range:</b>	4

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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**Flow Rate:**  
**Drilling Company:**  
**Owner Mailing Address:**  
**Driller Mailing Address:**

**Meridian:** 5  
**DLS Coordinates:** -10-24-4-5

**Well Reports**

<b>Well Report ID:</b>	387571	<b>Annular Seal Mat:</b>	
<b>Well Owner ID:</b>	10659940	<b>Annular Seal from:</b>	0.00
<b>Driller ID:</b>	2533726	<b>Annular Seal to:</b>	0.00
<b>Drill Company ID:</b>	673	<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8336698	<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>		<b>Drilling Method:</b>	Unknown
<b>Existing Well ID:</b>		<b>Drilling Start Dt:</b>	
<b>Date Received:</b>	1964/01/01	<b>Drilling End Dt:</b>	1955/08/23
<b>Type of Work:</b>	Well Inventory	<b>Pack Type:</b>	
<b>Plug Date:</b>		<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>		<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>		<b>Pack Units:</b>	
<b>Plugged Units:</b>		<b>Loc Verify Method:</b>	Not Verified
<b>Well Use:</b>	Domestic	<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>		<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	412.00	<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>		<b>Gas Depth:</b>	
<b>Casing Material:</b>	Unknown	<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	4.00	<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.000	<b>Recommended Rate:</b>	0.00
<b>Casing Bottom:</b>	372.00	<b>Recom Intake Depth:</b>	0.00
<b>Liner Material:</b>		<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	0.00	<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.000	<b>Pump Model:</b>	
<b>Liner Top:</b>	0.00	<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	0.00	<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>		<b>Other Log:</b>	
<b>Screen Material:</b>		<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00	<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>		<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>		<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>		<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No		
<b>Saline Water Depth:</b>			
<b>Potability Sample Taken?:</b>	No		
<b>Potable Sample Sent to AENV?:</b>	No		
<b>Approval Holder Sign Date:</b>			
<b>Drilling Report Given to Owner:</b>	No		
<b>Model Output Rating:</b>			
<b>Remedial Action:</b>			
<b>Flow Control Description:</b>			
<b>Pump Type Installed:</b>			
<b>Created by:</b>			
<b>Submitted by:</b>			
<b>Additional Comments:</b>			

**Well Owners**

**Well Owner ID:** 10659940  
**Owner Name:** BODNARUK, D.  
**PO Box:**  
**Address:**  
**City:**  
**Postal Code:**  
**Province:**  
**Country:**

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b><u>Drillers</u></b>					
<b>Driller ID:</b>		2533726			
<b>Last Name:</b>		DRILLER			
<b>Middle Initial:</b>		NA			
<b>First Name:</b>		UNKNOWN			
<b>Journeyman No:</b>		1			
<b>Is Active?:</b>		Yes			
<b><u>Drilling Companies</u></b>					
<b>Starting Well ID:</b>					
<b>Ending Well ID:</b>					
<b>Last Well ID Used:</b>					
<b>Company Name:</b>		KIENGLE			
<b>Street Address:</b>					
<b>City:</b>					
<b>Province:</b>					
<b>Country:</b>					
<b>Postal Code:</b>					
<b>E-Mail:</b>					
<b>Is Active?:</b>		No			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5964587			
<b>Log Type:</b>		Gamma			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5561512			
<b>Log Type:</b>		Electric			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		663012			
<b>Diameter:</b>		0			
<b>From:</b>		0			
<b>To:</b>		412			
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>		10331987			
<b>Test Date:</b>		1955/08/23			
<b>Start Time:</b>		12:00 AM			
<b>Taken from Top of Casing:</b>		No			
<b>Static Water Level:</b>		200			
<b>End Water Level:</b>					
<b>Water Removal Type:</b>					
<b>Water Removal Rate:</b>					
<b>Removal Depth from:</b>		0			
<b>Reason for Short Test:</b>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Well ID:	492943			Elevation Source:	Not Obtained
Driller ID:	24227			Method of Drilling:	
Licence No:				GPS Obtained:	Not Verified
GIC Well ID:	492943			Boundary From:	
GOA Well Tag No:				Distance North:	
Elevation (ft):				Distance South:	
Depth (ft):				Distance East:	
Date Completed:				Distance West:	
Proposed Use:				Additional Desc:	
Lot:				Validated?:	Yes
Block:				Submitted?:	Yes
Plan:				Location Locked?:	Yes
Type of Work:				Longitude:	-114.484246
Flowing Well:				Latitude:	51.078099
Date Started:				LSD:	NW
Water Req Per Day:				Section:	27
Gas Present:				Township:	24
Oil Present:				Range:	4
Flow Rate:				Meridian:	5
Drilling Company:				DLS Coordinates:	NW-27-24-4-5
Owner Mailing Address:					
Driller Mailing Address:					

### Well Reports

Well Report ID:	492943	Annular Seal Mat:	Driven & Bentonite
Well Owner ID:	10751210	Annular Seal from:	0.00
Driller ID:	2533726	Annular Seal to:	80.00
Drill Company ID:	24227	Annular Seal Amt:	
Drill Instance ID:	8335390	Annular Seal Units:	
Drill Comp Well ID:		Drilling Method:	Rotary
Existing Well ID:		Drilling Start Dt:	1999/06/21
Date Received:	1999/07/13	Drilling End Dt:	1999/06/22
Type of Work:	New Well	Pack Type:	
Plug Date:		Pack Grain Size:	
Plug Material Type:		Pack Amount:	
Plug Mat Amount:		Pack Units:	
Plugged Units:		Loc Verify Method:	Not Verified
Well Use:	Domestic	Dist Casing Ground:	
Other Well Use:		Artesian Flow?:	No
Total Depth Drill:	120.00	Artesian Flow Rate:	
Finish Well Depth:		Gas Depth:	
Casing Material:		Encounter Gas?:	No
Casing OD:	0.00	Flow Ctrl Install?:	No
Casing Thickness:	0.000	Recommended Rate:	12.00
Casing Bottom:	0.00	Recom Intake Depth:	110.00
Liner Material:	Steel	Pump Installed?:	No
Liner OD:	5.56	Pump Install Depth:	
Liner Thickness:	0.188	Pump Model:	
Liner Top:	0.00	Pump Horsepower:	
Liner Bottom:	117.00	Well Disinfected?:	No
Perforation by:	Torch	Other Log:	
Screen Material:		Divert Water Src:	
Screen Size OD:	0.00	Divert Water Amt:	
Screen Attachment:		Diversion Dt/Time:	
Screen Top Fitting:		Is Submitted?:	Yes
Screen Bot Fitting:		Is Validated?:	Yes
Encounter Saline Water?:	No		
Saline Water Depth:			
Potability Sample Taken?:	No		
Potable Sample Sent to AENV?:	No		
Approval Holder Sign Date:			
Drilling Report Given to Owner:	No		
Model Output Rating:			
Remedial Action:			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>					
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b> DRILLER REPORTS DISTANCE FROM TOP OF CASING TO GROUND LEVEL: 2'. FIELD TEST 400 TDS, HARD WATER.					
<b><u>Well Owners</u></b>					
<b>Well Owner ID:</b> 10751210					
<b>Owner Name:</b> WAGNER, SCOTT/MARSHA					
<b>PO Box:</b> 5					
<b>Address:</b> SITE 14 RR2, CALGARY					
<b>City:</b>					
<b>Postal Code:</b> T2P 2G5					
<b>Province:</b>					
<b>Country:</b>					
<b><u>Drillers</u></b>					
<b>Driller ID:</b> 2533726					
<b>Last Name:</b> DRILLER					
<b>Middle Initial:</b> NA					
<b>First Name:</b> UNKNOWN					
<b>Journeyman No:</b> 1					
<b>Is Active?:</b> Yes					
<b><u>Drilling Companies</u></b>					
<b>Starting Well ID:</b> 1475000					
<b>Ending Well ID:</b> 1479999					
<b>Last Well ID Used:</b> 1477040					
<b>Company Name:</b> M&M DRILLING CO. LTD.					
<b>Street Address:</b> BOX 1, SITE 22, RR 2					
<b>City:</b> STRATHMORE					
<b>Province:</b> AB					
<b>Country:</b> CA					
<b>Postal Code:</b> T1P 1K5					
<b>E-Mail:</b> murraywh@mmdrilling.ca					
<b>Is Active?:</b> Yes					
<b><u>Perforations</u></b>					
<b>Perforation ID:</b> 4202529					
<b>From:</b> 86					
<b>To:</b> 94					
<b>Diameter:</b> 0.125					
<b>Interval:</b> 10					
<b><u>Perforations</u></b>					
<b>Perforation ID:</b> 4260960					
<b>From:</b> 107					
<b>To:</b> 116					
<b>Diameter:</b> 0					
<b>Interval:</b> 0					
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b> 5955411					
<b>Log Type:</b> Gamma					

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<i>Log Taken?:</i>		No			
<i>Sent to AENV?:</i>		No			
<b><u>Geophysical Logs</u></b>					
<i>Geophysical Log ID:</i>		5552336			
<i>Log Type:</i>		Electric			
<i>Log Taken?:</i>		No			
<i>Sent to AENV?:</i>		No			
<b><u>Boreholes</u></b>					
<i>Borehole ID:</i>		653836			
<i>Diameter:</i>		0			
<i>From:</i>		0			
<i>To:</i>		120			
<b><u>Lithologies</u></b>					
<i>Depth:</i>		65			
<i>Water Bearing:</i>		Yes			
<i>Colour:</i>		Gray			
<i>Description:</i>		Water Bearing			
<i>Material:</i>		Sandstone			
<b><u>Lithologies</u></b>					
<i>Depth:</i>		83			
<i>Water Bearing:</i>		No			
<i>Colour:</i>		Green			
<i>Description:</i>					
<i>Material:</i>		Shale			
<b><u>Lithologies</u></b>					
<i>Depth:</i>		86			
<i>Water Bearing:</i>		No			
<i>Colour:</i>		Gray			
<i>Description:</i>		Fine Grained			
<i>Material:</i>		Sandstone			
<b><u>Lithologies</u></b>					
<i>Depth:</i>		48			
<i>Water Bearing:</i>		No			
<i>Colour:</i>		Dark Gray			
<i>Description:</i>					
<i>Material:</i>		Clay & Rocks			
<b><u>Lithologies</u></b>					
<i>Depth:</i>		94			
<i>Water Bearing:</i>		Yes			
<i>Colour:</i>		Gray			
<i>Description:</i>		Water Bearing			
<i>Material:</i>		Sandstone			
<b><u>Lithologies</u></b>					



<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Depth:</b>		50			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Blue			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		97			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		116			
<b>Water Bearing:</b>		Yes			
<b>Colour:</b>		Gray			
<b>Description:</b>		Water Bearing			
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		23			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Clay			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		72			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		77			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		14			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Clay			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		120			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		32			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>		Sandy			
<b>Material:</b>		Clay			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		52			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Blue			
<b>Description:</b>		Shattered			
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		74			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		103			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>		Fine Grained			
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		107			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Green			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		58			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Dark Green			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>		10386709			
<b>Test Date:</b>		1999/06/23			
<b>Start Time:</b>		12:00 AM			
<b>Taken from Top of Casing:</b>		No			
<b>Static Water Level:</b>		2.4			
<b>End Water Level:</b>		102.9			
<b>Water Removal Type:</b>		Pump			
<b>Water Removal Rate:</b>		17.6			

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<i>Removal Depth from:</i>		110			
<i>Reason for Short Test:</i>					
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238546			
<i>Minutes:</i>		3			
<i>Pumping Depth:</i>		31.23			
<i>Recovery Depth:</i>		79.67			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238560			
<i>Minutes:</i>		35			
<i>Pumping Depth:</i>		84			
<i>Recovery Depth:</i>		22.9			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238561			
<i>Minutes:</i>		40			
<i>Pumping Depth:</i>		86.56			
<i>Recovery Depth:</i>		21.31			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238562			
<i>Minutes:</i>		50			
<i>Pumping Depth:</i>		90.25			
<i>Recovery Depth:</i>		18.42			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238545			
<i>Minutes:</i>		2			
<i>Pumping Depth:</i>		23.52			
<i>Recovery Depth:</i>		87.9			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238549			
<i>Minutes:</i>		6			
<i>Pumping Depth:</i>		44.52			
<i>Recovery Depth:</i>		61.67			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238550			
<i>Minutes:</i>		7			
<i>Pumping Depth:</i>		47.88			
<i>Recovery Depth:</i>		57.29			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238559			
<i>Minutes:</i>		30			
<i>Pumping Depth:</i>		80.96			
<i>Recovery Depth:</i>		24.75			

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238565			
<i>Minutes:</i>		90			
<i>Pumping Depth:</i>		99.25			
<i>Recovery Depth:</i>		12.83			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238544			
<i>Minutes:</i>		1			
<i>Pumping Depth:</i>		15.02			
<i>Recovery Depth:</i>		92.13			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238553			
<i>Minutes:</i>		10			
<i>Pumping Depth:</i>		56.98			
<i>Recovery Depth:</i>		47.19			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238555			
<i>Minutes:</i>		14			
<i>Pumping Depth:</i>		64.08			
<i>Recovery Depth:</i>		38.92			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238556			
<i>Minutes:</i>		16			
<i>Pumping Depth:</i>		67.08			
<i>Recovery Depth:</i>		36.15			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238547			
<i>Minutes:</i>		4			
<i>Pumping Depth:</i>		35.98			
<i>Recovery Depth:</i>		72.63			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238554			
<i>Minutes:</i>		12			
<i>Pumping Depth:</i>		60.42			
<i>Recovery Depth:</i>		42.81			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238551			
<i>Minutes:</i>		8			
<i>Pumping Depth:</i>		50.94			
<i>Recovery Depth:</i>		53.46			
<b><u>Pump Test Items</u></b>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<i>Pump Test Item ID:</i>		8238563			
<i>Minutes:</i>		60			
<i>Pumping Depth:</i>		94.73			
<i>Recovery Depth:</i>		16.52			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238566			
<i>Minutes:</i>		105			
<i>Pumping Depth:</i>		101.33			
<i>Recovery Depth:</i>		11.71			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238548			
<i>Minutes:</i>		5			
<i>Pumping Depth:</i>		40.1			
<i>Recovery Depth:</i>		66.83			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238552			
<i>Minutes:</i>		9			
<i>Pumping Depth:</i>		53.67			
<i>Recovery Depth:</i>		50.27			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238557			
<i>Minutes:</i>		20			
<i>Pumping Depth:</i>		71.92			
<i>Recovery Depth:</i>		32.92			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238558			
<i>Minutes:</i>		25			
<i>Pumping Depth:</i>		77.23			
<i>Recovery Depth:</i>		27.67			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238564			
<i>Minutes:</i>		75			
<i>Pumping Depth:</i>		97.13			
<i>Recovery Depth:</i>		14.4			
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>		8238567			
<i>Minutes:</i>		120			
<i>Pumping Depth:</i>		102.94			
<i>Recovery Depth:</i>		10.75			
<b>12</b>	<b>2 of 2</b>	<b>-/0.0</b>	<b>1,214.5 / -1.07</b>	<b>AB</b>	<b>WWIS</b>
<i>Well ID:</i>	387831			<i>Elevation Source:</i>	Not Obtained
<i>Driller ID:</i>	11110			<i>Method of Drilling:</i>	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Licence No:				GPS Obtained:	Not Verified
GIC Well ID:	387831			Boundary From:	
GOA Well Tag No:				Distance North:	
Elevation (ft):				Distance South:	
Depth (ft):				Distance East:	
Date Completed:				Distance West:	
Proposed Use:				Additional Desc:	
Lot:				Validated?:	Yes
Block:				Submitted?:	Yes
Plan:				Location Locked?:	Yes
Type of Work:				Longitude:	-114.484246
Flowing Well:				Latitude:	51.078099
Date Started:				LSD:	NW
Water Req Per Day:				Section:	27
Gas Present:				Township:	24
Oil Present:				Range:	4
Flow Rate:				Meridian:	5
Drilling Company:				DLS Coordinates:	NW-27-24-4-5
Owner Mailing Address:					
Driller Mailing Address:					

#### Chemical Analysis

**Chem Analysis ID:** 2084636  
**Well Report ID:** 387831  
**Sample No:** 12216-W  
**Sample Date:** 11/14/1985  
**Analysis Date:** 11/28/1985  
**Laboratory:** VG  
**Water Level:**  
**Aquifer:**  
**Remarks:**

#### Analysis Items

**Chemical Analysis ID:** 2084636  
**Element Name:** Fluoride  
**Element Symbol:** F  
**Decimal Places:** 4  
**Value:** 1.44

#### Analysis Items

**Chemical Analysis ID:** 2084636  
**Element Name:** Hydroxide  
**Element Symbol:** OH  
**Decimal Places:** 4  
**Value:** 0

#### Analysis Items

**Chemical Analysis ID:** 2084636  
**Element Name:** Total Hardness  
**Element Symbol:** TH  
**Decimal Places:** 4  
**Value:** 72

#### Analysis Items

**Chemical Analysis ID:** 2084636  
**Element Name:** pH  
**Element Symbol:** PH

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Decimal Places: Value:</b>		2 8.4			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID: Element Name: Element Symbol: Decimal Places: Value:</b>		2084636 Potassium K 4 1.74			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID: Element Name: Element Symbol: Decimal Places: Value:</b>		2084636 Iron FE 4 3.01			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID: Element Name: Element Symbol: Decimal Places: Value:</b>		2084636 Sulphate SO4 4 66.09421			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID: Element Name: Element Symbol: Decimal Places: Value:</b>		2084636 Total Alkalinity TA 4 349			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID: Element Name: Element Symbol: Decimal Places: Value:</b>		2084636 total Kjeldahl nitrogen TKN 4 0			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID: Element Name: Element Symbol: Decimal Places: Value:</b>		2084636 Magnesium MG 4 6.004608			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID: Element Name: Element Symbol: Decimal Places: Value:</b>		2084636 Bicarbonate HCO3 4 419.041132			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2084636			
<b>Element Name:</b>		Calcium			
<b>Element Symbol:</b>		CA			
<b>Decimal Places:</b>		4			
<b>Value:</b>		18.999924			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2084636			
<b>Element Name:</b>		Sodium			
<b>Element Symbol:</b>		NA			
<b>Decimal Places:</b>		4			
<b>Value:</b>		159.9995			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2084636			
<b>Element Name:</b>		Chloride			
<b>Element Symbol:</b>		CL			
<b>Decimal Places:</b>		4			
<b>Value:</b>		3.0033			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2084636			
<b>Element Name:</b>		Nitrate plus Nitrite			
<b>Element Symbol:</b>		NO2_NO3_N			
<b>Decimal Places:</b>		4			
<b>Value:</b>		-0.0504			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2084636			
<b>Element Name:</b>		Nitrite			
<b>Element Symbol:</b>		NO2			
<b>Decimal Places:</b>		4			
<b>Value:</b>		-0.0504			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2084636			
<b>Element Name:</b>		Silica			
<b>Element Symbol:</b>		SIO2			
<b>Decimal Places:</b>		4			
<b>Value:</b>		5.4			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2084636			
<b>Element Name:</b>		Total Dissolved Solids			
<b>Element Symbol:</b>		TDS			
<b>Decimal Places:</b>		0			
<b>Value:</b>		466			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2084636			
<b>Element Name:</b>		Electrical Conductivity			



Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Element Symbol:</b>		EC			
<b>Decimal Places:</b>		0			
<b>Value:</b>		779			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2084636			
<b>Element Name:</b>		Ion Balance			
<b>Element Symbol:</b>		IONBAL			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0.99			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2084636			
<b>Element Name:</b>		Total Phosphorus			
<b>Element Symbol:</b>		TP			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2084636			
<b>Element Name:</b>		Carbonate			
<b>Element Symbol:</b>		CO3			
<b>Decimal Places:</b>		4			
<b>Value:</b>		-5.001			
<b><u>Well Reports</u></b>					
<b>Well Report ID:</b>	387831			<b>Annular Seal Mat:</b>	
<b>Well Owner ID:</b>	10660192			<b>Annular Seal from:</b>	0.00
<b>Driller ID:</b>	2533726			<b>Annular Seal to:</b>	0.00
<b>Drill Company ID:</b>	11110			<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8337868			<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>				<b>Drilling Method:</b>	Not Applicable
<b>Existing Well ID:</b>				<b>Drilling Start Dt:</b>	
<b>Date Received:</b>	1985/11/22			<b>Drilling End Dt:</b>	
<b>Type of Work:</b>	Chemistry			<b>Pack Type:</b>	
<b>Plug Date:</b>				<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>				<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>				<b>Pack Units:</b>	
<b>Plugged Units:</b>				<b>Loc Verify Method:</b>	Not Verified
<b>Well Use:</b>	Domestic			<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>				<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	255.00			<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>				<b>Gas Depth:</b>	
<b>Casing Material:</b>				<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	0.00			<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.000			<b>Recommended Rate:</b>	
<b>Casing Bottom:</b>	0.00			<b>Recom Intake Depth:</b>	
<b>Liner Material:</b>				<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	0.00			<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.000			<b>Pump Model:</b>	
<b>Liner Top:</b>	0.00			<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	0.00			<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>				<b>Other Log:</b>	
<b>Screen Material:</b>				<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00			<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>				<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>				<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>				<b>Is Validated?:</b>	Yes

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<i>Encounter Saline Water?:</i>		No			
<i>Saline Water Depth:</i>					
<i>Potability Sample Taken?:</i>		No			
<i>Potable Sample Sent to AENV?:</i>		No			
<i>Approval Holder Sign Date:</i>					
<i>Drilling Report Given to Owner:</i>		No			
<i>Model Output Rating:</i>					
<i>Remedial Action:</i>					
<i>Flow Control Description:</i>					
<i>Pump Type Installed:</i>					
<i>Created by:</i>					
<i>Submitted by:</i>					
<i>Additional Comments:</i>					

**Well Owners**

*Well Owner ID:* 10660192  
*Owner Name:* LOBSANG, DARGYAY  
*PO Box:*  
*Address:* GEN DEL, COCHRANE  
*City:*  
*Postal Code:* T0L 0O0  
*Province:*  
*Country:*

**Drillers**

*Driller ID:* 2533726  
*Last Name:* DRILLER  
*Middle Initial:* NA  
*First Name:* UNKNOWN  
*Journeyman No:* 1  
*Is Active?:* Yes

**Drilling Companies**

*Starting Well ID:* 1973500  
*Ending Well ID:* 1973599  
*Last Well ID Used:* 1973599  
*Company Name:* UNKNOWN DRILLER  
*Street Address:* UNKNOWN  
*City:* UNKNOWN  
*Province:* AB  
*Country:* CA  
*Postal Code:*  
*E-Mail:* gwinfo@gov.ab.ca  
*Is Active?:* No

**Geophysical Logs**

*Geophysical Log ID:* 5552335  
*Log Type:* Electric  
*Log Taken?:* No  
*Sent to AENV?:* No

**Geophysical Logs**

*Geophysical Log ID:* 5955410  
*Log Type:* Gamma  
*Log Taken?:* No  
*Sent to AENV?:* No

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		653835			
<b>Diameter:</b>		0			
<b>From:</b>		0			
<b>To:</b>		255			
<a href="#">13</a>	1 of 1	-/0.0	1,236.7 / 21.12	AB	AOGW
<b>Licence NO:</b>	0010582			<b>ATS Coordinates:</b>	6-10-24-4-5
<b>Licence Date:</b>	19551208			<b>Structure::</b>	
<b>Mode::</b>				<b>Type::</b>	FARM
<b>Well Status Date::</b>	19551210			<b>Fluid::</b>	WATER
<b>Total Depth (m):</b>	0125.60			<b>Licencee::</b>	Domestic Water Well
<b>Final Drill Date::</b>	19551208				
<b>Well Name:</b>	D.BODNARUK REPLACEMENT W 6-10-24-4				
<b>Licencee Address::</b>					
<a href="#">14</a>	1 of 1	-/0.0	1,240.0 / 24.39	D.BODNARUK REPLACEMENT W 6-10-24-4 AB	AERW
<b>Well ID:</b>	F1/06-10-024-04W5/0			<b>License No:</b>	0010582
<b>Stat Date:</b>	1955-12-10			<b>Licence Date:</b>	1955-12-08
<b>FD Date:</b>	1955-12-08			<b>Licence Status:</b>	Issued
<b>Well Status:</b>	0600080000			<b>Keylist:</b>	0245041006F10
<b>Well Fluid:</b>	WATER			<b>Update:</b>	
<b>Well Mode:</b>	Not Applicable			<b>Field:</b>	140
<b>Well Type:</b>	FARM			<b>Pool:</b>	0001098
<b>Well Structure:</b>	Not Applicable			<b>OS Area:</b>	
<b>Agent:</b>				<b>OS Dep:</b>	0000000
<b>Operator:</b>				<b>Total Dep:</b>	125.600000000000
<b>Licencee:</b>	Domestic Water Well				
<a href="#">15</a>	1 of 1	-/0.0	1,240.0 / 24.37	Municipal District of Rocky View No. 44 AB	PITS
<b>Certificate NO:</b>				<b>Approval Type:</b>	
<b>Status:</b>	Proposed			<b>DLS::</b>	SW 10-24-4-5
<b>Status Date:</b>	23-Feb-95			<b>Lot::</b>	
<b>Effective Date:</b>				<b>Block::</b>	
<b>Expiry Date:</b>				<b>Plan::</b>	
<b>Facility Name::</b>	GAUTHIER PIT				
<b>Description::</b>					
<b>Operator::</b>					
<b>Mailing Address::</b>					
<a href="#">16</a>	1 of 1	-/0.0	1,242.0 / 26.39	AB	WWIS
<b>Well ID:</b>	387569			<b>Elevation Source:</b>	Not Obtained
<b>Driller ID:</b>	11110			<b>Method of Drilling:</b>	
<b>Licence No:</b>				<b>GPS Obtained:</b>	Not Verified
<b>GIC Well ID:</b>	387569			<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>				<b>Distance North:</b>	
<b>Elevation (ft):</b>				<b>Distance South:</b>	
<b>Depth (ft):</b>				<b>Distance East:</b>	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Date Completed:</b>				<b>Distance West:</b>	
<b>Proposed Use:</b>				<b>Additional Desc:</b>	
<b>Lot:</b>				<b>Validated?:</b>	Yes
<b>Block:</b>				<b>Submitted?:</b>	Yes
<b>Plan:</b>				<b>Location Locked?:</b>	Yes
<b>Type of Work:</b>				<b>Longitude:</b>	-114.483877
<b>Flowing Well:</b>				<b>Latitude:</b>	51.027127
<b>Date Started:</b>				<b>LSD:</b>	SW
<b>Water Req Per Day:</b>				<b>Section:</b>	10
<b>Gas Present:</b>				<b>Township:</b>	24
<b>Oil Present:</b>				<b>Range:</b>	4
<b>Flow Rate:</b>				<b>Meridian:</b>	5
<b>Drilling Company:</b>				<b>DLS Coordinates:</b>	SW-10-24-4-5
<b>Owner Mailing Address:</b>					
<b>Driller Mailing Address:</b>					

**Chemical Analysis**

**Chem Analysis ID:** 2081518  
**Well Report ID:** 387569  
**Sample No:** 13445-W  
**Sample Date:** 10/19/1983  
**Analysis Date:** 11/14/1983  
**Laboratory:** VG  
**Water Level:**  
**Aquifer:**  
**Remarks:**

**Analysis Items**

**Chemical Analysis ID:** 2081518  
**Element Name:** Iron  
**Element Symbol:** FE  
**Decimal Places:** 4  
**Value:** 0.12

**Analysis Items**

**Chemical Analysis ID:** 2081518  
**Element Name:** Nitrate plus Nitrite  
**Element Symbol:** NO2\_NO3\_N  
**Decimal Places:** 4  
**Value:** -0.0504

**Analysis Items**

**Chemical Analysis ID:** 2081518  
**Element Name:** Potassium  
**Element Symbol:** K  
**Decimal Places:** 4  
**Value:** 0.408

**Analysis Items**

**Chemical Analysis ID:** 2081518  
**Element Name:** Total Hardness  
**Element Symbol:** TH  
**Decimal Places:** 4  
**Value:** 194

**Analysis Items**

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Chemical Analysis ID:</b>		2081518			
<b>Element Name:</b>		Sulphate			
<b>Element Symbol:</b>		SO4			
<b>Decimal Places:</b>		4			
<b>Value:</b>		61.087			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081518			
<b>Element Name:</b>		Hydroxide			
<b>Element Symbol:</b>		OH			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081518			
<b>Element Name:</b>		pH			
<b>Element Symbol:</b>		PH			
<b>Decimal Places:</b>		2			
<b>Value:</b>		8.3			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081518			
<b>Element Name:</b>		Ion Balance			
<b>Element Symbol:</b>		IONBAL			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0.95			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081518			
<b>Element Name:</b>		Total Phosphorus			
<b>Element Symbol:</b>		TP			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081518			
<b>Element Name:</b>		Calcium			
<b>Element Symbol:</b>		CA			
<b>Decimal Places:</b>		4			
<b>Value:</b>		52.999788			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081518			
<b>Element Name:</b>		Nitrite			
<b>Element Symbol:</b>		NO2			
<b>Decimal Places:</b>		4			
<b>Value:</b>		-0.0504			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081518			
<b>Element Name:</b>		Total Dissolved Solids			
<b>Element Symbol:</b>		TDS			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Decimal Places:</b>		0			
<b>Value:</b>		219			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081518			
<b>Element Name:</b>		Sodium			
<b>Element Symbol:</b>		NA			
<b>Decimal Places:</b>		4			
<b>Value:</b>		2.001			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081518			
<b>Element Name:</b>		Chloride			
<b>Element Symbol:</b>		CL			
<b>Decimal Places:</b>		4			
<b>Value:</b>		-1.0011			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081518			
<b>Element Name:</b>		total Kjeldahl nitrogen			
<b>Element Symbol:</b>		TKN			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081518			
<b>Element Name:</b>		Magnesium			
<b>Element Symbol:</b>		MG			
<b>Decimal Places:</b>		4			
<b>Value:</b>		15.012736			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081518			
<b>Element Name:</b>		Silica			
<b>Element Symbol:</b>		SIO2			
<b>Decimal Places:</b>		4			
<b>Value:</b>		3.9			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081518			
<b>Element Name:</b>		Electrical Conductivity			
<b>Element Symbol:</b>		EC			
<b>Decimal Places:</b>		0			
<b>Value:</b>		405			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081518			
<b>Element Name:</b>		Fluoride			
<b>Element Symbol:</b>		F			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0.23			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081518			
<b>Element Name:</b>		Total Alkalinity			
<b>Element Symbol:</b>		TA			
<b>Decimal Places:</b>		4			
<b>Value:</b>		144			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081518			
<b>Element Name:</b>		Bicarbonate			
<b>Element Symbol:</b>		HCO3			
<b>Decimal Places:</b>		4			
<b>Value:</b>		176.017292			
<b><u>Well Reports</u></b>					
<b>Well Report ID:</b>	387569			<b>Annular Seal Mat:</b>	
<b>Well Owner ID:</b>	10659938			<b>Annular Seal from:</b>	0.00
<b>Driller ID:</b>	2533726			<b>Annular Seal to:</b>	0.00
<b>Drill Company ID:</b>	11110			<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8337868			<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>				<b>Drilling Method:</b>	Not Applicable
<b>Existing Well ID:</b>				<b>Drilling Start Dt:</b>	
<b>Date Received:</b>	1983/10/21			<b>Drilling End Dt:</b>	
<b>Type of Work:</b>	Chemistry			<b>Pack Type:</b>	
<b>Plug Date:</b>				<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>				<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>				<b>Pack Units:</b>	
<b>Plugged Units:</b>				<b>Loc Verify Method:</b>	Not Verified
<b>Well Use:</b>	Domestic			<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>				<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	11.00			<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>				<b>Gas Depth:</b>	
<b>Casing Material:</b>				<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	0.00			<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.000			<b>Recommended Rate:</b>	
<b>Casing Bottom:</b>	0.00			<b>Recom Intake Depth:</b>	
<b>Liner Material:</b>				<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	0.00			<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.000			<b>Pump Model:</b>	
<b>Liner Top:</b>	0.00			<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	0.00			<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>				<b>Other Log:</b>	
<b>Screen Material:</b>				<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00			<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>				<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>				<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>				<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No				
<b>Saline Water Depth:</b>					
<b>Potability Sample Taken?:</b>	No				
<b>Potable Sample Sent to AENV?:</b>	No				
<b>Approval Holder Sign Date:</b>					
<b>Drilling Report Given to Owner:</b>	No				
<b>Model Output Rating:</b>					
<b>Remedial Action:</b>					
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>					
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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**Well Owners**

Well Owner ID: 10659938  
 Owner Name: PALIGLO PLAINS LTD  
 PO Box:  
 Address: 2132-58 AVE SW, CALGARY  
 City:  
 Postal Code:  
 Province:  
 Country:

**Drillers**

Driller ID: 2533726  
 Last Name: DRILLER  
 Middle Initial: NA  
 First Name: UNKNOWN  
 Journeyman No: 1  
 Is Active?: Yes

**Drilling Companies**

Starting Well ID: 1973500  
 Ending Well ID: 1973599  
 Last Well ID Used: 1973599  
 Company Name: UNKNOWN DRILLER  
 Street Address: UNKNOWN  
 City: UNKNOWN  
 Province: AB  
 Country: CA  
 Postal Code:  
 E-Mail: gwinfo@gov.ab.ca  
 Is Active?: No

**Geophysical Logs**

Geophysical Log ID: 5964594  
 Log Type: Gamma  
 Log Taken?: No  
 Sent to AENV?: No

**Geophysical Logs**

Geophysical Log ID: 5561519  
 Log Type: Electric  
 Log Taken?: No  
 Sent to AENV?: No

**Boreholes**

Borehole ID: 663019  
 Diameter: 0  
 From: 0  
 To: 11

[17](#) 1 of 1 -0.0 1,221.0 / 5.39 AB [WWIS](#)

Well ID: 387563 Elevation Source: Estimated  
 Driller ID: 24286 Method of Drilling:



Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Licence No:				GPS Obtained:	Not Verified
GIC Well ID:	387563			Boundary From:	
GOA Well Tag No:				Distance North:	
Elevation (ft):	4000			Distance South:	
Depth (ft):				Distance East:	
Date Completed:				Distance West:	
Proposed Use:				Additional Desc:	
Lot:				Validated?:	Yes
Block:				Submitted?:	Yes
Plan:				Location Locked?:	Yes
Type of Work:				Longitude:	-114.478322
Flowing Well:				Latitude:	51.016111
Date Started:				LSD:	
Water Req Per Day:				Section:	3
Gas Present:				Township:	24
Oil Present:				Range:	4
Flow Rate:				Meridian:	5
Drilling Company:				DLS Coordinates:	-3-24-4-5
Owner Mailing Address:					
Driller Mailing Address:					

### Well Reports

Well Report ID:	387563	Annular Seal Mat:	Driven
Well Owner ID:	10659932	Annular Seal from:	0.00
Driller ID:	2533726	Annular Seal to:	0.00
Drill Company ID:	24286	Annular Seal Amt:	
Drill Instance ID:	8335652	Annular Seal Units:	
Drill Comp Well ID:		Drilling Method:	Unknown
Existing Well ID:		Drilling Start Dt:	
Date Received:		Drilling End Dt:	1960/07/01
Type of Work:	New Well	Pack Type:	
Plug Date:		Pack Grain Size:	
Plug Material Type:		Pack Amount:	
Plug Mat Amount:		Pack Units:	
Plugged Units:		Loc Verify Method:	Not Verified
Well Use:	Domestic	Dist Casing Ground:	
Other Well Use:		Artesian Flow?:	No
Total Depth Drill:	41.00	Artesian Flow Rate:	
Finish Well Depth:		Gas Depth:	
Casing Material:	Unknown	Encounter Gas?:	No
Casing OD:	5.50	Flow Ctrl Install?:	No
Casing Thickness:	0.000	Recommended Rate:	
Casing Bottom:	17.00	Recom Intake Depth:	
Liner Material:	Unknown	Pump Installed?:	No
Liner OD:	4.50	Pump Install Depth:	
Liner Thickness:	0.000	Pump Model:	
Liner Top:	0.00	Pump Horsepower:	
Liner Bottom:	41.00	Well Disinfected?:	No
Perforation by:		Other Log:	
Screen Material:		Divert Water Src:	
Screen Size OD:	0.00	Divert Water Amt:	
Screen Attachment:		Diversion Dt/Time:	
Screen Top Fitting:		Is Submitted?:	Yes
Screen Bot Fitting:		Is Validated?:	Yes
Encounter Saline Water?:	No		
Saline Water Depth:			
Potability Sample Taken?:	No		
Potable Sample Sent to AENV?:	No		
Approval Holder Sign Date:			
Drilling Report Given to Owner:	No		
Model Output Rating:			
Remedial Action:			
Flow Control Description:			
Pump Type Installed:			

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
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Created by:  
Submitted by:  
Additional Comments:

**Well Owners**

Well Owner ID: 10659932  
Owner Name: KIWANIS CLUB  
PO Box:  
Address: CALGARY  
City:  
Postal Code:  
Province:  
Country:

**Drillers**

Driller ID: 2533726  
Last Name: DRILLER  
Middle Initial: NA  
First Name: UNKNOWN  
Journeyman No: 1  
Is Active?: Yes

**Drilling Companies**

Starting Well ID:  
Ending Well ID:  
Last Well ID Used:  
Company Name: JAMES & SON  
Street Address:  
City:  
Province:  
Country:  
Postal Code:  
E-Mail:  
Is Active?: No

**Geophysical Logs**

Geophysical Log ID: 5964569  
Log Type: Gamma  
Log Taken?: No  
Sent to AENV?: No

**Geophysical Logs**

Geophysical Log ID: 5561494  
Log Type: Electric  
Log Taken?: No  
Sent to AENV?: No

**Boreholes**

Borehole ID: 662994  
Diameter: 0  
From: 0  
To: 41

**Lithologies**

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Depth:		17			
Water Bearing:		No			
Colour:					
Description:					
Material:		Clay & Gravel			
<b><u>Lithologies</u></b>					
Depth:		39			
Water Bearing:		No			
Colour:					
Description:		Sandy			
Material:		Clay			
<b><u>Lithologies</u></b>					
Depth:		41			
Water Bearing:		Yes			
Colour:					
Description:		Water Bearing			
Material:		Sand & Gravel			

<a href="#">18</a>	1 of 1	SSW/14.9	1,217.0 / 1.39	AB	WWIS
Well ID:	387562			Elevation Source:	Not Obtained
Driller ID:	24142			Method of Drilling:	
Licence No:				GPS Obtained:	Map
GIC Well ID:	387562			Boundary From:	
GOA Well Tag No:				Distance North:	
Elevation (ft):				Distance South:	
Depth (ft):				Distance East:	
Date Completed:				Distance West:	
Proposed Use:				Additional Desc:	
Lot:				Validated?:	Yes
Block:				Submitted?:	Yes
Plan:				Location Locked?:	Yes
Type of Work:				Longitude:	-114.472588
Flowing Well:				Latitude:	51.019727
Date Started:				LSD:	NE
Water Req Per Day:				Section:	3
Gas Present:				Township:	24
Oil Present:				Range:	4
Flow Rate:				Meridian:	5
Drilling Company:				DLS Coordinates:	NE-3-24-4-5
Owner Mailing Address:					
Driller Mailing Address:					

**Well Reports**

Well Report ID:	387562	Annular Seal Mat:	Driven
Well Owner ID:	10659931	Annular Seal from:	0.00
Driller ID:	2533726	Annular Seal to:	0.00
Drill Company ID:	24142	Annular Seal Amt:	
Drill Instance ID:	8338010	Annular Seal Units:	
Drill Comp Well ID:		Drilling Method:	Cable Tool
Existing Well ID:		Drilling Start Dt:	1974/11/18
Date Received:	1974/12/24	Drilling End Dt:	1974/11/21
Type of Work:	New Well	Pack Type:	
Plug Date:		Pack Grain Size:	
Plug Material Type:		Pack Amount:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Plug Mat Amount:</b>				<b>Pack Units:</b>	
<b>Plugged Units:</b>				<b>Loc Verify Method:</b>	Map
<b>Well Use:</b>	Stock			<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>				<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	35.00			<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>				<b>Gas Depth:</b>	
<b>Casing Material:</b>	Steel			<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	5.56			<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.156			<b>Recommended Rate:</b>	0.00
<b>Casing Bottom:</b>	14.00			<b>Recom Intake Depth:</b>	0.00
<b>Liner Material:</b>	Steel			<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	4.50			<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.000			<b>Pump Model:</b>	
<b>Liner Top:</b>	0.00			<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	35.00			<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>	Torch			<b>Other Log:</b>	
<b>Screen Material:</b>				<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00			<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>				<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>				<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>				<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No				
<b>Saline Water Depth:</b>					
<b>Potability Sample Taken?:</b>	No				
<b>Potable Sample Sent to AENV?:</b>	No				
<b>Approval Holder Sign Date:</b>					
<b>Drilling Report Given to Owner:</b>	No				
<b>Model Output Rating:</b>					
<b>Remedial Action:</b>					
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>					
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>					

#### Well Owners

**Well Owner ID:** 10659931  
**Owner Name:** ROBINSON, V.  
**PO Box:**  
**Address:** RR1, CALGARY  
**City:**  
**Postal Code:**  
**Province:**  
**Country:**

#### Drillers

**Driller ID:** 2533726  
**Last Name:** DRILLER  
**Middle Initial:** NA  
**First Name:** UNKNOWN  
**Journeyman No:** 1  
**Is Active?:** Yes

#### Drilling Companies

**Starting Well ID:**  
**Ending Well ID:**  
**Last Well ID Used:**  
**Company Name:** STAR DRLG CO  
**Street Address:**  
**City:**

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b>Province:</b>					
<b>Country:</b>					
<b>Postal Code:</b>					
<b>E-Mail:</b>					
<b>Is Active?:</b>		No			
<b><u>Perforations</u></b>					
<b>Perforation ID:</b>		4205668			
<b>From:</b>		14			
<b>To:</b>		32			
<b>Diameter:</b>		0.031			
<b>Interval:</b>		1			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5561495			
<b>Log Type:</b>		Electric			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5964570			
<b>Log Type:</b>		Gamma			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		662995			
<b>Diameter:</b>		0			
<b>From:</b>		0			
<b>To:</b>		35			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		35			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		32			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		19			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Gravel			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>		10331984			
<b>Test Date:</b>		1974/11/21			
<b>Start Time:</b>		12:00 AM			
<b>Taken from Top of Casing:</b>		No			
<b>Static Water Level:</b>		0			
<b>End Water Level:</b>					
<b>Water Removal Type:</b>		Bailer			
<b>Water Removal Rate:</b>		2.5			
<b>Removal Depth from:</b>		0			
<b>Reason for Short Test:</b>					

<b>19</b>	<b>1 of 1</b>	<b>SSW/27.1</b>	<b>1,215.0 / -0.61</b>	<b>AB</b>	<b>WWIS</b>
<b>Well ID:</b>	11365296			<b>Elevation Source:</b>	Not Obtained
<b>Driller ID:</b>	24288			<b>Method of Drilling:</b>	
<b>Licence No:</b>				<b>GPS Obtained:</b>	Not Verified
<b>GIC Well ID:</b>	1245221			<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>				<b>Distance North:</b>	100
<b>Elevation (ft):</b>				<b>Distance South:</b>	
<b>Depth (ft):</b>				<b>Distance East:</b>	250
<b>Date Completed:</b>				<b>Distance West:</b>	
<b>Proposed Use:</b>				<b>Additional Desc:</b>	
<b>Lot:</b>				<b>Validated?:</b>	Yes
<b>Block:</b>				<b>Submitted?:</b>	Yes
<b>Plan:</b>				<b>Location Locked?:</b>	Yes
<b>Type of Work:</b>				<b>Longitude:</b>	-114.47119
<b>Flowing Well:</b>				<b>Latitude:</b>	51.03611
<b>Date Started:</b>				<b>LSD:</b>	16
<b>Water Req Per Day:</b>				<b>Section:</b>	10
<b>Gas Present:</b>				<b>Township:</b>	24
<b>Oil Present:</b>				<b>Range:</b>	4
<b>Flow Rate:</b>				<b>Meridian:</b>	5
<b>Drilling Company:</b>				<b>DLS Coordinates:</b>	16-10-24-4-5
<b>Owner Mailing Address:</b>					
<b>Driller Mailing Address:</b>					

<b><u>Well Reports</u></b>					
<b>Well Report ID:</b>	11365298			<b>Annular Seal Mat:</b>	Bentonite Chips/Tablets
<b>Well Owner ID:</b>	11365297			<b>Annular Seal from:</b>	0.00
<b>Driller ID:</b>	11576192			<b>Annular Seal to:</b>	69.50
<b>Drill Company ID:</b>	24288			<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	11594333			<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>				<b>Drilling Method:</b>	Rotary
<b>Existing Well ID:</b>				<b>Drilling Start Dt:</b>	2006/11/13
<b>Date Received:</b>				<b>Drilling End Dt:</b>	2006/11/14
<b>Type of Work:</b>	New Well			<b>Pack Type:</b>	Unknown
<b>Plug Date:</b>				<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>	Unknown			<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>				<b>Pack Units:</b>	Unknown
<b>Plugged Units:</b>				<b>Loc Verify Method:</b>	Not Verified
<b>Well Use:</b>	Other			<b>Dist Casing Ground:</b>	27.56
<b>Other Well Use:</b>				<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	160.00			<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>				<b>Gas Depth:</b>	
<b>Casing Material:</b>	Plastic			<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	6.00			<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.375			<b>Recommended Rate:</b>	1.00
<b>Casing Bottom:</b>	69.50			<b>Recom Intake Depth:</b>	110.007004
<b>Liner Material:</b>	Plastic			<b>Pump Installed?:</b>	Yes
<b>Liner OD:</b>	4.50			<b>Pump Install Depth:</b>	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Liner Thickness:</b>	0.218			<b>Pump Model:</b>	5 GPM
<b>Liner Top:</b>	60.00			<b>Pump Horsepower:</b>	.5
<b>Liner Bottom:</b>	140.00			<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>	Saw			<b>Other Log:</b>	
<b>Screen Material:</b>				<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>				<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>				<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>				<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>				<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No				
<b>Saline Water Depth:</b>					
<b>Potability Sample Taken?:</b>	No				
<b>Potable Sample Sent to AENV?:</b>	No				
<b>Approval Holder Sign Date:</b>					
<b>Drilling Report Given to Owner:</b>	No				
<b>Model Output Rating:</b>					
<b>Remedial Action:</b>					
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>		BERKLEY @ 110'			
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>		BOREHOLE DIAMETER 8" & 4.75", PROPOSED WELL USE - BATHROOM & TRUCKWASH, 70' - 92' SS GRAY MED FINE, 93' - 114' SS GRAY MED FINE, 121' - 128' SS GRAY MED FINE, CASING FROM +2' TO 69.5', 54-63 WB 1/4 GPM 2000 TDS, 70-140 WB 1 GPM 1500 TDS 9GR HARD, 140-160 FILLED WITH CUTTINGS,			

#### Well Owners

**Well Owner ID:** 11365297  
**Owner Name:** VOLKEN, STEVIN  
**PO Box:**  
**Address:** 4540 - 54 AVE SE  
**City:** CALGARY  
**Postal Code:** T2H 1Y3  
**Province:** AB  
**Country:** CA

#### Drillers

**Driller ID:** 11576192  
**Last Name:** WAGNER  
**Middle Initial:**  
**First Name:** RORY  
**Journeyman No:** 14061Q  
**Is Active?:** Yes

#### Drilling Companies

**Starting Well ID:** 1245000  
**Ending Well ID:** 1249999  
**Last Well ID Used:** 1245342  
**Company Name:** DOERING DRILLING LTD.  
**Street Address:** BOX 4028  
**City:** OLDS  
**Province:** AB  
**Country:** CA  
**Postal Code:** T4H 1P6  
**E-Mail:** GWINFO@GOV.AB.CA  
**Is Active?:** No

#### Perforations

**Perforation ID:** 4249864

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<i>From:</i>		80			
<i>To:</i>		130			
<i>Diameter:</i>		0.125			
<i>Interval:</i>		6			
<b><u>Geophysical Logs</u></b>					
<i>Geophysical Log ID:</i>		6090123			
<i>Log Type:</i>		Gamma			
<i>Log Taken?:</i>		No			
<i>Sent to AENV?:</i>		No			
<b><u>Geophysical Logs</u></b>					
<i>Geophysical Log ID:</i>		5687048			
<i>Log Type:</i>		Electric			
<i>Log Taken?:</i>		No			
<i>Sent to AENV?:</i>		No			
<b><u>Boreholes</u></b>					
<i>Borehole ID:</i>		784034			
<i>Diameter:</i>		8			
<i>From:</i>		0			
<i>To:</i>		160			
<b><u>Lithologies</u></b>					
<i>Depth:</i>		160			
<i>Water Bearing:</i>		No			
<i>Colour:</i>		Dark Gray			
<i>Description:</i>					
<i>Material:</i>		Shale			
<b><u>Lithologies</u></b>					
<i>Depth:</i>		36			
<i>Water Bearing:</i>		No			
<i>Colour:</i>		Gray			
<i>Description:</i>					
<i>Material:</i>		Shale			
<b><u>Lithologies</u></b>					
<i>Depth:</i>		92			
<i>Water Bearing:</i>		No			
<i>Colour:</i>		Gray			
<i>Description:</i>		Medium Grained			
<i>Material:</i>		Sandstone			
<b><u>Lithologies</u></b>					
<i>Depth:</i>		93			
<i>Water Bearing:</i>		No			
<i>Colour:</i>					
<i>Description:</i>					
<i>Material:</i>		Coal			
<b><u>Lithologies</u></b>					



<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Depth:</b>		128			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>		Medium Grained			
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		63			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Dark Gray			
<b>Description:</b>		Carbonaceous			
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		141			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale & Sandy Stringers			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		18			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brownish Gray			
<b>Description:</b>					
<b>Material:</b>		Till & Clay			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		29			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		121			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale & Sandy Stringers			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		53			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>		Medium Grained			
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		54			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Description:</b>					
<b>Material:</b>		Coal			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		70			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		114			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>		Medium Grained			
<b>Material:</b>		Sandstone			
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>		11365299			
<b>Test Date:</b>		2006/11/14			
<b>Start Time:</b>		12:00 AM			
<b>Taken from Top of Casing:</b>		No			
<b>Static Water Level:</b>		15.26			
<b>End Water Level:</b>					
<b>Water Removal Type:</b>		Air			
<b>Water Removal Rate:</b>		1			
<b>Removal Depth from:</b>		160.01			
<b>Reason for Short Test:</b>		MEASUREMENTS TAKEN FROM 1.68M+			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		11365301			
<b>Minutes:</b>		5			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		152.953			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		11365305			
<b>Minutes:</b>		9			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		144.915			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		11365307			
<b>Minutes:</b>		20			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		121.588			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		11365311			
<b>Minutes:</b>		40			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		87.336			

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			11365304		
<i>Minutes:</i>			8		
<i>Pumping Depth:</i>					
<i>Recovery Depth:</i>			147.014		
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			11365313		
<i>Minutes:</i>			60		
<i>Pumping Depth:</i>					
<i>Recovery Depth:</i>			62.402		
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			11365314		
<i>Minutes:</i>			80		
<i>Pumping Depth:</i>					
<i>Recovery Depth:</i>			45.899		
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			11365303		
<i>Minutes:</i>			7		
<i>Pumping Depth:</i>					
<i>Recovery Depth:</i>			148.983		
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			11365308		
<i>Minutes:</i>			25		
<i>Pumping Depth:</i>					
<i>Recovery Depth:</i>			112.664		
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			11365312		
<i>Minutes:</i>			50		
<i>Pumping Depth:</i>					
<i>Recovery Depth:</i>			72.343		
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			11365300		
<i>Minutes:</i>			4		
<i>Pumping Depth:</i>					
<i>Recovery Depth:</i>			155.085		
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			11365302		
<i>Minutes:</i>			6		
<i>Pumping Depth:</i>					
<i>Recovery Depth:</i>			150.984		
<b><u>Pump Test Items</u></b>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Pump Test Item ID:</b>		11365309			
<b>Minutes:</b>		30			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		103.773			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		11365310			
<b>Minutes:</b>		35			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		95.046			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		11365306			
<b>Minutes:</b>		10			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		142.356			

<b>20</b>	1 of 3	SSW/50.0	1,215.3 / -0.35	VOLKER STEVIN HWY MAINT.-ELBOW RIVER	FST
<b>ROCKY VIEW COUNTY (A) AB</b>					
<b>Site No:</b>	7926			<b>Dt Form Rcvd:</b>	2011/12/05
<b>Tank No:</b>	1			<b>Date Removed:</b>	
<b>No of Tanks:</b>				<b>Removal Reason:</b>	
<b>Tank Type:</b>	Aboveground			<b>Located 200m:</b>	YES
<b>Tank Status:</b>	Currently in service			<b>Located 500m:</b>	NO
<b>Site Status:</b>				<b>DLS Coord:</b>	NE-10-24-4-5
<b>Date Last Used:</b>				<b>Lot:</b>	3
<b>UST/AST:</b>				<b>Block:</b>	1
<b>Contents:</b>	Diesel			<b>Plan:</b>	0112060
<b>Other Contents:</b>				<b>Municipality:</b>	
<b>Capacity:</b>	4,550 litres (1,000 gal.)			<b>Postal:</b>	
<b>Other Capacity:</b>				<b>Facility 1:</b>	Cardlock or Keylock
<b>UST Secondary:</b>				<b>Facility 2:</b>	
<b>AST Secondary:</b>	Steel			<b>Facility 3:</b>	
<b>Overfill Prevention:</b>	Liquid - Tight Fill Box			<b>Facility 4:</b>	Commercial / Industrial
<b>LLD:</b>					
<b>Spill Containment:</b>					
<b>Tank Status by Site Name:</b>					

<b>20</b>	2 of 3	SSW/50.0	1,215.3 / -0.35	VOLKER STEVIN HWY MAINT.-ELBOW RIVER	FST
<b>ROCKY VIEW COUNTY (A) AB</b>					
<b>Site No:</b>	7926			<b>Dt Form Rcvd:</b>	2011/12/05
<b>Tank No:</b>	2			<b>Date Removed:</b>	
<b>No of Tanks:</b>				<b>Removal Reason:</b>	
<b>Tank Type:</b>	Aboveground			<b>Located 200m:</b>	YES
<b>Tank Status:</b>	Currently in service			<b>Located 500m:</b>	NO
<b>Site Status:</b>				<b>DLS Coord:</b>	NE-10-24-4-5
<b>Date Last Used:</b>				<b>Lot:</b>	3
<b>UST/AST:</b>				<b>Block:</b>	1
<b>Contents:</b>	Gasoline			<b>Plan:</b>	0112060
<b>Other Contents:</b>				<b>Municipality:</b>	
<b>Capacity:</b>	2,500 litres (550 gal.)			<b>Postal:</b>	
<b>Other Capacity:</b>				<b>Facility 1:</b>	Cardlock or Keylock
<b>UST Secondary:</b>				<b>Facility 2:</b>	
<b>AST Secondary:</b>	Steel			<b>Facility 3:</b>	
<b>Overfill Prevention:</b>	Fixed Suction Tube On Used Oil Tanks			<b>Facility 4:</b>	Commercial / Industrial
<b>LLD:</b>					
<b>Spill Containment:</b>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Tank Status by Site Name:</b>					
<a href="#">20</a>	3 of 3	SSW/50.0	1,215.3 / -0.35	Municipal District of Rocky View No. 44 AB	PITS
<b>Certificate NO:</b>				<b>Approval Type:</b>	
<b>Status:</b>	Decommissioning			<b>DLS::</b>	NE 10-24-4-5
<b>Status Date:</b>	23-Feb-95			<b>Lot::</b>	
<b>Effective Date:</b>				<b>Block::</b>	
<b>Expiry Date:</b>				<b>Plan::</b>	
<b>Facility Name::</b>	GAUTHIER PIT				
<b>Description::</b>					
<b>Operator::</b>					
<b>Mailing Address::</b>					
<a href="#">21</a>	1 of 1	NNW/60.6	1,217.1 / 1.51	AB	WWIS
<b>Well ID:</b>	364650			<b>Elevation Source:</b>	Not Obtained
<b>Driller ID:</b>	24227			<b>Method of Drilling:</b>	
<b>Licence No:</b>				<b>GPS Obtained:</b>	Not Verified
<b>GIC Well ID:</b>	364650			<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>				<b>Distance North:</b>	
<b>Elevation (ft):</b>				<b>Distance South:</b>	
<b>Depth (ft):</b>				<b>Distance East:</b>	
<b>Date Completed:</b>				<b>Distance West:</b>	
<b>Proposed Use:</b>				<b>Additional Desc:</b>	
<b>Lot:</b>				<b>Validated?:</b>	Yes
<b>Block:</b>				<b>Submitted?:</b>	Yes
<b>Plan:</b>				<b>Location Locked?:</b>	Yes
<b>Type of Work:</b>				<b>Longitude:</b>	-114.472761
<b>Flowing Well:</b>				<b>Latitude:</b>	51.078099
<b>Date Started:</b>				<b>LSD:</b>	NE
<b>Water Req Per Day:</b>				<b>Section:</b>	27
<b>Gas Present:</b>				<b>Township:</b>	24
<b>Oil Present:</b>				<b>Range:</b>	4
<b>Flow Rate:</b>				<b>Meridian:</b>	5
<b>Drilling Company:</b>				<b>DLS Coordinates:</b>	NE-27-24-4-5
<b>Owner Mailing Address:</b>					
<b>Driller Mailing Address:</b>					
<b><u>Well Reports</u></b>					
<b>Well Report ID:</b>	364650			<b>Annular Seal Mat:</b>	Driven
<b>Well Owner ID:</b>	10637276			<b>Annular Seal from:</b>	0.00
<b>Driller ID:</b>	2533726			<b>Annular Seal to:</b>	78.00
<b>Drill Company ID:</b>	24227			<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8335390			<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>				<b>Drilling Method:</b>	Rotary
<b>Existing Well ID:</b>				<b>Drilling Start Dt:</b>	1992/05/06
<b>Date Received:</b>	1992/05/19			<b>Drilling End Dt:</b>	1992/05/09
<b>Type of Work:</b>	New Well			<b>Pack Type:</b>	
<b>Plug Date:</b>				<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>				<b>Pack Amount:</b>	0.00
<b>Plug Mat Amount:</b>				<b>Pack Units:</b>	
<b>Plugged Units:</b>				<b>Loc Verify Method:</b>	Not Verified
<b>Well Use:</b>	Domestic & Stock			<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>				<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	120.00			<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>				<b>Gas Depth:</b>	
<b>Casing Material:</b>				<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	0.00			<b>Flow Ctrl Install?:</b>	No

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Casing Thickness:</b>	0.000			<b>Recommended Rate:</b>	6.00
<b>Casing Bottom:</b>	0.00			<b>Recom Intake Depth:</b>	114.00
<b>Liner Material:</b>	Steel			<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	5.50			<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.244			<b>Pump Model:</b>	
<b>Liner Top:</b>	0.00			<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	116.00			<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>	Torch			<b>Other Log:</b>	
<b>Screen Material:</b>				<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00			<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>				<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>				<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>				<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No				
<b>Saline Water Depth:</b>					
<b>Potability Sample Taken?:</b>	No				
<b>Potable Sample Sent to AENV?:</b>	No				
<b>Approval Holder Sign Date:</b>					
<b>Drilling Report Given to Owner:</b>	No				
<b>Model Output Rating:</b>					
<b>Remedial Action:</b>					
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>					
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>		DRILLER REPORT HARD WATER TDS 1100.			

#### Well Owners

**Well Owner ID:** 10637276  
**Owner Name:** WAGNER, SCOTT  
**PO Box:**  
**Address:** STE 2208 20 PATTERSON BLD SW, CALGARY  
**City:**  
**Postal Code:** T3H 1W9  
**Province:**  
**Country:**

#### Drillers

**Driller ID:** 2533726  
**Last Name:** DRILLER  
**Middle Initial:** NA  
**First Name:** UNKNOWN  
**Journeyman No:** 1  
**Is Active?:** Yes

#### Drilling Companies

**Starting Well ID:** 1475000  
**Ending Well ID:** 1479999  
**Last Well ID Used:** 1477040  
**Company Name:** M&M DRILLING CO. LTD.  
**Street Address:** BOX 1, SITE 22, RR 2  
**City:** STRATHMORE  
**Province:** AB  
**Country:** CA  
**Postal Code:** T1P 1K5  
**E-Mail:** murraywh@mmdrilling.ca  
**Is Active?:** Yes

#### Perforations

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Perforation ID:</b>		4202528			
<b>From:</b>		98			
<b>To:</b>		116			
<b>Diameter:</b>		0.125			
<b>Interval:</b>		10			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5552334			
<b>Log Type:</b>		Electric			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5955409			
<b>Log Type:</b>		Gamma			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		653834			
<b>Diameter:</b>		0			
<b>From:</b>		0			
<b>To:</b>		120			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		100			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Black			
<b>Description:</b>		Hard			
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		114			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>		Hard			
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		30			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>		Blind			
<b>Material:</b>		Clay			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		72			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Blue			
<b>Description:</b>					
<b>Material:</b>		Shale			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b><u>Lithologies</u></b>					
<b>Depth:</b>			88		
<b>Water Bearing:</b>			No		
<b>Colour:</b>					
<b>Description:</b>			Hard		
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			45		
<b>Water Bearing:</b>			No		
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>			Clay & Rocks		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			79		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			82		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Black		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			120		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Black		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>			10318855		
<b>Test Date:</b>			1992/05/09		
<b>Start Time:</b>			12:00 AM		
<b>Taken from Top of Casing:</b>			No		
<b>Static Water Level:</b>			38		
<b>End Water Level:</b>			120		
<b>Water Removal Type:</b>			Bailer		
<b>Water Removal Rate:</b>			7		
<b>Removal Depth from:</b>			120		
<b>Reason for Short Test:</b>					

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1 of 1

SW/65.2

1,263.8 / 48.16

VOLKER STEVIN HWY MAINT.-ELBOW RIVER  
42025-TWP RD 242 ROCKY VIEW #44 AB  
AB

FST

Site No: 7926  
Tank No:  
No of Tanks:

Dt Form Rcvd:  
Date Removed:  
Removal Reason:



Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Tank Type:</b>				<b>Located 200m:</b>	
<b>Tank Status:</b>				<b>Located 500m:</b>	
<b>Site Status:</b>	Active			<b>DLS Coord:</b>	
<b>Date Last Used:</b>				<b>Lot:</b>	
<b>UST/AST:</b>				<b>Block:</b>	
<b>Contents:</b>				<b>Plan:</b>	
<b>Other Contents:</b>				<b>Municipality:</b>	
<b>Capacity:</b>				<b>Postal:</b>	
<b>Other Capacity:</b>				<b>Facility 1:</b>	
<b>UST Secondary:</b>				<b>Facility 2:</b>	
<b>AST Secondary:</b>				<b>Facility 3:</b>	
<b>Overfill Prevention:</b>				<b>Facility 4:</b>	
<b>LLD:</b>		NE 1/4 Of Sec. 10 TWP 24 Rge 4 West of Mer 5 Lot 3 Block 1 Plan 0112060			
<b>Spill Containment:</b>					
<b>Tank Status by Site Name:</b>					

**Active Tank Sites**

UST/AST: 0 / 2

<u>23</u>	1 of 1	ENE/101.0	1,223.0 / 7.43	AB	WWIS
<b>Well ID:</b>	388875			<b>Elevation Source:</b>	Not Obtained
<b>Driller ID:</b>	24084			<b>Method of Drilling:</b>	
<b>Licence No:</b>				<b>GPS Obtained:</b>	Map
<b>GIC Well ID:</b>	388875			<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>				<b>Distance North:</b>	
<b>Elevation (ft):</b>				<b>Distance South:</b>	
<b>Depth (ft):</b>				<b>Distance East:</b>	
<b>Date Completed:</b>				<b>Distance West:</b>	
<b>Proposed Use:</b>				<b>Additional Desc:</b>	
<b>Lot:</b>				<b>Validated?:</b>	Yes
<b>Block:</b>				<b>Submitted?:</b>	Yes
<b>Plan:</b>				<b>Location Locked?:</b>	Yes
<b>Type of Work:</b>				<b>Longitude:</b>	-114.414283
<b>Flowing Well:</b>				<b>Latitude:</b>	51.063208
<b>Date Started:</b>				<b>LSD:</b>	NW
<b>Water Req Per Day:</b>				<b>Section:</b>	19
<b>Gas Present:</b>				<b>Township:</b>	24
<b>Oil Present:</b>				<b>Range:</b>	3
<b>Flow Rate:</b>				<b>Meridian:</b>	5
<b>Drilling Company:</b>				<b>DLS Coordinates:</b>	NW-19-24-3-5
<b>Owner Mailing Address:</b>					
<b>Driller Mailing Address:</b>					

**Well Reports**

<b>Well Report ID:</b>	388875	<b>Annular Seal Mat:</b>	Driven
<b>Well Owner ID:</b>	10661236	<b>Annular Seal from:</b>	0.00
<b>Driller ID:</b>	2533726	<b>Annular Seal to:</b>	40.00
<b>Drill Company ID:</b>	24084	<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8337970	<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>		<b>Drilling Method:</b>	Cable Tool
<b>Existing Well ID:</b>		<b>Drilling Start Dt:</b>	
<b>Date Received:</b>	1983/01/20	<b>Drilling End Dt:</b>	1982/11/02
<b>Type of Work:</b>	New Well	<b>Pack Type:</b>	
<b>Plug Date:</b>		<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>		<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>		<b>Pack Units:</b>	
<b>Plugged Units:</b>		<b>Loc Verify Method:</b>	Map
<b>Well Use:</b>	Stock	<b>Dist Casing Ground:</b>	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Other Well Use:</b>				<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	200.00			<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>				<b>Gas Depth:</b>	
<b>Casing Material:</b>	Steel			<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	6.63			<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.188			<b>Recommended Rate:</b>	0.00
<b>Casing Bottom:</b>	40.00			<b>Recom Intake Depth:</b>	190.00
<b>Liner Material:</b>	Steel			<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	5.00			<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.156			<b>Pump Model:</b>	
<b>Liner Top:</b>	0.00			<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	200.00			<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>	Torch			<b>Other Log:</b>	
<b>Screen Material:</b>				<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00			<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>				<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>				<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>				<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No				
<b>Saline Water Depth:</b>					
<b>Potability Sample Taken?:</b>	No				
<b>Potable Sample Sent to AENV?:</b>	No				
<b>Approval Holder Sign Date:</b>					
<b>Drilling Report Given to Owner:</b>	No				
<b>Model Output Rating:</b>					
<b>Remedial Action:</b>					
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>					
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>					

#### Well Owners

**Well Owner ID:** 10661236  
**Owner Name:** ELBOW RIVER RANCH  
**PO Box:**  
**Address:** RR2, CALGARY  
**City:**  
**Postal Code:** T2P 2G5  
**Province:**  
**Country:**

#### Drillers

**Driller ID:** 2533726  
**Last Name:** DRILLER  
**Middle Initial:** NA  
**First Name:** UNKNOWN  
**Journeyman No:** 1  
**Is Active?:** Yes

#### Drilling Companies

**Starting Well ID:** 1893200  
**Ending Well ID:** 1893299  
**Last Well ID Used:** 1893200  
**Company Name:** INTERPROVINCIAL DRILLING CONTRACTORS  
**Street Address:** SUB PO 36  
**City:** CALGARY  
**Province:** AB  
**Country:** CA  
**Postal Code:**

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<i>E-Mail:</i>				GWINFO@GOV.AB.CA	
<i>Is Active?:</i>			No		
<b><u>Perforations</u></b>					
<i>Perforation ID:</i>			4200953		
<i>From:</i>			150		
<i>To:</i>			165		
<i>Diameter:</i>			0.125		
<i>Interval:</i>			12		
<b><u>Perforations</u></b>					
<i>Perforation ID:</i>			4260826		
<i>From:</i>			180		
<i>To:</i>			195		
<i>Diameter:</i>			0		
<i>Interval:</i>			0		
<b><u>Geophysical Logs</u></b>					
<i>Geophysical Log ID:</i>			5951170		
<i>Log Type:</i>			Gamma		
<i>Log Taken?:</i>			No		
<i>Sent to AENV?:</i>			No		
<b><u>Geophysical Logs</u></b>					
<i>Geophysical Log ID:</i>			5548095		
<i>Log Type:</i>			Electric		
<i>Log Taken?:</i>			No		
<i>Sent to AENV?:</i>			No		
<b><u>Boreholes</u></b>					
<i>Borehole ID:</i>			649595		
<i>Diameter:</i>			0		
<i>From:</i>			0		
<i>To:</i>			200		
<b><u>Lithologies</u></b>					
<i>Depth:</i>			32		
<i>Water Bearing:</i>			No		
<i>Colour:</i>			Brown		
<i>Description:</i>					
<i>Material:</i>			Shale		
<b><u>Lithologies</u></b>					
<i>Depth:</i>			73		
<i>Water Bearing:</i>			No		
<i>Colour:</i>			Brown		
<i>Description:</i>			Sandy		
<i>Material:</i>			Shale		
<b><u>Lithologies</u></b>					
<i>Depth:</i>			2		

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Topsoil			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		200			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		128			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		23			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>		Fractured			
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		192			
<b>Water Bearing:</b>		Yes			
<b>Colour:</b>					
<b>Description:</b>		Water Bearing			
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		51			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		88			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		160			
<b>Water Bearing:</b>		Yes			
<b>Colour:</b>					
<b>Description:</b>		Water Bearing			
<b>Material:</b>		Sandstone			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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**Lithologies**

Depth: 8  
 Water Bearing: No  
 Colour: Brown  
 Description:  
 Material: Clay

**Lithologies**

Depth: 152  
 Water Bearing: No  
 Colour: Gray  
 Description: Sandy  
 Material: Shale

**Lithologies**

Depth: 186  
 Water Bearing: No  
 Colour: Gray  
 Description:  
 Material: Shale

**Pump Tests**

Pump Test ID: 10332938  
 Test Date: 1982/11/02  
 Start Time: 12:00 AM  
 Taken from Top of Casing: No  
 Static Water Level: 95  
 End Water Level: 140  
 Water Removal Type: Bailer  
 Water Removal Rate: 9  
 Removal Depth from: 140  
 Reason for Short Test:

[24](#)    1 of 1    **W/123.6**    **1,235.3 / 19.67**    **AB**    **WWIS**

Well ID:	387801	Elevation Source:	Estimated
Driller ID:	11110	Method of Drilling:	
Licence No:		GPS Obtained:	Map
GIC Well ID:	387801	Boundary From:	
GOA Well Tag No:		Distance North:	
Elevation (ft):	4035	Distance South:	
Depth (ft):		Distance East:	
Date Completed:		Distance West:	
Proposed Use:		Additional Desc:	
Lot:		Validated?:	Yes
Block:		Submitted?:	Yes
Plan:		Location Locked?:	Yes
Type of Work:		Longitude:	-114.469855
Flowing Well:		Latitude:	51.054403
Date Started:		LSD:	1
Water Req Per Day:		Section:	22
Gas Present:		Township:	24
Oil Present:		Range:	4
Flow Rate:		Meridian:	5
Drilling Company:		DLS Coordinates:	1-22-24-4-5
Owner Mailing Address:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Driller Mailing Address:

**Chemical Analysis**

Chem Analysis ID: 2081524  
 Well Report ID: 387801  
 Sample No: 72-189  
 Sample Date:  
 Analysis Date:  
 Laboratory: RC  
 Water Level:  
 Aquifer:  
 Remarks:

**Analysis Items**

Chemical Analysis ID: 2081524  
 Element Name: Sulphate  
 Element Symbol: SO4  
 Decimal Places: 4  
 Value: 84.12209

**Analysis Items**

Chemical Analysis ID: 2081524  
 Element Name: Carbonate  
 Element Symbol: CO3  
 Decimal Places: 4  
 Value: 0

**Analysis Items**

Chemical Analysis ID: 2081524  
 Element Name: Potassium  
 Element Symbol: K  
 Decimal Places: 4  
 Value: 2.148

**Analysis Items**

Chemical Analysis ID: 2081524  
 Element Name: Total Dissolved Solids  
 Element Symbol: TDS  
 Decimal Places: 0  
 Value: 728

**Analysis Items**

Chemical Analysis ID: 2081524  
 Element Name: total Kjeldahl nitrogen  
 Element Symbol: TKN  
 Decimal Places: 4  
 Value: 0

**Analysis Items**

Chemical Analysis ID: 2081524  
 Element Name: Total Hardness  
 Element Symbol: TH  
 Decimal Places: 4

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<i>Value:</i>		285			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081524			
<b>Element Name:</b>		Calcium			
<b>Element Symbol:</b>		CA			
<b>Decimal Places:</b>		4			
<b>Value:</b>		49.9998			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081524			
<b>Element Name:</b>		Bicarbonate			
<b>Element Symbol:</b>		HCO3			
<b>Decimal Places:</b>		4			
<b>Value:</b>		450.04234			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081524			
<b>Element Name:</b>		pH			
<b>Element Symbol:</b>		PH			
<b>Decimal Places:</b>		2			
<b>Value:</b>		8.2			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081524			
<b>Element Name:</b>		Chloride			
<b>Element Symbol:</b>		CL			
<b>Decimal Places:</b>		4			
<b>Value:</b>		7.01125			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081524			
<b>Element Name:</b>		Magnesium			
<b>Element Symbol:</b>		MG			
<b>Decimal Places:</b>		4			
<b>Value:</b>		39.032384			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081524			
<b>Element Name:</b>		Total Phosphorus			
<b>Element Symbol:</b>		TP			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081524			
<b>Element Name:</b>		Iron			
<b>Element Symbol:</b>		FE			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0.05			
<b><u>Analysis Items</u></b>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Chemical Analysis ID:</b>		2081524			
<b>Element Name:</b>		Nitrate			
<b>Element Symbol:</b>		NO3			
<b>Decimal Places:</b>		4			
<b>Value:</b>		2.7986			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081524			
<b>Element Name:</b>		Hydroxide			
<b>Element Symbol:</b>		OH			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081524			
<b>Element Name:</b>		Sodium			
<b>Element Symbol:</b>		NA			
<b>Decimal Places:</b>		4			
<b>Value:</b>		117.9992			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081524			
<b>Element Name:</b>		Fluoride			
<b>Element Symbol:</b>		F			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0.34			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081524			
<b>Element Name:</b>		Total Alkalinity			
<b>Element Symbol:</b>		TA			
<b>Decimal Places:</b>		4			
<b>Value:</b>		450			
<b><u>Well Reports</u></b>					
<b>Well Report ID:</b>	387801			<b>Annular Seal Mat:</b>	
<b>Well Owner ID:</b>	10660165			<b>Annular Seal from:</b>	0.00
<b>Driller ID:</b>	2533726			<b>Annular Seal to:</b>	0.00
<b>Drill Company ID:</b>	11110			<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8337868			<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>				<b>Drilling Method:</b>	Not Applicable
<b>Existing Well ID:</b>				<b>Drilling Start Dt:</b>	
<b>Date Received:</b>	1972/05/01			<b>Drilling End Dt:</b>	
<b>Type of Work:</b>	Chemistry			<b>Pack Type:</b>	
<b>Plug Date:</b>				<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>				<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>				<b>Pack Units:</b>	
<b>Plugged Units:</b>				<b>Loc Verify Method:</b>	Map
<b>Well Use:</b>	Domestic			<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>				<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	150.00			<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>				<b>Gas Depth:</b>	
<b>Casing Material:</b>				<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	0.00			<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.000			<b>Recommended Rate:</b>	
<b>Casing Bottom:</b>	0.00			<b>Recom Intake Depth:</b>	



<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Liner Material:</b>				<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	0.00			<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.000			<b>Pump Model:</b>	
<b>Liner Top:</b>	0.00			<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	0.00			<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>				<b>Other Log:</b>	
<b>Screen Material:</b>				<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00			<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>				<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>				<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>				<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>		No			
<b>Saline Water Depth:</b>					
<b>Potability Sample Taken?:</b>		No			
<b>Potable Sample Sent to AENV?:</b>		No			
<b>Approval Holder Sign Date:</b>					
<b>Drilling Report Given to Owner:</b>		No			
<b>Model Output Rating:</b>					
<b>Remedial Action:</b>					
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>					
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>					
<b><u>Well Owners</u></b>					
<b>Well Owner ID:</b>		10660165			
<b>Owner Name:</b>		BARNES, R.O.			
<b>PO Box:</b>					
<b>Address:</b>		RR2, CALGARY			
<b>City:</b>					
<b>Postal Code:</b>					
<b>Province:</b>					
<b>Country:</b>					
<b><u>Drillers</u></b>					
<b>Driller ID:</b>		2533726			
<b>Last Name:</b>		DRILLER			
<b>Middle Initial:</b>		NA			
<b>First Name:</b>		UNKNOWN			
<b>Journeyman No:</b>		1			
<b>Is Active?:</b>		Yes			
<b><u>Drilling Companies</u></b>					
<b>Starting Well ID:</b>		1973500			
<b>Ending Well ID:</b>		1973599			
<b>Last Well ID Used:</b>		1973599			
<b>Company Name:</b>		UNKNOWN DRILLER			
<b>Street Address:</b>		UNKNOWN			
<b>City:</b>		UNKNOWN			
<b>Province:</b>		AB			
<b>Country:</b>		CA			
<b>Postal Code:</b>					
<b>E-Mail:</b>		gwinfo@gov.ab.ca			
<b>Is Active?:</b>		No			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5552316			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Log Type:</b>		Electric			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5955391			
<b>Log Type:</b>		Gamma			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		653816			
<b>Diameter:</b>		0			
<b>From:</b>		0			
<b>To:</b>		150			

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<b>Well ID:</b>	388874	<b>Elevation Source:</b>	Estimated
<b>Driller ID:</b>	24084	<b>Method of Drilling:</b>	
<b>Licence No:</b>		<b>GPS Obtained:</b>	Map
<b>GIC Well ID:</b>	388874	<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>		<b>Distance North:</b>	
<b>Elevation (ft):</b>	3934	<b>Distance South:</b>	
<b>Depth (ft):</b>		<b>Distance East:</b>	
<b>Date Completed:</b>		<b>Distance West:</b>	
<b>Proposed Use:</b>		<b>Additional Desc:</b>	
<b>Lot:</b>		<b>Validated?:</b>	Yes
<b>Block:</b>		<b>Submitted?:</b>	Yes
<b>Plan:</b>		<b>Location Locked?:</b>	Yes
<b>Type of Work:</b>		<b>Longitude:</b>	-114.402802
<b>Flowing Well:</b>		<b>Latitude:</b>	51.055976
<b>Date Started:</b>		<b>LSD:</b>	SE
<b>Water Req Per Day:</b>		<b>Section:</b>	19
<b>Gas Present:</b>		<b>Township:</b>	24
<b>Oil Present:</b>		<b>Range:</b>	3
<b>Flow Rate:</b>		<b>Meridian:</b>	5
<b>Drilling Company:</b>		<b>DLS Coordinates:</b>	SE-19-24-3-5
<b>Owner Mailing Address:</b>			
<b>Driller Mailing Address:</b>			

**Well Reports**

<b>Well Report ID:</b>	388874	<b>Annular Seal Mat:</b>	Driven
<b>Well Owner ID:</b>	10661235	<b>Annular Seal from:</b>	0.00
<b>Driller ID:</b>	2533726	<b>Annular Seal to:</b>	0.00
<b>Drill Company ID:</b>	24084	<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8337970	<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>		<b>Drilling Method:</b>	Cable Tool
<b>Existing Well ID:</b>		<b>Drilling Start Dt:</b>	
<b>Date Received:</b>	1969/11/06	<b>Drilling End Dt:</b>	1969/07/10
<b>Type of Work:</b>	New Well	<b>Pack Type:</b>	
<b>Plug Date:</b>		<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>		<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>		<b>Pack Units:</b>	
<b>Plugged Units:</b>		<b>Loc Verify Method:</b>	Map
<b>Well Use:</b>	Domestic	<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>		<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	170.00	<b>Artesian Flow Rate:</b>	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Finish Well Depth:</b>				<b>Gas Depth:</b>	
<b>Casing Material:</b>	Unknown			<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	6.50			<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.000			<b>Recommended Rate:</b>	0.00
<b>Casing Bottom:</b>	42.00			<b>Recom Intake Depth:</b>	0.00
<b>Liner Material:</b>	Unknown			<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	5.50			<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.000			<b>Pump Model:</b>	
<b>Liner Top:</b>	0.00			<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	170.00			<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>				<b>Other Log:</b>	
<b>Screen Material:</b>				<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00			<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>				<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>				<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>				<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No				
<b>Saline Water Depth:</b>					
<b>Potability Sample Taken?:</b>	No				
<b>Potable Sample Sent to AENV?:</b>	No				
<b>Approval Holder Sign Date:</b>					
<b>Drilling Report Given to Owner:</b>	No				
<b>Model Output Rating:</b>					
<b>Remedial Action:</b>					
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>					
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>					

#### Well Owners

**Well Owner ID:** 10661235  
**Owner Name:** COPPITHORN, BILL  
**PO Box:**  
**Address:** RR2, CALGARY  
**City:**  
**Postal Code:**  
**Province:**  
**Country:**

#### Drillers

**Driller ID:** 2533726  
**Last Name:** DRILLER  
**Middle Initial:** NA  
**First Name:** UNKNOWN  
**Journeyman No:** 1  
**Is Active?:** Yes

#### Drilling Companies

**Starting Well ID:** 1893200  
**Ending Well ID:** 1893299  
**Last Well ID Used:** 1893200  
**Company Name:** INTERPROVINCIAL DRILLING CONTRACTORS  
**Street Address:** SUB PO 36  
**City:** CALGARY  
**Province:** AB  
**Country:** CA  
**Postal Code:**  
**E-Mail:** GWINFO@GOV.AB.CA  
**Is Active?:** No

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b><u>Perforations</u></b>					
<i>Perforation ID:</i>		4200954			
<i>From:</i>		155			
<i>To:</i>		165			
<i>Diameter:</i>		0			
<i>Interval:</i>		0			
<b><u>Geophysical Logs</u></b>					
<i>Geophysical Log ID:</i>		5951171			
<i>Log Type:</i>		Gamma			
<i>Log Taken?:</i>		No			
<i>Sent to AENV?:</i>		No			
<b><u>Geophysical Logs</u></b>					
<i>Geophysical Log ID:</i>		5548096			
<i>Log Type:</i>		Electric			
<i>Log Taken?:</i>		No			
<i>Sent to AENV?:</i>		No			
<b><u>Boreholes</u></b>					
<i>Borehole ID:</i>		649596			
<i>Diameter:</i>		0			
<i>From:</i>		0			
<i>To:</i>		170			
<b><u>Lithologies</u></b>					
<i>Depth:</i>		8			
<i>Water Bearing:</i>		No			
<i>Colour:</i>		Brown			
<i>Description:</i>					
<i>Material:</i>		Clay			
<b><u>Lithologies</u></b>					
<i>Depth:</i>		159			
<i>Water Bearing:</i>		No			
<i>Colour:</i>					
<i>Description:</i>		Sandy			
<i>Material:</i>		Shale			
<b><u>Lithologies</u></b>					
<i>Depth:</i>		115			
<i>Water Bearing:</i>		No			
<i>Colour:</i>		Gray			
<i>Description:</i>					
<i>Material:</i>		Shale			
<b><u>Lithologies</u></b>					
<i>Depth:</i>		88			
<i>Water Bearing:</i>		No			
<i>Colour:</i>		Brown			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		120			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		165			
<b>Water Bearing:</b>		Yes			
<b>Colour:</b>					
<b>Description:</b>		Water Bearing			
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		151			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		170			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		130			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		142			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Blue			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>		10332937			
<b>Test Date:</b>		1969/07/10			
<b>Start Time:</b>		12:00 AM			
<b>Taken from Top of Casing:</b>		No			
<b>Static Water Level:</b>		130			
<b>End Water Level:</b>					
<b>Water Removal Type:</b>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Water Removal Rate:		20			
Removal Depth from:		0			
Reason for Short Test:					

<u>25</u>	2 of 2	E/125.5	1,203.7 / -11.94	AB	WWIS
<b>Well ID:</b>	402318			<b>Elevation Source:</b>	Not Obtained
<b>Driller ID:</b>	24053			<b>Method of Drilling:</b>	
<b>Licence No:</b>				<b>GPS Obtained:</b>	Map
<b>GIC Well ID:</b>	402318			<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>				<b>Distance North:</b>	
<b>Elevation (ft):</b>				<b>Distance South:</b>	
<b>Depth (ft):</b>				<b>Distance East:</b>	
<b>Date Completed:</b>				<b>Distance West:</b>	
<b>Proposed Use:</b>				<b>Additional Desc:</b>	
<b>Lot:</b>				<b>Validated?:</b>	Yes
<b>Block:</b>				<b>Submitted?:</b>	Yes
<b>Plan:</b>				<b>Location Locked?:</b>	Yes
<b>Type of Work:</b>				<b>Longitude:</b>	-114.402802
<b>Flowing Well:</b>				<b>Latitude:</b>	51.055976
<b>Date Started:</b>				<b>LSD:</b>	SE
<b>Water Req Per Day:</b>				<b>Section:</b>	19
<b>Gas Present:</b>				<b>Township:</b>	24
<b>Oil Present:</b>				<b>Range:</b>	3
<b>Flow Rate:</b>				<b>Meridian:</b>	5
<b>Drilling Company:</b>				<b>DLS Coordinates:</b>	SE-19-24-3-5
<b>Owner Mailing Address:</b>					
<b>Driller Mailing Address:</b>					

#### Well Reports

<b>Well Report ID:</b>	402318	<b>Annular Seal Mat:</b>	Driven
<b>Well Owner ID:</b>	10674595	<b>Annular Seal from:</b>	26.00
<b>Driller ID:</b>	2533726	<b>Annular Seal to:</b>	29.00
<b>Drill Company ID:</b>	24053	<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8335386	<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>		<b>Drilling Method:</b>	Rotary
<b>Existing Well ID:</b>		<b>Drilling Start Dt:</b>	1995/03/11
<b>Date Received:</b>	1995/04/26	<b>Drilling End Dt:</b>	1995/03/11
<b>Type of Work:</b>	New Well	<b>Pack Type:</b>	
<b>Plug Date:</b>		<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>		<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>		<b>Pack Units:</b>	
<b>Plugged Units:</b>		<b>Loc Verify Method:</b>	Map
<b>Well Use:</b>	Domestic	<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>		<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	144.00	<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>		<b>Gas Depth:</b>	
<b>Casing Material:</b>	Steel	<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	6.62	<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.188	<b>Recommended Rate:</b>	8.00
<b>Casing Bottom:</b>	29.00	<b>Recom Intake Depth:</b>	120.00
<b>Liner Material:</b>	Plastic	<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	4.50	<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.237	<b>Pump Model:</b>	
<b>Liner Top:</b>	22.00	<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	144.00	<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>	Saw	<b>Other Log:</b>	
<b>Screen Material:</b>		<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00	<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>		<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>		<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>		<b>Is Validated?:</b>	Yes

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Encounter Saline Water?:</b>		No			
<b>Saline Water Depth:</b>					
<b>Potability Sample Taken?:</b>		No			
<b>Potable Sample Sent to AENV?:</b>		No			
<b>Approval Holder Sign Date:</b>					
<b>Drilling Report Given to Owner:</b>		No			
<b>Model Output Rating:</b>					
<b>Remedial Action:</b>					
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>					
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>		DRILLER REPORTS DISTANCE FROM TOP OF CASING TO GROUND LEVE: 2'			

#### Well Owners

**Well Owner ID:** 10674595  
**Owner Name:** COPPITHORNE, PHIL  
**PO Box:**  
**Address:** RR2, CALGARY  
**City:**  
**Postal Code:** T2P 2G5  
**Province:**  
**Country:**

#### Drillers

**Driller ID:** 2533726  
**Last Name:** DRILLER  
**Middle Initial:** NA  
**First Name:** UNKNOWN  
**Journeyman No:** 1  
**Is Active?:** Yes

#### Drilling Companies

**Starting Well ID:** 1465000  
**Ending Well ID:** 1469999  
**Last Well ID Used:** 1465064  
**Company Name:** LOU'S WATER WELL DRILLING  
**Street Address:** BOX 1021  
**City:** COCHRANE  
**Province:** AB  
**Country:** CA  
**Postal Code:** T4C 1B1  
**E-Mail:** gwinfo@gov.ab.ca  
**Is Active?:** Yes

#### Perforations

**Perforation ID:** 4196833  
**From:** 80  
**To:** 144  
**Diameter:** 0.125  
**Interval:** 10

#### Geophysical Logs

**Geophysical Log ID:** 5536172  
**Log Type:** Electric  
**Log Taken?:** No  
**Sent to AENV?:** No

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5939247			
<b>Log Type:</b>		Gamma			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		637735			
<b>Diameter:</b>		0			
<b>From:</b>		0			
<b>To:</b>		144			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		95			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		26			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Sand			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		112			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		32			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		100			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		128			
<b>Water Bearing:</b>		No			



<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			70		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			15		
<b>Water Bearing:</b>			No		
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>			Clay		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			23		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Dark Brown		
<b>Description:</b>					
<b>Material:</b>			Clay		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			55		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Brownish Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			75		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			87		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Light Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			88		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b><u>Lithologies</u></b>					
<b>Depth:</b>			144		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			109		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			132		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			30		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			83		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>			10341205		
<b>Test Date:</b>			1995/03/11		
<b>Start Time:</b>			12:00 AM		
<b>Taken from Top of Casing:</b>			No		
<b>Static Water Level:</b>			46.5		
<b>End Water Level:</b>			141.6		
<b>Water Removal Type:</b>			Air		
<b>Water Removal Rate:</b>			15		
<b>Removal Depth from:</b>			144		
<b>Reason for Short Test:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			8107646		
<b>Minutes:</b>			7		
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>			47.8014		

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			8107639		
<b>Minutes:</b>			0		
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>			141.074		
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			8107641		
<b>Minutes:</b>			2		
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>			51.8367		
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			8107648		
<b>Minutes:</b>			9		
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>			47.6045		
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			8107650		
<b>Minutes:</b>			12		
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>			47.3418		
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			8107651		
<b>Minutes:</b>			14		
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>			47.2107		
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			8107644		
<b>Minutes:</b>			5		
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>			47.8996		
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			8107642		
<b>Minutes:</b>			3		
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>			48.0636		
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>			8107649		
<b>Minutes:</b>			10		
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>			47.5061		
<b><u>Pump Test Items</u></b>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Pump Test Item ID:</b>		8107640			
<b>Minutes:</b>		1			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		89.5663			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8107643			
<b>Minutes:</b>		4			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		47.8996			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8107645			
<b>Minutes:</b>		6			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		47.8996			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8107647			
<b>Minutes:</b>		8			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		47.7027			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8107652			
<b>Minutes:</b>		16			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		47.0794			

[26](#) 1 of 1 **SSW/164.0** **1,214.0 / -1.61** **VOLKER STEVIN MAINTENANCE YARD** **ESAR**  
**Rocky View County SPRINGBANK -**  
**AB**

**ESA ID:** 1345543  
**ESRD File:** SCD01740  
**File Classification:** SCD  
**Documents in File:** 1  
**Name:** VOLKER STEVIN MAINTENANCE YARD  
**10tm Point Coordinate:** 37229,5651824  
**LLD:** 0711819;2;3  
**LINC:** 0032350381  
**Map Link:**  
**ESAR Link:** <http://www.esar.alberta.ca/esarmain.aspx?esaid=SCD01740>

**--Details--**  
**Doc Name:** VOLKER STEVIN MAINTENANCE YARD  
**Doc Type:** pdf  
**Doc Size (Mb):** 1.13  
**Doc Date:** 3/22/2007  
**Doc Desc:** Semi-Annual GW Monitoring Report

[27](#) 1 of 1 **SSW/165.0** **1,210.0 / -5.61** **AB** **WWIS**

**Well ID:** 341639 **Elevation Source:** Not Obtained

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Driller ID:</b>	24053			<b>Method of Drilling:</b>	
<b>Licence No:</b>				<b>GPS Obtained:</b>	Map
<b>GIC Well ID:</b>	341639			<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>				<b>Distance North:</b>	
<b>Elevation (ft):</b>				<b>Distance South:</b>	
<b>Depth (ft):</b>				<b>Distance East:</b>	
<b>Date Completed:</b>				<b>Distance West:</b>	
<b>Proposed Use:</b>				<b>Additional Desc:</b>	
<b>Lot:</b>				<b>Validated?:</b>	Yes
<b>Block:</b>				<b>Submitted?:</b>	Yes
<b>Plan:</b>				<b>Location Locked?:</b>	Yes
<b>Type of Work:</b>				<b>Longitude:</b>	-114.472617
<b>Flowing Well:</b>				<b>Latitude:</b>	51.026975
<b>Date Started:</b>				<b>LSD:</b>	SE
<b>Water Req Per Day:</b>				<b>Section:</b>	10
<b>Gas Present:</b>				<b>Township:</b>	24
<b>Oil Present:</b>				<b>Range:</b>	4
<b>Flow Rate:</b>				<b>Meridian:</b>	5
<b>Drilling Company:</b>				<b>DLS Coordinates:</b>	SE-10-24-4-5
<b>Owner Mailing Address:</b>					
<b>Driller Mailing Address:</b>					

### Well Reports

<b>Well Report ID:</b>	341639	<b>Annular Seal Mat:</b>	Driven & Bentonite
<b>Well Owner ID:</b>	10768196	<b>Annular Seal from:</b>	1.00
<b>Driller ID:</b>	2533726	<b>Annular Seal to:</b>	24.00
<b>Drill Company ID:</b>	24053	<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8335386	<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>		<b>Drilling Method:</b>	Rotary
<b>Existing Well ID:</b>		<b>Drilling Start Dt:</b>	2002/08/29
<b>Date Received:</b>	2002/11/25	<b>Drilling End Dt:</b>	2002/08/29
<b>Type of Work:</b>	New Well	<b>Pack Type:</b>	
<b>Plug Date:</b>		<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>		<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>		<b>Pack Units:</b>	
<b>Plugged Units:</b>		<b>Loc Verify Method:</b>	Map
<b>Well Use:</b>	Domestic	<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>		<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	140.00	<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>		<b>Gas Depth:</b>	
<b>Casing Material:</b>	Steel	<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	6.62	<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.188	<b>Recommended Rate:</b>	6.00
<b>Casing Bottom:</b>	24.00	<b>Recom Intake Depth:</b>	130.00
<b>Liner Material:</b>	Plastic	<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	4.50	<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.214	<b>Pump Model:</b>	
<b>Liner Top:</b>	12.00	<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	140.00	<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>	Saw	<b>Other Log:</b>	
<b>Screen Material:</b>		<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00	<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>		<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>		<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>		<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No		
<b>Saline Water Depth:</b>			
<b>Potability Sample Taken?:</b>	No		
<b>Potable Sample Sent to AENV?:</b>	No		
<b>Approval Holder Sign Date:</b>			
<b>Drilling Report Given to Owner:</b>	No		
<b>Model Output Rating:</b>			
<b>Remedial Action:</b>			
<b>Flow Control Description:</b>			

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b>Pump Type Installed:</b>					
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>					
<b><u>Well Owners</u></b>					
<b>Well Owner ID:</b>		10768196			
<b>Owner Name:</b>		KIWANIS CAMP			
<b>PO Box:</b>					
<b>Address:</b>		241001 RGE RD 42			
<b>City:</b>					
<b>Postal Code:</b>		T3Z 2X5			
<b>Province:</b>					
<b>Country:</b>					
<b><u>Drillers</u></b>					
<b>Driller ID:</b>		2533726			
<b>Last Name:</b>		DRILLER			
<b>Middle Initial:</b>		NA			
<b>First Name:</b>		UNKNOWN			
<b>Journeyman No:</b>		1			
<b>Is Active?:</b>		Yes			
<b><u>Drilling Companies</u></b>					
<b>Starting Well ID:</b>		1465000			
<b>Ending Well ID:</b>		1469999			
<b>Last Well ID Used:</b>		1465064			
<b>Company Name:</b>		LOU'S WATER WELL DRILLING			
<b>Street Address:</b>		BOX 1021			
<b>City:</b>		COCHRANE			
<b>Province:</b>		AB			
<b>Country:</b>		CA			
<b>Postal Code:</b>		T4C 1B1			
<b>E-Mail:</b>		gwinfo@gov.ab.ca			
<b>Is Active?:</b>		Yes			
<b><u>Perforations</u></b>					
<b>Perforation ID:</b>		4230256			
<b>From:</b>		80			
<b>To:</b>		140			
<b>Diameter:</b>		0.125			
<b>Interval:</b>		10			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		6056755			
<b>Log Type:</b>		Gamma			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b>		5653680			
<b>Log Type:</b>		Electric			
<b>Log Taken?:</b>		No			
<b>Sent to AENV?:</b>		No			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		755753			
<b>Diameter:</b>		0			
<b>From:</b>		0			
<b>To:</b>		140			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		104			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		122			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		125			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		140			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		22			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Sand & Gravel			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		80			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		110			
<b>Water Bearing:</b>		No			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			132		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			130		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			10		
<b>Water Bearing:</b>			No		
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>			Clay		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			55		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Black		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			82		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			75		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			114		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		



<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b><u>Lithologies</u></b>					
<i>Depth:</i>			45		
<i>Water Bearing:</i>			No		
<i>Colour:</i>			Gray		
<i>Description:</i>					
<i>Material:</i>			Sandstone		
<b><u>Lithologies</u></b>					
<i>Depth:</i>			100		
<i>Water Bearing:</i>			No		
<i>Colour:</i>			Gray		
<i>Description:</i>					
<i>Material:</i>			Shale		
<b><u>Pump Tests</u></b>					
<i>Pump Test ID:</i>			10398538		
<i>Test Date:</i>			2002/09/04		
<i>Start Time:</i>			12:00 AM		
<i>Taken from Top of Casing:</i>			No		
<i>Static Water Level:</i>			8.6		
<i>End Water Level:</i>			12.9		
<i>Water Removal Type:</i>			Pump		
<i>Water Removal Rate:</i>			12		
<i>Removal Depth from:</i>			140		
<i>Reason for Short Test:</i>					
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			8330671		
<i>Minutes:</i>			1		
<i>Pumping Depth:</i>			10.4		
<i>Recovery Depth:</i>			8.53013		
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			8330678		
<i>Minutes:</i>			8		
<i>Pumping Depth:</i>			10.8919		
<i>Recovery Depth:</i>					
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			8330684		
<i>Minutes:</i>			20		
<i>Pumping Depth:</i>			12.2043		
<i>Recovery Depth:</i>					
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			8330687		
<i>Minutes:</i>			35		
<i>Pumping Depth:</i>			12.7621		
<i>Recovery Depth:</i>					
<b><u>Pump Test Items</u></b>					

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Pump Test Item ID:</b>		8330691			
<b>Minutes:</b>		75			
<b>Pumping Depth:</b>		12.8933			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8330675			
<b>Minutes:</b>		5			
<b>Pumping Depth:</b>		10.7608			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8330677			
<b>Minutes:</b>		7			
<b>Pumping Depth:</b>		10.7936			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8330682			
<b>Minutes:</b>		14			
<b>Pumping Depth:</b>		11.4498			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8330683			
<b>Minutes:</b>		16			
<b>Pumping Depth:</b>		11.6793			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8330685			
<b>Minutes:</b>		25			
<b>Pumping Depth:</b>		12.6964			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8330686			
<b>Minutes:</b>		30			
<b>Pumping Depth:</b>		12.7292			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8330689			
<b>Minutes:</b>		50			
<b>Pumping Depth:</b>		12.8604			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8330681			
<b>Minutes:</b>		12			
<b>Pumping Depth:</b>		11.22			

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<i>Recovery Depth:</i>					
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			8330690		
<i>Minutes:</i>			60		
<i>Pumping Depth:</i>			12.8604		
<i>Recovery Depth:</i>					
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			8330694		
<i>Minutes:</i>			120		
<i>Pumping Depth:</i>			12.9917		
<i>Recovery Depth:</i>					
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			8330674		
<i>Minutes:</i>			4		
<i>Pumping Depth:</i>			10.728		
<i>Recovery Depth:</i>					
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			8330672		
<i>Minutes:</i>			2		
<i>Pumping Depth:</i>			10.5641		
<i>Recovery Depth:</i>			8.4645		
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			8330680		
<i>Minutes:</i>			10		
<i>Pumping Depth:</i>			11.0232		
<i>Recovery Depth:</i>					
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			8330673		
<i>Minutes:</i>			3		
<i>Pumping Depth:</i>			10.6624		
<i>Recovery Depth:</i>					
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			8330676		
<i>Minutes:</i>			6		
<i>Pumping Depth:</i>			10.7608		
<i>Recovery Depth:</i>					
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			8330679		
<i>Minutes:</i>			9		
<i>Pumping Depth:</i>			10.9248		
<i>Recovery Depth:</i>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b><u>Pump Test Items</u></b>					
Pump Test Item ID:		8330688			
Minutes:		40			
Pumping Depth:		12.8276			
Recovery Depth:					
<b><u>Pump Test Items</u></b>					
Pump Test Item ID:		8330693			
Minutes:		105			
Pumping Depth:		12.9588			
Recovery Depth:					
<b><u>Pump Test Items</u></b>					
Pump Test Item ID:		8330670			
Minutes:		0			
Pumping Depth:		8.69414			
Recovery Depth:		12.9919			
<b><u>Pump Test Items</u></b>					
Pump Test Item ID:		8330692			
Minutes:		90			
Pumping Depth:		12.9261			
Recovery Depth:					

<b>28</b>	1 of 1	SE/175.3	1,186.0 / -29.61	Plains Midstream Canada ULC 06-13-024-04W5 AB	FIS
<b>Licence No:</b>	3084			<b>Concern Category 1:</b>	Physical Impact
<b>Licence Type:</b>	Pipeline Licence			<b>Concern Type 1:</b>	Public Hazard
<b>Licence ID:</b>	A31G			<b>Concern Category 2:</b>	
<b>Licence Name:</b>	Plains Midstream Canada ULC			<b>Concern Type 2:</b>	
<b>CSU File No:</b>				<b>Concern Category 3:</b>	
<b>Cause Category:</b>	External			<b>Concern Type 3:</b>	
<b>Cause Type:</b>	Natural Phenomena			<b>Concern Category 4:</b>	
<b>Incident No:</b>	20151520			<b>Concern Type 4:</b>	
<b>Incident Type:</b>	Complaint			<b>Concern Category 5:</b>	
<b>Incident Date:</b>	04 Jun 2015			<b>Concern Type 5:</b>	
<b>Notification Date:</b>	04 Jun 2015			<b>Concern Category 6:</b>	
<b>Complete Date:</b>	03 Sep 2015			<b>Concern Type 6:</b>	
<b>QSD:</b>				<b>Concern Category 7:</b>	
<b>LSD:</b>	6			<b>Concern Type 7:</b>	
<b>Section:</b>	13			<b>Subst Released:</b>	
<b>Township:</b>	24			<b>Volume Released:</b>	
<b>Range:</b>	4			<b>Volume Recovered:</b>	
<b>Meridian:</b>	5			<b>Volume Unit:</b>	
<b>Pipeline Lic No:</b>				<b>Subst Released 2:</b>	
<b>Pipeline Lic Segm ID:</b>				<b>Volume Released 2:</b>	
<b>Pipe Damage:</b>				<b>Volume Recovered 2:</b>	
<b>Pipe Test Fail:</b>				<b>Volume Unit 2:</b>	
<b>P Outside Diam (mm):</b>				<b>Subst Released 3:</b>	
<b>Pipe Grade:</b>				<b>Volume Released 3:</b>	
<b>Pipewall Thick (mm):</b>				<b>Volume Recovered 3:</b>	
<b>Public Evacuated:</b>				<b>Volume Unit 3:</b>	
<b>Cleanup Date:</b>				<b>Subst Released 4:</b>	
<b>Injury Count:</b>				<b>Volume Released 4:</b>	
<b>Fatality Count:</b>				<b>Volume Recovered 4:</b>	
<b>Failure Type:</b>				<b>Volume Unit 4:</b>	



Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Casing OD:	6.62			Flow Ctrl Install?:	No
Casing Thickness:	0.188			Recommended Rate:	12.00
Casing Bottom:	24.00			Recom Intake Depth:	140.00
Liner Material:	Plastic			Pump Installed?:	No
Liner OD:	5.00			Pump Install Depth:	
Liner Thickness:	0.237			Pump Model:	
Liner Top:	18.00			Pump Horsepower:	
Liner Bottom:	160.00			Well Disinfected?:	No
Perforation by:	Saw			Other Log:	
Screen Material:				Divert Water Src:	
Screen Size OD:	0.00			Divert Water Amt:	
Screen Attachment:				Diversion Dt/Time:	
Screen Top Fitting:				Is Submitted?:	Yes
Screen Bot Fitting:				Is Validated?:	Yes
Encounter Saline Water?:	No				
Saline Water Depth:					
Potability Sample Taken?:	No				
Potable Sample Sent to AENV?:	No				
Approval Holder Sign Date:					
Drilling Report Given to Owner:	No				
Model Output Rating:					
Remedial Action:					
Flow Control Description:					
Pump Type Installed:					
Created by:					
Submitted by:					
Additional Comments:		DRILLER REPORTS DISTANCE FROM TOP OF CASING TO GROUND LEVEL: 18".			

#### Well Owners

**Well Owner ID:** 10662787  
**Owner Name:** KIWANIS CAMP  
**PO Box:** 2  
**Address:** SITE 1 RR1, CALGARY  
**City:**  
**Postal Code:** T2P 2G4  
**Province:**  
**Country:**

#### Drillers

**Driller ID:** 2533726  
**Last Name:** DRILLER  
**Middle Initial:** NA  
**First Name:** UNKNOWN  
**Journeyman No:** 1  
**Is Active?:** Yes

#### Drilling Companies

**Starting Well ID:** 1465000  
**Ending Well ID:** 1469999  
**Last Well ID Used:** 1465064  
**Company Name:** LOU'S WATER WELL DRILLING  
**Street Address:** BOX 1021  
**City:** COCHRANE  
**Province:** AB  
**Country:** CA  
**Postal Code:** T4C 1B1  
**E-Mail:** gwinfo@gov.ab.ca  
**Is Active?:** Yes

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b><u>Perforations</u></b>					
<i>Perforation ID:</i>		4205678			
<i>From:</i>		90			
<i>To:</i>		160			
<i>Diameter:</i>		0.125			
<i>Interval:</i>		12			
<b><u>Geophysical Logs</u></b>					
<i>Geophysical Log ID:</i>		5964593			
<i>Log Type:</i>		Gamma			
<i>Log Taken?:</i>		No			
<i>Sent to AENV?:</i>		No			
<b><u>Geophysical Logs</u></b>					
<i>Geophysical Log ID:</i>		5561518			
<i>Log Type:</i>		Electric			
<i>Log Taken?:</i>		No			
<i>Sent to AENV?:</i>		No			
<b><u>Boreholes</u></b>					
<i>Borehole ID:</i>		663018			
<i>Diameter:</i>		0			
<i>From:</i>		0			
<i>To:</i>		160			
<b><u>Lithologies</u></b>					
<i>Depth:</i>		90			
<i>Water Bearing:</i>		No			
<i>Colour:</i>		Gray			
<i>Description:</i>					
<i>Material:</i>		Shale			
<b><u>Lithologies</u></b>					
<i>Depth:</i>		150			
<i>Water Bearing:</i>		No			
<i>Colour:</i>		Dark Gray			
<i>Description:</i>					
<i>Material:</i>		Sandstone			
<b><u>Lithologies</u></b>					
<i>Depth:</i>		20			
<i>Water Bearing:</i>		No			
<i>Colour:</i>		Black			
<i>Description:</i>					
<i>Material:</i>		Sand & Gravel			
<b><u>Lithologies</u></b>					
<i>Depth:</i>		45			
<i>Water Bearing:</i>		No			
<i>Colour:</i>		Gray			
<i>Description:</i>					
<i>Material:</i>		Sandstone			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b><u>Lithologies</u></b>					
<b>Depth:</b>			115		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Shale & Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			92		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			4		
<b>Water Bearing:</b>			No		
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>			Clay & Boulders		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			130		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			135		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Dark Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			160		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			55		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Dark Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					



<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Depth:</b>		75			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>		10334028			
<b>Test Date:</b>		1994/09/18			
<b>Start Time:</b>		12:00 AM			
<b>Taken from Top of Casing:</b>		No			
<b>Static Water Level:</b>		10.8			
<b>End Water Level:</b>		139.9			
<b>Water Removal Type:</b>		Bailer & Air			
<b>Water Removal Rate:</b>		20			
<b>Removal Depth from:</b>		140			
<b>Reason for Short Test:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8087113			
<b>Minutes:</b>		4			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		69.8814			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8087114			
<b>Minutes:</b>		5			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		52.9849			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8087116			
<b>Minutes:</b>		7			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		25.9184			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8087121			
<b>Minutes:</b>		14			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		11.0234			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8087110			
<b>Minutes:</b>		1			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		131.231			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		8087109			
<b>Minutes:</b>		0			
<b>Pumping Depth:</b>					
<b>Recovery Depth:</b>		139.991			

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			8087115		
<i>Minutes:</i>			6		
<i>Pumping Depth:</i>					
<i>Recovery Depth:</i>			35.5966		
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			8087117		
<i>Minutes:</i>			8		
<i>Pumping Depth:</i>					
<i>Recovery Depth:</i>			19.9144		
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			8087120		
<i>Minutes:</i>			12		
<i>Pumping Depth:</i>					
<i>Recovery Depth:</i>			12.3029		
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			8087111		
<i>Minutes:</i>			2		
<i>Pumping Depth:</i>					
<i>Recovery Depth:</i>			126.31		
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			8087118		
<i>Minutes:</i>			9		
<i>Pumping Depth:</i>					
<i>Recovery Depth:</i>			14.0089		
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			8087119		
<i>Minutes:</i>			10		
<i>Pumping Depth:</i>					
<i>Recovery Depth:</i>			13.1231		
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			8087112		
<i>Minutes:</i>			3		
<i>Pumping Depth:</i>					
<i>Recovery Depth:</i>			91.2068		
<b><u>Pump Test Items</u></b>					
<i>Pump Test Item ID:</i>			8087122		
<i>Minutes:</i>			16		
<i>Pumping Depth:</i>					
<i>Recovery Depth:</i>			10.8265		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<a href="#">29</a>	2 of 2	SSW/175.6	1,210.0 / -5.61	AB	WWIS

<b>Well ID:</b>	387568	<b>Elevation Source:</b>	Not Obtained
<b>Driller ID:</b>	11110	<b>Method of Drilling:</b>	
<b>Licence No:</b>		<b>GPS Obtained:</b>	Map
<b>GIC Well ID:</b>	387568	<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>		<b>Distance North:</b>	
<b>Elevation (ft):</b>		<b>Distance South:</b>	
<b>Depth (ft):</b>		<b>Distance East:</b>	
<b>Date Completed:</b>		<b>Distance West:</b>	
<b>Proposed Use:</b>		<b>Additional Desc:</b>	
<b>Lot:</b>		<b>Validated?:</b>	Yes
<b>Block:</b>		<b>Submitted?:</b>	Yes
<b>Plan:</b>		<b>Location Locked?:</b>	Yes
<b>Type of Work:</b>		<b>Longitude:</b>	-114.472405
<b>Flowing Well:</b>		<b>Latitude:</b>	51.027127
<b>Date Started:</b>		<b>LSD:</b>	SE
<b>Water Req Per Day:</b>		<b>Section:</b>	10
<b>Gas Present:</b>		<b>Township:</b>	24
<b>Oil Present:</b>		<b>Range:</b>	4
<b>Flow Rate:</b>		<b>Meridian:</b>	5
<b>Drilling Company:</b>		<b>DLS Coordinates:</b>	SE-10-24-4-5
<b>Owner Mailing Address:</b>			
<b>Driller Mailing Address:</b>			

#### Chemical Analysis

<b>Chem Analysis ID:</b>	2081517
<b>Well Report ID:</b>	387568
<b>Sample No:</b>	656-W
<b>Sample Date:</b>	1/12/1983
<b>Analysis Date:</b>	2/7/1983
<b>Laboratory:</b>	VG
<b>Water Level:</b>	
<b>Aquifer:</b>	
<b>Remarks:</b>	

#### Analysis Items

<b>Chemical Analysis ID:</b>	2081517
<b>Element Name:</b>	Total Hardness
<b>Element Symbol:</b>	TH
<b>Decimal Places:</b>	4
<b>Value:</b>	210

#### Analysis Items

<b>Chemical Analysis ID:</b>	2081517
<b>Element Name:</b>	Calcium
<b>Element Symbol:</b>	CA
<b>Decimal Places:</b>	4
<b>Value:</b>	60.999756

#### Analysis Items

<b>Chemical Analysis ID:</b>	2081517
<b>Element Name:</b>	pH
<b>Element Symbol:</b>	PH
<b>Decimal Places:</b>	2
<b>Value:</b>	7.8

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081517			
<b>Element Name:</b>		Ion Balance			
<b>Element Symbol:</b>		IONBAL			
<b>Decimal Places:</b>		4			
<b>Value:</b>		1			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081517			
<b>Element Name:</b>		Magnesium			
<b>Element Symbol:</b>		MG			
<b>Decimal Places:</b>		4			
<b>Value:</b>		14.011968			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081517			
<b>Element Name:</b>		Nitrate plus Nitrite			
<b>Element Symbol:</b>		NO2_NO3_N			
<b>Decimal Places:</b>		4			
<b>Value:</b>		-0.0504			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081517			
<b>Element Name:</b>		Chloride			
<b>Element Symbol:</b>		CL			
<b>Decimal Places:</b>		4			
<b>Value:</b>		-1.0011			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081517			
<b>Element Name:</b>		Fluoride			
<b>Element Symbol:</b>		F			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0.25			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081517			
<b>Element Name:</b>		Total Phosphorus			
<b>Element Symbol:</b>		TP			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081517			
<b>Element Name:</b>		total Kjeldahl nitrogen			
<b>Element Symbol:</b>		TKN			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081517			
<b>Element Name:</b>		Total Dissolved Solids			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Element Symbol:</b>		TDS			
<b>Decimal Places:</b>		0			
<b>Value:</b>		239			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081517			
<b>Element Name:</b>		Nitrite			
<b>Element Symbol:</b>		NO2			
<b>Decimal Places:</b>		4			
<b>Value:</b>		-0.0504			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081517			
<b>Element Name:</b>		Potassium			
<b>Element Symbol:</b>		K			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0.512			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081517			
<b>Element Name:</b>		Iron			
<b>Element Symbol:</b>		FE			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0.14			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081517			
<b>Element Name:</b>		Sulphate			
<b>Element Symbol:</b>		SO4			
<b>Decimal Places:</b>		4			
<b>Value:</b>		70.10094			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081517			
<b>Element Name:</b>		Electrical Conductivity			
<b>Element Symbol:</b>		EC			
<b>Decimal Places:</b>		0			
<b>Value:</b>		411			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081517			
<b>Element Name:</b>		Hydroxide			
<b>Element Symbol:</b>		OH			
<b>Decimal Places:</b>		4			
<b>Value:</b>		0			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081517			
<b>Element Name:</b>		Total Alkalinity			
<b>Element Symbol:</b>		TA			
<b>Decimal Places:</b>		4			
<b>Value:</b>		146			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081517			
<b>Element Name:</b>		Bicarbonate			
<b>Element Symbol:</b>		HCO3			
<b>Decimal Places:</b>		4			
<b>Value:</b>		178.018945			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081517			
<b>Element Name:</b>		Sodium			
<b>Element Symbol:</b>		NA			
<b>Decimal Places:</b>		4			
<b>Value:</b>		5.0002			
<b><u>Analysis Items</u></b>					
<b>Chemical Analysis ID:</b>		2081517			
<b>Element Name:</b>		Silica			
<b>Element Symbol:</b>		SiO2			
<b>Decimal Places:</b>		4			
<b>Value:</b>		3.7			
<b><u>Well Reports</u></b>					
<b>Well Report ID:</b>	387568			<b>Annular Seal Mat:</b>	
<b>Well Owner ID:</b>	10659937			<b>Annular Seal from:</b>	0.00
<b>Driller ID:</b>	2533726			<b>Annular Seal to:</b>	0.00
<b>Drill Company ID:</b>	11110			<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>	8337868			<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>				<b>Drilling Method:</b>	Not Applicable
<b>Existing Well ID:</b>				<b>Drilling Start Dt:</b>	
<b>Date Received:</b>	1983/01/20			<b>Drilling End Dt:</b>	
<b>Type of Work:</b>	Chemistry			<b>Pack Type:</b>	
<b>Plug Date:</b>				<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>				<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>				<b>Pack Units:</b>	
<b>Plugged Units:</b>				<b>Loc Verify Method:</b>	Map
<b>Well Use:</b>	Domestic			<b>Dist Casing Ground:</b>	
<b>Other Well Use:</b>				<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	25.00			<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>				<b>Gas Depth:</b>	
<b>Casing Material:</b>				<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	0.00			<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.000			<b>Recommended Rate:</b>	
<b>Casing Bottom:</b>	0.00			<b>Recom Intake Depth:</b>	
<b>Liner Material:</b>				<b>Pump Installed?:</b>	No
<b>Liner OD:</b>	0.00			<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>	0.000			<b>Pump Model:</b>	
<b>Liner Top:</b>	0.00			<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>	0.00			<b>Well Disinfected?:</b>	No
<b>Perforation by:</b>				<b>Other Log:</b>	
<b>Screen Material:</b>				<b>Divert Water Src:</b>	
<b>Screen Size OD:</b>	0.00			<b>Divert Water Amt:</b>	
<b>Screen Attachment:</b>				<b>Diversion Dt/Time:</b>	
<b>Screen Top Fitting:</b>				<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>				<b>Is Validated?:</b>	Yes
<b>Encounter Saline Water?:</b>	No				
<b>Saline Water Depth:</b>					
<b>Potability Sample Taken?:</b>	No				
<b>Potable Sample Sent to AENV?:</b>	No				

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b>Approval Holder Sign Date:</b>					
<b>Drilling Report Given to Owner:</b> No					
<b>Model Output Rating:</b>					
<b>Remedial Action:</b>					
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>					
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>					
<b><u>Well Owners</u></b>					
<b>Well Owner ID:</b> 10659937					
<b>Owner Name:</b> KAMP KIWANIS					
<b>PO Box:</b> 2					
<b>Address:</b> SITE 1 RR1, CALGARY					
<b>City:</b>					
<b>Postal Code:</b>					
<b>Province:</b>					
<b>Country:</b>					
<b><u>Drillers</u></b>					
<b>Driller ID:</b> 2533726					
<b>Last Name:</b> DRILLER					
<b>Middle Initial:</b> NA					
<b>First Name:</b> UNKNOWN					
<b>Journeyman No:</b> 1					
<b>Is Active?:</b> Yes					
<b><u>Drilling Companies</u></b>					
<b>Starting Well ID:</b> 1973500					
<b>Ending Well ID:</b> 1973599					
<b>Last Well ID Used:</b> 1973599					
<b>Company Name:</b> UNKNOWN DRILLER					
<b>Street Address:</b> UNKNOWN					
<b>City:</b> UNKNOWN					
<b>Province:</b> AB					
<b>Country:</b> CA					
<b>Postal Code:</b>					
<b>E-Mail:</b> gwinfo@gov.ab.ca					
<b>Is Active?:</b> No					
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b> 5561517					
<b>Log Type:</b> Electric					
<b>Log Taken?:</b> No					
<b>Sent to AENV?:</b> No					
<b><u>Geophysical Logs</u></b>					
<b>Geophysical Log ID:</b> 5964592					
<b>Log Type:</b> Gamma					
<b>Log Taken?:</b> No					
<b>Sent to AENV?:</b> No					
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b> 663017					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Diameter:		0			
From:		0			
To:		25			

**30**      1 of 1      SW/192.6      1,221.0 / 5.44      AB      WWIS

<b>Well ID:</b>	12022646	<b>Elevation Source:</b>	Hand held autonomous GPS 20-30m
<b>Driller ID:</b>	24041	<b>Method of Drilling:</b>	
<b>Licence No:</b>		<b>GPS Obtained:</b>	Hand held autonomous GPS 20-30m
<b>GIC Well ID:</b>	1022510	<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>		<b>Distance North:</b>	
<b>Elevation (ft):</b>		<b>Distance South:</b>	
<b>Depth (ft):</b>		<b>Distance East:</b>	
<b>Date Completed:</b>		<b>Distance West:</b>	
<b>Proposed Use:</b>		<b>Additional Desc:</b>	
<b>Lot:</b>		<b>Validated?:</b>	No
<b>Block:</b>		<b>Submitted?:</b>	No
<b>Plan:</b>		<b>Location Locked?:</b>	No
<b>Type of Work:</b>		<b>Longitude:</b>	-114.471822
<b>Flowing Well:</b>		<b>Latitude:</b>	51.046556
<b>Date Started:</b>		<b>LSD:</b>	9
<b>Water Req Per Day:</b>		<b>Section:</b>	15
<b>Gas Present:</b>		<b>Township:</b>	24
<b>Oil Present:</b>		<b>Range:</b>	4
<b>Flow Rate:</b>		<b>Meridian:</b>	5
<b>Drilling Company:</b>		<b>DLS Coordinates:</b>	9-15-24-4-5
<b>Owner Mailing Address:</b>			
<b>Driller Mailing Address:</b>			

**Well Reports**

<b>Well Report ID:</b>	12024213	<b>Annular Seal Mat:</b>	
<b>Well Owner ID:</b>	12024872	<b>Annular Seal from:</b>	
<b>Driller ID:</b>	12000049	<b>Annular Seal to:</b>	
<b>Drill Company ID:</b>	24041	<b>Annular Seal Amt:</b>	
<b>Drill Instance ID:</b>		<b>Annular Seal Units:</b>	
<b>Drill Comp Well ID:</b>		<b>Drilling Method:</b>	Rotary - Air
<b>Existing Well ID:</b>		<b>Drilling Start Dt:</b>	2014/06/09
<b>Date Received:</b>	2015/01/29	<b>Drilling End Dt:</b>	
<b>Type of Work:</b>	New Well - Abandoned	<b>Pack Type:</b>	Natural
<b>Plug Date:</b>	2014/11/26	<b>Pack Grain Size:</b>	
<b>Plug Material Type:</b>	Bentonite Slurry	<b>Pack Amount:</b>	
<b>Plug Mat Amount:</b>	450.00	<b>Pack Units:</b>	
<b>Plugged Units:</b>	Gallons	<b>Loc Verify Method:</b>	
<b>Well Use:</b>	Domestic	<b>Dist Casing Ground:</b>	24.00
<b>Other Well Use:</b>		<b>Artesian Flow?:</b>	No
<b>Total Depth Drill:</b>	500.00	<b>Artesian Flow Rate:</b>	
<b>Finish Well Depth:</b>		<b>Gas Depth:</b>	
<b>Casing Material:</b>	Steel	<b>Encounter Gas?:</b>	No
<b>Casing OD:</b>	6.62	<b>Flow Ctrl Install?:</b>	No
<b>Casing Thickness:</b>	0.250	<b>Recommended Rate:</b>	
<b>Casing Bottom:</b>	38.00	<b>Recom Intake Depth:</b>	
<b>Liner Material:</b>		<b>Pump Installed?:</b>	No
<b>Liner OD:</b>		<b>Pump Install Depth:</b>	
<b>Liner Thickness:</b>		<b>Pump Model:</b>	
<b>Liner Top:</b>		<b>Pump Horsepower:</b>	
<b>Liner Bottom:</b>		<b>Well Disinfected?:</b>	Yes
<b>Perforation by:</b>		<b>Other Log:</b>	
<b>Screen Material:</b>		<b>Divert Water Src:</b>	CITY OF CALGARY
<b>Screen Size OD:</b>		<b>Divert Water Amt:</b>	2000.00
<b>Screen Attachment:</b>		<b>Diversion Dt/Time:</b>	2014/06/06 08:00:00 AM
<b>Screen Top Fitting:</b>		<b>Is Submitted?:</b>	Yes
<b>Screen Bot Fitting:</b>		<b>Is Validated?:</b>	Yes



<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b>Encounter Saline Water?:</b>		No			
<b>Saline Water Depth:</b>					
<b>Potability Sample Taken?:</b>		No			
<b>Potable Sample Sent to AENV?:</b>		No			
<b>Approval Holder Sign Date:</b>		2015/01/29 12:00:00 AM			
<b>Drilling Report Given to Owner:</b>		Yes			
<b>Model Output Rating:</b>					
<b>Remedial Action:</b>					
<b>Flow Control Description:</b>					
<b>Pump Type Installed:</b>					
<b>Created by:</b>					
<b>Submitted by:</b>					
<b>Additional Comments:</b>					

#### Well Owners

**Well Owner ID:** 12024872  
**Owner Name:** HON, DOMINIC  
**PO Box:**  
**Address:** 6005-11 ST SE  
**City:** CALGARY  
**Postal Code:** T2H 2Z3  
**Province:** ALBERTA  
**Country:** CANADA

#### Drillers

**Driller ID:** 12000049  
**Last Name:** SEWELL  
**Middle Initial:**  
**First Name:** BRIAN  
**Journeyman No:** 123691A  
**Is Active?:** Yes

#### Drilling Companies

**Starting Well ID:** 1020000  
**Ending Well ID:** 1024999  
**Last Well ID Used:** 1022979  
**Company Name:** AARON DRILLING INC.  
**Street Address:** 242222 2nd Street East  
**City:** Foothills  
**Province:** ALBERTA  
**Country:** CANADA  
**Postal Code:** T1S 3K9  
**E-Mail:** admin@aarondrilling.com  
**Is Active?:** Yes

#### Boreholes

**Borehole ID:** 821742  
**Diameter:** 7.88  
**From:** 0  
**To:** 38

#### Boreholes

**Borehole ID:** 821743  
**Diameter:** 6.125  
**From:** 38  
**To:** 500

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b><u>Other Seals</u></b>					
<b>Other Seal ID:</b>			19326		
<b>Other Seal Type:</b>			Driven		
<b>From:</b>					
<b>To:</b>					
<b>At:</b>			38		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			236		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Dark Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			454		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Dark Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			476		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Dark Gray		
<b>Description:</b>					
<b>Material:</b>			Shale		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			202		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			456		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			5		
<b>Water Bearing:</b>			No		
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>			Topsoil		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			20		

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Water Bearing:</b>		Yes			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		25			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		26			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Boulders			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		453			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		19			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>		Silty			
<b>Material:</b>		Clay			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		37.5			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Green			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		383			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Dark Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		95			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b><u>Lithologies</u></b>					
<b>Depth:</b>			251		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			35		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Brown		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			44		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>			Hard		
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			46		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Greenish Gray		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			55		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Gray		
<b>Description:</b>			Hard		
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			483		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Salt & Pepper		
<b>Description:</b>					
<b>Material:</b>			Sandstone		
<b><u>Lithologies</u></b>					
<b>Depth:</b>			18.5		
<b>Water Bearing:</b>			No		
<b>Colour:</b>			Light Brown		
<b>Description:</b>					
<b>Material:</b>			Clay		
<b><u>Lithologies</u></b>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>Depth:</b>		72			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Dark Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		191			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Dark Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		403			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		444			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Dark Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		465			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Dark Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		500			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Dark Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			

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<b>Well ID:</b>	12009083	<b>Elevation Source:</b>	Hand held autonomous GPS 20-30m
<b>Driller ID:</b>	24511	<b>Method of Drilling:</b>	
<b>Licence No:</b>		<b>GPS Obtained:</b>	Hand held autonomous GPS 20-30m
<b>GIC Well ID:</b>	1610684	<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>		<b>Distance North:</b>	
<b>Elevation (ft):</b>	3846.46	<b>Distance South:</b>	
<b>Depth (ft):</b>		<b>Distance East:</b>	
<b>Date Completed:</b>		<b>Distance West:</b>	
<b>Proposed Use:</b>		<b>Additional Desc:</b>	PW11-02 / ELBOW SITE, DRLG LOC. # 2
<b>Lot:</b>		<b>Validated?:</b>	No
<b>Block:</b>		<b>Submitted?:</b>	No
<b>Plan:</b>		<b>Location Locked?:</b>	No

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Type of Work:				Longitude:	-114.40262
Flowing Well:				Latitude:	51.04488
Date Started:				LSD:	8
Water Req Per Day:				Section:	18
Gas Present:				Township:	24
Oil Present:				Range:	3
Flow Rate:				Meridian:	5
Drilling Company:				DLS Coordinates:	8-18-24-3-5
Owner Mailing Address:					
Driller Mailing Address:					

### Well Reports

Well Report ID:	12009788	Annular Seal Mat:	Bentonite Slurry
Well Owner ID:	12009936	Annular Seal from:	0.00
Driller ID:	10787012	Annular Seal to:	3.00
Drill Company ID:	24511	Annular Seal Amt:	25.00
Drill Instance ID:		Annular Seal Units:	Pounds
Drill Comp Well ID:		Drilling Method:	Rotary - Air
Existing Well ID:		Drilling Start Dt:	2011/08/19
Date Received:	2012/02/06	Drilling End Dt:	2011/08/19
Type of Work:	New Well	Pack Type:	
Plug Date:		Pack Grain Size:	
Plug Material Type:		Pack Amount:	
Plug Mat Amount:		Pack Units:	
Plugged Units:		Loc Verify Method:	
Well Use:	Municipal	Dist Casing Ground:	24.41
Other Well Use:		Artesian Flow?:	No
Total Depth Drill:	23.00	Artesian Flow Rate:	
Finish Well Depth:	23.00	Gas Depth:	
Casing Material:	Steel	Encounter Gas?:	No
Casing OD:	8.63	Flow Ctrl Install?:	No
Casing Thickness:	0.250	Recommended Rate:	
Casing Bottom:	10.50	Recom Intake Depth:	
Liner Material:	Plastic	Pump Installed?:	No
Liner OD:	6.63	Pump Install Depth:	
Liner Thickness:		Pump Model:	
Liner Top:	10.00	Pump Horsepower:	
Liner Bottom:	23.00	Well Disinfected?:	Yes
Perforation by:	Saw	Other Log:	
Screen Material:		Divert Water Src:	TOWN OF HIGH RIVER
Screen Size OD:		Divert Water Amt:	100.00
Screen Attachment:		Diversion Dt/Time:	2011/08/19 10:00:00 AM
Screen Top Fitting:		Is Submitted?:	Yes
Screen Bot Fitting:		Is Validated?:	Yes
Encounter Saline Water?:	No		
Saline Water Depth:			
Potability Sample Taken?:	Yes		
Potable Sample Sent to AENV?:	No		
Approval Holder Sign Date:	2011/11/12 12:00:00 AM		
Drilling Report Given to Owner:	Yes		
Model Output Rating:			
Remedial Action:			
Flow Control Description:			
Pump Type Installed:			
Created by:			
Submitted by:			
Additional Comments:	PROPOSED WELL USE: MULTI RES. SUBDIVISION, ANNULAR SEAL: BENSEAL, YIELD TESTS: #1 2011/08/22 WITH PUMP @ 120 GPM FOR 111 MINUTES, #2 2011/08/29 TO 2011/09/03 WITH PUMP @ 194 IGPM,		

### Well Owners

Well Owner ID: 12009936

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b>Owner Name:</b>		WESTERN SECURITIES			
<b>PO Box:</b>					
<b>Address:</b>		900, 600 - 6 AVENUE SW			
<b>City:</b>		CALGARY			
<b>Postal Code:</b>		T2P 0S5			
<b>Province:</b>		ALBERTA			
<b>Country:</b>		CANADA			
<b><u>Drillers</u></b>					
<b>Driller ID:</b>		10787012			
<b>Last Name:</b>		NIEMANS			
<b>Middle Initial:</b>					
<b>First Name:</b>		DOUG			
<b>Journeyman No:</b>		70092A			
<b>Is Active?:</b>		Yes			
<b><u>Drilling Companies</u></b>					
<b>Starting Well ID:</b>		1610000			
<b>Ending Well ID:</b>		1614999			
<b>Last Well ID Used:</b>		1611003			
<b>Company Name:</b>		PETER NIEMANS WATER WELL DRILLING			
<b>Street Address:</b>		BOX 5024			
<b>City:</b>		HIGH RIVER			
<b>Province:</b>		AB			
<b>Country:</b>		CA			
<b>Postal Code:</b>		T1V 1M3			
<b>E-Mail:</b>		doug@pnwwd.com			
<b>Is Active?:</b>		Yes			
<b><u>Perforations</u></b>					
<b>Perforation ID:</b>		4273518			
<b>From:</b>		12			
<b>To:</b>		22			
<b>Diameter:</b>		0.125			
<b>Interval:</b>		7			
<b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		806405			
<b>Diameter:</b>		7.875			
<b>From:</b>		0			
<b>To:</b>		23			
<b><u>Other Seals</u></b>					
<b>Other Seal ID:</b>		11148			
<b>Other Seal Type:</b>		Drive Shoe			
<b>From:</b>					
<b>To:</b>					
<b>At:</b>		10.5			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		14.5			
<b>Water Bearing:</b>		Yes			
<b>Colour:</b>					
<b>Description:</b>		Coarse Grained			
<b>Material:</b>		Gravel			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b><u>Lithologies</u></b>					
<b>Depth:</b>		23			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		0.5			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Topsoil			
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>		16007734			
<b>Test Date:</b>		2011/08/29			
<b>Start Time:</b>		02:00 PM			
<b>Taken from Top of Casing:</b>		Yes			
<b>Static Water Level:</b>		8.49			
<b>End Water Level:</b>					
<b>Water Removal Type:</b>		Pump			
<b>Water Removal Rate:</b>		194			
<b>Removal Depth from:</b>					
<b>Reason for Short Test:</b>		SEE FILE FOR ADDITIONAL READINGS			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12129151			
<b>Minutes:</b>		25			
<b>Pumping Depth:</b>		11.975065			
<b>Recovery Depth:</b>		8.300524			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12129156			
<b>Minutes:</b>		840			
<b>Pumping Depth:</b>		12.171916			
<b>Recovery Depth:</b>		8.366141			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12129141			
<b>Minutes:</b>		3			
<b>Pumping Depth:</b>		11.909448			
<b>Recovery Depth:</b>		8.727034			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12129143			
<b>Minutes:</b>		5			
<b>Pumping Depth:</b>		11.942257			
<b>Recovery Depth:</b>		8.628608			
<b><u>Pump Test Items</u></b>					



<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Pump Test Item ID:</b>		12129145			
<b>Minutes:</b>		7			
<b>Pumping Depth:</b>		11.87664			
<b>Recovery Depth:</b>		8.530183			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12129147			
<b>Minutes:</b>		9			
<b>Pumping Depth:</b>		11.843832			
<b>Recovery Depth:</b>		8.497375			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12129157			
<b>Minutes:</b>		6480			
<b>Pumping Depth:</b>		12.139107			
<b>Recovery Depth:</b>					
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12129144			
<b>Minutes:</b>		6			
<b>Pumping Depth:</b>		11.942257			
<b>Recovery Depth:</b>		8.562992			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12129146			
<b>Minutes:</b>		8			
<b>Pumping Depth:</b>		11.87664			
<b>Recovery Depth:</b>		8.530183			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12129155			
<b>Minutes:</b>		720			
<b>Pumping Depth:</b>		12.171916			
<b>Recovery Depth:</b>		8.333333			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12129139			
<b>Minutes:</b>		1			
<b>Pumping Depth:</b>		11.646981			
<b>Recovery Depth:</b>		8.923884			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12129148			
<b>Minutes:</b>		10			
<b>Pumping Depth:</b>		11.843832			
<b>Recovery Depth:</b>		8.464566			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12129150			
<b>Minutes:</b>		20			

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Pumping Depth:</b>		11.975065			
<b>Recovery Depth:</b>		8.333333			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12129152			
<b>Minutes:</b>		30			
<b>Pumping Depth:</b>		12.007874			
<b>Recovery Depth:</b>		8.300524			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12129154			
<b>Minutes:</b>		100			
<b>Pumping Depth:</b>		12.106299			
<b>Recovery Depth:</b>		8.234908			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12129140			
<b>Minutes:</b>		2			
<b>Pumping Depth:</b>		11.745406			
<b>Recovery Depth:</b>		8.79265			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12129142			
<b>Minutes:</b>		4			
<b>Pumping Depth:</b>		11.909448			
<b>Recovery Depth:</b>		8.661417			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12129138			
<b>Minutes:</b>		0			
<b>Pumping Depth:</b>		8.497375			
<b>Recovery Depth:</b>		12.139107			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12129149			
<b>Minutes:</b>		15			
<b>Pumping Depth:</b>		11.909448			
<b>Recovery Depth:</b>		8.39895			
<b><u>Pump Test Items</u></b>					
<b>Pump Test Item ID:</b>		12129153			
<b>Minutes:</b>		65			
<b>Pumping Depth:</b>		12.007874			
<b>Recovery Depth:</b>		8.234908			

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**E/238.2**

**1,168.0 / -47.61**

**AB**

**WWIS**

**Well ID:** 388866  
**Driller ID:** 24084  
**Licence No:**  
**GIC Well ID:** 388866

**Elevation Source:** Not Obtained  
**Method of Drilling:**  
**GPS Obtained:** Map  
**Boundary From:**

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b>GOA Well Tag No:</b> <b>Elevation (ft):</b> <b>Depth (ft):</b> <b>Date Completed:</b> <b>Proposed Use:</b> <b>Lot:</b> <b>Block:</b> <b>Plan:</b> <b>Type of Work:</b> <b>Flowing Well:</b> <b>Date Started:</b> <b>Water Req Per Day:</b> <b>Gas Present:</b> <b>Oil Present:</b> <b>Flow Rate:</b> <b>Drilling Company:</b> <b>Owner Mailing Address:</b> <b>Driller Mailing Address:</b>				<b>Distance North:</b> <b>Distance South:</b> <b>Distance East:</b> <b>Distance West:</b> <b>Additional Desc:</b> <b>Validated?:</b> Yes <b>Submitted?:</b> Yes <b>Location Locked?:</b> Yes <b>Longitude:</b> -114.390945 <b>Latitude:</b> 51.04876 <b>LSD:</b> NW <b>Section:</b> 17 <b>Township:</b> 24 <b>Range:</b> 3 <b>Meridian:</b> 5 <b>DLS Coordinates:</b> NW-17-24-3-5	
<b><u>Well Reports</u></b>					
<b>Well Report ID:</b> 388866 <b>Well Owner ID:</b> 10661227 <b>Driller ID:</b> 2533726 <b>Drill Company ID:</b> 24084 <b>Drill Instance ID:</b> 8337970 <b>Drill Comp Well ID:</b> <b>Existing Well ID:</b> <b>Date Received:</b> 1982/06/16 <b>Type of Work:</b> New Well <b>Plug Date:</b> <b>Plug Material Type:</b> <b>Plug Mat Amount:</b> <b>Plugged Units:</b> <b>Well Use:</b> Domestic <b>Other Well Use:</b> <b>Total Depth Drill:</b> 140.00 <b>Finish Well Depth:</b> <b>Casing Material:</b> Steel <b>Casing OD:</b> 6.63 <b>Casing Thickness:</b> 0.188 <b>Casing Bottom:</b> 40.00 <b>Liner Material:</b> Steel <b>Liner OD:</b> 5.00 <b>Liner Thickness:</b> 0.156 <b>Liner Top:</b> 0.00 <b>Liner Bottom:</b> 140.00 <b>Perforation by:</b> Torch <b>Screen Material:</b> <b>Screen Size OD:</b> 0.00 <b>Screen Attachment:</b> <b>Screen Top Fitting:</b> <b>Screen Bot Fitting:</b> <b>Encounter Saline Water?:</b> No <b>Saline Water Depth:</b> <b>Potability Sample Taken?:</b> No <b>Potable Sample Sent to AENV?:</b> No <b>Approval Holder Sign Date:</b> <b>Drilling Report Given to Owner:</b> No <b>Model Output Rating:</b> <b>Remedial Action:</b> <b>Flow Control Description:</b> <b>Pump Type Installed:</b> <b>Created by:</b> <b>Submitted by:</b>				<b>Annular Seal Mat:</b> Driven <b>Annular Seal from:</b> 0.00 <b>Annular Seal to:</b> 40.00 <b>Annular Seal Amt:</b> <b>Annular Seal Units:</b> <b>Drilling Method:</b> Cable Tool <b>Drilling Start Dt:</b> <b>Drilling End Dt:</b> 1981/11/25 <b>Pack Type:</b> <b>Pack Grain Size:</b> <b>Pack Amount:</b> <b>Pack Units:</b> <b>Loc Verify Method:</b> Map <b>Dist Casing Ground:</b> <b>Artesian Flow?:</b> No <b>Artesian Flow Rate:</b> <b>Gas Depth:</b> <b>Encounter Gas?:</b> No <b>Flow Ctrl Install?:</b> No <b>Recommended Rate:</b> 0.00 <b>Recom Intake Depth:</b> 135.00 <b>Pump Installed?:</b> No <b>Pump Install Depth:</b> <b>Pump Model:</b> <b>Pump Horsepower:</b> <b>Well Disinfected?:</b> No <b>Other Log:</b> <b>Divert Water Src:</b> <b>Divert Water Amt:</b> <b>Diversion Dt/Time:</b> <b>Is Submitted?:</b> Yes <b>Is Validated?:</b> Yes	

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
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*Additional Comments:*

**Well Owners**

**Well Owner ID:** 10661227  
**Owner Name:** ROBUNSON, JOHN  
**PO Box:**  
**Address:** RR2, CALGARY  
**City:**  
**Postal Code:**  
**Province:**  
**Country:**

**Drillers**

**Driller ID:** 2533726  
**Last Name:** DRILLER  
**Middle Initial:** NA  
**First Name:** UNKNOWN  
**Journeyman No:** 1  
**Is Active?:** Yes

**Drilling Companies**

**Starting Well ID:** 1893200  
**Ending Well ID:** 1893299  
**Last Well ID Used:** 1893200  
**Company Name:** INTERPROVINCIAL DRILLING CONTRACTORS  
**Street Address:** SUB PO 36  
**City:** CALGARY  
**Province:** AB  
**Country:** CA  
**Postal Code:**  
**E-Mail:** GWINFO@GOV.AB.CA  
**Is Active?:** No

**Perforations**

**Perforation ID:** 4196352  
**From:** 120  
**To:** 136  
**Diameter:** 0.125  
**Interval:** 12

**Geophysical Logs**

**Geophysical Log ID:** 5938187  
**Log Type:** Gamma  
**Log Taken?:** No  
**Sent to AENV?:** No

**Geophysical Logs**

**Geophysical Log ID:** 5535112  
**Log Type:** Electric  
**Log Taken?:** No  
**Sent to AENV?:** No

**Boreholes**

<b>Map Key</b>	<b>Number of Records</b>	<b>Direction/ Distance (m)</b>	<b>Elev/Diff (m)</b>	<b>Site</b>	<b>DB</b>
<b>Borehole ID:</b>		636675			
<b>Diameter:</b>		0			
<b>From:</b>		0			
<b>To:</b>		140			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		58			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		2			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Topsoil			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		140			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		92			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		10			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>					
<b>Material:</b>		Clay			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		37			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Brown			
<b>Description:</b>		Soft			
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		108			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>					
<b>Material:</b>		Shale			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<b><u>Lithologies</u></b>					
<b>Depth:</b>		16			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>		Fractured			
<b>Material:</b>		Sandstone			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		79			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>		Sandy			
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		124			
<b>Water Bearing:</b>		No			
<b>Colour:</b>		Gray			
<b>Description:</b>		Sandy			
<b>Material:</b>		Shale			
<b><u>Lithologies</u></b>					
<b>Depth:</b>		132			
<b>Water Bearing:</b>		Yes			
<b>Colour:</b>					
<b>Description:</b>		Water Bearing			
<b>Material:</b>		Sandstone			
<b><u>Pump Tests</u></b>					
<b>Pump Test ID:</b>		10332931			
<b>Test Date:</b>		1981/11/25			
<b>Start Time:</b>		12:00 AM			
<b>Taken from Top of Casing:</b>		No			
<b>Static Water Level:</b>		75			
<b>End Water Level:</b>		85			
<b>Water Removal Type:</b>		Bailer			
<b>Water Removal Rate:</b>		12			
<b>Removal Depth from:</b>		85			
<b>Reason for Short Test:</b>					
<b>33</b>	<b>1 of 1</b>	<b>ESE/242.4</b>	<b>1,172.0 / -43.61</b>	<b>AB</b>	<b>WWIS</b>
<b>Well ID:</b>	12009086			<b>Elevation Source:</b>	Hand held autonomous GPS 20-30m
<b>Driller ID:</b>	24511			<b>Method of Drilling:</b>	
<b>Licence No:</b>				<b>GPS Obtained:</b>	Hand held autonomous GPS 20-30m
<b>GIC Well ID:</b>	1610687			<b>Boundary From:</b>	
<b>GOA Well Tag No:</b>				<b>Distance North:</b>	
<b>Elevation (ft):</b>	3844.16			<b>Distance South:</b>	
<b>Depth (ft):</b>				<b>Distance East:</b>	
<b>Date Completed:</b>				<b>Distance West:</b>	
<b>Proposed Use:</b>				<b>Additional Desc:</b>	OW11-02 / ELBOW SITE, DRLG LOC. # 5
<b>Lot:</b>				<b>Validated?:</b>	No
<b>Block:</b>				<b>Submitted?:</b>	No
<b>Plan:</b>				<b>Location Locked?:</b>	No

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Type of Work:				Longitude:	-114.40307
Flowing Well:				Latitude:	51.04471
Date Started:				LSD:	7
Water Req Per Day:				Section:	18
Gas Present:				Township:	24
Oil Present:				Range:	3
Flow Rate:				Meridian:	5
Drilling Company:				DLS Coordinates:	7-18-24-3-5
Owner Mailing Address:					
Driller Mailing Address:					

### Well Reports

Well Report ID:	12009791	Annular Seal Mat:	Bentonite Slurry
Well Owner ID:	12009939	Annular Seal from:	0.00
Driller ID:	10787012	Annular Seal to:	3.00
Drill Company ID:	24511	Annular Seal Amt:	25.00
Drill Instance ID:		Annular Seal Units:	Pounds
Drill Comp Well ID:		Drilling Method:	Rotary - Air
Existing Well ID:		Drilling Start Dt:	2011/08/23
Date Received:	2012/02/06	Drilling End Dt:	2011/08/23
Type of Work:	New Well	Pack Type:	
Plug Date:		Pack Grain Size:	
Plug Material Type:		Pack Amount:	
Plug Mat Amount:		Pack Units:	
Plugged Units:		Loc Verify Method:	
Well Use:	Observation	Dist Casing Ground:	18.00
Other Well Use:		Artesian Flow?:	No
Total Depth Drill:	20.00	Artesian Flow Rate:	
Finish Well Depth:	18.50	Gas Depth:	
Casing Material:		Encounter Gas?:	No
Casing OD:		Flow Ctrl Install?:	No
Casing Thickness:		Recommended Rate:	
Casing Bottom:		Recom Intake Depth:	
Liner Material:	Plastic	Pump Installed?:	No
Liner OD:	4.50	Pump Install Depth:	
Liner Thickness:	0.237	Pump Model:	
Liner Top:	-1.50	Pump Horsepower:	
Liner Bottom:	18.50	Well Disinfected?:	Yes
Perforation by:	Saw	Other Log:	
Screen Material:		Divert Water Src:	TOWN OF HIGH RIVER
Screen Size OD:		Divert Water Amt:	100.00
Screen Attachment:		Diversion Dt/Time:	2011/08/19 10:00:00 AM
Screen Top Fitting:		Is Submitted?:	Yes
Screen Bot Fitting:		Is Validated?:	Yes
Encounter Saline Water?:	No		
Saline Water Depth:			
Potability Sample Taken?:	No		
Potable Sample Sent to AENV?:	No		
Approval Holder Sign Date:	2011/11/15 12:00:00 AM		
Drilling Report Given to Owner:	Yes		
Model Output Rating:			
Remedial Action:			
Flow Control Description:			
Pump Type Installed:			
Created by:			
Submitted by:			
Additional Comments:	PROPOSED WELL USE: MULTI RES. SUBDIVISION, DRILLED & SET 6.625" STEEL CASING TO 20', INSTALLED 4.5" PVC CASING, REMOVED THE STEEL CASING		

### Well Owners

Well Owner ID:	12009939
Owner Name:	WESTERN SECURITIES

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<b>PO Box:</b>					
<b>Address:</b>		900, 600 - 6 AVENUE SW			
<b>City:</b>		CALGARY			
<b>Postal Code:</b>		T2P 0S5			
<b>Province:</b>		ALBERTA			
<b>Country:</b>		CANADA			
 <b><u>Drillers</u></b>					
<b>Driller ID:</b>		10787012			
<b>Last Name:</b>		NIEMANS			
<b>Middle Initial:</b>					
<b>First Name:</b>		DOUG			
<b>Journeyman No:</b>		70092A			
<b>Is Active?:</b>		Yes			
 <b><u>Drilling Companies</u></b>					
<b>Starting Well ID:</b>		1610000			
<b>Ending Well ID:</b>		1614999			
<b>Last Well ID Used:</b>		1611003			
<b>Company Name:</b>		PETER NIEMANS WATER WELL DRILLING			
<b>Street Address:</b>		BOX 5024			
<b>City:</b>		HIGH RIVER			
<b>Province:</b>		AB			
<b>Country:</b>		CA			
<b>Postal Code:</b>		T1V 1M3			
<b>E-Mail:</b>		doug@pnwwd.com			
<b>Is Active?:</b>		Yes			
 <b><u>Perforations</u></b>					
<b>Perforation ID:</b>		4273521			
<b>From:</b>		5			
<b>To:</b>		17			
<b>Diameter:</b>		0.125			
<b>Interval:</b>		7			
 <b><u>Boreholes</u></b>					
<b>Borehole ID:</b>		806407			
<b>Diameter:</b>		6.125			
<b>From:</b>		0			
<b>To:</b>		20			
 <b><u>Lithologies</u></b>					
<b>Depth:</b>		15			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Gravel			
 <b><u>Lithologies</u></b>					
<b>Depth:</b>		0.5			
<b>Water Bearing:</b>		No			
<b>Colour:</b>					
<b>Description:</b>					
<b>Material:</b>		Topsoil			



<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
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**Lithologies**

**Depth:** 1.5  
**Water Bearing:** No  
**Colour:** Brown  
**Description:**  
**Material:** Clay & Silt

**Lithologies**

**Depth:** 20  
**Water Bearing:** No  
**Colour:** Gray  
**Description:**  
**Material:** Shale

# Unplottable Summary

Total: 0 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
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# Unplottable Report

No unplottable records were found that may be relevant for the search criteria.

# Appendix: Database Descriptions

*Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. **Note:** Databases denoted with " \* " indicates that the database will no longer be updated. See the individual database description for more information.*

## **Well Licenses:**

Provincial [AER OGW](#)

Locations of Well Licenses made available by the Alberta Energy Regulator (AER) as ST37. Includes Active, Suspended, Abandoned, Drilled and Cased Oil, Gas, Crude Bitumen well licenses, as well as Observation, Injection, Disposal, and Undefined well licences.

**Government Publication Date: Feb 28, 2018**

## **Agriculture and Fisheries - Certificates of Approval:**

Provincial [AGR](#)

This database contains approvals for processes pertaining to drying of alfalfa/forage/peat, feedlots, fish farms and feed/seed mills. Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

**Government Publication Date: 1993-2012**

## **Alberta Oil and Gas Wells:**

Provincial [AOGW](#)

The Alberta Energy Utilities Board - now the Alberta Energy Regulator (AER) - maintained a database of oil and gas wells drilled in the province of Alberta. The database contains information on well name, licensee name, license number, location, status, total well depth and date of final drilling. Please note that this database will not be updated, information on wells drilled after September 2003 can be found in the Oil and Gas Wells (OGW) database under the 'Private Source Database' section.

**Government Publication Date: 1883-Sept 2003\***

## **Automobile Wrecking & Supplies:**

Private [AUWR](#)

This database provides an inventory of known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts & supplies industry. Information is provided on the company name, location and business type.

**Government Publication Date: 1999-Jul 31, 2018**

## **Waste Management Facilities - Certificates of Approval:**

Provincial [CAWD](#)

This database contains approvals for processes pertaining to waste management facilities (hazardous waste manifesting, waste disposal/incineration/open burning/processing/storage/treatment). Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

**Government Publication Date: 1993 - Jan 2018**

## **Confined Feeding Operations:**

Provincial [CFO](#)

In 1991, the Natural Resources Conservation Board (NRCB) was created to review applications for approval of major natural resource development projects in Alberta. In January 2002, the NRCB was given the responsibility to regulate the Confined Feeding Operation industry. The Agricultural Operation Practices Act defines a confined feeding operation to be: "an activity on land that is fenced or enclosed or within buildings where livestock are confined for the purpose of growing, sustaining, finishing or breeding by means other than grazing, but does not include seasonal feeding and bedding sites." Under the AOPA regulations, all new or expanding confined feeding operations (CFOs) or manure storage facilities are required to make an application for Approval, Registration or Authorization to the NRCB before construction or expansion commences. Geographic coordinates were provided in DLS (Dominion Land Survey) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the Quarter section only.

**Government Publication Date: 2002-May 2018**

## **Chemical Processing Operations - Certificates of Approval:**

Provincial [CHEM](#)

This database contains approvals for processes pertaining to the manufacturing and use of chemical products and pesticides. Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

**Government Publication Date: 1993-2012**

**Compressed Natural Gas Stations:**

Private

CNG

Canada has a network of public access compressed natural gas (CNG) refuelling stations. These stations dispense natural gas in compressed form at 3,000 pounds per square inch (psi), the pressure which is allowed within the current Canadian codes and standards. The majority of natural gas refuelling is located at existing retail gasoline that have a separate refuelling island for natural gas. This list of stations is made available by the Canadian Natural Gas Vehicle Alliance.

**Government Publication Date: Dec 2012 - Jul 2018**

**Compliance and Convictions:**

Provincial

CONV

This database summarizes the penalties and convictions handed down by the Alberta courts. This database identifies companies and/or individuals that have been found guilty of environmental offenses under Alberta's Environmental Protection Legislation. Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Unfortunately, from state of the data, the location that the address pertains to cannot be confirmed.

**Government Publication Date: 1993-Mar 2018**

**Dry Cleaning Facilities:**

Federal

DRYCLEANERS

List of dry cleaning facilities made available by Environment and Climate Change Canada. Environment and Climate Change Canada's Tetrachloroethylene (Use in Dry Cleaning and Reporting Requirements) Regulations (SOR/2003-79) are intended to reduce releases of tetrachloroethylene to the environment from dry cleaning facilities.

**Government Publication Date: Jan 2004-Dec 2016**

**Enforcement Action Summary:**

Provincial

EAS

This database maintained by the Alberta Energy Regulator (AER) - formerly the Energy Resources Conservation Board (ERCB) - summarizes high risk enforcement action 1, high risk enforcement action 2 (persistent noncompliance), high risk enforcement action 3 (failure to comply or demonstrated disregard), low risk enforcement action - global REFER and legislative/regulatory enforcement action. Fields will include licensee/company name, non-compliance event, date of enforcement, location, etc.

**Government Publication Date: 2007-May 2018**

**Environmental Effects Monitoring:**

Federal

EEM

The Environmental Effects Monitoring program assesses the effects of effluent from industrial or other sources on fish, fish habitat and human usage of fisheries resources. Since 1992, pulp and paper mills have been required to conduct EEM studies under the Pulp and Paper Effluent Regulations. This database provides information on the mill name, geographical location and sub-lethal toxicity data.

**Government Publication Date: 1992-2007\***

**ERIS Historical Searches:**

Private

EHS

ERIS has compiled a database of all environmental risk reports completed since March 1999. Available fields for this database include: site location, date of report, type of report, and search radius. As per all other databases, the ERIS database can be referenced on both the map and "Statistical Profile" page.

**Government Publication Date: 1999-Feb 28, 2018**

**Environmental Issues Inventory System:**

Federal

EIIS

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed.

**Government Publication Date: 1992-2001\***

**Alberta Environment & Parks Storage Tanks:**

Provincial

EPST

List of storage tanks under the purview of Alberta Environment and Parks.

**Government Publication Date: Jul 31, 2016**

**Environmental Site Assessment Repository:**

Provincial

ESAR

Environmental site assessments determine the quality of soil and groundwater of a site, particularly at retail gas stations and other commercial and industrial sites. A site assessment does not necessarily mean a site is, or ever was, contaminated. Alberta's Environmental Site Assessment Repository (ESAR) is an online, searchable database that provides scientific and technical information about assessed and/or reclaimed sites throughout Alberta. Search Alberta's ESAR using meridian, range, township, and section values at <http://www.esar.alberta.ca/esarmain.aspx> to gain access to reclamation certificates and/or associated files (applications, reports).

**Government Publication Date: 1960-Jun 2018**

**Facility List:**Provincial **FAC**

This database contains a complete list of new, active and suspended facilities in Alberta including batteries, gas plants, meter stations, and other facilities. Information provided includes: facility id, facility name, operator name, sub type description, location, facility license no, and operational status; now includes EDCT (Energy Development Category Type) type and description. Made available by the Alberta Energy Regulator (AER) - formerly the Energy Resources Conservation Board (ERCB).

**Government Publication Date: Up to Jun 31, 2018**

**Federal Convictions:**Federal **FCON**

Environment Canada maintains a database referred to as the "Environmental Registry" that details prosecutions under the Canadian Environmental Protection Act (CEPA) and the Fisheries Act (FA). Information is provided on the company name, location, charge date, offence and penalty.

**Government Publication Date: 1988-Jun 2007\***

**Contaminated Sites on Federal Land:**Federal **FCS**

The Federal Contaminated Sites Inventory includes information on known federal contaminated sites under the custodianship of departments, agencies and consolidated Crown corporations as well as those that are being or have been investigated to determine whether they have contamination arising from past use that could pose a risk to human health or the environment. The inventory also includes non-federal contaminated sites for which the Government of Canada has accepted some or all financial responsibility. It does not include sites where contamination has been caused by, and which are under the control of, enterprise Crown corporations, private individuals, firms or other levels of government.

**Government Publication Date: Jun 2000-May 2018**

**Field Inspection Incident Report:**Provincial **FIS**

Received from the Alberta Energy Regulator (AER) - formerly the ERCB (Energy Resources Conservation Board) and EUB (Energy Utilities Board) - this database, which used to be called EISL (Environmental Information System Listing), contains reported environmental incidents beginning in 1975. Descriptions include noise infractions, air quality emissions, oil spills and failures for pipelines, wells, plants, and batteries. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

**Government Publication Date: 1975-Jul 2018**

**Food Processing Operations - Certificates of Approval:**Provincial **FOOD**

This database contains approvals for processes pertaining to the manufacturing of food products. Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

**Government Publication Date: 1993-2012**

**PTMAA Fuel Storage Tanks:**Provincial **FST**

List of active tank sites, sites with tanks temporarily out of service, and sites at which tanks have been removed from the ground. Information in this database was collected according to Alberta Regulation AR 291/95 Storage Tank System Management and to AR 52/98 Fire Code which was formerly the Alberta Fire Code Regulation, 1992 (AR 204/92). This information was received from the Petroleum Tank Management Association of Alberta (PTMAA) which has regulated Storage Tanks since 1994.

**Government Publication Date: 1985-Jun 2018**

**Waste Generators Summary:**Provincial **GEN**

Under Alberta's Waste Control Regulation, Alta. Reg. 192/96, a generator is a person who consigns hazardous waste for storage, transport, treatment or disposal. As of 2007, Alberta Environment no longer provides detailed information on each waste generator, such as approval number, class, and class description.

**Government Publication Date: 1993-Apr 2017**

**Greenhouse Gas Emissions from Large Facilities:**Federal **GHG**

List of greenhouse gas emissions from large facilities made available by Environment Canada. Greenhouse gas emissions in kilotonnes of carbon dioxide equivalents (kt CO<sub>2</sub> eq).

**Government Publication Date: 2013-Dec 2016**

**Gas Processing Plants:**Provincial **GPP**

The Alberta Energy Regulator (AER) - formerly the ERCB (Energy Resources Conservation Board) - has an inventory of all Gas Processing Plants in Alberta, with information such as location, names of plant, facility type, operator name, facility license, design capacities, etc.

**Government Publication Date: Oct 2016-May 31, 2018**

**Alberta Environment's H.E.L.P. (Help End Landfill Pollution) Program Database:**

Provincial

[HELP](#)

The H.E.L.P. Data Tracking and Management Control System was created to provide tracking and management capabilities of industrial landfills in Alberta for the Department of Environment. Detailed information including company name, location, type of landfill, priority, score, status, use and much more is included in this database.

**Government Publication Date: June 1988\***

**Horizontal Wells:**

Provincial

[HORW](#)

Defined as drilling directionally at a wellbore inclination angle exceeding 85 degrees, horizontal drilling can help increase resource recovery while minimizing surface impact. Recent improvements in the technology have made it possible to combine horizontal drilling with hydraulic fracturing to help coax oil and natural gas out of tight rock. Today, more than half of western Canada's wells are being drilled horizontally. Data includes: well locations (LE,LS,SE,TWP,RG,M,E), licence numbers, well names, Business Associate (BA) codes, licensee abbreviations, spud dates, final drilling dates, total depth, true vertical depth, and last updated dates. Made available by the Alberta Energy Regulator (AER) - formerly the Energy Resources Conservation Board (ERCB).

**Government Publication Date: Mar 2015-Dec 31, 2017**

**Indian & Northern Affairs Fuel Tanks:**

Federal

[IAFT](#)

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of aboveground & underground fuel storage tanks located on both federal and crown land. Our inventory provides information on the reserve name, location, facility type, site/facility name, tank type, material & ID number, tank contents & capacity, and date of tank installation.

**Government Publication Date: 1950-Aug 2003\***

**Identification and Verification of Active and Inactive Land Disposal Sites:**

Provincial

[LDS](#)

In late 1981, Environment Canada and Alberta Environment initiated a project to identify and verify land disposal sites in the province of Alberta. A point scoring system was used to classify the sites into potential priority 1, priority 2 or priority 3 groups on the basis of the type of waste received at the sites and the site environment. Sites that, according to available information, may pose a hazard to public health and safety or the environment are classified as potential priority 1 sites.

**Government Publication Date: Oct 1982\***

**Land Disposal Sites on Indian Reserves:**

Provincial

[LDSI](#)

In late 1981, Environment Canada and Alberta Environment initiated a project to identify and verify land disposal sites in the province of Alberta. This database specifically identifies land disposal sites on Indian Reserves. Information on each site is limited to: location, band, size and general comments.

**Government Publication Date: Oct 1982\***

**Lumber Related Operations - Certificates of Approval:**

Provincial

[LUM](#)

This database contains approvals for processes pertaining to the manufacturing of wood products, pulp and paper including the associated water treatment processes. Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

**Government Publication Date: 1993-2012**

**Canadian Mine Locations:**

Private

[MINE](#)

This information is collected from the Canadian & American Mines Handbook. The Mines database is a national database that provides over 290 listings on mines (listed as public companies) dealing primarily with precious metals and hard rocks. Listed are mines that are currently in operation, closed, suspended, or are still being developed (advanced projects). Their locations are provided as geographic coordinates (x, y and/or longitude, latitude). As of 2002, data pertaining to Canadian smelters and refineries has been appended to this database.

**Government Publication Date: 1998-2009\***

**Metals, Minerals and Building Materials Operations - Certificates of Approval:**

Provincial

[MMB](#)

This database contains approvals for processes pertaining to the manufacturing of building materials, metals, and mineral products. Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

**Government Publication Date: 1993-2012**

**Mineral Occurrences:**

Provincial

[MNR](#)

The AMDO (Alberta Mineral Deposits and Occurrences) application was created by the Minerals and Coal Geoscience Section of the Alberta Geological Survey as a database for mineral deposits in Alberta in the early 1990s. This is a one time inventory and will not be updated.

**Government Publication Date: 1993-2003\***

**National Analysis of Trends in Emergencies System (NATES):**

Federal

[NATE](#)

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of significant spill incidents. The data was to be used to assist in directing the work of the emergencies program. NATES ran from 1974 to 1994. Extensive information is available within this database including company names, place where the spill occurred, date of spill, cause, reason and source of spill, damage incurred, and amount, concentration, and volume of materials released.

**Government Publication Date: 1974-1994\***

**PTMAA Non-Compliant Storage Tanks:**

Provincial

[NCST](#)

The Alberta Fire Code requires that storage tanks be registered. Tanks may not be registered because they do not meet minimum equipment standards or the owners have not made the annual registration application or paid the necessary registration fees. Some tank owners have installed tanks without a permit. This source contains information on facilities which have tanks that have ceased to be registered or have never been registered. It is maintained and updated by the Petroleum Tank Management Association of Alberta (PTMAA).

**Government Publication Date: Sep 2016-Jul 31, 2018**

**National Defense & Canadian Forces Fuel Tanks:**

Federal

[NDFT](#)

The Department of National Defense and the Canadian Forces maintains an inventory of all aboveground & underground fuel storage tanks located on DND lands. Our inventory provides information on the base name, location, tank type & capacity, tank contents, tank class, date of tank installation, date tank last used, and status of tank as of May 2001. This database will no longer be updated due to the new National Security protocols which have prohibited any release of this database.

**Government Publication Date: Up to May 2001\***

**National Defense & Canadian Forces Spills:**

Federal

[NDSP](#)

The Department of National Defense and the Canadian Forces maintains an inventory of spills to land and water. All spill sites have been classified under the "Transportation of Dangerous Goods Act - 1992". Our inventory provides information on the facility name, location, spill ID #, spill date, type of spill, as well as the quantity of substance spilled & recovered.

**Government Publication Date: Mar 1999-Apr 2018**

**National Defence & Canadian Forces Waste Disposal Sites:**

Federal

[NDWD](#)

The Department of National Defence and the Canadian Forces maintains an inventory of waste disposal sites located on DND lands. Where available, our inventory provides information on the base name, location, type of waste received, area of site, depth of site, year site opened/closed and status.

**Government Publication Date: 2001-Apr 2007\***

**National Energy Board Pipeline Incidents:**

Federal

[NEBI](#)

Locations of pipeline incidents from 2008 to present, made available by the National Energy Board (NEB). Includes incidents reported under the Onshore Pipeline Regulations and the Processing Plant Regulations related to pipelines under federal jurisdiction, does not include incident data related to pipelines under provincial or territorial jurisdiction.

**Government Publication Date: 2008-Mar 31, 2018**

**National Energy Board Wells:**

Federal

[NEBW](#)

The NEBW database contains information on onshore & offshore oil and gas wells that are outside provincial jurisdiction(s) and are thereby regulated by the National Energy Board. Data is provided regarding the operator, well name, well ID No./UWI, status, classification, well depth, spud and release date.

**Government Publication Date: 1920-Feb 2003\***

**National Environmental Emergencies System (NEES):**

Federal

[NEES](#)

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for previous Environment Canada spill datasets. NEES is composed of the historic datasets ' or Trends ' which dates from approximately 1974 to present. NEES Trends is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

**Government Publication Date: 1974-2003\***



**National PCB Inventory:**

Federal

[NPCB](#)

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. Federal out-of-service PCB containing equipment and PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites. Some addresses provided may be Head Office addresses and are not necessarily the location of where the waste is being used or stored.

**Government Publication Date: 1988-2008\***

**National Pollutant Release Inventory:**

Federal

[NPRI](#)

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances.

**Government Publication Date: 1993-May 2017**

**Operating and Abandoned Mines:**

Provincial

[OAM](#)

This data is based on the 2001 edition (revised in 2003), published by the Alberta Energy and Utilities Board (EUB) now the Alberta Energy Regulator (AER). It was a one time inventory of Operating and Abandoned Coal Mines in Alberta. In 1905, Alberta began to catalogue coal mines by assigning a unique number to each operation. This database will provide information on location, mine #, mine name, mine company, life span, amount of coal produced, depth, thickness and other important information concerning the mine.

**Government Publication Date: 2001, 2003\***

**Oil and Gas Wells:**

Private

[OGW](#)

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickle's database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at [www.nickles.com](http://www.nickles.com).

**Government Publication Date: 1988-April 30, 2018**

**Oil and Gas Facilities - ST102 & ST50:**

Provincial

[OIL & GAS FACS](#)

List of batteries, gas plants, meter stations, and other facilities in the province of Alberta, made available as ST102 (Parts A and B) and ST50 (B) by the Alberta Energy Regulator (AER).

**Government Publication Date: May 31, 2018**

**Alberta Orphan Wells:**

Provincial

[ORP](#)

Orphan wells are wells that have not been properly abandoned and whose operators are defunct or insolvent. In Alberta, orphan wells fall under the responsibility of the Orphan Well Association, which works under the the delegated authority of the Alberta Energy Regulator (AER) - formerly the Energy Resources Conservation Board (ERCB). The data includes Location, Well ID, License Name and License Number.

**Government Publication Date: Jan 2007-Mar 31, 2018**

**Canadian Pulp and Paper:**

Private

[PAP](#)

This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

**Government Publication Date: 1999, 2002, 2004, 2005, 2009-2014**

**Parks Canada Fuel Storage Tanks:**

Federal

[PCFT](#)

Canadian Heritage maintains an inventory of known fuel storage tanks operated by Parks Canada, in both National Parks and at National Historic Sites. The database details information on site name, location, tank install/removal date, capacity, fuel type, facility type, tank design and owner/operator.

**Government Publication Date: 1920-Jan 2005\***

**Petrochemical, Coal and Gas Operations - Certificates of Approval:**

Provincial

[PCG](#)

This database contains approvals for processes pertaining to petroleum, coal, and oil and gas processing. Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

**Government Publication Date: 1993-2012**

**Pesticide Register:**

Provincial

[PES](#)

This is a list of all Registered Pesticide Vendors in Alberta (retail and wholesale). The pesticide vendor list is comprised of vendors who have both audited AWSA pesticide storage facilities as part of their operation, and those vendors that do not have an audited AWSA pesticide storage facilities. Non-audited retail and wholesale vendors may be selling products that are not covered by the AWSA program, or may be utilizing external AWSA pesticide warehouses. Registration numbers and expiry dates are identified for each operation. If a registration number is not present, the operation's vendor registration is in the process of renewal.

**Government Publication Date: 1998-Aug 2015**

**Conglomerate and Waste Management Facilities:**

Provincial [PITS](#)

This database contains approvals for processes pertaining to the use of gravel pits, sand pits, and clay pits. Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

**Government Publication Date: 1993-2012**

**Alberta Private Sewage Disposal Permits:**

Provincial [PSP](#)

These permits are private sewage disposal permits that have been issued to owners and contractors. They would include various types of installations including holding tanks, septic tanks, packaged treatment plants, sand filters, fields, mounds, lagoons and open discharges. In 2003 Alberta Municipal Affairs started collecting information and issuing permits using an electronic permitting system. These records include all private sewage disposal permits within the jurisdiction of Alberta Municipal Affairs.

**Government Publication Date: 2003-2013**

**PTMAA Approved (Open) Permits:**

Provincial [PTAP](#)

The Petroleum Tank Management Association of Alberta maintains a list of open permits it has issued within its jurisdiction. Prior to installing, removing, or altering tanks, storage tanks owners must receive approval in the form of a permit from the Authority Having Jurisdiction (in this case, PTMAA).

**Government Publication Date: Apr 2016-May 31, 2018**

**Hazardous Waste Receivers Summary:**

Provincial [REC](#)

A waste receiving location is any site or facility to which waste is transferred through a waste carrier. A receiver of regulated waste is required to register the waste receiving facility. This database represents receivers of regulated wastes under Alberta's Waste Control Regulation, Alta. Reg. 192/96. As of 2007, Alberta Environment no longer provides detailed information on each waste receiver, such as approval number, class, and class description.

**Government Publication Date: 1993-Dec 2016**

**Retail Fuel Storage Tanks:**

Private [RST](#)

This database includes an inventory of retail fuel outlet locations (including marinas) that have on their property gasoline, oil, waste oil, natural gas and / or propane storage tanks.

**Government Publication Date: 1999-Jul 31, 2018**

**Scott's Manufacturing Directory:**

Private [SCT](#)

Scott's Directories is a data bank containing information on over 200,000 manufacturers across Canada. Even though Scott's listings are voluntary, it is the most comprehensive database of Canadian manufacturers available. Information concerning a company's address, plant size, and main products are included in this database.

**Government Publication Date: 1992-Mar 2011\***

**Special Operation Classifications - Certificates of Approval:**

Provincial [SPEC](#)

This database contains approvals for processes pertaining to classifications listed as special operations (i.e. locations owned/operated by municipalities, operations that involve the presence of pesticides). Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

**Government Publication Date: 1993-2012**

**Inventory of Waste Disposal Sites:**

Private [WDS](#)

This one time inventory is a compilation of information collected from each region and pertains to active, regulated waste disposal sites within the province of Alberta. In the past, waste disposal sites were registered with both regional and health offices. That process was dissolved and regional landfills were developed. There is no central source of this information. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

**Government Publication Date: 1998\***

**Wastewater Operations:**

Provincial [WSTE](#)

This database contains approvals for processes pertaining to wastewater treatment systems. Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

**Government Publication Date: 1993-2012**

**Alberta Water Well Information Database:**

Provincial

[WWIS](#)

List of wells in the Alberta Water Well Information Database made available by Alberta Environment and Parks, containing approximately 500,000 records with nearly 5,000 drilling reports added annually. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location; some locations will be accurate to the quarter section only. The Province of Alberta advises that the data may not be fully checked, and disclaims all responsibility for its accuracy. This data was previously collected from the Groundwater Information Center of the Natural Resource Service.

**Government Publication Date: 1880-Apr 30, 2018**

# Definitions

**Database Descriptions:** This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

**Detail Report:** This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

**Distance:** The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

**Direction:** The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

**Elevation:** The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

**Executive Summary:** This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

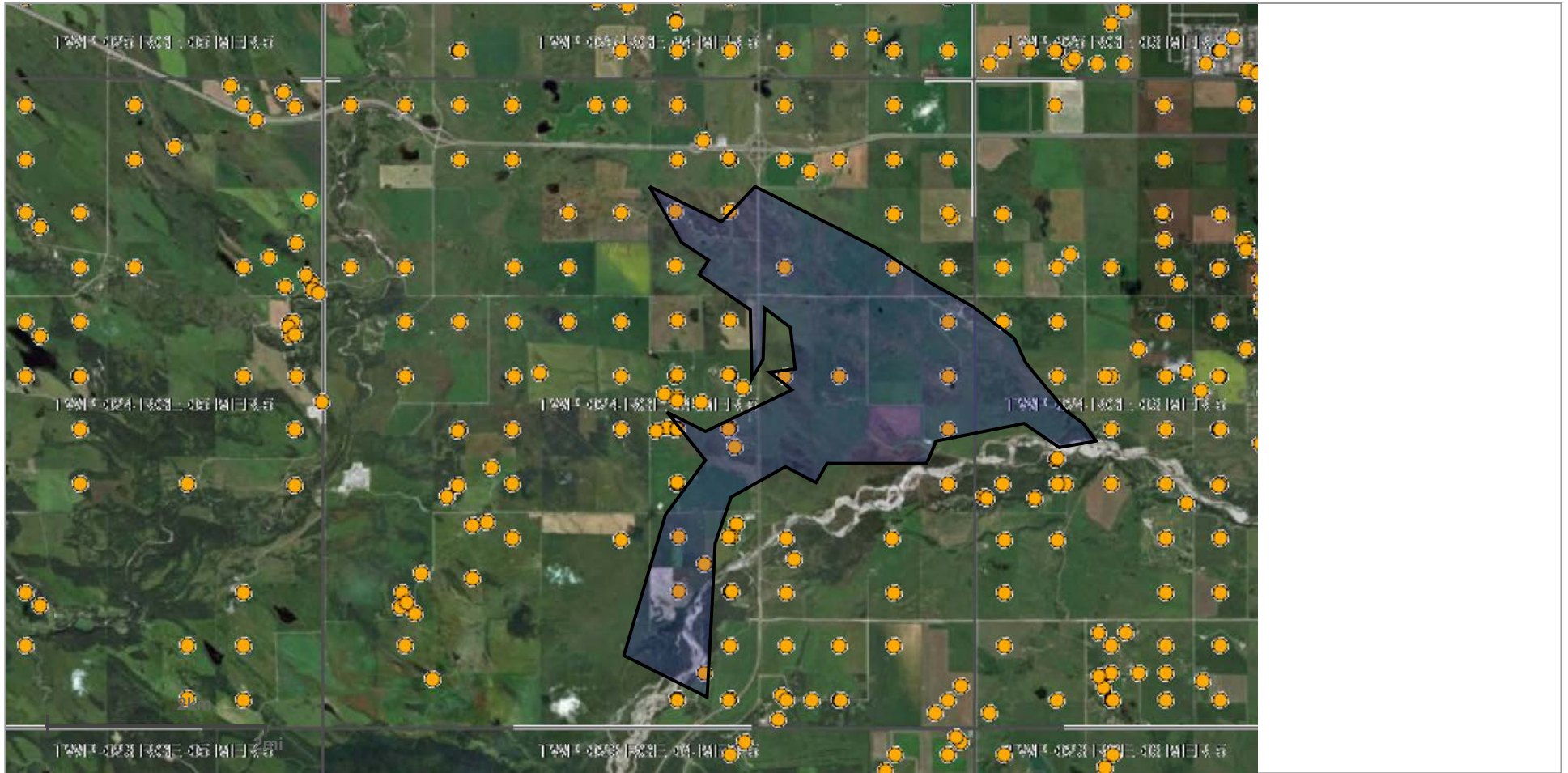
'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

**Map Key:** The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

**Unplottables:** These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.



## Alberta Water Well Information Database Map

### Projection

Web Mercator (Auxillary Sphere)

### Datum

WGS 84

### Date

11/8/2018, 10:21:44 AM

### Legend

- Groundwater Drilling Report
- ◆ Baseline Water Well Report

<http://groundwater.alberta.ca/WaterWells/d/>

Information as depicted is subject to change, therefore the Government of Alberta assumes no responsibility for discrepancies at time of use.

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# Reconnaissance Report

[View in Imperial](#)

[Export to Excel](#)

## Groundwater Wells

Please click the water Well ID to generate the Water Well Drilling Report.

GIC Well ID	LSD	SEC	TWP	RGE	M	DRILLING COMPANY	DATE COMPLETED	DEPTH (m)	TYPE OF WORK	USE	CHM	LT	PT	WELL OWNER	STATIC LEVEL (m)	TEST RATE (L/min)	SC_DIA (cm)
<a href="#">349308</a>	SW	26	24	4	5	AARON DRILLING INC.	1987-09-22	48.77	New Well	Stock		7		COPITHORNE, BOB/BRIAN	7.62	22.73	16.81
<a href="#">367657</a>	NE	13	24	4	5	LOU'S WATER WELL DRILLING	1992-10-04	43.28	New Well	Domestic & Stock		15		COPITHORNE, EDWARD	24.38	68.19	16.81
<a href="#">387563</a>		3	24	4	5	JAMES & SON	1960-07-01	12.50	New Well	Domestic		3		KIWANIS CLUB			13.97
<a href="#">387569</a>	SW	10	24	4	5	UNKNOWN DRILLER		3.35	Chemistry	Domestic	1			PALIGLO PLAINS LTD			0.00
<a href="#">387813</a>	SE	23	24	4	5	INTERPROVINCIAL DRILLING CONTRACTORS	1982-10-25	64.01	New Well	Stock		13		ELBOW RIVER RANCH	27.43	31.82	15.24
<a href="#">387817</a>	NE	24	24	4	5	UNKNOWN DRILLER		30.48	Chemistry	Domestic	1			ROBINSON, J.R.			0.00
<a href="#">387819</a>	NE	24	24	4	5	INTERPROVINCIAL DRILLING CONTRACTORS	1977-10-22	36.58	New Well	Unknown		8		ROBINSON, JOHN	18.29	54.55	15.24
<a href="#">387820</a>	NE	24	24	4	5	INTERPROVINCIAL DRILLING CONTRACTORS	1979-10-24	39.62	New Well	Stock		9		ROBINSON FARMS	12.19	68.19	16.84
<a href="#">387825</a>	SW	25	24	4	5	INTERPROVINCIAL DRILLING CONTRACTORS	1980-08-14	30.48	New Well	Stock		10		COPITHORNE, LOUIS	4.57	113.65	16.84
<a href="#">387831</a>	NW	27	24	4	5	UNKNOWN DRILLER		77.72	Chemistry	Domestic	1			LOBSANG, DARGYAY			0.00
<a href="#">469216</a>	NW	10	24	4	5	LOU'S WATER WELL DRILLING	1997-10-15	45.72	New Well	Domestic		11	17	JONES, JIM	12.74	40.01	16.81
<a href="#">491787</a>	NE	24	24	4	5	LOU'S WATER WELL DRILLING	1999-02-22	43.28	New Well	Domestic		16	13	ROBERTSON, JOHN/HALF DIAMOND	3.05	100.01	16.81
<a href="#">492942</a>	SE	24	24	4	5	LOU'S WATER WELL DRILLING	1999-04-07	43.28	New Well	Domestic		11	14	HALF DIAMOND J.E. RANCH	5.18	136.38	16.81
<a href="#">492943</a>	NW	27	24	4	5	M&M DRILLING CO. LTD.	1999-06-22	36.58	New Well	Domestic		19	24	WAGNER, SCOTT/MARSHA	0.73	80.01	0.00
<a href="#">9546128</a>	NE	24	24	4	5	AQUACLEAR DRILLING INC.	2014-09-17	12.19	New Well	Domestic		3	18	TSUU TINA NATION	3.47	40.91	16.81

**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1707-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 11:33:29 AM

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January 4, 2019

Mrs. Erica Andrew  
Stantec Consulting  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3918

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3918 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** SE 1/4 Sec 3 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** Janet Dilys Hawes, Rhonda Elizabeth Gervais

**Time Frame:** Historical to Dec 12, 2018

**Records:** **Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.**

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant



**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1708-RD-18] 1708-RD-18 No Records. Records provided with 1672-RD-18  
**Date:** Friday, January 18, 2019 8:34:51 AM

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January 18, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3919

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3919 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** SW 1/4 Sec 3 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** Mary Ellen Robinson

**Time Frame:** Historical to Dec 12, 2018

**Records:** **Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.**

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant

**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1709-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 11:38:35 AM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3920

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3920 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** SW 1/4 Sec 18 Twp 24 Rge 3 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** Susan McMurray, Western Securities Limited, Entheos Lodge Foundation, Donald Gilchrist Curry and Michele Diane Curry

**Time Frame:** Historical to Dec 12, 2018

**Records:** Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant

**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1711-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 11:39:57 AM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3921

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3921 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** SW 1/4 Sec 15 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** Altalink Management Ltd., Duane C Griffin

**Time Frame:** Historical to Dec 12, 2018

**Records:** **Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.**

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant

**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1712-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 11:42:01 AM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3923

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3923 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** NW 1/4 Sec 15 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** Honey-King Industries Ltd.

**Time Frame:** Historical to Dec 12, 2018

**Records:** **Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.**

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant



**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1713-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 11:44:38 AM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3924

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3924 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** NE 1/4 Sec 19 Twp 24 Rge 3 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** Copithorne Group Inc.

**Time Frame:** Historical to Dec 12, 2018

**Records:** Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant

**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1714-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 11:45:47 AM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3925

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3925 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** S 1/2 Sec 13 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** 1218835 Alberta Ltd.

**Time Frame:** Historical to Dec 12, 2018

**Records:** Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant

**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1715-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 11:47:57 AM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3926

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3926 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** SE 1/4 Sec 13 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** Zine and Mona Hussein, Seaid Hussein, Her Majesty the Queen In Right of Alberta as Represented by the Minister of Transportation, Ho Soon Lee and Hae-ok Lee, Loreta F Klinck, Alena Friess and Eugene Friess

**Time Frame:** Historical to Dec 12, 2018

**Records:** Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant

**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1716-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 11:48:55 AM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3927

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3927 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** NE 1/4 Sec 15 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** 1358788 Alberta Ltd., Ernest Hon

**Time Frame:** Historical to Dec 12, 2018

**Records:** **Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.**

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant



**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1717-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 11:50:05 AM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3928

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3928 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** E 1/2 Sec 14 Twp 24 Rge 4 W 5 M, NE 1/4 Sec 23 Twp 24 Rge 4 W 5 M,  
Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** Elbow River Cattle Company

**Time**  
**Frame:** Historical to Dec 12, 2018

**Records:** **Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.**

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant

**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1718-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 11:56:43 AM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3929

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3929 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** NW 1/4 Sec 17 Twp 24 Rge 3 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** Mable Pauline Brown and George J Robinson, John Rodger Robinson

**Time Frame:** Historical to Dec 12, 2018

**Records:** **Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.**

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant

**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1719-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 1:28:24 PM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3930

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3930 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** NW 1/4 Sec 25 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** Brian J Copithorne

**Time Frame:** Historical to Dec 12, 2018

**Records:** **Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.**

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant

**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1720-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 1:29:54 PM

---



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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3931

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3931 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** NE 1/4 Sec 15 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** El Condor Lands Inc.

**Time Frame:** Historical to Dec 12, 2018

**Records:** **Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.**

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant



**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1721-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 1:31:21 PM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3932

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3932 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** NE 1/4 Sec 25 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** John R Robinson

**Time Frame:** Historical to Dec 12, 2018

**Records:** Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant

**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1723-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 1:32:37 PM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3934

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3934 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** W 1/2 Sec 3 Twp 24 Rge 4 W 5 M, Sec 4 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project  
**Name(s):** Brian James Copithorne  
**Time Frame:** Historical to Dec 12, 2018  
**Records:** **Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.**

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant

**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1724-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 1:34:13 PM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3935

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3935 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** NE 1/4 Sec 28 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** Raymond Allan Nicoll

**Time Frame:** Historical to Dec 12, 2018

**Records:** Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant

**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1725-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 1:36:08 PM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3936

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3936 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** SW 1/4 Sec 10 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** Jen Allison Weatherley

**Time Frame:** Historical to Dec 12, 2018

**Records:** **Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.**

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant



**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1726-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 1:42:15 PM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3937

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3937 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** Sec 10 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** James G Jones and Suzanne C Jones

**Time Frame:** Historical to Dec 12, 2018

**Records:** Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant

**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1727-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 1:43:33 PM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3938

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3938 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** W 1/2 Sec 23 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** Robert Louis Copithorne

**Time Frame:** Historical to Dec 12, 2018

**Records:** **Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.**

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant

**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1728-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 1:47:11 PM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3939

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3939 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** SE 1/4 Sec 23 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** William Allan Copithorne

**Time Frame:** Historical to Dec 12, 2018

**Records:** **Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.**

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant

**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1729-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 1:48:26 PM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3940

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3940 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** NE 1/4 Sec 24 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** John R. Robinson

**Time Frame:** Historical to Dec 12, 2018

**Records:** Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant



**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1730-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 1:49:13 PM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3941

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3941 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** NW 1/4 Sec 24 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** Kathleen Raeburn Copithorne

**Time Frame:** Historical to Dec 12, 2018

**Records:** **Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.**

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant

**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1731-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 1:50:13 PM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3942

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3942 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** SE 1/4 Sec 24 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** Ryan John Robinson

**Time Frame:** Historical to Dec 12, 2018

**Records:** Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant

**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1732-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 3:23:44 PM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3943

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3943 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** SW 1/4 Sec 24 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** Keith Samuel Robinson

**Time Frame:** Historical to Dec 12, 2018

**Records:** **Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.**

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant

**From:** [keely.white@gov.ab.ca](mailto:keely.white@gov.ab.ca)  
**To:** [Andrew, Erica](#)  
**Subject:** [1733-RD-18] RD No Records Records Provided with 1672-RD-18  
**Date:** Friday, January 04, 2019 1:56:33 PM

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January 4, 2019

Mrs. Erica Andrew  
Stantec  
200 - 325 25th Street SE  
Calgary, Alberta

**Your File #:**  
Order Number: RD-2018-3944

Dear Mrs. Andrew:

**Re: Routine Disclosure Request RD-2018-3944 for Information Routinely Available Under the Environmental Protection and Enhancement (EPEA) Legislation.**

Our office received your request on December 12, 2018 for the following subject records:

**Location:** Sec 27 Twp 24 Rge 4 W 5 M, Calgary, Springbank Off-Stream Reservoir Project

**Name(s):** Marsha Ethel Wagner

**Time Frame:** Historical to Dec 12, 2018

**Records:** Scientific/technical information which may include reports documenting the nature and extent of soil, ground and surface water contamination; remedial measures taken to clean-up the site or status of the site; and external correspondence between the submitter and the Department of Environment & Parks pertaining to the reports.

Alberta Environment and Parks has conducted a search of department records based on the search parameters you provided to this office and has not identified any routinely available records relating to the subject of your request. As a result of our findings, your Routine Disclosure request has been closed.

If you have any further questions or concerns, please write or call me at **780-415-0835**.

Yours truly,

Keely White,  
Administrative Assistant