

**REXSPAR TENURE 502043  
ASSESSMENT REPORT**

**Exploration Program  
And PIMA Short Wave Infrared data collection  
Of the  
Rexspar Tenure Group**

**Event #4121127**

Kamloops Mining Division  
NTS 082E/12  
UTM Zone 11 (NAD 83)  
Northing: 5716300  
Easting: 298200

For  
Aldershot Resources Ltd  
600 – 666 Burrard Street  
Vancouver, BC  
V6C 2X8  
**(Previous ARIS# 28176)**

**By**

**Auracle Geospatial Science Inc.**

**January 2007**

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## **EXECUTIVE SUMMARY**

In 2005 RM Resource Management Ltd was asked by Aldershot Resources Ltd to carry out a Spectral Analysis program on a number of its mineral claim holdings in British Columbia which had been staked for their Uranium potential. Geologically this area is widely underlain by Eagle Bay Volcanic, Metavolcanic and Metasedimentary rocks. Uranium mineralization in this area is described as of volcanogenic origin. This report outlines work done on the Clearwater-Birch Island (Rexspar) area claims. Work was initiated in September 2005 and completed in January 2006.

The program involved acquisition of satellite spectral data available from NASA, reconfiguring this data into a workable format, geo-referencing to Trim map bases and extensive and rigorous classification of the data in search of indicators that might lead to the discovery of uranium mineralization. The Clearwater-Rexspar area claim blocks cover or in the vicinity of several known uranium deposits including one significant deposit that may be held by underlying crown grants. Clarification of ownership of these crown grants needs to be investigated further. In the meantime the claims, that are the subject of this report, are valid tenure and consequently may/must be explored in order to maintain that tenure.

In 2006 Aldershot Resources Ltd. asked Auracle Geospatial Science Inc. to continue the exploration work on their Rexspar Mineral Tenures. This program of work consisted of reconnaissance filed work and GPS Short Wave Infrared and Rock sample collection.

This work additionally provided ground verification and collocation of some mineralization in order to better examine past and future spectral and spatial geoscience data.

New Logging and road construction in the north end of the tenures provided excellent opportunity for sample collection.

It is recommended that Aldershot Resources Ltd. continue to develop the potential of these tenures.

Auracle Geospatial Science Inc.  
January 2007

## **INTRODUCTION**

In early January of 2005 three mineral claim tenures were staked over the Rexspar uranium deposit and associated showings. This prospective ground hosts several volcanogenic style Uranium prospects. The rising demand and price of Uranium on the world market was the incentive for these acquisitions. The claims were staked by Matthew Mason and subsequently optioned to Aldershot Resources Ltd who is funding this work program.

This program of work is to explore for new locations of uranium mineralization and to verify spectral responses of established uranium occurrences.

## **LOCATION AND ACCESS (See Figure 1 - Location Map)**

The Rexspar uranium deposit is located 15 kilometres south-east of the Town of Clearwater near the community of Birch Island in central British Columbia. Access to the area is via Highway 5 which parallels the group to within 5 kilometres and then via about 30 kilometres of logging roads which cross the claims. The CN rail line passes within one half kilometre to the north of these claims.

## **PHYSIOGRAPHY**

This prospect area is situated on the southwest side of the North Thompson River. Gentle slopes near the river rapidly change to steep slopes with deeply incised stream channels higher on the valley side. Elevations range from about 500 meters in the Thompson River valley to about 1500 meters in the highlands to the south. The hill sides are sparsely to heavily covered by timber including pine, tamarack and poplar. Most of the claim area has been logged. Some areas have grown back in small second growth timber which obscures the ground from aerial view in some areas. Recent logging has requires extensive excavation and blasting providing increases rock exposure.

## **MINERAL CLAIM STATUS**

Three blocks of claims encompasses 58 mineral claim cells including 1,165 hectares were staked over and surrounding the Rexspar crown granted claims. These claims were staked by Matthew Mason in January 2005 and subsequently optioned to Aldershot Resources Ltd. Aldershot has a 100% interest, subject to terms of the option agreement, in these claims.

The core Rexspar deposit showings appear to be held under Land Title tenures (indicated to by Crown Granted). Crown Grant and Land Title tenures are not managed by BC Mineral Titles hence they do not identify nor guarantee what minerals or rights are held by these Titles. Crown Granted mineral claims do not show as Mineral Titles under the Mineral Titles management system. Mineral rights associated with Crown Granted titles are very convoluted and require extensive search by certified professionals to establish accurate ownership. Access to title information is difficult to obtain. The Aldershot

mineral claims were staked over these titles because of this ambiguity. Unlike the registry system of the Mineral Titles, with Crown granted mineral claim there must be evidence of the lineage of ownership to be considered valid, which at this time is not established. While clarification of title is researched, work can be carried out in the vicinity of the titles as this is obviously a favourable area for localization of uranium mineralization.

**PREVIOUS WORK** (paraphrased from Minfile 82M021)

A list of claims follows and a claim map is shown in Figure 2. Mineralization was first recognized at this site in the early 1900's while exploring for base metals. Fluorite was also found. In 1949 uranium mineralization was discovered. During the period 1943 to 1976 a total of 368 exploration diamond drill holes were completed, primarily on the main Rexspar deposit. Three other uranium occurrences (F, G, H zones) along with the Fluorite zone were also discovered and explored. The presence of uranium mineralization became known in late 1949. Dr. F.R. Joubin studied and reported on the mineral occurrences during 1950 and 1951. Rexspar Uranium, later reorganized as Consolidated Rexspar Minerals and Chemicals Ltd., acquired the rights to mineral claims incorporating the uranium bearing zones and delineated three uranium deposits in the late 1950's. However, the deposits were not brought into production. Denison Mines Ltd. resampled and undertook an economic feasibility study in 1969. Exploration programs and geological reviews were conducted in 1969-1972, directed mainly at determining fluorite reserves. Additional diamond drilling of the uranium bearing zones was carried out in 1976 and the drill core was used in a metallurgical test program undertaken to establish process flow sheets. In 1926 Smuggler Hill Development Company was formed to explore and develop silver and lead deposits (Smuggler, 082M023 and Foghorn, 082M029), which were originally staked in 1918 by A.G. McDonald. The results of this early exploration activity were reported by H.G. Nicol, 1926 and D.B. Starrett, 1930. A manganese occurrence was examined by W. Elliot and N.C. Stines in 1929 (Smuggler Manganese, 082M158). Further geological examinations of fluorite occurrences were reported on by D.B. Starrett, R.P.D. Graham and M.R. Wilson in the early 1940's (Spar, 082M007). The ground was relocated in 1942 by Ole Johnson and the B.C. Fluospar Syndicate developed the fluorite deposit in 1943. The property was leased by A.E. Sjoquist and optioned in 1951 by Technical Mine Consultants who conducted an extensive exploration and development program for Rexspar Uranium and Metals Mining Co. Ltd. The Fluorite deposit and the three uranium deposits have been outlined by fairly close spaced diamond drilling and by surface sampling. A total of 368 surface and underground holes have been drilled from 1943 to 1976, for a total of approximately 17,280 metres. Of these, 121 holes were on the "A" deposit, 81 on the "B" deposit, 125 on the "BD" deposit and most of the others on the fluorite deposit. Drifts cross cuts and raises for a total of 664 metres were driven in the "A" and "BD" uranium zones. The property has been prospected several times over the years. Geological mapping, radiometric surveying, soil sampling and metallurgical testing have also been performed. Work conducted by Placer Development Ltd. during October, 1981, included ground magnetometer and VLF – EM surveys.

In 1987, Consolidated Rexspar, a name which does not appear on the Crown Granted mineral claims changed name to Conrex Corporation and sold the property in 1988 to Gold Ventures Limited. American Bullion Minerals Ltd. attempted to get a permit to do exploration on the main fluorite zone in the early 1990's.

After the acquisition of these mineral tenures, Aldershot Resources Ltd. carried out a Spectral analysis. The 2005-2006 Spectral Analysis became the basis of a compilation of available data, and continued exploration.

**GEOLOGY** (taken from the author's preceding assessment report) (See Figure 3 - Geology Map)

Regionally the area is underlain by northwest striking northeast dipping Eagle Bay Assemblage of rocks. The oldest rocks of this complex which underlie the area are the Upper Proterozoic to Lower Cambrian paragneiss metamorphic rocks including metavolcanics and interlayered metasediments. To the east and north-east of the claims are some Upper Proterozoic to Lower Cambrian sedimentary units composed of quartzites and quartz-arenites. The next units in the sequence include calc-alkaline volcanics which are overlain by andesitic volcanics. These volcanics are overlain by a mixture of marine sediments and volcanics of the Fennell Formation. Detailed geology of the area follows as described in Minfile 82M021 Capsule Geology.

The rocks hosting the Rexspar uranium deposits consist of a deformed and metamorphosed pile of alkali feldspar porphyry, porphyry breccia, lithic tuff and breccia of trachytic composition, with occasional pyritic schist of rhyolitic composition. Rocks of this "trachyte" unit are light grey in colour and stained rusty brown or yellow due to widespread pyrite. They may be massive, brecciated, or markedly schistose and lineated. Fractured and sheared crystals of potassium feldspar and albitic plagioclase, and rock chips of trachytic composition occur in a fine-grained groundmass of feldspar and sericite. The trachyte unit, which is 15 to 120 metres thick, is apparently a mixture of intrusive porphyry and its extrusive equivalent tuffs and tuff breccias. It is likely related to a volcanic centre or vent active during the Middle Devonian. The above unit is structurally underlain by quartz-sericite schist, chlorite schist and dacitic and andesitic volcanic breccia, with interlayers of grey phyllite, slate, chert and sericitic quartzite. The prominent schistosity, which is parallel to the compositional layering and was probably produced during the first phase deformation, is deformed by tight, recumbent, east trending second-phase folds. These structures are refolded by upright third-phase, northerly to north-easterly trending structures. Subsequent late kinks and prominent north trending tension fractures are commonly followed by post-tectonic felsic and mafic dykes of Cretaceous or later age. High-angle, northerly trending faults sharply control the distribution of the trachyte unit. The geological setting and mineralogy suggest that the mineralized zones were formed by deuteric, volatile rich fluids during a late-stage in the formation of the trachyte unit. The considerable amount of thorium and widespread rare earths associated with the uranium support its origin as primary rather than secondary. A potassium/argon age of 236 Ma +/- 8 Ma for fluoro phlogopite from one of the mineralized zones is considered a minimum age and used cautiously because of some

analytical problems. This Middle Triassic age suggests the mineralization is syngenetic with the host rock that is in no way related to the nearby Cretaceous Baldy batholith.

**MINERALIZATION** (Including and continuing from the preceding assessment report by the author.)

Uranium and thorium mineralization occur exclusively in the trachyte unit and mainly in the dark-coloured, upper part of the unit, which shows extensive replacement by silver-grey fluorophlogopite and pyrite, with lesser fluorite and calcite. The replacement zones, a few centimetres to several metres in size, generally occur as coarse-grained segregations, which show conformable and crosscutting relationships and deformation to the surrounding rocks. The best grade material occurs in a series of discontinuous, conformable tabular masses or lenses, generally less than 20 metres thick and up to 140 metres long. A detailed description of the mineralization and deposit characteristics follows as from Minfile 82M021 Capsule Geology.

The principal radioactive minerals include uraninite, uranothorite, torbenite, metatorbenite, thorianite and uranium thorite. They occur as tiny discrete grains within fluorophlogopite flakes, and cause pleochloric haloes, or are scattered in the pyritefluorophlogopite matrix. Uranium and thorium also occur in monazite and niobium ilmenorutile. Rare earths, mainly cerium and lanthanum, occur in bastnaesite and monazite. Other minerals include celestite, galena, sphalerite, chalcocopyrite, molybdenite, scheelite, siderite, dolomite, barite and quartz.

Three main tabular zones of radioactivity occur parallel to the surfaces of the alkali feldspar porphyry and have irregular terminations above and below. The BD or Black Diamond zone is a flat-dipping lens with a strike length of 140 metres, dip-slope length of 90 metres and an average thickness of 15 metres. A 1.8 metre sample across part of the zone assayed 0.09% uranium, 0.14% thorium oxide, 0.025% niobium and trace yttrium and lanthanum. The zone lies along the upper surface of the porphyry and the radioactivity appears to be mainly associated with uranothorite, associated with rutile. The A zone, 600 metres east-northeast of the BD zone, is a shallow dipping irregular lens averaging 15 metres thick which has been traced along strike for about 60 metres. It pinches out at a slope depth of about 60 metres and appears to occur at a lower horizon in the porphyry mass. A 1.8 metre sample across the zone assayed 0.07% uranium, 0.06% thorium oxide, 0.015% niobium and trace yttrium, lanthanum and cerium. The principal radioactive mineral is uraninite associated with rutile. The B zone, 360 metres north northeast of the BD zone, averages 8 metres wide, strikes about 60 metres and has a dip-slope length of about 75 metres. Ore reserves for the three zones outlined by polygons within the proposed pit limits as defined by a cut-off grade of 0.021 per cent uranium are 1,114,385 tonnes grading 0.066% uranium with an overall stripping ratio of 12:1. The ore zones also grade 5 to 10% fluorite. Smaller zones occurring in relation to the BD zone include the F zone, 450 metres to the west, the H zone, 600 metres to the north-northeast, and the G zone (082M022), 1420 metres to the northeast. The Fluorite zone (082M007) lies about 550 metres northeast of the BD zone and represents no uranium reserves at present.

## **2006 FIELD WORK**

### **Methodology**

The field work conducted by Auracle Geospatial Science in 2006 consisted of reconnaissance exploration and collocation of established Uranium showings. Ground verification of the preceding Spectral Analysis formed a part and basis for future work. Where rock outcrop was encountered, rock sample were collected for lab analysis. 27 samples were collected as delineated in figure 4(sample locations)

### **Results**

The field work confirmed previous works at the locations that were examined and added new information in the north western area of the tenures due to new road development. Uranium was not assayed in the analysis of these samples. Instead ICP MS was carried out by acme analytical lab to more fully characterize the samples. This is not considered to be a reliable method or representation of uranium content. 28 Sample were collected. Statistically Uranium by ICP MS are displayed in ppm is as follows:

Count: 28  
Minimum: 0.6  
Maximum: 128  
Sum: 371  
Mean: 13.25  
Standard Deviation: 25.548183

The mineralization reported in several of the sample collected was extensive, however many of these samples were needed for correlation to previous spectra and were not collected as representing target mineral occurrences alone.

The SWIR spectra will be stored for further application in spectral analysis

### **Conclusions**

This area is rich in mineral diversity and contains occurrences of dense mineralization. It is recommended that the tenures be further explored; However Airborne Hyperspectral analysis is not suggested. High resolution grid type ground based spectrometry (multi instrument Gamma Ray and SWIR) are likely to provide further answers and development.

### **Statement of Work and Costs**

This work was carried out by Auracle Geospatial Science Inc. for Aldershot Resources Ltd. and fulfils the requirements of assessment work on the Tenure shown. Work was performed by David McLelland (Project manager) and a field technician between July 9<sup>th</sup> and July 20<sup>th</sup> with Analyses performed as a part of ongoing work on the REXSPAR group project which was completed January 5 2006. For details please refer to appendix II.





**Aldershot Resources Ltd  
BC Uranium Project Areas  
General Location Map**

Figure 1



300000 (000000)

310000 (000000)



5720000 (000000)

5720000 (000000)

5710000 (000000)

5710000 (000000)



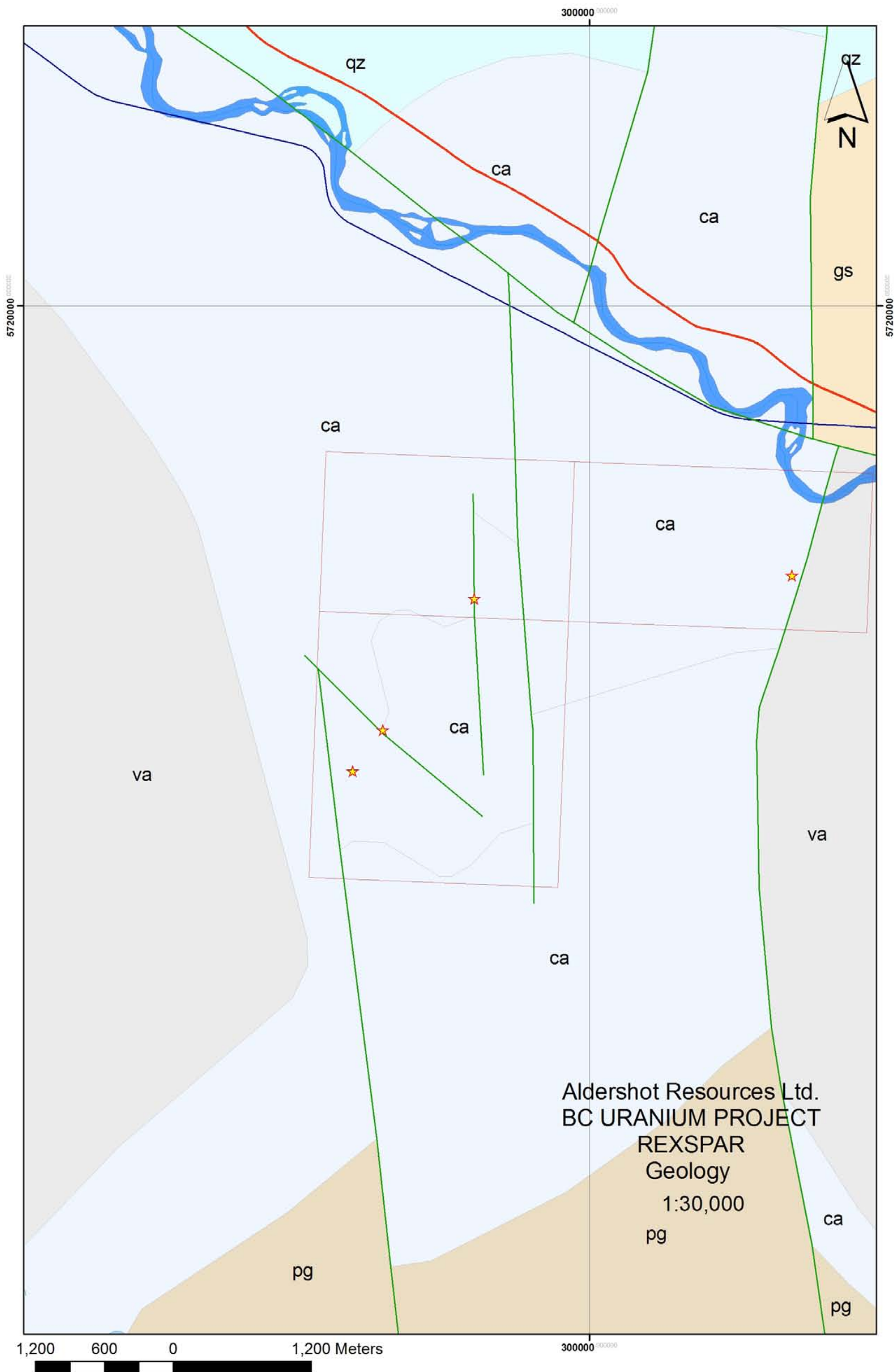
Aldershot Resources Ltd.  
BC URANIUM PROJECT  
REXSPAR mineral tenure group  
1:75,000

**Legend**

 ALZRextenure

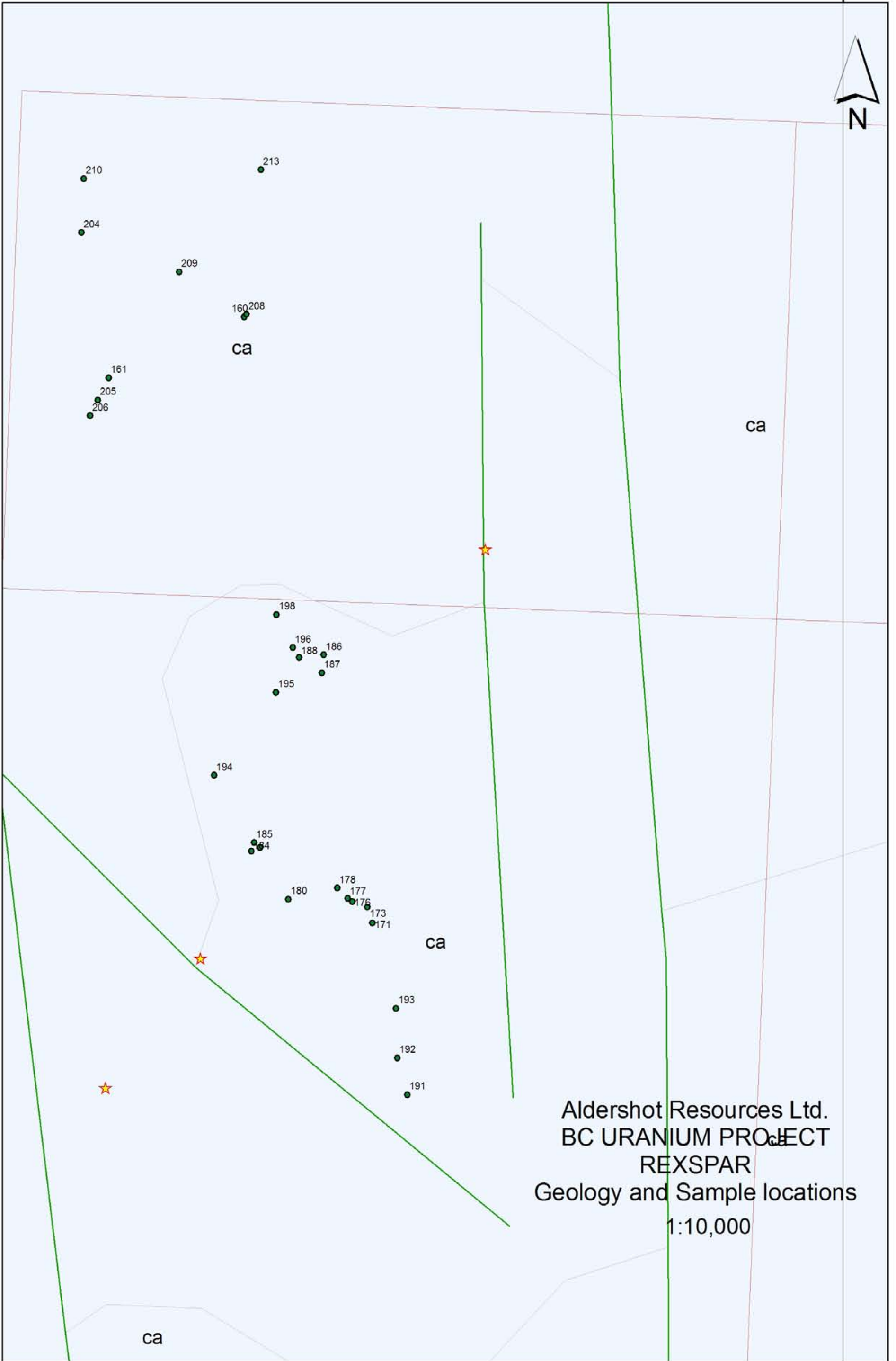
300000 (000000)

310000 (000000)





300000 000000



Aldershot Resources Ltd.  
 BC URANIUM PROJECT  
 REXSPAR  
 Geology and Sample locations  
 1:10,000

390 195 0 390 Meters

300000 000000



Section	Item	Quantity	Time/days	Rate	Per	Extended
Equipment	spectrometer	1	2 weeks	\$1,250.00	week	\$2,500.00
Transportation	Fares	2				\$192.40
	Fuel					\$779.32
	Truck	1	10 days	\$200.00	day	\$2,000.00
Communication	Satellite phone				reduced	\$100.00
Labour	prep time	1	2 days	\$400.00		\$800.00
	fieldwork	1		9	\$550.00	\$4,950.00
	field tech	1		9	\$350.00	\$3,150.00
	analysis	1		6	\$550.00	\$3,300.00
Accommodation	lodgings	2		9	\$85.00 day	\$1,530.00
	food	2		9	\$50.00 day	\$900.00
Supply	misc. costs	cost				\$110.18
Labwork	Verifications/ ICPMS	cost				\$834.75
Courier	Samples					\$16.95
	Instrument					\$366.14
					expenses	\$21,529.74
				admin.	5%	\$1,081.48
					subTotal	\$22,611.22
					GSTax	\$1,362.67
					TOTAL	\$23,973.89

Note this amount is reduced to \$4850.00 for assessment report purposes.

sample	x	y	Uppm
160	298326	5718099	1.6
161	297948	5717929	4.1
171	298685	5716406	9.2
173	298671	5716450	5.7
176	298629	5716466	3.7
177	298616	5716474	18.6
178	298587	5716503	18.8
180	298450	5716472	3.8
182	298371	5716617	31.2
184	298347	5716607	1.9
185	298354	5716630	17.1
186	298549	5717155	25.9
187	298543	5717105	61.2
188	298480	5717148	3.7
191	298782	5715926	1.4
192	298754	5716029	0.6
193	298751	5716167	1.8
194	298242	5716818	1.0
195	298415	5717050	2.8
196	298462	5717175	1.4
198	298417	5717267	0.7
204	297872	5718335	128.0
205	297917	5717867	1.6
206	297896	5717823	8.9
208	298332	5718106	2.4
209	298144	5718225	1.6
210	297878	5718485	11.7
213	298373	5718510	0.6

## Statement of Qualification

**I, David J. McLelland**, do hereby certify that:

1. I am a Principal in:  
Auracle Geospatial Science Inc,  
325 Dorset Road Qualicum Beach,  
British Columbia, Canada V9K 1H5
2. I am a post graduate student of Earth and Environmental Science and have completed the postgraduate certificate in applied and theoretical GI Science at Simon Fraser University, and completed the academic component of the MSc. program requirement. This work is also in partial fulfillment and serves as base data for a thesis.
3. *I have completed the B.C.I.T. B.C.Y.C.M. Mineral Exploration program, and Completed the B.C.I.T.1 B.C.Y.C.M. Advanced field School.*
4. I am the Project Manager and I am responsible for the collection and management of data and execution of analysis.
5. This report was prepared on behalf of Auracle Geospatial Science who has been engaged by Aldershot resources Ltd. to complete a work program on these properties.
6. I have no material or financial interest in the subject properties or the companies that own them.
7. This report has been prepared in accordance with generally accepted Scientific Principles and is based upon the best information available at the time of preparation. I am not aware of any material fact or material change with respect to the subject matter of the report that is not reflected in the report and therefore the omission of

Date: January 5, 2007  
Qualicum Beach, British Columbia

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David McLelland