

MAR 20070020: ALBERTA SUN URANIUM

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JUL 20 2007
20070020

Assessment Report

**Activities on Permit Nos. 093 9305031136, 093 9305050699,
093 9305050745, 093 9305050746, 093 9305070802, 093 9305050698,
093 9306020507, 093 9306020508, 093 9305050693, 093 9305050694,
093 9305050695, 093 9305050696,
Part of "Alberta Sun Uranium Project",
Fort MacLeod area, southwestern Alberta,
Firestone Ventures Inc.**

Part B

100% Owner: Firestone Ventures Inc.

NTS Sheets 082H/02, 082H/03, 082H/05, 082H/06, 082H/12

June 20, 2007

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July 15, 2007

Summary

From March to May, 2005, Firestone Ventures Inc. progressively acquired permits comprising the “UBone” and “Cardston” project areas south of the towns of Fort MacLeod and Cardston respectively in southwestern Alberta, Canada. This was based on the “UBone” occurrence consisting of replacement-style uraninite in carbonaceous matter along the bank of the Waterton River. In July 2006 Firestone also acquired the permit comprising the “Red Rock project area” to the east, somewhat north of the village of Del Bonita. In May 2005 Marum Resources Inc acquired four permit areas in the Waterton River area near the UBone project area. Marum sold a 100% interest in these to Firestone Ventures in February 2007. The UBone project area covers 57,075 hectares, the Cardston block covers 18,372 hectares and the Red Rock block covers 4,022 hectares for a total of 79,469 hectares.

The focus of acquisition and subsequent exploration is for “roll-front”-style uranium deposits, which occur in the United States within similar geologic terrane consisting of platformal sedimentary rock derived from the eastern flank of the Rocky Mountains. Several short surface exploration programs were conducted in 2005, as well as seminars with experts in roll front deposits and hydrology of southern Alberta. Marum Resources conducted reverse-circulation style drilling somewhat east of the UBone occurrence in December 2005. Firestone conducted an airborne geophysical survey consisting of four blocks covering portions of the UBone, Cardston and Red Rock blocks; this comprised the majority of expenditures incurred on the project area.

The southwestern Alberta area containing the Alberta Sun project area is underlain by a thick sequence of predominantly fine clastic sediments derived from the eastern flank of the Rocky Mountains and comprising the “Foreland Basin” of the Interior Plains. The eastern limit of the Rocky Mountain Fold Belt extends northwest – southeast through southwestern portions of the Ubone and Cardston blocks; stratigraphy to the west shows strong disruption due to faulting and folding, whereas stratigraphy to the east is largely flat lying and undisrupted by faulting. Most of the area east of the Fold Belt is underlain by Willow Creek Formation fine clastic sediments, including sandstone units deposited along fluvial paleochannels, the main target lithology for roll-front style deposits.

Geological mapping by Firestone indicate that a synclinal axis parallels the Rocky Mountain fold belt roughly 8 - 10 kilometres east of its eastern limit. A sandstone unit about 7 - 8 metres thick occurs along the Waterton River near this axis, suggesting the existence of a main paleochannel. Smaller sandstone units to the east may represent “crevasse splays” from the main channel, indicating proximity to it. The most prospective area was determined to occur along the strike extensions of the interpreted synclinal axis where it intersects the Waterton River channel in the UBone project area, and the St Mary’s River in the Cardston project area. Areas within the fold belt were deemed unsuitable due to disruptions to fluid movement that would lead to formation of roll-front style deposits.

Results of limited geochemical analysis of drill “chip” samples” revealed highly elevated levels of certain rare earth elements typically found in monazite sands. These are derived from pegmatite units, which are an important source of uraninite. This suggests that pegmatite bodies, rather than mafic volcanic units along the eastern margin of the Rocky Mountains, may be a source of uraninite comprising the “UBone” occurrence.

Results of the airborne resistivity and magnetic surveying indicate that paleovalleys or potential paleovalleys, tending to parallel present watercourses, occur in all four surveyed areas. These consist of pre-glacial or buried-valley sand and gravel deposits occurring between the preglacial bedrock surface and overlying Quaternary till, forming a network of interconnected valleys up to 1000 metres wide and 100 metres deep.

On the UBone block, resistivity survey results indicates the present Waterton River channel was found to extend almost exactly along a major paleovalley, although “Radarsat” data suggests that a second paleovalley extends somewhat south of the present channel. Possible paleovalleys were identified along the Pincher Creek valley and the southeastern portion of the Goose Lake survey block. On the Cardston block, paleovalleys were identified along the present St Mary’s River course and the southeastern area. Within the Red Rock block, paleovalleys signifying the preglacial North Whisky Valley were identified, as well as two others paralleling this.

TerraNotes Ltd. also identified that hummocky terrain occurring both on the Cardston and Red Rock blocks may represent the contact between the preglacial erosional surface and Quaternary coarse sands and gravels. The contact itself may consist of concretionary hematite, suggesting a redox boundary and thus a favourable site for formation of roll-front style uranium mineralization.

Total applicable expenditures for the UBone block stand at **\$252,802.40** for the UBone block; **\$100,257.36** for the Cardston block and **\$54,869.24** for the Red Rock block, for a grand total of **\$407,929.00**.

Further exploration is recommended to focus on paleochannels and other prospective targets identified through the airborne survey. A rotary or reverse-circulation style drilling project is recommended to test these targets. Several vertical holes, drilled to a maximum depth of about 100 metres, slightly deeper than the depth of penetration of the airborne surveying, are recommended for each target, although amount of drilling and hole locations will depend on individual targets.

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Part C

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1.0 Introduction

On March 21, 2005 Firestone Ventures Inc acquired Permit No. 093 9305031136, covering 9,031 hectares (22,307 acres), in the Fort MacLeod area of southwestern Alberta. This was acquired to cover an occurrence of replacement-style uraninite within carbonaceous matter, called the "UBone showing", along the Waterton River east of Alberta Highway 810.

On May 2, 2005 Marum Resources Inc. acquired Permit No's 093 9305050693 through 093 9305050696, totaling 36,683 hectares (90,607 acres) forming a contiguous block with Firestone permit 093 9305031136. On May 27, 2005 Firestone also acquired Permit No. 093 9305050745 adjoining the western boundary of the Marum permits, and Permit No. 093 9305050746 adjoining the south boundary of Permit No. 093 9305031136. On Feb 7, 2006 Firestone added Permit No's 093 9306020507 and 093 9306020508, totaling 349 hectares (862 acres) along the eastern boundary of the Marum claims. In February, 2007 Marum sold their 100% interest in their blocks to Firestone, forming a single contiguous block extending from the Waterton – Belly River confluence area to just east of Pincher Creek, Alberta. This is referred to as the "UBone project area".

On May 4, 2005 Firestone Ventures acquired Permit No's 093 9305050698 and 093 9305050699, comprising 18,372 hectares (45,379 acres) southeast of Cardston, Alberta and referred to as the "Cardston project area". On July 6, Firestone acquired Permit No. 093 9305070802, comprising 4,022 hectares (9,934 acres) north of Del Bonita, Alberta, and referred to as the "Red Rock project area". These are included in the "Alberta Sun Uranium Project".

The focus of acquisition and subsequent exploration is for "roll-front"-style uranium deposits, which occur in the United States within similar geologic terrane consisting of platformal sedimentary rock derived from the eastern flank of the Rocky Mountains.

The main focus of exploration covered in this assessment report is an airborne electromagnetic and magnetic geophysical survey conducted by Fugro Airborne Surveys Corp. of Edmonton, Alberta, consisting of four blocks: the "U-Bone" survey, covering Firestone's earliest acquired permit (093 9305031136) and extending onto adjacent permit areas; the "Goose Lake" survey, covering the northern portion of Permit No. 9305050745, part of the UBone project area; the "Cardston" survey, covering the eastern portion of Permit No. 093 9305050698, part of the Cardston project area; and the "Red Rock" survey, covering the eastern portion of Permit No. 093 9305070802, covering the Red Rock project area. Geophysical interpretation and a preliminary report, included in Appendix 4, were provided by TerraNotes Ltd. of Edmonton, Alberta.

This assessment report will also cover results from a December, 2005 reverse-circulation drilling program by Marum Resources on the "Hot Bones" prospect on Permit No. 093 9305050694, slightly southeast of the UBone showing.

2.0 Location and Access

The contiguous block centered on the UBone grid extends from just east of Pincher Creek at 49° 51' N Latitude, 113° 54' W Longitude, to the Waterton River at 49° 25' N Latitude, 113° 20' W Longitude. This block is located on NTS Sheets 082H/05 and 82H/06, with a small portion extending onto Sheet 82H/12. Access is very good; Alberta Highways 810 extends north-south through the central portion of the block, and Highway 507 extends west from Highway 810 through western areas. Local areas can be accessed by several concession roads extending to the edges of the Waterton River valley. Much of the surface rights on the north side of the river are held by the Ewelme Hutterite colony, and most of the south side east of Highway 810 is held by the Riverside Hutterite colony. Both gave permission for Firestone Ventures to explore on their land.

The Cardston project area extends from 49° 05.5' N Latitude, 113° 20' W Longitude to the Alberta-Montana border at 49° 0' N Latitude, 113° 05' W Longitude on NTS sheet 82H/03. Access is good, with Albert Highway 40 extending from northwest to southeast across the block, Highway 501 extending across eastern portions, and numerous concession roads leading to the edges of the St Mary's River.

The Red Rock block extends from 49° 10' N Latitude, 112° 56.5' W Longitude, to 49° 05.5' N Latitude, 112° 56.5' W Longitude. Access is more limited, with a single concession road extending west from Highway 62, located about 1.6 km east of the block. Several trails also extend across the property.

Permission to access private land must be acquired prior to exploration, although "right of ways" along concession lines are open to public usage.

3.0 Physiography, Climate and Vegetation

The UBone block covers flat to gently rolling terrain, ranging from 3,350' (1,021m) to about 4,000' (1,219m) in elevation, and comprised mostly of ranchland and farmland, with almost no wooded areas outside of the river valleys. The Waterton River has cut a valley up to 80 metres deep, resulting in nearly vertical cliffs along many of its cut banks, although the river's edge is easily accessible along most of its course. Cottonwood forests cover much of the valley floors. Outcrop is restricted to cut banks along major water courses.

The Cardston block consists of gently rolling terrain on the northeast side of Highway 40, and somewhat more hilly terrain within the "Fold Belt" of the Rocky Mountain foothills on the west side. West of the highway, steep cliffs to 100 metres in height occur along the St. Mary's River. Ranchland covers much of the block, particularly west of the highway. Again, open cottonwood forests cover river valley floors, and outcrops occur

primarily along the St Mary's River. Elevations range from 3,800' (1,158m) to about 4,300' (1,310m).

The Red Rock block consists of moderately rolling terrain used as ranchland along the north side of the Milk River. Elevations range from 4,000 feet (1,219m) to 4,525 feet (1,379m). Outcrop is somewhat more abundant, particularly along the Milk River valley.

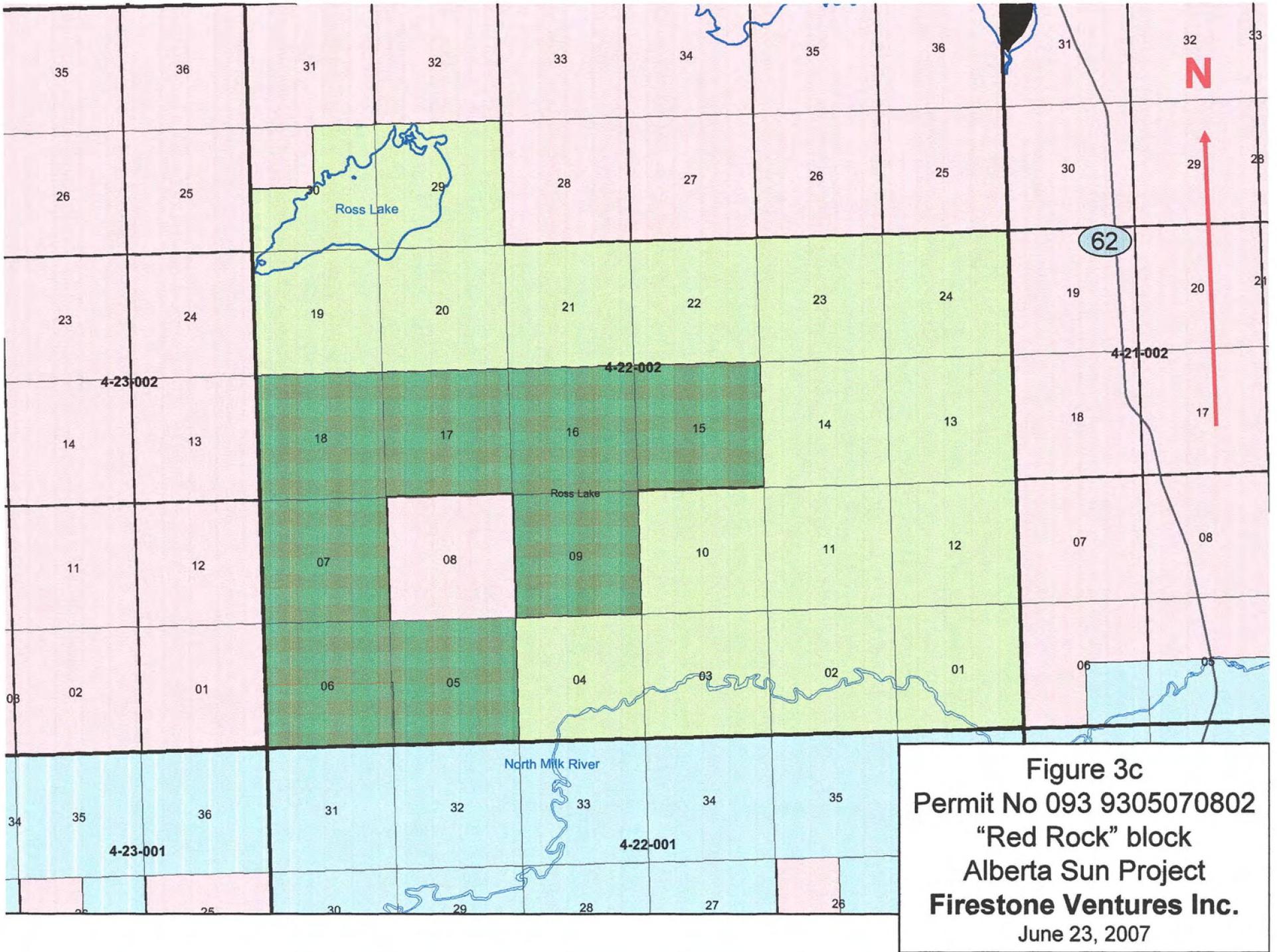
The Alberta Sun project area has a generally dry continental climate, with warm summers having daily highs averaging about 24°C, and cold winters, with average highs at about -3°C. Precipitation averages about 40 cm per year, with occasional heavy "upslope" rainfall and snowfall events. Wintertime "chinooks", consisting of incursions of warm, dry air, are fairly common in southwestern Alberta, resulting in reduction or elimination of the snowpack. Drilling should be done in wintertime conditions; other exploration is recommended to be done in the summer and fall. No work should be done during calving season from April and early May.

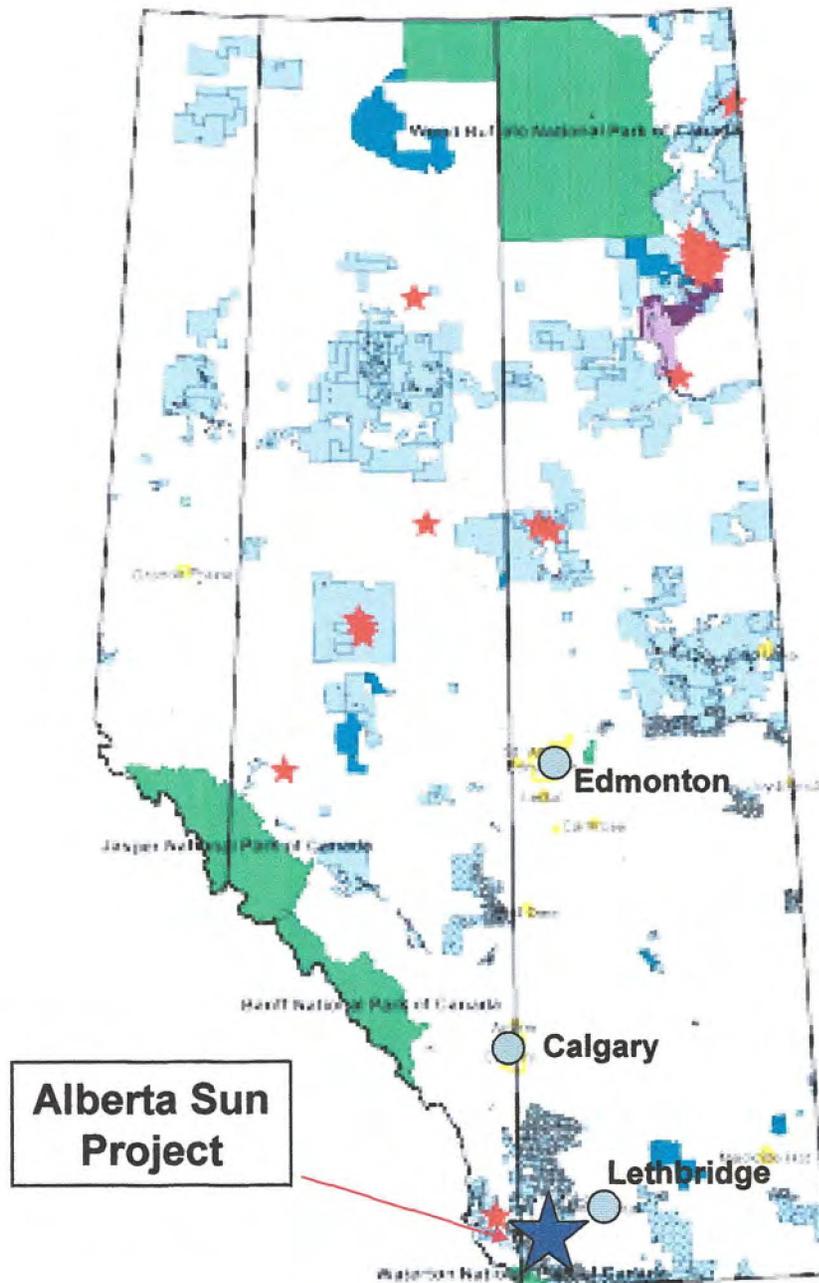
**Table 1: "Leases" comprising Alberta Sun Project area
As of July 8, 2007**

Firestone Ventures Inc.

Agreement No.	Area (Hectares)	Date Acquired	Project Area	Expiry Date (following submission)	Original Client*
093 9305031136	9,031	3/21/2005	Ubone	3/21/2008	Firestone
093 9305050745	9216	5/27/2005	Ubone	5/27/2008	Firestone
093 9305050746	1796	5/27/2005	Ubone	5/27/2008	Firestone
093 9306020507	211	2/7/2006	Ubone	2/7/2009	Firestone
093 9306020508	138	2/7/2006	Ubone	2/7/2009	Firestone
093 9305050693	9152	5/2/2005	Ubone	5/2/2008	Marum
093 9305050694	9124	5/2/2005	Ubone	5/2/2008	Marum
093 9305050695	9191	5/2/2005	Ubone	5/2/2008	Marum
093 9305050696	9216	5/2/2005	Ubone	5/2/2008	Marum
093 9305050698	9156	5/4/2005	Cardston	5/4/2008	Firestone
093 9305050699	9216	5/4/2005	Cardston	5/4/2008	Firestone
093 9305070802	4022	7/6/2005	Red Rock	7/6/2008	Firestone
Total:	79,469				

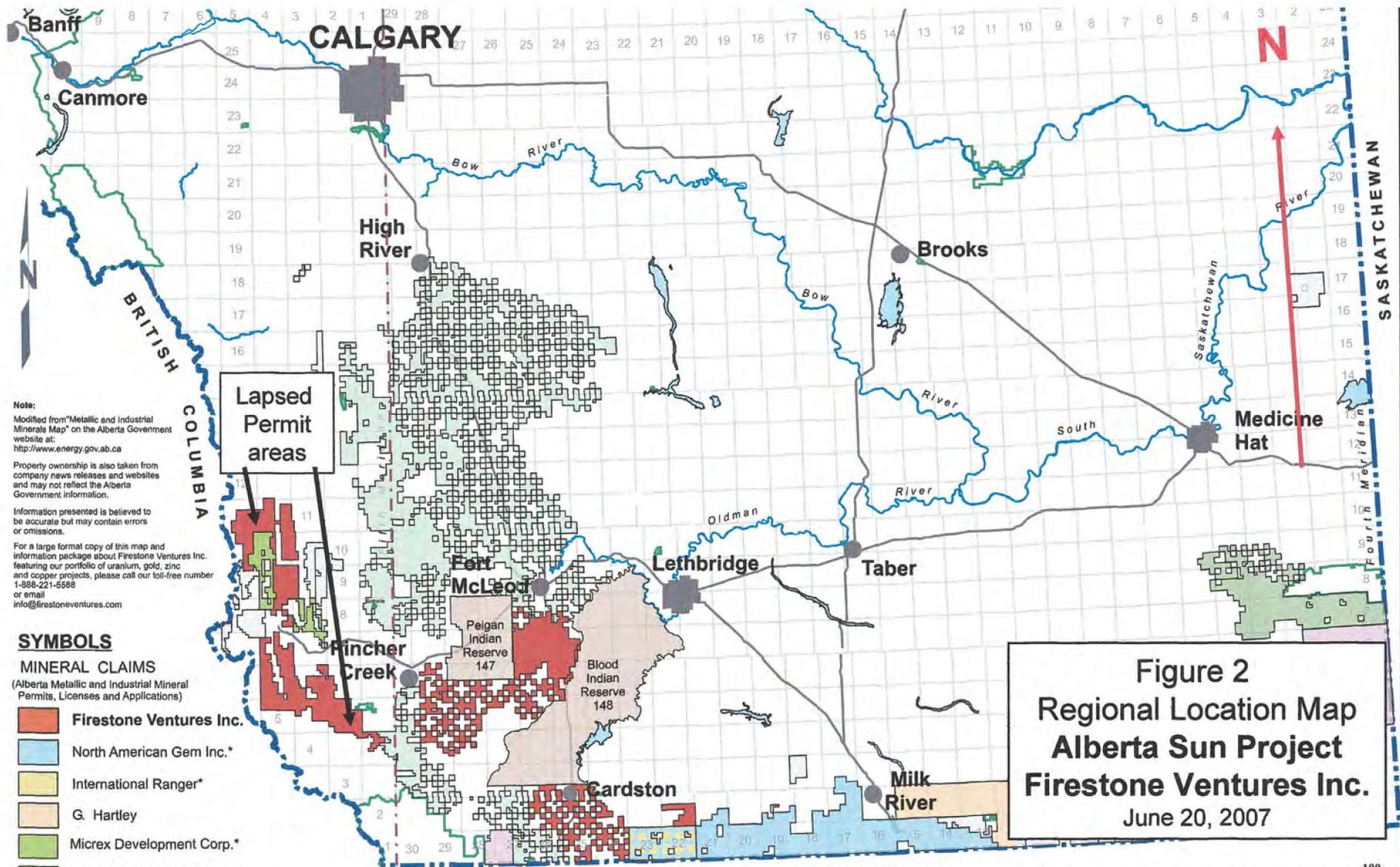
* All leases currently held by Firestone





**Alberta Sun
Project**

Figure 1: Location Map
Alberta Sun Project
Firestone Ventures Inc.
June 20, 2007



Note:
 Modified from "Metallic and Industrial Minerals Map" on the Alberta Government website at: <http://www.energy.gov.ab.ca>
 Property ownership is also taken from company news releases and websites and may not reflect the Alberta Government information.
 Information presented is believed to be accurate but may contain errors or omissions.
 For a large format copy of this map and information package about Firestone Ventures Inc. featuring our portfolio of uranium, gold, zinc and copper projects, please call our toll-free number 1-888-221-5588 or email info@firestoneventures.com

SYMBOLS

MINERAL CLAIMS
 (Alberta Metallic and Industrial Mineral Permits, Licenses and Applications)

- Firestone Ventures Inc.
- North American Gem Inc.*
- International Ranger*
- G. Hartley
- Micrex Development Corp.*
- Sandswamp Exploration Ltd.
- S. Spelliscy
- Dahrouge Geological
- Other

Figure 2
Regional Location Map
Alberta Sun Project
Firestone Ventures Inc.
 June 20, 2007

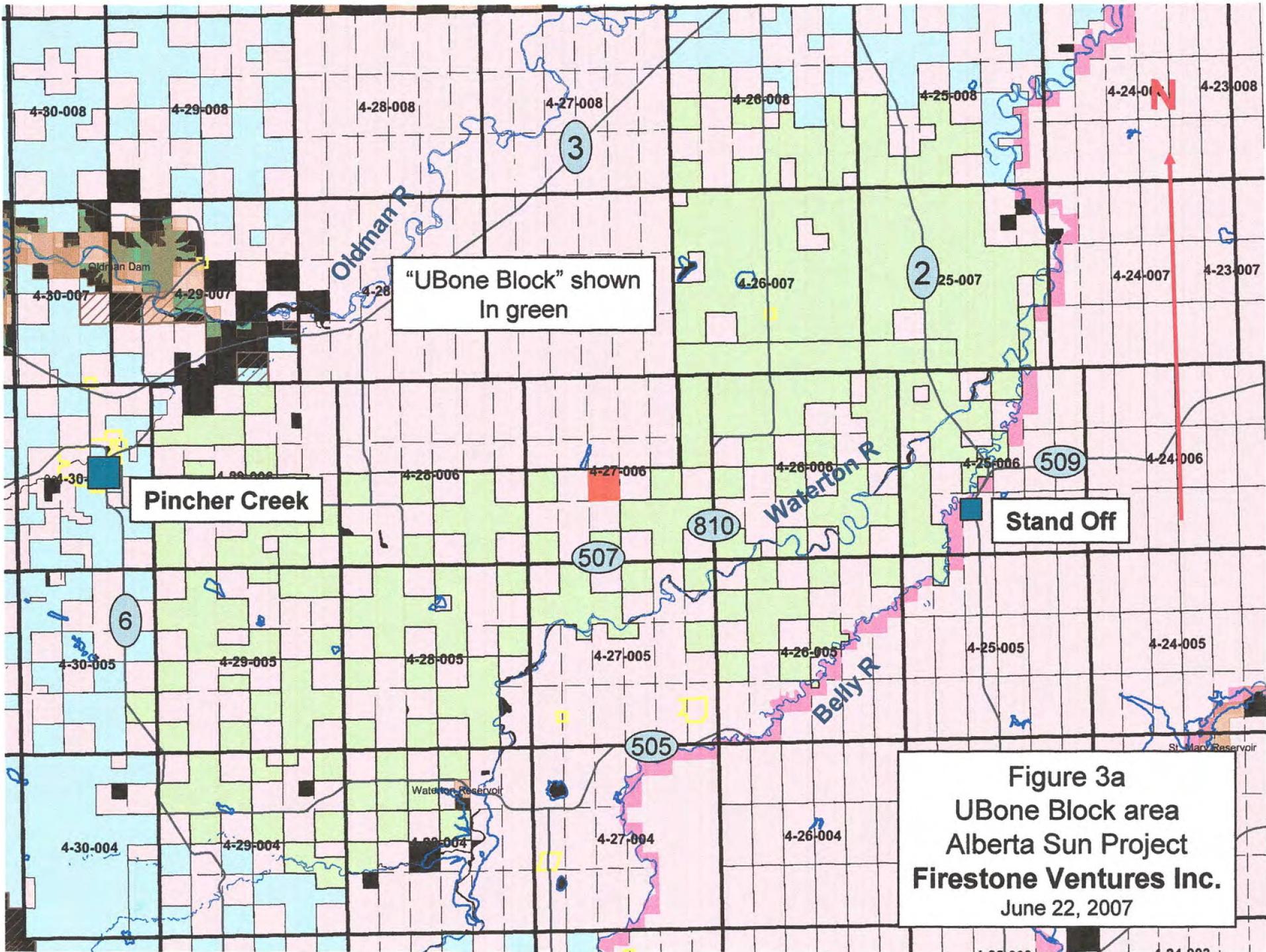
FIRESTONE VENTURES INC.

ALBERTA SUN URANIUM PROJECT

FV : TSX-V

Toll Free: 1-888-221-5588
www.firestoneventures.com

* Some claim transfers may be pending

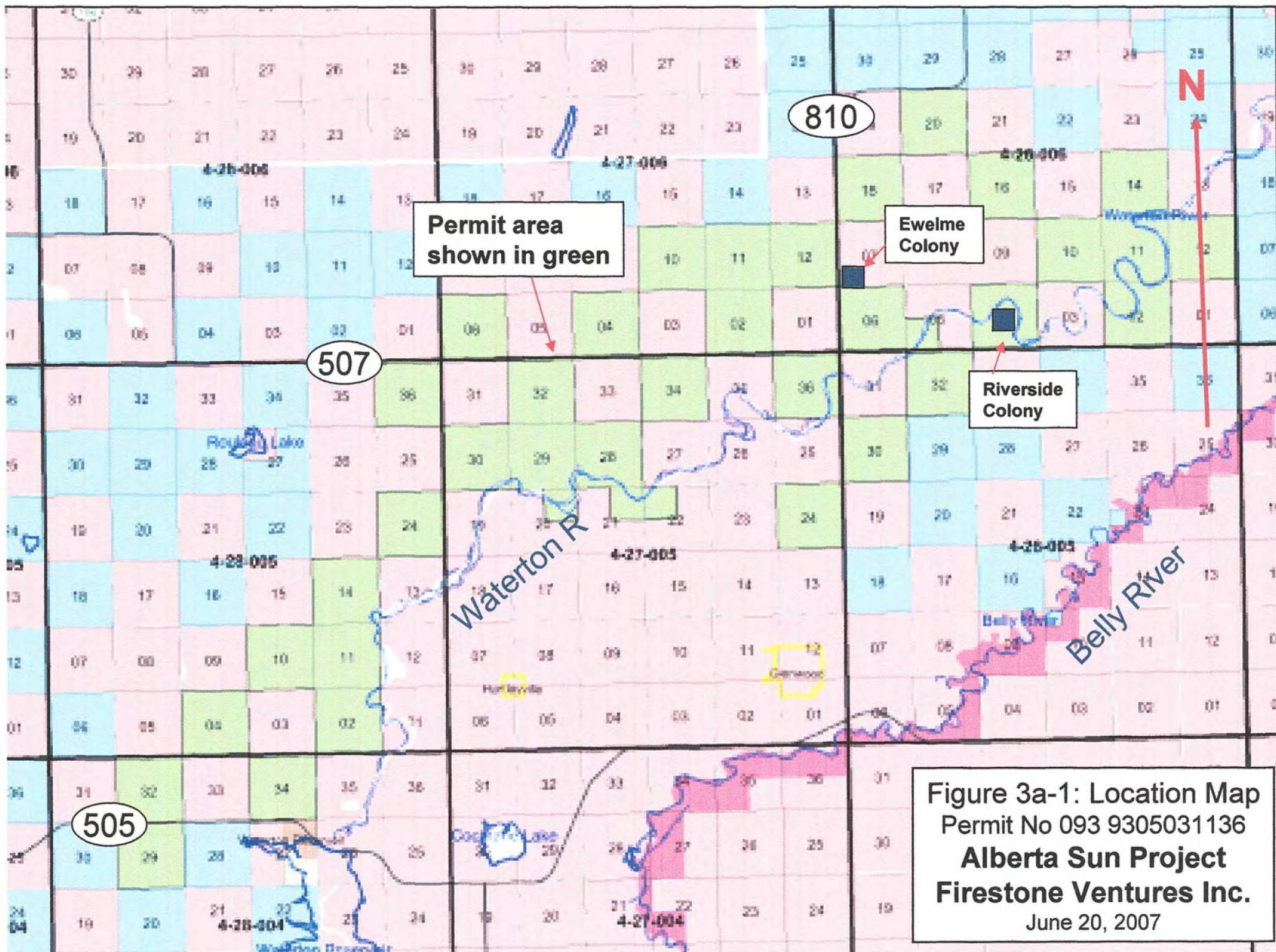


"UBone Block" shown
In green

Pincher Creek

Stand Off

Figure 3a
UBone Block area
Alberta Sun Project
Firestone Ventures Inc.
 June 22, 2007



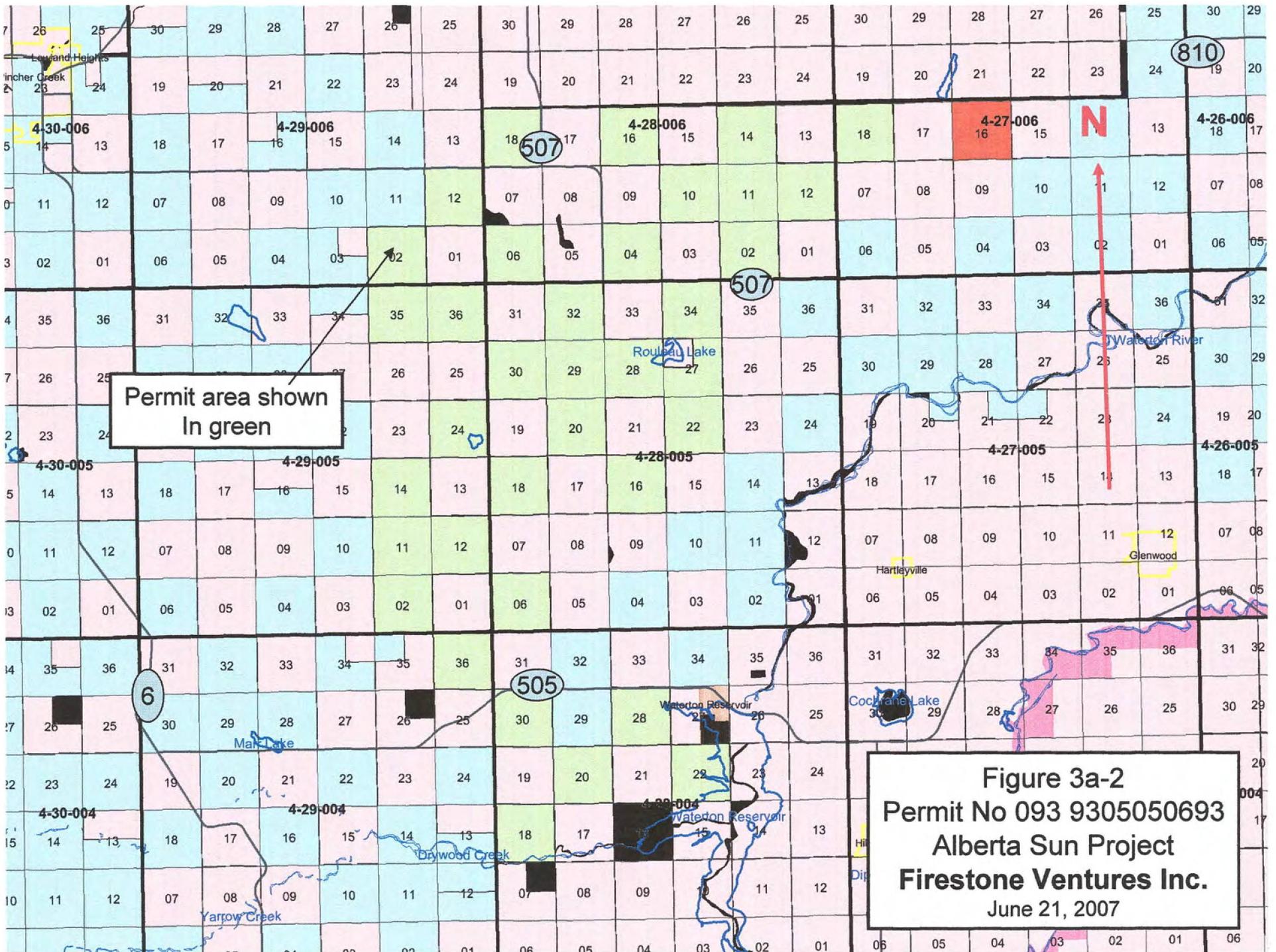


Figure 3a-2
Permit No 093 9305050693
Alberta Sun Project
Firestone Ventures Inc.
June 21, 2007

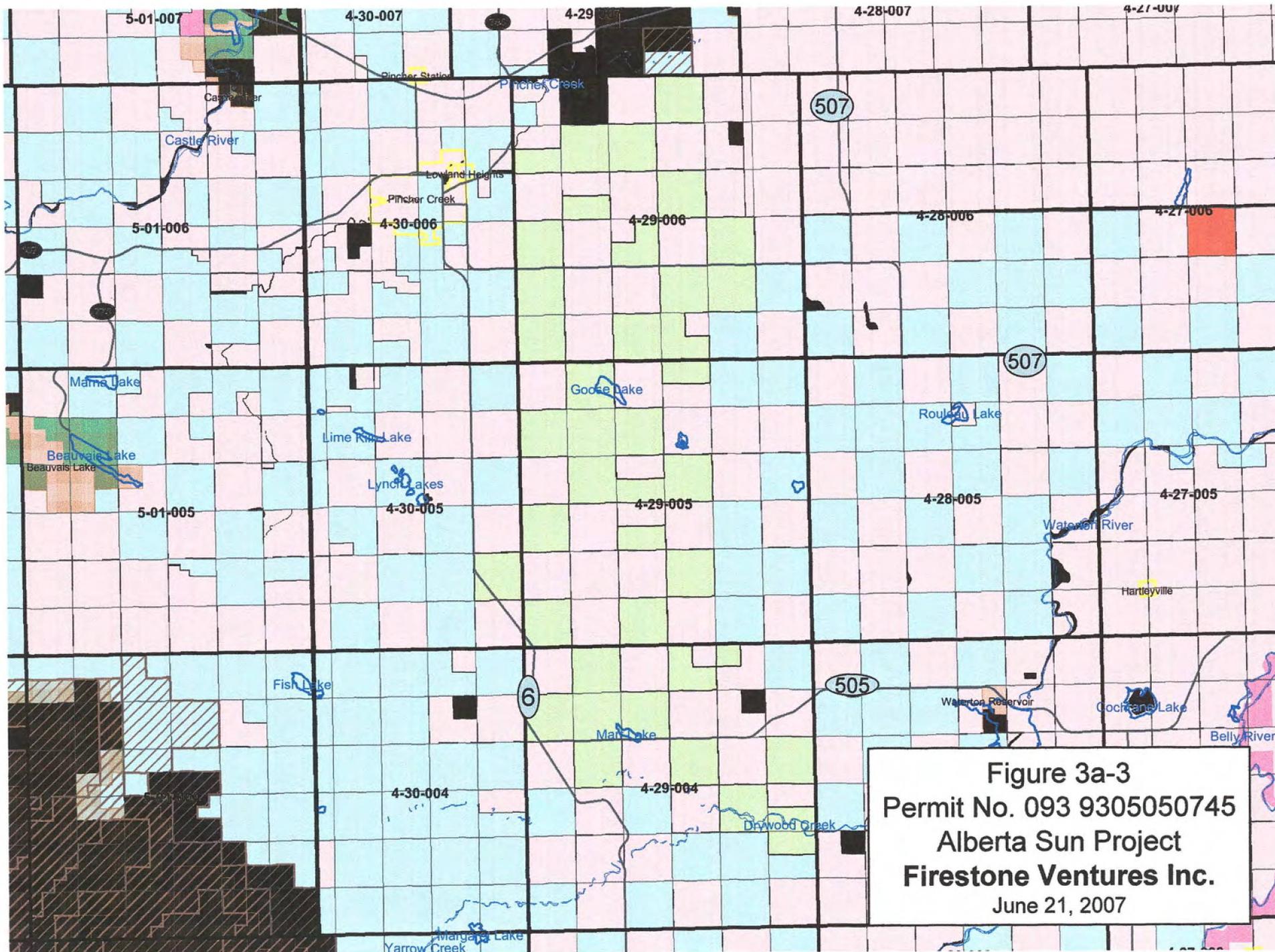


Figure 3a-3
Permit No. 093 9305050745
Alberta Sun Project
Firestone Ventures Inc.
 June 21, 2007

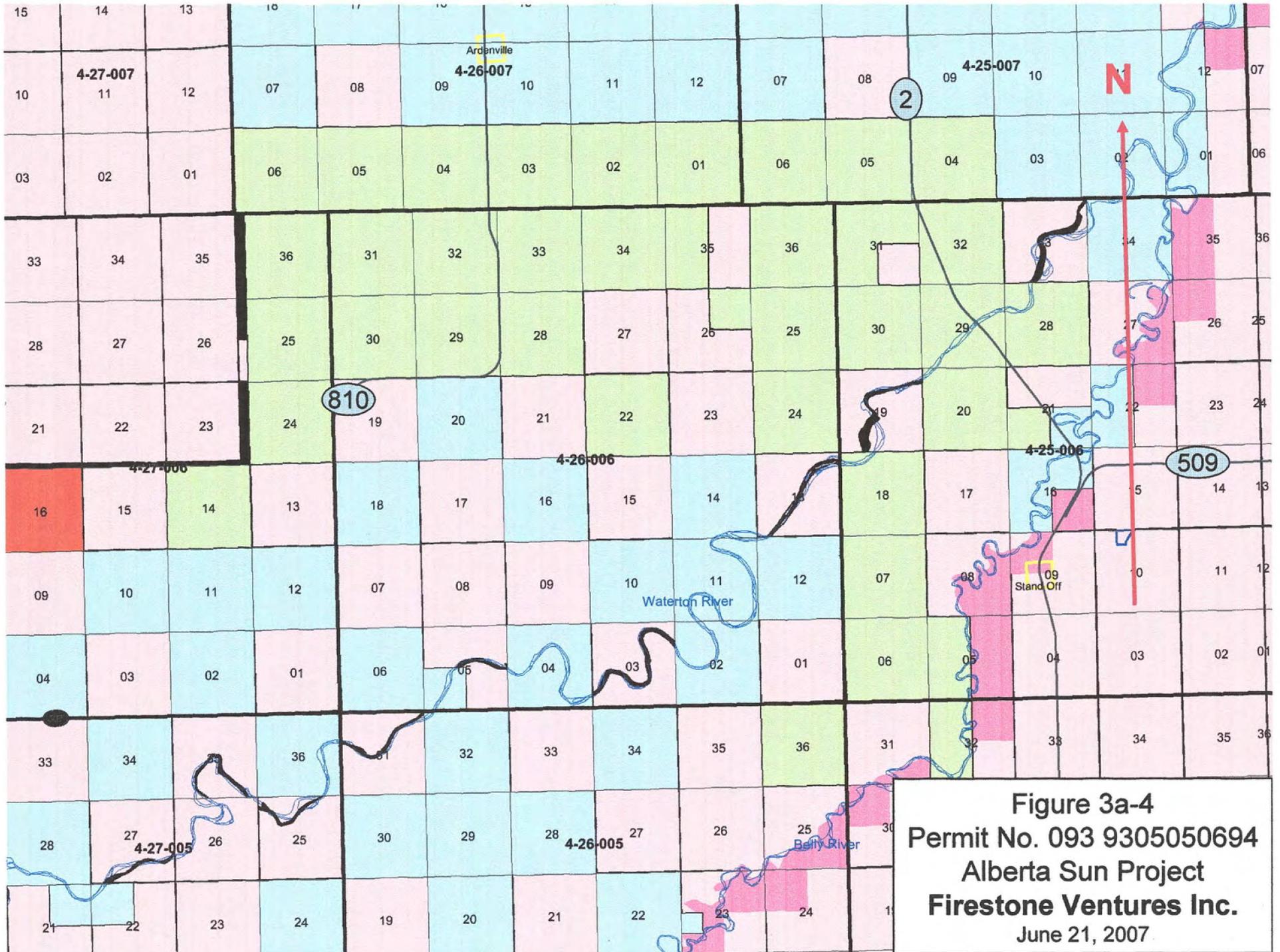
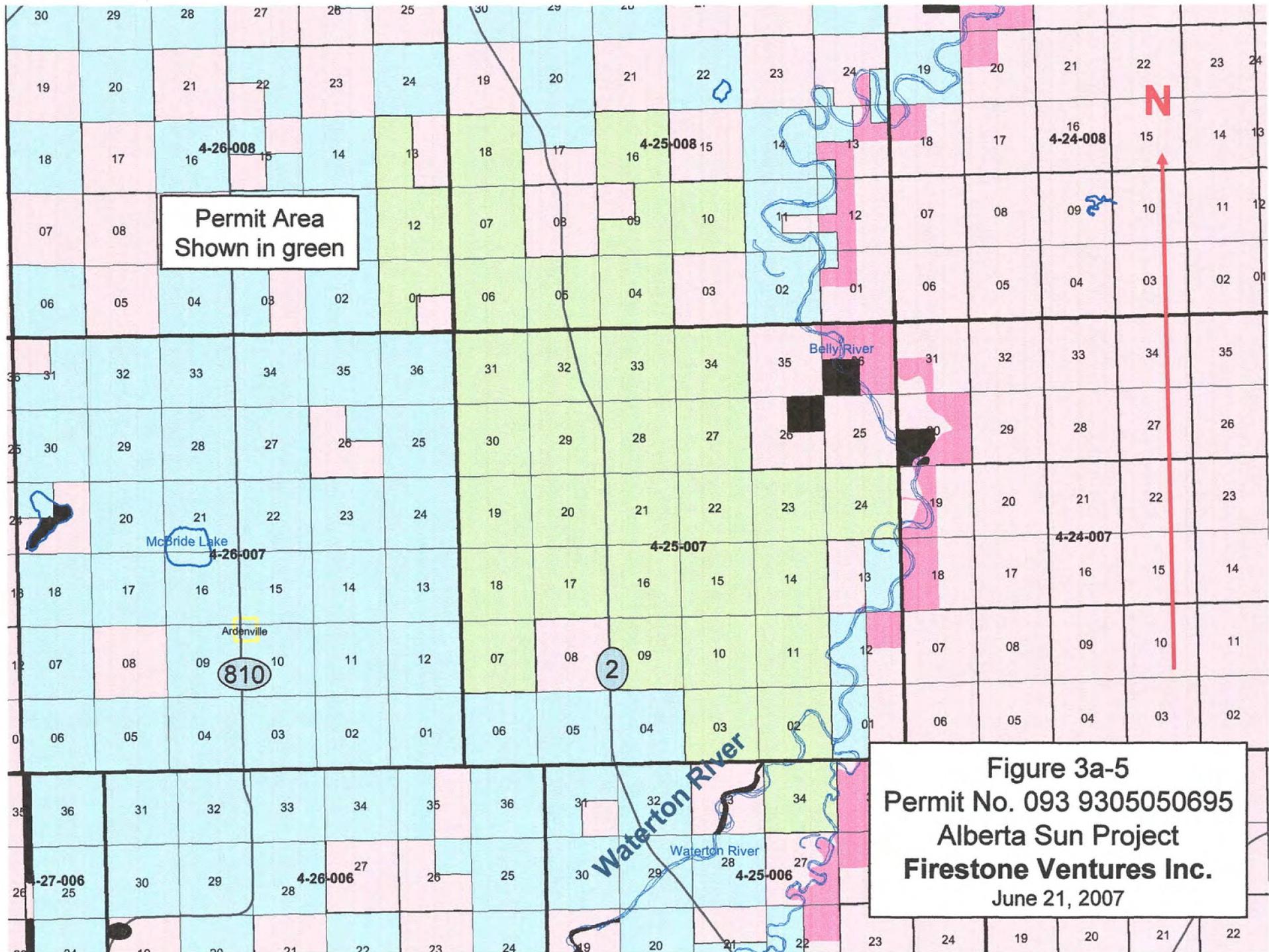
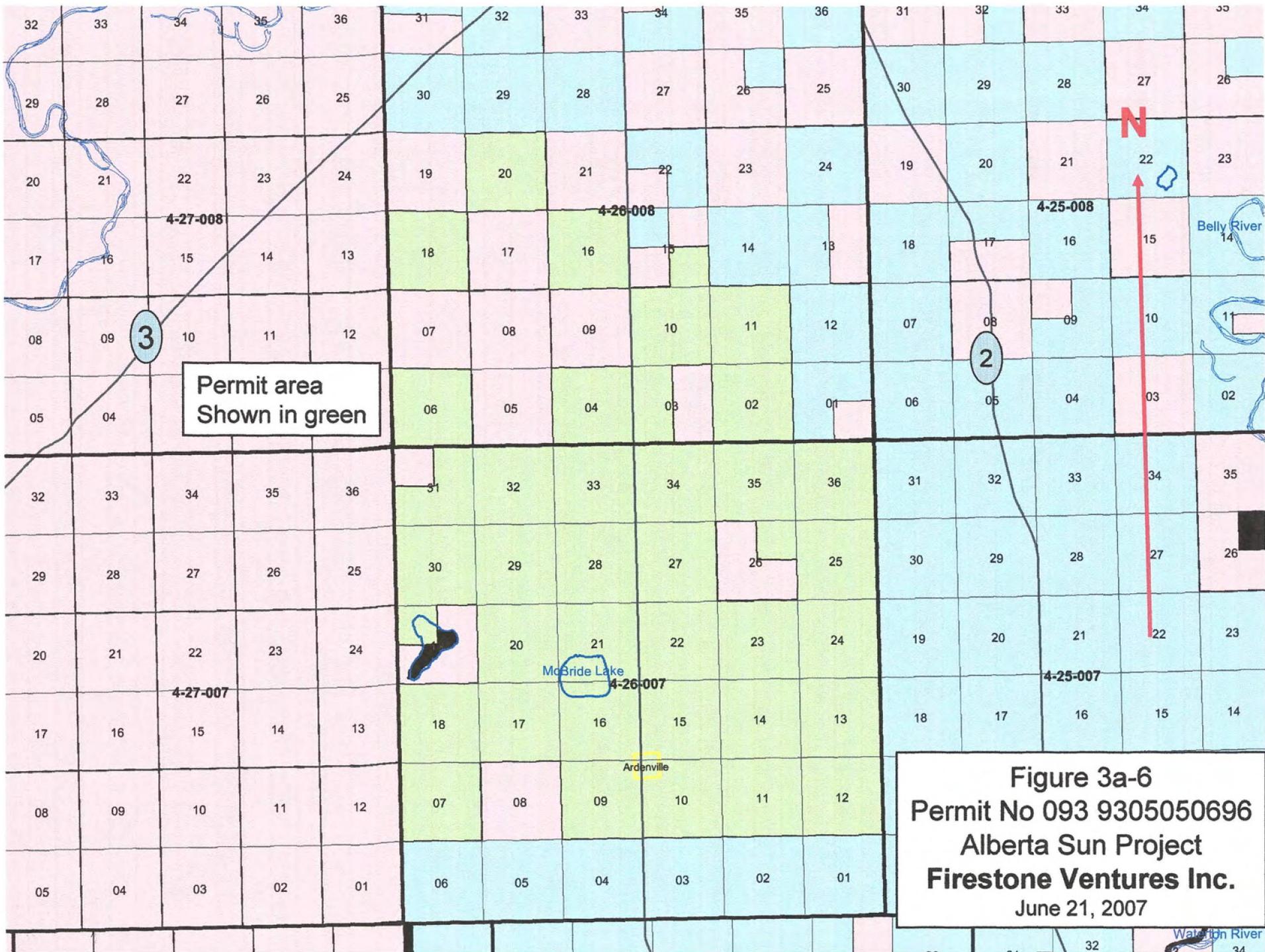


Figure 3a-4
Permit No. 093 9305050694
Alberta Sun Project
Firestone Ventures Inc.
 June 21, 2007



Permit Area
Shown in green

Figure 3a-5
Permit No. 093 9305050695
Alberta Sun Project
Firestone Ventures Inc.
 June 21, 2007



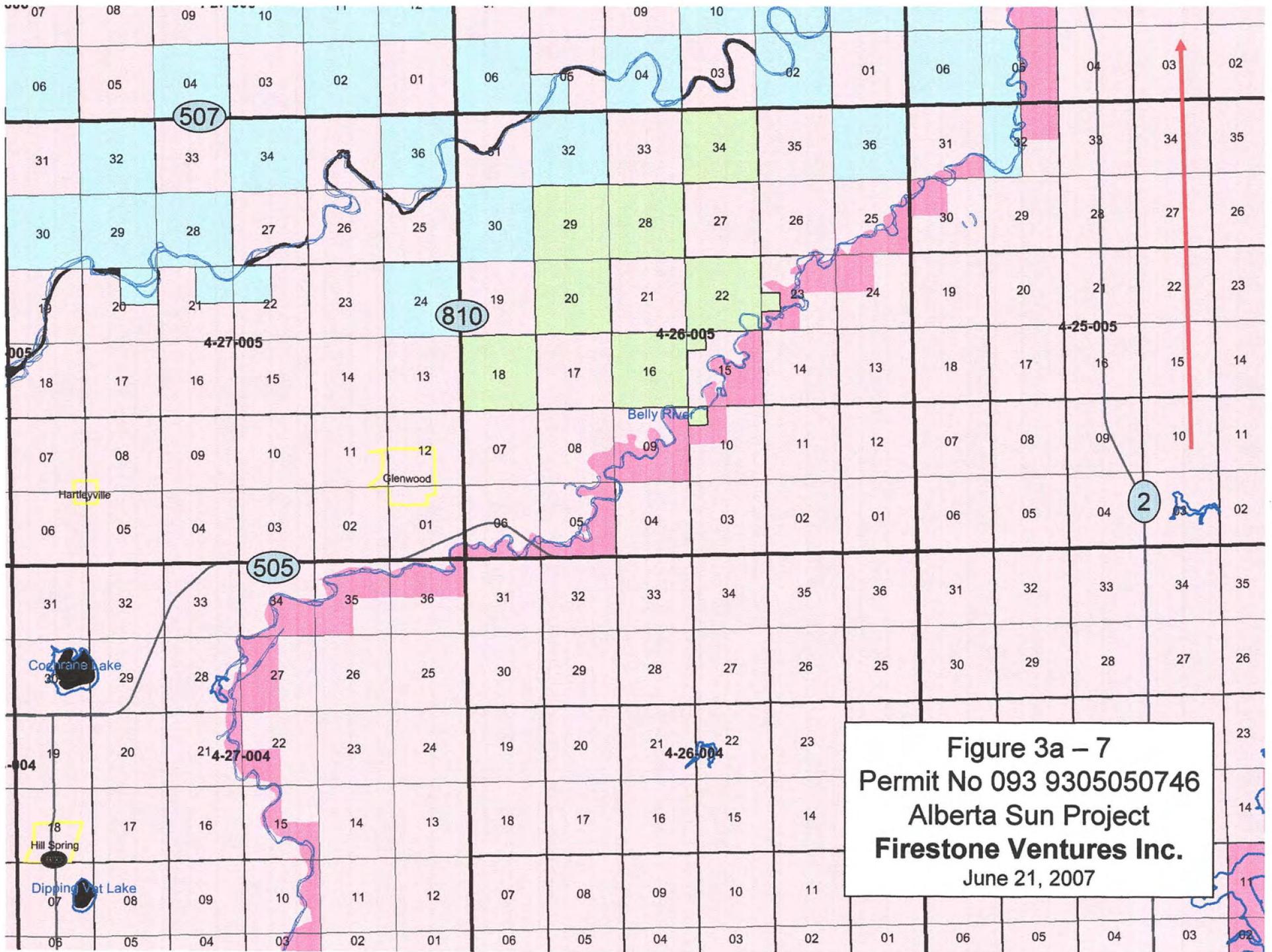
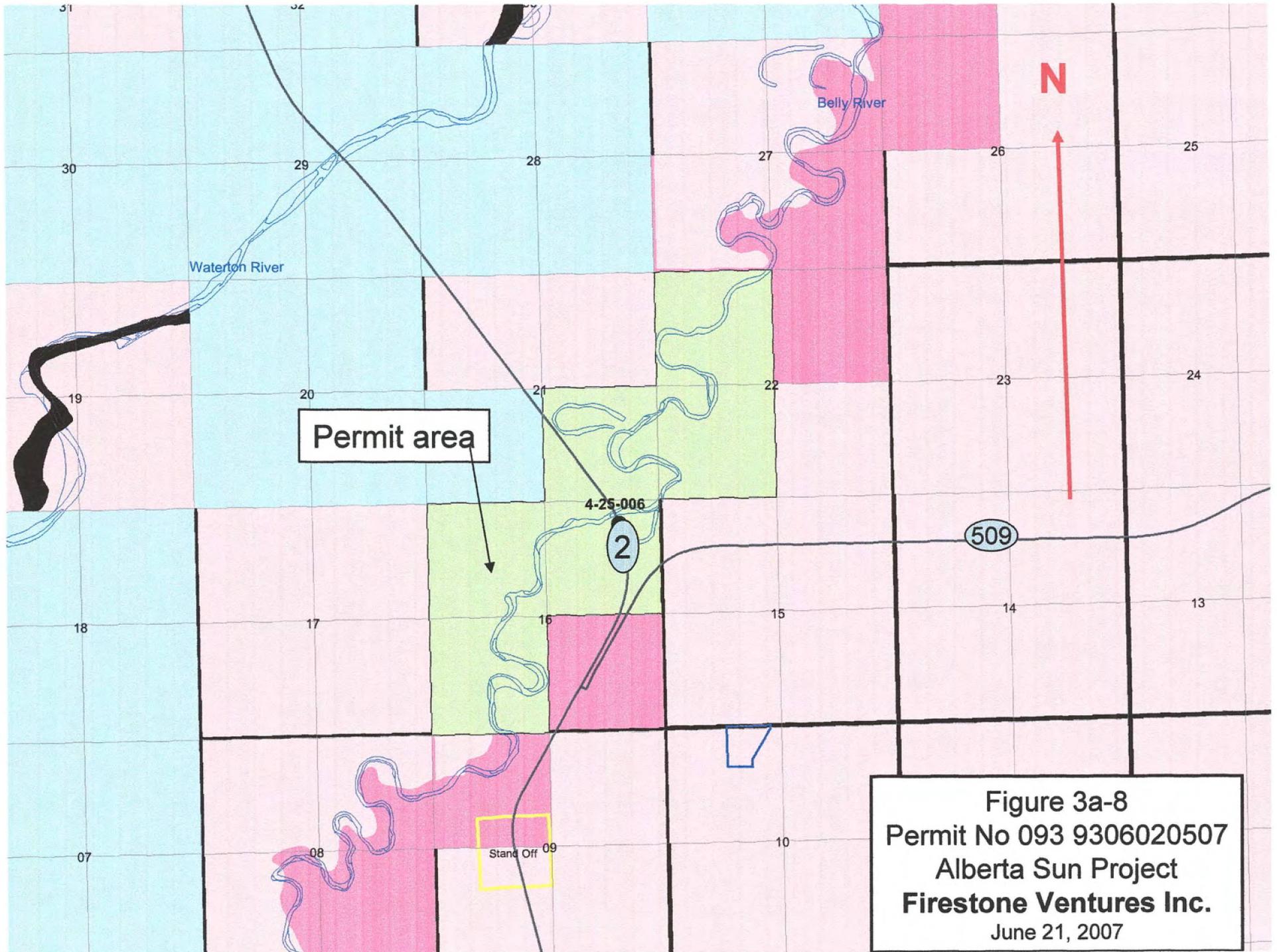
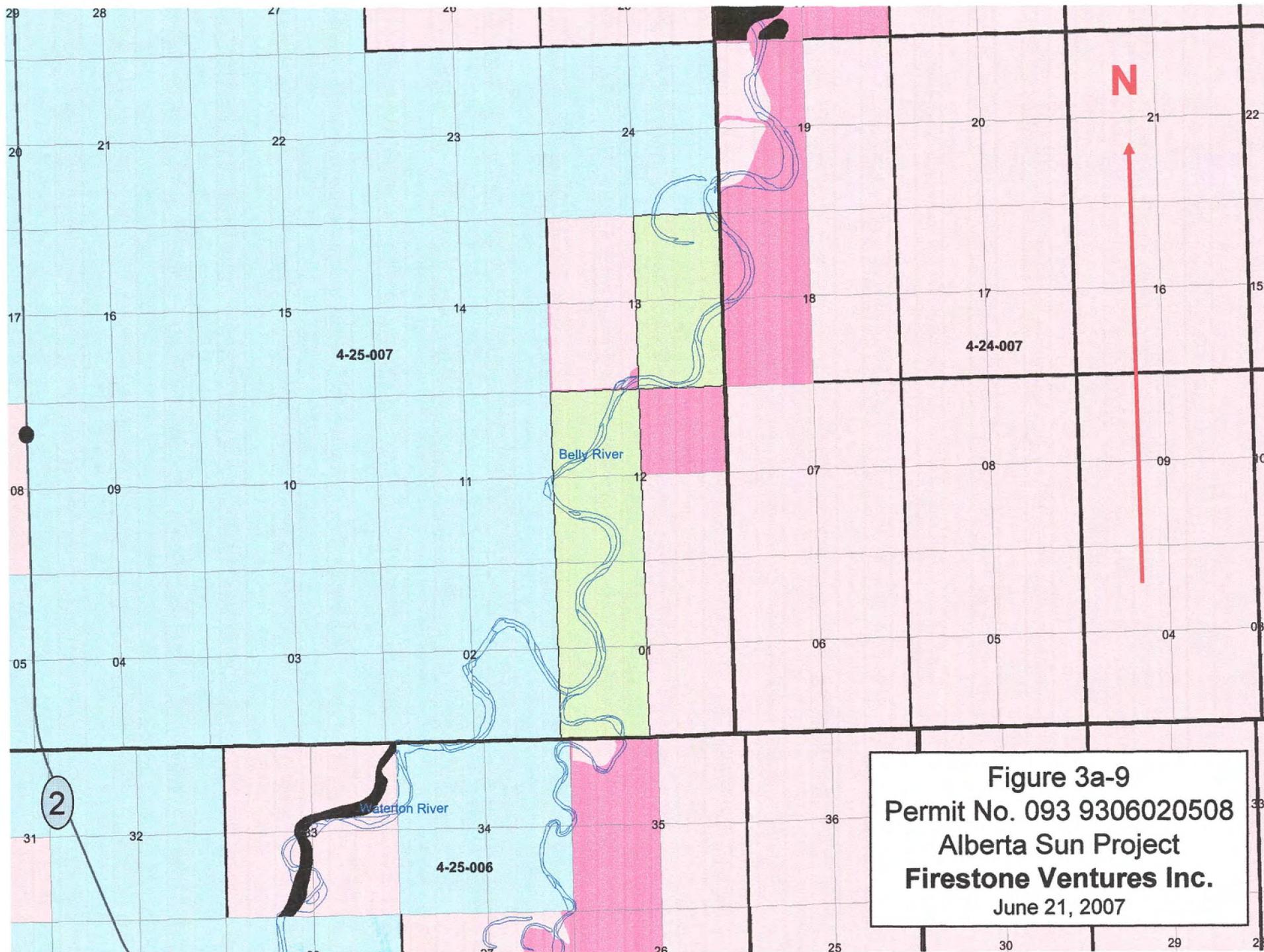


Figure 3a – 7
Permit No 093 9305050746
Alberta Sun Project
Firestone Ventures Inc.
 June 21, 2007





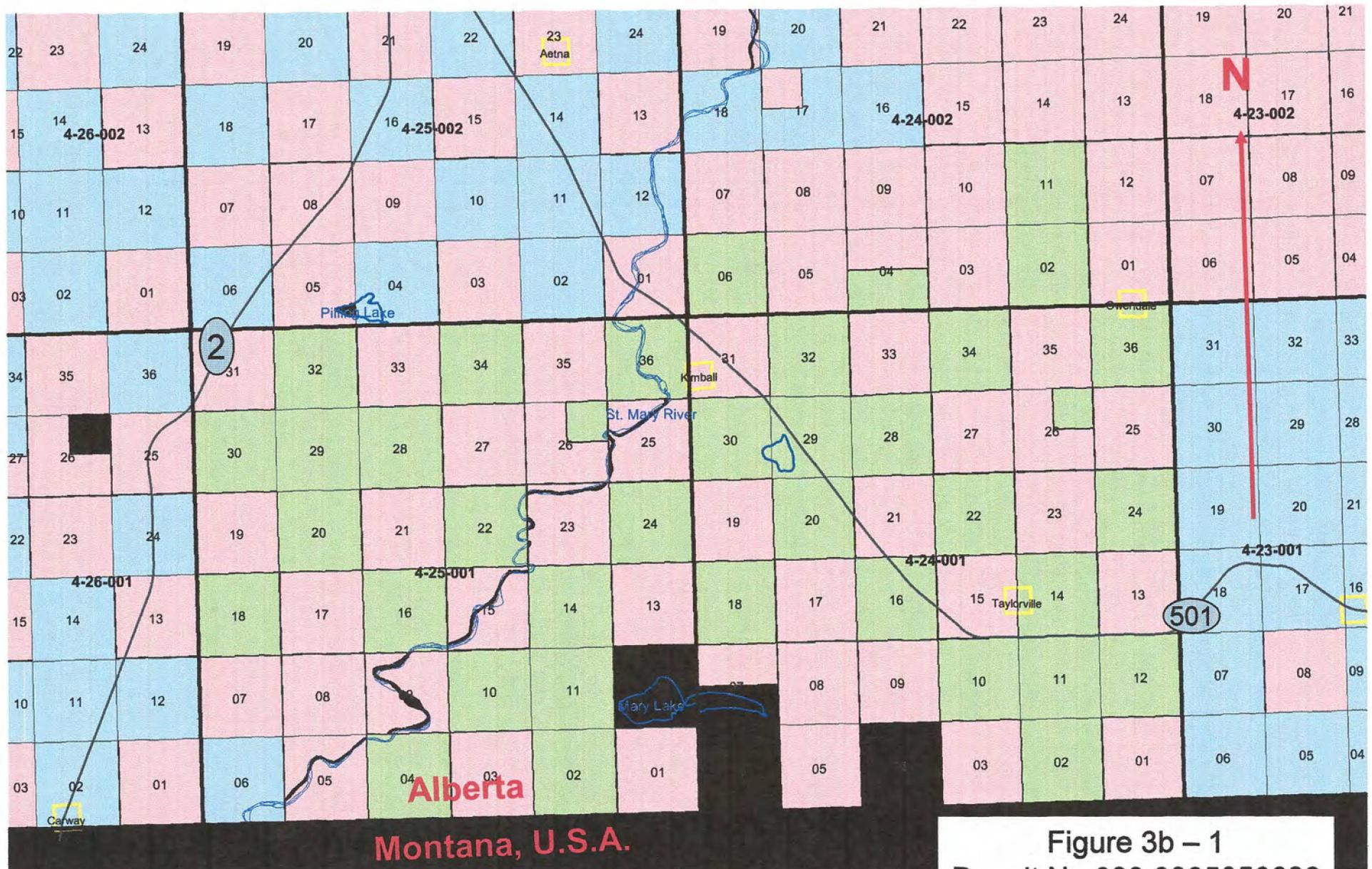


Figure 3b – 1
 Permit No 093 9305050698
 Alberta Sun Project
 Firestone Ventures Inc.
 June 23, 2007

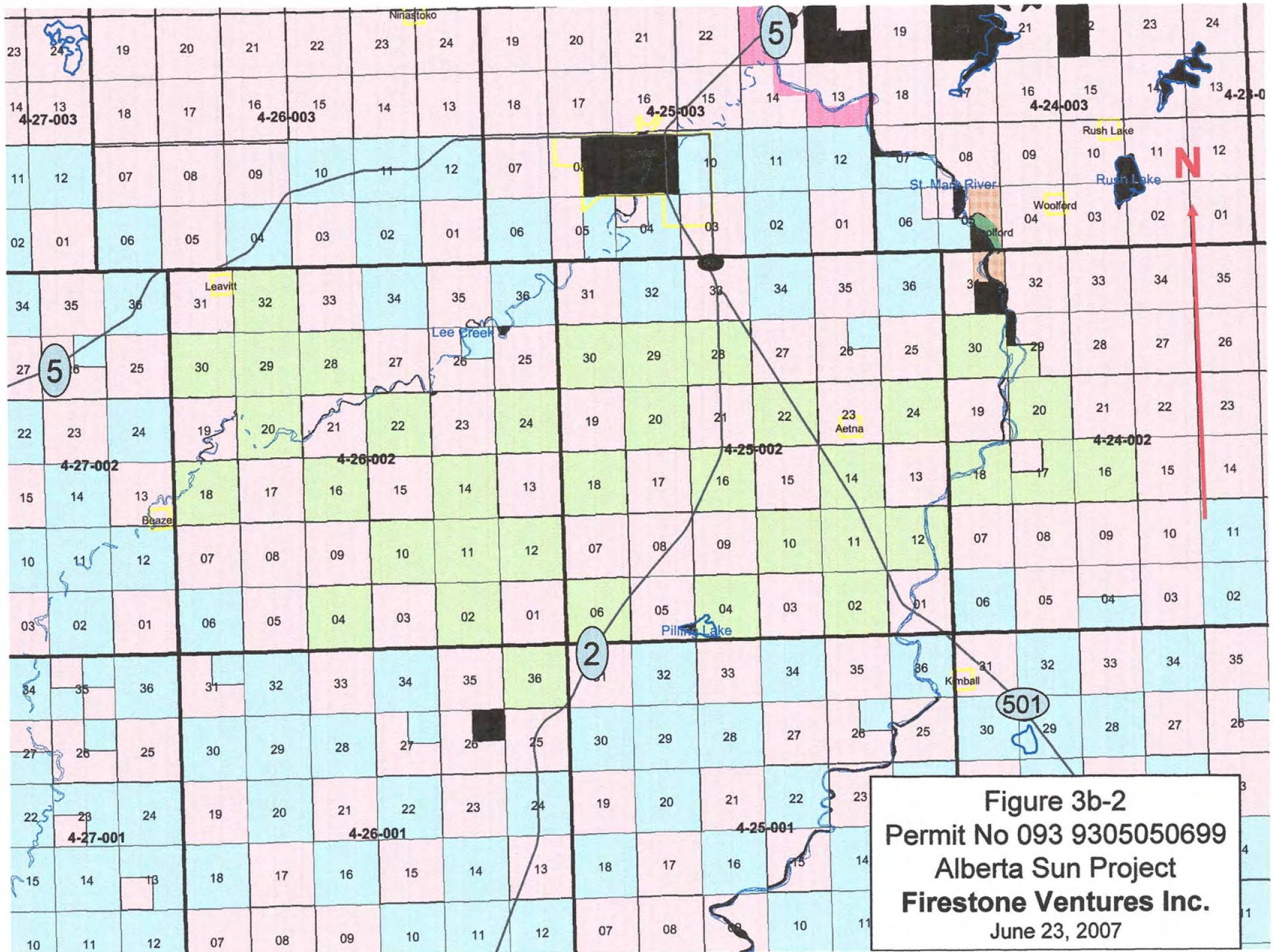


Figure 3b-2
Permit No 093 9305050699
Alberta Sun Project
Firestone Ventures Inc.
 June 23, 2007

4.0 History

Exploration for sediment-hosted uranium deposits began in southwestern Alberta in the late 1960s and extended until the early 1980s. Open File 1994-8 (Olsen, Alberta Geological Survey, 1994) reports that Bell et al (1976) discovered radioactive bone fragments in three locations in southwestern Alberta. The report also describes that a rock sample of Willow Creek Formation silty limestone returning “greater than 2,000 ppm U” was reported by Grant in 1982 (Olsen, Alberta Geological Survey, 1994). This sample, taken from “anomaly 82H-23” about 30 km south of Fort MacLeod, also contained 13 ppm molybdenum, 78 ppm vanadium and 4 ppm selenium, typical pathfinder elements for roll-front style deposits. A second occurrence, “anomaly 82H-21”, consisting of a rock sample returning 85 ppm U and a radioactivity count of 900 counts per second (cps) was located about 5 kilometres upstream. No further work was reported.

Marum Resources Inc acquired four permits comprising the current UBone block in May 2005, and performed surface sampling, followed by a 19-hole reverse-circulation drilling program on Permit No. 093 9305050694. Marum also acquired another seven permits in the Crowsnest Pass area of the eastern Rocky Mountains; these were not considered by Firestone to have high potential for roll-front style uranium deposits and were allowed to lapse.

5.0 Deposit Setting

In September 2005 Firestone geologists met with two consultants, Mr. Douglas Underhill, PhD, a specialist in roll-front style uranium deposits, and Mr. James Letourneau, a specialist in hydrology, particularly groundwater movement. Detailed descriptions of the nature of these deposits, particularly lithological characteristics, thickness and lateral extent, as well as hydrological characteristics of viable areas, were provided by both consultants.

5.1 Setting of Roll-Front-style Uranium Deposits

Roll-front uranium deposits are a significant source of total worldwide uranium extraction. These are formed along the “solution front” and flanking margins of a crescent-shaped movement of advancing uranium-bearing groundwater through highly reduced permeable sandstone. Groundwater advancement results in oxidation along the front, in turn resulting in exsolution of aqueous uranium and deposition of uraninite (U_3O_8) along the limbs and the frontal lobe of the channel of movement, resulting in crescent shaped deposits. This results in a roughly crescent-shaped trend of small to medium sized, low-grade uraninite deposits (0.05 to about 0.4% U_3O_8), which may extend across several tens of kilometers. Pathfinder elements include molybdenum, antimony and vanadium. Areas behind the roll-front are limonitic, due to oxidizing of fine sulphides and carbonaceous matter.

The optimum setting for groundwater movement is a fluvial paleochannel consisting of sandstone layers ranging from 5 – 50 metres in thickness, with source material comprised largely of volcanogenic material having a high background uranium content. This setting occur within sedimentary strata derived from the eastern flank of the Rocky Mountains during the Laromide orogeny, and deposited during the Cretaceous – Tertiary boundary up to 200 km to the east. Roll-front uranium deposits occur somewhat east of the Rockies from southern Wyoming to northern Texas. The geological setting of southwestern Alberta is similar to that of the high plains of the United States.

The fluvial setting, in addition to thick main sandstone channels, is also typified by thinner sandstone horizons up to two metres thick. These are caused by “crevasse splays” whereby levees along channel banks are breached, resulting in a sudden release of sandy sediment into quiet basins. Pan-shaped sandstone deposits up to one kilometre in lateral extent result from this. Although too thin to host economically viable uranium deposits, these thin sandstone horizons can thus be used as indicators of a proximal thicker main paleochannel.

On a more local scale, optimum conditions are typified by:

1. Thickness of at least 5 metres and lateral extent up to 40 – 50 km of host channel sandstones.
2. Very high permeability of medium to coarse sandstone, with no silicification and a crumbly, almost unconsolidated texture.
3. Strongly reduced characteristics, including fine pyrite and/or carbonaceous matter.
4. Nearly flat lying stratigraphy, without significant truncation due to faulting. Strongly folded and/ or faulted areas are not considered favourable as fluid movement is occluded.
5. Cross-bedding structures, and
6. Confining lithological units, such as mudstone.

A further contributing feature is the presence of a very gentle synclinal structure, with each fold limb extending several kilometers from the fold axis.

6.0 Geology

6.1 Regional Geology

The southwester Alberta area is underlain by a thick sequence of predominantly fine clastic sediments derived from the eastern flank of the Rocky Mountains and comprising the “Foreland Basin” of the Interior Plains. This sequence attains a thickness exceeding 1,500 metres in the Porcupine Hills area northwest of the permit area (Alberta Geological Survey Open File 1994 – 8, after Yorath, 1992). The most extensive component

formation is the Cretaceous – Tertiary Willow Creek Formation, consisting largely of green, red, pink or grey mudstone to siltstone, lesser grey massive to crossbedded sandstone, commonly carbonaceous, and granule to pebble conglomerate (GSC, Open File 3543, 1997). The Willow Creek Formation extends eastward roughly from the Town of Pincher Creek to the Lethbridge area. To the north, the Willow Creek Formation is overlain by the Paleocene Porcupine Hills Formation, extending northeastward Pincher Creek. This consists largely of medium to very thickly bedded, massive to crossbedded sandstone, with minor units of more resistant fine to medium sandstone (GSC Open File 3543).

The edge of the Cordilleran Fold Belt is roughly coincident with the northwest-southeast trending contact of the Willow Creek Formation to the northeast with the Upper Cretaceous St. Mary's Formation, the youngest and most aerially extensive of a series of Upper Cretaceous clastic sedimentary formations to the southwest. The edge of the fold belt occurs roughly seven kilometers north of the Waterton Reservoir and extends from just south of Pincher Creek to directly west of Cardston. Contacts within individual formations consist largely of south-dipping thrust faults, emplacing older units onto underlying younger units. On an outcrop scale, units are commonly tightly folded, with abundant normal and reverse faulting, indicating a high level of disruption of originally flat-lying, planar sedimentary strata.

Two members constitute the St Mary's Formation sediments. The upper member consists largely of siltstone, channel-fill siltstone and shale, with bentonite and ironstone; the lower member consists of brackish grey shale, coal and sandstone (GSC Open File 3543). Other major formations, becoming progressively older towards the southwest, consist largely of siltstone, with lesser bentonite and sandstone horizons. Several include channelized sandstone units which are lithologically prospective for roll-front style uranium deposition; however, all occur within the fold belt and are thus unsuitable due to high levels of structural disruption.

Most areas are covered by unconsolidated Quaternary glacial material; outcrop exposures are limited to cut banks along larger water courses, roadcuts and sparse outcrops along steep hillsides.

6.2 Property Geology

The property areas are underlain by very gently folded to almost flat-lying late Cretaceous to early Tertiary clastic sediments, including coarse to fine grained fluvial channel deposits, derived from the Rocky Mountains to the west and deposited within the Foreland Basin east of the Rocky Mountain Fold Belt. The edge of the fold belt extends southeast from just west of Pincher Creek, itself located directly west of the UBone block, through Cardston and Kimball, within the Cardston property area. The flat lying stratigraphy is considered prospective for roll-front style deposits; areas within the Fold Belt are not, due to abundant disruptions to groundwater flow.

6.2.1 UBone Project area

The majority of area covered by the UBone property area, including most of Permit No. 093 9305031136, the earliest permit acquired by Firestone, is underlain by Willow Creek Formation clastic sediments, largely siltstone to mudstone interlayered with metre-scale sandstone units. Northern portions are underlain by the Tertiary Porcupine Hills Formation, consisting of medium to very thickly bedded, fine to medium grained massive to crossbedded sandstone with lesser shale and carbonaceous shale, and granule to pebble conglomerate (Geological Survey of Canada, 1997). Narrow units from 5 to 20 metres in thickness of resistant fine to medium grained sandstone occur in extreme southern portions of the Porcupine Hills Formation within Permit No. 093 9305050693.

The edge of the Fold Belt extends into the southwestern portion of the permit area where a series of southwest-dipping thrust faults has emplaced a succession of progressively older formations towards the southwest. From northeast to southwest, these are: a broad unit of St Mary's Formation siltstone to sandstone (Ksmr); Blood Reserve Formation massive to crossbedded arenite (Kbo); Bearpaw Formation shale and minor sandstone (Kbp); and Lundbreck Formation shale, limestone and minor channelized sandstone (Klb) (Stratigraphic setting was taken from GSC Open File 3543, 1994). Mapping by Firestone was limited to several outcrops just downstream of the Waterton Reservoir.

Surface exploration by Firestone on Permit No. 093 9305031136 focused on delineating the stratigraphic setting of the area along the Waterton River within 10 kilometres either side of Highway 810, particularly near the "UBone Occurrence". This consists of a small amount of solid organic material that had undergone selective uraninite replacement, resulting in black, fairly radioactive material. Analysis of the material returned a value of 0.764% U (0.901% U₃O₈). Subsequent detailed geological mapping programs showed the Willow Creek Formation to consist of thin to medium bedded siltstone to mudstone, commonly hematitic with a distinctive red colour, interbedded with very permeable sandstone units, locally crossbedded and commonly somewhat carbonaceous, ranging from 1 to 3 metres in thickness. East of Highway 810, strata dips gently to the west; however a cliff exposure about 5 km west of the highway indicates gently east-dipping strata, including a sandstone unit from 7 to 8 metres in thickness, suggesting the presence of a major paleochannel. Willow Creek stratigraphy mapped in the Town of Pincher Creek to the west dips from 15 to 20 degrees to the east. This suggests a north-northwest trending synclinal axis extending roughly two kilometers west of Highway 810 and noted by a pronounced bend of the Waterton River. Prior mapping shown in GSC Open File 3543 revealed a synclinal axis in this location, as well as a series of synclinal and anticlinal axes west of this, but east of the fold belt.

6.2.2 Cardston Project area

The edge of the Rocky Mountain fold belt roughly bisects the Cardston project area, extending southeast from just west of Cardston, through the settlement of Kimball and to

the Alberta – Montana border. The northeast side is underlain by Willow Creek clastic sediments, the same formation that underlies most of the UBone Project area. Within Woolford Provincial Park, slightly north of Permit 093 9305050699 of the Cardston block, these sediments consist of thin linear beds of siltstone and sandstone, generally less than 1.0m in thickness and dipping slightly to the northwest. Sandstone units increase somewhat in abundance with depth. Alternating hematitic units occur in the northeastern portion of the park.

Southwest of the fold belt boundary, the Cardston project area is underlain by progressively increasingly folded sedimentary strata, with abundant normal faulting, as well as district-scale southwest-dipping thrust faults paralleling the strike of the fold belt. The sequence is very similar to that of the UBone project area, with a 4-5 km wide sequence of St Mary's Formation siltstone and channel-fill sandstone successively overlain through thrust faulting by Connelly Creek Formation (Kcc) channelized sandstone and shale, Lundbreck Formation greenish grey and red shale, Drywood Creek Formation sandstone, and Bearpaw Formation shale and minor sandstone. Firestone conducted some early exploration targeting fault zones in the St Mary's Formation sandstone. Although minor hematitic alteration resembling roll-front structures was identified, subsequent discussions with Messrs Underhill and Letourneau indicated the area lacks potential to host sizable roll-front style deposits, due to the structural disruptions.

6.2.3 Red Rock Project area

The Red Rock property area is underlain by a sequence of Upper Cretaceous sedimentary units that are older than the Willow Creek Formation. Western areas are underlain by the St Mary's Formation (Ksmr) fine to medium grained sandstone, green and grey siltstone and mudstone. To the east, rock units become progressively older, with central portions of the project area underlain by Blood Reserve Formation (Kbo) grey to greenish grey, thick bedded feldspathic sandstone, interpreted as a shoreline complex. Extreme eastern areas are underlain by Bearpaw Formation (Kbp) dark grey, blocky shale, clay-rich sandstone and thin beds of concretionary ironstone. Thin limonitic, clay-rich ironstone beds occur in outcrop along Highway 62 just south of the Milk River.

7.0 Work Program

Exploration activities on Permit No. 093 9305031136 are described in an earlier report by Firestone Ventures, and will not be described here, as this permit was excluded from the original “Statement of Intent” preceding this report.

The bulk of the work program consisted of airborne resistivity surveying at four frequencies, 400 Hz, 1,500 Hz, 6,200 Hz and 100,000 Hz respectively, as well as magnetic surveying totaling 2,384 line kilometers across four blocks. The lower frequencies correspond to deeper subsurface penetrations. These four blocks are: the “UBone Block” centered on Permit No. 093 9305031136 but extending onto Permit 093 9305050694 to the east, and Permit No. 093 9305050746 to the southeast; the Goose Lake block, covering the upper portion of Permit No. 093 9305050745 east of Pincher Creek; the Cardston block, covering the eastern part of Permit No. 093 9305050698, southeast of Cardston; and the Red Rock block, covering the eastern portion of Permit No. 093 9305070802 (Appendix 4). The program was conducted by Fugro Airborne Surveys Corporation of Calgary, Alberta, and flown April 15 – 24th, preliminary report production was prepared by TerraNotes Ltd. of Edmonton, Alberta, and completed by July 13th. A total of 1,195 metres of flight lines at a 200-metre line spacing comprised the initial program; flight line spacing was decreased to 100 metres upon the advice of TerraNotes Ltd, which conducted data interpretation. The individual flight line distances per project area are shown in Appendix 2.

The airborne survey focused on delineation of paleovalleys, previously referred to as paleochannels, and particularly on pre-glacial or buried-valley sand and gravel deposits derived from the mountains to the west and occurring between bedrock and overlying till. These deposits form a vast network of interconnected valleys up to 1000 metres wide and 100 metres deep throughout the project areas (TerraNotes, 2007).

In the UBone grid area, the HEM survey suggests that the present course of the Waterton River is the same as the pre-glacial course, and that the paleovalley may extend beneath the “maximum imaging depth” of 67 metres. Radarsat imaging however suggests that the Waterton River follows a somewhat different course, generally somewhat north of, but locally crossing the present Waterton River (TerraNotes, 2007, Appendices 4a and 4b).

In the Goose Lake surveyed area, preliminary interpretation of the HEM survey does not clearly show the presence of paleovalleys. However, two potential paleovalleys were identified, one along the Pincher Creek valley (Appendix 4b), the other paralleling a “possible preglacial paleovalley” in the southeastern part of the surveyed area.

The Cardston project area survey revealed a conductive trend, consistent with trends shown on the hydrology map that has been interpreted as a paleovalley (TerraNotes, 2007). This also coincides well with the present course of the St Mary’s River. Also, a possible paleovalley extending north-northwest – south-southeast was identified in the

southeastern portion of the surveyed block, coinciding well with present minor stream channels. This is slightly askew to the north-south hydrological trend.

TerreNotes also suggested that a contact between hummocky formations, including gravel and coarse sand” and overlying Quaternary coarse gravel and sand may consist of hematite concretions hosted by continental sandstones, occurring as weathered beds. This may help identify possible regional alteration systems and redox fronts (TerraNotes).

The Red Rock survey identified a conductive trend, interpreted as the preglacial North Whisky Valley, extending east-northeast across a resistivity zone likely representing the present Milk River course. Two other conductive lineaments also parallel the North Whisky Valley; these may be associated either with deeper paleovalleys or shallow structures (TerraNotes). TerraNotes staff also identified similar hummocky topography to that of the Cardston area, suggesting hematite content and possible redox boundaries. Visual inspection by Firestone in 2005 also identified hematitic sandstone in outcrop along the north flank of the Milk River valley. Hematite presence is also supported by resistive zones at the shallow part of the resistivity map (Terrenotes).

These findings are preliminary only. Further detailed target evaluation will be conducted between Firestone Ventures and TerraNotes Ltd. in the near future, prior to a final report.

The other significant activity was a reverse-circulation drilling program conducted by Marum Exploration Ltd. in December, 2005 on Permit No 093 9305050694. Marum drilled 19 holes totaling 516.6m (1,695’) along right-of-way concession lines south of the “UBone Occurrence” (Figure 4). All holes were less than 36.5m (120’) of depth except for Hole 05FMRC, drilled to 70.1m (230’); all encountered between 9.0 to 21.3m (30 – 70’) of overburden overlying loosely consolidated siltstone. Spectrometers reading were taken of each five-foot section of rock chips returned. No sandstone horizons were intersected and no anomalous spectrometer readings were returned. Three samples of rock chips were sent to the Saskatchewan Research and underwent multi-element analysis both by Aqua Regia and Total Digestion analysis, with the Total Digestion method providing values for a suite of rare earth elements (Table 3, Appendix 3). No anomalous uranium values were returned; values from Total Digestion ranged from 2 to 11 ppm U (Kupsch, Apex Geoscience Ltd.).

Although no anomalous uranium values were returned, values for many of the rare earth elements, particularly europium, lanthanum, neodymium, praseodymium, samarium and yttrium, exceeded an order of magnitude above crustal abundance. Many typify monazite sands, themselves derived from pegmatite bodies, suggesting a pegmatite source for much of the siltstone analyzed. This is in contrast to the mafic volcanic units that are typically the source for transported roll-front style uranium. Pegmatite units are a common host for primary uraninite.

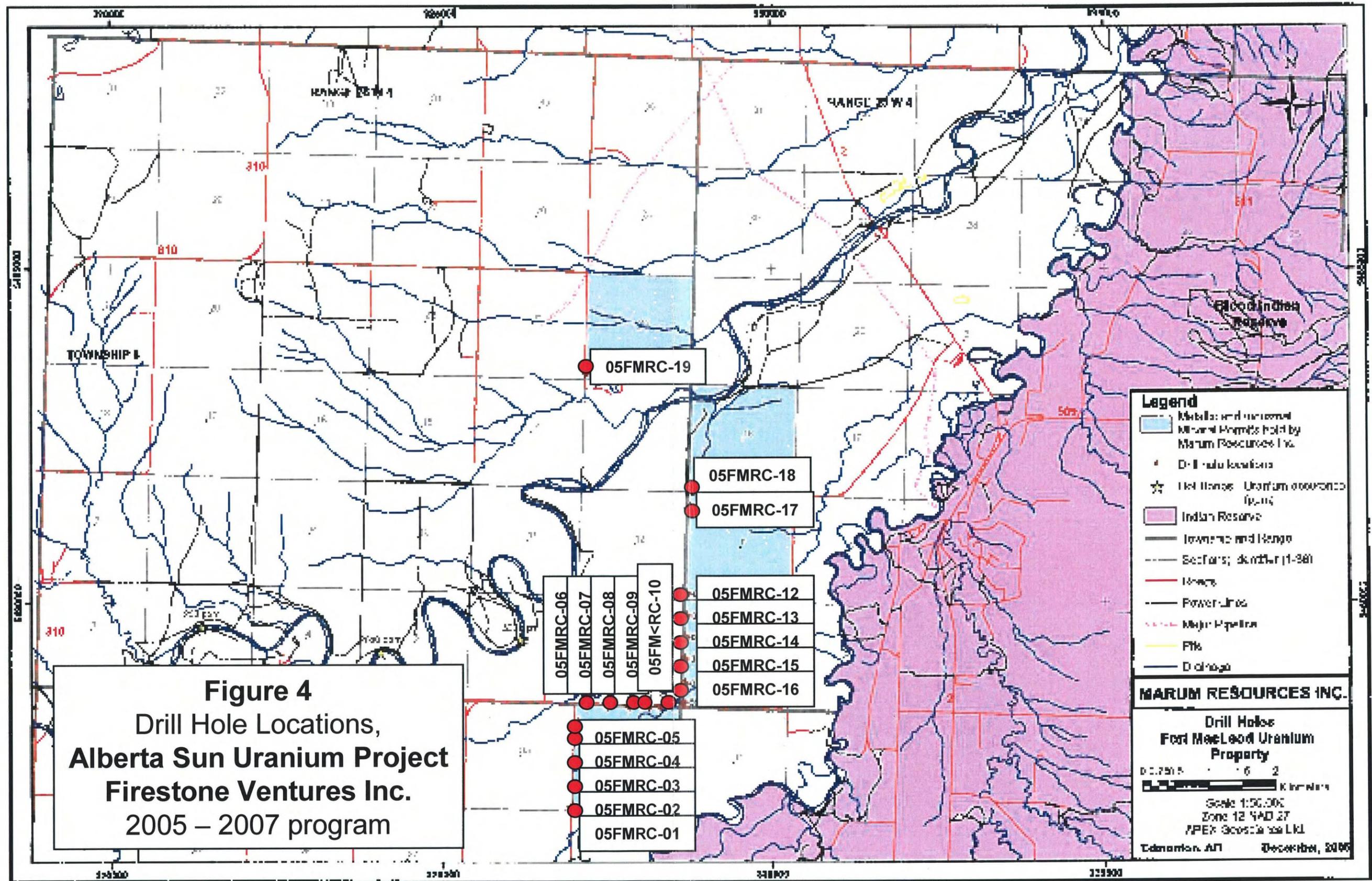


Figure 4
 Drill Hole Locations,
 Alberta Sun Uranium Project
 Firestone Ventures Inc.
 2005 – 2007 program

- 05FMRC-06
- 05FMRC-07
- 05FMRC-08
- 05FMRC-09
- 05FM<RC-10
- 05FMRC-05
- 05FMRC-04
- 05FMRC-03
- 05FMRC-02
- 05FMRC-01
- 05FMRC-12
- 05FMRC-13
- 05FMRC-14
- 05FMRC-15
- 05FMRC-16
- 05FMRC-17
- 05FMRC-18
- 05FMRC-19

Table 2: Drill Hole Summary, December 2005 Marum Resources Inc.

From "Fort MacLeod Uranium Project Analytical Results", by
Barb Kupsch, MSc, Apex Geoscience Ltd.

Drill Hole	Easting (Nad 27, Zone 12)	Northing (Nad 27, Zone 12)	Elevation (feet)	Elevation (m)	EOH (ft)	Overburden Thickness (ft)
05FMRC-01	326959	5476925	3410	1039.3	95	65
05FMRC-02	326968	5477250	3410	1039.3	85	60
05FMRC-03	326977	5477575	3405	1037.8	95	50
05FMRC-04	326989	5477901	3405	1037.8	105	50
05FMRC-05	327040	5478174	3405	1037.8	95	45
05FMRC-06	327161	5478456	3400	1036.3	95	45
05FMRC-07	327487	5478448	3395	1034.7	85	45
05FMRC-08	327812	5478436	3385	1031.7	75	45
05FMRC-09	328134	5478423	3375	1028.6	65	40
05FMRC-10	328324	5478420	3370	1027.1	65	40
05FMRC-11	328650	5478488	3365	1025.6	65	35
05FMRC-12	328710	5480120	3365	1025.6	50	35
05FMRC-13	328699	5479790	3365	1025.6	80	35
05FMRC-14	328683	5479467	3365	1025.6	50	40
05FMRC-15	328676	5479139	3365	1025.6	50	35
05FMRC-16	328669	5478767	3365	1025.6	230	30
05FMRC-17	328760	5481413	3365	1025.6	100	45
05FMRC-18	328771	5481742	3365	1025.6	90	35
05FMRC-19	327174	5483441	3365	1025.6	120	70

Table 3

Descriptions, Drill "Chip Samples", Marum Resources Inc.

From "Fort MacLeod Uranium Project Analytical Results", by
Barb Kupsch, MSc, Apex Geoscience Ltd.

Drill Hole	Sample Number	Sample Interval (ft)	Lithology	U (ppm), by ICP Aqua Regia Digestion	U (ppm), Total Digestion
05FMRC-01	05BKC002	90 - 95	Grey siltstone	<0.5	11
05FMRC-12	05BKC024	45 - 50	Grey-brown siltstone	<0.5	10
05FMRC-19	05BKC024	115 - 120	Grey siltstone	<0.5	<2
05FMRC-19	05BKC024R	115-120	Grey siltstone	<0.5	2

8.0 Sample Analysis

The three drill “chip” samples were shipped to the Saskatchewan Research Council (SRC) in Saskatoon, Saskatchewan. Samples were analyzed by “Partial Digestion” and “Total Digestion” as well as by “Aqua Regia Digestion”. During Total Digestion, a 0.125-gram pulp is heated in a mixture of HF/ HNO₃/ HClO₄ until dry, and then dissolved in dilute HNO₃ (SRK, 2005). The sample was analyzed for Ag, Al₂O₃, Ba, Be, CaO, Cd, Ce, Co, Cr, Cu, Dy, Er, Eu, Fe₂O₃, Ga, Gd, Hf, Ho, K₂O, La, Li, MgO, Mo, Na₂O, Nb, Ni, P₂O₅, Pb, Pr, Sc, Sm, Sn, Sr, Ta, Tb, Th, TiO₂, U, V, W, Y, Yb, Zn, Zr. Samples were also analyzed by “Aqua Regia Digestion, during which a 0.5-gram pulp is digested with 2.00 ml of 3:1 HCl: HNO₃ for one hour at 95°C. Elements analyzed for were Ag, As, Bi, Co, Cu, Ge, Hg, Mo, Ni, Pb, Sb, Se, Te, U, V and Zn.

One sample, 05BKC039, was re-analyzed to test for repeatability; all original values had a good correlation with reanalyzed ones. In-house standards were used, although no correlation of the values obtained to known standard values is available to Firestone at this time.

9.0 Interpretation and Conclusions

9.1 Interpretations

9.1.1 Geological Interpretations

Optimal conditions for the geological setting of roll-front style uranium deposits occur within the bounds of Permit No 093 9305031136, particularly along the Waterton River valley. The permeable, weakly carbonaceous sandstone unit up to 8 metres thick in outcrop along the Waterton River five kilometers west of Highway is of sufficient size to host a roll-front style deposit, although no mineralization was identified. The undisrupted setting is also favourable, as uranium-bearing fluids would be allowed unimpeded flow. Also, the gently west-dipping stratigraphy, in contrast to gently east-dipping stratigraphy east of Highway 810, suggests that a district-scale synclinal axis, possibly representing the axis of the Foreland Basin, occurs somewhere slightly west of the highway. Firestone geologists interpreted a north-northwest trending axis extending along a pronounced bend in the river about two kilometers west of Highway 810, which almost perfectly matches an independently identified synclinal axis shown in GSC Open File 3543.

Discussions with Mr. Derald Smith of the University of Calgary indicate that paleochannels are likely to occur in roughly the same location as modern large watercourses. Thick paleochannels may be “stacked” due to the long history of deposition in the same general watercourse. Discussions with Mr. Jim Letourneau, an expert on hydrology of southern Alberta, indicate groundwater flow conditions are optimized along modern water channels, suggesting similar paleoflow patterns.

These findings suggest a similar optimal location for deposition of roll front-style deposits may occur along the southeastern strike extent of the interpreted synclinal axis where it encounters current major river channels, such as the Belly and St Mary’s Rivers southeast of the Waterton River. This axis occurs about eight kilometres northeast of the edge of the Rocky Mountain Fold Belt, and, assuming the axis is district-scale, would cross the St. Mary’s River valley where underlain by Willow Creek Formation sediments. The narrow sandstone units identified at Woolford Provincial Park may represent “crevasse splays”, where sand from a main channel was deposited in quiet basins within a broad river valley due to a breaching of the main levees. This suggests larger main channels, suitable for passage of uranium-rich roll fronts, may occur in the St. Mary’s River valley in a similar setting as sandstone deposits found along the Waterton River.

No actual roll front style mineralization was identified during this program, which was designed to identify optimal settings, rather than actual zones. The existence of uranium, and potential for this deposit type, is indicated by the mineralized organic matter comprising the UBone showing. The replacement of the organic matter with uraninite would require considerable uranium-bearing fluid movement, and selective emplacement in targets having favourable chemical and physical compositions. Sampling of the

“UBone occurrence” returned uranium values ranging from 5,340 to 7,540 ppm (0.754%) U, with elevated levels of typical pathfinder elements.

The fold belt was not investigated in detail during this program. Channel sandstone units within the Willow Creek Formation, and similar units in the Porcupine Hills and St Mary’s Formations outside of the fold belt are considered most prospective for formation of this deposit type.

9.1.2: Interpretations from Reverse-Circulation Drilling Program

Sampling from the reverse-circulation program was very limited, due to the lack of anomalous scintillometer readings. However, rare earth element concentrations, particularly of europium, lanthanum, neodymium, praseodymium, samarium and yttrium, exceeded an order of magnitude above crustal abundance. Many of these elements occur typically within monazite sands, themselves derived from pegmatite bodies commonly hosting elevated uraninite concentrations, suggesting a pegmatite source for much of the siltstone analyzed. Pegmatite bodies are an important source of uraninite. This suggests a potentially newly recognized and separate source from the mafic volcanic units currently believed to be the source of transported uranium.

The abundance of these pathfinder rare earth elements also suggests that, if the source is indeed pegmatite bodies, these bodies would have been (and likely still are) of considerable size and/ or abundance. Pegmatite units may be more readily identified through geophysical and geochemical surveying.

No sandstone was encountered during drilling, targeting areas about two kilometers from the Walkerton River valley, where sandstone units are common. This suggests sandstone units are restricted to the environs of the present channel, and do not occur outside of the paleocourse of the Waterton River, which closely approximates its present course.

9.1.3 Interpretation from Airborne Geophysical Surveys

The preliminary airborne geophysical surveys were successful in identifying paleovalleys or potential paleovalleys in all surveyed areas. These consist of pre-glacial or buried-valley sand and gravel deposits occurring between the preglacial bedrock surface and overlying Quaternary till, forming a network of interconnected valleys up to 1000 metres wide and 100 metres deep. The paleovalleys tend to follow present major water courses.

Specifically, the HEM resistivity survey on the UBone area indicated that the present Waterton River valley almost perfectly matches a major paleovalley, extending deeper than the penetration depth of survey penetration of about 67 metres. However, “Radarsat” data suggests the presence of a paleovalley occurring somewhat to the south of, and locally crossing, the present watercourse.

No confirmed paleochannels were identified on the Goose Lake block, although two potential paleochannels were identified; one parallels the present Pincher Creek watercourse, and the other parallels a possible paleovalley in the southeastern portion of the surveyed area.

Within the Cardston project area a paleovalley was identified coinciding with the present St Mary's River watercourse. A second possible paleovalley, extending north-northeast – south-southwest in the southeastern portion of the surveyed area, is somewhat oblique to the north-south trend of hydrology patterns.

The Red Rock survey identified a conductive trend, interpreted as the preglacial North Whisky Valley, extending east-northeast across a resistivity zone likely representing the present Milk River course. Two other conductive lineaments, also paralleling the North Whisky Valley, occur in the eastern portion of the block; these may be associated either with deeper paleovalleys or shallow structures.

TerraNotes Ltd. also identified hummocky terrain on both the Cardston and Red Rock blocks. These are interpreted as the basal portion of the contact between the pre-glacial erosional surface and overlying Quaternary coarse sand and gravel. TerraNotes suggests the contact itself may be comprised of hematitic concretions within continental sandstone beds, suggesting a redox boundary, which would be the optimum location for deposition of roll-front-style uranium mineralization. Similar hummocky terrain, and thus a similar stratigraphic setting between paleo-erosional surfaces and glacial overburden, occurs on the Red Rock block near the Milk River. Visual inspection by Firestone in 2005 confirms the hematitic nature of much of the sandstone along the north flank of the Milk River valley.

9.2 Conclusions

The following conclusion can be made from the geological mapping, airborne geophysical surveying and reverse circulation programs on the Alberta Sun Project:

- Channel sandstones of adequate thickness belonging to the Willow Creek Formation outside of the fold belt provide a suitable setting for roll-front style uranium deposits. At least one such weakly carbonaceous sandstone unit occurs five kilometres west of Highway 810. Thinner sandstone units elsewhere along the river may represent “crevasse splays” from the main channel and indicate proximity to it.
- The most optimal location for roll-front style mineralization occurs in the intersection area of the Waterton River and associated paleochannels, and a north-northwest trending synclinal axis interpreted by Firestone geologists to occur about two kilometres west of Highway 810.
- A similar optimal setting may occur along the intersection points of the interpreted synclinal axis and the St. Mary’s River channel, where it occurs within Willow Creek Formation sediments.
- The Fold Belt underlying southwestern portions of the permit area is unsuitable for formation of roll front deposits, due to structural disruption impeding groundwater flow.

The following conclusions can be made from limited results of reverse circulation drilling:

- High concentrations, generally greater than an order of magnitude above crustal abundance, of the rare earth elements europium, lanthanum, neodymium, praseodymium, samarium and yttrium, suggest a pegmatitic source. Pegmatites concentrate an important source of uraninite. This would constitute an alternate source to the mafic volcanic horizons currently believed to be the source of transported uranium oxide.
- The lack of sandstone encountered during drilling about two kilometers southeast of the Walkerton River stands in contrast to abundant sandstone units occurring along the present river channel. This suggests a restricted range of channel sandstone units, considered to be the main host for roll front-style deposits, with a strong correlation to present river channels.

The following conclusions can be made from results of the airborne geophysical survey:

- Paleovalleys or potential paleovalleys, tending to parallel present watercourses, were identified in all four surveyed areas. These consist of pre-glacial or buried-valley sand and gravel deposits occurring between the preglacial bedrock surface and overlying Quaternary till, forming a network of interconnected valleys up to 1000 metres wide and 100 metres deep.
- HEM resistivity survey results on the UBone area indicate that the present Waterton River valley almost perfectly matches a major paleovalley. However, “Radarsat” data suggests the presence of a paleovalley occurring somewhat to the south of, and locally crossing, the present watercourse.
- Two potential paleochannels were identified on the Goose Lake block; one parallels the present Pincher Creek watercourse, the other parallels a possible paleovalley in the southeastern portion of the surveyed area.
- Within the Cardston project area a paleovalley coinciding with the present St Mary’s River watercourse was identified. A second possible paleovalley extends north-northeast – south-southwest in the southeastern portion of the surveyed area.
- The Red Rock survey identified a conductive trend, interpreted as the preglacial North Whisky Valley, extending east-northeast across a resistivity zone likely representing the present Milk River course. Two other conductive lineaments, also paralleling the North Whisky Valley, occur in the eastern portion of the block.
- Hummocky terrain occurring both on the Cardston and Red Rock blocks may represent the contact between the preglacial erosional surface and Quaternary coarse sands and gravels. The contact itself may consist of concretionary hematite, suggesting a redox boundary and thus a favourable site for formation of roll-front style uranium mineralization.

10.0 Recommendations

Targets suggesting the presence of paleochannels identified through the airborne geophysical survey should be ranked based on potential to host roll-front uranium deposits. A rotary or reverse-circulation style drilling project is recommended to test the most prospective of these targets. Several vertical holes, drilled to a maximum depth of about 100 metres, slightly deeper than the depth of penetration of the airborne surveying, are recommended to test each target, although amount of drilling and hole locations will depend on individual targets.

Preliminary analysis of geophysical results led to the following recommendations:

A “Resistivity System” provided by TerraNotes can be used to identify paleovalleys to a depth of 400 metres. Modifications can also be made to enhance resolution of results from shallow depths. These modifications would provide more detailed information regarding stratigraphy as well as structural features. High-resolution seismic surveying may also be useful in identifying deep-seated paleovalleys.

The planned detailed follow-up target evaluation should incorporate information on geological, geochemical and alteration pattern settings, particularly focusing on potential redox boundaries. Geochemical analysis should incorporate the following (TerraNotes):

- Surface and groundwater chemical studies and soil gas analysis.
- Regional stream sediment and well water analysis for metallogenic character.
- Use of petrography and detrital zircon geochronology to determine sources of sandstone.
- Use of $^{40}\text{Ar}/^{39}\text{Ar}$ age dating on clay minerals and U-Pb dating on monazite and zircon overgrowths to establish time of alteration events.
- Usage of “high resolution inductively coupled plasma mass spectrometer (HR-ICPMS) and X-Ray Fluorescence (XRF) analyses to provide information on elemental associations and relations to alteration processes. Recently added mobile elements may be assessed by “continuous leach high resolution inductively coupled mass spectrometer” (CL-HR-ICPMS) analysis, to assess migration from deposits into barren systems.

Radon Emanometry Surveys (REM), carried out by scintillators or alpha-track etching are also recommended for locally prospective areas (TerraNotes).

A detailed study of the geology of the Rocky Mountain fold belt east of the continental divide is also recommended. This should include detailed study of lithological units, focusing on identified pegmatite units, if any; these may be the source of the suite of anomalous concentrations of rare earth elements identified through drilling by Marum Resources on Permit No. 093 9305050694.

11.0 References

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Toth, J, 1999: “Groundwater as a geologic agent: An overview of the causes, processes and manifestations”, from the Department of Earth and Atmospheric Sciences, University of Alberta, Edmonton, Alberta Canada, and printed in Hydrogeology Journal (1999)

Appendix 1. Certificate of Author

I, Carl M. Schulze, PGeo, hereby certify that:

- 1) I am a self-employed Consulting Geologist and sole proprietor of:
 All-Terrane Mineral Exploration Services
 35 Dawson Rd
 Whitehorse, Yukon Y1A 5T6
- 2) I graduated with a Bachelor of Science Degree in geology from Lakehead University, Thunder Bay, Ontario, in 1984.
- 3) I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC).
- 4) I have worked as a geologist for a total of 23 years since my graduation from Lakehead University.
- 5) 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.
- 6) I am responsible for preparation of all sections of the assessment report “Activities on Permit Nos. 093 9305031136, 093 9305050699, 093 9305050745, 093 9305050746, 093 9305070802, 093 9305050698, 093 9306020507, 093 9306020508, 093 9305050693, 093 9305050694, 093 9305050695, 093 9305050696, Part of “Alberta Sun Uranium Project”, Fort MacLeod area, southwestern Alberta, Firestone Ventures Inc.” on the entire property area comprising Permit No. 093 9305031136. I was active on-site during the June and September 2005 phases of the program of roughly 16 days from June 1 – 7, and Sept 12 - 16 and Sept 25 – 28th, 2005, and have monitored all aspects inclusive of July, 2007.
- 7) I have not had prior involvement with the properties that are the subject of the Assessment Report prior to March 2005.
- 8) I am not aware of any material facts or material changes with respect to the subject matter of the technical report not contained within the report, of which the omission to disclose makes the report misleading.
- 9) I am independent of the issuers applying all of the tests in section 1.5 of National Instrument 43-101.
- 10) I have read National Instrument 43-101 and Form 43-101F1; this Assessment Report is not in compliance with that instrument and form, and was instead prepared to fulfill requirements by the Government of Alberta.
- 11) The effective date of this report is June 20, 2007.

Dated this 14th Day of July, 2007

“Carl Schulze”

Carl Schulze, BSc, PGeo
 Address: 35 Dawson Rd
 Whitehorse, Yukon Y1A 5T6
 Telephone: 867-633-4807
 Fax: 867-633-4883
 E-mail: allterrane@northwestel.net

MINERAL ASSESSMENT EXPENDITURE BREAKDOWN BY TYPE OF WORK

- Estimated Expenditure** (submitting with **Statement of Intent to File**)
- Actual Expenditure** (for **Part B of Report**; must match total filed in Part A)

Project Name: Alberta Sun Uranium Project

Expenditure Period (Month/Year) From: Dec-05 To: Jul-07

TYPE OF WORK	AMOUNT
1. Prospecting	\$ _____
2. Geological Mapping & Petrography	\$ _____
3. Geophysical Surveys	\$ _____
a. Airborne	\$ 294,164.50
b. Ground	\$ _____
4. Geochemical Surveys	\$ _____
5. Trenching and Stripping	\$ _____
6. Drilling	\$ 25,425.00
7. Assaying & whole rock analysis	\$ 240
8. Other Work: <u>Geophysical Interpretation</u>	\$ 88,099.50
<u>Report writing, drafting</u>	
SUBTOTAL	\$ 407,929.00
9. Administration (up to 10% of subtotal)	\$ _____
TOTAL	\$ 407,929.00

Carl Schulze
SUBMITTED BY (Print Name)

Aug 17, 2007
DATE

Part C

Appendix 3:

“Fort MacLeod Uranium Project Analytical Results”

Apex Geoscience Ltd.

(Report on December, 2005 reverse-circulation drilling, Marum Resources Inc.)

Fort MacLeod Uranium Project Analytical Results

Preliminary exploration through drilling was conducted at the Fort MacLeod Uranium Property within 5 legal sections within close proximity to the Waterton River, 25 km south of Fort MacLeod, between December 7th and 16th, 2005. Drilling was conducted to locate sandstone with potential roll-front uranium occurrences. The "Hot Bones" occurrence within Firestone's Sun Property is located approximately 2 km west of the Marum properties (see attached figure).

Nineteen (19) holes were drilled with a reverse circulation (R/C) drill rig (Table 1). All drill holes intersected 30 - 70 ft of overburden, which sat unconformably over loosely consolidated siltstone (bedrock). None of the drill holes intersected sandstone. Spectrometer readings were collected from each five-foot sample interval in each drill hole. No anomalous readings were found in the overburden or siltstone/bedrock. The highest uranium readings recorded from the spectrometer were 9.6 parts per million uranium (ppm U) and 8.7 ppm U from the overburden and siltstone samples, respectively.

Table 1
Drill Hole Summary

Drill Holes	Easting, NAD 27, Zone 12	Northing, NAD 27, Zone 12	Estimated Collar Elevation (ft)	EOH (ft)	OB thickness (ft)
05FMRC-01	326959	5476925	3410	95	65
05FMRC-02	326968	5477250	3410	85	60
05FMRC-03	326977	5477575	3405	95	50
05FMRC-04	326989	5477901	3405	105	50
05FMRC-05	327040	5478174	3405	95	45
05FMRC-06	327161	5478456	3400	95	45
05FMRC-07	327487	5478448	3395	85	45
05FMRC-08	327812	5478436	3385	75	45
05FMRC-09	328134	5478423	3375	65	40
05FMRC-10	328324	5478420	3370	65	40
05FMRC-11	328650	5478488	3365	65	35
05FMRC-12	328710	5480120	3365	50	35
05FMRC-13	328699	5479790	3365	80	35
05FMRC-14	328683	5479467	3365	50	40
05FMRC-15	328676	5479139	3365	50	35
05FMRC-16	328669	5478767	3365	230	30
05FMRC-17	328760	5481413	3365	100	45
05FMRC-18	328771	5481742	3355	90	35
05FMRC-19	327174	5483441	3365	120	70

Although none of the chip samples from the drill holes showed anomalous readings from the spectrometer, three samples were chosen and sent to the Saskatchewan Research Council (SRC) for analysis to double check the spectrometer readings as part of a QA/QC program. These samples were chosen from three different drill holes that covered the extent of the drilling area (see figure attached; sample 05BKC002 from drill hole 05FMRC-01, 05BKC024 from 05FMRC-12, and 05BKC039 from drill hole 05FMRC-19). All three samples chosen from the drill chip samples are from the base of the drill holes and were logged as siltstone/bedrock (Table 2).

The three siltstone samples underwent multi-element Aqua Regia and Total Digestion analysis at the Saskatchewan Research Council (SRC), Saskatoon. The uranium content from both analytical methods came back low/ near detection and the uranium results are summarized in Table 2. The uranium content in all three samples were below detection limit at <0.5 ppm U in the Aqua Regia Digestion method. The uranium content ranged from <2 ppm to 11 ppm U in the Total Digestion method. Both analytical methods confirmed low uranium content similar to the noted spectrometer readings. The complete SRC lab certificates are also attached.

Table 2

Analytical Sample Results Summary

Drill Hole	Sample Number	Sample interval (ft)	Lithology	U, ICP Aqua Regia Digestion (ppm)	U, ICP Total Digestion (ppm)
05FMRC-01	05BKC002	90-95	Grey siltstone	<0.5	11
05FMRC-12	05BKC024	45-50	Grey-brown siltstone	<0.5	10
05FMRC-19	05BKC039	115-120	Grey siltstone	<0.5 <0.5 (duplicate)	<2 2 (duplicate)

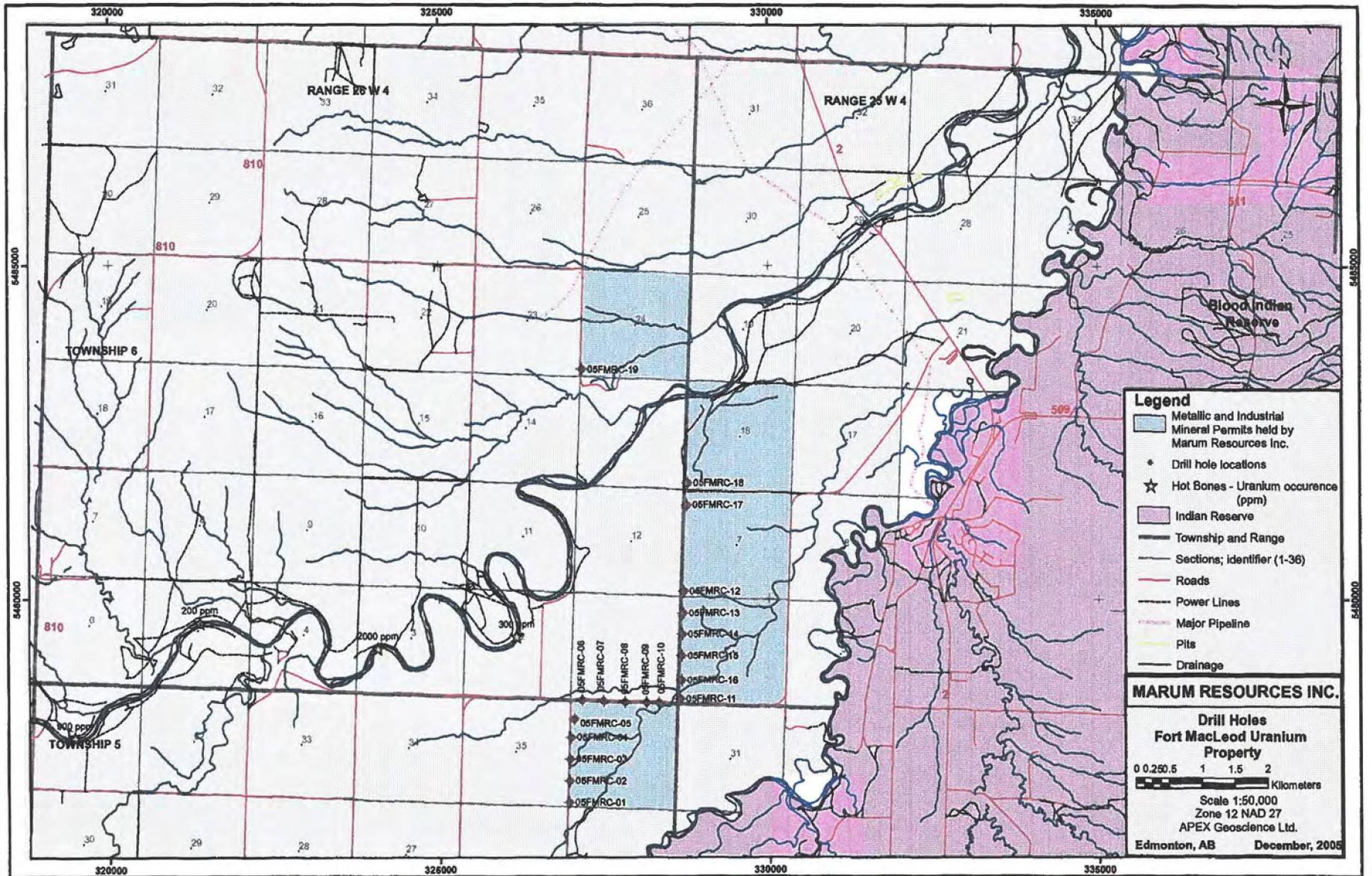
Based on the results of the drill program, further work could include but not be limited to: (1) drilling deeper diamond drill core holes in close proximity to the 'hot bone' occurrence; (2) further reconnaissance / pattern drilling using an R/C drill rig; or (3) further field work to better delineate the location of existing paleochannels.

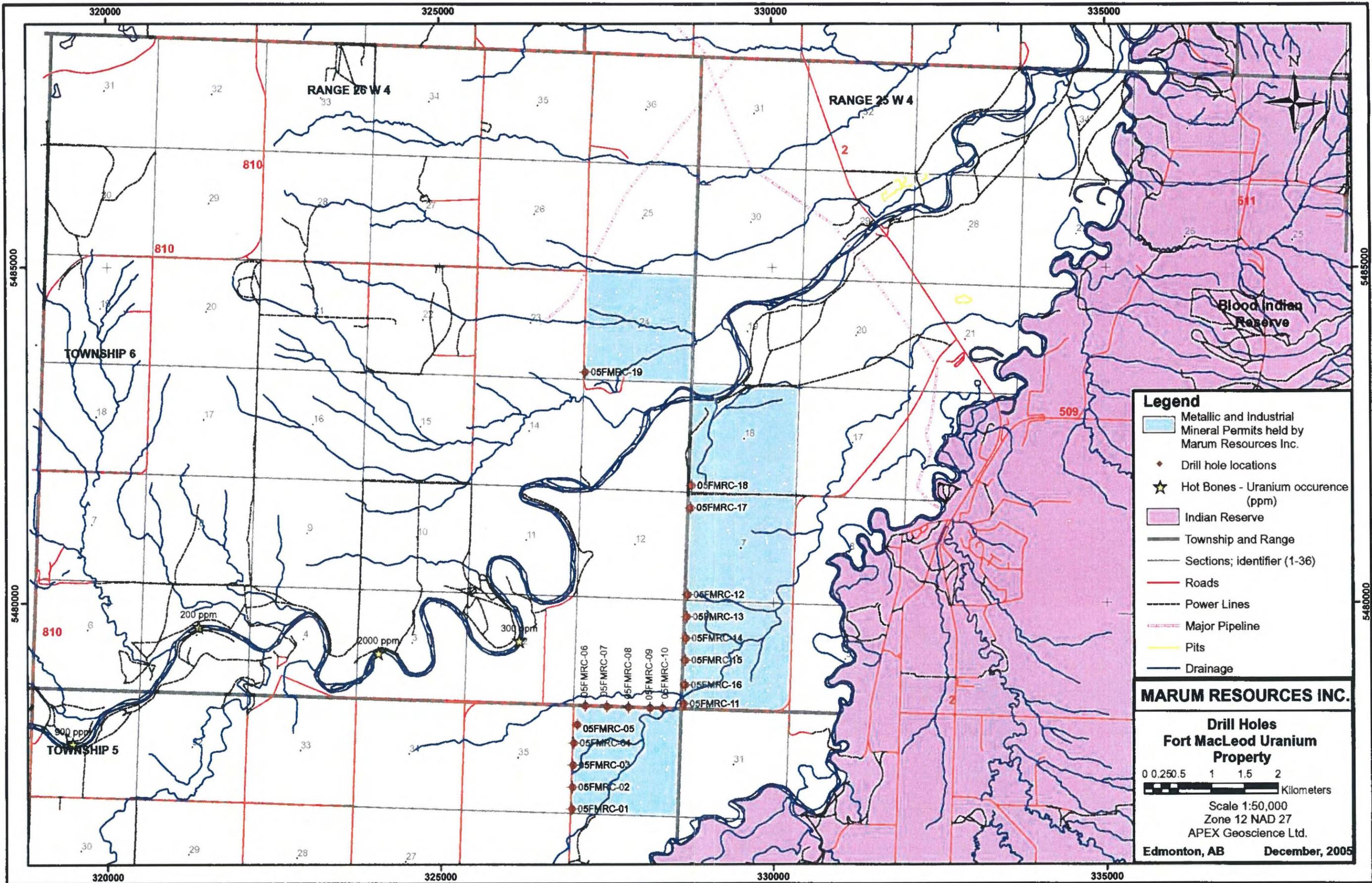
If you have any further questions please do not hesitate to contact myself and/or Mr. Dean Besserer anytime.

Sincerely,

Barb Kupsch, M.Sc.

cc: Mr. D. Besserer





- Legend**
- Metallic and Industrial Mineral Permits held by Marum Resources Inc.
 - Drill hole locations
 - Hot Bones - Uranium occurrence (ppm)
 - Indian Reserve
 - Township and Range
 - Sections; identifier (1-36)
 - Roads
 - Power Lines
 - Major Pipeline
 - Pits
 - Drainage

MARUM RESOURCES INC.

**Drill Holes
Fort MacLeod Uranium
Property**

0 0.250.5 1 1.5 2
Kilometers

Scale 1:50,000
Zone 12 NAD 27
APEX Geoscience Ltd.
Edmonton, AB December, 2005

Apex Geoscience Ltd
 Attention:
 PO #/Project:
 Samples: 5

SRC Geoanalytical Laboratories
 125 - 15 Innovation Blvd., Saskatoon, Saskatchewan, S7N 2X8
 Tel: (306) 933-8118 Fax: (306) 933-5656 Email: geochem@src.sk.ca

Report No: 06-53
 Date: February 22, 2006

ICP6.3 Aqua Regia Digestion

Column Header Details

Silver in ppm (Ag)
 Arsenic in ppm (As)
 Bismuth in ppm (Bi)
 Cobalt in ppm (Co)
 Copper in ppm (Cu)

Germanium in ppm (Ge)
 Mercury in ppm (Hg)
 Molybdenum in ppm (Mo)
 Nickel in ppm (Ni)
 Lead in ppm (Pb)

Antimony in ppm (Sb)
 Selenium in ppm (Se)
 Tellurium in ppm (Te)
 Uranium in ppm (U, ICP)
 Vanadium in ppm (V)

Zinc in ppm (Zn)

Sample Number	Ag ppm	As ppm	Bi ppm	Co ppm	Cu ppm	Ge ppm	Hg ppm	Mo ppm	Ni ppm	Pb ppm	Sb ppm	Se ppm	Te ppm	U, ICP ppm	V ppm	Zn ppm
CG515/LS4	<0.1	11.2	0.5	39.5	50.3	<0.2	0.3	12.9	50.6	20.3	<0.2	0.3	<0.2	32.2	103	206
05BKC002	0.2	196	3.6	16.3	164	<0.2	4.3	40.4	145	62.5	<0.2	0.4	<0.2	<0.5	186	233
05BKC024	0.2	135	6.3	28.9	280	<0.2	7.1	100	920	65.7	<0.2	1.3	<0.2	<0.5	370	270
05BKC039	<0.1	17.1	2.6	4.9	16.8	<0.2	2.2	2.9	13.1	23.7	<0.2	<0.2	<0.2	<0.5	281	172
05BKC039 R	<0.1	18.1	2.6	5.0	16.5	<0.2	2.2	2.6	13.0	24.0	<0.2	0.2	<0.2	<0.5	286	167

Aqua Regia: A 0.5 g pulp is digested with 2.00 ml of 3:1 HCL:HNO3 for 1 hour at 95 C.
 The standard is LS4.

Apex Geoscience Ltd

Attention:

PO #/Project:

Samples: 5

SRC Geoanalytical Laboratories
125 - 15 Innovation Blvd., Saskatoon, Saskatchewan, S7N 2X8
Tel: (306) 933-8118 Fax: (306) 933-5656 Email: geochem@src.sk.ca

Report No: 06-53

Date: February 22, 2006

ICP6.3 Total Digestion

Column Header Details

Silver in ppm (Ag)
Aluminum in wt % (Al₂O₃)
Barium in ppm (Ba)
Beryllium in ppm (Be)
Calcium in wt % (CaO)

Cadmium in ppm (Cd)
Cerium in ppm (Ce)
Cobalt in ppm (Co)
Chromium in ppm (Cr)
Copper in ppm (Cu)

Dysprosium in ppm (Dy)
Erbium in ppm (Er)
Europium in ppm (Eu)
Iron in wt % (Fe₂O₃)
Gallium in ppm (Ga)

Gadolinium in ppm (Gd)
Hafnium in ppm (Hf)
Holmium in ppm (Ho)
Potassium in wt % (K₂O)
Lanthanum in ppm (La)

Lithium in ppm (Li)
Magnesium in wt % (MgO)
Manganese in wt % (MnO)
Molybdenum in ppm (Mo)
Sodium in wt % (Na₂O)

Niobium in ppm (Nb)
Neodymium in ppm (Nd)
Nickel in ppm (Ni)
Phosphorus in wt % (P₂O₅)
Lead in ppm (Pb)

Praseodymium in ppm (Pr)
Scandium in ppm (Sc)
Samarium in ppm (Sm)
Tin in ppm (Sn)
Strontium in ppm (Sr)

Tantalum in ppm (Ta)
Terbium in ppm (Tb)
Thorium in ppm (Th)
Titanium in wt % (TiO₂)
Uranium in ppm (U, ICP)

Apex Geoscience Ltd
Attention:
PO #/Project:
Samples: 5

SRC Geoanalytical Laboratories
125 - 15 Innovation Blvd., Saskatoon, Saskatchewan, S7N 2X8
Tel: (306) 933-8118 Fax: (306) 933-5656 Email: geochem@src.sk.ca

Report No: 06-53
Date: February 22, 2006

ICP6.3 Total Digestion

Column Header Details

Vanadium in ppm (V)
Tungsten in ppm (W)
Yttrium in ppm (Y)
Ytterbium in ppm (Yb)
Zinc in ppm (Zn)

Zirconium in ppm (Zr)

Apex Geoscience Ltd
 Attention:
 PO #/Project:
 Samples: 5

SRC Geoanalytical Laboratories
 125 - 15 Innovation Blvd., Saskatoon, Saskatchewan, S7N 2X8
 Tel: (306) 933-8118 Fax: (306) 933-5656 Email: geochem@src.sk.ca

Report No: 06-53
 Date: February 22, 2006

ICP6.3 Total Digestion

Sample Number	Ag ppm	Al2O3 wt %	Ba ppm	Be ppm	CaO wt %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Dy ppm	Er ppm	Eu ppm	Fe2O3 wt %	Ga ppm	Gd ppm	Hf ppm
CG515/LS4	<0.2	17.8	2370	2.2	5.00	0.6	170	19	117	3	3.5	2.0	2.6	7.59	21	5.0	4.1
05BKC002	<0.2	3.71	6290	1.8	4.44	9.5	888	51	437	181	24.8	17.7	7.2	39.3	4	24.3	16.8
05BKC024	<0.2	5.91	12800	4.6	6.60	6.4	239	60	698	288	8.3	9.0	2.6	44.2	14	5.6	8.9
05BKC039	<0.2	3.02	4000	1.9	7.97	5.4	3180	56	179	39	34.8	28.9	15.4	44.0	7	52.6	15.8
05BKC039 R	<0.2	2.97	3950	1.9	7.75	5.2	3330	56	192	38	34.9	29.4	15.7	43.4	7	54.4	17.8

Apex Geoscience Ltd
 Attention:
 PO #/Project:
 Samples: 5

SRC Geoanalytical Laboratories
 125 - 15 Innovation Blvd., Saskatoon, Saskatchewan, S7N 2X8
 Tel: (306) 933-8118 Fax: (306) 933-5656 Email: geochem@src.sk.ca

Report No: 06-53
 Date: February 22, 2006

ICP6.3 Total Digestion

Sample Number	Ho ppm	K2O wt %	La ppm	Li ppm	MgO wt %	MnO wt %	Mo ppm	Na2O wt %	Nb ppm	Nd ppm	Ni ppm	P2O5 wt %	Pb ppm	Pr ppm	Sc ppm	Sm ppm	Sn ppm
CG515/LS4	1.0	3.15	95	29	2.85	0.076	<1	3.40	9	67	22	0.687	20	17	13	9.5	5
05BKC002	2.0	0.358	502	10	1.49	0.336	42	0.31	137	363	149	1.03	129	88	22	58.2	932
05BKC024	0.4	0.615	131	17	3.61	0.358	102	0.66	85	108	921	0.596	93	20	31	25.9	380
05BKC039	1.4	0.251	1960	5	0.995	0.291	3	0.11	250	1080	19	4.03	87	308	27	131	22
05BKC039 R	1.3	0.242	2070	5	0.982	0.286	2	0.11	251	1140	18	3.93	87	324	27	135	20

Apex Geoscience Ltd
Attention:
PO #/Project:
Samples: 5

SRC Geoanalytical Laboratories
125 - 15 Innovation Blvd., Saskatoon, Saskatchewan, S7N 2X8
Tel: (306) 933-8118 Fax: (306) 933-5656 Email: geochem@src.sk.ca

Report No: 06-53
Date: February 22, 2006

ICP6.3 Total Digestion

Sample Number	Sr ppm	Ta ppm	Tb ppm	Th ppm	TiO2 wt %	U, ICP ppm	V ppm	W ppm	Y ppm	Yb ppm	Zn ppm	Zr ppm
CG515/LS4	1220	1	0.7	12	1.08	3	137	<1	23	2.3	83	148
05BKC002	298	11	7.3	72	10.4	11	653	20	154	13.6	312	821
05BKC024	469	5	3.5	28	9.22	10	719	<1	59	5.0	340	549
05BKC039	277	16	12.4	181	14.3	<2	992	<1	224	16.4	304	910
05BKC039 R	268	16	12.5	187	14.4	2	982	<1	221	16.5	298	933

Total Digestion: A 0.125 g pulp is gently heated in a mixture of HF/HNO3/HClO4 until dry and the residue is dissolved in dilute HNO3.
The standard is CG515.

MARUM RESOURCES INC.

Attention: Richard Boulay

PO #/Project:

Samples: 8

SRC Geoanalytical Laboratories

125 - 15 Innovation Blvd., Saskatoon, Saskatchewan, S7N 2X8
Tel: (306) 933-8118 Fax: (306) 933-5656 Email: geochem@src.sk.ca

Report No: 05-444

Date: May 25, 2005

ICP6.3R Partial Digestion

Column Header Details

Silver in ppm (Ag)
Arsenic in ppm (As)
Bismuth in ppm (Bi)
Cobalt in ppm (Co)
Copper in ppm (Cu)

Germanium in ppm (Ge)
Mercury in ppm (Hg)
Molybdenum in ppm (Mo)
Nickel in ppm (Ni)
Lead in ppm (Pb)

Antimony in ppm (Sb)
Selenium in ppm (Se)
Tellurium in ppm (Te)
Uranium (Fluorimetry) in ppm (U, Fl.)
Vanadium in ppm (V)

Zinc in ppm (Zn)
Boron by Fusion in ppm (B)

4

MARUM RESOURCES INC.
 Attention: Richard Boulay
 PO #/Project:
 Samples: 8

SRC Geoanalytical Laboratories
 125 - 15 Innovation Blvd., Saskatoon, Saskatchewan, S7N 2X8
 Tel: (306) 933-8118 Fax: (306) 933-5656 Email: geochem@src.sk.ca

Report No: 05-444
 Date: May 25, 2005

ICP6.3R Partial Digestion

Sample Number	Ag ppm	As ppm	Bi ppm	Co ppm	Cu ppm	Ge ppm	Hg ppm	Mo ppm	Ni ppm	Pb ppm	Sb ppm	Se ppm	Te ppm	U, Fl. ppm	V ppm	Zn ppm	B ppm
CG509/LS3	<0.1	9.8	0.7	38.9	52.2	0.7	<0.2	17.2	49.5	19.3	0.8	0.7	0.8	36.2	110	217	N/R
BR-26	0.1	601	<0.2	7.0	24.5	0.6	0.4	129	35.7	32.5	<0.2	3.6	<0.2	8.84	29.2	60.5	21
BR-27	0.2	340	<0.2	6.7	29.3	0.5	0.2	20.7	14.7	44.1	<0.2	1.6	<0.2	5.45	22.2	41.8	25
BR-28	<0.1	573	<0.2	10.9	18.6	0.9	0.4	26.1	20.7	34.2	<0.2	1.8	<0.2	9.82	34.7	103	28
BR-29	0.3	1.8	0.2	2.1	43.1	<0.2	<0.2	<0.1	9.6	17.4	<0.2	<0.2	<0.2	0.73	8.5	29.2	37
BR-30	0.2	13.1	<0.2	0.3	8.1	0.2	<0.2	<0.1	3.1	9.49	1.2	<0.2	<0.2	3.92	2.4	16.7	9
BR-31	<0.1	11.3	<0.2	25.3	22.3	<0.2	<0.2	<0.1	36.3	20.0	5.9	1.0	<0.2	111	24.2	95.3	32
BR-29 R	0.3	2.0	<0.2	2.1	42.0	<0.2	<0.2	<0.1	9.3	17.4	<0.2	<0.2	<0.2	0.65	8.2	28.1	36

Partial Digestion: A 1.00 g pulp is digested with 2.25 ml of 9:1 HNO3:HCl for 1 hour at 95C.
 The standard is LS3.
 Boron: A 0.1 gram pulp is fused at 650 C in a mixture of Na2O2/Na2CO3.

JUL 20 2007

20070020

Assessment Report

**Activities on Permit Nos. 093 9305031136, 093 9305050699,
093 9305050745, 093 9305050746, 093 9305070802, 093 9305050698,
093 9306020507, 093 9306020508, 093 9305050693, 093 9305050694,
093 9305050695, 093 9305050696,
Part of "Alberta Sun Uranium Project",
Fort MacLeod area, southwestern Alberta,
Firestone Ventures Inc.**

Part C Appendix 4

100% Owner: Firestone Ventures Inc.

NTS Sheets 082H/02, 082H/03, 082H/05, 082H/06, 082H/12

June 20, 2007

For: Firestone Ventures Inc.
Suite 220 – 17010 103rd Ave.
Edmonton, Alberta T5S 1K7
Phone (780) 428-3465 Fax (780) 428-3476
Email: lawalton@telus.net

By: Carl Schulze, Qualified Person,
All-Terrane Mineral Exploration Services,
35 Dawson Rd
Whitehorse, Yukon Y1A 5T6
Tel: 867-633-4807
Fax: 867-633-4883
allterrane@northwestel.net



July 15, 2007

Appendix 4:

Results of Airborne Geophysical Surveys

Appendix 4a: Analysis of Sandstone-Hosted (Roll-Front) Uranium in Alberta Sun Property, TerraNotes Ltd.

Appendix 4b: Preliminary Geophysical Results for the Alberta Sun Property, Terra Notes Ltd.

ANALYSIS OF SANDSTONE-HOSTED (ROLL-FRONT) URANIUM IN ALBERTA SUN PROPERTY

Prepared for

Firestone Ventures Inc

Suite 220, 17010 – 103rd Avenue
Edmonton, AB, Canada T5S 1K7

For Consideration by

Lori Walton

Prepared by

TerraNotes Ltd
Geophysical Interpretation

18610 – 99 A Avenue
Edmonton, Alberta T5T 3P5

July 13, 2007

The following analysis has not been reviewed by a Qualified Person.

ANALYSIS OF SANDSTONE-HOSTED (ROLL-FRONT) URANIUM IN ALBERTA SUN PROPERTY

Introduction

The preliminary analysis of the geological and geophysical data for the Alberta Sun Uranium property has been completed by TerraNotes Ltd. in the months of May, June and July, 2007. The project was undertaken on behalf of the Firestone Ventures Inc., Edmonton, Alberta, Canada.

The Alberta Sun Uranium Property is located Southern Alberta, about 30 km south of Fort Macleod, Edmonton, Alberta, Canada and consist of four blocks covering areas (U-Bone Lake, Goose lake, Cardston and Red Rock) of favorable stratigraphy and uranium indicators.

The Alberta Sun Uranium property (covering over 350,000 acres) is characterized by easy access across southern Alberta rangeland.

According to the Firestone Venture Inc. News Releases (June 29, 2006 and December 19, 2006 and June 15, 2007 available at www.firestoneventures.com), "results of initial fieldwork on the project include scintillometer readings of up to 1250 cps counts per second, visible alteration, shale beds and abundant hematite and carbonaceous material within sandstone. Upper Cretaceous to Paleocene non-marine sandstones and tuffs of the Willow Creek Formation underlay the Alberta Sun Uranium property. Sandstone hosted uranium deposits, including the "roll-front" type, are an important source of uranium in the property".

The data for 118 water wells drilled on the Ranger permits yielded positive information strong hematite alteration was noted to be present in some bore holes drilled in the Willow Creek formation. Radioactivity occurs in a carbonaceous mudstone with trace to strong limonite.

Groundwater as a geologic agent

Hydrologic processes are fundamental in the emplacement of sandstone-hosted (Roll-front) deposits in the Alberta sun property. The basic sedimentary

uranium-enrichment cycle involves: (1) leaching or erosion of uranium from a low-grade provenance; (2) transport of uranium by surface or groundwater flow; and (3) concentration of uranium by mechanical, geochemical, or physiochemical processes.

Objectives

The specific objectives for exploration on the property are to assess the area for possible uranium mineralization and determine specific drill targets based on geological and geophysical interpretation results.

Methodology

To achieve these objectives, TerraNotes is undertaking the following studies: geophysical survey, data analysis and modeling; analysis of structural, hydrological, petrographical and petrophysical data; interpretation of Radarsat images; and identification of Paleovalleys of interest from topographic and geological maps.

Identification of Paleovalleys (previously termed paleochannels)

Major buried valleys are present throughout the Alberta Sun Uranium property with drift thickness accumulations of over 100 m (Alberta Mineral Exploration, 2006; AGS).

Many buried valleys contain preglacial fluvial sediments near their base that are overlain by tills or glaciolacustrine clays separated by fluvial sediment.

The fluvial sediments commonly are sands and gravel of either preglacial or glacial age. The tills are characteristically clay rich because the source material derived from erosion by the glaciers was from the underlying Cretaceous-aged shale bedrock.

Our study focused on pre-glacial or buried-valley sand and gravel deposits which occur between till and bedrock.

These sands and gravels were deposited by rivers flowing from the Mountains.

These rivers contain the relative abundance of four rock groups: igneous and metamorphic rock, quartz, Carbonates and local bedrock before the last glaciations.

These sands and gravels form a vast network of inter-connected, underground valleys throughout the four blocks covering the surveyed areas, and can be less than 1000 m wide and 100 m deep.

According to geological maps, the topography of the bedrock surface underlying the surficial deposits in the four blocks covering areas (U-Bone, Goose Lake, Cardston and Red Rock) is largely the result of long-term erosion through the late Tertiary and early Pleistocene.

This buried, older erosional surface is very similar to the present-day topography. That is, the present-day major uplands and lowlands generally coincide with those of preglacial time (Figs. 1 to 4).

Just as today, the headwaters of the preglacial rivers originated in the mountains to the west and flowed toward the east and northeast.

Coarse fluvial sediments (gravel and sand, along with minor silt and clay) of the Willow Creek Formation (Paleocene and Upper Cretaceous) were deposited on the floors and terraces of these preglacial valleys.

These older fluvial sediments were later covered by glacial till and other more recent deposits. The valleys are thus called "buried valleys", and the fluvial sediments within them now constitute "buried-valley aquifers". The drainage pattern of these "buried valleys" named Paleovalleys is shown in Figures 1.



Figure 1: Overlay of Quaternary geological map of Southern Alberta and resistivity map of 400 Hz data at Cardston property showing the definite and possible preglacial valley talweg.

The general pattern of groundwater flow is downward flow beneath uplands, upward flow beneath lowlands, and lateral flow beneath the intervening slopes. It is hypothesized that general flow pattern could be modified by refraction and the concentration of flow within the highly permeable zones.

mass spectrometer (HR-ICPMS) and XRF (X-ray fluorescence) which will provide information about element associations and their relation to alteration process. Mobile elements, those added recently to the samples, are assessed using *continuous leach high resolution inductively coupled plasma mass spectrometer* (CL-HR-ICPMS). These data are important for exploration because they may indicate migration of components from deposits into barren systems.

- Radon Emanometry Methods (REM). Radon detection and measurement can be carried out either by scintillators or alpha-track etching. In the case of water sampling, the sample must be degassed and the radon content of the resultant gas mixture measured. Radon in soil gas may be measured either by directly inserting a probe into the soil, or by leaving a collector in situ for a suitable period of time. This Radon analysis will help us understanding the direction of the groundwater flow and the redox mechanism.

In the U-Bone block property, the paleovalleys are crossed and/or followed the Waterton River. This observation led us to formulate that the Waterton River itself is flowing in the paleovalleys.



Figure 2: Exposures of Willow Creek Formation along Waterton River at U-Bone Block property (after Alberta Mineral Exploration, 2006; AGS).

Cardston

In the Cardston property, we observed that the geological and geomorphological features such as buttes at the contact between Hummocky formations including gravel and sand coarse sediments and the Quaternary coarse gravel and sand. We suggest that this contact might be the hematite concretions, formed within continental sandstones, are exposed as extensive weathered-out beds. This will help in the localization of possible regional alteration patterns and position of redox front through outcrop studies.

U-Bone

Contrary to the Cardston and Red Rock blocks where the impact of tectonic in sedimentary formations might be associated either to the paleochannels or to the Quaternary formations, the formations of U-Bone property might have underlain brittle and ductile deformation characterized by Anastomosing Rivers in the area. This is illustrating by the presence of choke points along the Waterton River Paleovalleys.

Goose Lake

In the Goose Lake block, there is no clear evidence of paleochannels in the property. However, according to geological features such as the proximity with the U-Bone property there might be underlain brittle and ductile deformation characterized by fault and perhaps buckle folds.

GEOPHYSICAL SYNOPSIS
PROJECT: ALBERTA SUN PROPERTY
Stage 1 of HEM data Analysis

- TerraNotes has effectively implemented the Edge-Preserving Smoothing (EPS) filter and the Bilateral Filter (BF) to enhance the resolution of geophysical images of the Alberta Sun uranium property. Most of the lineaments are highlighted in the filtered resistivity maps.
- Previous geological map analyses have shown that pre-glacial valleys are normally related to Quaternary formations (Pleistocene and Holocene). They can be differentiated from the other formations due to their high resistivity characteristic.
- Conductive trends within these resistive features might indicate prospective paleovalleys.

Preliminary results at the Cardston Property

- A conductive trend in Formation 3a (Figure 1) was observed in the 400-Hz resistivity map at the Cardston property. This trend is consistent with the hydrogeology map and was interpreted as a paleovalley.
- Another possible paleovalley was observed at the eastern part of the Cardston property. However, this feature follows NNE-SSW trend which is slightly different from the N-S trend observed in the hydrogeological map. This is also supported by the vertical gradient map of this property.

Preliminary results at the Red Rock Property

- A conductive trend cutting across the resistivity zone (Formation 3a) at the Red Rock property also coincides with the hydrogeological map. This trend is interpreted as the preglacial North Whisky Valley.
- It appears that there are two more conductive lineaments at the Red Rock property that are parallel to North Whisky Valley. We hypothesized that these lineaments could be associated either with the deeper paleovalleys or with the effects of the shallower structures.

- Another observation at the Red Rock property was the presence of a resistivity contrast at the contact between the Hummocky topography and the Alberta sandstone. Since Hummocky topography indicates hematite content and consequently possible uranium mineralization, it is concluded that geological outcrop studies at this area would be appropriate.
- The resistive zone at the shallow part of the resistivity map also supports the possibility of having hematite in the region.

Preliminary results at the Goose Lake Property

- Preliminary interpretations of the HEM data do not clearly indicate the presence of paleovalleys at the Goose Lake property. However, two different areas demonstrate conductive trends that might indicate potential paleovalleys. The first one appears to be the continuation of a definite preglacial paleovalley, whereas the second one is parallel to another possible preglacial paleovalley both illustrated in the hydrogeological map.

Preliminary results at the U-Bone Property

- The course of the Waterton River is still visible in low frequency (greater depth) data. This observation led us to formulate the following hypotheses: 1) The Waterton River itself is the paleovalley and its course has not changed with time. Geological evidences such as the observation of high uranium counts (3810 ppm) in the Willow Creek formation along the Waterton River might support the fact that the paleovalley is cutting across the course of the Waterton River. 2) The low resistivity trends are signatures of the Waterton River and the paleovalley might exist deeper than our maximum imaging depth (67m).
- In contrast to the hydrogeological map, interpretation of the radarsat imaging suggests that the Waterton River follows a slightly different course than that of the low resistive trend. This strongly indicates that there might be a paleovalley following and crossing the Waterton River.

Recommendations

Interpretation of HEM data has put in evidence a number of paleovalleys. On the other hand, the possibility of the presence of other paleovalleys is also suggested in other areas of each property. We believe that these paleovalleys

are deeper than the penetration depth of the HEM data (approximately 70 m). Thus, further geophysical investigation is required.

The following geophysical and geological recommendations are proposed:

- High-Resolution Resistivity survey. Our TerraNotes Resistivity System (an array of 120 computer-connected electrodes) can be used to image deep paleovalleys located at up to 400 m deep. Appropriate modifications in the acquisition array can also be incorporated to enhance the resolution of the survey area at shallow depths. The modeling methods can provide more information about the stratification as well as lineaments such as faults, fractures, and shear faults.
- High resolution reflection seismic is a well-proven tool for delineating paleovalleys. Depending upon the quality of the data, the TerraNotes high resolution techniques can be used to enhance imaging of the deeper paleovalleys.
- Field work planning. It will consist in identifying areas of enhanced mineral potential on a regional scale. The main objectives are: (i) identify areas of interest, (ii) locate and create a single map of the property and topographic map to record stations locations, and (iii) identify mineralized areas worthy of further investigation. Focus will be on location of possible regional alteration patterns and position of redox front through outcrop studies.
- Geochemical Analyses will provide a better understanding of critical processes involved in Uranium mineralization. Specifically, the methodology includes the following analytical procedures:
 - Surface water, groundwater chemistry studies and soil gas analysis
 - Regional survey of stream sediments and/or well waters might help to evaluate regional metallogenic character
 - Determination of sediment source for sandstones using petrography and detrital zircon geochronology for better understanding for potential uranium sources
 - Absolute timing of alteration events using $^{40}\text{Ar}/^{39}\text{Ar}$ dating on clay minerals and U-Pb dating on monazite and zircon overgrowths constraining fluids evolution in the general context of the evolution of the basin, using from the literature and results from previous studies
 - Elemental compositions of whole-rock sample which will be determined using the *high resolution inductively coupled plasma*

mass spectrometer (HR-ICPMS) and XRF (X-ray fluorescence) which will provide information about element associations and their relation to alteration process. Mobile elements, those added recently to the samples, are assessed using *continuous leach high resolution inductively coupled plasma mass spectrometer* (CL-HR-ICPMS). These data are important for exploration because they may indicate migration of components from deposits into barren systems.

- Radon Emanometry Methods (REM). Radon detection and measurement can be carried out either by scintillators or alpha-track etching. In the case of water sampling, the sample must be degassed and the radon content of the resultant gas mixture measured. Radon in soil gas may be measured either by directly inserting a probe into the soil, or by leaving a collector in situ for a suitable period of time. This Radon analysis will help us understanding the direction of the groundwater flow and the redox mechanism.



Preliminary Geophysical Results for the Alberta Sun Property

***Volkan Tuncer, Somanath Misra, Christian
Escalante, Mat Mengong and Lei Sha***

***TerraNotes Ltd.
Geophysical Interpretation***



Preliminary Geological Analysis

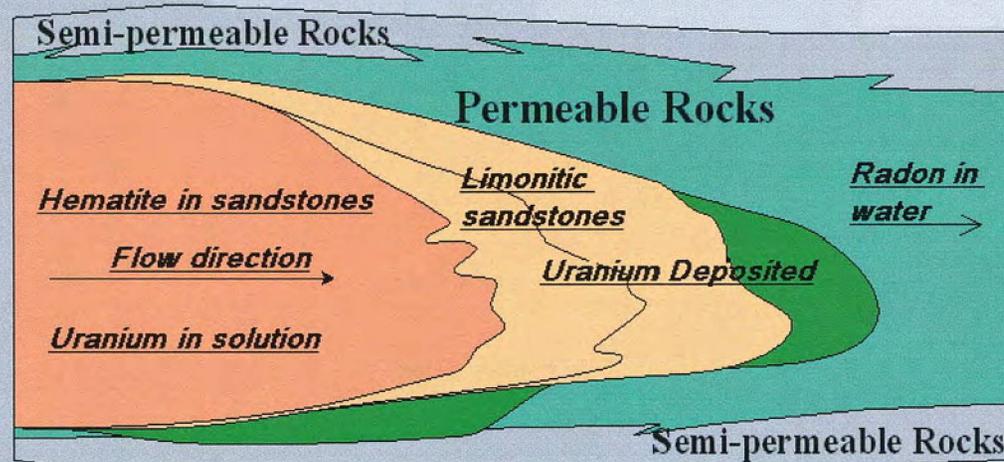


OUTLINE

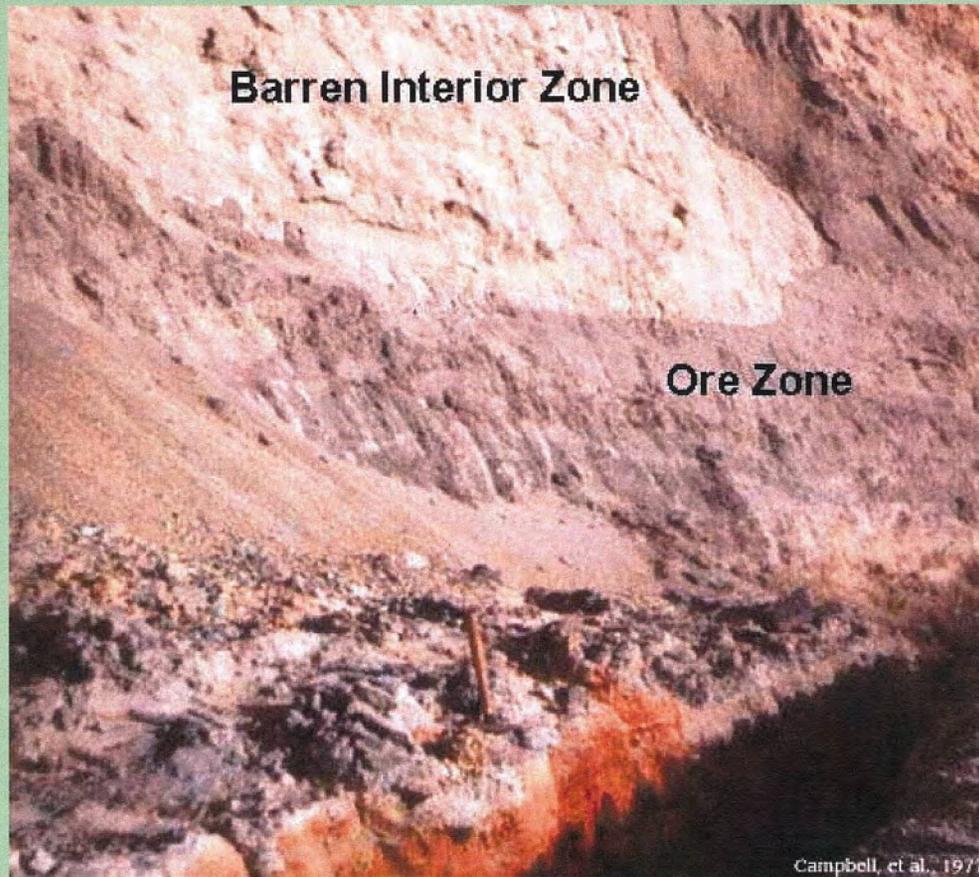
1. *Roll-front uranium model and general geology in the area*
2. *Groundwater as a geologic agent*
3. *Identification of Paleovalleys*
4. *Recommendations for Further Work*



CONCEPTUAL MODEL OF URANIUM ROLL FRONT DEPOSIT (After Devoto, 1978)



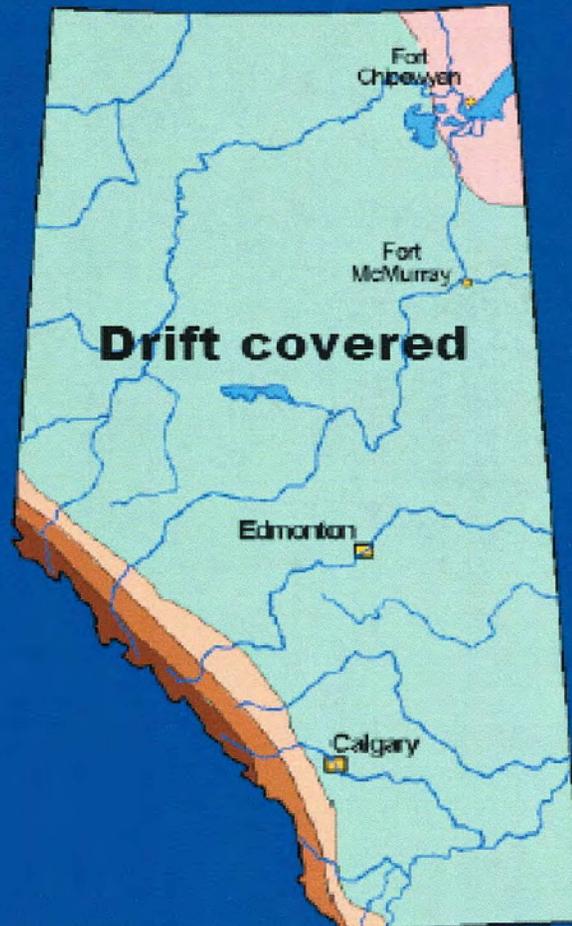
Hematitic Core	Alteration Envelope	Ore-Stage Uranium	Ore-Stage Pyrite	Reduced Sandstone
Hematite Magnetite	Siderite Sulfur-S° Ferroselite Goethite	Uraninite Pyrite FeS Selenium Ismaninite	Molybdenite Pyrite Jordisite Calcite	Pyrite Jordisite Calcite

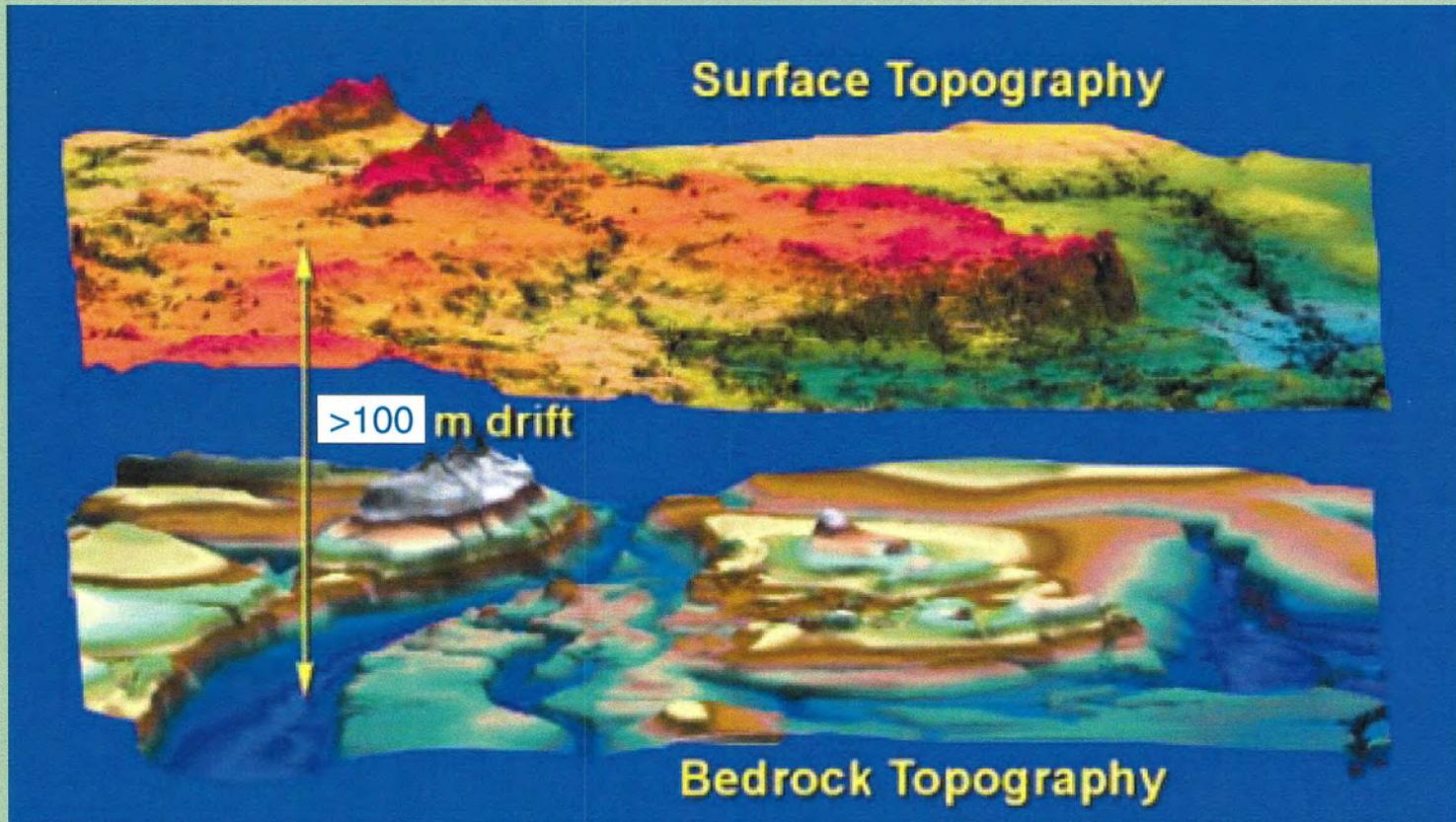




Regional Physiographic Subdivisions of Alberta

- Canadian Shield
- Interior Plains
- Foothills
- Front Ranges
- Main Ranges







GROUNDWATER AS A GEOLOGIC AGENT

Hydrologic processes are fundamental in the emplacement of Roll-front uranium deposits in the Alberta Sun Property.

The basic sedimentary uranium enrichment cycle involves:

1. *Leaching or erosion of uranium from a low-grade provenance*
2. *Transport of uranium by surface or groundwater flow*
3. *Concentration of uranium by mechanical, geochemical, or physiochemical processes*



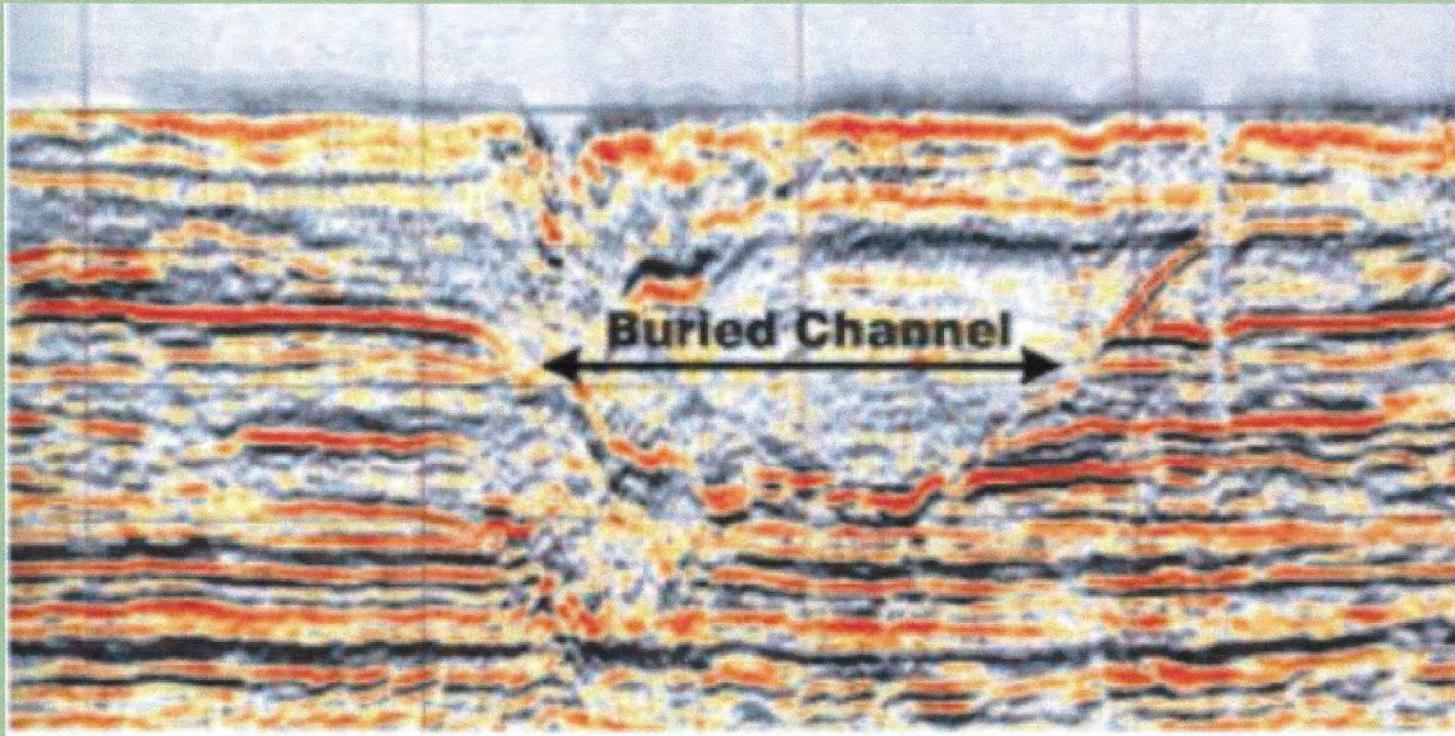
Objectives

The specific objectives for exploration on the property are to assess the area for possible uranium mineralization and determine specific drill targets based on geological and geophysical interpretation results.

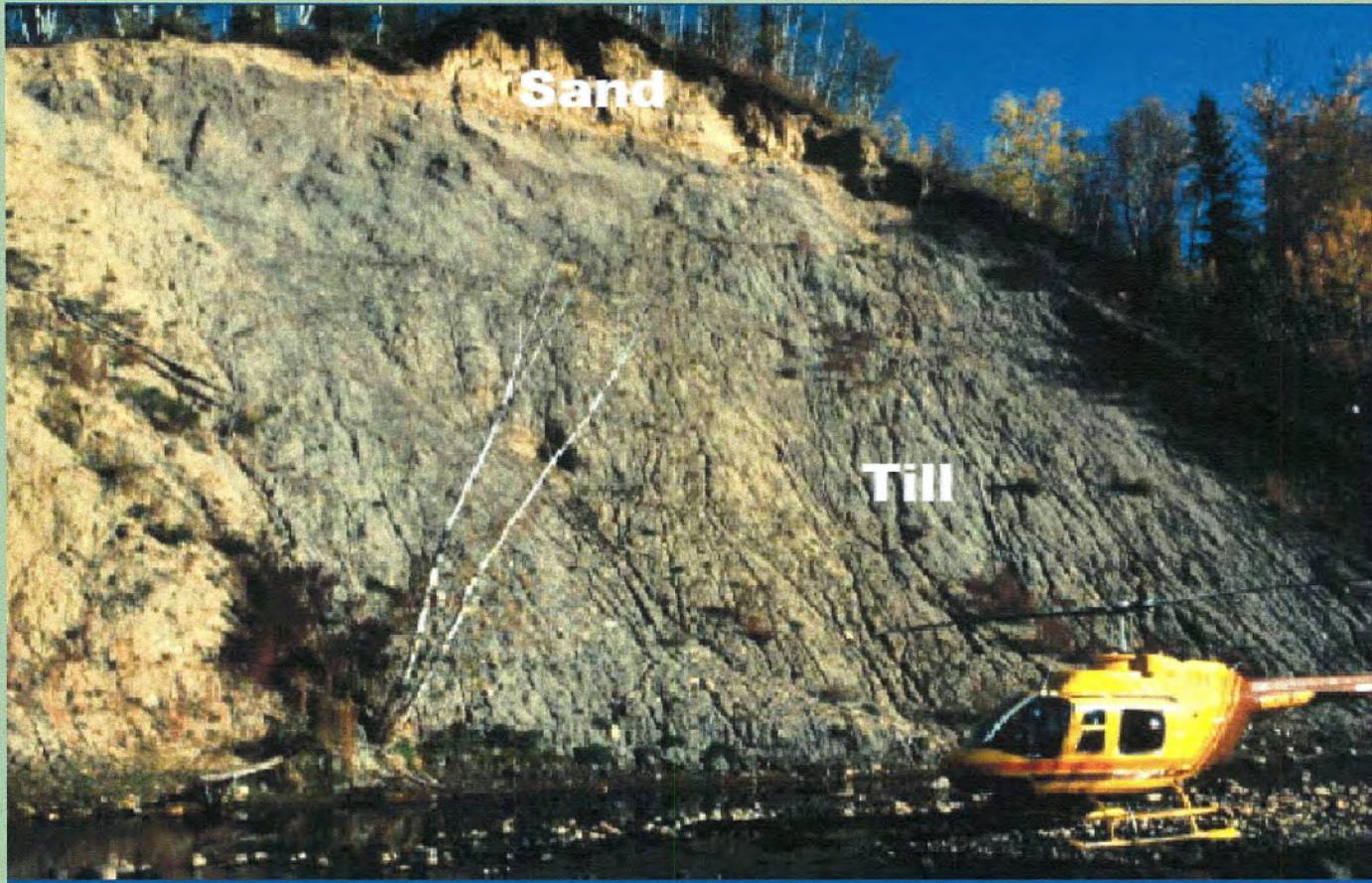
Methodology

To achieve these objectives, *TerraNotes* is undertaking the following studies:

1. *Geophysical survey, data analysis and modeling*
2. *Analysis of structural, hydrological, petrographical and petrophysical data*
3. *Interpretation of Radarsat images*
4. *Identification of paleovalleys of interest from topographic and geological maps*



Seismic line showing outline of buried channel (~ 1500 m wide x 150 m deep) (after Fennell et al., 2001; 2nd Joint IAH and CGS Groundwater Conference).



Thin drift over bedrock in northern Alberta (after Pawlowicz et al., 2003).



Thick drift in northern Alberta (after Pawlowicz et al., 2003).



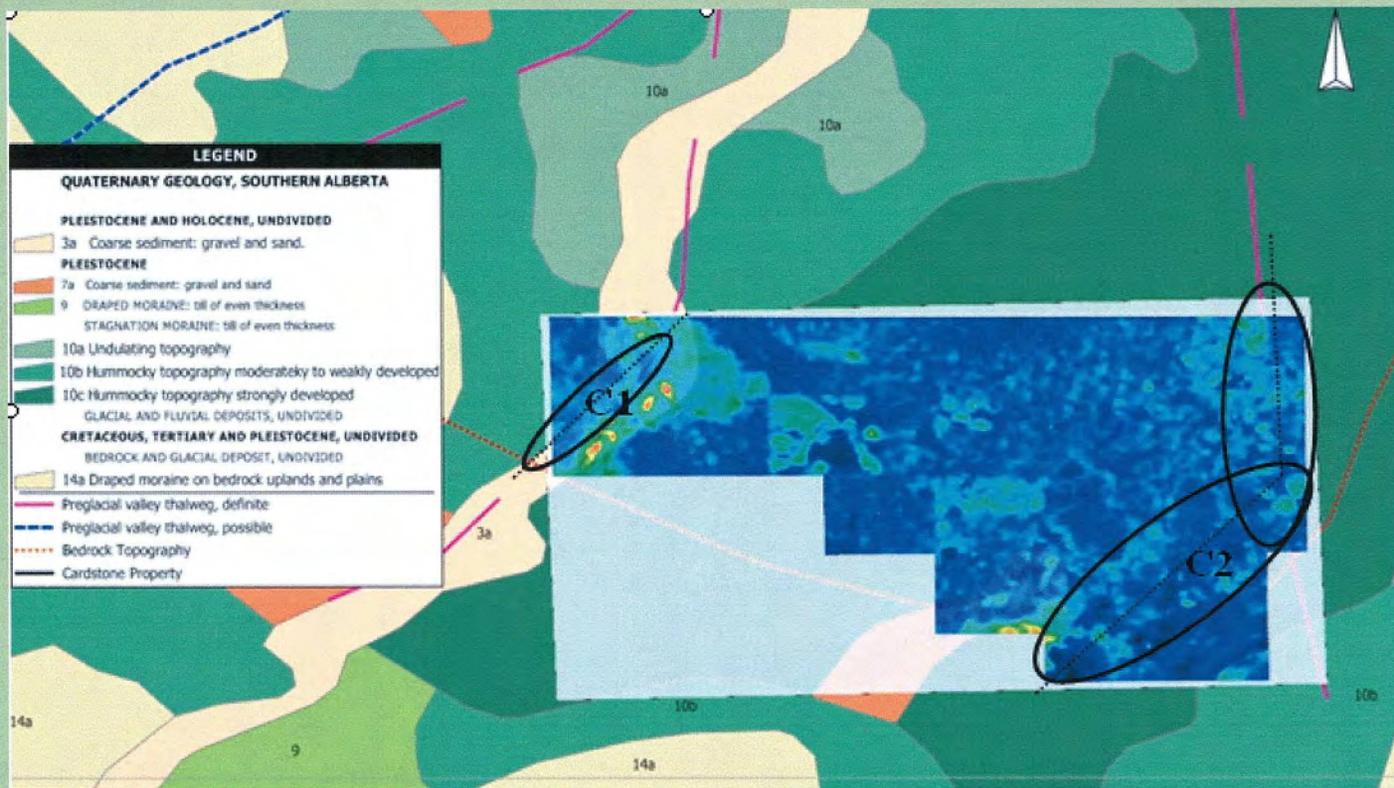
Tertiary or Preglacial sand and gravel with no Precambrian Shield Lithology (after Pawlowicz et al., 2003).



Glacial gravel (after Pawlowicz et al., 2003).



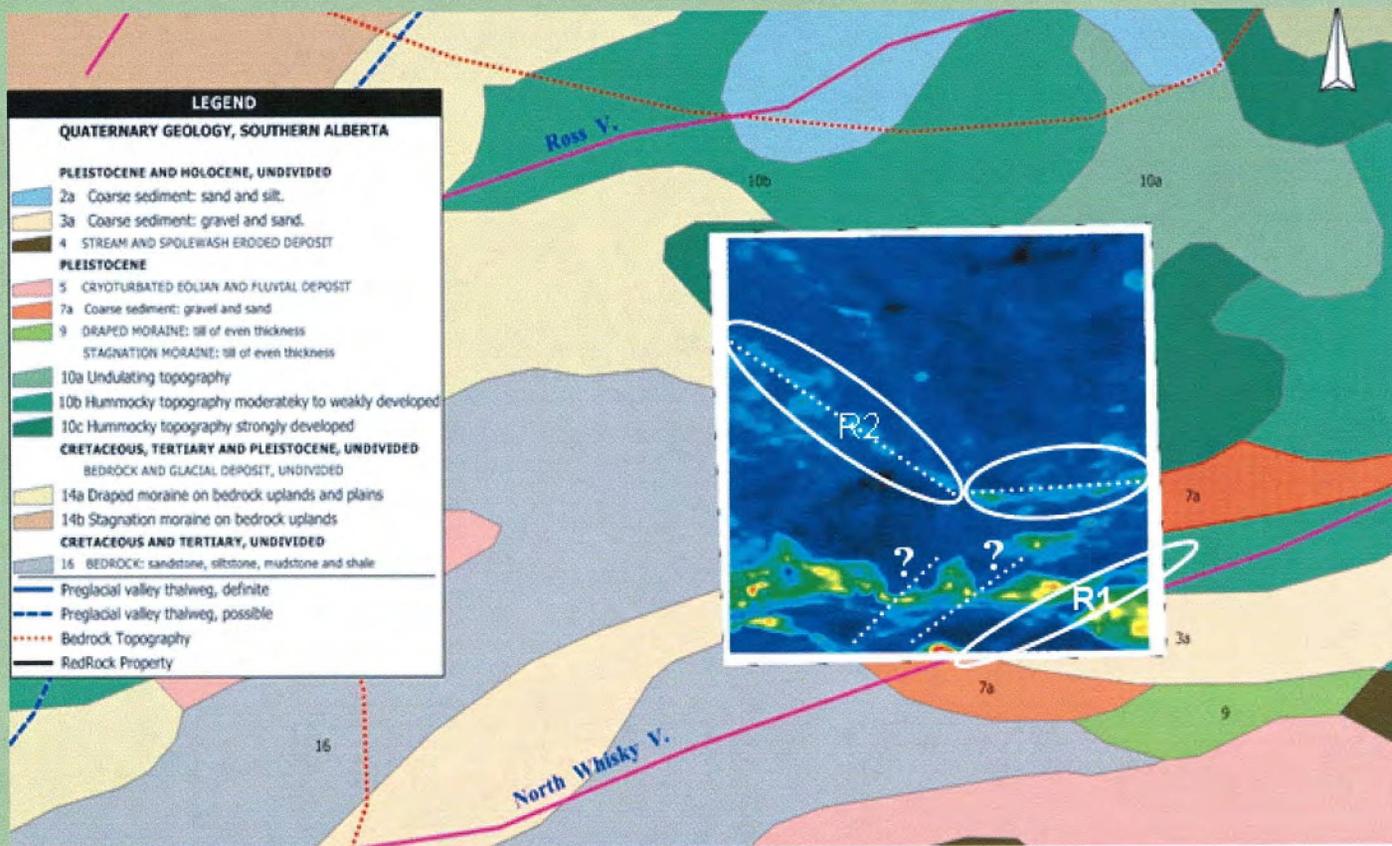
Cardston Property



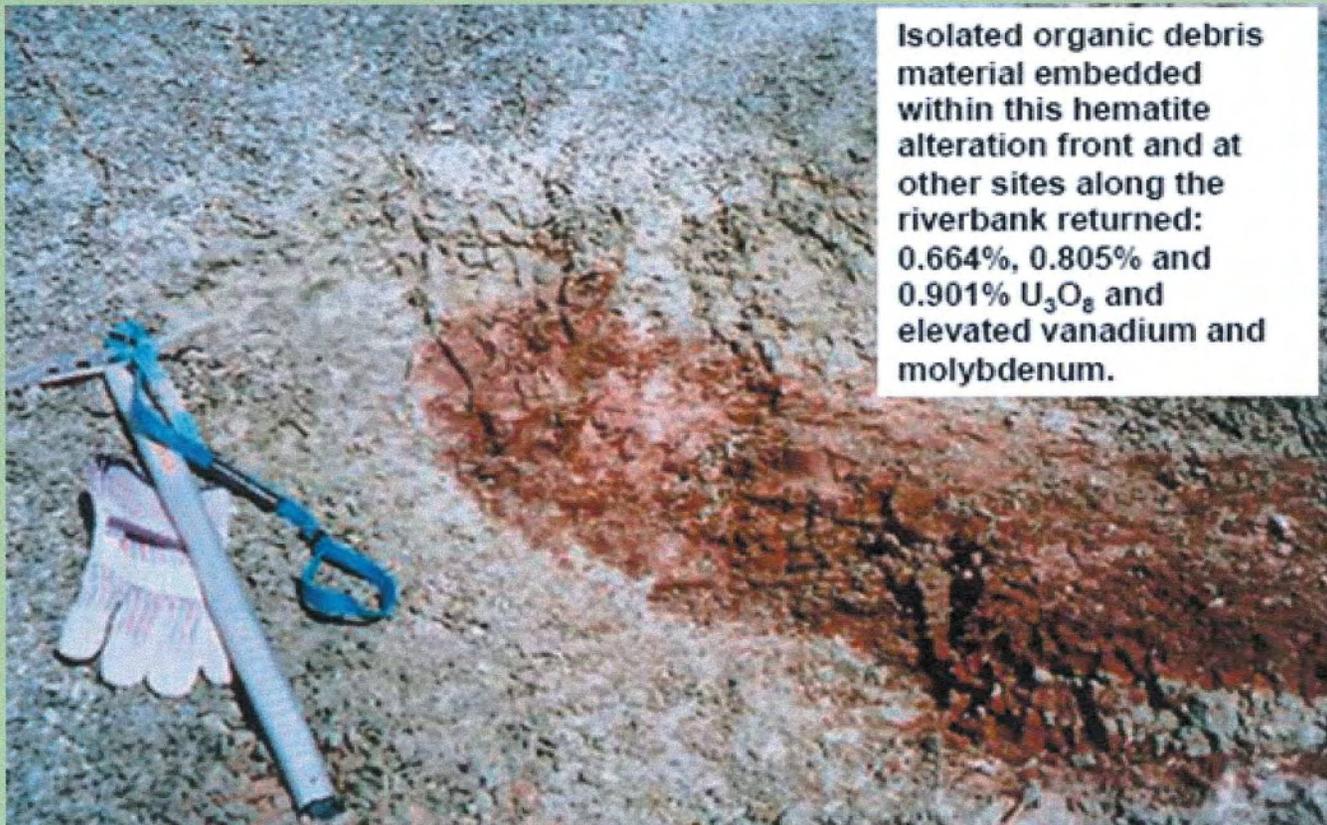
Overlay of Quaternary geological map of Southern Alberta and resistivity map of 400 Hz data at Cardston property showing the definite and possible preglacial valley thalweg.



Red Rock Property



Overlay of Quaternary geological map of Southern Alberta and resistivity map of 400 Hz data at Red Rock property showing the definite and possible preglacial valley thalweg.

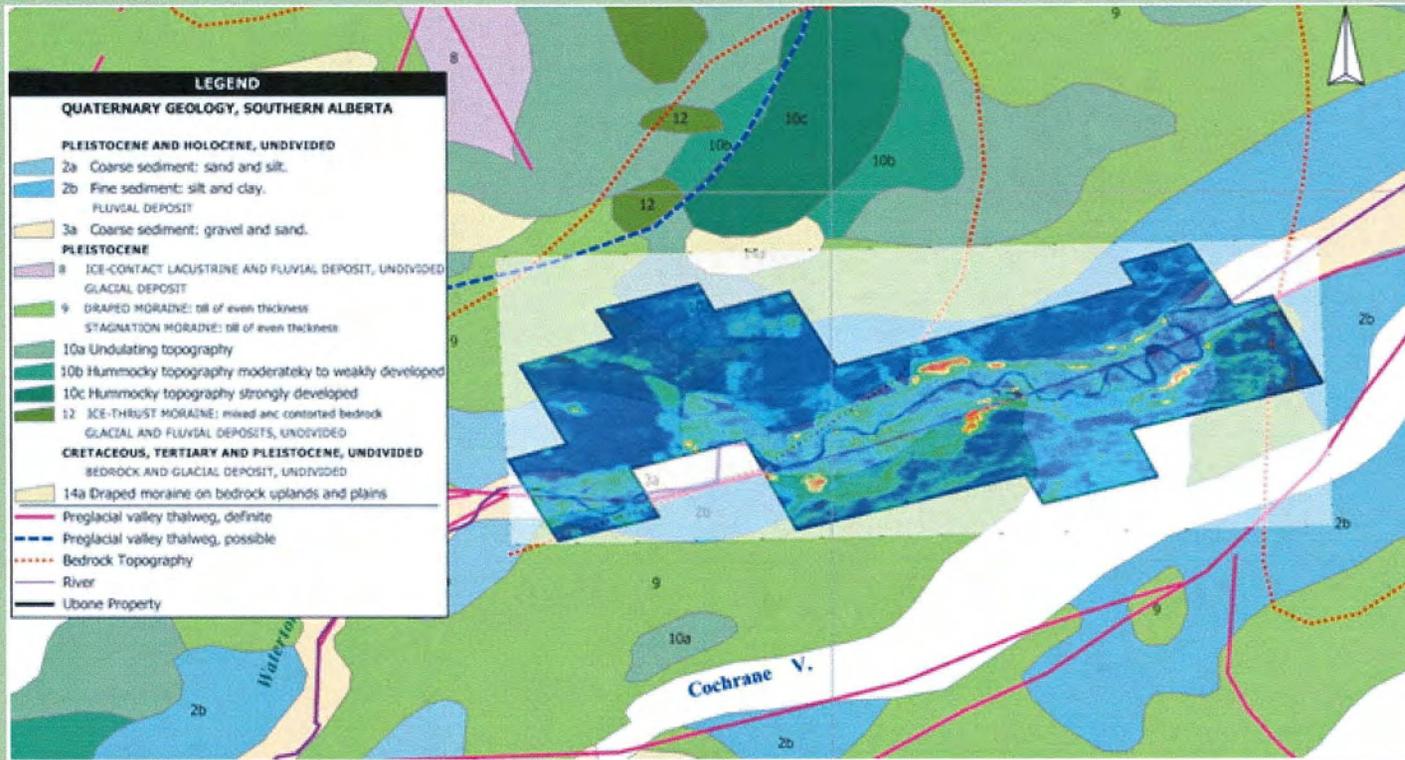


Isolated organic debris material embedded within this hematite alteration front and at other sites along the riverbank returned: 0.664%, 0.805% and 0.901% U_3O_8 and elevated vanadium and molybdenum.

Waterton River – Hematite –stained alteration in sandstone (Firestone News Release dated September 14, 2005).



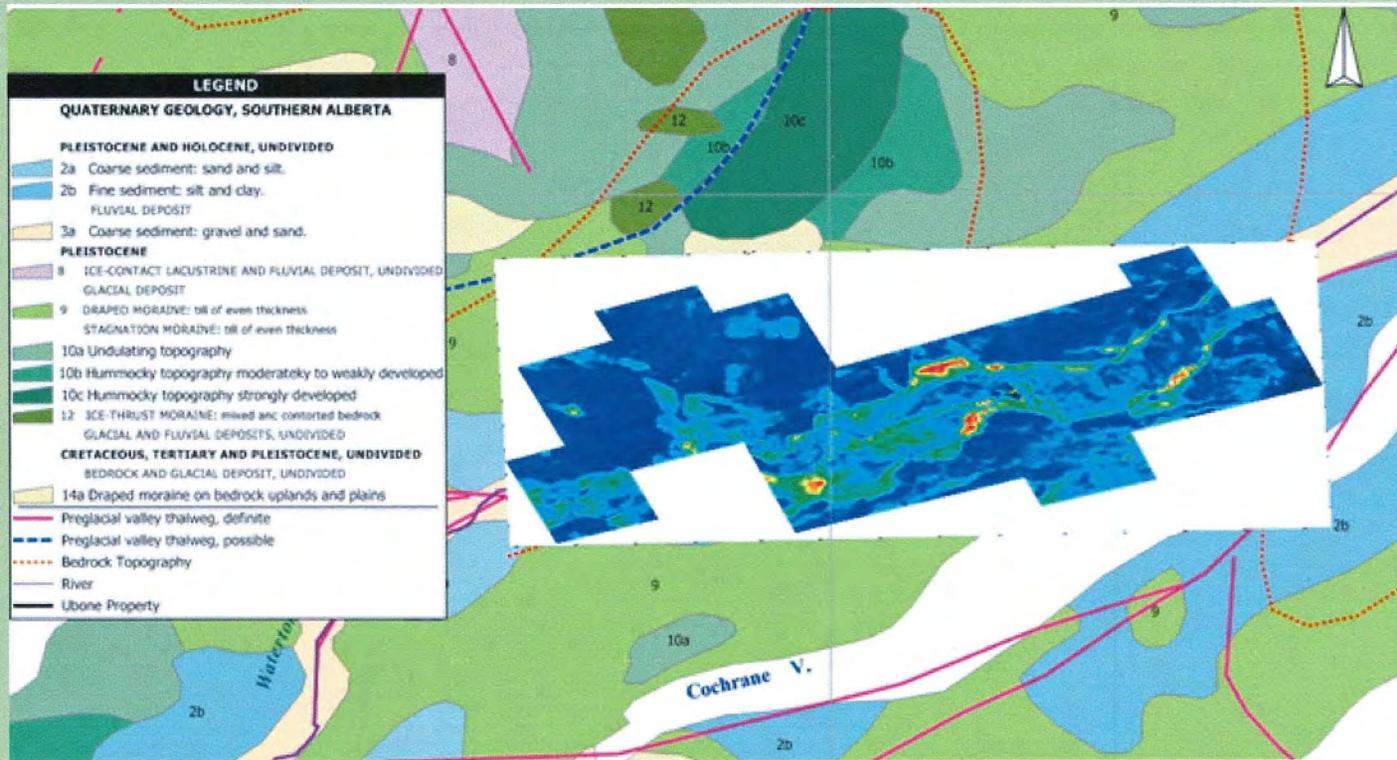
U-Bone Lake Property



Overlay of Quaternary geological map of Southern Alberta and resistivity map of 100,000 Hz data at U-Bone property showing the semi-permeable silt and clay units interbedded in the sedimentary sequence occur immediately and below the mineralized sandstone.



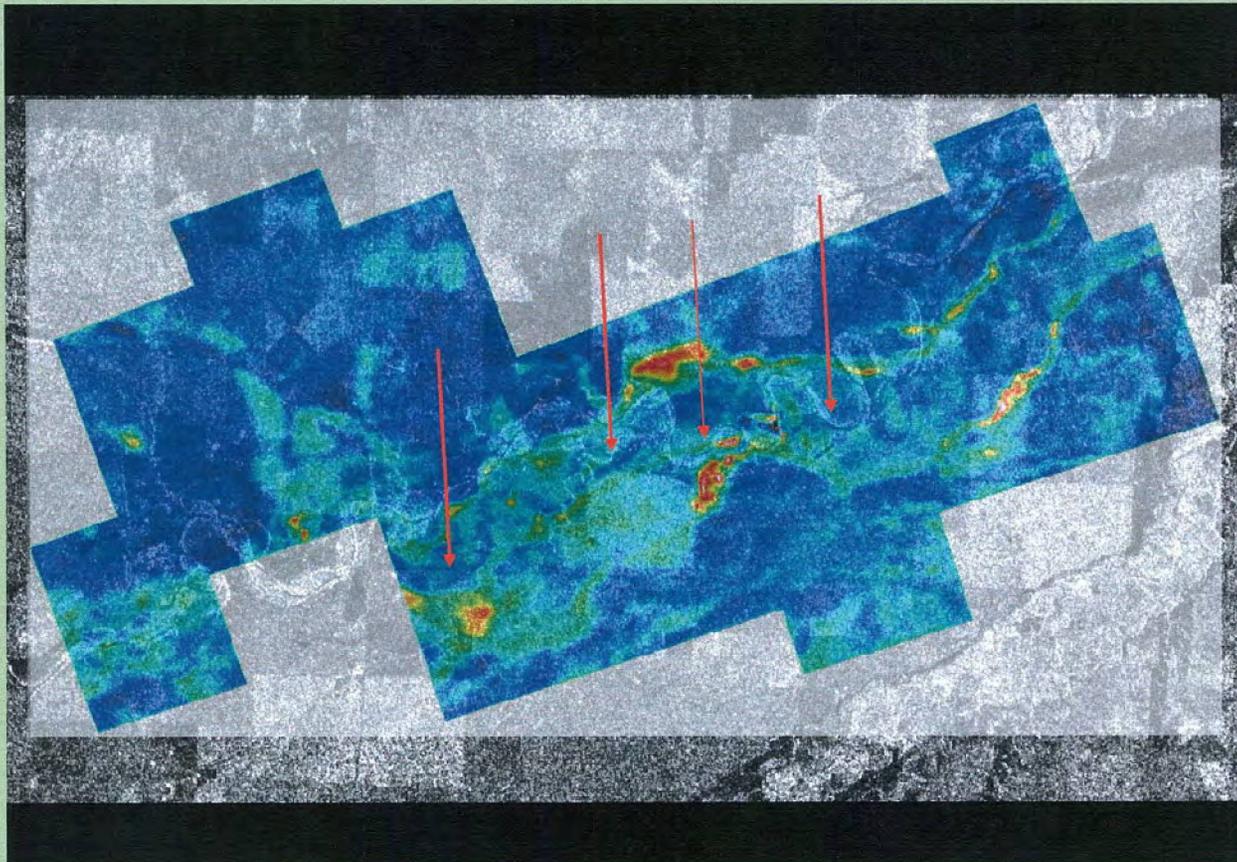
U-Bone Lake Property



Overlay of Quaternary geological map of Southern Alberta and resistivity map of 400 Hz data at U-Bone property showing the Waterton River.



U-Bone Lake Property



Radarsat image along the Waterton River



U-Bone Lake Property



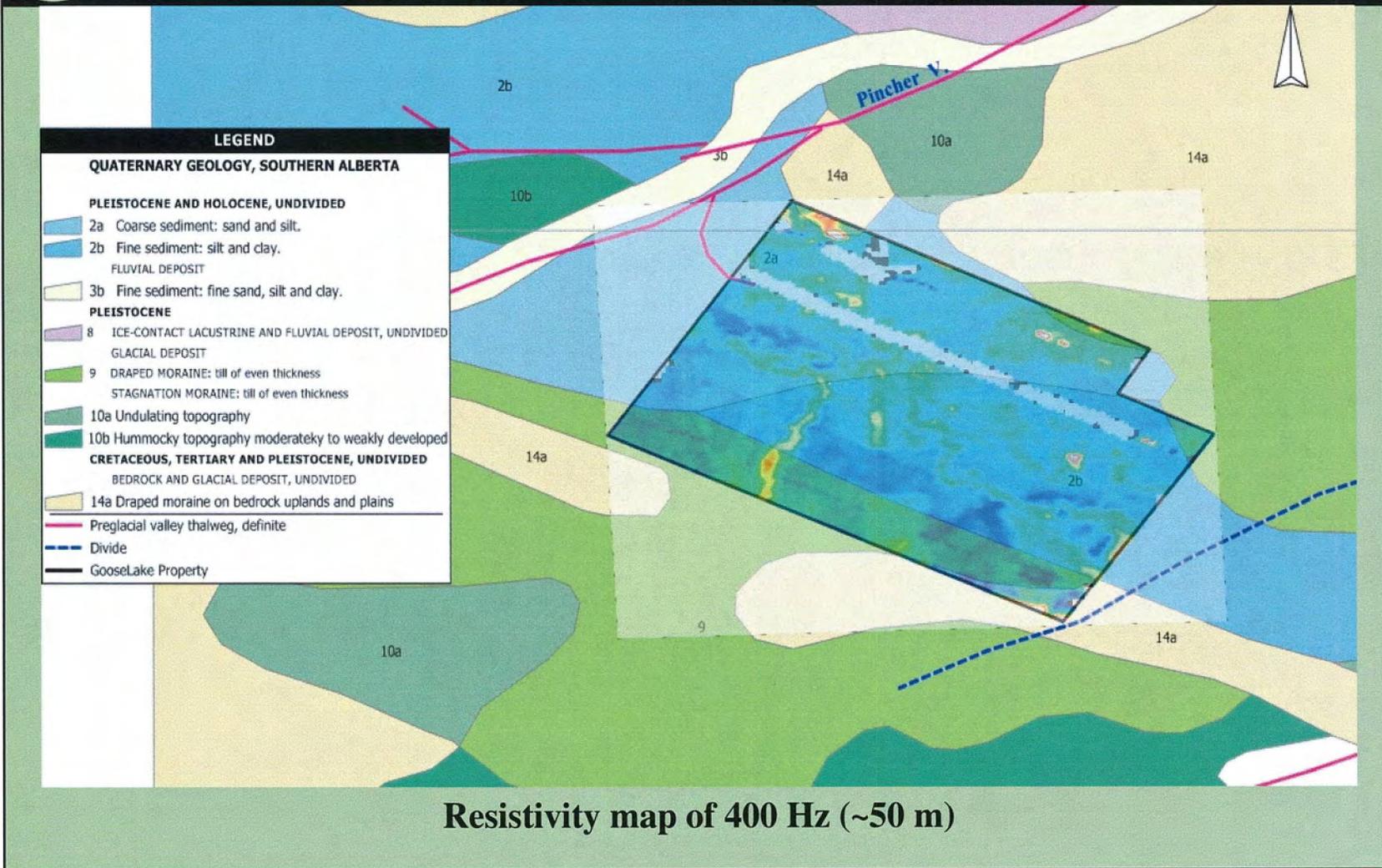
Radioactive bones in Willow Creek Formation along Waterton River in Southern Alberta – A rock grab sample of selected, most radioactive bone material from this site (provided by industry to the AGS) assays 3,810 ppm uranium



Exposures of Willow Creek Formation along Waterton River at "U-bones" site

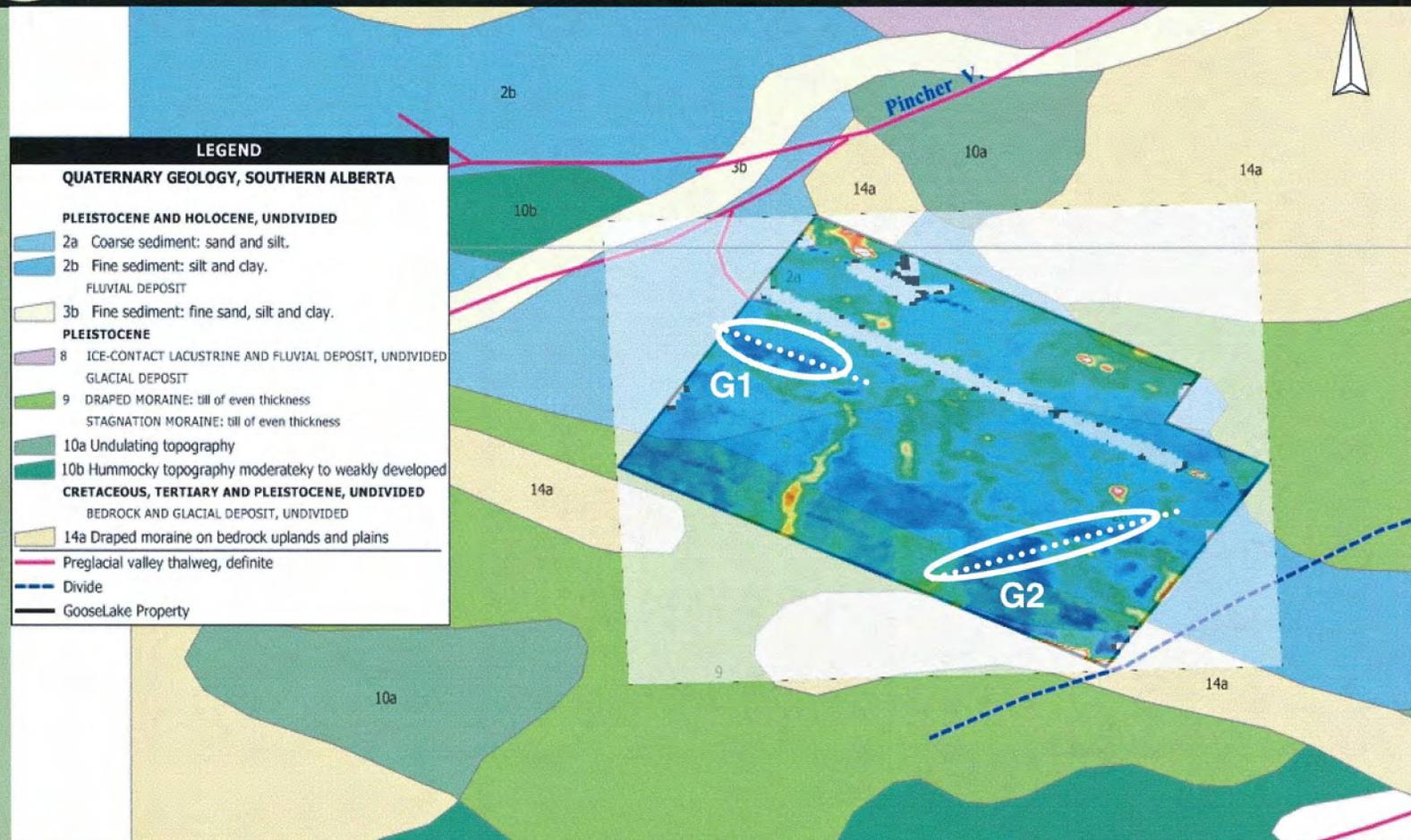


Goose Lake Property





Goose Lake Property



Overlay of Quaternary geological map of Southern Alberta and resistivity map of 400 Hz data at Goose Lake property showing the possible preglacial valley thalweg.



RECOMMENDATIONS

- 1. Field work planning*
- 2. Geochemical analysis*
- 3. Radon Emanometry Methods (REM)*



A. Field Work Planning

Focus will be on location of possible regional alteration patterns and position of redox through outcrop studies.

The main objectives are:

- 1. Based on the geophysics, select paleovalleys of interest*
- 2. Create a georeferenced map of the paleovalleys*
- 3. Identify mineralized areas in the paleovalleys*



B. Geochemical Analysis

Geochemical analyses will provide a better understanding of critical processes involved in uranium mineralization.

Specifically, the methodology includes the following analytical procedures:

- 1. Surface water, groundwater chemistry studies and soil gas analysis.*
- 2. Regional survey of stream sediments and/or well waters might help to evaluate regional metallogenic character.*
- 3. Determination of sediment source for sandstones using petrography and detrital zircon geochronology for better understanding for potential uranium sources.*
- 4. Absolute timing of alteration events using $^{40}\text{Ar}/^{39}\text{Ar}$ dating on clay minerals and U-Pb dating on monazite and zircon overgrowths constraining fluids evolution in the general context of the evolution of the basin.*
- 5. Determination of elemental compositions of whole-rock samples using a high resolution inductively coupled plasma mass spectrometer (HR-ICP-MS) and XRF (X-ray fluorescence).*



C. Radon Emanometry Methods (REM)

Radon detection and measurement can be carried out either by “*scintillators*” or “*alpha-track etching*”. But the advantage of “alpha-track etching” is that it can be used in areas covered by snow, in very wet areas and in drill holes.

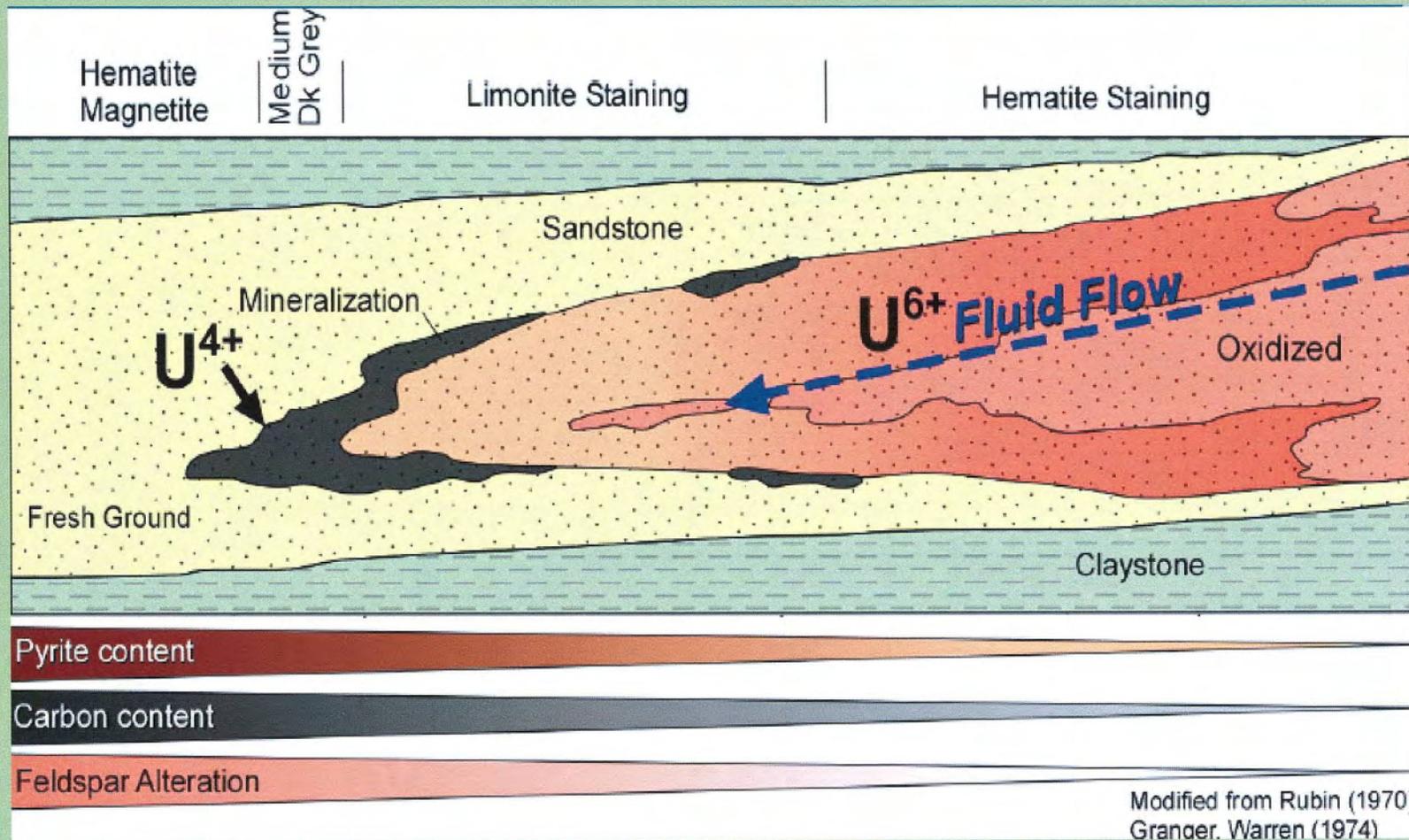
In the case of water sampling, the sample must be degassed and the radon content of the resultant gas mixture measured. Radon in soil gas may be measured either by directly inserting a probe into the soil, or by leaving a collector in situ for a suitable period of time.

This radon analysis will help us

1. *To identify areas of increased uranium mineralization*
2. *To understand the redox mechanism of uranium formation*



Uranium model type





Preliminary Geophysical Analysis & Interpretation

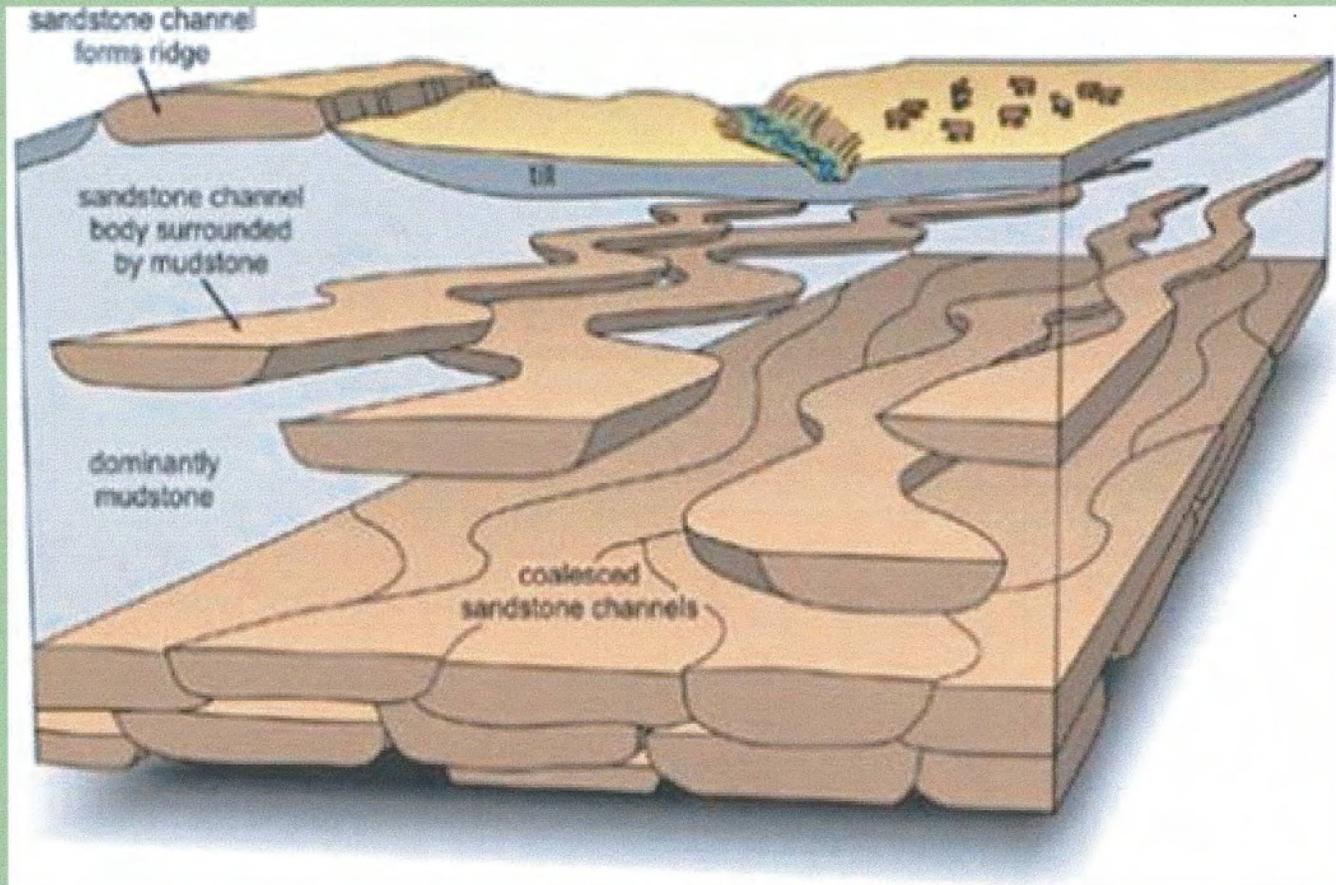


Outline

- Objective
- Helicopter EM Data and Statistics
- TerraNotes methodology
- Preliminary Geophysical Results
 1. Red Rock Property
 2. Cardston Property
 3. U-Bone Property
 4. Goose Lake Property
- Conclusions
- Recommendations



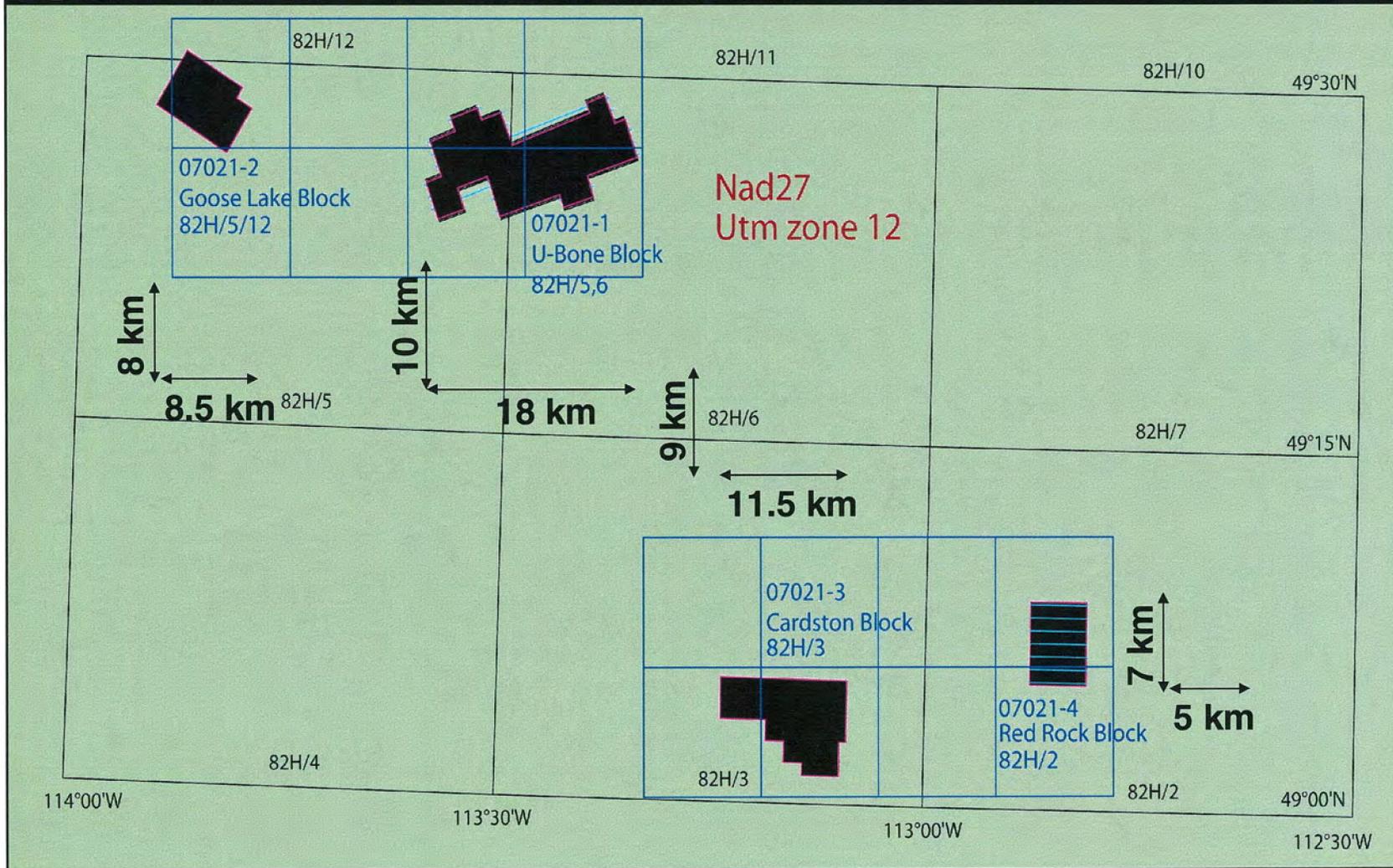
The Objective



The objective is to locate buried paleovalleys at the Alberta Sun proper



Location of the properties





U-Bone Flight Lines and the Statistics

JOB NO: 07021	LOCATION: U-Bone, Goose Lake, Cardston and Red Rock Blocks, Alberta
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DATE: April 11, 2007	NTS: 82H/2,3,5,6,12
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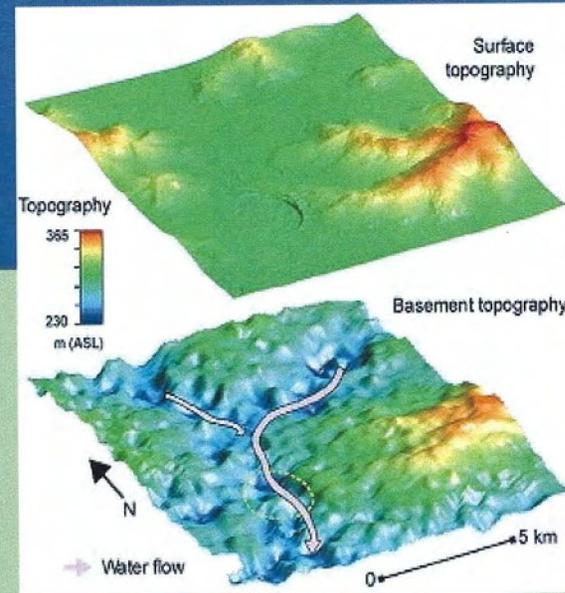
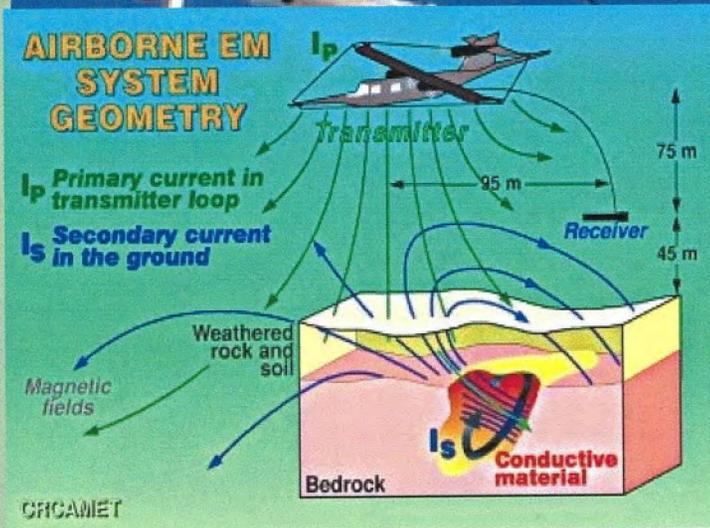
BLOCK	LINES		FLIGHT DIRECTIO N	LINE SPACING	MEASURED LINE km	CONTRACT LINE km
	FROM	TO				
1	10010	11760	NW-SE (340°)	100 metres	948.0	
U-Bone	19010	19100	NE-SW (70°)	1000 metres	99.7	
2	20010	20700	NE-SW (30°)	100 metres	335.6	
	Goose Lake	29010	29050	NW-SE (120°)	1000 metres	33.6
3	30010	30740	E-W (90°)	100 metres	564.0	
	Cardston	39010	39110	N-S (0°)	1000 metres	58.8
4	40010	40480	N-S (0°)	100 metres	310.0	
					Total measured lines	2383.4 km



07021-1
UBone Block
82H/5,6



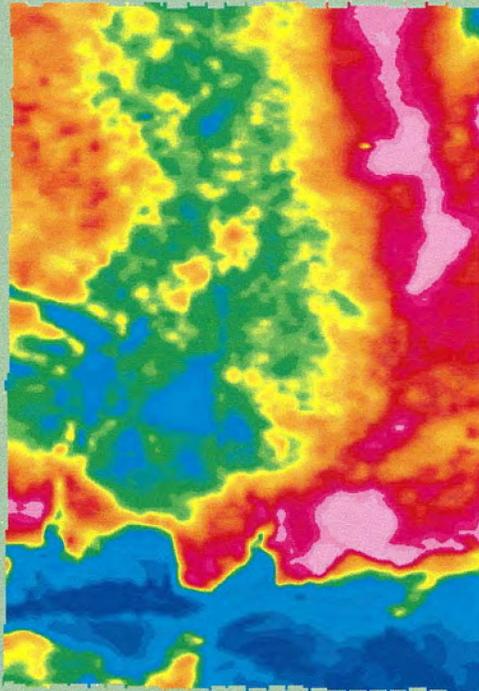
RESOLVE Helicopter EM System





TerraNotes Edge-Preserving Algorithm (EPS & BF)

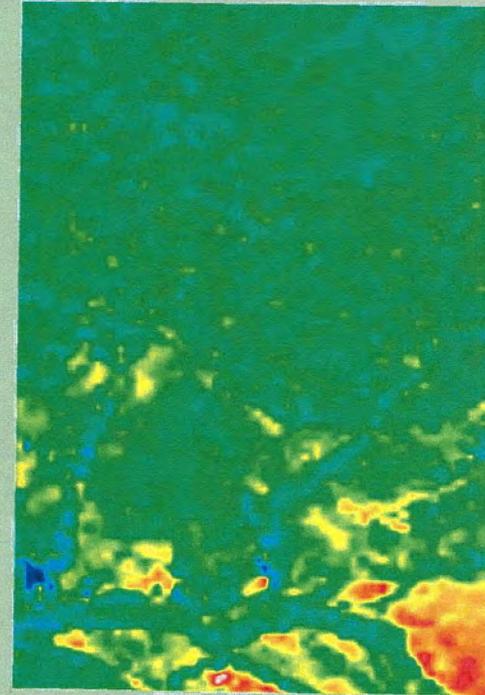
Fugro



Raw Data



TerraNotes EPS & BF



(100 maps)

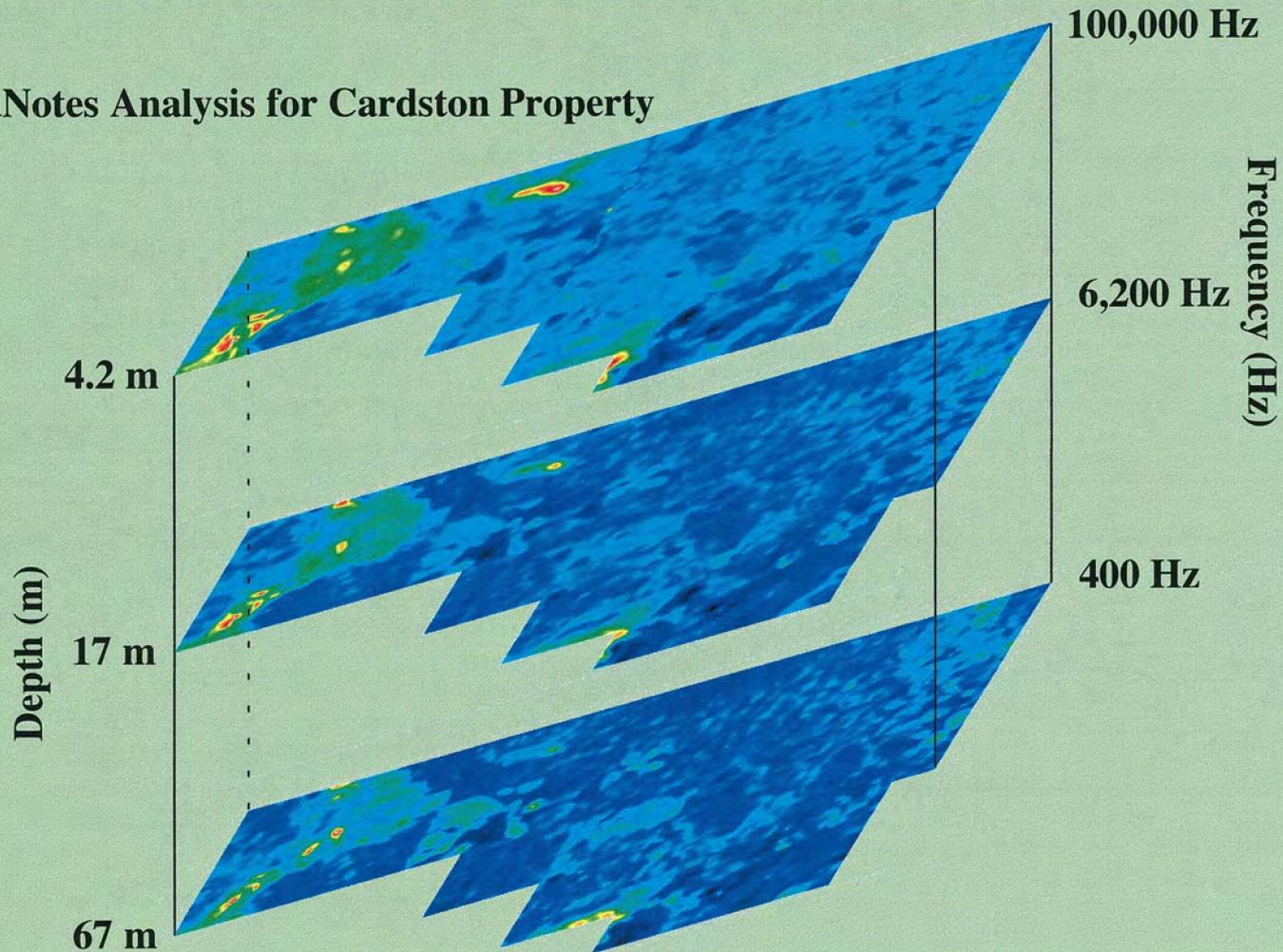
TerraNotes algorithms enhances the resolution and amount of details





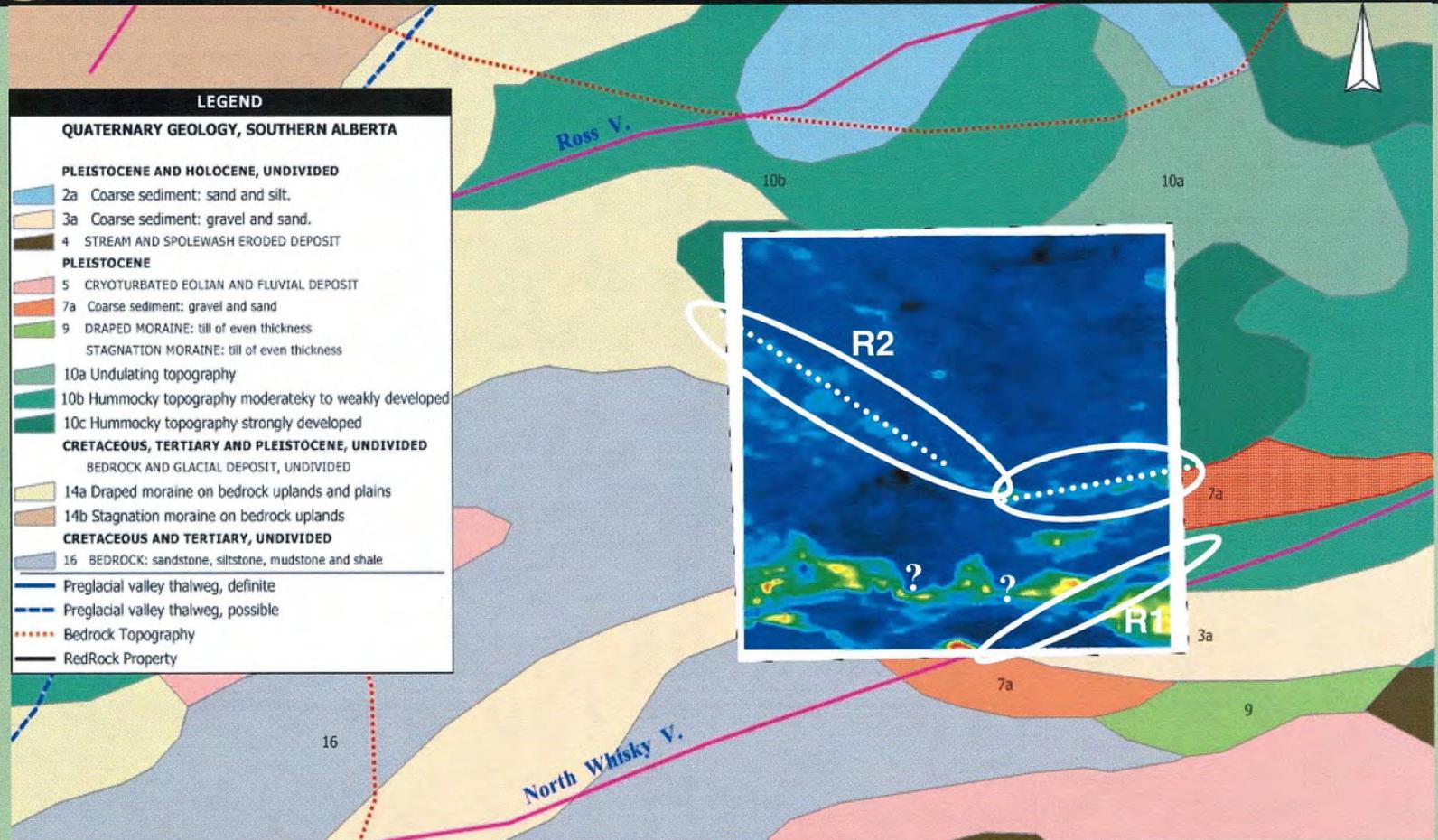
Relationship of the depth and the frequency

TerraNotes Analysis for Cardston Property





Geophysical Results of Red Rock Property



Resistivity map of 400 Hz (~62 m)

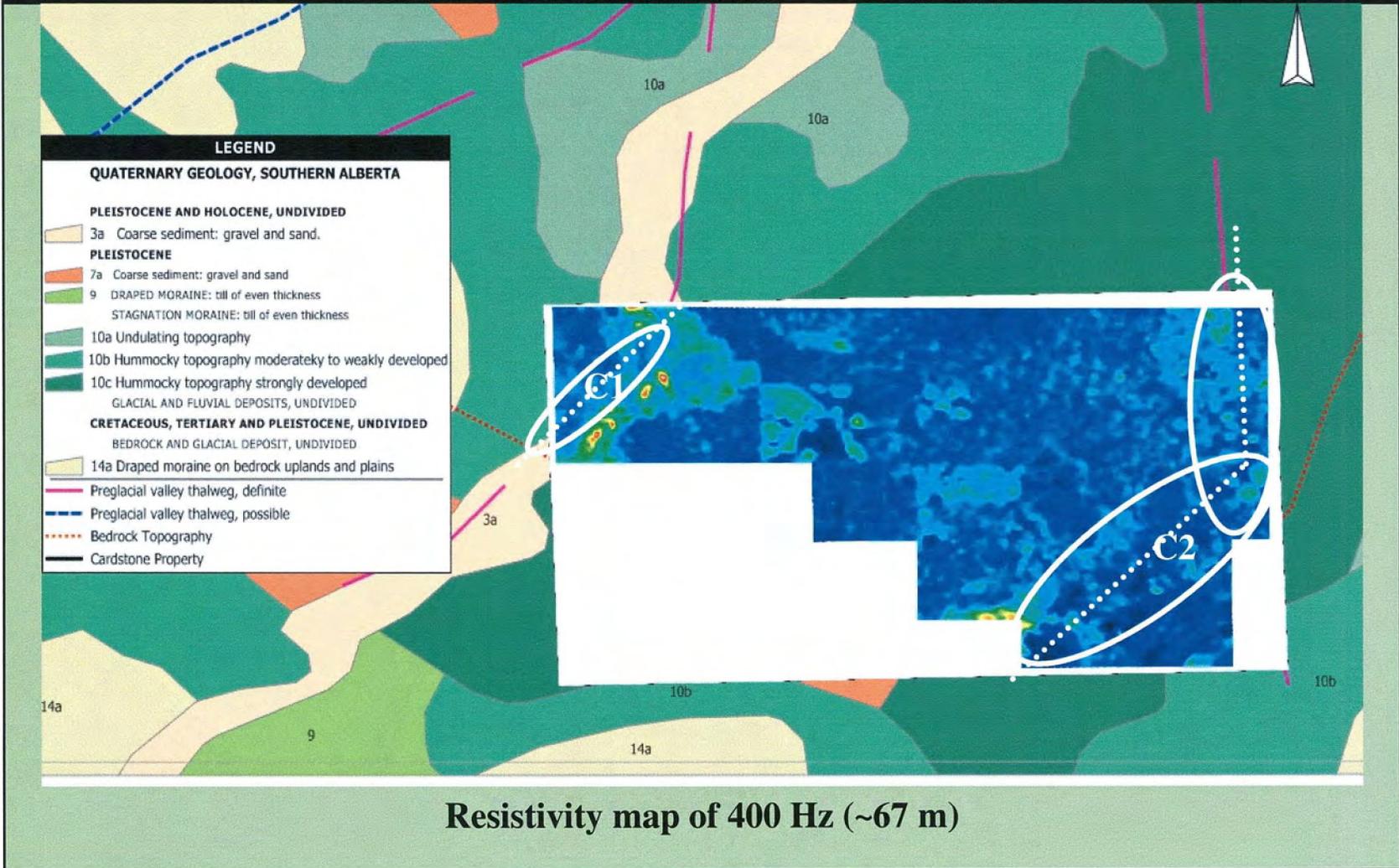


Preliminary Conclusions (RED ROCK)

- A conductive trend cutting across the resistivity zone (Formation 3a) at the Red Rock property also coincides with the hydrogeological map. This trend is interpreted as the preglacial North Whisky Valley.
- It appears that there are two more conductive lineaments at the Red Rock property that are parallel to North Whisky Valley. We hypothesized that these lineaments could be associated either with the deeper paleovalleys or with the effects of the shallower structures.
- Another observation at the Red Rock property was the presence of a resistivity contrast at the contact between the Hummocky topography and the Alberta sandstone. Since Hummocky topography indicates hematite content and consequently possible uranium mineralization, it is concluded that geological outcrop studies at this area would be appropriate.
- The resistive zone at the shallow part of the resistivity map also

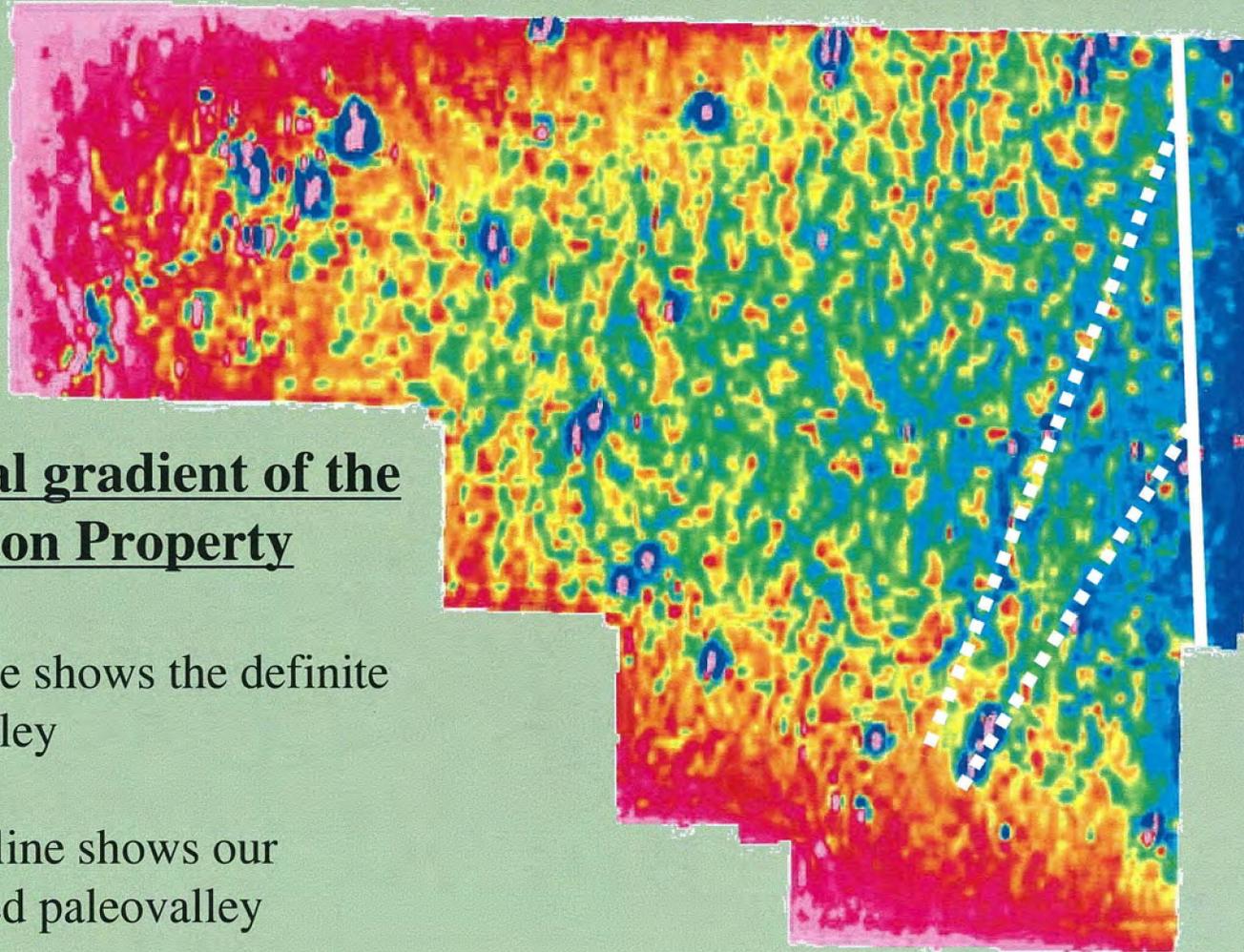


Geophysical Results of Cardston Property





Geophysical Results of Cardston Property



Vertical gradient of the Cardston Property

Solid line shows the definite paleovalley

Dashed line shows our suggested paleovalley

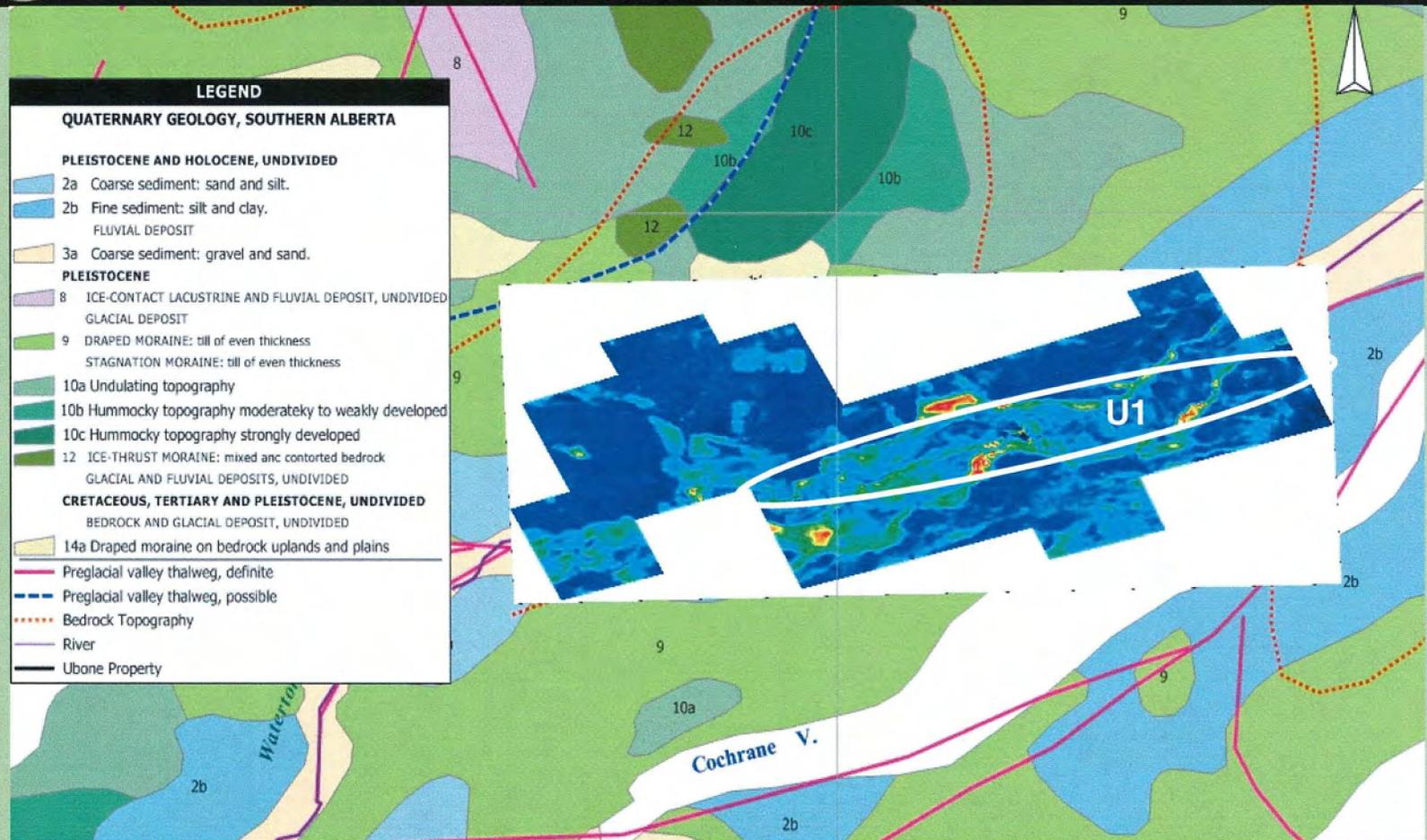


Preliminary Conclusions (CARDSTON)

- A conductive trend in Quaternary formation was observed in the 400-Hz resistivity map at the Cardston property. This trend is consistent with the hydrogeology map and was interpreted as a paleovalley.
- Another possible paleovalley was observed at the eastern part of the Cardston property. However, this feature follows NNE-SSW trend which is slightly different from the N-S trend observed in the hydrogeological map. This is also supported by the vertical gradient map of this property.

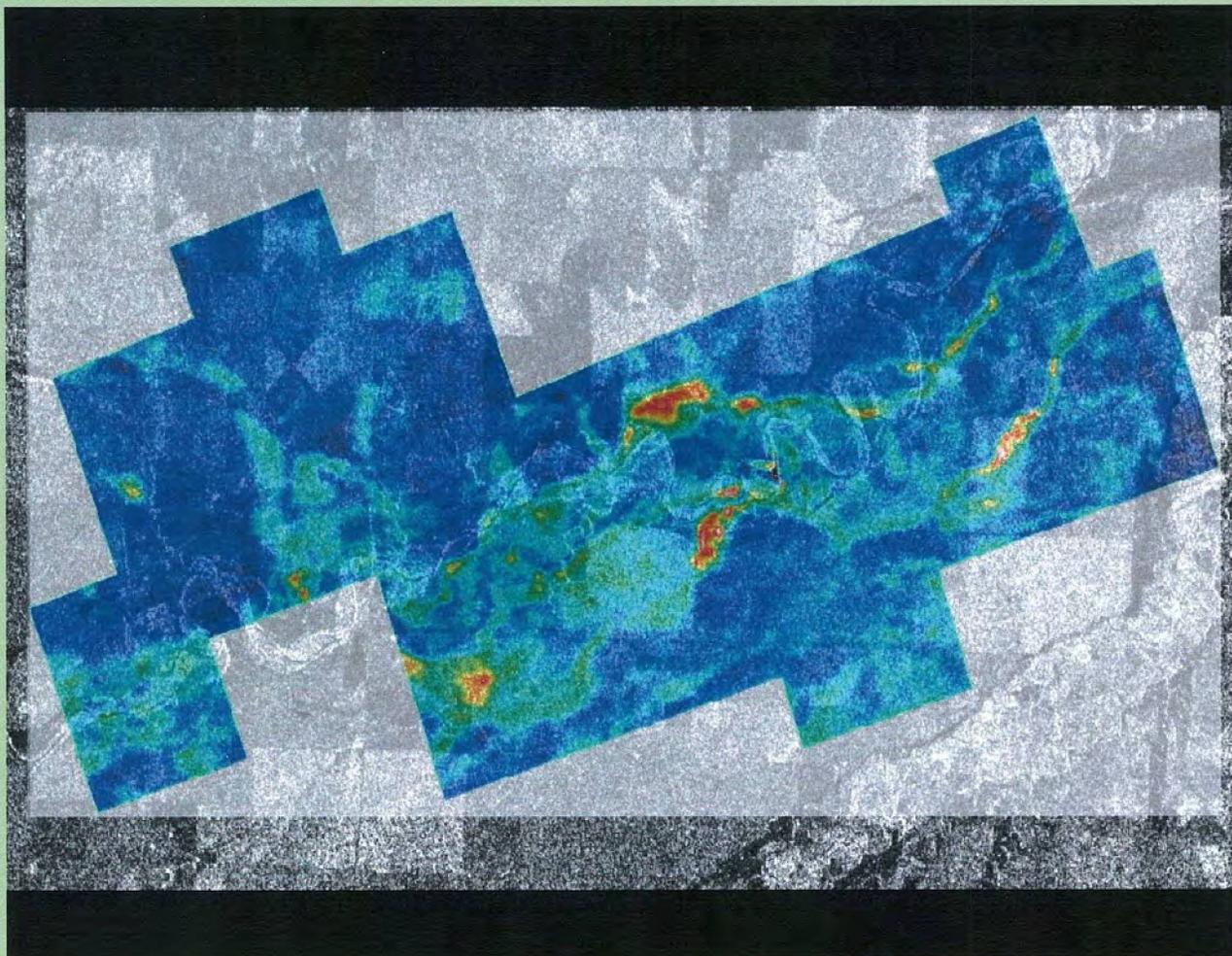


Geophysical Results of Ubone Property





Radarsat image of Ubone Property



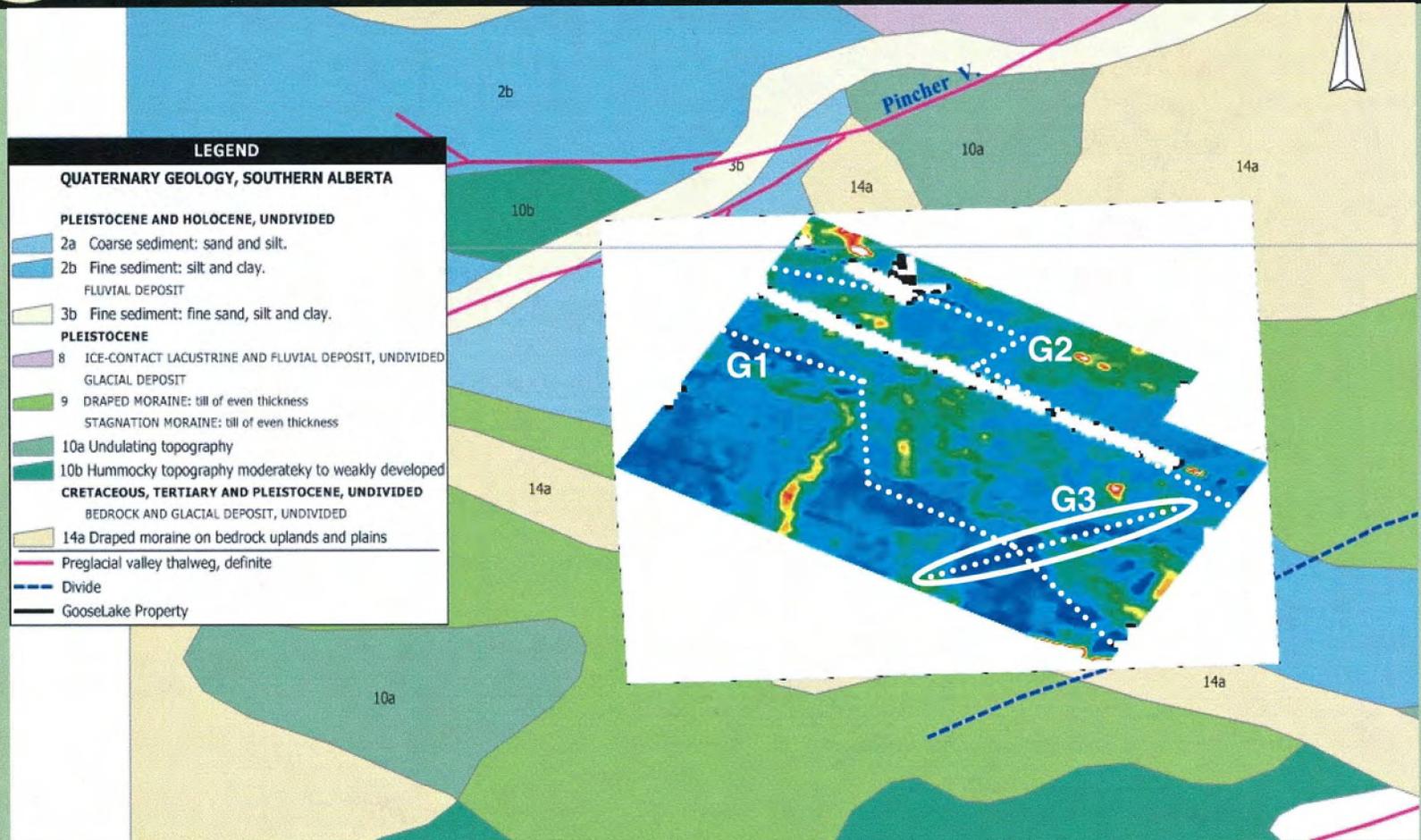


Preliminary Conclusions (U-BONE)

- The course of the Waterton River is still visible in low frequency (greater depth) data. This observation led us to formulate the following hypotheses: 1) The Waterton River itself is the paleovalley and its course has not changed with time. Geological evidences such as the observation of high uranium counts (3810 ppm) in the Willow Creek formation along the Waterton River might support the fact that the paleovalley is cutting across the course of the Waterton River. 2) The low resistivity trends are signatures of the Waterton River and the paleovalley might exist deeper than our maximum imaging depth (67m).
- In contrast to the hydrogeological map, interpretation of the radarsat imaging suggests that the Waterton River follows a slightly different course than that of the low resistive trend. This strongly indicates that there might be a paleovalley following and crossing the Waterton River.



Geophysical Results of Goose Lake Property



Resistivity map of 400 Hz (~50 m)



Preliminary Conclusions (GOOSE LAKE)

- Preliminary interpretations of the HEM data do not clearly indicate the presence of paleovalleys at the Goose Lake property. However, two different areas demonstrate conductive trends that might indicate potential paleovalleys. The first one appears to be the continuation of a definite preglacial paleovalley (Pincher Valley), whereas the second one is parallel to another possible preglacial paleovalley both illustrated in the hydrogeological map.



Recommendations

Interpretation of HEM data has indicated number of paleovalleys. Other possible regions of interest were also found. We believe that these paleovalleys are deeper than the penetration depth of the HEM data (approximately 70 m). Thus, further geophysical investigation is required.

- **High-Resolution Resistivity survey.** Our TerraNotes Resistivity System (an array of 120 computer-connected electrodes) can be used to image deep paleovalleys located at up to 400 m deep. Appropriate modifications in the acquisition array can also be incorporated to enhance the resolution of the survey area at shallow depths. The modeling methods can provide more information about the stratification as well as lineaments such as faults, fractures, and shear faults.

OR

- **High resolution reflection seismic** is a well-proven tool for delineating paleovalleys. Depending upon the quality of the data, the TerraNotes high resolution techniques can be used to enhance imaging of the deeper



Thank you!