FORM 43-101F1
TECHNICAL REPORT

AN UPDATE ON THE EXPLORATION ACTIVITIES OF AURORA ENERGY RESOURCES INC. ON THE CMB URANIUM PROPERTY, LABRADOR, CANADA, DURING THE PERIOD JANUARY 1, 2007 TO DECEMBER 31, 2007,

PART II - CMB MINERAL RESOURCES

Located on NTS Sheets:
13J/11, 13J/12, 13J/13, 13J/14, 13K/03, 13K/06, 13K/09

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In fulfillment of reporting requirements under NI 43-101

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3.0 SUMMARY

This technical report on the CMB Uranium Property of Aurora Energy Resources Inc. dated April 7th, 2008 and amended on August 28th, 2008, is a final summary of the 2007 work program and provides an update of the information collected since the filing of the previous technical report dated November 20th, 2007 (Dr. D.H.C. Wilton, Gary Giroux P. Eng, Ian Cunningham-Dunlop, P. Eng., Christopher Lee, P. Geo., Jim Lincoln, P. Eng., and Mark O'Dea, P. Geo.,2007) up to and including December 31st, 2007, with emphasis on the updated mineral resources on the CMB Uranium Property. This update has been prepared to comply with disclosure and reporting requirements set forth in National Instrument 43-101, Companion Policy 43-101CP, and Form 43-101F1, at the request of management of Aurora Energy Resources Inc. in support of the Corporation's New Releases dated February 20th and February 25th, 2008, relating to the CMB Mineral Resources. This update also serves to support the New Releases issued by Fronteer Development Group Inc., a 42.2% shareholder in Aurora Energy Resources Inc., also dated February 20th and February 25th, 2008 and relating to the CMB Mineral Resources.

The CMB Uranium Property of Aurora Energy Resources Inc. is located near the northeast coast of Labrador in proximity to the town of Postville on Kaipokok Bay. The community of Happy Valley-Goose Bay, Labrador lies 180 km to the south-southwest.

The property consists of 81,200 hectares comprising 3,248 mineral claims in 28 licenses and is 100% owned by Aurora Energy Resources Inc. Most of the claims are contiguous and cover much of the historical Kitts-Michelin uranium district in the eastern part of the Central Mineral Belt. The property is bordered to the northeast by the Exempt Mineral Lands (EML) which includes the communities of Postville and Makkovik, as well as, the Kitts Uranium Deposit. Access to the property is by fixed-wing aircraft from Happy Valley-Goose Bay to Postville, and then via a 5 to 15 minute helicopter trip.

Mineralization on the CMB Uranium Property is hosted by Paleoproterozoic supracrustal sequences of the Post Hill and Aillik Groups and is represented by approximately forty uranium showings, including six significant uranium deposits (Michelin, Jacques Lake, Rainbow, Gear, Inda and Nash). The uranium mineralization is typically hosted within: a) strongly foliated, pelitic metasedimentary rocks of the Post Hill Group; or b) fine-grained felsic to intermediate metavolcanic rocks of the Aillik Group. Uranium mineralization is associated with magnetite + actinolite + calcite +/- pyrite veining and strong to intense shearing and pervasive hematite alteration (+/- magnetite).

As a follow-up to encouraging exploration results during the period 2003-2006, a **$21.25 million (Can) budget** was proposed by Aurora Energy Resources Inc. for a two-phase program of work in 2007.

The **2007 Phase I Work Program** was completed in Q1-2007 and included: a) the development of a new 43-101 compliant resource for the Michelin Uranium Deposit and the Jacques Lake target; b) the ongoing metallurgical testing of coarse core rejects from the 2006 drilling campaign from Michelin, Jacques Lake and White Bear at Lakefield Research in Ontario; c) continued environmental and sociological investigations; and d) the initiation of conceptual engineering studies. The budget for the **2007 Phase I Work Program** totaled **$0.5 million (Can).**

Based on positive results from the **2007 Phase I Work Program**, the follow-up **2007 Phase II Work Program** was undertaken over Q2/3/4-2007. Included in this work were: a) a proposed 75,000 metre diamond drill program at Michelin, Jacques Lake, Aurora River Trend (including Burnt Brook and Gayle targets), Melody Hill, and Inda Lake Trend target areas (including Gear, Inda and Nash targets) to define and expand the known resources at Michelin and Jacques Lake, and to also develop new resources within the other targets areas; b) a geological mapping and geochemical sampling program throughout the CMB claim group with particular focus on the Aurora River Trend, southwest of Jacques Lake; and c) an ongoing environmental baseline survey and monitoring program (Q2/Q3 – 2007). The budget for the 2007 Phase II Work Program was **$20.75 million (Can).**

The **2007 Phase II Work Program** commenced with diamond drilling on April 16th, 2007 and was completed on November 27th, 2007. **141 drill holes** totaling **49,793 metres** were completed on the Michelin Main, Jacques Lake, Melody Hill, Aurora Corridor, Burnt Brook, Gayle, Gear, Inda, and Nash targets. Results were very positive with continued intersections down-plunge from the inferred resource block at the Michelin Uranium Deposit, and also along strike and at depth at the Jacques Lake Deposit. Results from the Inda Lake Trend (Gear, Inda, and Nash Deposits) were also encouraging with mineralization being extended at all three target areas. Drilling at regional targets such as Aurora Corridor, Burnt Brook and Gayle was successful in intersecting new mineralization in the vicinity of known surface mineralization.

Utilizing the new drill results from 2007, an updated 43-101 compliant resource estimate for the Michelin and Jacques Lake Deposit was completed in February, 2008. Concurrently with the updated resource estimate, an initial resource estimate was developed for the Gear, Inda, Nash, and Rainbow deposits. The resource modeling was carried out with both an Open Pit and Underground component. The resource estimates were provided by Christopher Lee, P. Geo., Chief Geoscientist, Aurora Energy Resources Inc., and consist of:

- **a total Measured and Indicated Mineral Resource of 40.30 million tonnes at an average grade of 0.09% U_3O_8 (approximately 83.9 million pounds of U_3O_8);** and
- **a total Inferred Mineral Resource of 23.93 million tonnes at an average grade of 0.085% U_3O_8 (approximately 49.78 million pounds of U_3O_8).**

A detailed description of the estimation and classification methodology is described in the body of this report in **Section 19.0** and a breakdown of the classified mineral resources is detailed in **Table 3.1** on the following page.

Table 3.1: 2007 CMB Resource Summary

		Underground*			Open Pit*			Total
Deposit	Class	Tonnes	%U3O8	lbs U3O8	Tonnes	%U3O8	lbs U3O8	lbs U3O8
MICHELIN	Measured	1,289,000	0.12	3,310,000	5,795,000	0.08	9,768,000	
	Indicated	16,170,000	0.13	44,582,000	7,146,000	0.06	9,774,000	
	MEASURED & INDICATED	**17,459,000**	**0.12**	**47,892,000**	**12,941,000**	**0.07**	**19,542,000**	**67,434,000**
JACQUES LAKE	Measured	415,000	0.09	802,000	401,000	0.09	798,000	
	Indicated	3,357,000	0.08	5,861,000	1,909,000	0.07	2,950,000	
	MEASURED & INDICATED	**3,772,000**	**0.08**	**6,663,000**	**2,310,000**	**0.07**	**3,748,000**	**10,411,000**
RAINBOW	Indicated				1,088,000	0.09	2,063,000	2,063,000
NASH	Indicated				757,000	0.08	1,300,000	1,300,000
INDA	Indicated				1,460,000	0.06	2,037,000	2,037,000
GEAR	Indicated				520,000	0.06	665,000	665,000
TOTAL	**MEASURED & INDICATED**	**21,231,000**	**0.12**	**54,555,000**	**19,076,000**	**0.07**	**29,355,000**	**83,910,000**
MICHELIN	Inferred	12,577,000	0.12	33,647,000	1,564,000	0.05	1,818,000	35,465,000
JACQUES LAKE	Inferred	2,778,000	0.08	4,596,000	2,210,000	0.05	2,314,000	6,910,000
RAINBOW	Inferred				931,000	0.08	1,700,000	1,700,000
NASH	Inferred				613,000	0.07	904,000	904,000
INDA	Inferred				3,042,000	0.07	4,538,000	4,538,000
GEAR	Inferred				210,000	0.06	262,000	262,000
TOTAL	**INFERRED**	**15,355,000**	**0.11**	**38,243,000**	**8,570,000**	**0.06**	**11,536,000**	**49,779,000**

***** *Aurora's CMB Mineral Resources are reported at cut-off grades that contemplate underground (0.05% U_3O_8) and open pit (0.03% U_3O_8) mining scenarios, based on preliminary economic assumptions, and may be refined with more in-depth economic analyses.*

Results from the 2007 Phase I and II exploration programs on the CMB Uranium Property are considered to be very encouraging and hold great promise for the future ongoing expansion of uranium resources on the Property. Continued aggressive exploration of this emerging belt is therefore recommended for a **Phase III Exploration Program** which would include:

- the completion of the remaining **20,000 metres of drilling** from the 2007 Phase II Work Program with focus on the infill drilling in the two main resource areas at Michelin and Jacques Lake Deposits **during Q1-2008;** and
- **90,000 metres of drilling in Q2/3/4-2008 and Q1/2/3/4-2009** with a portion focused on expanding the existing resources at Michelin and Jacques Lake, both of which remain incompletely tested, and another substantial portion dedicated to further delineation and testing of additional deposits and prospects on the Property.

The recommended budget for the **Phase III Exploration Program** is **$44,000,000 (Can)**, which includes $8,000,000 to complete the remaining 20,000 metres of drilling recommended in the Phase II Work Program, $20,000,000 (Can) for 50,000 metres of drilling in Q2/3/4-2008, and $16,000,000 (Can) for 40,000 metres of drilling in Q1/2/3/4-2009.

Pending successful completion and positive results from the Phase II component of the exploration program, it is further recommended that Aurora intensify their ongoing engineering and development investigations in 2008. The recommended budget for the **Phase III Engineering and Development Studies** amounts to **$13,585,000 (Can)**, and includes a component for completion of ongoing engineering studies ($2,155,000 (Can)) that is not contingent upon results of the Phase II Work Program, and a component for new engineering studies ($11,430,000 (Can)).

4.0 INTRODUCTION AND TERMS OF REFERENCE

This technical report (the **"Technical Report"**) on the CMB Uranium Property of Aurora Energy Resources Inc. (the **"Corporation"**), dated April 7th, 2008 and amended August 28th, 2008 provides an update to the previous technical report, filed on November 20th, 2007 (Dr. D.H.C. Wilton, Gary Giroux P. Eng, Ian Cunningham-Dunlop, P. Eng., Christopher Lee, P. Geo., Jim Lincoln, P. Eng., and Mark O'Dea, P. Geo., 2007), and includes all drilling information received from the 2007 drilling program, completed on November 27th, 2007. The summary has been prepared to comply with disclosure and reporting requirements set forth in National Instrument 43-101, Companion Policy 43-101CP, and Form 43-101F1, at the request of management in support of the Corporation's New Releases dated February 20th and 25th, 2008, relating to the CMB Mineral Resources. This update also serves to support the New Releases issued by Fronteer Development Group Inc., a 42.2% shareholder in Aurora Energy Resources Inc., dated February 20th and February 25th, 2008, also relating to the CMB Mineral Resources.

The Technical Report includes all information contained in the pre-existing technical report prepared by independent consultants to the Corporation, Dr. D.H.C. Wilton, P. Geo. and Mr. G.H. Giroux, P. Eng. (Wilton and Giroux, 2007), with the exception of Section 19, which has been replaced in its entirety in this update. This Technical Report also includes previously updated information on the Corporation's ongoing drilling activities, during the period January 1st to October 31st, 2007, prepared by Mr. Ian Cunningham-Dunlop, P. Eng. Mr. Cunningham-Dunlop, P. Eng., Mr. Christopher Lee, P.Geo, Dr. Mark O'Dea, P.Geo., and Mr. Jim Lincoln, P.Geo., who all collaborated on the recommendations set forth in Section 22.0 of the report, and are all qualified persons currently employed by the Corporation, but not independent of the Corporation.

Mr. Cunningham-Dunlop has been intimately involved with all of the Corporation's drill programs on the Property since 2005 including multiple site visits during 2007 Work Program. Mr. Lee has been actively involved in reviewing the results of the 2007 Work Program, traveled to site and inspected the core from the 2007 drilling during the period of July through November, 2007, and personally estimated the updated and new mineral resources for the CMB Uranium Property.

The CMB Uranium Property is held 100% by Aurora Energy Resources Inc., a publicly traded company on the Toronto Stock Exchange (Symbol – AXU). Considerable data on the CMB Uranium Property is available in Aurora's files in Vancouver and as readily available public documents. The public sources of relevant references are listed in Section 23.0 to this report.

The uranium concentrations for work performed by Aurora are reported as $\%U_3O_8$ unless otherwise indicated. Currency is reported in Canadian dollars unless otherwise noted. All map co-ordinates are given as metres in UTM projection NAD 27 (Zone 20 and 21) for Melody Hill, or NAD 83 (Zone 21) for all other project areas.

5.0 RELIANCE ON OTHER EXPERTS

Some of the information presented within this report is based on the historical exploration records of Brinex (*e.g.*, Morrison, 1956; McClintock, 1978a and b; and Brinex Ltd., 1979) and others written twenty-five to fifty years ago. Although these records are an invaluable practical resource for current exploration, some geological interpretations of some prospects may not reflect best practice as viewed at the present time.

All resource estimates of this period are referred to in this (and previous reports) as historical estimates regardless of the quality of these estimates.

6.0 PROPERTY DESCRIPTION AND LOCATION

The CMB Uranium Property is located east of Kaipokok Bay on the north-east coast of Labrador, Canada **(Figure 6.1)**. The nearest community is the town of Postville located approximately four km west of the project boundary. The community of Happy Valley-Goose Bay lies 180 km south-southwest of Postville. The project straddles two UTM zones (Zone 20, 21) and seven NTS map sheets (13J/11, 13J/12, 13J/13, 13J/14, 13K/03, 13K/06, 13K/09). The northern and southern limits of the project area are 6094000mN (Zone 21) and 6048500mN (Zone 21), respectively, and the western and eastern limits of the project area are 681000mE (Zone 20) and 345000mE (Zone 21), respectively. Most of the licenses are contiguous and are located 5 to 40 km south of Postville, though some licenses which make up the Croteau and Storm properties are located further west in the Central Mineral Belt and the interior of Labrador.

The CMB Uranium Property consists of 28 map staked licenses registered in the name of Aurora Energy Resources Inc. (TSX-AXU) totaling 3,248 units or 81,200 ha **(Figure 6.2 and Table 6.1)** . The licenses were originally subject to a letter of agreement dated February 5th, 2003, between Fronteer Development Group Inc. (TSX-FRG) and Altius Resources Inc. (TSX-ALS) regarding an Area of Interest made up of eighteen 1:50,000 scale NTS map sheets. This agreement formed the basis for a 50:50 strategic alliance between Fronteer and Altius Resources Inc. of St. John's, Newfoundland to explore for iron oxide-copper-gold mineralization in the Central Mineral Belt of Labrador. A further agreement was signed on June 3rd, 2005 allowing for the formation of a jointly owned private company called Aurora Energy Inc**.** to hold the assets of the CMB Uranium Property. The name of Aurora Energy Inc. was subsequently changed to Aurora Energy Resources Inc. during an initial IPO on the Toronto Stock Exchange on March 22nd, 2006. Fronteer Development Group Inc. currently retains a 42.2% interest in the Aurora Energy Resources Inc. Information on the individual mineral licenses can be found at www.nr.gov.nl.ca/mines&en/mqrights/mineralrights**.**

The property is flanked to the north and west by the Exempt Mineral Lands (**"EML"**). These are areas exempted from staking to protect local interests during final negotiation of the Labrador Inuit Association land claim. The Labrador Inuit Land Claims Agreement was ratified by parliament in May, 2005. The Treaty was formally signed December 1st, 2005. The treaty outlines the process in which EML lands will be designated. Within 6 months of the effective date of enactment (December 1st, 2005), all EML on the Labrador Inuit Settlement Area (**"LISA"**) must be extinguished. However, all EML on Labrador Inuit Land (**"LIL"**) will remain until a Land Use Plan is completed by the new Nunatsiavut government. The Nunatsiavut government is now in the process of developing mineral and land use polices from which the Land Use Plan will be developed. This process may take up to a maximum of three years but may be addressed sooner by the Nunatsiavut government. The distinction between LISA and LIL lands is outlined in **Figure 6.2** with Melody, Otter Lake and 50% of Jacques Lake falling in LISA while Michelin, Rainbow, Inda Lake, Aurora River, White Bear and 50% of Jacques Lake falling in LIL.

Comment [c1]: Locations referenced in the text should appear on the map…

Table 6.1: CMB Uranium Property - Mineral Tenure

No	Claim/Lic Name	Claim/Lic #	# Units	# Acres	# Hectares	NTS Sheet	Recording Date	Anniversary Date	Year	Report Due
1	Post Hill	09411M	128	7,907	3,200	13J/13E	27/03/2003	27/03/2008	5	26/05/2008
2	Michelin	09412M	190	11,738	4,750	13J/12W 13K/09E	27/03/2003	27/03/2017	5	26/05/2008
3	Burnt/Emben	09413M	42	2,595	1,050	13J/12E	27/03/2003	27/03/2017	5	26/05/2008
4	Burnt/Emben	09414M	63	3,892	1,575	13J/12E	27/03/2003	27/03/2016	5	26/05/2008
5	Croteau	09415M	40	2,471	1,000	13K/06	27/03/2003	27/03/2008	5	26/05/2008
6	Michelin North	09482M	145	8,958	3,625	13J/12W 13K/09E	28/04/2003	28/04/2012	5	27/06/2008
7	Post Hill Northwest	09719M	32	1,977	800	13J/13E	24/10/2003	24/10/2008	5	23/12/2008
8	Post Hill West	09720M	60	3,707	1,500	13J/13E 13J/13W	24/10/2003	24/10/2008	5	23/12/2008
9	East Micmac Lake	09721M	36	2,224	900	13J/12W 13J/13W	24/10/2003	24/10/2008	5	23/12/2008
10	Michelin Northeast	09722M	100	6,178	2,500	13J/12W	24/10/2003	24/10/2008	5	23/12/2008
11	Michelin Northwest	09723M	42	2,595	1,050	13K/09E	24/10/2003	24/10/2008	5	23/12/2008
12	Walker Lake	10022M	190	11,738	4,750	13K/09E	02/04/2004	02/04/2008	4	02/06/2008
13	West Micmac Lake 1	10046M	181	11,182	4,525	13K/09E 13J/12W	12/04/2004	12/04/2009	4	11/06/2008
14	West Micmac Lake 2	10047M	120	7,413	3,000	13J/12W	12/04/2004	12/04/2009	4	11/06/2008
15	West Micmac Lake 3	10048M	137	8,463	3,425	13J/12W	12/04/2004	12/04/2008	4	11/06/2008
16	West Micmac Lake 4	10049M	166	10,255	4,150	13J/12E 13J/12W	12/04/2004	12/04/2008	4	11/06/2008
17	Makkovik River 1	10050M	147	9,081	3,675	13J/12E	12/04/2004	12/04/2010	4	11/06/2008
18	Makkovik River 2	10051M	220	13,591	5,500	13J/13E 13J/12E	12/04/2004	12/04/2017	4	11/06/2008
19	Makkovik River 3	10052M	127	7,846	3,175	13J/11W 13J/12E	12/04/2004	12/04/2008	4	11/06/2008
20	Makkovik River 4	10053M	111	6,857	2,775	13J/13E 13J/12E	12/04/2004	12/04/2008	4	11/06/2008
21	Makkovik River 5	10054M	170	10,502	4,250	13J/13E	12/04/2004	12/04/2008	4	11/06/2008
22	Makkovik River 6	10055M	136	8,402	3,400	13J/13E 13J/14W	12/04/2004	12/04/2008	4	11/06/2008
23	Makkovik River 7	10056M	126	7,784	3,150	13J/13E	12/04/2004	12/04/2008	4	11/06/2008
24	Kaipokok Bay	10059M	54	3,336	1,350	13J/13E 13J/13W	12/04/2004	12/04/2008	4	11/06/2008
25	Aurora Lake	10343M	175	10,811	4,375	13J/12E 13J/12W	29/10/2004	29/10/2014	4	29/12/2008
26	Melody Hill	10344M	120	7,413	3,000	13J/12W 13K/09E	29/10/2004	29/10/2008	4	29/12/2008
27	Storm	10726M	16	988	400	13K/03	27/03/2003	27/03/2008	5	26/05/2008
28	(New grouped Lic)	14457M	174	10,749	4,350	13J/13E	27/03/2003	27/03/2010	5	26/05/2008
28			**3,248**	**200,653**	**81,200**					

Figure 6.1: Location Map – CMB Uranium Property

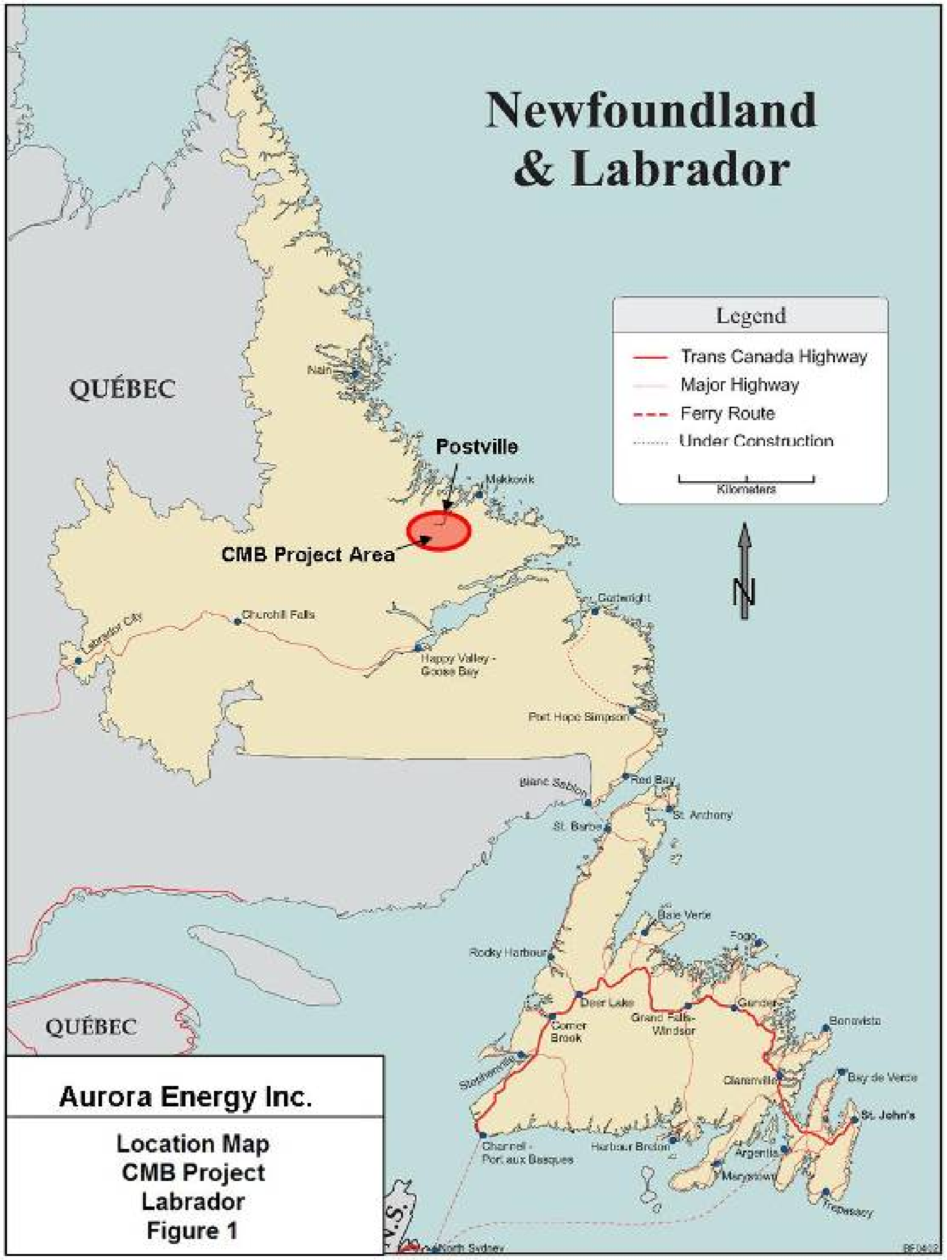
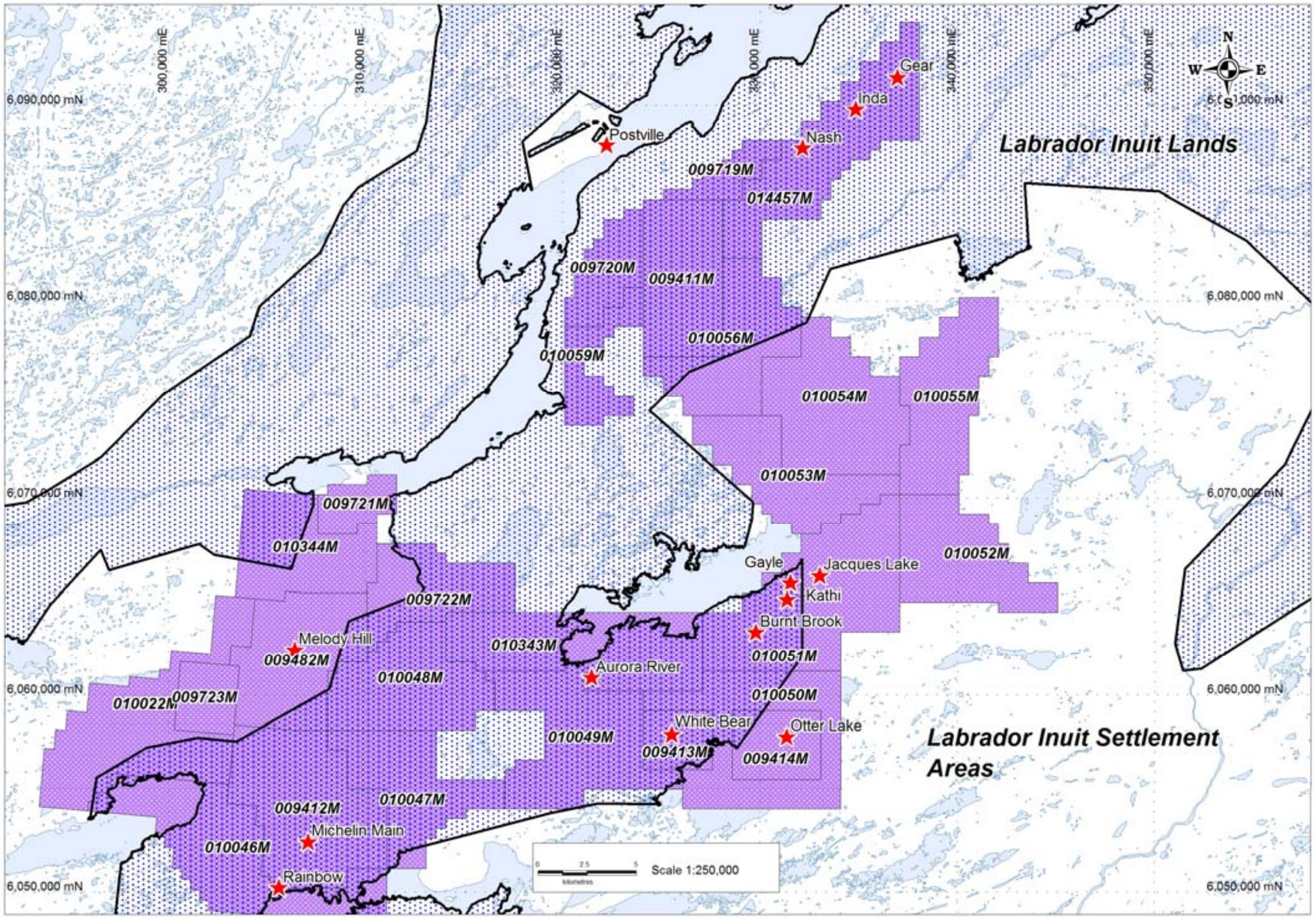


Figure 6.2: Mineral Tenure Map – CMB Uranium Property
(Map coordinates are NAD 83, Zone 21)



7.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

Access to the project area is best gained via the town of Postville which hosts sufficient amenities necessary to support field personnel, including a permanent fixed-wing gravel airstrip. Passenger service flights based in Happy Valley-Goose Bay offered by Air Labrador and Innu Mikun Airlines operate daily to communities along the coast. A coastal supply-ferry boat service owned by Woodwards, Happy Valley-Goose Bay, operates bi-weekly during ice-free periods (June to October) up and down the coast as far north as Nain to as far south as Lewisporte, Newfoundland. Helicopter support to ferry personnel and field gear from Postville to the field area is the preferred mode of transport. Float plane and boat access may also be suitable for certain properties where camps have been established to support major drilling programs. Various snow machines provide for efficient travel during winter. Foot traversing is best suited to access the interior of the project area.

The climate of Labrador is more Arctic than Atlantic because of its location on the eastern side of the continent and experiences strong seasonal contrasts. Winters are very cold lasting almost eight months with normal daytime temperatures for January between -10 and -15 ºC and annual snowfalls to 400 mm annually. The summer season is brief and cool along the coast with July average temperatures between 8 to 10 ºC (with rare hot spells bringing temperatures up to 35 ºC) and average precipitation ranging to 200 mm.

Local infrastructure is limited to facilities in the coastal communities of Postville and Makkovik which include commercial airline service from Happy Valley-Goose Bay and commercial ferry service from Lewisporte, Newfoundland, and Happy Valley-Goose Bay, Labrador. Postville is a clean and progressive village with rental space suitable for the establishment of an exploration base. Prudent exploration practice in coastal Labrador includes the use of service contractors who have established partnerships with the Nunatsiavut Government. Based on experiences with the development of the Voisey’s Bay project, the people of Labrador have acquired a good understanding of the exploration business.

The CMB Property is located in a rugged wilderness area of generally moderate gently rolling relief ranging to about 700 m above sea level (a.s.l.). Locally abundant outcrop, numerous lakes, and sparse coniferous forest cover consisting of black spruce, balsam fir and tamarack are most typical of this part of the north-eastern Canadian Shield. A large portion of the project area, immediately east of Kaipokok Bay, was devastated by a forest fire in 1966 and experienced little re-vegetation. Bedrock is exposed as north-easterly trending ridges with intervening marsh. Areas of outcrop are flanked by glacial till, and in turn by minor amounts of glacial outwash in major drainages. Most terrain is covered by sheets of glacial boulders. Extensive areas of burned forest show up as pink colored areas on Landsat images.

8.0 HISTORY

British Newfoundland Exploration Limited (Brinex), a subsidiary of British Newfoundland Corporation Limited (Brinco), was granted an exploration lease in the Makkovik-Kaipokok Bay area in 1955 following the discovery of encouraging signs of copper, molybdenum and uranium mineralization by prospectors. The first significant uranium showing was discovered by Walter Kitts in 1956. A program of drilling and underground development by means of adit was started on the Kitts deposit in 1957. The project was suspended in 1958, however, as the development was too late to qualify for supply contracts with the Atomic Energy Commission of Canada.

No further exploration was carried out until 1966 when Brinex and Metallgesellschaft A.G. made a joint venture agreement on part A of the lease area containing the Kitts deposit. Metallgesellschaft A.G. subsequently transferred its interest to Urangesellshaft Canada Limited. Exploration under this agreement resulted in the discovery of the Michelin deposit by prospector Leslie Michelin in 1968 as well as the Gear, Inda and Nash prospects between 1968 and 1969. All of these resulted from ground follow-up of radioactivity detected by airborne gamma-ray spectrometer surveys flown by Barringer Research in 1967.

Additional joint venture agreements were made with Urangesellshaft Canada Limited to include part B of a Statutory Agreement obtained by Brinex in 1970. In addition to property scale exploration of the Kitts and Michelin deposits, extensive exploration of other radiometric anomalies was carried out during the 1970’s.

Brinex completed a plan to develop the Michelin and Kitts uranium deposits as a combined mining operation but the project was compromised by the collapse in the price of uranium in the early 1980’s. Brinex ceded the rights to area B in 1980 and to area A in 1985. Remediation of the Kitts and Michelin mine sites was subsequently completed by the Provincial Government in 1992.

The ground remained open for the next ten years until the formation of the Fronteer-Altius Alliance (the “Alliance”) in 2003 and the re-evaluation of the district for Cu-Au-U targets. The Alliance acquired eight mineral licenses in the spring of 2003 followed by six in the fall of 2003, 14 in the spring of 2004, and the remaining two in the fall of 2004.

A summary of the work carried out by the Alliance in 2003 and 2004 and by its successor, Aurora Energy Resources Inc., in 2005 and 2006 will be discussed under **Section 12.0.**

9.0 GEOLOGICAL SETTING

9.1 REGIONAL GEOLOGY

The Central Mineral Belt (CMB) refers to an area of Archean to Mesoproterozoic crust which is located in Eastern Labrador and is part of the north-eastern Laurentian Shield. The CMB contains portions of the Nain, Makkovik and Churchill tectonic provinces and has been overprinted in the south by the Exterior Thrust Belt of the Grenville Province **(Figure 9.1)**. The CMB comprises a series of six Proterozoic supracrustal sequences, intrusive suites of various ages and adjacent Archean rocks. These rocks record to varying degree events associated with Makkovikian (~ 1.8 Ga), Labradorian (~ 1.6 Ga) and Grenvillian (~ 0.1 Ga) deformation. Mineral tenure of present interest is located within the Aillik Domain of the Makkovik Province (Ryan, 1984). The Makkovikian orogen is correlated with Ketilidian, Penokean and Svecofennian orogens which formed part of a Paleoproterozoic active margin along the southern margin of Laurentia-Baltica, the so-called North Atlantic Craton (Gower *et al*., 1990).

The constituent Proterozoic sequences of the belt range in age from *ca.* 1.22 to 2.2 Ga, and in decreasing age are the Post Hill (*ca.* 2.2 Ga), Moran Lake (*ca.* 2.0 Ga), Aillik (*ca.* 1.8-1.86 Ga), Bruce River (*ca.* 1.65 Ga), Letitia Lake (*ca.* 1.33 Ga) and Seal Lake (*ca.* 1.22-1.25 Ga) groups. The granitoids are broadly grouped into the Junior Lake Granodiorite (*ca.* 1.9 Ga), Makkovikian (*ca*. 1.8 Ga) and Trans-Labrador Batholith (*ca*. 1.65 Ga) suites (after Kerr, 1994). Sills of the *ca.* 1.43 Ga Michael Gabbro (Emslie *et al*., 1997) intrude southeastern portions of the belt near the Grenville Front.

9.2 DISTRICT GEOLOGY

The Makkovik Province consists of the Kaipokok, Aillik and Cape Harrison tectonic domains. The Kaipokok shear zone which defines the boundary between the Kaipokok and Aillik domains also marks the southern limit of Archean crust in the Makkovik Province. The Cape Harrison domain has been interpreted as a magmatic arc developed near the Makkovikian continental margin (Culshaw *et al.* 2000 and Ketchum *et al.* 2002).

The Aillik domain is underlain by strata of the Paleoproterozoic Post Hill (2178-2013 Ma) and Aillik (1860-1810 Ma) groups, as well as extensive granitoid terrain comprised of several intrusive suites including 1815-1790 Ma syntectonic and post tectonic Makkovikian plutons, 1740-1700 Ma post tectonic, A-type plutons and 1650 Ma plutons of the Trans-Labrador batholith **(Figures 9.2 and 9.3)**. Deformation, amphibolite facies regional metamorphism, regional metasomatism and uraniferous mineralization of the Post Hill and Aillik groups have been attributed to Makkovikian Orogeny (1.9 to 1.7 Ga (Ryan, 1984; Gower *et al.* 1990; Wilton, 1996; Culshaw *et al.* 2002). The stratigraphy of the Post Hill and Aillik groups and the distribution of intrusive suites within the Aillik domain are not well defined. A number of uranium occurrences are located along the Nakit Slide (a strand of the Kaipokok shear zone) which is a tectonic contact between lithologies of the Post Hill Group to the north-west and the Aillik Group to the south-east.

The Post Hill Group is an approximately 2700 m thick sequence of metamorphosed siliceous clastic metasedimentary strata and mafic metavolcanic rocks in tectonic contact with Archean gneiss. The Post Hill Group occurs as highly strained, amphibolite and gneiss in thrust sheets near Kaipokok Bay. A rifted, continental margin setting has been interpreted for deposition of the Post Hill Group (Ketchum *et al.* 2002).

The Aillik Group is made up of a 5000 m thick succession of metasedimentary rocks, bimodal metavolcanic rocks (dominantly felsic), subvolcanic intrusives and diabase dykes (Bailey, 1979). A lower dominantly metasedimentary section and upper dominantly fragmental, felsic volcanic section have been recognised. Deposition in back-arc basin and in shallow marine to subaerial environments has been inferred for the Aillik Group (Ketchum *et al.*, 2002). The Aillik Group is noted as a host for numerous and varied Cu, Pb, Zn, Mo, and U occurrences (Wilton, 1996). Within the project area, rocks of the Aillik Group are commonly represented by laminated magnetite-feldspar-quartz-bearing metavolcanic lithologies.

Figure 9.1: Regional Geology Map - CMB Project

(Map from http://www.geosurv.gov.nf..ca/ecsoot/geology.gif)

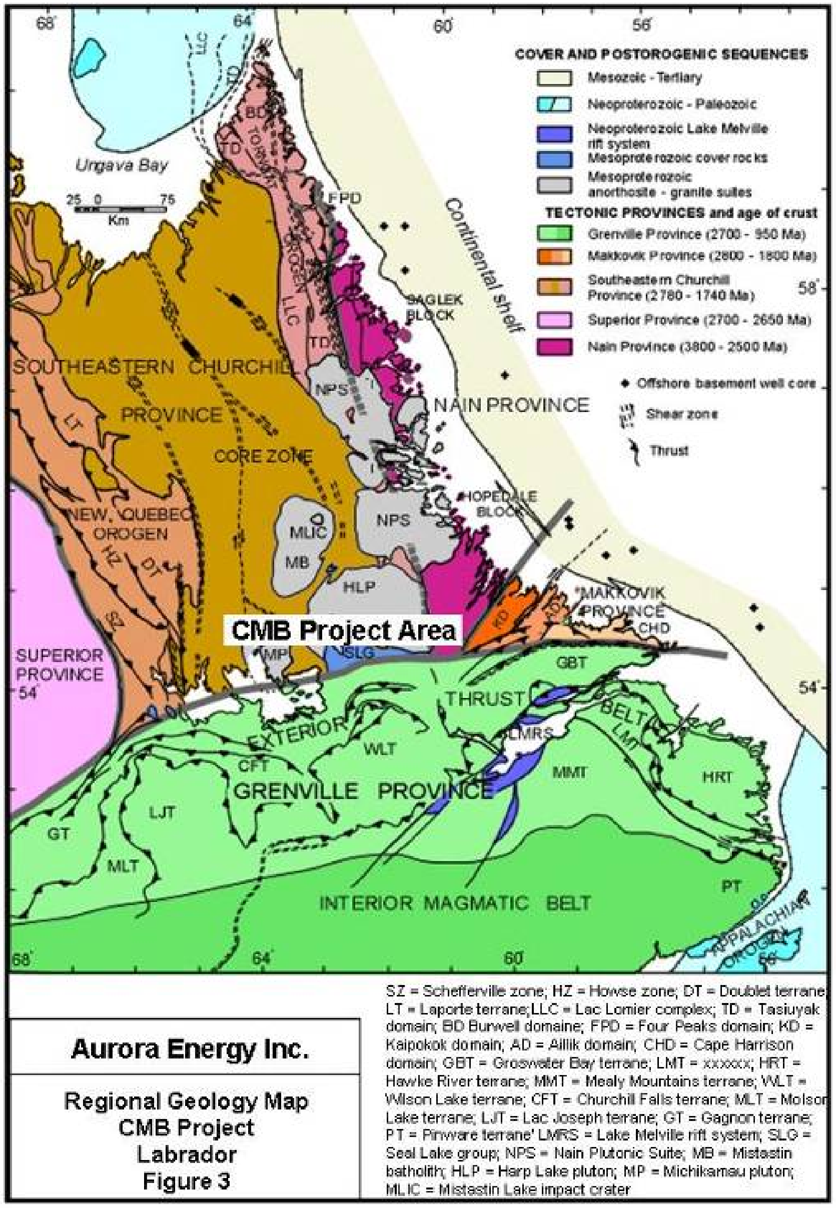


Figure 9.2: District Geology Map - CMB Project

(after Gower *et al*, 1982, and Ryan, 1984)

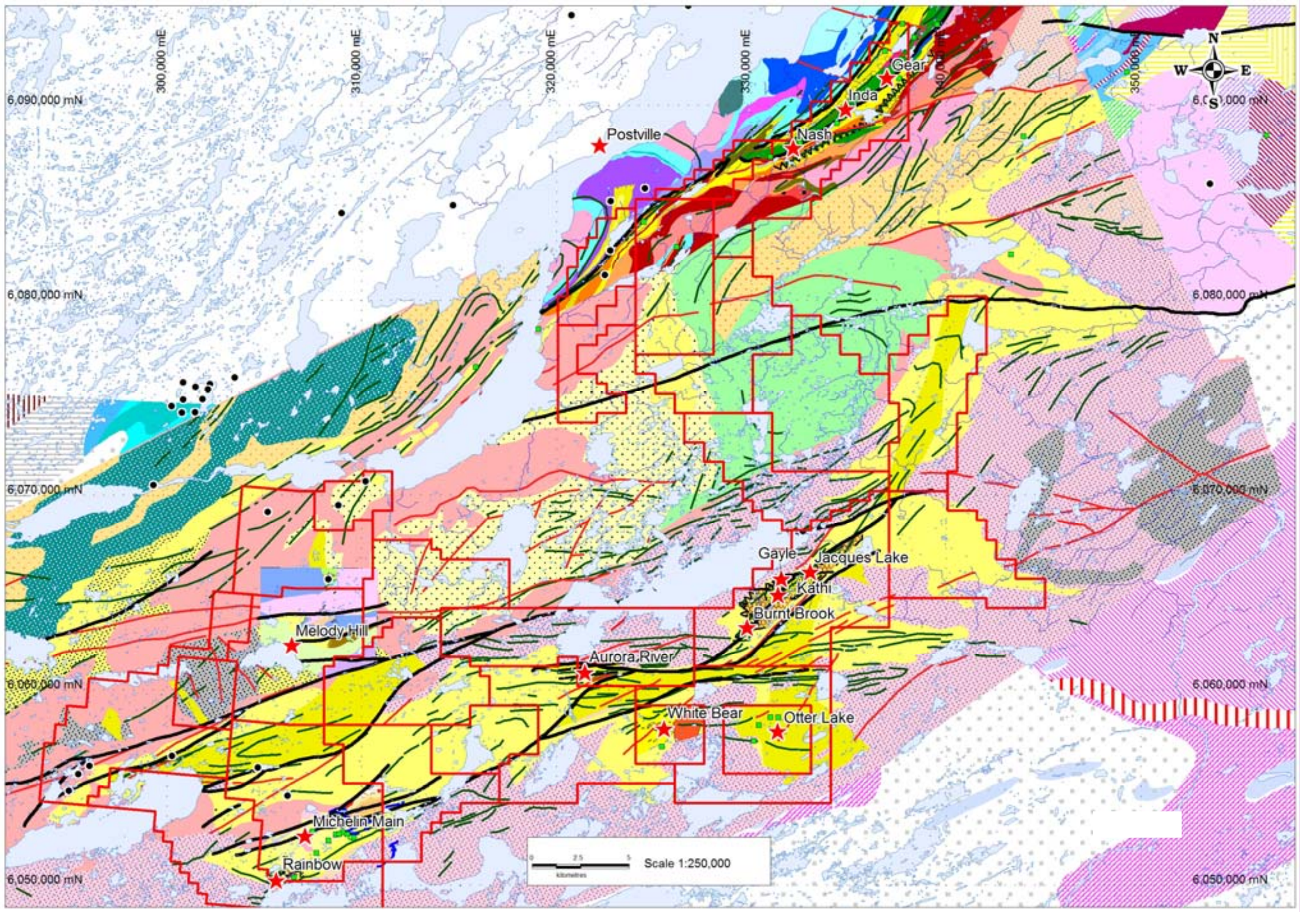


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Figure 9.3: Table of Formations

(Geology compiled from Gower *et al*, 1982, and Ryan, 1984)

10.0 DEPOSIT TYPES

Uranium mineralization hosted by lithologies of the Post Hill Group has been referred to as syngenetic by early workers and that within the Aillik Group has been called volcanic-hosted, stratabound and possibly syngenetic in origin (Gower *et al.*, 1982; Gandhi, 1986). Pb-Pb ages in the range 1895 to 1697 Ma for uranium mineralization in the Post Hill Group (2178-2013 Ma) support an epigenetic origin for these occurrences (Wilton, 1996). An epigenetic emplacement of the uranium mineralization within the Aillik Group is also indicated by uraniferous fracture-filling and breccias.

Extensive areas of hematite + albite and quartz + epidote + actinolite + chlorite alteration in the Kitts - Michelin area are similar to alteration assemblages developed in iron-oxide-copper-gold (IOCG) districts of Paleoproterozoic age (Hitzman *et al.*, 1992; Haynes, 2000). In some of these districts, a peripheral enrichment in uranium has been exploited as an exploration tool to locate copper-gold mineralization. Consequently, fracture controlled uraninite + magnetite mineralization in the Kitts - Michelin area may represent part of a uranium-rich end member of the iron-oxide class of epigenetic deposits.

11.0 MINERALIZATION

11.1 INTRODUCTION

The Central Mineral Belt of Labrador is one of the most prolific areas of uranium mineralization in Eastern Canada. Approximately 100 metal occurrences are known in the map area held by the Aurora Energy Resources Inc. within 1:50,000 scale NTS map sheets 13J/11-14 and 13K/09 and 16. About 70% are called uranium occurrences and about 20% are called copper occurrences (http://gis.geosurv.gov.nl.ca/mods/mods.asp).

Radioactivity is associated with hydrothermal breccias marked by well oxidised wall rocks and dark hornblende-rich fracture-filling. Commonly radioactivity is proportional to the amount of dark coloured matrix component but in some cases salmon-red, crackle brecciated lithologies are also highly radioactive. The matrix of radioactive breccia includes the assemblage: hornblende + titanite (sphene) + calcite (grey or pink) + magnetite± biotite, garnet, (Fe, Cu, Pb, Zn, Mo)-sulphides, fluorite, uraninite.

Selvages and halos of iron oxide are typically developed, whereas malachite and uranophane staining occur more locally. Net-vein, folded and segmented fabrics are observed in radioactive breccias. Locally, initial fracturing preceded the formation of a late subvertical cleavage and breccias were rotated into the plane of this cleavage to produce thinly banded gneiss with discontinuous mafic layers.

Descriptions of the significant prospects within the CMB Uranium Property are listed in the following sections with any corresponding historical and current resources estimates summarized in Section 19.0 of this report.

11.2 URANIUM PROSPECTS OF THE POST HILL GROUP

Gear Lake Prospect – The Gear Lake prospect lies within the northeast portion of the mineral tenure controlled by Aurora Energy Resources Inc. Mineralization first discovered in 1968 is associated with a U/Th radiometric anomaly 0.35 km in diameter. The mineralization occurs within sheared metasedimentary rocks over a strike length of 120 m. An average grade of 0.165% U_3O_8 was obtained for a zone of mineralization 30 m long by 4.9 m wide as outlined to a depth of 70 m. A new 43-101 compliant resource estimate for the zone by Aurora Energy in February 2008 is included in **Section 19.0.**

Inda Lake Prospect – The Inda Lake prospect lies within the northeast portion of the mineral tenure controlled by Aurora Energy Resources Inc. Mineralization discovered at Inda Lake in 1968 is associated with a prominent circular U/Th radiometric anomaly 0.35 km in diameter. The mineralization occurs on the upper, south-eastern limb of a north-easterly trending anticline which is overturned to the north-west. The mineralization occurs as a footwall lens and three hanging wall lenses along a strike length of 1.1 km between Inda and Knife lakes. A new 43-101 compliant resource estimate for the zone by Aurora Energy in February 2008 is included in **Section 19.0**.

Nash Lake Prospect – The Nash Lake prospect lies within the northeast portion of the mineral tenure controlled by Aurora Energy Resources Inc. Mineralization discovered at Nash Lake in 1967 is associated with an oval-shaped U/Th radiometric anomaly 0.7 by 0.3 km in diameter. Drilling during the late 1960's located three zones of mineralization within a shear zone called the Nakit Slide. A dip of 60° east and average width of 1.85 m were reported for the zone. Diamond drill hole NW77-6 in the west extension zone intersected 0.072% U_3O_8 over 3.4 m from 13.4 to 16.8 m, suggesting potential for resource development to the west. A new 43-101 compliant resource estimate for the zone by Aurora Energy in February 2008 is included in **Section 19.0.**

11.3 URANIUM PROSPECTS OF THE ALLIK GROUP

Aurora Corridor (River) Target – The Aurora River target lies within the east central portion of the mineral tenure controlled by Aurora Energy Resources Inc. near Jacques Lake, approximately 10km to the south west of the main Jacques Lake target area. The Aurora River target was originally discovered and explored by Brinex during the years spanning 1979-1981. Work completed by Brinex consisted of geological, magnetic and electromagnetic surveys, carried out on 40 km of cut grid lines. A series of 12 radioactive outcrops were trenched and sampled. Uraniferous outcrops are found within a series of metamorphosed and deformed felsic tuffs within the Aurora River Shear Zone, an east-west oriented shear zone located on the south side of Jacques Lake.

Jacques Lake (McLean) Prospect – The Jacques Lake Prospect lies within the east central portion of the mineral tenure controlled by Aurora Energy Resources Inc. near Jacques Lake and was discovered in 1956 by prospector J. McLean working on behalf of Brinex (E. R. Morrison, 1956). Mineralization occurs in felsic and intermediate metavolcanic rocks of the Aillik Group. In 1967, four trenches were dug along a strike length of 165 m on the side hill at an elevation of about 235 m. Results from the sampling of these trenches included 0.06% U_3O_8 across 0.9 m from trench #2 and 0.04% U_3O_8 across 2.1 m from trench #3. Prospector A. Andrews, working on behalf of the Urangesellschaft/Brinex Joint Venture in 1978, identified a dispersal train of twelve radioactive boulders with an average content of 0.32% U_3O_8 near the base of the ridge (McClintock, 1978a and b). Recent drilling campaigns by Aurora in 2005-2007 have met with great success and have outlined a new resource at the Jacques Lake Prospect. A new 43-101 compliant resource estimate for the zone by Aurora Energy in February 2008 is included in **Section 19.0.**

Burnt Brook Showing – The Burnt Brook Showing lies within the central portion of the mineral tenure controlled by Aurora Energy Resources Inc., immediately southwest of Jacques Lake, and was discovered by L. Michelin in 1979. About 110 m of trenching in 14 trenches were documented. The North, South and Dianne zones are hosted by folded metasedimentary and metavolcanic rocks of the Aillik Group. Trenching on the North zone returned assays that included 0.069% U_3O_8 over 6 m within a zone of intermittent radioactivity 125 m in length and 75 m in width, as constrained by trenching. Trenching in the South zone returned 0.155% U_3O_8 over 4.8 m from a metapelite within an area of intermittent radioactivity along a strike length of 250 m.

Gayle Showing – The Gayle showing is located approximately 1.5 km southwest of the Jacques Lake Deposit, was discovered and explored by Brinex during the years 1979 and 1980, and was dubbed one of the 'Lucky Girl' prospects. Work completed by Brinex included ground-based geological, geochemical, magnetic, VLF-EM, and radiometric surveys over 16 km of line cut field grid. A spotty and subdued radiometric response was returned for the area, possibly as a result of numerous bogs and thick vegetation. In addition, a series of 6 outcrops were trenched and sampled. Mineralization is hosted within intensely altered volcanic rocks, similar in nature to those found at Jacques Lake.

Otter Lake (Emben) Showings – The Otter Lake prospects lie within the southeast portion of the mineral tenure controlled by Aurora Energy Resources Inc., immediately west of Otter Lake. Several occurrences of uranium mineralization with significant base metal and silver values have been documented within the Aillik Group on the east side of the Burnt Lake Granite since the initial discoveries in 1969; one grab sample from a radioactive boulder assayed 8.49% U_3O_8. Encouraging results by Brinex in 1981 included 0.423% U_3O_8 over 3.0 m in trench #5 across a zone 100 m in strike length called the Emben (Otter) South Zone. Work by Aurora in 2004/2005 identified a broad 500m x 500m radiometric anomaly covering the old Emben Main, Central and South Showings and drilling in 2005 (10 ddh – 2,685.59m) returned a high of 1.0% U_3O_8/0.5m in DDH OL-05-04 at Emben (Otter) South.

White Bear Lake (Burnt Lake) Showings – White Bear Lake showings lie within the central portion of the mineral tenure controlled by Aurora Energy Resources Inc. They are located on the northern shore of White Bear Lake (formerly Burnt Lake) and consist of the North East Showing, the North Showing, the South Showing and the North West Showing. The project area is marked by a strong U/Th anomaly with a 3 km strike length in an east-west direction and was first explored by Brinex from 1967 through 1978. Mineralization occurs intermittently within felsic metavolcanic rocks of the Aillik Group on the north side of the Burnt Lake granite intrusive. Soil geochemical surveys indicated a large anomaly over the known mineralization and led to the targeting and drilling of 17 diamond drill holes in 1977 for a cumulative total of 564 m. The Brinex drilling returned values up to 0.256 U_3O_8/16.5 m in drill hole 77-7 but these zones were not subsequently tested during follow up drilling and thus present clear targets in the White Bear area for future programs. During the course of 2005 field work, it was found that the highest scintillometer values, and therefore most intense uranium mineralization, were associated with strong to intense, pervasive hematite alteration in variably porphyritic felsic metavolcanics. The 14 samples collected during 2005 program returned a range of uranium values from 10.5 to 6680 ppm U.

Melody Hill Anomaly – A northeasterly trending zone of weak radioactivity, 8 x 1 km in size, straddles Melody Lake in the west central portion of the mineral tenure controlled by Aurora Energy Resources Inc. Within this zone, a 1.0 km dispersal train of radioactive boulders was identified on the southern slope of Melody Hill about 1.4 km northeast of Melody Lake. Historical results for these boulders include an average of 8.4% U3O8 from 27 boulders and a high of 28.2% U3O8 from a grab sample collected in

2004. Anomalous uranium content in excess of 100 ppm in lake sediments and an intercept of 0.14% U3O8/6.0m in DDH 80-44 on the shoreline suggest a possible source area below Melody Lake.

Michelin Deposit – This historic deposit, located in the southwest portion of the mineral tenure controlled by Aurora Energy Resources Inc., consists of several sub-parallel groups of mineralized zones along a strike length of 1200 metres and to local depths of 700 metres and is open in all directions. The mineralization is largely confined to 150-200 metre thick zone of visibly discernable hematite alteration within a coarse feldspar porphyritic quartz mylonite unit, the boundaries of the zone being essentially conformable with S1 and lithologic contacts. The zones have an average grade of 0.12% U3O8, strike approximately 060º, dip about 55º southeast, and contains higher grade shoots which plunge steeply to the south-southwest, consistent with the regional plunge lineation. The most consistently mineralized material occurs within a 65-metre thick interval located near the upper part of the lower half of the alteration zone. This interval contains up to three higher-grade sub-intervals, separated by lower-grade or essentially un-mineralized material. The alteration zone is marked by a gradational replacement of biotite and chlorite by hornblende, and more proximal to mineralization, by pyroxene and actinolite. There is also an increase in calcite and gypsum, although these are still only present in very minor quantities. Hematization increases proximal to mineralization, with associated disappearance of magnetite and locally pyrite. Uranium normally occurs in microscopic disseminations of uraninite associated with strong hematization.

New drilling by Aurora in 2005-2007 was successful in both confirming the known mineralization above 250 metres and also extending the zone down-plunge to a vertical depth of 700 metres. The best intersection came from DDH M05-006 which returned 0.1% U3O8/63.0m in the heart of the main plunging shoot at a vertical depth of 550 metres. A new 43-101 compliant resource calculation for the zone by Aurora Energy in February 2008 is included in **Section 19.0.**

Rainbow Deposit – The Rainbow Zone, located in the southwest portion of the mineral tenure controlled by Aurora Energy Resources Inc., occurs as a stratiform lens within Aillik Group feldspathic tuff and tuff breccia. Mineralization with an average grade of 0.15%o U_3O_8 occurs over a strike length of 290 m and widths up to 15 m. The main lens as inferred by drilling was 140 m long by 2 to 15 m wide by 79 m deep and is open in all directions. A new 43-101 compliant resource estimate for the zone by Aurora Energy in February 2008 is included in **Section 19.0.**

Michelin East Target – This area, located in the southwest portion of the mineral tenure controlled by Aurora Energy Resources Inc., was investigated by Brinex staff during the development of the neighboring Michelin Deposit and dozens of the 300 drill holes performed at Michelin fall within the Michelin East target area. Ground work resulted in the discovery of the Chitra Zone, Mikey Lake Zone, and Running Rabbit Zones and follow-up drilling partially tested these zones as well as the a number of the known radiometric anomalies. The best results were 0.11% U_3O_8/6.7m in DDH CH75-2 from the Chitra Zone.

12.0 EXPLORATION

12.1 2003 EXPLORATION WORK

The Fronteer-Altius Alliance (the **"Alliance"**) was formed in February 2003 to evaluate the potential for iron oxide-copper-gold mineralization in the eastern part of the Central Mineral Belt. The Alliance subsequently acquired eight mineral licenses through staking in March 2003 and then carried out a limited field visit in July 2003 with Fronteer and Altius personnel to examine and sample the historical metal occurrences on, and adjacent to, the newly acquired mineral land tenure.

On the basis of the observance of widespread hematite alteration and chlorite + epidote + actinolite alteration during the July 2003 field visit, six additional mineral licenses were acquired in October 2003 to blanket the Aillik and Post Hill Groups of rocks and an airborne magnetic and radiometric survey was recommended for the 2004 to cover the entire claim group.

12.2 2004 EXPL0RATION WORK

A **12,800 line-km** high resolution airborne magnetometer and gamma-ray spectrometer survey was completed by Fugro Airborne Surveys Corporation on behalf of the Alliance during the summer of 2004. The block of ground surveyed was approximately 70 by 20 km in size and covered the most of the Kitts-Michelin uranium district. Fixed wing and helicopter components to the survey were flown on a line spacing of 200 m. The aanomalies generated by the airborne survey were then prospected, evaluated and ranked in the field by Fronteer and Altius personnel during September 2004. By the end of 2004, approximately **$1.06 million (Can)** had been invested in the project since its inception in February 2003.

The results of the 2004 airborne survey were very encouraging and showed a dozen discreet ovoid-shaped U/Th radiometric anomalies within the Kitts-Michelin uranium district of Labrador. Many of these anomalies pinpointed the location of uranium occurrences such as the Gear, Nash, Inda, Rainbow, and Michelin deposits discovered by Brinex during the late 1960's. Other anomalies of large area and amplitude comparable to that of the Michelin deposit were outlined at Jacques Lake and Otter Lake where mineralization had not been previously drilled.

Findings from the ground follow-up in September 2004 included the following:

a) The uranium mineralization throughout the district is contained in hydrothermal breccias associated with more regionally distributed hematite-albite alteration and most frequently developed in gneiss of the Paleoproterozoic Post Hill and Aillik groups.
b) Radioactivity found on an outcrop scale typically consists of multiple intervals with uranium content of about 0.1 weight % U_3O_8 (or radioactivity of several

thousand counts per second) over widths of one to two metres but these intervals were found to be discontinuous along strike.

c) The spherical shape of the airborne radiometric anomalies suggests local thickening of mineralization along more extensive planar zones of discontinuous radioactivity. Structural controls to account for local thickening of the zones of mineralization and for the steep southwest plunge of the mineralization are inferred.
d) Mineralization found in dispersal trains of float commonly exceeds that located in bedrock by an order of magnitude. The exploration record for the Kitts – Michelin area has demonstrated that mineralised float is commonly locally derived. Consequently, discovery of the source of better quality mineralization found in float is the challenge for current exploration programs.
e) Trace element geochemistry of uranium mineralization indicates a strong positive correlation with lead content presumably as the result of the accumulation of radiogenic lead. Although assemblages containing pyrrhotite, pyrite, chalcopyrite, galena, sphalerite or molybdenite have been reported in association with uranium mineralization throughout the district, the content of Cu, Zn and Mo are poorly correlated with uranium content in rock samples. Possibly, uraniferous mineralization is the product of a separate hydrothermal event.

Based on the results of the airborne radiometric survey and the subsequent ground follow-up, the Post Hill, Jacques Lake, Otter Lake–White Bear Lake, Michelin, and Melody Hill areas were identified as project areas with potential for bulk tonnage volcanic-hosted uranium mineralization. A **$5 million (Can)** follow-up program was recommended for 2005 to include:

a) The compilation of all historic Brinex field data in digital form.
b) The digital modeling of the known uranium prospects with historical estimates.
c) The continuing consultation process with local coastal communities and government.
d) A preliminary baseline environmental study of the Michelin site and proposed drill areas.
e) The acquisition of satellite imagery of the area for ground control.
f) The completion of an infill airborne radiometrics and magnetic survey at 50 metre line spacing for the individual project areas
g) The completion of geological and geochemical surveys over the project areas.
h) 10,000 metres of diamond drilling to test targets at Michelin, Jacques Lake and Otter Lake.

12.3 2005 EXPLORATION WORK

As a follow-up to the positive results generated by the 2003 and 2004 field exploration programs carried out by the Fronteer-Altius Alliance, an aggressive **$5.0 million (Can)** work program was carried out in 2005 under the banner of the newly formed Aurora Energy Resources Inc. This work included:

a) **5,783 line-km** of detailed airborne magnetic and radiometric surveying on 50 metres line spacings by Fugro Airborne Survey Corporation over the Michelin, Jacques Lake, Otter Lake, Melody Hill and Inda Lake Trend target areas in July/August 2005.
b) **IKONOS air photo imagery capture** and **geological mapping/geochemical sampling/scintillometer surveys (grid and boulder)/track etch surveying** by Aurora personnel at the Michelin, Michelin East, Otter Lake, Jacques Lake, White Bear Lake, Melody Hill and Inda Lake Trend target areas in July/August/September 2005.
c) A **9,402 m 27-hole diamond drill program** carried out by Falcon Drilling using two helicopter-supported fly drills from late August to early November 2005 with focus on the Michelin, Otter and Jacques Lake target areas.

The 2005 Field Program was highly successful in extending both the known zone of mineralization at the historic Michelin Uranium Deposit and also discovering new zones in the CMB District through the application of modern ideas and exploration technologies. A brief summary of these findings is given below. The complete results from the 2005 Work Program can be found in the 43-101 report submitted to SEDAR in January 2006 on behalf of Aurora Energy Resources Inc. (Wilton and Cunningham-Dunlop, 2006).

a) Michelin Uranium Deposit

The 2005 drill campaign successfully confirmed the presence of uranium mineralization in the upper portion the historic Michelin A Zone as documented in the previous work by Brinex. The lithologies and assay intercepts in the two new twin holes, TWM05-092 and TWM05-0174, showed an excellent correlation to those reported in the original holes, M-70-92 and M-76-174, providing Aurora staff with a high level of confidence in the caliber of the work carried out by Brinex.

Of the seven holes drilled on the down-plunge extension of the Michelin A Zone, all seven intersected the Michelin mineralization where projected, with comparable and/or higher grades and/or widths to those holes that pierced the upper portion of the zone (*i.e.* **0.11% U3O8/63.45 m** in DDH M05-006). As a result of this work, the Michelin A Zone was extended from a vertical depth of 250 m to almost 700 m, translating into a new dip length of almost 1000 m. Further work was recommended to test the vertical and strike extent of the zone.

b) Otter Lake Target

The Otter Lake Target Area was drill tested for the first time in the fall of 2005 as a follow-up to an aggressive summer field program. The Otter Lake target was characterized by a broad 3 km^2 radiometric anomaly with over 700 widespread radioactive boulders and less than 5% bedrock exposure.

Aurora intersected anomalous levels of uranium in four of ten drill holes completed during the drill program in three distinct areas within the main radiometric anomaly. The most encouraging results came from Otter South, where DDH OL-05-04 intersected **1.0% U3O8/0.50 m** as well as a separate interval assaying **0.14% U3O8 over 1.0 m**. The mineralization within this high grade interval was hosted within a deep red, very intensely hematite-altered, strongly foliated, fine-grained, weakly feldspar porphyritic, felsic metavolcanic unit with abundant fine magnetite, pyrite and chlorite as veinlets. Further work was recommended to test the strike and depth potential of this zone as well as remaining targets within the anomaly.

c) Jacques Lake Target

As with Otter Lake, the 2005 drilling program at Jacques Lake was also the first drilling campaign completed in this area. The Jacques Lake Target was defined by a 4 km long x 400 m wide airborne radiometric anomaly, underlain by a high strain zone in intermediate metamorphosed volcanics with abundant magnetite alteration. Uranium mineralization in outcrop had also been mapped at the south-western end of this anomaly over a strike length of approximately 220 m in the northeastern-southwestern direction.

The 2005 drilling targeted the main anomaly and its subsidiary branches and was successful in delineating uranium mineralization over a strike length of 180 m and at a vertical depth of 20-80 m in four of seven holes. The most significant result was returned in DDH JL05-05 with a maximum of **0.10% U_3O_8 /9.2 m** in JL05-05 on the southern end of the western branch of the anomaly. Intercepts of **0.10% U_3O_8 /5.0 m, 0.10% U_3O_8 /3.0 m, and 0.10% U_3O_8 /4.0 m** in holes DDH JL05-01, 02 and 03 on the eastern branch of the anomaly were also returned making this a successful first pass test on the target. Further drilling was recommended to follow up on this target

Based on the results of the 2005 Exploration Program, a further **$14.5 million (Can)** program was recommended for 2006 to identify a single large economic deposit, or series of deposits, in the CMB.

The 2006 proposed work included:

a) The metallurgical testing of core rejects from the 2005 drilling campaign at Lakefield Research (February-March, 2006).
b) A 40,000 m diamond drill program at Michelin, Michelin East, Jacques Lake, White Bear Lake, Otter Lake, Rainbow, Melody Hill, and Inda Lake Trend (April-September, 2006).

c) An ongoing geological mapping and geochemical sampling program throughout the claim group (June-October, 2006).
d) A gravity survey at Melody Hill to identify the source of high grade boulders (April, 2006)
e) An environmental baseline survey and ongoing monitoring program (April-October, 2006)
f) An updated resource calculation and economic study of Michelin deposit (Jan 2007).

12.4 2006 EXPLORATION WORK

The recommended **$14.5 million (Can) program** was carried out by Aurora Energy Resources Inc. in 2006 to further evaluate key targets within the CMB Uranium Property. This work included:

a) A **46,078 m 120-hole diamond drill program** carried out by Falcon Drilling using up to six helicopter-supported fly drills from May 9th, 2006 to November 7th, 2006 with focus on the Michelin Main, Jacques Lake, White Bear, Gear, Inda, and Nash targets.
b) Mapping and prospect sampling of the Aurora Corridor.
c) A **1360 station gravity survey** over the Melody Lake and Jamson areas.
d) Ongoing environmental baseline studies.
e) **Metallurgical testing** of ore from Michelin, Jacques Lake, and White Bear targets at SGS Laboratories in Lakefield, Ontario.
f) An **updated resource estimate** in January 2007.

Results from the 2006 Field Program were very positive with the best results to date being intersected within the inferred resource block at the Michelin Uranium Deposit, and a new deposit emerging at the Jacques Lake target area with comparable grades and widths of uranium mineralization to that of Michelin. A brief summary of the findings of the work program are given below. The complete results from the 2006 Work Program can be found in the 43-101 report submitted to SEDAR in March 2007 on behalf of Aurora Energy Resources Inc. (Wilton and Giroux, 2007).

a) Michelin Drilling

The delineation phase of the 2006 drilling program was successful in verifying the consistency of the area of mineralization indicated by the 2005 drilling, both in grade and thickness. The drilling showed that the separate mineralized lenses locally coalesce to form a single thicker lens, which defines a higher-grade core to the zone. Highlights included drill holes M06-013, M06-016 and M06-019 with true thicknesses of **42.0m of 0.21% U_3O_8**, **49.0m of 0.18% U_3O_8** and **36.0m of 0.24% U_3O_8** respectively. Near the margins of the zone, mineralization was observed to be restricted to the upper lens, resulting in narrower intersections, but generally of better than average grade; e.g. M06-020A with **5.0m true thickness of 0.20% U_3O_8**.

The deep exploration phase of the 2006 drilling campaign succeeded in extending the Main Zone mineralization an additional 250 metres down-plunge with eleven drill holes intersecting significant mineralization comparable to that found up-plunge. Drill holes M06-025, 039, 043 and 044 showed the higher-grade core extending down-plunge to the limits of drilling, although results were not quite as impressive as in drill holes M06-013, 016 and 019. Three drill holes, M06-022, 029 and 031 intersected narrow 1.0 to 1.5 metre thicknesses of mineralization defining the lower margin or "keel" of the Main Zone and suggesting a shallowing of the plunge with depth. The south-western limit of drilling showed an increase in the thickness, grade and consistency of the upper lens, while the lower lenses are very weak. This was demonstrated by drill holes M06-026, 032 and 043 with upper lens true thicknesses of **12.0m of 0.27% U_3O_8**, **17.0m of 0.26% U_3O_8** and **19.5m of 0.20% U_3O_8** respectively.

Two drill holes, M06-018 and M06-033, were drilled as exploration holes east of the Main Zone. M06-018 intersected **3.5m true thickness of 0.28% U_3O_8** at 360 metres vertical depth. M06-033 intersected **8.0m true thickness of 0.08% U_3O_8** at 610 metres vertical depth. These drill holes indicated that mineralization persists east of the Main Zone but the intersections are too distant from other drill holes to determine whether they represent the upper, middle or lower lenses. Further follow-up of this new Eastern Shoot would happen in 2007

As a result of the 2006 drilling, the uranium mineralization at Michelin was extended to a strike length of 1.2 kilometres and to a vertical depth of 750 metres vertical depth with a higher-grade core starting at about 330 metres vertical depth and continuing to the lower limit of drilling.

b) Jacques Lake Drilling

The 2006 drilling at Jacques Lake intersected anomalous zones of uranium mineralization over a strike length of approximately 500 m and to depth of 200 metres. These zones were found to be coincident with the known radiometric anomalies and then continued beyond these anomalies along a strong magnetic trend to the southwest. Uranium mineralization observed in Jacques Lake drill core was found to be associated with a fine-grained to aphanitic, highly strained to mylonitic metamorphosed intermediate volcanic unit with varying degrees of pervasive hematite with strong magnetite + actinolite + calcite +/- chlorite +/- pyrite veining. Anomalous intersections were generally broad and in excess of 10 m. DDH JL06-018, JL06-019 and JL06-020 returned the most significant results with intercepts up to **0.11% U_3O_8/57.71 m.** Similarities with Michelin mineralization include variable hematite alteration within a strongly sheared host rock, however, the intensity of magnetite and calcite veining was observed to be much higher at Jacques Lake as well as an overall lower SiO_2 content in whole-rock geochemistry.

In light of the 2006 results from drilling at Jacques Lake, an intensive follow up drill program was recommended for 2007 to test the down-dip and down-plunge extension of existing mineralization as well as the possible strike extensions of the known mineralized zones.

c) White Bear Drilling

The 2006 field season saw 2.985.95 m of drilling in two drill phases at White Bear Lake. This work confirmed both the presence of bedrock uranium mineralization and verified the values returned in Brinex drilling from the late 1970s.

In Phase I, drill hole WB06-001 was drilled as a direct twin of Brinex drill hole 77-7. Results from the two holes correlated very well with approximately **0.25% U_3O_8 over 14.5m to 15m**. WB-06-002, 003 and 004 were drilled in the same vicinity but only patchy mineralization was revealed.

Phase II commenced approximately 650 m to the east towards the Burnt Lake granite intrusion. Ten drill holes were situated in this area to follow-up on Brinex drill holes and radioactive trenches. Correlation of mineralization between holes was inconsistent, possibly due to the late intrusion of the granite and the fluids associated with it. Three drill holes were also completed 1km to the west of the main drilling area but returned no significant results.

Despite the historic Brinex results being successfully confirmed, the continuity between mineralized zones was not established. Further drilling may help to better understand of the relationships between the lithologies, mineralization and the intrusion of the Burnt Lake granite.

d) Rainbow Drilling

The 2006 drill campaign was designed to confirm and expand the near surface Rainbow Zone, located 2 km to the southwest of the Michelin Deposit. Nine of fifteen drill holes intersected significant results including: **0.13% U_3O_8/18.80m** in RZ06-001A (confirmation hole RZ-71-6), **0.154% U_3O_8 /9.35m** in RZ06-002, **0.15% U_3O_8/7.7m** in RZ06-007, **0.42% U_3O_8/3.00m** in RZ06-011. As a result of the 2006 drilling, the mineralization was extended over a 300 m strike length and to a depth of 115.50 m though further drilling is to from a 43-101 compliant resource.

e) Inda Lake Trend

The Inda Lake Trend is a 7 km trend of uranium showings and deposits located on the boundary between the Post Hill group and the Aillik group in the northern portion of the CMB land package. Extensive historical work has located three highly prospective areas called the Gear, Inda and Nash prospects. Diamond drilling during the 2006 field season confirmed not only the presence of bedrock uranium in the Inda Lake Trend but also the potential for significant copper concentrations at the Gear target area. Highlights included **2.2% U_3O_8 /3.62m** in I07-001 at the Inda prospect.

f) Melody Hill Gravity Survey

Results from the Phase I and II gravity surveys at Melody Lake showed a series of subtle gravity anomalies beneath Melody and Jamson Lakes coincident with uranium in lake sediment anomalies. It was recommended that these anomalies be drill tested from the ice during the winter of 2007.

g) Aurora River (now Aurora Corridor)

Mapping along the Aurora River Shear Zone in 2006 showed uranium mineralization to be strongly controlled by the shear zone fabric and related to the brecciation along the margins of felsic and mafic lithic domains, suggesting that the mineralization is late kinematic.

High assay values were returned from the surface trenches indicating the potential for economic mineralization at Aurora River. However, the subdued radiometric responses over the target areas did not seem to reflect the assay values. The reason for the reduced radiometric anomaly is not known, but it is speculated that the low abundance of boulders and significant swamp cover in the area may have reduce the airborne radiometric signature of bedrock hosted uranium mineralization.

Based on encouraging results returned by initial field checks in the 2006 field season, an aggressive initial drill program was recommended for 2007 to test the known zones of uranium mineralization.

g) Metallurgy

Metallurgical testing of samples from the Michelin, Jacques Lake, and White Bear targets was carried out at SGS Laboratories in Lakefield, Ontario. Testing showed uranium recoveries at Michelin to be on the order of 88% and those at Jacques Lake to be approximately 91%. Additional tests were also carried out at SGS including process mineralogy, comminution, physical concentration, and acid leaching.

h) Resource Update

An updated NI 43-101 compliant resource estimate for the Michelin Deposit was completed over the month of January, 2007. Concurrently with the updated Michelin resource estimate, an initial resource estimate was also developed for the Jacques Lake deposit. The resource modeling was carried out with both an Open Pit and Underground component by Gary Giroux, P. Eng. The breakdown of the resource categories is detailed in **Table 12.1** below.

Table 12.1: 2007 CMB Resource Summary

	Measured			Indicated			Inferred		
Deposit	**Tonnes**	**% U3O8**	**lbs U3O8**	**Tonnes**	**% U3O8**	**lbs U3O8**	**Tonnes**	**% U3O8**	**lbs U3O8**
Michelin Open Pit*	3,410,000	0.07	5,340,000	7,930,000	0.06	10,840,000	460,000	0.04	440,000
Michelin Underground**	-	-	-	14,310,000	0.12	36,290,000	13,950,000	0.11	32,610,000
Jacques Lake Open Pit*	-	-	-	1,150,000	0.08	2,100,000	1,520,000	0.06	1,880,000
Jacques Lake Underground**	-	-	-	1,670,000	0.09	3,310,000	1,950,000	0.07	3,100,000

**** Open pit resource reported at 0.03% U_30_8 cut-off***
***** Underground resource reported at a 0.05% U308 cut-off***

Based on the encouraging results from the 2006 work, a further **$21.25 million (Can) budget** was proposed for a two-phase program of work in 2007.

The 2007 Phase I Work Program included:

a) The development of the previously above mentioned NI 43-101 compliant resource for the Michelin Uranium Deposit and the Jacques Lake target;
b) The ongoing metallurgical testing of coarse core rejects from the 2006 drilling campaign from Michelin, Jacques Lake and White Bear at Lakefield Research in Ontario; and
c) Commence conceptual investigations into potential mining methods, infrastructure and environmental work.

The budget for the Proposed 2007 Phase I Work Program was **$0.5 million (Can).**

Assuming ongoing positive results from the 2007 Phase I Work Program, a follow-up 2007 Phase II Work Program was also recommended for Q2/3/4-2007. This included:

a) A 75,000 metre diamond drill program at Michelin, Jacques Lake, Aurora River, Michelin East, White Bear Lake, Melody Hill, and Inda Lake Trend to define and expand the known resource at Michelin and Jacques Lake and develop new resources within the other targets areas;
b) A geological mapping and geochemical sampling program throughout the CMB claim group with particular focus on the Aurora River Trend, southwest of Jacques Lake; and
c) An ongoing environmental baseline survey and monitoring program (Q2/Q3 – 2007).

The budget for the Proposed 2007 Phase II Work Program was **$20.75 million (Can).**

12.5 2005-2006 ENVIRONMENTAL BASELINE WORK

In 2005, Aurora Resources Energy Inc. contracted Earth Tech Canada to conduct an environmental assessment of the Michelin site prior to the initiation of the exploration drill program. This work included: review of background information on the study area, completion of an inspection of the Michelin area to assess current baseline conditions, completion of two sample sets (July and October 2005) of surface water and lake sediment sampling program in the area of Ranjan Lake and the adjacent lagoon; a Gamma Radiation survey of the waste rock pile, lagoon edges, roads and former building areas.

Field observations indicated that the Michelin study area was relatively clear of large amounts of waste materials.
A review of the surface water analytical data indicated that there was an increasing trend in concentrations of selected parameters between the July and October 2005 monitoring events. In July, values exceeding CCME guidelines were detected at one sample site located immediately below the waste rock pile. In October, values exceeding CCME Guidelines were observed for selected parameters at all sample sites (STN 1, STN 4, and STN 7).

A review of the sediment analytical data indicated that there was a reduction in concentrations in the 2005 data compared to the 1992 data from the same sampling locations.

Data obtained during the 2005 gamma survey generally indicated slightly higher radiation levels in the waste rock areas as compared to the previously reported 1992 decommissioning report data.

As a follow-up to the 2005 work, the 2006 environmental baseline program was designed to develop an environmental baseline report sufficient to support a pre-feasibility study for a uranium mine development at Michelin and satellite exploration sites. The program included the installation of three weather stations (Michelin, Jacques Lake and Postville) to collect temperature, precipitation, wind direction and velocity. The environmental baseline program also included a surface water quality sampling and hydrological program in the area of the Michelin and Jacques Lake watersheds, the collection of data on aquatic (fish) habitat, lake sediment samples, fish tissue and aquatic plants samples (to supplement historic data).

Aurora Energy also contracted Gerald Penney Associates Limited of St. John's Newfoundland to conduct a Historic Resources Overview Assessment (Stage 1) of the drill site locations. No archaeological sites were found in the immediate proximity of the drill locations.

The 2007 Environmental Baseline work was initiated in September 2007 with wildlife studies, traditional knowledge surveys, and hydrological work. No data has been received to date.

13.0 DIAMOND DRILLING

Comment [c3]: Really need a consistent, standardized set of plans and sections for reporting….

From April 16th, 2007 through December 31st, 2007, an extensive diamond drilling program was completed on the CMB Uranium Property to test the Michelin, Jacques Lake, Melody Hill, Aurora Corridor, Burnt Brook, Gayle, Gear, Inda, and Nash properties. A total of **141 diamond drill holes totaling 49,793 metres** were completed utilizing up to 11 helicopter-supported drill rigs from Falcon Drilling, Major Drilling and Springdale Drilling over the course of the program. This falls short of the 75,000 planned metres for a variety of reasons:

a) Delays in receiving drill permits from the Nunatsiavut Government and Provincial Governments due to the development of their new Standards for Mineral Exploration and Quarrying on Labrador Inuit Lands which was passed into law on March 30th, 2007.
b) Severe winter conditions lasting well into May which slowed the construction drill pads and hampered drilling rates.
c) Delays in receiving new drill rigs on site from Major Drilling due to delays in manufacturing and shipping to site.
d) Slower than expected production due to experienced drilling crews and hard ground conditions.

A breakdown of the drilling by area is given in the following sections and details of the collar locations and assay composites constitute **Appendices II and III** of this report. Assay certificates are available on file at the Aurora Energy Resources Inc. office in Vancouver, BC.

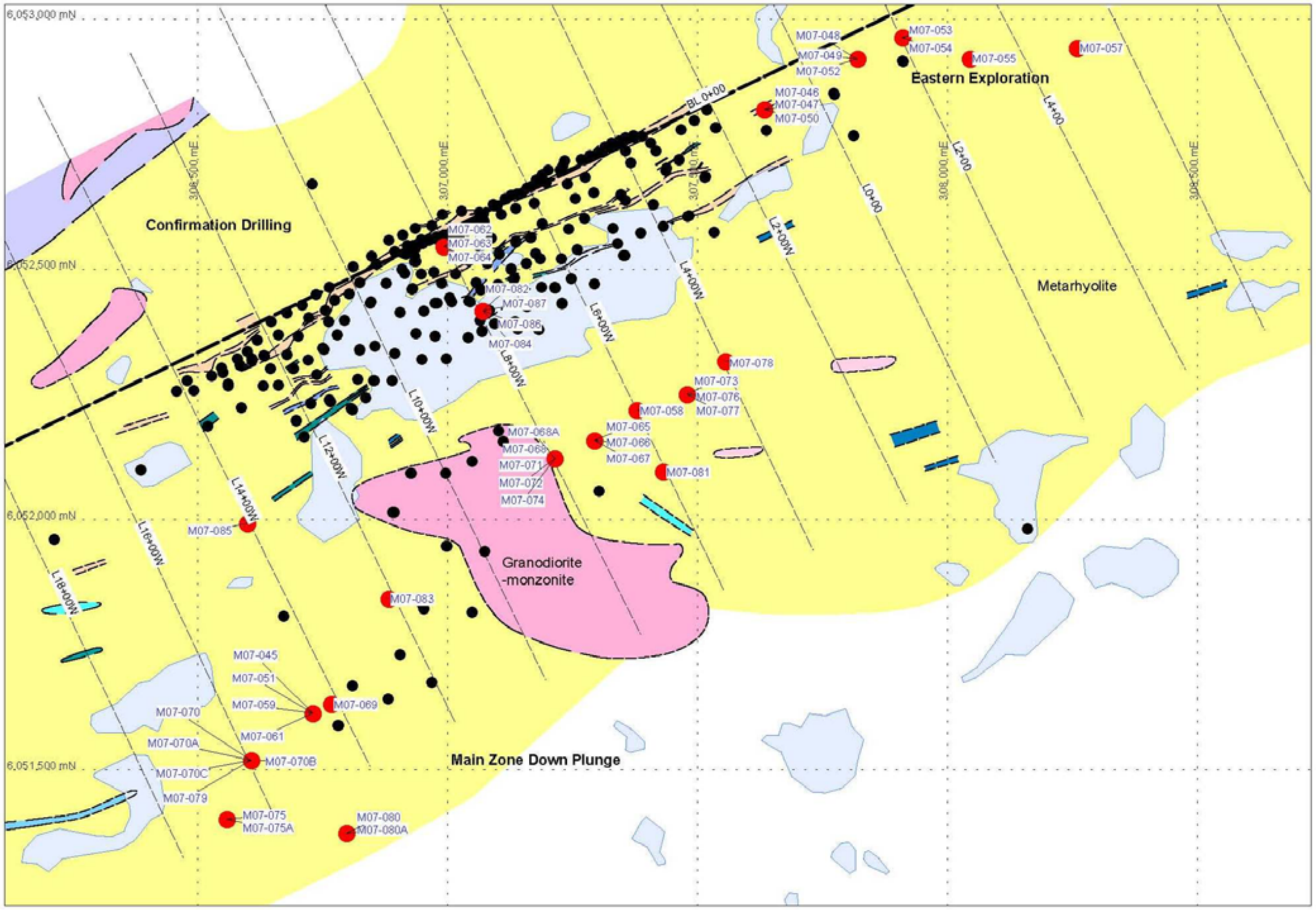
13.1 MICHELIN TARGET AREA

13.1.1 Introduction

The 2007 Michelin drill program started on June 10th and finished on November 27th. **50 diamond drill holes** totalling **21,611.49m** were drilled in the Michelin Deposit area **(Figure 13.1)**. This total includes one hole that was extended from 2006, and two holes were aborted prior to intersecting the mineralized zone. Wedges and controlled drilling techniques were used in a number of holes in an attempt to better control the positioning of pierce points within the vertical longitudinal section but this also added to slower drilling production. A combination of Falcon, Major and Springdale drill rigs were used to complete this work.

Five phases of drilling were carried out in 2007: a) the Shallow Eastern Exploration Program; b) the Main Zone - Down-plunge Extension Program; c) the Eastern Shoot Down-plunge Extension Program; d) the Confirmation Program; and e) the Western Shoot Program. Drill hole locations are detailed on **Figure 13.1** and in **Table 13.1**.

Figure 13.1: Michelin Target Area, Plan Map of 2007 DDH Locations



Comment [c4]:

13.1.2 Eastern Exploration

11 drill holes totaling 1,674.69m were drilled to test the Michelin mineralized horizon to the east of the known deposit. These drill holes tested the horizon to a distance of 700 meters east of previous coverage and to shallow depths of a maximum of 150 meters vertically below surface.

Results of the drilling indicate that the Michelin horizon persists eastward with significant alteration but generally only weak radioactivity. Results were typically 20 to 30 meters of mineralized material assaying around 0.01% U_3O_8, with highs of **0.12% U_3O_8/1.60m** in DDH M07-047 and **0.10% U_3O_8/3.49m** in DDH M07-049.

Recommendations for this area are for a series of 200-meter spaced drill holes to continue testing the Michelin horizon to the east and at depth.

13.1.3 Main Zone Down-Plunge

15 drill holes totaling 10,319.11m were drilled to target the down-plunge of the Michelin Main Zone mineralization, including three drill holes that did not reach the target. The drill holes were widely spaced, and included one of the planned delineation drill holes.

The Main Zone Down-plunge Extension Program ended on November 29 and the drilling to date has succeeded in extending the Main Zone mineralization an additional 185 meters west of previous intercepts and to 900 meters vertical depth below surface. The deepest part of the resource now comprises an area 450 meters by 500 meters in size which is defined only by widely spaced drill holes. The zone appears to be closed off at depth.

Highlights from the drilling include: **0.11% U_3O_8/15.0m** in M07-059 and **0.12% U_3O_8/7.53m** in M07-051, extending the zone to a vertical depth of almost 800 meters. Other highlights include: **0.25% U_3O_8/9.5m** including **0.31% U_3O_8/7.5m** in M07-069; **0.13% U_3O_8/5.61m** in M07-045A; and **0.09% U_3O_8/46.44m**, including **0.017% U_3O_8/11m** and **0.4% U_3O_8/5.56m** in M07-083**.**

13.1.4 Eastern Shoot Down-Plunge

16 drill holes totaling 7,991.67m were drilled to test the down-plunge of the Eastern Shoot, discovered in late 2006. The Eastern Shoot mineralization occurs 250 meters east of the Main Zone along the main mineralized horizon but is separated from the Main Zone by a narrow interval of un-mineralized material. The drill holes targeting the Eastern Shoot also cut the South Zone mineralization, as well as other smaller zones of hanging wall mineralization. Three of the 16 drill holes were lost before reaching the mineralized zone.

Table 13.1: Summary of 2007 Michelin Drilling

Michelin Deposit

# Holes	Hole_ID	UTM_East	UTM_North	Grid_East	Grid_North	Elev. (m)	Azimuth	Dip	TD (m)
Michelin Data = NAD 83, zone 21									
Shallow Eastern Exploration									
1	M07-046	307634	6052819	-112	-60	338	329	-45	123.75
2	M07-047	307634	6052819	-112	-60	338	329	-75	154.23
3	M07-048	307820	6052920	100	-50	339	332	-45	137.77
4	M07-049	307820	6052920	100	-50	339	332	-75	182.88
5	M07-050	307634	6052819	-112	-60	338	329	-90	185.32
6	M07-052	307.82	6052920	100	-50	339	332	-90	93.57
7	M07-053	307910	6052963	200	-50	340	332	-45	93.27
8	M07-054	307910	6052963	200	-50	340	332	-85	108.81
9	M07-055	308045	6052920	300	-150	341	330	-45	214.88
10	M07-056	308045	6052920	300	-150	341	330	-80	165.33
11	M07-057	308259	6052942	501	-224	340	328	-62	214.88
Subtotal									**1,674.69**
Main Zone - Down-plunge Extension									
1	M07-045	306731	6051613	-1446	-752	342	316	-79	183.49
2	M07-051	306731	6051613	-1446	-752	342	311	-72	831.40
3	M07-059	306731	6051613	-1446	-752	342	311	-66	776.33
4	M07-061	306731	6051613	-1446	-752	342	316	-62	707.29
5	M07-069	306768	6051631	-1405	-753	342	318	-80	833.09
6	M07-070	306607	6051519	-1598	-782	341	326	-78	867.02
7	M07-070A	306607	6051519	-1598	-782	341	326	-78	308.54
8	M07-070B	306607	6051519	-1598	-782	341	326	-78	15.00
9	M07-070C	306607	6051519	-1598	-782	341	326	-78	266.00
10	M07-075	306559	6051401	-1693	-866	343	322	-85	776.18
11	M07-075A	306559	6051401	-1693	-866	343	322	-85	560.50
12	M07-079	306607	6051519	-1598	-782	341	326	-71	872.00
13	M07-080	306798	6051373	-1489	-997	349.6	322	-79	701.00
14	M07-080A	306798	6051373	-1489	-997	349.6	322	-79	1151.00
15	M07-083	306882	6051842	-1200	-600	337	325	-84	818.00
Subtotal									**10,319.11**
Eastern Shoot - Down-plunge Extension									
1	M07-058	307379	6052218	-601	-491	352	332	-50	504.14
2	M07-060	307379	6052218	-601	-491	352	332	-65	98.76
3	M07-060A	307379	6052218	-601	-491	352	332	-68	537.67
4	M07-065	307294	6052158	-704	-508	348	332	-53	549.55
5	M07-066	307294	6052158	-704	-508	348	332	-59	556.26
6	M07-067	307294	6052158	-704	-508	348	332	-65	559.56
7	M07-068	307215	6052122	-791	-506	346	328	-55	175.26
8	M07-068A	307215	6052122	-791	-506	346	328	-55	508.41
9	M07-071	307215	6052122	-791	-506	346	328	-63	276.76
10	M07-072	307215	6052122	-791	-506	346	328	-73	612.04
11	M07-073	307479	6052250	-498	-506	354	330	-54	539.84
12	M07-074	307215	6052122	-791	-506	346	328	-66	569.72
13	M07-076	307479	6052250	-498	-506	354	328	-65	601.00
14	M07-077	307479	6052250	-498	-506	354	330	-76	691.00
15	M07-078	307556	6052316	-401	-481	348	330	-56	568.00
16	M07-081	307431	6052096	-609	-624	359	326	-64	643.70
Subtotal									**7,991.67**
Confirmation Drilling									
1	M07-062	306993	6052545	-806	-27	334	332	-90	148.74
2	M07-063	306993	6052545	-806	-27	334	332	-65	99.97
3	M07-064	306993	6052545	-806	-27	334	332	-45	80.77
4	M07-082	307071	6052419	-790	-175	334	330	-53	224
5	M07-084	307071	6052419	-790	-175	334	330	-65	224.34
6	M07-086	307071	6052419	-790	-175	334	330	-76	242.2
7	M07-087	307071	6052419	-790	-175	334	330	-37	200
Subtotal									**1,220.02**

Western Shoot									
1	M07-085	306600	6051992	-1398	-353	333	326	-66	406
Subtotal									**406**
Total Michelin Drilling									
Total									**21,611.49**

The Eastern Shoot Down-plunge Extension Program has traced the Eastern Shoot over a horizontal distance of 300 meters and to a vertical depth of 600 meters. The mineralization is generally six to sixteen meters thick with typical Michelin grades, characteristics, and geometry. The mineralization remains open down plunge where it may merge with the Main Zone.

Highlights from the 2007 drilling include: **0.09% U_3O_8/11.69m** including **0.17% U_3O_8/5.01m** in M07-058**; 0.16% U_3O_8/6.8m** in M0-60A**; 0.16% U_3O_8/6.53m** in M07-065**; 0.15% U_3O_8/8.91m** in M07-066; and **0.24% U_3O_8/10.1m** in M07-072.

13.1.5 Confirmation Drilling

7 drill holes totaling 1220.02m were drilled to validate the near-surface diamond drill results reported by Brinex from their 1970's exploration. This is part of an ongoing program designed to validate approximately 10% of the historic resource defined by the Brinex drilling; 10 drill holes remain to be completed on this program in 2008. The area of confirmation all falls within the scope of the proposed open pit resource.

Results to date indicate that the mineralization cored in the seven 2007 holes compares favorably with adjacent Brinex intercepts. Highlights include: **0.06% U_3O_8/44.92m** including **0.11% U_3O_8/17.69m** in M07-062; **0.06% U_3O_8/39.31m** including **0.10% U_3O_8/15.14m** in M07-063; **0.06% U_3O_8/33.42m** including **0.11% U_3O_8/8.22m** in M07-064; **0.13% U_3O_8/35.82m** in M07-082; **0.12% U_3O_8/28.82m** in M07-084; **0.1% U_3O_8/40.49m** in M07-086; and **0.1% U_3O_8/39.07m** in M07-087.

13.1.6 Western Shoot

One drill hole totalling 406m was drilled to test the mineralization potential of the Western Shoot. Drill hole **M07-085** intersected a thin zone of mineralization, returning **0.08% U_3O_8/0.58m**.

13.1.7 Discussion

Drilling in 2007 was very successful in extending both the Main Zone and the Eastern Shoot to vertical depths of 900 meters and 600 meters respectively and the Eastern Shoot remains open down-plunge to the southwest.

Drilling in 2008 will focus on delineation of the Main Zone with three core rigs, and on completion of the aforementioned confirmation drilling of the historic resource with one core rig. The Main Zone delineation drilling will concentrate on tightening the drill spacing throughout the resource to move the inferred portions of the resource to the indicted category in advance of any pre-feasibility work. Exploration should also continue chasing the down plunge extensions of the Eastern Shoot, as well as searching for similarly plunging shoots in the immediate area.

Figure13.2: Michelin Main Property DDH Section 9+40W

(With major lithological units and assay histograms)

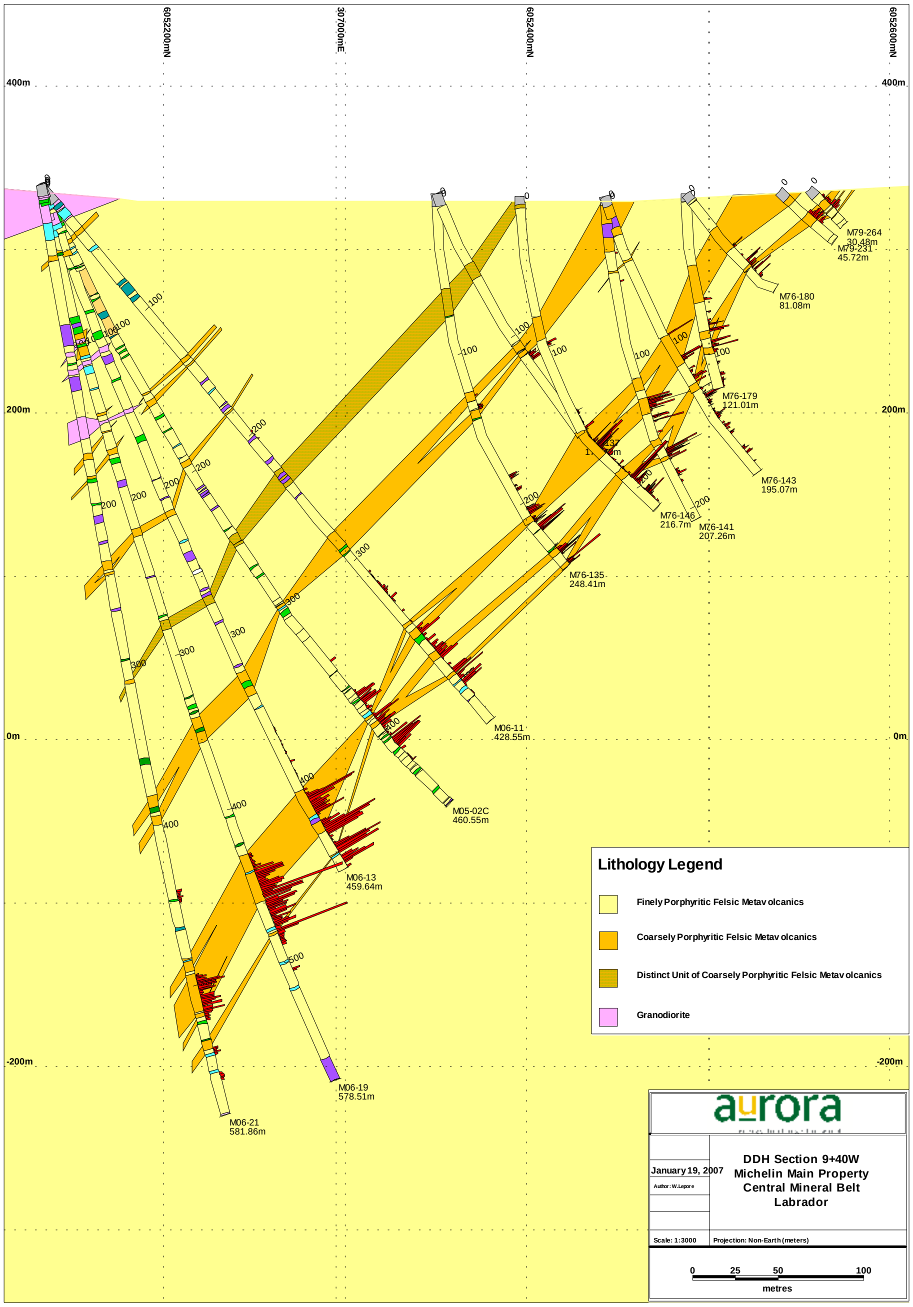
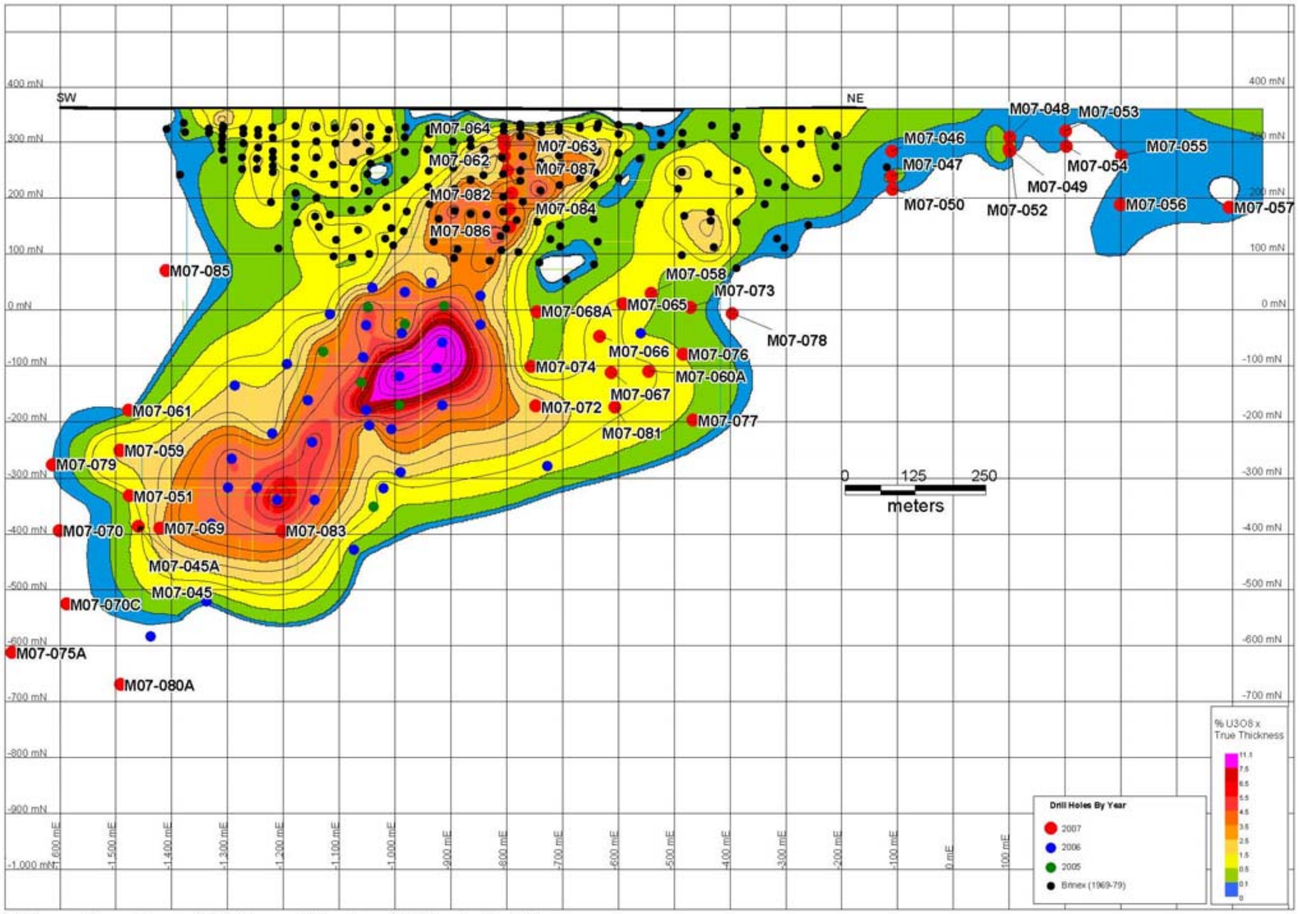


Figure 13.3: Michelin Target Area, DDH Vertical Longitudinal Section



Miniumu Curvature - 5 M Internal Tension 0.3 Grade Cutoff

Comment [c5]: Need updated section. Mask out green and yellow blobs to NE…

Table 13.2: Summary of 2007 Michelin Assay Composites

Comment [c6]: Do we describe our compositing methodology anywhere? (e.g. 0.03 cut-off, up and down hole, etc.?)

Hole ID	From (m)	To (m)	Length (m)	% U3O8
cut off grade 0.03% U3O8				
M07-045A	761.09	766.70	5.61	0.13
incl	762.09	763.01	0.92	0.22
M07-046	69.40	70.40	1.00	0.03
M07-047	103.76	105.36	1.60	0.12
M07-048	40.33	42.33	2.00	0.04
M07-049	51.04	54.53	3.49	0.10
incl	53.78	54.53	0.75	0.16
M07-050	NSV			
M07-051	722.24	729.77	7.53	0.12
incl	722.24	723.38	1.14	0.34
incl	725.38	726.77	1.39	0.17
M07-052	NSV			
M07-053	NSV			
M07-054	NSV			
M07-055	NSV			
M07-056	159.95	160.85	0.90	0.03
M07-057	NSV			
M07-058	437.24	448.93	11.69	0.09
incl	439.12	444.13	5.01	0.17
incl	440.12	443.12	3.00	0.20
M07-059	654.92	669.92	15.00	0.11
incl	654.92	659.92	5.00	0.14
incl	654.92	655.92	1.00	0.21
incl	662.76	664.76	2.00	0.16
M07-060A	501.00	507.80	6.80	0.16
incl	504.00	506.00	2.00	0.24
M07-061	NSV			
M07-062	31.01	75.93	44.92	0.06
incl	32.51	50.20	17.69	0.11
incl	43.84	49.18	5.34	0.23
incl	54.92	56.42	1.50	0.10
and	88.83	92.34	3.51	0.20
M07-063	24.26	63.57	39.31	0.06
incl	25.76	40.90	15.14	0.10
incl	31.29	34.89	3.60	0.25
incl	50.69	52.76	2.07	0.11
incl	62.51	63.57	1.06	0.19
M07-064*	20.98	54.40	33.42	0.06
*5 feet missing - drilled through Brinex adit				
incl	22.83	33.81	10.98	0.09
incl	24.04	28.96	4.92	0.14
incl	27.70	28.96	1.26	0.24
incl	46.18	54.40	8.22	0.11
incl	48.68	51.18	2.50	0.20

M07-065	374.18	378.22	4.04	0.08
incl	374.18	376.72	2.54	0.11
incl	374.18	375.12	0.94	0.20
and	452.90	459.43	6.53	0.16
incl	453.77	455.47	1.70	0.30
and	473.13	478.37	5.24	0.06
incl	473.13	474.63	1.50	0.10
incl	477.37	478.37	1.00	0.10
M07-066	476.31	485.22	8.91	0.15
incl	479.31	485.22	5.91	0.20
incl	480.22	481.22	1.00	0.38
incl	483.22	484.22	1.00	0.31
M07-067*	509.41	509.91	0.50	0.16
and	515.19	532.88	17.69	0.06
incl	515.19	520.50	5.31	0.11
and incl	517.65	519.07	1.42	0.16
M07-068A	444.54	445.54	1.00	0.04
and	446.54	447.60	1.06	0.03
M07-069	757.90	767.40	9.50	0.25
incl	758.90	766.40	7.50	0.31
incl	758.90	759.40	0.50	1.80
M07-070	NSV			
M07-070A-C				
M07-072	423.80	429.88	6.08	0.06
and	547.40	557.50	10.10	0.24
incl	550.50	553.50	3.00	0.25
incl	554.50	557.50	3.00	0.39
M07-073	283.00	284.00	1.00	0.13
and	326.00	329.00	3.00	0.07
and	455.00	457.00	2.00	0.09
M07-074	495.07	499.30	4.23	0.08
incl	498.71	499.30	0.59	0.16
and	511.80	512.80	1.00	0.09
M07-075A	NSV			
M07-076	293.70	294.70	1.00	0.06
and	316.13	318.13	2.00	0.04
and	486.63	488.00	1.37	0.04
and	491.90	492.90	1.00	0.04
M07-077	337.00	337.60	0.60	0.17
and	621.75	622.75	1.00	0.04
M07-078	245.86	247.06	1.20	0.06
and	261.37	261.87	0.50	0.04
and	267.05	268.05	1.00	0.16
and	455.65	457.21	1.56	0.04
and	495.70	496.77	1.07	0.03
M07-079	670.08	670.50	0.42	0.03
M07-080	NSV			
M07-081	424.00	425.00	1.00	0.04
and	433.00	434.00	1.00	0.05

and	469.31	470.31	1.00	0.03
and	605.10	609.10	4.00	0.12
incl	607.10	609.10	2.00	0.17
and	612.60	613.60	1.00	0.03
M07-082	94.00	95.00	1.00	0.03
and	118.47	120.71	2.24	0.05
and	125.29	126.29	1.00	0.04
and	130.19	131.79	1.60	0.11
incl	130.19	130.99	0.80	0.16
and	140.21	176.03	35.82	0.13
incl	140.21	142.21	2.00	0.24
incl	147.21	149.21	2.00	0.24
incl	150.21	152.21	2.00	0.26
incl	155.42	157.62	2.20	0.37
M07-083	719.00	730.00	11.00	0.17
incl	724.00	728.00	4.00	0.26
and	741.74	742.94	1.20	0.05
and	745.55	746.63	1.08	0.10
and	759.88	765.44	5.56	0.40
incl	761.88	762.8	0.92	0.61
incl	764.30	765.44	1.14	0.95
M07-084	143.02	144.20	1.18	0.04
and	154.40	183.22	28.82	0.12
incl	155.40	165.40	10.00	0.23
and incl	160.40	163.40	3.00	0.39
incl	168.35	169.15	0.80	0.20
M07-085	306.19	306.77	0.58	0.08
M07-086	145.90	146.90	1.00	0.07
and	170.67	211.16	40.49	0.10
incl	170.67	185.02	14.35	0.17
and incl	174.67	175.67	1.00	0.36
and incl	177.67	178.67	1.00	0.31
and incl	180.67	182.67	2.00	0.27
incl	188.20	189.20	1.00	0.29
incl	197.37	198.37	1.00	0.18
M07-087	119.91	121.29	1.38	0.13
and	126.30	127.07	077	0.17
and	134.00	173.07	39.07	0.10
incl	135.00	142.09	7.09	0.19
incl	142.82	146.74	3.92	0.26
incl	148.45	151.45	3.00	0.18
incl	171.04	173.07	2.03	0.23

Assay composites are calculated using the following formula:

[Sum(sample %U3O8 x sample interval length)]/(total interval length)
Minimum cut off grades must be maintained in both the "up hole" and "down hole" directions for a composite to qualify.

13.2 JACQUES LAKE TARGET AREA

13.2.1 Introduction

A diamond drilling program consisting of 22,000 metres was proposed for the Jacques Lake deposit in 2007. The focus of the proposed program was to test for additional mineralization down-dip and down-plunge to the south west of the existing resource area at the deposit.

A total of **29 drill holes** with a cumulative length of **14,209.00 m** were completed on the Jacques Lake target **(Figure 13.2.1 and Table 13.2.1)** between April 27th 2007 and October 31st 2007 using up to four helicopter-supported drill rigs from Falcon Drilling. Drilling was focused on exploring for down-dip and down-plunge extensions to the deposit. Drill holes were oriented at 315° azimuth to intercept mineralization a roughly perpendicular orientation.

The short fall in the actual drilling meterage versus the proposed drill meterage were due to early season weather delays, mechanical breakdown delays, and chronic drill crew shortages.

13.2.2 Discussion

The 2007 drill program was successful in expanding the Jacques Lake deposit further to the west and down-dip **(Figure 13.2.2 and 13.2.3 and Table 13.2.2)**. The 2007 drill program also added confidence to the understanding of the fold interference pattern controlling thickening of the mineralized zone. Intervals of uranium mineralization intersected in 2007 are of comparable width and grade to those cut in 2006.

Uranium mineralization at Jacques Lake is hosted within a package of magnetite bearing intermediate volcanic rocks (trachyandesites), variably hematized and albitized. Mineralization is correlatable with an increase in both magnetite and hematite content. Ore zones are interpreted to have undergone multiple folding events, and to be plunging to the south. The hanging wall to the deposit consists of a poorly sorted heterolithic conglomerate, clasts of albitized intermediate volcanics have been observed within the conglomerate, and as such the hanging wall conglomerate is interpreted to be younger than the host intermediate volanics. The footwall to the deposit is dominantly a granite pluton related to the Trans-Labrador batholith. All levels of the deposit area are cut by a series of mafic intrusive bodies, these bodies crosscut the mineralized zones and may be unfoliated to strongly foliated. The deposit is poorly exposed at surface with a series of mineralized outcrops scattered along the slope overlying the deposit. Airborne magnetics are effective in mapping the distribution of magnetite alteration in the area, and therefore the extent of the host rocks.

Highlights from 2007 drilling include: DDH **JL07-070** which intersected **0.12% U_3O_8/17.0m** approximately 100m down plunge from the existing resource block. Other results include: **0.15% U_3O_8/15.02m** including **0.21% U_3O_8/7.00m** in JL07-061; **011% U_3O_8/26.00m** in JL07-062; and **0.12% U_3O_8/42.50m** in JL07-066. Drill hole

JL07-076 intersected a main zone of **0.11% U_3O_8/10m** approximately 200m down-plunge from the existing resource block, demonstrating the potential for additional mineralization to occur in close proximity to the existing deposit.

Work in 2008 should continue to focus on following the down-plunge extension of the zone to the southwest and continuing the conversion of inferred resource blocks to indicated, through adding additional infill drill holes in the inferred resource. Exploration potential is believed to exist to the North East of the current deposit, in an area of coincident airborne magnetic and radiometric anomalies.

Figure 13.2.1: Jacques Lake Target Area, Plan Map of 2007 DDH Locations

Comment [c7]: Can we use new topo here? Also, don't we have a geology plan?

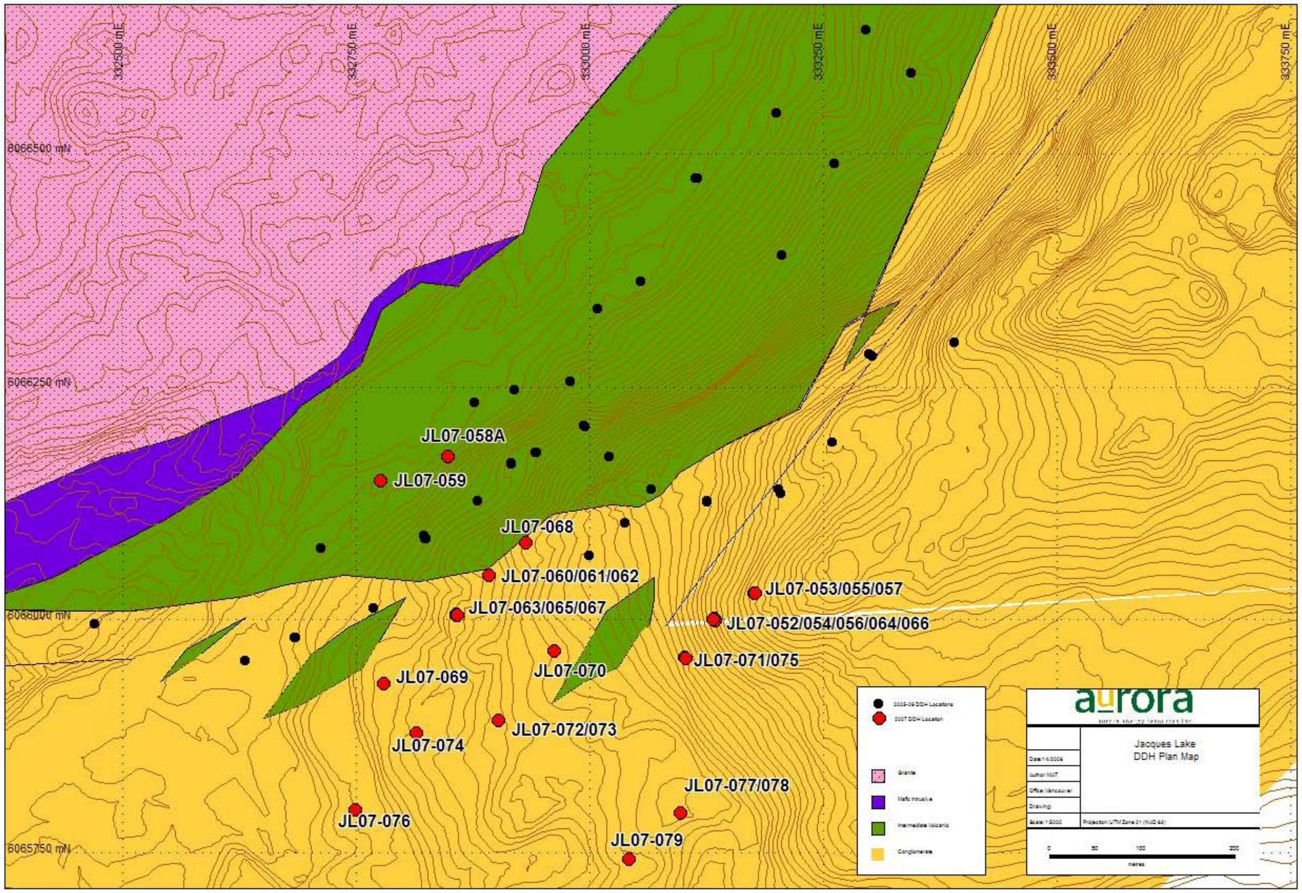


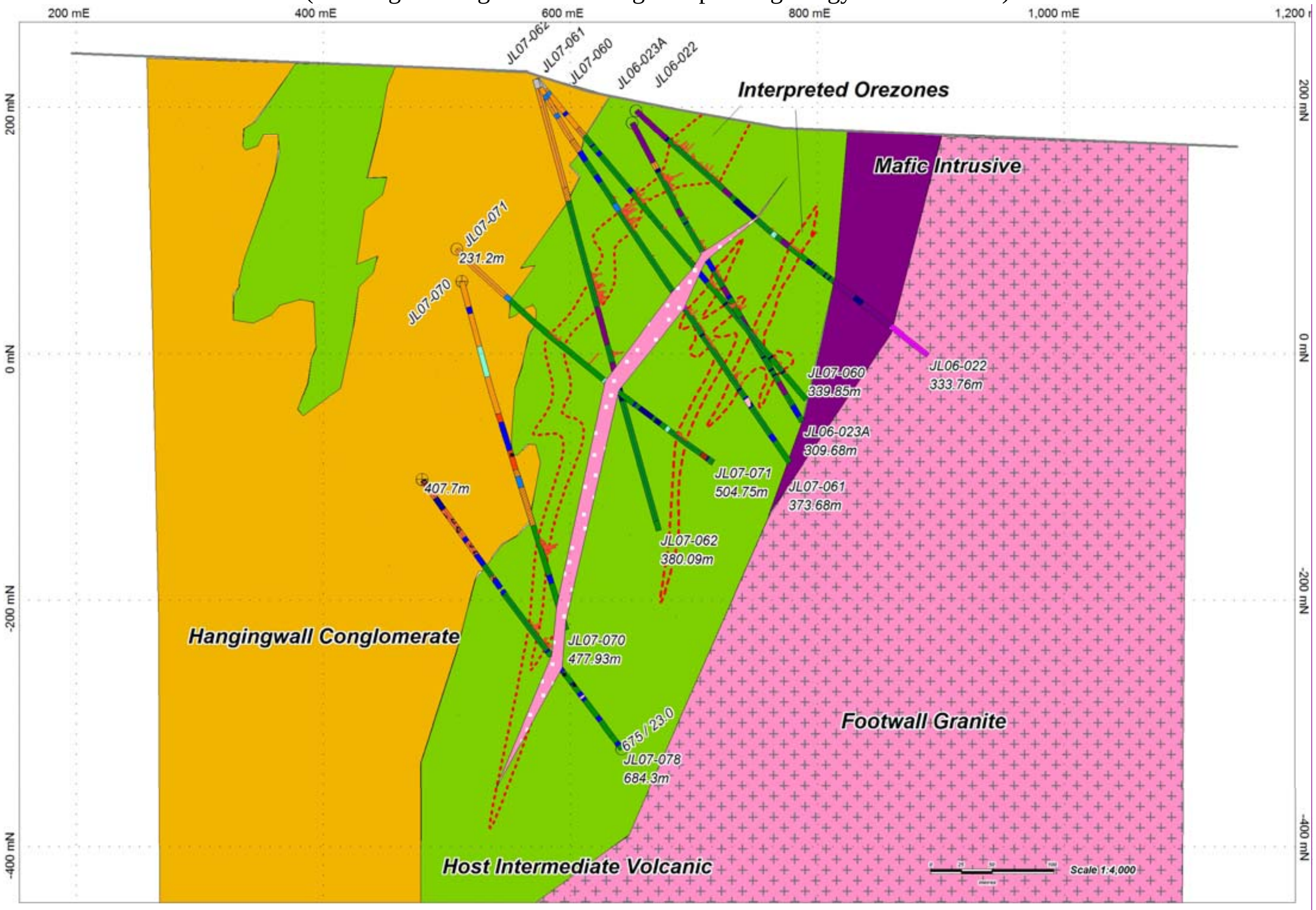
Table 13.2.1: Summary of 2007 Jacques Lake Drilling

# Holes	Hole ID	UTM East	UTM North	Elev. (m)	Azimuth	Dip	TD (m)
Jacques Lake Data = NAD 83, zone 21							
1	JL07-052	333132	6066001	270	315	-55	550.16
2	JL07-053	333176	6066031	283	315	-55	541.02
3	JL07-054	333132	6066001	270	315	-68	799.19
4	JL07-055	333176	6066031	283	315	-68	736.09
5	JL07-056	333132	6066001	270	315	-80	1,061.62
6	JL07-057	333176	6066031	283	315	-80	1,075.25
7	JL07-058	332848	6066173	191	315	-45	104.90
8	JL07-058A	332848	6066173	191	315	-45	257.56
9	JL07-059	332778	6066146	189	315	-45	226.47
10	JL07-060	332893	6066044	223	315	-50	339.84
11	JL07-061	332893	6066044	223	315	-60	373.68
12	JL07-062	332893	6066044	223	315	-75	380.09
13	JL07-063	332853	6066004	223	315	-50	355.40
14	JL07-064*	333132	6066001	270	315	-45	183.48
15	JL07-065	332853	6066004	223	315	-60	372.16
16	JL07-066	333132	6066001	270	300	-50	557.78
17	JL07-067	332853	6066004	223	315	-75	395.63
18	JL07-068	332931	6066083	235	315	-50	349.61
19	JL07-069	332778	6065935	209	315	-45	377.04
20	JL07-070	332962	6065972	235	315	-75	477.93
21	JL07-071	333104	6065963	258	300	-50	504.75
22	JL07-072	332900	6065894	229	315	-60	593.01
23	JL07-073	332900	6065894	229	315	-50	439.83
24	JL07-074	332813	6065878	211	310	-60	440.44
25	JL07-075	333104	6065963	258	300	-68	610.82
26	JL07-076	332749	6065799	207	325	-57	465.73
27	JL07-077*	333094	6065803	230	315	-48	215.49
28	JL07-078	333094	6065803	230	315	-56	691.29
29	JL07-079	333041	6065743	233	315	-56	732.74
Total							**14,209.00**

* denotes abandoned drill hole

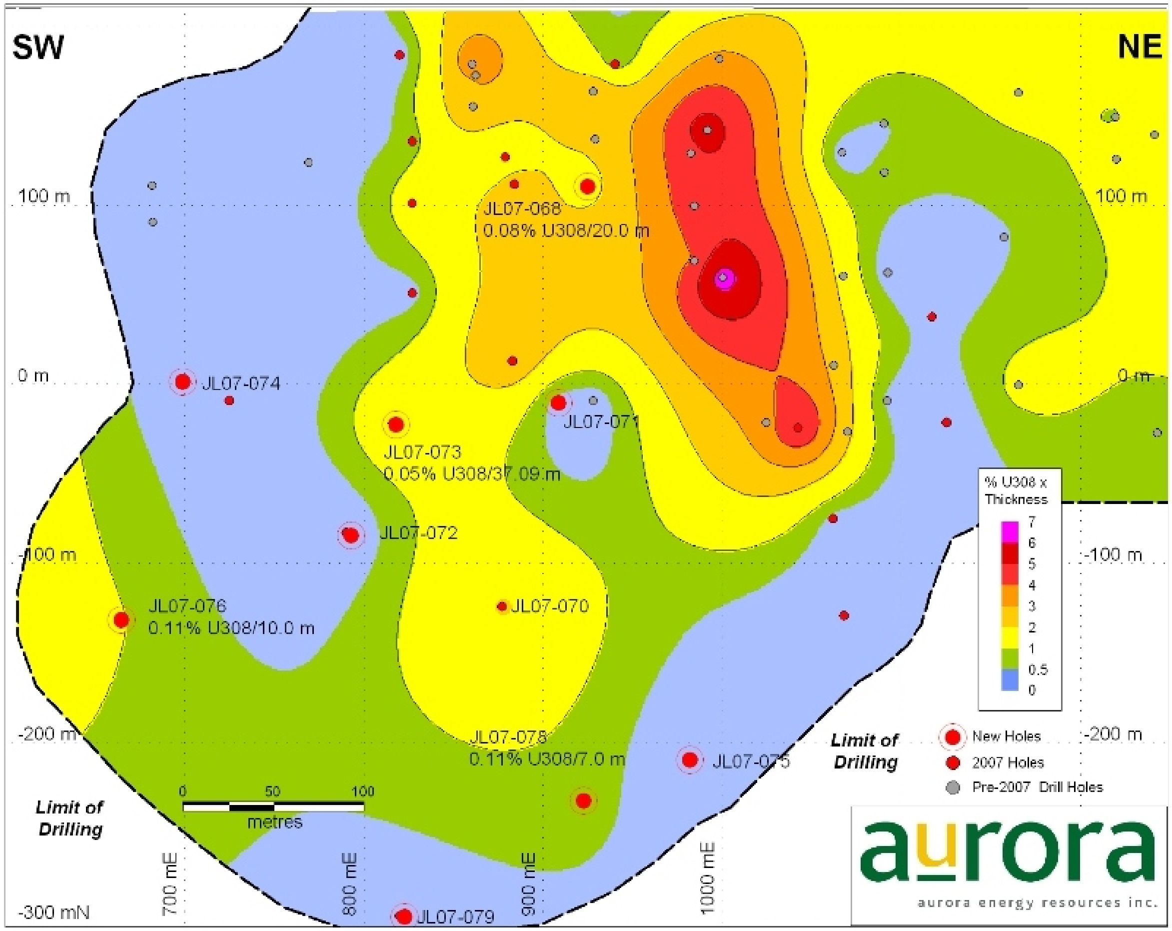
Figure 13.2.2: Jacques Lake Target Area, DDH Cross-Section L900mE

(Looking 225 degrees - Showing interpreted geology and ore zones)



Comment [c8]: Can we extend interpreted ore zone to include the footwall stuff, as it does in the resource model?

Figure 13.2.3: Jacques Lake Target Area, DDH Vertical Longitudinal Section
(%U3O8 x thickness - looking ~315 degrees)



Minimum Curvature Grid 1m Cell Size, Interior Tension 15

Table 13.2.2: Summary of 2007 Jacques Lake Assay Composites

Comment [c9]: Again – should describe compositing methodology – possibly just as footnote to table

Hole ID	From	To	Interval	%U3O8
cut off grade 0.03%U3O8				
JL07-052	295.96	296.96	1.00	0.08
and	408.50	413.50	5.00	0.06
JL07-053	306.50	312.50	6.00	0.06
incl.	309.43	310.00	0.57	0.14
and	397.00	398.00	1.00	0.04
and	444.47	445.50	1.03	0.06
and	448.50	448.95	0.45	0.06
JL07-054	310.00	311.00	1.00	0.03
JL07-055	362.11	363.11	1.00	0.06
and	378.72	379.72	1.00	0.07
and	499.75	500.75	1.00	0.05
JL07-056	No samples taken			
JL07-057	895.50	897.50	2.00	0.07
JL07-058	17.00	24.00	7.00	0.09
incl.	19.00	20.00	1.00	0.20
and	30.00	33.50	3.50	0.05
incl.	32.50	33.50	1.00	0.10
and	95.00	97.00	2.00	0.05
JL07-058A	16.24	23.24	7.00	0.09
incl.	17.24	20.24	3.00	0.15
and	25.24	26.24	1.00	0.08
and	32.25	34.64	2.39	0.09
and	125.50	126.50	1.00	0.03
and	191.00	192.00	1.00	0.05
JL07-059	90.50	92.50	2.00	0.08
JL07-060	120.28	133.50	13.22	0.09
incl.	120.28	124.50	4.22	0.13
and incl	126.50	127.50	1.00	0.22
and	158.88	159.88	1.00	0.04
and	190.50	192.50	2.00	0.04
and	195.50	195.60	0.10	0.04
and	215.25	225.60	10.35	0.05
incl.	220.60	221.60	1.00	0.12
and	242.00	253.00	11.00	0.12
incl.	243.00	244.00	1.00	0.25
incl.	246.00	251.00	5.00	0.15
and	270.95	273.95	3.00	0.07
and	296.75	304.50	7.75	0.03
JL07-061	126.37	141.39	15.02	0.15
incl.	126.37	133.37	7.00	0.21
and	172.04	172.52	0.48	0.08
and	224.11	229.96	5.85	0.06
incl.	228.96	229.96	1.00	0.17
and	233.96	234.96	1.00	0.56
and	237.96	238.96	1.00	0.04
and	256.36	257.11	0.75	0.15

and	288.95	293.20	4.25	0.18
JL07-062	164.00	190.00	26.00	0.11
incl.	166.00	168.00	2.00	0.14
incl.	174.00	177.00	3.00	0.21
incl.	180.00	181.00	1.00	0.20
incl.	188.00	189.00	1.00	0.19
and	230.00	233.00	3.00	0.11
incl.	232.00	233.00	1.00	0.19
JL07-063	104.00	119.55	15.55	0.05
incl.	104.00	105.00	1.00	0.09
incl.	114.00	115.00	1.00	0.14
incl.	116.00	117.00	1.00	0.12
and	137.00	138.00	1.00	0.03
and	184.50	195.22	10.72	0.04
and	215.50	232.00	16.50	0.06
incl.	217.50	218.50	1.00	0.11
incl.	226.00	227.00	1.00	0.16
and	256.50	265.00	8.50	0.04
incl.	260.50	261.50	1.00	0.10
and	277.00	280.00	3.00	0.05
incl.	278.00	279.00	1.00	0.07
and	283.00	285.00	2.00	0.03
and	298.00	304.00	6.00	0.09
incl.	299.00	300.00	1.00	0.17
incl.	302.00	303.00	1.00	0.15
and	322.50	324.50	2.00	0.06
JL07-064	No samples taken			
JL07-065	119.00	135.50	16.50	0.09
incl.	119.00	121.00	2.00	0.20
incl.	124.00	127.47	3.47	0.19
and	263.00	264.00	1.00	0.04
and	269.00	270.00	1.00	0.04
and	274.50	284.31	9.81	0.07
incl.	281.00	284.31	3.31	0.12
JL07-066	370.00	412.50	42.50	0.12
incl.	370.00	373.00	3.00	0.23
incl.	374.40	375.00	0.60	0.19
incl.	384.00	385.00	1.00	0.17
incl.	387.50	390.85	3.35	0.37
incl.	392.50	397.50	5.00	0.27
incl.	400.50	401.50	1.00	0.15
incl.	404.50	406.50	2.00	0.20
JL07-067	155.81	158.00	2.19	0.05
and	169.75	173.50	3.75	0.03
and	199.50	206.00	6.50	0.05
and	387.53	388.03	0.50	0.04
JL07-068	52.50	53.00	0.50	0.09
and	149.10	169.10	20.00	0.08
incl.	149.10	154.10	5.00	0.13
and incl.	161.10	163.10	2.00	0.15

and incl.	166.10	168.10	2.00	0.16
and	172.10	173.10	1.00	0.04
and	185.80	188.10	2.30	0.08
and	197.10	209.77	12.67	0.04
incl.	205.10	206.10	1.00	0.10
and	273.00	274.00	1.00	0.05
and	278.00	279.00	1.00	0.08
and	299.00	301.00	2.00	0.10
JL07-069	279.35	280.35	1.00	0.04
and	306.50	307.50	1.00	0.05
JL07-070	401.00	418.00	17.00	0.12
incl.	408.00	412.00	4.00	0.27
JL07-071	113.50	114.50	1.00	0.04
and	338.00	340.00	2.00	0.05
and	343.00	344.00	1.00	0.07
and	374.00	376.00	2.00	0.14
and	468.00	471.00	3.00	0.06
JL07-072	No samples taken			
JL07-073	346.00	347.00	1.00	0.05
and	359.00	396.09	37.09	0.05
incl.	359.00	360.00	1.00	0.12
incl.	373.00	375.00	2.00	0.09
JL07-074	362.00	364.00	2.00	0.04
and	371.00	375.00	4.00	0.03
and	379.00	380.00	1.00	0.04
and	386.00	389.00	3.00	0.04
JL07-075	472.00	473.00	1.00	0.03
and	503.50	504.50	1.00	0.03
JL07-076	374.00	378.00	4.00	0.05
and	380.00	381.00	1.00	0.04
and	384.00	391.00	7.00	0.05
incl.	389.00	390.00	1.00	0.11
and	398.00	400.00	2.00	0.04
and	411.00	421.00	10.00	0.11
incl.	412.00	413.00	1.00	0.17
incl.	416.00	419.00	3.00	0.23
JL07-077	No samples taken			
JL07-078	555.00	562.00	7.00	0.11
incl.	559.00	561.00	2.00	0.21
and	565.00	566.00	1.00	0.05
and	572.10	581.30	9.20	0.08
incl.	572.10	574.00	1.90	0.13
incl.	579.00	580.00	1.00	0.11
JL07-079	372.00	372.26	0.26	0.07

Assay composites are calculated using the following formula:

[Sum(sample %U3O8 x sample interval length)]/(total interval length)
Minimum cut off grades must be maintained in both the "up hole"
and "down hole" directions for a composite to qualify.

13.3 MELODY LAKE TARGET AREA

13.3.1 Introduction

At total of 4,000 metres were originally budgeted to test the Melody Hill target during the 2007 field season. The focus of the planned program was to test coincident gravity and uranium-in-lake-sediment anomalies beneath Melody and Jamson Lakes via drill setups on the ice, and to also follow up encouraging drill results from Brinex drilling in the late 1970's near the eastern shore of Melody Lake.

A total of **14 drills holes totaling 3,376.17 metres** were drilled on the Melody and Jamson Lake targets between April 16, 2007 and June 9th, 2007 using two helicopter-supported drill rigs from Falcon Drilling. Details concerning the individual holes are listed below in **Table 13.3.1** and also shown in **Figures 13.3.1 and 13.3.2**.

Table 13.3.1: Summary of 2007 Melody Hill Drilling

# Holes	Hole_ID	UTM_East	UTM_North	Zone	Elev. (m)	Azimuth	Dip	TD (m)
ML Data = NAD 83, zone 20 & 21								
1	**ML07-001**	692069	6063574	20	~270	72.5	-45.5	304.80
2	**ML07-002**	692068	6063575	20	~270	350	-45	18.90
3	**ML07-003**	692068	6063575	20	~270	350	-55	16.80
4	**ML07-004**	692068	6063575	20	~270	350	-60	365.85
5	**ML07-005**	698068	6063572	20	~270	170	-55	342.60
6	**ML07-006**	692393	6063096	20	~265	45	-45	305.71
7	**ML07-007**	693436	6062169	20	~265	161	-45	306.93
8	**ML07-008**	306605	6061953	21	~200	235	-45	21.34
9	**ML07-009**	306605	6061953	21	~200	235	-50	301.14
10	**ML07-010**	693436	6062169	20	~200	161	-85	163.37
11	**ML07-011**	306605	6061953	21	~200	163	-45	285.60
12	**ML07-012**	693436	6062169	20	~200	115	-45	272.49
13	**ML07-013**	693436	6062169	20	~200	330	-45	304.88
14	**ML07-014**	306605	6061953	21	~200	163	-60	365.76
Total								**3,376.17**

Figure 13.3.1: Melody Lake Target Area, Plan Map of 2007 DDH Locations – Jamson Lake

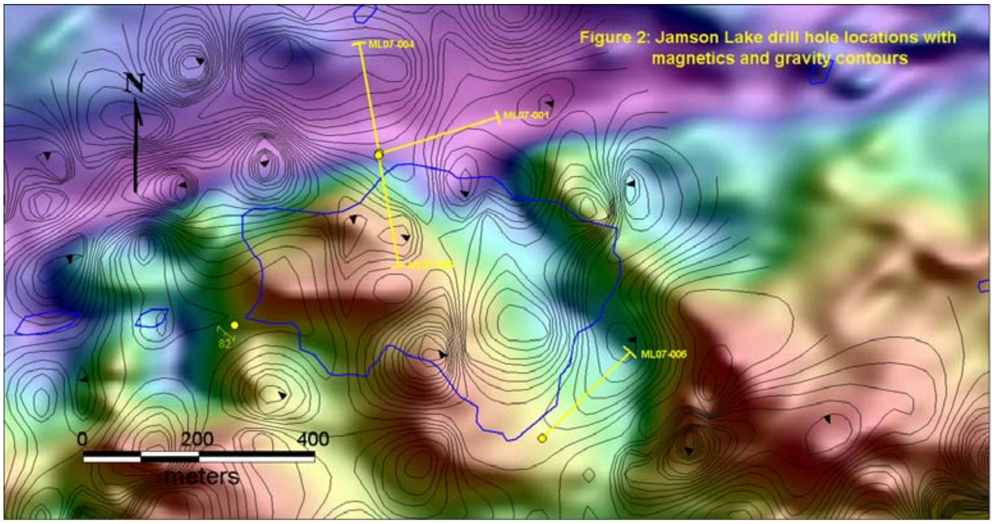
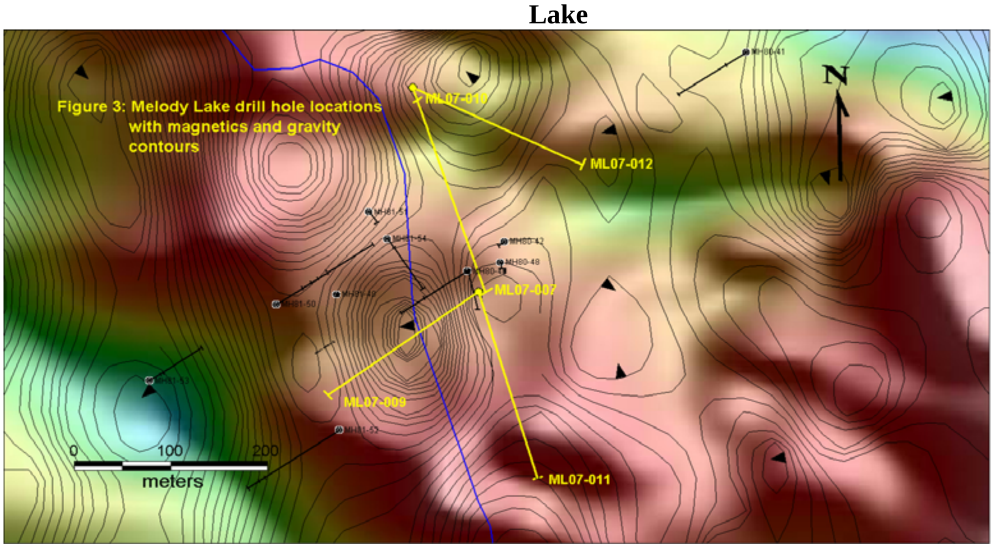


Figure 13.3.2: Melody Lake Target Area, Plan Map of 2007 DDH Location – Melody Lake



13.3.2 Discussion

Drilling was originally to have been carried out from the ice of Melody and Jamson Lakes but delays in receiving drill permits and the subsequent rapidly deterioration of the ice conditions, resulted in a relocation to less desirable land based sites, much further from the planned targets. A total of 7 land based sites were selected on the northern and southern shores Jamson Lake and eastern shore of Melody Lake in order to test the chosen targets.

Targeting criteria based on airborne magnetic interpretations, gravity surveys and lake sediment geochemical anomalies, indicated a likely host to mineralization along a contact between felsic volcanic rocks and a granitic pluton.

Drilling returned generally disappointing results, with only spot highs being intersected in holes M07-007 and M07-011. Mineralization intersected was hosted in fractured granitoid rocks, with no discernable deformation or alteration associated with the mineralized zones. It is believed that due to the inability to drill from the ideal locations on the ice, the targets were not adequately tested.

Table 13.3.2: Summary of 2007 Melody Hill Assay Composites

Hole ID	From(m)	To(m)	Interval(m)	%U3O8
cut off grade 0.03% U3O8				
ML07-001	NSV			
ML07-002	NSV			
ML07-003	NSV			
ML07-004	NSV			
ML07-005	NSV			
ML07-006	NSV			
ML07-007	41.35	42.05	0.7	0.073
ML07-008	NSV			
ML07-009	NSV			
ML07-010	NSV			
ML07-011	52.29	53.29	1	0.054
and	60.41	61.41	1	0.105
and	108.81	109.44	0.63	0.089
ML07-012	NSV			
ML07-013	NSV			
ML07-014	NSV			

(NSV = no significant results)

Assay composites are calculated using the following formula:
[Sum(sample %U3O8 x sample interval length)]/(total interval length)
Minimum cut off grades must be maintained in both the "up hole" and "down hole" directions for a composite to qualify.

The drilling of these anomalies may be revisited in 2008 but the given the erratic nature of the mineralization observed in 2007 drill holes and the target location beneath Melody and Jamson Lakes, this remains a challenging target.

13.4 AURORA CORRIDOR TARGET AREA

13.4.1 Introduction

The Aurora Corridor target area is located approximately 10km to the west of the Jacques Lake deposit, on the south western shore of Jacques Lake. Drill holes totaling 2,250 metres were originally proposed at the start of the exploration program to test the Aurora Corridor target. The target consisted of an east-west striking shear zone with a coincident magnetic anomaly with numerous occurrences of uranium mineralization along its length.

A total of **12 drill holes totaling 2,047.32 metres** were drilled between June 17, 2007 and August 1, 2007 and between October 22, 2007 and October 27, 2007 using one helicopter-supported drill rig from Falcon Drilling. Details concerning the individual holes are listed below in **Table 13.4.1**, and also shown in **Figure 13.4.1**.

Table 13.4.1: Summary of 2007 Aurora Corridor Drilling

# Holes	Hole ID	UTM East	UTM North	Elev. (m)	Azimuth	Dip	TD (m)
Aurora Corridor Data = NAD 83, zone 21							
1	**AR07-001**	321142	6060904	259	355	-45	99.36
2	**AR07-002**	321142	6060904	259	355	-75	319.74
3	**AR07-003**	321324	6060931	280	355	-45	373.67
4	**AR07-004**	321324	6060931	280	355	-75	93.27
5	**AR07-005**	321351	6060920	280	22	-45	104.24
6	**AR07-006**	321351	6060920	280	22	-51	96.62
7	**AR07-007**	321351	6060920	280	8	-45	102.72
8	**AR07-008**	322555	6060992	314	332	-45	255.12
9	**AR07-009**	322555	6060992	314	332	-75	93.57
10	**AR07-010**	322678	6061009	312	332	-45	163.07
11	**AR07-011**	322678	6061009	312	332	-75	146.91
12	**AR07-012**	321202	6060755	317	355	-45	199.03
Total							**2,047.32**

13.4.2 Discussion

a) Geology – The Aurora Corridor Property is characterized by a narrow E-W trending aeromagnetic anomaly that is 9km in strike-length, and two small airborne radiometric anomalies. These two geophysical signatures are coincident with the Aurora River Shear Zone (ARSZ), a prominent E-W trending, ductile reverse-dextral, mylonitic shear zone that cuts across the entire property.

The geology is classified into three main lithotectonic domains; 1) the Hanging Wall which consists of moderately deformed Aillik Group rocks, 2) strongly to extremely deformed rocks of the Aurora River Shear Zone, and 3) the Footwall which consists of variably deformed granitoids. Within these lithotectonic domains, several distinct lithologies were encountered during the 2007 drill program and they have been summarized in the **Table 13.4.2** below:

Table 13.4.2: Summary of the Aurora Corridor Drill Program Lithologies

Lithology	Lithotectonic Domain
Coarsely porphyritic felsic metavolcanic	Shear Zone
Finely porphyritic felsic metavolcanic	Shear Zone
Mylonitized porphyroblastic mafic volcanic	Shear Zone
Pink fine-grained felsic volcanics intercalated with transposed, green mafic volcanics	Eastern Anomaly U Mineralization Host Rock within the Shear Zone
Mylonitized, strongly altered volcanic pseudo-brecciated with actinolite + calcite + chlorite +/- pyrite and hematite-magnetite alteration	Western Anomaly U Mineralization Host Rock within the Shear Zone
Syn-kinematic mafic dyke	Shear Zone
Undifferentiable mafic dyke	Shear Zone
Medium-grained granite	Footwall
Foliated medium-grained granite	Footwall
Post-kinematic diorite dyke	Footwall

Intense alteration and deformation throughout the entire Aurora River Shear Zone units makes identifying the protolith a difficult task. Two main alteration assemblages are present:

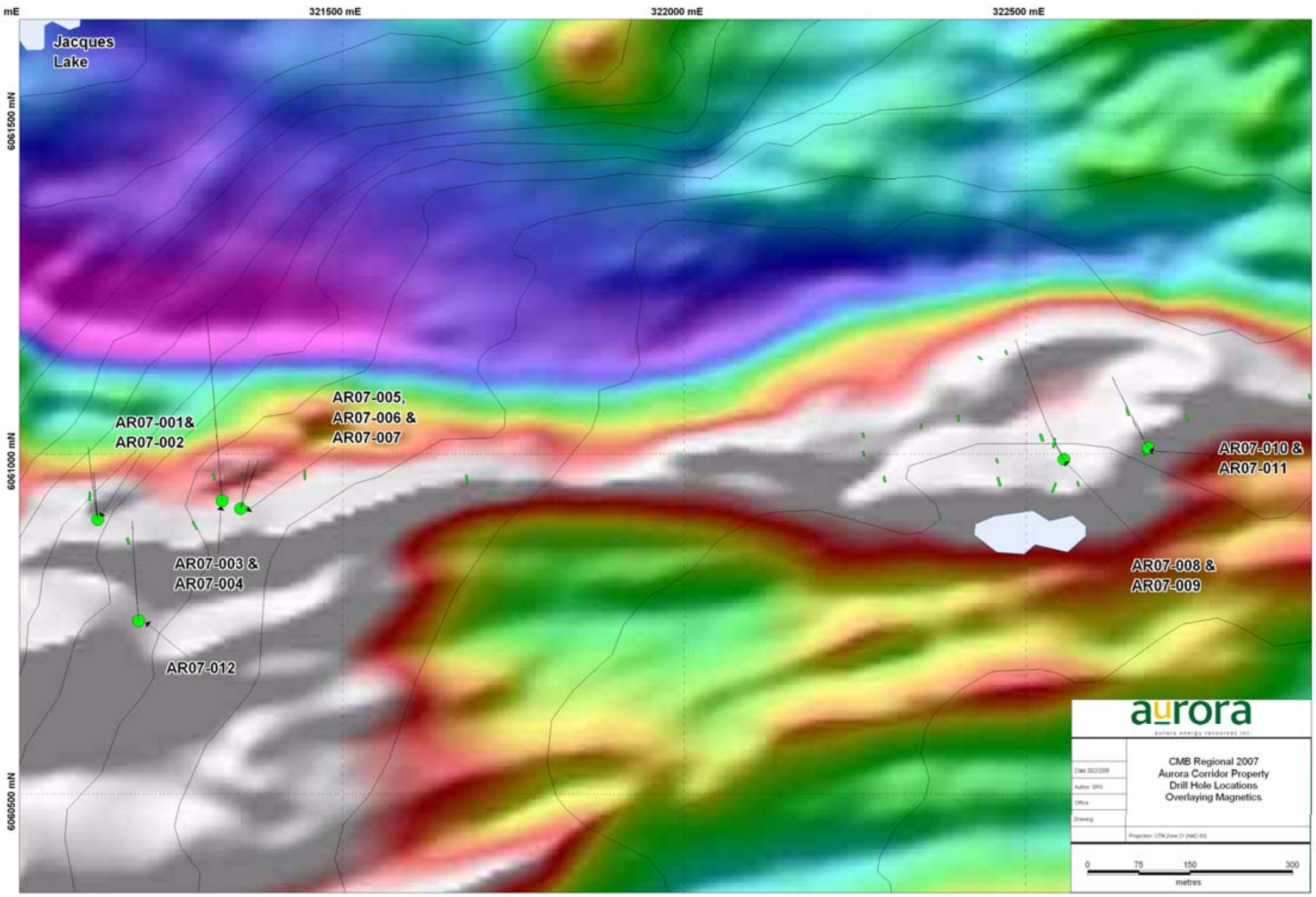
1) a peak metamorphic assemblage consisting mainly of albite-K feldspar-amphibole-biotite+/-magnetite with occasional titanite+/-garnet; and
2) a retrograde overprint assemblage including epidote-chlorite-calcite+/-pyrite.

Uranium mineralization was encountered in the strongly sheared to mylonitized volcanic rocks of the Aurora River Shear Zone. Mineralization drilled in the Western Anomaly was hosted in a hematite-altered, extremely magnetite-rich, fibrous actinolite + calcite + chlorite felsic volcanic pseudo-breccia; whereas mineralization drilled on the Eastern Anomaly was typically hosted within a pervasively hematite-altered, thinly banded felsic metavolcanic unit with moderate to strong disseminated magnetite – a common, un-mineralized unit on the Western Anomaly. Only one exception to mineralization host rock occurs; AR07-009, the western most drill hole of the Eastern Anomaly that intercepted a second mineralization zone contained within the pseudo-breccia host rock. Given that mineralization is found in two different rock types, mineralization was most likely present prior to the shear event with remobilization during the event.

b) Drill Results – Elevated to significant levels of uranium mineralization were intersected in 8 of the 12 holes drilled **(Table 13.4.3)**. Highlights from the drilling include: **0.11% U_3O_8/2.0m** and **0.19% U_3O_8/1.5m** including **0.48% U_3O_8/0.5m** in AR07-002; and **0.16% U_3O_8/1.5m** and **0.14% U_3O_8/2.0m** in AR07-011. These values are comparable to the initial shallow drill results from both the Michelin and Jacques Lake Deposits, and as a result, the entire Aurora Corridor warrants considerably more drilling, prospecting, and mapping in 2008.

The strong correlation between disseminated magnetite and uranium mineralization in this area is an excellent tool for focusing drill targets. Thickened magnetic anomalies past the eastern and western extent of drilling in 2007 most likely correspond to hinge zones and fold interference structures with potential for wider sequences of mineralization.

Figure 13.4.1: Aurora Corridor Target Area, Plan Map of 2007 DDH Locations



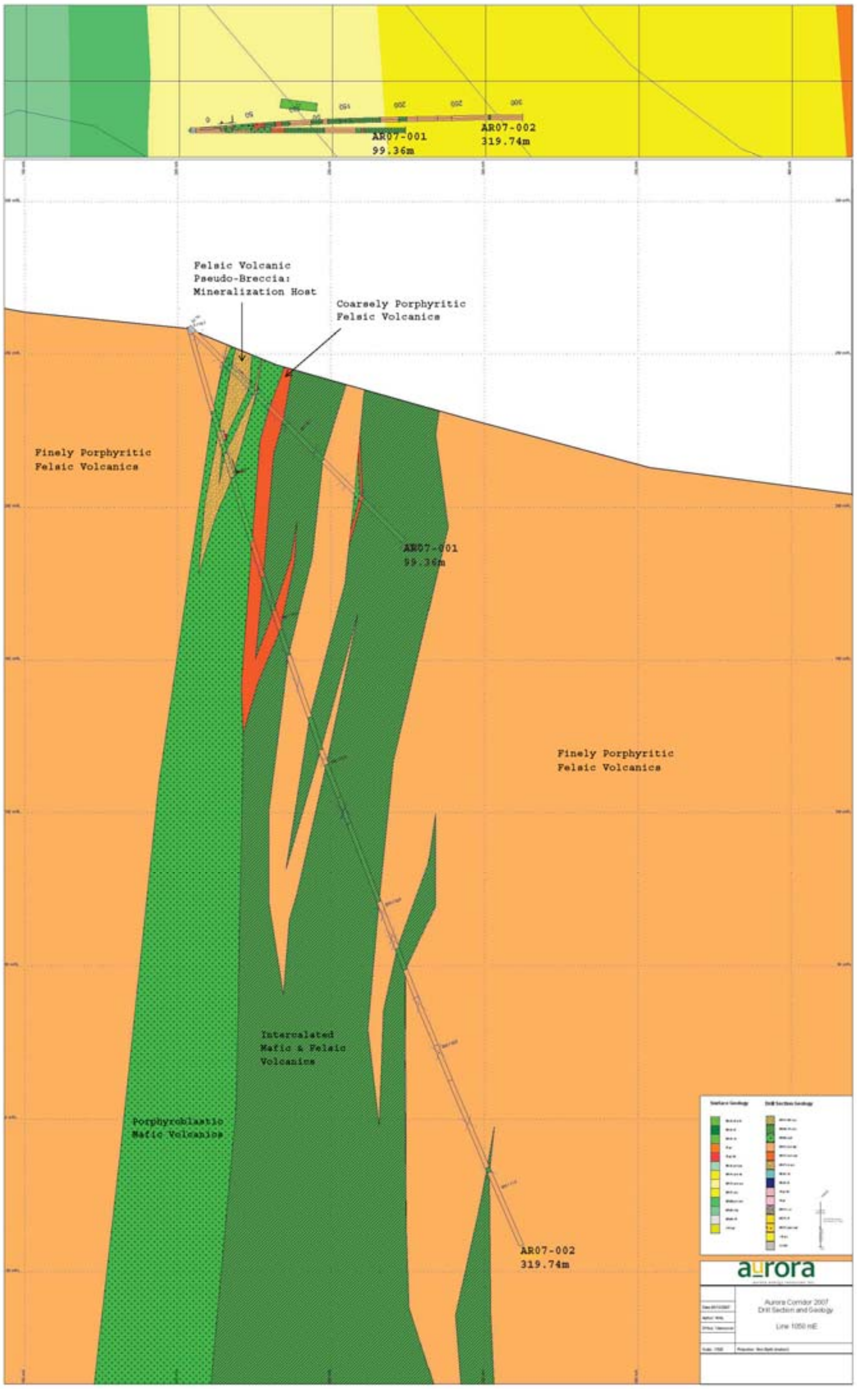


Figure 13.4.2: Representative Cross-section of drill holes AR07-001 and AR07-002

Comment [c10]: Nice!

Table 13.4.3: Summary of 2007 Aurora Corridor Assay Composites

Comment [c11]: methodology

Hole ID	From (m)	To (m)	Interval (m)	$\%U_3O_8$
cut off grade 0.03% U_3O_8				
AR07-001	22.32	23.32	1.00	0.05
and	26.32	27.32	1.00	0.03
and	30.07	30.82	0.75	0.08
AR07-002	37.00	39.00	2.00	0.11
incl	37.00	38.00	1.00	0.15
and	46.00	50.50	4.50	0.08
incl	49.00	50.50	1.50	0.19
and incl	50.00	50.50	0.50	0.48
AR07-003	34.80	35.30	0.50	0.03
AR07-004	No samples taken			
AR07-005	44.80	45.15	0.35	0.10
and	48.27	48.95	0.68	0.07
AR07-006	No samples taken			
AR07-007	No samples taken			
AR07-008	34.95	36.66	1.71	0.10
incl	34.95	35.66	0.71	0.15
and	40.53	41.00	0.47	0.04
AR07-009	49.95	52.45	2.50	0.10
incl	49.95	50.95	1.00	0.19
and	70.43	71.43	1.00	0.05
AR07-010	17.05	21.55	4.50	0.06
incl	20.05	21.55	1.50	0.11
AR07-011	23.05	30.05	7.00	0.07
incl	23.55	24.05	0.50	0.11
incl	28.05	30.05	2.00	0.14
and	30.70	31.35	0.65	0.04
and	53.73	54.48	0.75	0.08
AR07-012	21.00	23.00	2.00	0.05

Assay composites are calculated using the following formula:

[Sum(sample %U3O8 x sample interval length)]/(total interval length)

Minimum cut off grades must be maintained in both the "up hole" and "down hole" directions for a composite to qualify.

13.5 BURNT BROOK TARGET AREA

13.5.1 Introduction

A total of 12 drill holes totaling 3,000 m were planned for the 2007 field season on the Burnt Brook Property, located 4.0 km southwest of the Jacques Lake Deposit. The goal of the 2007 drill program was to test known occurrences of outcropping uranium mineralization identified in the late 1970s through trenching and surface mapping within the same stratigraphic package as Jacques Lake. Particular attention was paid to targeting mapped folds in the area.

At total of **10 drill holes totaling 1,828.42 metres** were completed in the Burnt Brook area between September 21 and October 27, 2007 using one helicopter-supported drill rig from Falcon Drilling. Drilling was focused on undercutting a series of previously identified mineralized trenches, as well as testing an interpreted fold closure to the northeast.

Details of the 2007 drill holes are listed in **Table 13.5.1,** and shown in **Figure 13.5.2.**

Table 13.5.1: Summary of 2007 Burnt Brook Drilling

# Holes	Hole ID	UTM East	UTM North	Elev. (m)	Azimuth	Dip	TD (m)
Burnt Brook Data = NAD 83, zone 21							
1	**BB07-001**	329741	6063335	257.8	310	-45	300.23
2	**BB07-002**	329776	6063300	244.8	310	-45	168.86
3	**BB07-003**	329776	6063300	244.8	310	-75	174.96
4	**BB07-004**	329684	6063249	255.6	310	-45	157.89
5	**BB07-005**	329727	6063215	250.8	310	-45	243.54
6	**BB07-006**	329900	6063290	240	290	-45	224.64
7	**BB07-007**	329938	6063328	245	310	-45	145.39
8	**BB07-008**	329938	6063328	245	310	-70	70.32
9	**BB07-009**	329906	6063202	233	310	-45	218.54
10	**BB07-010**	329848	6063373	245	310	-45	124.05
Total							**1,828.42**

13.5.2 Discussion

a) Geology – The Burnt Brook Prospect is underlain by a northeast-southwest striking sequence of Aillik Group metasediments and volcanics. A granitoid batholith intrudes to the north, and several mafic and intermediate dykes are present throughout the property. A few units are very similar in nature to those at the Jacques Lake Property just a few kilometres to the east. Several main lithologies were encountered in drilling and mapping the Burnt Brook Prospect and have been identified in **Table 13.5.2**.

Table 13.5.2: Main Lithologies of the Burnt Brook Target

Lithology	Description
Microdiorite mafic intrusive	Felspar porphyritic with dark grey aphanitic matrix; Rare quartz; **Hosts mineralization**
Psammite	Grey & thinly bedded; **Hosts mineralization**
Meta-pelite	Argillaceous; **Hosts mineralization**
Metamorphosed rhyolite	Quartz & feldspar porphyritic
Mafic tuff	Contains thin beds of arkosic and locally, black pebble conglomerate
Metamorphosed plagioclase porphyry	Dark grey aphanitic matrix with up to 20% plagioclase laths and occasional rounded quartz phenocryst; Massive to flow banded
Mafic metavolcanic crystal - lapilli tuff	Fine-grained and foliated with broken phenos of plagioclase laths and rounded quartz phenocrysts; Rare fragments of fine-grained sedimentary rock
Intermediate metavolcanic crystal-lapilli tuff	Fine-grained and foliated; Broken phenocrysts of plagioclase laths and rounded quartz
Intermediate metavolcanic	Similar to Jacques Lake unit; **Occasionally hosts mineralization**
Medium-grained granite	Foliated
Diorite mafic dyke	Syn-kinematic with penetrative S2 foliation
Mafic dyke	Undifferentiable
Post-kinematic mafic dyke	Un-foliated
Pre-kinematic mafic dyke	Foliated

Uranium mineralization is typically hosted in pelitic and psammitic Aillik Group metasediments confirming observations from surface mapping. The metasediment host rocks are associated with increased hematite alteration, strong disseminated magnetite, and calcite+biotite+/-chlorite+/-sulphide veining. Mineralization has also been encountered within a later microdioritic intrusive, and appears to have been remobilized from xenoliths of the metasediments contained within this relatively fresh intrusive. This intrusive host rock is associated with increased hematite alteration, actinolite-calcite+/-biotite veining, and moderately to strongly disseminated magnetite. Minor intervals of mineralization also occurred in moderately hematized and albitized intermediate volcanics similar to the host rocks at the Jacques Lake deposit.

Fold system geometry and mesoscale fold interference structures control the distribution of mineralization on this property. Field observations have indicated that the host rocks form the core of a large scale asymmetric Type II interference structure and are enclosed by felsic volcanic rocks. The strike extent of the prospect is limited to the northeast by the closure of an F_2 synform and to the southwest by closure of an F_1 synform\antiform pair.

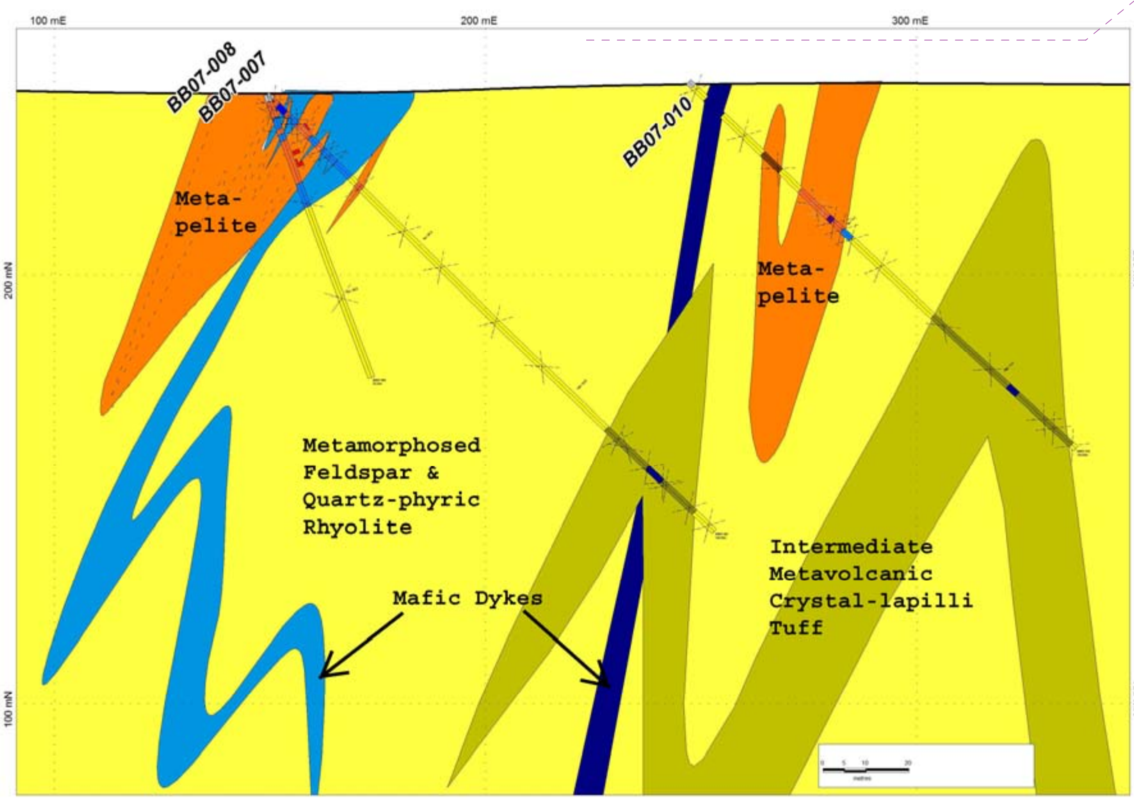
Comment [c12]: I'd like to revise this…

b) Drill Results – Highlights from 2007 drilling include **0.05% U_3O_8/7.00m** in BB07-001, **0.09% U_3O_8/2.00m** in BB07-002, and **0.06% U_3O_8/4.73m** in BB07-003.

While mineralized zones were generally narrow, i.e. 1-7 metres, sufficiently elevated levels of radioactivity have been intersected to warrant follow up surface work and diamond drilling in the 2008 field season. Drilling in the 2008 field season will focus on the continued step-out from known outcropping of mineralization.

Figure 13.5.1 Burnt Brook Target – Cross Section L950mE
(Interpreted subsurface geology + %U_3O_8 histogram)

Comment [c13]: Maybe remove form lines… Or, to make them more consistent with the geology, we need to extend the geology solids…



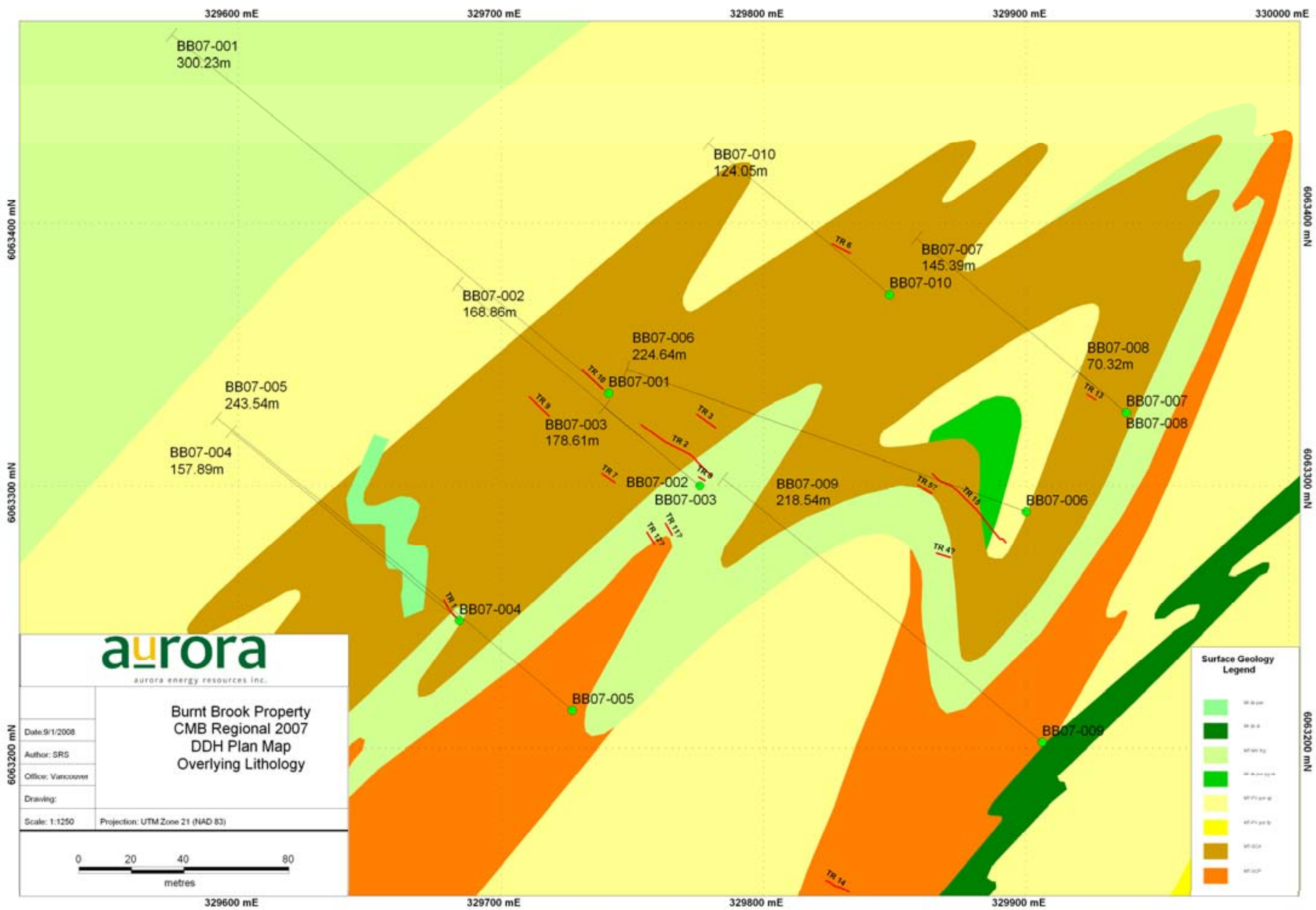
Comment [c14]: methodology

Table 13.5.3: Summary of 2007 Burnt Brook Assay Composites

Hole ID	From (m)	To (m)	Interval (m)	% U_3O_8
cut off grade 0.03% U_3O_8				
BB07-001	5.75	12.75	7.00	0.05
incl	6.75	7.75	1.00	0.17
and	20.50	21.50	1.00	0.03
and	24.50	26.50	2.00	0.07
BB07-002	1.52	3.50	1.98	0.09
incl	1.52	2.50	0.98	0.11
BB07-003	1.52	6.25	4.73	0.06
incl	4.25	5.25	1.00	0.10
and	15.05	17.23	2.18	0.05
and	21.10	22.10	1.00	0.04
BB07-004	4.00	5.00	1.00	0.06
BB07-005	36.00	37.00	1.00	0.04
BB07-006	127.00	128.00	1.00	0.03
BB07-007	NSV			
BB07-008	14.50	18.50	4.00	0.04
incl	14.50	15.50	1.00	0.08
incl	17.50	18.50	1.00	0.08
BB07-009	No samples taken			
BB07-010	36.50	37.50	1.00	0.04
NSV = No Significant Results				

Assay composites are calculated using the following formula:
[Sum(sample %U3O8 x sample interval length)]/(total interval length)
Minimum cut off grades must be maintained in both the "up hole" and "down hole" directions for a composite to qualify.

Figure 13.5.2: Burnt Brook Target Area, Plan Map of 2007 DDH Locations



Comment [c15]: Wow! Angular unconformities galore! Requires a bit more discussion in the geology/structure section. I'll have a crack at this…

13.6 GAYLE TARGET AREA

13.6.1 Introduction

The Gayle target area is located approximately 1.5 kilometres to the west of the Jacques Lake deposit, and marks the eastern limits of what is referred to as the Aurora Corridor. A proposed diamond drilling program of 900 metres in 8 holes was recommended to test the Gayle target for subsurface extension to outcropping uranium mineralization identified by Brinex within hematized and albitized intermediate volcanic rocks.

A total of **8 drill holes totaling 961.33 metres** were completed in the Gayle Target between September 28, 2007 and October 22, 2007 using one helicopter-supported drill rig from Falcon Drilling. The drilling was focused in an area of historic trenching with step outs to the southwest along strike.

Details of the 2007 drill holes are listed in **Table 13.6.1,** and are shown in **Figure 13.6.1.**

Table 13.6.1 Summary of 2007 Gayle Drilling

# Holes	Hole ID	UTM East	UTM North	Elev. (m)	Azimuth	Dip	TD (m)
Gayle Data = NAD 83, zone 21							
1	**GL07-001**	331690	6065827	237.3	310	-65	91.44
2	**GL07-002**	331690	6065827	237.3	310	-45	103.63
3	**GL07-003**	331733	6065868	235.6	310	-45	106.38
4	**GL07-004**	331733	6065868	235.6	310	-70	102.41
5	**GL07-005**	331506	6065793	233.5	310	-45	102.72
6	**GL07-006**	331506	6065793	233.5	310	70	124.05
7	**GL07-007**	331602	6065804	232	310	-50	124.05
8	**GL07-008**	331549	6065647	244	310	-50	206.65
Total							**961.33**

13.6.2 Discussion

b) Geology – The Gayle Prospect is underlain by Aillik Group rocks, a granitoid instrusive suite, and several mafic dykes; all of which are very similar in nature to those at the Jacques Lake Property, just a few kilometres to the east. Several main lithologies were encountered in drilling and mapping the Gayle Prospect and have been identified in **Table 13.6.2**.

Table 13.6.2: Main Lithologies of the Gayle Target

Lithology	Lithotectonic Domain
Polylithic conglomerate	Hanging Wall; Jacques Lake Unit
Intermediate volcanics (often containing intervals of large feldspar-quartz phenocrysts)	Hosts Rock for U Mineralization; Similar to Jacques Lake Unit
Feldspar porphyritic intermediate volcanics	Jacques Lake Unit
Feldspar-quartz porphyritic felsic volcanics	Jacques Lake Unit
Medium-grained granite	Footwall
Syn-kinematic mafic dyke	Regional dyke swarm
Post-kinematic mafic dyke	Regional dyke swarm

Mineralization intersected at Gayle was hosted in a fine-grained to aphanitic metamorphosed intermediate volcanic unit, similar to that found at Jacques Lake, and often associated with increased pervasive to patchy hematization, and increased chlorite-magnetite-actinolite-calcite rich zones as stockwork veining. However, the presence of this alteration assemblage is not always indicative of the presence of mineralization.

The Gayle Target Area is characterized by a magnetic high outlining a small fold interpreted from the regional magnetic survey. Mapping has confirmed the presence of folded contacts between main hanging wall units, which is consistent with folding of mineralization and alteration at the Gayle Prospect. An E-W fault with apparent dextral separation trends through the southern extent of the Jacques Lake Deposit and it has been suggested that the Gayle Prospect is a displaced extension of the Jacques Lake Deposit. The similarity in host rocks, alteration and structural controls associated with the mineralization support this hypothesis.

b) Drill Results – Drilling at Gayle returned generally disappointing results, with only weak, patchy mineralization occurring over narrow intervals usually <1 m but ranging up to 5 m. Five of the eight drill holes intersected elevated levels of radioactivity but with only three holes returning assays above cut-off grade (0.03%U_3O_8). The most notable result was returned from DDH GL07-006 with a grade of **0.06% U_3O_8/3m**, including **0.10% U_3O_8/1m**. As well, little continuity was seen between outcropping uranium mineralization and subsurface testing of those zones.

With very little mineralization intersected within the drill holes of the 2007 drill program, no further work is recommended on the Gayle Property in 2008.

Table 13.6.3: Summary of 2007 Gayle Assay Composites

Comment [c16]: methodology

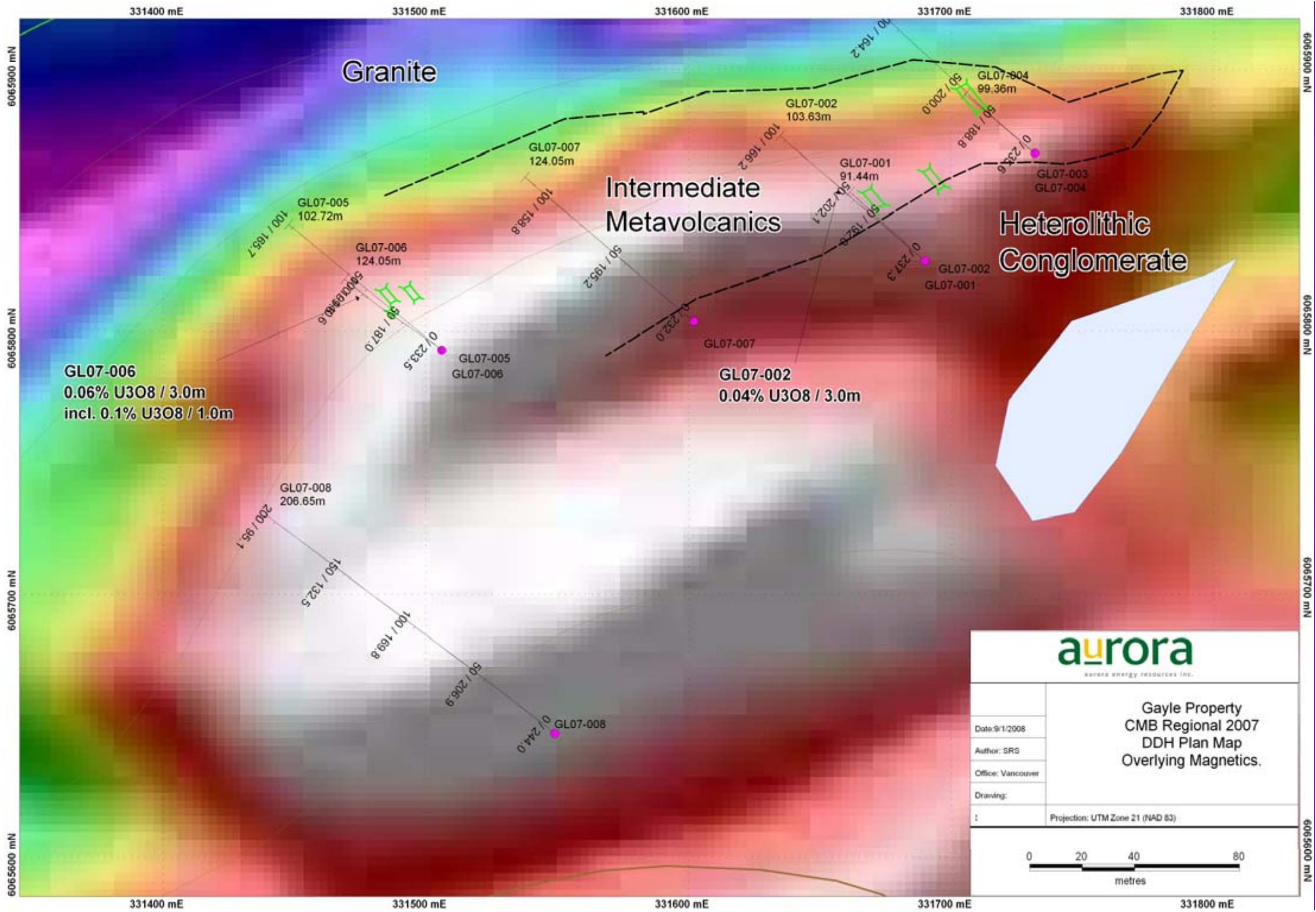
Hole ID	From (m)	To (m)	Interval (m)	% U_3O_8
cut off grade 0.03% U_3O_8				
GL07-001	NSV			
GL07-002	26.00	27.00	1.00	0.03
and	60.00	63.00	3.00	0.04
GL07-003	NSV			
GL07-004	No Samples Taken			
GL07-005	No Samples Taken			
GL07-006	96.00	97.00	1.00	0.05
and	98.00	99.00	1.00	0.03
and	100.00	103.00	3.00	0.06
incl	100.00	101.00	1.00	0.10
GL07-007	82.25	82.75	0.50	0.06
GL07-008	No Samples Taken			
NSV = No Significant Results				

Assay composites are calculated using the following formula:

[Sum(sample %U3O8 x sample interval length)]/(total interval length)

Minimum cut off grades must be maintained in both the "up hole" and "down hole" directions for a composite to qualify.

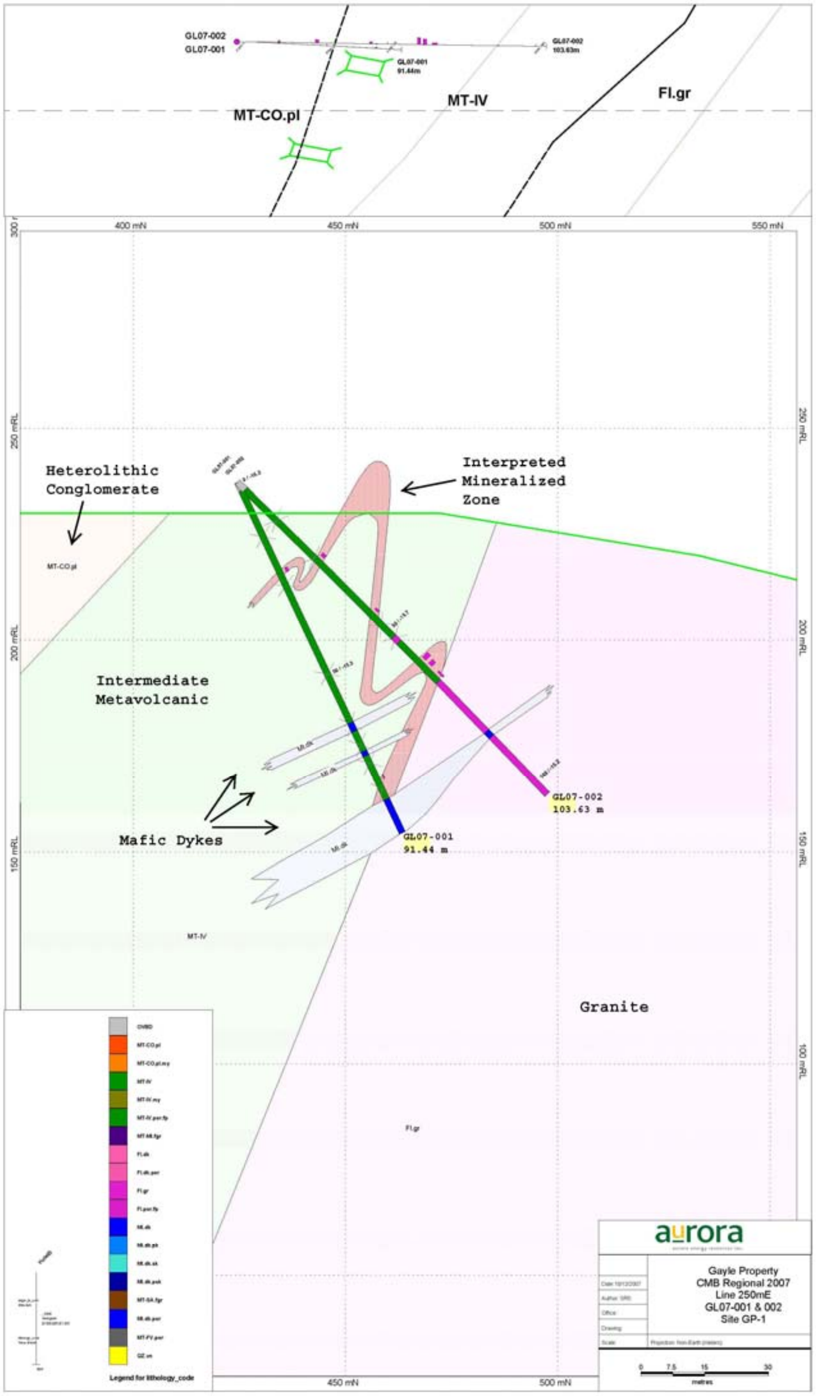
Figure 13.6.1 Gayle Target Area, Plan Map of 2007 DDH Locations



Comment [c17]: Mapped contacts appear to contradict the magnetics… Can we modify this?

Figure 13.6.2: Gayle Representative Cross-section L250mE

Comment [c18]: Fixed



13.7 GEAR TARGET AREA

13.7.1 Introduction

As a follow-up to the two confirmation holes drilled in 2006 on the historic Gear Prospect, an additional 2,000 m of diamond drilling were planned for 2007 to assess the down-dip and down-plunge potential of the mineralized zone.

A total of **6 drill holes totaling 1,933.35 meters** were drilled between August 1, 2007 and September 4, 2007 using one helicopter-supported drill rig from Falcon Drilling. Drilling was focused on confirming and extending previously known mineralization to depth and to test possible fold offsets for additional mineralization.

Details of the 2007 drill holes are listed in **Table 13.7.1** and shown in **Figure 13.7.1.** A typical cross-section is shown in **Figure 13.7.2.**

Table 13.7.1 Summary of 2007 Gear Drilling

# Holes	Hole ID	UTM East	UTM North	Elev. (m)	Azimuth	Dip	TD (m)
Gear Data = NAD 83, zone 21							
1	**G07-004**	337207	6091247	145	298	-75	411.18
2	**G07-005**	337248	6091147	143	300	-55	438.00
3	**G07-006****	337248	6091147	143	300	-70	459.64
4	**G07-007***	337248	6091147	143	300	-45	111.86
5	**G07-007A**	337248	6091147	143	300	-50	377.34
6	**G07-008**	337180	6091481	162	300	-45	135.33
Total	*** denotes abandoned drill hole, **denotes drill not reaching target depth**						**1,933.35**

13.7.2 Discussion

a) Geology – The stratigraphy of the Gear Property consists of Aillik Group banded psammite interbedded with metaconglomerate. The Post Hill Group, which unconformably underlies the Aillik Group, contains banded and sheared amphibolites, argillites and mafic (biotite-rich) quartzites. The Post Hill assemblage is thought to represent an intraflow sequence within the amphibolites (originally thick pillow lavas). Mafic and intermediate dykes, with minor felsic dykes, are found throughout both the Aillik and Post Hill Groups. The Post Hill Group features an earlier deformation even which is not evident in the Aillik Group. A stratigraphic column summarizing the Aillik and Post Hill Group lithology from youngest to oldest is presented below in **Table 13.7.2**.

Table 13.7.2: Stratigraphic Summary for the Gear Prospect Based on 2007 Drilling

Lithology	Stratigraphic Unit
Pink-grey banded psammite	Aillik Group
Metaconglomerate	Aillik Group
Amphibolite	Post Hill Group
Black argillite containing U mineralization, layer-parallel pyrrhotite, quartz-pyrrhotite-chalcopyrite veins, & breccias	Post Hill Group
Grey-black coarse-grained dirty (biotite-rich) quartzite	Post Hill Group
Amphibolite	Post Hill Group

The Gear Showing lies on the SE limb of a doubly plunging, regional-scale antiform. Geophysically, the prospect is outlined by a tight, coincident magnetics-U/Th anomaly. Geochemically, Gear is represented by a bull's eye U-Cu anomaly in the 2004 soil survey, and a clearly defined U anomaly in the 2005 humus line survey.

Mineralization is found solely within the Post Hill Group lithology. The main host rock is argillite but elevated radioactivity can also occur within the mafic quartzite and sheared amphibolites. Mineralized zones are pseudo-brecciated by biotite+/-carbonate veinlets, and accompanied by occasional hematite+/-magnetite alteration, and pervasive chlorite+/-actinolite+/-epidote alteration. Sulphides, mainly pyrrhotite, with chalcopyrite and pyrite, occur as stringers, disseminations, and as massive fracture fill. Mineralization appears to be folded and the argillite host changed composition along strike indicating a facies change within this unit.

b) Drill Results – The drilling program at Gear successfully extended the mineralized zone over a strike length of 200 metres and a further 100 metres down-plunge. The zone of U mineralization intersected in G07-005 has rough dimensions of 150m down dip by 50 m across and remains open at depth. The strongest mineralization within the zone measures up to 20 m in width.

Highlights the 2007 drilling to date include: **0.17% U_30_8/10.0m** including **0.21% U_3O_8/5.0m** in G07-005 and **0.16% U_30_8/7.0m** in G07-007A. As a result of the successful 2007 drill results and updated NI 43-101 compliant resource estimate was completed in Q1 2008, consisting of 730,000 tonnes at an average grade of 0.06% U_3O_8 for an inferred resource of 927,000 lbs U_3O_8. Details of this estimate are discussed in **Section 19** of this report.

An aggressive follow up drilling program is recommended for 2008 at the Gear deposit. The Gear deposit remains open along strike and down plunge to the south west. Potential for deposit expansion is considered to be excellent.

Figure 13.7.1: Gear Target Area, Plan Map of 2007 DDH Locations

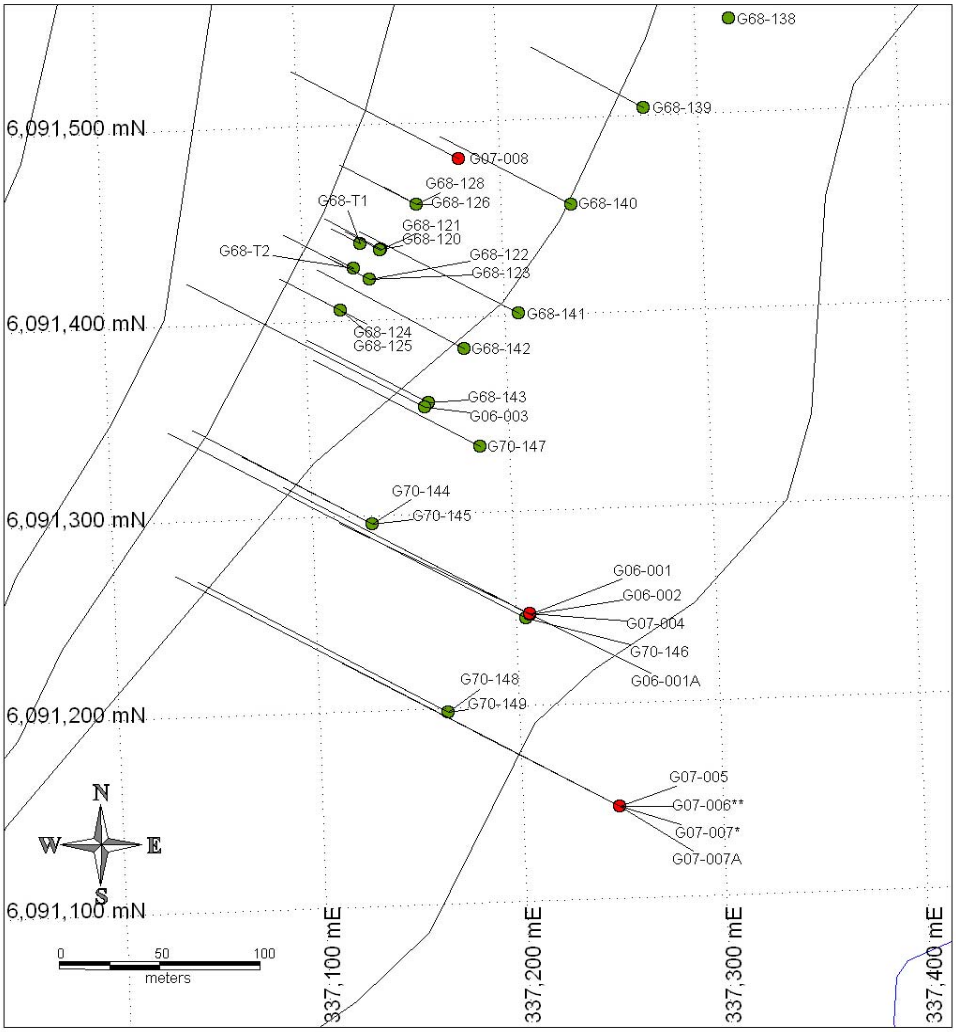


Figure 13.7.2: WNW-ESE Oriented Cross-Section Incl. DDH G07-005 to G07-007A

This cross-section is looking approx. 015º (True). The pink unit on the right is Aillik Group and all other rock types (except the flat lying dyke) are Post Hill Group. The red zone is the interpreted (uranium) mineralized zone. For scale, gridlines on the vertical axis are spaced at 50m

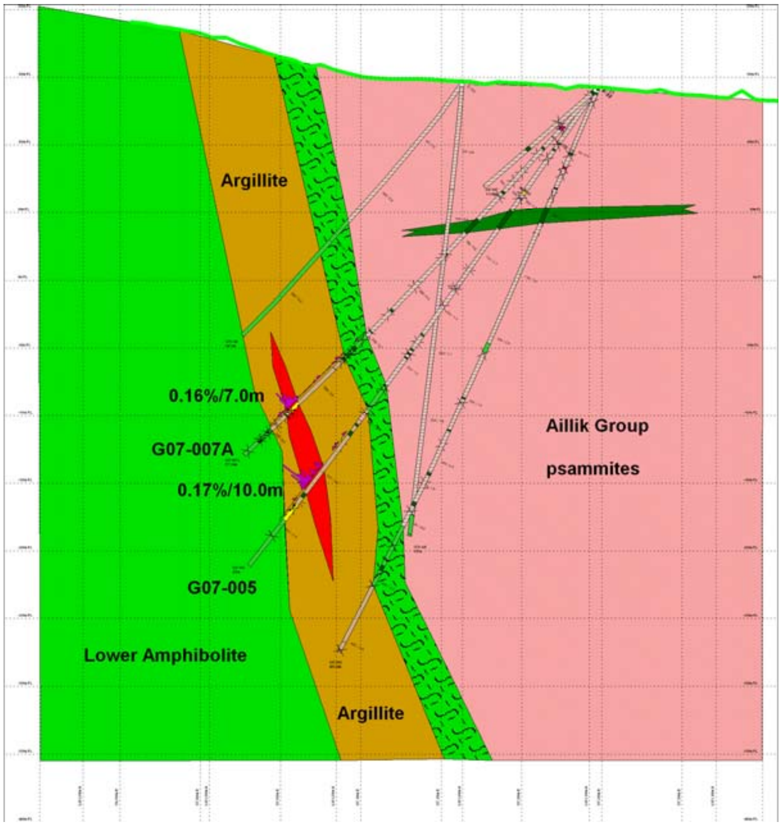


Table 13.7.3: Summary of 2007 Gear Assay Composites

Hole ID	From(m)	To(m)	Length(m)	% U_3O_8
cut off 0.03%U_3O_8				
G07-004	NSV			
G07-005	346.00	369.00	23.00	0.10
incl.	358.00	368.00	10.00	0.17
and incl.	361.00	367.00	6.00	0.22
and incl.	363.00	364.00	1.00	0.45
G07-007A	320.17	330.00	9.83	0.13
incl.	328.00	329.00	1.00	0.27
G07-008	NSV			
NSV = No Significant Results				

Assay composites are calculated using the following formula:

[Sum(sample %U3O8 x sample interval length)]/(total interval length). Minimum cut off grades must be maintained in both the "up hole" and "down hole" directions for a composite to qualify.

13.8 INDA TARGET AREA

13.8.1 Introduction

A program of 19 holes totaling approximately 5,000m was initially proposed for 2007 at the Inda Target. This program was designed to follow up earlier Brinex drill hole results, infill gaps in the shallow historic drilling, and extend the current resource area down-dip. Of particular focus, was the follow up to the **2.12% U_3O_8/3.62m** intercept returned in the lone confirmation drill hole completed in 2006, I06-001.

A total of **8 drill holes totaling 2,523.96 metres** were completed between September 5, 2007 and October 23, 2007 using one helicopter-supported from Falcon Drilling followed by one helicopter-supported drill rig from Springdale Drilling. The holes mainly targeted the down-dip portion of the historic resource. Details of the 2007 drill holes are listed in **Table 13.8.1,** and are shown in **Figure 13.8.1.**

Table 13.8.1: Summary of 2007 Inda Drilling

# Holes	Hole ID	UTM East	UTM North	Elev. (m)	Azimuth	Dip	TD (m)
Inda Data = NAD 83, zone 21							
1	**I07-002**	334790	6089401	108	325	-68	432.21
2	**I07-008***	334794	6089245	112	320	-50	89.00
3	**I07-008A**	334794	6089245	112	320	-58	482.00
4	**I07-003**	334543	6089207	113	330	-50	235.00
5	**I07-004**	334543	6089207	113	330	-65	358.75
6	**I07-005**	334464	6089176	112	320	-50	215.00
7	**I07-006**	334464	6089176	112	320	-72	320.00
8	**I07-007**	334464	6089176	112	320	-85	392.00
Total	*** denotes abandoned drill hole**						**2,523.96**

13.8.2 Discussion

a) Geology – At Inda, the stratigraphy consists of the Aillik Group which unconformably overlies the Post Hill Group. In detail however, thin slithers of felsic volcanics which could possibly be Aillik Group rocks occur enveloped within Post Hill Group lithologies. This occurs at one surface outcrop and in drill holes I06-001 and I07-006. The gross structure at Inda consists of a doubly plunging anticline with the Inda Prospect located on the SE limb of the SW plunging hinge line. The stratigraphy varies from moderate (SE) dipping to vertical in the central part of the prospect. Stratigraphy is folded both in plan and in section and at least 2 fold generations have been mapped in surface outcrops. The dominant foliation is sub-parallel to bedding which is tightly, parasitically folded. The stratigraphy (from youngest to oldest) drilled in 2007 drill holes at Inda is summarized in **Table 13.8.2** and presented in **Figure 13.8.2**.

Table 13.8.2: Stratigraphic Summary for Inda Prospect Based on 2007 Drilling

Aurora Lithology	Brinex Stratigraphy (Report G7014)	Stratigraphic Unit
Grey psammite (meta-sandstone with lesser interbedded pink meta-siltstone / ?felsic volcanics?)	Grey siltstone and sandstone	Aillik Group
Pink felsic volcanics (?meta-siltstones / "semi-pelites") with variable epidote and albite-hematite alteration	Felsic Ash (Pink Siltstone)	Aillik Group (transitional to Post Hill Group towards base
Amphibolite (mafic meta-volcanics) and grungy brown "mafic metasediments"	Upper mafic volcanic flows, Tuffs and Breccias	Post Hill Group
Calcareous amphibolite	Calcareous Mafic Tuff, Siltstone, Sandstone and Limestone	Post Hill Group
Upper amphibolite	Laminated Mafic-Felsic Ash	Post Hill Group
"Argillite"	Argillite and impure argillite	Post Hill Group
Quartzite	Chert and Cherty Quartzite	Post Hill Group
Amphibolite / mafic meta-volcanics (variably massive to foliated)	Lower Mafic Volcanic Flows, Tuffs and breccias	Post Hill Group

At least 3 to 4 types of intrusives have been noted at Inda. These consist of felsic aplitic dykes (which may have been confused with meta-sandstones / quartzites previously) and dykelets. Intermediate to mafic dykes include foliated pre to syn-kinematic intermediate bodies and unfoliated, post-kinematic diorite dykes. Minor diorite dykes with feldspar phenocrysts were also intersected in drill core. Chilled margins are common and many dykes appear to have intruded along faults.

Uranium mineralization at Inda occurs both in felsic volcanics of the Aillik Group (previously undocumented) and predominantly within amphibolites and mafic meta-sediments (derived thereof) of the Post Hill Group. Mineralization in the felsic volcanics is related to hematite-albite and/or magnetite alteration, whereas uranium mineralization in the Post Hill Group (mafic meta-sediments and amphibolites) is associated with carbonate-chlorite-actinolite+/-pyrite alteration. Numerous flat lying, post-kinematic intermediate dykes cross-cut the stratigraphy and uranium mineralization.

b) Drill Results – Results from the Inda target in 2007 were generally encouraging with strongly anomalous to "ore grade" intercepts being intercepted in all drill holes. In addition to the strong uranium values returned at the Inda target, appreciable copper and silver results were returned from a number of drill holes. The copper and silver are typically found in proximity to the uranium bearing zones, and are associated with chalcopyrite, pyrite and pyrrhotite.

The strong uranium results from 2007 drilling were incorporated in an NI43-101 compliant resource estimate in Q1 2008, consisting of 4.5 million tonnes at an average grade of 0.065% U_3O_8 and an inferred resource of 6,575,000 lbs U_3O_8, the details of which are contained in **Section 19.0** of this report.

A follow up program of exploration drilling beneath the existing resource is recommended for 2008. The potential for expanding the size of the resource is considered excellent. Particular attention should be paid to drilling beneath the eastern portion of the deposit and down plunge to the south west.

Table 13.8.3: Summary of 2007 Inda Assay Composites

Hole ID	From(m)	To(m)	Interval(m)	% U_3O_8	Ag_gpt
cut off 0.03%U_3O_8					
I07-002	180.00	181.00	1.00	0.04	NSV
and	183.00	185.00	2.00	0.07	NSV
and	271.00	276.00	5.00	0.08	NSV
incl.	271.00	272.00	1.00	0.11	NSV
and	274.00	275.00	1.00	0.10	NSV
and	285.00	286.00	1.00	0.07	NSV
and	297.00	301.00	4.00	0.07	NSV
incl.	300.00	301.00	1.00	0.18	NSV
and	311.00	313.00	2.00	0.11	NSV
and	318.00	320.00	2.00	0.16	NSV
incl.	318.00	319.00	1.00	0.23	NSV
and	330.00	331.00	1.00	0.03	NSV
and	339.00	345.00	6.00	0.05	NSV
and	347.00	348.00	1.00	0.03	NSV
and	361.36	364.00	2.64	0.06	NSV
and	368.00	370.00	2.00	0.05	NSV
and	373.00	374.00	1.00	0.05	NSV
I07-003	126.00	130.00	4.00	0.08	NSV
incl.	128.00	129.00	1.00	0.16	NSV
I07-004	156.00	163.00	7.00	0.08	NSV
incl.	160.00	162.00	2.00	0.14	NSV
and	165.00	166.00	1.00	0.05	NSV
and	170.00	171.00	1.00	0.05	NSV
I07-005	108.00	109.00	1.00	0.04	NSV
and	133.00	134.00	1.00	0.05	NSV
and	147.00	148.00	1.00	0.04	NSV
I07-006	139.00	163.00	24.00	0.05	NSV
incl.	142.00	143.00	1.00	0.12	NSV
incl.	151.00	152.00	1.00	0.10	42.60
and	166.00	167.00	1.00	0.04	NSV
and	246.00	248.00	2.00	0.05	NSV
and	261.00	263.00	2.00	0.04	NSV
I07-007	247.00	248.00	1.00	0.04	NSV
and	284.00	290.00	6.00	0.04	NSV
and	303.00	309.50	6.50	-	148.00
and	305.00	306.00	1.00	0.07	NSV
and	310.05	311.00	0.95	0.11	NSV
I07-008A	243.00	244.00	1.00	0.05	NSV

and	310.00	311.00	1.00	0.06	NSV
and	358.00	360.00	2.00	0.04	NSV
and	381.00	382.00	1.00	0.03	NSV
and	425.00	427.00	2.00	0.13	NSV
incl.	425.00	426.00	1.00	0.17	NSV
and	437.00	443.00	6.00	0.08	NSV
incl.	440.00	441.00	1.00	0.14	NSV
incl.	442.00	443.00	1.00	0.12	NSV
NSV = No Significant Results					

Assay composites are calculated using the following formula:

[Sum(sample %U3O8 x sample interval length)]/(total interval length)

Minimum cut off grades must be maintained in both the "up hole" and "down hole" directions for a composite to qualify.

Figure 13.8.1: Inda Target Area, Plan Map of 2007 DDH Locations

(2007 DDH in purple and pre-2007 DDH (including historical Brinex DDH) in red)

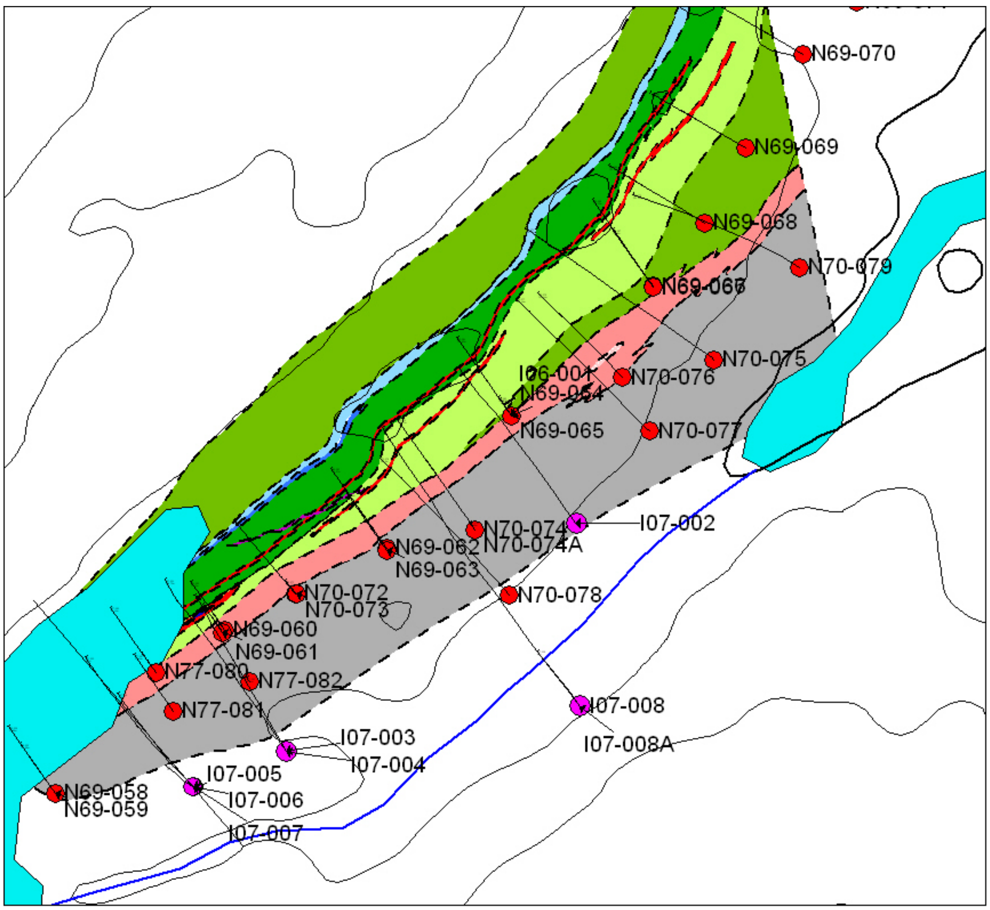
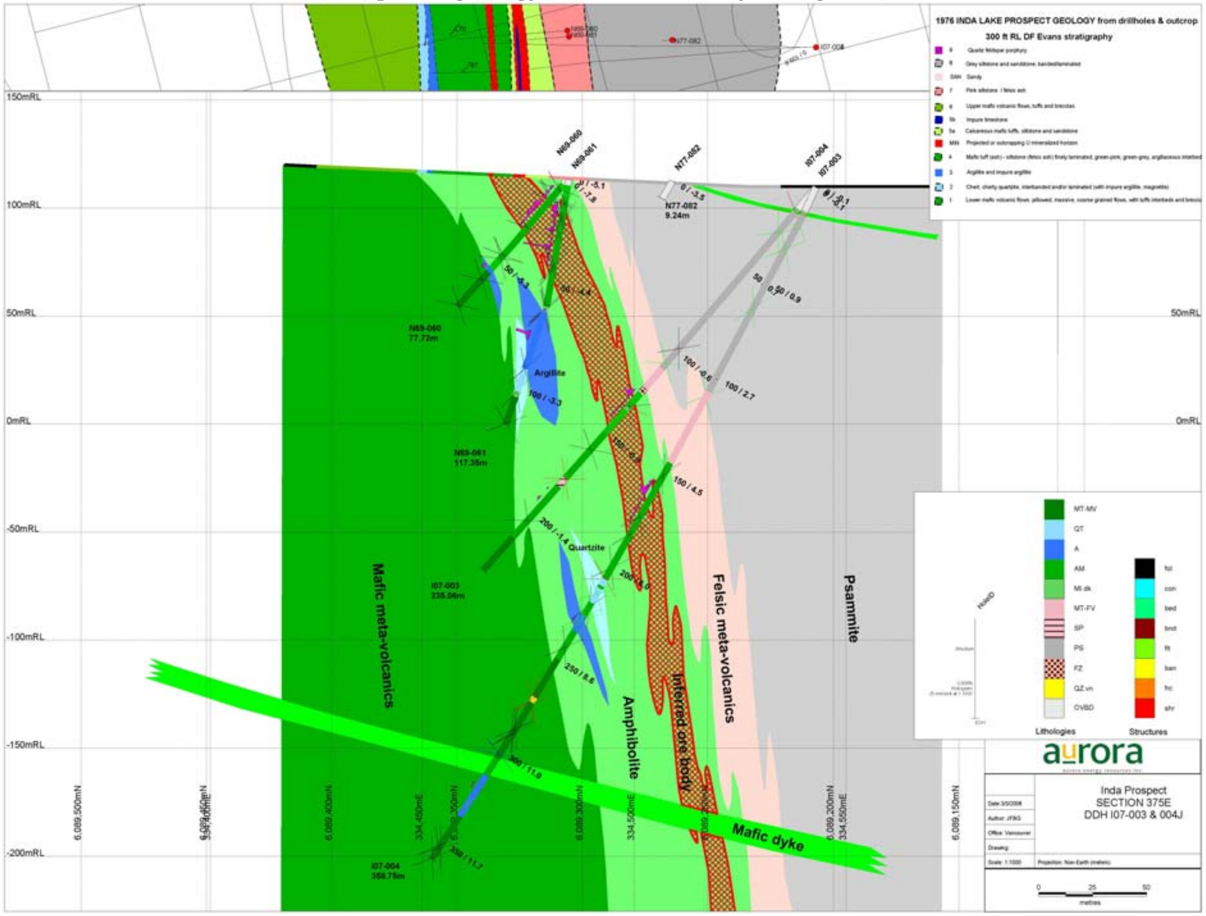


Figure 13.8.2: Inda Target Area - Cross Section 375mE

(Interpreted geology and % U_3O_8 assay histograms)



13.9 NASH TARGET AREA

13.9.1 Introduction

A program of 4 holes totaling 1,000 metres was recommended for the Nash Prospect to follow on the heels of the two confirmation holes completed in 2006. As with the Gear and Inda strategies, the program was designed test for down-dip extensions to the known mineralization.

A total of **four drill holes** totaling **1,298.00 m** were completed at the Nash prospect between September 18, 2007 and November 3, 2007 using one helicopter-supported drill rig from Springdale Drilling. These holes targeted down-plunge mineralization below historical Brinex drilling assuming a south or south west structural control on the mineralized shoot geometry.

Details of the drilling can be found in **Table 13.9.1**, and are shown in **Figure 13.9.1.** A representative cross-section is shown in **Figure 13.9.2.**

Table 13.9.1: Summary of 2007 Nash Drilling

# Holes	Hole ID	UTM East	UTM North	Elev. (m)	Azimuth	Dip	TD (m)
Nash Data = NAD 83, zone 21							
1	**N07-003**	331834	6087373	169	315	-50	272.00
2	**N07-004**	331834	6087373	169	315	-75	344.00
3	**N07-005**	331916	6087417	177	315	-55	263.00
4	**N07-006**	331964	6087343	156	315	-72	419.00
Total							**1,298.00**

13.9.2 Discussion

a) Geology – As with Inda and Gear, the Nash Prospect is located on the SE limb of a regional scale, doubly plunging antiform. The lithology at Nash consists of Aillik Group quartz-feldspar porphyry, marble and banded metasediments, unconformably overlying Post Hill Group mafic metasediments and aphibolites. Mafic and intermediate dykes are found throughout the Aillik and Post Hill Group lithologies. A stratigraphic column outlining the main lithologies from youngest to oldest in found below in **Table 13.9.2**.

Table 13.9.2: A Stratigraphic Summary for Nash Prospect Based on 2007 Drilling

Lithology	Stratigraphic Unit
Quartz-feldspar porphyry	Aillik Group
Marble	Aillik Group
Banded psammite (meta-sandstone & siltstone)	Aillik Group
Mafic metasediments containing U mineralization	Post Hill Group
Amphibolite	Post Hill Group

Mineralization at Nash is hosted within the Post Hill Group mafic metasediments. Patchy magnetics and albite alteration are present with mineralization, as well as abundant chlorite-amphibole stringers, and biotite-calcite stringers. Elevated Cu and Ag occur with U mineralization, however, generally in uneconomic amounts.

Table 13.9.3: Summary of 2007 Nash Assay Composites

Hole ID	From(m)	To(m)	Interval(m)	U_3O_8
cut off 0.03% U_3O_8				
N07-003	194	195	1	0.03
N07-004	278	279	1	0.06
N07-005	218	222	4	0.11
incl.	219	220	1	0.34
N07-006	355	356	1	0.08
and	361	365	4	0.08
incl.	364	365	1	0.11
and	373	374	1	0.11

Assay composites are calculated using the following formula:

[Sum(sample %U3O8 x sample interval length)]/(total interval length)

Minimum cut off grades must be maintained in both the "up hole" and "down hole" directions for a composite to qualify.

b) Drill Results – Mineralized zones intersected in 2007 drilling at the Nash prospect are generally narrow, from 1 to 4m, but can show significant grades, i.e. N07-005 with 0.34% U_3O_8 over 1.00m. As in the case of the other Inda Lake Trend targets, the 2007 drill results were incorporated into an updated NI43-101 compliant resource estimate, completed in Q1, 2008. The resource estimate for Nash consists of 1,370,000 tonnes at an average grade of 0.075% U_3O_8, with an inferred resource of 2,204,000 lbs U_3O_8. The details of the resource estimate are contained within **Section 19.0** of this report.

A follow up drill program is recommended for the Nash area for 2008. Particular attention should be paid to follow up encouraging historical trench and drill results reported by Brinex for the Nash West Area, approximately 1km west-south-west of the main Nash Deposit. The Nash deposit remains a prospective target and the potential for additional mineralization in the area is considered to be excellent.

Figure 13.9.1: Nash Target Area, Plan Map of 2007 DDH Locations
(2007 DDH in red and pre-2007 DDH (including historical Brinex DDH) in purple)

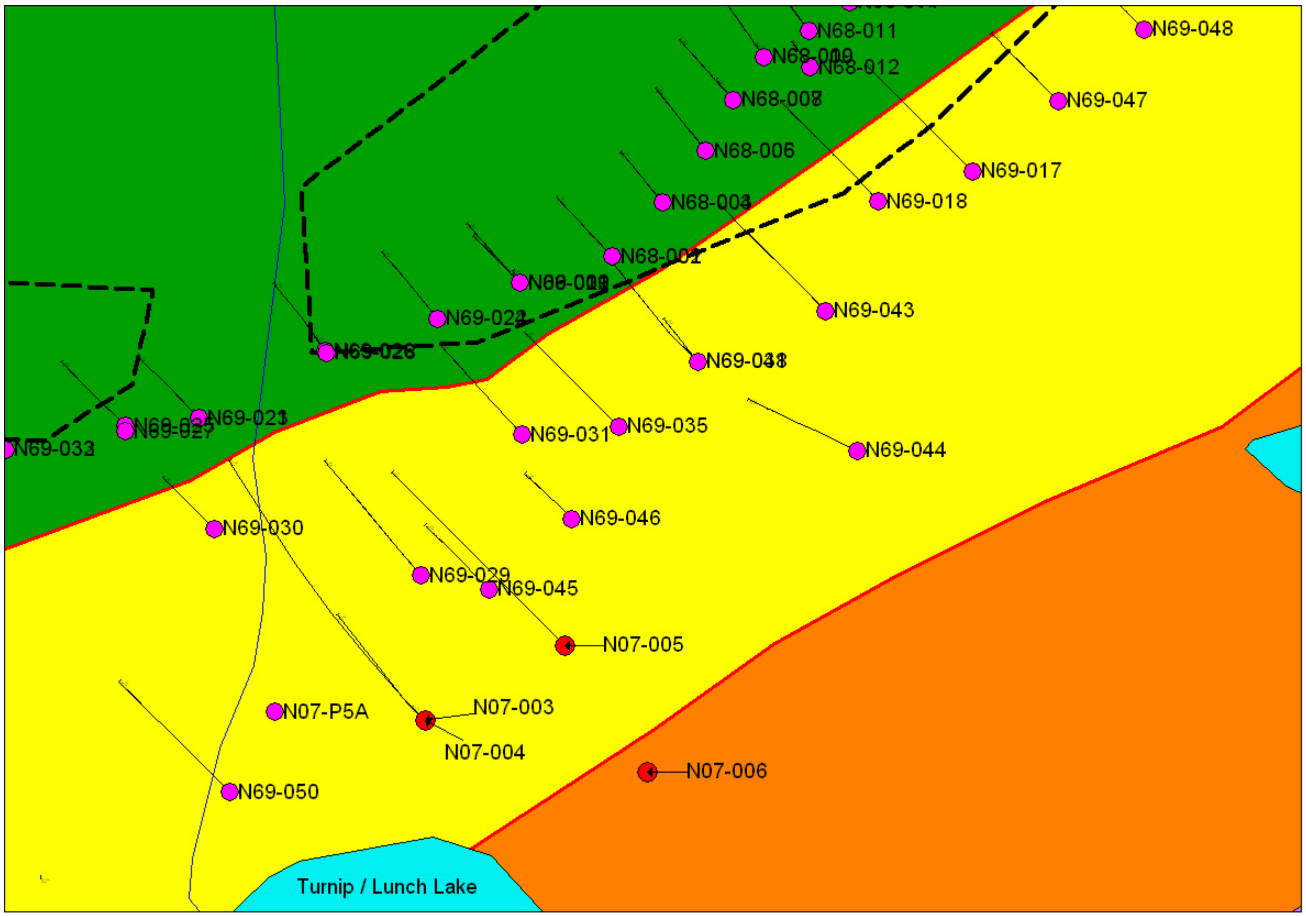
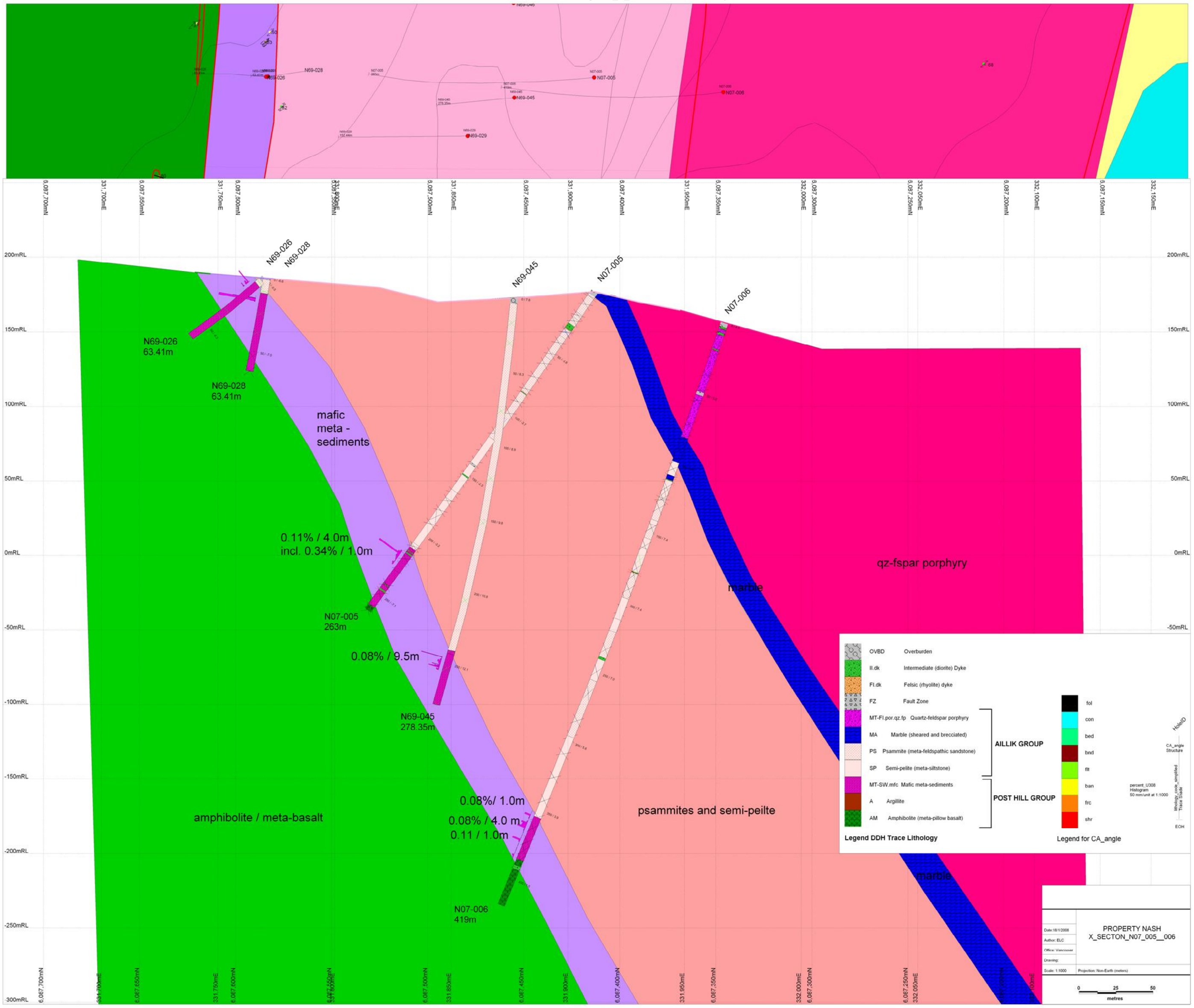


Figure 13.9.2: NW-SE Cross-Section Through Holes N07-005 and N07-006

(The cross section is looking approximately 055º True.)



14.0 SAMPLING METHOD AND APPROACH

14.1 CORE DRILLING AND LOGGING

Diamond drilling was ongoing from April 16, 2007 to November 26, 2007. All drilling was supervised by Aurora Energy Resources technical staff and general industry standards were followed in all matters. Three different contractors used a variety of helicopter-supported drill rigs: Falcon Drilling of Prince George, B.C. supplied three F-1000 and three F-2000 portable fly rigs; Major Drilling of Winnipeg, Manitoba supplied three Duralite 1000 drill rigs; and Springdale Drilling of Springdale, Newfoundland supplied two Duralite 500 drill rigs. A Devico directional tool supplied by Major Drilling's Directional Services Group was also utilized on the deeper Michelin holes.

Helicopter support for the drilling were two Bell 407's, one A-Star and one Bell 206LR provided by Universal Helicopters of Happy Valley-Goose Bay, Labrador.

All proposed drill collars were surveyed with hand-held GPS units by Aurora geologists. All final drill collars at the Michelin, Gear, Inda, Nash and Jacques Lake target areas were surveyed either using the real-time, satellite and base station corrected TOPCON HYPER GPS system by N.E. Parrott C.L.S. from Happy Valley-Goose Bay, Labrador, or later in the season, by a real-time, satellite and base station corrected TRIMBLE 5700RTK/GPS system manned by Aurora staff. Control is relative to two local survey monuments located at Michelin and Jacques Lake.

A combination of NQ and BTW diameter core was drilled and the core was placed in wooden core trays with depth markers every drill run (up to 3 m). Core recovery during these programs was excellent. The boxes were securely sealed and delivered once a day by helicopter to the temporary core logging facilities that were set up in each of the respective drilling areas (Michelin (also for Melody), Jacques Lake, Aurora Corridor, Inda Lake (also for Gear and Nash), and Burnt Brook/Gayle. Flex-It survey tests were taken generally at 75-100 m intervals down-hole to provide down-hole survey control. All holes were cemented following completion and casing was left in the hole. Core logging procedures followed industry standards and a defined sample protocol.

14.2 DRILL CORE SAMPLING

All samples collected by Aurora staff during 2007 drill programs on the CMB Project were subjected to a quality control procedure that ensured best practices in the handling, sampling, analysis, and storage of the drill core.

Drill core sampling was done based on visual indications of mineralization and zones of anomalous radioactivity based on scintillometer readings. All drill core with a scintillometer reading greater than 300 cps was removed from the core box and tested without the interference of background radioactivity. In general, intervals greater than 300 cps in hand were sampled. Sampling intervals were predominantly in the 0.5 to 1.0 m range though in areas of homogenous lithology, samples were collected in 1.5 m intervals. Narrow zones of mineralization were broken out as well.

14.3 HEALTH AND SAFETY PROTOCOLS FOR PERSONNEL

The company developed ***Uranium Exploration Health and Safety and Environmental Protection Guidelines*** specific to the CMB project (Buchnea 2005, revised August 2006). The level of radiation exposure resulting from exploration activities is generally minimal, but proper precautions must be followed when handling radioactive material.

The purpose of these guidelines is to minimize personal and environmental exposures to levels that are as low as reasonably achievable (ALARA). The most effective way to reduce potential exposure to radiation is accomplished by minimal handling of radioactive samples, maximizing the distance from mineralized core or rocks, sufficient ventilation and personal hygiene. In the field, workers wore gloves when handling rock samples. When returning to town or camp, all field gear was stored in the dry away from kitchen and sleeping facilities. During the drill program workers handling mineralized core were required to wear coveralls, safety glasses, gloves and dust mask when splitting core. Core was split using a manual core splitter rather then a rock saw to reduce dust in the core splitting facility. The core shack and dry facilities were monitored on a regular basis to ensure radioactive levels were kept to a minimum.

Scintillometers were used to monitor daily external dosages. To measure the cumulative external dosages, all field workers were supplied with thermo luminescent radiation dosimeters (TLD's). The TLD's were supplied by Health Canada's National Dosimetry Service and were submitted every 3 months to Health Canada, which reports the results and maintains a central registry. The Health Canada TLD dosimetry program indicated that no worker received a measurable dose during the 2005 exploration program or during the 2006 exploration program. Data is still pending for the 2007 program.

15.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

15.1 DRILL CORE SAMPLES

Core samples were split using a manual core splitter; with one-half of the core selected for analysis and the remaining half returned to the core box for reference. The samples were placed in a polyvinyl sample bag with the reference sample tag, and then sealed with a plastic zip tie. Every 25 samples a duplicate of one-quarter of the sample interval, as well as a geochemical blank, and a geochemical standard were inserted into the shipments at pre-designated locations in the sample series. The pails were then delivered by helicopter to either Postville or Witchdoctor Lake for shipment by chartered plane to Goose Bay where the samples were taken by Aurora staff to the Actlabs prep facility in Goose Bay.

15.2 SHIPPING

Prior to shipping, drill core sample buckets were double checked to ensure all samples were present and in the appropriate shipping containers (lidded plastic pails). In addition, drill core samples were individually scanned with Exploranium GR-110 G Portable Gamma Ray scintillometer for data correlation purposes.

As per regulations for the Transportation of Dangerous Goods Act, all containers were labeled "UN2910" on the outside, with signage indicating "Excepted Package: Radioactive Material" placed within each container. The individual containers were then scanned with a S.E. International Inc. "Inspector" contamination meter to ensure compliance with the maximum allowable limit of 5 µSv/hr measured at a distance of one m from the package.

Analytical request forms from Activation Laboratories Ltd. were completed, copied, and placed in the designated container. Pails were then sealed with numbered security "zip-tie" tags, which were previously recorded on the laboratory forms. The containers were shipped from Postville to Activation Laboratories sample prep facility in Happy Valley-Goose Bay, who arranged shipment of the pulps via truck to the main Activation Laboratories facility in Ancaster, Ontario.

15.3 ASSAY LABORATORY

The processing and analysis of samples was conducted by Activation Laboratories ("Actlabs") in Ancaster, Ontario and check samples have been sent to Saskatchewan Research Council in Saskatchewan for uranium analysis by DNC. Both Actlabs and SRC operate according to the guidelines set out in ISO/IEC Guide 25 – "General requirements for the competence of calibration and testing laboratories".

15.4 SAMPLE PREPARATION

Using preparation method RX-1, drill core samples were crushed up to 75% passing 2 mm, mechanically split (riffle) to obtain a representative sample and then pulverized using hardened steel to 85% passing 75mesh. Remaining pulps and coarse reject were bagged and stored.

15.5 ASSAY PROCEDURES

For drill core samples at Actlabs, uranium was determined by delayed neutron counting (DNC) of a 30 g sub-sample. The samples are placed in a neutron flux produced by a nuclear reactor where the U^{235} within the sample absorbs neutrons which indicate some of the fission products of U^{235}, including neutrons. The sample is rapidly removed from the reactor; the neutrons are thermalized, and measured by an array of BF_3 neutron detectors. Total uranium from 0.1 ppm up to 2% U_3O_8 can be measured using this method. For drill core, samples, the ICP/OES aqua regia multi-element package provides analytical results for a suite of thirty-five elements. Samples were prepped and pulped, with 0.5 g of sample undergoing digestion with aqua regia (0.5 mL H_2O + 0.6 mL concentrated HNO_3, and 1.8 mL concentrated HCl) for two hours at 95^oC, then cooled and diluted to 10 mL with de-ionized water and homogenized. This solution was then analyzed with a Perkin-Elmer OPTIMA 3000 Radical ion-coupled plasma (ICP) spectrometer for the 35 element suite, with a matrix standard and blank inserted every thirteen samples.

Assays results from Actlabs forwarded electronically and by mail to the Aurora office in Vancouver where the final assay certificates are presently on file and catalogued.

For check assay analysis, samples were shipped to Saskatchewan Research Council for DNC analysis.

15.6 STORAGE OF DRILL CORE, PULPS AND REJECTS

All drill core has been left on site at the Michelin, Jacques Lake, Aurora Corridor, Inda Lake and the Burnt Brook/Gayle camps or logging sites in stacked piles. All 2007 pulps and coarse rejects are currently stored at the Actlabs facility in Ancaster, Ontario and will remain there until Actlabs is otherwise advised. 2005 and 2006 pulps and coarse rejects have been transported to an Aurora Energy Resources storage facility in Happy-Valley Goose Bay, NL.

16.0 DATA VERIFICATION

Aurora currently submits a blank, standard and quarter-split duplicate approximately every 25 samples to ensure at least one set of QA-QC samples is in every batch. Care was taken to ensure that the portion of the core being sent to the lab was representative and the same half of the interval was always being sampled. Pulp and prep duplicates are included in the program as a rate of 2-5%. The pulp duplicates were completed at the time of submission. Prep duplicates were requested at the end of the season and are pending except for a few samples that were done at the time of submission.

Upon receipt of analytical data, the blanks, standards and duplicates are examined for evidence of laboratory contamination, analytical error, calibration errors, assay reproducibly and any other signs of unusual processing. Fail criteria is outlined below in the section for each type of sample. The results were reviewed and plotted on graphs to clearly display the acceptable limits and show those samples that are outside of that range. Failed batches were investigated and often resulted in the samples being re-run at the lab until the control material passed. A table was made to record failed batches and the resulting action that was taken (**Table 16.2**).

16.1 STANDARDS

Standards were used to test the accuracy of the assays and to monitor the consistency of the laboratory. A total of six different standards were purchased from the Canadian Certified Reference Materials Project, Natural Resources Canada, for use during the 2007 CMB Exploration Program. The standards were chosen to test the accuracy of the assays from a low of 220 ppm uranium, through to high grade at 10,200 ppm uranium. Part way through the program STD 1 was replaced by STD 1A because STD 1 was no longer available from CANMET. In-house standards are currently being prepared and should be ready for the 2008 program.

Table 16.1: Published Geochemical Standards Information

Table 16.1: CMB 2007 Exploration Program Geochem Standards					
Standard	**Field ID**	**ppm U**	**% U_3O_8**	**Th**	**Ni**
BL-1	STD-1	220	0.0260	15 ppm	
UTS-3	STD-1A	513	0.0605		
UTS-4	STD-2	1010	0.119		
RL-1	STD-3	2010	0.2372	19.6 micro g/g	185 micro g/g
BL-2	STD-4	4530	0.5345	16 ppm	
BL-3	STD-5	10,200	1.2036	15 ppm	

Standards were generally inserted into the sample sequence every 25 samples. The majority of standards submitted were STD-1/STD 1A, and STD-2, due to the generally low grade nature of mineralization in the CMB. Standard 5, BL-3, was not used in 2007. With few exceptions, the standards were chosen to match the anticipated grade of the core (based primarily on scintillometer values).

Fail criteria is any value that is returned greater than 3 standard deviations above or below the certified value. The lab is notified if samples are returned consistently beyond two standard deviations but those batches are not failed. Results are not released for use either publicly or in-house until the quality control samples have passed. In general the 2007 standards returned values above the certified value and the lab was notified of this and the labs internal quality control was monitored. Nothing unusual was found and the high bias is likely due to the difference between the methods used in the round robin and the DNC analysis used at Actlabs.

The performance of the standards is shown in **Charts 16.1 to 16.5.** Samples are plotted by date of uranium by DNC analysis which roughly corresponds to the batch number. A list of failed control samples is provided in **Table 16.2**. The fails have been re-analyzed and now pass. Batches that failed initially and were re-analyzed have been noted with "DNC rerun' after the batch number in the charts.

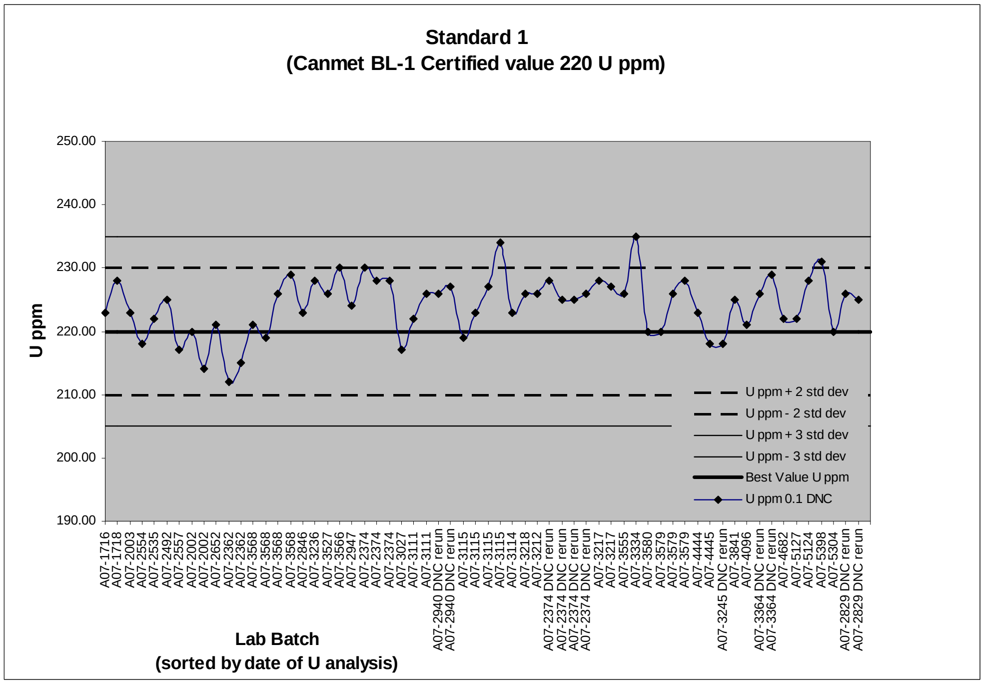


Chart 16.1 – Standard 1

Standard 1 generally returned values between 220 and 230 ppm U with few samples falling below the certified value of 220 ppm U. Four batches failed and were re-analyzed for uranium by DNC.

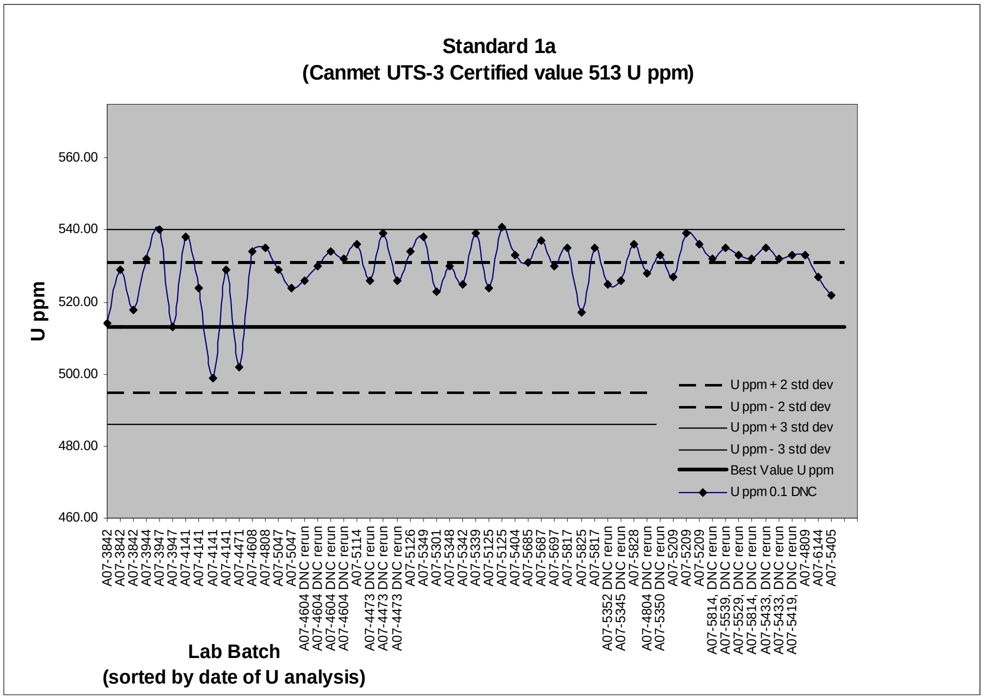


Chart 16.2 – Standard 1a

Standard 1a generally returned values between 518 and 540 ppm U with few samples falling below the certified value of 513 ppm U. Four batches failed and were re-analyzed for U by DNC.

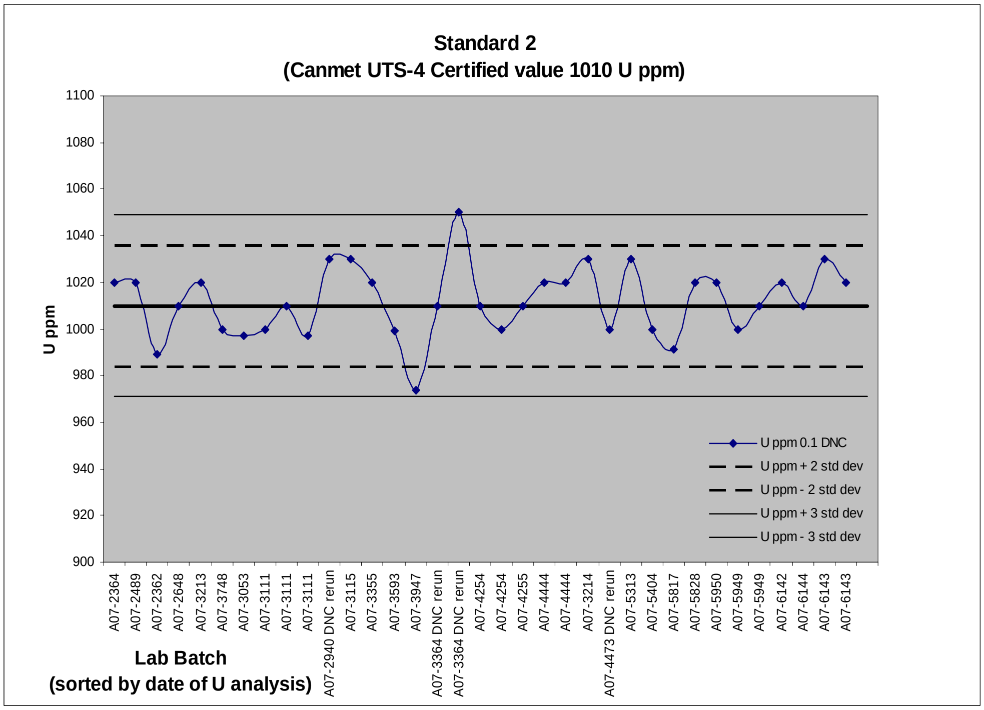


Chart 16.3 – Standard 2

Standard 2 generally returned values between 991 and 1030 ppm U and had a near even mix of results below and above the certified value of 1010 ppm U. Three batches failed and were re-analyzed for U by DNC.

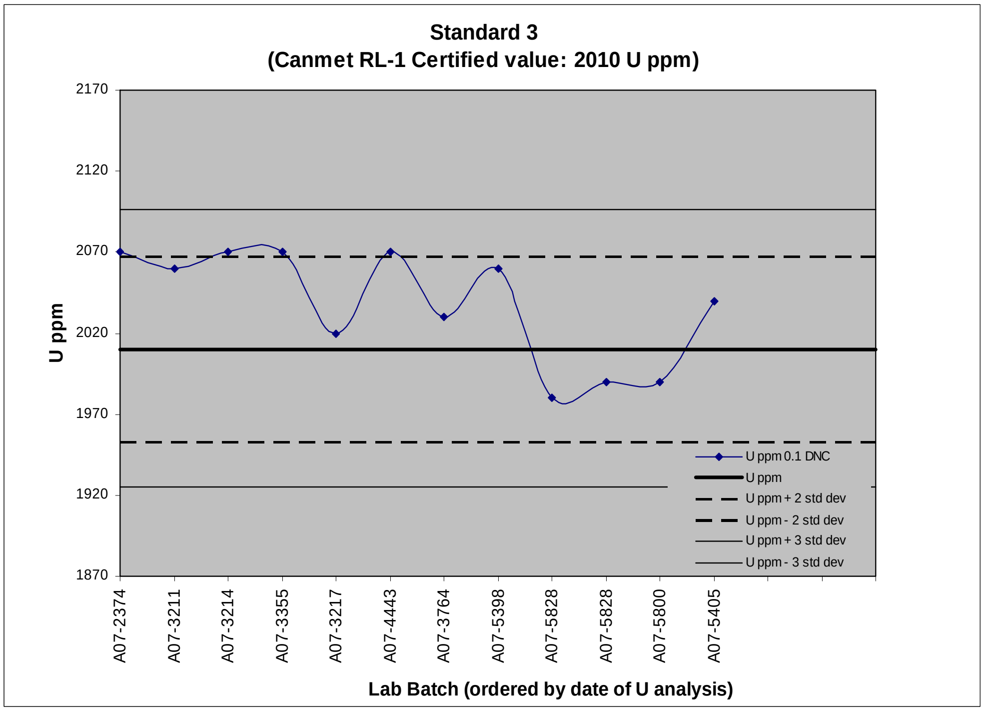


Chart 16.4 – Standard 3

Standard 3 generally returned values between 2020 and 2070 ppm U were commonly above the certified value of 2010 ppm U.

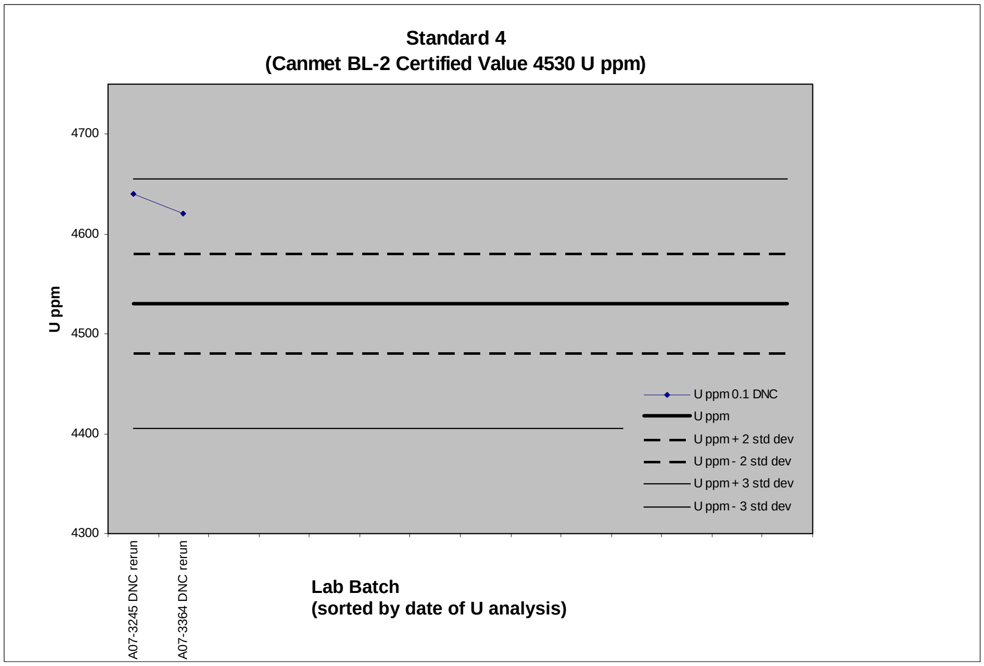


Chart 16.5 – Standard 4

Standard 4 had only two samples submitted and returned values of 4640 and 4660 ppm U. Both were above the certified value of 4530 ppm U and both had failed with values greater than three standard deviations above the certified value, the given standard deviations leave a very small margin of error. Both batches included other standards that had passed in both the initial DNC results as well as the re-analysis.

16.2 BLANKS

Blanks are generally used to check the cleanliness of the laboratory and should produce negligible uranium results on a consistent basis. Blank material was sourced from a large gabbroic boulder on the southern shore of Kaipokok Bay and from unmineralized hanging wall core. The fail value is 30 ppm U, this was determined as the method detection limit including sample preparation.

Assays returned from this material were generally less than 25 ppm U, the mean is 9.7 ppm U. This would indicate low to negligible levels of contamination at the laboratory. The variability in likely stems from low levels of radioactivity in the blanks taken from hanging wall core and none of the samples greater than 30 ppm U were failed after investigation. Four samples assayed higher than 30 ppm U, shown in the chart below (**Chart 16.6**).

As seen on the chart below, one blank returned 98.7 ppm U so the batch was re-analyzed with new pulps. The new results were also high; the blank was 102 ppm U. A closer investigation showed no evidence of a sample mix up or anything out of the ordinary, all other quality control samples passed including the other two blanks in this batch. It appears the blank had low levels of mineralization and the batch was passed. The other three samples that were greater than 30 ppm U are explained in the table below (**Table 16.2**). The anomalous samples were from either hanging wall Jacques Lake or the Inda Lake Trend and both are now known to have minor spots of weak mineralization so the hanging wall will not be used for blanks on these properties in the 2008 program.

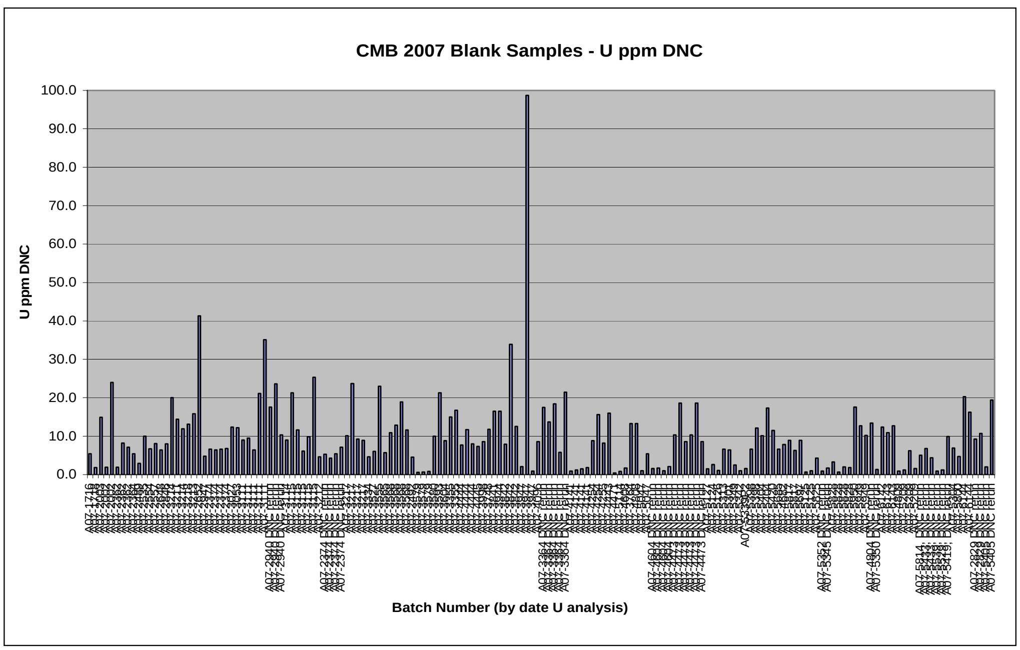


Chart 16.6 – CMB Blank Samples

Batch	Hole ID	Sample ID	Type	Problem	Action Taken
A07-2374	M07-048,49,50, 52	CMB06475, 6491, 7250, 7287	std 1	Failed or >2 std dev 233/236/232/236 ppm U	Two of the seven standards in batch A07-2374 failed. DNC analysis re-run samples CMB06461-6519 and CMB07229-7296 (a total of 125 samples) re-analyzed for U DNC. Re-run passed.
A07-2652	JL07-058	CMB16224	blank	78 ppm U	Accepted. Double checked samples, no evidence of sample mix-up or contamination. Sample before returned 86.2 ppm U therefore contamination unlikely. ICP value returned 40 ppm U indicating weakly elevated values in blank. Hanging wall will not be used for blank in 2008.
A07-2829	JL07-057	CMB15525, 50	std 1 and std 1	232 and 231 ppm U - consecutive std > 2 std dev	Re-run passed.
A07-3111	JL07-060	CMB18199	blank	35 ppm U	Accepted. Double checked samples, no evidence of sample mix-up or contamination. ICP returned 10 ppm U. Possible low level mineralization in blank material. Hanging wall will not be used for blank in 2008.
A07-3212	AR07-005	CMB19956, 57	std 1 and core	61 and 226 ppm U	Mislabeled standard. Lab confirmed 19957 is pulp. Corrections passed.
A07-3214	M07-063	CMB07601	core	Sample missing from returned DNC analysis	Lab found sample, included in final batch - 61 ppm U. Finals passed.
A07-3364	JL07-063	CMB18437	core	Sample omitted	Sample mix up at lab. Re-run passed.
A07-3604	M07-061	CMB06721, 22	blank and std 1	223 and 8.8 ppm U	Sample tag mix up in field - weight of samples submitted to lab confirms the mix up. Info from the lab: Sample 6722 weight 1967g and 6721 had no coarse reject remained, just a pulp. Corrections passed.
A07-3764	M07-067	CMB07799	std 3	ICP 2030 and DNC 110 ppm U	Sample mix up at lab for DNC samples 7799-7800 and 7951-7966. Re-visions passed.
A07-3842	JL07-066	CMB15624	blank	33.9 ppm U	Accepted. Double checked samples, no evidence of sample mix up or contamination. ICP returned 31 ppm U. Possible low level mineralization in blank material. Hanging wall will not be used for blank in 2008.
A07-3947	G07-005	CMB12724	blank	98.7 ppm U	Re-run returned 102 ppm U in blank and one failed std. ICP on blank 93 ppm U in original batch. Suggests blank had low level mineralization. Conclusion: Original assays were passed. Hanging wall will not be used for blank in 2008.
A07-4473	JL07-073	CMB18750	std 1a	Failed standard	Re-run passed.
A07-4604	I07-002		std	1 fail std, 2 > 2 std dev	Re-run passed.
A07-4804	I07-004	CMB20525	std 1a	Sample not reported	Re-run with standard included failed. Second re-run passed.
A07-4809	I07-005	CMB20550	std 1a	Failed	Re-run failed. Third analysis requested. Final passed.
A07-5124	BB07-002	CMB21549, 50	std 1 and blank	Mislabeled samples	Mislabeled standard, lab verified the pulp was 21550. QC passed.
A07-5125	BB07-003	CMB21575	std 2	Mislabeled standard	Checked tag - okay - Std 1a submitted and passed.
A07-5125	BB07-003	CMB21600	std 1a	Failed - 541 ppm U. Other std 1a in batch passed - 524 ppm U	Reran batch, 21600 passed (511 ppm U) but 21575 failed (541 ppm U). Allowed FIRST batch to pass after checking values and minimal variation. 21575 was inserted nearest the min'l zone.
A07-5127	BB07-001	CMB21524, 25	std 1 and blank	Mislabeled samples	Mislabeled standard, lab verified the pulp was 21525. QC passed.
A07-5209	I07-007	CMB20625, 20650, 20675		Failed standards	Re-run passed, 2 of 3 >2 std dev - acceptable.
A07-5345	BB07-008	CMB21665	std 1a	Failed - 542 ppm U	Re-run passed.

A07-5349	GL07-002	CMB22236	std 2	Mislabeled standard	Submitted std 1a; returned 538 ppm U. Corrections passed.
A07-5350	BB07-005	CMB21630	std1a	Failed - 555 ppm U	Re-run passed.
A07-5352	BB07-006	CMB21641	std1a	Failed - 563 ppm U	Re-run passed.
A07-5405	JL07-076	CMB16099	blank	1290 ppm U	Sample mix-up at lab. Scint value 134 cps, U by DNC = 1290 ppm U, second analysis on same pulp returned 1240. All other samples in batch correlate with scint values. Blank passed (19.4 ppm U) in final analysis on new pulps but no standards were run (none left). All values were higher in third batch so used second set of DNC values as correct values (expect the blank). Both standards passed in the second batch of analysis.
A07-5405	JL07-076	CMB 16100	std 4	Mislabeled std - returned value for std 1a: 546 ppm U (a fail for std 1a)	Mislabeled standard (value for 1a). Values failed for 1a. Re-run on same pulps passed.
A07-5539	AR07-012	CMB 21689	std 1a	Failed 545 ppm U	Re-run passed (535 ppm U).
A07-5828	I07-008A	CMB20700	std 1a	Mislabeled standard - 1020 ppm U.	Mislabeled std in field submitted std 2. Passed.
A07-5828	I07-008A	CMB20750	std 1a	Mislabeled standard - 1980 ppm U.	Mislabeled std in field submitted std 3. Passed.
A07-6145P	M07-086	CMB08735	blank	1400 ppm U	Other samples do not correlate with scint values. Samples reanalyzed, failed again, sample mix up somewhere, will be doing new quarter splits and re-analyzing. PENDING.
A07-6211	M07-080			No qc submitted	Three samples < 17 ppm. Scint values correlate. Reminded staff of proper sample insertion procedure. Passed.

Table 16.2: Listing of Quality Control Failures for 2007 samples received to date.

16.3 QUARTER SPLIT FIELD DUPLICATES

Duplicates are sampled by quarter-splitting the remaining half of the core. The samples were collected at a rate of approximately one every 25 samples and submitted and analyzed at the same time as the regular sample. In general, the duplicate pairs returned similar values suggesting a fairly homogeneous distribution of uranium mineralization in the rocks. Batches are not failed based on this data. The chart below shows greater differences between the pairs in samples above 1000 ppm U. This could be due to the nugget effect. The duplicate data is statistically analyzed by an external geochemist.

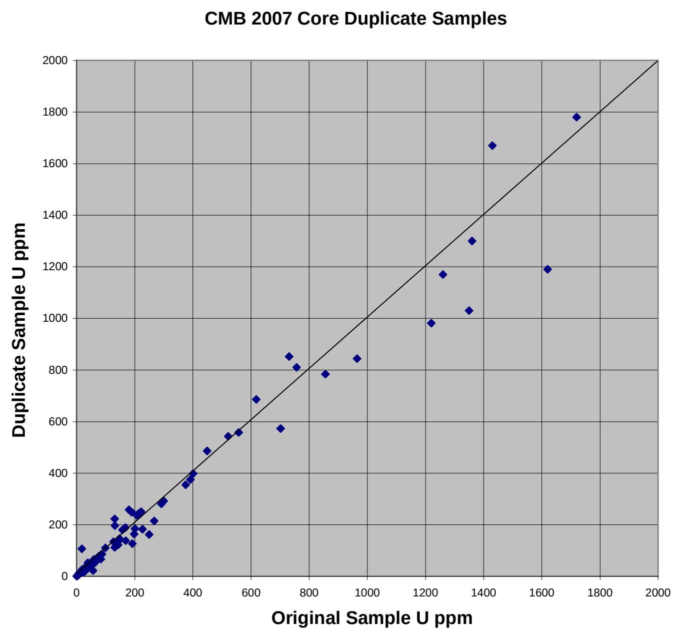
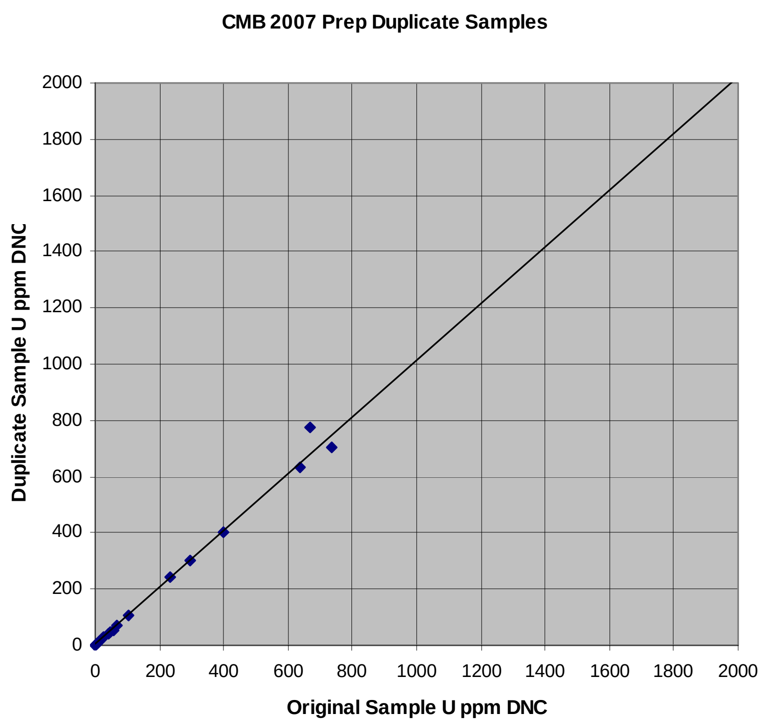


Chart 16.7 – CMB Core Duplicate Samples

16.4 PREP DUPLICATES

Prep duplicates are created by taking a second split of the crushed sample. These samples are used to detect errors during the preparation phase. The prep duplicate is plotted against the original sample for comparison. In the 2007 program some of the prep duplicates were taken when the sample was crushed. Those samples are plotted below. The remaining samples were selected at the end of the program and are currently being analyzed. The correlation between the two samples should be better than those of the quarter split field duplicates. Approximately 2% of samples have prep duplicates.

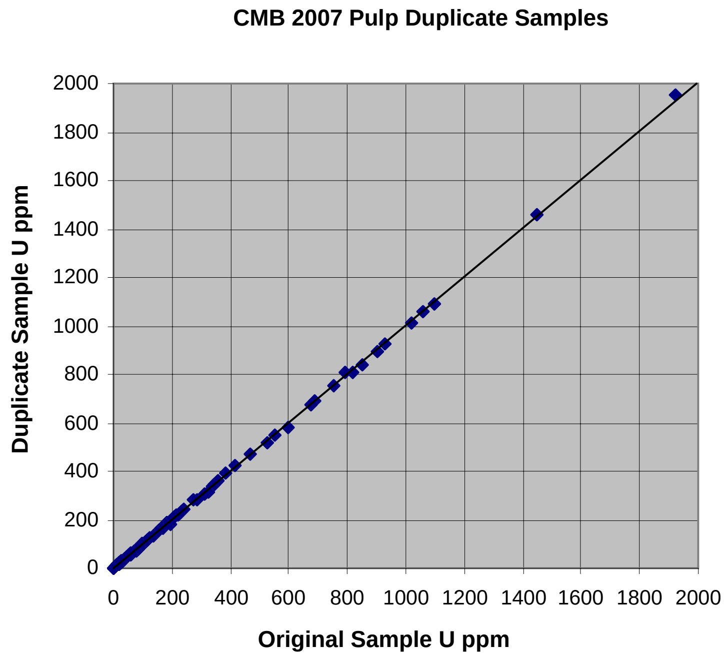
Although there is no fail criteria for these samples wide discrepancies are investigated. Most of the data received to date correlates closely. The sample pair from drill hole M07-062 at Michelin returned 669 ppm U on the original and 778 ppm U on the prep duplicate. There is no evidence of anything unusual with the rest of the batch the difference is probably the result of nuggety mineralization at Michelin.



16.5 PULP DUPLICATES

Pulp duplicates are created by taking a second split of the pulp. These samples are used to detect errors during the assaying phase. The pulp duplicate is plotted against the original sample for comparison. These samples were analyzed with the rest of the batch. Correlation between the two analyses should be better than those of the prep duplicates. Approximately 2% of samples have pulp duplicates.

Batches are not failed based on the results of pulp duplicates but any sample pairs that do not correlate are investigated. All samples from the 2007 program show close correlation.



16.6 CHECK ASSAYS

Approximately 5% of samples are sent for check assay. The pulps have been sent from Actlabs to SRC in Saskatchewan for uranium by DNC analysis. Results are pending.

16.7 CONCLUSION

In 2007, 112 batches were submitted for analysis and 28 batches had irregularities that needed follow up. The problems were 18 failed standards, 9 instances of mislabeled samples by Aurora staff, 4 sample mix ups by Actlabs and 6 blanks with high values. All quality control irregularities to date have been investigated have been passed to the satisfaction of the company.

Results from the bulk of the prep duplicates and check assays are pending.

A number of changes are planned for the 2008 program:

- Phase out CANMET standards as soon as Michelin derived in-house standards are certified by Barry Smee. These standards are pre-packaged and labeled so should help reduce submission errors and recording errors.
- Prep duplicates will be done during the initial processing of each batch.
- QC data will be processed using QAQCR, software that automatically plots the samples on charts and identifies failed batches. The program is linked to the database and provides reports as desired.

17.0 ADJACENT PROPERTIES

No information on adjacent properties has been collected as part of this current report.

18.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Some detail on mineral processing and metallurgical testing was provided in the November 20, 2007 43-101 report entitled "An Update on the Exploration Activities of Aurora Energy Resources Inc. on the CMB Uranium Property, Labrador, Canada during the Period January 1, 2007 to October 31, 2007".

The November 2007 report included comminution data needed for the design of the crushing and grinding circuits necessary to process the ore. Additional samples of Michelin and Jacques Lake ore and waste have recently been tested including procedures developed by SAG Design and by JKTech Pty Ltd. The new data confirm that the Michelin ore is soft and that grinding requirements will be low relative to other ores. Jacques Lake ore is also soft, similar to Michelin ore, but it is slightly more abrasive. Jacques Lake hanging and footwall rock is hard and abrasive indicating the importance of avoiding dilution with such rock during operations. Aurora now has sufficient basic data to design the comminution circuit and that task has been started.

A pilot plant using batch ball milling and continuous leaching, resin-in-pulp (RIP) recovery of uranium and semi-continuous neutralization has been operated at SGS Lakefield. During this work, a continuous pilot-scale thickener was operated on ground ore and RIP tailings. The pilot thickener data indicated that both streams thicken well to give slurries containing more than 70% solids at modest flocculant dosages. Data from the leaching and RIP sections of the pilot plant are still being analyzed but indications are that leach recovery is in the high 80's percentage, acid consumption is modest at less than 30 kg/t and that an air-SO2 oxidant is effective on Michelin ore and a Michelin-Jacques Lake ore blend. The RIP section of the pilot plant operated effectively with average recovery of 99.7% and periods of 99.9%. Neutralization of the RIP tails was performed in a two stage process using limestone and lime and resulted in very acceptable solution analyses. Test work continues to investigate paste backfill plant design parameters, RIP adsorption and elution details, and other design data.

Preliminary column leach tests on Michelin quarter core (generally -20 mm) containing about 0.06% U3O8 gave better than 75% uranium extraction over a 60 d leach period. These encouraging results will be studied to determine if heap leaching might be applicable to lower grade ore. If engineering and economic studies indicate that this route is promising, larger samples will be subjected to column leach tests.

19.0 MINERAL RESOURCE ESTIMATE

In 2007, Aurora collected 42,711 metres of core from 97 drill holes in five resource areas of the Central Mineral Belt (**Table 19.1** and

Table 19.2). Including drilling already completed in the six established deposits, the CMB resource database now contains 139,782 metres of core from 652 drill holes. More than 115,000 of these metres are concentrated in the Michelin and Jacques Lake deposits, both now in the pre-feasibility stages of investigation, and the remaining ~25,000 metres are split amongst four satellite resource areas, Rainbow, Nash, Inda and Gear, in earlier stages of investigation.

Table 19.1: Metres drilled in CMB resource areas

	Brinex		Aurora		Total
	1968-79	2005	2006	2007	
Michelin	32,554	4,547	25,435	22,693	85,229
Jacques Lake	-	2,190	14,476	14,217	30,883
Rainbow	1,211	-	2,484	-	3,695
Nash	5,824	-	140	1,298	7,262
Inda	3,772	-	200	2,570	6,542
Gear	3,446	-	792	1,933	6,171
Totals	46,807	6,737	43,527	42,711	139,782

Table 19.2: Drill holes in CMB resource areas

	Brinex		Aurora		Total
	1968-79	2005	2006	2007	
Michelin	292	15	41	50	398
Jacques Lake	-	7	47	29	83
Rainbow	13	-	16	-	29
Nash	57	-	2	4	63
Inda	26	-	1	8	35
Gear	34	-	4	6	44
Totals	422	22	111	97	652

The Michelin resource received its first NI 43-101 compliant estimate in 2006, which was updated in 2007, along with a first estimate of the Jacques Lake mineral resource. This report updates the Michelin and Jacques Lake resources and includes the first NI 43-101 compliant resource estimates for Rainbow, Nash, Inda and Gear. Each resource estimate is described in a different section for ease of reference.

All of the new resource estimates are constrained by hand-digitized 3D wireframes, interpreted in cross-sections. Assay data captured within these wireframes were capped and composited, and then used to interpolate grades into 3D block models using either Ordinary Kriging (OK) or Inverse Distance Squared (ID2), in Gemcom software. The resulting block grades were classified according to: (i) geological confidence, (ii) number of drill holes, and (iii) average distance to the samples used in each estimate. Cut-off grades are based on very preliminary economic analyses and contemplate both open pit and underground mining scenarios. These cut-off grades, and the resulting mineral resources, may change slightly as more in depth economic analyses evolve.

The Mineral Resource estimate described herein is considered to be a reasonable representation of the contained mineralization as it is currently understood, and no explicit allowances have been made for mining and or metallurgical recoveries. There is no guarantee that a Mineral Resource will become a Mineral Reserve.

19.1 MICHELIN

19.1.1 Resource Model

The Michelin deposit consists of a steeply-dipping, tabular zone of mineralization, hosted by highly strained felsic volcanics (**Figure 19.1.1**). Mineralization is coincident with a zone containing a number of coarsely porphyritic units, which define a poorly-constrained stratigraphy, parallel, or sub-parallel, to the principal tectonic fabric. This stratigraphy consists of alternating units of coarse-, and medium-grained porphyritic and aphyric felsic volcanic horizons of variable thickness and continuity, and although mineralization is concentrated within this zone, there is no direct correlation between the grade of mineralization and lithology.

The zone of mineralization is contained within a broader zone of sodic alteration, and has a very strong spatial correlation with hematite alteration, but there is no direct and consistent relationship with any observable geological feature. The resource model was therefore primarily constrained by assay grades. Four coherent domains are distinguished within the zone of mineralization. The main zone (MAIN) contains more than 95% of the mineralization and is sandwiched between two hanging wall domains (HW1, HW2) and a footwall domain (FW1). The result is a set of stacked, sub-parallel tabular bodies, separated by 10 to 50 metres (**Figure 19.1.1 and Figure 19.1.2**).

The boundaries of mineralization are generally very sharp and easy to model; however, in some cases, the boundaries may be marked by a gradual decrease in grade, or by a number of intermittent, discrete intervals at increased spacing away from the main zone of mineralization. In digitizing the mineralized domains, an attempt was made to capture the highest grades possible, while still maintaining a coherent shape between drill holes and across sections. In the deeper portions, below 150 metres elevation, the boundaries were digitized using a 0.03% U_3O_8 cut-off grade. Above this level, lower grades were accepted, provided they could still be grouped into a relatively coherent body. The mineralized domains were clipped using a 150 metre buffer zone around all drill holes.

The entire rock mass, including mineralization, is cut by a swarm of narrow mafic dykes. More than 300 dyke intersections were logged within the zone of mineralization; ranging in thickness from 1 centimetre to almost 15 metres (**Figure 19.1.3**). The small width and large number of dykes make them impossible to model at the scale of interest; however, their dilutive effects are assumed to be adequately represented by the composite data.

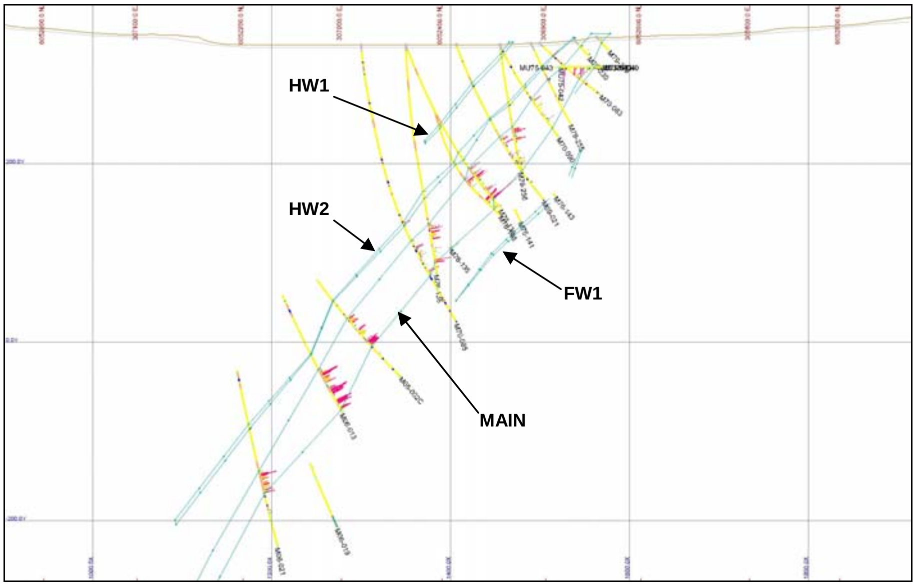


Figure 19.1.1: Cross-section 900W showing polygonal interpretation of mineralized domains within the Michelin deposit.

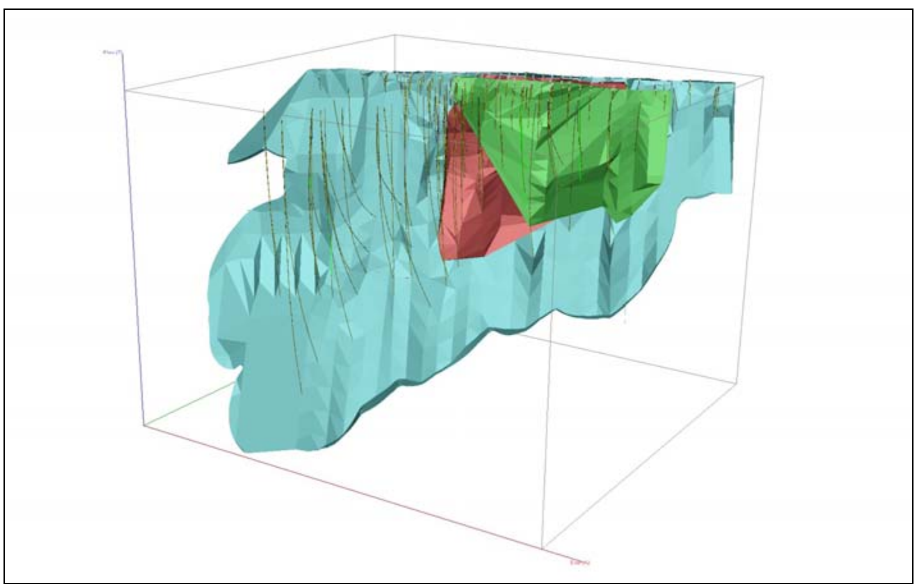


Figure 19.1.2: 3D oblique view of the Michelin resource model, looking NW

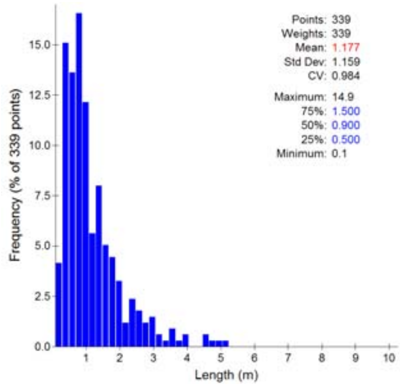


Figure 19.1.3: Histogram showing the length distribution of mafic dykes within the mineralized zones of the Michelin deposit

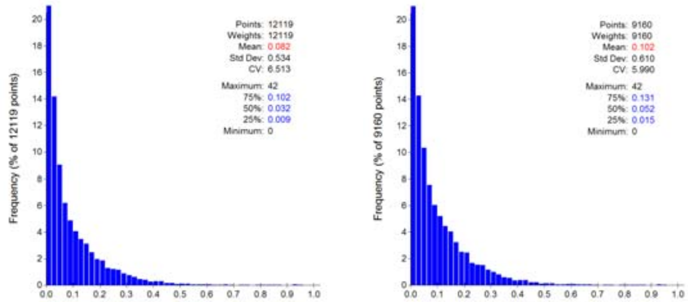
19.1.2 Data

The Michelin drill hole database contains 12,979 assays from 398 core drill holes and 597 channel samples. A total of 50 drill holes were rejected from the resource estimate due to: (i) they fall outside the main deposit area, (ii) they failed to intersect the mineralized domains, or (iii) a lack of data. The first two sets of rejected drill holes comprise 263 assays, which were removed from the database.

Drill holes may lack data within the mineralized domain for one of two reasons: (i) the interval presented no visible or radiometric mineralization for sampling and no sample was collected, or (ii) the interval was sampled, but the data were lost. If (i) could be confirmed, the drill hole was kept in the database and composited with zero grade. If not, then (ii) was assumed and the drill hole was removed from the database. Five historical drill holes (M76-158, M76-166G, M76-170G, MU75-023 and MU75-056) were rejected under the assumption that the data were lost. Of these 5, 3 drill holes intersect areas that are either below cut-off, or low grade, and two intersect areas of moderate grades, supported by high data density from adjacent drill holes. The impact on the resource of rejecting these drill holes is therefore deemed to be negligible.

The channel samples were not used in the estimation due to a lack of knowledge regarding sampling protocols (collection technique, sample size, etc.) and sample quality.

The resulting database contains 348 drill holes and 12,119 core assays, which were used to build the 3D solids in the resource model, as described above. A total of 9,160 samples were captured within the modeled resource domains, resulting in an increase in the mean sample grade of almost 25% (**Figure 19.1.4**).



(a) (b)

Figure 19.1.4: Histograms showing the grade distributions of (a) all assays and (b) assays captured within the modeled mineralized domains.

19.1.2.1 Grade Capping

The assay database contains a number of very high grade outliers, ranging up to 42 %U_3O_8. In order to limit any undue influence of these values in the estimation process, extreme high grade samples must be capped at an upper limit. One way to determine an appropriate capping grade is to examine the assay data distribution on a cumulative probability plot, as shown in **Figure 19.1.5**.

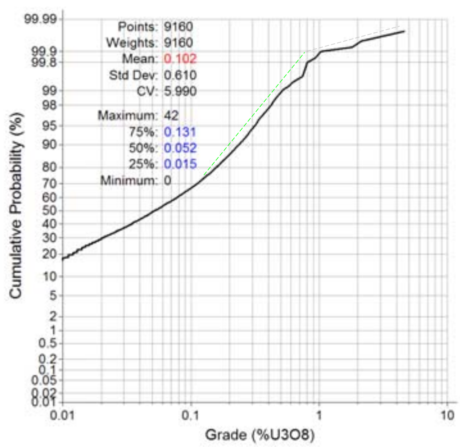


Figure 19.1.5: Cumulative probability plot showing the distribution of grade data within the modeled mineralized domains.

A grade population with a log-normal distribution will plot as a straight line on this graph and different populations may be distinguished by their different slopes. Assuming that the Michelin grade data contain different populations approaching a log-normal distribution, as is common in many ore deposit types, including uranium; **Figure** 19.1.5 shows two principal populations (green and grey dashed lines) separated by an inflection point at around 0.8% U_3O_8 and the 99.8th percentile. The higher grade portion of this line may represent a distinct high grade population, but is also consistent with a lack of support for grades higher than 0.8% U_3O_8. This inflection point was therefore chosen as a reasonable capping grade to trim the high grade outliers.

Twenty-one assay values were reduced to 0.8% U_3O_8, prior to compositing, resulting in a ~10% drop in the mean grade of the actual assay data, but only a ~1% drop on a declustered basis (**Table 19.1.1**).

Table 19.1.1: Comparison of assay grade distributions of raw versus capped data.

	Assays		Declustered	
	Raw	*Capped*	*Raw*	*Capped*
Mean	0.102	0.092	0.077	0.076
Median	0.052	0.052	0.035	0.035
Standard Deviation	0.610	0.108	0.113	0.101
Minimum	0.000	0.000	0.000	0.000
Maximum	42.000	0.800	2.158	0.800
# samples cut	0	21	0	21
Count	9,160	9,160	2,512	2,512

19.1.2.2 Composites

Sample lengths in the Michelin assay database range from 0.03 metres to more than 86 metres (**Figure 19.1.6**). More than 70% of the samples fall into four length categories corresponding to 1, 2 and 3 feet and 1 metre samples. In order to normalize the weight of influence of each sample, all assay data within the mineralized domains were composited into 2 metre intervals. Short composites generated at the margins of the mineralized domains were not rejected.

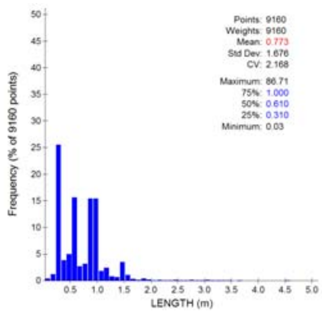


Figure 19.1.6: Histogram showing distribution of sample lengths for assays within the mineralized domains.

Composites were generated from the capped assay data and resulted in a further ~35% drop in grade (**Figure 19.1.7**), which implies a very strong bias in the assay data towards higher grades in shorter samples. On a declustered basis, the composite grades have a mean value about 20% lower than the capped assay data; however, there is virtually no difference in the mean grades of composites generated from raw versus capped data (**Table 19.1.2**).

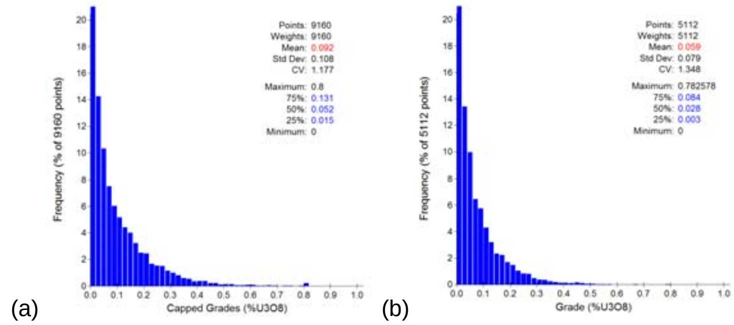


Figure 19.1.7: Histograms showing the grade distributions of (a) capped assays and (b) 2 metre composites of capped data within the modeled mineralized domains.

Table 19.1.2: Comparison of composite grade distributions using raw versus capped data.

	Composites		Declustered	
	Raw	*Capped*	*Raw*	*Capped*
Mean	0.060	0.059	0.060	0.060
Median	0.028	0.028	0.029	0.029
Standard Deviation	0.085	0.079	0.086	0.080
Minimum	0.000	0.000	0.001	0.001
Maximum	1.473	0.783	1.473	0.783
Count	5,112	5,112	2,773	2,773

19.1.2.3 Comparison of Brinex versus Aurora Data

Of the 12,119 assays in the Michelin database, 8,724 (72%) are inherited from the historical Brinex database. While these data were validated at the feasibility level in 1978, the documentation of QAQC performance does not meet current standards defined by NI 43-101 guidelines. This section provides a comparison of the old (Brinex) and new (Aurora) datasets to confirm their suitability for use in the resource estimation.

Raw Brinex and Aurora assays captured within the modeled mineralized domains (n=9160) have identical mean values (**Figure 19.1.8**); however, Aurora data are slightly positively skewed relative to the Brinex data.

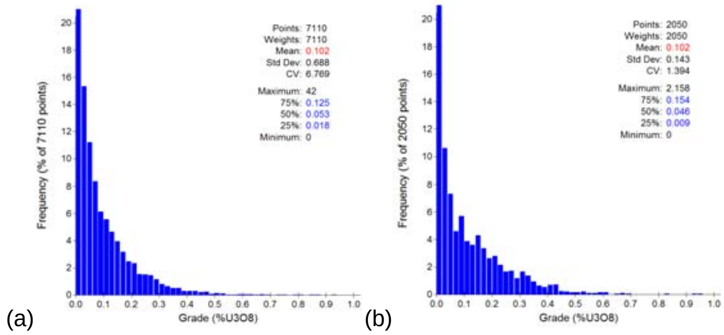


Figure 19.1.8: Histogram plots showing grade distributions for (a) Brinex and (b) Aurora assays.

Brinex samples tend to be either 1, 2 or 3 foot lengths, with a greater tendency towards 1 foot lengths; whereas, Aurora samples are predominantly 1 metre long (**Figure 19.1.9**). When both data sets are normalized into 2 metre composites, the mean grade of the Aurora data drops to 0.086% U_3O_8; whereas the mean of the Brinex data drops even further to 0.051% U_3O_8 (**Figure 19.1.10**). The dramatic drop in grade of the Brinex data is primarily due to a relatively large number of short (1 and 2 ft) samples at higher grades.

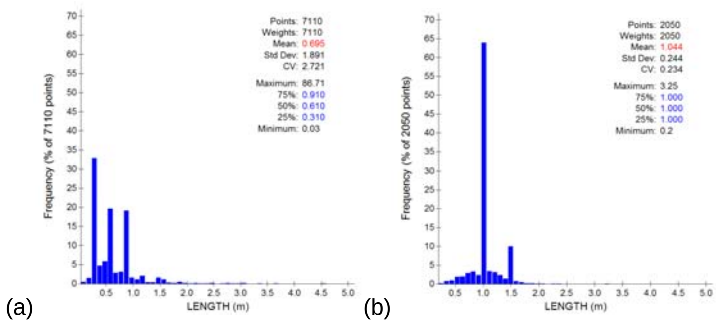


Figure 19.1.9: Histogram plots showing sample length distributions for (a) Brinex and (b) Aurora assays.

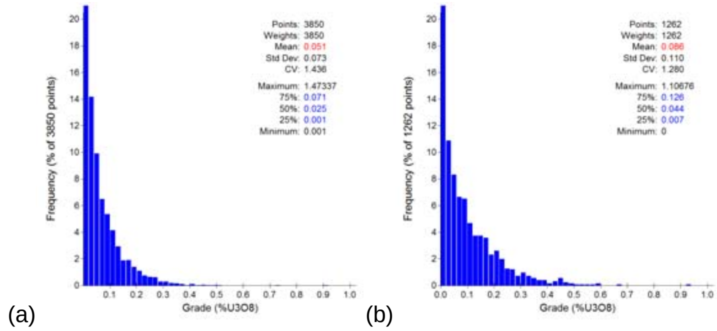


Figure 19.1.10: Histogram plots showing grade distributions for 2 metre composites of (a) Brinex and (b) Aurora data.

The relative positive skewness of the Aurora data is even more apparent in the 2 metre composite data (**Figure 19.1.10**), compared to the differences seen in the raw uncomposited data (**Figure 19.1.8**), with the mean grade of the Aurora composites more than 60% higher than the Brinex composites. However, these data are not directly comparable, since the Brinex data is almost entirely clustered above 100 metres elevation (<250 metres from surface), and the Aurora data are predominantly below that level. This difference in grade is interpreted to reflect a real increase in grades at depth.

Aurora currently has a confirmation drilling program underway to collect an adequate number of samples in the >100 metre elevation range to more rigorously assess these differences, but at the time this estimate was conducted only four new Aurora drill holes within this >100 metre range were available for comparison. **Figure 19.1.11** shows the relative grade distributions for Brinex and Aurora within a 200 metre wide swath encompassing the four Aurora confirmation holes.

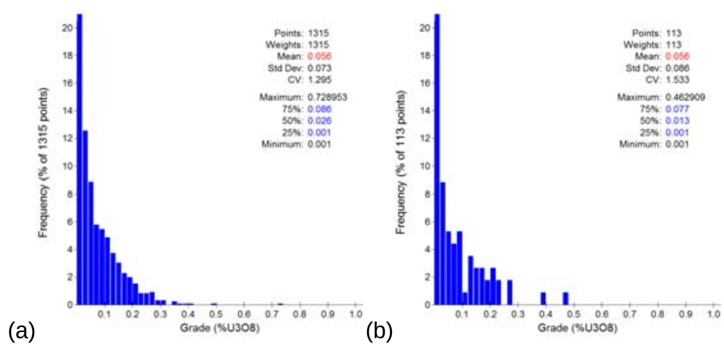


Figure 19.1.11: Histogram plots showing the grade distribution of 2 metre composites of (a) Brinex and (b) Aurora data, within a 200 metre wide swath (307,000 - 307,200 mE) above 100 metres elevation.

Once again, the mean grades of each population are identical; however, a Quantile-Quantile plot (**Figure 19.1.12**) shows that the Brinex sample grades tend to be slightly higher than Aurora grades, below ~0.1% U_3O_8, and vice versa above that threshold. This threshold corresponds to about the 80^{th} percentile of both datasets. Given the similarity in grades observed within this swath, the large disparity in grades of the overall datasets (outside the swath) appears to confirm the increase in grades below ~100 metres elevation.

It should be noted that the confirmatory Aurora data are relatively few compared to the Brinex dataset, and the comparison is therefore not as robust as it could be. More in depth comparative analyses will be conducted upon completion of the confirmation drilling program in the coming months. Nevertheless, the data are deemed sufficiently comparable to be used together in resource estimation.

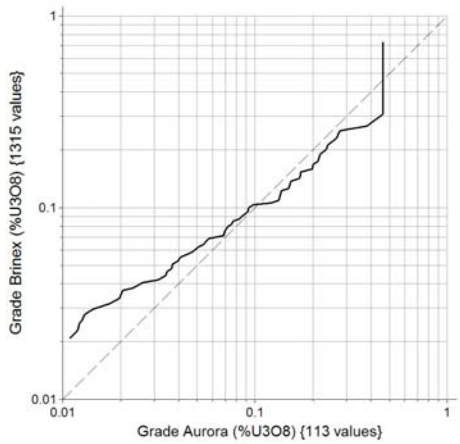


Figure 19.1.12: Q-Q (log-log) plot comparing Brinex versus Aurora 2 metre composite data within a 200 metre wide swath (307,000 - 307,200 mE) above 100 metres elevation.

19.1.3 Grade Estimation

The Michelin resource estimates were conducted using Ordinary Kriging in two Gemcom block models. The two block models were constructed to represent an open pit portion of the resource (above 150 metres elevation), and an underground portion. The 150 metre threshold elevation matches that of the 2007 resource update, which was chosen using a preliminary floating cone analysis. The block models are rotated parallel to the main trend of the deposit and their dimensions reflect the anticipated mining method to be used in each portion of the resource. The full block model parameters are given in

: Michelin block model parameters

		Michelin OP	Michelin UG
Origin	minX	306,000	306,000
	minY	6,051,000	6,051,000
	maxZ	400	150
Rotation	counter-clockwise	26	26
Block Size	Column (m)	10	5
	Row (m)	5	5
	Level (m)	10	5
Dimensions	# Columns	280	560
	# Rows	240	240
	# Levels	25	140
Total	# Blocks	1,680,000	18,816,000

The block models were coded by domain, and partial blocks on the perimeters of the domains were coded using a percentage model.

19.1.3.1 Variography

Variographic analyses were conducted by Marek Nowak of SRK. First pass uninformed variography gives the best directions of continuity in the horizontal and vertical directions. These directions do not match the principal direction of continuity defined by grade x thickness plots, which plunges steeply towards the southwest. This plunge is parallel to a well-developed stretching lineation in the deposit host rocks, which is believed to have a meaningful relationship to the mineralization. Based on these geological observations, Mr. Nowak was able to refine his variographic analyses and produced a reasonable correlogram model with two exponential structures in the expected direction of continuity (**Table 19.1.4**). The horizontal and vertical directions of the preliminary analysis are interpreted to be an artifact of the data density and distribution within the deposit.

The continuity analysis was conducted on the Michelin MAIN zone only, and treated it as a single domain. The results of a first pass estimation revealed that the MAIN zone has a slight 5 degree steepening at depth (**c.f. Figure 19.1.15**), which results in grade interpolations transecting, rather paralleling, the mineralized domain. Mr. Nowak's correlogram model was therefore slightly modified to account for this change in dip: 55 degrees above 0 metres elevation (MAIN+), and 60 degrees below (MAIN-) (**Table 19.1.4**).

Table 19.1.4: Correlogram model for Michelin mineralization

		MAIN+			MAIN-		
Structure		C0	C1	C2	C0	C1	C2
Sill		0.25	0.60	0.15	0.25	0.60	0.15
Orientation*	rotZ		0	0		0	0
	rotY		55	55		60	60
	rotZ		-17	-17		-17	-17
Dimensions	rangeX		25	100		25	100
	rangeY		55	300		55	300
	rangeZ		12	60		12	60

**Rotations follow Gemcom conventions and are relative to the block model orientation*

19.1.3.2 Estimation Parameters

The choice of dimensions and orientations for each search ellipse was determined by a combination of variography, data density and dimensions of the mineralized domains, and are given in **Table 19.1.5**.

Table 19.1.5: Estimation parameters for the Michelin deposit

		MAIN+ (>0 m elev)	MAIN- (<0 m elev)	FW1	HW1	HW2
Orientation*	rotZ	0	0	0	0	0
	rotY	55	60	60	55	55
	rotZ	-17	-17	-17	-17	-17
Dimensions	rangeX	100	100	100	100	100
	rangeY	150	150	150	150	150
	rangeZ	35	35	35	35	35
Samples	min	4	2	4	4	4
	max	16	8	16	16	16

**Rotations follow Gemcom conventions and are relative to the block model orientation*

19.1.3.3 Interpolation

Grades in the Michelin block models were interpolated by Ordinary Kriging in a single pass estimate for each of the mineralized domains. All mineralized domains were treated as hard boundaries. A maximum of 4 samples per drill hole were used for each estimate. Blocks were also estimated using the same parameters for an inverse distance squared interpolation. The average distance and number of samples used for each estimated block were tracked for classification purposes.

19.1.4 Bulk Density

Aurora has collected 224 specific gravity measurements from Michelin core samples, with a mean s.g. of 2.69 (**Figure 19.1.13**). Within the mineralized domains, 124 samples returned a mean s.g. of 2.7. Brinex's historical reserves used an average s.g. of 2.72, calculated from 4 drill core samples in mineralization (range 2.71-2.72), and a bulk sample taken from their underground adit (2.73). Aurora's mean value of 2.7 was used to calculate the tonnage of each block for the current estimate.

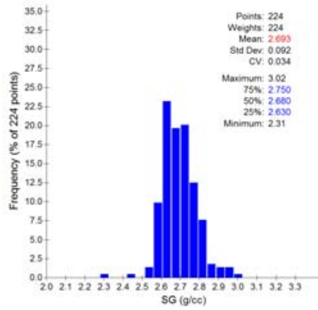


Figure 19.1.13: Histogram showing the distribution of s.g. measurements by Aurora

19.1.5 Interpolation Results

The results of the OK interpolation are shown graphically in **Figure 19.1.14** and **Figure 19.1.15**, along with the composite data to show the relative data density in the deposit.

19.1.5.1 Mineral Inventory

Table 19.1.6 provides the tonnes, grade and pounds of the Michelin resource at a range of cut-off grades. These data are also plotted on grade-tonnage curves in **Figure** 19.1.16.

Table 19.1.6: Mineral inventory for the Michelin open pit (left) and underground (right) resources

Cut-off (%U3O8)	Tonnes	Grade (%U3O8)	lbs (%U3O8)
0.01	20,305,000	0.054	23,985,000
0.02	17,795,000	0.059	23,155,000
0.03	14,505,000	0.067	21,360,000
0.04	11,691,000	0.075	19,209,000
0.05	8,989,000	0.084	16,562,000
0.06	6,776,000	0.093	13,911,000
0.07	5,049,000	0.103	11,461,000
0.08	3,808,000	0.112	9,429,000
0.09	2,847,000	0.122	7,647,000
0.10	2,149,000	0.131	6,197,000

Cut-off (%U3O8)	Tonnes	Grade (%U3O8)	lbs (%U3O8)
0.01	44,719,000	0.092	91,080,000
0.02	41,355,000	0.099	89,999,000
0.03	37,222,000	0.107	87,746,000
0.04	33,349,000	0.115	84,810,000
0.05	30,036,000	0.123	81,539,000
0.06	27,139,000	0.130	78,041,000
0.07	24,625,000	0.137	74,458,000
0.08	21,759,000	0.145	69,733,000
0.09	19,097,000	0.154	64,800,000
0.10	17,048,000	0.161	60,528,000

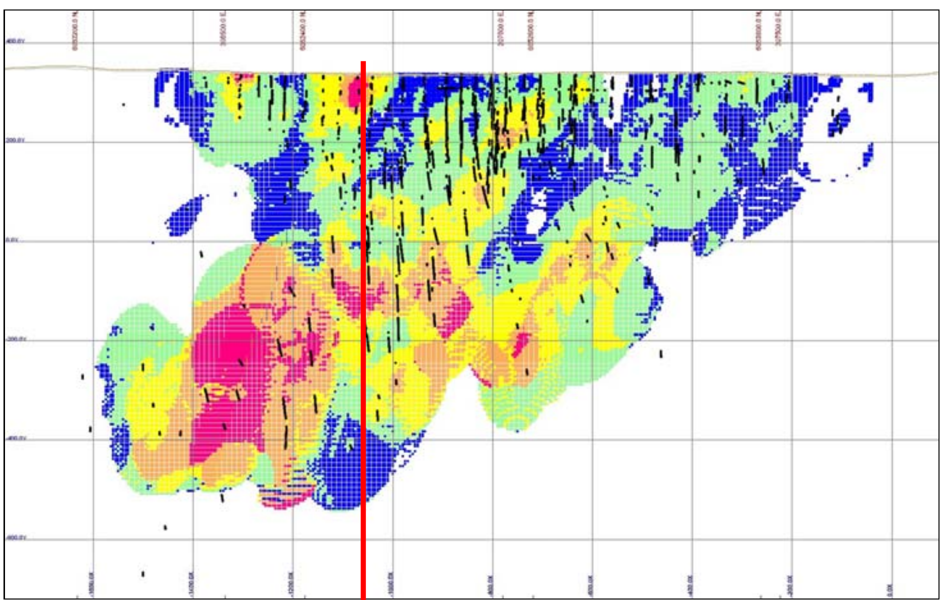


Figure 19.1.14: Long section view showing composite data (black points) relative to all estimated block grades above a 0.03% U_3O_8 cut-off grade (blue=0.03-0.05, green=0.05-0.10, yellow=0.10-0.15, orange=0.15-2.00, red=>2.00). Red line = cross-section 1050W.

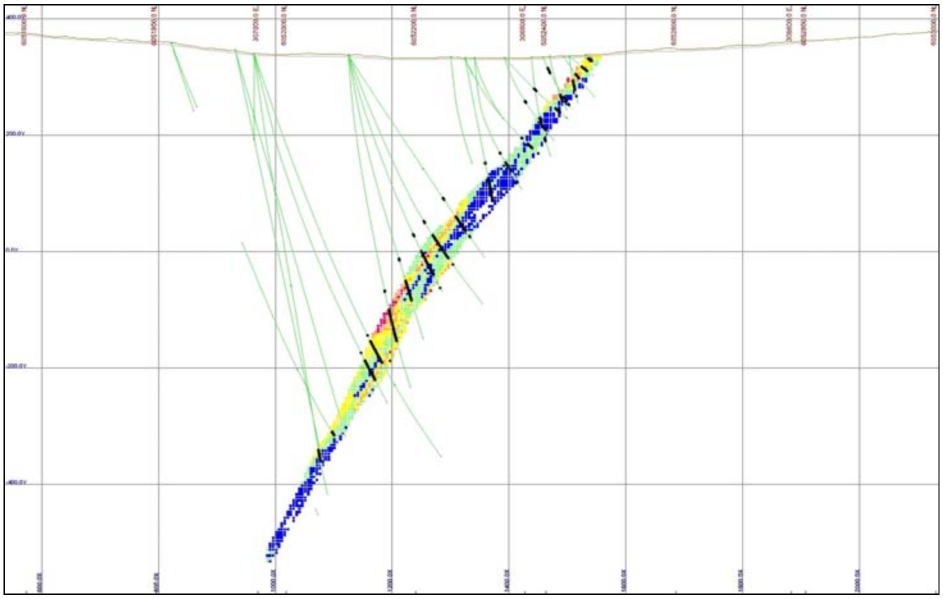


Figure 19.1.15: Cross-section 1050W (looking SW) showing composite data relative to estimated block grades in the MAIN zone above a 0.03% U_3O_8 cut-off grade (colours as in Figure 19.1.14).

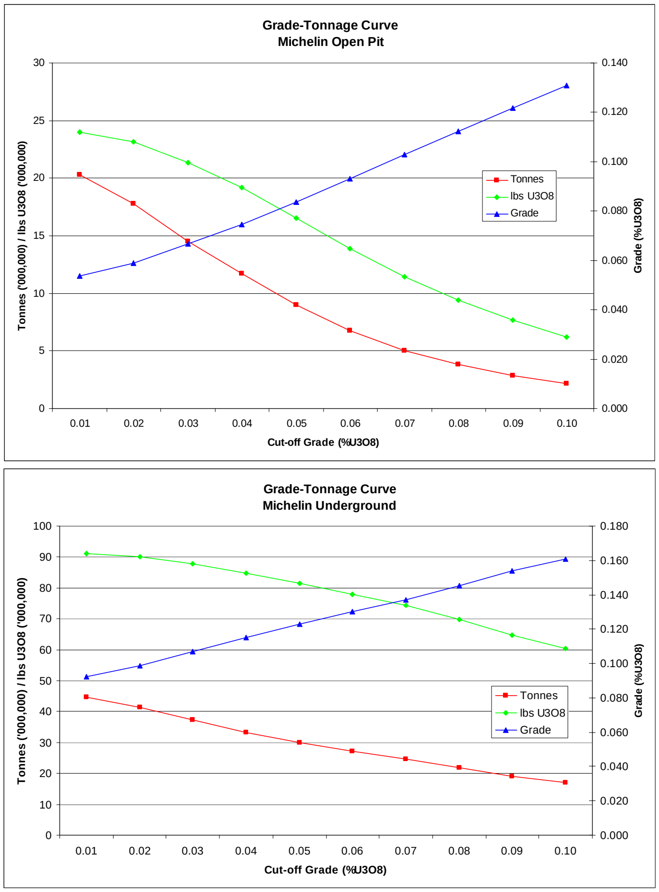


Figure 19.1.16: Grade-tonnage curves showing the distribution of tonnes, grade and pounds of U_3O_8 in the Michelin resource at different cut-off grades

19.1.6 Block Model Validation

The Michelin resource grade estimates were validated by comparing the OK estimates with those generated by ID2 estimates. Block grades are also compared against the average grade of composites contained by, or adjacent to them.

Figure 19.1.17 shows the grade distributions for each type of estimate as 'Box & Whisker' plots. The mean grades of the estimates are indistinguishable; however, as expected, the ID2 and composite populations are more variable.

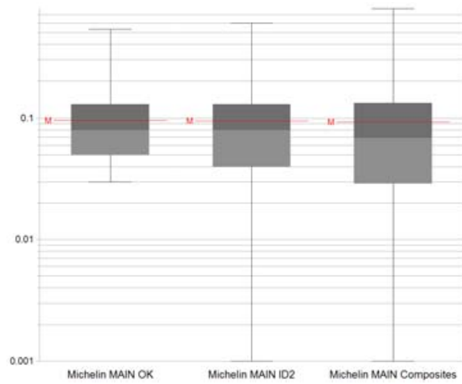


Figure 19.1.17: 'Box & Whisker' plot showing the log-scale distribution of grades (%U_3O_8) for each estimation method. The 'T' lines (whiskers) show the max and min values for each population, and the boxes show the 25th, 50th and 75th percentiles. The mean grades are indicated by the red lines labelled 'M'.

19.1.6.1 X-Y Scatter plots

When compared against the OK estimates on scatter plots, the greater variability of the ID2 and composite data is much more evident. In both cases, lower grades are under-estimated and higher grades are over-estimated by the ID2 and composite data, as compared to the OK estimates. This 'smoothing' effect is an expected result of the OK estimation process.

Despite the greater variability, the regression lines show a fairly close correspondence between the OK and ID2 estimates; whereas, the composite grades are significantly higher than the OK estimates.

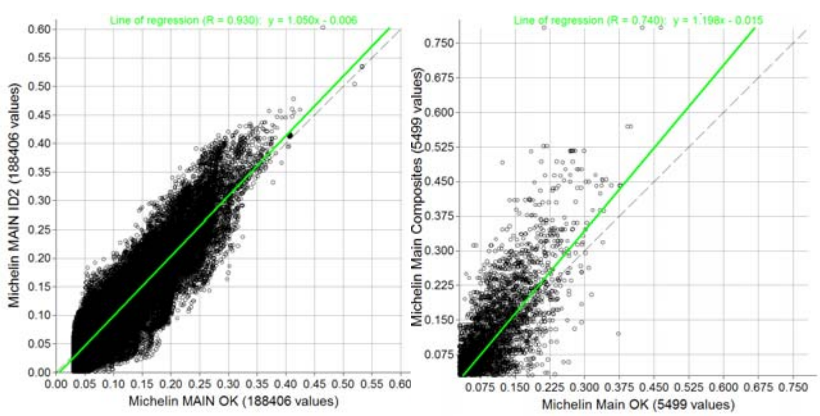


Figure 19.1.18: Scatter plots comparing the block grades from the OK estimates against those of the ID2 estimates and composite data.

19.1.6.2 Swath Plots

In order to evaluate the spatial variability of the different types of estimates, the block model can be examined along 'swaths' of a given thickness across the deposit. **Figure 19.1.19** is an example plot of such a swath, and shows the high variability of the composite data relative to the ID2 and OK estimates. The plot also shows the smoothing effect whereby the highs and lows of the ID2 estimates are more pronounced than those of the OK estimates. Despite this variability, there is a very close correlation between the ID2 and OK estimates, as well as with a moving average of the composite grades, across the deposit, attesting to the veracity of the estimates.

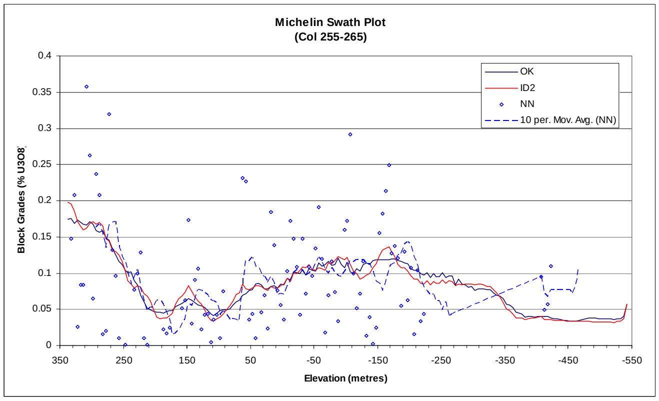


Figure 19.1.19: Swath plot showing a comparison of grade estimates within a 50 metre wide, vertical envelope or 'swath' through the heart of the Michelin resource.

19.1.6.3 Visual Inspection

A visual inspection of the OK estimates reveals that the estimates in the lower portion of the resource are not as smooth as the estimates in the upper portion. This is likely a consequence of the lower number of samples used for each estimate in the deeper blocks (**c.f. Table 19.1.5**), which were chosen to account for its lower data density. The lower minimum of 2 samples was used to ensure reasonable coverage of estimated blocks in areas of sparse data density, and the lower maximum of 8 was used to maintain a reasonable level of spatial variability across the deposit. The result is less visually 'pleasing' than a smoother estimate, but is believed to more accurately represent the statistical grade distribution in the deposit. This effect will be minimized with the inclusion of the infill drilling results expected in the coming months.

19.1.7 Mineral Resource Classification

The geological confidence in the interpreted continuity and distribution of mineralization within the modeled domains is very high. Confidence in the actual grades of the estimates is more data dependent and all estimated blocks in the Michelin resource were therefore classified using a combination of: (i) the number of drill holes used for each estimate, and (ii) the average distance of all samples used in each estimate. Blocks estimated with a minimum of 2 drill holes, and an average distance to samples used in the estimate of less than 30 metres were assigned to the Measured category. Indicated blocks required at least 2 drill holes and an average distance of less than 60 metres. All other estimated blocks were assigned to the Inferred category. **Figure 19.1.20** shows the distribution of Measured, Indicated and Inferred resource blocks within the Michelin deposit.

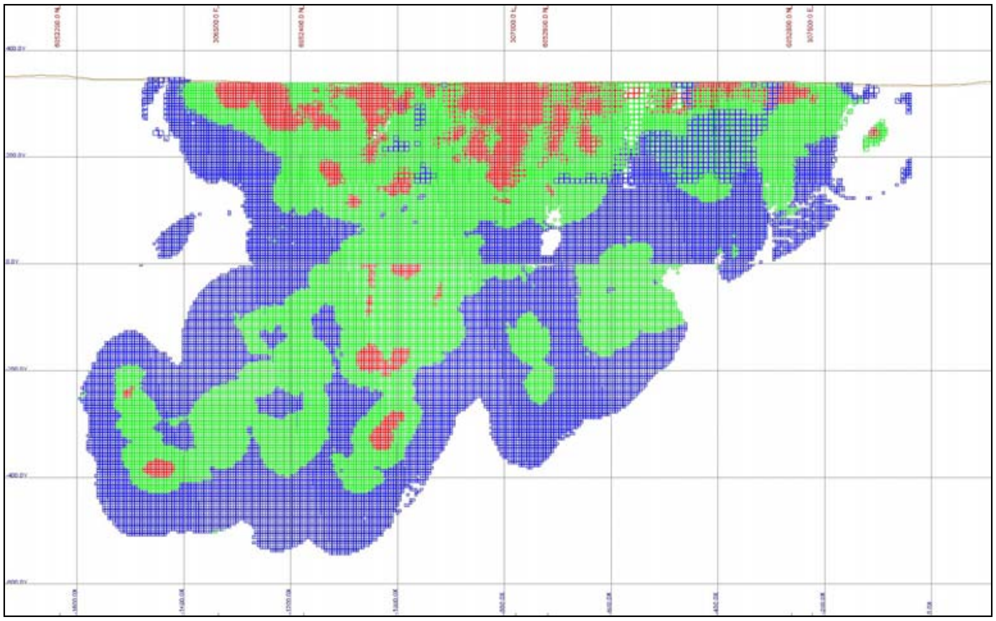


Figure 19.1.20: Long section showing the distribution of classified blocks in the Michelin resource model (red=measured, green = indicated, blue=inferred)

The Classified Mineral Resources for the Michelin deposit are reported at cut-off grades of 0.03% and 0.05% U_3O_8 in the open pit and underground portions, respectively, and are given in **Table 19.1.7**.

Table 19.1.7 - Classified mineral resources of the Michelin deposit

		Underground*			Open Pit*		
Deposit	**Class**	**Tonnes**	**%U3O8**	**lbs U3O8**	**Tonnes**	**%U3O8**	**lbs U3O8**
MICHELIN	Measured	1,289,000	0.12	3,310,000	5,795,000	0.08	9,768,000
	Indicated	16,170,000	0.13	44,582,000	7,146,000	0.06	9,774,000
	Inferred	12,577,000	0.12	33,647,000	1,564,000	0.05	1,818,000

** The Michelin resource estimate contemplates both underground and open pit mining scenarios. Cut-off grades (UG=0.05% U3O8, OP=0.03% U3O8) are based on preliminary economics and may be revised in future updates.*

19.2 JACQUES LAKE

19.2.1 Resource Model

The Jacques Lake deposit is hosted by a variably strained sequence of intermediate volcanic rocks sandwiched between a distinct conglomeratic unit in its hanging wall and a large granitic batholith in its footwall. Mineralization is associated with moderate to strong hematite alteration and forms a distinct, folded horizon within the intermediate volcanic package (**Figure 19.2.1**). There are two distinct mineralized domains that may be repeated portions of the same folded horizon; however, they have been kept separate for ease of modeling and estimation.

The hanging wall conglomerate unit is folded along with the mineralization and its host rocks, but with lower amplitude and frequency due to its higher competence. There is some indication that the conglomerate rests in angular unconformity on the intermediate volcanics and mineralization, including: (i) a distinct lack of mineralization in the conglomerate adjacent to strongly mineralized portions of the intermediate volcanics, (ii) the apparent truncation, along strike, of the upper hanging wall mineralized domain by the conglomerate contact, and (iii) the observation of possible mineralized intermediate volcanic clasts in the conglomerate.

The mineralized domains were digitized using the same guiding principle as for the Michelin domains, i.e. finding a balance between capturing the highest grades, while still maintaining a reasonable degree of continuity of the domain within, and between, sections.

As at Michelin, the Jacques Lake deposit is transected by a swarm of variably strained mafic dykes. The dykes all cut mineralization, and are interpreted as pre-, syn- and post-kinematic based on their degree of strain; however, at least some of the strain variation is likely a consequence of their position relative to fold limbs and hinges. Many of these dykes are much wider than those transecting the Michelin deposit, up to more than 100 metres in places, yet their variability between drill holes and between sections precludes their modeling with reasonable confidence, at the current resolution of drilling. They have therefore been included in the current mineralized domains at zero grade. It is anticipated that the imminent infill drilling program will provide the necessary detail to support the interpretation of reasonable lithological solids for the larger dykes.

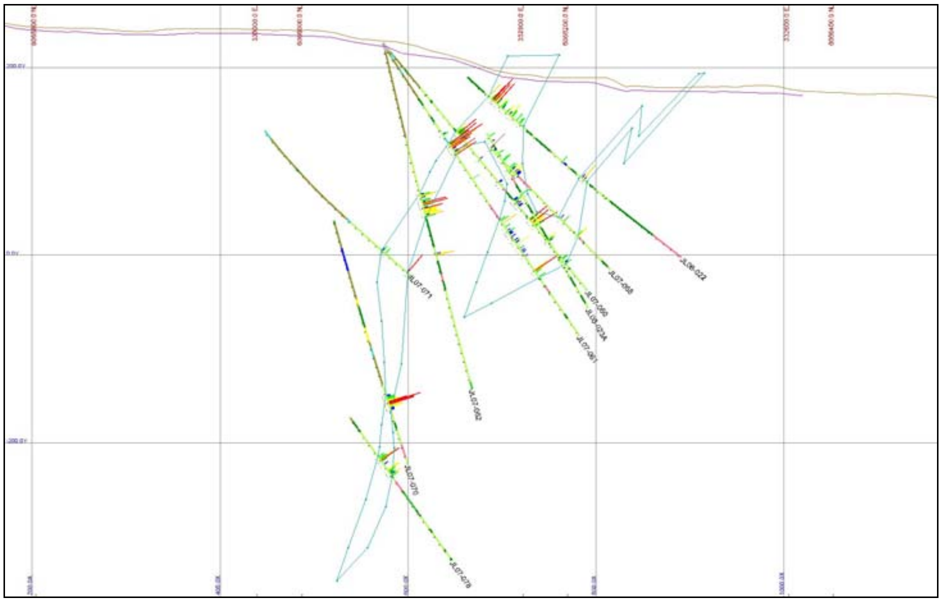


Figure 19.2.1: Cross-section 900NE showing the polygonal interpretation of the Main mineralized domain in the Jacques Lake deposit

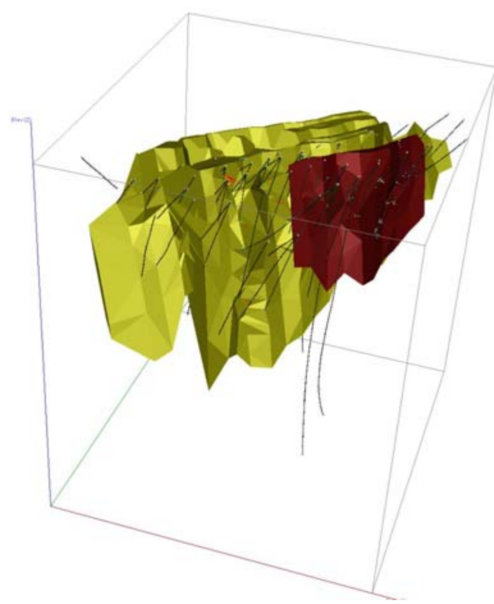


Figure 19.2.2: 3D oblique view (looking NNE) of the Jacques Lake resource model

19.2.2 Data

The Jacques Lake database contains 3,594 assays from 83 drill holes. All of these samples were collected and analyzed by Aurora using the same sampling and analytical protocols. All of these data were used in the modeling, but about a third of the data were excluded from the digitized domains (**Figure 19.2.3**), either because they were too far removed from the main zones of mineralization, or they were very low grade (i.e. less than 0.03% U_3O_8). The mean grade of the data captured within the mineralized domains is 40% higher than that of the total database.

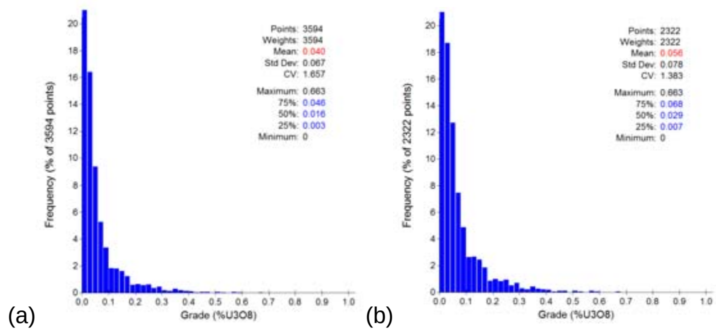


Figure 19.2.3: Histograms showing the grade distributions of (a) all assays and (b) assays captured within the modeled mineralized domains.

19.2.2.1 Grade Capping

The Jacques Lake assays show a distinct break in slope on a cumulative probability plot at around 0.5% U_3O_8 (**Figure 19.2.4**). Examination of the data reveals a strong lack of support for assays greater than around 0.45% U_3O_8, so this value was used as a capping for the assays.

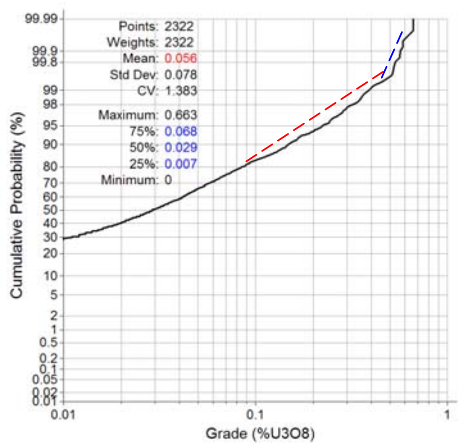


Figure 19.2.4: Cumulative probability plot showing the distribution of grade data within the modeled mineralized domains

A total of 10 assays were capped at 0.45% U_3O_8, which had virtually no impact on the statistical distribution of the assay data (**Table 19.2.1**).

Table 19.2.1: Comparison of assay grade distributions of raw versus capped data

	Assays		Declustered	
	Raw	*Capped*	*Raw*	*Capped*
Mean	0.056	0.056	0.050	0.050
Median	0.029	0.029	0.025	0.025
Standard Deviation	0.078	0.075	0.071	0.070
Minimum	0.000	0.000	0.000	0.000
Maximum	0.663	0.450	0.585	0.450
# samples cut	0	10	0	10
Count	2,322	2,322	804	804

19.2.2.2 Composites

The sampling protocol at Jacques Lake was to take 1 metre samples within mineralized zones, and 1.5 metre samples where the core was very low grade or barren (**Figure 19.2.5**). In some cases, samples were broken or extended slightly to meet geological contacts such as mafic dyke contacts. All samples were capped at a grade of 0.45% U_3O_8, then composited to 2 metre lengths to normalize the weighting of the samples for resource estimation.

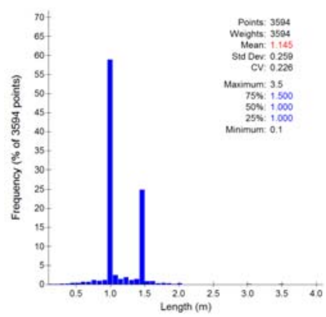


Figure 19.2.5: Histogram showing distribution of sample lengths for assays within the mineralized domains

The mean grade of the capped and composited data is 30% lower than the raw assay data (**Figure 19.2.6**), indicating a significant bias towards higher grades in the shorter samples in the assay data. The mean grade of the composites is virtually unchanged on a declustered basis (**Table 19.2.2**).

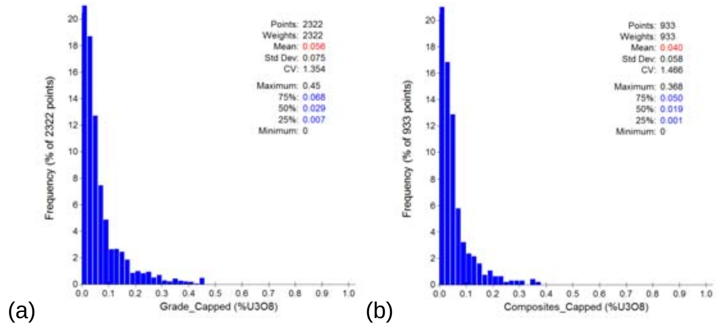


Figure 19.2.6: Histograms showing the grade distributions of (a) capped assays and (b) 2 metre composites of capped data within the modeled mineralized domains

Table 19.2.2: Comparison of composite grade distributions using raw versus capped data

	Composites		Declustered	
	Raw	*Capped*	*Raw*	*Capped*
Mean	0.040	0.040	0.040	0.040
Median	0.019	0.019	0.019	0.019
Standard Deviation	0.059	0.058	0.060	0.058
Minimum	0.000	0.000	0.000	0.000
Maximum	0.449	0.368	0.449	0.368
Count	1,721	1,721	933	933

19.2.3 Grade Estimation

The Jacques Lake resource estimate was conducted using Ordinary Kriging in a Gemcom block model (**Table 19.2.3**). The block dimensions were based on data density and were chosen to match those of the previous 2007 resource estimate. The block model was rotated parallel to main northeast trend of the deposit.

The block model was coded by resource domain as defined by the digitized wireframes, and partial blocks were included around the perimeter of the domains as a percentage model. These wireframes were treated as hard boundaries, including only their contained composites for the resource grade estimates.

Table 19.2.3: Jacques Lake block model parameters

		Jacques Lake
Origin	minX	332,200
	minY	6,066,100
	maxZ	330
Rotation	counter-clockwise	-45
Block Size	Column (m)	5
	Row (m)	10
	Level (m)	10
Dimensions	# Columns	150
	# Rows	140
	# Levels	75
Total	# Blocks	1,575,000

19.2.3.1 Variography

Variographic analyses were conducted by Marek Nowak of SRK, and showed that the strongest direction of continuity plunges steeply to the southeast. The resulting correlogram model comprises two exponential structures, with the short range being fairly prolate and longer ranges becoming more oblate (**Table 19.2.4**).

Table 19.2.4: Correlogram model for the Jacques Lake mineralization

		All Domains		
Structure		C0	C1	C2
Sill		0.3	0.35	0.35
Orientation*	rotZ		5	5
	rotY		65	65
	rotZ		15	15
Dimensions	rangeX		100	160
	rangeY		40	110
	rangeZ		30	70

**Rotations follow Gemcom conventions and are relative to the block model orientation*

19.2.3.2 Estimation Parameters

The choice of dimensions and orientations for each search ellipse was determined by a combination of variography, data density and dimensions of the mineralized domains, and are given in

Table 19.2.5.

Table 19.2.5: Estimation parameters for the Jacques Lake deposit

		MAIN	HW
Orientation*	rotZ	5	5
	rotY	65	80
	rotZ	15	15
Dimensions	rangeX	150	150
	rangeY	100	100
	rangeZ	35	35
Samples	min	4	4
	max	16	16

**Rotations follow Gemcom conventions and are relative to the block model orientation*

19.2.3.3 Interpolation

Grades in the Jacques Lake block model were interpolated by Ordinary Kriging in a single pass estimate for each of the mineralized domains. All mineralized domains were treated as hard boundaries. A maximum of 4 samples per drill hole were used for each estimate. Blocks were also estimated using the same parameters for an inverse distance squared interpolation. The average distance and number of samples used for each estimated block were tracked for classification purposes.

19.2.4 Bulk Density

Specific gravity was measured in a total of 345 samples of Jacques Lake core. 194 of these s.g. samples were captured within the mineralized domain and have the same mean value as the entire s.g. dataset. A single average grade of 2.79 was used to calculate tonnages for each block in the block model.

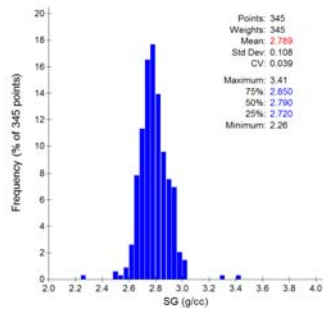


Figure 19.2.7: Histogram showing the distribution of s.g. measurements from the Jacques Lake core samples

19.2.5 Interpolation Results

The results of the OK interpolation are shown graphically in **Figure 19.2.8** and **Figure 19.3.19**, along with the composite data to show the relative data density in the deposit.

19.2.5.1 Mineral Inventory

Table 19.2.6 provides the tonnes, grade and pounds of the Michelin resource at a range of cut-off grades. These data are also plotted on grade-tonnage curves in **Figure** 19.2.10. The mineral inventory is tabulated an open pit and underground mine. The elevation cut-off for the open pit is 130 metres elevation, or 250 metres depth.

Table 19.2.6: Mineral inventory for the Jacques Lake deposit, including both open pit (left) and underground (right) resource areas

Cut-off (%U3O8)	Tonnes	Grade (%U3O8)	lbs (%U3O8)	Cut-off (%U3O8)	Tonnes	Grade (%U3O8)	lbs (%U3O8)
0.01	7,543,000	0.046	7,644,000	0.01	28,312,000	0.038	23,932,000
0.02	6,578,000	0.050	7,311,000	0.02	22,181,000	0.045	21,872,000
0.03	4,520,000	0.061	6,062,000	0.03	15,083,000	0.054	18,065,000
0.04	3,566,000	0.068	5,378,000	0.04	9,717,000	0.066	14,040,000
0.05	2,304,000	0.082	4,154,000	0.05	6,550,000	0.078	11,259,000
0.06	1,614,000	0.094	3,337,000	0.06	4,570,000	0.086	8,685,000
0.07	1,104,000	0.107	2,605,000	0.07	3,373,000	0.094	6,986,000
0.08	892,000	0.115	2,259,000	0.08	2,455,000	0.101	5,486,000
0.09	692,000	0.124	1,888,000	0.09	1,750,000	0.108	4,174,000
0.10	496,000	0.135	1,478,000	0.10	1,032,000	0.118	2,692,000

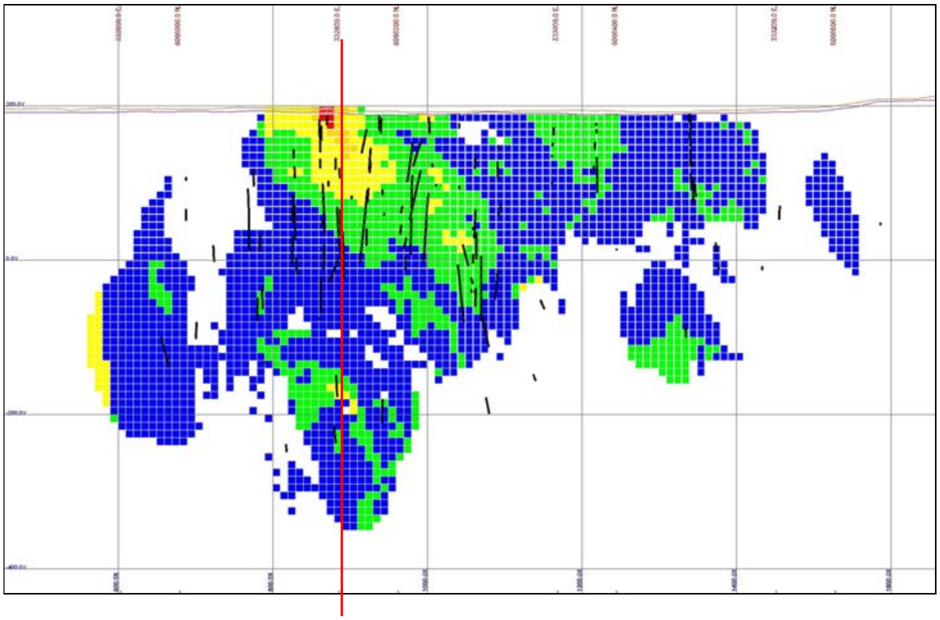


Figure 19.2.8: Long section view of the Jacques Lake resource model showing block grades and the section line for Figure 19.2.9 (colours as in Figure 19.1.14)

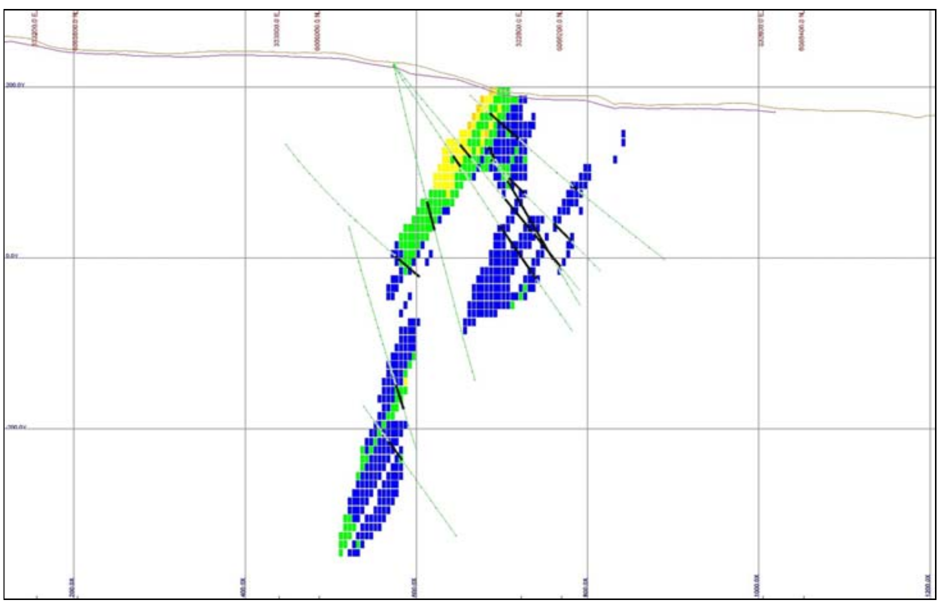
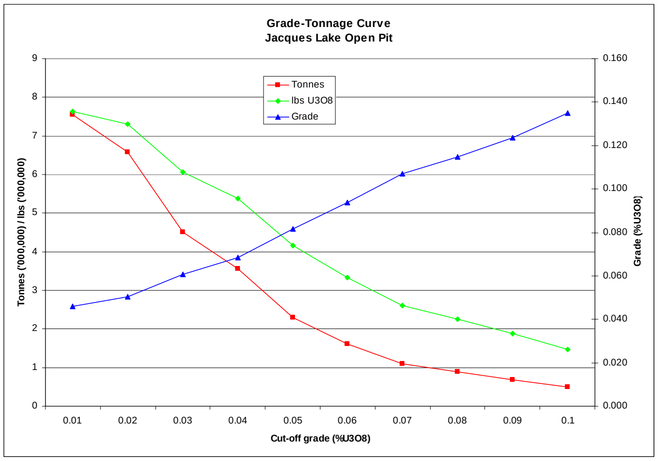


Figure 19.2.9: Cross-section 900NE view of the Jacques Lake resource model



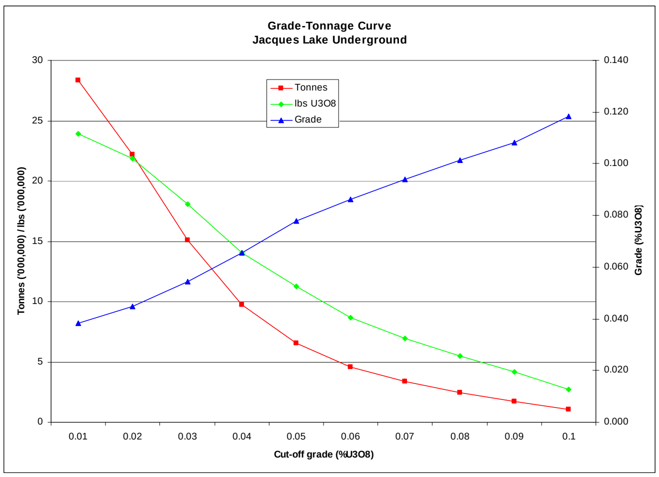


Figure 19.2.10: Grade-tonnage curves for the Jacques Lake resource model showing the distribution of tones, grade and pounds of U_3O_8 at a range of cut-off grades

19.2.6 Block Model Validation

The Jacques Lake resource grade estimates were validated by comparing the OK estimates with those generated by ID2 estimates. Block grades are also compared against the average grade of composites contained by, or adjacent to them. This latter dataset was generated by estimating all blocks touching at distances of less than 5 metres, and is referred to as the Nearest Neighbour (NN) estimate.

Figure 19.1.1711 shows the grade distributions for each type of estimate as 'Box & Whisker' plots. The mean grades of the OK and ID2 estimates are indistinguishable; however, the NN grades have a mean grade significantly higher than the others.

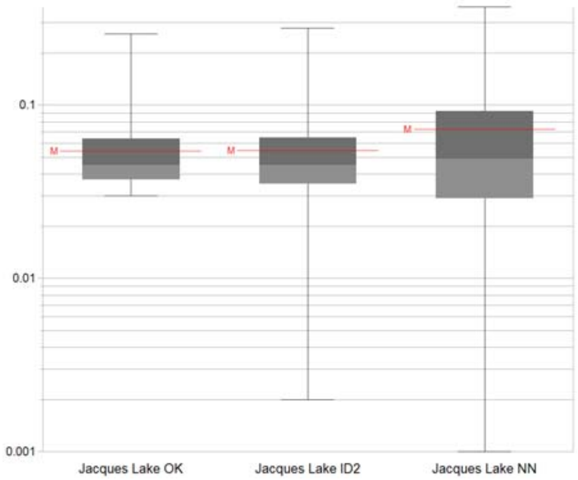


Figure 19.2.11: Box & Whisker plot showing a summary of the grade distributions for each type of estimate.

19.2.6.1 X-Y Scatter plot

When compared against the OK estimates on scatter plots (**Figure 19.2.12**), the greater variability of the ID2 and composite data is much more evident. In both cases, lower grades are under-estimated and higher grades are over-estimated by the ID2 and composite data, as compared to the OK estimates. This 'smoothing' effect is an expected result of the OK estimation process.

Despite the greater variability, the regression lines show a fairly close correspondence between the OK and ID2 estimates; whereas, the composite grades are significantly higher than the OK estimates.

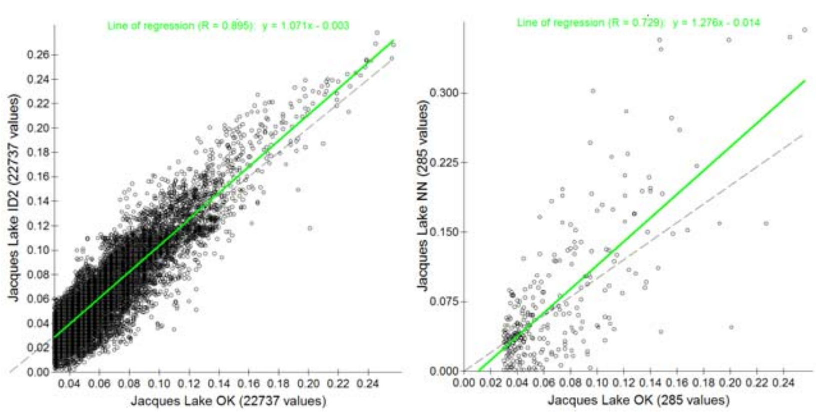


Figure 19.2.12: Scatter plots comparing the block grades from the OK estimates against those of the ID2 estimates and composite data

19.2.6.2 Swath Plots

In order to evaluate the spatial variability of the different types of estimates, the block model can be examined along 'swaths' of a given thickness across the deposit. **Figure 19.1.13** is an example plot of such a swath, and shows the high variability of the composite data relative to the ID2 and OK estimates. The plot also shows the smoothing effect whereby the highs and lows of the ID2 estimates are more pronounced than those of the OK estimates. Despite this variability, there is a very close correlation between the ID2 and OK estimates, as well as with a moving average of the composite grades, across the deposit, attesting to the veracity of the estimates.

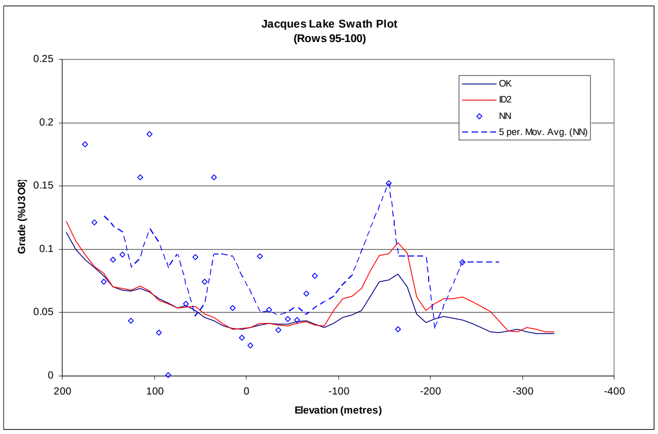


Figure 19.2.13: Swath plot showing block grade distributions within a 50 metre wide vertical envelope.

19.2.6.3 Visual Inspection

A visual inspection of the Jacques Lake resource blocks reveals a slightly fragmented distribution of blocks above cut-off, in both long and cross-section views. This appears to be due, in part, to the variable dips of the mineralized domain, which deviate from the orientation of the single search ellipse. This effect is fairly limited since the bulk of the mineralization has a relatively consistent dip that is easily interpolated with a single search ellipse orientation; however, future updates should aim to sub-domain out those areas presenting difficulty for the 'one orientation fits all' approach. The ease of modeling of these areas of variable dip will also improve with the planned infill drilling program.

19.2.7 Mineral Resource Classification

The geological confidence in the interpreted continuity and distribution of mineralization within the modeled domains is very high. Confidence in the actual grades of the estimates is more data dependent and all estimated blocks in the Jacques Lake resource were therefore classified using a combination of: (i) the number of drill holes used for each estimate, and (ii) the average distance of all samples used in each estimate. Blocks estimated with a minimum of 2 drill holes, and an average distance to samples used in the estimate of less than 30 metres were assigned to the Measured category. Indicated blocks required at least 2 drill holes and an average distance of less than 60 metres. All other estimated blocks were assigned to the Inferred category. **Figure 19.2.114** shows the distribution of Measured, Indicated and Inferred resource blocks within the Michelin deposit.

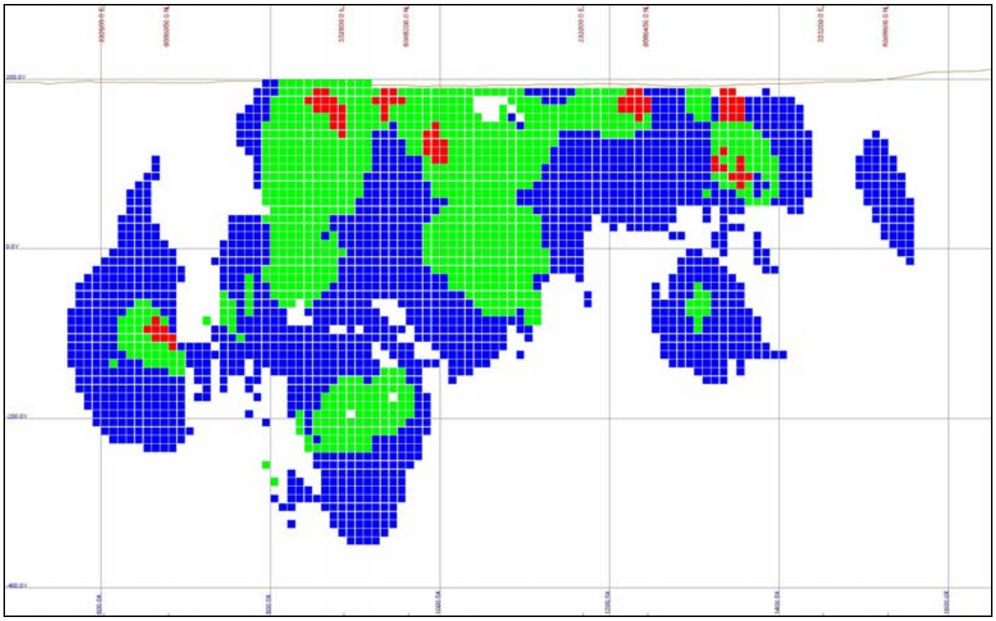


Figure 19.2.14: Long section showing the classified blocks of the Jacques Lake resource (colours as in Figure 19.1.20)

The Classified Mineral Resources for the Michelin deposit are reported at cut-off grades of 0.03% and 0.05% U_3O_8 in the open pit and underground portions, respectively, and are given in **Table 19.1.7**.

Table 19.2.7: Classified mineral resources for the Jacques Lake deposit

		Underground*			Open Pit*		
Deposit	**Class**	**Tonnes**	**%U3O8**	**lbs U3O8**	**Tonnes**	**%U3O8**	**lbs U3O8**
JACQUES LAKE	Measured	415,000	0.09	802,000	401,000	0.09	798,000
	Indicated	3,357,000	0.08	5,861,000	1,909,000	0.07	2,950,000
	Inferred	2,778,000	0.08	4,596,000	2,210,000	0.05	2,314,000

** The Jacques Lake resource estimate contemplates both underground and open pit mining scenarios. Cut-off grades (UG=0.05% U3O8, OP=0.03% U3O8) are based on preliminary economics and may be revised in future updates.*

19.3 RAINBOW

19.3.1 Resource Model

Rainbow Zone mineralization is hosted in a suite of felsic volcanics very similar to those of the Michelin deposit. It occupies a possible opposing limb of a large fold defined by a narrow airborne radiometric anomaly that also hosts the Michelin deposit and closes 5 km to the east, through Running Rabbit Lake. As currently defined, the mineralization is predominantly located at or near the hanging wall contact of a ~50 m wide mafic dyke (**Figure 19.3.1**). Deeper holes along this contact failed to intersect significant mineralization, and the hanging wall zone appears to wedge out against the dyke.

All but two of the 29 drill holes in the Rainbow Zone terminate within the mafic dyke, presumably guided by the assumption that the footwall is either barren or too deep to prove economic. However, the first of Aurora's drill holes in the Rainbow Zone in 2006 intersected a narrow interval of weak mineralization at the footwall contact of the dyke, demonstrating the presence of mineralization below the dyke. Given the understanding of similar mafic dyke relationships to mineralization elsewhere in the belt, the relationships here indicate that the Rainbow mineralized horizon was almost certainly transected by this mafic dyke and likely continues into the footwall with comparable grades and widths to those intersected in the hanging wall. This hypothesis has never been truly tested.

The current resource model builds on the interpretation that the footwall mineralization intersected by Aurora in 2006 represents the narrow top of the truncated footwall portion of the Rainbow mineralized horizon, which continues to depth in the same way that it extends to surface. The consequence of this interpretation is that the hanging wall mineralization does not extend down dip along the upper contact of the dyke; rather it is truncated by the dyke and continues at depth in the dyke's footwall. The two zones constructed under this interpretation are called MIN_HW and MIN_FW (**Figure 19.3.1** and **Figure 19.3.2**).

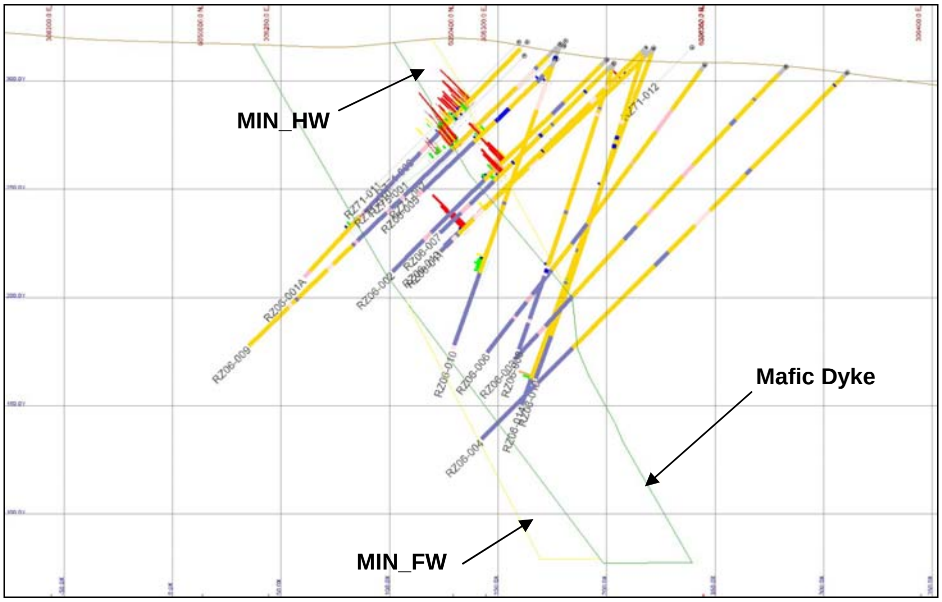


Figure 19.3.1: Cross-section showing all drill holes relative to hanging wall and footwall mineralized domains on either side of wide mafic dyke

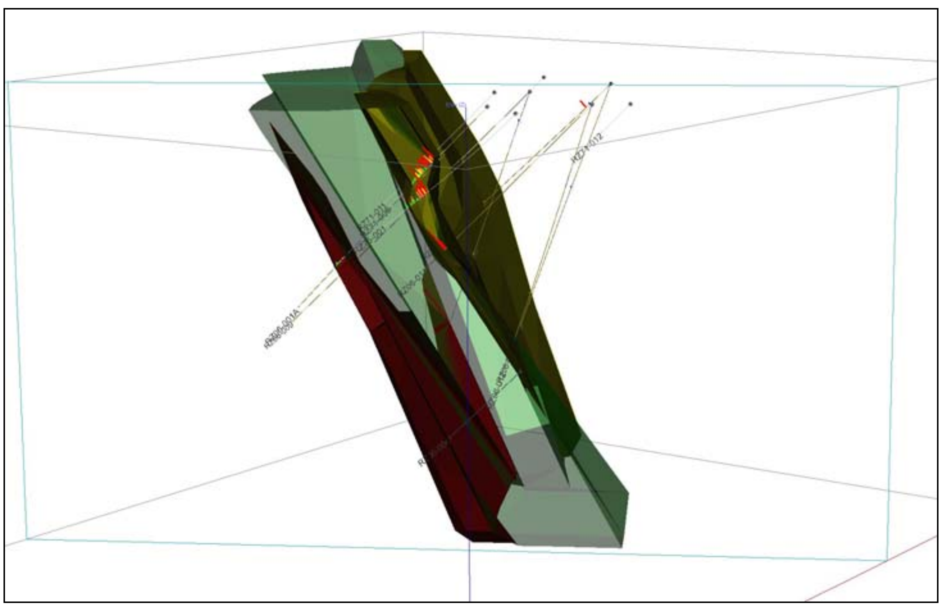


Figure 19.3.2: 3D oblique view (looking NE) of the Rainbow mineralized domains (red=MIN_FW, yellow=MIN_HW) and mafic dyke (transparent green)

19.3.2 Data

The Rainbow drill hole database contains a total of 432 assays from 29 drill holes. Of these, 352 were collected by Aurora from 16 drill holes. The two mineralized domains described above captured 185 of the total assays, resulting in a 220% increase in average grade of the data to be used in the resource estimate (**Figure 19.3.3**).

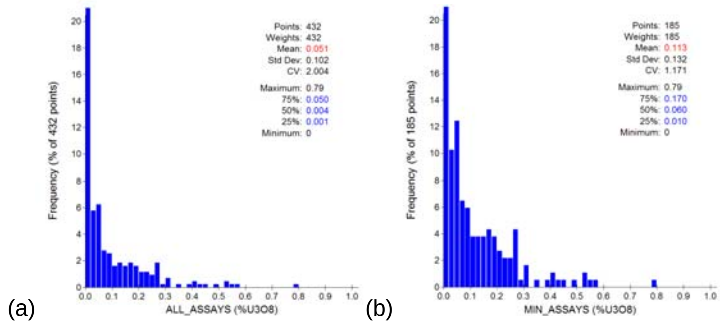


Figure 19.3.3: Histograms showing the grade distributions of (a) all assays and (b) assays captured within the modeled mineralized domains

19.3.2.1 Grade Capping

Rainbow assay data exhibit two distinct grade populations (assuming log-normal distributions) defined by two sloping trends on a cumulative probability plot (**Figure 19.3.4**). The inflection point between the two trends, at around 0.35% U_3O_8, is interpreted as the threshold value for a higher grade population of assays. These higher samples will be treated differently in the estimation process.

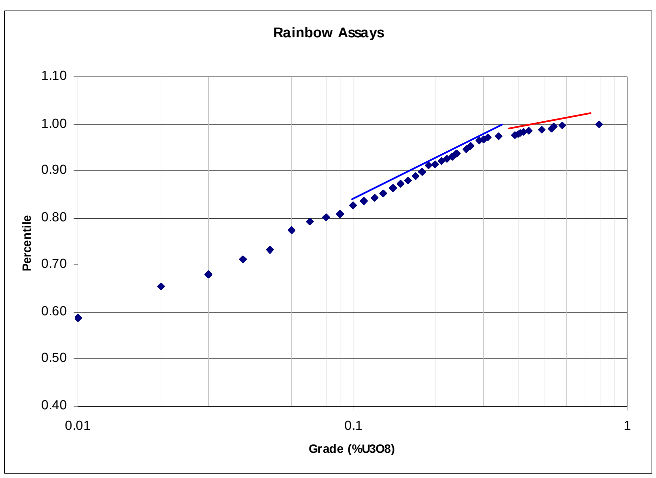


Figure 19.3.4: Cumulative probability plot showing all Rainbow assays on a log scale

Figure 19.3.4 also illustrates the lack of data to support grade values above 0.5% U_3O_8, suggesting this to be a reasonable value for grade capping. Using this cap, 5 high grade samples were trimmed down to 0.5% U_3O_8, which resulted in a negligible 2% drop in the average grade of the assays (

Table 19.3.1).

Table 19.3.1: Comparison of raw vs. capped grades on clustered and declustered data

	Assays		Declustered	
	Raw	*Capped*	*Raw*	*Capped*
Mean	0.113	0.110	0.084	0.082
Median	0.060	0.060	0.050	0.050
Standard Deviation	0.132	0.122	0.108	0.099
Minimum	0.000	0.000	0.000	0.000
Maximum	0.790	0.500	0.580	0.500
# samples cut	0	5	0	5
Count	185	185	43	43

19.3.2.2 Composites

Rainbow samples were predominantly collected on 1 foot, 1 metre or 1.5 metre intervals. A composite length of 2 metres is appropriate to normalize the weighting of each sample in the estimation process. The composites were generated on raw and capped data for comparison (**Table 19.3.2**), but only the composites generated using capped data were used in the estimate.

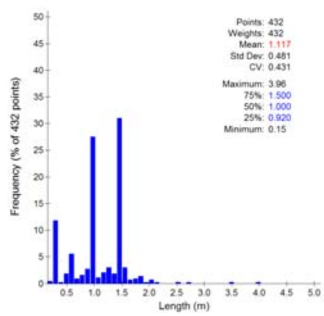


Figure 19.3.5: Histogram showing the distribution of sample lengths in the Rainbow database

Table 19.3.2: Comparison of composites derived from raw vs. capped assay data on a clustered and declustered basis

	Composites		Declustered	
	Raw	*Capped*	*Raw*	*Capped*
Mean	0.080	0.078	0.091	0.089
Median	0.050	0.050	0.056	0.056
Standard Deviation	0.095	0.090	0.109	0.100
Minimum	0.000	0.000	0.000	0.000
Maximum	0.443	0.380	0.443	0.380
Count	94	94	48	48

19.3.2.3 Comparison of Brinex versus Aurora Data

Assay data within the Rainbow mineralized domains are dominated by Aurora samples; however, the average grade of the Brinex data is 100% higher than the Aurora data (**Figure 19.3.6**)

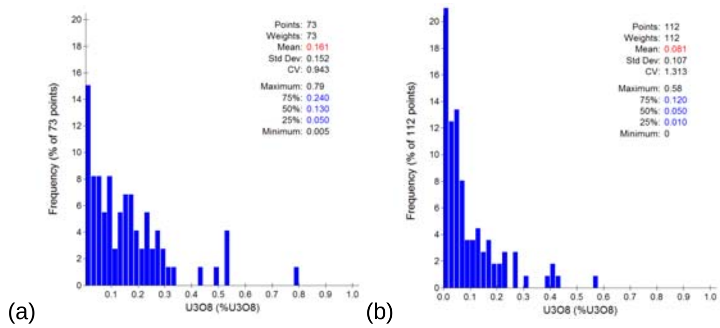


Figure 19.3.6: Comparison of (a) Brinex versus (b) Aurora assay data from within the mineralized domain

When compared on a Quartile-Quartile plot, the Brinex assays are clearly higher grade at all percentiles (**Figure 19.3.7(a)**). In order to evaluate how much of the positive bias may have been introduced by the shorter samples taken by Brinex, the same plot is shown comparing capped and composited grades for the same dataset (**Figure 19.3.7(b)**). The Brinex grades at all levels drop significantly compared to the Aurora grades, but the curve retains a concave shape indicating a slight positive bias in the Brinex data between 0.06 and 0.11% U_3O_8. The median and mean values of both datasets are close to each other, around 0.05% and 0.08% U_3O_8, respectively (**Figure 19.3.8**), and the bias pivots more or less equally above (in the upper quartiles) and below (in the lower quartiles) the 1:1 correlation line. For this reason, the capped and composited data are considered adequately similar for use together in the Rainbow resource estimate.

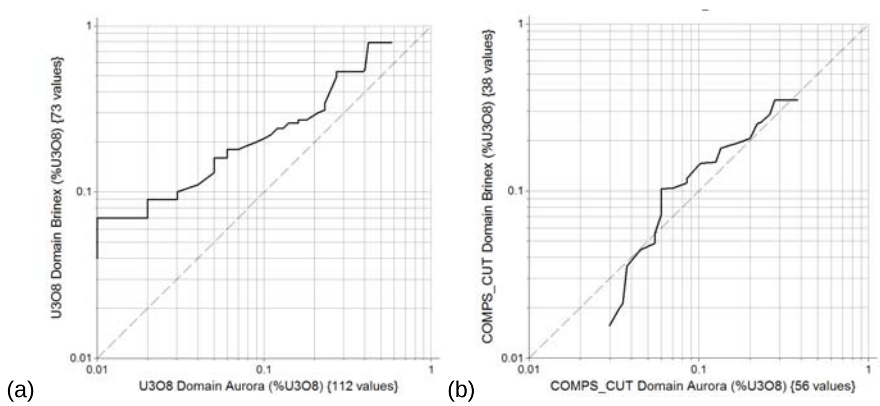


Figure 19.3.7: Q-Q plots comparing Brinex vs. Aurora data (a) before, and (b) after capping and compositing

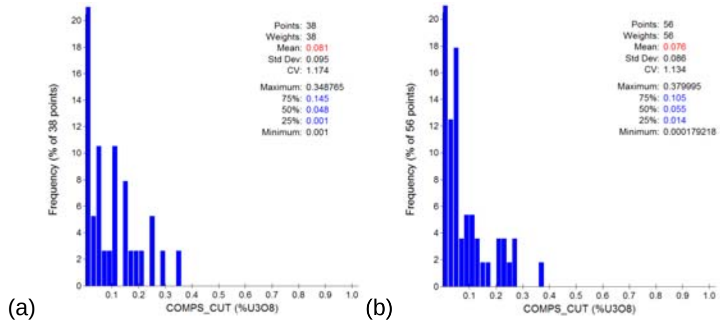


Figure 19.3.8: Histogram showing a comparison of (a) Brinex versus (b) Aurora capped composites from within the mineralized domain

19.3.3 Grade Estimation

There are insufficient data in the Rainbow database to support reliable variogram modeling. For this reason, the Rainbow resource estimate was interpolated using inverse distance squared (ID2) weighting. The interpolation was done using a 3D block model in Gemcom software. The data density is suitable for a 10x10x10 block, and the block model was rotated parallel to the trend of mineralization. The full parameters are given in **Table 19.3.3**.

Table 19.3.3: Rainbow zone block model parameters

		Rainbow
Origin	minX	305,650
	minY	6,050,400
	maxZ	340
Rotation	counter-clockwise	-60
Block Size	Column (m)	10
	Row (m)	10
	Level (m)	10
Dimensions	# Columns	80
	# Rows	120
	# Levels	30
Total	# Blocks	288,000

The block model was coded using the resource domains defined by the digitized wireframes, and partial blocks were included around the perimeter of the domains as a percentage model. These wireframes were treated as hard boundaries, including only their contained composites for the resource grade estimates.

19.3.3.1 Estimation Parameters

The choice of dimensions and orientations for each search ellipse was determined by a combination of data density, dimensions of the mineralized domains, and a visual estimate of the principal trend of mineralization (**Table 19.3.4**). High grade data in the HW zone were defined as those data above a threshold value of 0.35% U_3O_8. The influence of these data in the interpolation was limited to half of the normal ranges for the zone. The search ellipse used in the FW domain was enlarged by approximately 50% in order to allow capture of data in the HW to used to estimate blocks in the FW domain.

This approach relies entirely on the assumption that the mineralization has simply been truncated and displaced by the cross-cutting mafic dyke, which remains to be proven with future drilling.

Table 19.3.4: Rainbow zone estimation parameters

		HW	FW
Orientation*	rotZ	0	0
	rotY	65	90
	rotZ	0	0
Dimensions	rangeX	100	150
	rangeY	70	100
	rangeZ	30	50
High Grade		0.35	
	rangeX	50	
	rangeY	35	
	rangeZ	15	
Samples	min	4	4
	max	12	12

**Rotations follow Gemcom conventions and are relative to the block model orientation*

19.3.4 Bulk Density

No density data exist for the Rainbow deposit. Previous estimates by Brinex assumed a tonnage factor of 12, which corresponds to a specific gravity of approximately 2.67. This is in keeping with the average s.g. value for the Michelin deposit of 2.7, derived from 224 measurements, which is hosted in effectively the same rocks as Rainbow. For this reason, the s.g. value of 2.7 for Michelin was considered a reasonable estimate for an average s.g. for Rainbow.

19.3.5 Interpolation Results

The results of the ID2 estimate for the Rainbow zone are shown graphically in **Figure 19.3.9** and **Figure 19.3.10**, along with the composite point data for reference.

19.3.5.1 Mineral Inventory

Table 19.3.5 provides the mineral inventory for the Rainbow resource at a range of cut-off grades. These data are also plotted on grade-tonnage curves in **Figure 19.3.11**.

Table 19.3.5: Mineral inventory for the Rainbow resource at a range of cut-off grades

Cut-off (%U3O8)	Tonnes	Grade (%U3O8)	lbs (%U3O8)
0.01	2,174,000	0.080	3,840,000
0.02	2,134,000	0.081	3,828,000
0.03	2,019,000	0.084	3,763,000
0.04	1,863,000	0.089	3,642,000
0.05	1,595,000	0.096	3,378,000
0.06	1,208,000	0.110	2,918,000
0.07	1,033,000	0.117	2,673,000
0.08	916,000	0.123	2,480,000
0.09	814,000	0.128	2,289,000
0.10	661,000	0.135	1,970,000

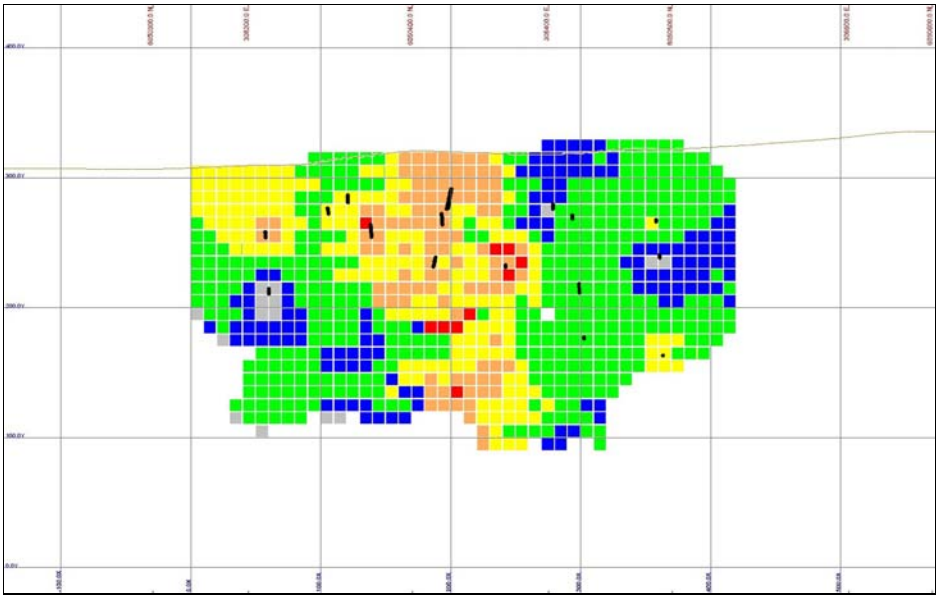


Figure 19.3.9: Long section view of the Rainbow zone showing the estimated grades in the block model together with the composites used in the estimation (Colours as in Figure 19.1.14)

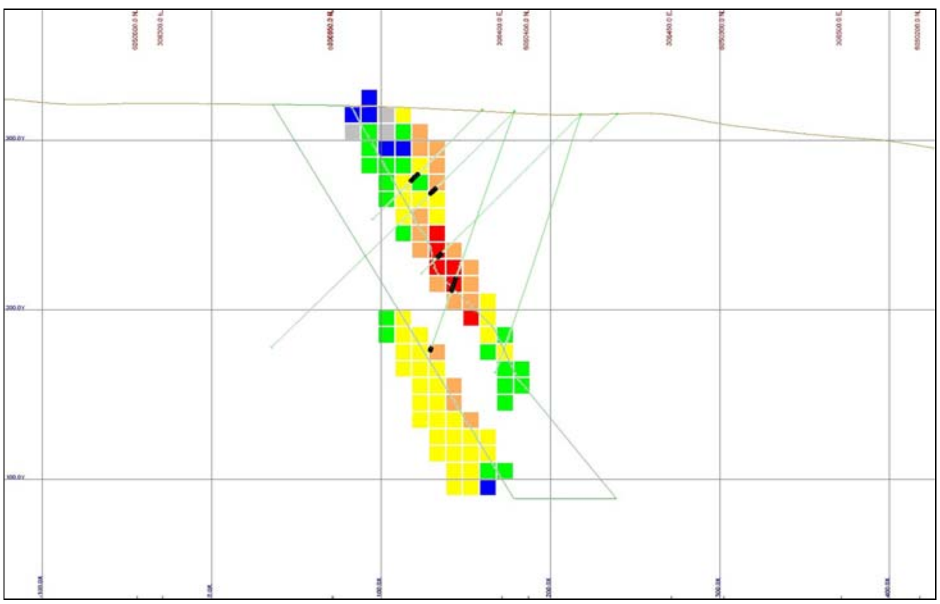


Figure 19.3.10: Cross-section 1500NE through the Rainbow zone showing the distribution of HW and FW estimated blocks on either side of the mafic dyke

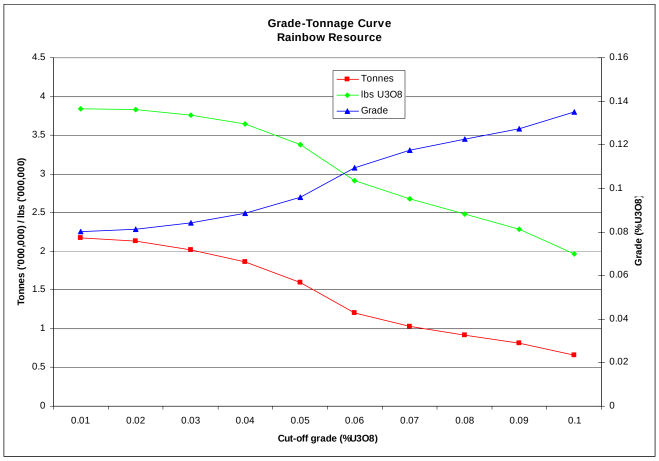


Figure 19.3.11: Grade-tonnage curves for the Rainbow resource model

19.3.6 Block Model Validation

The Rainbow block grade estimates were validated by comparing them with the composites contained in or adjacent to a given block.

As expected, the composite data (NN) show a moderately higher degree of variability than the ID2 in a swath plot across the zone (**Figure 19.3.12**), and high grades are higher and low grades are lower, as seen in the scatter plot (**Figure 19.3.13**).

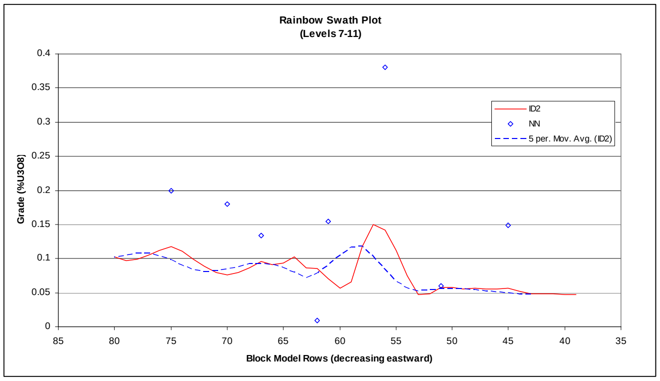


Figure 19.3.12: Plot showing data from a 50 metre wide, sub-horizontal swath through the Rainbow resource comparing ID2 estimated grades with contained composite data (NN)

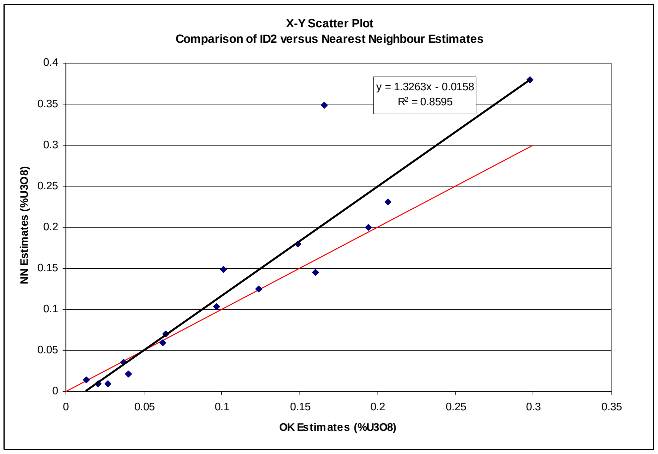


Figure 19.3.13: Scatter plot showing a comparison between ID2 and composite (NN) data from the Rainbow resource model

19.3.6.1 Visual Inspection

A visual inspection shows that the Rainbow block model has been estimated in the way it was intended and no significant deviations from expected results were observed.

19.3.7 Mineral Resource Classification

The Rainbow resource blocks were classified using a combination of: (i) geological confidence, (ii) number of drill holes, and (iii) average distance of samples used in the grade estimate. Due to its interpretive nature, the entire FW zone was assigned to the Inferred category regardless of the number of drill holes and average distances. No blocks were assigned to the Measured category due to a general lack of data and the consequent inability to evaluate the direction and strength of continuity of mineralization. Blocks in the HW zone that were estimated using a minimum of 2 drill holes, and with an average distance from samples used in its estimation were assigned to the Indicated category. All other blocks were classified as Inferred.

The Classified Mineral Resources for the Rainbow Zone are tabulated in

Table 19.3.6 and depicted graphically in long section in **Figure 19.3.14**.

Table 19.3.6: Classified Mineral Resources for the Rainbow Zone

Deposit	Class	Tonnes	%U3O8	lbs U3O8
RAINBOW	Indicated	1,088,000	0.09	2,063,000
	Inferred	931,000	0.08	1,700,000

Reported at a cut-off grade of 0.03% U3O8

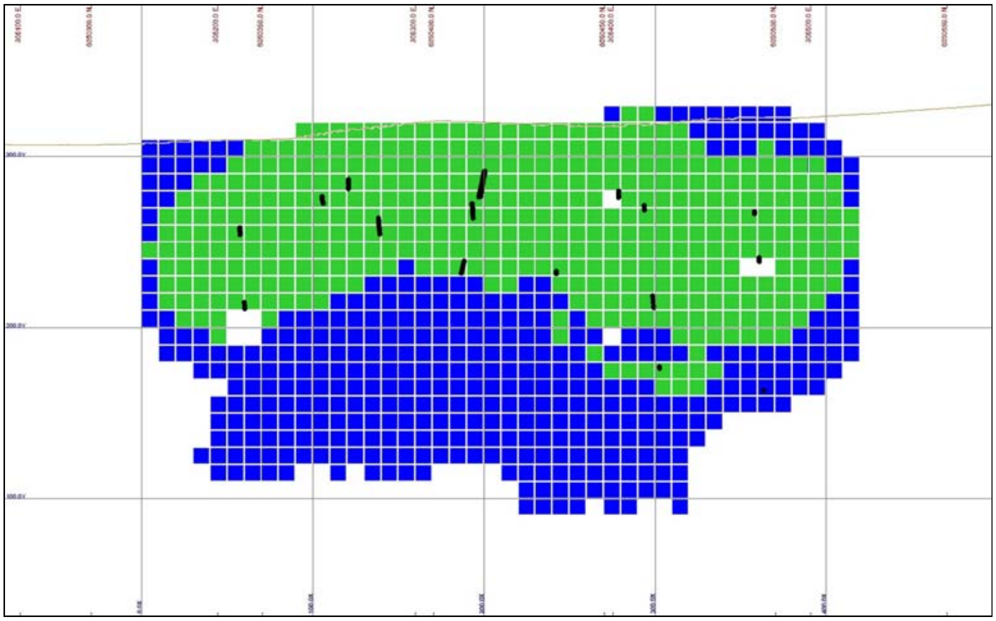


Figure 19.3.14: Long section through the Rainbow resource model showing the distribution of block classifications

19.3.7.1 Comparison with historical estimate

An historical resource estimate for the Rainbow Deposit by Brinex in 1975 consisted of 272,232 tonnes @ 0.100% U_3O_8 (600,159 lbs U_3O_8). This estimate was based on data from 19 surface drill holes, which defined a zone 140 m long by 2 to 15 m wide by 79 m deep. These dimensions consist of rough estimations based on the lengths and extents of mineralized intervals. The dimensions of the current Rainbow resource model are approximately 400x20x50 metres.

The average grade of 0.1% U_3O_8 used in the Brinex estimate is comparable to the mean grade of the current resource if a 0.05% U_3O_8 cut-off were used, and only slightly higher than that of the reported resource.

Clearly the biggest difference between the two estimates is the shear size of the interpreted resource model, which is about 3 times the size of the historical model. This is considered to be an acceptable difference given the vast differences in modeling techniques (it is unknown how Brinex arrived at those dimensions and how they were used in their estimate), and the level of geological confidence in the data produced by Aurora and its confirmation of the historical data.

19.4 INDA TREND

The Inda trend deposits are all hosted within a common stratigraphic horizon of the Post Hill Group, containing a mix of argillaceous and volcanogenic sediments, near the contact with Aillik Group felsic volcanics. There are indications from historical maps that this contact is either a shear zone or a deformed angular unconformity, with a preference for the former by most workers. While mineralization is concentrated at or near this contact, it transgresses all lithologies within the Post Hill Group package. Mineralization is variably associated with magnetite and hematite alteration, with local amphibole and very minor sulphides and base and precious metal mineralization.

The stratigraphy has undergone polyphase folding of variable intensity, ranging from isoclinal to open folds, and the main bodies of mineralization appear to have been entrained by the same deformation as their host rocks. This is particularly well-exhibited by the Kitts deposit, to the northeast in the same belt of rocks, and in which very complex fold interference patterns have been mapped in the ore zones.

The current resource models have been constructed and estimated using a mix of Brinex and Aurora data. As with all of the other CMB resource models, they are effectively grade shells, loosely constrained by the enveloping stratigraphy. All Inda Trend resources are dealt with together in this section for ease of reference, due to their similarity in style and location.

19.4.1 Resource Models

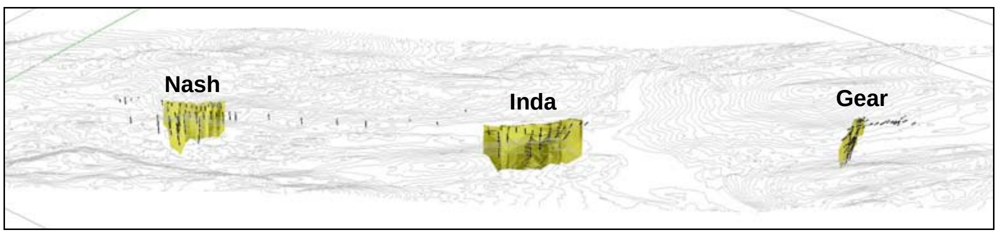


Figure 19.4.1: 3D oblique view (looking NW) showing the relative distribution of the Inda Trend resource models. Field of view is approximately 9.5 km. Topo = 5 metre contour interval.

The Inda Trend comprises three significant zones of known mineralization, referred to as the Nash, Inda and Gear deposits. The distribution of these zones is shown in **Figure 19.4.1**. Each zone was digitized on 50 metre spaced cross-sections using a mix of lithological and grade controls to constrain the boundaries. The deposits range from moderately- to steeply-dipping tabular bodies, at Nash and Inda, while the Gear deposit currently consists of a single, plunging, planar shoot (**Figure 19.4.2**, **Figure 19.4.3** and **Figure 19.4.4**).

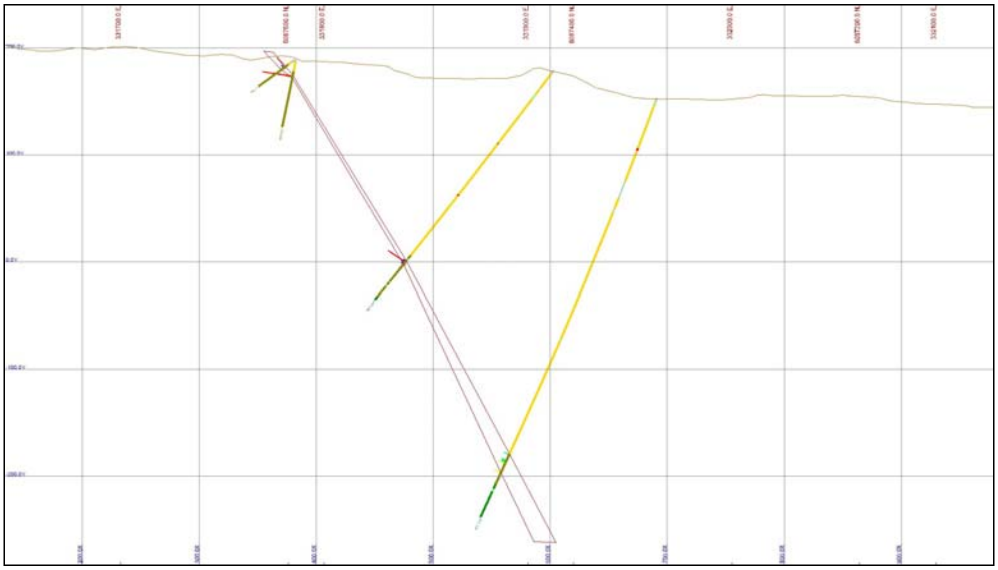


Figure 19.4.2: Cross-Section 1775NE showing polygonal interpretation of mineralized domain in the Nash deposit

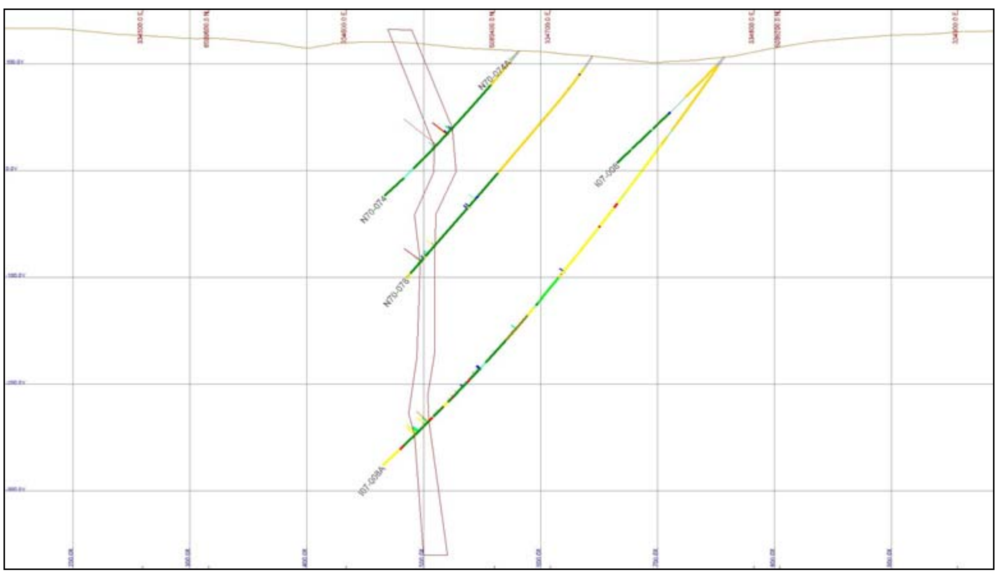


Figure 19.4.3: Cross-section 5175NE showing polygonal interpretation of mineralized domain in the Inda deposit

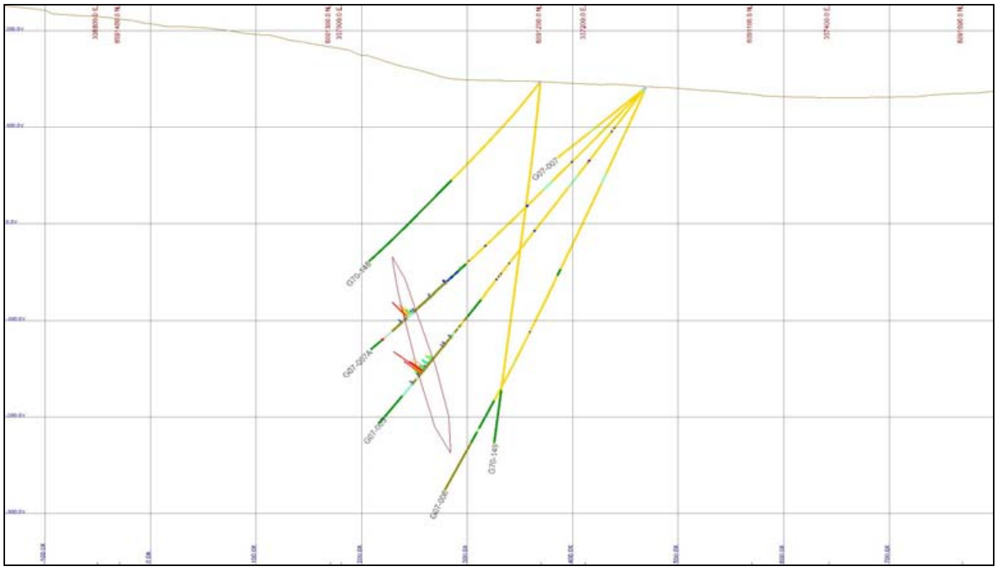


Figure 19.4.4: Cross-section 8175NE showing polygonal interpretation of mineralized domain in the Gear deposit

19.4.2 Data

The Inda Trend drill hole database contains 1,965 assays from 142 diamond drill holes. All of the data were used to model the resource domains, which captured a total of 981 assays for all zones and resulted in increases of average grade for the resource models of ~40 (Inda) to 300% (Gear) (**Figure 19.4.5**, **Figure 19.4.6** and **Figure 19.4.7**).

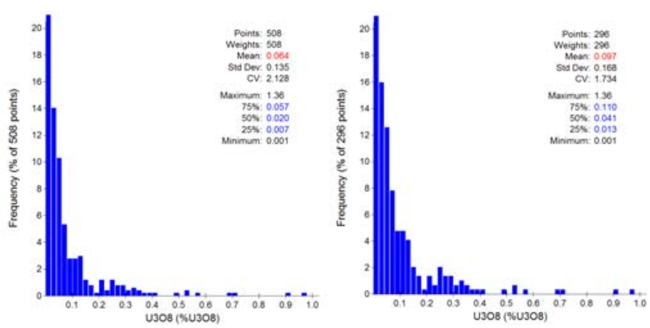


Figure 19.4.5: Histograms showing the grade distributions of (a) all assays and (b) assays captured within the modeled mineralized domain of the Nash deposit

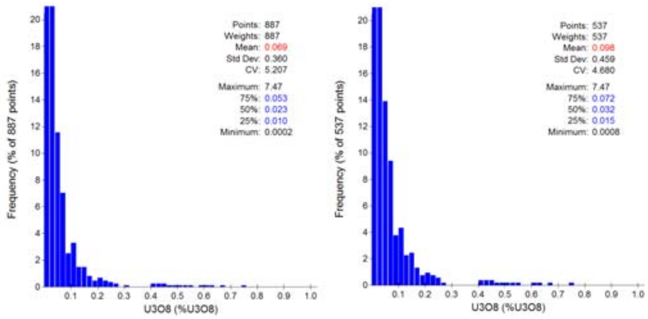


Figure 19.4.6: Histograms showing the grade distributions of (a) all assays and (b) assays captured within the modeled mineralized domain of the Inda deposit

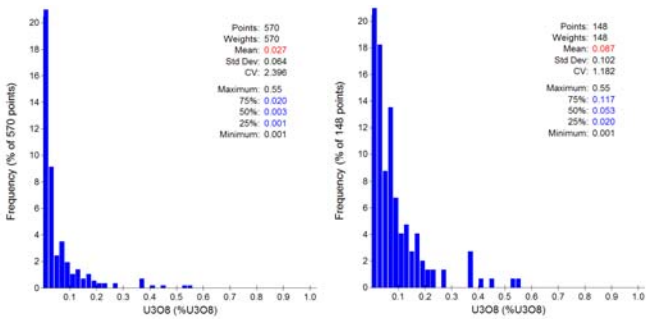


Figure 19.4.7: Histograms showing the grade distributions of (a) all assays and (b) assays captured within the modeled mineralized domain of the Gear deposit

19.4.2.1 Grade Capping

The assay data were examined on cumulative probability plots to evaluate appropriate capping grades to remove high grade outliers.

Data from the Nash deposit exhibit strong support for single grade population up to about 0.45% U_3O_8 (**Figure 19.4.8**), which was chosen as an appropriate capping grade for Nash and 10 samples were capped. Assay data from Inda show two distinct populations (**Figure 19.4.9**): a lower grade population, up to about 0.3% U_3O_8, and a higher grade population, between 0.4% and 0.7% U_3O_8, above which there only 7 high grade sample points to support the distribution and this value was chosen as a reasonable capping grade. At Gear, the assay data are relatively low grade (**Figure 19.4.10**) and 8 samples were capped at a grade 0.3% U_3O_8, above which the data are sparse.

The resulting drop in mean grades of the capped data range from 7%, at Gear, to 26%, at Inda, with Nash in the middle, at 13%. On a declustered basis these reductions change to 5%, 3% and 11%, respectively.

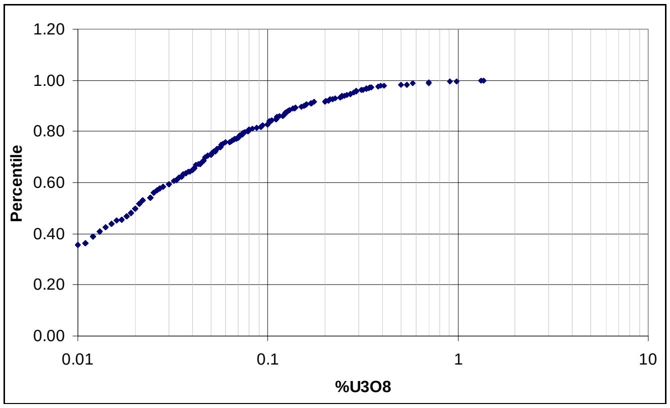


Figure 19.4.8: Cumulative probability plot of assay data in the Nash deposit

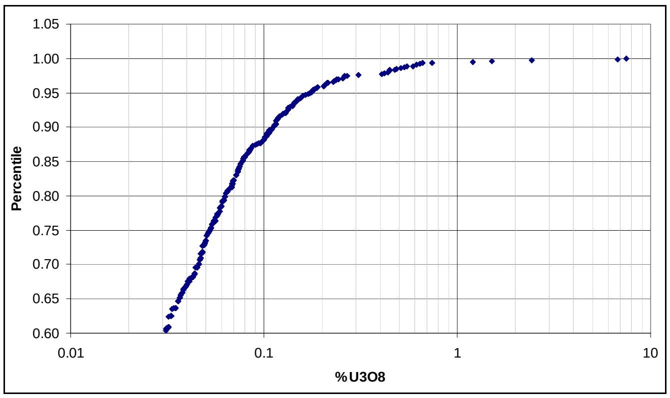


Figure 19.4.9: Cumulative probability plot of assay data in the Inda deposit

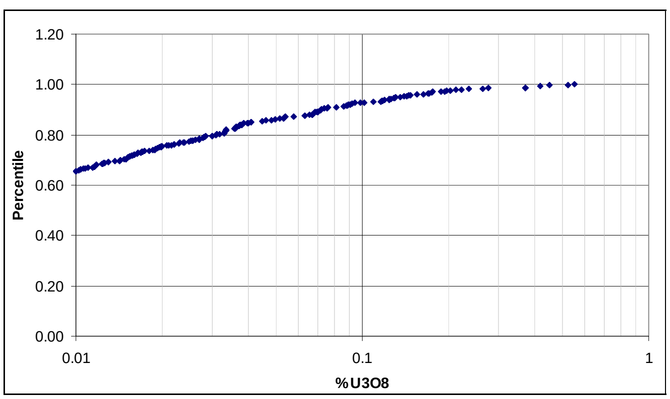


Figure 19.4.10: Cumulative probability plot of assay data in the Gear deposit

19.4.2.2 Composites

Inda Trend samples were predominantly collected 1 foot and 1 metre intervals, with 2 foot and 1.5 metre samples being the next most common (**Figure 19.4.11**). Very few samples exceed 2 metres in length, which was chosen as an appropriate composite interval for each of these deposits.

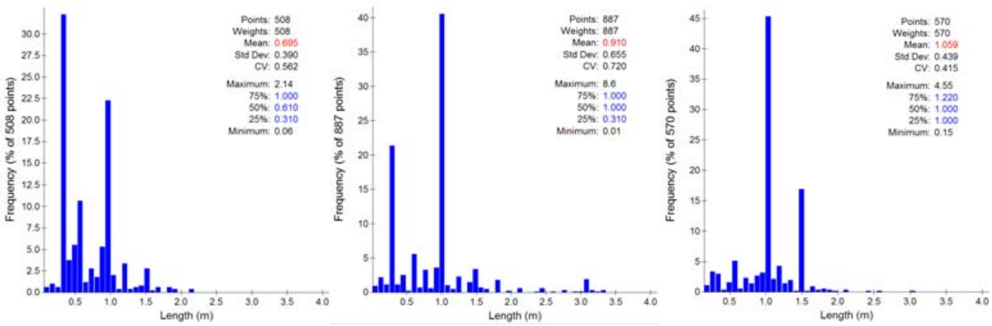


Figure 19.4.11: Histogram plots of sample lengths at Nash, Inda and Gear (left to right)

Table 19.4.1summarizes the effects of the compositing process from data capture within the digitized mineralized domains to compositing of capped grades. Nash and Inda show dramatic decreases in mean grade from raw assays to capped composites; whereas, Gear nearly doubles in grade. On a declustered basis (**Figure 19.4.12**): the mean grade at Nash more than doubles from its declustered raw assays, the mean grade at Inda remains the same, and Gear increases by about 10%. These unexpected fluctuations in grade are almost certainly a consequence of the variable sample sizes and the capped composite data are believed to be adequately representative for resource estimation.

Table 19.4.1: Summary statistics for assays and composites: Nash (a), Inda (b), and Gear (c)

(a)

	All Assays	Mineralized Domain	Composites
Mean	0.064	0.097	0.057
Standard Deviation	0.135	0.168	0.069
Median	0.02	0.041	0.034
Max	1.36	1.36	0.374
Min	0.001	0.001	0.001
Count	508	296	168

(b)

	All Assays	Mineralized Domain	Composites
Mean	0.069	0.098	0.044
Standard Deviation	0.36	0.459	0.071
Median	0.023	0.032	0.023
Max	7.47	7.47	0.64
Min	0.001	0.001	0.001
Count	887	537	342

(c)

	All Assays	Mineralized Domain	Composites
Mean	0.027	0.087	0.053
Standard Deviation	0.064	0.102	0.064
Median	0.003	0.053	0.034
Max	0.55	0.55	0.3
Min	0.001	0.001	0.01
Count	570	148	115

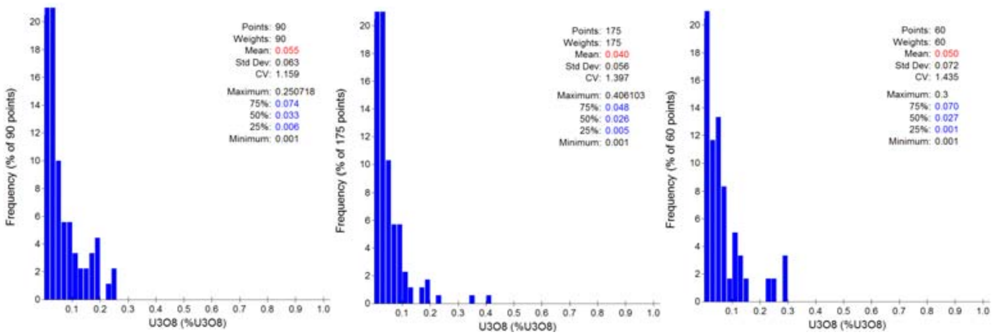
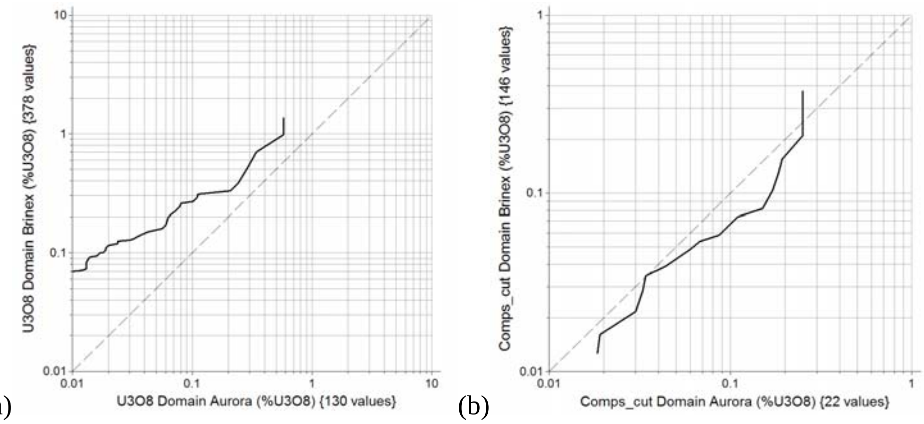


Figure 19.4.12: Histograms showing the distributions of declustered, capped composites from the Nash, Inda and Gear (left to right) deposits

19.4.2.3 Comparison of Brinex versus Aurora Data

Brinex assay data are consistently higher grade than Aurora data in all deposits. **Figure 19.4.13(a)**, **Figure 19.4.14(a)** and **Figure 19.4.15(a)** illustrate this difference on Q-Q plots. These differences are not consistently affected by declustering. For example, at Nash, declustered grades are still higher by 200% in the Brinex data (

Table 19.4.2). At Inda, the difference is elevated by declustering (**Table 19.4.3**). At Gear, however, declustering does appear to produce greater similarity between the two datasets (**Table 19.4.4)**. The lack of similarity between declustered Brinex and Aurora datasets would present serious concerns about their compatibility for resource estimation, if it weren't for the effects of capping and compositing. Grade capping and subsequent compositing has the desired effect of lowering the average grade of the Brinex data more so than the Aurora data (**Figure 19.4.13(b)**, **Figure 19.4.14(b)** and **Figure 19.4.15(b)**); but perhaps too much so.

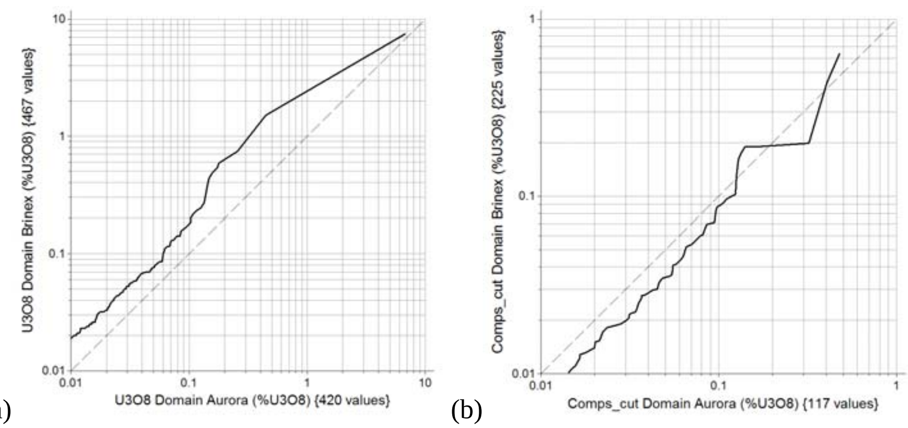


(a) (b)

Figure 19.4.13: Q-Q plots comparing Aurora vs. Brinex data as (a) raw assays and (b) capped composites, at Nash

Table 19.4.2: Summary statistics for raw, declustered and capped composite data at Nash

	All Assays	Aurora		Brinex		Composites
		Raw	Declustered	Raw	Declustered	
Mean	0.064	0.024	0.025	0.077	0.053	0.057
Standard Deviation	0.135	0.07	0.066	0.149	0.123	0.069
Median	0.02	0.003	0.004	0.028	0.022	0.034
Max	1.36	0.575	0.343	1.36	1.32	0.374
Min	0.001	0.001	0.001	0.001	0.001	0.001
Count	508	130	37	378	147	168

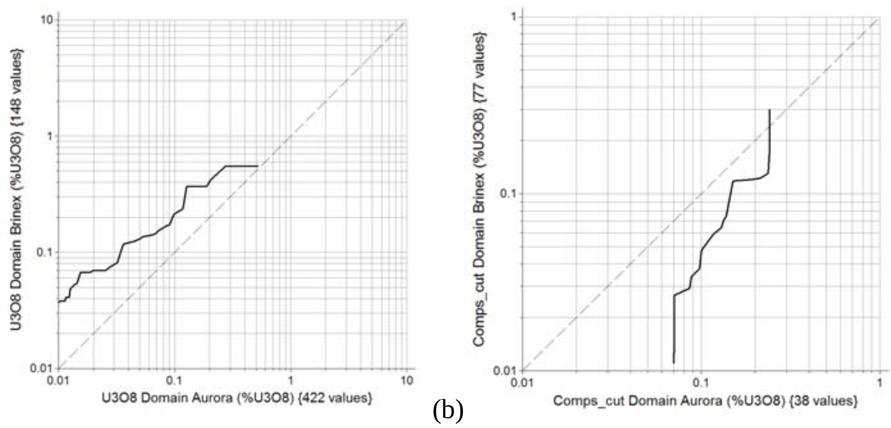


(a) (b)

Figure 19.4.14: Q-Q plots comparing Aurora vs. Brinex data as (a) raw assays and (b) capped composites, at Inda

Table 19.4.3: Summary statistics for raw, declustered and capped composite data at Inda

	All Assays	Aurora		Brinex		Composites
		Raw	Declustered	Raw	Declustered	
Mean	0.069	0.05	0.027	0.087	0.059	0.044
Standard Deviation	0.36	0.333	0.031	0.382	0.11	0.071
Median	0.023	0.017	0.014	0.031	0.022	0.023
Max	7.47	6.764	0.156	7.47	0.744	0.64
Min	0.001	0.001	0.001	0.001	0.001	0.001
Count	887	420	137	467	149	342



(a) (b)

Figure 19.4.15: Q-Q plots comparing Aurora vs. Brinex data as (a) raw assays and (b) capped composites, at Gear

Table 19.4.4: Summary statistics for raw, declustered and capped composite data at Gear

	All Assays	Aurora		Brinex		Composites
		Raw	Declustered	Raw	Declustered	
Mean	0.027	0.02	0.021	0.045	0.028	0.053
Standard Deviation	0.064	0.051	0.057	0.089	0.076	0.064
Median	0.003	0.003	0.003	0.008	0.001	0.034
Max	0.55	0.521	0.521	0.55	0.55	0.3
Min	0.001	0.001	0.001	0.001	0.001	0.01
Count	570	422	134	148	87	115

It seems clear that elevated grades in the Brinex database are, to a large degree, a consequence of the shorter sample lengths, which were likely to be highly selective in nature. However, the reversal to a negative bias relative to the Aurora data is not ideal either. Future updates should investigate these dissimilarities further, but these data will be used together in the current estimate. If anything, the effect will be to decrease, rather than inflate, the resources, and thereby maintain a higher level of conservatism to the results.

19.4.3 Grade Estimation

There are insufficient data in the Inda Trend deposit databases to support reliable variogram modeling. For this reason, these resource estimates were all interpolated using inverse distance squared (ID2) weighting. The interpolation was done using a 3D block model in Gemcom software. Due to their more tabular nature and data density, the deposits are well suited to a 10x5x10 block size. Each block model was rotated to match its specific deposit trends. The full block model parameters for each deposit are given in **Table 19.4.5**.

Table 19.4.5: Block model parameters for deposits in the Inda Trend

		Gear	Inda	Nash
Origin	minX	337,100	334,350	331,750
	minY	6,091,050	6,088,850	6,087,150
	maxZ	180	150	220
Rotation	counter-clockwise	60	40	35
Block Size	Column (m)	10	10	10
	Row (m)	5	5	5
	Level (m)	10	10	10
Dimensions	# Columns	48	130	83
	# Rows	60	108	108
	# Levels	50	55	50
Total	# Blocks	144,000	772,200	448,200

The block model was coded using the resource domains defined by the digitized wireframes, and partial blocks were included around the perimeter of the domains as a percentage model. These wireframes were treated as hard boundaries, including only their contained composites for the resource grade estimates.

19.4.3.1 Estimation Parameters

The choice of dimensions and orientations for each search ellipse was determined by a combination of data density, dimensions of the mineralized domains, and a visual estimate of the principal trend of mineralization (**Table 19.4.6**). High grade data in the Inda deposit were defined as those data above a threshold value of 0.4% U_3O_8. The ranges of influence of these data were limited to half of the normal ranges for the deposit. The search ellipse used in the Nash deposit is slightly more oblate than the other due to a greater apparent trend in the sub-horizontal direction. The Inda search ellipse is a bit wider to account for the broader envelope produced by open folding. Also at Inda, one isolated drill hole with only 3 composites produced a large gap in the interpolated block model. This gap was filled by reducing the required number of samples to estimate a block from 4 to 3.

Table 19.4.6: Estimation parameters for deposits in the Inda Trend

		GEAR	INDA	NASH
Orientation*	rotZ	-90	-85	-90
	rotY	80	80	60
	rotZ	-30	-20	-20
Dimensions	rangeX	100	100	100
	rangeY	50	50	75
	rangeZ	25	30	25
High Grade			0.40	
	rangeX		50	
	rangeY		25	
	rangeZ		15	
Samples	min	4	3	4
	max	12	12	12

**Rotations follow Gemcom conventions and are relative to the block model orientation*

19.4.4 Bulk Density

A total of 90 Inda Trend samples were submitted for s.g. measurements. A summary of the results is presented in **Table 19.4.7**. These densities are significantly higher than other resource areas in the belt, but agree well with their more mafic, iron-rich host rocks. The tonnages of the Inda Trend deposits were calculated using a different average s.g. value at each location.

Table 19.4.7: Specific gravity measurements for the Inda Trend

	Nash	Inda	Gear
Mean	2.87	2.85	2.82
Standard Deviation	0.09	0.11	0.12
Median	2.88	2.83	2.83
Max	3.02	3.03	3.04
Min	2.71	2.65	2.51
Count	22	29	39

19.4.5 Interpolation Results

The results of the ID2 estimate for the Inda Trend resources are shown graphically in **Figure 19.4.16** thru **Figure 19.4.21**, along with the composite point data for reference.

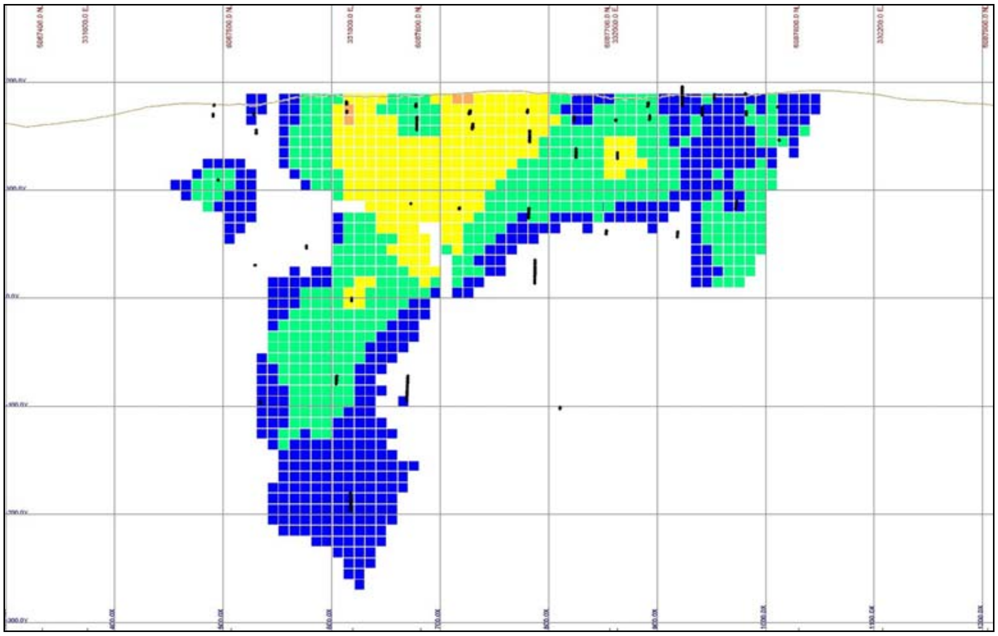


Figure 19.4.16: Long section of the Nash resource block model showing the distribution and grade of all estimated blocks

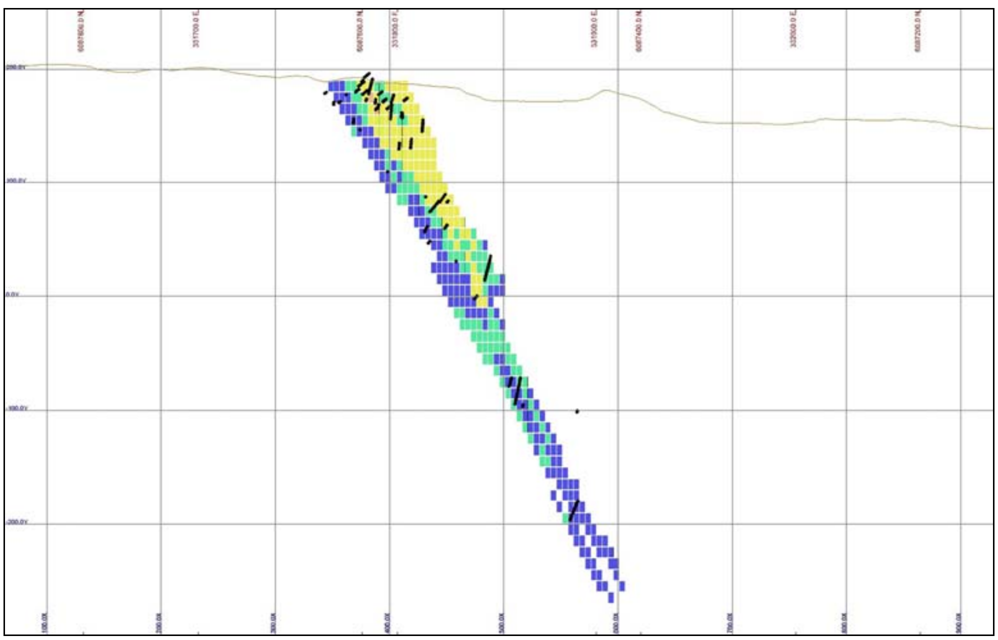


Figure 19.4.17: Cross section through the Nash deposit showing the distribution of all estimated blocks

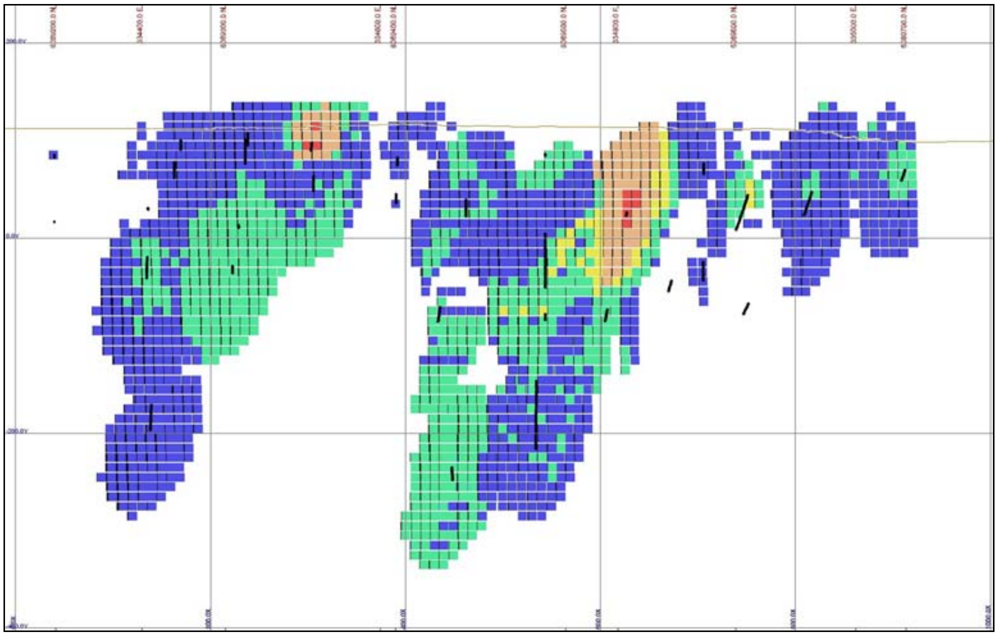


Figure 19.4.18: Long section of the Inda resource block model showing the distribution and grade of all estimated blocks

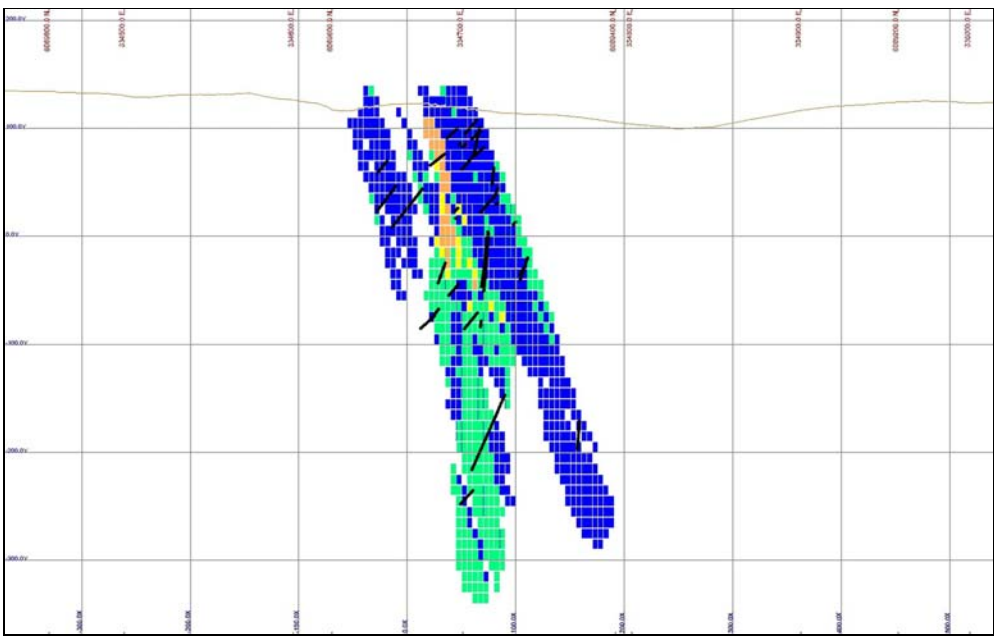


Figure 19.4.19: Cross section through the Inda deposit showing the distribution of all estimated blocks

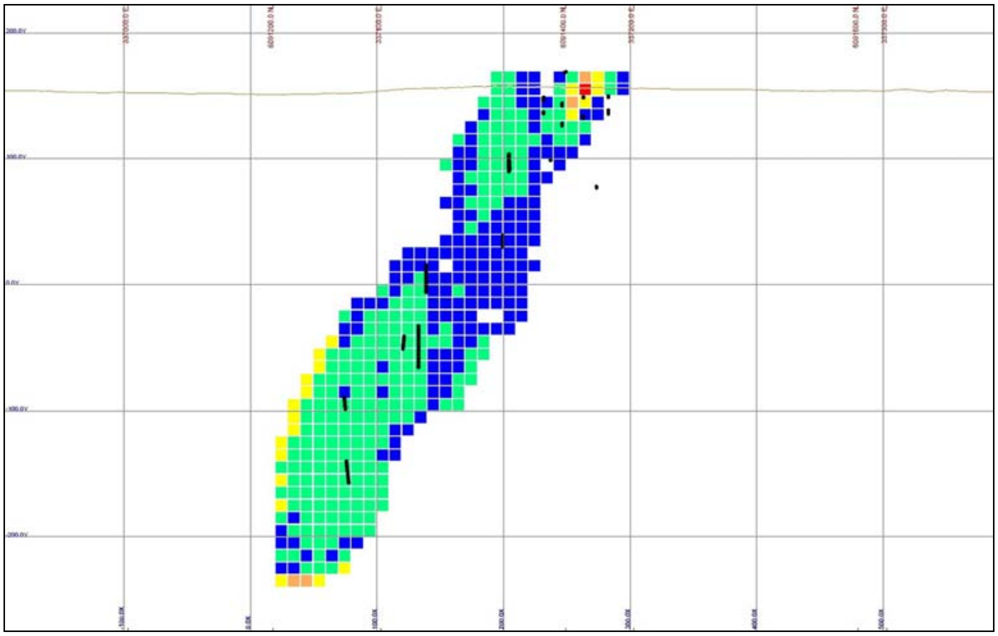


Figure 19.4.20: Long section of the Gear resource block model showing the distribution and grade of all estimated blocks

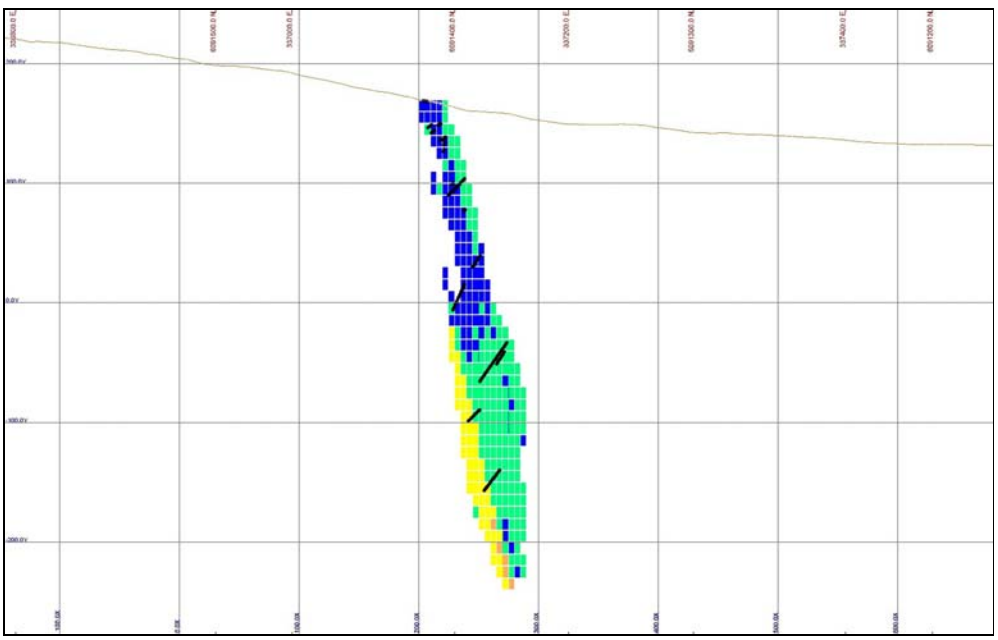


Figure 19.4.21: Cross section through the Nash deposit showing the distribution of all estimated blocks

19.4.5.1 Mineral Inventories

Table 19.4.8 provides the mineral inventories for the Inda Trend resources at a range of cut-off grades. These data are also plotted on grade-tonnage curves in **Figure 19.4.22** thru **Figure 19.4.24**.

Table 19.4.8: Mineral inventory for the Inda Trend deposits at a range of cut-off grades

Nash				Inda				Gear			
Cut-off (%U3O8)	Tonnes	Grade (%U3O8)	lbs (%U3O8)	Cut-off (%U3O8)	Tonnes	Grade (%U3O8)	lbs (%U3O8)	Cut-off (%U3O8)	Tonnes	Grade (%U3O8)	lbs (%U3O8)
0.01	2,560,000	0.053	2,999,000	0.01	8,839,000	0.048	9,404,000	0.01	1,266,000	0.059	1,652,000
0.02	2,167,000	0.060	2,872,000	0.02	7,687,000	0.053	9,021,000	0.02	1,210,000	0.061	1,634,000
0.03	1,804,000	0.067	2,673,000	0.03	5,836,000	0.062	8,033,000	0.03	1,002,000	0.069	1,517,000
0.04	1,508,000	0.074	2,452,000	0.04	4,209,000	0.074	6,835,000	0.04	752,000	0.080	1,328,000
0.05	1,148,000	0.083	2,100,000	0.05	2,787,000	0.089	5,465,000	0.05	604,000	0.089	1,183,000
0.06	879,000	0.092	1,777,000	0.06	1,944,000	0.104	4,448,000	0.06	420,000	0.104	964,000
0.07	620,000	0.103	1,409,000	0.07	1,233,000	0.126	3,430,000	0.07	302,000	0.120	796,000
0.08	474,000	0.112	1,172,000	0.08	947,000	0.142	2,965,000	0.08	272,000	0.125	747,000
0.09	398,000	0.117	1,030,000	0.09	855,000	0.148	2,793,000	0.09	235,000	0.131	678,000
0.10	311,000	0.124	849,000	0.10	639,000	0.167	2,357,000	0.10	219,000	0.134	644,000

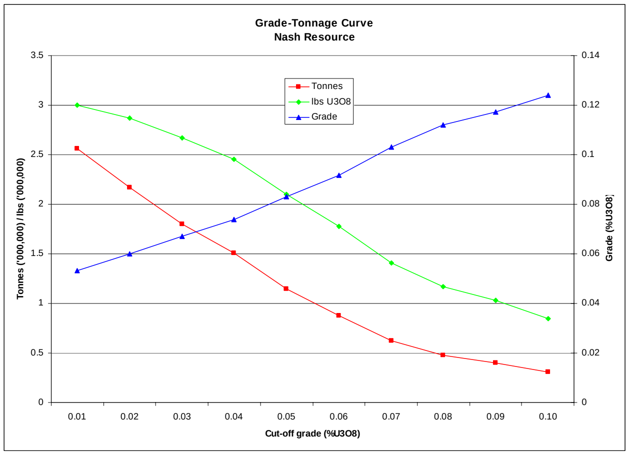


Figure 19.4.22: Grade-tonnage curve for the Nash resource

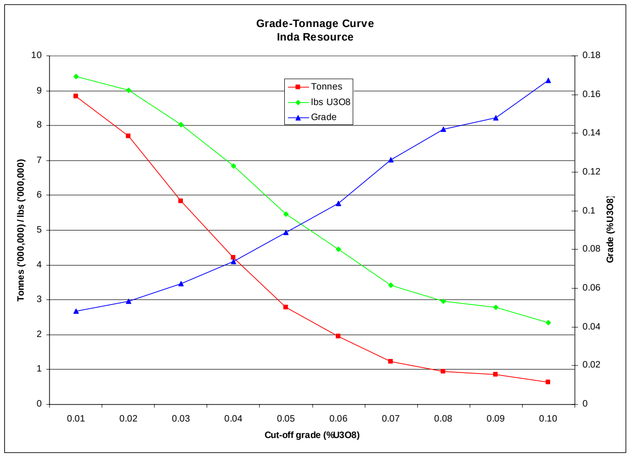


Figure 19.4.23: Grade-tonnage curve for the Inda resource

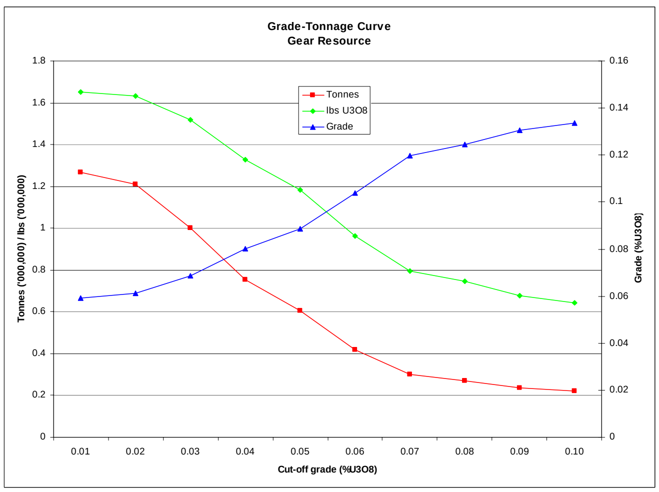


Figure 19.4.24: Grade-tonnage plots for the Gear resource

19.4.6 Block Model Validation

The Rainbow block grade estimates were validated by comparing them with the composites contained in or adjacent to a given block.

19.4.6.1 X-Y Scatter plot

The composite data (NN) show a slight positive bias against the ID2 estimates in scatter plots of ID2 versus NN (**Figure 19.4.25**).

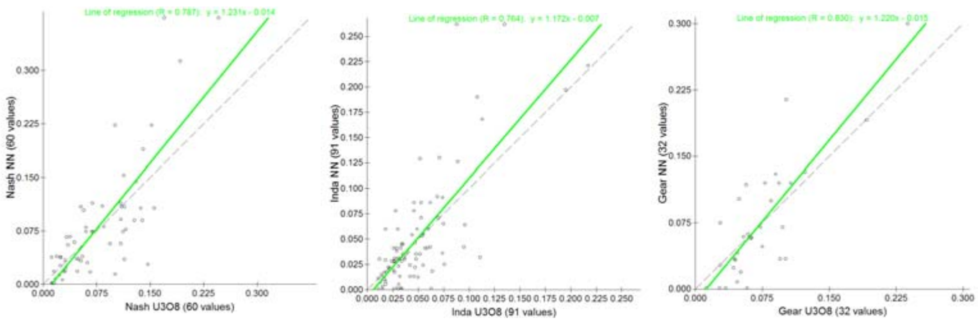


Figure 19.4.25: Scatter plots showing the ID2 estimated block grades against contained and/or adjacent composite values for each deposit in the Inda Trend

19.4.6.2 Swath Plots

In swath plots generated horizontally across the resource models at Nash and Inda, and vertically at Gear (**Figure 19.3.12**), high grades are higher and low grades are lower. This smoothing effect is a desired result of the estimation process.

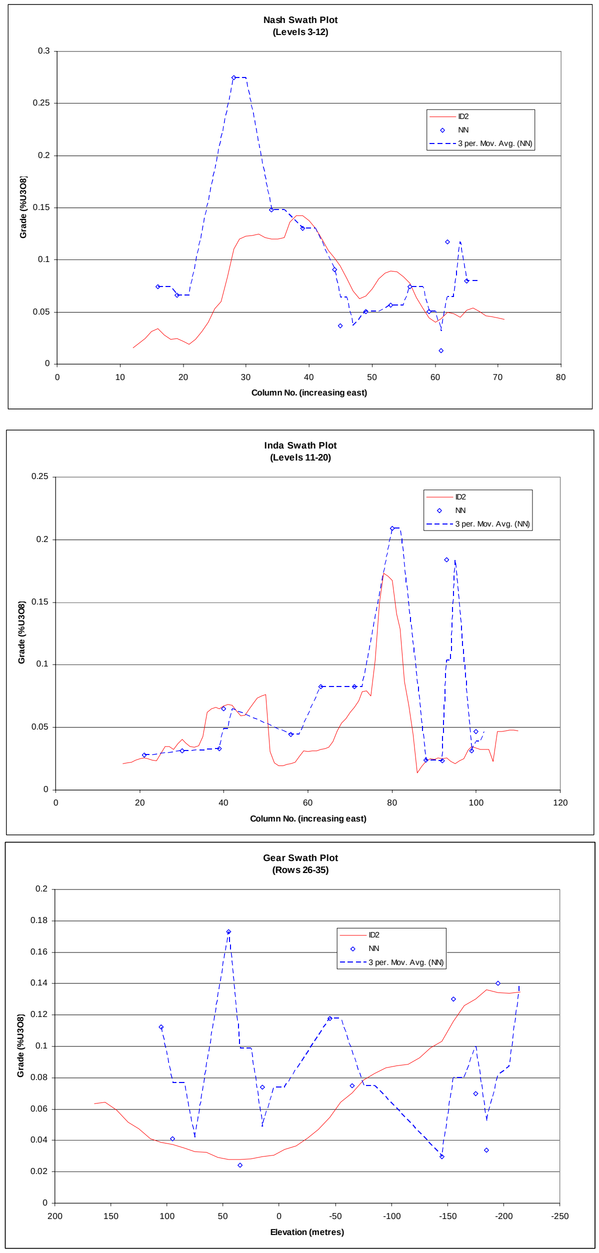


Figure 19.4.26: Comparison of ID2 estimated grades versus composite values from 100 metre wide swaths across each deposit in the Inda Trend

19.4.6.3 Visual Inspection

A visual inspection shows that the Inda Trend block models have been estimated in the way they were intended and no significant deviations from expected results were observed.

19.4.7 Mineral Resource Classification

Mineral resources in the Inda Trend were classified according to a combination of: (i) geological confidence, (ii) number of drill holes, and (iii) average samples used in each block estimate. Due to the lack of confidence in the actual grades of the Brinex data as described above, none of the Inda Trend resources can be classified as Measured Mineral Resources. Blocks estimated with a minimum of 2 drill holes and with an average distance to samples of less than 50 metres were classified as Indicated. All other resources are relegated to the Inferred category.

In addition to the above qualifications on the resource, it is believed that, as they are currently defined, none of the deposits, alone or together, could support an underground mining operation. As such, they are reported using a single cut-off suitable to open pit mining scenario, but none of the resource blocks occurring below a depth of 300 metres from surface are reported in the Mineral Resource statement below. These deep blocks are shown in the sections and in the mineral inventories for illustration, but do not constitute a portion of the Mineral Resources.

The distribution of classified blocks in each deposit is shown in **Figure 19.4.27** to **Figure 19.4.29**.

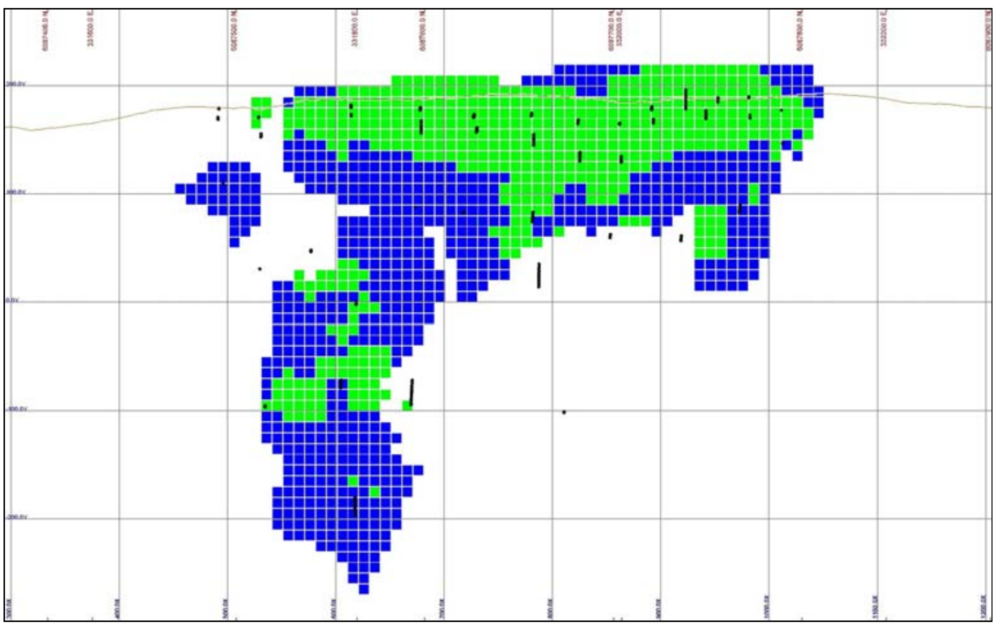


Figure 19.4.27: Long section showing the distribution of classified blocks in the Nash resource model

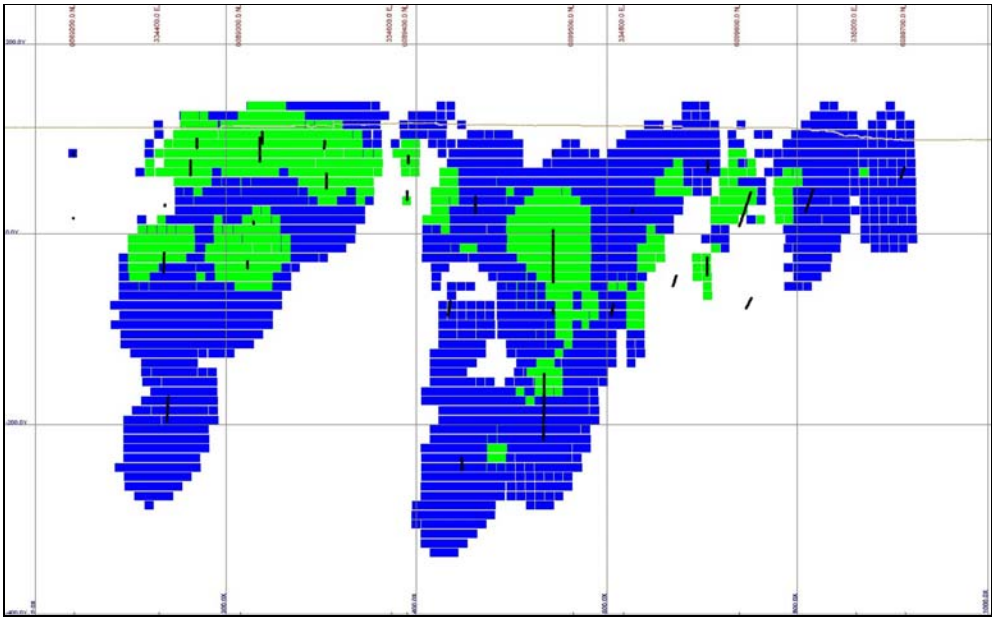


Figure 19.4.28: Long section showing the distribution of classified blocks in the Inda resource model

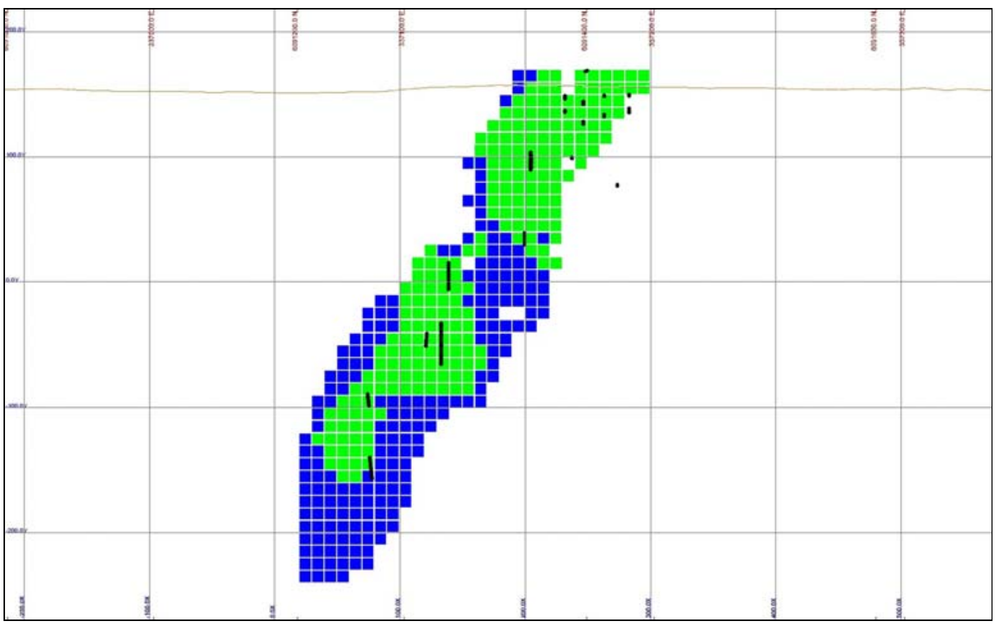


Figure 19.4.29: Long section showing the distribution of classified blocks in the Gear resource model

Table 19.4.9: Classified Mineral Resources of the Inda Trend, CMB

Deposit	Class	Tonnes	%U3O8	lbs U3O8
NASH	Indicated	757,000	0.08	1,300,000
	Inferred	613,000	0.07	904,000
INDA	Indicated	1,460,000	0.06	2,037,000
	Inferred	3,042,000	0.07	4,538,000
GEAR	Indicated	520,000	0.06	665,000
	Inferred	210,000	0.06	262,000

Resources are reported at a cut-off grade of 0.03% U3O8, and do not include any blocks estimated below 300 metres depth.

19.4.7.1 Comparison with Brinex Resource

Historical resources for the Inda Trend deposits are shown in **Table 19.4.10**.

Table 19.4.10: Compilation of historical resource estimates in the Inda Trend

	Tonnes	Grade %U3O8	lbs U3O8
Nash	215,971	0.224	1,066,523
Inda	514,519	0.155	1,758,167
Gear	76,860	0.145	245,695

The 1970 historical estimate for the Nash Lake Prospect (Main Zone) by Brinex was based on data from an unknown number of surface drill holes which defined the zone over a strike length of 365 m and a depth of 140 m. The 1976 historical estimate for the Inda Lake Prospect by Brinex was based on data from 23 surface drill holes. 75% percent of the tonnage was in the main or footwall wall lens as defined over an average width of 2.44 m and strike length of 640 m. The grade of mineralization attributable to tonnage in the hanging wall lenses was 0.19% U_3O_8. The historical estimate for the Gear Lake Prospect (year unknown) by Brinex was based on data from an unknown number of surface holes which defined the zone over a length of 30 m and to a depth of 70 m.

Limited information is given by Brinex as to their estimation method for these resources. On the surface it appears that they simply used broadly defined, average (?) rectangular volumes based on strike, dip and across strike extents. These do not compare at all with those volumes defined by sectional interpretations as in the current models. No information is given by Brinex as to the cut-off grade applied to their estimates (if any). At a cut-off of 0.1% U_3O_8, the current resources approach and exceed the historical grades. If Brinex used a cut-off grade of 0.1% U_3O_8 for their resources, then the current estimates are surprisingly similar (**c.f. Table 19.4.8** and **Table 19.4.10**). However, without this information, it is difficult to draw conclusions about their veracity and compatibility with the current resources.

19.5 CONCLUSIONS

Aurora's 2007 exploration program proved to be another tremendously successful year in terms of adding resources to their uranium holdings in the Central Mineral Belt. Michelin, the flagship deposit of the belt, was increased by 20%, adding 17 Mlbs U_3O_8, Jacques Lake was increased by more than 66% with its addition of 17.3 Mlbs U_3O_8, and the upgrading up historical resources to current NI 43-101 compliant resources at Rainbow, Nash, Inda and Gear, generated another 13.5 Mlbs U_3O_8. A full accounting of all of Aurora's CMB Mineral Resources is tabulated in **Table 19.5.1**.

The CMB resource deposits proved amenable to either OK or ID2 estimation techniques. In most cases, the historical Brinex assay data can be shown to be comparable to current data generated by Aurora under the auspices of NI 43-101 guidelines. This similarity between the datasets is of tremendous value to Aurora since it lessens the need for additional confirmation drilling in some areas. The subtle lack of correlation with the Inda Trend data remains a small concern, and should be addressed in future resource updates. For now, the slightly lower grades of the Brinex data mitigate any risks of over-estimation, but getting the grade right is ultimately most important.

It is recommended that infill drilling be completed as soon as possible to better define the grade distributions within the existing mineralized domains. There remain a number of lower grade lenses that may be stripped out of the resource model to improve on the average grade of the deposit. This is true for all of the deposits, but only Michelin and Jacques Lake have advanced to a stage where this has been the critical next step.

The confirmation drilling program in the Brinex-defined portion of the Michelin resource is now complete and should be incorporated into the next resource update. There are early indications that the grades may slightly higher in the new drilling, but this remains to be evaluated.

One of the most compelling drill targets to emerge from this analysis is the potential in the footwall zone at Rainbow. Portions of the hanging wall zone have very high grades, and, aside from the mafic dyke, its similarities to Michelin are stronger than any other resource area. In addition, further testing along strike from both Michelin and Rainbow, towards Running Rabbit Lake, needs to be done to rigorously test the potential of the folded radiometric horizon and possible closure near Running Rabbit.

The recognition of the folded geometry of the Jacques Lake deposit has answered many questions regarding its distribution and potential extents, but raises more in terms of its genesis and how it can be used to define additional targets and ideas that remain untested and even unconsidered.

These advances in understanding of the controls on mineralization in the region are crystallizing a belt scale understanding of the CMB and its contained deposits that should prove to generate a steady stream of worthy targets as Aurora's work advances.

Table 19.5.1: Classified Mineral Resources for Aurora's CMB Project, Labrador, Canada, February, 2008

		Underground*			Open Pit*			Total
Deposit	**Class**	**Tonnes**	**%U3O8**	**lbs U3O8**	**Tonnes**	**%U3O8**	**lbs U3O8**	**lbs U3O8**
MICHELIN	Measured	1,289,000	0.12	3,310,000	5,795,000	0.08	9,768,000	
	Indicated	16,170,000	0.13	44,582,000	7,146,000	0.06	9,774,000	
	Measured & Indicated	**17,459,000**	**0.12**	**47,892,000**	**12,941,000**	**0.07**	**19,542,000**	**67,434,000**
JACQUES LAKE	Measured	415,000	0.09	802,000	401,000	0.09	798,000	
	Indicated	3,357,000	0.08	5,861,000	1,909,000	0.07	2,950,000	
	Measured & Indicated	**3,772,000**	**0.08**	**6,663,000**	**2,310,000**	**0.07**	**3,748,000**	**10,411,000**
RAINBOW	Indicated				1,088,000	0.09	2,063,000	2,063,000
NASH	Indicated				757,000	0.08	1,300,000	1,300,000
INDA	Indicated				1,460,000	0.06	2,037,000	2,037,000
GEAR	Indicated				520,000	0.06	665,000	665,000
	Subtotal				3,825,000	0	6,065,000	
TOTAL	**Measured & Indicated**	**21,231,000**	**0.12**	**54,555,000**	**19,076,000**	**0.07**	**29,355,000**	**83,910,000**
MICHELIN	Inferred	12,577,000	0.12	33,647,000	1,564,000	0.05	1,818,000	35,465,000
JACQUES LAKE	Inferred	2,778,000	0.08	4,596,000	2,210,000	0.05	2,314,000	6,910,000
RAINBOW	Inferred				931,000	0.08	1,700,000	1,700,000
NASH	Inferred				613,000	0.07	904,000	904,000
INDA	Inferred				3,042,000	0.07	4,538,000	4,538,000
GEAR	Inferred				210,000	0.06	262,000	262,000
							7,404,000	
TOTAL	**Inferred**	**15,355,000**	**0.11**	**38,243,000**	**8,570,000**	**0.06**	**11,536,000**	**49,779,000**

** The CMB mineral resource estimates contemplate both underground and open pit mining scenarios. Cut-off grades (UG=0.05% U3O8, OP=0.03% U3O8) are based on very preliminary economics and may be revised with more detailed economic analyses in future updates.*

20.0 OTHER RELEVANT DATA AND INFORMATION

The Nunatsiavut Government came into effect December 1st, 2005. The current Board of the Labrador Inuit Association became the transitional government which will be in place until an election is held. The Nunatsiavut Government will operate on a consensus basis rather than an adversarial party system. The Nunatsiavut Government will observe federal and provincial laws and, in time, take greater control over policy.

The effective date marks the transition of the Labrador Inuit Lands Claims Agreement into a legal and constitutional reality.

Sections of the Agreement which deal specifically with exploration interests in Labrador are Part 4.11 Subsurface Interests and Part 4.12 Subsurface Resource Development in Labrador Inuit Lands. For the purposes of this report, the following paraphrased parts are of note:

- Administration of subsurface resources in the Labrador Inuit Settlement Area rest with the Province (4.11.1). The Province is obliged to consult with the Nunatsiavut Government about conditions to be attached to a subsurface interest in Labrador Inuit Lands (4.12.4).
- Exploration of Labrador Inuit Lands requires approval of an application in the form of a work plan made to the Nunatsiavut Government and the Province (4.11.13(b)). Fifteen days is indicated as the time frame for processing applications. Approval from both the Provincial and Nunatsiavut governments is required before work can proceed.
- Exploration companies must obtain consent from the Nunatsiavut Government for access to Labrador Inuit Lands (4.11.13(a)).
- Development of a subsurface resource in Labrador Inuit Lands requires an Inuit Impacts and Benefits Agreement with the Nunatsiavut Government (4.12.1).

The ***Standards for Mineral Exploration and Quarrying for Labrador Inuit Lands*** were ratified in to law in April 2007 by the Government of Newfoundland and Labrador and the Nunatsiavut Government. This act facilitates the issuing of exploration approvals for Labrador Inuit Lands and sets out clear guidelines for exploration practices in Labrador.

On March 5th, 2008, the Nunatsiavut Government tabled a proposed motion banning the mining and milling of uranium on Labrador Inuit Lands for a period of three years while they develop their new land use plan and their environmental assessment process. Consensus was not reached by the Government, and the motion is to be heard at a second reading on April 9th, 2008. Under this motion, exploration and environmental baseline work would not be affected.

21.0 INTERPRETATION AND CONCLUSIONS

The program carried out over the period from April to the end of November, 2007 was successful in identifying additional mineralization at Michelin and Jacques Lake, and in confirming mineralization at the Aurora Corridor, Gayle and Burnt Brook. Additionally, the extent of uranium mineralization at the Gear, Inda, and Nash targets has been both confirmed and expanded through ongoing drilling.

21.1 MICHELIN TARGET AREA

The 2007 drilling program was successful in extending the Main Zone down plunge and to the west, along strike, with 15 new holes (10,319 metres). The zone appears to be narrowing in width, although it continues to return comparable grades over significant widths (e.g. **0.25% U_3O_8/9.5 meters** in hole M07-069, and **0.11% U_3O_8/15.0 meters** in hole M07-059), out to 185 meters beyond the western limits of the previous 2006 drilling.

In addition to extending the Main Zone, the 2007 drill program began to define a new shoot to the east of the Main Zone referred to as the "Eastern Shoot", with 16 holes (7,992 metres). Building on widely-spaced holes from the 2006 drill program, this new zone is now better defined within a region measuring approximately 600 meters down-plunge and 300 meters across, with comparable grades and widths to the Main Zone (e.g. **0.25% U_3O_8/10.1 meters** in hole M07-072, and **0.15% U_3O_8/8.9 meters** in hole M07-066).

The eastern limits of alteration and relatively weak mineralization associated with the Michelin deposit have been extended approximately 700 meters to the east of previous drilling. While this region is unlikely to contribute to the Michelin resource there is still a great deal of remaining potential along this trend for the discovery of additional resources.

Results to date from the confirmation drilling program in the shallower portion of the deposit have shown that the uranium mineralization in this area is at least as good as suggested by the historical drilling by Brinex (1969-79), and locally better.

21.2 BURNT BROOK TARGET AREA

A total of 10 drill holes totaling 1,828 metres were completed at Burnt Brook in a Phase I drill program. Mineralized intervals cut during the drilling were generally narrow and were hosted in a variety of lithologies, ranging from fine grained clastic metasediments, to hematized and albitized intermediate volcanics similar to the host rocks at the Jacques Lake deposit. Alteration packages associated with mineralization at Burnt Brook were similar to those seen at the Jacques Lake and Michelin deposits, with strong hematite + magnetite + albite alteration.

While mineralized zones generally ranged from 1 to 5 metres, sufficiently elevated levels of radioactivity have been intersected to warrant follow up surface work and diamond drilling in 2008.

21.3 JACQUES LAKE TARGET AREA

During the 2007 field season, a total of 30 diamond drill holes with a cumulative length of 14,209 metres were completed on the Jacques Lake target to test the for down-dip and down plunge extensions to the deposit.

The 2007 drill program was successful in expanding the Jacques Lake deposit further to the west and down-dip. Intervals of uranium mineralization intersected in 2007 were of comparable width and grade to those cut in 2006. Of particular note, drill hole JL07-070 intersected **0.12% U_3O_8/16m** approximately 100m down plunge from the existing resource block. The 2007 drill program also added confidence to the understanding of the fold interference causing thickening of the mineralized zone.

21.4 GEAR TARGET AREA

The drilling program at Gear successfully extended the ore zone 100-110 m down plunge with six drill holes totaling 1,933 metres. The zone of U mineralization intersected in G07-005 has rough dimensions of 150m down dip by 50 m across. The strongest mineralization within it measures 20 m in width. A few observations have been made about mineralization at Gear:

- **a)** Elevated radioactivity can occur within the argillite, dirty quartzite or sheared amphibolite (all within the Post Hill Group)
- **b)** The primary host "argillite" changes in composition along its strike indicating facies changes
- **c)** Mineralization appears to be folded
- **d)** The Post hill group features an earlier deformation event which is not evident in the Aillik Group

21.5 INDA TARGET AREA

During the 2007 field season, a total of eight drill holes totaling 2,524 metres were completed. Mineralized intervals at Inda occur both in felsic volcanics of the Aillik Group and predominantly within amphibolites and mafic meta-sediments of the Post Hill Group. Mineralization in the felsic volcanics is related to hematite-albite and/or magnetite alteration, whereas uranium mineralization in the Post Hill Group (mafic meta-sediments and amphibolites) is associated with carbonate-chlorite-actinolite+/-pyrite alteration.

Drilling served to extend mineralization at Inda to the south west (along strike) and to date has returned values comparable to those seen in historic Brinex drilling. Mineralized zones at Inda are generally narrow, ~ 1 metre, however, numerous zones are seen in close proximity to one another. Further work is recommended for the Inda target, including drilling beneath the eastern portion of the deposit and down plunge to the southwest.

21.6 NASH TARGET AREA

A total of four drill holes totaling 1,298.00 m were completed during the 2007 field season testing for down-dip extensions to the known mineralization. Mineralized zones intersected in 2007 drilling at the Nash prospect were generally narrow, from 1 to 4m, but showed significant grades including 0.34% U_3O_8 over 1.00m in N07-005. Mineralization at Nash is hosted within the Post Hill Group mafic metasediments. Patchy magnetics and albite alteration are present with mineralization, as well as abundant chlorite-amphibole stringers, and biotite-calcite stringers. Elevated Cu and Ag occur with U mineralization, however, generally in uneconomic amounts.

A follow up drill program is recommended for the Nash area for 2008. Particular attention should be paid to follow up encouraging historical trench and drill results reported by Brinex for the Nash West Area, approximately 1km west-south-west of the main Nash Deposit. The Nash deposit remains a prospective target and the potential for additional mineralization in the area is considered to be excellent.

21.7 MELODY HILL TARGET AREA

2007 drilling at Melody Hill returned generally disappointing results, with only spot highs being intersected in holes M07-007 and M07-011. Mineralization intersected at Melody was hosted in granitoid rocks, with no discernable deformation or alteration associated with the mineralized zones. It is believed that due to the inability to drill from the ideal locations on the ice, the targets were not adequately tested.

21.8 AURORA CORRIDOR TARGET AREA

A total of 12 drill holes totaling 2,047.32 metres were drilled during the 2007 field season. Drilling targeted the subsurface extension of outcropping mineralization along the east-west striking shear zone and magnetic anomaly. Elevated to significant levels of uranium mineralization were intersected in 8 of the 12 holes drilled. Mineralization is typically hosted within strongly sheared, fibrous actinolite + calcite + chlorite felsic volcanic pseudo-breccia, and thinly banded felsic metavolcanics. As at other target areas within the Central Mineral Belt property, significant levels of hematite + magnetite + albite alteration are observed in association with mineralized intervals.

Assay values are comparable to the initial shallow drill results from both the Michelin and Jacques Lake Deposits, and as a result, the entire Aurora Corridor warrants considerably more drilling, prospecting, and mapping in 2008.

21.9 GAYLE TARGET AREA

Anomalous radioactivity was intersected in two of the eight holes drilled, with scintillometer readings being very low in both drill holes. Little continuity was seen between outcropping uranium mineralization and subsurface testing of those zones. At this juncture, no further work is recommended on the Gayle target.

22.0 RECOMMENDATIONS

22.1 DISCUSSION

As of November 27th, 2007, the Corporation has completed approximately 49,793 metres of the proposed 75,000 metre Phase II diamond drilling program recommended in the previous technical report dated March 1, 2007 (Wilton and Giroux, 2007). The majority of the 2007 drilling was focused at the Michelin (~25,000 metres) and Jacques Lake (~20,000 metres) deposits, with the remainder dedicated to testing regional targets within the CMB Property.

The 2007 drilling continued to intersect significant widths of mineralized material, extending the previously-defined limits of both the Michelin and Jacques Lake deposits. At Michelin, the deposit has been expanded approximately 250 metres down dip on the Eastern chute, and approximately 185 metres west and down plunge of the Main Zone, with new intercepts showing comparable continuity, widths, grade and style of mineralization to the existing resource.

Drilling at Jacques Lake has increased the drilled strike length of the deposit to 900 metres, and has extended known mineralization to a vertical depth of approximately 400 metres from 275 metres. Newly intersected mineralization at Jacques Lake shows excellent continuity with the existing resource in terms of width, grade and style of mineralization.

Regional exploration drilling has successfully tested the Melody Hill, Aurora Corridor, Burnt Brook, Gayle and Inda Lake Trend targets.

In summary, the Phase II drilling has expanded the known deposits of Jacques Lake and Michelin, extended the mineralization and resources at the Gear, Inda, Nash and Rainbow deposits, and identified a new occurrence 15 kilometres west of Jacques Lake, called "Aurora West". Drill results continue to return encouraging grades with reasonable probability for further expansion at all target areas.

22.2 ANALYSIS

Results to date demonstrate that both the Michelin and Jacques Lake deposits have significant potential to expand beyond their current resource boundaries. The current resource for each deposit comprises significant amounts of inferred resources (~40% at Michelin and ~50% at Jacques Lake), and the 2007 drilling has successfully increased this proportion at each deposit. The remaining 20,000 metres of the recommended 2007 drilling program should be completed with focus on infill drilling of the resource areas to convert as much of the inferred resources to the measured and indicated mineral resource categories as possible, in preparation for pre-feasibility studies.

22.3 RECOMMENDATIONS

22.3.1 Phase III Exploration Program

Results to date from the 2007 exploration programs on the CMB Property have resulted in a significant expansion of uranium resources on the Property. Uranium resources now exist at the Michelin and Jacques Lake deposits; as well as the Inda, Gear, Nash and Rainbow deposits, as well as, promising targets along the Aurora Corridor, including the Gayle, Burnt Brook, and Kathi deposits, all demonstrate the excellent prospectivity of the district. Continued aggressive exploration of this emerging belt is therefore recommended for a **Phase III Exploration Program** with a portion of the exploration efforts focused on expanding the existing resources at Michelin and Jacques Lake, both of which remain incompletely tested, and another substantial portion dedicated to further delineation and testing of the additional deposits and prospects listed above. Budget for the proposed **Phase III Exploration Program** is **$44,000,000 (Can)** (**Table 22.1**).

The Phase III budget would include an aggregate of **$8,000,000 (Can)** to complete the remainder of the 2007 Phase II Work Program as recommended in the previous CMB technical report (Dr. D.H.C. Wilton, Gary Giroux P. Eng, Ian Cunningham-Dunlop, P. Eng., Christopher Lee, P. Geo., Jim Lincoln, P. Eng., and Mark O'Dea, P. Geo). This work will be completed in Q1-2008 and will include infill drilling in the two main resource areas, comprising 8,000 metres of drilling at Jacques Lake and 12,000 metres at Michelin. The remainder of the Phase III budget would include **$20,000,000 (Can)** for 50,000 metres of drilling in Q2/3/4-2008, and **$16,000,000 (Can)** for 40,000 metres of drilling in Q1/2/3/4-2009.

Table 22.1: Recommended budget for 2008 Phase III Exploration Program

Description	Cost ($Can)
Labour*	$4,750,000
General and Administration*	$600,000
Capital Purchases*	$479,762
Drilling and Assays (110,000m @ $185/m)*	$20,350,000
Field Geochemistry	$100,000
Field Geophysics	$250,000
Field Support (Heli/Plane/Fuel/etc)*	$13,150,000
Travel and Lodging*	$625,000
Land/Legal*	$1,600,000
Subtotal	**$41,904,762**
Contingency (5%)	2,095,238
Total*	**$44,000,000**

*Includes an aggregate of $8,000,000 (comprised of: labour - $750,000, general and administrative - $100,000, capital purchases - $44,048, drilling and assays (20,000 metres @ $185/m) - $3,700,000, field support - $2,400,000, travel and lodging - $125,000, land and legal - $500,000, and contingency of 5% - $380,952) to complete the Phase II Work Program currently underway, as recommended in the Corporation's technical report dated February 19th, 2007 as amended March 1st, 2007 entitled "The Exploration Activities of Aurora Energy Resources Inc. on the CMB Uranium Property, Labrador, Canada During the Period January, 2006 to January, 2007".

22.2.1 Phase III Engineering and Development Studies

Following completion of the current resource estimate (Wilton and Giroux, 2007), and consequent recognition of the significance of the Michelin and Jacques Lake deposits, Aurora began efforts to augment their ongoing engineering and environmental studies to meet the needs of anticipated future pre-feasibility and feasibility level studies. To date, these studies are primarily conceptual and inconclusive in nature, and are laying out the framework for more detailed engineering and development studies as the project advances. It is recommended that, pending successful completion and positive results of the 2007 Phase II Work Program in Q1-2008 (comprising expenditures of $8,000,000, see Table 22.1), Aurora should further intensify their engineering and development investigations in 2008.

The recommended budget for engineering and development studies for Q4-2007 and 2008 amounts to **$13,585,000** (**Table 22.2**), and includes a component for completion of ongoing engineering studies (**$2,155,000** from 2007) that is not contingent upon results of the Phase II Work Program, and a component for new engineering studies (**$11,430,000**) that is contingent upon successful completion of the Phase II Exploration Program.

Table 22.2: Recommended budget for engineering and development studies

Description	Cost ($Can)
Mine Engineering*	$840,000
Process Engineering*	$365,000
Infrastructure*	$525,000
Geotech and Hydrogeology*	$1,235,000
Metallurgy*	$1,900,000
Environmental*	$3,200,000
Equipment/Other*	$1,480,000
Socio-economic	$240,000
Subtotal	**$9,785,000**
General and Administration*	$3,800,000
Total	**$13,585,000**

*Includes non-contingent ongoing engineering studies to be completed in Q4-2007 (aggregating $2,155,000; comprised of: mine engineering - $30,000, process engineering - $15,000, infrastructure - $45,000, geotech and hydrogeology - $235,000, metallurgy - $330,000, environmental - $320,000, equipment and other - $480,000, and general and administration - $700,000). The balance of each item (aggregating $11,430,000) is contingent upon positive results of the $8,000,000 remaining expenditures under the Phase II exploration program currently underway, as recommended in the Corporation's technical report dated February 19th, 2007 as amended March 1st, 2007 entitled "The Exploration Activities of Aurora Energy Resources Inc. on the CMB Uranium Property, Labrador, Canada During the Period January, 2006 to January, 2007".

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24.0 DATE

Respectfully Submitted at Vancouver, Canada, this 28th day of August, 2008 by

Ian R. Cunningham-Dunlop, P. Eng
Vice President Exploration
Fronteer Development Group Inc.

Christopher Lee, M.Sc., P.Geo.
Chief Geoscientist
Aurora Energy Resources Inc.

APPENDIX I – AUTHOR'S CERTIFICATES AND CONSENTS

To accompany the Technical Report on the CMB Property, Labrador, Canada, dated April 7th, 2008 and amended August 28th, 2008

I, **Ian R. Cunningham-Dunlop, P. Eng.**, do hereby certify that:

1) I am a geological engineer residing at 2519 Swinburne Avenue, North Vancouver, B.C., and employed by Aurora Energy Resources Inc. as Vice President Exploration.

2) I am a graduate of Queen's University in Kingston, Ontario, Canada with a Bachelor of Applied Science (Geological Engineering) in 1984.

3) I have worked continuously in the industry since 1984 and my relevant experience for the purpose of the Technical Report is:
   - Supervision of numerous mineral exploration programs on properties in Canada, Argentina, and Turkey for Gold Fields Canadian Mining Ltd., Santa Fe Canadian Mining Ltd., Homestake Canada Limited, Barrick Gold Corp., Rubicon Minerals Corp., and Fronteer Development Group Inc..
   - Formerly employed by Aurora Energy Resources Inc. from January 1st, 2006 to June 23rd, 2008 as Vice President Exploration and personally oversaw the field work carried out on the property in the years 2005 and 2006 and, in particular, the period January 1, 2007 and December 31, 2007.
   - Currently employed by Fronteer Development Group Inc. as Vice President Exploration. Fronteer Development Group Inc. holds a 42.2% equity stake in Aurora Energy Resources Inc.

4) I am a member of the Association of Professional Engineers of Ontario (PEO – Reg. No. 10161503), the Association of Professional Engineers and Geoscientists of B.C (APEGBC – Reg. No. 27221), the Association of Professional Engineers and Geoscientists of Newfoundland and Labrador (PEG – Reg. No. 04385), the Prospectors and Developers Association of Canada, and the Canadian Institute of Mining and Metallurgy,

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 professional associations (as deemed in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" (QP) for the purposes of NI 43-101.

6) I am responsible for the exploration information collected during the 2007 CMB exploration program described in this report and I supervised the preparation of all Sections of the report entitled **"An Update on the Exploration Activities of Aurora Energy Resources Inc. on the CMB Uranium Property, Labrador, Canada, during the period January 1, 2007 to December 31, 2007, Part II –**

CMB Minerals Resources", dated April 7th, 2008 and amended August 28th, 2008, relating to the CMB Property with the exception of Section 19.0. I have worked on the property in a technical capacity since 2004 and personally oversaw all the field work carried out on the property between January 2004 and December 2007.

7) As of August 28th, 2008, and to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading and I have read the disclosure being filed and it fairly and accurately represents the information in the Technical Report that supports the disclosure.

8) I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which make the Technical Report misleading.

9) I am not independent of the issuer applying all the tests in Section 1.5 of National Instrument 43-101 and acknowledge that I hold securities of Aurora Energy Resources in the form of stock option.

10) I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

11) I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 28th day of August, 2008, in Vancouver, B.C..

Ian R. Cunningham-Dunlop, P. Eng.
Vice President Exploration
Fronteer Development Group Inc.

CERTIFICATE AND CONSENT

To accompany the Technical Report on the CMB Property, Labrador, Canada, dated April 7th, 2008 and amended August 28th, 2008

I, **Christopher Lee**, P. Geo., do hereby certify that:

1) I am a geologist residing at 303-141 Water Street, Vancouver, BC, V6B 1A7, and employed by Aurora Energy Resources Inc., as Chief Geoscientist.

2) I am a graduate of the University of Waterloo, with an Honours B.Sc. Co-op in Geology, 1991, and I obtained a M.Sc. in Geology from the Memorial University of Newfoundland in 1994. I have practiced my profession continuously since 1991;

3) I am a Professional Geoscientist registered in good standing with the Association of Professional Engineers and Geoscientists of British Columbia (#29049);

4) I have worked on the property continuously since January 15th, 2007 and have relevant experience having led or participated in geological studies supporting more than 60 advanced exploration and development projects and/or operations, in 15 different countries.

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 professional associations (as deemed in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" (QP) for the purposes of NI 43-101.

6) I was responsible for the preparation of Section 19.0 of the report entitled "**An Update on the Exploration Activities of Aurora Energy Resources Inc. on the CMB Uranium Property, Labrador, Canada, during the period January 1, 2007 to December 31, 2007, Part II – CMB Mineral Resources**", dated April 7th, 2008 and amended August 28th, 2008, relating to the CMB Property. I have worked on the property in a technical capacity since January 15th, 2007 and personally visited the site most recently in August 2007.

7) As of August 28th, 2008, and to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading and I have read the disclosure being filed and it fairly and accurately represents the information in the Technical Report that supports the disclosure.

8) I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which make the Technical Report misleading.

9) I am not independent of the issuer applying all the tests in Section 1.5 of National Instrument 43-101 and acknowledge that I hold securities of the Aurora Energy Resources Inc. in the form of stock option.

10) I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

11) I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 28th day of August, 2008, in Vancouver, B.C..

Christopher Lee, M.Sc., P.Geo.
Chief Geoscientist
Aurora Energy Resources Inc.

APPENDIX II – 2007 DDH PROGRAM – SUMMARY OF HOLES BY AREA

# Holes	Hole ID	UTM East	UTM North	Elev. (m)	Azimuth	Dip	TD (m)
Aurora Corridor Data = NAD 83, zone 21							
1	**AR07-001**	321142	6060904	259	355	-45	99.36
2	**AR07-002**	321142	6060904	259	355	-75	319.74
3	**AR07-003**	321324	6060931	280	355	-45	373.67
4	**AR07-004**	321324	6060931	280	355	-75	93.27
5	**AR07-005**	321351	6060920	280	22	-45	104.24
6	**AR07-006**	321351	6060920	280	22	-51	96.62
7	**AR07-007**	321351	6060920	280	8	-45	102.72
8	**AR07-008**	322555	6060992	314	332	-45	255.12
9	**AR07-009**	322555	6060992	314	332	-75	93.57
10	**AR07-010**	322678	6061009	312	332	-45	163.07
11	**AR07-011**	322678	6061009	312	332	-75	146.91
12	**AR07-012**	321202	6060755	317	355	-45	199.03
Total							**2,047.32**

# Holes	Hole ID	UTM East	UTM North	Elev. (m)	Azimuth	Dip	TD (m)
Burnt Brook Data = NAD 83, zone 21							
1	**BB07-001**	329741	6063335	257.8	310	-45	300.23
2	**BB07-002**	329776	6063300	244.8	310	-45	168.86
3	**BB07-003**	329776	6063300	244.8	310	-75	174.96
4	**BB07-004**	329684	6063249	255.6	310	-45	157.89
5	**BB07-005**	329727	6063215	250.8	310	-45	243.54
6	**BB07-006**	329900	6063290	240	290	-45	224.64
7	**BB07-007**	329938	6063328	245	310	-45	145.39
8	**BB07-008**	329938	6063328	245	310	-70	70.32
9	**BB07-009**	329906	6063202	233	310	-45	218.54
10	**BB07-010**	329848	6063373	245	310	-45	124.05
Total							**1,828.42**

# Holes	Hole ID	UTM East	UTM North	Elev. (m)	Azimuth	Dip	TD (m)
Gayle Data = NAD 83, zone 21							
1	**GL07-001**	331690	6065827	237.3	310	-65	91.44
2	**GL07-002**	331690	6065827	237.3	310	-45	103.63
3	**GL07-003**	331733	6065868	235.6	310	-45	106.38
4	**GL07-004**	331733	6065868	235.6	310	-70	102.41
5	**GL07-005**	331506	6065793	233.5	310	-45	102.72
6	**GL07-006**	331506	6065793	233.5	310	70	124.05
7	**GL07-007**	331602	6065804	232	310	-50	124.05
8	**GL07-008**	331549	6065647	244	310	-50	206.65
Total							**961.33**

Gear Target

# Holes	Hole_ID	UTM_East	UTM_North	Elev. (m)	Azimuth	Dip	TD (m)
Gear Data = NAD 83, zone 21							

1	**G07-004**	337207	6091247	145	298	-75	411.18
2	**G07-005**	337248	6091147	143	300	-55	438.00
3	**G07-006****	337248	6091147	143	300	-70	459.64
4	**G07-007***	337248	6091147	143	300	-45	111.86
5	**G07-007A**	337248	6091147	143	300	-50	377.34
6	**G07-008**	337180	6091481	162	300	-45	135.33
6	*** denotes abandoned drill hole, **denotes drill not reaching target depth**						**1,933.35**

Inda Target

# Holes	Hole_ID	UTM_East	UTM_North	Elev. (m)	Azimuth	Dip	TD (m)
Inda Data = NAD 83, zone 21							
1	**I07-002**	334790	6089401	108	325	-68	432.21
2	**I07-008***	334794	6089245	112	320	-50	89.00
3	**I07-008A**	334794	6089245	112	320	-58	482.00
4	**I07-003**	334543	6089207	113	330	-50	235.00
5	**I07-004**	334543	6089207	113	330	-65	358.75
6	**I07-005**	334464	6089176	112	320	-50	215.00
7	**I07-006**	334464	6089176	112	320	-72	320.00
8	**I07-007**	334464	6089176	112	320	-85	392.00
8	*** denotes abandoned drill hole**						**2,523.96**

Jacques Lake Deposit

# Holes	Hole_ID	UTM_East	UTM_North	Elev. (m)	Azimuth	Dip	TD (m)
Jacques Lake Data = NAD 83, zone 21							
1	JL07-052	333132	6066001	270	315	-55	550.16
2	JL07-053	333176	6066031	283	315	-55	541.02
3	JL07-054	333132	6066001	270	315	-68	799.19
4	JL07-055	333176	6066031	283	315	-68	736.09
5	JL07-056	333132	6066001	270	315	-80	1,061.62
6	JL07-057	333176	6066031	283	315	-80	1,075.25
7	JL07-058	332848	6066173	191	315	-45	104.90
8	JL07-058A	332848	6066173	191	315	-45	257.56
9	JL07-059	332778	6066146	189	315	-45	226.47
10	JL07-060	332893	6066044	223	315	-50	339.84
11	JL07-061	332893	6066044	223	315	-60	373.68
12	JL07-062	332893	6066044	223	315	-75	380.09
13	JL07-063	332853	6066004	223	315	-50	355.40
14	JL07-064*	333132	6066001	270	315	-45	183.48
15	JL07-065	332853	6066004	223	315	-60	372.16
16	JL07-066	333132	6066001	270	300	-50	557.78
17	JL07-067	332853	6066004	223	315	-75	395.63
18	JL07-068	332931	6066083	235	315	-50	349.61
19	JL07-069	332778	6065935	209	315	-45	377.04
20	JL07-070	332962	6065972	235	315	-75	477.93
21	JL07-071	333104	6065963	258	300	-50	504.75
22	JL07-072	332902	6065892	229	315	-60	593.01
23	JL07-073	332900	6065894	228	315	-50	439.83
24	JL07-074	332813	6065878	211	310	-60	440.44
25	JL07-075	333104	6065963	258	300	-68	610.82
26	JL07-076	332749	6065799	207	325	-57	465.73

27	JL07-077*	333094	6065803	230	315	-48	215.49
28	JL07-078	333094	6065803	230	315	-56	691.29
29	JL07-079	333041	6065743	233	315	-56	732.74
29	*** denotes abandoned drill lhole**						**14,209.00**

Melody LakeTarget

# Holes	Hole_ID	UTM_East	UTM_North	Zone	Elev. (m)	Azimuth	Dip	TD (m)
ML Data = NAD 83, zone 20 & 21								
1	**ML07-001**	692069	6063574	20	~270	72.5	-45.5	304.80
2	**ML07-002**	692068	6063575	20	~270	350	-45	18.90
3	**ML07-003**	692068	6063575	20	~270	350	-55	16.80
4	**ML07-004**	692068	6063575	20	~270	350	-60	365.85
5	**ML07-005**	698068	6063572	20	~270	170	-55	342.60
6	**ML07-006**	692393	6063096	20	~265	45	-45	305.71
7	**ML07-007**	693436	6062169	20	~265	161	-45	306.93
8	**ML07-008**	306605	6061953	21	~200	235	-45	21.34
9	**ML07-009**	306605	6061953	21	~200	235	-50	301.14
10	**ML07-010**	693436	6062169	20	~200	161	-85	163.37
11	**ML07-011**	306605	6061953	21	~200	163	-45	285.60
12	**ML07-012**	693436	6062169	20	~200	115	-45	272.49
13	**ML07-013**	693436	6062169	20	~200	330	-45	304.88
14	**ML07-014**	306605	6061953	21	~200	163	-60	365.76
14	**Total**							**3,376.17**

Michelin Deposit

# Holes	Hole_ID	UTM_East	UTM_North	Grid_East	Grid_North	Elev. (m)	Azimuth	Dip	TD (m)
Michelin Data = NAD 83, zone 21									
Shallow Eastern Exploration									
1	M07-046	307634	6052819	-112	-60	338	329	-45	123.75
2	M07-047	307634	6052819	-112	-60	338	329	-75	154.23
3	M07-048	307820	6052920	100	-50	339	332	-45	137.77
4	M07-049	307820	6052920	100	-50	339	332	-75	182.88
5	M07-050	307634	6052819	-112	-60	338	329	-90	185.32
6	M07-052	307.82	6052920	100	-50	339	332	-90	93.57
7	M07-053	307910	6052963	200	-50	340	332	-45	93.27
8	M07-054	307910	6052963	200	-50	340	332	-85	108.81
9	M07-055	308045	6052920	300	-150	341	330	-45	214.88
10	M07-056	308045	6052920	300	-150	341	330	-80	165.33
11	M07-057	308259	6052942	501	-224	340	328	-62	214.88
11									**1,674.69**
Main Zone - Down-plunge Extension									
1	M07-045	306731	6051613	-1446	-752	342	316	-79	183.49
2	M07-051	306731	6051613	-1446	-752	342	311	-72	831.40
3	M07-059	306731	6051613	-1446	-752	342	311	-66	776.33
4	M07-061	306731	6051613	-1446	-752	342	316	-62	707.29
5	M07-069	306768	6051631	-1405	-753	342	318	-80	833.09
6	M07-070	306607	6051519	-1598	-782	341	326	-78	867.02
7	M07-070A	306607	6051519	-1598	-782	341	326	-78	308.54
8	M07-070B	306607	6051519	-1598	-782	341	326	-78	15.00
9	M07-070C	306607	6051519	-1598	-782	341	326	-78	266.00
10	M07-075	306559	6051401	-1693	-866	343	322	-85	776.18

11	M07-075A	306559	6051401	-1693	-866	343	322	-85	560.50
12	M07-079	306607	6051519	-1598	-782	341	326	-71	872.00
13	M07-080	306798	6051373	-1489	-997	349.6	322	-79	701.00
14	M07-080A	306798	6051373	-1489	-997	349.6	322	-79	1151.00
15	M07-083	306882	6051842	-1200	-600	337	325	-84	818.00
15									**10,319.11**
Eastern Shoot - Down-plunge Extension									
1	M07-058	307379	6052218	-601	-491	352	332	-50	504.14
2	M07-060	307379	6052218	-601	-491	352	332	-65	98.76
3	M07-060A	307379	6052218	-601	-491	352	332	-68	537.67
4	M07-065	307294	6052158	-704	-508	348	332	-53	549.55
5	M07-066	307294	6052158	-704	-508	348	332	-59	556.26
6	M07-067	307294	6052158	-704	-508	348	332	-65	559.56
7	M07-068	307215	6052122	-791	-506	346	328	-55	175.26
8	M07-068A	307215	6052122	-791	-506	346	328	-55	508.41
9	M07-071	307215	6052122	-791	-506	346	328	-63	276.76
10	M07-072	307215	6052122	-791	-506	346	328	-73	612.04
11	M07-073	307479	6052250	-498	-506	354	330	-54	539.84
12	M07-074	307215	6052122	-791	-506	346	328	-66	569.72
13	M07-076	307479	6052250	-498	-506	354	328	-65	601.00
14	M07-077	307479	6052250	-498	-506	354	330	-76	691.00
15	M07-078	307556	6052316	-401	-481	348	330	-56	568.00
16	M07-081	307431	6052096	-609	-624	359	326	-64	643.70
16									**7,991.67**
Confirmation Drilling									
1	M07-062	306993	6052545	-806	-27	334	332	-90	148.74
2	M07-063	306993	6052545	-806	-27	334	332	-65	99.97
3	M07-064	306993	6052545	-806	-27	334	332	-45	80.77
4	M07-082	307071	6052419	-790	-175	334	330	-53	224
5	M07-084	307071	6052419	-790	-175	334	330	-65	224.34
6	M07-086	307071	6052419	-790	-175	334	330	-76	242.2
7	M07-087	307071	6052419	-790	-175	334	330	-37	200
7									**1,220.02**
Western Shoot									
1	M07-085	306600	6051992	-1398	-353	333	326	-66	406
1									**406.00**
Total Michelin Drilling									
50									**21,611.49**

Nash Target

# Holes	Hole_ID	UTM_East	UTM_North	Elev. (m)	Azimuth	Dip	TD (m)
Nash Data = NAD 83, zone 21							
1	**N07-003**	331834	6087373	169	315	-50	272.00
2	**N07-004**	331834	6087373	169	315	-75	344.00
3	**N07-005**	331916	6087417	177	315	-55	263.00
4	**N07-006**	331964	6087343	156	315	-72	419.00
4							**1,298.00**

Grand Total

141							**49,793**

APPENDIX III – SUMMARY OF 2007 ASSAY COMPOSITES BY AREA

Summary of 2007 Michelin Assay Composites

Hole ID	From (m)	To (m)	Length (m)	% U3O8
cut off grade 0.03% U3O8				
M07-045A	761.09	766.70	5.61	0.13
incl	762.09	763.01	0.92	0.22
M07-046	69.40	70.40	1.00	0.03
M07-047	103.76	105.36	1.60	0.12
M07-048	40.33	42.33	2.00	0.04
M07-049	51.04	54.53	3.49	0.10
incl	53.78	54.53	0.75	0.16
M07-050	NSV			
M07-051	722.24	729.77	7.53	0.12
incl	722.24	723.38	1.14	0.34
incl	725.38	726.77	1.39	0.17
M07-052	NSV			
M07-053	NSV			
M07-054	NSV			
M07-055	NSV			
M07-056	159.95	160.85	0.90	0.03
M07-057	NSV			
M07-058	437.24	448.93	11.69	0.09
incl	439.12	444.13	5.01	0.17
incl	440.12	443.12	3.00	0.20
M07-059	654.92	669.92	15.00	0.11
incl	654.92	659.92	5.00	0.14
incl	654.92	655.92	1.00	0.21
incl	662.76	664.76	2.00	0.16
M07-060A	501.00	507.80	6.80	0.16
incl	504.00	506.00	2.00	0.24
M07-061	NSV			
M07-062	31.01	75.93	44.92	0.06
incl	32.51	50.20	17.69	0.11
incl	43.84	49.18	5.34	0.23
incl	54.92	56.42	1.50	0.10
and	88.83	92.34	3.51	0.20
M07-063	24.26	63.57	39.31	0.06
incl	25.76	40.90	15.14	0.10
incl	31.29	34.89	3.60	0.25
incl	50.69	52.76	2.07	0.11
incl	62.51	63.57	1.06	0.19
M07-064*	20.98	54.40	33.42	0.06
*5 feet missing - drilled through Brinex adit				
incl	22.83	33.81	10.98	0.09
incl	24.04	28.96	4.92	0.14
incl	27.70	28.96	1.26	0.24

incl	46.18	54.40	8.22	0.11
incl	48.68	51.18	2.50	0.20
M07-065	374.18	378.22	4.04	0.08
incl	374.18	376.72	2.54	0.11
incl	374.18	375.12	0.94	0.20
and	452.90	459.43	6.53	0.16
incl	453.77	455.47	1.70	0.30
and	473.13	478.37	5.24	0.06
incl	473.13	474.63	1.50	0.10
incl	477.37	478.37	1.00	0.10
M07-066	476.31	485.22	8.91	0.15
incl	479.31	485.22	5.91	0.20
incl	480.22	481.22	1.00	0.38
incl	483.22	484.22	1.00	0.31
M07-067*	509.41	509.91	0.50	0.16
and	515.19	532.88	17.69	0.06
incl	515.19	520.50	5.31	0.11
and incl	517.65	519.07	1.42	0.16
M07-068A	444.54	445.54	1.00	0.04
and	446.54	447.60	1.06	0.03
M07-069	757.90	767.40	9.50	0.25
incl	758.90	766.40	7.50	0.31
incl	758.90	759.40	0.50	1.80
M07-070	NSV			
M07-070A-C				
M07-072	423.80	429.88	6.08	0.06
and	547.40	557.50	10.10	0.24
incl	550.50	553.50	3.00	0.25
incl	554.50	557.50	3.00	0.39
M07-073	283.00	284.00	1.00	0.13
and	326.00	329.00	3.00	0.07
and	455.00	457.00	2.00	0.09
M07-074	495.07	499.30	4.23	0.08
incl	498.71	499.30	0.59	0.16
and	511.80	512.80	1.00	0.09
M07-075A	NSV			
M07-076	293.70	294.70	1.00	0.06
and	316.13	318.13	2.00	0.04
and	486.63	488.00	1.37	0.04
and	491.90	492.90	1.00	0.04
M07-077	337.00	337.60	0.60	0.17
and	621.75	622.75	1.00	0.04
M07-078	245.86	247.06	1.20	0.06
and	261.37	261.87	0.50	0.04
and	267.05	268.05	1.00	0.16
and	455.65	457.21	1.56	0.04
and	495.70	496.77	1.07	0.03
M07-079	670.08	670.50	0.42	0.03
M07-080	NSV			

M07-081	424.00	425.00	1.00	0.04
and	433.00	434.00	1.00	0.05
and	469.31	470.31	1.00	0.03
and	605.10	609.10	4.00	0.12
incl	607.10	609.10	2.00	0.17
and	612.60	613.60	1.00	0.03
M07-082	94.00	95.00	1.00	0.03
and	118.47	120.71	2.24	0.05
and	125.29	126.29	1.00	0.04
and	130.19	131.79	1.60	0.11
incl	130.19	130.99	0.80	0.16
and	140.21	176.03	35.82	0.13
incl	140.21	142.21	2.00	0.24
incl	147.21	149.21	2.00	0.24
incl	150.21	152.21	2.00	0.26
incl	155.42	157.62	2.20	0.37
M07-083	719.00	730.00	11.00	0.17
incl	724.00	728.00	4.00	0.26
and	741.74	742.94	1.20	0.05
and	745.55	746.63	1.08	0.10
and	759.88	765.44	5.56	0.40
incl	761.88	762.8	0.92	0.61
incl	764.30	765.44	1.14	0.95
M07-084	143.02	144.20	1.18	0.04
and	154.40	183.22	28.82	0.12
incl	155.40	165.40	10.00	0.23
and incl	160.40	163.40	3.00	0.39
incl	168.35	169.15	0.80	0.20
M07-085	306.19	306.77	0.58	0.08
M07-086	145.90	146.90	1.00	0.07
and	170.67	211.16	40.49	0.10
incl	170.67	185.02	14.35	0.17
and incl	174.67	175.67	1.00	0.36
and incl	177.67	178.67	1.00	0.31
and incl	180.67	182.67	2.00	0.27
incl	188.20	189.20	1.00	0.29
incl	197.37	198.37	1.00	0.18
M07-087	119.91	121.29	1.38	0.13
and	126.30	173.07	46.77	0.09
incl	126.30	127.07	0.77	0.17
incl	135.00	142.09	7.09	0.19
incl	142.82	146.74	3.92	0.26
incl	148.45	151.45	3.00	0.18
incl	171.04	173.07	2.03	0.23

Summary of 2007 Jacques Lake Assay Composites

Hole ID	From	To	Interval	%U3O8
cut off grade 0.03%U3O8				
JL07-052	295.96	296.96	1.00	0.08
and	408.50	413.50	5.00	0.06
JL07-053	306.50	312.50	6.00	0.06
incl.	309.43	310.00	0.57	0.14
and	397.00	398.00	1.00	0.04
and	444.47	445.50	1.03	0.06
and	448.50	448.95	0.45	0.06
JL07-054	310.00	311.00	1.00	0.03
JL07-055	362.11	363.11	1.00	0.06
and	378.72	379.72	1.00	0.07
and	499.75	500.75	1.00	0.05
JL07-056	No samples taken			
JL07-057	895.50	897.50	2.00	0.07
JL07-058	17.00	24.00	7.00	0.09
incl.	19.00	20.00	1.00	0.20
and	30.00	33.50	3.50	0.05
incl.	32.50	33.50	1.00	0.10
and	95.00	97.00	2.00	0.05
JL07-058A	16.24	23.24	7.00	0.09
incl.	17.24	20.24	3.00	0.15
and	25.24	26.24	1.00	0.08
and	32.25	34.64	2.39	0.09
and	125.50	126.50	1.00	0.03
and	191.00	192.00	1.00	0.05
JL07-059	90.50	92.50	2.00	0.08
JL07-060	120.28	133.50	13.22	0.09
incl.	120.28	124.50	4.22	0.13
and incl	126.50	127.50	1.00	0.22
and	158.88	159.88	1.00	0.04
and	190.50	192.50	2.00	0.04
and	195.50	195.60	0.10	0.04
and	215.25	225.60	10.35	0.05
incl.	220.60	221.60	1.00	0.12
and	242.00	253.00	11.00	0.12
incl.	243.00	244.00	1.00	0.25
incl.	246.00	251.00	5.00	0.15
and	270.95	273.95	3.00	0.07
and	296.75	304.50	7.75	0.03
JL07-061	126.37	141.39	15.02	0.15
incl.	126.37	133.37	7.00	0.21
and	172.04	172.52	0.48	0.08
and	224.11	229.96	5.85	0.06
incl.	228.96	229.96	1.00	0.17
and	233.96	234.96	1.00	0.56
and	237.96	238.96	1.00	0.04
and	256.36	257.11	0.75	0.15

and	288.95	293.20	4.25	0.18
JL07-062	164.00	190.00	26.00	0.11
incl.	166.00	168.00	2.00	0.14
incl.	174.00	177.00	3.00	0.21
incl.	180.00	181.00	1.00	0.20
incl.	188.00	189.00	1.00	0.19
and	230.00	233.00	3.00	0.11
incl.	232.00	233.00	1.00	0.19
JL07-063	104.00	119.55	15.55	0.05
incl.	104.00	105.00	1.00	0.09
incl.	114.00	115.00	1.00	0.14
incl.	116.00	117.00	1.00	0.12
and	137.00	138.00	1.00	0.03
and	184.50	195.22	10.72	0.04
and	215.50	232.00	16.50	0.06
incl.	217.50	218.50	1.00	0.11
incl.	226.00	227.00	1.00	0.16
and	256.50	265.00	8.50	0.04
incl.	260.50	261.50	1.00	0.10
and	277.00	280.00	3.00	0.05
incl.	278.00	279.00	1.00	0.07
and	283.00	285.00	2.00	0.03
and	298.00	304.00	6.00	0.09
incl.	299.00	300.00	1.00	0.17
incl.	302.00	303.00	1.00	0.15
and	322.50	324.50	2.00	0.06
JL07-064	No samples taken			
JL07-065	119.00	135.50	16.50	0.09
incl.	119.00	121.00	2.00	0.20
incl.	124.00	127.47	3.47	0.19
and	263.00	264.00	1.00	0.04
and	269.00	270.00	1.00	0.04
and	274.50	284.31	9.81	0.07
incl.	281.00	284.31	3.31	0.12
JL07-066	370.00	412.50	42.50	0.12
incl.	370.00	373.00	3.00	0.23
incl.	374.40	375.00	0.60	0.19
incl.	384.00	385.00	1.00	0.17
incl.	387.50	390.85	3.35	0.37
incl.	392.50	397.50	5.00	0.27
incl.	400.50	401.50	1.00	0.15
incl.	404.50	406.50	2.00	0.20
JL07-067	155.81	158.00	2.19	0.05
and	169.75	173.50	3.75	0.03
and	199.50	206.00	6.50	0.05
and	387.53	388.03	0.50	0.04
JL07-068	52.50	53.00	0.50	0.09
and	149.10	169.10	20.00	0.08
incl.	149.10	154.10	5.00	0.13
and incl.	161.10	163.10	2.00	0.15

and incl.	166.10	168.10	2.00	0.16
and	172.10	173.10	1.00	0.04
and	185.80	188.10	2.30	0.08
and	197.10	209.77	12.67	0.04
incl.	205.10	206.10	1.00	0.10
and	273.00	274.00	1.00	0.05
and	278.00	279.00	1.00	0.08
and	299.00	301.00	2.00	0.10
JL07-069	279.35	280.35	1.00	0.04
and	306.50	307.50	1.00	0.05
JL07-070	401.00	418.00	17.00	0.12
incl.	408.00	412.00	4.00	0.27
JL07-071	113.50	114.50	1.00	0.04
and	338.00	340.00	2.00	0.05
and	343.00	344.00	1.00	0.07
and	374.00	376.00	2.00	0.14
and	468.00	471.00	3.00	0.06
JL07-072	No samples taken			
JL07-073	346.00	347.00	1.00	0.05
and	359.00	396.09	37.09	0.05
incl.	359.00	360.00	1.00	0.12
incl.	373.00	375.00	2.00	0.09
JL07-074	362.00	364.00	2.00	0.04
and	371.00	375.00	4.00	0.03
and	379.00	380.00	1.00	0.04
and	386.00	389.00	3.00	0.04
JL07-075	472.00	473.00	1.00	0.03
and	503.50	504.50	1.00	0.03
JL07-076	374.00	378.00	4.00	0.05
and	380.00	381.00	1.00	0.04
and	384.00	391.00	7.00	0.05
incl.	389.00	390.00	1.00	0.11
and	398.00	400.00	2.00	0.04
and	411.00	421.00	10.00	0.11
incl.	412.00	413.00	1.00	0.17
incl.	416.00	419.00	3.00	0.23
JL07-077	No samples taken			
JL07-078	555.00	562.00	7.00	0.11
incl.	559.00	561.00	2.00	0.21
and	565.00	566.00	1.00	0.05
and	572.10	581.30	9.20	0.08
incl.	572.10	574.00	1.90	0.13
incl.	579.00	580.00	1.00	0.11
JL07-079	372.00	372.26	0.26	0.07

Summary of 2007 Melody Hill Assay Composites

Hole ID	From(m)	To(m)	Interval(m)	%U3O8
cut off grade 0.03% U3O8				
ML07-001	NSV			
ML07-002	NSV			
ML07-003	NSV			
ML07-004	NSV			
ML07-005	NSV			
ML07-006	NSV			
ML07-007	41.35	42.05	0.7	0.073
ML07-008	NSV			
ML07-009	NSV			
ML07-010	NSV			
ML07-011	52.29	53.29	1	0.054
and	60.41	61.41	1	0.105
and	108.81	109.44	0.63	0.089
ML07-012	NSV			
ML07-013	NSV			
ML07-014	NSV			

Summary of 2007 Aurora Corridor Assay Composites

Hole ID	From (m)	To (m)	Interval (m)	%U_3O_8
cut off grade 0.03% U_3O_8				
AR07-001	22.32	23.32	1.00	0.05
and	26.32	27.32	1.00	0.03
and	30.07	30.82	0.75	0.08
AR07-002	37.00	39.00	2.00	0.11
incl	37.00	38.00	1.00	0.15
and	46.00	50.50	4.50	0.08
incl	49.00	50.50	1.50	0.19
and incl	50.00	50.50	0.50	0.48
AR07-003	34.80	35.30	0.50	0.03
AR07-004	No samples taken			
AR07-005	44.80	45.15	0.35	0.10
and	48.27	48.95	0.68	0.07
AR07-006	No samples taken			
AR07-007	No samples taken			
AR07-008	34.95	36.66	1.71	0.10
incl	34.95	35.66	0.71	0.15
and	40.53	41.00	0.47	0.04
AR07-009	49.95	52.45	2.50	0.10
incl	49.95	50.95	1.00	0.19
and	70.43	71.43	1.00	0.05
AR07-010	17.05	21.55	4.50	0.06
incl	20.05	21.55	1.50	0.11
AR07-011	23.05	30.05	7.00	0.07

incl	23.55	24.05	0.50	0.11
incl	28.05	30.05	2.00	0.14
and	30.70	31.35	0.65	0.04
and	53.73	54.48	0.75	0.08
AR07-012	21.00	23.00	2.00	0.05

Summary of 2007 Burnt Brook Assay Composites

Hole ID	From (m)	To (m)	Interval (m)	% U_3O_8
cut off grade 0.03% U_3O_8				
BB07-001	5.75	12.75	7.00	0.05
incl	6.75	7.75	1.00	0.17
and	20.50	21.50	1.00	0.03
and	24.50	26.50	2.00	0.07
BB07-002	1.52	3.50	1.98	0.09
incl	1.52	2.50	0.98	0.11
BB07-003	1.52	6.25	4.73	0.06
incl	4.25	5.25	1.00	0.10
and	15.05	17.23	2.18	0.05
and	21.10	22.10	1.00	0.04
BB07-004	4.00	5.00	1.00	0.06
BB07-005	36.00	37.00	1.00	0.04
BB07-006	127.00	128.00	1.00	0.03
BB07-007	NSV			
BB07-008	14.50	18.50	4.00	0.04
incl	14.50	15.50	1.00	0.08
incl	17.50	18.50	1.00	0.08
BB07-009	No samples taken			
BB07-010	36.50	37.50	1.00	0.04
NSV = No Significant Results				

Summary of 2007 Gayle Assay Composites

Hole ID	From (m)	To (m)	Interval (m)	%U_3O_8
cut off grade 0.03% U_3O_8				
GL07-001	NSV			
GL07-002	26.00	27.00	1.00	0.03
and	60.00	63.00	3.00	0.04
GL07-003	NSV			
GL07-004	No Samples Taken			
GL07-005	No Samples Taken			
GL07-006	96.00	97.00	1.00	0.05
and	98.00	99.00	1.00	0.03
and	100.00	103.00	3.00	0.06
incl	100.00	101.00	1.00	0.10
GL07-007	82.25	82.75	0.50	0.06
GL07-008	No Samples Taken			
NSV = No Significant Results				

Summary of 2007 Gear Assay Composites

Hole ID	From(m)	To(m)	Length(m)	% U_3O_8
cut off 0.03%U_3O_8				
G07-004	NSV			
G07-005	346.00	369.00	23.00	0.10
incl.	358.00	368.00	10.00	0.17
and incl.	361.00	367.00	6.00	0.22
and incl.	363.00	364.00	1.00	0.45
G07-007A	320.17	330.00	9.83	0.13
incl.	328.00	329.00	1.00	0.27
G07-008	NSV			
NSV = No Significant Results				

Summary of 2007 Inda Assay Composites

Hole ID	From(m)	To(m)	Interval(m)	% U_3O_8	Ag_gpt
cut off 0.03%U_3O_8					
I07-002	180.00	181.00	1.00	0.04	NSV
and	183.00	185.00	2.00	0.07	NSV
and	271.00	276.00	5.00	0.08	NSV
incl.	271.00	272.00	1.00	0.11	NSV
and	274.00	275.00	1.00	0.10	NSV
and	285.00	286.00	1.00	0.07	NSV
and	297.00	301.00	4.00	0.07	NSV
incl.	300.00	301.00	1.00	0.18	NSV
and	311.00	313.00	2.00	0.11	NSV
and	318.00	320.00	2.00	0.16	NSV
incl.	318.00	319.00	1.00	0.23	NSV
and	330.00	331.00	1.00	0.03	NSV
and	339.00	345.00	6.00	0.05	NSV
and	347.00	348.00	1.00	0.03	NSV
and	361.36	364.00	2.64	0.06	NSV
and	368.00	370.00	2.00	0.05	NSV
and	373.00	374.00	1.00	0.05	NSV
I07-003	126.00	130.00	4.00	0.08	NSV
incl.	128.00	129.00	1.00	0.16	NSV
I07-004	156.00	163.00	7.00	0.08	NSV
incl.	160.00	162.00	2.00	0.14	NSV
and	165.00	166.00	1.00	0.05	NSV
and	170.00	171.00	1.00	0.05	NSV
I07-005	108.00	109.00	1.00	0.04	NSV
and	133.00	134.00	1.00	0.05	NSV
and	147.00	148.00	1.00	0.04	NSV
I07-006	139.00	163.00	24.00	0.05	NSV
incl.	142.00	143.00	1.00	0.12	NSV
incl.	151.00	152.00	1.00	0.10	42.60
and	166.00	167.00	1.00	0.04	NSV
and	246.00	248.00	2.00	0.05	NSV
and	261.00	263.00	2.00	0.04	NSV
I07-007	247.00	248.00	1.00	0.04	NSV

and	284.00	290.00	6.00	0.04	NSV
and	303.00	309.50	6.50	-	148.00
and	305.00	306.00	1.00	0.07	NSV
and	310.05	311.00	0.95	0.11	NSV
I07-008A	243.00	244.00	1.00	0.05	NSV
and	310.00	311.00	1.00	0.06	NSV
and	358.00	360.00	2.00	0.04	NSV
and	381.00	382.00	1.00	0.03	NSV
and	425.00	427.00	2.00	0.13	NSV
incl.	425.00	426.00	1.00	0.17	NSV
and	437.00	443.00	6.00	0.08	NSV
incl.	440.00	441.00	1.00	0.14	NSV
incl.	442.00	443.00	1.00	0.12	NSV
NSV = No Significant Results					

Summary of 2007 Nash Assay Composites

Hole ID	From(m)	To(m)	Interval(m)	% U_3O_8
cut off 0.03% U_3O_8				
N07-003	194	195	1	0.03
N07-004	278	279	1	0.06
N07-005	218	222	4	0.11
incl.	219	220	1	0.34
N07-006	355	356	1	0.08
and	361	365	4	0.08
incl.	364	365	1	0.11
and	373	374	1	0.11

APPENDIX IV – ACTLABS ANALYTICAL METHODS
ROCK SAMPLE PREPARATION (RX-1)

Rock Sample Preparation Procedure (www.actlabs.com) 0 PRINT EMAIL

To obtain meaningful analytical results, it is imperative that sample collection and preparation be done properly. ACTLABS can advise on sampling protocol for your field program if requested. Once the samples arrive in the laboratory, ACTLABS will ensure that they are prepared properly. As a routine practice with rock and core, the entire sample is crushed to a nominal minus 10 mesh (1.7 mm), mechanically split (riffle) to obtain a representative sample and then pulverized to at least 95% minus 150 mesh (106 microns).

As a routine practice, we will automatically use cleaner sand between each sample at no cost to the customer. Quality of crushing and pulverization is routinely checked as part of our quality assurance program. Randomization of samples in larger orders (>100) provides an excellent means to monitor data for systematic errors. The data is resorted after analysis according to sample number. Please request **Code Random (additional $1.00/sample)** if you prefer randomization.

Samples submitted in an unorganized fashion will be subject to a sorting surcharge and may substantially slow turnaround time. Providing an accurate detailed sample list by e-mail will also aid in improving turnaround time and for Quality Control purposes. Additional charges may apply for poorly organized batches. **Code CP2** - Sample list not provided for orders over 25 samples **($0.25/sample); Code CP3** - Sorting chaotic shipments **($0.50/sample)**.

Code	***Description***	***Price (USD)***
Code RX1	*crush up to 75% passing 2 mm, split (250 g) and pulverize (hardened steel) to 85% passing 75m (< 5 kg)*	*$6.50*
Code RX1 Terminator	*crush up to 90% passing 2 mm, split (250 g) and pulverize (hardened steel) to 85% passing 75m (< 5 kg)*	*$7.25*
Code RX2	*crush, split and pulverize with mild steel (100 g) (best for low contamination)*	*$6.75*
Code RX3	*oversize charge per kilogram (if required)*	*$1.50*
Code RX4	*pulverization only (mild steel) (coarse pulp or crushed rock)*	*$5.00*
Code RX5	*pulverize ceramic (100 g)*	*$12.25*
Code RX6	*hand pulverize small samples (agate mortar and pestle)*	*$12.25*
Code RX7	*crush only (split)*	*$3.75*
Code RX8	*sample prep only surcharge, no analyses*	*$2.00*
Code RX9	*compositing (per composite)*	*$2.00*
Code RX10	*dry drill cuttings in plastic bags*	*$1.75*
Code RX11	*checking quality of pulps or rejects prepared by other labs and issuing report*	*$6.75*

Rock, Core and Drill Cuttings

Note: Larger sample sizes than listed above can be pulverized at additional cost.

Pulverization Contaminants Added

(amount added depends on hardness of material and particle size required)

Mill Type	***Contaminant Added***
Mild Steel (best choice)	*Fe (up to 0.2%)*

Hardened Steel	*Fe (up to 0.2%), Cr (up to 200 ppm), trace Ni, Si, Mn and C*
Ceramic	*Al (up to 0.2%), Ba, trace REE*
Tungsten Carbide	*W (up to 0.1%), Co, C, Ta, Nb and Ti*
Agate	*Si (up to 0.3%), Al, Na, Fe, K, Ca, Mg, Pb*

APPENDIX V – ACTLABS ANALYTICAL METHODS
URANIUM ANALYSIS (5D-U)

Code 5D – Miscellaneous Elements Requiring Specific Methods (www.actlabs.com) PDF PRINT EMAIL

Analysis	*Method*	*Detection Limit*	*Upper Limit*
C-Total	*Infrared*	*0.01%*	
C-Graphitic	*Infrared*	*0.05%*	
C-Organic	*Infrared*	*0.05%*	
F	*ISE*	*100 ppm*	*10,000 ppm*
Li	*Total Digestion ICP*	*1 ppm*	*10,000 ppm*
Sn	*Fusion ICP*	*1 ppm*	*10,000 ppm*
U	***DNC***	***0.1 ppm***	***10,000 ppm***
B-Total	*PGNAA*	*0.5 ppm*	*10,000 ppm*
B-Total	*PGNAA*	*2 ppm*	*10,000 ppm*
Tl	*Total Digestion ICP-MS*	*0.2 ppm*	*10,000 ppm*

Code 5D – C (Organic)

0.5 g of sample is titrated with 25% HCl to drive off the CO2 (inorganic C). The sample is neutralized with ammonium hydroxide and dried on a hot plate. Sample residue is analyzed by LECO Combustion-IR technique to provide a value for total carbon, which is composed of organic C and graphitic C. The graphitic C content is subtracted to provide the organic C content.

Code 5D – C (Graphitic)

0.5 g of sample is ignited at 1,000°C to drive off organic and inorganic carbon (CO2). The residue is analyzed by LECO Combustion-IR t o provide a graphitic carbon value.

Code 5D - F

0.5 g samples are fused with sodium hydroxide in an oven at 580°C for 1 hour to release the fluoride ions from the sample matrix. The fuseate is dissolved in sulphuric acid with ammonium citrate buffer. The fluoride-ion electrode is immersed in this solution to measure the fluoride-ion activity directly.

Code 5D - B

1 g samples are encapsulated in a polyethylene vial and placed in a thermalized beam of neutrons produced from a nuclear reactor. Samples are measured for the doppler broadened prompt gamma ray at 478 KeV using a high purity GE detector. Samples are compared to certified reference materials used to calibrate the system.

APPENDIX VI – ACTLABS ANALYTICAL METHODS
MULTI-ELEMENT ANALYSIS (1E3)

Code 1E1/1E3** – Aqua Regia - ICP-OES (www.actlabs.com)

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0.5 g of sample is digested with aqua regia (0.5 ml H_2O, 0.6 ml concentrated HNO_3 and 1.8 ml concentrated HCl) for 2 hours at 95°C. Sample is cooled then diluted to 10 ml with deionized water and homogenized. The samples are then analyzed using a Perkin Elmer OPTIMA 3000 Radial ICP for the 30 element suite. A matrix standard and blank are run every 13 samples. For vegetation a 0.25 g sample is used.

A series of USGS-geochemical standards are used as controls. This digestion is near total for base metals however will only be partial for silicates and oxides.

Code 1E1 Elements and Detection Limits (ppm)

Element	*Detection Limit*	*Upper Limit*
*Ag**	*0.2*	*100*
*Al**	*0.01%*	
*As**	*10*	
*Ba**	*1*	
*Be**	*1*	
Bi	*10*	
*Ca**	*0.01%*	
Cd	*0.5*	*2,000*
*Co**	*1*	
*Cr**	*2*	
Cu	*1*	*10,000*
*Fe**	*0.01%*	
*K**	*0.01%*	
*Mg**	*0.01%*	
*Mn**	*2*	*10,000*
*Mo**	*2*	*10,000*
*Na**	*0.01%*	
*Ni**	*1*	*10,000*
*P**	*0.001%*	
*Pb**	*2*	*5,000*
*S**	*100*	
*Sb**	*10*	
*Sc**	*1*	
*Sn**	*10*	
*Ti**	*0.01%*	
*V**	*1*	
*W**	*10*	
*Y**	*1*	
*Zn**	*1*	*10,000*
*Zr**	*1*	

Notes:* Element may only be partially extracted.

**** 1E3 includes B, Ga, Hg, La, Sb, Sr, Tl and U but includes Sn, Y, and Zr.**

*** Assays are recommended for values which exceed the upper limits.

APPENDIX VII – ALS CHEMEX ANALYTICAL METHODS
URANIUM ANALYSIS (ME-XRF05)

Pressed Pellet Geochemical Procedure – ME-XRF05

Sample Decomposition: Pressed Powder Pellet (XRF-PPP)
Analytical Method: X-Ray Fluorescence Spectroscopy (XRF)

A finely ground sample powder (10 g minimum) is mixed with a few drops of liquid binder (Polyvinyl Alcohol) and then transferred into an aluminum cap. The sample is subsequently compressed under approximately 30 ton/in^2 in a pellet press. After pressing, the pellet is dried to remove the solvent and analyzed by WDXRF spectrometry for the following elements.

Element	Symbol	Units	Lower Limit	Upper Limit
Arsenic	As	ppm	5	5000
Barium	Ba	ppm	10	10000
Bismuth	Bi	ppm	4	10000
Cerium	Ce	ppm	10	10000
Chromium	Cr	ppm	5	10000
Copper	Cu	ppm	10	10000
Gallium	Ga	ppm	4	10000
Lanthanum	La	ppm	10	10000
Molybdenum	Mo	ppm	4	10000
Niobium	Nb	ppm	2	10000
Nickel	Ni	ppm	10	15000
Rubidium	Rb	ppm	2	10000
Antimony	Sb	ppm	4	10000
Selenium	Se	ppm	2	10000
Tin	Sn	ppm	5	10000
Strontium	Sr	ppm	2	10000
Tantalum	Ta	ppm	10	10000
Thorium	Th	ppm	4	10000
Titanium	Ti	ppm	5	10000
Uranium	U	ppm	4	10000
Tungsten	W	ppm	10	10000
Yttrium	Y	ppm	2	10000
Zirconium	Zr	ppm	2	10000
Zinc	Zn	ppm	10	10000

APPENDIX VIII – ALS CHEMEX ANALYTICAL METHODS
URANIUM ANALYSIS (ME-XRF05)

Ore Grade Analysis by XRF – ME-XRF10

Sample Decomposition: Lithium Metaborate or Tetraborate Fusion* (WEI-GRA06)

Analytical Method: X-Ray Fluorescence Spectroscopy (XRF)

A prepared sample (1.000 g) is added to lithium metaborate or tetraborate flux (9.000 g), mixed well and fused in a furnace at 1100°C. A flat glass disc is prepared from the resulting melt. This disc is then analyzed by X-ray fluorescence spectrometry.

Element	Symbol	Units	Lower Limit	Upper Limit
Barium	Ba	%	0.01	50
Tin	Sn	%	0.01	60
Tungsten	W	%	0.01	50
Zirconium	Zr	%	0.01	50
Iron**	Fe_2O_3	%	0.01	100
Potassium**	K_2O	%	0.01	100
Magnesium**	MgO	%	0.01	100
Sodium**	Na_2O	%	0.01	100

** Elements reported as oxide

Elements listed below are available upon request

Element	Symbol	Units	Lower Limit	Upper Limit
Tungsten*	WO_3	%	0.01	60

*Note: For samples that are high in sulphides, we may substitute a peroxide fusion in order to obtain better results.

APPENDIX IX - SAMPLING PROTOCOL

The following protocol outlines the procedure that will be applied to sampling drill core at the CMB Uranium Property. The geologist in charge of logging and/or geotechnical assistant will be responsible for adhering to the following protocol:

Pre-logging

- Inspection of core boxes, for missing boxes and footage errors.
- Digital photographs will be taken of all core boxes and
- RQD and core loss will be noted.

Logging

- Notes will be collected on rock units, alteration, structure, mineralization and recorded on paper logging forms and then transferred into Excel spread sheets

Sampling

- Standardized sample booklets will be utilized at all times. All booklets will be marked up, prior to use, with the standards, blanks and duplicates clearly defined.
- Standards and blanks and duplicates (1/4 core) will be entered every 25th sample in the sample stream.
- All holes will be sampled where deemed radioactive with hand-held scintillometer or at the discretion of the geologist. Typical samples lengths will be 0.5-1.5 m.
- The beginning of a sample will be clearly marked with a black marker, by a line perpendicular to the core with the sample tag placed at the beginning of the sample.
- For each sample interval, all required parts (‘From-To’) of the standard sample card will be filled in and half of the sample number tag will be placed at the starting point of the sample interval in the core box.
- The second half of the tag will be put into the sample bag (labeled on both sides with the sample number) by the splitter when he is taking the sample.

Double-Check

- The geologist will double-check that all of the samples collected are properly labeled with the sample tags inside of the sample bags.

Scintillometer Readings

- Scintillometer measements will be recorded by taking each piece of core from the core box and scanning the individual pieces with the scintillometer. This is done to minimize background readings generated by the mass of core present in the core box. The maximum value is measured in each 3 m “run” of core will be recorded, as will the average of values recorded.

Magnetic Susceptibility Readings

- Magnetic susceptibility readings will be collected every m, roughly corresponding to the top, middle, and bottom of each 3 m “run” of core.

APPENDIX X - QA/QC SAMPLING

At the CMB Uranium Property, the insertion of "blind" quality control samples takes place in the core shack before samples are shipped to the lab. These samples inserted on a routine basis and are used to check laboratory quality and cleanliness**.** At the beginning of sampling, sample tags are pre-marked with locations for standards, duplicates and blanks before logging.

Duplicate samples

- Duplicates are taken every 25 samples within the sample series. Duplicate samples are used to monitor sample batches for potential mix-ups and monitor the data variability as a function of both laboratory error and sample homogeneity. The duplicate samples are ¼ spilt cores done on site before the sample leaves camp.

Blanks

- Non-mineralized material from the Michel Gabbro was used as a blank, where material was collected from an outcrop in the project area, broken with a hammer and inserted into the sample series every 25 samples.

Standards

- Standards were used to test the accuracy of the assays and to monitor the consistency of the laboratory. A total of five different standards were purchased the Canadian Certified Reference Materials Project, Natural Resources Canada, for use during the 2005 CMB Regional Program. The standards chosen were designed to test the accuracy of the assays from low, 220 ppm uranium, through to high grade, 10,200 ppm uranium. Standards were inserted into the sample series every 25 samples.

Check Samples:

- 5% of all assayed sample pulps are being sent to ALS Chemex in Vancouver, B.C. for analysis. This approach identifies variations in analytical procedures between laboratories, possible sample mix-ups, and whether substantial biases have been introduced during the course of the project.

Analyzing Data

- Results of the standards and the blanks are checked and reviewed quickly after results are received. Control charts are used to monitor the data and decide immediately whether the results are acceptable.