

# **Zadar Ventures Ltd.: Whiskey Gap Project**

**Alberta, Canada**

**NI 43-101 Technical Report**  
**January 11<sup>th</sup>, 2012**

centered at  
49° 02' North, 112° 56' West  
on NTS Sheet 082H03 and 082H02

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## **1.0 Summary**

### **1.1. Scope of this Report**

This report is prepared on behalf of Zadar Ventures Ltd. who commissioned the Glenn S. Hartley P. Geol. to provide an independent Technical Report on the Whiskey Gap Property ("Property"). The purpose of this report is to document technical information gathered during the early stages of exploration on the Property, including a summary of exploration, current geological interpretation and recommendations for future work. The technical report was prepared to support a listing on the TSX Venture Exchange and an associated equity financing.

### **1.2. Location**

The Whiskey Gap Property is situated immediately north of the Canada US border in southern Alberta, (49 2'16" N ,113 0' 28" W). The lands are west of the Delbonita Port of Entry, along paved Alberta Highway 501 (Figure 4-1) and approximately 25 kilometres south east of the town of Cardston, Alberta .

Access to the Whiskey Gap Property is by paved Alberta Highway from the city of Lethbridge or town of Cardston. Internal access through the property is by well maintained all weather county grid road system,

### **1.3. Ownership**

The project lands, consisting of three exploration permits totalling 18,263.3 hectares, were acquired by International Ranger Corp., through a 100% purchase of a private company (1177129 Alberta Limited) , for \$30,000 and the issuance of one million International Ranger Corp. shares in early 2005.

### **1.4. History**

In 2005, at the request of International Ranger Corp., the Author conducted a radon in water survey of domestic well waters on the Permits in August 2005 and the property was optioned to North American Gem Inc. of Vancouver October 5, 2005. North American Gem Inc. subsequently conducted a program of NQ Diamond Drilling totalling 1342.6 metres (4004 ft) in 12 holes, and a program of Reverse Circulation Drilling totalling 2927.6 metres (9605 ft) in 30 holes in early 2006. Geo Minerals Ltd. of Vancouver drilled 5 reverse circulation holes on the property in March 2008.

Work conducted on the permits by the Author (Hartley, 2007) and the Alberta Geological Survey in 2007 have outlined strong radon and uranium in water values, comparable to uranium producing areas near Corpus Christi Texas. (Beaman and Tissot, 2004).



## **1.5. Geology and Mineralization**

The geology of the area is characterized by poorly exposed bedrock of Tertiary and Upper Cretaceous sandstones and shale, belonging to the Willow Creek and St. Mary River formations, of southern Alberta.

Rocks of similar age and character are host to a family of worldwide deposits, commonly referred to as sandstone hosted uranium deposits in the United States.

Sandstone uranium deposits are low grade, but currently produce 28% of the worlds. Uranium deposits of this type, may be recovered by insitu leach methods, cut-off grades can be as low as of 100 ppm. It is common practice for ISL projects to use a grade times thickness ("GT") contour method. This method is based on the product of mineralization grade and true thickness, indicated for each major intercept within the mineralized horizons.

During formation of these deposits, uranium mineralization is released by the weathering of felsic source rocks, and transported by oxidizing ground water, as soluble U+6 ions. The uranium ions are deposited in the aquifer at sites where conditions become strongly reducing. Reducing conditions are commonly created by the presence of organic carbon, and pyrite, but may also be caused by small quantities of methane gas in the aquifer.

The oxidation reduction front causes uranium minerals and other heavy metals, for example, copper, molybdenum, and arsenic, to precipitate in pore spaces and along grain boundaries, if present, in the solution. Radon gas, dissolved in ground water or present as soil gas, is produced by radioactive decay of the uranium deposit, and has successfully been used to worldwide to indicate exploration targets.

Research by the Alberta Geological Survey (Matveeva, 2009) indicates that uranium occurs within common rock forming minerals of the St. Mary River formation, thus potential uranium source rocks exist in the area. Most of the drill holes, on the Whiskey Gap Property intersected strongly oxidized zones. Strongly reducing conditions with associated radioactivity were encountered in two exploration holes. The reducing zones, encountered in holes DDH 05-02, and DH 06-20 were associated anomalous radioactivity and significant uranium mineralization (to 136 ppm U)

The reduced zones, containing organic carbon and pyrite, had associated heavy metal enrichment. Heavy metals included: Arsenic, Copper, Molybdenum, Antimony, Selenium, and Barium. The maximum values of heavy metals occurring in the radioactive zones were: Arsenic 593 ppm, Copper 62 ppm, Antimony 18 ppm, Selenium 12 ppm Barium 3740 ppm and Molybdenum 79 ppm.

Uranium mineralization, in all instances, occurred within an "envelope" of associated heavy metals. The best uranium assay returned from all drill programs was 136 ppm over a 30 centimetre core interval occurring within a 2.4 metre zone of heavy metal enrichment in DDH 05-02

A strong Oxidation Reduction boundary was intersected in Reverse Circulation Hole 06-20. Chip assay results indicated an 8 metre zone of anomalous heavy metal enrichment with weak uranium values to a maximum of 30 ppm.

Sample recovery for the Reverse Circulation program was very poor due to extremely wet conditions and the area proximal to DH 06-20 should be re investigated using a Diamond drill.

## 1.6. **Conclusions and Recommendations.**

The Author believes that exploration by International Ranger Corp. and North American Gem Inc., as well as work conducted by the Alberta Geological Survey and others, supports the analogy that sandstone uranium deposits similar to those in production, could exist on the Whiskey Gap Project lands. A potentially interesting uranium concentration of 136 ppm was intersected in DDH 05-02. Sediment hosted uranium deposits generally range from 0.05% U<sub>3</sub>O<sub>8</sub> (439 ppm) to 0.4% U<sub>3</sub>O<sub>8</sub>.

Uranium mineralization up to 0.9% U<sub>3</sub>O<sub>8</sub> occurs within rare fossil debris within the Willow Creek section west of the Whiskey Gap Property (Firestone Ventures). This occurrence, confirms that processes capable of uranium transport and deposition, responsible for the formation of sandstone uranium deposits are active in the Project area.

Tertiary and upper Cretaceous formations, in much of the area tested by drilling, lack significant accumulations of reducing materials necessary for the concentrating uranium from solution and capable of stabilizing it from further transport.

The general lack of reductants in the Tertiary Willow Creek formation may contribute to the formation of large Sandstone uranium deposits where reducing conditions do occur. It is suggested that any further work on the project be directed toward the location and definition strongly reducing conditions within the stratigraphic sequence.

Since commencement of exploration in on the property, 51 exploration holes have been drilled for a total of 5098.3 metres. Two drill intersections from previous exploration programs are deemed to be extremely significant. Both drill holes intersected reducing conditions, with associated radioactivity, and heavy metal enrichment, in the Willow Creek Formation, that is comprised of about 1200 ft of in part volcanically derived shale and sandstones of non marine origin.

Undertake some regional work on this would include drilling three to four drill holes on the property somewhere 2-10 kilometres apart ensuring that one drill hole is in the proximity of 5000 picocuries per litre radon sample taken by the Alberta Geological Survey.

<b>Drilling</b>	<b>CAD \$</b>
Drilling & Assays (800 m)	\$100,000.00
Logistics/Vehicles/Camp	\$ 35,000.00
Personnel & Consultants	\$ 35,000.00
Assay/radiometric logging	\$ 25,000.00
Reclamation	\$ 15,000.00
Contingency 25%	\$ 52,500.00
<b>Total Phase</b>	<b>\$262,500.00</b>

## 2. INTRODUCTION

### 2.1 *Terms of Reference*

This report is prepared on behalf of Zadar Ventures Ltd. (“Zadar”) of 609-475 Howe Street, Vancouver, B.C., who commissioned the author to provide an independent technical report on the Whiskey Gap Property (the “Property”). The technical report was prepared to support an Initial Prospectus Offering for Zadar Venture Ltd. listing on the TSX Venture Exchange and an associated equity financing.

This Technical Report was prepared using the industry accepted Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) “Best Practices and Reporting Guidelines” for disclosing mineral exploration information, the Canadian Securities Administrators revised regulations in NI 43-101 (Standards of Disclosure For Mineral Projects).

This report was prepared as a National Instrument 43-101 Technical Report, in accordance with Form 43-101F1, for Zadar Ventures Ltd., by Hartley and Associates (“Hartley”). The quality of information, conclusions contained herein is consistent with the level of effort involved in Hartley’s services, based on: i) information available at the time of preparation; ii) data supplied by outside sources; and iii) the assumptions, conditions, and qualifications set forth in this report. This report is intended to be used by Zadar Ventures Ltd., subject to the terms and conditions of its contract with Hartley. That contract permits Zadar to file this report as a Technical Report with Canadian Securities Regulatory Authorities pursuant to provincial securities legislation. Except for the purposes legislated under provincial securities law, any other use of this report by any third parties at that party’s sole risk.

The author has no reason to doubt the reliability of the information provided by Zadar Ventures Ltd.

### 2.2 *Purpose of the Report*

The purpose of this technical report is to provide the available scientific and technical information on the Whiskey Gap Property including a summary of historical exploration results and current geological interpretations and possible recommendations for future work where warranted.

### 2.3 *Sources of Information*

Principal sources of data and Information used in preparing this Technical Report are available from International Ranger Corp., North American Gem Inc. and the Alberta Geological Survey. See reference section.

## 2.4 Site Visits

The author has personally supervised all exploration conducted by International Ranger Corp. and North American Gem Inc. on the Whiskey Gap Property since 2005 further, as a Consulting Geologist. The author has compiled and authored all previous geological reports and data on the project. The author's last visit to the property was on May 11, 2010.

In preparing this report, the author relied on personal knowledge and experience as well as the geological reports and maps, miscellaneous technical papers listed in the References section of this report. Only data believed to be accurate was included in the assessment and this report is based on information known to the author as of the report date.

## 2.5 Units and Abbreviations

All measurements and units used in this technical report are metric unless otherwise noted, with the following abbreviations: tonnes (t), million tonnes (Mt), metre (m), millimetres (mm), kilometre (km), hectare (ha), gram (g), kilogram (kg), gram per tonne (g/t), parts per billion (ppb), becquerels per litre (Bq/l) Picocuries per litre (pCi/l), parts per million (ppm) degree centigrade (°C), and percent (%). Units of currency are expressed in Canadian dollars unless stated otherwise.

**Figure 1: Location of the Whiskey Gap Property**



### **3.0 RELIANCE ON OTHER EXPERTS**

The results and opinions expressed in this report are based on historical geological and Technical data listed in the References section of this report and augmented by the author's observations made during field examinations. While the author have exercised all reasonable diligence in checking the data in the preparation of this report and believes the information to be reliable, the author has relied on reports published by the Alberta Geological Survey ("AGS") and on data analysis provided by the Saskatchewan Research Council ("SRC").

All diamond drill cores were geologically described and sampled by the project manager Lester Vanhill, under the supervision of the author.

Radiometric logs were provided by Electro Log Services of Calgary. Logging tools were calibrated regularly, logging depths accurately determined and all sampling intervals of drill core were determined, using, radiometric log information. Cores were split using a diamond saw and shipped to the Saskatchewan Research Council for chemical analysis. Cuttings from the reverse circulation holes were collected on 1 to 5 foot intervals, split and shipped to the SRC using the radiometric logs to determine the sampled interval and relative level of radioactivity

Ownership information/tenure data has been obtained from the Alberta government's Metallic and Industrial Minerals website. The data on the site is assumed to be correct.

The author reserves the right, but is not obliged, to revise this report and conclusions if additional information becomes known to the author subsequent to the date of this report. As of the date of this report, the author is not aware of any material fact or material change with respect to the subject matter of this technical report that is not presented herein, or which the omission to disclose could make this report misleading.

## **4.0 PROPERTY Description and LOCATION**

### ***4.1 Property Location***

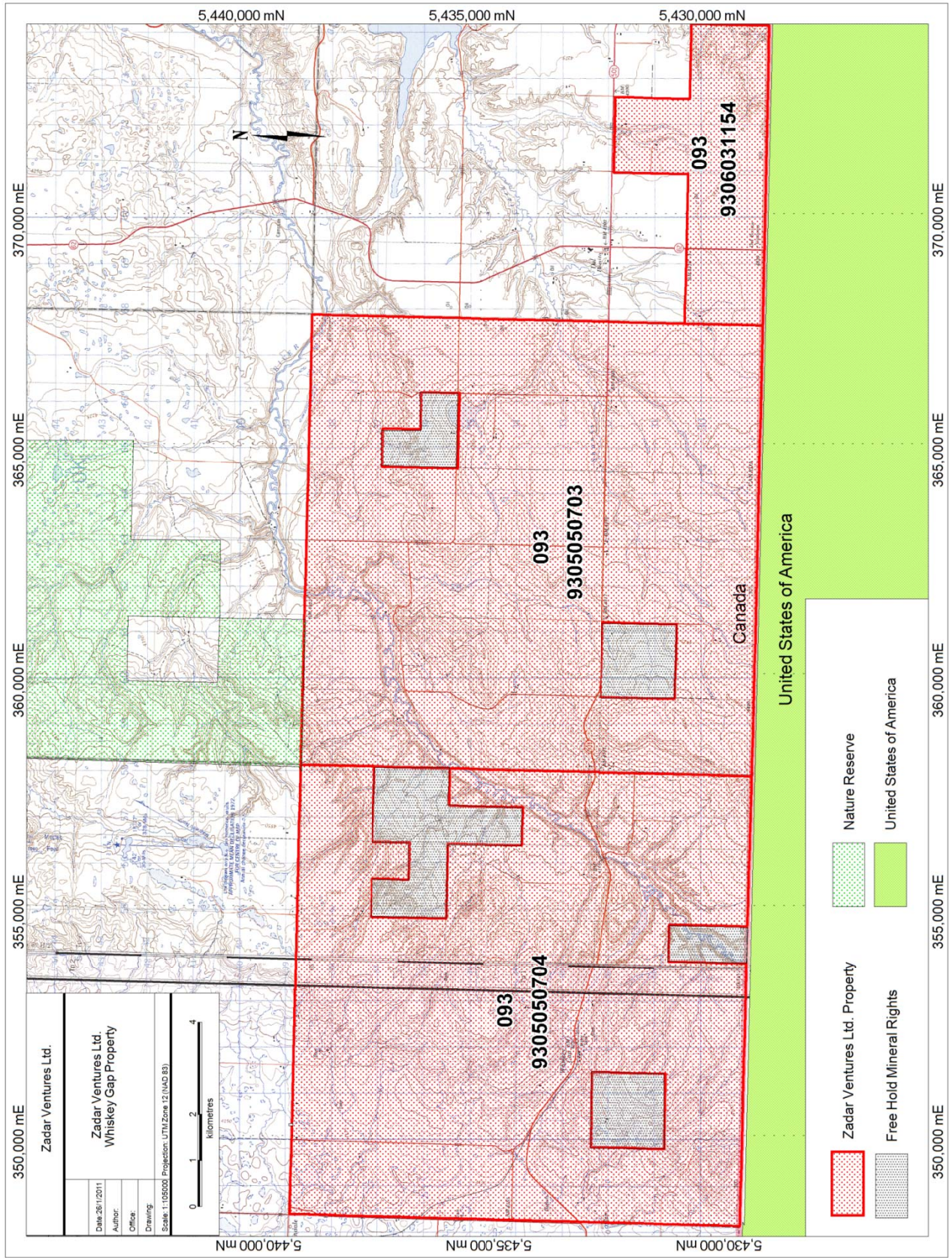
The Whiskey Gap Property is situated immediately north of the Canada US border in southern Alberta, (49° 2'16" N, 113° 0' 28" W), Township1, Range 22 and 23, west of the 4<sup>th</sup> meridian (Figure 1 and Figure 2). The property is located 30 km east of Cardston along Highway 501.

The property lies immediately north of and along the Alberta Montana border. Access to and thorough the property is by paved Alberta highways 501 and 62, gravelled grid roads traverse the property lands and service the local farming community.

As of the date of this report, the author is not aware of any material fact or material change with respect to the subject matter of this technical report that is not presented herein, or which the omission to disclose could make this report misleading.



Figure 2: Whiskey Gap lands (May 1, 2010)





## 4.2 Land Tenure

The Whiskey Gap Property consists of 3 metallic mineral permits, numbered 093-9305050704, 093-9305050703, and 093-9306031154 granted by the Province of Alberta currently registered to 1177129 Alberta Ltd. The property contains 71 full sections comprising an area of 18,248.8 hectares. The property is in good standing until, May 09, 2013. The permits may renewed for further two year period by an exploration expenditure of 10 dollars per hectare before May 09 2013. (Figure 1, 2, and Table 1)

**Table 1: Permit Number and Area**

Permit No.	Registered Owner	Area ha
93-9305050704	1177129 ALBERTA LTD.	8,200.8
93-9305050703	1177129 ALBERTA LTD.	8,768
93-9306031154	1177129 ALBERTA LTD.	1,280
	<b>Total</b>	<b>18,248.8</b>

Free hold mineral rights control the following lands within the Zadar permits: east ½ section 3, section 8, west ½ 24,section 25 south ½ section 26,NW1/4 section 26 of permit 0939305050703 and section 8 and south ½ section 26 and NE ¼ section 26 of permit 093 9305050704 (Figure 2).

## 4.3 Agreements, Royalties and Environmental liabilities

The property is held under an option agreement, dated April 29<sup>th</sup> 2010 between Zadar ("optionee") and 1177129 Alberta Limited ("optionor").1177129 Alberta Limited is a 100% owned subsidiary of International Ranger Corp. Under the terms of the agreement Zadar has the right to earn up to 75% interest in the property by the issuance of 2.1 million shares and the payment of \$100,000, to the optionor. Zadar must also accrue an exploration expenditure of \$950,000 on the property by September 30, 2013. The issuances of shares, payments of cash and exploration expenditures must occur as follows:

- (a) Within ten (10) days of April 29<sup>th</sup> 2010 pay the optionor \$12,500.00 and issue 100,000 shares
- b) On or before April 29<sup>th</sup> 2011 pay the optionor \$12,500.00 issue 200,000 shares;
- (c) On or before April 29<sup>th</sup> 2012 pay the optionor \$25,000.00 and issue 300,000 shares;
- (d) On or before April 29<sup>th</sup> 2013 pay the optionor \$50,000.00 and 500,000 shares;
- (e) On or before September 30, 2010, the optionee shall expend not less than\$100,000.00 on Exploration Expenditures on the Property;
- (t) On or before September 30,2011, incur \$100,000.00 on Exploration Expenditures on the Property;
- (g) On or before September 30,2012, incur \$250,000.00 on Exploration Expenditures on the Property at which time the Optionee shall have earned a 60% interest in the Property.

The Optionee has a further option to acquire an additional 15% by issuing the Optionor an additional 1,000,000 shares and expending an additional \$500,000.00 for Exploration Expenditures on or before September 30, 2013.

Surface access agreements have been signed with 2 land owners, for an area of 258 hectares (one square mile) surrounding hole NWG0622, granting Zadar unrestricted surface access and the right to drill an unlimited number of holes for a period of one year. The agreements may be extended for an additional 2 years, at Zadar's option, by paying the owners an annual fee of \$2500.00 per 160 acres, per year of extension.

Metallic mineral production in Alberta is subject to the following Provincial Royalty. One percent gross mine mouth revenue until payout and the greater of one percent gross mine mouth revenue and 12% net revenue, after payout.

The company is not aware of any significant risk factors that may affect access, title, or the ability to work the property. The company is not aware of any environmental issues concerning this property. The proposed drilling area has been investigated for buried hazards such as pipelines and buried cables and all areas of potential concern have been identified.

#### 4.4 *Permits and site access*

Permits to conduct shallow drilling operations are required from the Department of Sustainable Resource Development (SRD) of the Alberta Government.

Alberta Governmental approval to conduct diamond drilling was received June 1, 2010 permits number MME 100002,

## 5.0 ACCESSIBILITY, , CLIMATE, LOCAL RESOURCES INFRASTRUCTURE AND PHSIOGRAPHY

### 5.1 *Accessibility*

Access to and through the property is by paved Alberta highways #501 and #62, 30 km west of Lethbridge, gravelled grid roads traverse the property lands and service the local farming community.

Figure 3: Typical Physiography looking west along Highway 501 near the center of Zadar Permits





## **5.2 Topography and Climate**

The permits are flat to gently rolling farm and ranch land. Topography varies from 1270 to 1408 metres. Drainage is mature, and bedrock exposures are poor excepting along major drainage and in occasional road cuts. Climate is typical of the Alberta plains, subject to seasonal temperatures of -40°C in winter to 30°C in summer.

Drilling operations have historically been successfully conducted throughout the winter months, summer operations are subject to intermittent rain that limits field access over bentonite rich soils. The area generally receives little precipitation during the summer months.

## **5.3 Infrastructure**

The Property area is serviced by paved highways #501 and #62, gravelled grid roads traverse the permits and provide excellent access to and through the property. A variety of farm equipment, including trucks and heavy tractors are available on a rental basis from local farmers in the region. Rental construction equipment, fuel, hardware, and supplies are readily available in the commercial centers of Cardston (30 km to the west along Highway 501) and Lethbridge. The region is the site of historical coal mining operations near Lethbridge, and oil production occurs near Delbonita, on the eastern limit of the Property.

The method of recovery of uranium from shallow sandstone hosted deposits, by insitu leaching, has successfully operated for many years in Wyoming. The environmental foot print and visual surface facilities are similar those commonly employed in oil and gas recovery.

It is not anticipated that extensive land disturbance by open pit mining techniques would be associated or required for uranium recovery at the Whiskey Gap site.

# **6. HISTORY**

Prior to International Ranger Corp.'s acquisition of the property in 2005, there is no publically available data on historical uranium mineral exploration on the Permits. The Permit area has no known uranium reserves or mineral production history, although small amounts of coal have been recovered for domestic use by local farmers. Since, 2005 author has personally supervised all exploration programs conducted by International Ranger Corp. and North American Gem Inc., Geo Minerals Ltd, and Zadar Ventures Ltd. on the Whiskey Gap Property, as a Consulting Geologist.

## **6.1 International Ranger**

In 2005 permits were acquired by International Ranger Corp. ("Ranger"), through the purchase of a private company, for \$30,000 and the issuance of 1 million shares of Ranger's stock. In August 2005, the author was contracted by Ranger to conduct a water survey of domestic water sources in the permit area.

Regional evaluation for sandstone hosted uranium deposits can be accomplished by systematic sampling of domestic water sources, if the distribution of wells is relatively uniform. Waters are analyzed for uranium, radon gas, a product of the uranium decay

series and sulphate content, a measure of the presence of reducing conditions of the aquifer.

In August 2005 International Ranger Corp. conducted sampling of domestic wells on the property. A summary inspection of the data shows that eight of 26 samples returned values greater than 1000 picocuries/litre (pc/l) or about 37 becquerals/litre (Bq/l). Two of those samples exceeded 2000 picocuries/litre (88 Bq/litre) and one sample exceeded 5000 picocuries/litre (185 Bq/litre). See Table 2.

If the very low and high radon values are removed from the data set, the mean values become 27 Bq/l and 687 pc/l.

Uranium values averaged 11 ppb and 880 picocuries per litre radon for entire survey, strong uranium and radon in water anomalies, to a maximum value were 30 ppb U and 5000 picocuries per litre were defined (Figure 4 and Figure 5).

**Table 2 2005 Whiskey Gap Well Sample Data**

Sample No.	BQ/L	Picocuries/litre	Uranium ppb	Sulphate ppm
85	8.6	232.46	9	20
86	88	2378.64	17	48
87	24	648.72	1.5	49
88	30	810.9	6.8	38
89	14	378.42	4.7	210
90	1	27.03	2.3	270
91	42	1135.26	7.1	100
92	20	540.6	2.2	100
93	4.4	118.93	<0.1	570
94	16	432.48	10	32
95	13	351.39	3.1	70
96	44	1189.32	4.7	28
97	2.6	70.28	<0.1	45

Sample No.	BQ/L	Picocuries/litre	Uranium ppb	Sulphate ppm
98	5.6	151.37	1.9	190
99	30	810.9	27	40
100	25	675.75	7.1	84
101	25	675.75	4.9	20
102	47	1270.41	5.4	17
103	23	621.69	16	23
104	16	432.48	24	73
105	67	1811.01	30	250
106	12	324.36	15	150
107	185	5000.55	3.4	56
108	40	1081.2	5.1	79
109	22	594.66	3.3	44
110	42	1135.26	6.9	36

### 6.1.1. Radon Data

Radon is a naturally occurring, colorless, odourless, radioactive gas produced by the radioactive decay of the element radium, as part of the uranium decay series. Radon 222 decays very quickly thus its presence and distribution in ground water is a function of the, rate of ground water movement and porosity of the aquifer.

A common exploration technique is sampling untreated well waters, and measuring the amount of dissolved radon gas in a fixed volume of water.

Radon gas has a very short half life (3.8 days) thus high radon content of domestic well waters, may indicate that a sandstone uranium ore body may be in close proximity

### 6.1.2 Uranium in Water

Water collected on the property averaged 11 ppb uranium and the data set contained values from 2.2 to 30 ppb, these very high concentrations suggest that the processes of uranium transportation and deposition by reduction are active in the Willow Creek formation (Table 2).

This must also be regarded as an extremely positive indication of the potential, for the occurrence of uranium mineralization, as a sandstone hosted deposit, within the Willow Creek formation.

Uranium values in waters exceeding 4 ppb are considered to be of exploration interest, in American sandstone hosted uranium deposits. Only 5 of 26 samples contained less than 4 ppb U from the Whiskey Gap Property (Table 2 and Figure 5).

Figure 4: Radon in Domestic well waters on the Whiskey Gap property

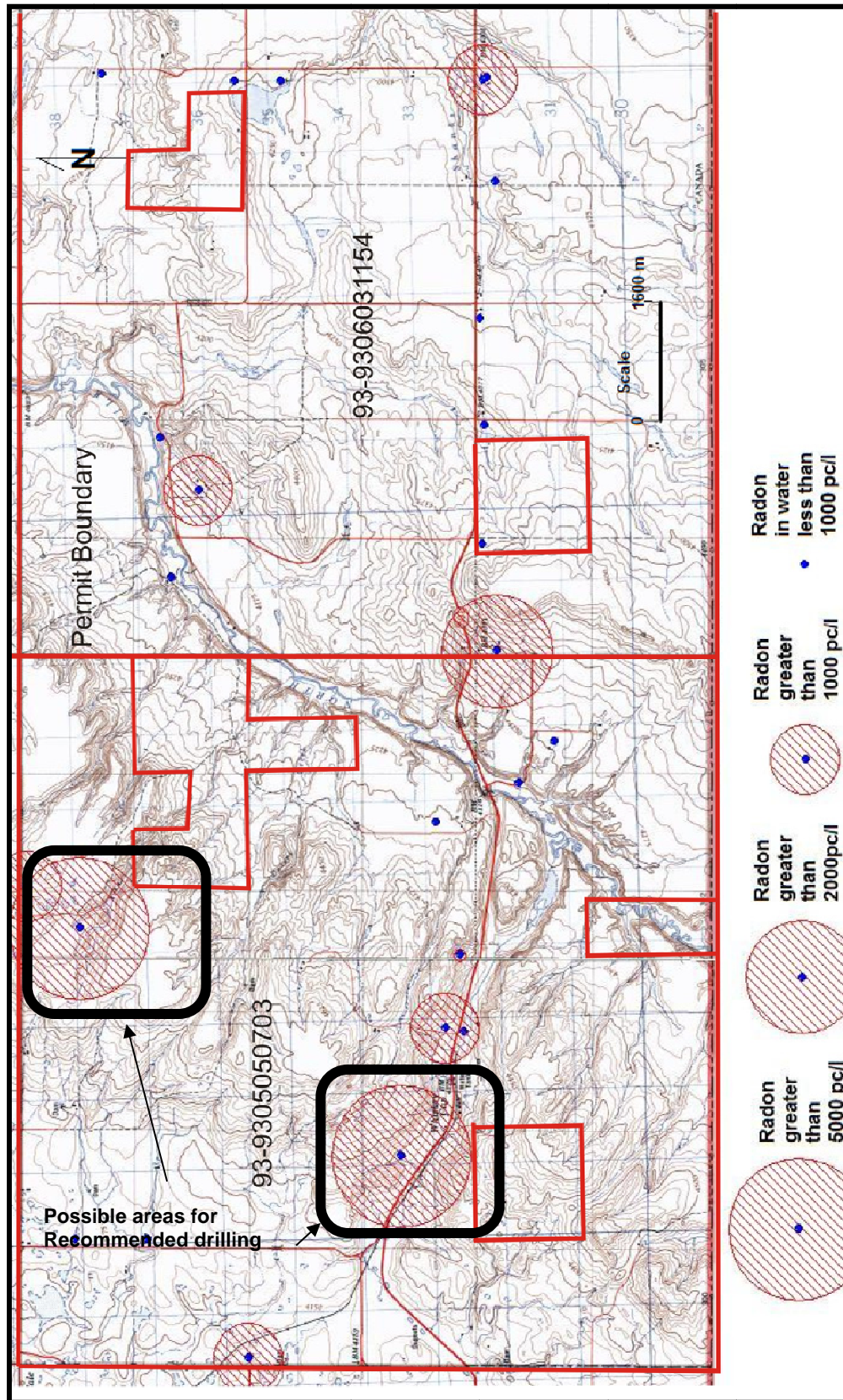
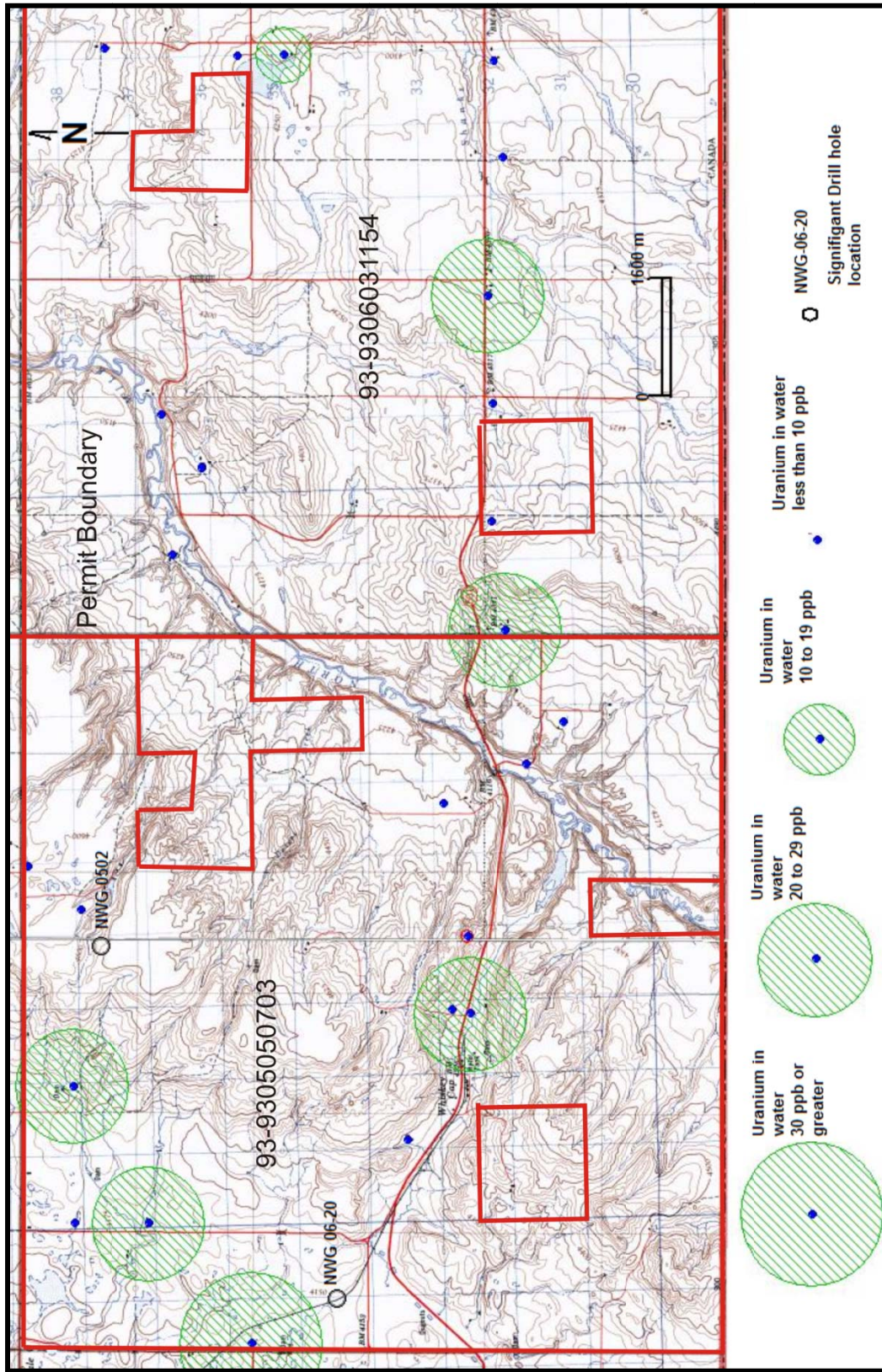




Figure 5: Uranium in domestic well waters and significant drillhole locations



### 1.1.1 6.1.3. Sulphate in Water

Sulphate concentration represents the relative conditions of oxidation and reduction, present in the aquifer. Uranium ions are transported in water as U+6 under oxidizing conditions and precipitated as U+4 under reducing conditions.

The boundary between oxidation and reduction contains the best grade of uranium mineralization.

On the property data sulphate ranges from 17 to 570 ppm (Table 2), indicating that some ground water in the permits is much more reducing than others. High values of sulphate were observed to correspond to low values of uranium in water, indicating uranium precipitation under reducing conditions.

## 1.2 6.2 North American Gem Inc.

The Whiskey Gap property was optioned to North American Gem Inc. of Vancouver in October 2005. The author was retained by North American Gem Inc. to conduct a diamond drilling to test targets in Area One (See Figure 7 and Figure 8). An initial program of 1342.6 metres of NQ diamond drilling in 12 holes and 2775.3 metres of reverse circulation drilling, in 28 holes, was completed in March 2006. All holes were radiometrically logged, and lithologically described. Radioactive zones as defined by the radiometric logs were sampled and sent the Saskatchewan Research Council for analysis. The best uranium result was 136 ppm U in DDH NWG 05-02.

### 6.2.1 2005 Drilling

In 2005 North American Gem Inc. conducted diamond drill program consisting 1342.6 metres in 12 vertical NQ core drill holes and 228.7 metres or reverse circulation in 3 drill holes. Table 3 and figure 8. All diamond drilling was conducted in Area 1 to test the area proximal to high radon in water discovered by International Ranger Corp.

On reaching total depth, drilling operations were suspended; the hole was radiometrically logged by Electro log services of Calgary. The gamma probe was calibrated then lowered inside the drill rods. Dual trace gamma logs were recorded while pulling out of the hole. The drill string was pulled following completion of gamma logging.

**Table 3 2005 Diamond Drill Hole and Reverse Circulation Drill holes locations and Depths**

Hole #	Type of Drilling	Easting	Northing	Depth (m)	dip	zone	Elevation (m)
NWG 05-01	DDH	354070.3	5438156	137.2	90	12	1392.72
NWG 05-02	DDH	353793.6	5437876	149.4	90	12	1404.15
NWG 05-03	DDH	353455	5438201	147.9	90	12	1387.63
NWG 05-04	DDH	353718.5	5437804	105.2	90	12	1408.37
NWG 05-05	DDH	353833.8	5437948	99.4	90	12	1402.78
NWG 05-06	DDH	353856.2	5437800	99.4	90	12	1408.87
NWG 05-07	DDH	353765	5437914	99.4	90	12	1403.96
NWG 05-08	DDH	353760.6	5437845	100	90	12	1406.56
NWG 05-09	DDH	354212.7	5438289	105.5	90	12	1401.11
NWG 05-10	DDH	354067.3	5438292	99.6	90	12	1405.25
NWG 05-11	DDH	354494.7	5438569	99.7	90	12	1402.06
NWG 05-12	DDH	354506	5437879	100	90	12	1379.82
NAG-WW1	RC	354274.3	5437393	103.7	90	12	1409.13
NAG-WW2	RC	355589.9	5437964	48.8	90	12	1401.1
NAG-WW3	RC	352618.1	5438966	76.2	90	12	1328.22

DDH= Diamond Drill Hole. RC= Reverse Circulation Drill Hole

### 1.2.1 6.2.2 Hole NWG-05-02

In the 2005 drilling campaign drill hole NWG05-02 contained the strongest radioactivity (to 640 API units). The data below is for the interval 83.0 to 87.2 metres depth in NWG 05-02. (Figure 6)

A 30.4 cm sample returned 132 ppm uranium, the 6 metre thick radioactive zone was also enriched in arsenic to 127 ppm over 1.21 metres, copper to 31 ppm over a width of 2.43 metres antimony to 10 ppm, and selenium to 3.4 ppm over 60.8 cm, barium was over 91.2 cm to a maximum of 3050 ppm, and molybdenum to 109 ppm over 30.4 cm (see Table 4).

The lithological descriptions indicated that the radioactivity occurs within a package of intercalated mudstones and sandstones with the strongest values along a micaceous sandstone, carbonaceous mudstone contact. The grey to black mudstone contains gastropods, and is clearly reducing environment. The geological section is oxidized both above and below radioactive intersection.

**Figure 6: Radioactive zone from NWG05-02 Bore hole log**

Maximum recorded counts are 640 API (Right log is 50 API per division) (Depth is in metres)

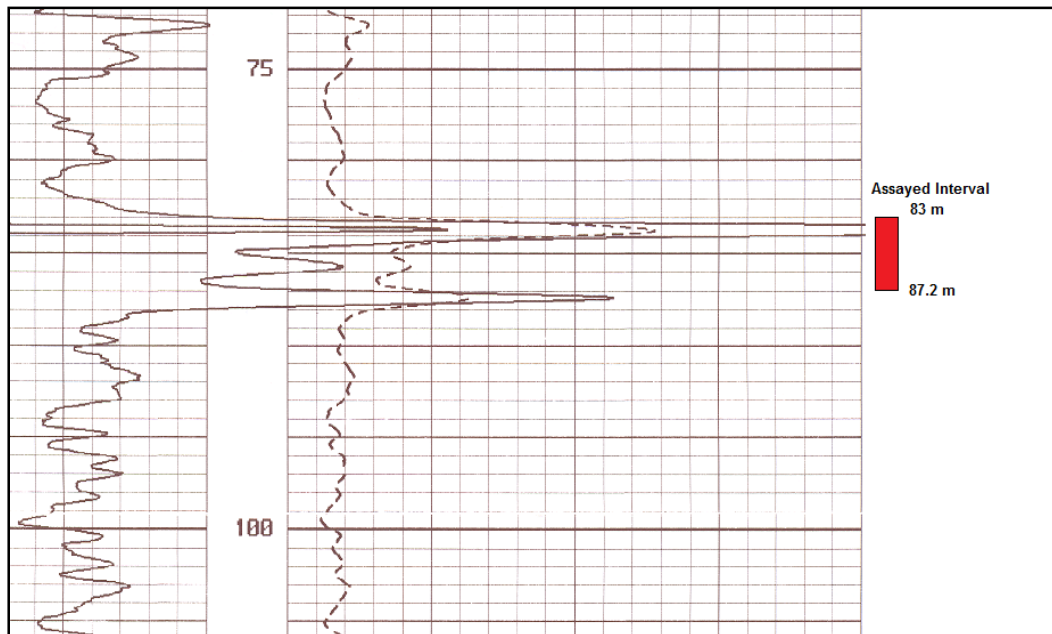
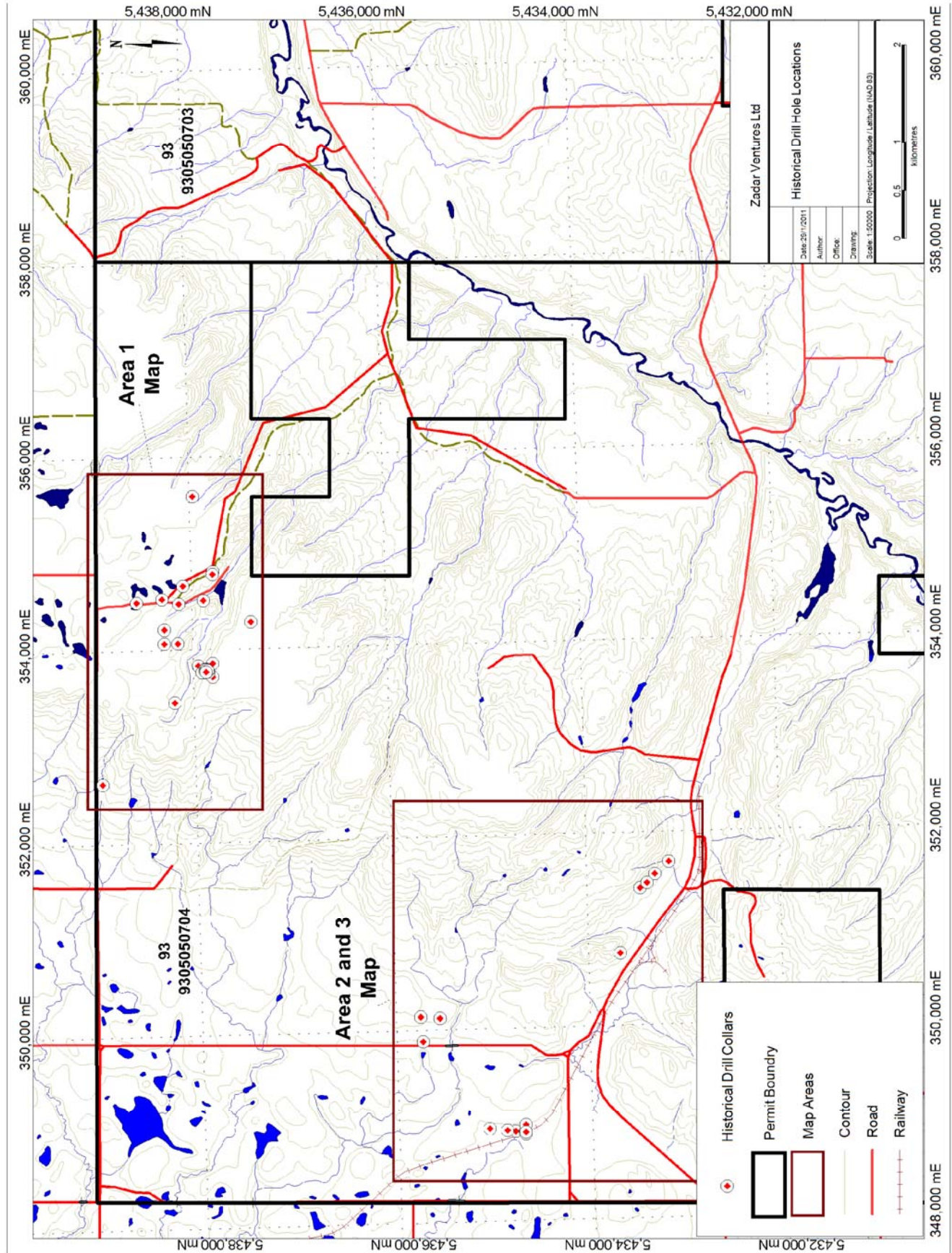




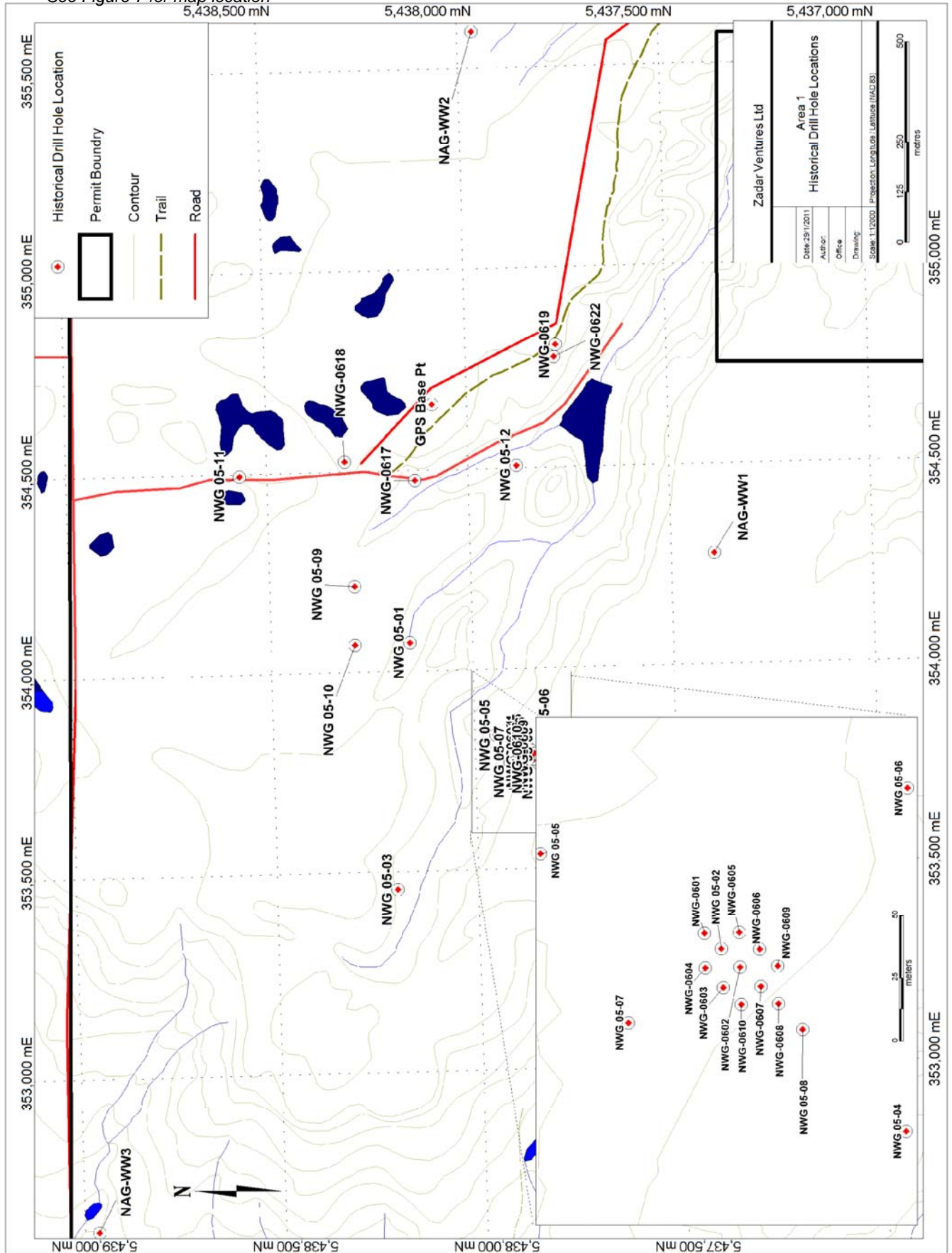
Figure 7: Historical Drilling on Permit 9305050704



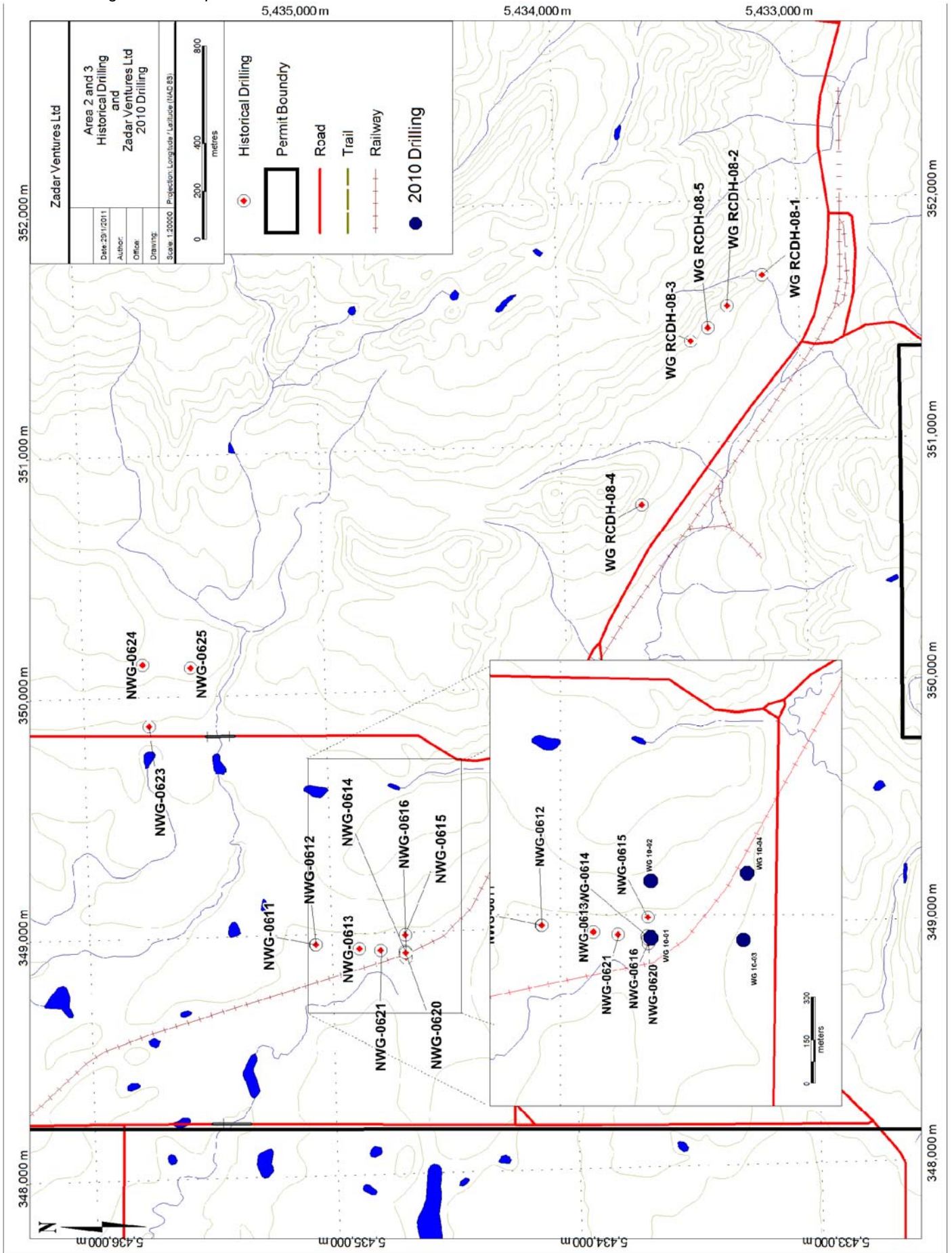


**Figure 8: Area 1 Historical Drilling**

See Figure 7 for map location



**Figure 9: Area 2 & 3 Historical Drilling and 2010 Drilling**  
See Figure 7 for map location



**Table 4 Selected Assay values from the radioactive zone in NWG05-02 from 83.0 to 87.256 m deep.**

Sample Number	Depth Form M	Depth T0 M	As ppm	Cu ppm	Sb ppm	Se ppm	Ba ppm	Mo ppm	U, ppm
NWG-0502-9	83	83.304	1.2	6.3	2.9	0.2	303	1	6
NWG-0502-10	83.304	83.608	1.3	5	6.5	<0.2	383	1	7
NWG-0502-11	83.608	83.912	2.3	5.6	0.8	0.8	1700	1	7
NWG-0502-12	83.912	84.216	4.2	8.9	3.5	2.8	3050	2	13
NWG-0502-13	84.216	84.52	24.7	31.1	<0.2	3.4	1210	6	136
NWG-0502-14	84.52	84.824	127	21.8	10	1.3	853	19	38
NWG-0502-15	84.824	85.128	56.8	14.4	5.4	<0.2	525	109	21
NWG-0502-16	85.128	85.432	17.7	17.5	<0.2	1.4	619	2	13
NWG-0502-17	85.432	85.736	6.8	26	<0.2	1.1	591	1	8
NWG-0502-18	85.736	86.04	2.7	28.1	<0.2	0.6	521	1	15
NWG-0502-19	86.04	86.344	2.5	27.6	1.1	0.5	436	1	14
NWG-0502-20	86.344	86.648	2.7	22.2	<0.2	0.4	418	1	18
NWG-0502-21	86.648	86.952	2.8	13.1	0.3	0.2	485	1	14
NWG-0502-22	86.952	87.256	3	5.3	0.4	0.2	577	1	14

Samples for assay were selected on the basis of the down hole gamma response recorded in the drill logs. The sample interval for the diamond drill program was one foot (30.4 cm). The selected interval was cut with a diamond saw and placed in numbered plastic sample bags for shipment to the Saskatchewan Research Council, for wet chemical analysis.

Core samples for drill hole NWG 05-02 begin at 81 metres and were taken at 30.4 cm (1 foot) intervals, and were numbered NWG 05-02-1 through NWG 05-02-29.

### 1.2.2 6.2.3. Reverse Circulation Drilling 2006 (Area 1)

In 2006 North American Gem Inc. undertook a 2775.3 metres of reverse circulation drilling, in 25 holes. (Table 5 and Figure 9). All holes were radiometrically logged, and lithologically described. Radioactive zones as defined by the radiometric logs, were sampled and sent to the Saskatchewan Research Council for analysis.

#### 1.2.2.1 6.2.3.1 Hole NWG-06-20

In the reverse circulation drill hole NWG-06-20 a mineralized package of weak uranium mineralization, heavy metals, and pyrite occur in the presence of organic trash (thin coals) over a combined stratigraphic thickness of 8.5 metres from a depth of 60.0 to 68.5 metres (Figure 10).

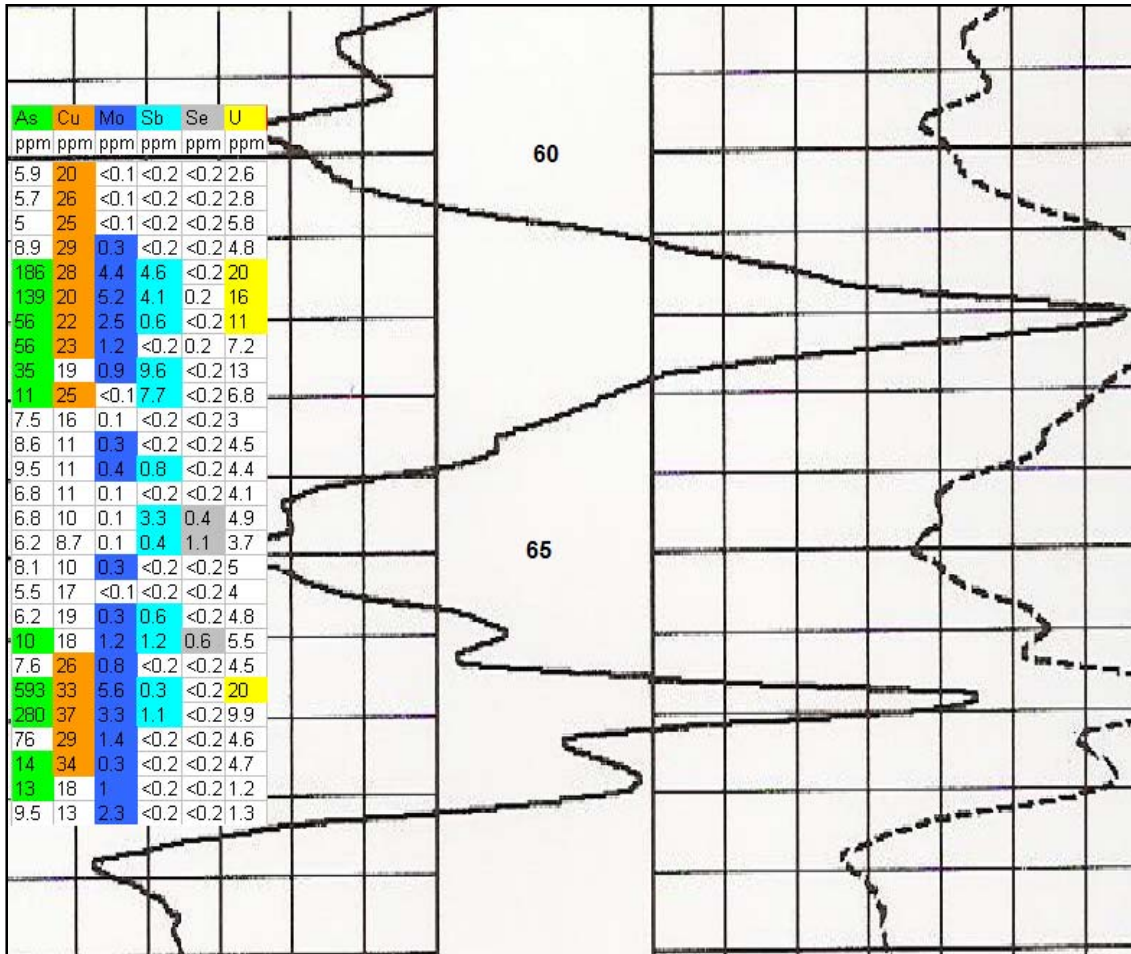
This hole contained 2 radioactive zones separated by approximately 1.8 metres, both zones significant enrichment of arsenic, to a maximum of 593 ppm, copper to a maximum of 37 ppm, molybdenum to a maximum of 5.6 ppm, antimony to a maximum of 9.6 ppm and uranium to a maximum of 20 ppm (Figure 10).

The presence of strongly reducing conditions, radioactivity, pyrite, and associated heavy metals within the Willow Creek sequence, is highly encouraging.



The area around drill hole NWG05-02 was subsequently investigated by 5 reverse circulation holes at 10 metre offsets. Although the follow up holes contained radioactive intersections, assay values were all lower than drill hole NWG05-02.

**Figure 10: Favourable Radioactivity and Geochemistry from Zone 2**  
in NWG-06-20, sample interval was 30.4 cm (depth shown in metres)



**Table 5: 2006 Reverse Circulation Holes**

Hole #	type	Depth (m)	Easting	Northing	zone	Dip	Elevation (m)
NWG-0601	RC	103.7	353800	5437883	12	90	1404
NWG-0602	RC	103.7	353786	5437869	12	90	1404
NWG-0603	RC	103.7	353778	5437876	12	90	1404
NWG-0604	RC	103.7	353786	5437883	12	90	1404
NWG-0605	RC	103.7	353800	5437869	12	90	1404
NWG-0606	RC	103.7	353793	5437861	12	90	1404
NWG-0607	RC	103.7	353778	5437861	12	90	1405
NWG-0608	RC	103.7	353771	5437854	12	90	1405
NWG-0609	RC	103.7	353786	5437854	12	90	1405
NWG-0610	RC	103.7	353771	5437869	12	90	1405
NWG-0611	RC	149.4	348959	5435068	12	90	1268
NWG-0612	RC	88.4	348959	5435066	12	90	1268
NWG-0613	RC	123.5	348937	5434887	12	90	1267
NWG-0614	RC	105.2	348922	5434699	12	90	1266
NWG-0615	RC	105.2	348990	5434696	12	90	1268
NWG-0616	RC	103.7	348896	5434695	12	90	1265
NWG-0617	RC	109.8	354475	5438133	12	90	1401
NWG-0618	RC	103.7	354525	5438306	12	90	1407
NWG-0619	RC	97.6	354805	5437775	12	90	1407
NWG-0620	RC	79.3	348914	5434697	12	90	1266
NWG-0621	RC	103.7	348928	5434800	12	90	1271
NWG-0622	RC	103.7	354775	5437780	12	90	1402
NWG-0623	RC	146.3	349881	5435732	12	90	1287
NWG-0624	RC	103.7	350136	5435752	12	90	1295
NWG-0625	RC	103.7	350118	5435554	12	90	1298

### 6.3 Alberta Geological Survey

In summer 2006, Alberta Geological Survey (Olsen and Anderson, 2007) conducted water sampling in the region. As a result Olsen and Anderson generated a paper titled "Preliminary water well sampling to assess the uranium potential of the Whiskey Gap area of Southern Alberta (NTS 082/2,3)." was generated.

The water sampling program consisted of collection of 20 water samples from 19 sites distributed about the Milk River Ridge–Whiskey Gap area. The water samples collected by the Alberta Geological Survey were analyzed at the Saskatchewan Research Council for radon, uranium and a suite of 24 other elements.

The results indicated from Olsen and Anderson indicated that a second well not previously sampled containing greater than 5000 picocuries per litre radon. The water well was centrally located in the current property and was spatially related to anomalies previously identified by International Ranger Corp. reconnaissance exploration program

Olsen and Anderson concluded in their 2007 paper

*“Future exploration in the Milk River Ridge–Whiskey Gap region should consider an exploratory drilling methodology or pattern similar to that used successfully in several sandstone-type uranium districts in the U.S.A. This methodology comprises*

- (1) An initial wide-spaced drill pattern (holes from 2 to 10 km apart);*
- (2) Followed by more closed spaced drilling (holes from a few hundred m to 1–2 km apart); and*
- (3) Finally, closed-spaced drilling (holes tens of m to a few hundred m apart) in selected areas intended to find and define uraniumiferous zones.*

*Finally, regardless whether important concentrations of uranium exist at surface, in the subcrop or in the subsurface at the Milk River Ridge–Whiskey Gap area in southern Alberta, the hydrogeological setting, consisting of a westerly, downward-flowing tongue of groundwater beneath the Milk River Ridge, may explain the locally anomalous uranium, radon and other elements in groundwater along the flanks of the Milk River Ridge, and the reason that the Blood Reserve Formation is oxidized in this area.”*

## 6.4 Geo Minerals Ltd

In December 2007 Geo Minerals Ltd. of Vancouver optioned the Whiskey Gap Property. Geo Minerals Ltd. undertook a drill program consisting of 381 metres in 5 reverse circulation drill holes. The program focused in the area near the AGS radon anomaly and approximately four kilometres east of the favourable zone previously identified by North American Gem Inc. drill hole NWG-06-20.

In February 2008 Geo Minerals Ltd. of Vancouver, prior to drilling, swept the area using commercial line locators from Lethbridge to identify buried cable and pipelines and none were found.

All holes then drilled during the 2008 program were vertical to a depth of 76.2 metres, and radiometrically logged by Go Gamma Wireline Services of Edmonton to define the radioactive zones, as an aid to guide sampling for assay. The lithologies in all holes were strongly oxidized, and contained only weak radioactivity. No significant uranium values were encountered.

**Table 6: 2008 Reverse Circulation Drill hole Locations**

Hole #	Type	Depth (m)	Easting	Northing	Zone
WG RCDH-08-1	RC	76.2	351687	5433150	12
WG RCDH-08-2	RC	76.2	351563	5433297	12
WG RCDH-08-3	RC	76.2	351418	5433451	12
WG RCDH-08-4	RC	76.2	350746	5433672	12
WG RCDH-08-5	RC	76.2	351474	5433378	12

Anomalous radioactivity was encountered in 2 of 5 exploration holes. Thickness of the zones varied from less than 1 metre to 2 metres. Weak heavy metal enrichment of 22 ppm arsenic and 8 ppm molybdenum occurred in association with the radioactive zones of the 2008 drill program. No economic grades of uranium mineralization were encountered. The highest assay of the 2008 program was 30 ppm U recovered over a five metre interval from

drill hole WG RCDH-08-4. Sample recovery and quality was an issue with the Geo Minerals Ltd. program.

## 7.0 GEOLOGICAL SETTING and MINERALIZATION

### 7.1 Regional Geology

Southern Alberta is underlain by a clastic package of Cretaceous and Tertiary rocks of the Alberta foreland basin. This package thickens from an erosional edge of zero in central Saskatchewan to a maximum of 4000 m in the southern foothills of Alberta.

The provenance of Upper Cretaceous sandstones of southern Alberta is believed to be the now eroded volcanics of the Omineca crystalline terrain of central British Columbia.

Although the geologic sequence is dominated by sedimentary rocks, past volcanic activity in the region occurred as the Crowsnest Volcanic Suite, at the base of the Willow Creek formation, and the Sweet Grass potassic intrusives immediately to the south east in Montana (Figure 11, Figure 12).

#### Figure 11: Regional Geology Map

(Source: Geological Map of Alberta, Alberta Geological Survey Map 236D, CD Rom version)

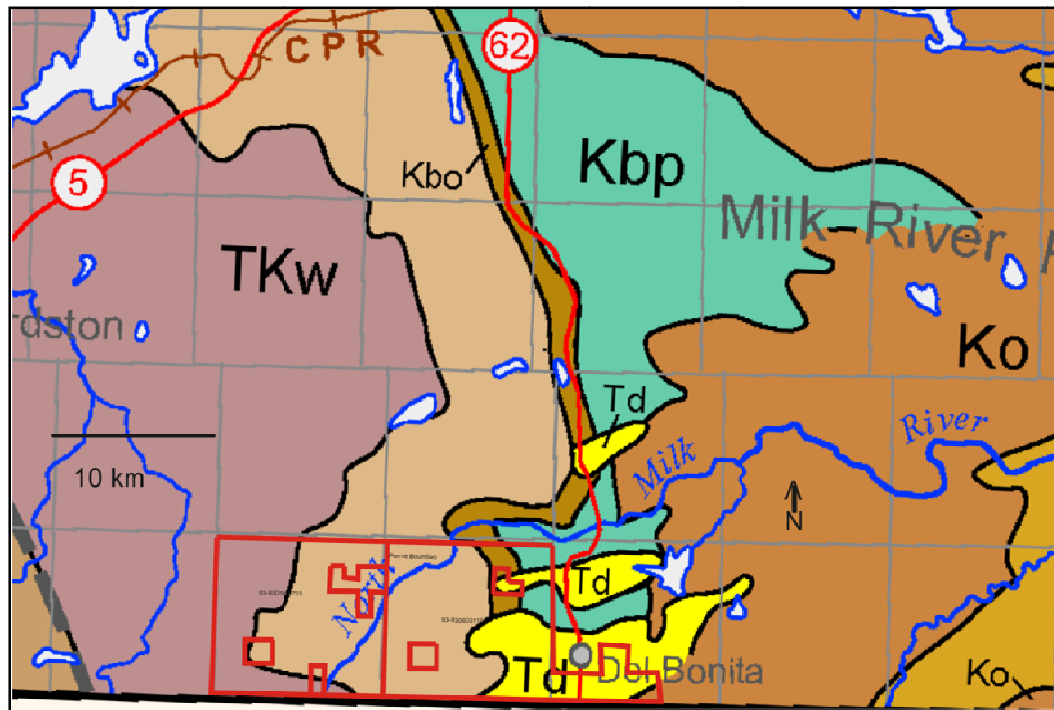


Figure 12: Legend for Geology Maps

PALEOCENE	
<div style="border: 1px solid black; padding: 2px; display: inline-block;">           Tph <sup>Tph-u</sup>            Tph-l         </div>	<p><b>PORCUPINE HILLS FORMATION:</b> pale grey, thick-bedded, cherty, calcareous sandstone; pale grey calcareous mudstone; nonmarine</p> <p>Tph-u: upper Porcupine Hills Tph-l: lower Porcupine Hills</p> <p>Note: division of Porcupine Hills Formation into upper and lower sub-units is tentative, subject to verification as formal members</p>
TERTIARY AND CRETACEOUS	
PALEOCENE AND UPPER CRETACEOUS	
<div style="border: 1px solid black; padding: 2px; display: inline-block;">TKw</div>	<p><b>WILLOW CREEK FORMATION:</b> pale grey, fine-grained, calcareous sandstone, thick bedded and coarse grained in upper part; grey, green and pink bentonitic mudstone with abundant white-weathering calcareous concretions; scattered thin limestone beds; nonmarine</p>
CRETACEOUS	
UPPER CRETACEOUS	
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Ksm</div>	<p><b>ST. MARY RIVER FORMATION:</b> pale green and grey, fine- to medium-grained, calcareous sandstone; green and grey siltstone and mudstone; thin coal beds; coquincid limestone in basal part; nonmarine</p>
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Kbo</div>	<p><b>BLOOD RESERVE FORMATION:</b> grey and greenish grey, thick-bedded, feldspathic sandstone; shoreline complex</p>
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Kbp</div>	<p><b>BEARPAW FORMATION:</b> dark grey blocky shale and silty shale; grey clayey sandstone; thin concretionary ironstone and bentonite beds; marine</p>
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Ko</div>	<p><b>OLDMAN FORMATION:</b> pale grey, thick-bedded, medium- to coarse-grained, feldspathic sandstone; grey clayey siltstone; green and grey mudstone; dark grey and brown carbonaceous shale; concretionary ironstone beds; nonmarine</p>
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Kfm</div>	<p><b>FOREMOST FORMATION:</b> pale grey feldspathic sandstone, grey and green siltstone; greenish grey mudstone and dark grey carbonaceous shale; concretionary ironstone beds; thin coal beds; nonmarine</p>
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Kpa</div>	<p><b>PAKOWKI FORMATION:</b> dark grey shale and silty shale; minor sandstone; thin chert-pebble conglomerate or pebble bed at base; marine</p>
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Kmr</div>	<p><b>MILK RIVER FORMATION:</b> pale grey, thick-bedded, feldspathic sandstone with hard calcareous beds; pale to dark grey shale and silty shale; ironstone concretions; marine and nonmarine</p>
<div style="border: 1px solid black; padding: 2px; display: inline-block;">KA</div>	<p><b>ALBERTA GROUP:</b> dark grey fissile shale and silty shale; minor grey cherty sandstone; marine</p>

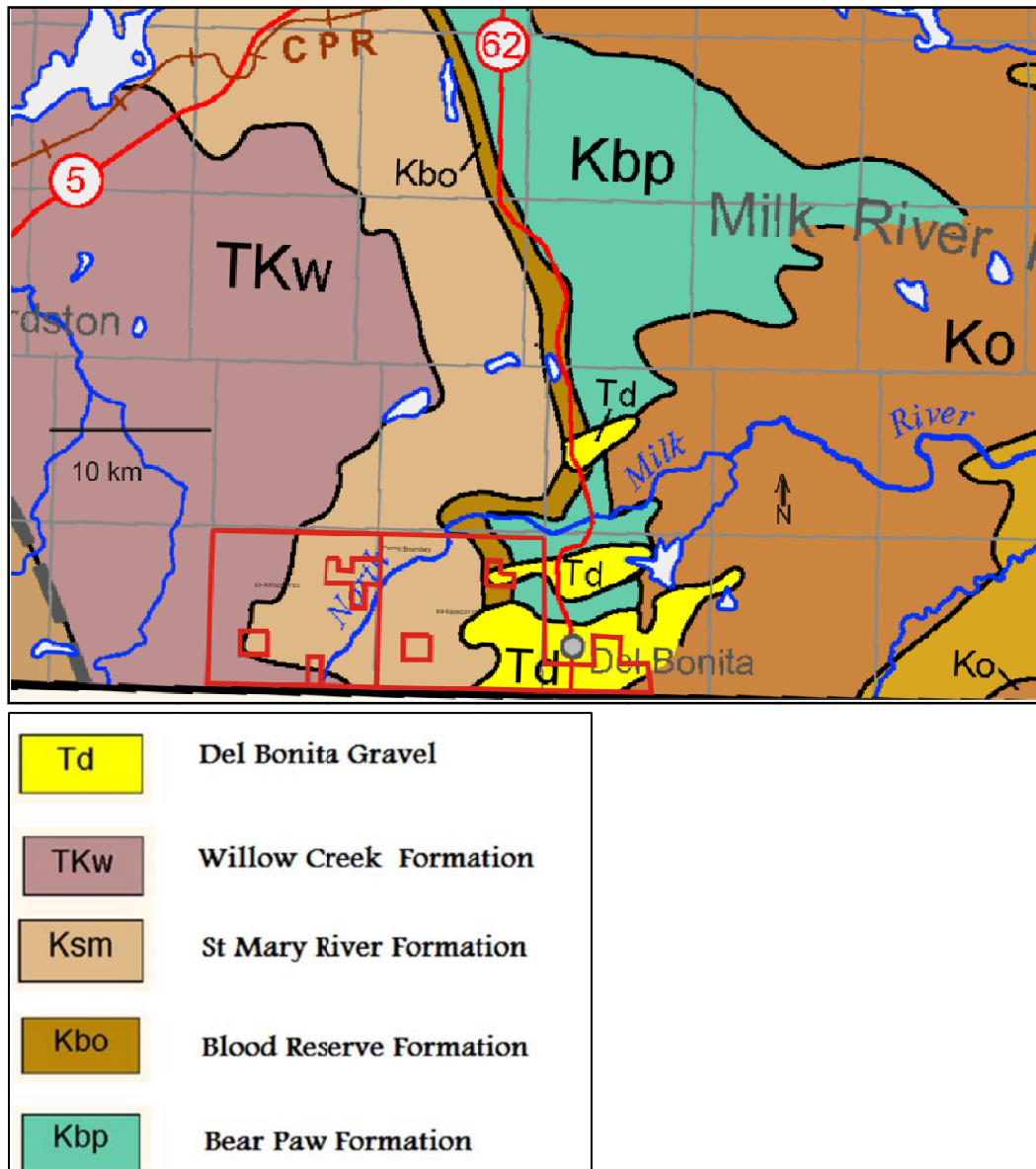


## 7.2 Property Geology

The geology of the area is characterized by poorly exposed bedrock subcrops of upper Cretaceous sandstones and shale (Bear Paw, Blood Reserve, St Mary River, and Willow Creek Formations). The Bear Paw is the oldest and stratigraphically lowest formation and the Willow Creek is the youngest and stratigraphically highest formation (Figure 13). The Palaeocene Del Bonita gravels lie in the eastern half of Permit 0939305050703.

**Figure 13: Geological map of the Whiskey Gap Permit Area**

(Source: Geological Map of Alberta, Alberta Geological Survey Map 236D, CD Rom version)



### 7.2.1 The Willow Creek Formation

This formation overlies the Knee Hills Tuff zone and is comprised of about 1200 ft of volcanically derived shale and sandstones. The Willow creek formation can easily be identified by alternating red and white, haematitic and strongly oxidized sandstones of non marine origin.

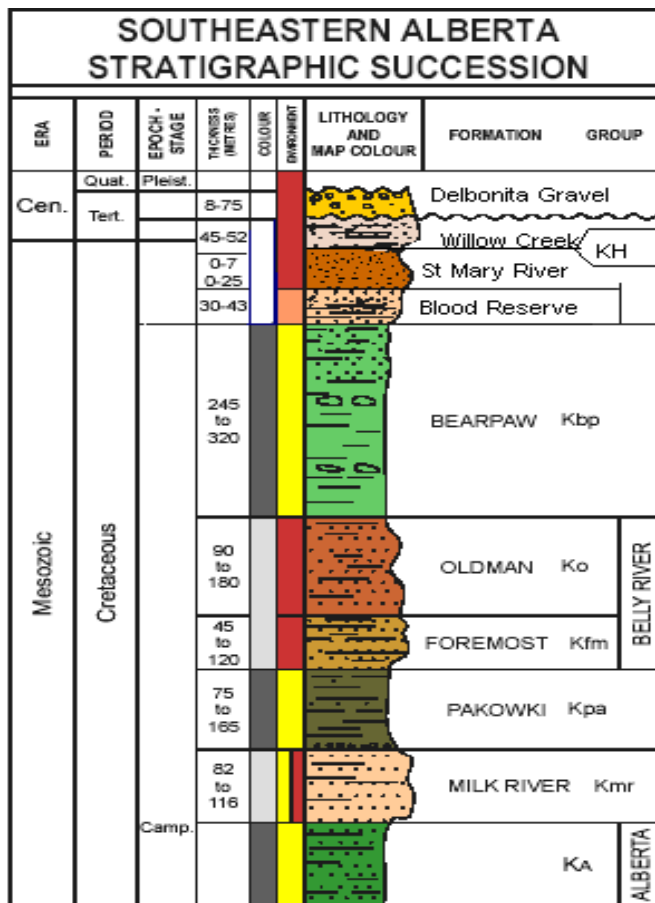
### 7.2.2 The St. Mary River Formation

The St Mary river formation is a fluvial sandstone sequence that overlies the marine Bear Paw shale deposited as the Bear Paw Sea regressed eastward across Saskatchewan and parts of Manitoba. The formation consists of approximately 1500 feet of fluviially derived greenish sands and siltstones; the Formation is overlain by the volcanic Knee Hills Tuff zone.

### 7.2.3 The Blood Reserve Formation

This formation is comprised of grey to green thick bedded feldspathic sandstones deposited as a shore line complex .Both marine and non marine in origin.

Figure 14: Stratigraphic succession in south east Alberta



Zardar Has not identidef any economic mineralization on the Whiskey Gap property

## 8.0 DEPOSIT TYPES

Sandstone deposits constitute about 18% of world uranium resources. Ore bodies of this type are commonly low to medium grade (0.05 - 4%  $U_3O_8$ ) and individual ore bodies are small to medium in size (ranging up to a maximum of 50,000 t  $U_3O_8$ ).

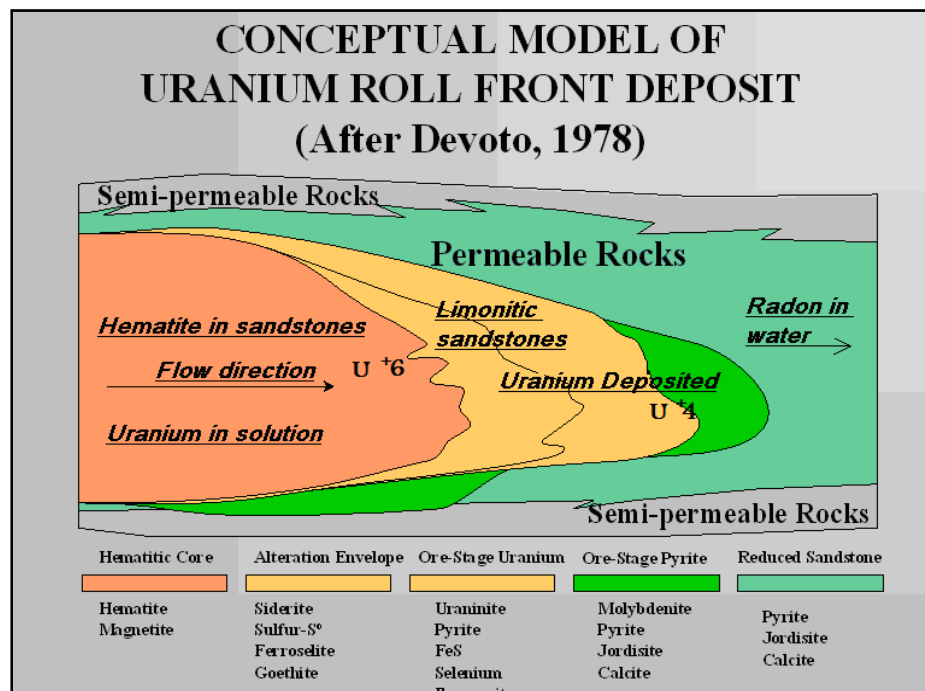
The United States has large resources in sandstone deposits in the Western Cordillera region, and most of its uranium production has been from these deposits. The Powder River Basin in Wyoming, the Colorado Plateau and the Gulf Coast Plain in south Texas are major sandstone uranium provinces.

The Smith Ranch uranium mine located in the Powder River Basin is the newest and largest uranium production centre in the United States, and today is producing at a rate of 580 t U (1.5 million lbs  $U_3O_8$ ) per year.

On a worldwide basis sandstone uranium deposits require uranium-bearing source rocks, commonly granitic basement or felsic volcanics, which are exposed to weathering. Physical and chemical breakdown of the common rock forming mineral, feldspar results in the liberation of trace amounts of uranium as the  $U^{+6}$  ion that is soluble in oxidizing ground water. Uranium ions remain in solution until the waters become reduced by contact with organic carbon, pyrite or hydrocarbons, causing precipitation of uranium as the insoluble form,  $U^{+4}$ . (Figure 15)

The variability of potential source rocks, weathering, transport and reducing conditions generate uranium deposits in a wide range of environments. International Ranger's exploration concept is that the Tertiary and Cretaceous sediments in Southern Alberta were formed under conditions analogous to sediments that host economically viable uranium deposits.

Figure 15: Conceptual model of a uranium Roll Front Deposit



## 9.0 EXPLORATION

In 2010 the author was contracted by Zadar Ventures Ltd to undertake a diamond drill program of 600 metres in 4 NQ drill holes (Table 7 and Figure 9).

### 11 Diamond drilling

The 2010 drill program consisted of 4 NQ core holes. WG-10-01 was a 1 metre offset of the NWG 06-20 drill hole. Drillhole NWG 06-20 hole was a reverse circulation hole undertaken by North American Gem Inc. which encountered significant radioactivity and interesting uranium and trace element numbers.

Drillhole WG-10-01 hole confirmed the anomalous radioactivity and the presence of anomalous, arsenic, copper, molybdenum, and lead typically associated with a reducing environment (see table 8 for select values). WG-10-02 was drilled 200 metres east, assays showed interesting uranium with low trace elements. WG-10-03 was drilled 200m south of NWG 06-20 hole location and WG-10-04 was drilled 200 metres east of the WG-10-03 location. (Figure 9)

The goal for the 2010 program was to establish that anomalous radioactivity existed near the NWG 06-20 reverse circulation hole, and obtain some high quality assay information for the mineralized zone and to extend or cut off the directions of the subsurface geochemical cells associated with sandstone mineralization.

All cores were split using a diamond saw and one half retained the other half sent for assay. Standard Quality procedures were done by the SRC and lab standards were run every 20 samples the high numbers were rerun for confirmation.

The author is unable to comment on the true widths of the mineralization at this point in the exploration process, because they are not known.

**Table 7: 2010 Drill hole Locations**

Hole #	type	Depth (m)	Easting	Dip	Northing	zone
WG-10-01	DDH	150	348915	-90	5434684	12
WG-10-02	DDH	150	349115	-90	5434687	12
WG-10-03	DDH	150	348909	-90	5434364	12
WG-10-04	DDH	150	349140	-90	5434347	12

The author is currently unaware of any drilling, sampling, or recovery factors that could materially impact the accuracy and reliability of the results

**Table 8: 2010 Select Assays**

Drill Hole	Depth from (m)	Depth to (m)	As PPM	Co PPM	Cu PPM	Mo PPM	Pb PPM	U PPM	Mo ppm-T	U PPM D	Drill hole	Depth from (m)	Depth to (m)	As PPM	Co PPM	Pb PPM	U PPM	Mo ppm-T	U PPM D
WG-10-01	37.49	37.80	<1	9	21	<1	13	9	3	11	WG-10-02	44.81	45.11	<1	2	12	2	3	3
WG-10-01	37.80	38.10	<1	4	18	<1	23	13	3	15	WG-10-02	45.11	45.42	<1	2	7	1	5	<2
WG-10-01	38.10	38.40	<1	3	5	<1	24	20	1	29	WG-10-02	45.42	45.72	2	4	4	1	5	<2
WG-10-01	38.40	38.71	<1	3	2	<1	16	4	3	9	WG-10-02	45.72	57.00	2	4	3	1	4	<2
WG-10-01	38.71	39.01	1	2	2	<1	14	2	4	2	WG-10-02	57.00	57.30	<1	4	5	2	5	<2
WG-10-01	39.01	39.32	1	5	6	<1	11	1	4	<2	WG-10-02	57.30	57.61	<1	4	6	3	6	4
WG-10-01	39.32	60.96	2	8	17	<1	10	3	3	4	WG-10-02	57.61	57.61	<1	3	14	5	4	6
WG-10-01	60.96	61.26	325	8	26	7	15	22	15	23	WG-10-02	57.61	57.61	<1	3	6	3	6	3
WG-10-01	61.26	61.57	169	7	22	8	10	25	16	27	WG-10-02	57.91	58.22	<1	2	9	9	10	12
WG-10-01	61.57	61.87	28	7	22	3	10	15	8	17	WG-10-02	58.22	58.52	<1	3	6	8	12	12
WG-10-01	61.87	62.18	52	8	26	5	13	12	12	13	WG-10-02	58.52	58.83	1	6	11	9	7	11
WG-10-01	62.18	62.48	51	7	23	6	11	14	16	16	WG-10-02	58.83	59.13	3	7	12	4	3	6
WG-10-01	62.48	62.79	8	6	16	1	12	3	5	4	WG-10-02	59.13	39.62	2	6	8	1	3	5
WG-10-01	62.79	63.09	5	5	10	2	6	4	7	6	WG-10-03	39.62	39.93	<1	2	16	8	3	17
WG-10-01	63.09	63.40	33	4	9	4	5	6	11	7	WG-10-03	39.93	40.23	<1	4	18	2	2	8
WG-10-01	63.40	63.70	2	4	8	2	6	4	8	5	WG-10-03	40.23	40.54	<1	3	14	<1	2	4
WG-10-01	63.70	66.45	2	4	8	2	6	3	7	4	WG-10-03	40.54	40.84	2	6	7	<1	2	5
WG-10-01	66.45	66.75	12	10	29	1	19	2	4	3	WG-10-03	40.84	35.97	4	7	9	1	2	5
WG-10-01	66.75	67.06	6	6	12	1	10	4	4	5	WG-10-04	35.97	36.27	<1	3	19	13	3	25
WG-10-01	67.06	67.36	7	6	16	3	7	5	9	7	WG-10-04	36.27	36.58	<1	2	17	2	3	11
WG-10-01	67.36	67.67	2	6	17	2	8	4	8	6	WG-10-04	36.58	37.19	1	3	16	1	3	8
WG-10-01	67.67	42.37	2	6	18	1	9	3	7	4	WG-10-04	37.19	50.29	1	3	14	<1	3	4
WG-10-02	42.37	42.67	1	12	12	<1	6	6	5	7	WG-10-04	50.29	50.60	<1	7	24	7	3	11
WG-10-02	42.67	42.98	<1	10	8	1	9	7	7	9	WG-10-04	50.60	64.31	<1	2	11	3	2	7
WG-10-02	42.98	43.28	1	20	12	1	8	8	7	10	WG-10-04	64.31	64.62	16	13	17	5	4	10
WG-10-02	43.28	43.59	1	9	14	<1	12	10	3	12	WG-10-04	64.62	64.62	1	6	10	5	10	4
WG-10-02	43.59	43.89	1	2	7	<1	18	23	3	64	WG-10-04	64.62	64.62	4	7	12	3	7	4
WG-10-02	43.89	44.20	<1	2	5	<1	19	31	3	32	WG-10-04	68.58	78.64	2	5	10	1	3	5
WG-10-02	44.20	44.50	1	11	4	<1	18	25	2	27	WG-10-04	78.64	78.64	<1	4	9	<1	2	3
WG-10-02	44.50	44.81	1	4	5	<1	33	60	1	68	WG-10-04	78.64	78.64	1	4	10	<1	2	3

As		Cu		Mo		Pb		U
	>15ppm		>15ppm		>3 ppm		> 15 pm	> 10 ppm

## 11.0 SAMPLE PREPARATION, ANALYSIS & SECURITY

Samples were either shipped in secure containers, under chain of custody protocol, to the Saskatchewan Research Council (SRC) facility in Saskatoon (an ISO/IES 17025:2005 accredited Laboratory) by commercial carrier or delivered directly by geological site personnel. SRC Geoanalytical Laboratories have been providing high quality analytical service to exploration and mining industry since 1972. SRC is a treasury Board crown corporation owned by the province of Saskatchewan

On arrival at the SRC laboratory in Saskatoon, all samples are received and sorted into their matrix types and received radioactivity levels. The samples are then dried overnight at 80°C in their original bags and then jaw crushed until  $\geq 60\%$  of the material is  $< 2$  mm size. A 100 g sub sample is split using a riffle splitter, which is then ground (either puck and ring grinding mill or an agate grind) until  $\geq 90\%$  is minus 106  $\mu\text{m}$ . The grinding mills are cleaned between sample using steel wool and compressed air or in the case of clay rich samples, silica sand is used. The pulp is transferred to a labelled plastic snap top vial. The samples are tested using validated procedures by trained personnel. All samples are digested prior to analysis by ICP (Induced Coupled Plasma) and fluorimetry. All samples are subjected to multi-suite assay analysis which includes U, Ni, Co, As, Pb by total and partial digestions.

Total digestions are performed on an aliquot of sample pulp. The aliquot is digested to dryness on a hotplate in a Teflon™ beaker using a mixture of concentrated HF: HNO<sub>3</sub>: HClO<sub>4</sub>. The residue is dissolved in dilute HNO<sub>3</sub> (SRC, 2007). Partial digestions are performed in an aliquot of sample pulp. The aliquot is digested in a mixture of concentrated HNO<sub>3</sub>: HCl in a hot water bath then diluted to 15 ml with de-ionized water. Fluorimetry is used on low uranium samples ( $< 100$  ppm) as a comparison for ICP uranium results. Uranium is determined on the partial digestion. An aliquot of digestion solution is pipetted into a 90% Pt 10% Rh dish and evaporated. A NaF/LiK pellet is placed on the dish and fused on a special propane rotary burner and then cooled to room temperature.

It is the author's opinion that sampling and security practice, both in the field and laboratory, meets all professional standards and requirements.

### ***Diamond drilling***

Core samples were placed in wooden core boxes and the lids secured with screws at the drill site. Boxed cores were removed from the drill location at the end of the drill shift or as required through the day by the site geologist. Cores were placed in locked storage until drilling and logging operations were complete.

QA/QC procedures for the gamma logging probe consist of:

- 1) Re-log of the radioactive a portion of the drill hole and
- 2) Calibration before commencement of logging operation using a portable source.

On completion of the drill hole, cores were laid out in the core shack, the lithology described and sampling of radioactive intervals was done using a small diamond saw. One half of the core was returned to the core box and the other to a numbered plastic bag for lab analysis. No blanks or duplicate samples for assay were inserted in the field. The SRC lab procedures included running a known standard for quality control every 20 samples and a duplicate analysis of the highest values obtained from each sample shipment.

Packages containing samples for assay were checked for safe levels of radiation and shipped in secure containers to the Saskatchewan Research Council for chemical analysis.

It is the author's opinion that sampling and security practice, both in the field and laboratory, meets all professional standards and requirements.

### ***Reverse Circulation Drilling***

Drill cuttings were generally returned wet due to the high water table in the project area. Reverse circulation samples were recovered as chips from a slurry containing approximately 30% solids, passing over a 2 mm screen. No measure of percent recovery was possible under the circumstances.

Drill Cuttings were dewatered on a 2 millimetre screen, the lithology noted, and placed in pre labelled plastic sample bags at 1 foot (30.4cm) or 5 foot (1.52m) intervals by the driller's helper or field geologist. Freezing conditions on site were problematic with these samples. Samples were collected from the drill site and transported to secure storage by the project supervisor.

Reverse circulation samples were collected placed in plastic bags and described at the drill. Samples from radioactive zones identified from the radiometric logs were shipped to the SKC in Saskatoon.

Samples were selected for assay on the basis of their proximity to radioactive zones identified during borehole logging.

Packages containing samples for assay were checked for safe levels of radiation and shipped in secure containers to the Saskatchewan Research Council, an accredited laboratory for chemical analysis.

It is the author's opinion that sampling and security practice, both in the field and laboratory, meets all professional standards and requirements.



## 12 DATA VERIFICATION

The author personally supervised all previous exploration programs from 2005 until 2010, compiled all reports and has a data base of all original assay data as received, from the SRC Geoanalytical Laboratories an accredited laboratory .

Drill cores were placed in wooded boxes, the lids secured with screws at the drill site. Core boxes were transported from the drill and placed in secure storage at the core shack by geological personnel, who then described and sampled the core and shipped samples to the SRC Geoanalytical Laboratories in Saskatoon.

Reverse circulation samples were collected placed in plastic bags and described at the drill. Samples from radioactive zones identified from the radiometric logs were shipped to the SRC Geoanalytical Laboratories.

It is the author's opinion that sampling and security practice, both in the field and laboratory, meets all professional standards and requirements.

No mineralogical studies have been conducted to identify specific uranium minerals from the property. Drill cores and percussion chip samples have been assayed for uranium and other elements, using ICP total and partial digestions. In the uranium analysis, both total and partial digestion results are similar, suggesting that uranium exists in a leachable state possibly as coffinite. Coffinite is a hydrous uranium silicate mineral.

Within sandstone hosted uranium deposits in the United States, the minerals pitchblende and coffinite associated with vanadium minerals and pyrite are the principal ore minerals in unoxidized rocks.

Ore minerals are often disseminated throughout the sandstone in irregular masses roughly concordant with bedding and generally coincide with carbonaceous zones, or as crescent shaped bodies on the leading edge of an oxidation reduction front

## 13.0 MINERAL PROCESS & METALLURGICAL TESTING

Zadar Venture Ltd has not undertaken any on metallurgical testing on the Whiskey Gap Property.

## 14 MINERAL RESOURCE & MINERAL RESERVES ESTIMATES

The Whiskey Gap Property is an exploration property and hence there are no resources or reserves defined on the property that comply with the CIM Standards on Mineral Resources and Reserves Definitions and Guidelines.

## 15 ADJACENT PROPERTIES

*The following information was obtained from the Alberta Energy web site, concerning adjacent mineral properties at: <http://www.energy.alberta.ca/OurBusiness/1072.asp>*



At the time of this writing there are active mineral exploration permit holdings that adjoin the Whiskey Gap property on its western side. These are held by Firestone Ventures of Edmonton. Additionally, EnCana Petroleum owns title to freehold mineral rights to the west and north of the Whiskey Gap property.

No exploration potential has been identified on these interior freehold lands.

## **16 OTHER RELEVANT DATA and INFORMATION**

There are no examples of sandstone hosted uranium deposits known to exist in Canada. These deposits worldwide contain substantially lower grades than unconformity related uranium deposits of the Athabasca area in northern Saskatchewan, thus may have been overlooked by the Canadian Exploration Industry.

However a paper generated by Matveeva in 2010 of the Energy Resource Conversation Board of Alberta (ERCB/AGS Open File Report 2009-12) entitled "Sandstone-Hosted Uranium in Southern Alberta: 2007 and 2008 Study Results" has indicated that there might be potential to encounter uranium mineralization in sandstone.

## 17 INTERPRETATION AND CONCLUSIONS

The Whiskey Gap permits are underlain by Cretaceous to Tertiary sandstone and shale in part fluviially derived containing volcanic tuff now altered to bentonite. Uranium ions are released from felsic rocks during weathering.

Uranium ions are transported under oxidizing near surface conditions and deposited when subsurface water is reduced by the presence of organic carbon in the aquifer.

Uranium mineralization up to 7640 ppm U (0.901% U<sub>3</sub>O<sub>8</sub>) was previously documented within the Willow Creek formation, occurring within fossil bone fragments (Firestone Ventures news release May 3, 2005)

Exploration by North American Gem Inc. and others, confirms that processes, capable of uranium transport and deposition of sandstone uranium deposits, are active in the Whiskey Gap area. The sedimentary sequence contains a small but significant organic component that may have accumulated uranium ions, transported by oxidized ground water movement.

Uranium ions in domestic well waters and radon gas produced by radioactive decay exist at strongly anomalous levels at several locations on the property.

It has been shown in a study of the five major producing sandstone uranium regions of the United States (Harshman, 1974) that the metal ions like molybdenum, arsenic, selenium and copper, travel in solution with uranium and are precipitated under reducing conditions proximal to the site of the uranium deposit.

At Whiskey Gap, drilling yielded two radioactive intersections that contained uranium associated with anomalous values of arsenic molybdenum selenium and copper. The most significant intersection was in drill hole NWG 06-20; in this hole organic carbon, radioactivity, weak uranium, and anomalous heavy metals to a maximum of 583 ppm arsenic were encountered over a total zone thickness of 8 metres.

It should be noted that radioactivity, as measured on the log did not equate to the uranium assay from the lab, sample quality was poor due to very wet conditions, for the reverse circulation program.

It should also be noted that high uranium and radon values in water also occur proximal to NWG 0620. It must be concluded that the area near NWG 06-20 should be further investigated by a series of diamond drill holes.

The author is of the opinion that the present study has met its original objectives and provides the basis for listing on the TSX Venture Exchange.

The author is unaware of any significant risks or uncertainties that could reasonably be expected to affect the reliability or confidence in the exploration information in this report.

## 18 RECOMMENDATIONS

Since commencement of exploration in on the property, 51 exploration holes have been drilled for a total of 5098.3 metres. Two drill intersections from previous exploration programs are deemed to be extremely significant. Both drill holes intersected reducing conditions, with associated radioactivity, and heavy metal enrichment, in the Willow Creek Formation, that is comprised of about 1200 ft of in part volcanically derived shale and sandstones of non marine origin.

The following drilling program is recommended to further explore the Whiskey Gap property. Drilling costs for the Project, are subject to availability, and timing, and as such, are estimates only, no firm drill contracts have been negotiated at this time.

Undertake some regional work on this would include drilling three to four drill holes on the property somewhere 2-10 kilometres apart ensuring that one drill hole is in the proximity of 5000 picocuries per litre radon sample taken by the Alberta Geological Survey. (See Figure 4 for areas of interest). The drill program is designed to test the anomalies of the 5000 picocuries per litre radon sample. Any subsequent program should first relocate the original sample locations drill 1 kilometre south and 1 north of the anomaly location on each area of interest

<b>Drilling</b>	<b>CAD \$</b>
Drilling & Assays (800 m)	\$100,000.00
Logistics/Vehicles/Camp	\$ 35,000.00
Personnel & Consultants	\$ 35,000.00
Assay/radiometric logging	\$ 25,000.00
Reclamation	\$ 15,000.00
Contingency 25%	\$ 52,500.00
<b>Total Phase</b>	<b>\$262,500.00</b>

## 19 CERTIFICATE

I, Glenn S. Hartley, P. Geol., do hereby certify that:

1. I am a Professional Geologist , residing at , 7302-118st Edmonton Alberta
2. This certificate applies to the report entitled “Zadar Ventures Ltd.: Whiskey Gap Project Alberta. Canada NI 43-101 Technical Report, centered at 49° 02’ North, 112° 56’ West dated January 11, 2012.”
3. I am a graduate of the University of Alberta BSc Geology (1977) In addition, I obtained a Diploma in Exploration Technology from the Northern Alberta Institute of Technology in 1971.
4. I am a current member of the Association of Professional Geologists and Geophysicists of Alberta.
5. I have worked in the field of geology for a total of 33 years since my graduation from university. The author has worked on the Whiskey Gap Property as an independent contractor for several exploration companies since 2005 supervising the uranium exploration programs for previous operators. I have worked I Canada on Uranium exploration programs in the 1970's and the past few years on the Whiskey Gap property.
6. I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
7. I am responsible for all sections of the report entitled “Zadar Ventures Ltd.: Whiskey Gap Project Alberta. Canada NI 43-101 Technical Report, centered at 49° 02’ North, 112° 56’ West dated January 11, 2012”
8. At the effective date of the technical report, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
9. I am independent of Zadar Ventures Ltd., International Ranger Corp, 1177129 Alberta Ltd. And all other related parties in applying all of the tests in section 1.5 of National Instrument 43-101. For greater clarity, I do not hold, nor do I expect to receive, any securities of any other interest in any corporate entity, private or public, with interests in the Whiskey Gap Property which is the subject of this report or in the properties themselves, nor do I have any business relationship with any such entity apart from a professional consulting relationship with the Companies, nor do I to the best of my knowledge hold any securities in any corporate entity within a two (2) kilometre distance of any part of the subject Whiskey Gap Property. I have received the majority of my income over the past three years from other companies , which are not the subject of this report.
10. I have conducted as a independent contractor for 4 exploration programs on the Whiskey Gap Property, which includes International Ranger, North American Gem Inc., Geo Minerals Ltd. and Zadar Ventures Ltd all of which are subject of this report. The author has worked on the Whiskey Gap Property since 2005 on the property for the aforementioned companies that are the subject of the Technical Report. My last visit to the property was on May 11, 2010.
11. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
12. I consent to the filing of the Technical Report with any stock exchange or other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible to the public



## 20 SIGNATURE PAGE

Dated this 11th Day of January, 2012.  
("Signed")

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Glenn S. Hartley P.Geol

## 21.0 REFERENCES

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