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# **TECHNICAL REPORT ON THE CENTRAL MINERAL BELT URANIUM PROJECT, LABRADOR, CANADA**

## **PREPARED FOR CROSSHAIR EXPLORATION & MINING CORP.**

**Report for NI 43-101**

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# **1 SUMMARY**

## **EXECUTIVE SUMMARY**

Lacroix & Associates (L&A) was retained by Mr. Mark Morabito, President of Crosshair Exploration & Mining Corp. (Crosshair), to prepare an independent Technical Report on the Central Mineral Belt Uranium Project (CMB Project) near Goose Bay Labrador in support of an updated resource estimate on the C Zone. Mr. Barry Cook, Consulting Geologist visited the property from September 19<sup>th</sup> to 22<sup>nd</sup> 2006.

Crosshair has completed an initial exploration and drilling program for the CMB Uranium project for which L&A produced a resource estimate for the C Zone. For the purpose of the resource estimate, the Moran Lake deposit has been modeled as two separate zones. The Upper C Zone (UC) is composed of a number of narrow vein-like structures that cannot be modeled individually utilizing the drill data available to date. Consequently, the geological model is based on a wireframe or solid model of a mineralized envelope utilizing an external cut-off of about 0.01%  $U_3O_8$ . The Lower C Zone (LC) is substantially more discrete and has been modeled as a sheet-like mineralized envelope.

The estimate for the UC Zone contains an indicated mineral resource totalling 3.75 million t at a grade of 0.039 %  $U_3O_8$  or 3.19 million pounds of  $U_3O_8$ . An additional resource of 4.29 million t at a grade of 0.027 %  $U_3O_8$  or 2.52 million pounds of  $U_3O_8$  has been estimated for the inferred category. These estimates are reported at a block cut-off of 0.015%  $U_3O_8$ , which L&A considers appropriate for the location and cost profile that can be expected for open pit mining at Moran Lake. The estimate for the LC Zone contains an inferred mineral resource totalling 2.03 million t at a grade of 0.046 %  $U_3O_8$  or 2.07 million pounds of  $U_3O_8$ . These estimates are reported at a block cut-off of 0.035%  $U_3O_8$ , which L&A considers appropriate for the location and cost profile that can be expected for narrow-vein underground mining at Moran Lake.

CIM definitions (December 2005) were followed for the classification of the mineral resources. L&A estimates an average drill spacing of 45 m in the UC Zone and 92 m in the LC Zone. L&A considers the spacing in the UC Zone sufficient to classify most blocks within the core of the drilling as indicated. The Inferred portion occupies the fringes of the deposit as well as at depth where a number of holes failed to penetrate the deeper areas of the UC Zone. Drilling in the LC Zone is too widely spaced to justify classifying any portion as indicated. None of the blocks are classified as measured.

The UC is open along strike to the northeast and down-dip of the drill hole M1-76, which intersected 10.45 m grading 0.076%  $U_3O_8$  including 2.50 m grading 0.234%  $U_3O_8$ . The LC Zone is open towards the southwest and down dip and good potential exists to expand both resources.

Further exploration potential also exists in Area 1, the B Zone, Armstrong, Blue Star, Moran Heights, Croteau Lake, Madsen Lake, Dominion and Area 51. Details on these areas can be found in the in the body of the report.

Crosshair has proposed a budget totalling \$8,940,000 to continue exploration and development of the property. Drilling is proposed to infill the Upper and Lower C Zones on a 50 m grid in addition to further testing at depth and along strike to the northeast and to the southwest. Drilling is also recommended further along strike to the southwest where anomalous zones have been drilled at Area 1. The current program will include additional mapping and prospecting, particularly in the central/southern area of the property which is underlain by the Sylvia Lake Formation. Additional gravity, EM and IP surveys are planned to further delineate IOCG type targets. Drilling is also recommended for Croteau Lake and Moran Heights.

## **TECHNICAL SUMMARY**

The CMB Project, formerly referred to as the Moran Lake Property, comprises 27 Exploration licences containing 2,999 map-staked mineral claims with an aggregate area of 74,975 ha located in NTS areas 13K/2, 13K/3, 13K/6, 13K/7, 13K/10 13K/11 and

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13L/02. The southwest end of Lady Lake, which is just north of the C Zone mineralization, is at 54° 29" N Lat and 60° 57" W Long. The claims include 254 that were acquired from prospectors Lewis and Noel Murphy, 56 acquired from Triassic Properties Ltd. 2,550 that were staked by Crosshair between November 2004 and June 2007 and 139 claims acquired under an option agreement with Belmont Resources Inc. and International Montoro Resources Inc.

The various Map-Staked Licences were issued from July 2002 to July 2007. A total of \$21,000 in eligible exploration expenditures must be spent by May 3, 2008 on licence 13427M, which was staked in May 2007, \$2,200 on licence 13332M by April 12, 2008 which was staked in April 2007 \$1,000 on licence 13634M by July 5, 2008, and \$2,000 on licence 13635M by July 5, 2008, both of which were staked in June 2007. All other licences have sufficient exploration expenditures to keep them in good standing until at least 2010.

The CMB Project is located in the Central Mineral Belt of Labrador, about 140 km north of the town of Happy Valley-Goose Bay and 85 km southwest of the coastal community of Postville on Kaipokok Bay. Helicopter and float plane service out of Goose Bay is the most efficient means of access to the property. Most necessary goods and services, including charter aircraft, can be obtained in Goose Bay, which has excellent commercial airline connections to St. John's, Halifax and Montreal.

Crosshair can earn a 90% interest in the 254 Murphy claims by spending \$3.0M on exploration and by paying the vendor, Lewis Murphy, a total of \$525,000 in cash and issuing 1.5M shares over the five year term of the earn-in agreement. The vendor retains a 2% NSR and a 10% carried interest in the property plus an area of interest that extends for 4 km outward from the current property boundary. Crosshair has met or exceeded its current commitments under the agreement which remains in good standing.

In December 2005, Crosshair entered into an agreement with Triassic Properties Ltd. in which Crosshair has the right to earn a 100% interest in 56 claims within the CMB Project, by completing \$600,000 in expenditures, issuing 225,000 Crosshair shares and

paying an aggregate of \$140,000 to the vendor over a three year period subject to a 1.5% net smelter royalty.

In May 2007, Crosshair entered into an agreement with Belmont Resources Inc. and International Montoro Resources Inc. whereby Crosshair has the option to earn a 75% interest in 139 additional claims comprising four different mineral licences in the Central Mineral Belt of Labrador totalling 34.75 km<sup>2</sup>. Three of the licences, referred to as the Stormy Lake block, are contiguous with the southern boundary of the CMB Project, while the other licence, referred to as the Partridge River block, is situated approximately 95 km west of the property. Under the terms of the agreement, Crosshair may earn a 75% interest in the claims by carrying out \$800,000 in exploration expenditures and issuing 175,000 common shares to the vendors over a three year period.

Uranium was first discovered near Moran Lake by British Newfoundland Exploration Limited (Brinex) who conducted prospecting, geological mapping and radiometric surveying in the area from 1956 to 1958. Various companies worked the area through to 1969 after which it lay idle until Commodore Mining Company Limited (Commodore) was granted a license to the area in 1976. Shell Canada Resources Limited (Shell) worked the property under option for three years but abandoned it in 1980. Lewis Murphy acquired the Moran Lake claims in 2003 and in October 2004 optioned the ground to Crosshair.

The CMB Project lies near the junction of three tectonic boundaries, where the Grenville front overprints the northeast trending boundary between the Nain and Makkovik tectonic Provinces and with the Churchill tectonic Province to the west. Basement to the area is Archean gneiss of the Nain craton. In the Early Paleoproterozoic these gneisses were unconformably overlain by a series of pillow basalts and shale-sandstone sequences belonging to the approximately equivalent Moran Lake and Lower Aillik groups (ca. 2100 to 2000 Ma) (Wardle, 2005). Both the Lower Aillik and Moran Lake groups are interpreted to have formed on a passive, south-facing continental margin (Ketchum et al, 2002).



The Lower Aillik Group is tectonically overlain by subaerial, rhyolitic ash-flow tuff and volcanoclastic rocks of the Upper Aillik Group (1860 Ma to 1807 Ma), interpreted to have been deposited in a back-arc or rifted back-arc environment (Gower et al, 1982) (Ketchum et al, 2002). Felsic subaerial volcanic and volcanoclastic rocks of the Upper Aillik Group host the Michelin deposit on the Aurora Energy Resources Inc. property 50 km to the east.

The Lower and Upper Aillik Groups, and the Archean basement to the north have been intruded by a number of granitic plutonic suites that fall into three general age intervals, 1895 Ma to 1870 Ma, 1815 Ma to 1790 Ma and 1720 Ma to 1715 Ma.

Makkovikian deformation occurred intermittently through the area between 2.0 Ga and 1.7 Ga. Peak regional deformation occurred between 1.81 Ga and 1.78 Ga with associated northerly directed overthrusting and major sinistral and dextral shearing along the Moran Lake-basement contacts. Following a period of tectonic quiescence, the area was intruded in the Late Paleoproterozoic by the voluminous granitoid and lesser mafic plutons of the Trans-Labrador Batholith, from 1,650 Ma to 1,640 Ma. Subaerial felsic volcanic rocks of the Bruce River Group, which occur on the property and to the southwest, are considered magmatically coeval with the Trans-Labrador Batholith.

The local geology comprises Archean granitoid rocks unconformably overlain by Early Paleoproterozoic submarine volcanic and sedimentary rocks of the Moran Lake Group, which are in turn overlain unconformably by the late Paleoproterozoic continental sediments and subaerial volcanics of the Bruce River Group. The Moran Lake stratigraphy was deformed during the Makkovikian Orogeny and after a hiatus of about 500 Ma without sedimentary record, the Bruce River Group was deposited above the deformed Moran Lake stratigraphy.

Archean rocks on the property are represented by massive to gneissose granodiorite of the Archean Kanairiktok Intrusive Suite

The Moran Lake Group consists of shale, arkose, plus minor dolostone and iron formation of the basal Warren Creek Formation, which is overlain by pillowed basalts belonging to the Joe Pond Formation. The Warren Creek Formation rocks are thickest in the south-western end of the Moran Lake Group whereas Joe Pond Formation rocks are more extensive in the northeast.

The Bruce River Group consists of a basal, polymictic conglomerate and sandstone of the Heggart Lake Formation overlain by polymictic conglomerate and tuffaceous sandstone of the Brown Lake Formation. The uppermost and thickest unit of the Group is the Sylvia Lake Formation, a bimodal, potassic calc-alkaline assemblage of predominantly subaerial volcanic rocks which are coeval with the plutons of the Trans Labrador Batholith. Northerly directed compression during the Grenville orogenic event folded the Bruce River Group into a northeast-trending, open, upright syncline.

This area was affected by the Pleistocene Wisconsin glaciation with ice directions to the east and northeast at the northern extent and to the southeast in the south. Much of the area has a veneer of ground moraine and boulder tills. Several eskers that occur in the southern part of the area indicate Pleistocene river drainage systems.

The CMB Project was staked in a configuration to cover as much mineralized Paleoproterozoic stratigraphy as was available. This encompasses mostly rocks of the Moran Lake Group and the unconformably overlying Bruce River Group, which contain known occurrences of uranium, Cu, Pb, Zn, Ag, Fl, pyrite and hematite.

The uranium mineralization is structurally controlled, typically hosted within fracture systems and to a lesser extent within shear zones. In outcrop it is clear that local faulting, brecciation and alteration, all of uncertain age, are associated with the U-Cu mineralization at the Moran Lake C Zone and Area 1. The mineralization is epigenetic, and concentrated in sedimentary rocks of the Heggart Lake Formation, Bruce River Group as well as in the unconformably underlying mafic volcanics of the Joe Pond Formation, Moran Lake Group. The most striking visual aspect of the mineralized mafic volcanic rocks is the occurrence of strong hematitic alteration accompanied by

pronounced brecciation as well as lesser chloritization and bleaching/ iron carbonatization, the latter showing up well on weathered surfaces. Closer inspection of both sedimentary and mafic volcanic outcrops frequently reveals local zones of silicification, bleaching, a weak foliation in the rock and some dramatic breccias in the mafic volcanics. In some outcrop, intense alteration can completely mask any primary textures, which makes it very difficult to determine the protolith. Lack of clean and continuous outcrop obscures the relationships between the secondary events recorded but it is evident that there has been a prolonged, and perhaps repetitive, sequence of structurally-related alteration events imposed on a large volume of rock in some areas of the CMB Project.

The Moran Lake C Zone currently represents the most advanced uranium prospect within the project. Drilling at the C Zone has identified two main zones of mineralization, the Upper C and Lower C. The mineralization in the UC is hosted within brecciated, hematite altered and/or bleached mafic volcanics and hematitic cherts of the Joe Pond Formation, while mineralization in the LC is predominantly hosted within chloritized (reduced) sandstones of the Heggart Lake Formation.

The uranium mineralization in the UC is fracture-controlled and hosted within red to orange, hematized, silicified and brecciated sections of mafic volcanic rocks and in brecciated hematitic chert. Typically the uranium mineralization occurs as fine grained disseminated or dusty black patches of uraninite locally with associated chalcopyrite and typically with dark green- to black chlorite, all which infill small fractures or networks of fractures through brecciated rocks.

Vanadium mineralization is also typical of the UC. The occurrence of vanadium mineralization can coincide with, but is not restricted to zones of uranium mineralization. It is dominantly hosted by strongly altered dark maroon, hematized, silicified and brecciated mafic volcanic rocks.

The uranium mineralization of the LC is predominately found in sections of chlorite altered, green, reduced, sandstone that typically occurs above the Aphebian/Helikian

unconformity. The unconformity dips gently to moderately to the south-southeast. Mineralization is hosted within fractures, in patches that are overprinted by dark maroon hematite alteration, and in rare cases, appears to be hosted in the sandstone matrix. The reduced sandstones containing the LC mineralization also locally carry sulphides, mainly pyrite, in concentrations ranging from trace to 2%.

Examples of some of the better intersections from the C Zone range from 30.30 m averaging 0.134%  $U_3O_8$  and 0.158%  $V_2O_5$  from ML-20; to 28.90 m averaging 0.141%  $U_3O_8$  and 0.117%  $V_2O_5$  from ML-32 including 3.60 m grading 1.016%  $U_3O_8$ . Examples of copper and silver enriched intersections include ML-9 which returned 6.03 m averaging 0.107%  $U_3O_8$ , 0.102%  $V_2O_5$ , 9.3 g/t Ag and 0.202% Cu, and ML-10 which returned 1.46 m averaging 0.821%  $U_3O_8$ , 0.201%  $V_2O_5$ , 27.3 g/t Ag and 0.358% Cu.

Examples of some of the better intersections from the LC include: 11.00m grading 0.042%  $U_3O_8$  in ML-60 and 43.45m averaging 0.041%  $U_3O_8$  including 11.05m averaging 0.128%  $U_3O_8$  from ML-63.

In 2005 Fugro Airborne Surveys conducted a high resolution magnetic and radiometric survey for Crosshair. This survey comprised approximately 7,312 line-km, including 674 line-km of tie lines. In 2006 this survey area was expanded to cover additional ground acquired to the northwest after the completion of the original survey. The airborne survey was successful in identifying numerous radiometric anomalies worthy of ground follow-up.

In late 2005 and early 2006, GeoScott Exploration Consultants Inc. conducted a detailed ground-based gravity survey using a Scintrex CG-5 digital gravity meter over the central portion of the property using the C Zone grid. Results confirmed the presence of a gravity anomaly identified by an earlier airborne survey.

During the summer of 2006 Crosshair mounted an extensive helicopter supported exploration program based out of a camp on Armstrong Lake. The work, designed to follow-up airborne radiometric anomalies particularly where they occur along the

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Proterozoic unconformities, included some combination of prospecting, geological mapping, scintillometer surveys, trenching, sampling and drilling in a number of areas including the C Zone, Armstrong showing, Madsen Lake, Moran Heights, B Zone, Croteau Lake, Dominion, Blue Star, Areas 1, 2, 3, 4 and 51.

In conjunction with the 2006 ground exploration program, Crosshair carried out a drilling program totalling 21,486 m. The 2006 drill program consisted of 137 holes of which 58 tested the UC and to a lesser extent (10 holes of the 58) the LC. The remainder of the holes tested seven other anomalies or showings on the property.

From late January to late April of 2007, Crosshair carried out further drilling at the C Zone as well as limited drilling at the Armstrong and Dominion showings and Area 1. Total drilling in the winter 2007 amounted to 9,410 m in 34 holes. At the C Zone, the 2007 winter drill program completed by Crosshair consisted of 8,211 m in 26 holes. Fifteen of the holes tested both the Upper and Lower C Zones, 6 holes (1,042 m) tested the UC only, and 5 holes (1,166 m) tested the LC. The program expanded the C Zone mineralization along strike and to depth. The program also included the intersection of the thickest and highest grades of uranium reported from the LC. Area 1 is located 1.5 km south east of the C Zone and is considered to occur on the same structure. Recent results include 11.5 m grading 0.110%  $U_3O_8$  in hole ML-A1-16.

During the 2007 winter exploration program, Geoscott Exploration Consultants Inc. and SJ Geophysics completed a ground MaxMin EM survey over an area extending from Armstrong Lake north-eastward about 4.1km covering Area 1, the UC and a portion of the LC. Most of the survey was conducted using a coil spacing of 200m and the remainder at 100m coil spacing. The survey identified a number of anomalies, some of which are related to argillite horizons within the Joe Pond Formation.

In February, 2007, Fugro Airborne Systems was contracted to carry out a helicopter borne EM survey (HeliGEOTEM) over the northern and central portions of the property. The survey, comprising 4,718 line km, utilized an AStar helicopter stationed at Crosshair's Armstrong base camp. The survey was flown at an azimuth of 340 degrees

on lines spaced 100 m apart with a bird height of 30 m above ground. Final results are pending.

During 2005, a ground gravity survey was completed over a portion of the C Zone grid. Eastern Geophysics was contracted during early spring of 2007 to complete the ground gravity survey over the remainder of the C Zone and the B Zone. Preliminary results indicate at least nine anomalous responses. Prior to modelling the anomalies, additional extensions and infill surveying is required.

Preliminary bottle roll metallurgical testing indicates that uranium recovery is excellent with 93% recovered after only 7 hours. Vanadium recovery was 11.4% after only 7 hours, but it is believed that the vanadium recovery will be increased with ongoing testing and revised metallurgical processes. The principle use of vanadium is to increase the strength and wear resistance of steel. Vanadium demand is forecast to continue to grow in line with steel demand.

The current mineral resource estimate for the CMB Project is based on results from 133 diamond drill holes (84 Crosshair holes and 49 historic holes completed by Shell in 1979) within the mineralized zones as well as a number of confining holes around the periphery of the project.

A 3-dimensional block model utilizing ordinary kriging to interpolate grades into each 10m x 10m x 4m high block was used for the resource estimate. The project was modeled as two separate zones. The UC is composed of a number of narrow vein-like structures that cannot be modeled individually utilizing the drill data available to date. Consequently, the geological model is based on a wireframe or solid model of a mineralized envelope utilizing an external cut-off of about 0.01%  $U_3O_8$ . The mineralized envelope is approximately 100 m to 120 m thick and dips towards the southeast at -43 degrees. Based on current drilling, the strike and dip lengths are about 1,200 m and 400 m respectively. The LC is substantially more discrete and has been modeled as a sheet-like mineralized envelope dipping southwest at -25 degrees to -40 degrees. Thickness averages 3.2 m and varies from less than 1.5 m to over 15 m. The strike length based on

current drilling is about 1,200 m while the lens extends about 700 m down dip. The drill spacing averages 45 m in the UC and 92 m in the LC.

Ordinary kriging was utilized to interpolate grades into each block. Those mineral resources classified as indicated are located within the core of the drilling in the UC while the inferred mineral resources are located along the periphery as well as the LC, where drilling is too widely spaced to classify the resources as indicated. The estimates are summarized in Table 1-1.

**TABLE 1-1 INDICATED & INFERRED MINERAL RESOURCES**  
**Crosshair Exploration & Mining – CMB Project**

Zone	Cut-off (%U <sub>3</sub> O <sub>8</sub> )	Kt	%U <sub>3</sub> O <sub>8</sub>	%V <sub>2</sub> O <sub>5</sub>	Kgx1,000	
					U <sub>3</sub> O <sub>8</sub>	V <sub>2</sub> O <sub>5</sub>
UC	0.015	3,747	0.0386	0.077	1,446	2,900
<b>Indicated</b>		<b>3,747</b>	<b>0.0386</b>	<b>0.077</b>	<b>1,446</b>	<b>2,900</b>
UC	0.015	4,288	0.0267	0.063	1,145	2,689
LC	0.035	2,032	0.0461	0.042	937	862
<b>Inferred</b>		<b>6,320</b>	<b>0.0329</b>	<b>0.056</b>	<b>2,082</b>	<b>3,550</b>

For the purposes of the estimates, a specific gravity of 2.83 was used for the UC while a value of 2.73 was used for the LC. Assay values were capped at 1.6% U<sub>3</sub>O<sub>8</sub> for the UC and 0.32% U<sub>3</sub>O<sub>8</sub> for the LC.

## **2 INTRODUCTION AND TERMS OF REFERENCE**

Lacroix & Associates. (L&A) was retained by Mr. Mark Morabito President of Crosshair Exploration & Mining Corp. (Crosshair), to prepare an independent Technical Report on the Central Mineral Belt Uranium Project (CMB Project) near Goose Bay Labrador in support of an updated resource estimate on the UC. This Technical Report conforms to NI 43-101 Standards of Disclosure for Mineral Projects. Mr. Barry Cook, Consulting Geologist visited the property during the period September 19<sup>th</sup> to 22<sup>nd</sup> 2006.

Crosshair is an uranium and gold exploration and development Company with projects in Newfoundland and Labrador involved in the exploration for uranium in the Central Mineral Belt of Labrador. The 750 sq km CMB Project is host to potentially three significant types of uranium mineralization; Iron Oxide Copper Gold (IOCG), (Olympic Dam type), structurally controlled shear zone (Michelin type) and unconformity (Athabaska type).

Scott Wilson RPA previously completed a Technical Report dated November 7, 2005 that supported an initial resource estimate based on historical drilling on the project which was formerly referred to as the Moran Lake Property. This report has been filed on Sedar. The current report documents all activities on the property since September 2005.



### **SOURCES OF INFORMATION**

The site visit was carried out by Independent Consultant, Barry Cook, P. Eng. Discussions were held with personnel from Crosshair including Mr. Timothy Froude, Sr. Vice President Exploration, Mr, Wayne Pickett General Manager Newfoundland and other project geologists on site.

The documentation reviewed, and other sources of information, are listed at the end of this report in Item 21 References.

**TABLE 2-1 LIST OF ABBREVIATIONS**

Units of measurement used in this report conform to the SI (metric) system. All currency in this report is Canadian dollars (CDN\$) unless otherwise noted.

μ	micron	kPa	kilopascal
°C	degree Celsius	kVA	kilovolt-amperes
°F	degree Fahrenheit	kW	kilowatt
μg	microgram	kWh	kilowatt-hour
A	ampere	L	litre
a	annum	L/s	litres per second
bbl	barrels	M	metre
Btu	British thermal units	M	mega (million)
C\$	Canadian dollars	m <sup>2</sup>	square metre
cal	calorie	m <sup>3</sup>	cubic metre
cfm	cubic metres per minute	Min	minute
cm	centimetre	MASL	metres above sea level
cm <sup>2</sup>	square centimetre	Mm	millimetre
d	day	Mph	miles per hour
dia.	diameter	MVA	megavolt-amperes
dmt	dry metric tonne	MW	megawatt
dwt	dead-weight ton	MWh	megawatt-hour
ft	foot	m <sup>3</sup> /h	cubic metres per hour
ft/s	foot per second	opt, oz/st	ounce per short ton
ft <sup>2</sup>	square foot	Oz	Troy ounce (31.1035g)
ft <sup>3</sup>	cubic foot	oz/dmt	ounce per dry metric tonne
g	gram	Ppm	part per million
G	giga (billion)	Psia	pound per square inch absolute
Gal	Imperial gallon	Psig	pound per square inch gauge
g/L	gram per litre	RL	relative elevation
g/t	gram per tonne	S	second
gpm	Imperial gallons per minute	St	short ton
gr/ft <sup>3</sup>	grain per cubic foot	Stpa	short ton per year
gr/m <sup>3</sup>	grain per cubic metre	Stpd	short ton per day
hr	hour	T	metric tonne
ha	hectare	Tpa	metric tonne per year
hp	horsepower	Tpd	metric tonne per day
in	inch	US\$	United States dollar
in <sup>2</sup>	square inch	USg	United States gallon
J	joule	USgpm	US gallon per minute
k	kilo (thousand)	V	volt
kcal	kilocalorie	W	watt
kg	kilogram	Wmt	wet metric tonne
km	kilometre	yd <sup>3</sup>	cubic yard
km/h	kilometre per hour	Yr	year
km <sup>2</sup>	square kilometre		

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

This report has been prepared by L&A for Crosshair. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to L&A at the time of preparation of this report,
- Assumptions, conditions, and qualifications as set forth in this report, and
- Data, reports, and other information supplied by Crosshair and other third party sources.

For the purpose of this report, L&A has relied on opinions on property title provided by Crosshair's legal counsel, Cox and Palmer (March 19, 2008).

## **4 PROPERTY DESCRIPTION AND LOCATION**

The CMB Project is located in NTS areas 13K/2, 13K/3, 13K/6, 13K/7, 13K/10, 13K/11 and 13L/02 within the Naskaupi Electoral District of central Labrador. The southwest end of Lady Lake, which is just north of the C Zone mineralization, is at 54° 29" N Latitude and 60° 57" W Longitude (Figure 4-1).

### **LAND TENURE**

The CMB Project comprises 2,999 map-staked claims covering a total of 74,975 hectares (see Appendix 1, Figure 4-2). The claims include 254 that were acquired from prospectors Lewis and Noel Murphy, 56 acquired from Triassic Properties Ltd. and 2,550 that were staked by Crosshair between November 2004 and June 2007 and 139 claims acquired under an option agreement with Belmont Resources Inc. and International Montoro Resources Inc. For the purpose of this report, L&A has relied on opinions on property title provided by Crosshair's legal counsel, Cox and Palmer (March 19, 2008). Crosshair reports that all mineral claims and leases pertaining to the CMB project are in good standing as at March 19, 2008.

In October 2004, Crosshair entered into an option agreement with prospector Lewis Murphy in which Crosshair may earn an interest in 67 claims in the Central Mineral Belt of Labrador. The agreement was amended in March 2005 to include an additional 187 claims; all 254 claims now constitute a portion of the CMB Project and have been transferred to Crosshair. Under the terms of the amended agreement, Crosshair can earn a 90% interest in the claims by spending \$3,000,000 in eligible exploration expenditures, issuing 1,600,000 Crosshair shares and paying an aggregate of \$575,000 to the vendor over a five year period commencing on the "Approval Date" of the agreement.

Crosshair must also complete a bankable feasibility study for the Commencement of Commercial Production within 24 months of completion of the aforementioned obligations. The vendor will retain a 10% interest in the claims, to be carried fully through to the Commencement of Commercial Production, in addition to a 2% Net

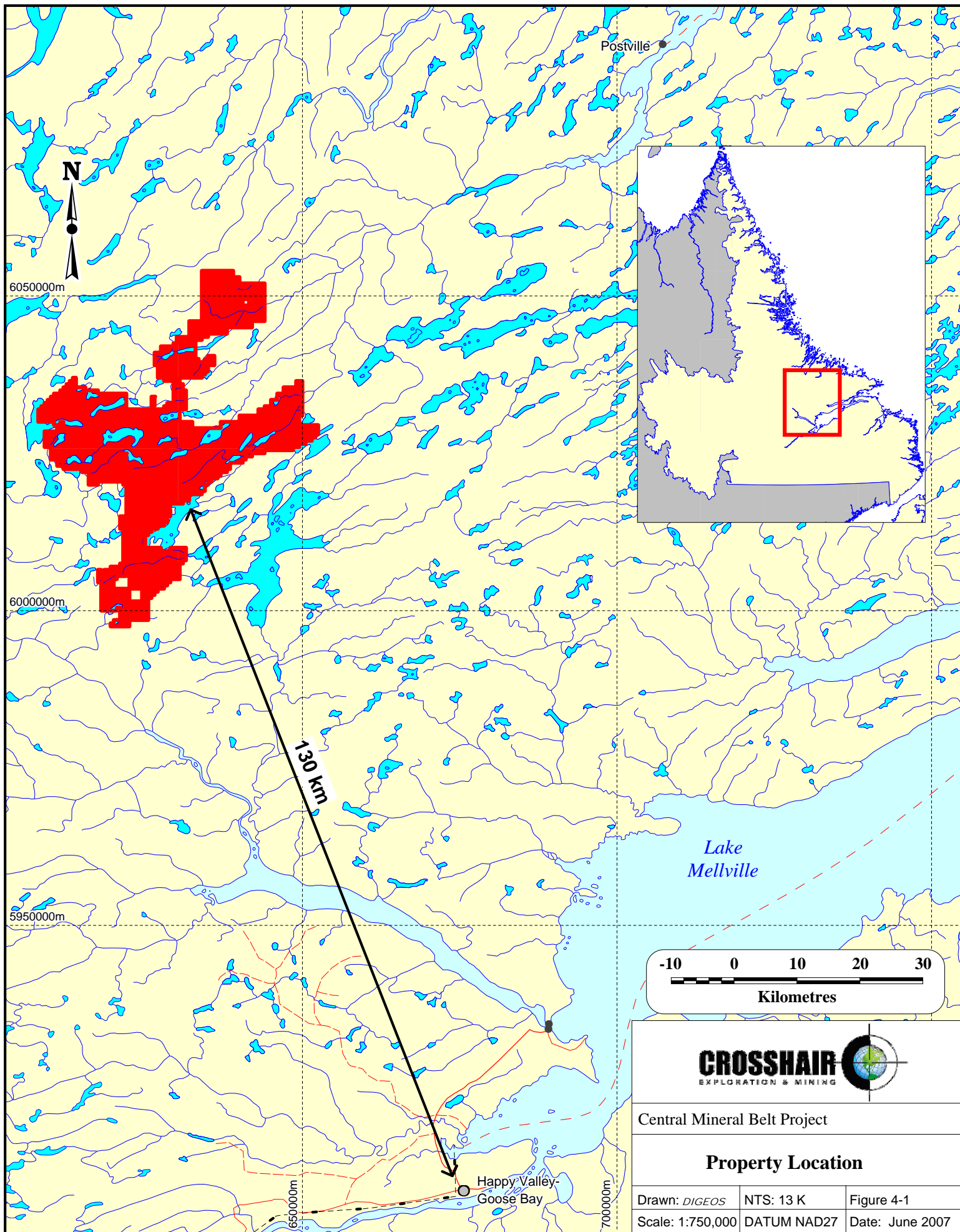
Smelter Royalty. Commencing on the first anniversary from which Crosshair completes its earn-in obligations and thus becomes vested as to its 90% interest, Crosshair will pay the vendor an advance royalty of \$200,000 per year until the Commencement of Commercial Production. To April 30, 2007 Crosshair has spent \$9.9 million in exploration on the claims, issued 1,100,000 shares and made cash payments totalling \$300,000 to the vendor. The agreement remains in good standing. The next payments are due November 10, 2007.

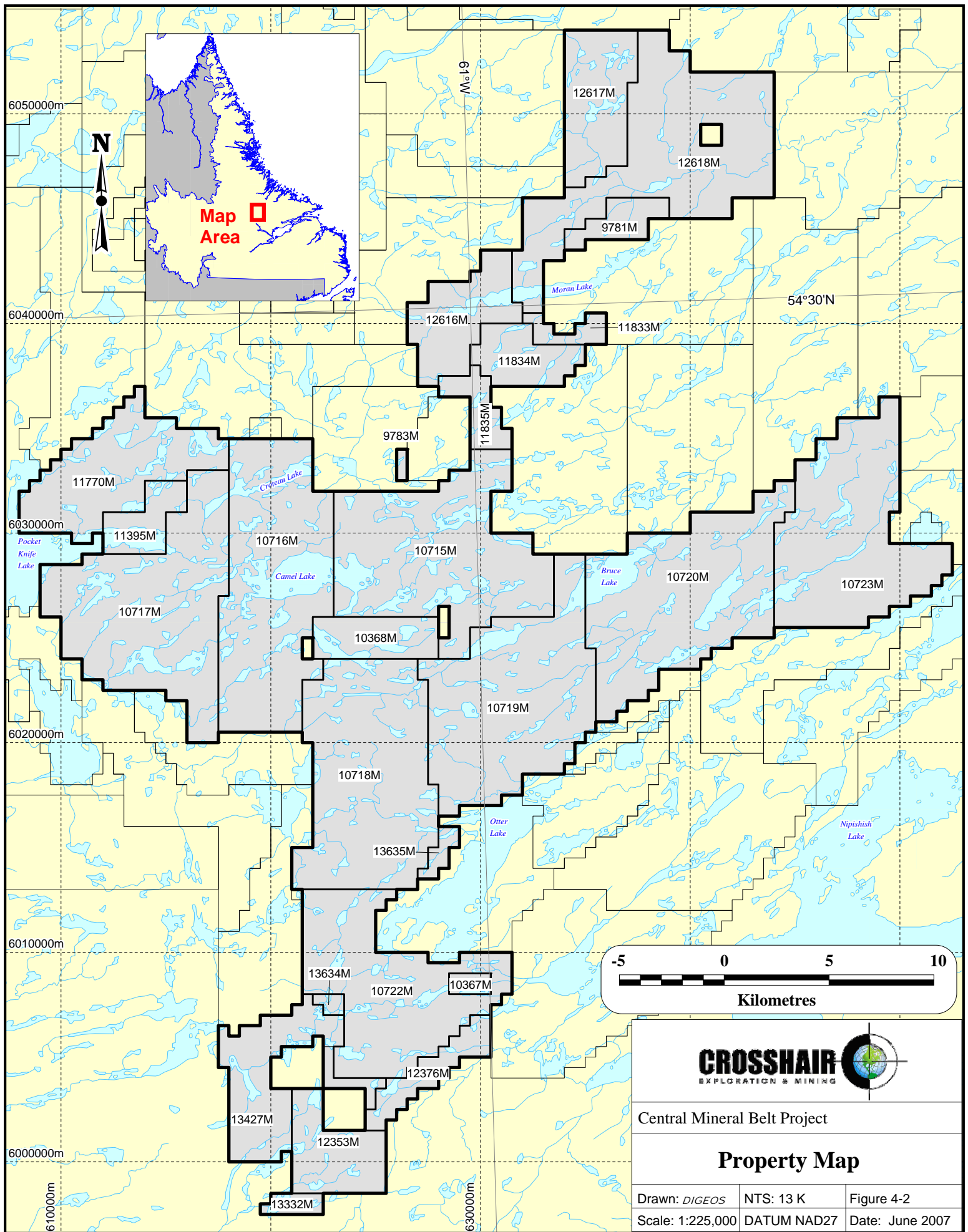
In December 2005, Crosshair entered into an agreement with Triassic Properties Ltd. in which Crosshair has the right to earn a 100% interest in 56 claims (Appendix 1) in the Central Mineral Belt of Labrador. The claims now constitute a portion of the CMB Project and have been transferred to Crosshair. Under the terms of the agreement Crosshair has the option of earning a 100% interest in the claims by spending \$600,000 in eligible exploration expenditures, issuing 225,000 Crosshair shares and paying an aggregate of \$140,000 to the vendor over a three year period commencing on the “Approval Date” of the agreement. The vendor shall retain a 1.5% net smelter royalty, of which Crosshair may, at any time prior to the commencement of commercial production, acquire a  $\frac{1}{3}$  share (0.5% of the Net Smelter Returns) for \$700,000. To December 31, 2006, Crosshair has spent \$209,000 in exploration on the claims. In December 2006, Crosshair issued 125,000 shares and made cash payments totalling \$55,000 to the vendor. The next payments are due December 2, 2007.


In May 2007, Crosshair entered into an agreement with Belmont Resources Inc. and International Montoro Resources Inc. whereby Crosshair has the option to earn a 75% interest in 139 claims comprising four different mineral licences in the Central Mineral Belt of Labrador totalling 34.75 km<sup>2</sup>. Three of the licences, referred to as the Stormy Lake block, are contiguous with the southern boundary of the CMB Project, while the other licence, referred to as the Partridge River block, is situated approximately 95 km west of the property. Under the terms of the agreement, Crosshair may earn a 75% interest in the claims by carrying out \$800,000 in exploration expenditures and issuing 175,000 common shares to the vendors over a three year period.

Under the Newfoundland Mining Regulations, each claim consists of a 500 m square bounded by one corner of a UTM grid square which defines the location. The claims are not surveyed. To maintain the claim in good standing a minimum amount of annual assessment work must be completed on each claim. This amount varies from \$200 in the first year increasing in \$50 increments to \$400 in the fifth year, \$600 per year for year's six to ten, \$900 for years eleven to fifteen and \$1,200 for years sixteen to twenty. Renewal fees of \$25 per claim are required at year five, \$50 per claim in year ten, and \$100 per claim at year fifteen. Excess assessment work can be carried forward for a maximum of nine years. At any time, providing at least three years of assessment work has been completed, a mining lease may be applied for. At that time a legal survey must be completed. The annual rental for a lease is \$80 per ha.

A total of \$21,000 in eligible exploration expenditures must be spent by May 3, 2008 on licence 13427M, which was staked in May 2007, \$2,200 on licence 13332M by April 12, 2008 which was staked in April 2007, \$1,000 on licence 13634M by July 5, 2008, and \$2,000 on licence 13635M by July 5, 2008, both of which were staked in June 2007. All other licences have sufficient exploration expenditures to keep them in good standing until at least 2010.







**CROSSHAIR**  
EXPLORATION & MINING

Central Mineral Belt Project

**Property Map**

Drawn: <i>DIGEOS</i>	NTS: 13 K	Figure 4-2
Scale: 1:225,000	DATUM NAD27	Date: June 2007

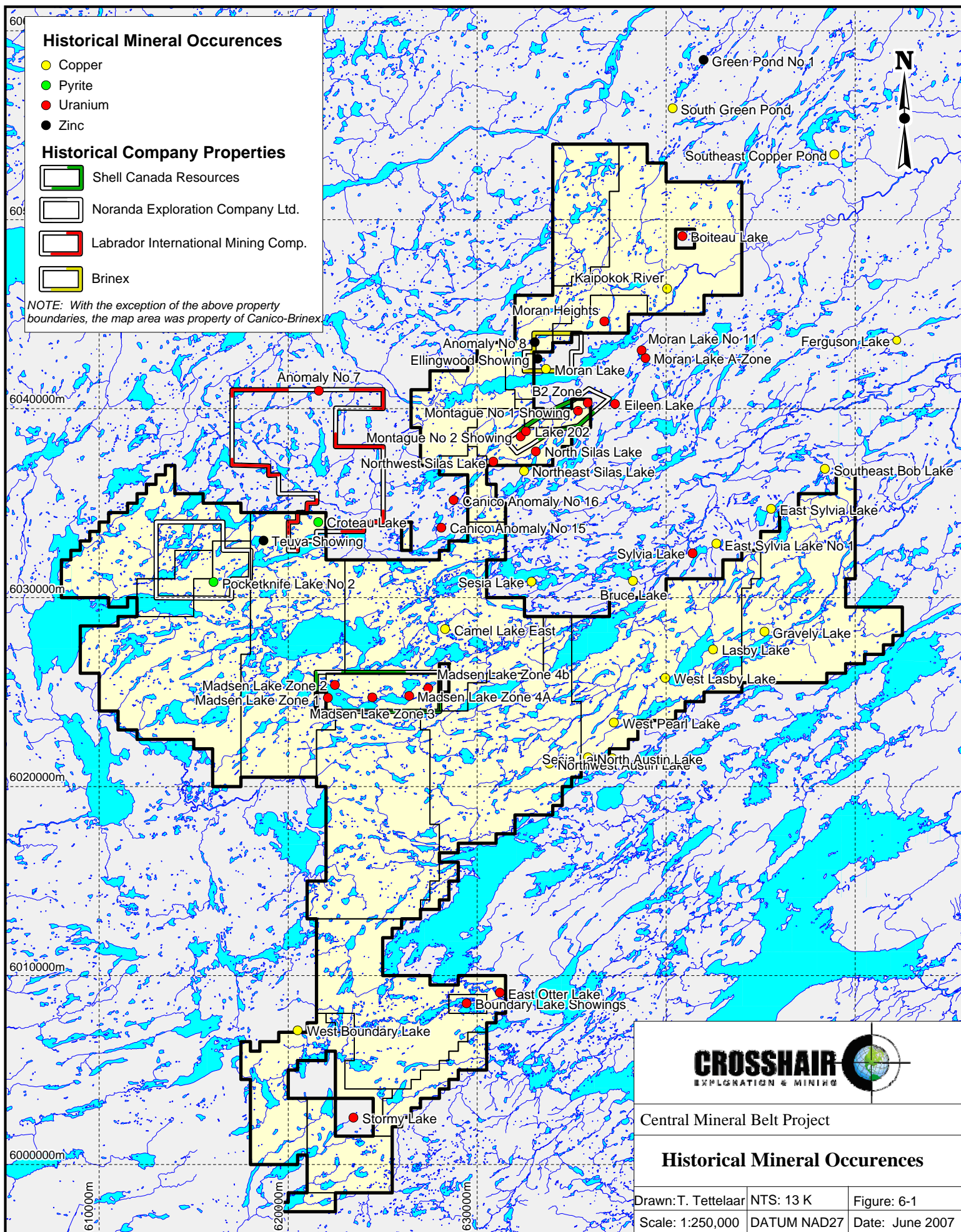


## **5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

This section has been adequately covered in the previously filed report “Report on the Moran Lake Uranium Property, Central Mineral Belt, Labrador, Canada”, dated November 7, 2005, and re-filed on Sedar July 12, 2006.

## **6 HISTORY**

This section has been adequately covered in the previously filed report “Report on the Moran Lake Uranium Property, Central Mineral Belt, Labrador, Canada”, dated November 7, 2005, and re-filed on Sedar July 12, 2006. Figure 6-1 shows the historical occurrences located on and near the property.



## 7 GEOLOGICAL SETTING

### REGIONAL GEOLOGY

The CMB Project is situated within the Central Mineral Belt of Labrador, a geological province comprising six Proterozoic sequences of volcanic, sedimentary and plutonic rocks that host hundreds of base metal and uranium showings, prospects and deposits (Figures 7-1, 7-2). The basement rocks consist of Archean gneisses belonging to the Nain craton. In the Early Paleoproterozoic these gneisses were unconformably tectonically overlain by a series of pillow basalts and shale-sandstone sequences belonging to the approximately equivalent Moran Lake and Lower Aillik groups (ca. 2100 to 2000 Ma) (Wardle, 2005). Both the Lower Aillik and Moran Lake groups are interpreted to have formed on a passive, south-facing continental margin (Ketchum et al, 2002).

The Lower Aillik Group is tectonically overlain by subaerial, rhyolitic ash-flow tuff and volcanoclastic rocks of the Upper Aillik Group (1860 Ma to 1807 Ma), interpreted to have been deposited in a back-arc or rifted back-arc environment (Gower et al, 1982) (Ketchum et al, 2002). These felsic subaerial volcanics host the Michelin deposit on the adjoining ground owned by Aurora Energy Resources Inc.

The Lower and Upper Aillik Groups, and the Archean basement to the north have been intruded by a number of granitic plutonic suites that fall into three general age intervals, 1895 Ma to 1870 Ma, 1815 Ma to 1790 Ma and 1720 Ma to 1715 Ma.

Makkovikian deformation occurred intermittently between 2.0 Ga and 1.7 Ga. An early phase of deformation occurred in the southwest part of the region between 2.0 Ga and 1.89 Ga and was associated with intense shearing and basement-cover interleaving along the Kanairiktok shear zone (KKSZ), the boundary between the Nain and Makkovik Provinces. Peak regional deformation occurred between 1.81 Ga and 1.78 Ga. This was associated with northerly directed overthrusting and also with major sinistral and dextral

shearing along the Lower-Upper Aillik and Lower Aillik-basement contacts (Ketchum et al, 2002).

Following a period of tectonic quiescence, the above units were intruded in the Late Paleoproterozoic by the voluminous granitoid and lesser mafic plutons of the Trans-Labrador Batholith (TLB) during the period 1650 Ma to 1640 Ma. The main batholith lies in the southern part of the Central Mineral Belt where it transects the northeast-southwest trends of the Makkovik Province.

Associated with the TLB to the southwest within the CMB Project is the Bruce River Group. This group comprises a lower unit of conglomerate and volcanoclastic sandstone overlain by an upper unit of subaerial felsic volcanic rocks that were probably formed in a caldera environment (Ryan, 1984). The sequence is the same age as the TLB and probably represents the volcanic carapace to that unit.

The southern part of the Central Mineral Belt was affected to varying degrees by Grenvillian deformation during the period 1000 Ma to 900 Ma. The deformation occurred in response to continental collision to the south and was associated with northward-directed thrusting and shearing. At least two northeast trending thrust faults transect the north part of the CMB Project.

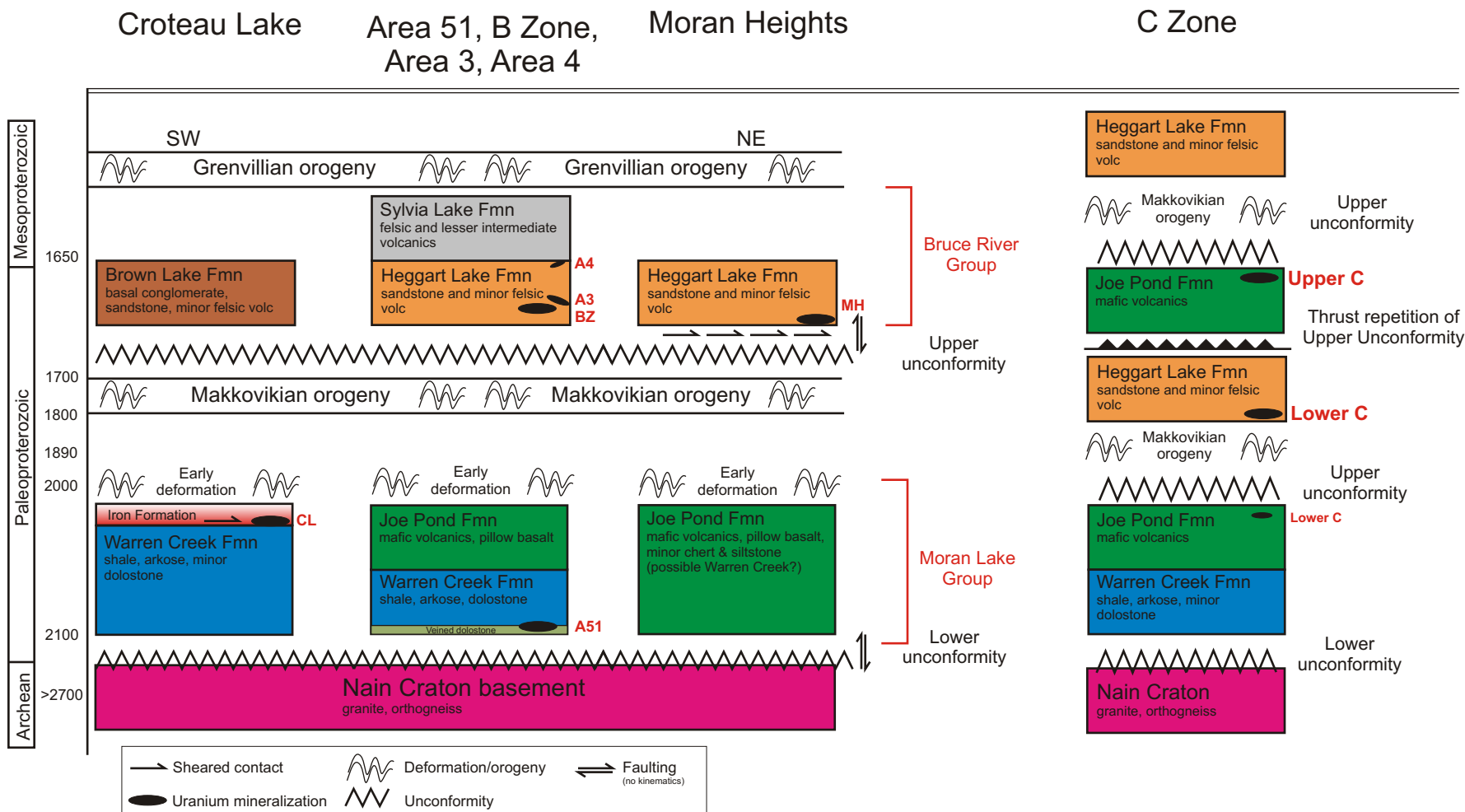
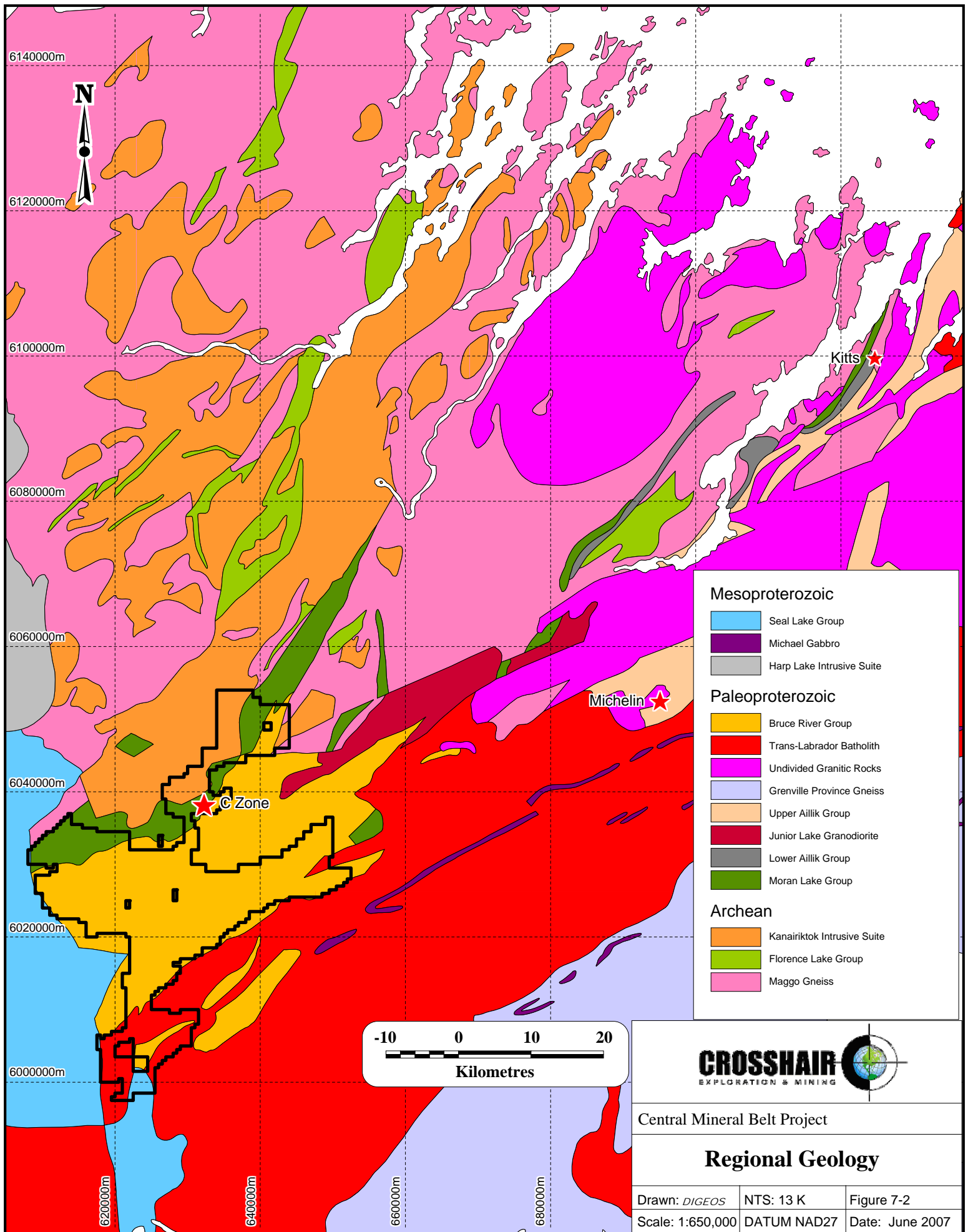


Figure 7-1 Stratigraphic sections for Croteau Lake, B Zone, Area 3, Area 4, Area 51, Moran Heights and the C Zone. Possible thrust faulting in the C Zone has resulted in a repetition of the stratigraphy, including the Upper unconformity. Abbreviations for mineralization, as noted in red letters adjacent to black ellipses are: Croteau Lake (CL); B Zone (BZ); Area 51 (A51); Area 3 (A3); Area 4 (A4); Moran Heights (MH); Upper and Lower C are as indicated.

\* Note that mineralization and structure denote only stratigraphic location, not temporal relationships. \*\*Note that the sizes of the coloured "Formation" boxes do not represent the true thicknesses of the units

Central Mineral Belt Project		
Stratigraphic Section & Relative Location of Mineralization		
Drawn: P. Collins	NTS: n/a	Figure 7-1
Scale: n/a	DATUM: n/a	Date: May 2007



### PROPERTY GEOLOGY

The property is underlain by Archean granitoid rocks of the Kanairiktok Intrusive Suite, unconformably overlain by Early Paleoproterozoic submarine volcanic and sedimentary rocks of the Moran Lake Group, which are in turn overlain unconformably by the late Paleoproterozoic continental sediments and subaerial volcanics of the Bruce River Group (Figure 7-3).

The Moran Lake Group forms a 3 km to 7 km wide and 85 km long belt of supracrustal rocks in the foreland zone of the Makkovik Province (Wardle et al, 1986). The Group occupies a north-easterly trending belt which underlies the northern projection of the CMB Project. It consists of the basal Warren Creek formation and the conformably overlying Joe Pond formation. Unconformably overlying the Archean Kanairiktok intrusive suite, the basal Warren creek Formation was deposited in a high energy, shallow shoreline or shelf environment and consists mainly of black graphitic, grey and green shale and siltstone containing local interbeds of dolostone, chert and black conglomerate with siltstone and shale clasts. The Warren Creek Formation ranges from perhaps 1,200 m up to 3,000 m in thickness and is overlain conformably by 100 m to 300 m thickness of the Joe Pond Formation, a sequence of light- to dark-green, fine grained, massive and pillowed basalt and mafic tuff with occasional interbeds of variably coloured chert or grey dolostone.

This stratigraphy was deformed during the Makkovikian Orogeny and metamorphosed to upper greenschist facies. The Warren Creek Formation records a pervasive slaty cleavage that along with bedding has been strongly deformed by polyphase deformation resulting in some steeply plunging, often east trending, open to tight folds. A long period of exposure and non-deposition is recorded in part by 5 m or more of reddish, regolithic weathering seen locally in the Joe Pond volcanics.

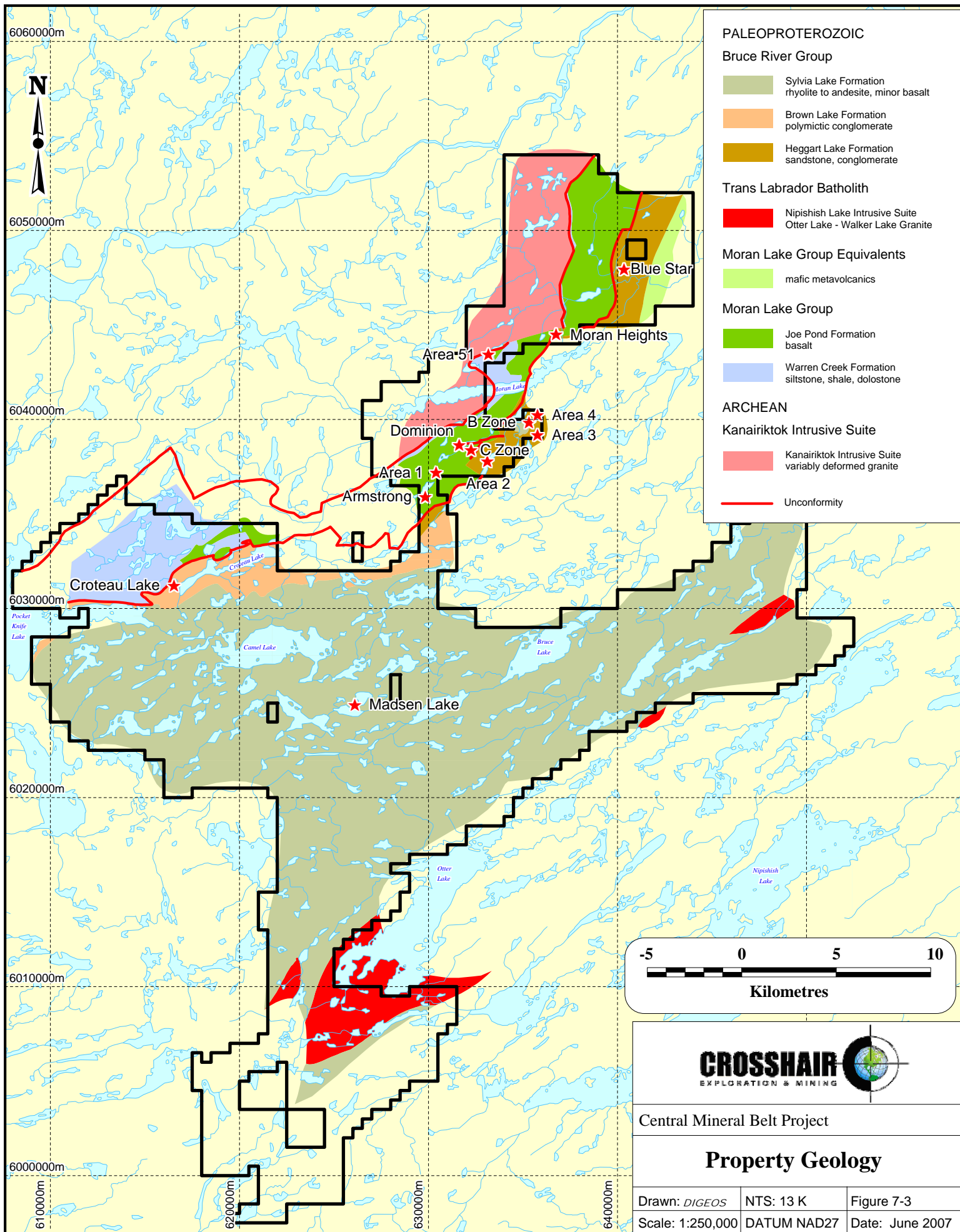
After a hiatus of perhaps 500 Ma without sedimentary record, the Bruce River Group was deposited with a profound angular unconformity on the Moran Lake Group and is exposed in a northeast-trending, open, upright syncline, interpreted as being a product of



the Grenville Orogeny. The Bruce River Group consists of three formations. The lowermost Heggart Lake Formation is comprised of a basal unit of quartz arenite, arkose and interbedded conglomerate which may be as much as 2,000 m thick. This unit is overlain by another 2,200 m of mauve to red, clast - to matrix-supported, poorly sorted, polymictic pebble to boulder conglomerate. A few mafic and felsic rocks of extrusive origin occur locally within the Heggart Lake Formation.

The middle unit is the Brown Lake Formation, which has a discontinuous basal conglomerate member 30 m to 70 m thick overlain by more than 1,000 m of volcanoclastic sandstone with minor intraformational conglomerate. These rocks were deposited in a shallow, reasonably quiescent tectonic environment with a clear input of volcanoclastic material from nearby contemporaneous volcanism. Rocks of the Brown Lake Formation also occupy a narrow belt, more or less paralleling the Moran Lake Group rocks across the north-western and northern portions of the property.

The Sylvia Lake Formation is the upper, thickest and most aerially extensive unit of the Bruce River Group and has been assigned six subdivisions. Overall it is a bimodal, potassium enriched assemblage of mafic, intermediate and felsic volcanic flows, breccia, agglomerate, welded and unwelded ash-flow tuff, and numerous intercalated volcanoclastic sedimentary rocks. Intermediate and felsic intrusive rocks are present locally. Over time the volcanism changed from dominantly mafic to volumetrically more abundant felsic volcanics. The Sylvia Lake Formation underlies the east, west and southern portions of the CMB Project in a broad, easterly trending synclinal structure, which has been interpreted as the accumulation of volcanic material into a slowly subsiding basin, or alternatively on the flank of a large composite shield volcano (Ryan, 1984). There are at least 8,000 m of Sylvia Lake Formation and its upper portions are severely disrupted by faults. Relict caldera features which have been noted in the area are potentially underlain by sub-volcanic feeder intrusions similar to those associated with IOCG deposits elsewhere in the world. Along the south-eastern side of the property, the Sylvia Lake Formation is intruded and metamorphosed by the coeval Trans Labrador Batholith.



The tectonic and deformational history in the area of the CMB Project is long and varied. The Kanairiktok Fault or shear zone (KKSZ), the boundary between the Nain and Makkovik provinces, projects under the north-eastern edge of the property where it apparently truncates against or is at least cut by, two northeast trending faults of interpreted Grenville age. The north to northwest trending Pocket Knife Lake Fault truncates the Bruce River Group along the south-western side of the property.

Local faulting and brecciation of uncertain age is associated with the U-Cu mineralization at the Moran Lake B and C Zones. The mineralization of interest is epigenetic, also of uncertain age, but concentrated notably in rocks of the Bruce River Group, above the angular unconformity with the Moran Lake Group.

This area was affected by the Pleistocene Wisconsin glaciation with ice directions to the east and northeast at the northern extent and to the southeast in the south. Much of the area has a veneer of ground moraine and boulder tills. In the southern part of the area, there are eskers developed in the river drainage.

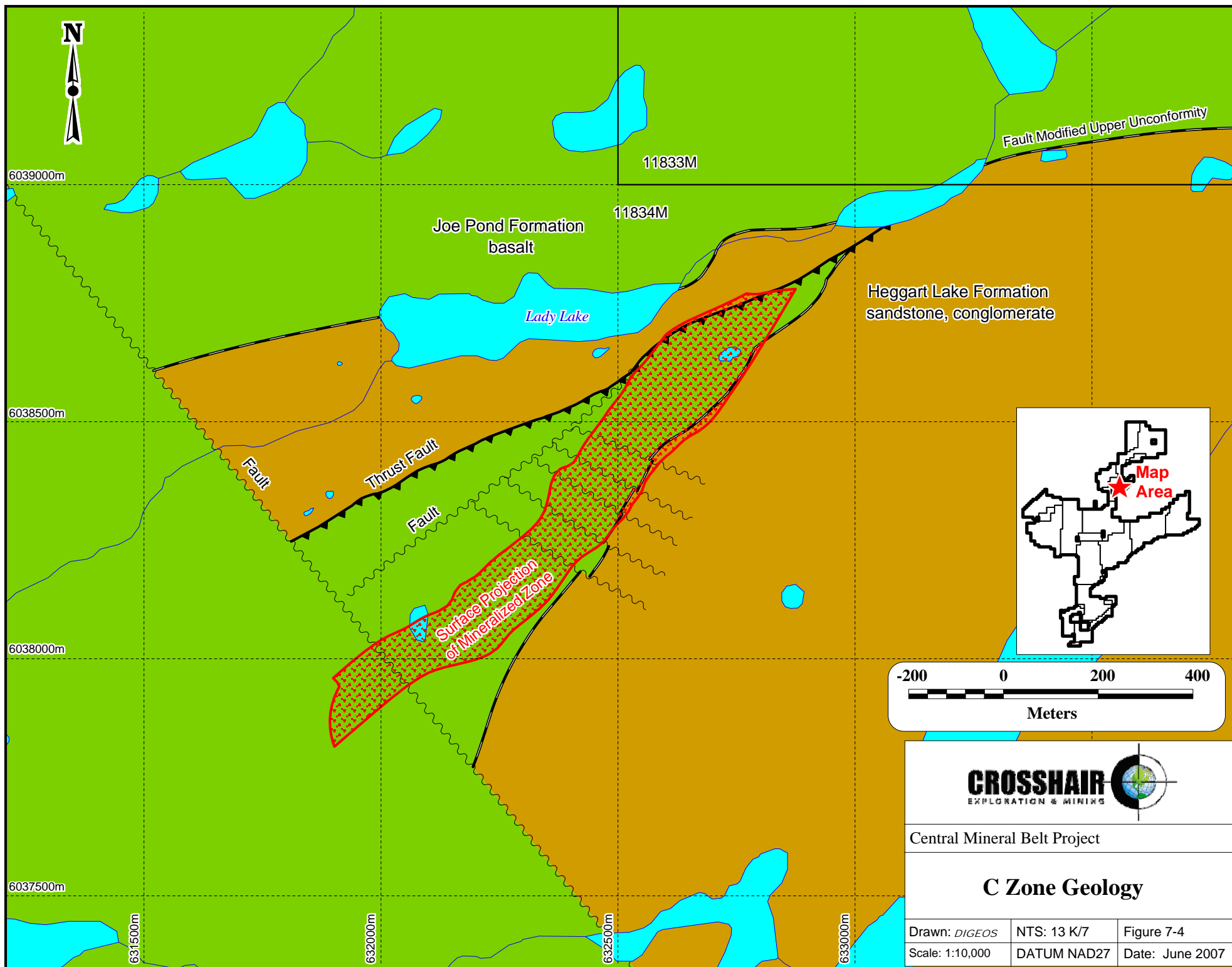
### LOCAL GEOLOGY

#### C ZONE

The Moran Lake Upper and Lower C Zones (UC, LC) are dominated by sedimentary rocks of the Heggart Lake Formation, Bruce River Group, and mafic volcanic rocks of the Joe Pond Formation, Moran Lake Group. The generally red oxidized sandstones and conglomerates of the Bruce River Group unconformably overlie the maroon, hematite-altered and brecciated, pillowed mafic volcanic rocks of the Moran Lake Group. The rocks typically dip 45° to the southeast and strike northeast-southwest. Minor gabbroic bodies and relatively unaltered green massive mafic dikes are seen throughout the area.

The UC deposit occurs in a zone of structural and stratigraphic complexity, where a sliver of Heggart Lake sedimentary rocks and unconformably underlying Joe Pond Formation basalt have been thrust faulted over sedimentary rocks of the Heggart Lake Formation (Figure 7-4). The mafic volcanic rocks in the UC have undergone intense brecciation and have been subjected to strong hydrothermal alteration as demonstrated by moderate to intense hematization and locally strong bleaching and carbonate alteration. Uranium mineralization occurs mainly in the more strongly altered and brecciated rocks of the mafic volcanic sequence below but proximal to the unconformity.

The LC geology comprises a 50 m to 100 m thickness of sequence of Heggart Lake Formation red oxidized sandstone and green reduced sandstone containing lesser conglomerate. The upper contact between the LC and the UC is defined by a thrust fault described above. Further to the southwest this fault completely cuts off the LC sedimentary rocks (e.g. ML-74). The lower contact between the LC sandstones and Joe Pond Formation mafic volcanics represents the Aphebian/Helikian unconformity, which dips gently to the southeast. Oxidation in the LC is believed to be of a diagenetic or primary origin, whereas the reduced sandstones are clearly the result of a widespread reduction alteration event evidence of which is provided by destruction of primary sedimentary textures in the



most intensely reduced units. There is no obvious structural or lithological control on the distribution of the reduced sandstone.

### **ARMSTRONG SHOWING**

The Armstrong Showing is located within the Joe Pond Formation mafic volcanics of the Moran Lake Group (Figure 7-3). The showing is a 4.5 m by 8 m outcrop with preserved pillow textures, which has undergone sericitic, chloritic and Fe-carbonate alteration. There are two main undulating, north trending, shear zones moderately dipping to the east that host uranium mineralization. In addition, a northeast trending minor fault cuts both shear zones and appears to have minimally displaced them dextrally.

### **MADSEN LAKE**

The Madsen Lake property is dominantly underlain by the felsic volcanics and rare local tuffaceous sandstones of the Sylvia Lake Formation (Figure 7-3). East-west trending porphyritic diabase dikes typically intrude the felsic volcanic units of red to maroon lapilli tuff. These dikes have chilled margins and are typically sheared along the contact with the lapilli tuff. The shear zones are en echelon, usually less than 2 m wide and discontinuous; however, they are found over an area approximately 100 m wide with a strike length of at least 1.8 km from east of Falby Lake to Madsen Lake. Sheared lapilli tuff is weathered pale green to beige having undergone epidote and sericitic alteration and may contain patchy radioactive anomalies. Conjugate fractures trending parallel to, as well as cutting the shear fabric contain quartz and hematite are also mineralized with carbonate, magnetite, chlorite, fluorite, uranophane and possibly uraninite. Dikes, shear zones and mineralized fractures all trend approximately east-west and dip moderately to steeply typically to the south, however, in some cases dip to the north. The felsic volcanics typically have high background radiometric values, ranging from 150 – 250 cps, and rarely as high as 350 cps.

### MORAN HEIGHTS

The Moran Heights area consists of a ridge of pillow basalts of the Joe Pond Formation unconformably overlain by arkosic sandstone and conglomerate of the Heggart Lake Formation. Toward the north, these units are in fault contact with tonalitic and granodioritic rocks of the Archean Kanairiktok Intrusive Suite. The fault strikes approximately east northeast. On the western side of the ridge, pillow basalts are underlain by siltstone beds and massive, strongly fractured black chert, assumed to be units of the Warren Creek Formation. All units have undergone greenschist-facies metamorphism.

In the northern area of Moran Heights, close to the unconformity, an area of high radioactivity is underlain by reduced, greenish-grey sandstone containing moderate to steeply dipping fractures filled with pink, hematized, quartz carbonate veins. Both reduced sandstone and the veins are mineralized with uraninite and/or uranophane.

### B ZONE AREAS 3, 4,

The B Zone is underlain by massive, variably altered, strongly silicified maroon-red sandstone of the Heggart Lake Formation (Figure 7-3). The Heggart Lake sandstones are cut by a variable number of north-south striking, easterly dipping grey-green diabase dikes, which are spatially associated with, and probably temporally equivalent to the Henri Lake gabbro, which intrudes the Heggart Lake Formation and crops out to the southwest of the B Zone mineralization.

The Heggart Lake sandstones contain fractures commonly filled by chlorite and quartz  $\pm$  carbonate veining and/or minor breccia. Locally, these fractured or brecciated rocks are mineralized.

Area 3 is in a similar geological setting as the B Zone and Area 4 appears to represent a stratigraphically higher section than the B Zone. It comprises interbedded sandstones and felsic- to intermediate volcanics and may represent a gradational transition into the Sylvia Lake Formation.

### BLUESTAR

The Blue Star area is underlain by sandstone and conglomerate of the Heggart Lake Formation. The Heggart Lake Formation comprises generally red- to tan coloured, interbedded, coarse-grained sandstone and polymictic conglomerates (Figure 7-3). To the west, the Heggart Lake sediments are in unconformable contact with Joe Pond basalt, marking the Aphebian/Helikian unconformity, and in the east they are in fault contact with the polydeformed Moran Lake metavolcanic rocks. Locally, the sedimentary rocks are bleached or hematized and cut by fracture-parallel quartz  $\pm$  carbonate veins. Sulphides are uncommon, but locally, float has been discovered with significant copper sulphides.

### CROTEAU LAKE

The Croteau Lake area is underlain by four key units, comprising, from oldest to youngest, (i) black shale and slate of the Warren Creek Formation; (ii) iron formation, which is the uppermost member of the Warren Creek Formation; (iii) mafic volcanics of the Joe Pond Formation in the northwest; and (iv) massive cobble conglomerates and sandstone of the Brown Lake Formation (Figure 7-3).

The Warren Creek Formation is extensive in the Croteau Lake area, but exhibits a relatively consistent appearance, generally comprising variably sulphidic black shale and slate and arkose. The entire package of rocks has been folded into east-west striking folds.

Conformably overlying the shale and slate in a thin, but apparently continuous or nearly continuous horizon is a variably deformed, locally brecciated iron formation comprised of chert and varying proportions of hematite and magnetite. The iron formation generally dips between 60° to 70° to the southeast, with a variable strike. Previous drilling suggests the iron formation has a minimum thickness of 15 m and a maximum thickness of at least 25 m over a strike length of 10 km. The iron formation is strongly deformed and recrystallized at Croteau Lake.



The major unconformity is represented at Croteau Lake by the contact between Helikian Warren Creek black shale and the Aphebian Brown Lake Formation which is a massive, pink-orange polymictic conglomerate. The Brown Lake conglomerates comprise the hanging wall to mineralization at Croteau Lake, whereas the footwall rocks comprise arkose and shale of the Warren Creek.

### AREA 1

Area 1 is predominantly underlain by mafic volcanic rocks of the Joe Pond Formation (Figure 7-3), which are massive, green-grey in colour and have undergone chloritic, sericitic and minor iron carbonate alteration. Adjacent to the southern shore of Trout Pond, the mafic volcanic unit contains minor layers of graphitic, pyritic argillite and red, jasperoidal chert, which appear to pinch out to the south. The rocks are locally, sheared and brecciated and have undergone moderate to strong hematization as well as local bleaching. Quartz carbonate veins cut most other features and are occasionally mineralized with both uranium-bearing minerals and chalcopyrite. The rocks dip approximately 45° to the southeast and strike northeast-southwest. Gabbroic bodies and unaltered green massive mafic dikes are seen locally within the eastern extent of the area.

### AREA 2

Much of Area 2 is covered by overburden and outcrop is scarce. Where exposed the rocks are sandstone and conglomerate of the Heggart Lake Formation, the lowermost unit of the Bruce River Group, locally intruded by mafic dikes. The sedimentary rocks are characterized by pink to red, massive to weakly layered sandstone and interbedded, polymictic conglomerate. Locally, patchy bleached zones on weathered surfaces and pale grey-green in colour on fresh surfaces are suggestive of chloritic and/or sericitic alteration. Local zones of late brittle fracturing with associated hematitic and silicic alteration typically contain uranium mineralization. In some cases, strongly altered sedimentary rocks, dark grey in colour, contain pale grey to white round patches which may be altered conglomeratic pebbles. Quartz carbonate veinlets and patches of disseminated pyrite are also common. Most of the surrounding area is covered in overburden and outcrop is scarce.

### AREA 51

The geology in the immediate vicinity of Area 51 is dominated by three main components including from oldest to youngest; crystalline basement of the Archean Kanairiktok Intrusive Suite, which is unconformably overlain by sediments of the Aphebian Moran Lake Group, which are in turn unconformably overlain by rocks of the Helikian Bruce River Group (Figure 7-3). The area of immediate economic interest is associated with the unconformable contact between the crystalline basement and the overlying Moran Lake Group where silicified and brecciated dolostone and shale of the Warren Creek formation overlie the fairly massive, coarse grained granodiorite of the Archean basement. The unconformity is generally sharp with a good regolith of weathered granodiorite developed in several exposures. The unconformity trends to the east northeast and dips moderately to the southeast.

The Warren Creek Formation consists of at least 50 m of massive, grey to brown dolostone which is locally brecciated and cross cut by quartz carbonate veins. Veining appears to be more common closer to the unconformity, occasionally with minor amounts of sphalerite, galena and chalcopyrite and locally uranium mineralization. Conformably overlying the dolostones are several hundred meters of grey to black shale and siltstone, locally with thin chert and greywacke horizons. The upper contact of the Warren Creek Formation is conformable with massive to pillowed flows of the Joe Pond Formation the upper unit of the Moran Lake Group.

The Moran Lake Group rocks at Area 51 occupy a broad open syncline that is cut by several east to northeast trending faults, one of which displays a dextral displacement of about 5 km. Bedding observed in the Warren Creek Formation suggests a moderate south to southeast dip ranging from 45 to 60 degrees.

### DOMINION

The Dominion showing was discovered by prospectors in late fall of 2006. Snow cover prevented further prospecting and geological investigation of the area. Drilling in the winter of 2007 has indicated that the area is underlain by mafic volcanics of the Joe Pond Formation and by graphitic, pyritic argillite, siltstone and chert of the Warren Creek

Formation. Textures observed in drill core suggest folds and shear zones are present within the Warren Creek Formation units. In addition, minor faults and locally abundant fractures with slickensides dominantly occur within the argillic units and to a lesser extent in the mafic volcanics.

## **8 DEPOSIT TYPES**

This section has been adequately covered in the previously filed report “Report on the Moran Lake Uranium Property, Central Mineral Belt, Labrador, Canada”, dated November 7, 2005, and re-filed on Sedar July 12, 2006.

## **9 MINERALIZATION**

### **C ZONE**

The Moran Lake C Zone currently represents the most advanced uranium prospect on the property. Drilling at the C Zone has identified two main zones of mineralization, the Upper C and Lower C. The mineralization in the UC is hosted within the hematite altered mafic volcanics of the Joe Pond Formation, while mineralization in the LC is dominantly hosted within reduced sandstones of the Heggart Lake Formation. Petrographic examinations suggest that the main uranium mineral present at the C Zone is uraninite.

The uranium mineralization in the UC is fracture-controlled and dominantly hosted within maroon, hematized, silicified and brecciated sections of the mafic volcanic rocks. The sections also typically contain brecciated quartz-carbonate veins, pyrite and chalcopyrite. The strongest uranium mineralization in the UC occurs in two main settings. Some of the most intense uranium mineralization occurs in dark red, very siliceous jasper/chert units that are intensely fractured and contain specular hematite, magnetite and pyrite throughout. Strong uranium mineralization also occurs within a bleached, silicified, iron-carbonate-bearing zone, near the base of the hematitic alteration. In addition, local sections of mineralization occur within a fault/shear zone in the upper portion of the altered mafic volcanics, as well as within a graphitic zone that lies immediately beneath the iron-carbonate-bearing zone.

Rocks at the UC have been subjected to one or more pronounced structural events accompanied by intense hydrothermal alteration. Cross-cutting vein relationships indicate that specular hematite is late in the paragenetic sequence and that the uranium mineralization is probably even later.

Locally associated with the uranium mineralization in the UC are disseminated and fracture-filling sulphides dominated by pyrite, chalcopyrite, and iron oxides, generally hematite (earthy and specular) and magnetite. The sulphides range from trace to locally 5% with an average of 1% to 2% with the exception to date of ML-73, which intersected

8.1 m of massive pyrite over 14 m. The same overall concentrations of hematite/magnetite are associated with the UC mineralization. Uranium content does not seem dependent upon the amounts of either sulphide or oxide, but generally both are present when uranium reaches potentially economic concentrations. The LC mineralization also generally carries sulphides, mainly pyrite, in concentrations ranging from trace to 2%.

The UC also contains vanadium mineralization hosted mainly within hematized and brecciated mafic volcanic rocks of the Joe Pond Formation. In many areas, its concentration is directly proportional to the intensity of hematization and brecciation. The occurrence of vanadium mineralization may coincide with, but is not restricted to zones of uranium mineralization. The vanadium mineralization appears to be associated with an earlier mineralizing event overprinted in part by a later event during which the uranium was deposited. Locally the vanadium concentrations are quite significant and vanadium may be a potential by-product. Drill intersections of vanadium rich mineralization include Shell drill hole C-14 which returned 62.6 m averaging 0.237%  $V_2O_5$ .

Mineralization in the LC is texturally dissimilar from the UC mineralization and occurs in green, reduced, chloritic, locally sheared horizons of sandstone that are described above. Uranium mineralization occurs as diffuse zones of radioactivity that are not always associated with fracturing or veining such as in the UC. Most of the best intervals of LC uranium mineralization are characterized by a patchy or diffuse pink hematite overprint, locally with black spotty chlorite ( $\pm$  uraninite?) within otherwise green reduced sandstone or conglomerate. The volcanic rocks underlying the unconformity, although typically unmineralized, do locally contain uranium mineralization associated with hematite-rich fractures.

Results of the 2006 and 2007 drilling programs and significant assays are presented in Item 11, Drilling.

### ARMSTRONG SHOWING

Uranium mineralization in the outcrop is localized within two continuous, undulating shear zones exposed over a 5 m strike length, ranging from 0.5 m to 1 m thick, hosted by mafic volcanics of the Joe Pond Formation. Results of the drilling suggest that there may be another mineralized structure 10 m to 15 m to the west of the Armstrong showing. Surface grab samples returned an average of 0.338% and up to 0.479%  $\text{U}_3\text{O}_8$  and are associated with carbonate, hematite, chlorite, quartz and minor pyrite. Chip sampling at one metre intervals along one of the shear zones returned an average of 0.166% and up to 0.343%  $\text{U}_3\text{O}_8$ . Base metals are generally low and vanadium does not exceed 0.16%  $\text{V}_2\text{O}_5$ .

### MADSEN LAKE

There are four bedrock uranium occurrences in the Madsen Lake area. On the southwestern shore of Madsen Lake, a diabase porphyritic dike cutting red lapilli tuff is locally radioactive and uranium mineralization is focussed within thin carbonate-filled fractures. A grab sample returned 0.340%  $\text{U}_3\text{O}_8$ . On the north-eastern shore of Madsen Lake, mineralization occurs within late brittle fractures in tuffaceous sandstone. A grab sample returned only 0.015%  $\text{U}_3\text{O}_8$ .

Mineralization found north of Rice Lake and in the trenches is patchy and structurally controlled along east-west trending shear zones along the contacts with diabase dikes and within late brittle conjugate fractures. Mineralization is typically found hosted by the felsic volcanic units and uranophane is observed along fractures. The shear zones are usually less than 2 m wide but are likely a series of en echelon shears. A grab sample returned 0.124%  $\text{U}_3\text{O}_8$ , but mineralization is very local and does not appear to have much potential. Mineralization exposed in the trenches, although patchy, continues along strike for at least 1.3 km. Grab samples from the eastern section of the trenched area, returned a range of 0.159% to 4.570%  $\text{U}_3\text{O}_8$  with an average of 1.285% (calculated from 7 samples above 0.030%). Grab samples from the western section gave a range of 0.049% to 1.590%  $\text{U}_3\text{O}_8$  and an average of 0.300%  $\text{U}_3\text{O}_8$  (from 16 samples above 0.030%).

### MORAN HEIGHTS

Moran Heights' mineralization occurs at the unconformity between the Aphebian Moran Lake Group and Helikian Bruce River Group. Mineralization is most common in the overlying sediments of the Heggart Lake Formation, within a zone encompassing the old trenches adjacent to the unconformity and an east-west trending fault. Mineralization at Moran Heights is stratabound, occurring within reduced green conglomerate and sandstone either as patches and disseminations or associated with quartz carbonate veins.

The mineralization, associated with alteration consisting of epidote, sericite and chlorite, contains tiny black and pink grains of specular hematite, hematized carbonate or possibly chalcocite. The altered zone is typically high in copper, even without uranium mineralization. Chalcopyrite has been noted at only a few locations and therefore the Cu-bearing minerals at Moran Heights may include less obvious chalcocite. Mineralization is also associated with pink, hematized quartz carbonate veins, where uraninite and/or uranophane mineralization, may occur along vein margins.

A total of 33 surface rock samples were collected in 2006, 18 grab samples from outcrop and 15 of mineralized float. The most significant outcrop results range from 0.033%  $U_3O_8$  to 3.740%  $U_3O_8$ , with 14 samples  $>0.03\%$   $U_3O_8$  averaging 1.594%  $U_3O_8$ . Copper assays range from trace to 1% with an average of 23 samples returning 0.09% Cu. Silver ranges from trace to 8.6 ppm with an average of 2.1 ppm Ag.

### B ZONE, AREAS 3, 4,

B Zone mineralization exhibits two main textural associations. The main style of mineralization is hosted primarily by strongly altered Heggart Lake sandstone and lesser amounts of mafic dike material. Mineralization is spatially associated with the contact of a specific mafic dike that varies between three to four metres in thickness. The host sandstones and mafic dike are strongly chloritized and contain both hematite and magnetite; the former is more abundant and is intimately associated with mineralization. Drill core and limited polished thin section study suggests that hematite is late and overprints and locally replaces reduced, magnetite-rich assemblages. Pyrite and chalcopyrite mineralization are spatially associated with the chlorite-magnetite alteration.



## **LACROIX & ASSOCIATES**

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Malachite staining is common on surface samples. Most samples contain only trace quantities of sulphides, but there are several samples that exhibit 1% to 2% pyrite and chalcopyrite.

The second style of mineralization is less common and generally lower grade. It occurs as sub-parallel to randomly oriented fractures that are associated with silicification, local hematization, brecciation and possible potassic or albitic alteration, the latter which is expressed as bright orange- to patchy grey zones within silicified zones. It appears that this style of mineralization is a remobilization of primary mineralization into late brittle structures. The extent of the mineralization is more fully described in Item 11.

Sixty-two surface samples collected from the B Zone range from trace  $U_3O_8$  to 3.970%  $U_3O_8$  with an average of 0.723%  $U_3O_8$  at a cut-off grade of 0.03%. Other minerals include vanadium which ranges from 0.007% to 0.528%  $V_2O_5$ , copper, from 0.005% to 0.87% Cu and silver, from 0.02 ppm to 25 ppm Ag.

Mineralization at Area 3 exhibits affinities for both the main style of mineralization at the B Zone as well as fracture-hosted secondary uranium mineralization. Area 4 also exhibits a combination of the two main styles of mineralization but the predominant style of mineralization observed is secondary, brittle fracture hosted mineralization.

## **BLUESTAR**

Mineralization occurs in a series of broadly parallel fracture sets that cross-cut Heggart Lake Formation sediments and are generally filled with quartz  $\pm$  carbonate  $\pm$  chlorite. The strongest mineralization occurs at conjugate fracture intersections and lesser amounts along parallel fracture planes. In some areas of mineralization the host sandstones or conglomerates exhibit weak- to moderate hematite alteration overprinting. The apparent thickness of the fracture sets is <10 m true thickness; strike length is variable, ranging from several 10's of metres to several hundred metres.

## **LACROIX & ASSOCIATES**

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Mineralization occurs in both outcrop and float with similar textures and grade. Prospecting has identified strongly silicified mineralized float samples notably enriched in U, Cu and Ag. Samples returned grades ranging from trace to 1.37%  $\text{U}_3\text{O}_8$ , with 11 samples  $>0.1\%$  having an average of 0.521%  $\text{U}_3\text{O}_8$ , 0.044%  $\text{V}_2\text{O}_5$ , 1,434 ppm Cu, and 13.9 g/t Ag. One sample returned 123 ppm Ag and 1.39% Cu in addition to 1.127 %  $\text{U}_3\text{O}_8$ ,

### **CROTEAU LAKE**

Mineralization is hosted by brecciated iron formation that exhibits a variable degree of recrystallization. Samples vary in intensity of brecciation and there appears to be a positive correlation between the relative degree of brecciation and/or recrystallization and the apparent grade of the samples whereby strongly brecciated samples are more strongly mineralized than non- to weakly brecciated samples. Undeformed iron formation exhibits radioactivity comparable to the underlying shale. Samples contain variable amounts of chalcopyrite and pyrite and assays indicate that silver, zinc and manganese are also common in uranium-rich samples. Assays indicate a maximum value of 2.087%  $\text{U}_3\text{O}_8$ , 0.803%  $\text{V}_2\text{O}_5$ , 9.25 ppm Ag, 7,700 ppm Cu, 5,237 ppm Zn and 47,813 ppm Mn, all in iron formation float. The average of 29 samples  $>0.1\%$   $\text{U}_3\text{O}_8$ , is 0.364%  $\text{U}_3\text{O}_8$ , 0.213%  $\text{V}_2\text{O}_5$ , 1.357 ppm Ag, 370 ppm Cu, and 2147 ppm Zn with a maximum of 2.087%  $\text{U}_3\text{O}_8$ . In general, mineralized samples appear to be enriched in U, V, Ag, Cu, Mn, and Zn and restricted but enriched Au. Alteration in the Croteau Lake area is minimal. Several gossanous zones occur in sulphidic black shale and slate of the Warren Creek.

### **AREA 1**

Mineralization occurs within heavily oxidized, hematitic, altered and brecciated mafic volcanic rocks of the Joe Pond Formation similar to the UC rocks 2 km to the northeast. Three boulders, locally exhibiting secondary uranium staining, returned 5.613%  $\text{U}_3\text{O}_8$ , 5.778%  $\text{U}_3\text{O}_8$  and 6.828%  $\text{U}_3\text{O}_8$ . The highest  $\text{U}_3\text{O}_8$  value from bedrock sampling returned 2.21%  $\text{U}_3\text{O}_8$ , 1.12% Cu and 77.4 ppm Ag. Forty samples  $>0.03\%$   $\text{U}_3\text{O}_8$  average 0.318%  $\text{U}_3\text{O}_8$ .

Uranium mineralization in Area 1 is fracture controlled and dominantly hosted within maroon, hematized, silicified and brecciated mafic volcanic rocks, which contain disrupted and broken quartz carbonate veins with pyrite and chalcopyrite throughout. Bleached, silicified Fe-carbonate-bearing zones are locally mineralized and occur near the base of hematitic alteration zones in several drill holes. The Fe-carbonate zone at Area 1 has very similar characteristics to the Fe-carbonate zone at the UC where it is typically underlain by a locally mineralized graphitic zone but drilling at Area 1 did not extend beyond the Fe-carbonate zone and it is uncertain whether the mineralized graphitic zone is present there. Additional similarities to the UC include the presence of local jasperoidal chert sections which typically contain uranium mineralization, and in the upper portion of the altered mafic volcanics a locally hematized and in some places mineralized, intensely brecciated and sheared zone containing quartz carbonate vein fragments.

### AREA 2

Reconnaissance field investigations of the radiometric anomaly uncovered a small outcrop of strongly altered, dark grey, conglomeritic sandstone. A grab sample taken from this outcrop returned 0.590%  $U_3O_8$  and one taken from close-by returned 0.778%  $U_3O_8$ . A total of six grab samples collected from outcrop returned > 0.090%  $U_3O_8$  with four samples grading > 0.550%  $U_3O_8$ . Field observations indicate that uranium mineralization is controlled by hematized fractures within zones of reduced (chloritic and sericitic altered) conglomeritic sandstone and conglomerate units or more rarely, within or along margins of mafic dikes.

### AREA 51

Widespread radioactivity over a 1.5 km strike length is hosted by fractured, silicified dolostone adjacent to the unconformity between the Archean basement and the overlying Moran Lake Group. Limited surface sampling in 2005 (9 grab samples) around the radiometric anomaly produced a bedrock sample assaying 0.05%  $U_3O_8$ , which is the highest uranium value returned in this area to date. The remaining surface samples, including those collected in 2006, returned anomalous results in a narrow range from

0.01%  $\text{U}_3\text{O}_8$  to 0.02%  $\text{U}_3\text{O}_8$ . Field observations suggest the mineralization has been remobilized into late fractures although uranium mineralization as either uraninite or uranium oxide was not observed directly.

The 2005 prospecting program also discovered potentially significant zones of quartz-carbonate veining up to one metre in width hosting disseminated and patchy chalcopyrite, sphalerite and galena mineralization with elevated silver and gold. The best mineralization of this type was located at the western edge of the main radiometric anomaly immediately adjacent to the unconformity between the Archean basement and dolostones of the Warren Creek Formation. The highest assay obtained from the 2005 surface sampling returned 0.06% copper, 36.6 g/t silver and 1.04 g/t gold with 0.01%  $\text{U}_3\text{O}_8$ . A surface sample collected in 2006 returned 0.04% copper, 31.2 g/t silver, 0.99 g/t gold as well as 6,418 ppm lead and 2,504 ppm zinc.

In 2006, two trenches measuring approximately 15 m and 23 m in length were hand dug across the unconformity which exposed widespread but weak radioactivity. Detailed sampling consisting of 15 chip samples measuring from 0.50 m to 1.0 m in length from Trench 1 returned from below detection to a maximum of 0.004%  $\text{U}_3\text{O}_8$ . Trench 2 has not been sampled.

### **DOMINION**

Prospecting in late fall of 2006 led to the discovery of anomalous radioactivity in a mafic volcanic outcrop of the Joe Pond Formation. Snowfall immediately after the discovery prevented geological field investigations and further prospecting of the radiometric anomaly. A total of eight grab samples collected from outcrop returned > 0.020%  $\text{U}_3\text{O}_8$  with five samples grading > 0.10%  $\text{U}_3\text{O}_8$ .

Argillite and siltstone units of the Warren Creek Formation intersected by the drilling at Dominion contain sections of semi-massive to massive pyrite within argillite as well as minor amounts of sphalerite hosted in quartz-carbonate veins cutting argillite and siltstone.

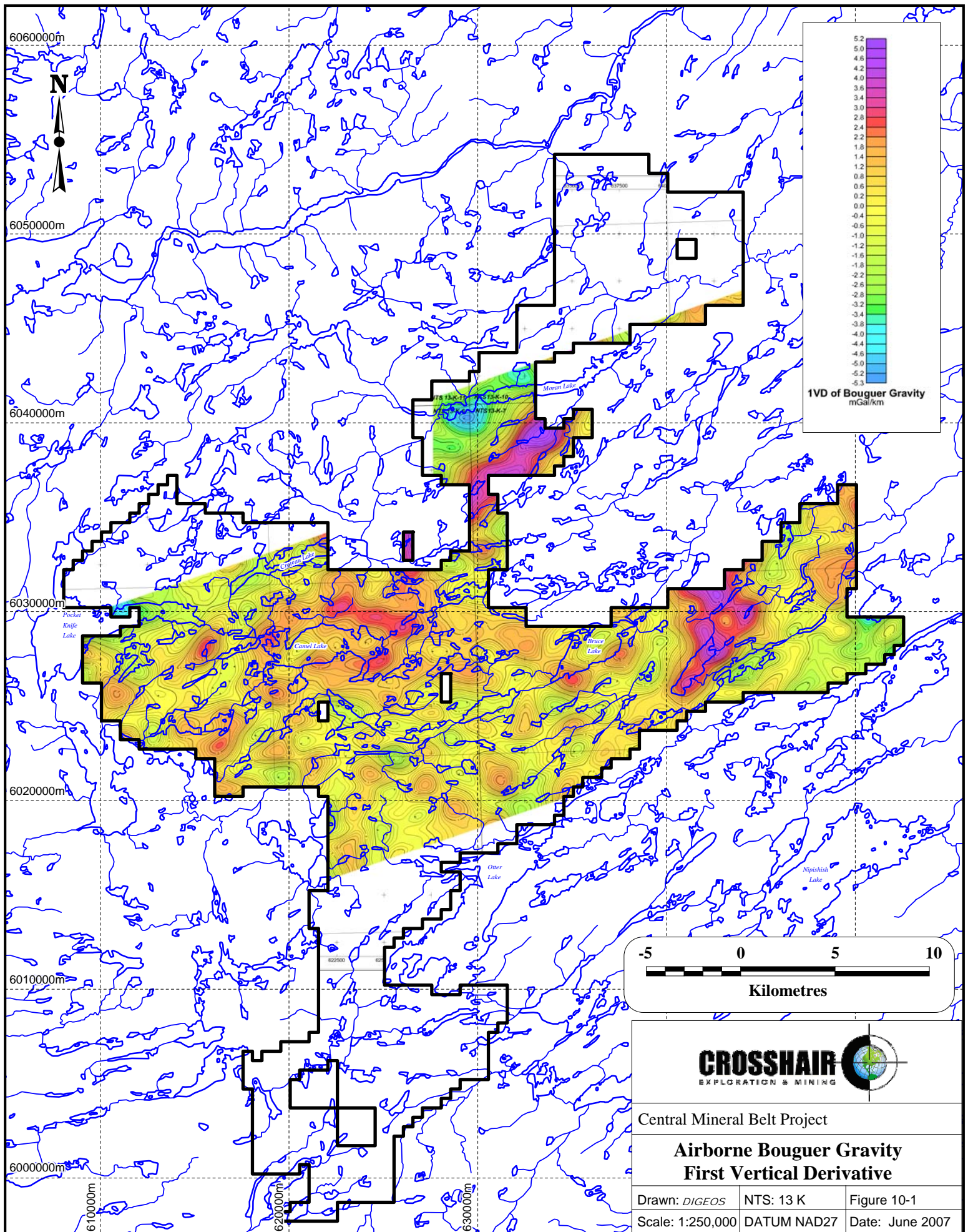
## **10 EXPLORATION**

In 2003 Sander Geophysics conducted an airborne gravity and magnetic survey for Monster Copper Corp., which included the adjoining Crosshair CMB Project, which was considerably smaller at the time (Setterfield, 2003). This survey identified a large, regional gravity high (Elieff, 2003) seated just to the north of the C Zone (Figure 10-1) extending beyond the property boundaries. A 3D inversion interpretation (Woods, 2005) suggested that the large residual gravity anomaly, 10 km by 3 km in size, represented a mafic or ultramafic intrusive and within the overall structure there are zones of higher density contrast which are more typical of zones of mineralization containing greater than 20% sulphides.

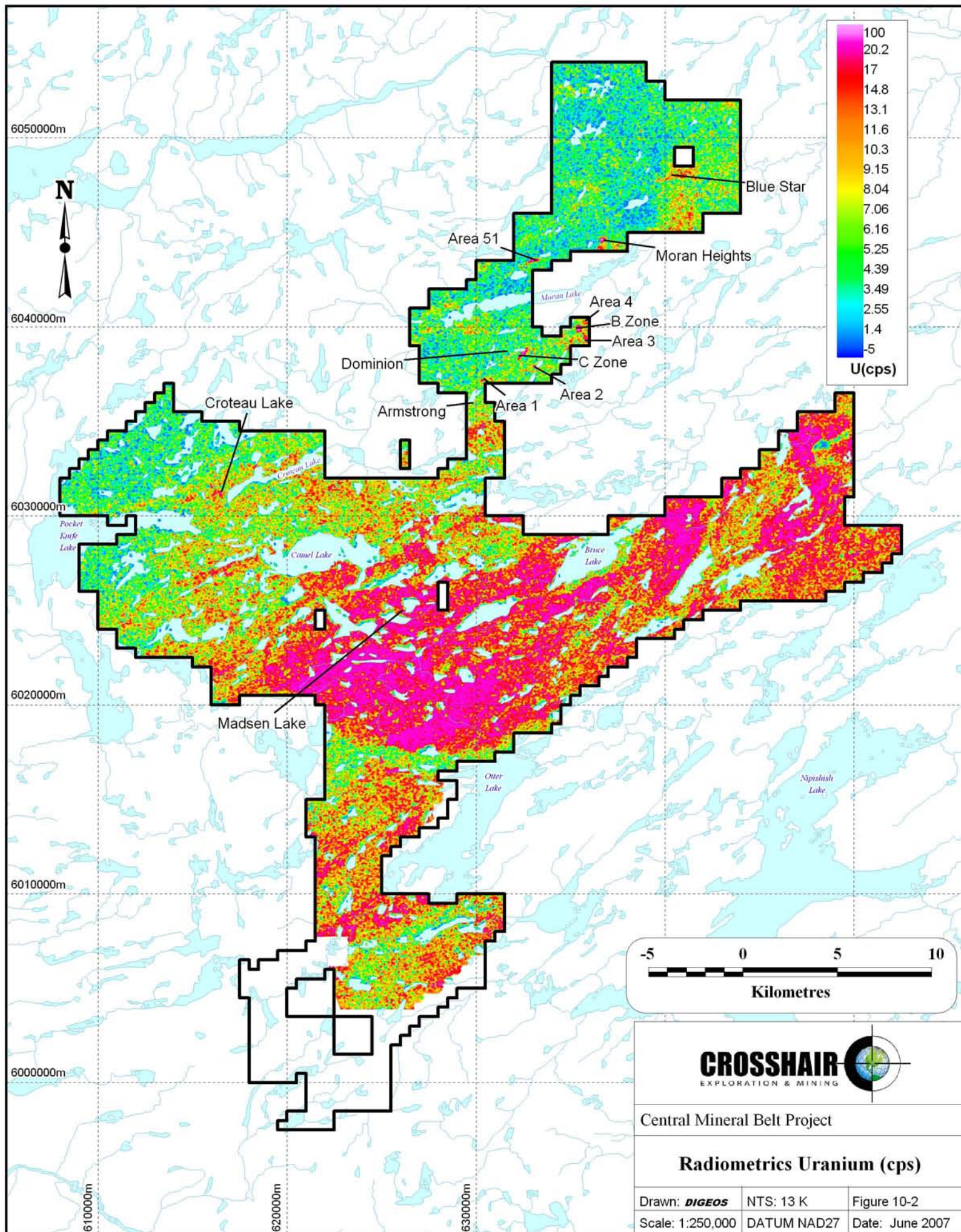
In 2005 Fugro Airborne Surveys conducted a high resolution magnetic and radiometric survey for Crosshair. (Figures 10-2, 10-3) This survey comprised approximately 7,312 line-km, including 674 line-km of tie lines. Flight lines were flown at 340° at 100 m line spacing and tie lines were flown orthogonal to the main lines at 1,000 m spacing (Bowslaugh, 2005). In 2006 this survey area was expanded to cover additional ground acquired to the northwest after the completion of the original survey.

The airborne survey was successful in identifying numerous radiometric anomalies worthy of ground follow-up. Of particular interest for ground follow-up are those isolated anomalies associated with the northeast trending unconformity that strikes across the northern part of the property. In addition, it is noted that the southern part of the property that is underlain by the Sylvia Lake felsic volcanic rocks is marked by a much higher background radiometric signature than the remainder of the property.

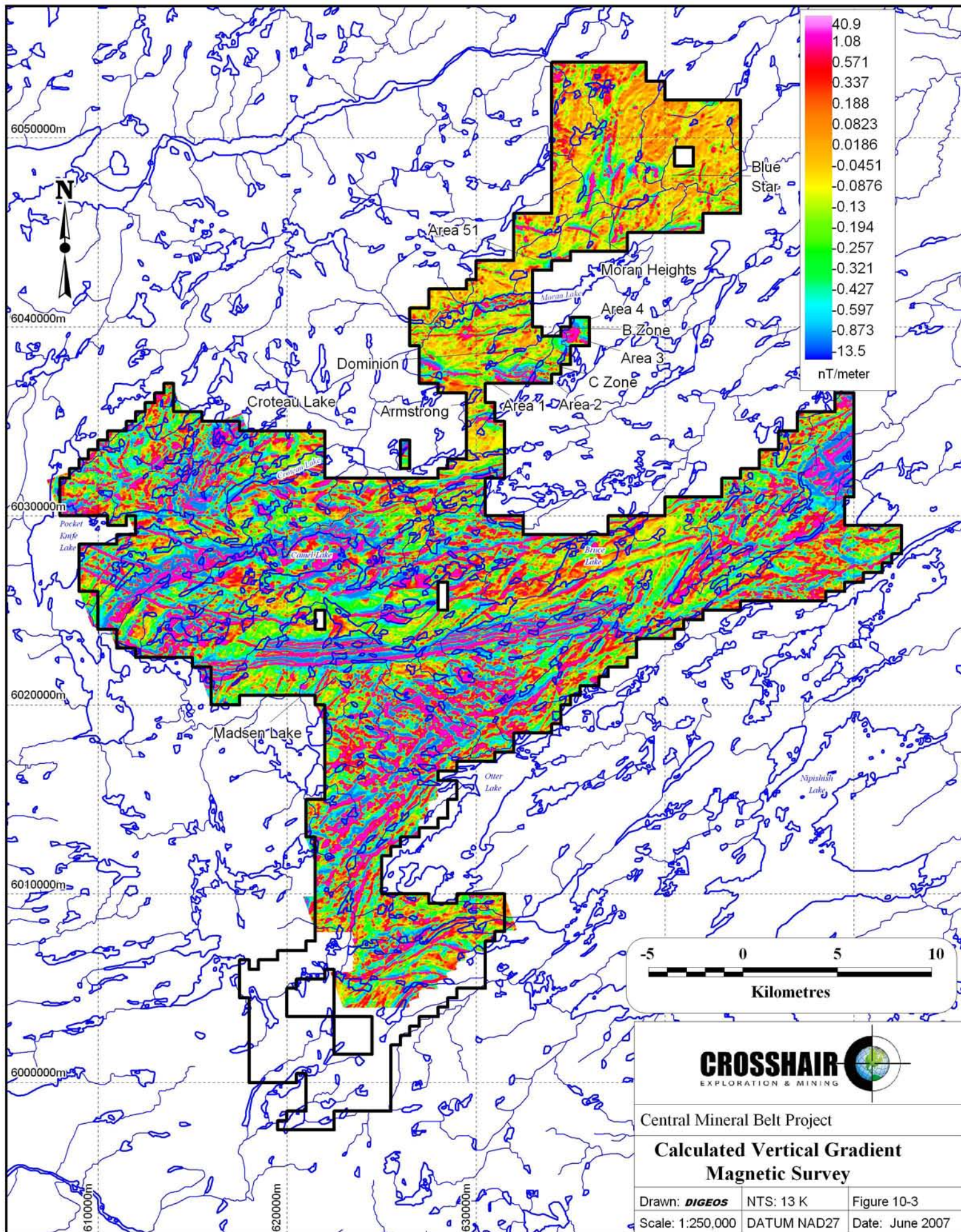
The airborne magnetic map is helpful in identifying important structural features such as regional unconformities, which are known to be associated with uranium mineralization at several localities on the property. Linear features (Figure 10-5) interpreted from the calculated vertical gradient map) may indicate the presence of shear zones which are known to host major uranium deposits elsewhere in the district.











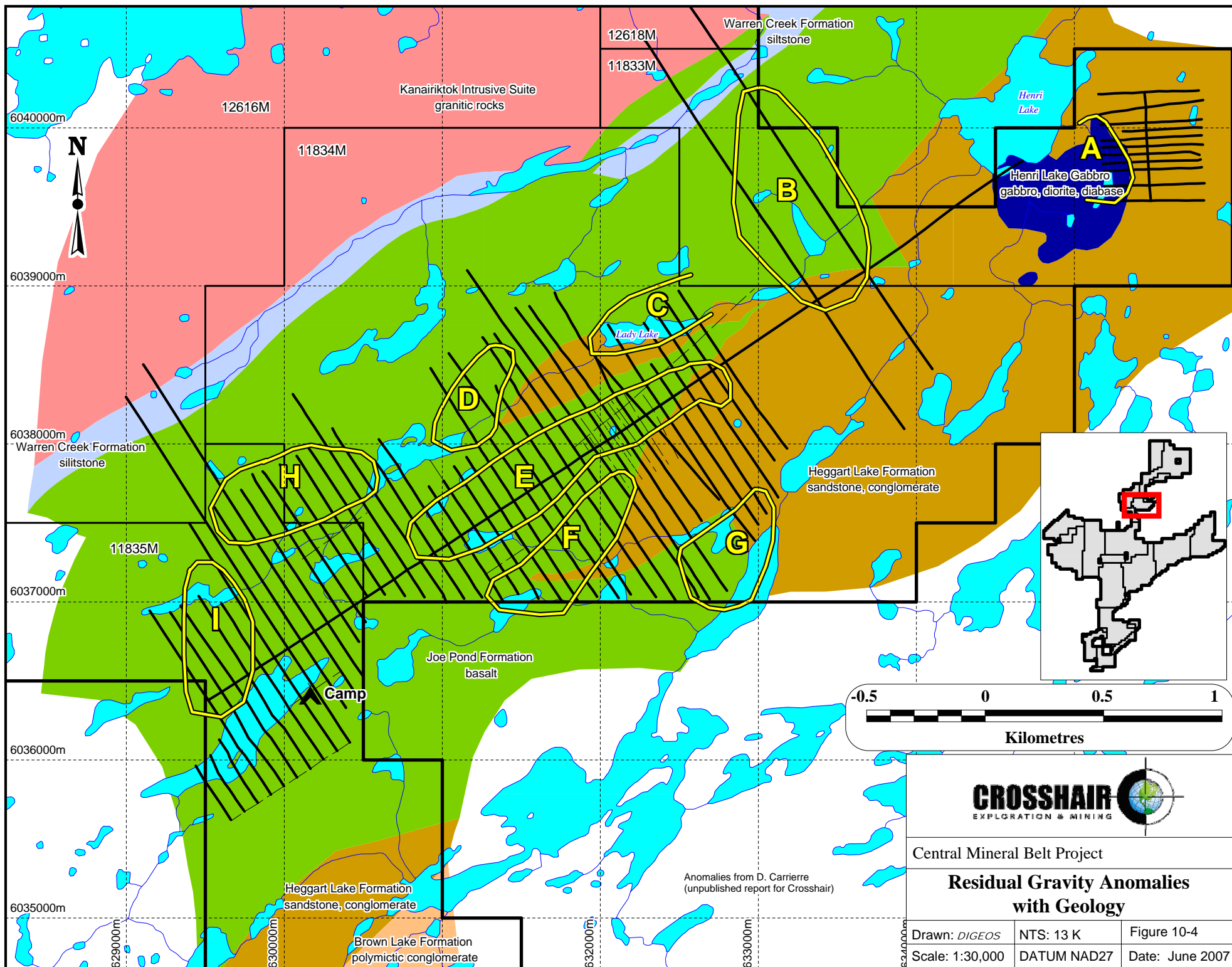


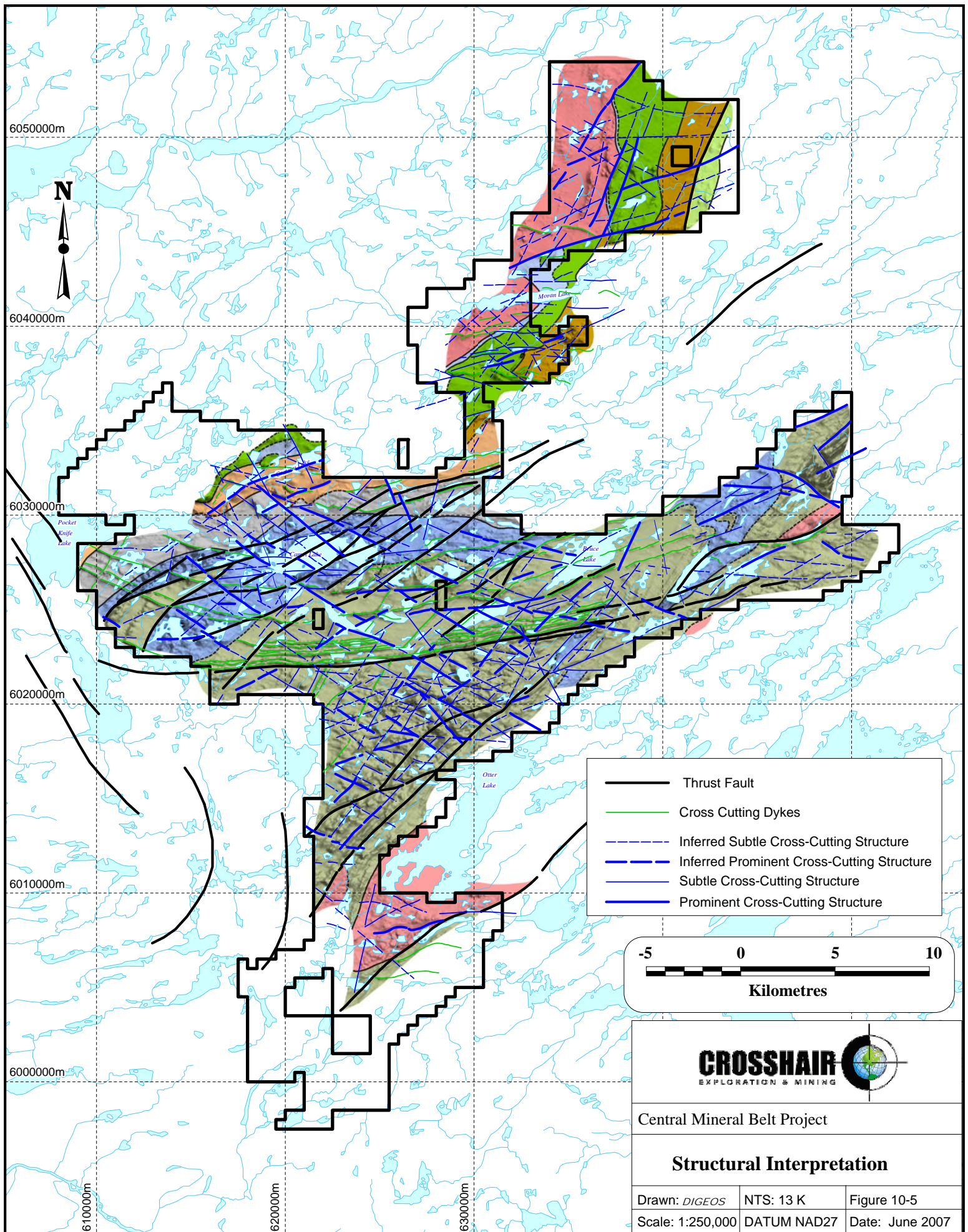
In late 2005 and early 2006, GeoScott Exploration Consultants Inc. (GeoScott) conducted a detailed ground-based gravity survey using a Scintrex CG-5 digital gravity meter over the central portion of the property using the C Zone grid. This survey confirmed a large, deep (400-800 m) gravity anomaly as indicated by the earlier airborne survey. GeoScott indicated that this anomaly is consistent with a high-density, possibly layered body at depth and could be favourable for IOCG mineralization, which is sometimes associated with large gravity anomalies, but generally located along the edges of the anomalies, and not directly overlying them. Additional ground surveys were recommended to fill-in the area over the C Zone and extend the grid northward to cover the B Zone.

During late winter of 2007, Eastern Geophysics of Halifax Nova Scotia completed a ground gravity survey over the remainder of the C Zone and the B Zone as per GeoScott's recommendations. Preliminary results are shown on the residual gravity map superimposed on the geology (Figure 10-4). Additional infill lines have been recommended prior to completion of the modelling of the anomalies.

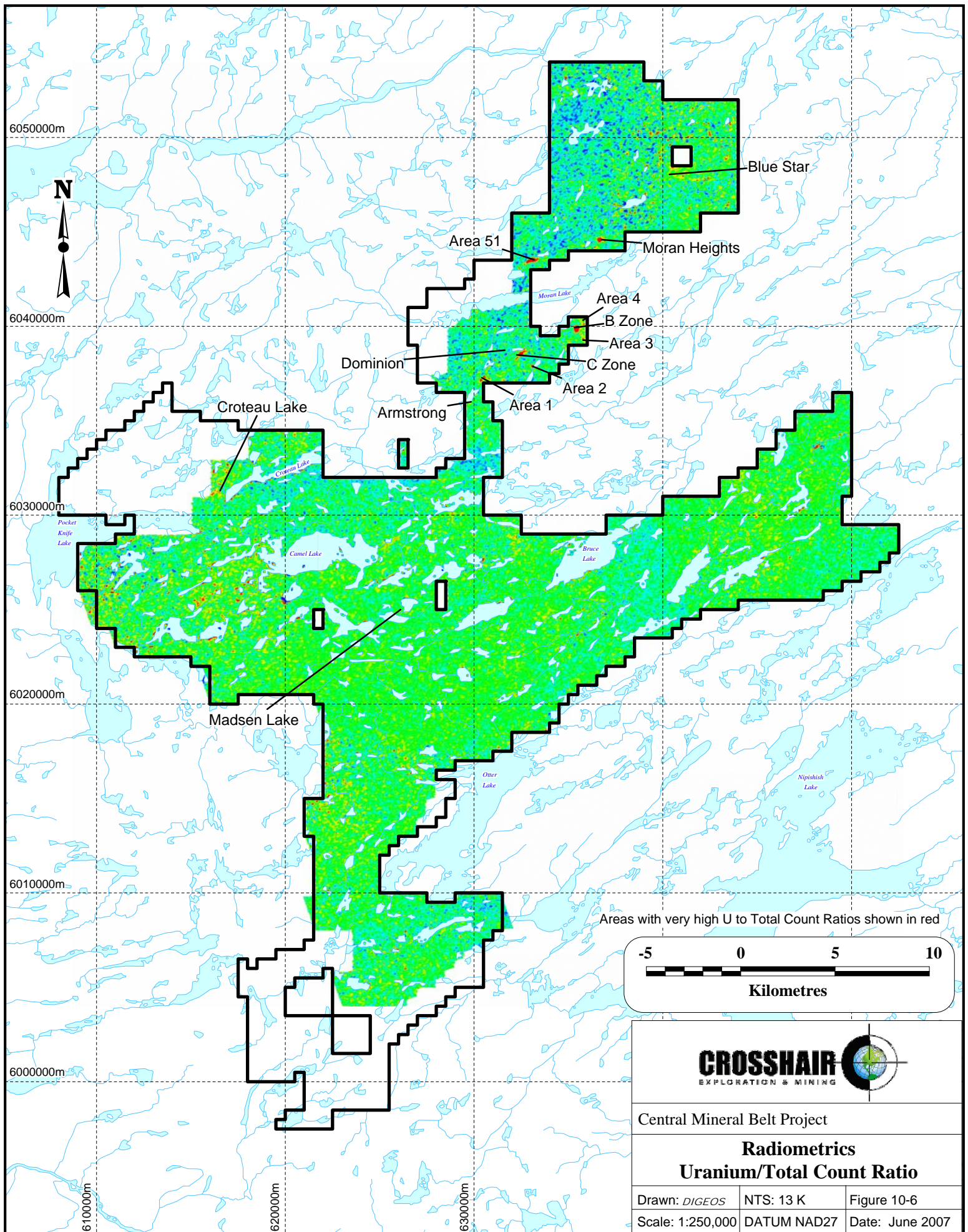
In May 2006, Crosshair engaged ENCOM to interpret the airborne geophysics. Interpretation of the magnetic data over the CMB Project identified a number of regionally significant structures that define the gross structural architecture of the area. Geological mapping taken from the government available 100K "Central Mineral Belt" geology sheets has been incorporated with the structural interpretation, for improved geological context (Figure 10-5).

Airborne radiometric data acquired in conjunction with the magnetic survey has been filtered and a Uranium-Total Count ratio applied, enabling the identification of numerous discrete uranium anomalies across the CMB Project that would otherwise be difficult to identify in the radiometric datasets (Figure 10-6). Anomalies identified in the radiometric data have been interpreted against the structural interpretation for geological context.







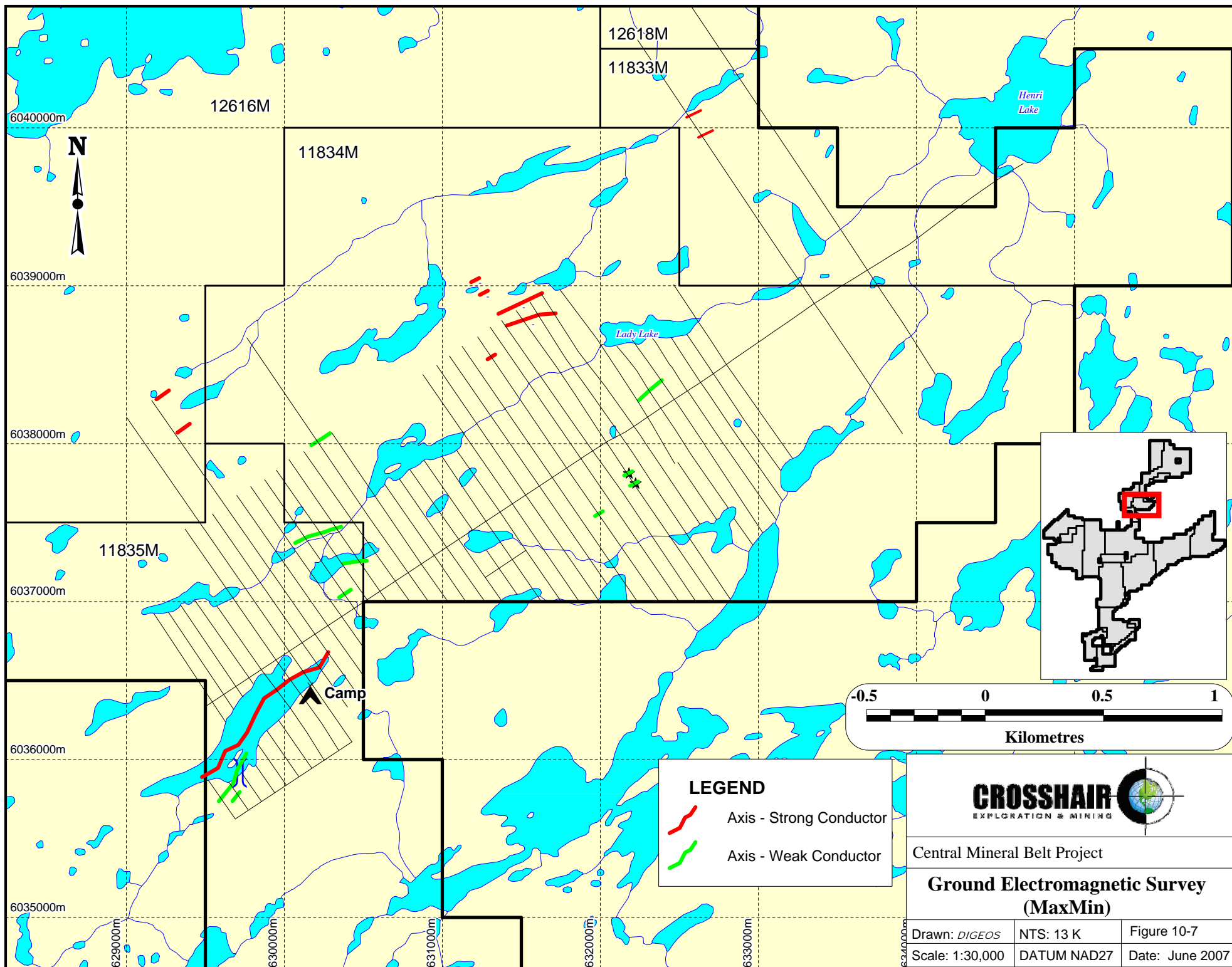


During the summer of 2006 Crosshair mounted an extensive helicopter supported exploration program based out of a camp on Armstrong Lake. The work, designed to follow-up airborne radiometric anomalies and Proterozoic unconformities, included prospecting, geological mapping, scintillometer surveys, trenching, sampling and drilling in a number of areas including the C Zone, Armstrong showing, Madsen Lake, Moran Heights, B Zone, Croteau Lake, Areas 1, 2, 3, 4, and 51 as described below. Results are described under Items 7 Mineralization, 9 Geology, and 11 Drilling.

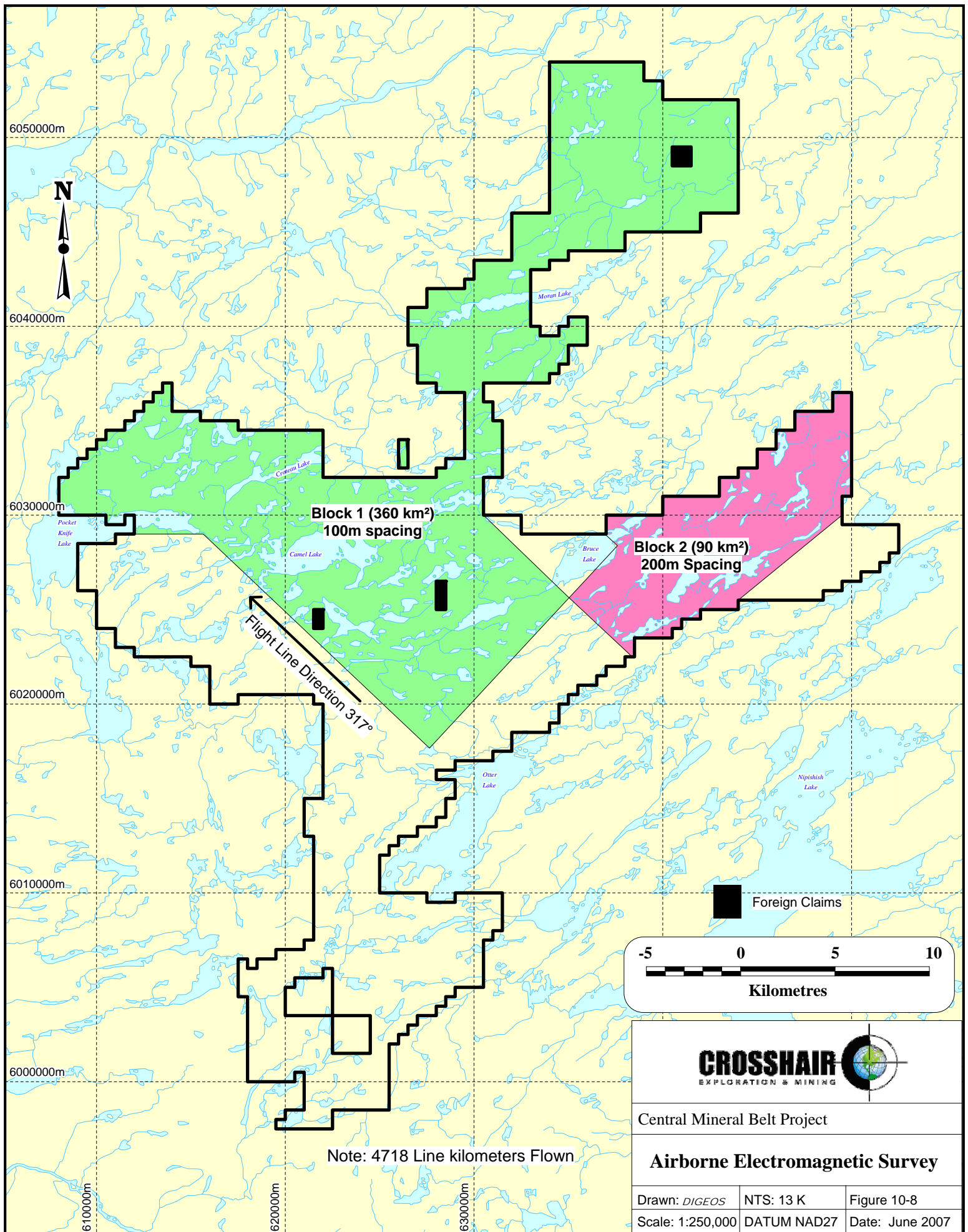
During the 2007 winter exploration program, Geoscott of St. John's NL and SJ Geophysics of Vancouver, BC completed a ground MaxMin EM survey over an area extending from Armstrong Lake north-eastward about 4.1km covering Area 1 and the Upper C and a portion of the LC (Figure 10-7). The MaxMin EM survey included Line 9400E, about 0.8km further to the northeast. Most of the survey (about 75%) was conducted using a coil spacing of 200m and the remainder at 100m coil spacing. The survey identified several conductors as shown on Figure 10-7.

In February 2007, Fugro Airborne Systems were contracted to carry out a helicopter borne EM survey (HeliGEOTEM) over the northern and central portions of the property (Figure 10-8). The survey, comprising 4,718 line kilometres, utilized an AStar helicopter stationed at Crosshair's Armstrong base camp and took approximately 5 weeks to complete. The survey was flown at an azimuth of 340 degrees on lines spaced 100 meters apart with a bird height of 30 meters above ground. Final results are pending.

During the winter Crosshair collected 158 lake-bottom sediment samples as part of an orientation survey. Results are pending.







## **11 DRILLING**

### **2006 PROGRAM**

Drilling was conducted by Cartwright Drilling Inc. of Goose Bay, Labrador using a Boyles 300 drill rig coring BTW size (42 mm diameter) core. Casings were left in drill holes at the C Zone but were removed from all other holes. The cost exclusive of core logging and sampling is approximately C\$135 per meter. Total drilling in 2006 amounted to 21,486 m in 137 holes.

All the holes were probed with a Mount Sopris gamma logging unit as described in Item 12, in addition to being surveyed with a Flexit multishot instrument which measures the dip and azimuth.

Sampling of the holes was guided by the radiometric logs. Samples were generally 50 cm in length but shorter when required by geological contacts or exceptionally high radioactive zones.

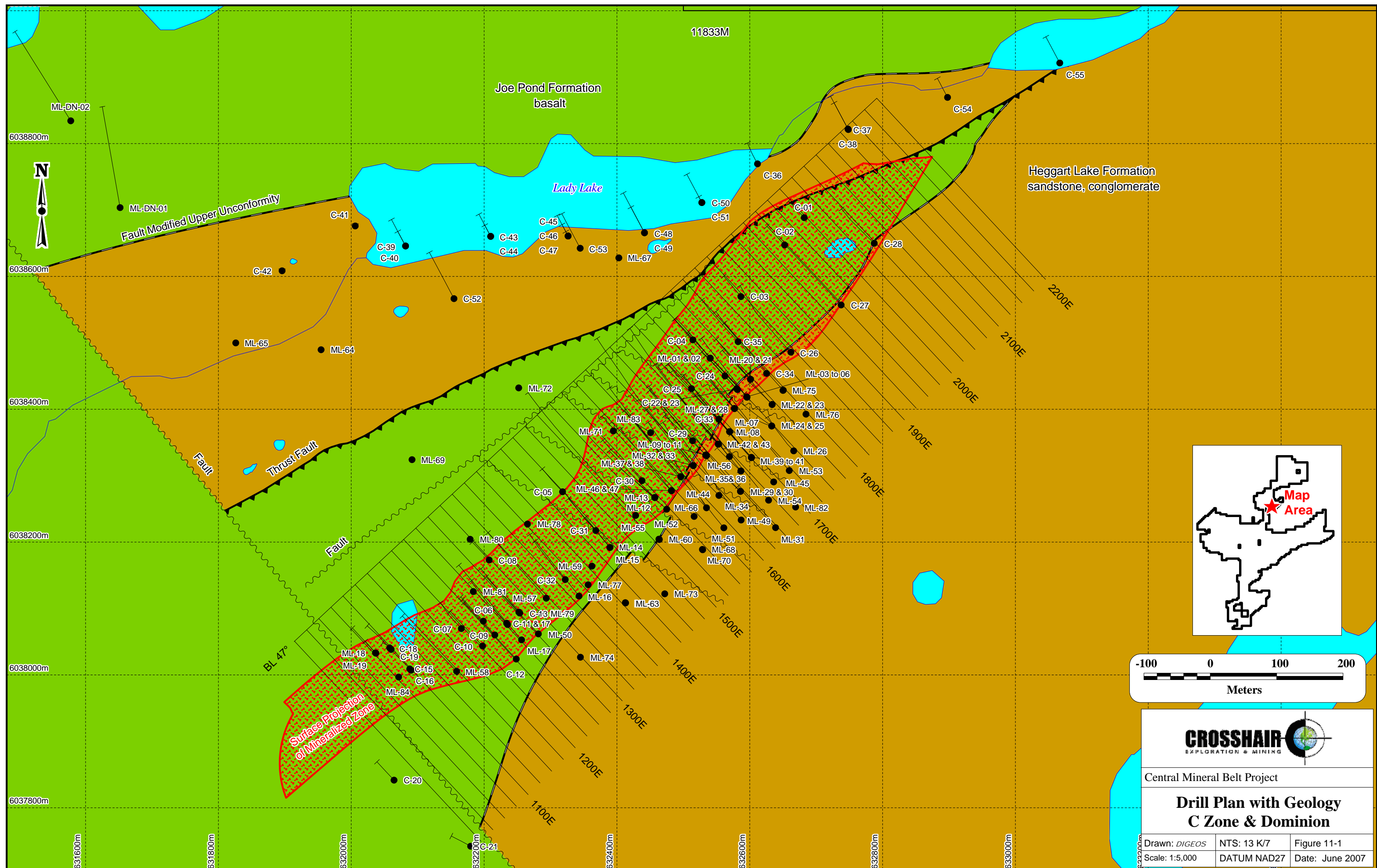
### **C ZONE**

The 2006 drill program completed by Crosshair consisted of 137 holes of which 58 tested the UC and to a lesser extent (10 holes of the 58) the LC (Figure 11-1). The program included the intersection of the thickest and highest grades of uranium (and potentially significant vanadium as well as locally significant copper and silver) reported from the UC. Examples of some of the better intersections range from 30.30 m averaging 0.134%  $U_3O_8$  and 0.158%  $V_2O_5$  from ML-20; to 28.90 m averaging 0.141%  $U_3O_8$  and 0.117%  $V_2O_5$  from ML-32 including 3.60 m grading 1.016%  $U_3O_8$ . Examples of copper and silver enriched intersections include ML-9 which returned 6.03 m averaging 0.107%  $U_3O_8$ , 0.102%  $V_2O_5$ , 9.3 g/t Ag and 0.202% Cu, and ML-10 which returned 1.46 m averaging 0.821%  $U_3O_8$ , 0.201%  $V_2O_5$ , 27.3 g/t Ag and 0.358% Cu. Other significant uranium assays are provided in Table 11-1 and 11-2.



**TABLE 11-1 UPPER C ZONE 2006 SIGNIFICANT INTERCEPTS**  
**Crosshair Exploration and Mining Corp. – CMB Project**

<b>Drill Hole</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Length (m)</b>	<b>U<sub>3</sub>O<sub>8</sub> %</b>
<b>ML-1</b>	46.31	50.65	4.34	0.197
<b>ML-2</b>	65.00	71.10	6.10	0.104
<b>ML-3</b>	88.80	101.70	12.90	0.100
<b>ML-5</b>	126.00	130.50	4.50	0.195
<b>ML-7</b>	129.00	133.35	4.35	0.100
<b>ML-8</b>	88.65	90.05	1.40	0.215
<b>ML-9</b>	89.60	95.63	6.03	0.107
<b>ML-10</b>	61.82	66.28	4.46	0.274
<b>ML-11</b>	75.87	90.50	14.63	0.117
<b>ML-12</b>	70.50	79.50	9.00	0.100
<b>ML-14</b>	36.50	42.50	6.00	0.100
<b>ML-17</b>	41.70	43.20	1.50	0.103
<b>ML-18</b>	43.90	47.00	3.10	0.100
<b>ML-20</b>	69.40	99.70	30.30	0.135
<b>ML-21</b>	100.18	105.00	4.82	0.100
<b>ML-24</b>	115.52	119.00	3.48	0.108
<b>ML-31</b>	200.55	206.32	5.77	0.100
<b>ML-32</b>	68.40	97.30	28.90	0.141
<b>ML-33</b>	105.90	112.90	7.00	0.100
<b>ML-35</b>	102.25	114.5	12.25	0.05
<b>ML-40</b>	109.55	122.70	13.15	0.101
<b>ML-41</b>	97.75	100.9	3.15	0.100
<b>ML-44</b>	90.55	99.7	9.15	0.104
<b>MI-52</b>	50.1	53.6	3.5	0.081
<b>ML-55</b>	56.66	74.16	17.5	0.050
<b>ML-56</b>	79.73	11.63	31.9	0.051



**TABLE 11-2 LOWER C ZONE 2006 SIGNIFICANT INTERCEPTS**  
**Crosshair Exploration and Mining Corp. – CMB Project**

<b>Drill Hole</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Length (m)</b>	<b>U<sub>3</sub>O<sub>8</sub> %</b>
<b>ML-34</b>	316.85	318.85	2.0	0.056
<b>ML-38</b>	295.16	303.08	7.92	0.052
<b>ML-44</b>	342.0	357.0	15.0	0.050
<b>ML-47</b>	312	316.5	4.5	0.101

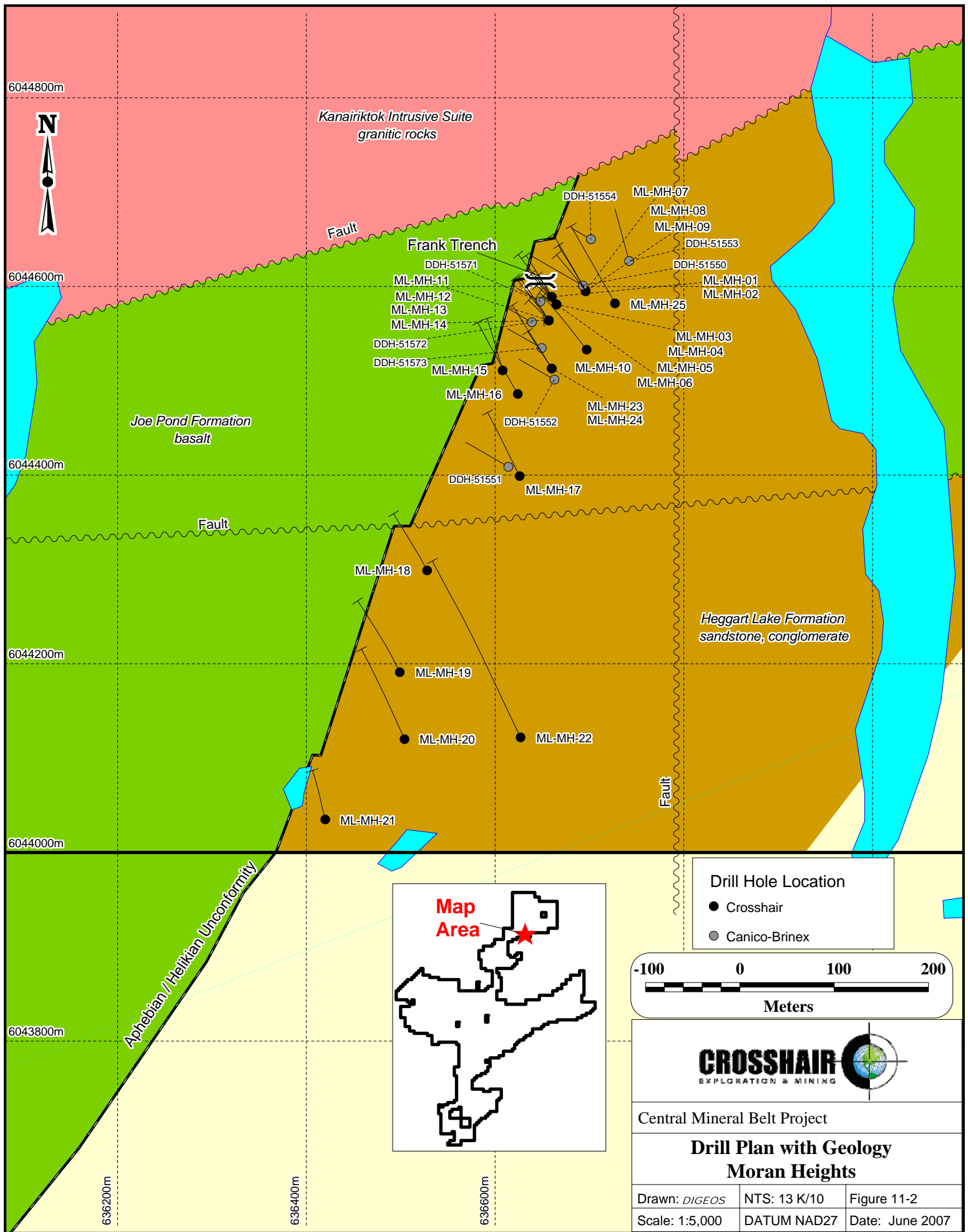
### **MORAN HEIGHTS**

Crosshair completed a Phase 1 diamond drilling program consisting of 25 drill holes totalling 2,757 m (Figure 11-2). The drill program tested a zone of stratabound uranium mineralization hosted by reduced sandstone and conglomerate of the Heggart Lake Formation (Bruce River Group) proximally above the unconformity with the underlying basalts of the Joe Pond Formation (Moran Lake Group).

A total of 715 drill core samples were taken. Table 11-2 summarizes significant results on a hole by hole basis using a cut-off grade of 0.03 % U<sub>3</sub>O<sub>8</sub> or 0.300% Cu.

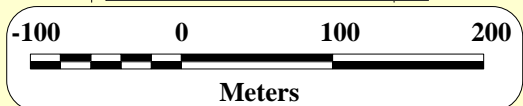
**TABLE 11-3 MORAN HEIGHTS DRILLING SIGNIFICANT ASSAYS**  
**Crosshair Exploration and Mining Corp. – CMB Project**

<b>Hole #</b>	<b>From</b>	<b>To</b>	<b>Length</b>	<b>U<sub>3</sub>O<sub>8</sub></b>	<b>V<sub>2</sub>O<sub>5</sub></b>	<b>Ag</b>	<b>Cu</b>
	<b>(m)</b>	<b>(m)</b>	<b>(m)</b>	<b>(%)</b>	<b>(%)</b>	<b>(g/t)</b>	<b>(%)</b>
<b>ML-MH-02</b>	29.50	35.00	5.50	0.005	0.009	1.4	0.371
	42.14	42.23	0.09	0.001	0.022	28.0	1.450
<b>ML-MH-03</b>	52.5	59.5	7.0	0.006	0.008	0.5	0.181
<b>ML-MH-04</b>	39.00	44.00	5.00	0.099	0.029	0.4	0.001
	56.0	71.0	15	0.01	0.006	0.5	0.152
<b>ML-MH-05</b>	83.00	85.00	2.00	0.003	0.007	5.9	0.390
<b>ML-MH-06</b>	55.50	56.50	1.00	0.048	0.023	1.4	0.001
<b>ML-MH-08</b>	62.50	63.50	1.00	0.040	0.010	0.2	0.001
	85.5	91.0	5.5	0.006	0.005	2.4	0.227
<b>ML-MH-09</b>	85.00	89.00	4.00	0.005	0.005	1.2	0.223
<b>ML-MH-11</b>	49.5	56.50	7.0	0.013	0.008	0.8	0.171
<b>ML-MH-12</b>	51.50	60.00	8.50	0.011	0.007	0.8	0.181
<b>ML-MH-13</b>	36.08	41.53	5.45	0.106	0.023	0.7	0.003
<b>ML-MH-14</b>	45.61	50.04	4.43	0.051	0.018	0.3	0.001
	86.44	88.41	1.97	0.004	0.008	0.3	0.212
<b>ML-MH-23</b>	55.00	62.00	7.00	0.003	0.007	0.6	0.252
<b>ML-MH-25</b>	101.50	111.00	9.50	0.006	0.007	1.3	0.230



**Drill Hole Location**

- Crosshair
- Canico-Brinex



Central Mineral Belt Project		
<b>Drill Plan with Geology Moran Heights</b>		
Drawn: DIGEOS	NTS: 13 K/10	Figure 11-2
Scale: 1:5,000	DATUM NAD27	Date: June 2007

**MADSEN LAKE**

In August, Crosshair completed Phase 1 of a diamond drilling program at Madsen Lake – Zone 4 east, totalling 956 m in nine holes (Figure 11-3). The drill program was designed to test high radioactivity along discontinuous outcrop in Zone 4 east. Mineralization is focussed within quartz and hematite fractures and rarely within weakly sheared and altered felsic volcanics.

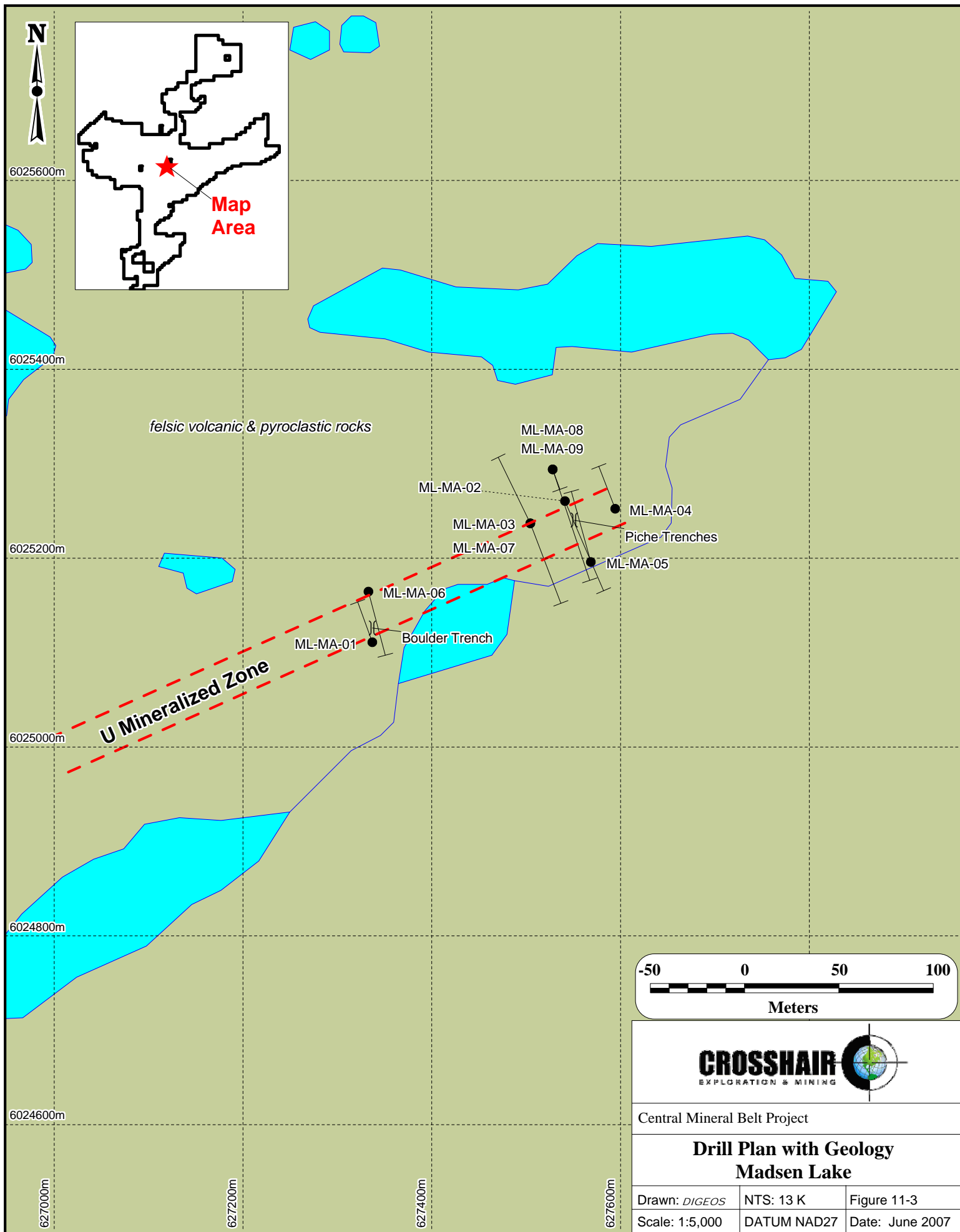
A total of 245 drill core samples were taken. Table 11-4 summarizes significant results above a cut-off grade of 0.03 %  $U_3O_8$ .

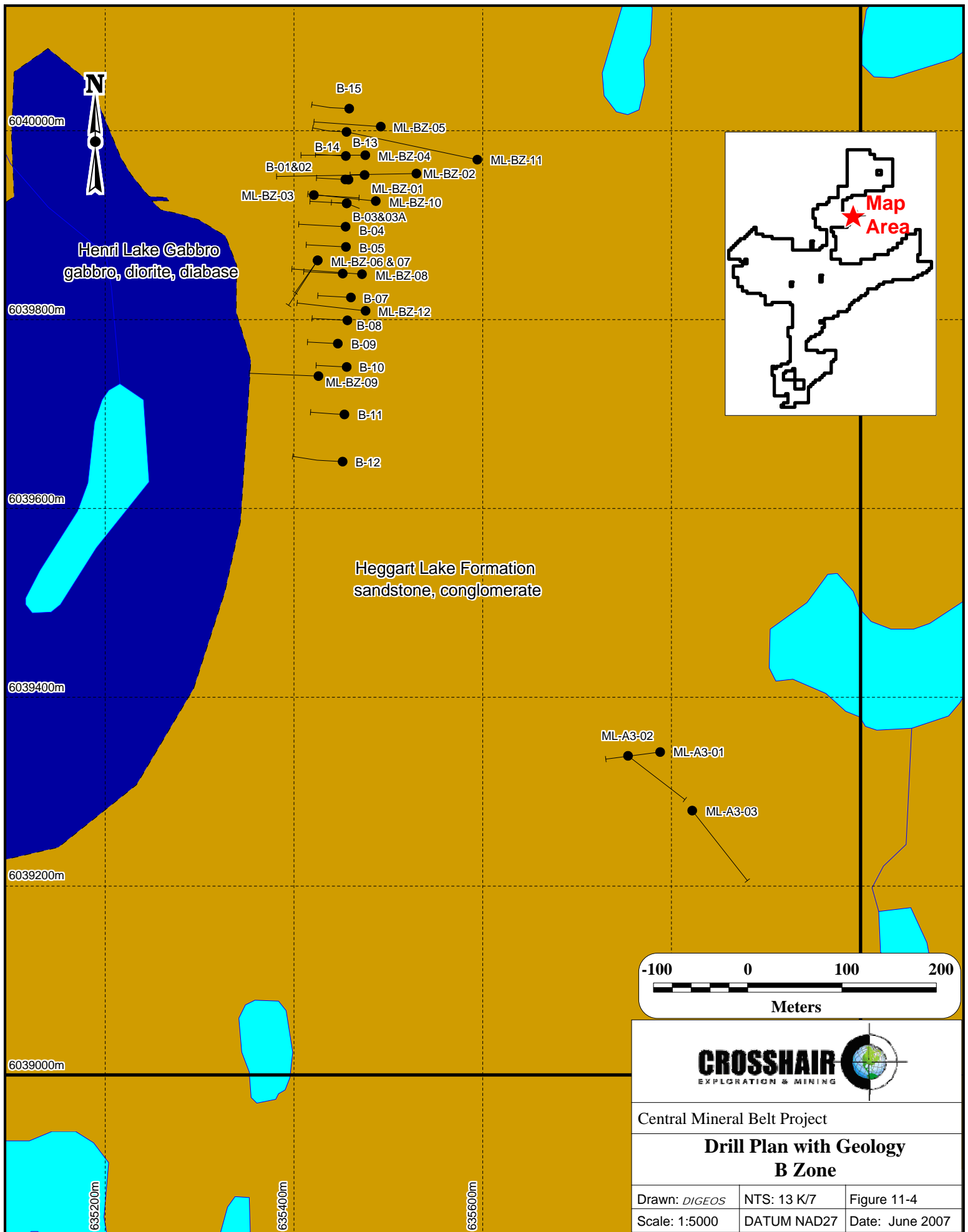
**TABLE 11-4 MADSEN LAKE DRILLING SIGNIFICANT ASSAYS**  
**Crosshair Exploration and Mining Corp. – CMB Project**

Hole	Interval From – To (m)	Length (m)	$U_3O_8$ (%)	$V_2O_5$ (%)	Ag (g/t)	Cu (%)
ML-MA-02	21.84 – 23.34	1.50	0.048	0.008	1.7	0.003
ML-MA-05	91.00 – 92.50	1.50	0.054	0.006	0.5	0.006
	100.58 – 101.08	0.50	0.087	0.005	1.7	0.001

**B ZONE**

Twelve holes totalling approximately 1,200 m were completed on the B Zone between July 9 and August 11, 2006 (Figure 11-4). In addition, three holes totalling 315 m between August 30 and September 2nd, 2006 were drilled at Area 3, 600 m southeast of the B Zone. A total of 350 drill core samples were taken for assay; 315 from the B Zone and 35 from Area 3. No mineralization was intersected at Area 3. Significant assays at a cut-off grade of 0.03 %  $U_3O_8$  are summarized in Table 11-4. The mineralization extends for at least 150 m along strike and to a vertical depth of at least 50 m and remains open to depth on several sections. Based on the drilling to date, if the strike and dip of the mineralization is doubled at the grades shown in Table 11-4, it is estimated that the area has a potential to contain a resource of 1 to 2 million tonnes at a







grade of 0.1 % to 0.2%  $U_3O_8$  containing 2 to 12 million lbs of  $U_3O_8$  in addition to potentially significant by-product metals including Cu, Ag and  $V_2O_5$ . This potential is conceptual in nature and it is uncertain if further exploration will result in the delineation of a resource.

**TABLE 11-5 B ZONE DRILLING SIGNIFICANT ASSAYS**  
**Crosshair Exploration and Mining Corp. – CMB Project**

Hole #	From (m)	To (m)	Length (m)	% $U_3O_8$	% $V_2O_5$	g/t Ag	% Cu
<b>MLBZ-01</b>	34.07	41.63	7.56	0.269%	0.155%	2.4	0.035%
<b>MLBZ-02</b>	72.24	81.68	9.44	0.100%	0.107%	6.5	0.134%
<b>MLBZ-04</b>	42.77	45.27	2.50	0.111%	0.107%	5.8	0.110%
<b>MLBZ-06</b>	15.58	22.00	6.42	0.062%	0.063%	2.7	0.054%

## **AREA 1**

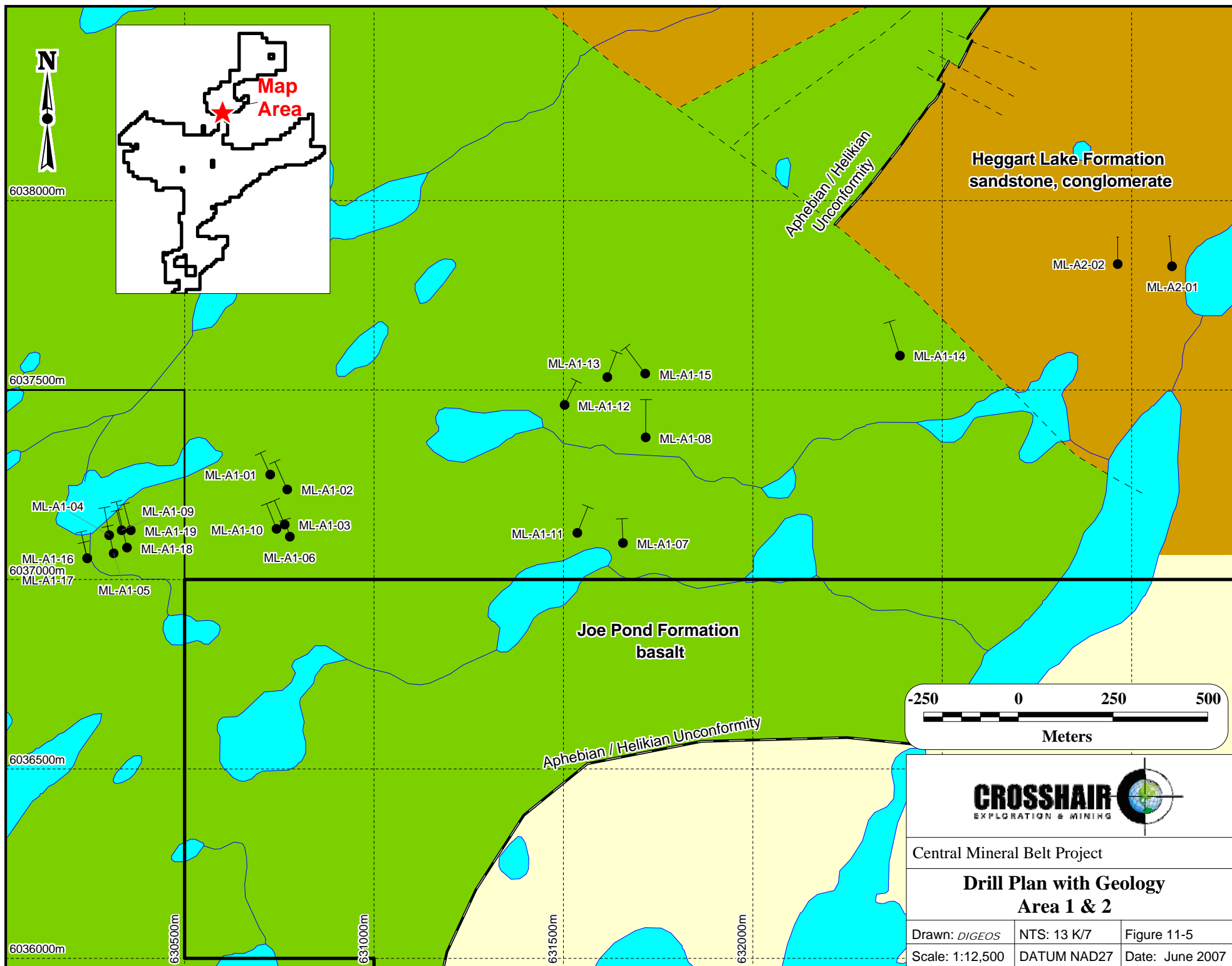
A Phase 1 diamond drilling program consisting of 1,543 m in 15 holes was completed at Area 1 in early August 2006 (Figure 11-5). Significant assays are shown in Table 11-6. In terms of geological and structural setting, alteration and the style of mineralization, Area 1 shows strong similarities to that seen 2 km to the northeast at the UC. Drilling to date has identified significant near-surface mineralization over a strike length of 200 m and to a depth of at least 30 m. Mineralization remains open along strike and to depth. Although the grade in the drill holes is of lower grade than the surface boulders, based on the six drill holes completed to date over a 200 m strike length, the area could have a potential resource of 300,000 to 500,000 tonnes averaging 0.06% to 0.08%  $U_3O_8$  containing approximately 500,000 to 1,000,000 pounds of  $U_3O_8$ . This potential is conceptual in nature and it is uncertain if further exploration will result in the delineation of a resource.

**TABLE 11-6 AREA 1 DRILLING SIGNIFICANT ASSAYS****Crosshair Exploration and Mining Corp. – CMB Project**

<b>Drill Hole</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Length (m)</b>	<b>U<sub>3</sub>O<sub>8</sub> (%)</b>
ML-A1-03	2.98	14.00	11.02	0.078
ML-A1-04	33.0	48.25	15.25	0.030
ML-A1-05	66.85	70.36	3.51	0.042
ML-A1-09	36.64	48.15	11.51	0.051
ML-A1-12	47.3	54.1	6.80	0.050

**AREA 2**

A Phase 1 diamond drilling program totalling 213 m in 2 holes to test the surface showing intersected narrow zones of weak mineralization (Figure 11-5). The best interval returned 0.053% U<sub>3</sub>O<sub>8</sub> over 0.2 m.



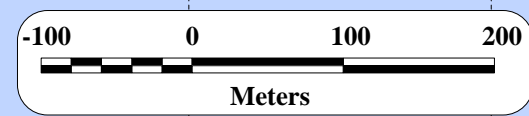
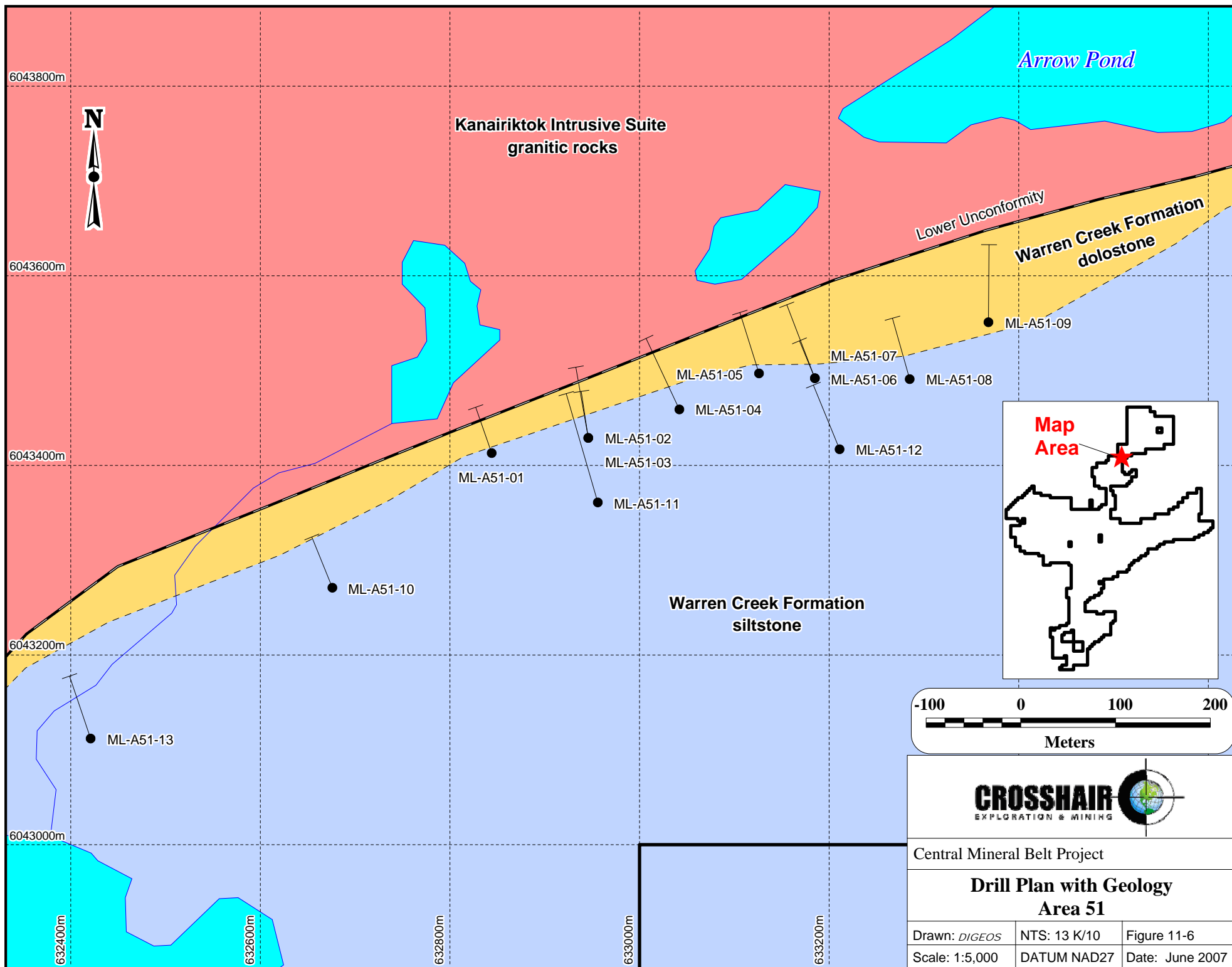
**AREA 51**

A Phase 1 diamond drilling program consisting of 1,438 m drilled in 13 holes was completed at Area 51 in early September 2006 (Figure 11-6).

The drilling intersected wide zones of low grade uranium mineralization along a 1.2 km strike length which is still open to depth and along strike. Results include up to 24.66 m averaging 0.012% U<sub>3</sub>O<sub>8</sub> from hole ML-A51-3, with several holes returning similar grades over thicknesses varying from 2.47 m to 14.43 m. Hole ML-A51-01 returned 2.08% Zn over 2.15 m. All thicknesses are near true width based on relationships observed in the core including lithological contacts. Highlights of composite assays are shown in Table 11-7.

**TABLE 11-7 AREA 51 DRILLING SIGNIFICANT ASSAYS**  
**Crosshair Exploration and Mining Corp. – CMB Project**

Hole #	From (m)	To (m)	Length (m)	U <sub>3</sub> O <sub>8</sub> (%)	V <sub>2</sub> O <sub>5</sub> (%)	Ag (g/t)	Cu (%)
<b>ML-A51-02</b>	21.43	31.50	10.07	0.013	0.018	1.3	0.001
	93.64	97.11	3.47	0.021	0.017	0.3	0.001
<b>ML-A51-03</b>	21.40	46.06	24.66	0.012	0.013	0.2	0.001
<b>ML-A51-05</b>	20.01	28.13	8.12	0.012	0.036	0.2	0.001
<b>ML-A51-06</b>	28.68	43.11	14.43	0.012	0.021	0.2	0.001
<b>ML-A51-07</b>	31.20	44.18	12.98	0.012	0.021	0.2	0.001
including	38.15	38.65	0.50	0.048	0.050	0.2	0.001
	65.86	68.33	2.47	0.013	0.012	0.2	0.002
<b>ML-A51-08</b>	38.80	49.20	10.40	0.012	0.029	0.4	0.001
<b>ML-A51-09</b>	14.84	17.31	2.47	0.012	0.022	0.2	0.001
<b>ML-A51-10</b>	53.18	55.26	2.08	0.012	0.017	3.7	0.001
	58.34	65.79	7.45	0.012	0.020	0.2	0.001
<b>ML-A51-11</b>	126.50	129.50	3.00	0.012	0.023	0.2	0.001



Central Mineral Belt Project		
<b>Drill Plan with Geology Area 51</b>		
Drawn: <i>DIGEOS</i>	NTS: 13 K/10	Figure 11-6
Scale: 1:5,000	DATUM NAD27	Date: June 2007

### 2007 WINTER PROGRAM

Drilling during the 2007 winter program was conducted by Lantech Drilling Services Inc. of Dieppe, New Brunswick using Two LDS-300 drill rigs coring BTW size (42 mm diameter) core. Casings were left in drill holes at the C Zone but were removed from all other holes. The cost exclusive of core logging and sampling is approximately C\$135 per meter. Total drilling in the winter 2007 program amounted to 9,410 m in 34 holes.

As in 2006, all the holes were probed with a Mount Sopris gamma logging unit as described in Item 12, in addition to being surveyed with a Flexit multishot instrument, which measures the dip and azimuth.

Sampling of the holes was guided by the radiometric logs. Samples were generally 50 cm in length but shorter where required by geological contacts or exceptionally high radioactive zones.

### C ZONE

The 2007 winter drill program on the C Zone consisted of 8,211m in 26 holes (Figure 11-1). Fifteen of the holes tested both the Upper and LC, six holes (1,042 m) tested the upper C Zone only, and five holes (1,166 m) tested the LC only. The program expanded the C Zone mineralization along strike and to depth. Drilling conducted during the winter program also intersected the thickest and highest grades of uranium reported to date from the LC.

Significant uranium assays from the 2007 drilling program are shown in Tables 11-8 and 11-9.

Vanadium-enriched sections in the UC include: 9.50 m grading 0.198%  $V_2O_5$  and another 5.00m grading 0.204%  $V_2O_5$  in ML-70. Local copper enrichment in the UC is illustrated by an intersection of 29.00 m grading 0.145% Cu in ML-63.

**TABLE 11-8 UPPER C ZONE 2007 SIGNIFICANT INTERCEPTS**  
**Crosshair Exploration and Mining Corp. – CMB Project**

<b>Drill Hole</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Length (m)</b>	<b>U<sub>3</sub>O<sub>8</sub> %</b>
<b>ML-59</b>	39.00	62.00	23.00	0.034
<b>ML-63</b>	128.25	130.25	2.00	0.119
<b>ML-66</b>	85.30	88.80	3.50	0.048
<b>ML-68</b>	125.90	127.40	1.50	0.115
<b>ML-70</b>	100.70	103.70	3.00	0.115
	142.75	144.25	1.50	0.168
	285.90	295.40	9.50	0.053
<b>ML-71</b>	13.00	22.50	9.50	0.040
	37.00	57.00	20.00	0.033
<b>ML-73</b>	276.50	281.25	4.75	0.031
<b>ML-75</b>	109.50	111.90	2.40	0.148
	117.15	121.35	4.20	0.131
<b>ML-76</b>	112.25	122.70	10.45	0.076
<b>ML-78</b>	35.40	39.60	4.20	0.032
<b>ML-79</b>	113.00	115.50	2.50	0.108
<b>ML-82</b>	105.9	121.4	17.0	0.10
<b>ML-83</b>	39.25	42.0	2.75	0.107
	54.0	65.0	11.0	0.037

**TABLE 11-9 LOWER C ZONE 2007 SIGNIFICANT INTERCEPTS**  
**Crosshair Exploration and Mining Corp. – CMB Project**

<b>Drill Hole</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Length (m)</b>	<b>U<sub>3</sub>O<sub>8</sub> %</b>
ML-59	339.00	346.45	7.45	0.051%
ML-60	356.50	367.50	11.00	0.042%
MI-63	385.05	428.50	43.45	0.041%
including	386.35	397.40	11.05	0.128%
ML-64	122.50	125.00	2.50	0.040%
ML-69	261.10	262.60	1.50	0.085%
MI-70	423.20	425.70	2.50	0.054%
ML-77	347.00	350.51	3.51	0.072%
ML-80	301.50	303.00	1.50	0.064%

## **AREA 1**

A Phase 2 diamond drilling program consisting of 543 m in 4 holes was completed at Area 1 in early March 2007 (Figure 11-5). Drilling was focussed within the vicinity of holes ML-A1-04, -05 and -09, which intersected strong uranium mineralization during the 2006 summer program. In addition, a surface showing discovered in the summer 2006 program with assay results of 2.21% U<sub>3</sub>O<sub>8</sub> and 1.12% Cu, was targeted with drill hole ML-A1-16. The drill hole intersected 0.110% U<sub>3</sub>O<sub>8</sub> over 11.50 m confirming the presence of strong uranium mineralization beneath the showing. A total of 192 drill core samples were taken. Significant assays are shown in Table 11-10.



**TABLE 11-10 AREA 1 2007 SIGNIFICANT INERCEPTS****Crosshair Exploration and Mining Corp. – CMB Project**

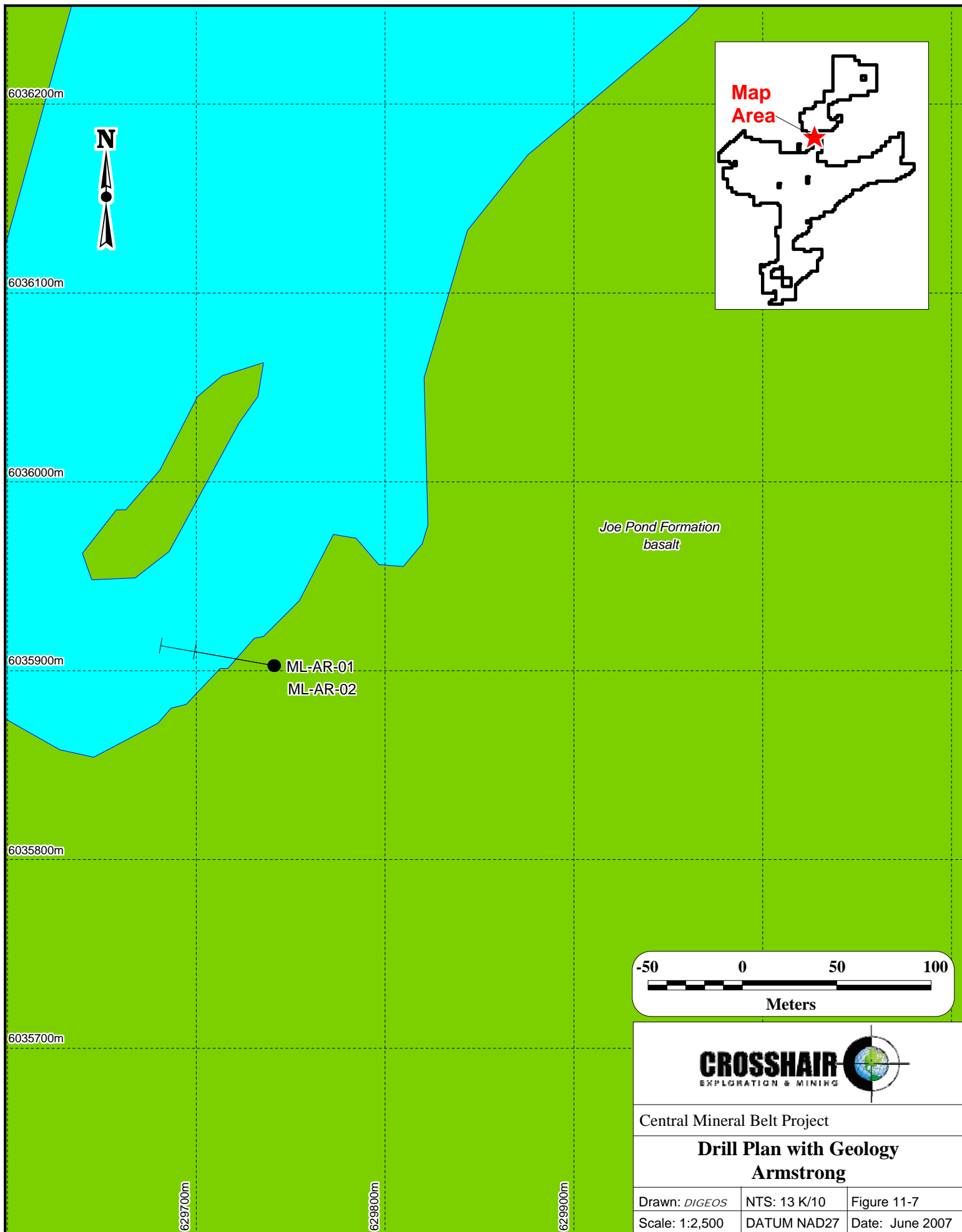
Drill Hole	From (m)	To (m)	Length (m)	U <sub>3</sub> O <sub>8</sub> (%)
ML-A1-16	26.00	37.50	11.50	0.110
including	34.00	37.00	3.00	0.323
ML-A1-18	94.50	97.00	2.50	0.030
ML-A1-19	60.2	67.3	7.1	0.037

**ARMSTRONG**

In early April 2007, Crosshair completed Phase 1 of a diamond drilling program at Armstrong, totalling 214 m in two holes (Figure 11-7). The drill program was designed to test high radioactivity along two N-S trending shear zones in outcrop and to test a ground EM conductor. A total of 63 drill core samples were taken. Minor zones of mineralization were intersected grading up to 0.037% U<sub>3</sub>O<sub>8</sub> over 0.5 m. In addition, up to 8 m of interbedded graphitic, pyritic shale and chert was intersected at depths correlative to the surface conductor.

**DOMINION**

A Phase 1 diamond drill program at Dominion was carried out between March 28 and April 5, 2007 in which two holes, totalling 442 m, were completed (Figure 11-1). ML-DN-01 was drilled to test a surface showing where seven bedrock samples containing >0.03% U<sub>3</sub>O<sub>8</sub> averaged 0.128% U<sub>3</sub>O<sub>8</sub>. The hole intersected very localized uranium mineralization in mafic rocks of the Joe Pond Formation. The drill hole also intersected approximately 140 m of conformably underlying Warren Creek Formation rocks comprising graphitic, pyritic shale with minor local semi-massive to massive pyrite layers as well as siltstone and chert. ML-DN-02 was drilled to test a strong ground EM conductor and intersected approximately 160 m of graphitic, pyritic shale overlying the Joe Pond Formation mafic volcanics. A total of 114 drill core samples were taken for assay. To date, only very minor uranium mineralization was intersected at Dominion, with the best result being 0.011% U<sub>3</sub>O<sub>8</sub> over 0.5 m.



## **12 SAMPLING METHOD AND APPROACH**

Each prospector and geologist was equipped with an Exploranium GR-110 G Portable Gamma Ray hand-held scintillometer. Elevated gamma ray counts detected by the scintillometer were used as a guide to the presence of potential uranium mineralization. Mineralized outcrop or float (boulders), as determined by elevated gamma ray counts or other macroscopic indicators such as favourable alteration or the presence of sulphide minerals, was typically sampled for analysis. Each sample collected was placed in a polyvinyl sample bag and assigned a sample tag for reference. The UTM coordinates (NAD27) for the sampled area were recorded and the physical location of the sample identified in the field using flagging tape on which the sample number is written. Prior to preparing the rock samples for shipping, a representative portion of each sample was removed and labelled for reference. Most of the collected samples are classified as grab samples although outcrop areas were occasionally panel sampled over 10 cm to 20 cm areas. Trenches were chip sampled, across structure if possible.

Each hole was probed using a Mount Sopris Polygamma logging unit. The natural gamma measurement is made by the use of a sodium iodide crystal, contained within the survey probe. After assembling the probe, winch, logger and laptop combination the gamma probe is slowly lowered into the borehole, until reaching the bottom. Gamma measurements are recorded at a preset sample rate, ranging from millimetres to metres, or alternatively, at specific time intervals. Data can be recorded during descent and/or ascent of the probe through the borehole. A field computer captures the raw data in real-time, and records it to file.

Two types of files are recorded during the gamma survey:

- A file formatted for direct import into a post-survey software package, which graphically displays the data.
- A simple ASCII text file, readable by most word processing software packages (TextPad, WordPad, Microsoft Word, Excel, etc.), containing only depth and gamma values.

Raw data files are not filtered or manipulated in any way, and are loaded directly into a software package designed primarily for the polygamma probe. Data files output from the polygamma probe contains depth and corresponding gamma values, or alternatively, time and corresponding gamma values. Data can be displayed at user-defined vertical and horizontal scales.

Sections of core to be assayed for uranium were determined by the intensity of gamma radiation as measured by the down hole probe and an examination of the core using a hand-held scintillometer. Core displaying alteration characteristic of potential vanadium mineralization or disseminated sulphide mineralization indicative of base metal mineralization was also sampled. The length of each sample is typically 0.5 m but modified where required to accommodate variations in mineralization and geology. Samples were assigned a sample number which was recorded on the core box, on the sample sheets and on the sample bag for shipment.

Core samples were sawn in half with half retained for storage. Each sample for assay was placed in a polyvinyl sample bag, the sample number written on the outside of the bag and a reference tag enclosed within. The top of the bag containing the sample was then folded and stapled. The sealed samples of either rock or core were placed in woven polypropylene “rice” bags. Prior to sealing the bags, each was scanned for gamma radiation using an Exploranium GR-110 G Portable Gamma Ray hand-held scintillometer. As per regulations for the Transportation of Dangerous Goods Act, signage indicating “Excepted Package: Radioactive Material” was placed within each bag and all bags were labelled “UN2910” on the outside. The samples were transported to Goose Bay, Labrador and then on to Eastern Analytical Ltd. in Springdale for sample preparation.

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

### **2006 PROGRAM**

Sample preparation for both rock and drill core was carried out by Eastern Analytical Limited of Springdale NL (Eastern) using standard industry methods. Eastern is a recognized laboratory that has been in business for over 30 years and inserts internal standards, blanks and duplicate samples as standard procedure every 25 samples.

Two 250-gm pulps were prepared, one analysed for Au, Ag and Cu by Eastern and the second pulp forwarded to Activation Laboratories (Actlabs) in Ancaster, ON, for further analysis. Actlabs is a recognized laboratory that maintains internal QA/QC using standards, blanks and duplicates and is accredited under ISO/IEC 17025, which includes ISO 9001 and 9002 Certification.

Crosshair has a QA/QC program in place using standards, blanks and duplicates with additional duplicate assays completed at the end of the program. The program was instigated for all holes following ML-24. One sample of core for every 50 samples is quarter split with both quarters sent for assay. In addition, check analyses on 50 rejects prepared from the coarse crush were carried out by SGS Canada Inc., Minerals Services, Toronto ON (SGS) which has ISO/IEC 17025 accreditation. In addition, 300 pulps from Actlabs were re-assayed for uranium by SGS. A blank prepared from an unmineralized siliceous siltstone (from outside of Labrador) was inserted at pre-designated locations resulting in each 50 sample batch containing a blank.

Assay results from both Eastern and Actlabs were forwarded electronically to Crosshair offices in Vancouver BC and Mount Pearl NL. Final assay certificates are on file at the office in Mount Pearl.

Gold assays are determined by standard fire assay with AA finish. Copper and silver are determined by standard wet chemical methods employing acid digestion and determination using atomic absorption spectrophotometry.

Pulps sent to Actlabs after preparation by Eastern were analyzed for uranium and 27 other elements using Instrumental Neutron Activation Analysis (INAA) and Inductively Coupled Plasma Spectrometry (ICP) for vanadium and 19 other elements. Uranium analyses that exceeded the upper limits for INAA analysis ( $> 10,000$  ppm) were re-assayed using the fusion/XRF technique.

Personnel involved in the sampling process were monitored to ensure proper procedures were followed. Prior to shipping, a security tag containing an identification number was placed on each woven polypropylene “rice” bag containing the samples. While enroute, each carrier that handled the bags was required to check each bag to ensure that the security tag had not been broken, that the bag had not been opened, and that the contents were not tampered with. Upon arrival at Eastern, each bag was again checked, the security tags removed and a report sent to Crosshair indicating the status of each bag on its arrival.

Representative rock samples and the majority of the drill core are stored at the Crosshair camp at Armstrong Lake in Labrador. The core is either stored in racks or cross-piled. A selection of core that is representative of the UC was shipped to Goose Bay and is stored in the Newfoundland and Labrador Government core library there.

Core assayed from drill holes ML-01 to ML-58 in this report was analysed for U, Cu and Ag using the INAA method, the gold results reported are fire assay and V was analysed using the ICP method.

### 2007 PROGRAM

During the 2007 winter program the samples were shipped to Eastern Analytical for preparation where two 250-gm pulps were prepared, one analysed for Au, Ag and Cu by Eastern and the second pulp forwarded to Activation Laboratories.

Pulps sent to Actlabs after preparation by Eastern were analyzed for uranium using the Delayed Neutron Counting (DNC) method. DNC is a rapid form of neutron activation analysis which is used for measuring fissile elements such as  $U^{235}$ . In DNC, the samples are placed in a neutron flux produced by nuclear reactor. The  $U^{235}$  within the sample absorbs neutrons which fission some of the  $U^{235}$  fission products including neutrons. After rapid removal from the reactor, the neutrons are thermalized and measured by an array of BF<sub>3</sub> neutron detectors. This technique is ideal for measuring uranium from sub-ppm to percentage levels.

Activation also analyzed the pulps for multi-element analysis using Inductively Coupled Plasma Mass Spectrometry (ICP/MS Ultratrace 4). The ICP-MS instrument employs an argon plasma as the ionization source and a quadrupole mass spectrometer to detect the ions produced. During analysis, the sample solution is nebulized into flowing argon gas and passed into an inductively coupled plasma. The gas and nearly everything in it is atomized and ionized, forming a plasma. The plasma is a source of both excited and ionized atoms. The positive ions in the plasma are then focused down a quadrupole mass spectrometer where they are separated according to mass, detected, multiplied and counted.

Crosshair's QA/QC program and security measures in shipping were conducted in accordance with those outlined in the 2006 program.

In addition a total of 25 pulps were prepared at Eastern from rejects prepared from the 2007 drill program. Splits were then sent to Actlabs for analysis by DNC and INAA methods and to SGS for analysis using INAA.

## 14 DATA VERIFICATION

During the site visit R.B. Cook resampled a number of sections of diamond drill core. The samples were delivered by R.B. Cook to SGS Laboratories (SGS) in Toronto for an Ore Grade Analysis of  $U_3O_8$  and  $V_2O_5$  by sodium peroxide fusion and ICP-OES. The results, in Table 14-1, confirm the presence of uranium on the property and also the general tenor of the values originally obtained by Crosshair. The vanadium values for SGS and Crosshair show good correspondence. For uranium, three of the SGS values are slightly higher than Crosshair's while four SGS values are slightly lower.

**TABLE 14-1 INDEPENDENT ASSAYS OF DRILL CORE**  
Crosshair Exploration & Mining Corp. – CMB Project

Drill Hole	From (m)	To (m)	Sample Number	Sample Description	Independent Sampling		Original Crosshair Results		
					$U_3O_8$ (%)	$V_2O_5$ (%)	Sample Number	$U_3O_8$ %	$V_2O_5$ %
ML-27	84.22	84.72	87771	Quarter core	<0.01	0.32	89102	0.001	0.311
	84.72	85.20	87772	Quarter core	0.02	0.28	89103	0.001	0.304
ML-20	84.00	84.50	87773	Quarter core	0.2	0.08	88545	0.257	0.126
	84.50	85.00	87774	Quarter core	0.19	0.09	88546	0.154	0.093
ML-31	203.68	204.28	87775	Quarter core	0.45	0.11	87750	0.620	0.110
ML-32	88.33	88.83	87776	Quarter core	0.43	0.06	17324	0.531	0.066
	85.00	85.40	87777	Quarter core	0.02	0.09	17316	0.015	0.093
ML-30	125.44	125.94	87778	Quarter core	0.07	0.09	87564	0.198	0.094

## DATA VERIFICATION PROCEDURES

Prior to transmitting the database to L&A, the laboratory assay sheets were visually compared with the database entries by C. Stewart Wallis, P. Geo. a consultant to, and Director of Crosshair. In all, nine holes, containing 525 samples representing 8% of the database, were verified. There were three missing uranium values which were inserted, 2 typographical errors and 2 errors in rounding, all of which were corrected. The database was subsequently re-examined by Crosshair staff before forwarding it to L&A. Assay



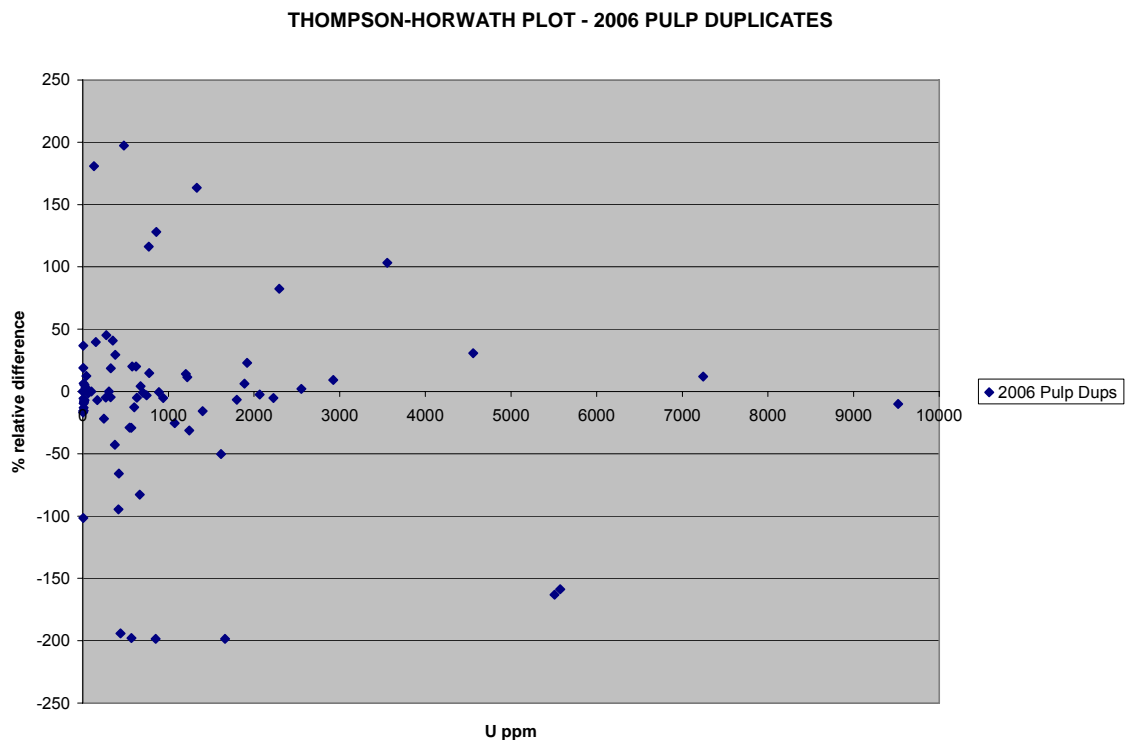
data provided to L&A was in the form of Excel<sup>TM</sup> spreadsheets. L&A independently verified a portion of the database by randomly selecting a hole on each drill section and comparing the % U<sub>3</sub>O<sub>8</sub> and U ppm values in the provided data with the assay certificates from the various labs. In total, assay results for the mineralized portions of 8 holes drilled within the two interpreted zones were verified. No errors or discrepancies were noted.

### QUALITY ASSURANCE/QUALITY CONTROL

Crosshair carried out a QA/QC program as described in Item 13.

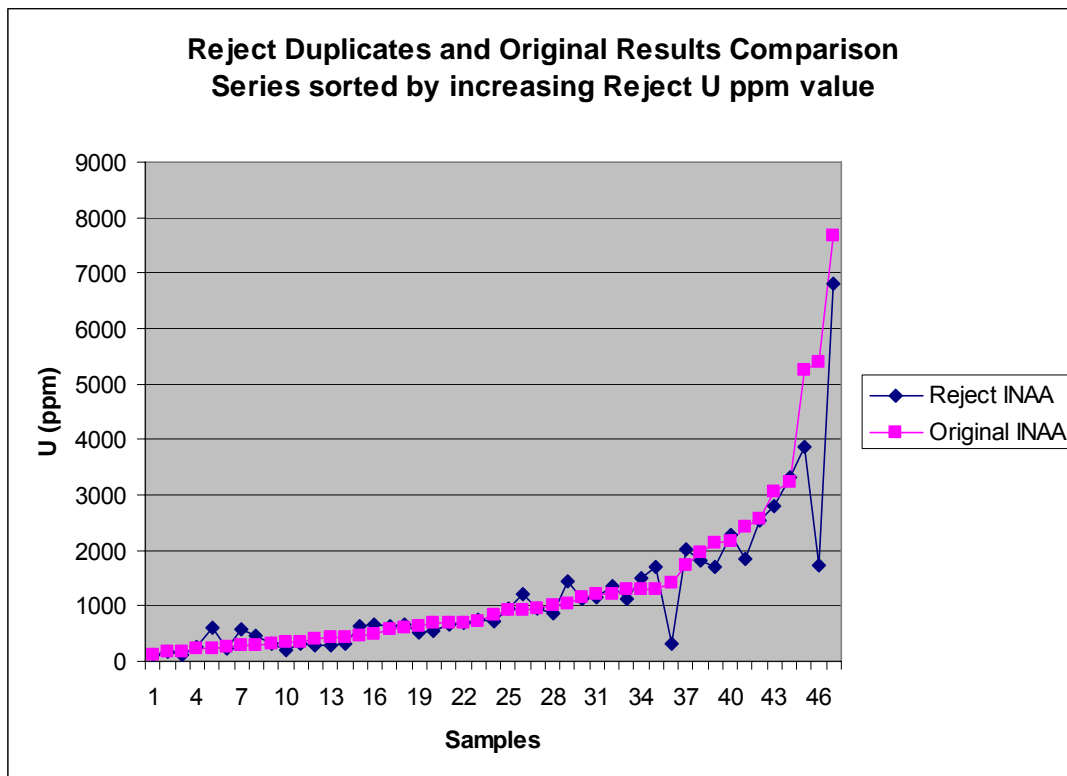
#### 2006 PROGRAM

In 2006 a total of 74 pulp duplicates were run at Actlabs (Figure 14-1). Most of the variation occurs at grades of less than 1000 ppm.

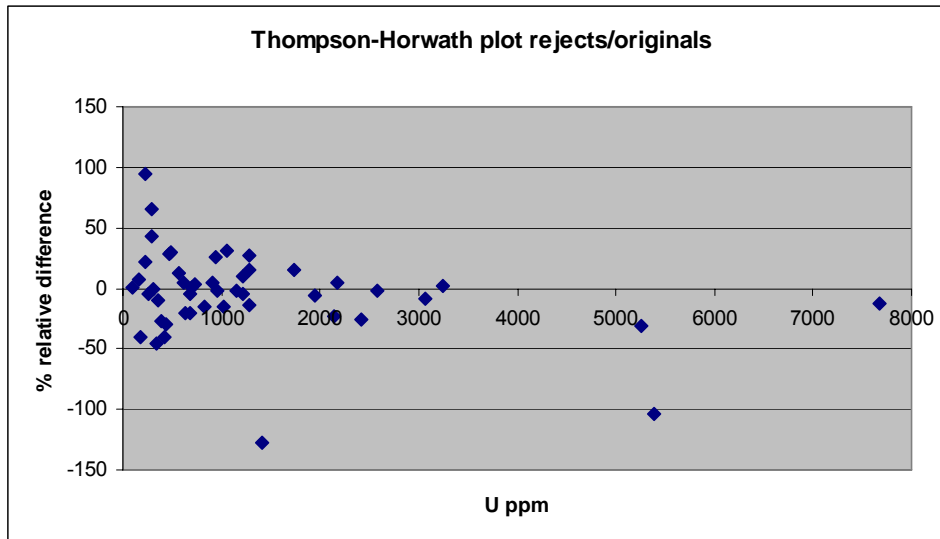


**FIGURE 14-1 PULP DUPLICATES - 2006**

In 2006 a total of 50 rejects were resplit and new pulps prepared by Eastern. The pulps were analyzed at Actlabs using the same procedures as described above. The results are presented in Figures 14-2, 14-3 and are considered rather typical in that the lower values have less reproducibility. L&A reviewed the analytical results using a Student's *t* tests for paired duplicate samples and found that differences in the means for original and duplicate analytical results were neither material (<1%) nor statistically significant at a 95% confidence interval for the paired original and duplicate assays.



**FIGURE 14-2 REJECT DUPLCATES - 2006**



**FIGURE 14-3 REJECT DUPLICATES - 2006 - TH PLOT**

Excluding four samples, the relative difference for those samples greater than 1000 ppm were within 25%, considered acceptable for reject duplicates analysed by INAA. Three of the samples were high grade and the reject assays returned lower values than the originals as shown on Figure 14-1, suggesting the presence of a nugget effect. There were insufficient core duplicates to be statistically significant. Four of the ten samples showed variations ranging from 75% to 150%.

Results for standards analyzed by Actlabs for the 2006 drilling program are illustrated in Figure 14-4 and 14-5. Values generally fall within the accepted range for the reference standards although the variations in the results for standard B indicate lower precision. The means for results from both standards are lower than the reference values (-2% for A, -6% for B). Actlabs indicated that the variations are not unusual when analysing higher-grade samples with INAA. There are six standard B samples that are close to the Standard A value and three Standard A samples close to the Standard B value. This is most likely the result of mislabelling in the field.

STANDARD A 2006 PLOT

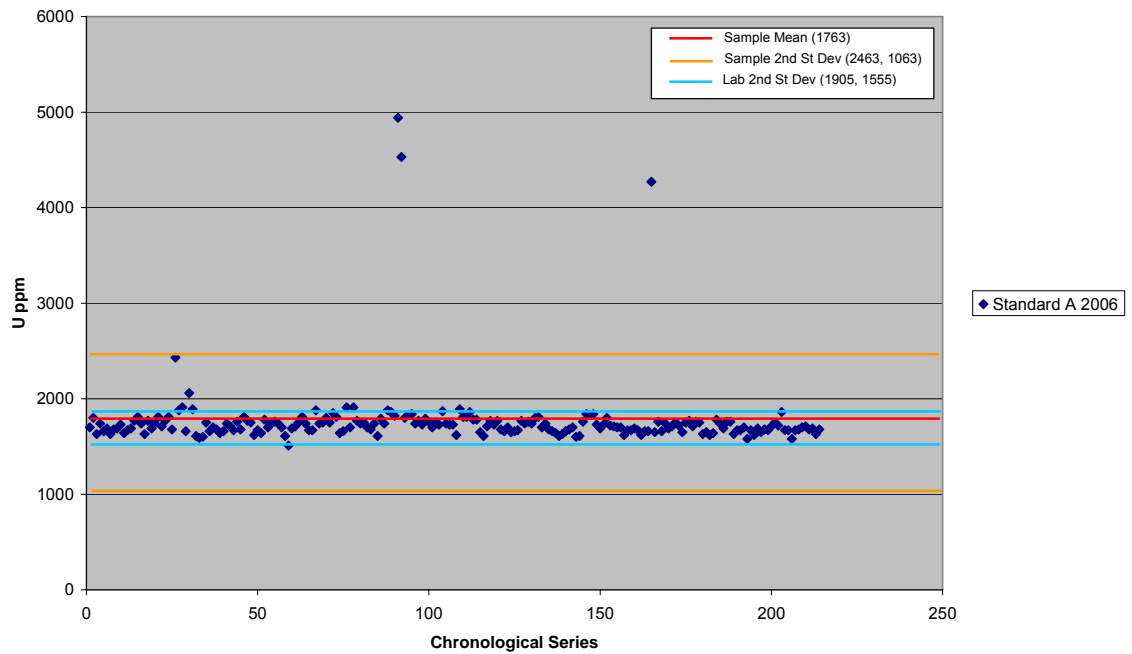


FIGURE 14-4 FIELD STANDARD A – 2006

STANDARD B 2006 PLOT

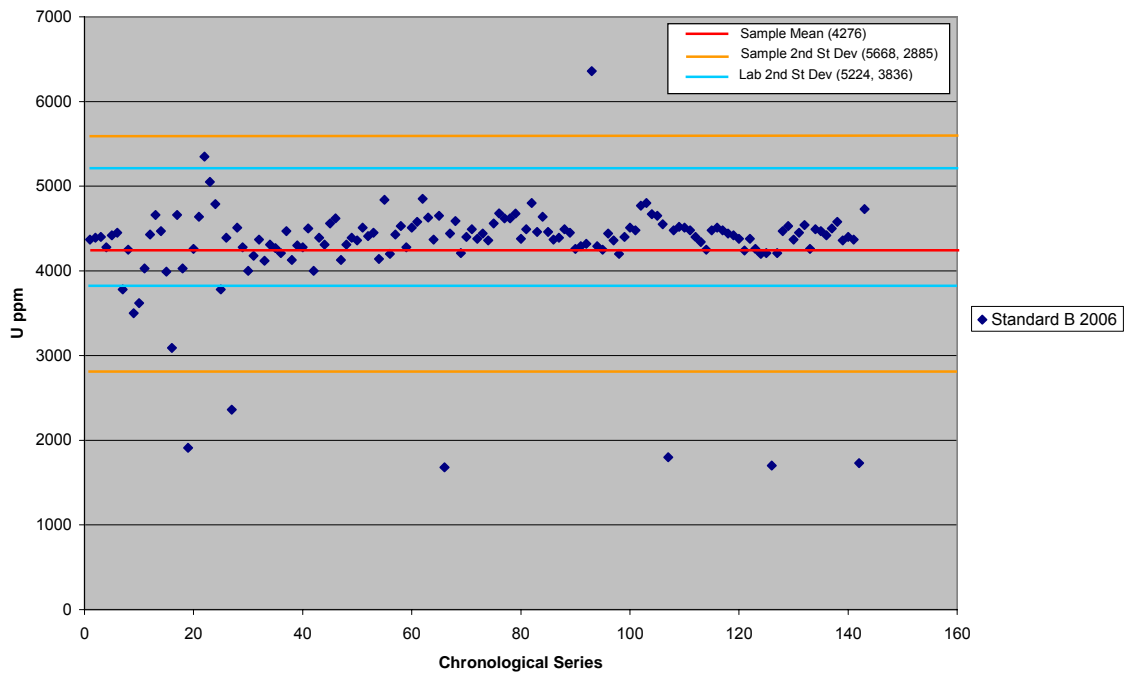
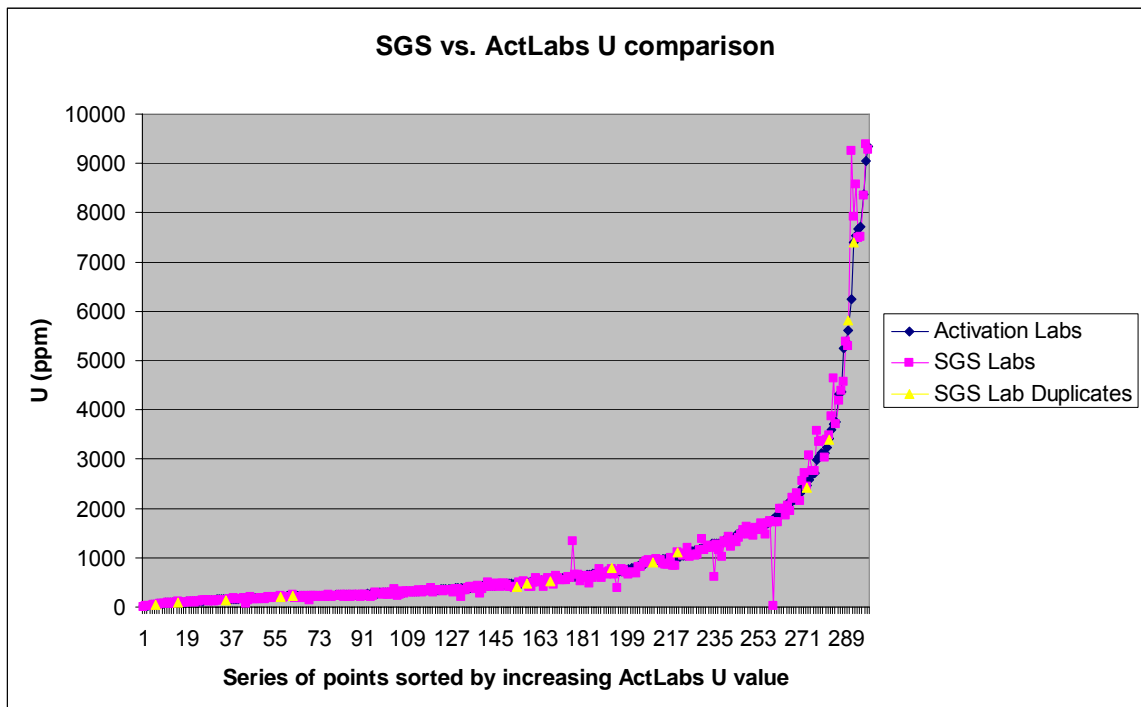


FIGURE 14-5 FIELD STANDARD B - 2006

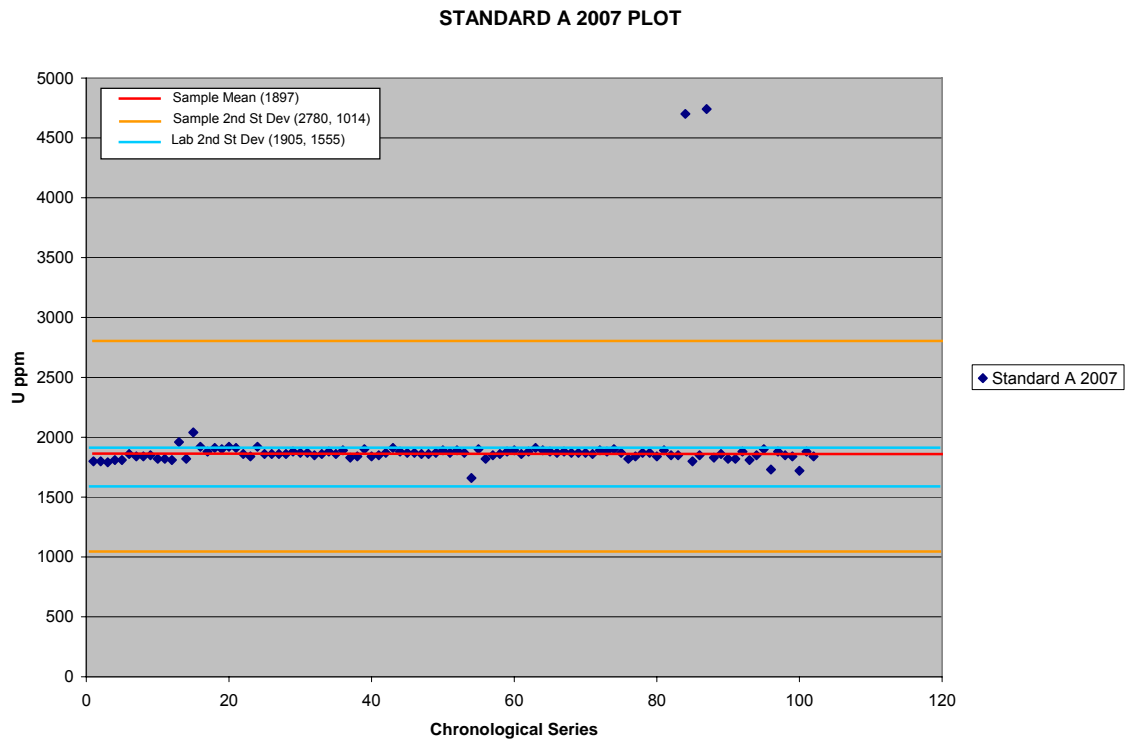
In addition, 300 pulps that had been analysed by Actlabs were submitted to SGS for re-analysis. The results are shown in Figure 14-6 and illustrate a possible precision issue between the labs or lack of homogeneity in the pulp duplicates for a few samples at higher uranium concentrations. It is L&A's opinion that the magnitude of the variations is not material to the mineral resource estimations contained in this report. The difference in means for the paired data was not material (only 0.5% relative) nor statistically significant.



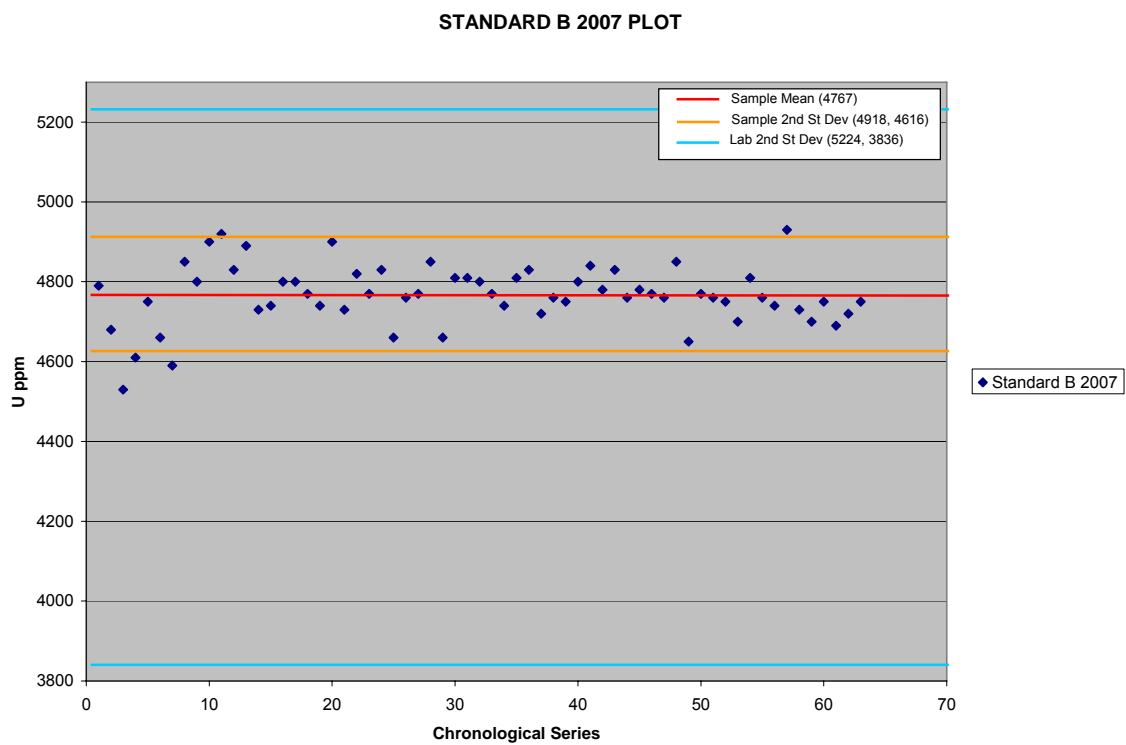
**FIGURE 14-6 PULP DUPLICATES - 2006**

## 2007 PROGRAM

Analytical results for the 2007 standards inserted by Crosshair in the field are shown in Figures 14-7 and 14-8. Although there is less scatter than 2006, a positive bias in results is indicated for both standards (+10% for A, +5% for B). Overall, the 2007 results are 11%-12% higher than those for 2006. The 2007 samples were run using the DNC method while the INAA method was used in 2006. Although not material to the resource estimates contained in this report, the source of the bias should be investigated prior to the next drilling campaign. Consideration is being given to replacing one of the current Canmet standards with a lower grade one. Crosshair has also recently appointed a database manager who will monitor the QA/QC results on a daily basis.

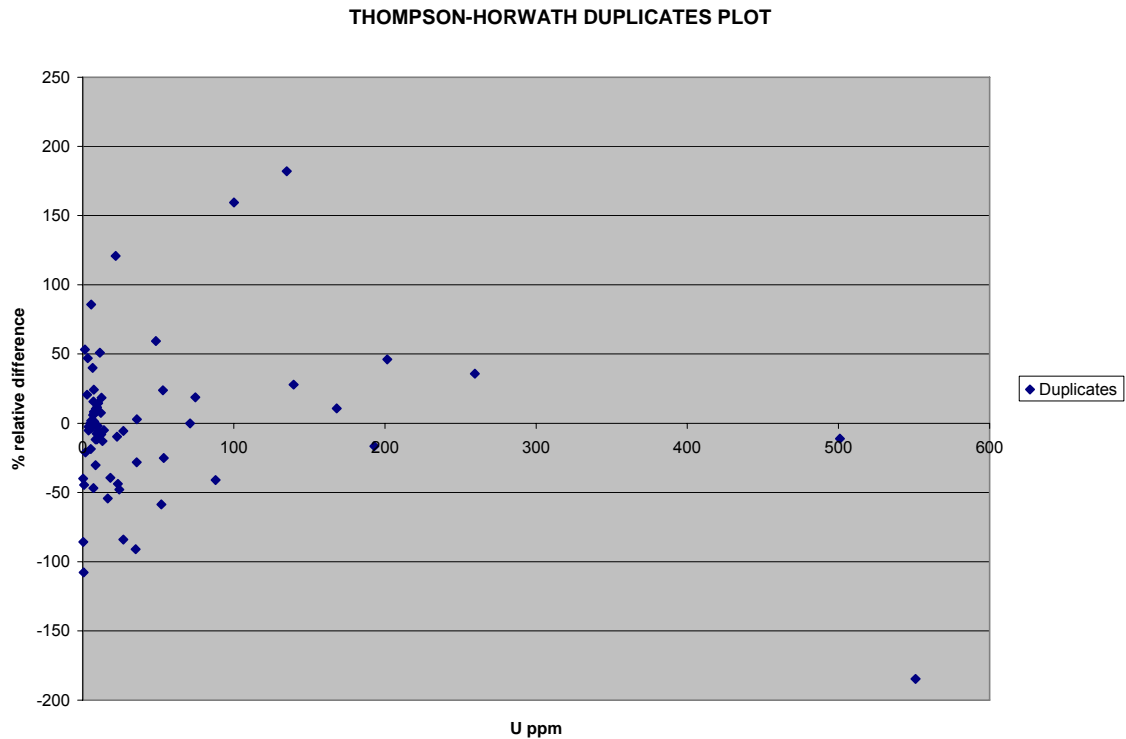


**FIGURE 14-7 FIELD STANDARD A - 2007**



**FIGURE 14-8 FIELD STANDARD B - 2007**

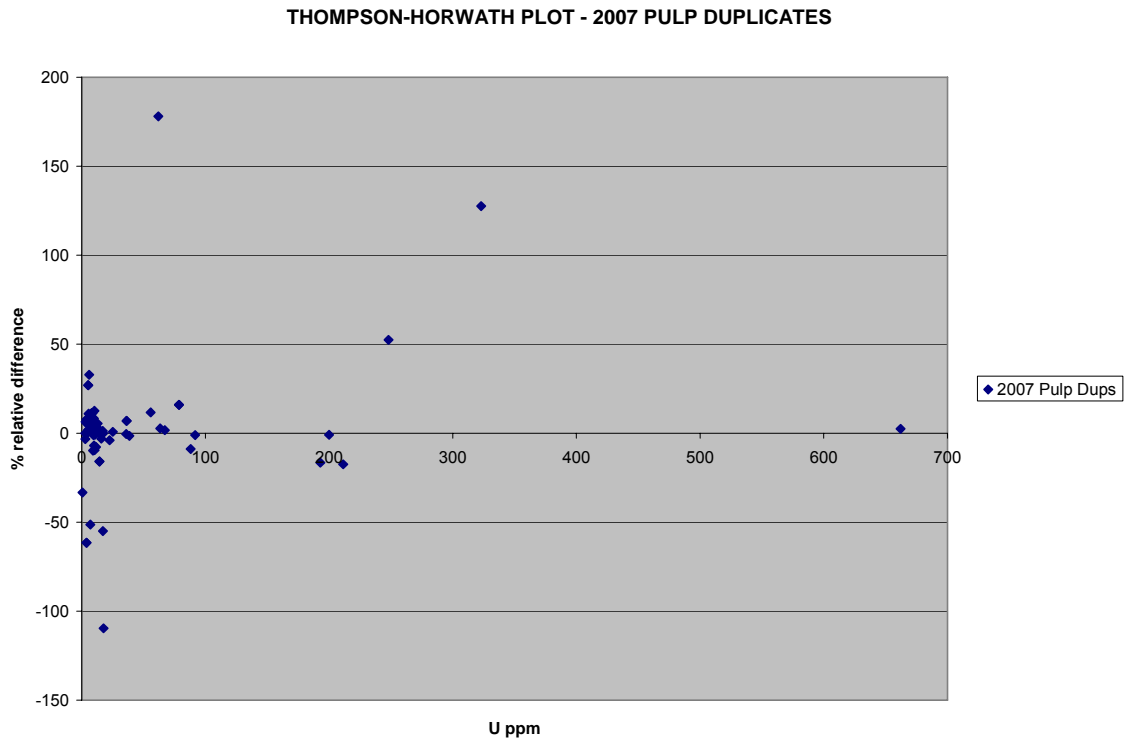
There are 66 core duplicates from the 2007 drill program (Figure 14-9). As the majority of the values are less than 200 ppm U and below the applied resource cut-off, the data provides very little information with respect to samples used for the resource estimates. In L&A's opinion, the frequency of primary sample duplicates (i.e. core) should be increased to 1 duplicate for every 20 primary samples.



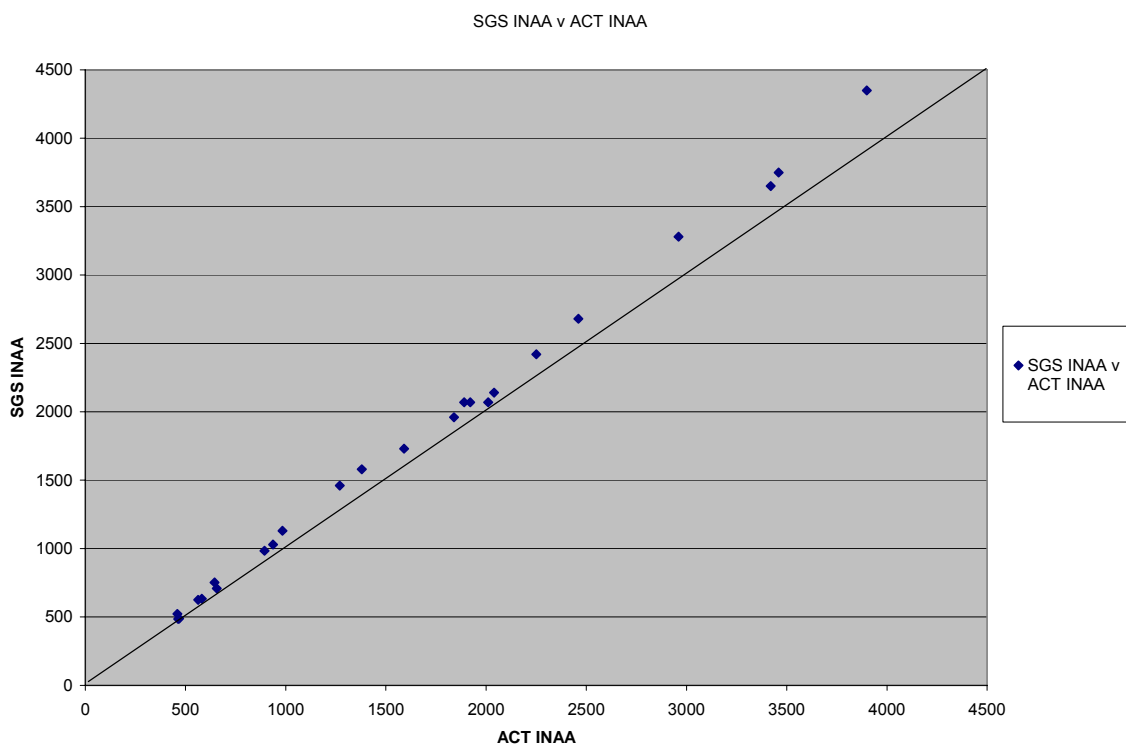
**FIGURE 14-9 CORE DUPLICATES - 2007**

Of the 64 pulp duplicates from the 2007 drill program run at Actlabs, only two samples >100 ppm showed significant variation (Figure 14-10). Again, most of the data is below the resource cut-off. L&A reviewed analytical results using the Student's *t* test and found that differences in the means for original and duplicate analytical results were neither material (about 5%) nor statistically significant at a 95% confidence interval for the paired original and duplicate assays.





A total of 25 pulps were prepared at Eastern from the 2007 rejects and sent to both Actlabs and SGS for uranium analysis by DNC, (Actlabs) and INAA (Actlabs and SGS). L&A found that the differences in the means between the DNC and INAA methods at Actlabs were neither material (only 2%) nor statistically significant. The SGS INAA mean is 9% higher than the Actlabs' INAA (Figure 14-11). Differences between the SGS INAA and Actlabs DNC methods show a 7% difference. Both differences are considered statistically significant as the average grade for the samples (1,650 ppm) is well above the applied cut-off for the resource estimate. This is a relatively small data set; however, these differences coupled with the findings for the 2007 standard insertions do give rise for some concern regarding the methods and calibration standards at the labs. It is recommended that the source of the discrepancies be investigated prior to the next drilling campaign.



**FIGURE 14-11 SGS VERSUS ACTLABS – INAA METHODS**

## **15 ADJACENT PROPERTIES**

The Michelin deposit, owned by Aurora Energy Resources Inc., (Aurora) is located 60 km ENE of the Moran Lake B and C Zones in a significant zone of uranium mineralization although with different age host rocks. It is however located along the same general structural trend as the southern part of the Crosshair property, which is underlain by the felsic volcanics of the Sylvia Lake Formation.

The host stratigraphy for the Michelin deposit is the Upper Aillik Group comprised of felsic volcanics and associated sedimentary rocks. Locally, four units have been defined, starting with a basal arkosic sandstone, overlain by a sequence of well bedded felsic volcanoclastic siltstone and sandstone. This second unit is in turn overlain conformably by red to maroon tuffaceous siltstone and sandstone. The top unit is comprised of a mixed felsic volcanic assemblage of lapilli tuff, ash-flow tuff and varied welded and non-welded porphyries. The uranium-mineralized zone is in the lower part of the top unit.

The mineralized metarhyolites are interpreted to be subaerial ash-flow tuffs and are thought to be right side up. Mineralization of the Michelin Zone is confined to a series of stratiform, tabular zones striking 050° to 070°, dipping 50° to 60° southeast and plunging 40° to 50° to 190° to 210°. The individual zones (6 major groups) range up to 35 m in thickness grading 0.15% U<sub>3</sub>O<sub>8</sub>. Mineralization is open to depth below 850 m.

The dominant style of uranium mineralization at the Michelin deposit consists of disseminated and/or clusters of very fine grained pitchblende grains. Medium grained pyrite also appears to be spatially associated with the pitchblende and there is local hematization. The pitchblende grains are predominantly concentrated in and around aggregates of dark coloured minerals consisting of sphene, aegirine-augite, andradite, ilmenomagnetite and zircon. Subsequent to uranium emplacement, the deposit was affected by regional metamorphism and penetrative deformation which occurred under greenschist to amphibolite facies conditions.

The mineralized zones are subconcordant to the sequence of rhyolitic host rocks and show effects of post mineralization deformation and minor displacements parallel to the regional foliation. The mineralization occurs within the part of the host sequence that is significantly enriched in  $\text{Na}_2\text{O}$  and depleted in  $\text{K}_2\text{O}$  and cut by mafic dikes which are barren and metamorphosed to amphibolite. The mineralization thus predated at least the final phase of the deformation.

Aurora recently announced (February 13, 2007) a measured and indicated resource of 58 million pounds of  $\text{U}_3\text{O}_8$  contained within 25 mt grading 0.10%  $\text{U}_3\text{O}_8$  and an additional inferred resource of 38 million pounds of  $\text{U}_3\text{O}_8$  contained within 17.9 mt grading 0.10%  $\text{U}_3\text{O}_8$  in two deposits, the Michelin and the nearby Jacques Lake. The Michelin estimates include open pit resources of 3,410,000 tonnes grading 0.07%  $\text{U}_3\text{O}_8$  containing 5.34 million pounds of  $\text{U}_3\text{O}_8$  (measured) and 7,930,000 tonnes grading 0.06%  $\text{U}_3\text{O}_8$  containing 10.84 million pounds  $\text{U}_3\text{O}_8$  (indicated), utilizing an open pit cut-off of 0.03%  $\text{U}_3\text{O}_8$ . L&A has not verified this information, and the information is not necessarily indicative of the mineralization on the property that is the subject of the technical report.

Drilling completed by Silver Spruce Resources on their CMB property located 15 km northwest of Crosshair's CMB Project intersected uranium mineralization in Archean granodioritic rocks including 147 m of 0.041% (0.82 lbs/ton)  $\text{U}_3\text{O}_8$  with higher grade sections of 11 m at 0.11% (2.2 lbs/ton) and 7 m at 0.12% (2.4 lbs/ton)  $\text{U}_3\text{O}_8$ . Rocks of similar composition and age outcrop on the western portion of Crosshair's property. L&A has not verified this information, and the information is not necessarily indicative of the mineralization on the property that is the subject of the technical report.

## 16 MINERAL PROCESSING AND METALLURGICAL TESTING

The Saskatchewan Research Council was appointed by Crosshair Exploration Limited to carry out metallurgical test work on selected samples from Newfoundland. After some preliminary bottle roll tests, test work concentrated on the Main Composite. This composite contained 0.108%  $U_3O_8$  and 0.173%  $V_2O_5$ .

The base conditions established for the tests on the main composite were to maintain 10g/L free acid (sulphuric), ORP of >450mV with Chlorate,  $Fe^{+++}$  at 2g/L and 70C. In the initial test Uranium leached very well with over 80% leached in the first hour and 93% dissolved after 7 hours. Vanadium leaching however was poor with 9% Vanadium leached after the first hour and only 11.4% leached after 7 hours.

Test work is ongoing. Some revised conditions are being investigated, including the increased temperature and acid strength. Alkali/carbonate leaching is also being investigated. It is noted that mineralogically Vanadium is present predominantly as silicates (phyllosilicates) which would be difficult to leach without possibly decomposing all silicates (as is done in the assay procedure digestion).

## 17 MINERAL RESOURCE ESTIMATES

### SUMMARY

The historic resource as determined by Shell Canada Resources Limited (Shell) in 1979 estimated 1.1 million pounds of  $U_3O_8$  at an average grade of approximately 0.1%  $U_3O_8$  in the UC. The LC historical resource was determined by Shell to be 4.92 million pounds at an average grade of 0.027%  $U_3O_8$ . These resources are historical and not compliant with NI 43-101 and can not be relied upon.

In 2005 using the same Shell data and augmented by additional Crosshair assays, Scott Wilson RPA estimated an inferred resource of 124,000 t at a grade of 0.25%  $U_3O_8$  containing 688,000 lbs of  $U_3O_8$  in the UC (Roscoe & Cook, 2005)

The current Mineral Resource Estimate for Moran Lake is based on a 3-dimensional block model utilizing ordinary kriging to interpolate grades into each 10m x 10m x 4m high block. For the purpose of resource estimates, the Moran Lake deposit has been modeled as two separate zones. The UC Zone is composed of a number of narrow vein-like structures that cannot be modeled individually utilizing the drill data available to date. Consequently, the geological model is based on a wireframe or solid model of a mineralized envelope utilizing an external cut-off of about 0.01%  $U_3O_8$ . The LC Zone is substantially more discrete and has been modeled as a sheet-like mineralized envelope. The UC and LC Zone envelopes were used to control compositing and block selection in subsequent interpolation runs. The following table sets out the quantities and grades for the Indicated and Inferred classifications as estimated by L&A.

**TABLE 17-1 INDICATED & INFERRED MINERAL RESOURCES**  
**Crosshair Exploration & Mining – CMB Project**

Zone	Cut-off (%U <sub>3</sub> O <sub>8</sub> )	Kt	%U <sub>3</sub> O <sub>8</sub>	%V <sub>2</sub> O <sub>5</sub>	Kg x 1,000	
					U <sub>3</sub> O <sub>8</sub>	V <sub>2</sub> O <sub>5</sub>
UC	0.015	3,747	0.0386	0.077	1,446	2,900
<b>Indicated</b>		<b>3,747</b>	<b>0.0386</b>	<b>0.077</b>	<b>1,446</b>	<b>2,900</b>
UC	0.015	4,288	0.0267	0.063	1,145	2,689
LC	0.035	2,032	0.0461	0.042	937	862
<b>Inferred</b>		<b>6,320</b>	<b>0.0329</b>	<b>0.056</b>	<b>2,082</b>	<b>3,550</b>

Only those blocks within the interpreted grade envelopes above 0.015% U<sub>3</sub>O<sub>8</sub> for the UC Zone and 0.035% U<sub>3</sub>O<sub>8</sub> for the LC Zone are reported in this tabulation. Further detail with respect to the distribution of grade within the block model is provided under a separate heading. The estimate is based on the results from 133 diamond drill holes within the mineralized zones as well as a number of confining holes around the periphery. The drill spacing averages 45 m in the UC Zone and 92 m in the LC Zone. Those Mineral Resources classified as Indicated are located within the core of the drilling in the UC Zone while the Inferred Mineral resources are located along the periphery as well as in the LC Zone, where drilling is too widely spaced to classify as indicated.

## METHODOLOGY

### DATABASE – GENERAL DESCRIPTION

The mineral resource estimates for the Moran Lake Uranium Project are based primarily on information from surface drilling. The collar database provided to L&A contains 139 drill holes, of which 133 were used for grade interpolation. Those drill holes within the modeled area cover a 1,200 m (SW-NE) by 750 m (NW-SE). 110 holes pierced the UC Zone and 52 pierced the LC Zone. Holes vary in length from 46 m to 503 m and the average spacing in the plane of the mineralized structures is estimated at 45 m for the UC Zone and 92 m for the LC Zone. These estimates are based on the average distance between each composite and its 4 nearest neighbours and include adjustments for anisotropy. Most holes are drilled toward the northwest at -30 degrees dip to vertical with the majority drilled at dips between -45 and -75 degrees.

## ASSAYS

The assay database provided to L&A for Moran Lake contains 9,899 assay intervals, of which all but 313 contain assay values of 0.0001% U<sub>3</sub>O<sub>8</sub> or greater. The database also contained 9,496 non-zero assays for V<sub>2</sub>O<sub>5</sub>. Some assay intervals have been split at survey locations and changes in lithology, which do not necessarily occur at original assay intervals, creating more intervals than contained in the original files. In total, 9,996 non-zero intervals were loaded to the assay database. 7,089 intervals are located within the interpreted mineralized zones. Assay intervals vary from 0.03 m to 5.6 m in length, although most are 0.5 m. The data approximate a normal distribution when transformed to natural log values (lognormal). A brief statistical summary of U<sub>3</sub>O<sub>8</sub> assays within the interpreted mineralized zones is provided in Table 17-2 and Table 17-3.

**TABLE 17-2 U<sub>3</sub>O<sub>8</sub> ASSAY STATISTICS,  
Crosshair Exploration & Mining – CMB Project**

Zone	Count	Grade (% U <sub>3</sub> O <sub>8</sub> )	
		Average	Std. Dev.
UC	6,823	0.026	0.103
LC	266	0.051	0.111
<b>Total</b>	<b>7,089</b>	<b>0.027</b>	<b>0.103</b>

**Note:** Only those assays  $\geq 0.0001$  % U<sub>3</sub>O<sub>8</sub> within the interpreted mineralized zones are reported.

**TABLE 17-3 V<sub>2</sub>O<sub>5</sub> ASSAY STATISTICS,  
Crosshair Exploration & Mining – CMB Project**

Zone	Count	Grade (% U <sub>3</sub> O <sub>8</sub> )	
		Average	Std. Dev.
UC	6,723	0.110	0.074
LC	202	0.061	0.037
<b>Total</b>	<b>6,925</b>	<b>0.110</b>	<b>0.074</b>

**Note:** Only those assays  $\geq 0.001$  % V<sub>2</sub>O<sub>5</sub> within the interpreted mineralized zones are reported.

## CUT-OFF

For the purpose of resource estimation, the Moran Lake uranium mineralization is interpreted as a moderately dipping zone of mineralization that may be partially



developed as an open pit resource. At this point, no economic evaluations have been done on the project and as a result, a wide variety of  $U_3O_8$  cut-off grades are presented. Approximate cut-off grades of 0.035%  $U_3O_8$  for underground mining and 0.015%  $U_3O_8$  for open pit mining was calculated based on the following assumptions:

- Long term uranium price of US\$95 per pound  $U_3O_8$
- Assumed metallurgical recovery of 90%
- Assumed operating costs of C\$80-\$100 per tonne for narrow-vein underground mining and \$40 open pit scenario
- Exchange rate of US\$1.00 = C\$1.10

Cut-off = Incremental Cost/ (value x recovery) = 0.015%  $U_3O_8$  and 0.035%  $U_3O_8$  for open pit and underground mining scenarios respectively.

### GEOLOGICAL MODEL

For the purpose of resource estimates, the Moran Lake deposit has been modeled as 2 separate zones. The UC Zone is composed of a number of narrow vein-like structures that cannot be modeled individually utilizing the drill data available to date. Consequently, the geological model is based on a wireframe or solid model of a mineralized envelope utilizing an external cut-off of about 0.01%  $U_3O_8$ . Internal waste zones and dykes have also been modeled and excluded from the estimates. The mineralized envelope is approximately 100 m to 120 m thick and dips towards the southeast at -43 degrees. Based on current drilling, the maximum strike and dip lengths are about 1,200 m and 400 m respectively. The LC Zone is substantially more discrete and has been modeled as a sheet-like mineralized envelope dipping southwest at -25 degrees to -40 degrees. Thickness averages 3.2 m and varies from less than 1.5 m to over 15 m. The maximum strike length based on current drilling is about 1,200 m while the lens extends about 700 m down dip. The UC and LC Zone envelopes were used to control compositing and block selection in subsequent interpolation runs.

### ASSAY CAPPING (CUTTING)

In order to reduce the influence of statistically anomalous sample data on resource estimations, a number of higher-grade assay values are often capped prior to compositing at levels determined by various means, including examination of probability distribution data. L&A produced plots of the  $U_3O_8$  and  $V_2O_5$  distribution for each of the two zones using the assay data provided. The distribution curves exhibit obvious breaks or inflection points in the upper parts of the curves and a general tailing off beyond these points. These breaks often indicate the existence of several distinct populations within the grouped data, with upper values representing a very small fraction of the total population.

L&A selected the upper break in the distribution curve as caps for assay data. In total, 12  $U_3O_8$  and 16  $V_2O_5$  assay intervals were capped. Table 17-4 provides a summary of capping statistics for the Moran Lake data. All data above the stated capping levels were set back to these levels prior to compositing.

**TABLE 17-4 ASSAY CAPPING LEVELS**  
**Crosshair Exploration & Mining – CMB Project**

Zone	Cap	Grade (% $U_3O_8$ )		Avg. Before	Avg. After
		Population Maximum	No. Capped		
UC	1.600	3.806	7	0.026	0.025
LC	0.320	1.147	5	0.051	0.044
<b>Total</b>		<b>3.806</b>	<b>12</b>	<b>0.027</b>	<b>0.026</b>

Zone	Cap	Grade (% $V_2O_5$ )		Avg. Before	Avg. After
		Population Maximum	No. Capped		
UC	0.520	0.778	9	0.110	0.110
LC	0.130	0.334	7	0.061	0.059
<b>Total</b>		<b>0.778</b>	<b>16</b>	<b>0.109</b>	<b>0.109</b>

**Notes:** Values within the interpreted mineralized zones  $\geq 0.0001$  %  $U_3O_8$  or  $\geq 0.001$  %  $V_2O_5$ .

### DENSITY

Density tests were carried out at Jacques Whitford on core samples using standard industry methods. All samples were ½ core pieces approx 10 cm in length. One hundred and five (105) mineralized samples from the Lower C ranged from 3.057 gm/cm<sup>3</sup> to 2.595 gm/cm<sup>3</sup> averaged 2.754 gm/cm<sup>3</sup> for the zone. Two hundred and fifty two (252) samples from the UC ranged from 2.649 gm/cm<sup>3</sup> to 3.092 gm/cm<sup>3</sup> and averaged 2.83 gm/cm<sup>3</sup>. These averages are considered appropriate to be used in the resource estimate at this stage in the exploration program. Of all the 357 samples, the sediments averaged 2.750 gm/cm<sup>3</sup> and the volcanic rocks including dikes averaged 2.860 gm/cm<sup>3</sup>.

### COMPOSITES

Two types of composites were produced for the Moran Lake assays. The UC Zone assay intervals have been composited in down-hole intervals of 2 m, starting at the upper contact of the UC Zone, continuing until the hole leaves the zone. Inevitably, the final composite in each zone will be shorter than the fixed composite length unless the zone intercept is an exact multiple of the selected length. These short composites, known as “orphans, were added to the previous composite if they were less than 1 m in length. The 2 m composite length was deemed most suitable, as it was an exact multiple of the most common assay sample interval of 0.5 m as well as being an appropriate length for modeling grade in the 4 m high grade blocks. The former provided relatively discrete composite values that did not straddle the assay intervals, while for modeling; the number of composites per drill hole could be limited to 3 or 4 and still provide sufficient sample coverage for each interpolated block.

Composites for the LC Zone are based on single intercepts for each drill hole that pierces the modeled lens. Assay intervals for each drill hole were composited down the hole from the top of the interpreted mineralized envelope to the point of exit, producing a single length-weighted average for each intercept.

The composites were tagged with a unique code for each zone to control composite selection in subsequent grade interpolation runs. A summary of composite statistics is provided in Table 17-5.

**TABLE 17-5 ASSAY COMPOSITE STATISTICS,  
Crosshair Exploration & Mining – CMB Project**

Zone	Count	Grade (%U <sub>3</sub> O <sub>8</sub> )		Grade (%U <sub>3</sub> O <sub>8</sub> )		Avg Length (m)
		Uncapped Grade	Std Dev	Capped Grade	Std Dev	
UC	3,926	0.0103	0.0430	0.0101	0.0412	2.00
LC	52	0.0332	0.0296	0.0309	0.0251	2.56

Zone	Count	Grade (%V <sub>2</sub> O <sub>5</sub> )		Grade (%V <sub>2</sub> O <sub>5</sub> )		Avg Length (m)
		Uncapped Grade	Std Dev	Capped Grade	Std Dev	
UC	3,926	0.0513	0.0664	0.0512	0.0663	2.00
LC	52	0.0384	0.0354	0.0379	0.0347	2.56

## BLOCK MODEL AND GRADE ESTIMATION PROCEDURES

The current Mineral Resource estimate for Moran Lake is based on a 3D block model with individual block dimensions of 10 m EW, 10 m NS and 4 m high. Each block located at least partially within an interpreted zone contains a zone code, percent within the zone, and potentially an interpolated grade. Where a block straddles more than one rock type (i.e. mineralized zone, background, internal waste or dyke) the type and percentage of each was also stored. Grades were estimated for only those blocks falling at least partially within one of the two interpreted envelopes.

Ordinary kriging was utilized to interpolate grades into each block. Only composites with zone codes that matched the block codes were used in grade estimates. For the UC Zone, the minimum and maximum number of composites were set at 3 and 12 respectively, insuring that a maximum of 4 holes would be used in each block grade estimate. For the LC Zone, only one composite exists for each intercept. The minimum and maximum number of composites were set at 2 and 4 respectively, insuring a minimum of 2 holes and a maximum of 4 holes were used in each estimate.

Only the UC Zone contained sufficient data to develop meaningful variogram models. Although unique variograms were developed for each metal, the search strategy was based on the ranges and orientations modeled for U<sub>3</sub>O<sub>8</sub> to insure that a grade for each

metal was assigned to each block within the search envelope. The variograms utilized by L&A are summarized in Table 17-6.

**TABLE 17-6 VARIOGRAM MODELS**  
**Crosshair Exploration & Mining – CMB Project**

Metal	Type	Nugget (C <sub>0</sub> )	Sill (C <sub>0</sub> +C <sub>1</sub> )	Rotation (Z, X,Y)	Major	Range (m)	
						Minor	Vertical
U <sub>3</sub> O <sub>8</sub>	Spherical	0.35	1.0	38/-8/-27	54	27	8
V <sub>2</sub> O <sub>5</sub>	Spherical	0.18	1.0	38/-8/-27	40	40	20

**Note:** 1<sup>st</sup> rotation is about Z axis (+ is clockwise).  
2<sup>nd</sup> rotation is about new X axis (- is down).  
3<sup>rd</sup> rotation is about new Y axis (- is down).

The search strategy employed by L&A was based on two passes with a maximum search distance of 216 m (major) x 108 m (minor) x 32 m (vertical) on the first pass and 108 m (major) x 54 m (minor) x 16 m (vertical) on the second pass. The maximum distance to the closest composite was set at 108 m x 54 m x 16 m on the first pass and 54 m x 27 m x 8 m on the second pass (the variogram ranges). The two-pass strategy allowed most blocks within the drilled area of the interpreted envelopes to receive grade estimates on the first pass, while using a tighter search on the second pass to reduce the influence of distant composites on grade estimates close to the drill holes. Grade estimates were made using only the composite values derived from the capped assays.

Volumes were estimated for each block by multiplying the block volume by the percentage of the block contained within each zone. The tonnage was estimated by multiplying their respective volumes by the SG. For the purposes of the estimates, an SG of 2.83 was used for the UC Zone while a value of 2.73 was used for the LC Zone.

Application of the methodology described above resulted in the estimates of mineral resources summarized in Table 17-. In L&A's opinion, a block cut-off of 0.015% U<sub>3</sub>O<sub>8</sub> would be appropriate for reporting estimates for the UC Zone, which, for the most part, may be amenable to small-scale open-pit methods. A cut-off of 0.035% U<sub>3</sub>O<sub>8</sub> would be

more suitable for the LC Zone, which will require a highly selective underground technique suitable for flat to moderate dipping vein deposits.

**TABLE 17-7 INDICATED & INFERRED MINERAL RESOURCES**  
**Crosshair Exploration & Mining – CMB Project**

Zone	Cut-off (%U <sub>3</sub> O <sub>8</sub> )	Kt	%U <sub>3</sub> O <sub>8</sub>	%V <sub>2</sub> O <sub>5</sub>	Kgx1,000	
					U <sub>3</sub> O <sub>8</sub>	V <sub>2</sub> O <sub>5</sub>
UC	0.015	3,747	0.0386	0.077	1,446	2,900
<b>Indicated</b>		<b>3,747</b>	<b>0.0386</b>	<b>0.077</b>	<b>1,446</b>	<b>2,900</b>
UC	0.015	4,288	0.0267	0.063	1,145	2,689
LC	0.035	2,032	0.0461	0.042	937	862
<b>Inferred</b>		<b>6,320</b>	<b>0.0329</b>	<b>0.056</b>	<b>2,082</b>	<b>3,550</b>

Table 17- and Table 17- provide estimates at increasing cut-offs however caution is advised in the use of higher cut-offs as blocks become more disparate and may not represent a resource that is potentially mineable. While polygonal grade estimates are also shown in Table 17-10, and Table 17-11, in L&A's opinion, the kriged estimates provide superior assessments of grade variability and distribution.

**TABLE 17-8 INDICATED MINERAL RESOURCES (KRIGED)**  
**Crosshair Exploration & Mining – CMB Project**

Zone	Cut-off (%U <sub>3</sub> O <sub>8</sub> )	Tonnes	%U <sub>3</sub> O <sub>8</sub>	%V <sub>2</sub> O <sub>5</sub>	Kg U <sub>3</sub> O <sub>8</sub>	Kg V <sub>2</sub> O <sub>5</sub>
UC	0.010	5,747,424	0.0295	0.075	1,695,490	4,281,831
<b>UC</b>	<b>0.015</b>	<b>3,746,513</b>	<b>0.0386</b>	<b>0.077</b>	<b>1,446,154</b>	<b>2,899,801</b>
UC	0.020	2,652,310	0.0475	0.078	1,259,847	2,060,845
UC	0.025	1,933,048	0.0569	0.079	1,099,905	1,523,242
UC	0.030	1,511,537	0.0651	0.081	984,011	1,222,833
UC	0.035	1,246,287	0.0721	0.081	898,573	1,009,492
UC	0.040	999,035	0.0808	0.082	807,220	822,206
UC	0.045	840,408	0.0880	0.083	739,559	700,900
UC	0.050	732,189	0.0940	0.083	688,258	608,449
UC	0.055	635,901	0.1003	0.083	637,809	525,890
UC	0.060	558,834	0.1062	0.083	593,482	464,391
UC	0.065	489,862	0.1124	0.083	550,605	406,095

**Note:** Reporting Cut-off is 0.015 % U<sub>3</sub>O<sub>8</sub>

**TABLE 17-9 INFERRED MINERAL RESOURCES (KRIGED)**  
**Crosshair Exploration & Mining – CMB Project**

Zone	Cut-off (%U <sub>3</sub> O <sub>8</sub> )	Tonnes	%U <sub>3</sub> O <sub>8</sub>	%V <sub>2</sub> O <sub>5</sub>	Kg U <sub>3</sub> O <sub>8</sub>	Kg V <sub>2</sub> O <sub>5</sub>
UC	0.010	7,131,159	0.0209	0.060	1,490,412	4,278,695
<b>UC</b>	<b>0.015</b>	<b>4,288,050</b>	<b>0.0267</b>	<b>0.063</b>	<b>1,144,909</b>	<b>2,688,607</b>
UC	0.020	2,681,731	0.0324	0.066	868,881	1,767,260
UC	0.025	1,693,132	0.0383	0.069	648,470	1,163,182
UC	0.030	1,040,025	0.0452	0.070	470,091	730,098
UC	0.035	686,400	0.0518	0.069	355,555	472,243
UC	0.040	438,809	0.0601	0.067	263,724	295,757
UC	0.045	297,897	0.0686	0.067	204,357	198,995
UC	0.050	219,812	0.0761	0.063	167,277	138,701
UC	0.055	174,249	0.0824	0.060	143,581	103,852
UC	0.060	139,689	0.0886	0.059	123,764	82,835
UC	0.065	117,796	0.0936	0.059	110,257	69,264
LC	0.010	3,531,277	0.0371	0.041	1,310,104	1,437,230
LC	0.015	3,380,297	0.0382	0.042	1,291,273	1,409,584
LC	0.020	3,156,830	0.0396	0.043	1,250,105	1,357,437
LC	0.025	2,825,233	0.0416	0.044	1,175,297	1,248,753
LC	0.030	2,433,402	0.0439	0.044	1,068,263	1,073,130
<b>LC</b>	<b>0.035</b>	<b>2,032,409</b>	<b>0.0461</b>	<b>0.042</b>	<b>936,940</b>	<b>861,741</b>
LC	0.040	1,494,926	0.0494	0.044	738,493	662,252
LC	0.045	1,029,712	0.0526	0.045	541,629	460,281
LC	0.050	527,949	0.0578	0.048	305,155	252,360
LC	0.055	382,702	0.0600	0.045	229,621	171,451
LC	0.060	144,865	0.0653	0.048	94,597	69,245
LC	0.065	63,893	0.0691	0.053	44,150	34,055

**Note:** Reporting Cut-off is 0.015 % U<sub>3</sub>O<sub>8</sub> for UC Zone and 0.035% U<sub>3</sub>O<sub>8</sub> for LC Zone.

## MODEL VALIDATION

As part of the block model validation process, polygonal grade estimates were also produced and are provided in Table 17-10 and Table 17-11 for comparison purposes. The polygonal estimates are generally lower in tonnage and higher in grade at lower cut-offs, however, metal content is very close at the selected cut-offs.

**TABLE 17-10 POLYGONAL GRADE COMPARISON FOR INDICATED  
Crosshair Exploration & Mining – CMB Project**

<b>Cut-off</b>						
<b>Zone</b>	<b>(%U<sub>3</sub>O<sub>8</sub>)</b>	<b>Tonnes</b>	<b>%U<sub>3</sub>O<sub>8</sub></b>	<b>%V<sub>2</sub>O<sub>5</sub></b>	<b>Kg U<sub>3</sub>O<sub>8</sub></b>	<b>Kg V<sub>2</sub>O<sub>5</sub></b>
UC	0.010	5,134,503	0.0337	0.083	1,730,328	4,235,965
<b>UC</b>	<b>0.015</b>	<b>3,496,137</b>	<b>0.0437</b>	<b>0.085</b>	<b>1,527,812</b>	<b>2,954,236</b>
UC	0.020	2,529,579	0.0538	0.085	1,360,913	2,152,671
UC	0.025	1,946,270	0.0633	0.084	1,231,989	1,634,867
UC	0.030	1,536,916	0.0729	0.083	1,120,412	1,278,714
UC	0.035	1,270,579	0.0814	0.085	1,034,252	1,074,910
UC	0.040	1,093,274	0.0885	0.085	967,548	930,376
UC	0.045	922,489	0.0971	0.087	895,737	798,876
UC	0.050	782,869	0.1060	0.088	829,841	688,924
UC	0.055	671,027	0.1149	0.089	771,010	596,543
UC	0.060	597,583	0.1220	0.091	729,051	542,008

**Note:** For comparison purposes only. Reporting Cut-off is 0.015 % U<sub>3</sub>O<sub>8</sub>



**TABLE 17-11 POLYGONAL GRADE COMPARISON FOR INFERRED  
Crosshair Exploration & Mining – CMB Project**

Zone	Cut-off (%U <sub>3</sub> O <sub>8</sub> )	Tonnes	%U <sub>3</sub> O <sub>8</sub>	%V <sub>2</sub> O <sub>5</sub>	Kg U <sub>3</sub> O <sub>8</sub>	Kg V <sub>2</sub> O <sub>5</sub>
UC	0.010	7,339,707	0.0238	0.066	1,746,850	4,866,225
<b>UC</b>	<b>0.015</b>	<b>4,483,999</b>	<b>0.0309</b>	<b>0.062</b>	<b>1,385,556</b>	<b>2,789,047</b>
UC	0.020	2,798,044	0.0391	0.068	1,094,035	1,897,073
UC	0.025	1,896,349	0.0471	0.078	893,180	1,475,360
UC	0.030	1,342,948	0.0553	0.088	742,650	1,176,423
UC	0.035	1,112,881	0.0600	0.092	667,728	1,020,511
UC	0.040	886,050	0.0658	0.097	583,021	856,811
UC	0.045	679,449	0.0730	0.098	495,998	667,219
UC	0.050	536,002	0.0799	0.092	428,266	491,514
UC	0.055	452,143	0.0851	0.092	384,774	414,163
UC	0.060	392,657	0.0893	0.093	350,643	364,386
LC	0.010	2,949,579	0.0407	0.048	1,200,479	1,406,949
LC	0.015	2,404,857	0.0473	0.046	1,137,497	1,111,044
LC	0.020	2,212,075	0.0498	0.047	1,101,613	1,033,039
LC	0.025	1,976,924	0.0531	0.050	1,049,747	984,508
LC	0.030	1,718,360	0.0568	0.051	976,029	869,490
<b>LC</b>	<b>0.035</b>	<b>1,621,991</b>	<b>0.0582</b>	<b>0.049</b>	<b>943,999</b>	<b>786,666</b>
LC	0.040	1,359,551	0.0622	0.053	845,641	724,641
LC	0.045	1,111,077	0.0665	0.054	738,866	599,982
LC	0.050	969,827	0.0694	0.055	673,060	536,314
LC	0.055	716,374	0.0755	0.053	540,862	380,394
LC	0.060	604,105	0.0792	0.054	478,451	325,009

**Note:** For comparison purposes only. Reporting Cut-off is 0.015 % U<sub>3</sub>O<sub>8</sub>

In addition to producing parallel estimates of grade by polygonal methods, L&A conducted a series of point validation exercises where the grade at each composite location is estimated from the surrounding composite data by kriging (using the variogram models produced by L&A) and inverse distance methods and compared to the actual composite values at those locations. Results are shown in Table 17-12. In all, over 500 points (all above 0.015%) were estimated for the UC and 24 for the LC from the surrounding data. While kriging did not model the extremes as well due to the high nugget value, the mean values are closer to the actual sample values when compared to inverse distance weighting.

**TABLE 17-12 POINT VALIDATION, COMPOSITES**  
**Crosshair Exploration & Mining – CMB Project**

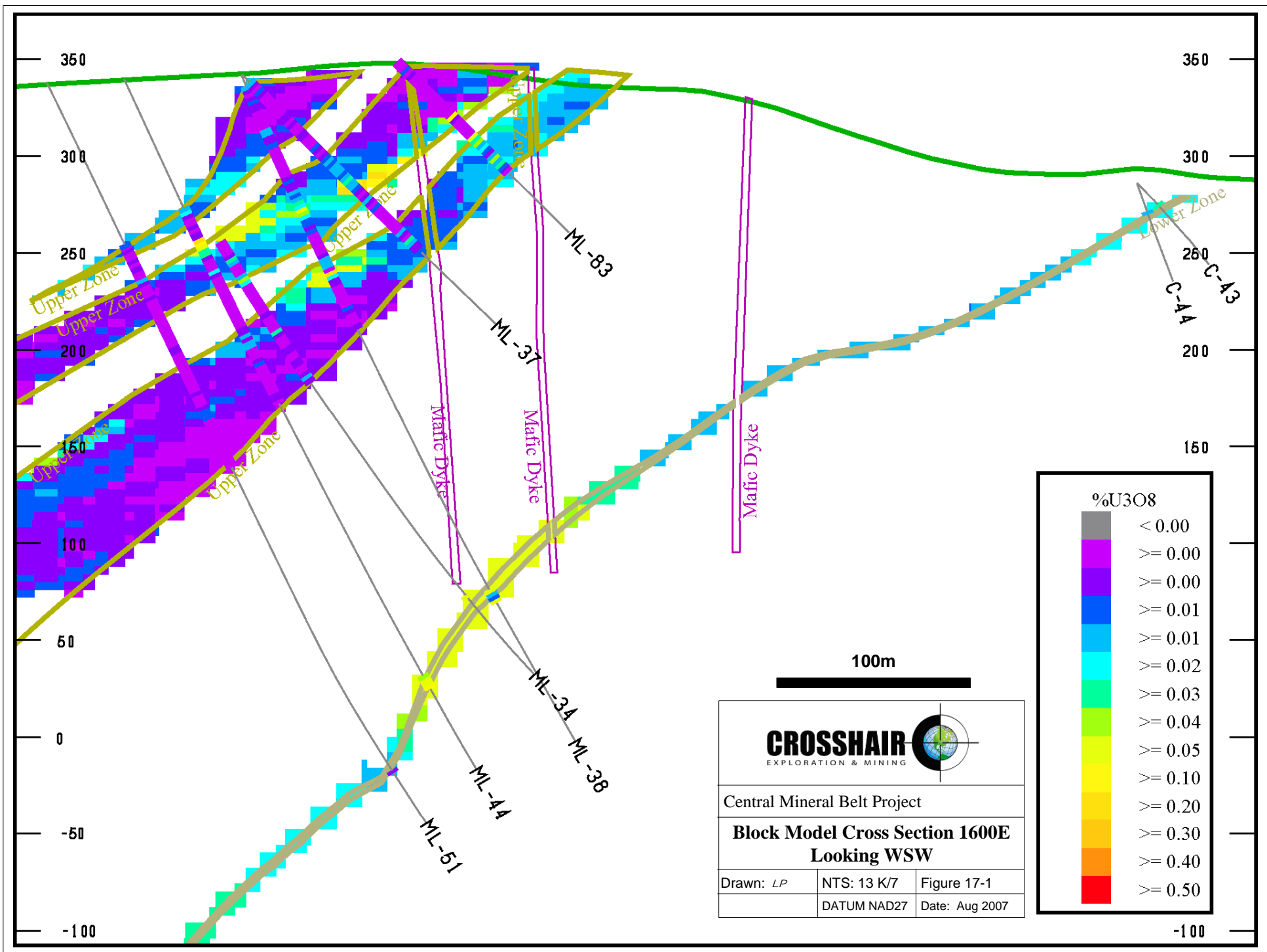
Item	IDW Power	% U <sub>3</sub> O <sub>8</sub>			
		UC		LC	
		Mean	Std. Dev.	Mean	Std. Dev.
ACTUAL	N/A	0.059	0.097	0.030	0.025
KRIGING	N/A	0.061	0.043	0.030	0.017
1ST IDW	1	0.063	0.044	0.031	0.017
2ND IDW	2	0.064	0.050	0.032	0.019
3RD IDW	3	0.064	0.057	0.032	0.020
4TH IDW	4	0.064	0.063	0.032	0.021
5TH IDW	5	0.064	0.068	0.033	0.022

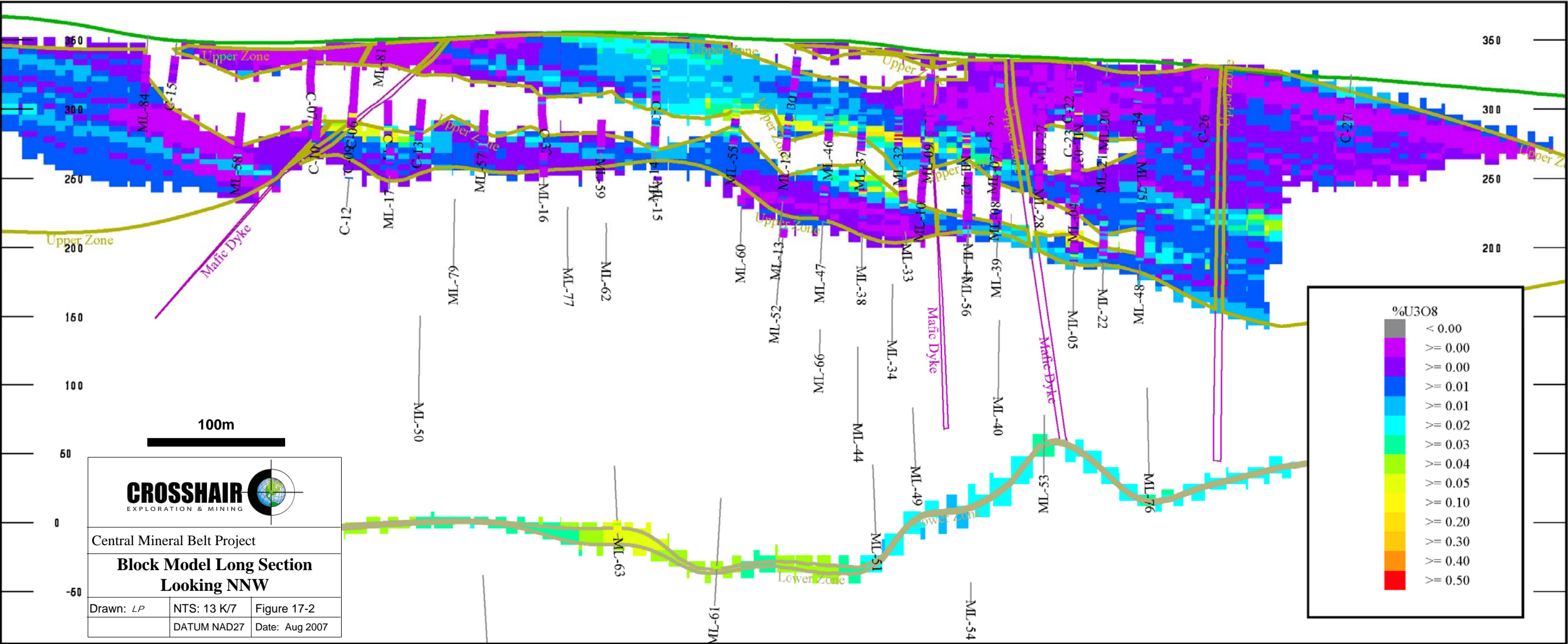
Inverse distance cubed (ID<sup>3</sup>) is often used as an alternative to kriging because grade estimates for blocks that are very close to a composite generally show good agreement with the composite values, while block grade estimates between composites are not overly smoothed like those for inverse distance (ID<sup>1</sup>) and inverse distance squared (ID<sup>2</sup>). A power of 4 or higher generally produces grade estimates similar to polygonal models, as can be observed in the reported standard deviations in Table 17-12. Based on the comparisons of means for actual versus predicted composites, it is L&A's opinion that the kriged estimates provide superior assessments of grade variability and distribution compared to inverse distance weighting and polygonal interpolation.

## CLASSIFICATION

CIM definitions (December 2005) were followed for the classification of the mineral resources. L&A analyzed the drill spacing within the modeled area by estimating the average distance (adjusted for the anisotropy) between each composite and its 4 closest neighbours. For Moran Lake, this was determined to be 45 m in the UC Zone and 92 m in the LC Zone. A common approach is to use a threshold for the maximum spacing of 1 to 1 1/3 the variogram range in order to classify a particular area as indicated and 1/2 to 2/3 the range for measured. Because of the difficulty in interpreting individual vein structures within the Moran Lake deposit, it is L&A's opinion that the maximum drill

spacing for indicated should be no more than the variogram range (54m x 27m in the plane of the structure) for indicated. L&A has classified all blocks in the UC Zone within 36 m (major axis) and 18 m (minor axis) of a matching composite as indicated, provided that the average spacing in the area is closer than 54 m (major axis) by 27 m (minor axis). The spacing in the UC Zone is sufficient to classify most blocks within the core of the drilling as indicated. The Inferred portion occupies the fringes of the deposit as well as at depth where a number of holes failed to penetrate the deeper areas of the UC Zone. Drilling in the LC Zone is too widely spaced to justify classifying any portion as indicated. None of the blocks are classified as measured.





## **18 OTHER RELEVANT DATA AND INFORMATION**

### **ENVIRONMENTAL AND TITLE CONSIDERATIONS**

The northern portion of the CMB Project is subject to the terms of the Labrador Inuit Land Claims Agreement, dated January 22, 2005 which provides for the establishment of the Labrador Inuit Settlement Area (LISA) and Labrador Inuit Lands (LIL).

Under the terms of the Agreement, Labrador Inuit own surface title as well as a 25% interest in all subsurface resources within Labrador Inuit Lands, entitling Labrador Inuit to a 25% share of the provincial subsurface revenues. On the portion of the Labrador Inuit Lands designated as Specified Materials Lands (Figure 18-1), Labrador Inuit own all Specified Materials, which includes all quarry materials used for construction or agricultural purposes.

Exploration on Labrador Inuit Lands requires joint approval from the Province and the Nunatsiavut Government, which officially came into being on December 1, 2005. The applicant must also obtain consent to access Labrador Inuit Lands from the Nunatsiavut Government. Companies wishing to conduct mineral exploration on Labrador Inuit Lands must submit an application for exploration approval to the Nunatsiavut Government and to the Province detailing the work plan, including the company's environmental protection plan and health and safety plan. Prior to any exploration activity that might cause significant ground disturbance such as trenching or diamond drilling, the applicant must also conduct a Stage 1 archaeological assessment of the work area.

Work programs carried out within Labrador Inuit Lands must be done in compliance with the Nunatsiavut Government's Standards for Exploration in Labrador Inuit Lands, which were finalized in March 2007.

According to section 2.16 of the Standards, the Nunatsiavut Government reserves the right to develop a schedule of fees for accessing Labrador Inuit Lands, which may be appended to the Standards. Section 12.0 of the Standards states that the Work Plan Holder must provide a financial security to cover compliance monitoring site visits, reclamation & closure costs for the rehabilitation of the work sites. The financial security is to be refunded to the Plan Holder within 30 days of satisfactory completion of the Reclamation and Closure Plan. The Plan Holder must also strive to maximize employment opportunities for Labrador Inuit as well as the purchase of goods and services from Labrador Inuit businesses for programs being carried out within Labrador Inuit Lands. Furthermore, the Plan Holder must hold information sessions in the communities of Postville and Makkovik before the commencement of the work program, as well as during and/or following the completion of the work program.

Outside of Labrador Inuit Lands, the surface title to land and all subsurface resources in the Labrador Inuit Settlement Area will remain with the Province. A regional land use plan for the Labrador Inuit Settlement Area will be drafted by December 1, 2008. Until this time, the Province is required to consult the Nunatsiavut Government regarding exploration approval within the Settlement Area.

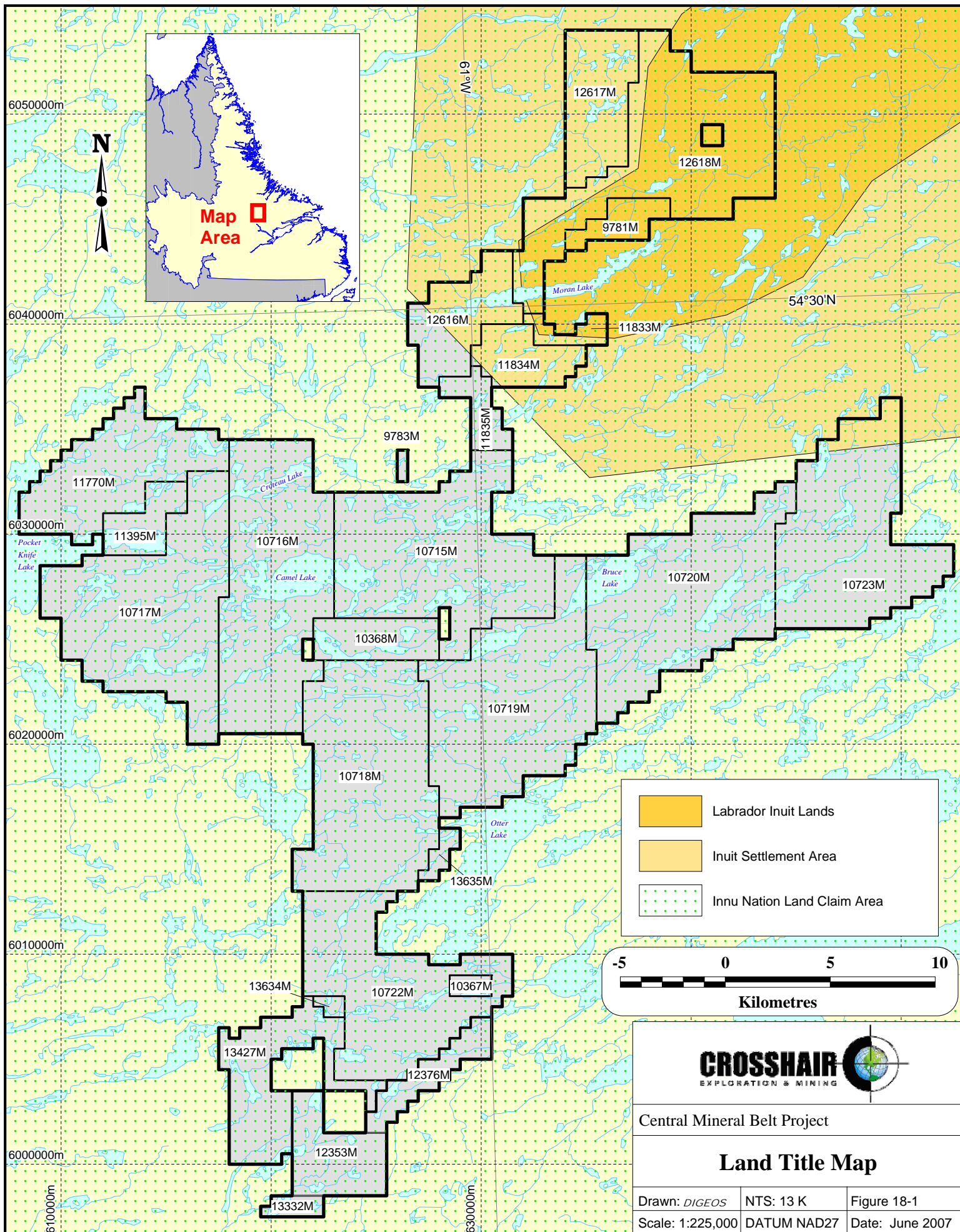
The CMB Project also lies wholly within the Innu Nation Land Claims Area, which overlaps portions of the Labrador Inuit Settlement Area and Labrador Inuit Lands as set out in the Labrador Inuit Land Claims Agreement. Negotiations between the Innu Nation and the Province are currently ongoing towards an eventual resolution of the Innu Nation land claims. Until a land claims with the Innu is reached, exploration within the Innu Nation Land Claims Area that lies outside of the area covered by the Labrador Inuit Settlement Agreement will be subject to current Provincial regulations. Exploration applications in this case are submitted to the Province and referred to the Innu Nation as part of a consultation process before approval is granted.

All necessary permits to carry out the 2006 exploration activities were granted to Crosshair from both the Provincial as well as from the newly formed Nunatsiavut Governments, and the work was completed within the requirements of the permits.

Portions of the claim block are located near the migration route of the George River Caribou Herd and extra caution must be exercised during the calving period (June 1 to 14) and post calving period (June 14 to July 15) to avoid disturbance to the herd. During this time, efforts must be made not to fly over the caribou or to maintain an altitude of at least 300 m above them. Fortunately, the winter migration through the work area takes place during winter freeze-up (early November to mid January) when no exploration activity is taking place.

Uranium exploration work on the CMB Project is carried out according to Crosshair's 'Uranium Exploration Health, Safety and Environmental Protection Guidelines'.





## 19 INTERPRETATION AND CONCLUSIONS

Crosshair has completed an initial exploration and drilling program on the CMB Uranium project. The following interpretations and conclusions are made with respect to the Moran Lake C Zone mineral resources estimated by Peter Lacroix, P. Eng. of Lacroix & Associates as well as exploration results on the remainder of the CMB Uranium Project.

- 1) L&A completed a 3D block model of the Moran Lake deposit with two separate estimates of grade (Kriged and Polygonal) for each block based on the solid model interpretations provided by Crosshair. L&A considers the kriged estimate more appropriate for this deposit. For the purpose of resource estimates, the Moran Lake deposit has been modeled as two separate zones. The UC Zone is composed of a number of narrow vein-like structures that cannot be modeled individually utilizing the drill data available to date. Consequently, the geological model is based on a wireframe or solid model of a mineralized envelope utilizing an external cut-off of about 0.01%  $\text{U}_3\text{O}_8$ . The LC Zone is substantially more discrete and has been modeled as a sheet-like mineralized envelope.
- 2) The kriged estimate for the UC Zone contains an indicated mineral resource totalling 3.75 million t at a grade of 0.039 %  $\text{U}_3\text{O}_8$  or 3.19 million pounds of  $\text{U}_3\text{O}_8$ . An additional resource of 4.29 million t at a grade of 0.027 %  $\text{U}_3\text{O}_8$  or 2.52 million pounds of  $\text{U}_3\text{O}_8$  has been estimated for the inferred category. These estimates, which are based on assays capped at unique levels for each metal, are reported at a block cut-off of 0.15%  $\text{U}_3\text{O}_8$ , which L&A considers appropriate for the location and cost profile that can be expected for open pit mining at Moran Lake.
- 3) The kriged estimate for the LC Zone contains an inferred mineral resource totalling 2.03 million t at a grade of 0.046 %  $\text{U}_3\text{O}_8$  or 2.07 million pounds of  $\text{U}_3\text{O}_8$ . These estimates, which are based on assays capped at unique levels for each metal, are reported at a block cut-off of 0.035%  $\text{U}_3\text{O}_8$ , which L&A considers appropriate for the

location and cost profile that can be expected for narrow-vein underground mining at Moran Lake.

- 4) CIM definitions (December 2005) were followed for the classification of the mineral resources. L&A estimates an average drill spacing of 45 m in the UC Zone and 92 m in the LC Zone based on the average distance between each composite and its 4 nearest neighbours. L&A considers the spacing in the UC Zone sufficient to classify most blocks within the core of the drilling as indicated. The Inferred portion occupies the fringes of the deposit as well as at depth where a number of holes failed to penetrate the deeper areas of the UC Zone. Drilling in the LC Zone is too widely spaced to justify classifying any portion as indicated. None of the blocks are classified as measured.
- 5) Both the kriged and polygonal estimates are very close in terms of contained metal at the stated cut-offs, although the polygonal estimates are lower in tonnage and higher in grade.
- 6) The UC is open along strike to the northeast and down-dip of the drill hole ML-76 which intersected 10.45 m grading 0.076%  $U_3O_8$  including 2.50 m grading 0.234%  $U_3O_8$  in ML-76. The LC Zone is open towards the southwest and down dip and good potential exists to expand this resource.
- 7) Significant uranium mineralization has also been intersected at Area 1, about 1.6 km southwest of the C Zone. The geological setting and style of uranium mineralization at Area 1 is very similar to that seen at the C Zone and Area 1 may represent the western extension of the C Zone mineralization. Drilling to date has identified significant near-surface mineralization over a strike length of 200 m and to a depth of at least 30 m. Mineralization remains open along strike and to depth. Based on the six drill holes completed to date over a 200 m strike length, the area could have a potential resource of 300,000 to 500,000 tonnes averaging 0.06% to 0.08%  $U_3O_8$  containing approximately 500,000 to 1,000,000 pounds of  $U_3O_8$ . This potential is

conceptual in nature and it is uncertain if further exploration will result in the delineation of a resource.

- 8) Drilling on the B Zone intersected copper, silver, uranium mineralization within hematized brecciated sandstones and is thought to be of IOCG affinity because of the presence of mineralized brecciated rocks; an underlying intrusive body (Henri Lake gabbro), multi-element REE enrichment in the rocks and the location of the B Zone along the eastern flanks of a large gravity anomaly. Based on limited drilling to date it is estimated that the area has a potential to contain a resource of 1 to 2 million tonnes at a grade of 0.1 % to 0.2%  $U_3O_8$  containing 2 to 12 million lbs of  $U_3O_8$  as well as potentially significant by-product metals including Cu, Ag and  $V_2O_5$ . This potential is conceptual in nature and it is uncertain if further exploration will result in the delineation of a resource
- 9) Uranium mineralization at Armstrong is concentrated within north-trending shear zones moderately dipping to the east. This area is not well exposed, but prospecting located other localized radiometric anomalies concealed by overburden which have been only partially uncovered to date. Results of the 2007 winter drilling at Armstrong suggest that there may be another mineralized structure 10 m to 15 m to the west of the Armstrong showing. Further follow-up prospecting and mapping should be carried out in the area.
- 10) The Blue Star and Moran Heights areas are associated with the upper unconformity as is the C Zone but mineralization in float and outcrop consists of Cu, U and Ag. Drilling at Moran Heights intersected uranium mineralization beneath the high grade uranium bearing boulders at Moran Heights.
- 11) At Croteau Lake, a total of 17 samples of mineralized iron formation returned assays that ranged from 0.10% to 2.08%  $U_3O_8$ , including significant  $V_2O_5$  (0.800%), Cu (up to 0.51%), Ag (up to 9.2 g/t) and Au (up to 420 ppb).

- 12) Drilling at Madsen Lake did not intersect any extensive mineralized zones at depth and the uranium mineralization is thought to be structurally controlled. Although extensive mineralization was not located by the drilling, grab samples returned greater than 1%  $\text{U}_3\text{O}_8$  with one sample as high as 4.570%  $\text{U}_3\text{O}_8$ .
- 13) The southern part of the property, including Madsen Lake, is underlain by the felsic volcanics of the Sylvia Formation and is characterized by high background radioactivity and requires additional prospecting and mapping to follow up the airborne radiometric anomalies.
- 14) Drilling at Dominion determined that the HLEM conductors in the area are most likely thick possibly folded units of graphitic pyritic shales of the Warren Creek Formation. Follow-up prospecting and geological investigation mapping should be carried out prior to any further drilling in the area.
- 15) The drilling carried out at Area 51 has resulted in the definition of a potentially large low-grade zone of uranium mineralization.

## 20 RECOMMENDATIONS

Crosshair has proposed a budget totalling \$8,940,000 to continue exploration and development of the property. Drilling is proposed to infill the Upper and Lower C Zones on a 50 m grid in addition to further testing at depth and along strike to the northeast and to the southwest. Drilling is also recommended further along strike to the southwest where anomalous zones have been drilled at the Area 1. The current program will include additional mapping and prospecting, particularly in the central/southern area of the property which is underlain by the Sylvia Lake Formation. Additional gravity, EM and IP surveys are planned to further delineate IOCG type targets. Drilling is also recommended for Croteau Lake, and Moran Heights.

**TABLE 20-1 2007 EXPLORATION COST ESTIMATE**  
**Crosshair Exploration and Mining Corp. – CMB Project**

<b>Activities</b>	<b>Cost Estimate</b>	<b>Total</b>
Prospecting	4 prospectors @ \$250/d x 100 days	100,000
Geological	8 geologists @ \$400/d & 8 assistants @ \$150/d x 100 days	440,000
Airborne EM	4500 line km @ \$10	450,000
Ground IP	50 Line km @ \$2000	100,000
Drilling	35,000 m x \$150/m	5,250,000
Assaying	20,000 @ \$30	600,000
Aircraft support	Fixed wing and Helicopter (all inclusive)	1,500,000
Camp Costs	All Inclusive	500,000
<b>Total:</b>		<b>\$8,940,000</b>

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## LACROIX & ASSOCIATES

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## **22 SIGNATURE PAGE**

This report titled Technical Report on the Central Mineral Belt Project, Central Mineral Belt Labrador, and dated September 7, 2007 was prepared by and signed by the following authors:

Dated at Vancouver BC  
September 7, 2007

“Peter Lacroix”  
Peter A. Lacroix P.Eng.  
Consulting Engineer

Dated at Toronto, Ontario  
September 7, 2007

“Barry Cook”  
Barry Cook P. Eng  
Consulting Geologist

## **23 CERTIFICATES OF QUALIFICATIONS**

### **BARRY COOK**

I, R. Barry Cook, M.Sc., P.Eng., as an author of this report entitled “Technical Report on the Central Mineral Belt Uranium Project, Labrador, Canada” prepared for Crosshair Exploration & Mining Corp. and dated September 7, 2007 do hereby certify that:

1. I am an Associate Consulting Geologist with Scott Wilson Roscoe Postle Associates Inc. of Suite 501, 55 University Ave Toronto, ON, M5J 2H7.
2. I am a graduate of Queen’s University, Kingston, Ontario, Canada, in 1962 with a Bachelor in Science degree in Geological Engineering and in 1964 with a Master of Science degree in Geological Engineering.
3. I am registered as a Professional Engineer in the Province of Ontario (Reg. # 9202011) and as a Professional Engineer/Professional Geologist in the Northwest Territories (Reg. # L797). I have worked as a geologist for a total of 43 years since my graduation. My relevant experience for the purpose of the Technical Report is:
  - a. 40 years of active experience in mineral exploration including uranium exploration in the Thelon Basin.
  - b. Familiarity with the Athabasca unconformity-type uranium model and to a lesser extent with the IOCG and intragranitic type uranium models.
  - c. Attendance at a number of short courses and conferences and on field trips concerning a variety of uranium deposits.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI43-101.
5. I visited the Central Mineral Belt Uranium Project on September 19-22, 2006.
6. I am responsible for the site visit and the independent sampling of drill core in Item 14, Data Verification, of the Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.4 of National Instrument 43-101.
8. I previously visited the property on June 20, 2005 and co-authored a technical report on the project dated August 10, 2005 and titled “Report on the Moran Lake Uranium Property, Central Mineral belt, Labrador, Canada”.
9. I have read National Instrument 43-101F1, and the Technical Report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1.

10. 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.

Dated September 7, 2007

“Barry Cook”

R. Barry Cook, M.Sc., P.Eng.

### PETER A. LACROIX

I, Peter A. Lacroix, P.Eng., as an author of this report entitled “Technical Report on the Central Mineral Belt Uranium Project, Labrador, Canada” prepared for Crosshair Exploration & Mining Corp. and dated September 7, 2007 do hereby certify that:

11. I am Principal Mining Consultant of Lacroix & Associates with an office at 1931 128 Street, Surrey, BC V4A 3V5.
12. I am a graduate of the University of Alberta in 1983 with a Bachelor of Science in Mining Engineering with Distinction.
13. I am registered as a Professional Engineer in the Province of British Columbia (Reg#22528). I have worked as a mining engineer for a total of 24 years since my graduation. My relevant experience for the purpose of the Technical Report is:
  - Mineral Resource and Reserve estimation, mine planning, feasibility studies, economic analysis, due diligence, independent review and audit on numerous mining projects and operations world wide
  - Various engineering and mining-related positions at three Canadian mines
  - Various senior positions at the corporate offices of a middle tier base metal and gold producer including Manager Engineering, Manager Operations and Manager Acquisitions & Project Development
  - Principal Mining Consultant for two international consulting firms
  - Associate Mining Consultant for various mining consulting firms on numerous mining projects and operations world wide
  - Principal, Lacroix & Associates, an independent wholly-owned mining consulting firm providing mining consulting services since 1997.
14. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI43-101.
15. I have not visited the Central Mineral Belt Uranium Project.
16. I am responsible for overall preparation of the Technical Report, including the Mineral Resource Estimates.
17. I am independent of the Issuer applying the test set out in Section 1.4 of National Instrument 43-101.
18. I have had no prior involvement with the property that is the subject of the Technical Report.
19. I have read National Instrument 43-101F1, and the Technical Report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1.

20. 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.

Dated September 7, 2007

“Peter Lacroix”  
Peter A. Lacroix, P.Eng.

# 24 APPENDIX 1

## PROPERTY HOLDINGS

Licence Number	Number of Claims	NTS AREA	Issuance Date	Licence Holder	Expenditures Required	
09781M <sup>(1)</sup>	28	13K/10	December 1, 2003	Crosshair	2016	\$25,200
09783M <sup>(1)</sup>	3	13K/06	December 1, 2003	Crosshair	2015	\$1,760
10367M <sup>(2)</sup>	8	13K/03	November 15, 2004	Crosshair	2012	\$1,221
10368M <sup>(2)</sup>	48	13K/06	November 15, 2004	Crosshair	2016	\$43,200
10715M <sup>(3)</sup>	256	13K/06, 07	April 1, 2005	Crosshair	2010	\$91,697
10716M <sup>(3)</sup>	256	13K/06	April 1, 2005	Crosshair	2010	\$73,304
10717M <sup>(3)</sup>	256	13K/06	April 1, 2005	Crosshair	2010	\$70,765
10718M <sup>(3)</sup>	256	13K/06	April 1, 2005	Crosshair	2010	\$95,003
10719M <sup>(3)</sup>	256	13K/06, 07	April 1, 2005	Crosshair	2010	\$93,088
10720M <sup>(3)</sup>	256	13K/07	April 1, 2005	Crosshair	2010	\$94,250
10722M <sup>(3)</sup>	201	13K/02, 03, 06	April 1, 2005	Crosshair	2010	\$70,230
10723M <sup>(3)</sup>	229	13K/07	April 1, 2005	Crosshair	2010	\$79,186
11395M <sup>(3)</sup>	36	13K/06	November 16, 2005	Crosshair	2011	\$17,130
11770M <sup>(3)</sup>	140	13K/06	February 28, 2006	Crosshair	2011	\$48,686
11833M <sup>(1)</sup>	16	13K/07	July 22, 2002	Crosshair	2017	\$14,400
11834M <sup>(1)</sup>	48	13K/06, 07	July 22, 2002	Crosshair	2017	\$43,200
11835M <sup>(1)</sup>	27	13K/06, 07	July 22, 2002	Crosshair	2017	\$24,300
12616M <sup>(3)</sup>	79	13K/06,07, 10,11	April 1, 2005	Crosshair	2011	\$13,445
12617M <sup>*</sup>	89	13K/10	February 21, 2005	Crosshair	2010	\$18,908
12618M <sup>+</sup>	252	13K/07, 10	January 31, 2005	Crosshair	2012	\$10,781
13427M	105	13K/03	May 3, 2007	Crosshair	2008	\$21,000
13634M	5	13K/03	July 5, 2007	Crosshair	2008	\$1,000
13635M	10	13K/06	July 5, 2007	Crosshair	2008	\$2,000
TOTAL	2860					

<sup>(1)</sup> claims under option from Lewis Murphy

<sup>(2)</sup> claims under option from Triassic Properties Ltd.

<sup>(3)</sup> claims staked by Crosshair Exploration and Mining Corp.

<sup>(\*)</sup> includes 79 claims staked by Crosshair and 10 claims under option from Lewis & Noel Murphy

<sup>(+)</sup> includes 130 claims staked by Crosshair and 122 claims under option from Lewis & Noel Murphy

## LACROIX & ASSOCIATES

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Claims under option from Belmont Resources Inc. /International Montoro Res. Inc.

Licence Number	Number of Claims	NTS AREA	Issuance Date	Licence Holder	Expenditures Required	
12353M <sup>(S)</sup>	66	13K/03	July 24, 2006	Ruza Resources Ltd.	2011	\$19,380.14
12376M <sup>(S)</sup>	39	13K/02,03	July 31, 2006	Ruza Resources Ltd.	2011	\$12,565.46
13332M <sup>(S)</sup>	11	13K/03	April 12, 2007	Belmont Resources Inc. (50%) and International Montoro Resources Inc. (50%)	2008	\$2,200.00
12352M <sup>(P)</sup>	23	13L/02	July 24, 2006	Ruza Resources Ltd.	2011	\$6,939.29

<sup>(S)</sup> claims comprising the "Stormy Lake Block"

<sup>(P)</sup> claims comprising the "Partridge River Block"

## 25 APPENDIX 2

### SGS MINERALS ANALYTICAL PROCEDURES

All samples were prepared according to method PRP89, as follows: Dry <5kg , crush to 75% passing 2mm, split to 250g and pulverize to 85% passing 75µm.

#### ICA50 : Ore grade analysis of base metals by sodium peroxide fusion and ICP-OES.

1. **Parameter(s) measured, unit(s):** Cobalt (Co); Copper (Cu); Nickel (Ni); Lead (Pb); Zinc (Zn); U<sub>3</sub>O<sub>8</sub>; V<sub>2</sub>O<sub>5</sub>: %
2. **Typical sample size:** 0.20 g
3. **Type of sample applicable (media):** Crushed and Pulverized rocks, soils and sediments
4. **Sample preparation technique used:** Crushed and pulverized rock, soil and /or sediment samples are fused by Sodium peroxide in zirconium crucibles and dissolved using dilute HNO<sub>3</sub>.
5. **Method of analysis used:** The digested sample solution is aspirated into the inductively coupled plasma Optical Emission Spectrometer (ICP-OES) where the atoms in the plasma emit light (photons) with characteristic wavelengths for each element. This light is recorded by optical spectrometers and when calibrated against standards the technique provides a quantitative analysis of the original sample.
6. **Data reduction by:** The results are exported via computer, on line, data fed to the Laboratory Information Management System (LIMS CCLAS EL) with secure audit trail.
7. **Figures of Merit:**

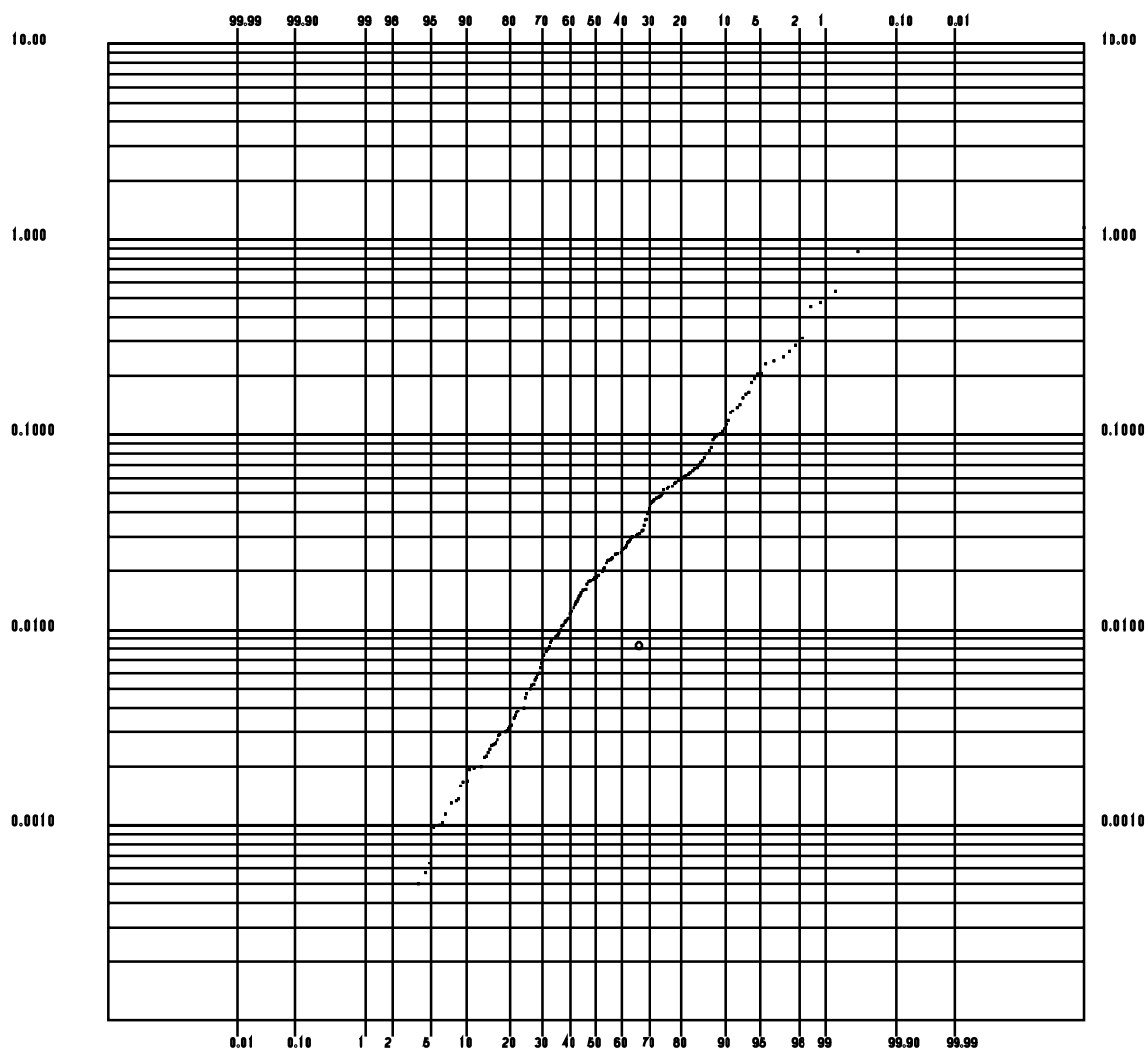
Element	Limit of Quantification (LOQ) %	Element	(LOQ) %
Co	0.001	Pb	0.007
Cu	0.004	Zn	0.004
Ni	0.005	U <sub>3</sub> O <sub>8</sub>	0.01
		V <sub>2</sub> O <sub>5</sub>	0.01

8. **Quality control:** The ICP-OES is calibrated with each work order. An instrument blank and calibration check is analyzed with each run. One preparation blank and reference material is analyzed every 46 samples, one duplicate every 12 samples.  
All QC samples are verified using LIMS. The acceptance criteria are statistically controlled and control charts are used to monitor accuracy and precision. Data that falls outside the control limits is investigated and repeated as necessary.
9. **Accreditation:** The Standards Council of Canada has accredited this test in conformance with the requirements of ISO/IEC 17025. See [www.scc.ca](http://www.scc.ca) for scope of accreditation.



## **26 APPENDIX 3**

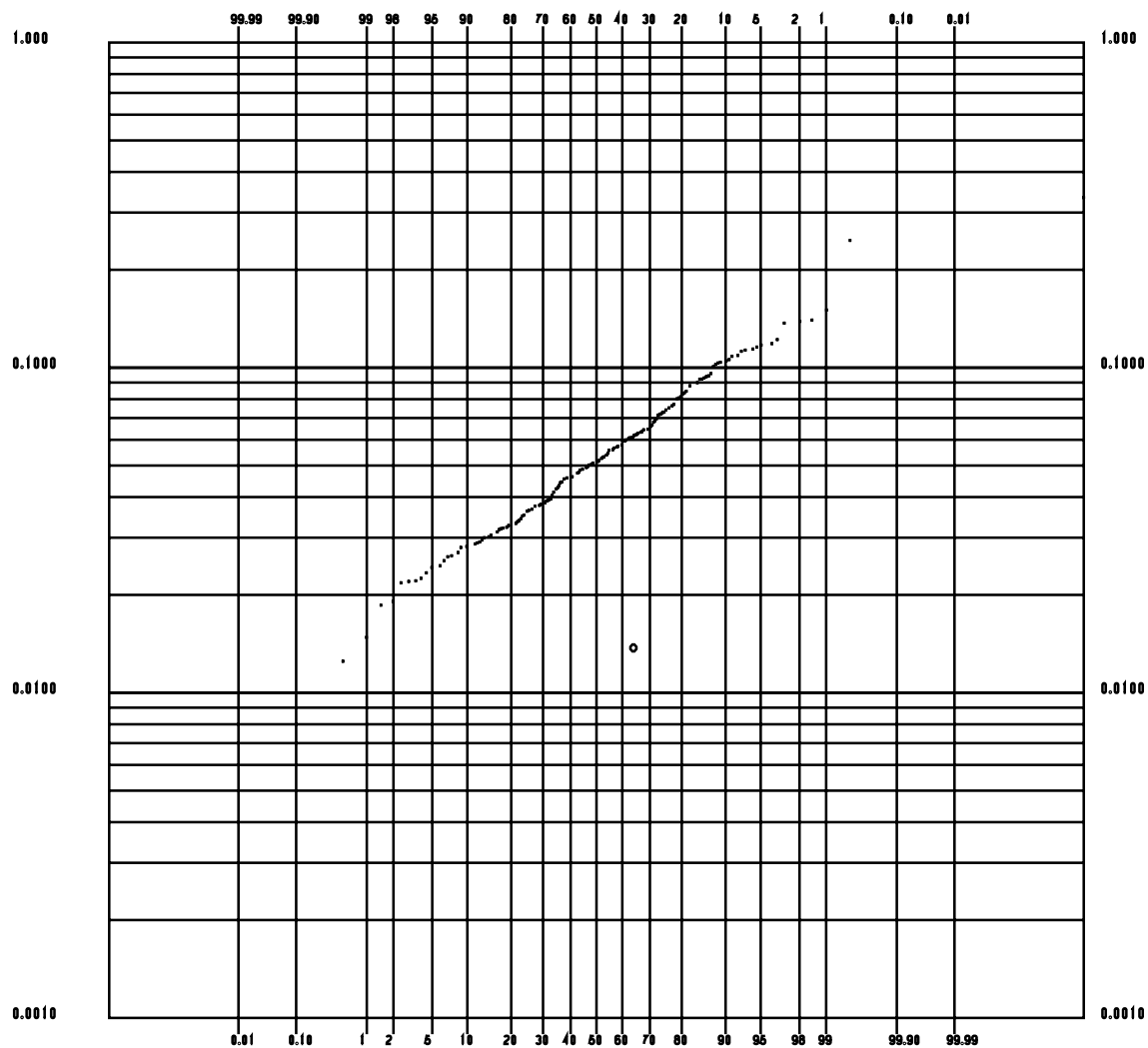
### **PROBABILITY PLOTS**



\*\* PROBABILITY DISTRIBUTION PLOT OF %U308 \*\*

ITEM		NATURAL LOGS	
NUMBER	266	NUMBER	266
MEAN	0.0510	MEAN	-4.1500
MINIMUM	0.0000	MINIMUM	-7.6010
MAXIMUM	1.1470	MAXIMUM	0.1370
VARIANCE	0.0120	VARIANCE	2.6500
ST.DEV.	0.1110	ST.DEV.	1.6280

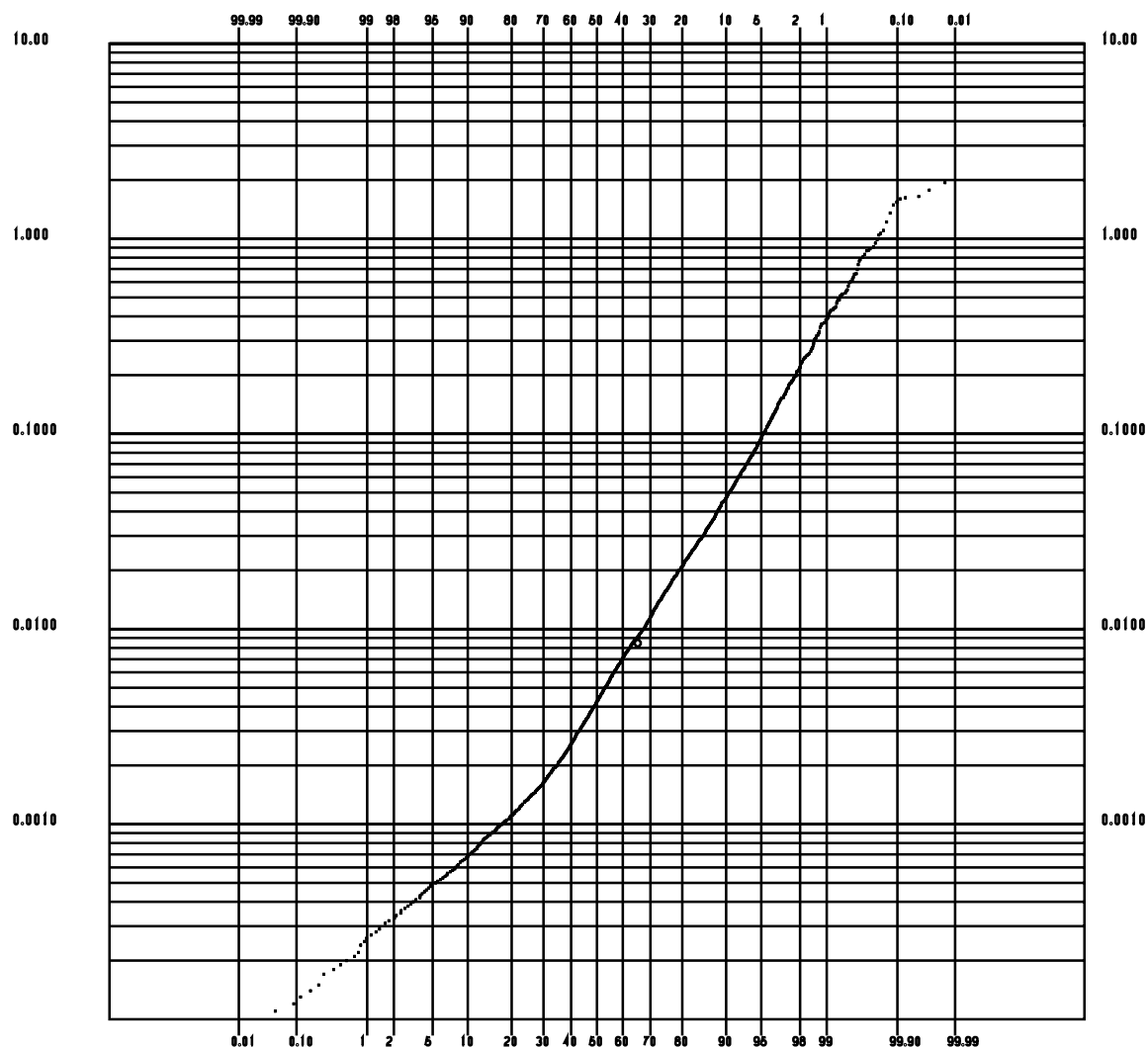
LC Assays - Excluding Internal Waste



\*\* PROBABILITY DISTRIBUTION PLOT OF %V205 \*\*

ITEM		NATURAL LOGS	
NUMBER	202	NUMBER	202
MEAN	0.0610	MEAN	-2.9420
MINIMUM	0.0120	MINIMUM	-4.3820
MAXIMUM	0.3340	MAXIMUM	-1.0970
VARIANCE	0.0010	VARIANCE	0.2650
ST.DEV.	0.0370	ST.DEV.	0.5140

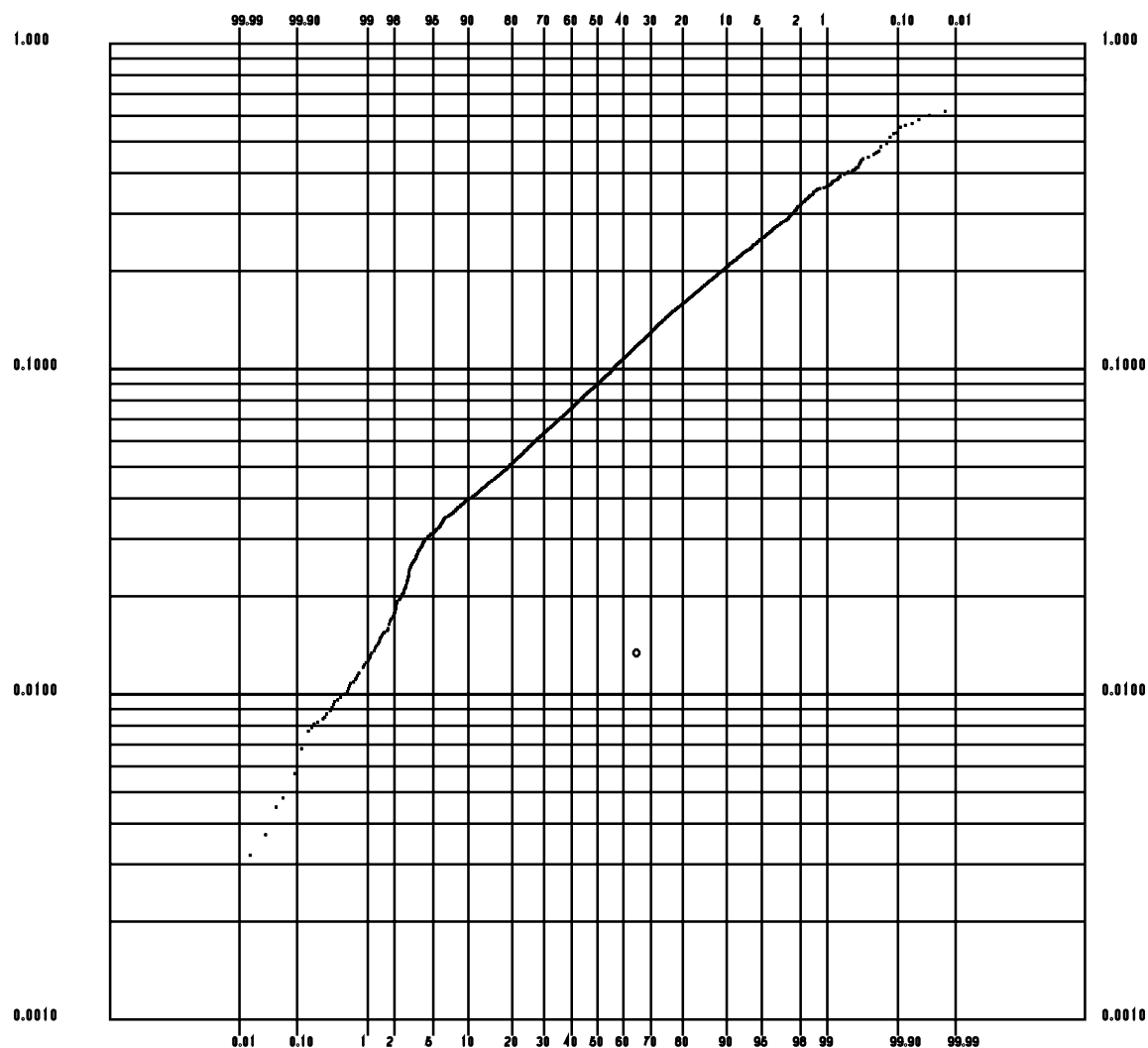
LC Assays - Excluding Internal Waste



\*\* PROBABILITY DISTRIBUTION PLOT OF %U308 \*\*

ITEM		%U308	NATURAL LOGS	
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MEAN	0.0260		MEAN	-5.2910
MINIMUM	0.0000		MINIMUM	-9.1150
MAXIMUM	3.8060		MAXIMUM	1.3370
VARIANCE	0.0110		VARIANCE	2.7520
ST.DEV.	0.1030		ST.DEV.	1.6590

UC Assays - Excluding Internal Waste



\*\* PROBABILITY DISTRIBUTION PLOT OF %V205 \*\*

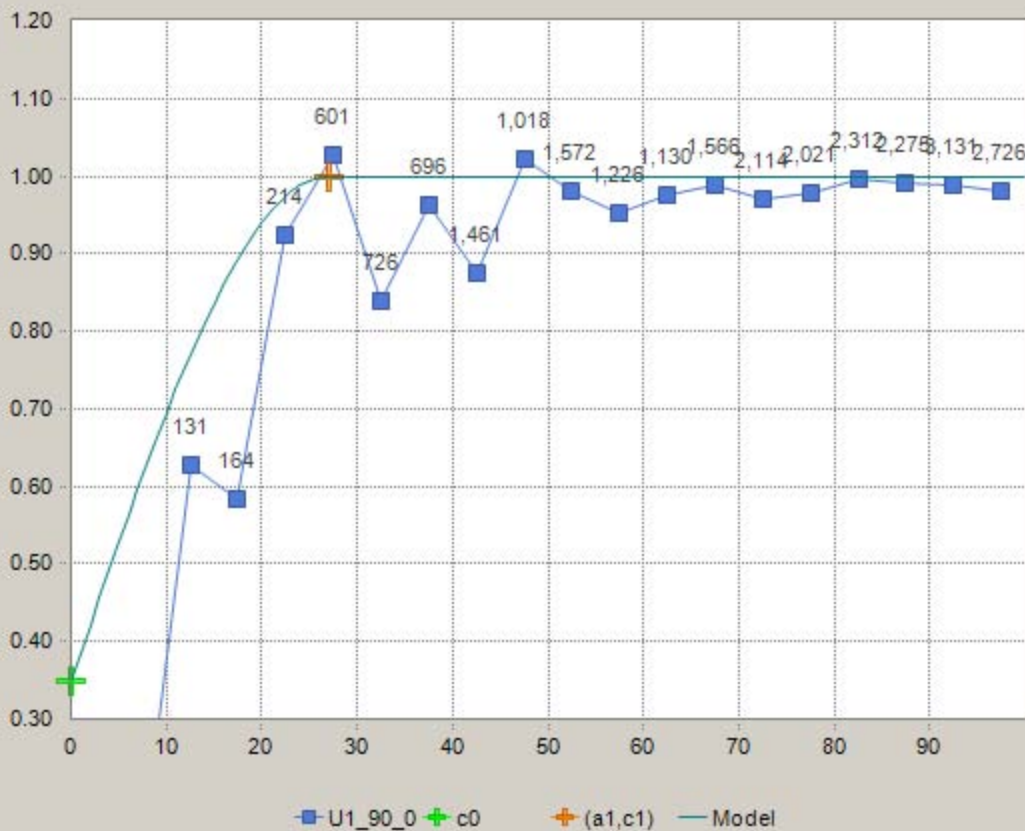
ITEM		%V205	NATURAL LOGS	
NUMBER	6723		NUMBER	6723
MEAN	0.1100		MEAN	-2.4170
MINIMUM	0.0030		MINIMUM	-5.7450
MAXIMUM	0.7780		MAXIMUM	-0.2510
VARIANCE	0.0060		VARIANCE	0.4520
ST.DEV.	0.0740		ST.DEV.	0.6720

UC Assays - Excluding Internal Waste

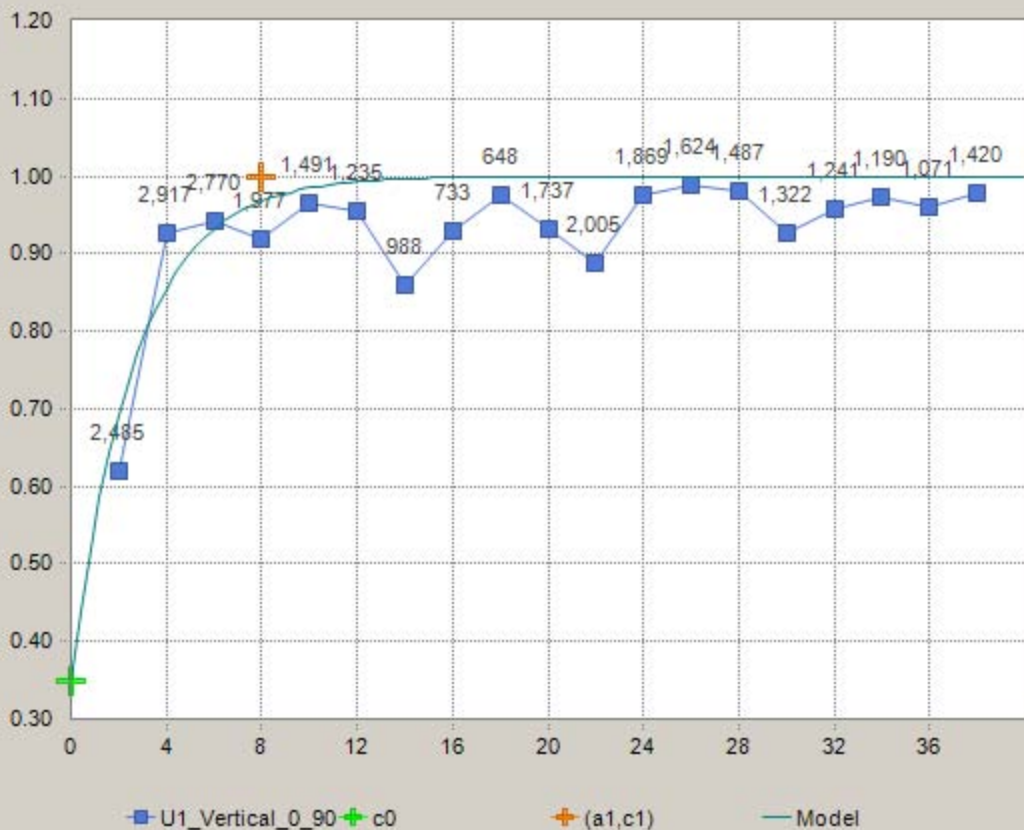
## **27 APPENDIX 4**

### **VARIOGRAMS**

U308 - Upper Zone Rotation Meds (38, -8, -27)



U308 - Upper Zone Rotation Meds (38, -8, -27)





U308 - Upper Zone Rotation Meds (38, -8, -27)

