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# **TECHNICAL REPORT ON THE Firebag Property ALBERTA, CANADA**

**Prepared for Declan Resources Inc.  
Report for NI 43-101**

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**TABLE OF CONTENTS**

1 Summary .....1

    1.1 Property Description .....1

    1.2 Land Tenure.....1

    1.3 Geology and Mineralization .....1

    1.4 Exploration.....2

    1.5 Development and Operations .....2

    1.6 Conclusions and Recommendations .....2

2 Introduction .....4

3 Reliance on Other Experts.....5

4 Property Description and Location.....6

    4.1 Location .....6

    4.2 Mineral Tenure .....7

    4.3 Environmental Liabilities .....8

    4.4 Required Permits.....8

    4.5 Other Significant Factors and Risks .....8

5 Accessibility, Climate, Local Resources, Infrastructure, and Physiography .....10

    5.1 Topography, Elevation, and Vegetation .....10

    5.2 Accessibility .....10

    5.3 Infrastructure and Local Resources .....10

    5.4 Climate.....10

6 History .....11

    6.1 Regional History – Uranium and Silica Sand Exploration .....11

    6.2 Firebag Property History .....11

    6.3 Prior Ownership.....12

    6.4 Previous Exploration and Development .....12

    6.5 Historical Mineral Resources .....12

    6.6 Production .....12

7 Geological Setting and Mineralization .....13

    7.1 Regional Geology .....13

    7.2 Property Geology .....14



7.3	Mineralized Zones .....	16
8	Deposit Types .....	18
8.1	Uranium Deposits .....	18
8.2	Silica Sand Deposits .....	19
8.3	Silica Sand Physical Properties .....	20
9	Exploration .....	23
9.1	2013/2014 Silica Sand Test Pits .....	23
9.2	Historical Geochemical Sampling .....	25
9.3	Historical Geophysical Surveys .....	26
10	Drilling .....	30
10.1	2014 Auger Program .....	30
11	Sample Preparation, Analyses, and Security .....	32
11.1	2013 and 2014 Test Pit Sampling .....	32
11.2	2014 Hand Auger Sampling .....	32
11.3	Sample Analysis - Loring Laboratories Ltd .....	32
12	Data Verification .....	38
13	Mineral Processing and Metallurgical Testing .....	39
14	Mineral Resource Estimates .....	40
15 TO 22	- Not Applicable (Early Stage Property) .....	41
23	Adjacent Properties .....	42
23.1	Athabasca Minerals .....	42
23.2	Dahrouge Geological Consulting Ltd .....	42
23.3	Graymont Western Canada Inc. ....	42
23.4	Hammerstone Corp. ....	42
23.5	Vulcan Minerals Inc. ....	42
23.6	Wildrose Diamex Corp. ....	43
23.7	877384 Alberta Ltd. ....	43
23.8	Areva Resources Canada Ltd .....	43
23.9	Fission Uranium Corp. ....	43
24	Other Relevant Data and Information .....	44
25	Interpretation and Conclusions .....	45
26	Recommendations .....	47

27	References.....	48
	Date and Signature Page .....	51
28	Certificate of Qualified Person .....	52
	Consent of Qualified Person .....	52

## LIST OF FIGURES

Figure 2.1	Location of the Firebag Property .....	4
Figure 4.1	Firebag Property – Mineral Dispositions.....	6
Figure 4.2	Firebag Property – SME 140173 .....	9
Figure 7.1	Regional Geology .....	14
Figure 7.2	Bedrock Geology and Structure .....	15
Figure 7.3	Surficial Geology .....	16
Figure 8.1	Generalized Geological Cross-Sections of Mono- and Polymetallic Unconformity-Associated Uranium Deposits (Jefferson <i>et al.</i> , 2007) .....	19
Figure 8.2	Fracking Sand (left) versus Regular Sand (right) .....	20
Figure 8.3	Fracking Sand Roundness and Sphericity - After Krumbein and Sloss (1955) .....	21
Figure 8.4	Fracking Sand Acceptable Turbidity Ranges (FTU).....	22
Figure 9.1	2013 and 2014 Test Pit Locations .....	24
Figure 9.2	1994 Tintina Geochemical Sampling.....	26
Figure 9.3	Regional Geophysics - Residual Magnetic Intensity from Eccles <i>et al.</i> , 2014 .....	27
Figure 9.4	Regional Geophysics - Bouguer Horizontal Gradient from Eccles <i>et al.</i> , 2014.....	28
Figure 9.5	Regional Geophysics - Bouguer Vertical Derivative from Eccles <i>et al.</i> , 2014 .....	29
Figure 10.1	2014 Hand Auger Hole Locations .....	31
Figure 11.1	Loring Laboratories Ltd. - Fracking Sand Analysis Flow Chart .....	33

## LIST OF TABLES

Table 4.1	Mineral Dispositions, Firebag Property .....	7
Table 6.1	Historic Exploration Summary for the Firebag Property .....	12
Table 8.1	Crush Resistance and Acid Solubility .....	21
Table 9.1	Test Pit Summary - 2013.....	23
Table 9.2	Test Pit Summary - 2014.....	24
Table 9.3	Historic Geochemical Sampling - Firebag Property .....	25
Table 10.1	Hand Auger Hole Summary - 2014.....	30
Table 11.1	Sieve Analysis - 2013 Test Pit Samples.....	34
Table 11.2	Sphericity and Roundness Test - 2013 Test Pit Samples.....	34

Table 11.3 Whole Rock ICP Analysis (Major Constituents) - 2013 Test Pit Samples.....35

Table 11.4 Sieve Analysis - 2014 Hand Auger Samples.....35

Table 11.5 Sphericity and Roundness Test – 2014 Hand Auger Samples.....36

Table 11.6 Whole Rock ICP Analysis (Major Constituents) – 2014 Hand Auger Samples.....37

Table 26.1 Proposed Uranium Exploration Program for the Firebag Property .....47

**LIST OF ABBREVIATIONS**

<b>Abbreviation</b>	<b>Definition</b>	<b>Abbreviation</b>	<b>Definition</b>
<b>API RP</b>	American Petroleum Institute Recommended Practice	<b>km</b>	kilometre
<b>Areva Resources Athabasca Minerals</b>	Areva Resources Canada Ltd.	<b>km<sup>2</sup></b>	square kilometre
<b>ATV</b>	all-terrain vehicle	<b>Loring</b>	Loring Laboratories Ltd.
<b>°C</b>	degrees Celsius	<b>m</b>	metre
<b>cm</b>	centimetre	<b>mm</b>	millimetres
<b>Dahrouge Geological</b>	Dahrouge Geological Consulting Ltd.	<b>MAIM</b>	Metallic and Industrial Minerals
<b>Declan</b>	Declan Resources Inc.	<b>MSL</b>	Mineral Surface Lease
<b>EM</b>	electromagnetic	<b>NTS</b>	National Topographic System
<b>ERCB</b>	Energy Resources Conservation Board	<b>Opal</b>	Opal Energy Corp.
<b>ESRD</b>	Environment and Sustainable Resource Development	<b>ppm</b>	parts per million
<b>fracking</b>	hydraulic fracturing	<b>QP</b>	qualified person
<b>fracking sand</b>	hydraulic fracturing proppant	<b>SAGD</b>	steam assisted gravity drainage
<b>FTU</b>	Formazin Turbidity Unit	<b>SME</b>	surface material exploration
<b>Ga</b>	billion years	<b>SML</b>	Surface Material Lease
<b>Graymont</b>	Graymont Western Canada Inc.	<b>Tintina</b>	Tintina Mines Ltd.
<b>ha</b>	hectare	<b>TMZ</b>	Taltson Magmatic Zone
<b>Hammerstone</b>	Hammerstone Corp.	<b>VLf</b>	very low frequency
<b>HMC</b>	heavy mineral concentrate	<b>Vulcan Minerals</b>	Vulcan Minerals Inc.
<b>ICP</b>	inductively coupled plasma	<b>WCSB</b>	Western Canadian Sedimentary Basin
<b>kg</b>	kilogram	<b>wt %</b>	weight percent

## 1 SUMMARY

Declan Resources Inc. (“Declan”) is a publicly owned mineral exploration company based out of Vancouver, BC. The Firebag Property, herein termed “the Property”, of Declan is located in the northeastern Athabasca region of Alberta, centered upon a point some 100 km northeast of the city of Fort McMurray. This Technical Report summarizes recent and historic geological exploration on and adjacent to the Property and discusses the logic behind a plan for systematic uranium- and silica sand- (“fracking sand”) exploration on this early-stage exploration property. The information, conclusions, opinions, and estimates contained herein are based upon:

- Information available to the author at the time of preparation of this report,
- Assumptions, conditions, and qualifications as set forth in this report, and
- Data, reports, and other information supplied by Declan Resources Inc.

The author has no reason to believe that the information used in the preparation of this report is false or purposefully misleading and has relied upon the accuracy and integrity of the data referenced in Sections 12 and 27 of this report.

Some relevant information on the Property presented in this report is based upon data derived from reports written by geologists and/or engineers whose professional status may or may not be known in relation to the NI 43-101 definition of a Qualified Person. The author has made every attempt to accurately convey the contents of those files, but cannot guarantee the accuracy or validity of the work contained within those files. However, the author believes that these reports were written with the objective of presenting the results without any intent to mislead. In this sense, the information presented should be considered reliable, unless otherwise stated, and may be used without any prejudice by Declan.

The results and opinions expressed in this report are based upon the author’s review of the information listed in Section 27 of this report. Although the author has carefully reviewed all of the information provided and believes it to be reliable, the author has not conducted an in-depth independent investigation to verify its accuracy and completeness.

### 1.1 PROPERTY DESCRIPTION

The center of the Firebag Property is located at 57°30’N, 110°30’W, approximately 100 km northeast of the city of Fort McMurray (Figure 2.1). It can be accessed year-round by helicopter based out of Fort McMurray, Alberta, or in the winter by 4x4 truck or ATV on numerous cutlines and oil well access roads. The Property is comprised of 6 Metallic and Industrial Minerals (MAIM) permits covering approximately 49,536 ha (Figure 4.1).

### 1.2 LAND TENURE

The Firebag Property is comprised of 6 Metallic and Industrial Minerals (MAIM) permits totalling approximately 49,536 ha. The claims were staked by 877384 Alberta Ltd. in August and September of 2013. Declan Resources Inc. has a 30% interest and Opal Energy Corp. a 70% interest in the Firebag Property, based upon the terms outlined in the option amendment agreement dated September 23, 2014.

### 1.3 GEOLOGY AND MINERALIZATION

The Property is primarily underlain by rocks of the Western Canadian Sedimentary Basin (“WCSB”), which overlies basement rocks of the Precambrian Taltson Magmatic Zone. The Taltson Zone consists primarily of

granitoids, metasedimentary gneisses, granitic gneisses, and amphibolites. Outcropping bedrock on the Firebag Property is dominantly comprised of sands of the Cretaceous McMurray Formation, which have been covered by a veneer of Quaternary sediments. On surface the property is covered by Quaternary fluvio-glacial sediments in the form of outwash sands and gravels (often modified by glaciation), stream alluvium, and ice-contact deposits. Several faults crosscut the property, principally the Beatty River Fault Zone, the Firebag Fault, and the Johnson Lake Fault. The current southern margin of the eroded Athabasca Basin is located approximately 30 km north of the Firebag Property. The rock sequence of the Athabasca Basin is thought to have once covered a much larger area, before being eroded to its current extent.

To date no uranium mineralization has been identified on the Firebag Property. The nearest confirmed uranium occurrence is located on the Maybelle River Project of Areva Resources Canada, which is host to the Dragon Lake Zone, located approximately 65 kilometres north of the Firebag Property. This occurrence is not necessarily proof of any potential for the occurrence of any analogous uranium mineralization on the Firebag Property, but its location in relation to the current margin of the Athabasca Basin lends some credence to the hypothesis that uranium mineralization could exist on the Firebag Property.

Exploration conducted on the property during 2013 and 2014 discovered silica sands with potentials for use as proppants in hydraulic fracturing. Further work is necessary to ensure that the silica sand meets all criteria for use as a proppant according to API RP 56; initial test results were promising. Athabasca Minerals' Firebag Property, located 50 km west, has shown promising results for two of five sand units which can be used as fracking sands. This nearby occurrence is not necessarily proof of the potential for the occurrence of any analogous fracking sand on Declan's Firebag Property.

#### **1.4 EXPLORATION**

In 2013, the initial optioner of the Property, Declan, completed a silica sand test-pit program on the Firebag Property in order to test the sand's potential for use as hydraulic fracturing proppant. This was followed up in 2014 by a more detailed hand-auger program designed to test the depth potentials of the silica sand deposits.

Declan has also conducted a review of historical geophysical data, with its focus on potential structural control for Athabasca Basin-type uranium deposits. A preliminary study of historical geochemical data, focusing upon cobalt anomalies, with the intent of identifying associated uranium mineralization, has also been completed.

The total cost of Declan's exploration- and investigatory-work during the period of November 2013 to September 2014 was \$118,886.

#### **1.5 DEVELOPMENT AND OPERATIONS**

The Firebag Property is crosscut by numerous cutlines, oil well pads, and access roads. Currently, the closest major transport infrastructure is the Athabasca Winter Road, located approximately 25 km to the northwest. SilverWillow Energy is planning extensive development at their Audet SAGD project, located on the Firebag Property. Their currently planned development would see access roads driven to the centre of the Firebag Property, and extensively throughout it, in 2015 and 2016 (SilverWillow Energy, 2013). There has been no known mineral production from the Property.

#### **1.6 CONCLUSIONS AND RECOMMENDATIONS**

The Firebag Property is underlain by basement rocks of the Taltson Magmatic Zone, sands of the McMurray Formation and at surface is dominated by Quaternary sands and gravels. Several large geological structures run through the property, namely the Beatty River Fault Zone, the Firebag Fault, and the Johnson Lake Fault.



Historic exploration identified a minor cobalt anomaly in the north of the Property, near the fault systems. More recent geochemical exploration has not identified any anomalous uranium pathfinder mineralization.

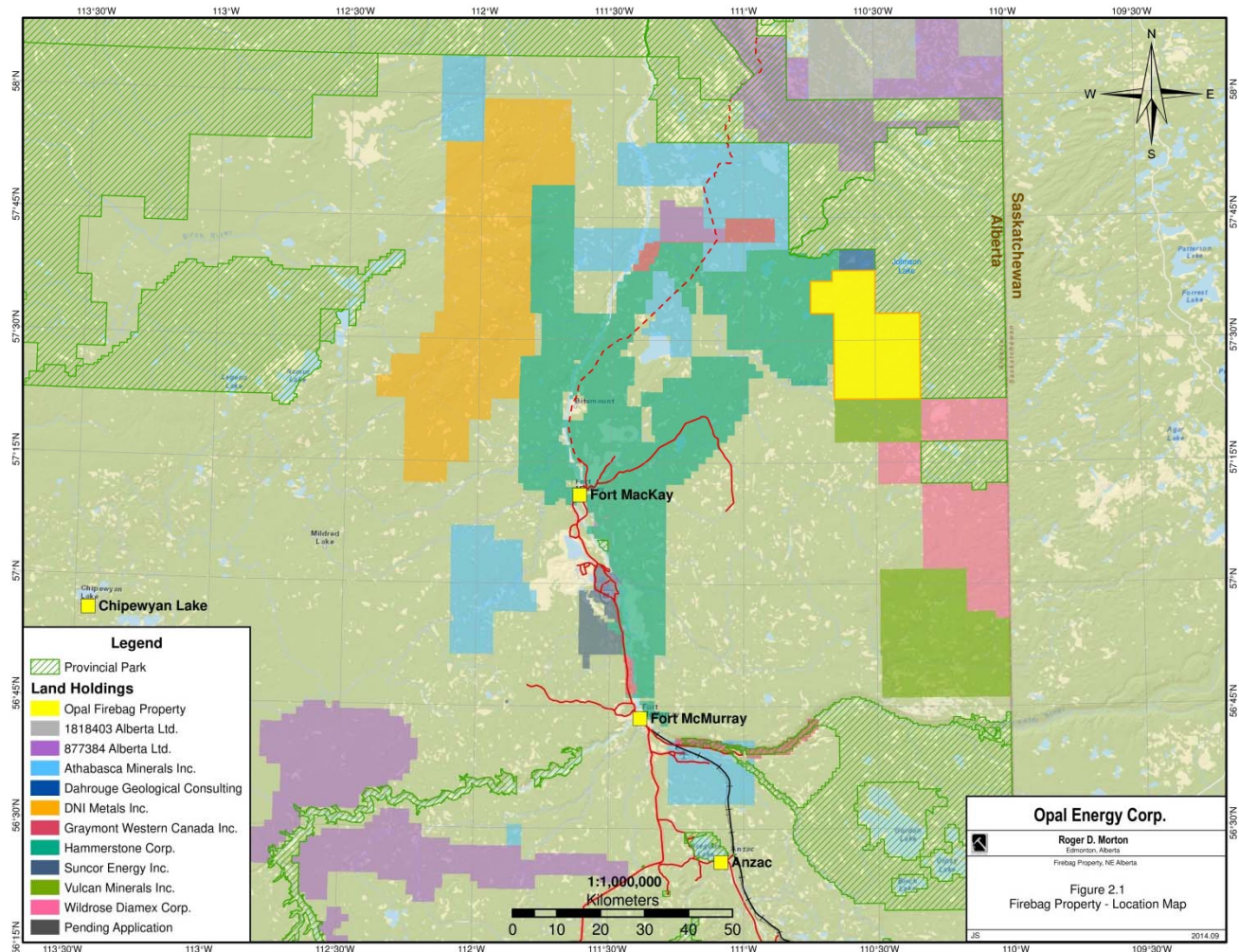
Exploration in 2013 and 2014 identified several areas prospective for silica sand proppants on the Firebag Property. Pit and hand auger samples of the basal sand unit returned excellent sphericity, good roundness, and results primarily fell within those size fractions used for fracking sands. On their Firebag Property, located 50 km to the west, Athabasca Minerals has tested the Quaternary sands for use as a proppant. Two of the five sand units identified had the required properties for fracking sands. The author has been unable to personally verify the results from the adjacent properties, and it is stressed that they are not necessarily indicative of any mineralization, if present, on the Property.

Risks do exist with regards to the silica sand potentials of the Firebag Property. Currently, tenure rights for silica sand in Alberta are not well defined by the regulations. The loose sands within the Athabasca region have previously been classified as a surface material under the Public Lands and Law of Property acts. Metallic and Industrial Minerals permits do not grant mineral rights to silica sand, unless they are considered consolidated and "formational". Based upon this, an SML is likely required, in addition to the current MAIM permits, to ensure ownership of silica sand mineral rights.

Separate exploration programs targeting uranium mineralization and fracking sands are recommended totalling \$236,500 for Phase 1. For uranium, an ICP-MS lead isotope sampling program on sands from historic oil sands drill-cores is recommended, totalling approximately \$6,500. For silica sand exploration, Phase 1 would consist of a ground penetrating radar survey over previously explored portions of the property, estimated to cost \$80,000, as well as a hand/mechanized augering and pitting program to test the depths, extent, and qualities of the deposits, estimated to cost \$150,000.

## 2 INTRODUCTION

Dr. R.D. Morton, P.Geol. has been retained by Declan Resources Inc. (“Declan”) to prepare an independent Technical Report concerning the Firebag Property, located in Alberta, Canada (Figure 2.1). The report was commissioned by Declan to comply with regulatory disclosure and reporting requirements outlined in Canadian National Instrument 43-101 (“NI 43-101”), companion policy NI 43-101CP, and Form 43-101F (“Technical Reports”).



**Figure 2.1 Location of the Firebag Property**

The purpose of this report is to summarize and review the recent and historic geological exploration on, or adjacent to, the Property and to provide an assessment of any future economic mineral potentials.

Information, conclusions, and recommendations contained in this report are based upon published and unpublished data, see section 27 “References”. The geophysical data described in Section 9 “Exploration” were obtained from historic assessment reports, internal reports, and regional geophysical databases; see section 27 “References”. Details of data validation are provided in Section 12 “Data Validation”.

The Qualified Person responsible for this report, Dr. Roger D. Morton, conducted a one-day site visit on the Property on August 18, 2014.

### **3 RELIANCE ON OTHER EXPERTS**

For the purpose of this report, specifically Sections 1.2 “Land Tenure” and 4.2 “Mineral Tenure”, the author has relied upon ownership information publically available from Government of Alberta, Alberta Energy website. This information was last accessed on October 2, 2014. The author has neither researched property title nor the mineral rights for the Firebag Property and expresses no opinions as to the legal ownership status of the property.

## 4 PROPERTY DESCRIPTION AND LOCATION

### 4.1 LOCATION

The Property is located in northern Alberta and is centered upon approximately 57°30'N, 110°30'W. The centre point of the Property is located approximately 100 km northeast of the city of Fort McMurray, and 75 km northeast of the community of Fort MacKay (Figure 2.1). The Property is comprised of 6 Metallic and Industrial Minerals (MAIM) permits covering approximately 49,536 ha (Figure 4.1). It is situated within NTS map sheets 74E/07 to 74E/10.

The Firebag Property may be accessed year-round by helicopter based out of Fort McMurray, Alberta. A network of cutlines, trails, oil well pads, and access roads also crosscut the Property, providing access in the winter. The Athabasca winter road runs approximately 25 km to the northwest of the northwestern-most boundary of the Property. SilverWillow Energy is planning extensive development at their Audet SAGD project, located on the Firebag Property. Their currently planned development would see access roads driven to the centre of the Firebag Property, and extensively throughout it, during 2015 and 2016.

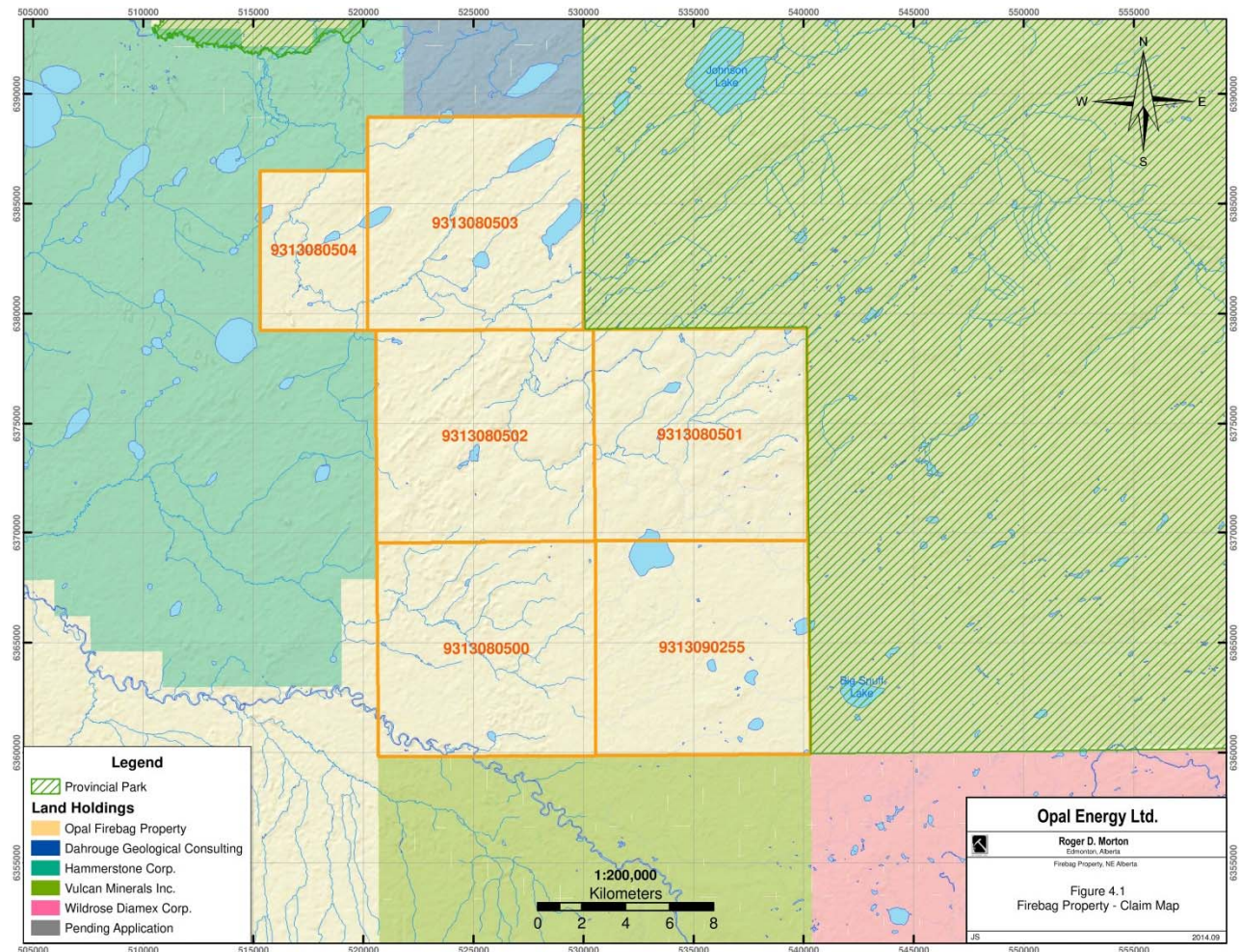


Figure 4.1 Firebag Property – Mineral Dispositions

## 4.2 MINERAL TENURE

The Firebag Property is composed of 6 MAIM permits, (Table 4.1; Figure 4.1). All of the aforesaid dispositions are in good standing. The tenures were map staked in August and September of 2013 by 877384 Alberta Ltd. Declan has a 30% interest and Opal a 70% interest in the Firebag Property; subject to the terms outlined in the option amendment agreement dated September 23, 2014. These mineral claims grant Opal and Declan the right to explore for minerals within the claim lands.

**Table 4.1 Mineral Dispositions, Firebag Property**

Disposition	Area (ha)	Record Date	Anniversary Date	Required Work
9313080500	9216.0	August 27, 2013	August 27, 2015	\$46,080.00
9313080501	9216.0	August 27, 2013	August 27, 2015	\$46,080.00
9313080502	9216.0	August 27, 2013	August 27, 2015	\$46,080.00
9313080503	9216.0	August 27, 2013	August 27, 2015	\$46,080.00
9313080504	3456.0	August 27, 2013	August 27, 2015	\$17,280.00
9313090255	9216.0	September 27, 2013	September 27, 2015	\$46,080.00

In Alberta, exploration and mining are governed by the Alberta Mines and Minerals Act, and administered by Alberta Department of Energy's Coal and Mineral Development Unit. A Metallic and Industrial Minerals (MAIM) permit grants the holder exclusive rights to explore and prospect for minerals, but not to mine minerals in the permit area. Permits may be renewed for up to fourteen (14) years. Individual MAIM permits must be between 16 and 9,216 ha. In order to maintain the MAIM permits; a total of \$247,680 (\$5 per hectare) needs to be spent for the period of years 1-2 in conducting exploration activities on the Property. This increases to \$10 per hectare for the period of years 3-4 and 5-6, and increases again to \$15 per hectare for the period of years 9-10, 11-12, and 13-14.

A MAIM permit may be converted to a MAIM lease, which gives the holder exclusive rights to explore for, dig, work, mine, recover, procure and carry away the minerals within the lease area. Additionally, a mineral surface lease (MSL) would be required for any mining activities. In order to convert a MAIM permit to a MAIM lease, it must be in good standing and an application fee of \$625 must be paid. Application must be made through Alberta Department of Energy's Coal and Mineral Development Unit and be accompanied by the payment of the first year of rent. Leases are valid for 15 years and are renewable.

The MAIM permits for the Firebag Property are registered to 877384 Alberta Ltd. The property was initially optioned to Declan in an Option Agreement dated October 24, 2013. Declan and Opal have since entered into an Option Amendment Agreement, dated September 23, 2014, forming a two party joint venture, which grants Opal the right to acquire a 70% interest in the Property, with Declan retaining a 30% interest. Opal may acquire an additional 5% interest in the joint venture at any time by issuing Declan 500,000 common shares of Opal. The agreement allows Opal the right to enter upon and work the Property and includes the rights to all metals and minerals on the Property with the exception of limestone, dolomite and building stone. The optioner, 877384 Alberta Ltd., will retain a Gross Overriding Royalty ("GOR") of 4% on all diamond and fracking sand production and a Net Smelter Royalty ("NSR") of 2% on all material except diamonds, limestone, dolomite, building stone and fracking sand.

In consideration of Declan retaining a 30% interest and transferring the right for Opal to acquire a 70% interest in the Property and Declan having made cash payments, issued common shares, and incurred expenditures, Opal must make the following payments to Declan:

1. 2,000,000 Opal common shares to Declan upon TSX Venture Exchange ("TSXV") approval of the option amending agreement dated September 23, 2014, which was received March 2, 2015.

2. 1,000,000 shares and an additional \$100,000 in cash or shares of Opal on the first anniversary of TSXV approval of the option amending agreement dated September 23, 2014, being March 2, 2016.
3. 1,000,000 shares and an additional \$100,000 in cash or shares of Opal on the second anniversary of TSXV approval of the option amending agreement dated September 23, 2014, being March 2, 2017.

In order to maintain the option in good standing and acquire 70% interest in the Firebag Property, Opal must, during the option period, incur in aggregate at least \$850,000 of expenditures on the Firebag Property as follows :

1. \$150,000 of expenditures by November 22, 2014.
2. \$100,000 of expenditures by June 22, 2015 and a further \$100,000 of expenditures by November 22, 2015.
3. \$500,000 of expenditures by November 22, 2016.

### **4.3 ENVIRONMENTAL LIABILITIES**

The author is not aware of any current environmental liabilities associated with the Property.

### **4.4 REQUIRED PERMITS**

In Alberta, exploration activities using hand tools and without surface disturbance do not require permitting. If mechanized exploration equipment is to be used, or the land surface disturbed, the company must obtain approvals and permits as stipulated by the MAIM exploration regulation, generally consisting of an Exploration Licence, Exploration Permit, and Exploration Approval. An Exploration Licence must be obtained before a company can apply for, or carry out, an exploration program. If exploration equipment is to be used, the company must obtain an Exploration Permit. For a project involving drilling, trenching, or bulk sampling, a site-specific Exploration Approval must also be obtained. For the Firebag Property, permit applications would be made to the Land Administration Division, Department of Environment and Sustainable Resources Development.

Due to the lack of clarity on the topic of silica sands classification as a surface material or as an industrial mineral in Alberta, it may also be necessary to apply for a Surface Material Exploration (“SME”) permit if exploration activities targeting silica sand are to be conducted.

The author is not aware of any other permits or licences required for the initial phase of exploration.

### **4.5 OTHER SIGNIFICANT FACTORS AND RISKS**

Currently, tenure rights for silica sand in Alberta are not well defined. The loose sands within the Athabasca region have previously been classified as a surface material under the Public Lands and Law of Property acts. Metallic and Industrial Minerals permits do not grant mineral rights to silica sand, unless they are considered consolidated and “formational”. The Public Lands Act and Alberta Mines and Minerals Act appear to conflict on the matter, but in general indurated cliff-forming formational sands such as the Peace River or Pelican sands are thought to fall under the Alberta Mines and Minerals Act; looser (less-indurated) surface sands such as the Fort McMurray or Quaternary sands are more likely to be classified as a surface material.

Athabasca Minerals Inc. recently received approval from the Alberta Environment and Sustainable Resource Development for the right to work and remove sand from one of its Surface Materials Leases (“SML”) on their Firebag project, located approximately 50 km west of Declan’s Firebag Property. Based upon this, an SML is likely required in addition to the current MAIM permits to ensure ownership of silica sand mineral rights and to allow for any potential future production. Opal Energy Corp. has applied for an SME in the area of newly

discovered silica sand deposits (SME 140173), as shown in Figure 4.2, which could later be converted to an SML. The SME application was submitted in early November, 2014. Typically SME's in the Wood Buffalo region are granted within six months to one year after submittal. Barring unforeseen conflicts or environmental concerns the SME will likely be granted. Non-mechanized work programs can still be conducted prior to the approval of the SME. Part of the initial phase of the recommended work herein consists of consultation with lawyers and government officials to better determine silica sand tenure rights.

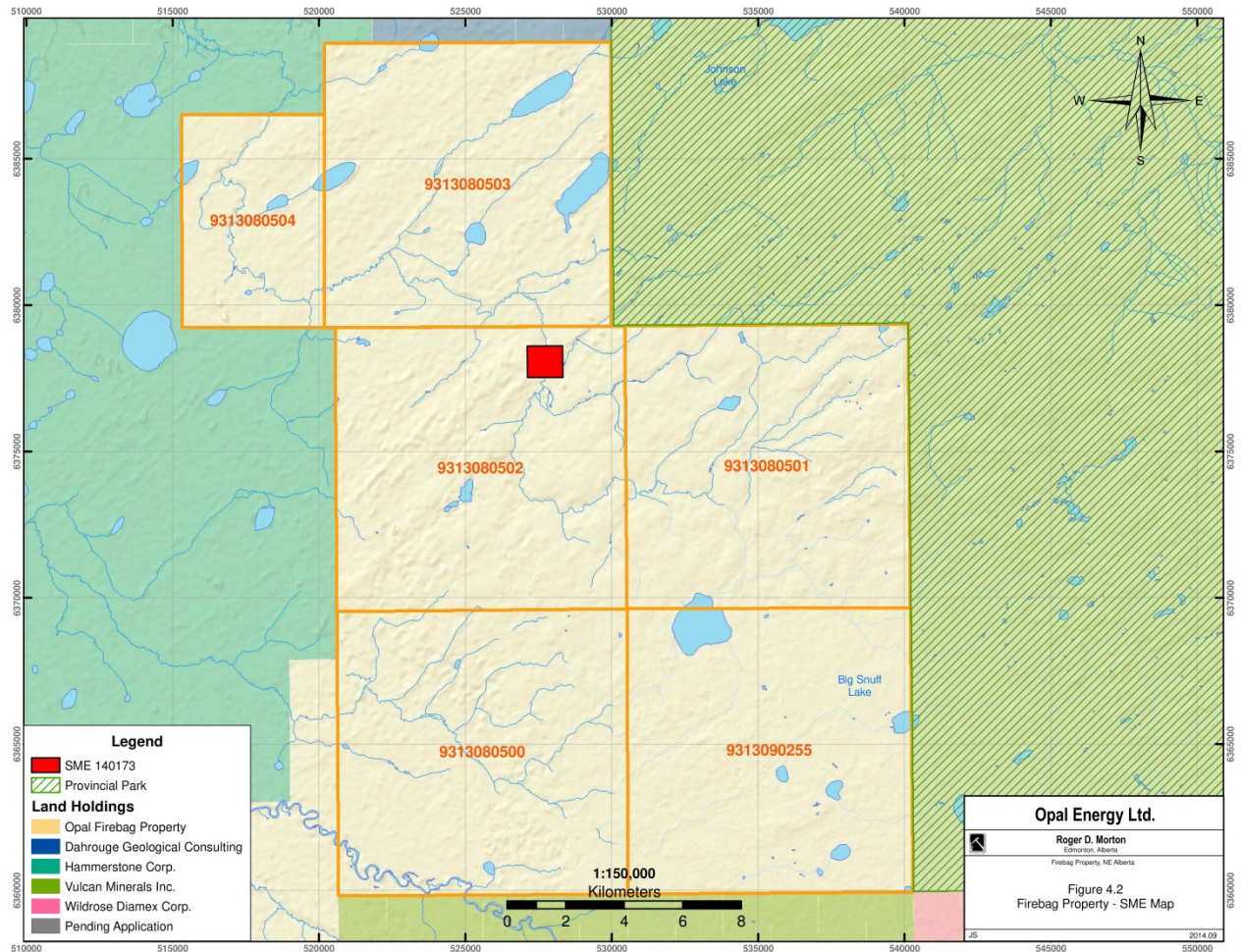


Figure 4.2 Firebag Property - SME 140173

## **5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY**

### **5.1 TOPOGRAPHY, ELEVATION, AND VEGETATION**

The Property is situated in the Boreal Plains Ecozone and the Mid-Boreal Uplands Ecoregion. Topography consists of gently sloping uplands with elevations ranging from 330 to 570 m. Bedrock is dominated by shales, whilst the uplands are generally covered by glacial till, lacustrine- or fluvio-glacial-deposits. A large number of small lakes, ponds, and sloughs are found in depressions associated with glaciation. Vegetation on the Property is dominated by close stands of trembling aspen, balsam poplar, white and black spruce, and balsam fir. Poorly drained areas are generally covered by tamarack and black spruce.

### **5.2 ACCESSIBILITY**

The nearest inhabited site is the community of Fort MacKay, which is located approximately 75 km by air southwest of the centre of the Property. Fort MacKay is accessible by road from Fort McMurray by driving 60 km north on Highway 63. Fort McMurray is located approximately 100 km by air southwest of the centre of the Property; it is serviced by frequent flights from most major Canadian cities.

The Property is crosscut by numerous cutlines, trails, oil well pads, and access roads. A winter road runs approximately 25 km to the northwest of the Firebag Property. Access to the Property would be by helicopter year round, or in the winter by 4x4 truck, or ATV. SilverWillow Energy is planning extensive development at their Audet SAGD project, located on the Firebag Property. Their currently planned development would see access roads driven to the centre of the Firebag Property, and extensively throughout it, in 2015 and 2016.

Aircraft are primarily available from Fort McMurray, Alberta, located approximately 100 km southwest of the centre of the Property. Fort McMurray services much of the exploration and oil sands industry in the area. It can be accessed from Edmonton by taking Highway 28 to Highway 63 and continuing north for 290 km.

### **5.3 INFRASTRUCTURE AND LOCAL RESOURCES**

The nearby community of Fort MacKay and the city of Fort McMurray have populations of approximately 560 and 61,000 respectively. Available resources in Fort MacKay are targeted at the oil sands industry, consisting of welding, mechanical, grocery, medical, heavy equipment, and surveying services.

Fort McMurray, located approximately 100 km to the southwest of the Property, services the oil sands and exploration industry in much of northeastern Alberta. Accommodations, food, fuel, repair, camp services, transport, bulk fuel, as well as helicopter services, are all available from Fort McMurray.

The local economy is primarily based upon exploration, mining, and development of oil sands. Infrastructure on the Firebag Property consists of numerous oil well pads, access roads, and cutlines. The closest major infrastructure is that of the Athabasca winter road located approximately 25 km northwest of the Property.

### **5.4 CLIMATE**

The Property lies within the sub-arctic climate region. Summers are short and cool, averaging 13°C to 15.5°C while winters are extremely cold and long, averaging -13.5°C to -16°C. Approximately 400 to 550 mm of precipitation falls annually. The operating season is year-round for drilling (helicopter or winter-road supported), and May to October for ground exploration.



## 6 HISTORY

### 6.1 REGIONAL HISTORY – URANIUM AND SILICA SAND EXPLORATION

Uranium was first discovered in the Athabasca basin in the late 1930s and the deposits currently account for 15% of the world's annual uranium production. During the 1970s and early 1980s, exploration in northeastern Alberta focused upon uranium in the Athabasca Basin region, resulting in the discovery of the Maybelle River shear zone. In 2006, Areva Resources Canada released results from this zone with intersections recorded up to 54.4%  $U_3O_8$  and reported numerous base metals included in an alteration halo, namely: Ni, As, Pb, Mo and Co.

The potential for silica sand deposits in the Fort McMurray region was recognized as far back as 1914 when Ells studied the potential for bituminous waste sand to be used in glass manufacturing (Ells, 1914). Investigations into using the tailings from the oil sands as a source of glass-grade sand continued throughout the 1970's (McLaws, 1980). It was not until the 1980's, when hydraulic fracturing in oil- and gas-fields was expected to grow, that the potentials for fracking sand in the region were hypothesized. Initial evaluation of the McMurray sequence and the eolian, alluvial, and glacial outwash sands were disappointing, due to low grain-sphericity and grain-roundness values. After the initial discouraging studies, little exploration was conducted in the Athabasca region for silica sand proppants until recently.

### 6.2 FIREBAG PROPERTY HISTORY

The area around the Firebag Property has seen little historic exploration targeting silica sands or uranium. In 1977, E & B Explorations Ltd. conducted a lake sediment and lake water geochemical sampling program on the Johnson Lake Property, which covers portions of Declan's Firebag Property. The program targeted potential uranium deposits at two major unconformities on the property. A total of 20 lakes were sampled during the program, 13 of which were located on the present day Firebag Property. Lake sediment samples were collected using a Hornbrook sampler and surface water samples were collected at depths ranging from 6 to 12 inches at the same locations. Sediment samples were sent to Loring Laboratories in Calgary, Alberta and analysed using fluorometric techniques for uranium and atomic absorption for other elements. Water samples were sent to Bondar-Clegg & Company in Ottawa, Ontario and were analysed for Radon<sup>222</sup> by the fission track method. Duplicate samples were compared to establish that the analyses provided statistically acceptable and repeatable results. Anomalous values for cobalt (11 ppm) were encountered in one sample near the Beatty River Fault Zone.

As part of the 1977 exploration program, a grid was established over the fault zone trending northeast-southwest from the corner of Johnson Lake. Reconnaissance VLF electromagnetic- and soil gas radon-surveys were completed over portions of the grid. Exploration was impeded by inclement weather and the surveys were not completed. No anomalies were detected in the surveys.

Between 1993 and 1996, Tintina Mines Ltd. conducted regional geochemical lake and stream sampling across a variety of properties, covering an area of 13,000 km<sup>2</sup> across northeastern Alberta. In 1994, Tintina completed regional sampling programs included LANDSAT remote sensing imagery analysis, lake sediment and water geochemical sampling, stream sediment geochemical sampling, as well as Heavy Mineral Concentrate (HMC) sampling.

Tintina also completed focused work on most of their properties. Their Firebag property, which consisted of three permits, overlapped portions of Declan's present day Firebag Property. In addition to the general reconnaissance mapping and sampling, 58 sites were sampled within Tintina's Firebag property, 3 of which fall on Declan's present day Firebag Property. In 1994, work on Tintina's Firebag property consisted of a

detailed survey of the Firebag River drainage, prospecting, multi-media stream sampling, HMC samples, till sampling and logging and re-assay of selected footage from Shell Canada Ltd.'s coal exploration drilling program. Apex Geoscience Ltd. was contracted to conduct the site-specific exploration program on the Firebag property.

On Tintina's Firebag property, the most significant anomaly was identified as a series of "geochemically anomalous lakes" near the intersection of the Johnson Lake and Firebag Faults. The results from this area were characterized by polymetallic anomalies exhibiting elevated concentrations of Zn, Cu, Ni, Cd, Sb, and Hg. Till samples with similarly anomalous results were collected down-ice from the location of the faults. HMC stream samples from the Firebag River recovered alluvial gold from both north and south of the property.

Analysis of the 1994 logging and resampling conducted on the archived Shell Canada Ltd. coal drill core was dichotomous; re-assay of pulps, which had previously reported gold, verified the previous findings, but resampling of half cores did not validate those results. Discrepancies in values for Au, Ag and Cd were attributed to a difficulty with crushing the sulphide-bearing coal-rich samples, the resulting non-homogeneous samples and a nugget effect. Results for other trace elements did not suffer from the above-mentioned difficulties and returned elevated concentrations of Cr, Ag and V and to a lesser degree Cu, Pb, Zn, As, Sr, Sb, Bi and B.

### 6.3 PRIOR OWNERSHIP

In 1976, Taiga Consultants Ltd. submitted an application Quartz Mineral Exploration Permit for the Johnson Lake Property on behalf of E & B Explorations Ltd. The Permit was granted later that year and covered an area of 19,813 ha. Exploration was conducted on the Johnson Lake Property in 1977.

Permits were assembled by Tintina Mines Ltd. in 1993 on behalf of its joint venture with NSR Resources Inc., with each holding 2/3 and 1/3 respectively. Based upon regional and targeted exploration, the bulk group of permits was divided into 9 properties, including the Firebag Property. These claims were worked between 1993 and 1996.

### 6.4 PREVIOUS EXPLORATION AND DEVELOPMENT

Mineral exploration in the area of the Property began in the 1970's, but only minor sporadic exploration has been conducted until the present day. Historic exploration programs are summarized in Table 6.1.

**Table 6.1 Historic Exploration Summary for the Firebag Property**

Operator	Campaign	Drill Core Relogging	Stream Sediment Sampling	Lake Sediment Sampling	Water Sampling	HMC Sampling	Till Sampling	Ground Geophysics	Airborne Geophysics
E & B Explorations Ltd.	1977	-	-	13 on Property	13 on Property	-	-	Soil Gas Radon	VLF Electromagnetic
Tintina Mines Ltd.	1993 - 1996	Yes - off Property	2 on Property	1 on Property	Yes - off Property	Yes - off Property	Yes - Off Property	-	LANDSAT Imagery Analysis

### 6.5 HISTORICAL MINERAL RESOURCES

There have been no historic mineral resource or reserve estimates for the Property.

### 6.6 PRODUCTION

There has been no historic mineral production on the Property.

## 7 GEOLOGICAL SETTING AND MINERALIZATION

### 7.1 REGIONAL GEOLOGY

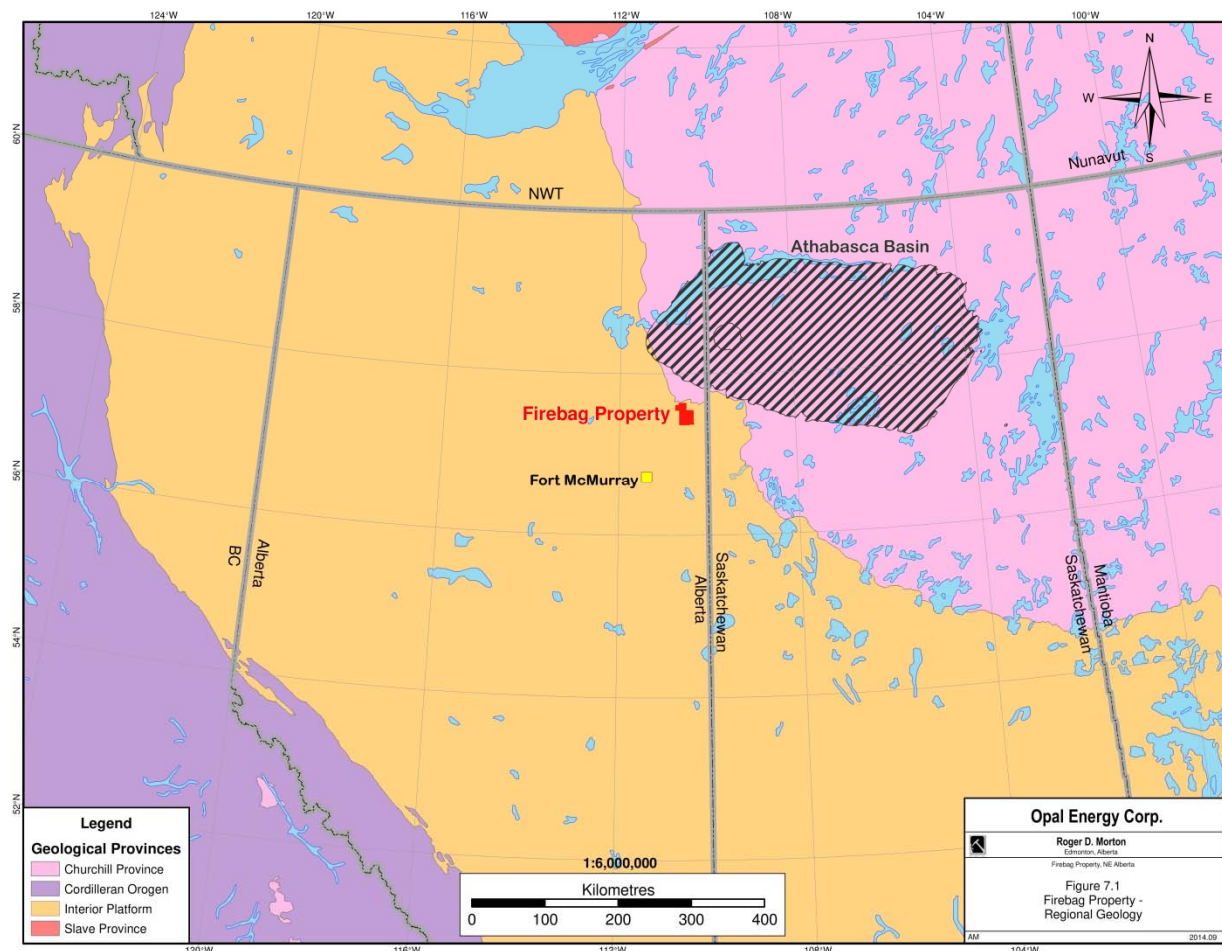
The Firebag Property lies within the Interior Platform Geological Province and is primarily underlain by rocks of the Canadian Shield and the Western Canadian Sedimentary Basin (“WCSB”). The Interior Platform Geological Province extends from past the Alberta border in the south to the Arctic Platform in the north, and is bounded by the Cordilleran Orogen to the west and the Churchill Province in the east (Figure 7.1).

Within the Interior Platform lies the Western Canadian Sedimentary Basin. The WCSB comprises the Canadian Cordillera to the west and two sedimentary basins to the east, namely: the Alberta Basin (primarily located in Alberta) and the Williston Basin (centred in North Dakota and extending into Southern Saskatchewan and Manitoba) (Alberta Geological Survey, 2014). Where the WCSB underlies the Firebag Property it is made up of flat-lying to gently dipping Phanerozoic strata that unconformably overlie Precambrian crystalline basement rocks of the Canadian Shield (Olson *et al.*, 1994).

Roughly 30 km northeast of the northern boundary of the Firebag Property lies the edge of the Athabasca Basin. The basement of this sedimentary basin is made up of Precambrian gneisses and metasedimentary rocks. This crystalline basement is unconformably overlain by relatively undisturbed and unmetamorphosed flat-lying sandstones and conglomerates of the Athabasca Group. The Athabasca Basin hosts some of the world’s largest known unconformity-related high-grade uranium deposits. It has been hypothesized by many explorers that the Athabasca Basin once covered a much larger area and has been eroded and reduced in area over time. Areas outside the current boundary of the Athabasca Basin may still represent previous sub-Athabasca basement rocks.

Due to the lack of exposed basement rock within the Property area, the basement geology is not well understood. Most of the basement terrain interpretation is based upon aeromagnetic surveys and chronological studies of core (Ross *et al.* 1991). Historically, basement rocks in the area have been assigned to the Clearwater domain of the Archean Rae Province. More recent aeromagnetic data (Eccles *et al.*, 2014) have suggested that the basement rock in the region of the Property is of the 1.9 – 2.0 Ga Taltson Magmatic Zone (Chacko *et al.*, 2000). The Taltson Magmatic zone (“TMZ”) is made up of granitic plutonic rocks which intruded into quartzitic to pelitic supracrustal rocks (Ross *et al.*, 1991) and is bounded by the Buffalo Head Terrane to the west (2.0 – 2.4 Ga) and the Archean Rae Province to the east. The Rae Province is bounded to the TMZ by a complex zone of brittle to ductile faulting and is comprised of north-south trending, foliated granitic rocks and amphibolite, metagabbro, and mafic gneiss. There are also minor remnants of high-grade pelitic paragneiss, similar to that intruded in the TMZ (Bostock and Van Breeman, 1994). This complex fault zone, which defines the boundary between the TMZ and the Rae Province, is located near the Property. As a result, the Rae Province, and more specifically the Clearwater domain, may also make up part of the basement underlying the Property, as recorded beneath the western Athabasca Basin (Ross *et al.*, 1991).

In the WCSB, basement rocks are overlain unconformably by Paleozoic to Cenozoic bedrocks, made up of marine to non-marine sedimentary rocks. The sediment accumulation within the WCSB is associated with episodes of orogenic deformation in the Cordillera (Alberta Geological Survey, 2014). The WCSB strata thicken from an erosional edge in the northeast, where it is bounded by the Canadian Shield, to more than 6 km thick at the western boundary (Olson *et al.*, 1994). In northeastern Alberta, near the Property, Middle and Upper Devonian marine shales, carbonate and evaporitic lithologies are unconformably overlain by Lower Cretaceous marine to deltaic sedimentary rocks.

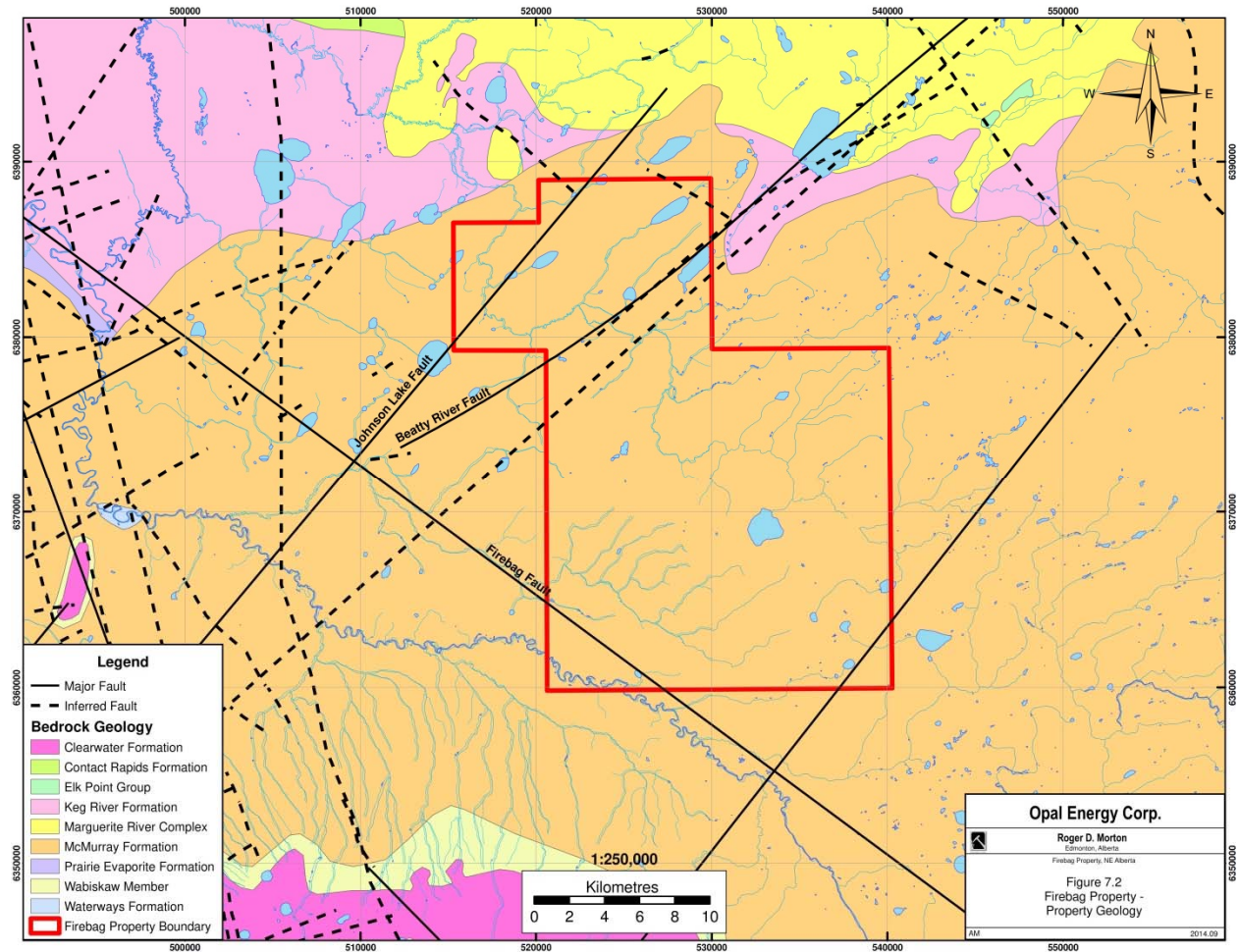


**Figure 7.1 Regional Geology**

## 7.2 PROPERTY GEOLOGY

The precise basement geology of the Firebag Property is still largely unknown, due to the limited number of drill holes that penetrated to the basement. The basement rock in the region has historically been mapped as the Clearwater domain of the Archean Rae Province; however, more recent geophysical studies suggest that the Property is likely underlain by bedrock from the Taltson Magmatic Zone (Eccles *et al.*, 2014). The Taltson Magmatic Zone primarily comprises granitoids, metasedimentary gneisses, granitic basement gneisses, and amphibolite (Chako, 2000).

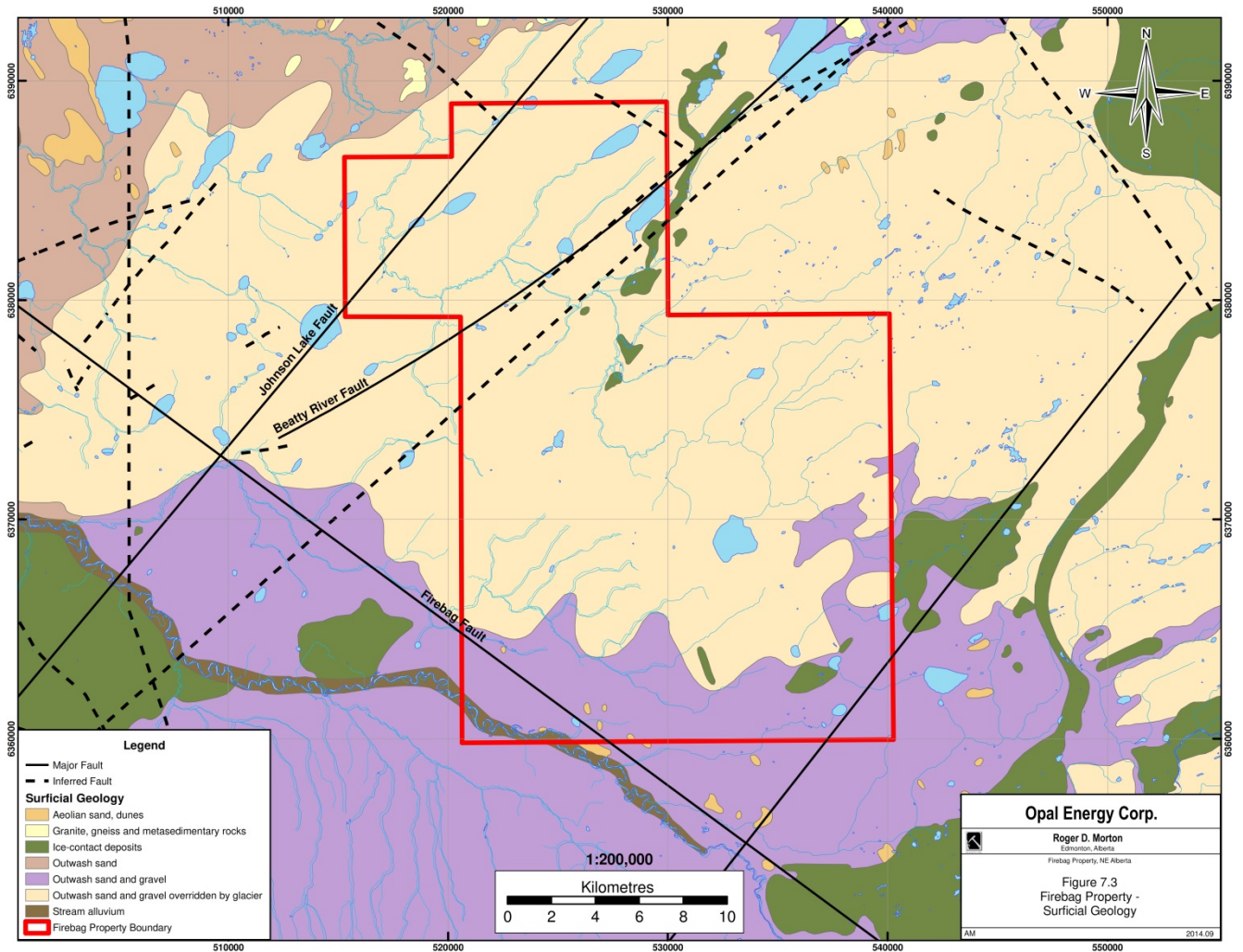
The Firebag Property is primarily underlain by sands of the Cretaceous McMurray Formation (Figure 7.2). The McMurray Formation is generally fine-grained, moderately-sorted quartz sand, often saturated with bitumen (Carrigy, 1959). The McMurray Formation can be divided into three different members. The lower member, which has not been identified on the Firebag Property, has been described as poorly sorted conglomerate, argillaceous sand, silt, and clay. The middle member consists of massive- to thin-bedded, fine-grained oil sand. The upper member consists of very-fine-grained oil sand. In the area of the Firebag Property the McMurray Formation is expected to have a thickness of approximately 30 m and it may be devoid of oil (Glass, 1997).



**Figure 7.2 Bedrock Geology and Structure**

At surface the Firebag Property is dominated by a thick veneer of fluvio-glacial Quaternary sediments. The surficial geology of Alberta was mapped by the Alberta Geological Survey during their Surficial Mapping Project. The Firebag Property was described as containing extensive outwash sand and gravel (often overridden by glaciation), stream alluvium, and ice-contact deposits. The 2013 and 2014 exploration programs primarily targeted the ice-contact sands as shown in Figure 7.3. Locally, these deposits have been described as multi-layered, with a thin upper quartz-rich sand layer (10 to 40 cm thick), a middle cobble and boulder layer (20 to 90 cm thick), and a thick lower quartz-rich sand layer open at depth (greater than 5 m thick). See section 9 “Exploration” and 10 “Drilling” for a more detailed description of the strata.

The Firebag Property is crosscut by several faults identified in historic work and regional geophysical studies. These include the Betty River Fault Zone, the Firebag Fault, the Johnson Lake Fault, and several other inferred faults. The detailed geological structure on the Firebag Property is still largely unknown.



**Figure 7.3 Surficial Geology**

### 7.3 MINERALIZED ZONES

Declan’s 2013 and 2014 exploration focused upon identifying sands with the potential for use as a proppant in hydraulic fracturing. Exploration targeted sands of the McMurray Formation, as well as Quaternary sands, namely the ice-contact sand deposits in the north. To date, analytical results have been promising with high levels of grain sphericity and roundness, suitable grain size, and high silica composition. The surficial and depth extents of the sand deposits on the Firebag Property are still poorly understood. Athabasca Minerals’ Firebag Project, located 50 km west, has identified Quaternary sands with fracking potential in 2 of 5 units.

To date no uranium mineralization has been identified on the Firebag Property. The nearest confirmed uranium occurrence is located on the Maybelle River Project of Areva Resources Canada, which is host to the Dragon Lake Zone, located approximately 65 kilometres north of the Firebag Property. Mineralization is reported as being approximately 110 m in strike length, varies from 1 to 40 m in vertical extent, and is narrow at 1 to 5 m wide. Grades vary from several hundred ppm up to 54.5% uranium. Associated elements are Ni, As, Co, Cu, Pb, Mo and B (Wheatley and Cutts, 2006).

The author has been unable to personally verify the uranium mineralization at the Maybelle River Project, or fracking sand mineralization at Athabasca Minerals Firebag Project. These occurrences are not necessarily indicative of the potential for any analogous fracking sand or uranium mineralization on the Firebag

Property. However, given the proximity of these properties, and their similar geological settings, it would be expected that mineral deposits, if present on the Property, might be similar to those of the Maybelle River Project (uranium) or Athabasca Minerals Firebag Project (fracking sand).



## 8 DEPOSIT TYPES

The region south of the Athabasca Basin, where the Firebag Property is located, is considered prospective for unconformity-related uranium deposits. It has been hypothesized that the Athabasca Basin once covered a much larger area and has been eroded over time. Therefore areas outside the current boundary of the Athabasca Basin may represent previous sub-Athabasca Basin basement rocks and the deeper, basement-hosted roots of unconformity-related deposit may have not yet been eroded. The formation of Devonian and Cretaceous sediments of the Western Canadian Sedimentary Basin (“WCSB”) atop the Paleoproterozoic and Archean basement rocks has obfuscated the geological boundary of the Athabasca Basin. Outliers of the Athabasca Basin below the WCSB may exist and their detection will be especially difficult.

The region is also prospective for deposits of silica sand with potential for use in as proppants in hydraulic fracturing. Economically viable silica sand deposits can vary in age and deposition, ranging from supermature consolidated sandstones to strongly reworked, unconsolidated eolian, fluvial, or glacial deposits. Historically most silica sands have been sourced from supermature quartzose sands; however, recent exploration in the Athabasca region has led to the discovery of Quaternary deposits meeting the specifications for hydraulic fracturing proppants.

Thus the targeted mineral deposits within the Firebag Property will likely be:

1. Basement-hosted, unconformity type deposits, similar to those discovered at Cameco’s Eagle Point Mine;
2. Formational and Quaternary silica sand deposits, similar to those at Athabasca Minerals’ Firebag project; See Section 23 “Adjacent Properties”.

### 8.1 URANIUM DEPOSITS

The target uranium deposit type on the Firebag Property is a basement-hosted, unconformity-related, structurally-controlled deposit similar to those found at Cameco Corporation’s Eagle Point Mine, Millennium Deposit and “02” Zone of McArthur River.

The Athabasca Basin hosts some of the world’s largest and highest-grade uranium deposits, including McArthur River and Cigar Lake. These deposits are typically located at or close to the sub-Athabasca unconformity, and are hosted in both the Athabasca Group sandstones above the unconformity; and in the Paleoproterozoic metamorphic supracrustal rocks and intrusives of the Archean Hearne Craton basement (Figure 8.1).

The uraniumiferous zones are structurally controlled with relation to the sub-Athabasca unconformity, the basement fault and fracture-zones. Uranium deposits in the Athabasca Basin that occur in proximity to the Athabasca unconformity are characterized as polymetallic (U-Ni-Co-Cu, Pb, Zn and Mo) or as monometallic (Jefferson *et al.*, 2007). Examples of polymetallic deposits include the Key Lake, Cigar Lake, Collins Bay A, Collins Bay B, McClean, Midwest, Sue and Cluff Lake deposits.

Monometallic deposits are completely or partially basement-hosted deposits localized in, or adjacent to, faults in graphitic gneiss and calc-silicate units. Monometallic deposits contain traces of other metals and include exclusively basement-hosted deposits that have developed for up to 500 m below the unconformity, or deposits that may extend from the unconformity downward along faults in, or adjacent to, graphitic gneiss and/or calc-silicate units, such as the McArthur River and Eagle Point deposits (Jefferson *et al.*, 2007).

A basement-hosted monometallic uranium deposit is the most likely type of unconformity-related uranium deposit which could be found on the Firebag Property, as it is located between 30 and 60 kilometres from the



outcropping edge of the Athabasca Basin. The region south of the Athabasca Basin is considered prospective for unconformity-related uranium deposits as it has been hypothesized by many explorers that the Athabasca Basin once covered a much larger area and has been eroded over time. Therefore areas outside of the current boundary of the Athabasca Basin may represent sub-Athabasca basement rocks and the deeper, basement-hosted roots of an unconformity-related deposit may have not yet been eroded.

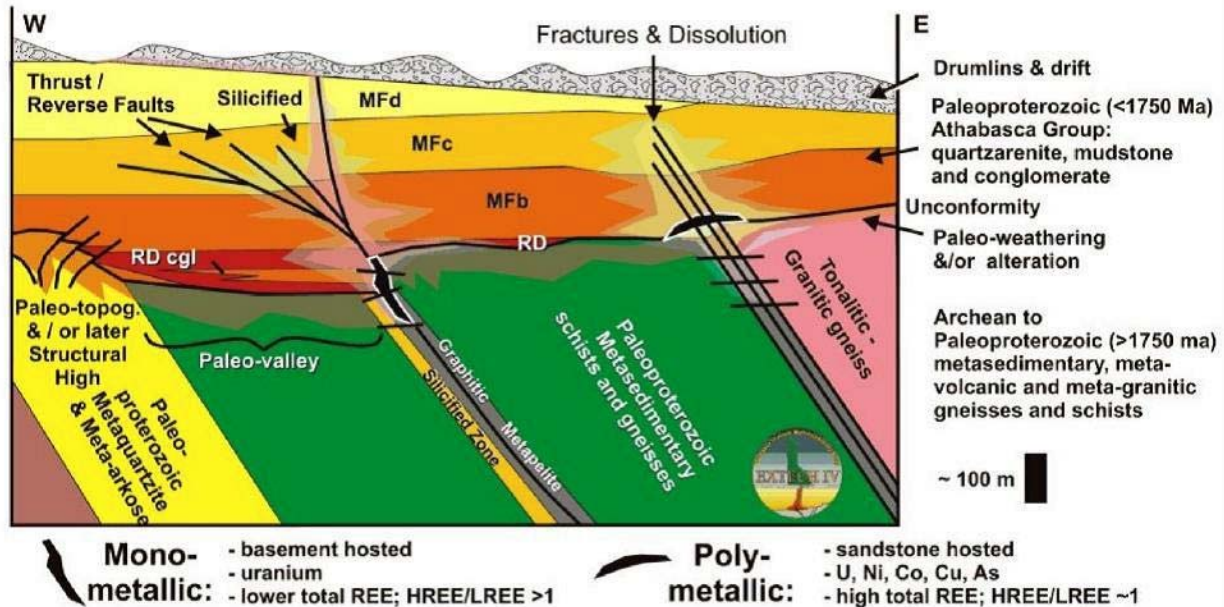


Figure 8.1 Generalized Geological Cross-Sections of Mono- and Polymetallic Unconformity-Associated Uranium Deposits (Jefferson *et al.*, 2007)

## 8.2 SILICA SAND DEPOSITS

Silica sand consists of sands and sandstones that can be easily disaggregated and consist almost entirely of quartz grains. Geologically, sands used as proppants for hydraulic fracturing (“fracking sand”) are supermature quartzose sands, often Cambrian or Ordovician in age. These sands have seen extensive reworking, either by fluvial or eolian processes, generally resulting in high-roundness, -sphericity, and -sorting. In supermature sandstones, impurities are often destroyed during weathering and reworking, resulting in relatively quartz-rich sand. Figure 8.2 shows supermature silica sand (left) versus a regular immature and impure sand (right).



**Figure 8.2 Fracking Sand (left) versus Regular Sand (right)**

Sands on the Firebag Property are primarily within the McMurray Formation, which is Lower Cretaceous in age, or occur within the more recent Quaternary (Pleistocene) outwash and ice-contact deposits. Historically, unconsolidated Quaternary sands have been less prospective for use as hydraulic fracturing proppants, however, work by Athabasca Minerals at their Firebag property has suggested that Quaternary sands in the Athabasca region may meet API RP 56 standards; see section 23 “Adjacent Properties”.

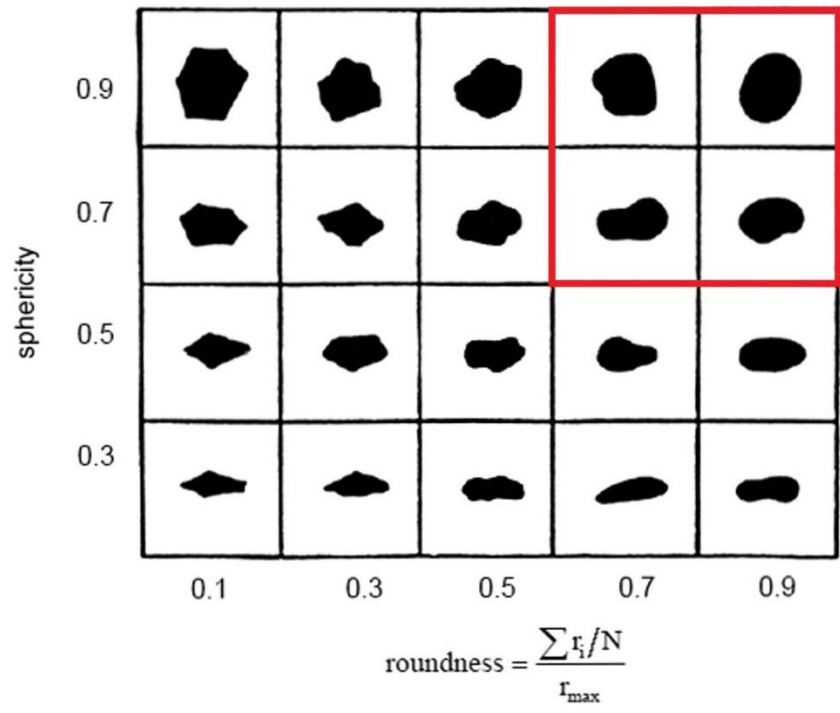
### **8.3 SILICA SAND PHYSICAL PROPERTIES**

The physical properties of silica sand that determine its usefulness as a proppant for hydraulic fracturing are mineral composition, grain size, degree of sorting, grain roundness, grain sphericity, bulk crush resistance, acid solubility, and turbidity. Standards for fracking sands are dictated by the American Petroleum Institute API RP 56.

Fracking sand is generally very pure silica sand composed of greater than 99% quartz (silica). For use as a proppant, the sand is generally well-sorted, thus reducing the need for additional mechanical processing.

Approximately 90% of the silica sand used as a proppant in hydraulic fracturing falls within three (3) sieve mesh size fractions, namely: 20/40, 30/50, and 40/70. Sands falling within sieve size fractions 8/12, 10/20, and 70/140 are less commonly used.

Roundness and sphericity are important for governing porosity and permeability, which collectively affect the gas conductivity of the well. In 1955, Krumbein and Sloss created a chart allowing for the visual estimation of sphericity and roundness. API RP 56 standards recommend a sphericity and roundness in excess of 0.6, as shown by the red quadrant in Figure 8.3. Loring Laboratories Ltd. of Calgary, Alberta recommend sphericity and roundness exceed 0.7 for high-strength proppants.



**Figure 8.3 Fracking Sand Roundness and Sphericity - After Krumbein and Sloss (1955)**

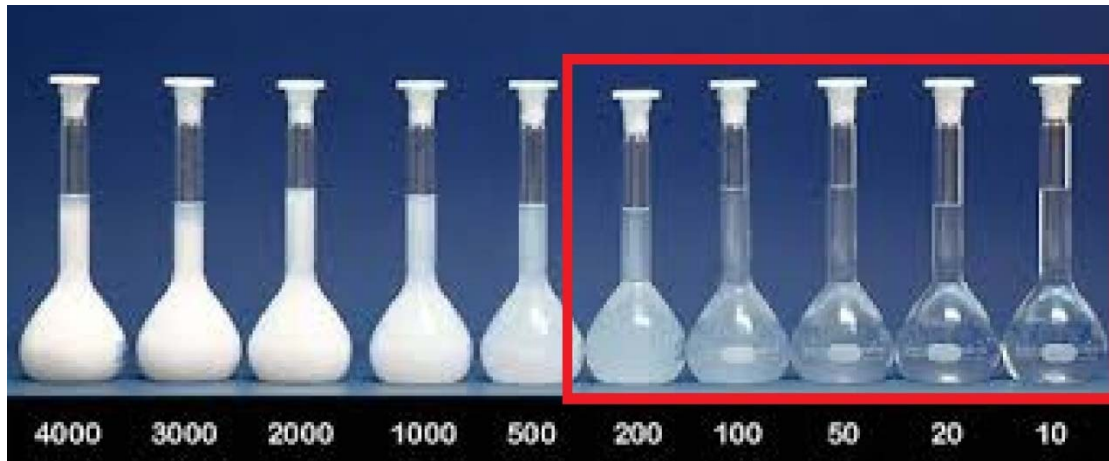
For use as a proppant, API standard requires fracking sand to be highly resistant to crushing. The sand must be able withstand a uniaxial compressive stress of 4,000 to 6,000 psi for two (2) minutes. After this crushing, a maximum amount of fines, as a weight percentage, can be produced dependent upon the initial sieve mesh as shown in Table 8.1.

In order to determine the amount of non-quartz minerals present in the sand, it is subjected to an acid solubility test. Low acid solubility suggests a high concentration of acid resistant quartz. This involves heating the sand in a mixture of hydrochloric and hydrofluoric acid for 30 minutes. A maximum weight loss is dictated depending upon the sieve size, as shown in Table 8.1. Processing, such as washing, will often remove carbonates and feldspars, reducing the acid solubility.

**Table 8.1 Crush Resistance and Acid Solubility**

Sieve Mesh	Max Fines by Weight (%) after Crushing	Max Acid Solubility by Weight (%)
6/12	20	2
16/30	14	2
20/40	14	2
30/50	10	2
40/70	6	3

In order to determine the amount of clay minerals present, the “turbidity” of the sand is tested. In general it must not exceed 250 FTU as shown by the red quadrant in Figure 8.4. Washing will often remove significant amounts of clay minerals, making this standard much easier to meet. Attrition processes can also be used to remove unwanted clays and fines.



**Figure 8.4 Fracking Sand Acceptable Turbidity Ranges (FTU)**

## 9 EXPLORATION

This technical report is a compilation and evaluation of historic exploration as well as a summary of work conducted by Declan Resources Inc. within the Firebag Property. Exploration completed on adjacent properties is summarized in Section 23 “Adjacent Properties”; historic exploration is summarized in Section 6 “History”.

During the past year (Nov 2013 to Sept 2014), exploration by Declan focused upon surficial silica sands with potential for use as a proppant in hydraulic fracturing. Declan also conducted a review of historical sampling geophysics, and oil sands core in the area, with a focus on identifying large-scale geological structures with potential for uranium mineralization. In early 2014, a three-day visit was made to the Energy Resources Conservation Board (“ERCB”) core laboratory in order to evaluate the sands for potential as proppants, as well as to identify geological structures or radioactivity associated with uranium mineralization. Eighteen holes were logged, tested for radioactivity using a scintillometer, and examined under the microscope.

In 2013, 10 test pits were hand dug on the property to evaluate potential silica sand deposits and their suitability for use as proppants in hydraulic fracturing. This program was followed up in 2014 by a test pit and hand auger program, consisting of 2 test pits and 13 auger holes, targeted at evaluating the silica sands at depth. The 2014 hand auger program is discussed in Section 10 “Drilling”. The total exploration expenditures by Declan between November 2013 and September 2014, which included two sand sampling programs, consultancy costs and core analysis in the ERCB laboratory, amounted to a total of \$118,886.

### 9.1 2013/2014 SILICA SAND TEST PITS

In 2013, a total of 10 test pits, totalling approximately 10 m in depth were excavated across the Firebag Property. A total of 12 samples were collected from 8 pits. Test pits were dug using hand shovels and pick axes. The uppermost 0.1 to 0.5 m was frozen due to the cold weather, making excavation in some areas difficult. Test pits were excavated to depths between 0.3 and 1.75 m and varied in diameter between 0.2 and 1.0 m. They were generally terminated due to the depth limits of the hand shovel. A summary of the location, total depth, and sampled depths for the 2013 test pits are displayed in Table 9.1.

In 2014, a further 2 test pits, each approximately 1 m deep, were excavated. A sample was collected from below the base of each pit. A summary of the location, total depth, and sampled depths for the 2013 test pits are displayed in Table 9.1. Figure 9.1 shows the location of the 2013 and 2014 test pits.

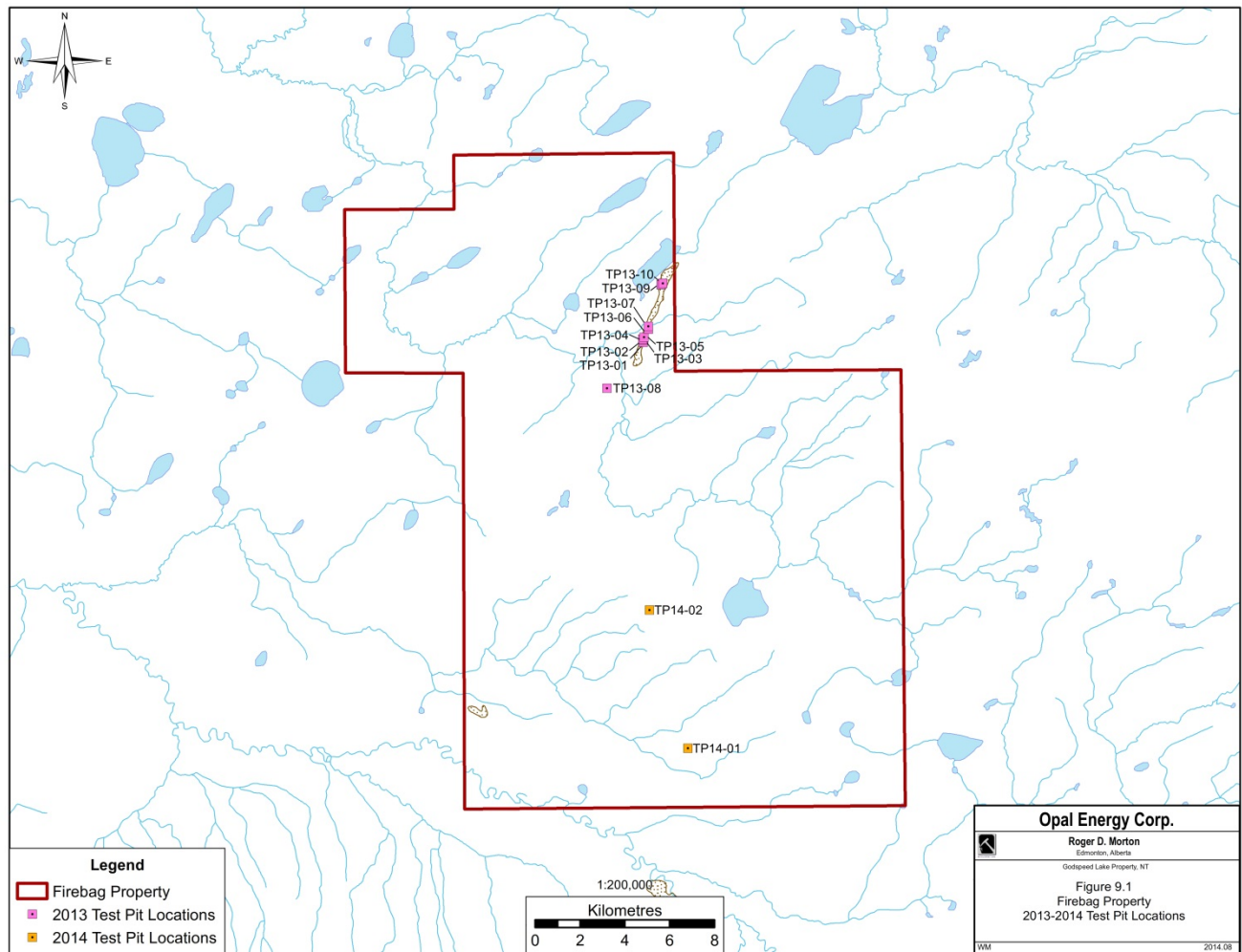
**Table 9.1 Test Pit Summary - 2013**

Pit	Easting	Northing	Total Depth (m)	Sample Depths (m)
TP13-01	528585	6380602	0.3	0.3
TP13-02	528614	6380707	1.75	1.75
TP13-03	528584	6380700	1.22	1.22
TP13-04	528567	6380741	1	1
TP13-05	528634	6380829	-	-
TP13-06	528814	6381187	1.1	0.6, 1.1
TP13-07	528818	6381320	-	-
TP13-08	526982	6378562	1	1
TP13-09	529392	6383168	1	0.4, 1.0

TP13-10	529467	6383229	1	1
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**Table 9.2 Test Pit Summary - 2014**

Pit	Easting	Northing	Total Depth (m)	Sample Depths (m)
TP14-01	530582	6362513	1	1
TP14-02	528865	6368681	1	1



**Figure 9.1 2013 and 2014 Test Pit Locations**

In general, the ridge targeted by the 2013 test pits commonly had three distinct layers. The upper layer consisted of fine-grained, whitish grey quartz-rich sand, with minimal impurities and was typically less than 0.2 m thick. Two samples were collected from this layer. The middle layer averaged between 0.1 and 0.5 m thick, consisting of rusty orange, silty sand with varying amounts of cobbles and pebbles. The lower layer consisted of an unconsolidated, whitish brown to beige, fine-grained to coarse-grained, sub-rounded to rounded, quartz-rich sand. The lower sand layer was homogenous and nearly every test pit ended in this

layer, leaving the true thickness untested. Sampling primarily targeted the sands of the lower layer; the remaining ten samples were collected from this horizon.

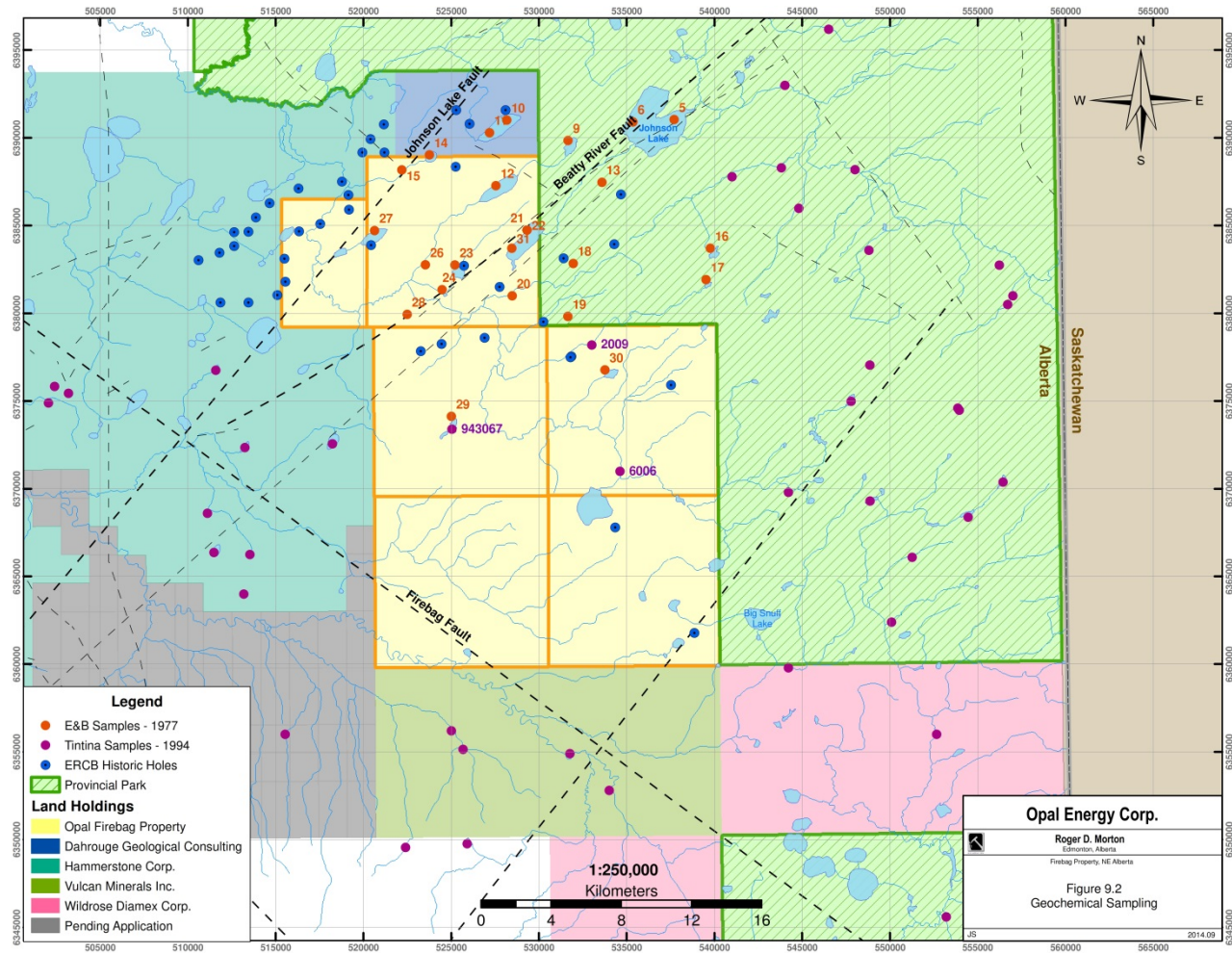
## 9.2 HISTORICAL GEOCHEMICAL SAMPLING

In 1977, E&B Explorations Ltd. conducted lake sediment and water geochemical sampling across the northern portion of the Firebag Property. These samples are summarized below in Table 9.3. Between 1993 and 1996, Tintina Mines Ltd. conducted an extensive geochemical sampling program across portions of the property as summarized in Section 6 "History". Table 9.3 below summarizes the historic samples on Declan Resources Inc.'s present day Firebag Property (Figure 9.2). A review of the geochemical sampling returned an anomalous cobalt value, E&B sample 28, with 11 ppm Co, located near the Beatty River Fault.

**Table 9.3 Historic Geochemical Sampling - Firebag Property**

Operator	Sample ID	Easting	Northing	As ppm	Co ppm	Mo ppm	Ni ppm	Pb ppm	U ppm	Zn ppm	Br ppm	Cr ppm	Cu ppm
E&B	12	527536	6387287	-	4	2	8	7	0.2	76	-	-	3
E&B	15	522180	6388183	-	-	-	-	-	-	-	-	-	-
E&B	20	528461	6380997	-	6	4	8	4	0.6	103	-	-	6
E&B	21	529315	6384755	-	6	-	8	5	0.6	70	-	-	5
E&B	22	529315	6384755	-	-	-	-	-	-	-	-	-	-
E&B	23	525207	6382756	-	6	4	7	5	0.4	138	-	-	6
E&B	24	524473	6381349	-	4	3	8	4	0.4	162	-	-	5
E&B	26	523521	6382764	-	4	3	8	4	0.2	147	-	-	4
E&B	27	520624	6384729	-	4	1	5	4	0.4	94	-	-	5
E&B	28	522479	6379941	-	11	4	11	14	0.2	78	-	-	3
E&B	29	525008	6374128	-	4	2	2	7	0.4	79	-	-	4
E&B	30	533753	6376774	-	4	3	5	4	0.8	180	-	-	6
E&B	31	528442	6383721	-	4	2	5	5	0.8	100	-	-	5
Tintina	2009	533000	6378200	0.8	0.5	0.5	10.0	2.0	0.3	25.0	7.7	8.0	-
Tintina	6006	534600	6371000	0.3	0.5	1.0	10.0	1.0	0.3	25.0	5.0	5.0	-
Tintina	943067	525035	6373399	0.8	2.5	1.0	5.0	4.0	0.6	110.0	50.5	24.0	-





**Figure 9.2 1994 Tintina Geochemical Sampling**

### 9.3 HISTORICAL GEOPHYSICAL SURVEYS

A brief review of regional and historic geophysical surveys has been completed with the intention of identifying potential structural targets for future uranium exploration. Figure 9.3 to 9.5 shows geophysical surveys and the identified structures. A large fault system was noted running through the northwest portion of the Firebag Property (Eccles *et al.*, 2014). This feature likely has the greatest potential for monometallic, basement-hosted uranium mineralization.



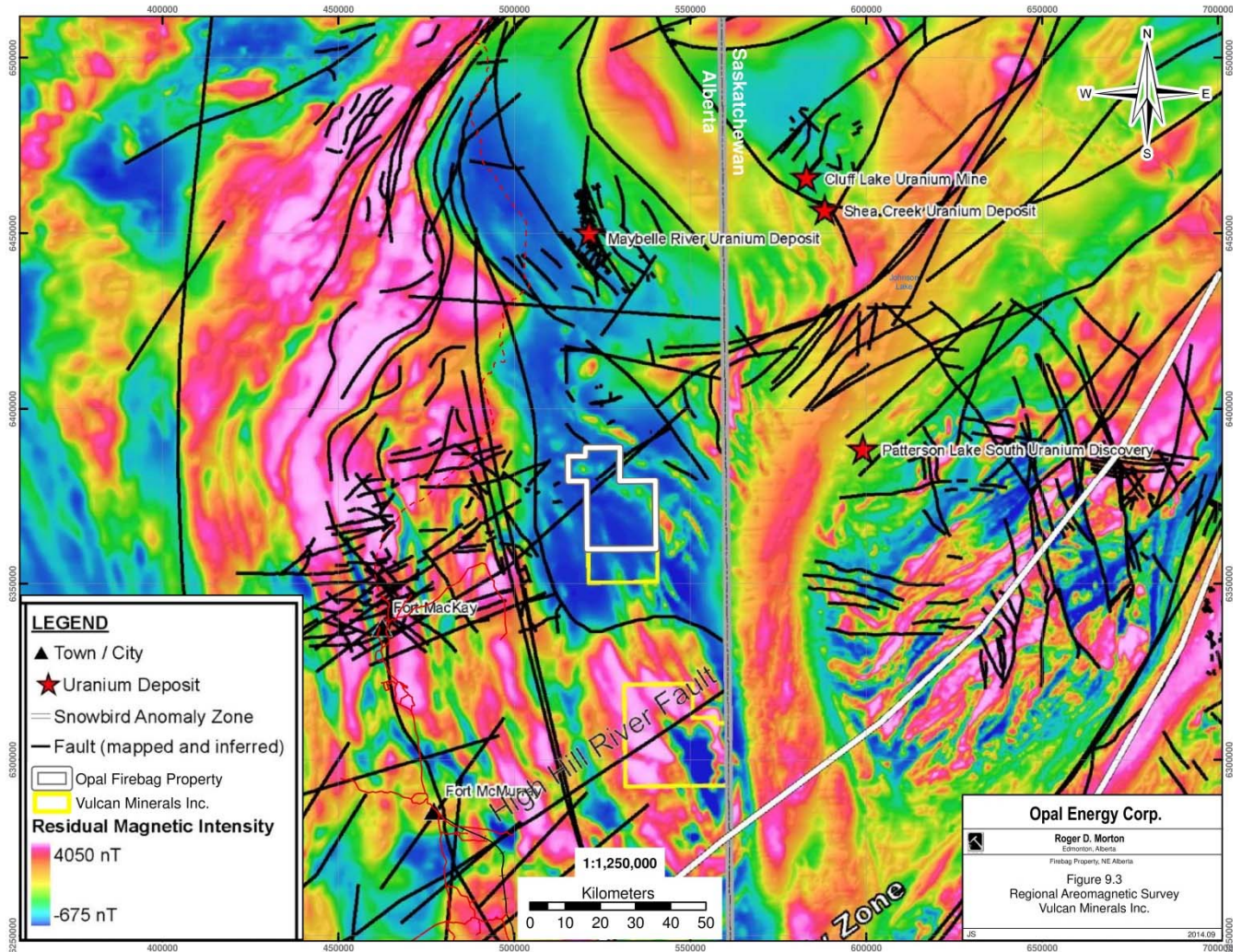


Figure 9.3 Regional Geophysics - Residual Magnetic Intensity from Eccles *et al.*, 2014

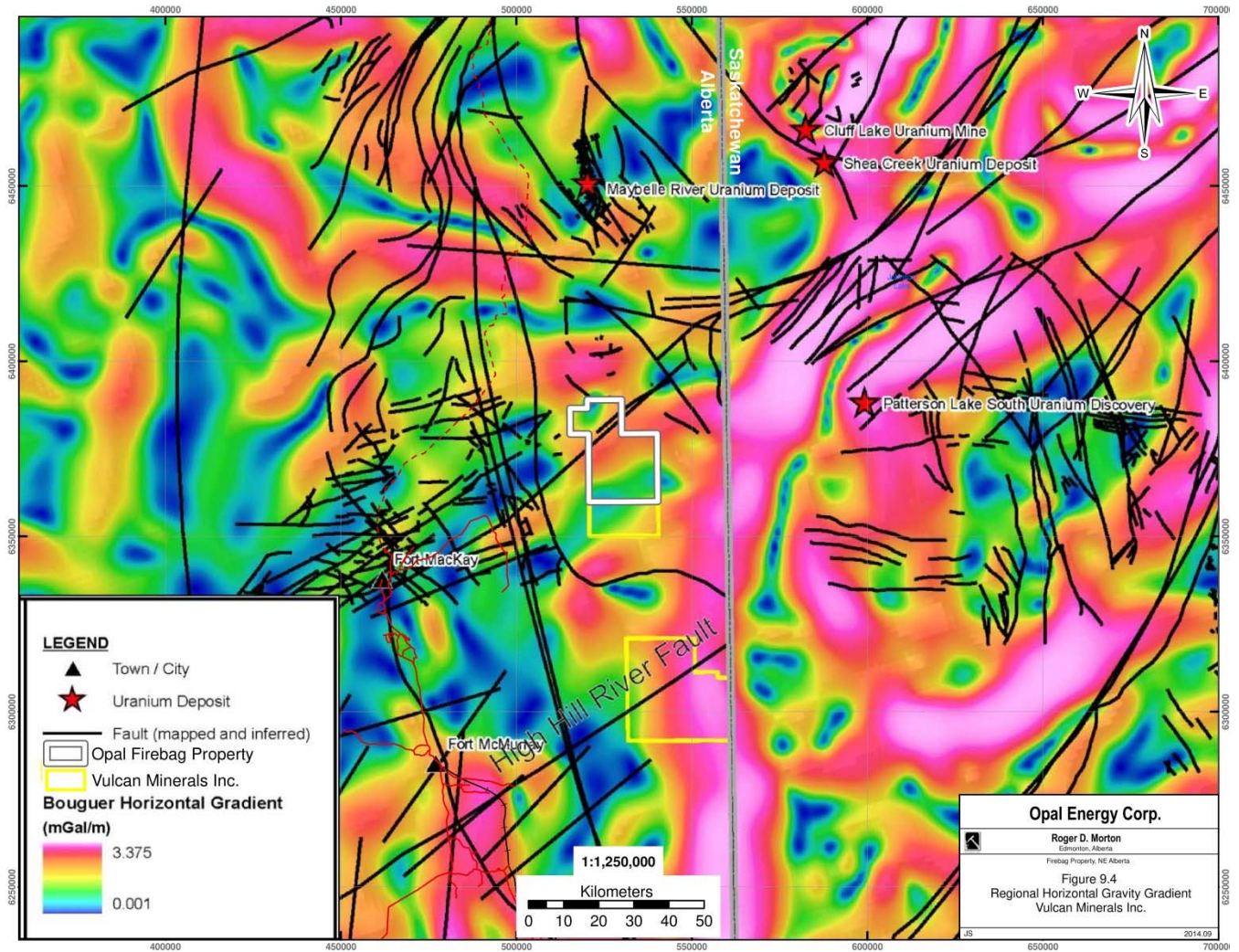


Figure 9.4 Regional Geophysics - Bouguer Horizontal Gradient from Eccles et al., 2014

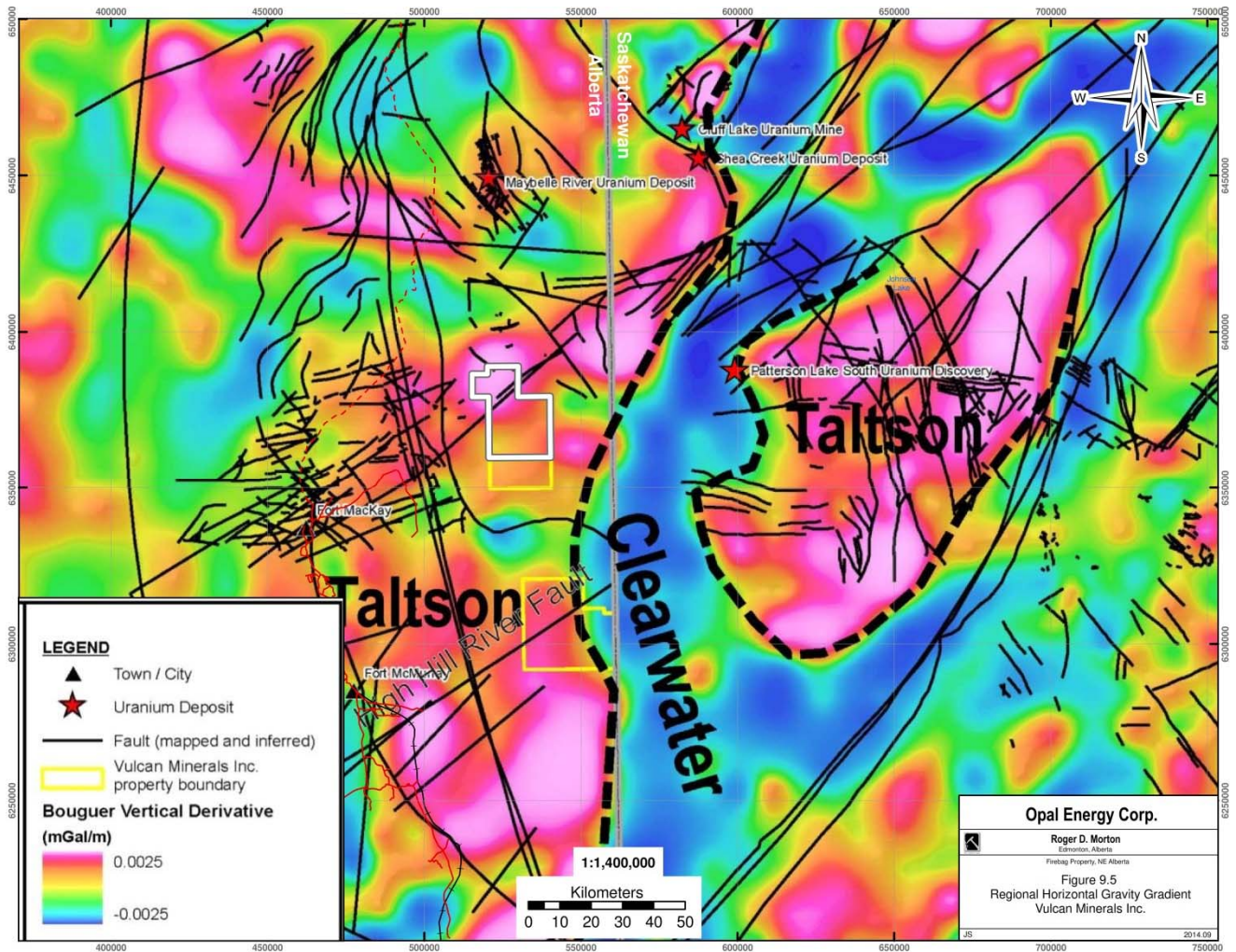


Figure 9.5 Regional Geophysics - Bouguer Vertical Derivative from Eccles et al., 2014

## 10 DRILLING

In 2014, Declan Resources Inc. conducted a hand auger program on the Firebag Property with the intent of evaluating the potential proppant silica sands at depth.

### 10.1 2014 AUGER PROGRAM

The 2014 hand auger program consisted of 13 holes, totalling approximately 43.82 m. A total of 13 silica sand samples were collected. Auger holes were terminated due to limited time on the ground, the depth limits of the hand auger or intersecting a boulder at depth. A summary of the location, total depth, and sampled depths for the 2014 hand auger holes are displayed in Table 10.1. Figure 10.1 shows the location of the holes.

**Table 10.1 Hand Auger Hole Summary - 2014**

Pit	Easting	Northing	Azimuth (°)	Dip (°)	Total Depth (m)	Sample Depths (m)
FB14-01	528586	6380590	360	-90	5.3	1.5
FB14-02	528619	6380627	360	-90	3.95	2.55
FB14-03	529489	6383011	360	-90	3.25	3.25
FB14-04	526982	6378562	360	-90	1.07	n/a
FB14-05	527174	6378212	360	-90	5.1	2
FB14-06	531512	6368649	360	-90	3.75	0.3, 2.50
FB14-07	530631	6368369	360	-90	1.8	1.3
FB14-08	528801	6380410	360	-90	0.8	0.8
FB14-09	528495	6380392	360	-90	2.8	2
FB14-10	528419	6380127	360	-90	5.5	3
FB14-11	528552	6369010	360	-90	2.1	0.1
FB14-12	528661	6368695	360	-90	4.9	2.3
FB14-13	522978	6367093	360	-90	3.5	2.8

Results were consistent across the Property. The hand auger holes encountered three distinct layers, similar to what was discovered during the 2013 surface sampling program. The uppermost layer consisted of fine-grained, grey, quartz rich sand between 0.1 to 0.4 m thick. The second layer varied in thickness between 0.2 and 0.9 m and consisted of rusty orange sand with abundant cobbles and boulders. The lowermost layer consisted of medium-grained, beige coloured, quartz-rich sand with rounded to sub-angular grains. It appeared very clean and consistent throughout its depth intervals. The average thickness of this unit is still largely unknown due to limited full thickness intersections. Sampling primarily targeted the lowermost silica sand layer.

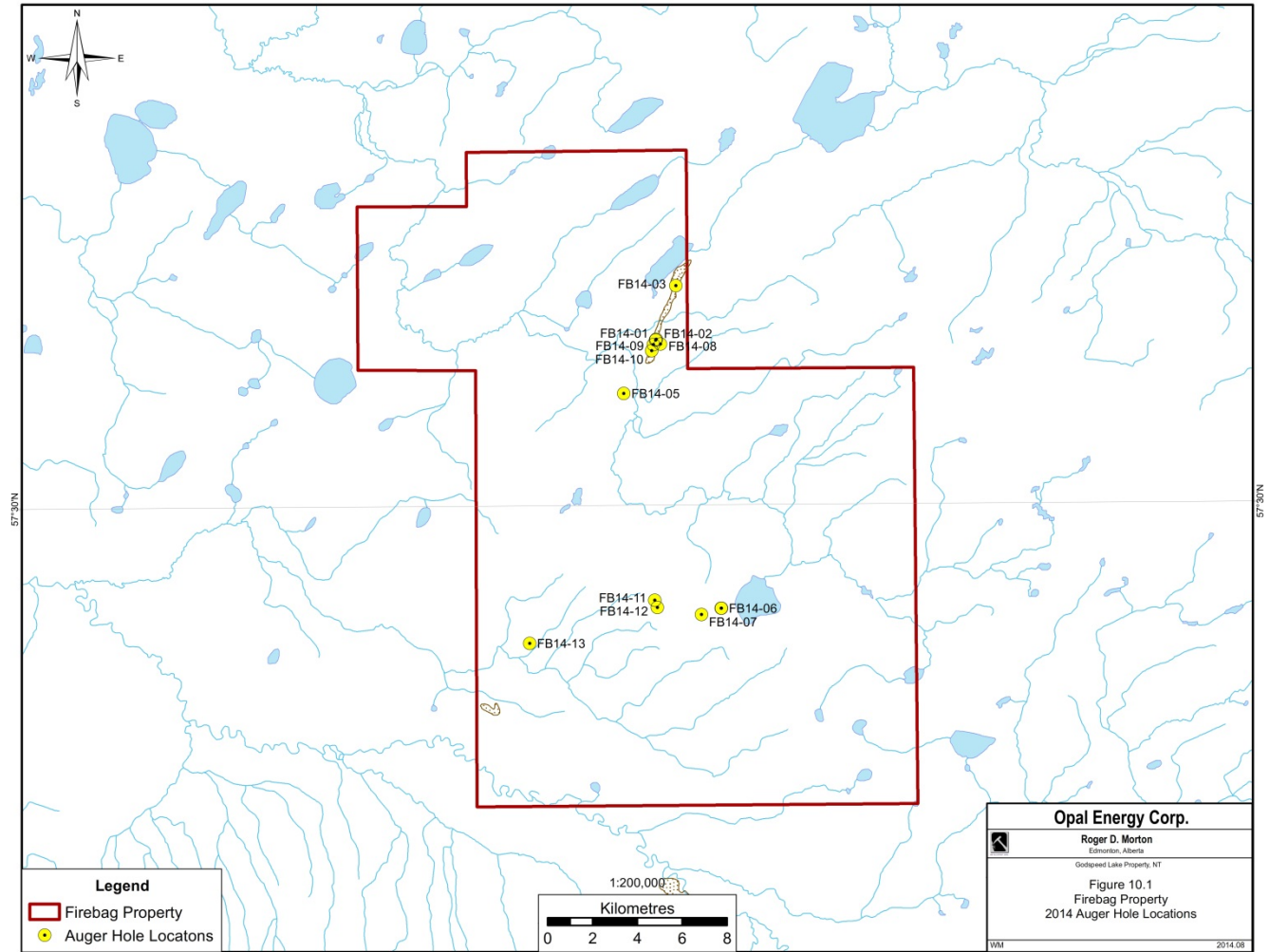


Figure 10.1 2014 Hand Auger Hole Locations

## **11 SAMPLE PREPARATION, ANALYSES, AND SECURITY**

Although samples have been collected in the past, little information is available on their preparation or analysis. Sampling methodology, preparation, analyses, and security for samples taken by Declan Resources Inc. are described herein.

### **11.1 2013 AND 2014 TEST PIT SAMPLING**

Samples were predominantly collected from the base of the test pits using a shovel to place sand into a pre-labelled plastic sample bag. The colour, grain size, sorting, silica content, grain sphericity and roundness, and amount of organics were noted by the field crew where applicable. At least 5 kg of sand were collected for each sample to allow for the full proppant analysis suite to be conducted.

Samples were driven via truck from Fort McMurray to Dahrouge Geological Consulting Ltd.'s office in Edmonton. Dahrouge Geological Consulting also holds property adjacent to the Firebag Property, as described in Section 23 "Adjacent Properties". Samples were then evaluated under a microscope for sphericity and roundness. Photographs were also taken using the microscope, allowing the individual grains to be viewed while under magnification. The four samples that appeared to have the highest silica content and the most rounded and spherical grains were selected and sent to Loring Laboratories Ltd. in Calgary, Alberta, an independent laboratory, for analysis.

### **11.2 2014 HAND AUGER SAMPLING**

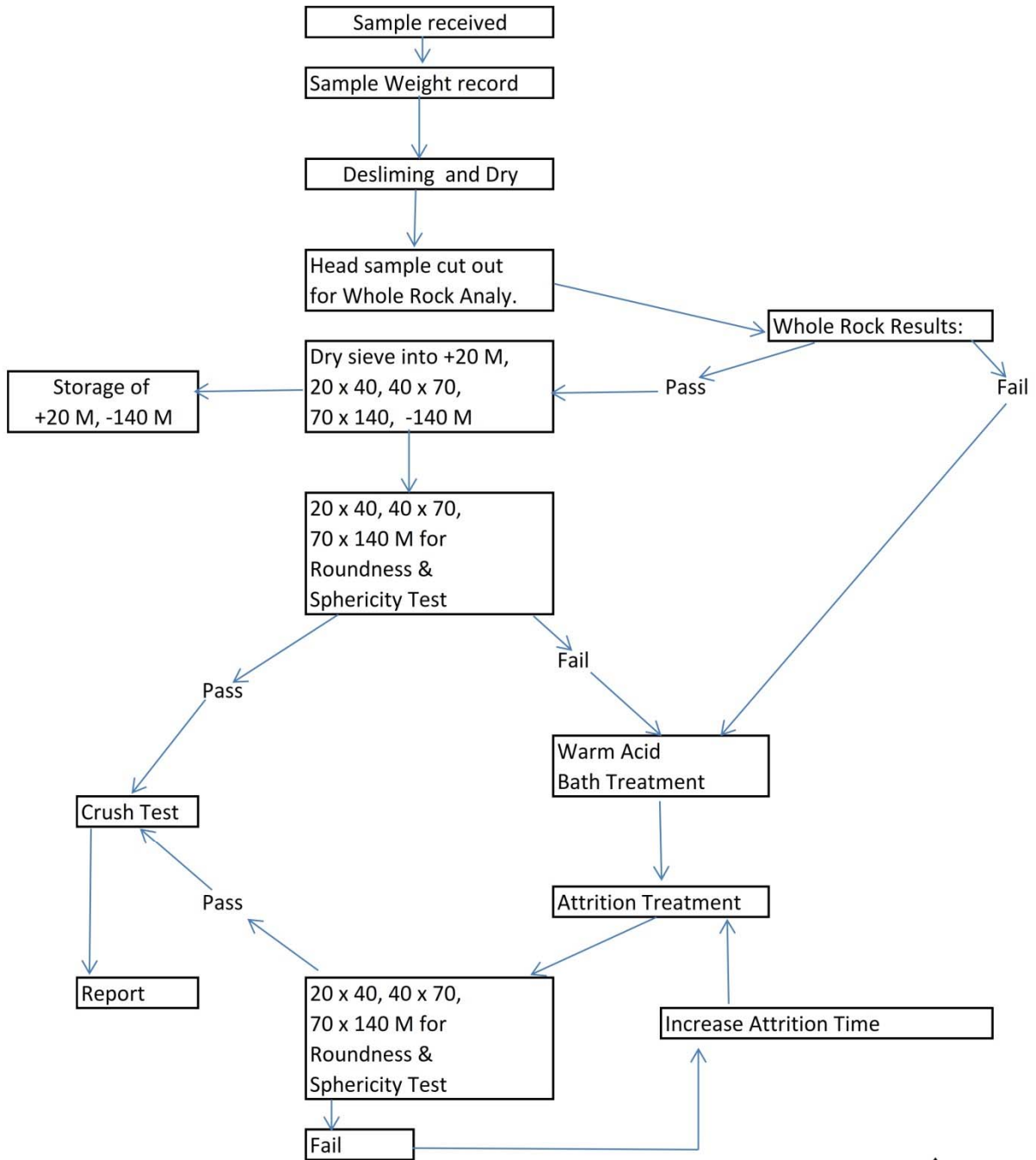
The 2014 hand auger holes were completed using both a shovel as well as a hand auger. A small pit was first excavated to a depth below the middle layer, as described in Section 9.1, containing abundant cobbles and boulders. Final pits were approximately 0.2 to 0.7 m in diameter and between 0.2 to 0.9 m in depth. Once the pit was excavated to a depth below the cobble/boulder unit and into the lowermost clean sand unit, a hand auger was used. The hand auger was advanced through the sand until the bit became filled with material. It was then removed from the auger hole and struck with a shovel until cleared. This process was repeated until enough material was removed or the hole was completed.

Samples were collected at varying depths within the auger holes across the Property. When sample collection was initiated, the depth of the auger hole was measured. The material from each advancement of the auger was placed into a rice bag until approximately 5 kg of material were recovered. The resulting sample intervals were between 0.5 m and 1.0 m. The colour, grain size, sorting, silica content, grain sphericity and roundness, and amount of organics were noted by the field crew where applicable. The sample was then placed into a pre-labelled plastic sample bag and sealed with a zip tie.

Samples were shipped from Fort McMurray to Dahrouge Geological Consulting Ltd.'s office in Edmonton. There, the samples were examined and photographed under a microscope. Ten samples displaying the highest silica content and the most rounded and spherical grains were selected and sent to Loring Laboratories for analysis.

### **11.3 SAMPLE ANALYSIS - LORING LABORATORIES LTD.**

All analyses from the 2013 and 2014 programs were performed by Loring Laboratories Ltd. in Calgary, Alberta. Loring is an independent laboratory with ISO 9001:2008 certification. Four samples from the 2013 test pit program and ten samples from the 2014 hand auger program were submitted for testing according to API RP 56 parameters for fracking sand. The testing process used by Loring is summarized in Figure 11.1.



**Flow Chart for Frac Sand Treatment and Testing**



Loring Laboratories (Alberta) Ltd.

**Figure 11.1 Loring Laboratories Ltd. - Fracking Sand Analysis Flow Chart**

Initial results for the four 2013 test pit samples were promising, with all samples returning high-silica content, -grain sphericity and -roundness, as well as the majority of the grains falling within the desired mesh sizes. Loring Laboratories was instructed to report the results following the initial phase of the analysis

before proceeding with further testing. Loring recommends that high strength proppants exceed API RP 56 requirements of 0.6 sphericity and roundness ( $> 0.7$ ) and requested a follow-up acid bath/attrition test to improve sphericity and roundness and correct for impurities before proceeding with further analysis (crush test, acid dissolution, and turbidity). This was rejected at the time due to the costs associated with the requested testing. Results from the initial phase of analysis are summarized in Table 11.1 to 11.3.

**Table 11.1 Sieve Analysis - 2013 Test Pit Samples**

Product (wt %)	Sample ID			
	82227	82232	82234	82236
+20	1.7	1.8	7.5	0.5
20/40	29.3	3.3	10.2	9.7
40/70	61.8	39.7	31.9	69.3
70/140	7.1	53.2	36.7	19.4
-140	0.2	2.0	13.6	1.1
<b>Total Usable (wt %)</b>	<b>98.2</b>	<b>96.2</b>	<b>78.8</b>	<b>98.4</b>

**Table 11.2 Sphericity and Roundness Test - 2013 Test Pit Samples**

Sample ID	Sieve Size	Sphericity	Roundness
82227	20/40	0.8	0.6
	40/70	0.8	0.6
	70/140	0.7	0.6
82232	20/40	0.9	0.6
	40/70	0.8	0.5
	70/140	0.8	0.5
82234	20/40	0.8	0.6
	40/70	0.8	0.6
	70/140	0.8	0.6
82236	20/40	0.8	0.5
	40/70	0.8	0.5
	70/140	0.9	0.5



**Table 11.3 Whole Rock ICP Analysis (Major Constituents) - 2013 Test Pit Samples**

Sample ID	Sieve Size	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	CaO	Fe <sub>2</sub> O <sub>3</sub>	K <sub>2</sub> O	Na <sub>2</sub> O	MgO	TiO <sub>2</sub>
		%	%	%	%	%	%	%	%
82227	+20	88.68	5.61	0.37	1.03	0.96	0.66	0.31	0.06
	20/40	96.96	1.30	0.12	0.35	0.18	0.15	0.07	0.02
	40/70	97.46	0.61	0.07	0.40	0.06	0.06	0.03	0.01
	70/140	97.12	0.80	0.11	0.51	0.06	0.08	0.06	0.03
	-140	90.96	3.47	0.57	1.46	0.33	0.36	0.44	0.19
82232	+20	88.92	5.48	0.40	0.97	0.84	0.59	0.32	0.06
	20/40	95.84	1.62	0.15	0.51	0.20	0.17	0.08	0.02
	40/70	96.76	0.84	0.08	0.32	0.10	0.08	0.04	0.01
	70/140	97.58	0.75	0.08	0.27	0.07	0.08	0.04	0.01
	-140	95.60	1.79	0.28	0.76	0.16	0.18	0.18	0.10
82234	+20	87.36	6.17	0.48	1.26	0.99	0.79	0.24	0.07
	20/40	96.02	1.46	0.12	0.40	0.19	0.17	0.04	0.02
	40/70	97.14	0.85	0.07	0.40	0.09	0.08	0.02	0.02
	70/140	96.06	1.22	0.13	0.38	0.15	0.14	0.04	0.04
	-140	94.72	2.02	0.23	0.44	0.24	0.22	0.10	0.12
82236	+20	66.00	11.24	3.49	11.77	0.35	1.99	2.54	0.82
	20/40	97.52	0.63	0.07	0.26	0.05	0.06	0.04	0.01
	40/70	98.36	0.47	0.06	0.35	0.03	0.04	0.02	0.01
	70/140	97.58	0.78	0.09	0.56	0.04	0.06	0.06	0.04
	-140	94.02	1.92	0.30	1.36	0.11	0.16	0.20	0.21

Phase 1 analysis results from the 2014 hand auger program were generally positive. For all samples, greater than 90% by weight fell within the 20/40, 40/70, and 70/140 mesh sizes, which are the commonly used grain sizes for fracking. Overall the samples showed excellent sphericity, ranging from 0.7 to 0.9. Roundness was less consistently high, ranging from 0.5 to 0.7. Opal will need to continue with attrition testing to see if grain roundness can be improved to consistently exceed the API RP 56 requirements of 0.6. Opal is currently awaiting the results of crush testing, acid dissolution, and turbidity tests.

**Table 11.4 Sieve Analysis - 2014 Hand Auger Samples**

Product (wt %)	Sample ID									
	99901	99904	99905	99906	99907	99908	99914	99915	99916	99918
+20	2.1	2.0	0.3	0.3	0.1	0.1	0.7	0.1	0.0	1.1
20/40	34.4	46.0	11.7	6.8	9.1	4.2	9.5	1.7	0.6	23.9
40/70	55.7	45.5	45.7	65.5	77.8	60.6	64.4	30.9	47.0	66.7
70/140	7.6	6.1	39.0	24.2	12.4	33.7	23.8	57.9	47.1	8.0
-140	2.0	0.5	3.3	3.1	0.7	1.4	1.5	9.4	5.3	0.4
<b>Total Usable (wt %)</b>	<b>97.7</b>	<b>97.6</b>	<b>96.4</b>	<b>96.5</b>	<b>99.3</b>	<b>98.5</b>	<b>97.7</b>	<b>90.5</b>	<b>94.7</b>	<b>98.6</b>

**Table 11.5 Sphericity and Roundness Test – 2014 Hand Auger Samples**

Sample ID	Sieve Size	Sphericity	Roundness
99901	20/40	0.8	0.6
	40/70	0.8	0.6
	70/140	0.7	0.6
99904	20/40	0.8	0.7
	40/70	0.8	0.5
	70/140	0.8	0.5
99905	20/40	0.8	0.7
	40/70	0.8	0.8
	70/140	0.7	0.7
99906	20/40	0.9	0.7
	40/70	0.9	0.6
	70/140	0.8	0.5
99907	20/40	0.9	0.6
	40/70	0.8	0.7
	70/140	0.8	0.5
99908	20/40	0.8	0.6
	40/70	0.8	0.6
	70/140	0.7	0.5
99914	20/40	0.9	0.6
	40/70	0.8	0.6
	70/140	0.8	0.6
99915	20/40	0.8	0.7
	40/70	0.8	0.7
	70/140	0.9	0.5
99916	20/40	0.8	0.6
	40/70	0.8	0.5
	70/140	0.8	0.6
99918	20/40	0.8	0.6
	40/70	0.7	0.7
	70/140	0.8	0.6

**Table 11.6 Whole Rock ICP Analysis (Major Constituents) – 2014 Hand Auger Samples**

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	CaO %	Fe <sub>2</sub> O <sub>3</sub> %	K <sub>2</sub> O %	Na <sub>2</sub> O %	MgO %	TiO <sub>2</sub> %
99901	96.53	0.83	0.10	0.40	0.11	0.10	0.06	0.02
99904	97.04	0.65	0.08	0.34	0.07	0.08	0.05	0.02
99905	96.14	0.98	0.11	0.37	0.13	0.13	0.05	0.02
99906	93.24	0.33	0.05	0.22	0.04	0.03	0.02	0.02
99907	95.22	0.68	0.07	0.34	0.07	0.08	0.04	0.02
99908	92.58	0.88	0.09	0.34	0.09	0.10	0.04	0.02
99914	93.22	0.89	0.11	0.36	0.11	0.11	0.05	0.02
99915	96.96	0.46	0.05	0.29	0.06	0.05	0.02	0.02
99916	96.77	0.87	0.10	0.32	0.09	0.11	0.04	0.03
99918	96.60	1.07	0.11	0.36	0.15	0.14	0.05	0.02

No quality assurance/quality control measures were undertaken by Declan during the sampling of test pits or hand auger holes in 2013 and 2014. It is the author's opinion that the sample preparation, security, and analytical procedures were adequate for the stage of the work performed. It is advised that the second phase of analytical testing (crush test, acid dissolution, and turbidity) be completed for the previously recovered samples as well as any future samples. Field duplicates should also be incorporated into future sampling programs.

## **12 DATA VERIFICATION**

This report is a compilation and evaluation of recent and historic exploration work on the Firebag Property. The author has relied upon the professional quality of the historic work, but has not directly confirmed any of the geophysical, drill, or sample data used in the report. It is the author's opinion that that the data are adequate for the stage of the exploration and the purposes of the report.

A one-day site visit was conducted by the QP (Qualified Person) on August 18, 2014.

### **13 MINERAL PROCESSING AND METALLURGICAL TESTING**

Given the stage of exploration on the Property, no mineral processing or metallurgical testing have been completed by Declan Resources Inc., Opal Energy Corp. or their affiliates.



## **14 MINERAL RESOURCE ESTIMATES**

Given the stage of exploration on the Property, no mineral resource estimates have been completed by Declan Resources Inc., Opal Energy Corp. or their affiliates.

## **15 TO 22 - NOT APPLICABLE (EARLY STAGE PROPERTY)**

The Firebag Property is an early-stage exploration property. Section 15 through 22, as defined by NI 43-101, are not relevant to this report and have been omitted.

## 23 ADJACENT PROPERTIES

In addition to Declan and Opal, several other companies hold MAIM permits in the vicinity of the Property. The following exploration and production companies hold interests in the area: Athabasca Minerals Inc., Dahrouge Geological Consulting Ltd., Graymont Western Canada Inc., Hammerstone Corp., Vulcan Minerals Inc., Wildrose Diamex Corp., 877384 Alberta Ltd, Areva Resources Canada Ltd., and Fission Uranium Corp.

Exploration work on the bulk of these projects has targeted industrial minerals and uranium deposits. Hammerstone has an active limestone quarry located approximately 5 km east of Fort MacKay. Athabasca Minerals Inc. has recently received approval from the Alberta Environment and Sustainable Resource Development (“ESRD”) for the right to work and remove silica sand from their Firebag project on SML 130021 (Athabasca Minerals Inc., 2014). The QP has been unable to verify the information in the following section and the information is not necessarily indicative of mineralization on the Firebag Property.

### 23.1 ATHABASCA MINERALS

Athabasca Minerals is a public industrial minerals company with operations focusing on sand, gravel, silica sand, salt, and limestone. Their Firebag silica sand property is located approximately 50 km west of Declan’s Firebag Property. It targets Quaternary sand deposits for use as a hydraulic fracturing proppants. Historic oil sands exploration has suggested that the Quaternary succession ranges from less than 20 m to over 40 m thick. Athabasca Minerals conducted an auger program in 2011 which showed promising results for two of the five sand units for use as fracking sand.

### 23.2 DAHROUGE GEOLOGICAL CONSULTING LTD.

Dahrouge Geological owns one MAIM permit, staked in July 2014, directly adjacent to the Firebag Property. To date there is no available assessment work reported for this permit.

### 23.3 GRAYMONT WESTERN CANADA INC.

Graymont is a private industrial lime producer with quarries across North America. They own three MAIM permits, termed the Firebag-Marguerite property, located approximately 15 km northwest of Declan’s Firebag Property. Exploration has focused upon limestone and dolomite and has consisted of mapping, sampling, and drilling.

### 23.4 HAMMERSTONE CORP.

Hammerstone is a privately owned industrial minerals company, focusing on limestone aggregate. They currently own and operate the Muskeg Valley Quarry, located approximately 5 km east of Fort MacKay. Currently production is focused on limestone aggregate for concrete and asphalt construction, as well as for road and drill-pad construction and regional infrastructure development. Hammerstone currently plans to expand the quarry for aggregate, lime processing, and lime/gypsum return.

### 23.5 VULCAN MINERALS INC.

Vulcan Minerals Athabasca Border property covers a large block of land located to the south of the Firebag Property. The Athabasca Border property consists of two discontinuous claim groups; the northernmost termed the Athabasca Border North property lies directly adjacent to the southernmost boundary of the Firebag Property. Vulcan Minerals is currently targeting Athabasca Basin-style uranium deposits. In 2014 they conducted an extensive historical data compilation and geophysical review, planned work is still undisclosed.



### **23.6 WILDROSE DIAMEX CORP.**

The MAIM Permits owned by Wildrose Diamex Corp. were staked in August 2013. To date there is no available assessment work for these permits.

### **23.7 877384 ALBERTA LTD.**

877384 Alberta Ltd. owns a group of 32 MAIM permits covering approximately 240,000 ha, located 45 km north of the Firebag Property. They are prospective for unconformity-related uranium deposits as they are located near the margin of the Athabasca Basin. No work has been completed by the company. Prior to 877384 Alberta Ltd, the permits were explored in 2006 with regional-scale airborne electromagnetic (EM) surveys by Strathmore Minerals Corp. In the 1970's and early 1980's the area was the focus of detailed ground prospecting, mapping and geophysics, as well as drilling for unconformity-related uranium mineralization.

### **23.8 AREVA RESOURCES CANADA LTD.**

The Maybelle River Project of Areva Resources Canada is host to the Dragon Lake Zone located approximately 65 kilometres north of the Firebag Property where unconformity-related uranium mineralization has been defined. Although no resource has been published, the mineralization is reported as being approximately 110 m in strike length, varies from 1 to 40 m in height, and is narrow at 1 to 5 m wide. Grades vary from several hundred ppm up to 54.5% uranium. Associated elements are Ni, As, Co, Cu, Pb, Mo and B. The mineralized zone is small but remains open along strike (Wheatley and Cutts, 2006).

### **23.9 FISSION URANIUM CORP.**

The Patterson Lake South uranium zone, located approximately 60 kilometres to the northwest of the Firebag Property, is host to a significant new discovery within the western Athabasca Basin. The mineralization is located approximately 5 kilometres south of the southern margin of the Athabasca Basin. As such, all of the mineralization is hosted within Precambrian basement rocks. At the date of this report, the extent of the mineralization has yet to be defined, but uranium mineralization has been traced in several zones over a 2.24 kilometre strike length. Grades of up to 22%  $U_3O_8$  over widths of 10 metres have been reported. The discovery of high-grade mineralization 5 kilometres outside of the apparent boundary of the Athabasca Basin and below Phanerozoic Manville Group Sediments has sparked a massive staking rush in Saskatchewan and to a lesser extent in Alberta, where mineral claims have been acquired up to 70 kilometres south of the Athabasca Basin, with exploration programs aimed at a search for basement-hosted unconformity-related mineralization.

## **24 OTHER RELEVANT DATA AND INFORMATION**

The author is unaware of any other relevant data.

## 25 INTERPRETATION AND CONCLUSIONS

The Property is underlain by basement rocks of the Taltson Magmatic Zone, sands of the McMurray Formation, and at surface is dominated by Quaternary sands and gravels. Several large structures run through the property, namely the Beatty River Fault Zone, the Firebag Fault, and the Johnson Lake Fault.

Historic exploration identified a minor cobalt anomaly in the north of the Property, near the fault systems. More recent geochemical exploration has not identified any anomalous mineralization.

The Firebag Property also possesses several features making it prospective for basement-hosted uranium deposits:

1. Proximity to the current margin of the Athabasca Basin (30 km to the north), which has been hypothesized to have once covered a much larger area.
2. Gneissic basement rocks of the Taltson Magmatic Zone, which may have once underlain the Athabasca Basin.
3. The presence of several large faults (potential routes for mineralizing fluids) on the Property.

Exploration between November 2013 and September 2014, at a total cost of \$118,886, identified several areas prospective for silica sand proppants on the Firebag Property. Hand augering and pitting programs tested the deposits to depths of up to 5.5 m. Samples from the basal sand unit returned excellent sphericity, good roundness, and primarily fell within those size fractions used for fracking sands.

On their Firebag Property, located 50 km to the west, Athabasca Minerals has tested the Quaternary sands for use as a proppant. Two of the five sand units identified had the required properties for fracking sands. Athabasca Minerals recently received approval from the Alberta Environment and Sustainable Resource Development (“ESRD”) for the right to work and remove silica sand from their Firebag project SML. The author has been unable to personally verify the results from the adjacent properties and they are not necessarily indicative of any analogous mineralization, if present, on the Property.

The Firebag Property also possesses several qualities making it prospective for the discovery of silica sand proppants (fracking sands):

1. The presence of Quaternary sands and gravels as well as the McMurray Formational sands.
2. The physical properties of the identified sands. Analysis of the 2013 and 2014 sand samples returned excellent sphericity and grain size. Grain roundness was generally slightly below API RP 56 requirements, but could likely be improved by attrition or by classification.
3. The currently-tested sands are open at depth (> 5.5 m).
4. SilverWillow Energy’s planned development of their Audet SAGD project, which would see extensive infrastructure improvements throughout the Firebag Property.

Several risks do exist in regards to the silica sand potentials of the Firebag Property. Currently, tenure rights for silica sand in Alberta are not well defined in the regulations. The loose sands within the Athabasca region have previously been classified as surface materials under the Public Lands and Law of Property acts. Metallic and Industrial Minerals permits do not grant mineral rights to silica sand, unless they are considered consolidated and “formational”. Based upon this, an SML is likely required in addition to the current MAIM permits to ensure ownership of silica sand mineral rights and to allow for any potential future production. Opal Energy Corp. has applied for an SME in the area of newly discovered silica sand deposits (SME 140173), which could later be converted to an SML. The SME application was submitted in early November, 2014.

Typically SME's in the Wood Buffalo region are granted within six months to one year after submittal. Barring unforeseen conflicts or environmental concerns the SME will likely be granted. Non-mechanized work programs can still be conducted prior to the approval of the SME.

No other work has been conducted on the Property by Declan or Opal to date. Further work is necessary to better define the extents prospective silica sand deposits, as well as evaluate the uranium deposit potentials of the Property.

## 26 RECOMMENDATIONS

Based upon the presence of large-scale structures identified in regional geophysics and its proximity to the margin of the Athabasca Basin, the Property is of sufficient geological merit to warrant further exploration for monometallic uranium deposits. Similarly, based upon the results of the 2014 summer silica sand sampling program, as well as the Properties proximity to Athabasca Minerals Firebag project, the Property merits additional exploration for silica sand. The following work programs, one targeting uranium (Table 26.1) and the other targeting silica sand, estimated to cost \$236,425, are proposed:

### **Uranium Exploration Program:**

Work should consist of a new sampling program on historic oil sands core on and around the property. Sands just above the basement contact should be analysed by ICP-MS for lead isotopes which are daughter decay products after Uranium decay. Approximately 40 samples should be collected.

**Table 26.1 Proposed Uranium Exploration Program for the Firebag Property**

Description	Estimated Cost (\$)
- Geologists Wages (3 days)	\$1,575
- Supplies and Rentals	\$800
AER Core Laboratory Fees	
- Table Fees	\$1,450
- Core Delivery Fees	\$450
- Sample Cutting	\$700
Sample Analyses (ICP-MS + Lead Isotope)	\$1,450
<b>TOTAL</b>	<b>\$6,425</b>

### **Silica Sand Exploration Program:**

Prior to exploration, Declan should consult with lawyers and government officials in order to better determine silica-sand tenure rights. Specific attention should be paid to the permitting requirements of the McMurray formational sands versus the Quaternary glacial outwash and ice-contact sand deposits.

The initial phase of work would consist of a ground penetrating radar survey over previously explored portions of the property to better constrain the depth extents of the potential fracking sands. A hand/mechanized augering and pitting program should also be initiated to test the full depths, extent, and qualities of the silica sand deposits. (Note: Information from this Phase would also be applicable in the search for uranium deposits in the area, as samples for uranium analysis or Rn<sup>222</sup> studies could be acquired). The cost of this phase is estimated to be \$230,000. The total cost for the initial uranium and silica sand exploration is estimated to be \$236,425.

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## DATE AND SIGNATURE PAGE

This report entitled “**Technical Report on the Firebag Property**” and with an effective date of April 10, 2015, was prepared on behalf of Declan Resources Inc. and is signed by the author, Roger D. Morton.



**Roger D. Morton**

**P. Geol.**

**9039 Saskatchewan Drive, Edmonton, Alberta**

**April 10, 2015**

## 28 CERTIFICATE OF QUALIFIED PERSON

I, Roger D. Morton, of 9039 Saskatchewan Drive, Edmonton, Alberta T6G2B2, do hereby certify that:

1. I, Roger D. Morton, P. Geol., am an independent consulting geologist. I am the author of the technical report entitled "**Technical Report on the Firebag Property**", prepared on behalf of Declan Resources Inc. and with an effective date of April 10, 2015.
2. I am a graduate of the University of Nottingham U.K., with the degrees of B.Sc. Geology (Hons. 1st Class) 1956 and Ph.D. Geology 1959.
3. I am a Registered Professional Geoscientist (P. Geol.) in the Province of Alberta. (Licence No: M16617). I held the position of Professor of Economic Geology at the University of Alberta in Edmonton, Alberta for 28 years (1967–1995). Since 1995 I have held the position of Professor Emeritus in Geology in the Department of Earth and Atmospheric Sciences at the University of Alberta, in Edmonton, Alberta. I am a Canadian citizen and have been resident in Canada since 1966. I have provided consultant services internationally for the exploration, evaluation, and mining of diamonds, precious metals (gold, silver, and platinum group metals), base metals (copper, nickel, uranium, thorium, lead, and zinc) and industrial mineral deposits of gravel and diatomite.
4. I am a Qualified Person as defined in National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101).
5. I inspected the Firebag Property during a one-day site visit on August 18, 2014.
6. I am responsible for the preparation and take responsibility for all sections of the report entitled "**Technical Report on the Firebag Property**", prepared on behalf of Declan Resources Inc. and with an effective date of April 10, 2015.
7. I am independent of the issuer of this report, Declan Resources Inc., Opal Energy Corp., 87738 Alberta Ltd., and the Property, as defined by Section 1.5 of NI 43-101.
8. I have not had prior involvement with the property that is the subject of this report.
9. I have read National Instrument 43-101 and the report entitled "**Technical Report on the Firebag Property**" has been prepared in compliance with this Instrument.
10. On the effective date of the report, April 10, 2015, to the best of my knowledge, information, and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.



**Roger D. Morton**

**P. Geol.**

April 10, 2015

## CONSENT OF QUALIFIED PERSON

TO: British Columbia Securities Commission (as principal regulator)  
Alberta Securities Commission  
TSX Venture Exchange

I, Roger D. Morton, of 9039 Saskatchewan Drive, Edmonton, Alberta, consent to the public filing of the technical report entitled “**Technical Report on the Firebag Property**”, prepared on behalf of Declan Resources Inc. and dated April 10, 2015 with an effective date of April 10, 2015 (the “Technical Report”) by Declan Resources Inc.

I also consent to the filing of the report with the Canadian Securities regulatory authorities listed above and with SEDAR (System for Electronic Document Analysis and Retrieval), and to extracts from, or a summary of, the Report in written disclosure, news releases, website publication, or other documents filed by Declan Resources Inc. concerning the Firebag Property.



**Roger D. Morton**  
**P. Geol.**

April 10, 2015