

# **FORM 43-101 TECHNICAL REPORT ON THE CENTRAL MINERAL BELT (CMB) URANIUM PROJECT, LABRADOR, CANADA**

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

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# 1 SUMMARY

## EXECUTIVE SUMMARY

This technical report on the Central Mineral Belt Uranium Project (CMB Project) of Crosshair Exploration & Mining Corporation (“Crosshair”) was prepared in July 2008 by Jeffery A. Morgan, P.Geo. and Gary H. Giroux, P.Eng. The report was prepared at the request of Crosshair management in support of an updated resource estimate on the C Zone, as well as initial resource estimates for the Armstrong and Area 1 (“Trout Pond”) targets. The report covers Crosshair’s exploration activity on the CMB Project to the end of April 2008, with emphasis on the work carried out since filing of the previous technical report on September 7, 2007. The technical report has been prepared to comply with National Instrument 43-101 Standards of Disclosure for Mineral Projects.

The current resource estimates were prepared according to accepted CIM definitions and methods (December 2005) by Mr. Gary Giroux, who visited the Property on November 23<sup>rd</sup> to 25<sup>th</sup> 2007. The C Zone estimate is based on data from 233 drill holes (43,017 m), including 51 that were drilled by Shell Resources Canada during the late 1970s and 182 drilled by Crosshair between 2006 and 2008. The Trout Pond estimate is based on 31 drill holes (3,375 m) drilled by Crosshair between 2006 and 2008. The Armstrong estimate is based on 32 drill holes (6,572 m) drilled between 2007 and 2008.

For the purpose of the current resource estimate, the C Zone deposit has been modeled as four separate zones. Three structurally controlled zones known as the UC Main, UC Mylonite (“MYL”) and UC Southwest (“SW”) zones occur in the Upper C (“UC”) rock package above the C Zone thrust fault. The fourth zone, termed the Lower C (“LC”) zone, occurs below the C Zone thrust fault and is modeled as a sheet-like body in close proximity to an unconformity.

Two new deposits have also been defined to the southwest of the C Zone. The Trout Pond (“TP”) deposit is modeled as a single mineralized solid and the Armstrong deposit

consists of two mineralized solids both defining structurally controlled mineralization. The geologic models are based on wireframes or solid models of mineralized envelopes utilizing an external cut-off of about 0.01%  $\text{U}_3\text{O}_8$ .

At present, only the three UC zone envelopes have sufficient drill density to contain resources classified as indicated. The current total indicated resource for the UC is 6.92 million t at a grade of 0.034%  $\text{U}_3\text{O}_8$  or 5.19 million pounds of  $\text{U}_3\text{O}_8$ . The UC also contains additional resources in the inferred category which, when combined with inferred resources in the LC, Trout Pond and Armstrong zones total 8.17 million t at a grade of 0.032%  $\text{U}_3\text{O}_8$  or 5.82 million pounds of  $\text{U}_3\text{O}_8$ . With the exception of the LC, these estimates are reported at a block cut-off of 0.015%  $\text{U}_3\text{O}_8$ . The cut-off grades are considered appropriate for the location and cost profile that can be expected for open pit mining. In the case of the LC, a cut-off grade of 0.035%  $\text{U}_3\text{O}_8$  is used for reporting purposes, reflecting higher costs associated with underground mining.

Vanadium mineralization commonly occurs with, but is not restricted to, the zones of uranium mineralization at the C Zone, Trout Pond and Armstrong. Vanadium enriched zones, particularly within the UC, is predominantly hosted by sections of dark maroon, strongly hematized and albitized, brecciated mafic volcanic rocks. As part of the current resource calculation, a vanadium resource has also been defined for each of the zones. The UC contains a total indicated vanadium resource of 6.92 million t at a grade of 0.077%  $\text{V}_2\text{O}_5$  or 11.75 million pounds of  $\text{V}_2\text{O}_5$ . The combined inferred vanadium resource contained in the UC, LC, Trout Pond and Armstrong zones totals 8.17 million t at a grade of 0.088%  $\text{V}_2\text{O}_5$  or 15.81 million pounds of  $\text{V}_2\text{O}_5$ . It is emphasized that these resources only represent the vanadium mineralization that occurs within the limits of the outlined uranium resources, and do not include zones of vanadium mineralization external to the uranium resource.

The current resource estimate on a zone by zone basis is summarized in Table 1-1.

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

ZONE	Classification	Cut-off	Tonnes	U3O8 %	V2O5 %	Million lbs	
		U3O8%				U3O8	V2O5
UC -Main	Indicated	0.015	3,790,000	0.038	0.081	3.18	6.77
UC_Mylonite	Indicated	0.015	2,400,000	0.027	0.073	1.43	3.86
UC-SW	Indicated	0.015	730,000	0.032	0.067	0.52	1.08
<b>Totals</b>	<b>Indicated</b>	<b>0.015</b>	<b>6,920,000</b>	<b>0.034</b>	<b>0.077</b>	<b>5.19</b>	<b>11.75</b>
UC -Main	Inferred	0.015	1,010,000	0.020	0.082	0.45	1.83
UC_Mylonite	Inferred	0.015	3,770,000	0.025	0.108	2.08	8.98
UC-SW	Inferred	0.015	540,000	0.026	0.075	0.31	0.89
LC	Inferred	0.035	1,450,000	0.050	0.058	1.60	1.85
Trout Pond	Inferred	0.015	399,014	0.055	0.114	0.48	1.00
Armstrong	Inferred	0.015	1,000,000	0.041	0.057	0.90	1.26
<b>Totals</b>	<b>Inferred</b>		<b>8,169,014</b>	<b>0.032</b>	<b>0.088</b>	<b>5.82</b>	<b>15.81</b>

The UC is open along strike to the southwest and down-dip, including down-dip of drill hole ML-76, which intersected 10.45 m grading 0.076% U<sub>3</sub>O<sub>8</sub> including 2.50 m grading 0.234% U<sub>3</sub>O<sub>8</sub>. The LC is open at depth and along strike to the southwest.

Over 80% of Crosshair's drilling to date on the CMB Project has taken place along a 4.5 km long corridor that includes the C Zone, Area 1, and Armstrong. Target areas outside of the main corridor include the B Zone, Moran Heights, Area 51, Croteau Lake, Madsen Lake, Dominion and Blue Star. Details on all of these target areas can be found in the in the body of the report.

Crosshair has proposed a budget totalling \$6,000,000 to continue exploration and development on the CMB Project during the summer/fall of 2008. Exploration will have a two-pronged approach, with one division (the Northstar Division) focussing on the northern portion of the property, including the more advanced C Zone, Area 1, and Armstrong target areas, and another division (the Lonestar Division) focussing on identifying and advancing additional targets in the less explored southern portion of the property.

The Northstar Division will carry out a surface exploration program including geological mapping, prospecting, additional geochemical surveying and mechanical and hand trenching to investigate the numerous targets identified from the work to date. Diamond drilling will focus on the main C Zone corridor, which includes the Armstrong and Area 1 / Trout Pond targets, as well as additional targets identified from the surface program. Contingent upon the results of the surface program, approximately 5000 m of drilling has been proposed for the Northstar Division during the summer/fall of 2008. Approximately \$3.5 million has been budgeted for the Northstar 2008 summer program.

The Lonestar Division will carry out a comprehensive surface exploration program targeting unconformity-type uranium deposits in the western portion of the project area (Croteau Lake) as well as shear-zone hosted uranium mineralization elsewhere. The program will focus on several priority target areas identified from existing geological, geochemical, and geophysical data, but will also include regional mapping and prospecting throughout the Lonestar area. The high priority target areas identified will be explored by a combination of detailed geological mapping, geochemical sampling, and prospecting. Up to 2000 m of diamond drilling has been budgeted to test priority targets identified from the 2008 summer surface program. Approximately \$2.5 million has been budgeted for the Lonestar 2008 summer program.

## **TECHNICAL SUMMARY**

Crosshair's CMB Project is located within the Central Mineral Belt of Labrador, approximately 140 km north of the town of Happy Valley-Goose Bay and 85 km southwest of the coastal community of Postville on Kaipokok Bay. Access to the property is by helicopter and float plane out of Goose Bay. Most necessary goods and services can be obtained in Goose Bay, which has excellent commercial airline connections to St. John's, Halifax and Montreal.

The CMB Project comprises a total of 2,880 map-staked claims in 24 different mineral licences covering a total area of 72,000 ha located in NTS areas 13K/2, 13K/3, 13K/6, 13K/7, 13K/10 and 13K/11. The claims include 254 that were acquired from prospectors Lewis and Noel Murphy, 56 that were acquired from Triassic Properties Ltd., and 2,570 that were staked by Crosshair between November 2004 and December 2007. The southwest end of Lady Lake, which lies just north of the C Zone on licence 11834M, is located at 54° 29" N Lat and 60° 57" W Long.

Crosshair can earn a 90% interest in the 254 Murphy claims by spending \$3 million on exploration [obligation met] and by paying the vendor, Lewis Murphy, a total of \$525,000 in cash [\$425,000 paid] and issuing 1,600,000 shares [1,350,000 issued] over the five year term of the agreement. The vendor retains a 2% NSR and a 10% carried interest in the claims plus an area of interest that extends 4 km outward from the claim boundaries.

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 [\$409,713.80 spent], issuing 225,000 Crosshair shares [225,000 issued] and paying an aggregate of \$140,000 to the vendor [\$90,000 paid] 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. giving Crosshair the option to earn a 75% interest in 139 claims comprising four different mineral licences in the Central Mineral Belt by carrying out \$800,000 in exploration expenditures and issuing 175,000 common shares to the vendors over a three year period. Crosshair spent \$102,704 in exploration on the claims and issued 50,000 shares to the vendor before the agreement was terminated in April 2008, bringing the Labrador CMB Property to its current size of 2,088 claims.

To April 30, 2008 Crosshair has spent a total of approximately \$20.6 million in exploration on the CMB Project. Financial support in the amount of \$150,000 was provided to Crosshair by the Newfoundland and Labrador Government through its



Department of Natural Resources' "Junior Exploration Assistance" (JEA) Program for the 2007 exploration and drilling program at Croteau Lake on the CMB Property.

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 until 1969, after which it lay dormant 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 up until 1980, when they ceased exploration due to a drop in uranium prices. 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 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 to tectonically overlain by a series of pillow basalts and shale-sandstone sequences belonging to the approximately equivalent Moran Lake and Post Hill Groups (ca. 2100 to 2000 Ma) (Wardle, 2005). Both the Post Hill (formerly referred to as the Lower Aillik) and Moran Lake Groups are interpreted to have formed on a passive, south-facing continental margin (Ketchum et al, 2002).

The Post Hill Group is tectonically overlain by subaerial, rhyolitic ash-flow tuff and volcanoclastic rocks of the Aillik Group (formerly referred to as the Upper Aillik Group) (1860 Ma to 1807 Ma), which are 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 Aillik Group host the Michelin Deposit on the Aurora Energy Resources Inc. property located approximately 50 km to the east.

The Post Hill and 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 sedimentary and volcanic rocks of the Moran Lake Group, which are in turn overlain unconformably by the late Paleoproterozoic continental derived sedimentary rocks 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 and, arkose plus minor dolostone and iron formation of the basal Warren Creek Formation, which is overlain by pillowed basalts assigned 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.

The area was affected by the Pleistocene Wisconsin glaciation, with ice directions to the east and northeast at the northern extent of the property and to the southeast in its southern portion. Much of the area has a veneer of ground moraine and boulder tills. Several eskers that occur in the southern part of the area resulted from sediment deposition in 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 occurs in mafic volcanics of the Joe Pond Formation, Moran Lake Group, as well as in overlying sedimentary rocks of the Heggart Lake Formation, Bruce River 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 bleaching, a weak foliation in the rock and some dramatic breccias in the mafic volcanics. In some outcrops, 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 CMB Project area. Uranium mineralization at the C Zone mainly occurs in two distinct zones, referred to as the Upper C (“UC”) and Lower C (“LC”). 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 structurally underlying LC is hosted predominantly within chloritized (reduced) sandstones of the Heggart Lake Formation.

The UC mineralization is fracture-controlled and hosted within red to orange, hematized, albitized and brecciated sections of mafic volcanic rocks and in brecciated hematitic chert. The uranium mineralization typically 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.

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 toward 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%.

Crosshair’s 2007 summer program returned the best drill intercepts from the UC to date, including 46.25 m averaging 0.100%  $U_3O_8$  and 0.130%  $V_2O_5$  from ML-122; 45.72 m averaging 0.100%  $U_3O_8$  and 0.093%  $V_2O_5$  from ML-87; 36.65 m averaging 0.101%  $U_3O_8$

and 0.112%  $V_2O_5$  from ML-90; and 19.30 m averaging 0.101%  $U_3O_8$  and 0.054%  $V_2O_5$  from ML-102.

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.

Some of the better intersections returned 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. The survey comprised approximately 7,312 line-km, including 674 line-km of tie lines. In 2006 the 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 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.

In 2007, Crosshair contracted Andrews Exploration to carry out 48 line km of additional line cutting in order to facilitate ground geophysical surveys along the main grid which extends from the Armstrong showing in the southwest to the B Zone in the northeast.

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 4.1 km covering Area 1, the UC and a portion of the LC. Most of the survey was conducted using a coil spacing of 200 m and the remainder at 100 m coil spacing. The survey identified a number of anomalies, some of which are related to argillite horizons within the Joe Pond Formation.

During the spring of 2007, Eastern Geophysics Ltd. carried out a ground gravity survey in the vicinity of the C Zone and B Zone in order to fill in gaps from earlier surveys. Initial interpretation of all of the gravity survey data collected up to that point was carried out by Carriere Process Management Ltd., who identified at least nine gravity anomalies of interest and recommended additional infill surveys over select areas. Consequently, an additional infill survey was carried out in October 2007 by MWH Geo-Surveys Inc.

From June to August 2007, Peter E. Walcott and Associates carried out an induced potential (IP) and resistivity survey over the Armstrong - C Zone - B Zone grid. Carriere Process Management Ltd. performed interpretation of the inverted IP data and identified thirty areas of interest for follow-up.

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 AS-350 B2 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. Interpretation of the airborne data was carried out by Condor Consulting, who identified at least 25 first, second and third order targets within the survey area, including at least 10 that are deemed to have potential for IOCG style mineralization.

In addition to the ground and airborne geophysical surveys, Crosshair's 2007 exploration program included a property wide lake sediment sampling survey in which 933 lake sediment sample were collected for analysis. Several anomalous areas were identified for follow-up during the planned 2008 summer exploration season.

Crosshair also carried out Alpha Track and till sampling surveys over seven main areas of the CMB Property during 2007. Alpha Track surveys are used to detect radon gas produced as a result of uranium decay in the earth and can be effective in identifying buried uranium mineralization that may have little or no radiometric expression at surface. Concurrent with the Alpha Track survey, till samples were also collected from the seven main survey areas, which included the C Zone, Area 1, B Zone, Moran Heights, Blue Star, Croteau Lake and Madsen Lake. A total of 875 Alpha Track detectors were deployed and 674 till samples were collected; several anomalies and areas of interest were identified for follow-up as part of the planned 2008 summer program.

In 2007, Aero Geometrics Ltd. was contracted to fly an aerial photo survey over four separate "blocks" of the CMB Property, covering a total of 459 km<sup>2</sup>. The blocks were covered at scales varying from 1:10,000 to 1:25,000. NE Parrott Surveys established the 25 air photo control targets that were required to complete the survey.

In conjunction with the ground and airborne surveys, Crosshair carried out a total of 28,794 metres of drilling in 155 holes during two separate phases on the CMB Project during 2007. During the winter phase from late January to late April, Crosshair carried out 8,211 m of drilling in 26 holes at the C Zone, including fifteen which tested both the UC and LC Zones, six which tested the UC only, and 5 which tested the LC. The winter

program also included limited drilling at Area 1 (543 m in 4 holes), the Armstrong showing (214 m in 2 holes) and the Dominion showing (442 m in 2 holes).

During the 2007 summer program from late June to mid November, Crosshair carried out a total of 19,384 m of drilling in 121 holes at the C Zone (15,776 m in 89 holes), Area 1 (2,822 m in 26 holes) and Croteau Lake (785 m in 6 holes). The program returned the best intercepts to date from the UC, highlighted by 46.25 m averaging 0.100%  $U_3O_8$  and 0.130%  $V_2O_5$ , including 22.40 m averaging 0.202%  $U_3O_8$  and 0.123%  $V_2O_5$  from hole ML-122; 45.72 m averaging 0.100%  $U_3O_8$  and 0.093%  $V_2O_5$  from hole ML-87; and 38.98 m averaging 0.101%  $U_3O_8$  and 0.124%  $V_2O_5$  from ML-90. The 2007 program successfully extended the strike length of the C Zone mineralization to 1300 m, which represents a 100% increase from 2006.

Highlights from the 2007 drilling program at Area 1 include 11.50 m averaging 0.110%  $U_3O_8$ , including 3.00 m grading 0.323%  $U_3O_8$  from ML-A1-16; and 12.50 m of 0.103%  $U_3O_8$ , including 3.52 m of 0.197%  $U_3O_8$  from ML-A1-21. Uranium mineralization has been intersected along a distance of 600m at Area 1, and includes the Trout Pond Zone which has a currently defined strike length of 250m and remains open for expansion.

During the winter of 2008, Crosshair completed approximately 12,043 metres of drilling in 55 holes on the CMB Property. Drilling focused on a newly discovered zone of mineralization in the Armstrong area, where 6,210 metres were drilled in 30 holes. The remainder of the drilling focused on other priority targets including the C Zone (1,509 metres in 9 holes), Area 1 (760 metres in 4 holes) and the B Zone (1,004 metres in 9 holes). Three holes totalling 2,560 metres also tested deeper targets along the Armstrong – C Zone – B Zone corridor that were identified from the gravity, IP and EM survey data.

Results from the 2008 winter drilling campaign are highlighted by intercepts from the newly discovered zone of mineralization at Armstrong, including 9.45 m grading 0.196%  $U_3O_8$  from ML-AR-26, and 3.35 m grading 0.126%  $U_3O_8$  from ML-AR-14. The zone has a currently defined strike length of 300m, and remains open for expansion.



Preliminary metallurgical test work was performed by the Saskatchewan Research Council on select samples from Crosshair's CMB Project. Test work concentrated on the Main Composite, which contained 0.108%  $\text{U}_3\text{O}_8$  and 0.173%  $\text{V}_2\text{O}_5$ , as well as the ML-32 Composite, which contained 0.470%  $\text{U}_3\text{O}_8$  and 0.096%  $\text{V}_2\text{O}_5$ . Of the several different types of tests that were performed, the best recoveries were from Agitated Sulphuric Acid Leach tests. At ambient temperatures and samples ground to -200 mesh, recoveries from the Main Composite after 6.5 hours are 95.2% uranium and 35.1% vanadium, and from the ML-32 Composite after 5.5 hours are 98.5% uranium and 35.6% vanadium.

## 2 INTRODUCTION AND TERMS OF REFERENCE

This technical report on the Company's Labrador Central Mineral Belt Uranium Project (CMB Project) was prepared in July 2008 by Jeffery A. Morgan, P.Geo., and Gary H. Giroux, P.Eng., MASc. The report was prepared at the request of Crosshair management in support of an updated resource estimate on the C Zone, as well as an initial resource estimate for the Armstrong and Trout Pond exploration targets. The resource estimates were prepared by Mr. Giroux, independent consultant to the Company. The technical report was prepared in compliance with National Instrument 43-101 Standards of Disclosure for Mineral Projects.

This technical report documents all activities on Crosshair's CMB Project since September 2005, with emphasis on the results of exploration work carried out since filing of the previous 43-101 technical report on September 7, 2007. The report also includes information contained in the most recent technical report dated September 7, 2007, which was prepared by independent consultants Lacroix & Associates (L&A) in support of a previous update of the resource estimate on the C Zone. The L&A report, along with a prior technical report dated November 7, 2005 that was prepared by Scott Wilson RPA in support of Crosshair's initial resource estimate for the C Zone, can be found on SEDAR.

In addition to its CMB Project, Crosshair in July 2008 acquired a 60% interest in 4,741 claims covering 118,525 hectares within the Central Mineral Belt of Labrador from Universal Uranium Ltd. ("Universal"). The claims are subject to a property acquisition agreement signed on January 23, 2006 between Universal and Silver Spruce Res. Inc. The claims include the CMB-NW Property, which is contiguous to the northwest with Crosshair's CMB Project, and which hosts Indicated Mineral Resources totalling 1.82 million tonnes at a grade of 0.058%  $U_3O_8$  (containing 2.33 million pounds of  $U_3O_8$ ) and Inferred Mineral Resources of 3.16 million tonnes grading 0.053%  $U_3O_8$  (containing 3.73 million pounds of  $U_3O_8$ ) in what is known as the Two Time Zone (Ross, 2008).

In addition to its properties in the central Mineral Belt of Labrador, Crosshair also has interests in the Golden Promise, South Golden Promise (both gold) and Victoria Lake (base metals) Properties in central Newfoundland. In June 2008, Crosshair announced plans to spin these properties out into a new company called Gemini Metals Corporation. Crosshair intends to carry out the spin-out through a Plan of Arrangement, subject to required regulatory, legal and shareholder approvals, and apply to have the shares of Gemini Metals Corporation listed on the TSX Venture Exchange.

Jeffery A. Morgan is a Qualified Person employed by the Company, and not independent of the Company. Mr. Morgan has been employed as Senior Geologist and Lands Manager with the Company since April 2006, and most recently conducted a site visit on August 28<sup>th</sup> to 31<sup>st</sup> 2007. The updated resource estimate contained in this report was prepared by Independent Consultant Gary H. Giroux, P.Eng., who carried out a site visit on November 23<sup>rd</sup> to 25<sup>th</sup> 2007.

## **SOURCES OF INFORMATION**

The documentation reviewed as well as other sources of information used in the preparation of this technical report are listed at the end of the report in Section 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 Jeffery A. Morgan, P.Geo., of Crosshair Exploration & Mining Corporation and by Independent Consultant Mr. Gary H. Giroux, P.Eng., in support of the updated resource estimate for the CMB Project prepared by Mr. Giroux. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to the authors at the time of preparation of this report, including the exploration records of past operators including Shell Canada Resources Ltd. (McKenzie, W.L., 1976; 1977a; 1977b),
- Assumptions, conditions, and qualifications as set forth in this report, and
- Data, reports, and other information supplied by Crosshair personnel and other third party sources.

## 4 PROPERTY DESCRIPTION AND LOCATION

The CMB Project is located in NTS areas 13K/2, 13K/3, 13K/6, 13K/7, 13K/10, and 13K/11 within the Naskaupi Electoral District of central Labrador (Figure 4-1). 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.

The CMB Project comprises 2,880 map-staked claims covering a total of 72,000 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 December 2007.

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 by November 10, 2013. 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, 2008 Crosshair has spent \$20.2 million in exploration on the claims, issued 1,350,000 shares and made cash payments

totalling \$425,000 to the vendor. The agreement remains in good standing, and the next payments are due November 10, 2008.

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 April 30, 2008 Crosshair has spent \$409,713.80 in exploration on the claims, issued 225,000 shares and made cash payments totalling \$90,000 to the vendor. The agreement remains in good standing. The next payments are due December 2, 2008.

In May 2007, Crosshair entered into an agreement with Belmont Resources Inc. and International Montoro Resources Inc. giving Crosshair 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 CMB Property. Under the terms of the agreement, Crosshair had the option of earning 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. Crosshair spent \$102,704 in exploration on the claims and issued 50,000 shares to the vendor before the agreement was terminated in April 2008, bringing the Labrador CMB Property to its current size of 2,088 claims covering 72,000 hectares.

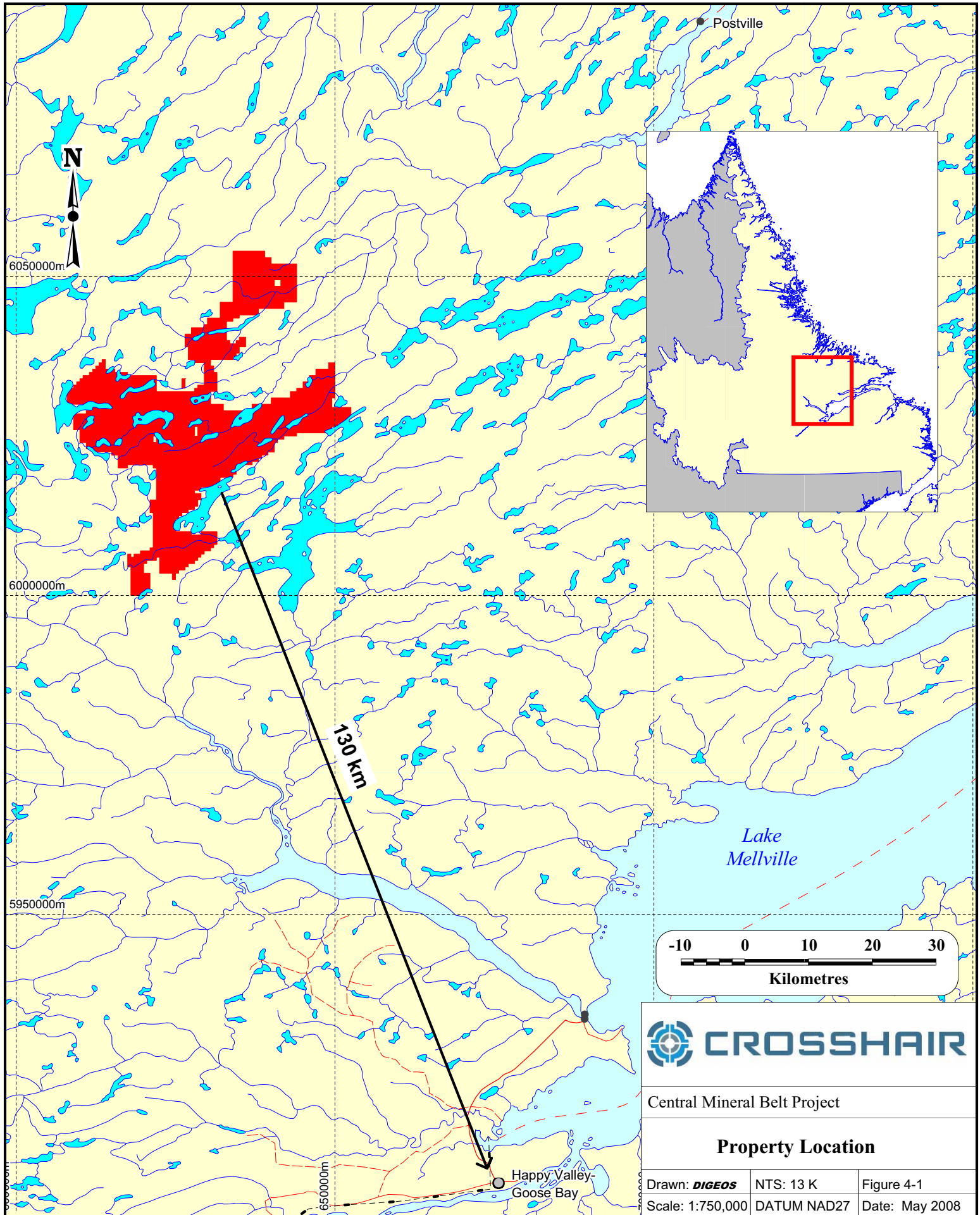
As specified in the Mineral Regulations under the Newfoundland and Labrador Mineral Act, each map-staked claim consists of a 500 m square bounded by one corner of a UTM grid square (NAD 27) which defines the location. The claims are not surveyed. Up to 256 coterminous map-staked claims can be issued in a single map-staked licence.

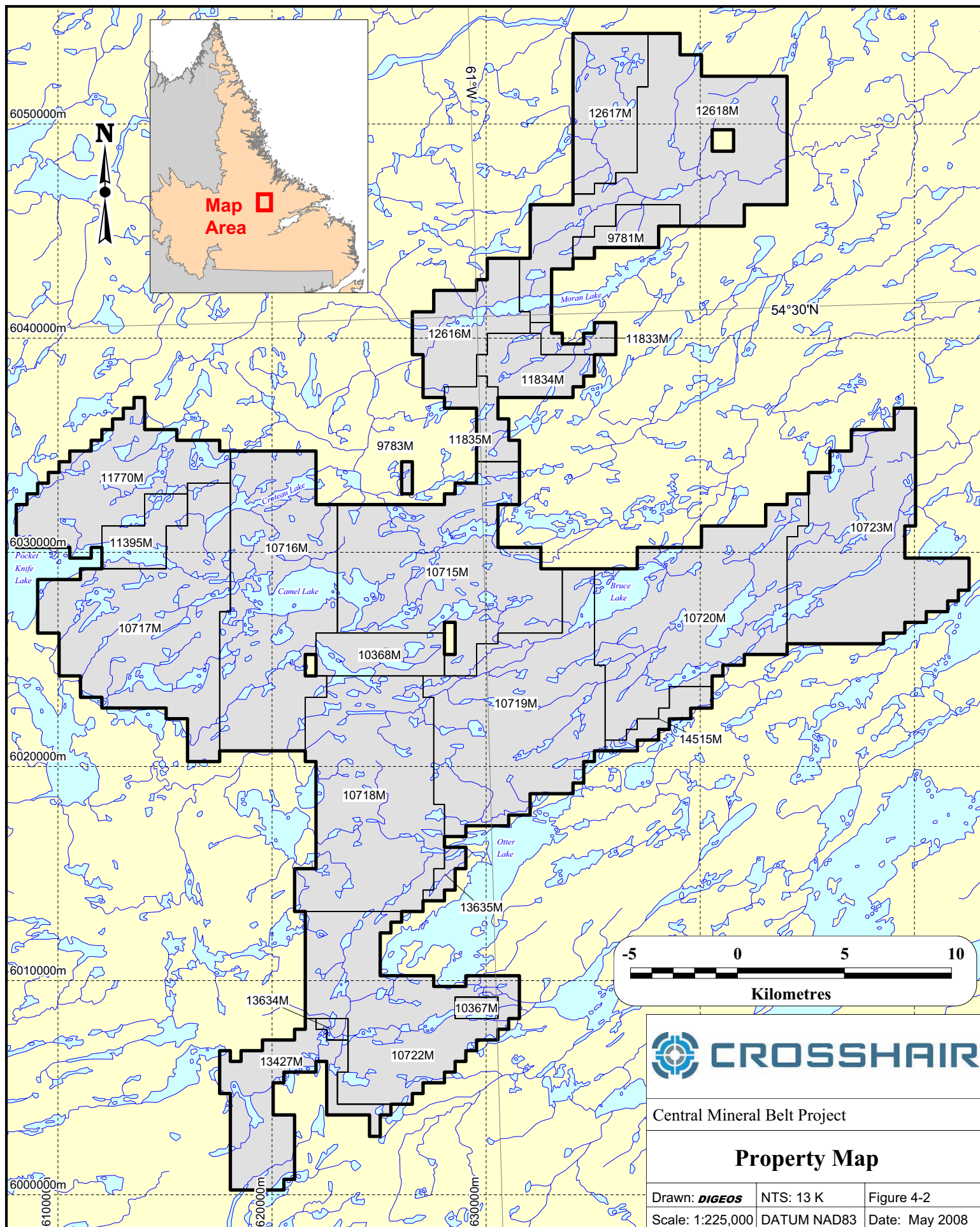
To maintain the claim in good standing a minimum amount of annual assessment work must be completed on each claim. The amount varies from \$200 in the first year, increasing in \$50 increments to \$400 in the fifth year, \$600 per year for year's six to ten, \$900 for years eleven to fifteen and \$1,200 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 \$4,000 in eligible exploration expenditures must be spent by January 25, 2009 on licence 14515M, which was staked in December 2007, and a total of \$93,087 must be spent by April 1, 2010 on licence 10719M, which was staked in March 2005. All other licences have sufficient exploration expenditures to keep them in good standing until at least 2011.

Approximately 9% of the CMB Project area lies within Labrador Inuit Lands (LIL), including the B Zone, Area 51, and Moran Heights exploration targets. The remainder of the property, including the currently defined C Zone, Area 1, and Armstrong resources lies outside of LIL.







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

Crosshair's CMB Project is located in central Labrador approximately 140 km north of the town of Happy Valley – Goose Bay and 85 km southwest of the coastal community of Postville on Kaipokok Bay. Access to the property is by helicopter or float plane out of Goose Bay. Most necessary goods and services can be obtained in Happy Valley – Goose Bay, which has excellent commercial airline connections to St. John's, Halifax and Montreal.

This portion of central Labrador has a sub-Arctic climate, with strong seasonal contrasts marked by short cool summers and long cold winters. Freeze-up typically begins in late October and lasts until early to mid June. Snow cover is relatively heavy and usually lasts seven to eight months. Daytime temperatures during the winter typically range from -15° Celsius to -30° Celsius, while daytime summer temperatures typically range from 15° Celsius to 25° Celsius.

Topographically the property generally consists of rolling highlands and commonly steep sided valleys that contain boggy ground, ponds and small lakes. The average elevation on the property is approximately 300 m above sea level, ranging from a low of 140 m in the northern portion of the property to a maximum of 510 m near Otter Lake in the southern part of the property. The region is largely tree covered, mainly with scrubby black spruce and some deciduous trees with thick intervening growth of alders, except for the higher ground in the south which is more barren.

## 6 HISTORY

This section has been adapted from the Newfoundland and Labrador Department of Natural Resources' MODS (Mineral Occurrence Data System) file number 13K/07/U002.

The earliest mineral exploration in the area was conducted in the late 1920's. Cyril Knight ventured into the interior in 1927 and was followed by Paul and Wilfred Croteau in 1929; both parties were searching for gold. They were not successful on that account, but the Croteau brothers did note the presence of rocks resembling the iron bearing formations of western Labrador.

In 1946, R.A. Halet led a prospecting party, including the Croteau brothers, for Dome Exploration Limited from the coast through central Labrador. Dome was investigating its concession, which covered the area from the coast westwards to the eastern boundary of the Frobisher concession. Dome Exploration Limited subsequently dropped the concession without doing further work on it.

American Metals Company (AMCO) undertook a program to explore from the eastern boundary of the Frobisher concession to the Atlantic coast in 1951. In 1953, they were granted a pentagonal shaped concession covering an area of about 3100 km<sup>2</sup>. In the same year BRINEX was granted a twenty-year concession on all ground in the area not held by other exploration companies at the time. BRINEX was required to give up fixed amounts of their holdings at pre-determined dates during the 20-year term but could apply to hold certain areas under a 99 year lease.

From 1952-54, AMCO did exploration work in its concession area. They discovered numerous small copper showings and a lead-zinc showing but dropped their concession after the 1954 field season.

During the period 1957-60, BRINEX explored the former AMCO concession, which it had obtained in 1955, along with its other concession, which bordered the old AMCO concession. They discovered two uranium showings south of Moran Lake and conducted ground scintillometer surveys, geological mapping, trenching and diamond drilling in the course of further investigations in the area. An airborne EM and magnetic survey located several anomalies southwest of Stipek Lake but there is no record of follow-up work.

The Montague #2 showing (C-Zone) was discovered in 1957 by A. Montague and L. Montague while prospecting the area for BRINEX. During the 1958 field season BRINEX did regional and detailed mapping, ground geophysical surveys, trenching and stripping and sampling work. Thirteen trenches were blasted in the volcanic breccia unit to test for uranium minerals. BRINEX did not do further work on the showing after the 1958 field season. The AMCO concession reverted to the Crown in 1961.

In 1958, A.P. Beavan published a paper entitled 'The Labrador Uranium Area' in which he indicated that the Central Mineral Belt is a uranium metallogenic province similar to others in the Canadian Shield. The geology of the east half of the Snegamook Lake sheet by R.M.G. Williams was released by the Geological Survey of Canada in 1970.

Mokta Canada Limited gained title to the former AMCO concession in 1964 and undertook a uranium exploration program in the area in 1964 and 1965. As a result of an airborne radiometric survey and ground prospecting, Mokta made several new discoveries including another radioactive zone at Moran Lake and a new zone at Sylvia Lake, northeast of Bruce Lake. As part of its exploration program in the area, Mokta Canada Ltd. also investigated the Montague #2 showing (C-Zone) in 1965 by geological mapping and scintillometer surveys. They found 64 radioactive zones in the volcanic breccia unit with radioactivity over 15 times background. Mokta did not return to Labrador following the 1965 season, and in 1968 dropped all its concession areas except its uranium properties at Moran and Sylvia Lakes, which it held under development licence until 1969.

BRINEX resumed exploration in 1970, but their efforts were concentrated further east towards the Atlantic coast. In 1970, they commissioned an airborne radiometric, magnetic and EM survey over most of the Central mineral belt. The survey did not detect previously known radiometric anomalies on the 13K/7 map sheet so no follow-up work was done on that sheet. In 1976, BRINEX conducted a regional lake sampling program in which the samples were analyzed for helium and uranium. The survey covered part of the 13K/7 map area.

In 1976, Commodore Mining Limited obtained exploration rights to several properties held under previously expired development licences, included within which were the Moran and Sylvia uranium showings. Commodore optioned the uranium properties to Shell Canada Resources who investigated them during 1976, 1977 and 1978. Most of Shell's exploration activity was concentrated on the Moran Lake properties.

During the fall of 1976, Shell focused most of its exploration on the B1 Zone and spent only a few days doing preliminary mapping and grab sampling of old Mokta C-Zone trenches. Shell's 1977 summer program included detailed mapping (1:1,000), systematic trench sampling, a systematic scintillometer survey and 8 drill holes totalling 497 metres on the C-Zone. This program resulted in the discovery of a uraniferous argillite (reinterpreted to be a fault zone) and, consequently, during the fall of 1977, Shell conducted an additional program over the C-Zone discovery area which included EM, magnetometer and track etch surveys.

BRINEX and CANICO combined in a joint venture, under the management of CANICO, in 1977 to explore the region for radioactivity and to re-evaluate the known showings under their concession. CANICO drilled several mineralized zones in the region including the Moran Heights boulder field. They did not find the source of the Moran Heights high grade boulders, some of which assayed over 2%  $U_3O_8$ .

During the winter of 1978, Shell carried out a drill program on the C Zone consisting of 17 holes totalling 1,542 metres. This program found uranium mineralization within the interpreted fault zone to be of localized extent, but resulted in the discovery of several uraniferous horizons in what they termed quartzite. In the winter of 1979, a diamond drill program was carried out to test the Aphebian-Helikian unconformity over a 1200 metre strike length. A total of 17 holes totalling 1193 metres were drilled and a systematic program of sampling and assaying was done on the drill core.

In 1978, W.R. Smyth, B.E. Marten and A.B. Ryan published a paper on the stratigraphy and metallogeny of the area, and A.B. Ryan, in the same year, published a map of the 13K/7 map sheet. D. Kontak published the results of detailed investigations of some of the major uranium occurrences in the area in the Newfoundland Department of Mines and Energy Report of Activities for 1977.

In March 1980, BRINEX dropped most of its concession area in the Central Mineral Belt (land held under the 1970 agreement) but retained control of its most promising showings by means of extended licences. The extended licence issued to Commodore Mining Co. Ltd. expired in 1982.

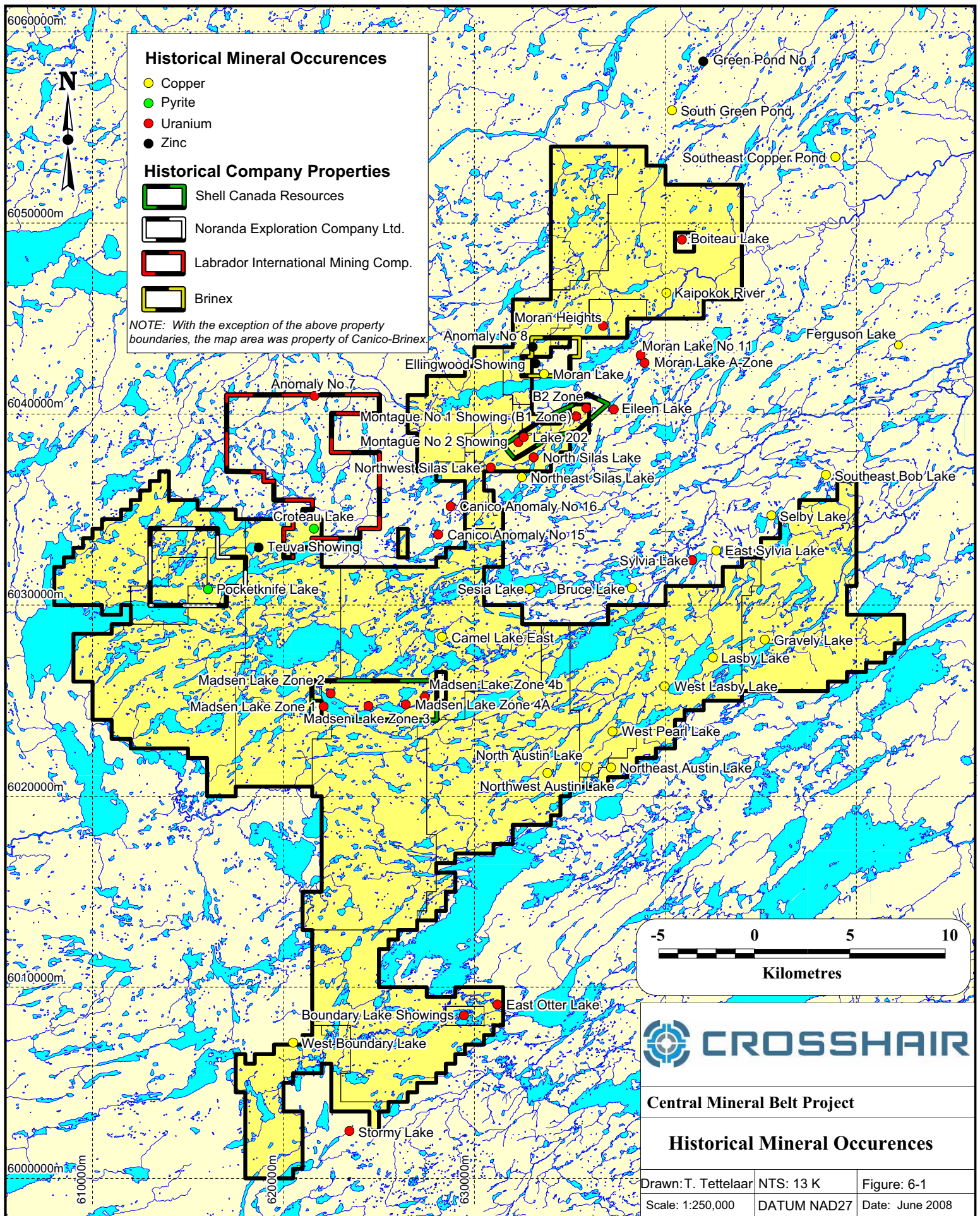
The area was explored by Saarberg-Interplan Canada during the mid 1980's during which time ground geological, geochemical and geophysical surveys were carried out over several areas including the Moran Heights. Additional uranium-bearing boulders were located and limited trenching was done in the vicinity of the boulders, but the source was not located.

Noranda Inc. explored for massive sulfides in the early 1990's near Croteau Lake, in the western portion of the property. Several grids were cut and ground work including geological mapping, soil geochemistry and geophysical surveys were carried out. Minor occurrences of base metals were found and subsequently drilled but with generally poor results.

Figure 6-1 shows the documented historical mineral occurrences located on and near Crosshair's CMB Project area.

Crosshair Exploration & Mining Corporation optioned property from Lewis Murphy in late 2004 and immediately began a re-evaluation of the results of all previous work in the area with the aim of assessing its uranium and IOCG potential. Since acquiring the property, Crosshair's work programs have included approximately 62,363 m of drilling in 347 holes, airborne radiometric, magnetic, EM (HeliGEOTEM) and photography surveys, approximately 132.5 km of line cutting, ground resistivity / induced polarization, gravity and MaxMin geophysical surveys, and the collection of approximately 930 rock and channel samples, 900 till and soil samples, 1000 lake bottom sediment samples, and 875 Alpha Track samples.





## 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). The basement rocks consist of Archean gneisses belonging to the Nain craton. The Archean gneisses are unconformably overlain by or in fault contact with a series of Early Paleoproterozoic pillow basalts and shale-sandstone sequences belonging to the approximately equivalent Moran Lake Group and Post Hill (formerly referred to as the Lower Aillik) Group (ca. 2100 to 2000 Ma) (Wardle, 2005). Both the Post Hill and Moran Lake Groups are interpreted to have formed on a passive, south-facing continental margin (Ketchum et al, 2002).

The Post Hill Group is tectonically overlain by subaerial, rhyolitic ash-flow tuff and volcanoclastic rocks of the Aillik Group (formerly referred to as 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). Rocks of the Aillik Group host the Michelin deposit on the adjoining ground owned by Aurora Energy Resources Inc.

The Post Hill and 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.

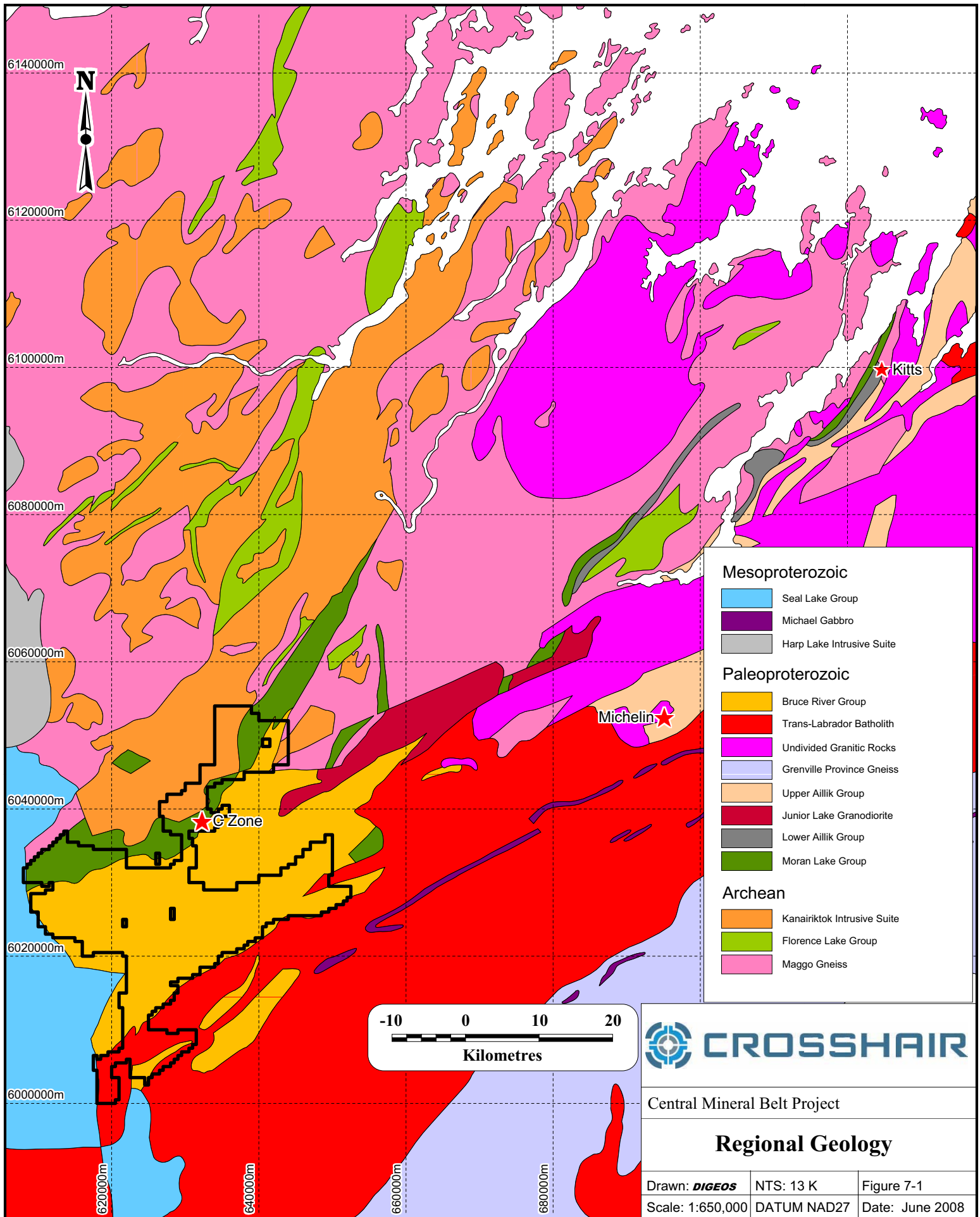
Makkovikian deformation occurred intermittently between 2.0 Ga and 1.7 Ga. An early phase of deformation occurred in the southwest part of the region between 2.0 Ga and 1.89 Ga and was associated with intense shearing and basement-cover interleaving along the Kanairiktok shear zone (KKSZ), the boundary 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 basement – Post Hill contact and the Post Hill – Aillik contact (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 and lesser mafic to intermediate volcanic rocks. The felsic volcanic rocks 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.



## PROPERTY GEOLOGY

The property is underlain by Archean granitoid rocks of the Kanairiktok Intrusive Suite, unconformably overlain by Early Paleoproterozoic sedimentary and submarine volcanic rocks of the Moran Lake Group, which are in turn overlain unconformably by the late Paleoproterozoic continental sedimentary rocks and subaerial volcanics of the Bruce River Group (Figure 7-2, 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 displays 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 forming a profound angular unconformity on the Moran Lake Group. The

Bruce River Group is exposed in a northeast-trending, open, upright syncline, interpreted as being a product of the Grenville Orogeny. The group consists of three formations, these being the Heggart Lake, Brown Lake and Sylvia Lake Formations.

The lowermost Heggart Lake Formation comprises 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 and 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 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 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 volcanism. 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

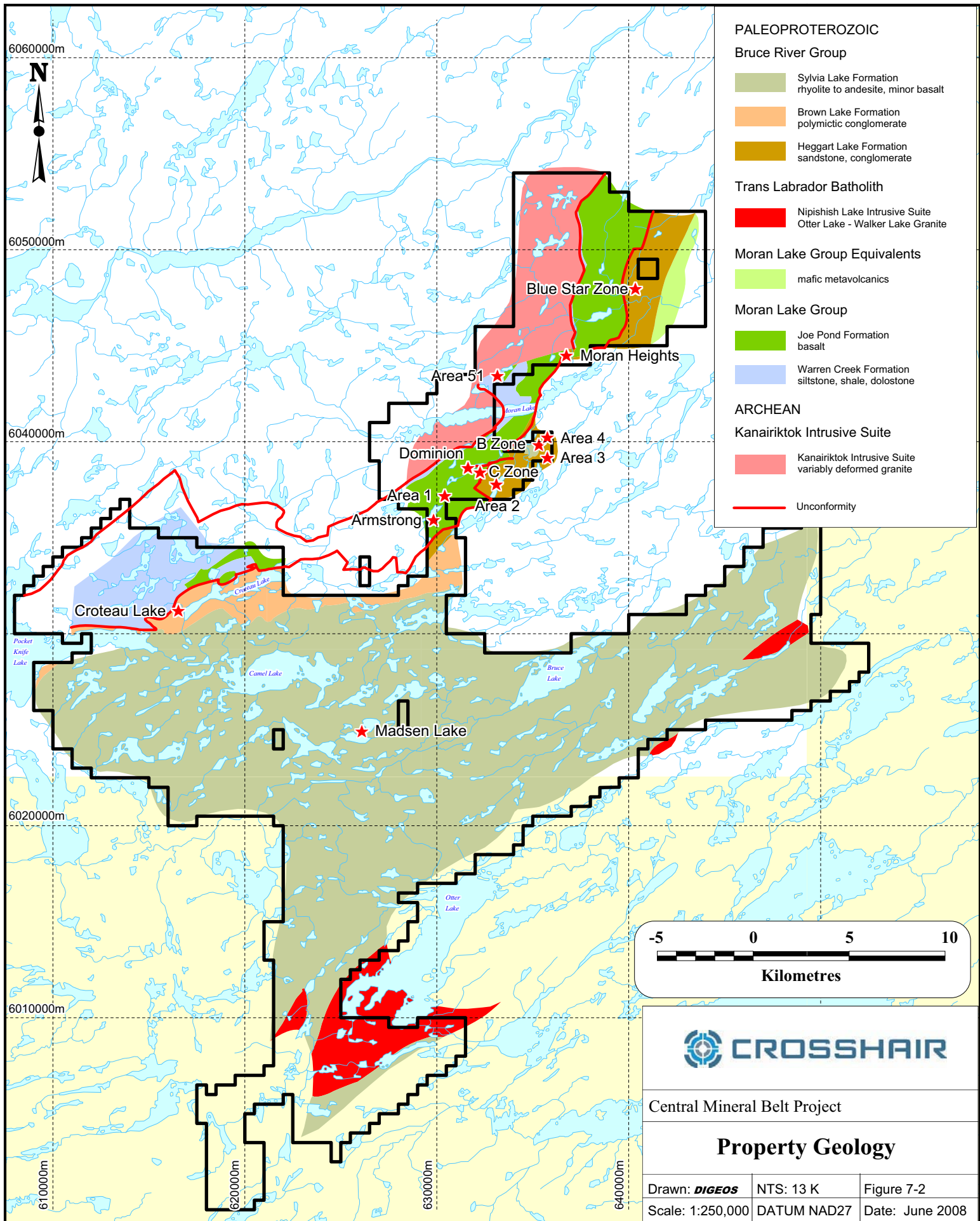
deposits elsewhere in the world. Along the south-eastern side of the property, the Sylvia Lake Formation is intruded and metamorphosed by the coeval Trans Labrador Batholith.

The tectonic and deformational history in the area of the CMB Project is long and varied. The Kanairiktok shear zone, which forms a dextral transtensional structural boundary between the Hopedale Block of the Archean Nain Province and Paleoproterozoic Kaipokok Domain of the Makkovik Province 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 is epigenetic, and occurs 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 area was affected by the Pleistocene Wisconsin glaciation, with ice directions to the east and northeast in the northern extent of the property and to the southeast in its southern portion. Much of the area has a veneer of ground moraine and boulder tills. Several eskers that occur in the southern part of the area resulted from sediment deposition in Pleistocene river drainage systems.









## 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 and massive 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 as well as in jasperoidal chert units below but proximal to the unconformity.

The LC geology comprises a 50 m to 100 m thickness of Heggart Lake Formation red oxidized sandstone and green reduced sandstone along with 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.

In August and October 2007, consulting geologist Peter Lewis of Lewis Geoscience Services Inc. visited the CMB Property to help evaluate the structural controls on the uranium mineralization in the UC and LC in order to aid the geological modelling and resource estimation for the zones, as well as to help direct ongoing exploration and drilling on the CMB Project. The study focussed on the UC mineralization, but also included the LC.

Lewis (2007) recognized at least six different styles of uranium mineralization within the UC and LC zones, each associated with a distinct geological setting and exhibiting different levels of grade continuity, zone morphology, and controlling features. The six different styles include:

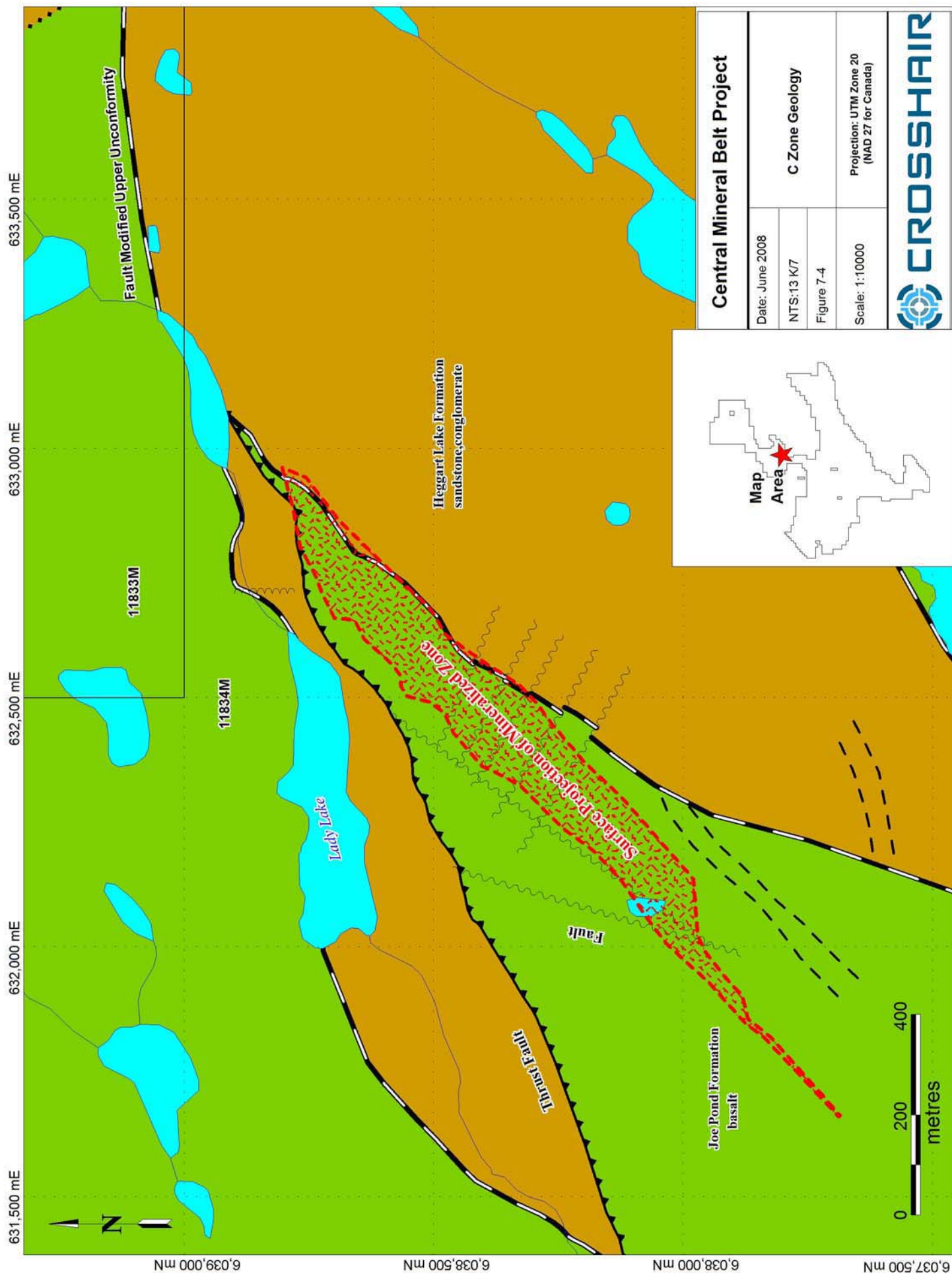
- 1) broad zones of mineralization associated with large areas of hematite alteration and hematite-cemented breccias;
- 2) more localized, high-grade zones coincident with jasperoidal chert lenses, which are themselves folded and/or structurally dismembered;
- 3) isolated, narrow specularite + sulphide cemented breccias with very high uranium grades but limited continuity;
- 4) iron-carbonate flooded mylonites and cataclasites of the Lower Shear Zone (LSZ), a prominent structure that marks the lower extent of the mineralization at several locations in the UC;
- 5) a localized high-grade zone limited to the Heggart Lake Formation overlying the Upper C Zone, so far only identified in a single drill hole (ML-82); and
- 6) stratiform zones of reduced sandstone and conglomerate of the Heggart Lake Formation (Lower C Zone).

Lewis (2007) noted that in some of the mineralized zones uranium is clearly concentrated within late, chlorite+specularite lined fractures, while in some instances

elevated uranium grades also occur in the absence of visible late fractures, suggesting a more pervasively disseminated style of mineralization.

Lewis (2007) determined that structural features within the UC are dominated by two gently to moderately southeast-dipping shear zones, both of which are sub-parallel to the underlying C Zone thrust. The Upper Shear Zone (USZ) consists of strongly foliated cataclasite several tens of metres thick, while the Lower Shear Zone (LSZ) consists of a moderately foliated to mylonitic zone typically less than 10 m thick. The LSZ occurs 40m to 90m below the USZ, and generally marks the lower limit of strong alteration and uranium mineralization within the UC.

As summarized by Lewis (2007), uranium deposition at the C Zone is believed to have occurred from the geochemical reduction of regional, highly oxidized, uranium enriched fluids. Local lithologies (ex: jasperoidal chert zones), secondary alteration, and fluid mixing may have all acted as reducing agents at the C Zone, resulting in the diverse styles and geological settings of uranium mineralization observed there.



## **ARMSTRONG**

Mineralization at Armstrong is hosted by graphitic argillite and mafic volcanic rocks of the Moran Lake Group (Figure 7-3). The original showing is a 4.5 m by 8 m outcrop with preserved pillow textures, which has undergone sericitic, chloritic and Fe-carbonate alteration. Exposed on the cleaned outcrop are two main undulating, north trending, uranium-bearing shear zones that dip moderately to the east. A northeast trending minor fault cuts both shear zones and appears to have minimally displaced them dextrally.

Two additional areas of mineralization located approximately 275m to 300m south of the original showings were discovered in 2007. Similar to the original showings, the new showings are hosted within chloritized mafic volcanic rocks of the Joe Pond Formation. Uranium mineralization producing hand-held scintillometer readings of >10,000cps appears to be hosted within discrete planar fractures and/or shear zones cutting the mafic volcanic rocks.

Drilling conducted during early 2008 discovered uranium mineralization associated with a 1 km long, northeast trending strong EM conductor identified from the 2007 MaxMin survey. The strongest uranium mineralization intersected from the 2008 winter drilling at Armstrong predominantly occurs within deformed and altered graphitic argillite units near the contact with underlying mafic volcanic rocks. The more strongly mineralized intervals are associated with zones of moderate to strong hematite and/or carbonate alteration. Locally, the most intense uranium mineralization is associated with intervals of hematized and brecciated jasperoidal chert, similar to some of the better mineralized intervals at the C Zone.

## **MADSEN LAKE**

The Madsen Lake area is dominantly underlain by felsic volcanic rocks and rare local tuffaceous sandstones of the Sylvia Lake Formation (Figure 7-3). East-west trending porphyritic diabase dikes intrude the felsic volcanic units, typically red to maroon lapilli tuff. The dikes have chilled margins and, at many localities, are 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 in places contains patchy radioactive zones. Quartz- and hematite-bearing conjugate fractures trending parallel to, as well as cutting the shear fabric are locally 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 but locally 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 AND 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 few mineralized altered mafic dykes and several north-south striking, easterly dipping grey-green diabase dikes, many of 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. Rocks at Area 4 comprise 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 is a thin, but apparently continuous or nearly continuous variably deformed, locally brecciated iron formation comprising chert containing various proportions of hematite and magnetite. The iron formation is folded but generally dips between 60° to 70° to the southeast. 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.

A major unconformity is represented at Croteau Lake by the contact between Archean Warren Creek black shale and massive, pink-orange polymictic conglomerate of the Helikian Brown Lake Formation. 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 Formation.

## **AREA 1**

Area 1 is predominantly underlain by mafic volcanic rocks of the Joe Pond Formation (Figure 7-3), which are green-grey, massive 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, in places, 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 occur 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 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.

## **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 fine grained sedimentary rocks of the Aphebian Moran Lake 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 indicates 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

As discussed by Sparkes and Kerr (2008), uranium mineralization throughout the Labrador Central Mineral Belt represents a broad spectrum of styles, including in a broad sense both syngenetic and epigenetic styles of mineralization. Syngenetic uranium mineralization includes that which is hosted within pegmatites and evolved granites, as well as weakly deformed felsic volcanic rocks, while shear zone and breccia-hosted mineralization falls into the epigenetic classification.

In the Moran Lake area in particular, uranium occurrences in the Bruce River Group, above an unconformity with the underlying Moran Lake Group, came to be considered as unconformity-type uranium deposits because of the rough lithostratigraphic analogy to the Athabasca Basin uranium deposits in Saskatchewan. This model requires two fluids, a reducing fluid originating in the basement (Moran Lake Group and beneath) and an oxidizing fluid originating in the basal conglomerates and volcanoclastic sandstones of the Bruce River Group. The mixing of the two fluids in a structural trap, such as a fault, causes the uranium mineralization and a halo of alteration products to precipitate at or below the unconformity. The presence of graphitic and/or sulphidic material in the structural trap enhances the mineralizing process. On Crosshair's CMB Property, uranium mineralization at the Lower C and Moran Heights areas occurs proximal to the unconformity between the Moran Lake and Bruce River Groups, but cannot be categorically classified as unconformity-style mineralization.

The Iron Oxide Copper-Gold (IOCG) deposit model has been applied to the Central mineral Belt of Labrador during the last several years. While IOCG designation embraces a broad spectrum of polymetallic deposits, the Olympic Dam deposit (end member) in Australia offers an attractive model type because of its Cu-U-Au mineralization, huge size, large associated gravity anomaly and associated intense brecciation and alteration including hematization, sericitization and silicification. IOCG deposits can be associated with intra-continental anorogenic magmatism and are localized along high- to low-angle faults that are generally splay off major crustal-scale faults.

Several lines of evidence suggest the possible existence of an IOCG deposit on Crosshair's CMB Project. The tectonic and structural settings are permissive, and the uranium mineralized C and B Zones, with associated Cu, Ag and Au values, occur on the flanks of a gravity anomaly. Furthermore, the uranium mineralization occurs within an extensive envelope of altered rock, most obviously with Fe-carbonatization, and is spatially associated with local breccia zones and intense alteration including hematization, bleaching, carbonatization and chloritization.

## 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 (“UC”) and Lower C (“LC”). 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.

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, as supported by preliminary petrography work which suggests that at least some of the uranium mineralization may be related to late stage calcite – sulphide  $\pm$  hematite veinlets (Ross, 2007).

Locally associated with the uranium mineralization in the UC are disseminated and fracture-filling sulphides dominated by pyrite, chalcopyrite, and iron oxides, generally hematite (earthly and specular) and magnetite, ranging from trace to locally 5% with an

average of 1% to 2%. Hole ML-73, however, intersected 8.1 m of massive pyrite over a core length of 14 m. Uranium mineralization is not associated with the massive sulphides intersected by ML-73. 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 by 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 significant enough for the vanadium to be considered as a potential by-product. Drill intersections of vanadium-rich mineralization include Shell drill hole C-14 which returned 62.6 m averaging 0.237%  $V_2O_5$ .

Uranium mineralization in the LC is texturally dissimilar from the UC mineralization and occurs in green, reduced, chloritic, locally sheared horizons within sandstone. The mineralization occurs as diffuse zones of radioactivity that are not everywhere 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.

Limited petrography work suggests that the main uranium mineral in the UC is uraninite, although brannerite and coffinite have also been identified. The coffinite

appears to represent uranium that was re-mobilized by later deformation and/or hydrothermal activity (Wilton, 2008).

## **ARMSTRONG SHOWING**

The Armstrong Showing is located within the Joe Pond Formation mafic volcanics of the Moran Lake Group. Thin, minor layers of chert and graphitic, pyritic argillite also occur in association with the mafic volcanics. The original showing is a 4.5 m by 8 m outcrop with preserved pillow textures, as well as sericitic, chloritic and Fe-carbonate alteration. Cleaning of the outcrop showed uranium mineralization to be localized within two continuous, undulating shear zones exposed over a 5 m strike length, ranging from 0.5 m to 1 m thick. The shears are north trending with a moderate dip to the east. A northeast trending minor fault cuts both shear zones and appears to have slightly displaced them dextrally. Chip sampling (20 to 30 cm chips) returned an average of 0.165%  $U_3O_8$  (to a maximum of 0.343%  $U_3O_8$ ). Base metal values are generally low and vanadium does not exceed 0.16%  $V_2O_5$ .

Several additional areas of mineralization were discovered in the Armstrong area, including what are referred to as the Eaton Showing and the Dislocated Showing, located approximately 300m south-southwest and 75m northeast, respectively, of the original Armstrong Showing. Uranium mineralization at these locales also appears to be hosted within discrete planar fractures and/or shear zones cutting mafic volcanic rocks of the Joe Pond Formation.

At the Dislocated Showing, where the cleaned outcrop exposure displays a weakly to moderately developed southeast dipping penetrative fabric (avg. 065/55°) that is cut by more northerly-striking (010°/45°) discrete planar fractures, hand-held scintillometer readings of >10,000cps are common. At the Eaton Showing, rock samples returned values up to 0.330%  $U_3O_8$  and 1598 ppm vanadium.



Drilling conducted during early 2008 discovered uranium mineralization associated with a 1 km long, northeast trending strong EM conductor identified from the 2007 MaxMin survey. The strongest uranium mineralization intersected from the 2008 winter drilling at Armstrong predominantly occurs within deformed and altered graphitic argillite units near the contact with underlying mafic volcanic rocks. The more strongly mineralized intervals are associated with zones of moderate to strong hematite and/or carbonate alteration. Locally, the most intense uranium mineralization is associated with intervals of hematized and brecciated jasperoidal chert, similar to some of the better mineralized intervals at the C Zone.

## **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%  $U_3O_8$ . On the north-eastern shore of Madsen Lake, mineralization occurs within late brittle fractures in tuffaceous sandstone. A grab sample returned only 0.015%  $U_3O_8$ .

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 part of an en echelon array. A grab sample returned 0.124%  $U_3O_8$ , but mineralization is very localized. 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%  $U_3O_8$  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%  $U_3O_8$  and an average of 0.300%  $U_3O_8$  (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 is associated with alteration consisting of epidote, sericite and chlorite and 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. 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 returned values ranging from trace  $\text{U}_3\text{O}_8$  to 3.970%  $\text{U}_3\text{O}_8$  with an average of 0.723%  $\text{U}_3\text{O}_8$  at a cut-off grade of 0.03%. Other minerals include vanadium which ranges from 0.007% to 0.528%  $\text{V}_2\text{O}_5$ , copper, from 0.005% to 0.87% Cu and silver, from 0.02 ppm to 25 ppm Ag.

Mineralization at Area 3, which is located southeast of the B Zone, exhibits affinities for both the main style of mineralization at the B Zone as well as fracture-hosted secondary uranium mineralization. Area 4, which is located northeast of the B Zone, 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 a 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.

Mineralization displaying similar textures and grades occurs in both outcrop and float in the Blue Star area. Prospecting has identified strongly silicified mineralized float samples notably enriched in U, Cu and Ag. Samples returned grades ranging from trace to 1.37%  $U_3O_8$ , with 11 samples >0.1% having an average of 0.521%  $U_3O_8$ , 0.044%  $V_2O_5$ , 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 %  $U_3O_8$ .

## **CROTEAU LAKE**

At Croteau Lake, uranium mineralization is hosted by brecciated and variably recrystallized iron formation, with an apparent positive correlation between the degree of brecciation and/or recrystallization and the intensity of mineralization. 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.

Surface sampling returned values up to 2.087%  $U_3O_8$ , 0.803%  $V_2O_5$ , 9.25 ppm Ag, 7,700 ppm Cu, 5,237 ppm Zn and 47,813 ppm Mn, all in iron formation float. 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 Formation.

## **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%  $U_3O_8$ , 5.778%  $U_3O_8$  and 6.828%  $U_3O_8$ . The highest  $U_3O_8$  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%  $\text{U}_3\text{O}_8$  and one taken from close-by returned 0.778%  $\text{U}_3\text{O}_8$ . A total of six grab samples collected from outcrop returned  $> 0.090\%$   $\text{U}_3\text{O}_8$  with four samples grading  $> 0.550\%$   $\text{U}_3\text{O}_8$ . 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**

At Area 51, widespread radioactivity over a 1.5 km strike length is associated with 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%  $U_3O_8$  to 0.02%  $U_3O_8$ . 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 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 is 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%  $U_3O_8$ . 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 that were hand dug across the unconformity 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 a maximum of 0.004%  $U_3O_8$ . Trench 2 has not been sampled.

## **DOMINION**

At Dominion, prospecting in late fall of 2006 led to the discovery of anomalous radioactivity in a mafic volcanic outcrop of the Joe Pond Formation. A total of eight grab samples collected from outcrop all returned values over 0.020%  $U_3O_8$ , with five samples grading greater than 0.10%  $U_3O_8$ . 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

## AIRBORNE GEOPHYSICS

In 2003 Sander Geophysics conducted an airborne gravity and magnetic survey for Monster Copper Corp. that included portions of the adjoining Crosshair CMB Project (Setterfield, 2003). The survey identified a large, regional gravity high (Elieff, 2003) just to the north of the C Zone (Figure 10-1) and 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. Subsequent modeling of the data by Crosshair geophysicist Corwin Northcott in 2008 suggests that the anomaly may be explained by the density contrast between denser Joe Pond mafic volcanic rocks and the Henry Lake Gabbro when compared to less dense sandstones and conglomerates of the Heggart Lake Formation east of the Joe Pond mafic volcanic rocks and the Archean granitoid rocks to the west of the Joe Pond mafic volcanic rocks. He does not however rule out a deep IOCG target.

In 2005 Fugro Airborne Surveys conducted a high resolution magnetic and radiometric survey for Crosshair that 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 subsequent to the completion of the original survey. The combined Fugro airborne survey data is shown in Figures 10-2 and 10-3.

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,

including regional unconformities that are associated with uranium mineralization at several localities on the property. Geological mapping taken from the government 100K “Central Mineral Belt” geology sheets was incorporated into the structural interpretation for improved geological context (Figure 10-4). Linear features 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.

The airborne radiometric data acquired in conjunction with the magnetic survey was 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 10-5). Radiometric anomalies were considered in conjunction with the structural interpretation for geological context. Of note is that the southern part of the CMB Project, underlain by the Sylvia Lake felsic volcanic rocks, is marked by a much higher background radiometric signature than the remainder of the property.

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. The survey, comprising 4,718 line kilometres, utilized an AS-350B2 helicopter stationed at Crosshair’s Armstrong base camp and took approximately 5 weeks to complete. The survey was flown at an azimuth of 340° on lines spaced 100 to 200 meters apart with a bird height of 30 meters above ground.

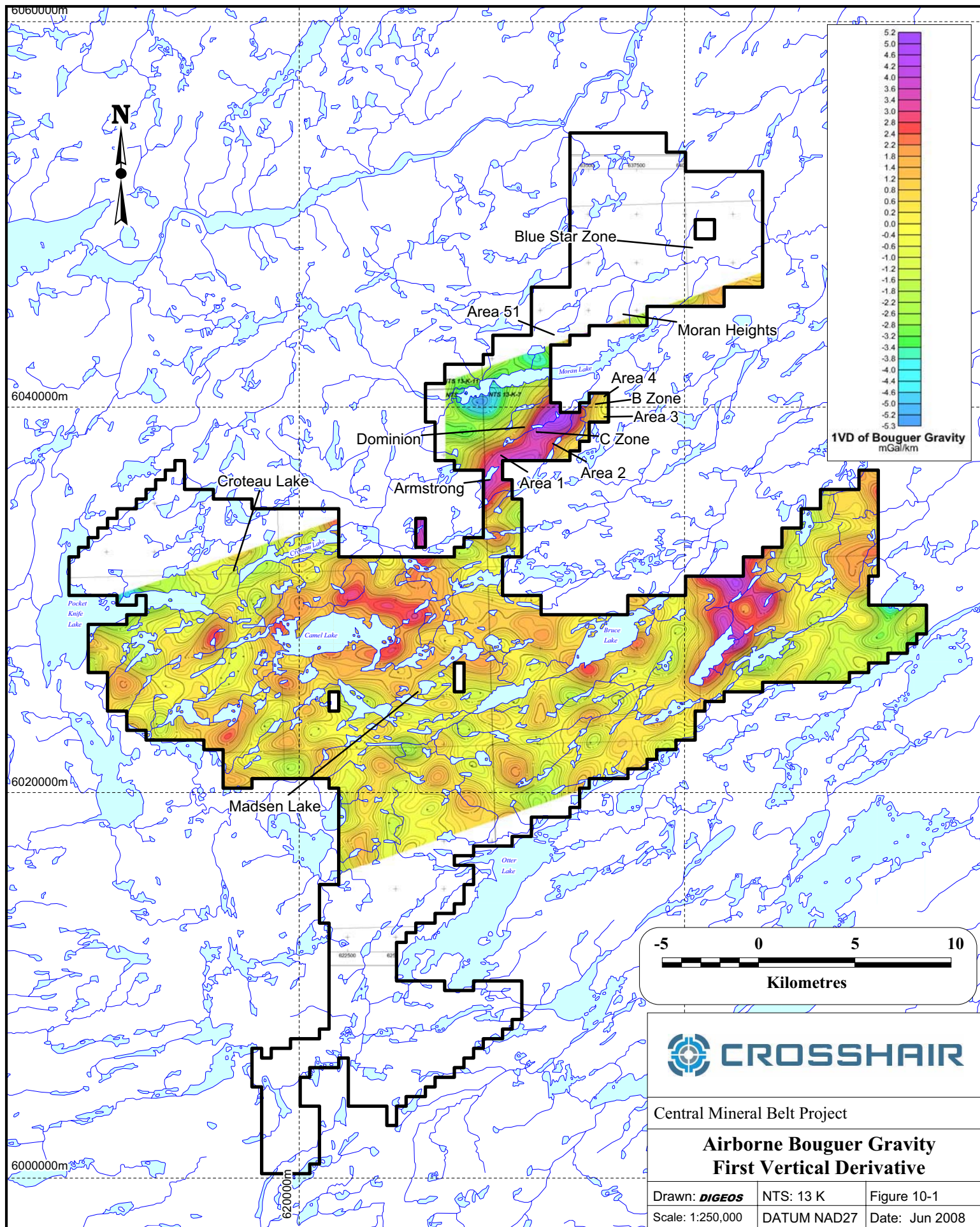
Condor Consulting provided an interpretation of the Fugro HeliGEOTEM survey and identified 10 priority 1 targets, 8 priority 2 targets and 7 priority 3 targets (Figure 10-6). The priority 1 targets were interpreted to show IOCG potential. Condor recommended follow up of all priority 1 targets and suggested that with additional work the priority 2 and 3 selections could be potentially upgraded.

Aero Geometrics Ltd. were contracted to fly an aerial photo survey over several parts of the CMB Property in 2007. Four separate “blocks” were flown (Figure 10-7). A

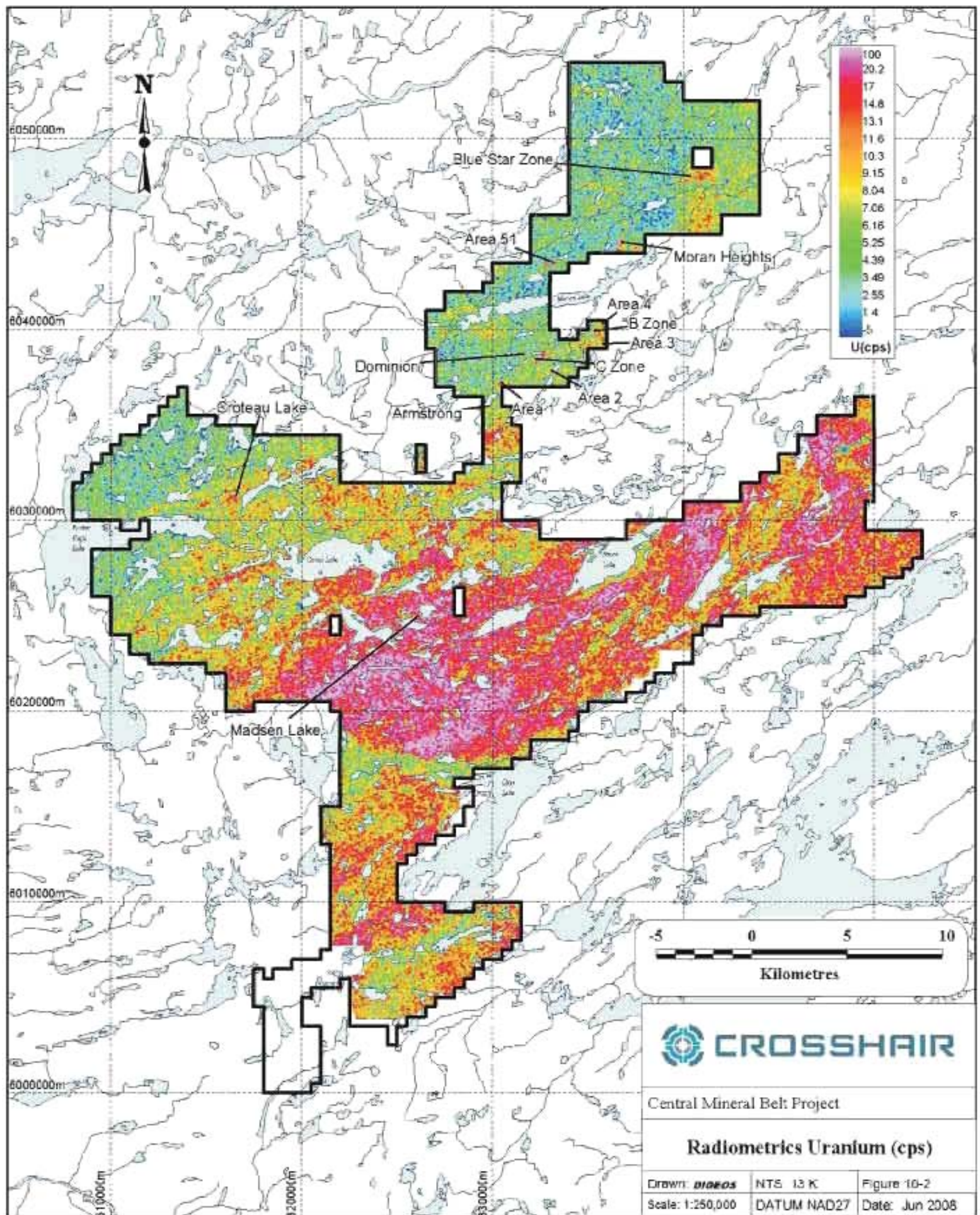


central block covers the “C Zone Corridor” from just south of Armstrong camp to approximately 5 km north of Moran Lake and was flown at a 1:10,000 scale. North of this block the remaining property was covered at 1:25,000 scale. South of the central block, two other blocks (blocks 3 and 4), which extend south approximately 4 km past Madsen Lake, were also flown at 1:25,000 scale. A total of 459 km<sup>2</sup> of the CMB Project area was flown during the survey.

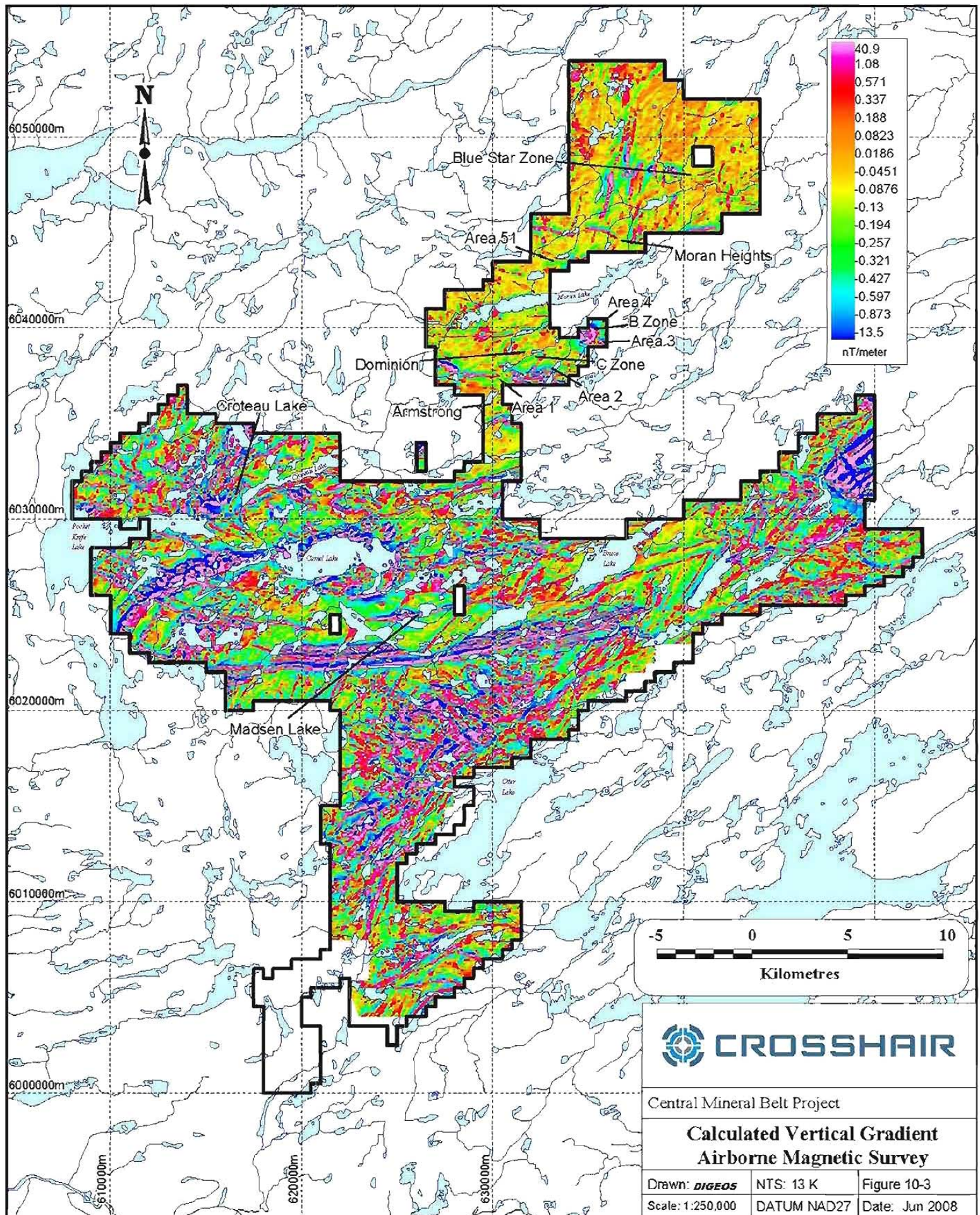
Flights were based from Goose Bay. Post-processing included using control points from the field to register photos and subsequently orthorectify the images to correct for distortion. NE Parrott Surveys established the 25 required air photo control targets prior to the actual survey by Aero Geometrics. Photos were colour corrected and stitched into large mosaics for use in MapInfo mapping software. Compressed “.tif” and “.jpg” images were provided and Aero Geometrics will continue to provide “custom order” uncompressed images from the property. All RAW uncompressed and edited images were provided on a 500 GB external hard drive to Crosshair’s offices in both Vancouver and St. John’s.



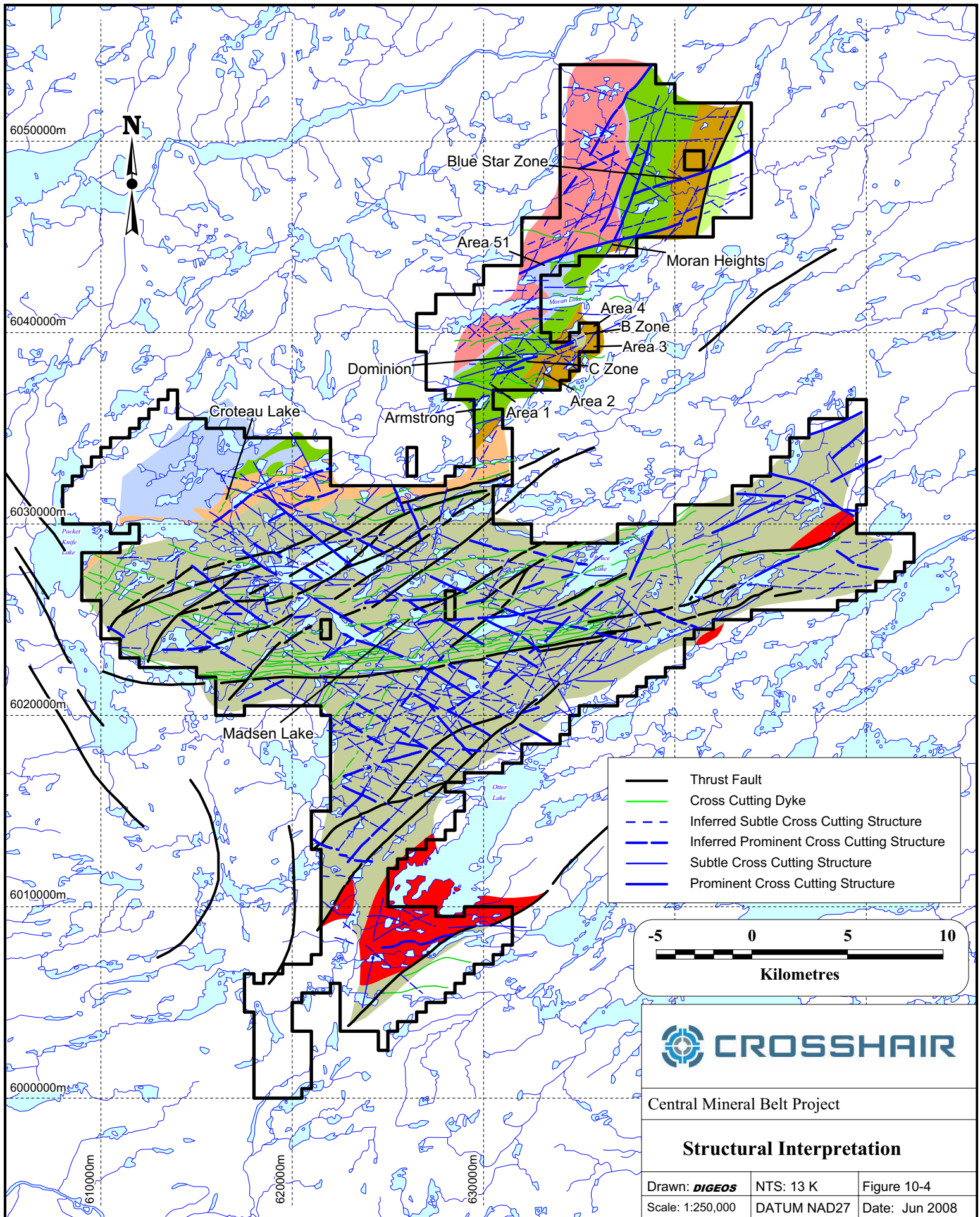


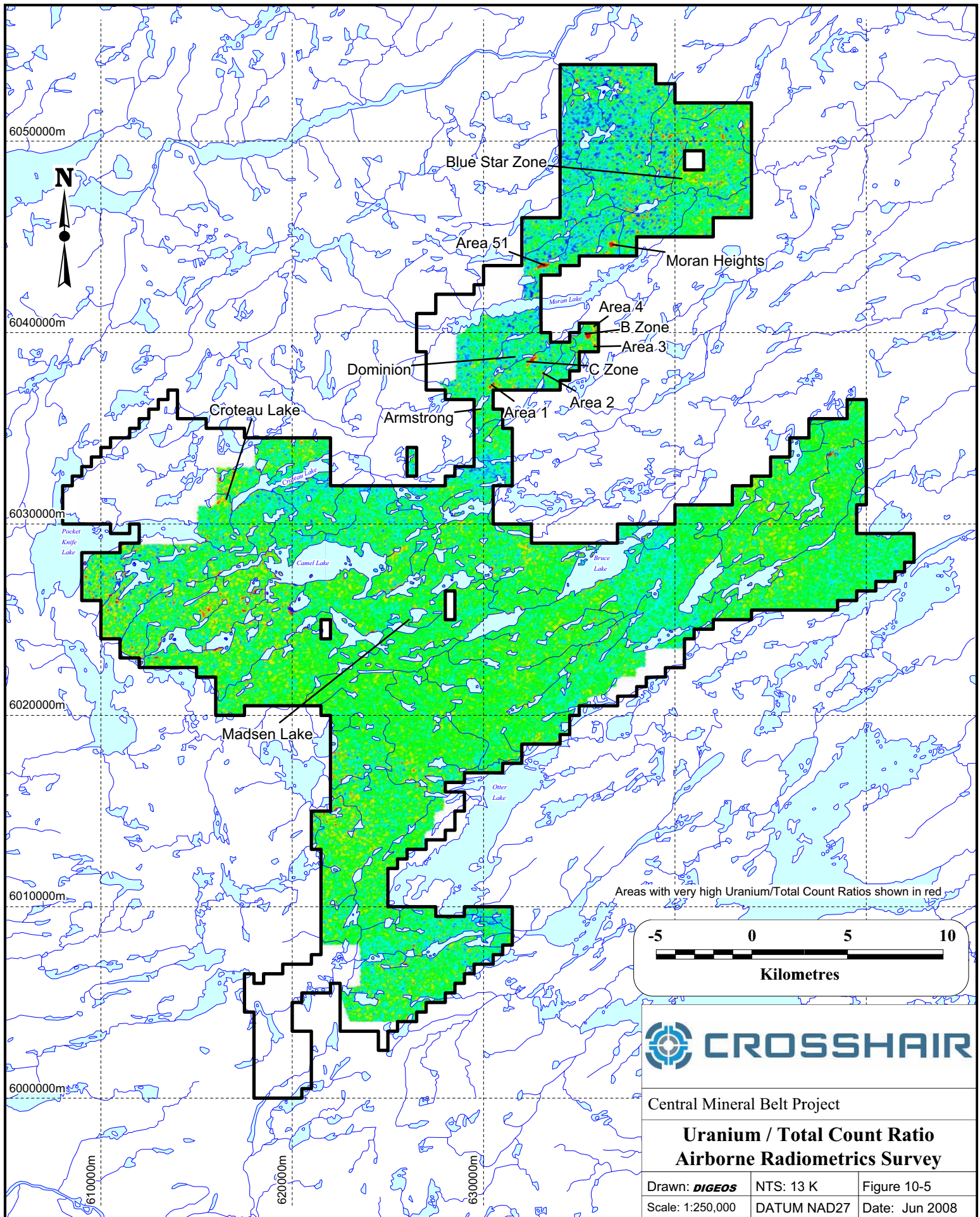






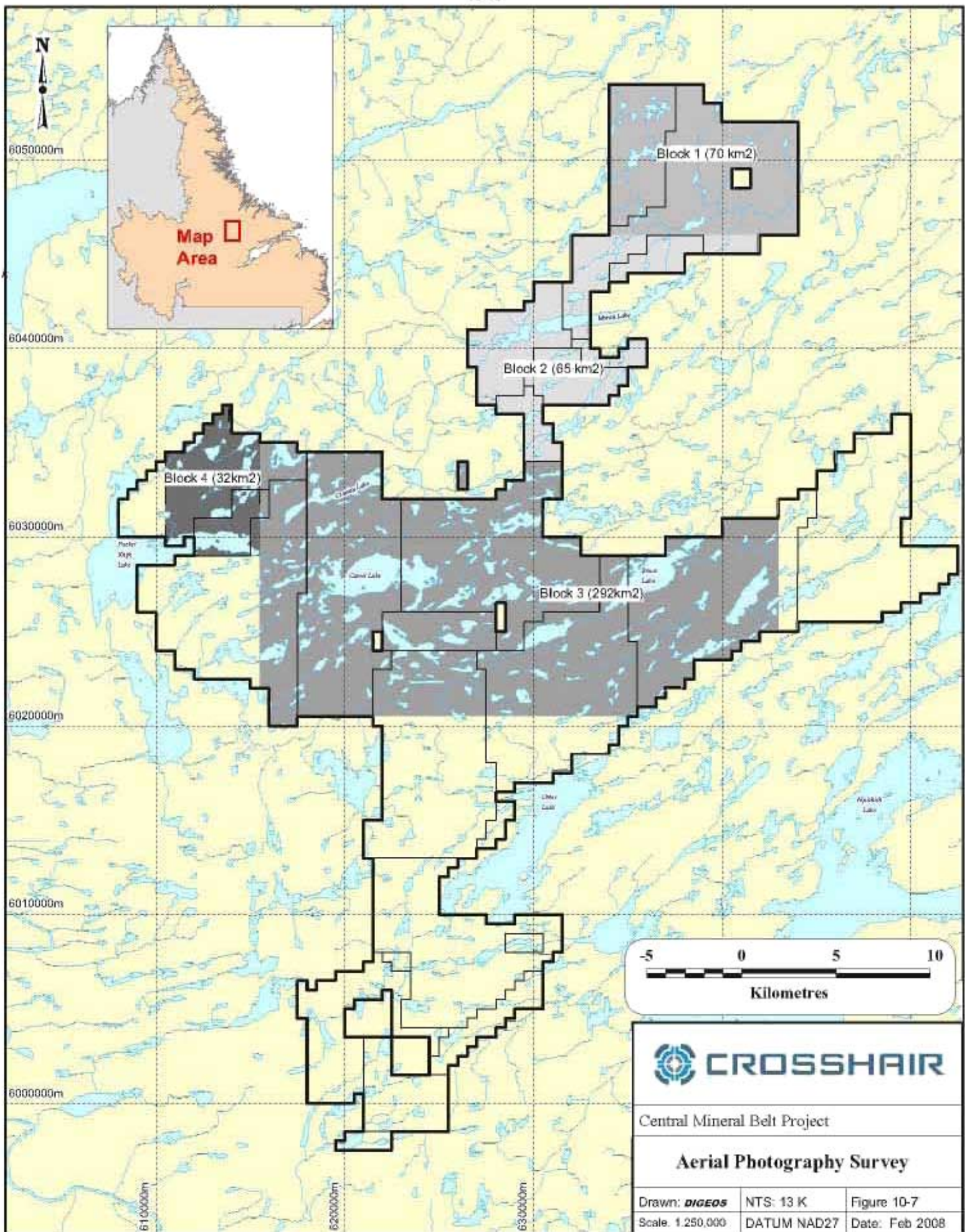








Target Zone	Priority		Target Zone	Priority		Target Zone	Priority
TZ 1	2		TZ 10	1		TZ 18	1
TZ 2	2		TZ 11	3		TZ 19	1
TZ 3	2		TZ 12	3		TZ 20	1
TZ 4	2		TZ 13	3		TZ 21	1
TZ 5	2		TZ 14	3		TZ 22	1
TZ 6	2		TZ 15	3		TZ 23	1
TZ 7	1		TZ 16	1		TZ 24	2
TZ 8	3		TZ 17	1		TZ 25	3
TZ 9	2						





## **LINE CUTTING**

In 2005 approximately 67 line km of grid was cut by SCI Exploration of Miles Cove, Newfoundland. Crews were based out of Armstrong camp on line 54E on the southeast shore line of Armstrong Lake. The bulk of the grid was established to the southwest of the C Zone to facilitate mapping and geophysical coverage of target areas discovered during follow up of the airborne surveys. Additional line cutting was also carried out to the northwest and southeast of several of the old Shell grid lines.

In 2006, Andrews Exploration of King's Point, NL, was contracted to carry out additional line cutting in the vicinity of the C-Zone. A total of 17.5 line km were cut and picketed in order to extend the main C-Zone grid toward the southwest. Andrews Exploration of King's Point, NL, returned in 2007 and carried out an additional 48 line km of line cutting to extend the current B-Zone and C-Zone grids to facilitate ground geophysical and geochemistry surveys.

## **GROUND GEOPHYSICS**

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 as control. 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.

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 4.1 km covering Area 1 and the

Upper C and a portion of the LC. 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. In total approximately 46 line km were surveyed.

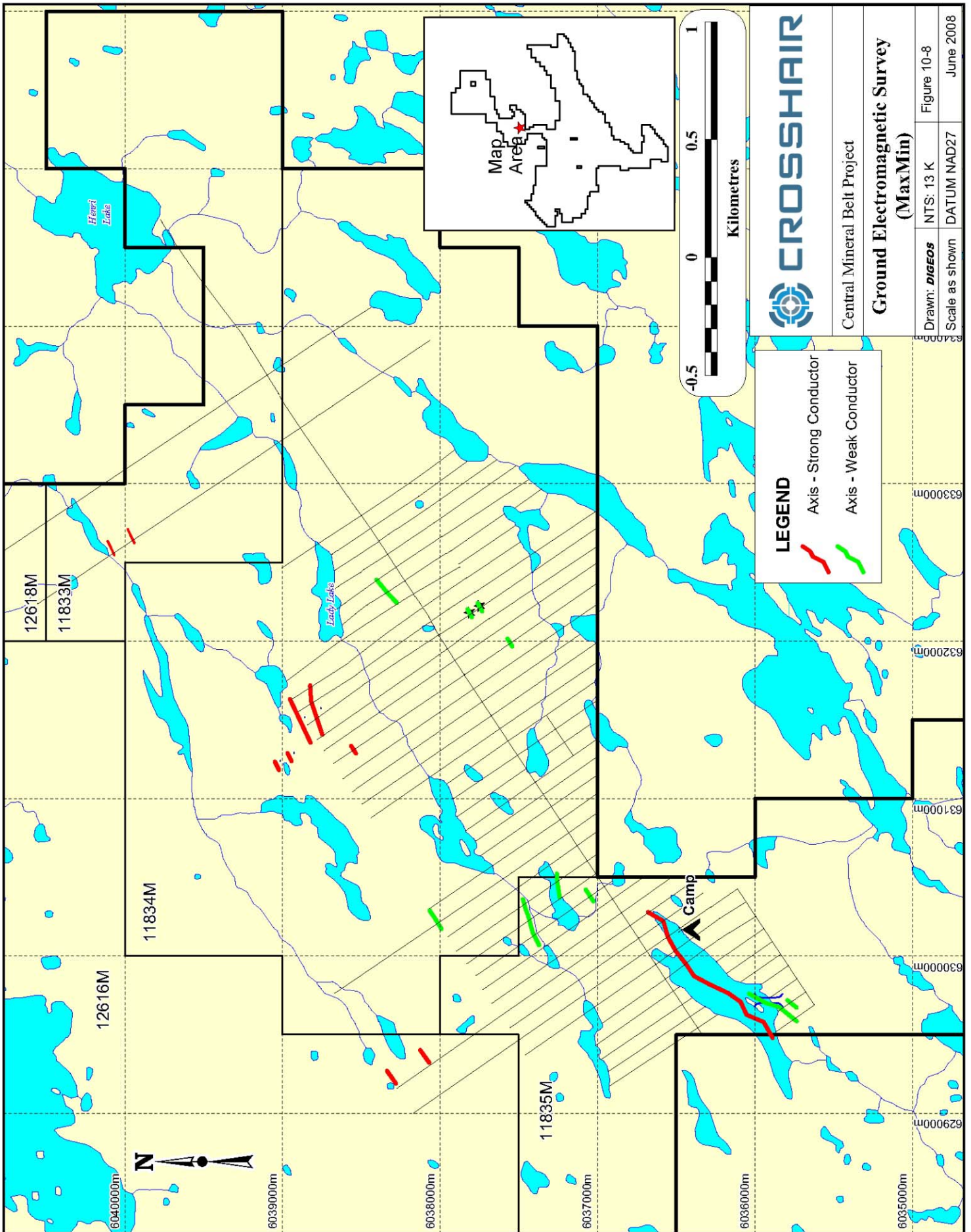
As shown on Figure 10-8, the MaxMin EM survey identified several conductors, including weak to strong conductors in the vicinity of the Armstrong target area on the southwest portion of the grid. In this area, the original Armstrong Showing appears to be associated with a weak northeast trending conductor, while a parallel trending strong conductor at least 1 km in length was identified beneath Armstrong Lake itself. Strong east-northeast trending conductors were also identified to the northwest of the C Zone at the northern end of lines 77E to 80E, in what is now known as the Dominion Showing.

Additional ground gravity surveys were conducted in 2007 by Eastern Geophysics from April to May, and by MWH Geo-Surveys from September to October. The surveys were carried out to extend coverage over the Armstrong – C Zone – B Zone grid area. Interpretation of the geophysical data was done by Carriere Process Management Ltd., who identified at least 12 residual gravity anomalies as indicated in Figure 10-9.

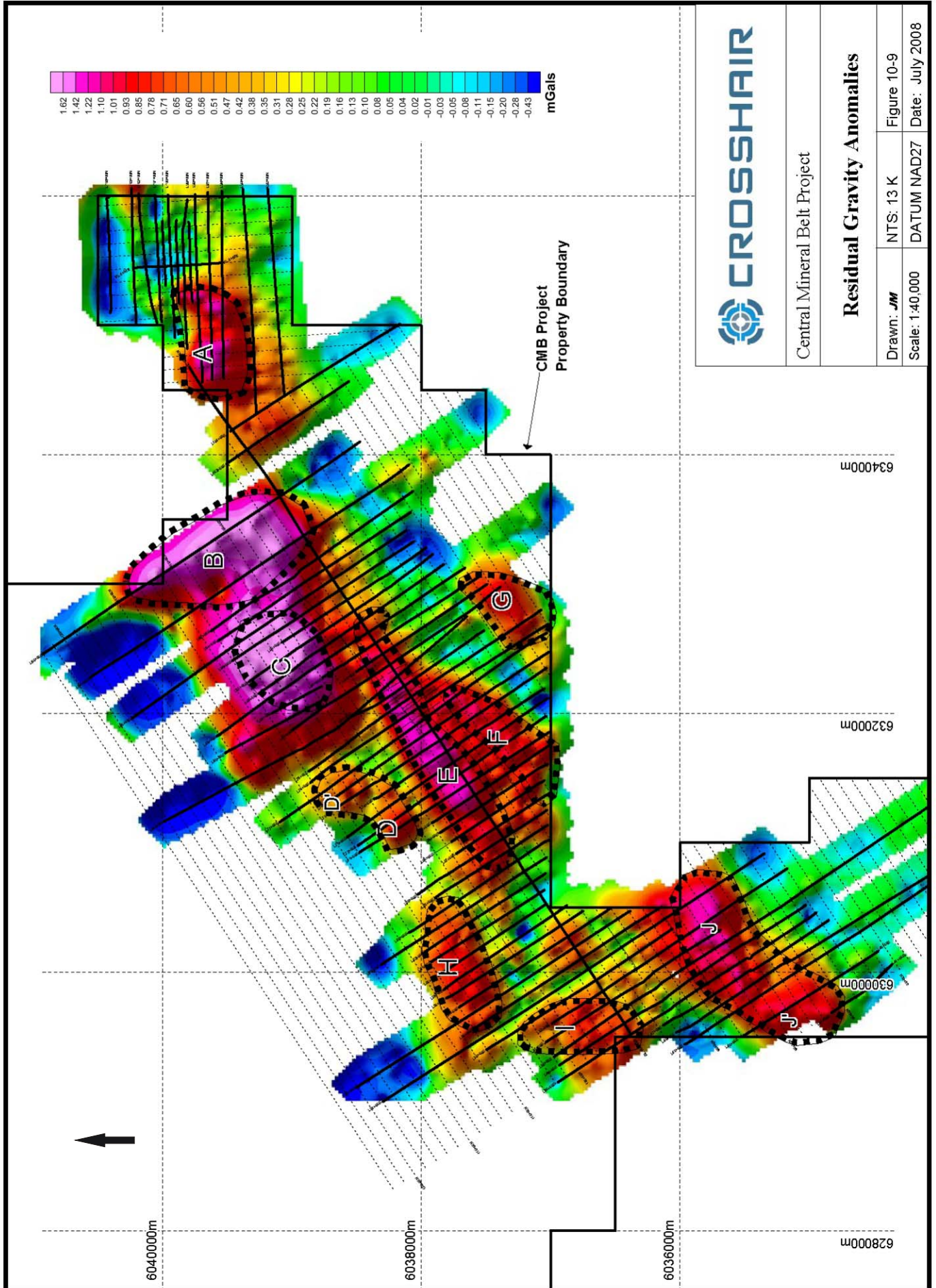
From June to August 2007, Peter E. Walcott and Associates Limited carried out a “pole-dipole” induced polarization (IP) / resistivity survey totalling more than 90 line km over the Armstrong – C Zone – B Zone grid. The survey was carried out along 100m spaced grid lines, and the data presented as individual pseudo-section plots of apparent chargeability and resistivity at a scale of 1:5,000.

Interpretation of the IP / resistivity survey data was carried out by Carriere Process Management Ltd., who identified several high to moderate priority anomalies. The main anomaly extends along the grid baseline between the Armstrong and C Zone target areas, and is associated with residual gravity Anomaly E (see Figure 10-9). The gravity anomaly was modelled as an elliptical body approximately 2100 metres long, 40 metres wide, and having a 60 degree dip to the southeast. With a density contrast of 2.46 g/cc

and low resistivity as identified from the IP survey, the anomaly is considered as a prime target for potential IOCG type mineralization. At the B Zone, no high priority IP targets were identified, however some moderate IP anomalies were identified, particularly at L99N/9675E and at L100N/9675E.







## ALPHA TRACK AND TILL SAMPLING

During the 2007 season, Crosshair carried out Alpha Track surveys over several areas of the CMB Property. Alpha Track surveys involve the burial of a small cellulose-nitrate film taped to the inside of an inverted plastic cup. Radon gas produced from uranium mineralization in the earth emits alpha particles as it undergoes radioactive decay, and the alpha particles emitted create streaks or tracks on the cellulose-nitrate film inside the cups. For Crosshair's surveys on the CMB Property the detectors were buried at a depth of 50 to 75 cm and left in place for 30 days, at which time the cups were retrieved, the holes in-filled, and the detectors sent to Alpha Track Uranium Exploration Services in Vancouver, BC for processing.

The density of tracks created on the film is directly proportional to the radon concentration within the design parameters of the detector, and thus can be an effective method of identifying zones of buried uranium mineralization that may have little or no surface radiometric expression. During Crosshair's 2007 exploration program, a total of 875 Alpha Track cups were deployed over several targets areas on the CMB Property, as indicated in Table 10-1 and Figure 10-10.

**TABLE 10-1 ALPHA TRACK SURVEY INFORMATION**

Area	Licence	Number of Cups
Area 1	11835M	94
Blue Star	12618M	209
B-Zone	11833M	109
Croteau Lake	10716M/11395M	173
C-Zone	11834M/11835M	114
Madsen Lake	10368M	123
Moran Heights	9781M	53

Concurrent with the Alpha Track survey, a soil/till sampling survey was also conducted whereby, when possible, a till sample was collected during placement of each Alpha Track detector. Soil samples collected at a 50-70cm depth should largely result in the collection of the unoxidized "C" horizon soil, which is the optimum one to sample for

uranium as it is the least oxidized horizon in the till/soil profile. A total of 674 till samples (Table 10-2) were collected and sent to Activation Laboratories in Ancaster, Ontario for analysis for uranium, base and precious metal and multi-elemental analysis.

**TABLE 10-2 TILL SAMPLING INFORMATION**

Area	Licence	Number of Till Samples
Area 1	11835M	90
Blue Star	12618M	179
B-Zone	11833M	105
Croteau Lake	10716M/11395M	106
C-Zone	11834M/11835M	111
Madsen	10368M	35
Moran Heights	9781M	48

### **Area 1**

Ninety-four alpha cups were deployed and 90 till samples were collected (Figures 10-11a and 10-11b). The alpha track data, displayed as particle etches in units of tracks per millimeter squared (T/mm<sup>2</sup>), exhibits 2 discrete zones of anomalous radioactivity located at the southwest and northeast ends of Trout Pond, which correspond well with previous mapping and drilling results. Till uranium concentrations generally mirror the alpha cup data, though the northeast zone anomaly is slightly better developed. Copper exhibits a similar pattern compared to uranium and alpha track results (T/mm<sup>2</sup>), though in the northeast the anomaly is centered one station southwest of the uranium anomaly. Silver exhibits a distinctly unique pattern that is a NE-trending discrete band of high values rather than two lobes; this band is sub parallel to a projection of mineralization to surface based in 3D projection of drilling.

### **B-Zone**

At the B-Zone, 109 alpha cups were deployed and 105 till samples collected (Figures 10-11c and 10-11d). Alpha cup data revealed 2 main anomalous zones and several other lesser anomalies. The 2 main zones are located east and southeast of historical drilling and slightly southeast of most float and outcrop anomalies surrounding the main zone of mineralization. The southern anomaly correlates well with a Shell

surface scintillometer survey, but the northern anomaly only weakly correlates with the Shell survey. Both anomalies are generally out of sync with surface radiometric data as measured by prospecting and mapping crews in 2006 and 2007. It is possible, given the steep terrain, that these anomalies are the result of slumping of the till sheet downhill from the known anomalies.

The spatial distribution of uranium in till is slightly different from the alpha cup data. Although there is a strong anomaly in the south, this anomaly extends northward considerably past the alpha cup anomalies. This may reflect a difference of underlying bedrock influencing alpha cup data versus till data reflecting transported material. There is a strong copper anomaly that is generally centered over, but which also extends northeast of, known mineralization.

### **C-Zone**

One hundred and fourteen alpha cups were deployed and 111 till samples collected over the C-Zone (Figures 10-11e and 10-11f). The alpha track results are generally flat, but there are several discrete single cup anomalies. Interestingly, 2 of the 3 anomalies overlie the surface projection of the Lower C-Zone, which is topographically lower than the Upper C Zone. Uranium-in-till geochemistry appears to be more informative than alpha cup data, identifying 3 anomalous zones. The two main ones are roughly encompassed by gridlines 8200N+25 to 8500N+75 from the southern shore of Lady Lake to approximately 125 m south of the baseline and the third smaller anomaly is northeast of Pump Pond. Sample F-308, which has an anomalous number of T/mm<sup>2</sup> is also moderately anomalous in uranium, however, there are no nearby cups to correlate. The main uranium anomalies are consistent with alpha cup data but are significantly stronger in tills.

Copper exhibits several discrete pod-shaped anomalies, the largest of which is located between gridline 8100N and 8300N+50 and comprises a 6-sample anomaly; nearby, a smaller 2-sample anomaly extends from the baseline north along L8500. There is a moderate correlation between iron and copper. Silver exhibits two very discrete but



prominent anomalies trending parallel to the Mokta baseline. Vanadium defines a strongly anomalous band trending E-W in the northeast zone of drilling, to the east of the southern shore of Lady Lake.

### **Blue Star**

Two hundred and nine alpha cups were deployed at Blue Star and 179 till samples were collected (Figures 10-11g and 10-11h). Alpha cup data defines several anomalous zones with a weak overall NE-SW trend. There is an abundance of outcrop in certain regions of the Blue Star area and it is uncertain, without detailed imagery of outcrop distribution, what effect this has on alpha-cup data. There is a prominent circular shaped anomaly that overlaps with the Aphebian-Helikian unconformity. Further east, a second cluster of multi-station anomalies occurs but does not exhibit any obvious trends. Limited or no geological mapping or prospecting has been carried out to date in the area of the anomalies. Of interest, several areas of known surface mineralization that are well bounded by alpha cup stations do not exhibit anomalous radioactivity in the airborne radiometric data. This may indicate a restricted subsurface expression of the uranium mineralization.

Uranium till geochemistry exhibits a similar distribution of anomalous areas compared to alpha cups and, as noted above, several of these anomalies have not yet been investigated by prospectors or geologists. Previously mapped surface mineralization exhibits a qualitative link with increased hematization, thus iron may be an important pathfinder element at Blue Star. Iron from till geochemistry is elevated in areas known to have elevated uranium as well as in unexplored areas where uranium is weakly to moderately elevated in the tills. Elevated copper values (some > 100ppm) exhibit a weak NE-SW trend and correlate well with the anomalous uranium in tills and high T/mm<sup>2</sup> zone along the unconformity.

### **Croteau Lake**

One hundred and seventy two alpha cups were deployed and 106 till samples were collected from Croteau Lake in 2007 (Figures 10-11i and 10-11j); the relatively low

number of till samples reflects the abundance of glaciofluvial material, which is not a suitable sample medium. Croteau Lake alpha cups define several discrete radiometric anomalies, most being defined by only 1 or 2 cups. All but 1 anomaly lies to the west of the Aphebian-Helikian unconformity where the geology consists of Warren Creek shale, slate and iron formation.

Uranium in till defines 5 discrete anomalies along both sides of the unconformity. There are 2 single-cup anomalies that fall to the east of the unconformity and both are within areas that contain a high abundance of polymetallic (including uranium) boulders but very little outcrop. The anomalies may therefore reflect proximity to uranium-mineralized float. To the west of these anomalies a broad multi-site anomaly occurs in an area that has not been mapped in detail. Elevated uranium in tills link this anomaly with another broad multi-site anomaly to SW. The two anomalies together define a trend that is roughly parallel to the trend of the unconformity and may reflect underlying uranium-enriched bedrock. A final broad multi-site uranium anomaly occurs just west of an apparent fold nose in the area. This particular anomaly is enriched in many of the base and precious metals assayed and may reflect the presence of fine particles of mineralized float, or possibly a strong bedrock source.

Silver is defined by several discrete, mainly single-site anomalies, including a cluster of single-site anomalies in the northeast end of the sample grid. Silver enrichment has been recognized in many of the float samples at Croteau Lake. Copper is defined by one main anomaly that directly coincides with the main south westerly uranium anomaly. Elevated copper defines a broad low level anomaly in a northeast trending band that is similar in distribution to uranium there.

### **Moran Heights**

A considerably smaller survey was conducted over the Moran Heights area, with only 53 cups deployed and 48 till samples collected (Figures 10-11k and 10-11l). Alpha cup data define a large multi-cup anomaly that is approximately underlain by the intersection of the Archean-Aphebian and Helikian-Aphebian unconformities. Uranium

in the tills defines a large multi-sample anomaly. The anomaly is elongate parallel to the Aphebian-Helikian unconformity.

Copper defines 2 multi-sample anomalies – a large one in the north and a weak one in the south. The larger anomaly is underlain by a triple junction between Archean, Aphebian and Helikian rocks. Elevated copper values are consistent with known subsurface copper mineralization from Crosshair and historical drilling results. Silver defines an elongate Helikian-Aphebian unconformity-parallel multi-sample anomaly that is similar in shape and intensity to copper. Many of the base metal till anomalies coincide relatively strongly with historical IP anomalies and mineralization intersected by previous drilling.

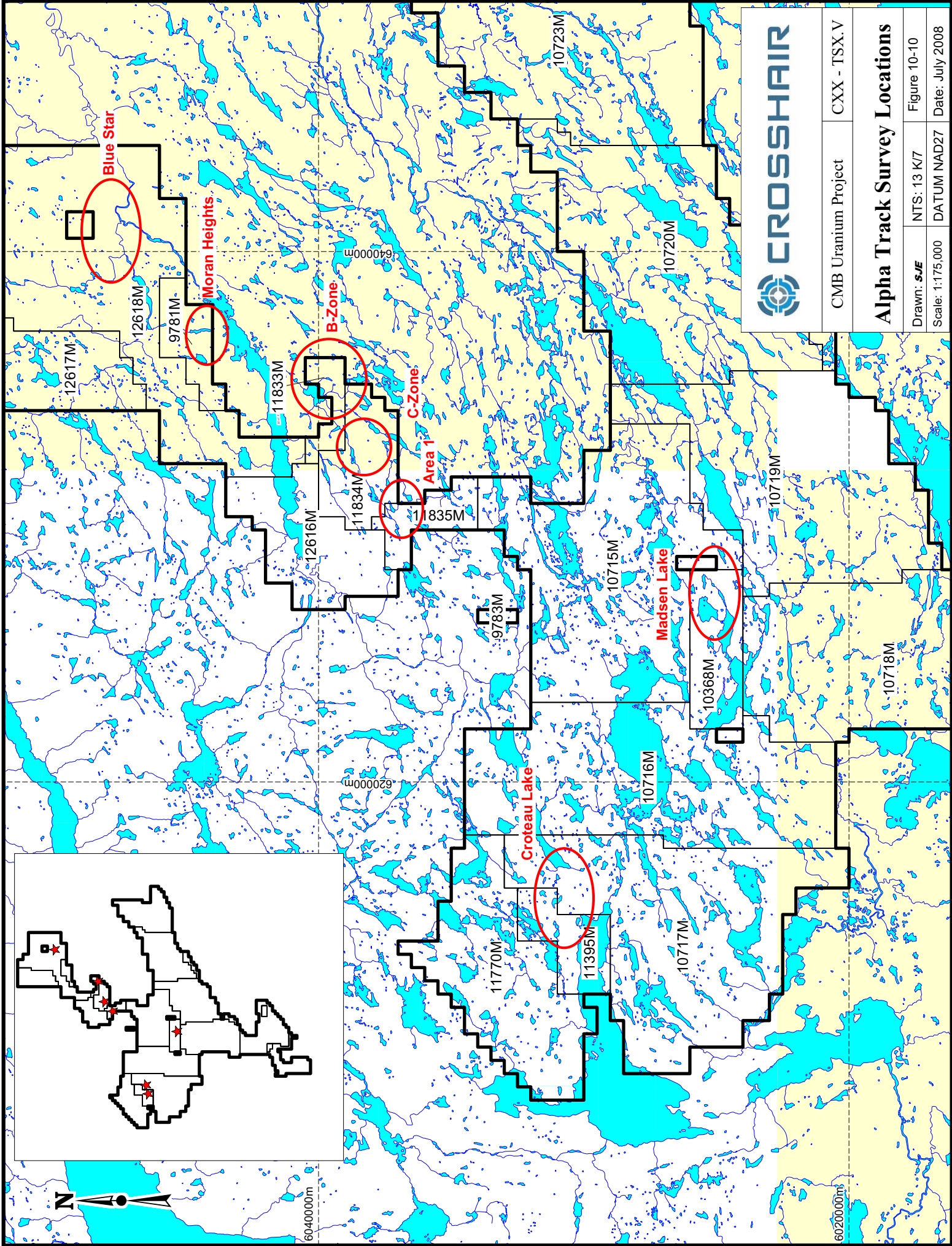
### **Madsen Lake**

One hundred and twenty three alpha cups were deployed in the Madsen Lake-Falby Lake area (Figure 10-11m). Only 35 till samples were collected due to the scarcity of glacial till and abundant bedrock exposure (Figure 10-11n). Very few trends can be reliably established due to the inconsistent distribution and low number of till samples.

### **Area 51**

In 2007, a detailed glacial till-sampling program was completed at Area 51. Fifteen till pits were hand-excavated to bedrock over a 2.2 km strike length along the Archean unconformity (Figure 10-12). Samples were collected at the upper, middle and lower portions of the pits in an attempt to define a possible till dispersal train. The till samples were dried and sieved to 150 mesh (106 microns) at the preparation facility in Goose Bay, and forwarded to Activation Laboratories in Ancaster, Ontario for uranium, base and precious metal and multi-element analysis.

Handheld scintillometer readings were taken beside each sample after it was bagged, producing values ranging between 70 cps and 200 cps. The highest assay values returned were from samples T-15-1 (72.4 ppm U), T-5-1 (56.8 ppm U) and T-5-2 (22.3 ppm U). Data collected from the till pit sampling was inconclusive regarding the dispersal train.



CMB Uranium Project

CXX - TSX.V

### Alpha Track Survey Locations

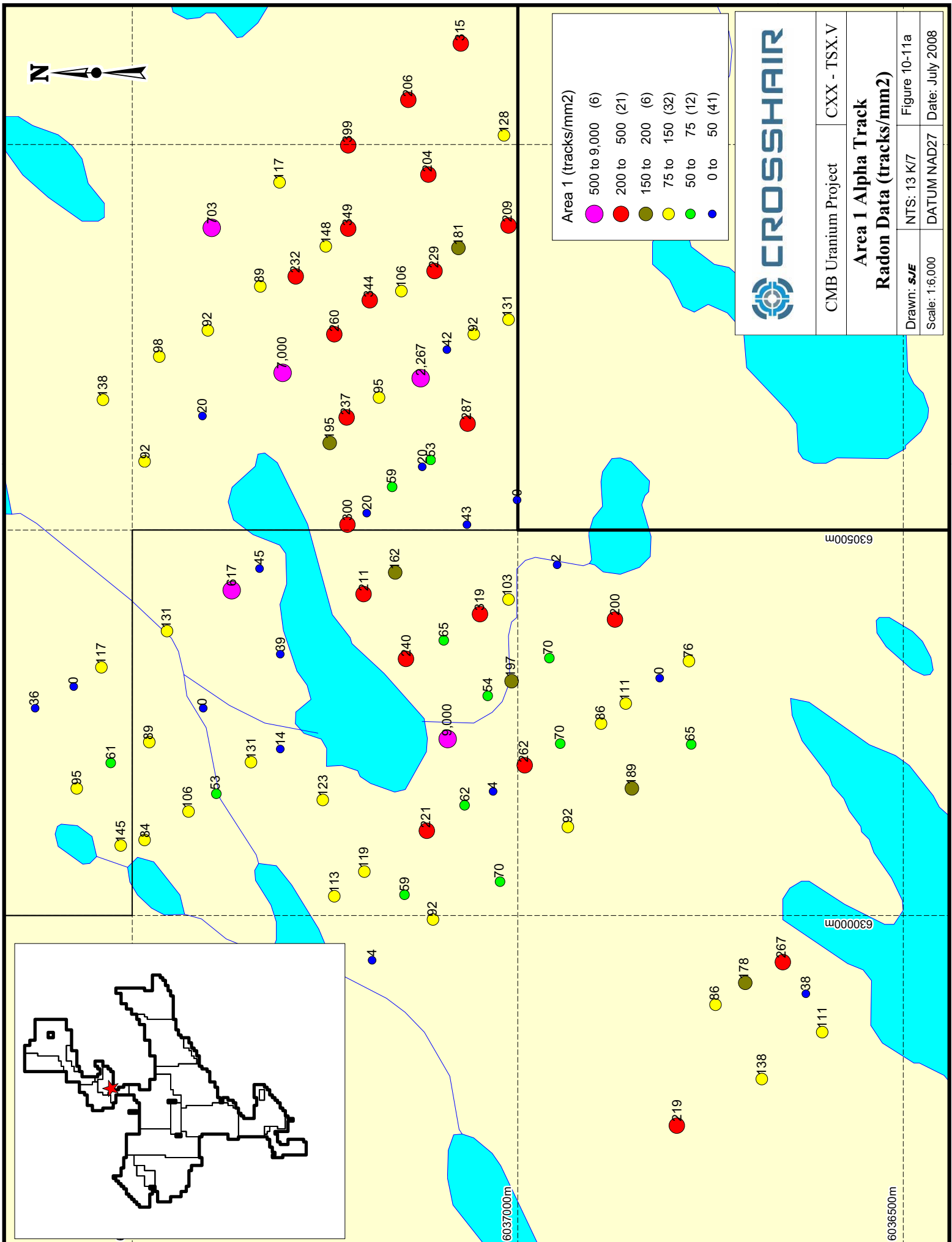
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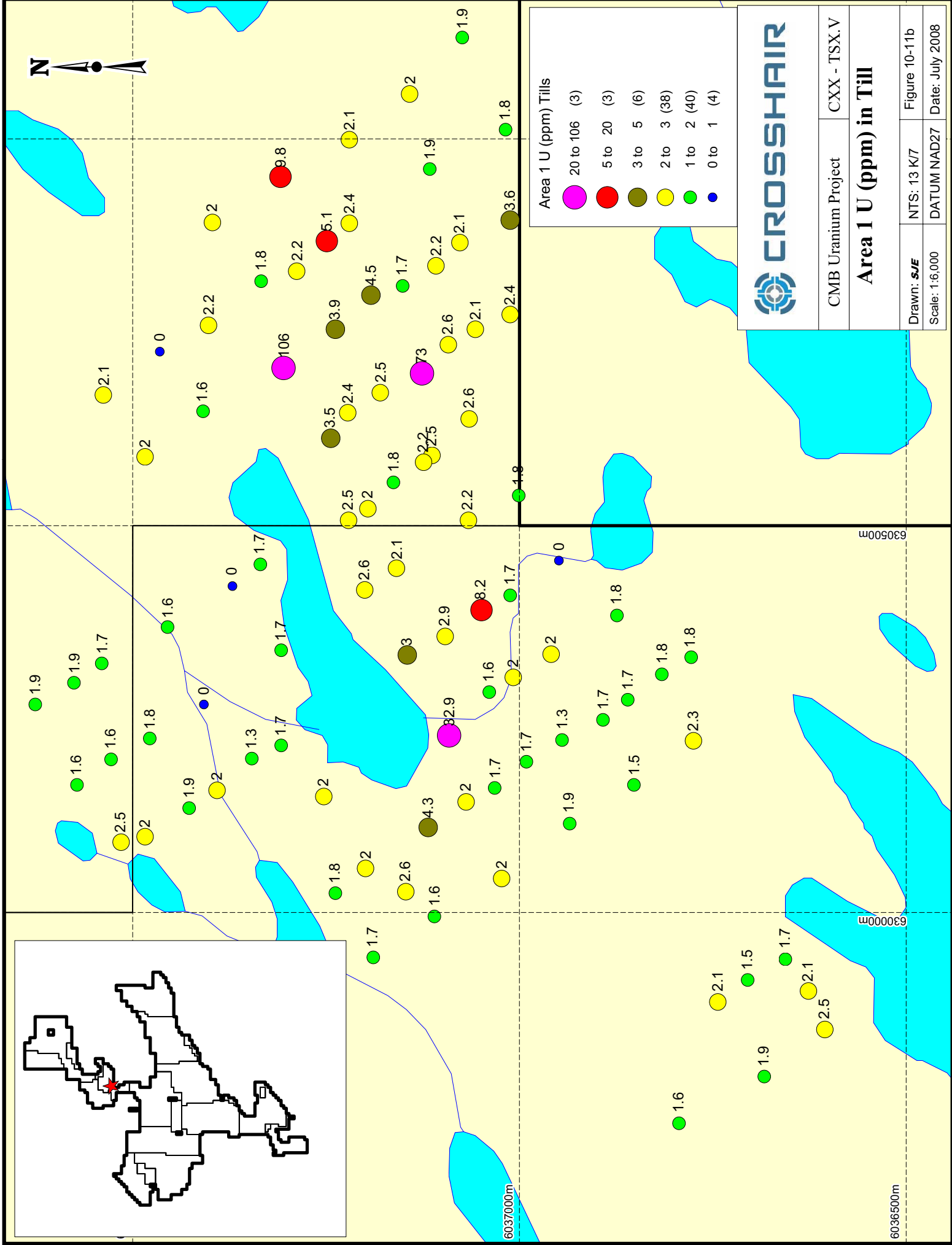
NTS: 13 K/7

Figure 10-10

DATUM NAD27

Date: July 2008





CMB Uranium Project	CXX - TSX.V
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**Area 1 U (ppm) in Till**

Drawn: **SJE**

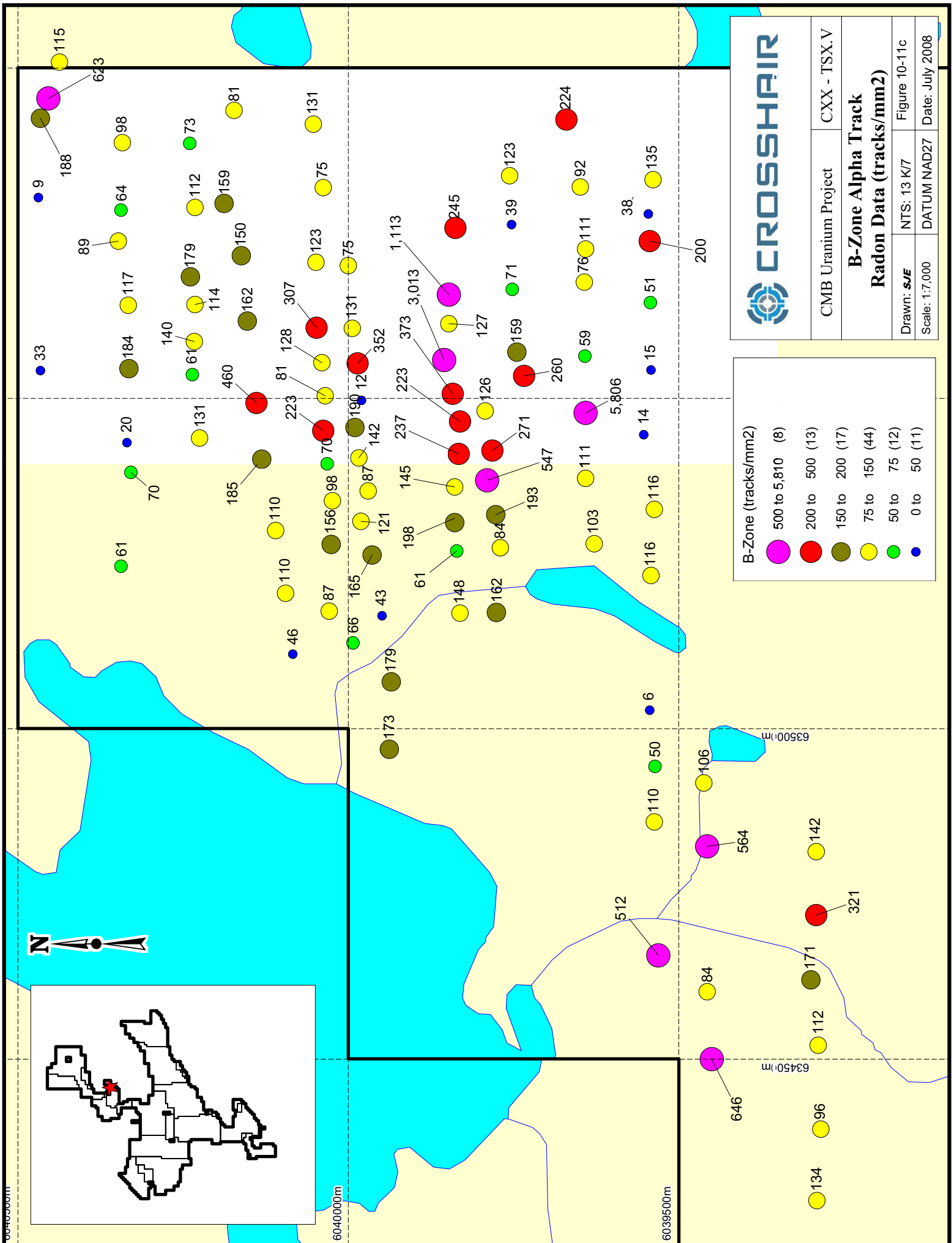
NTS: 13 K/7

Figure 10-11b

Scale: 1:6,000

DATUM NAD27
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Date: July 2008



CMB Uranium Project

CXX - TSX.V

### B-Zone Alpha Track Radon Data (tracks/mm2)

Drawn: *S/E*

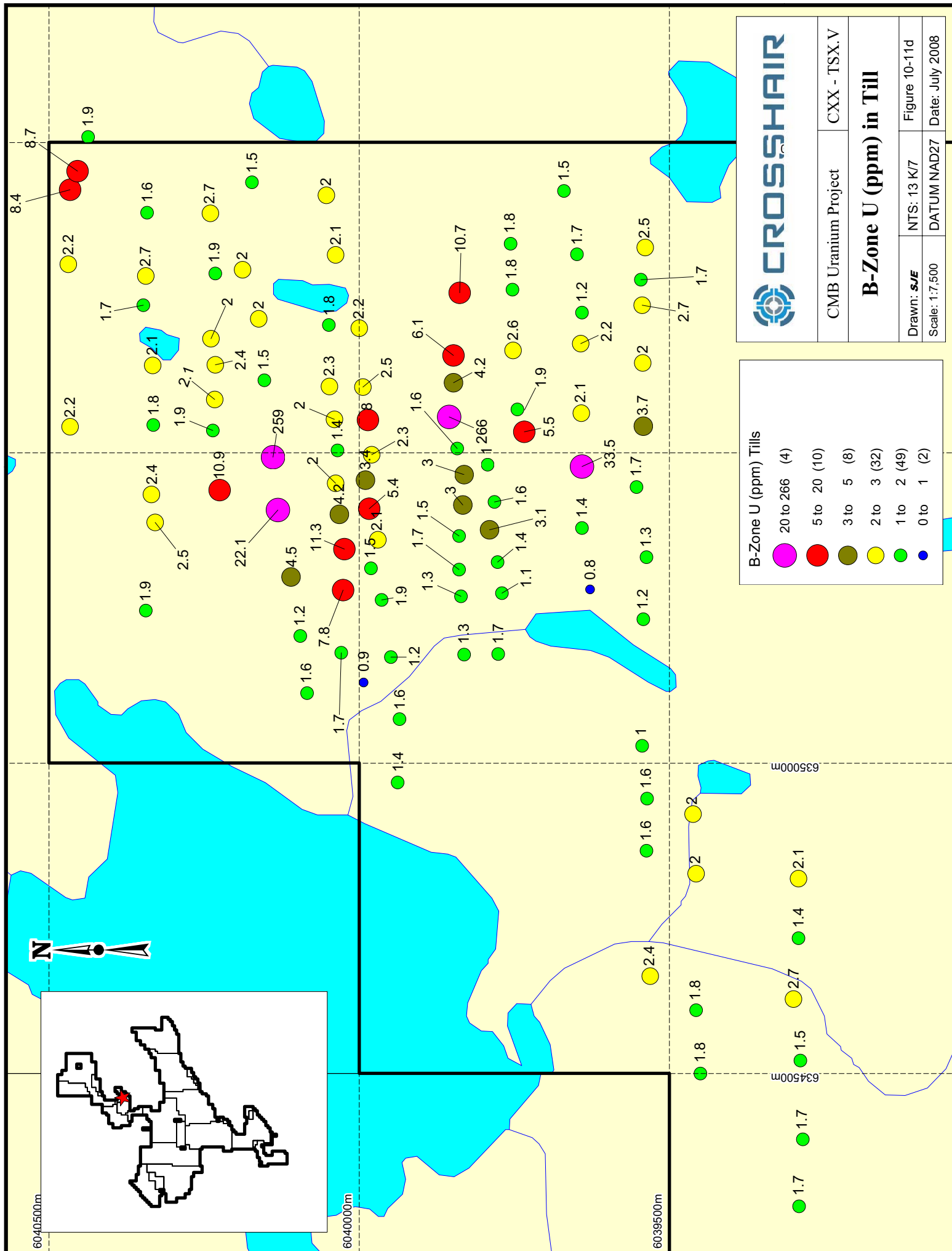
NTS: 13 K/7

Figure 10-11c

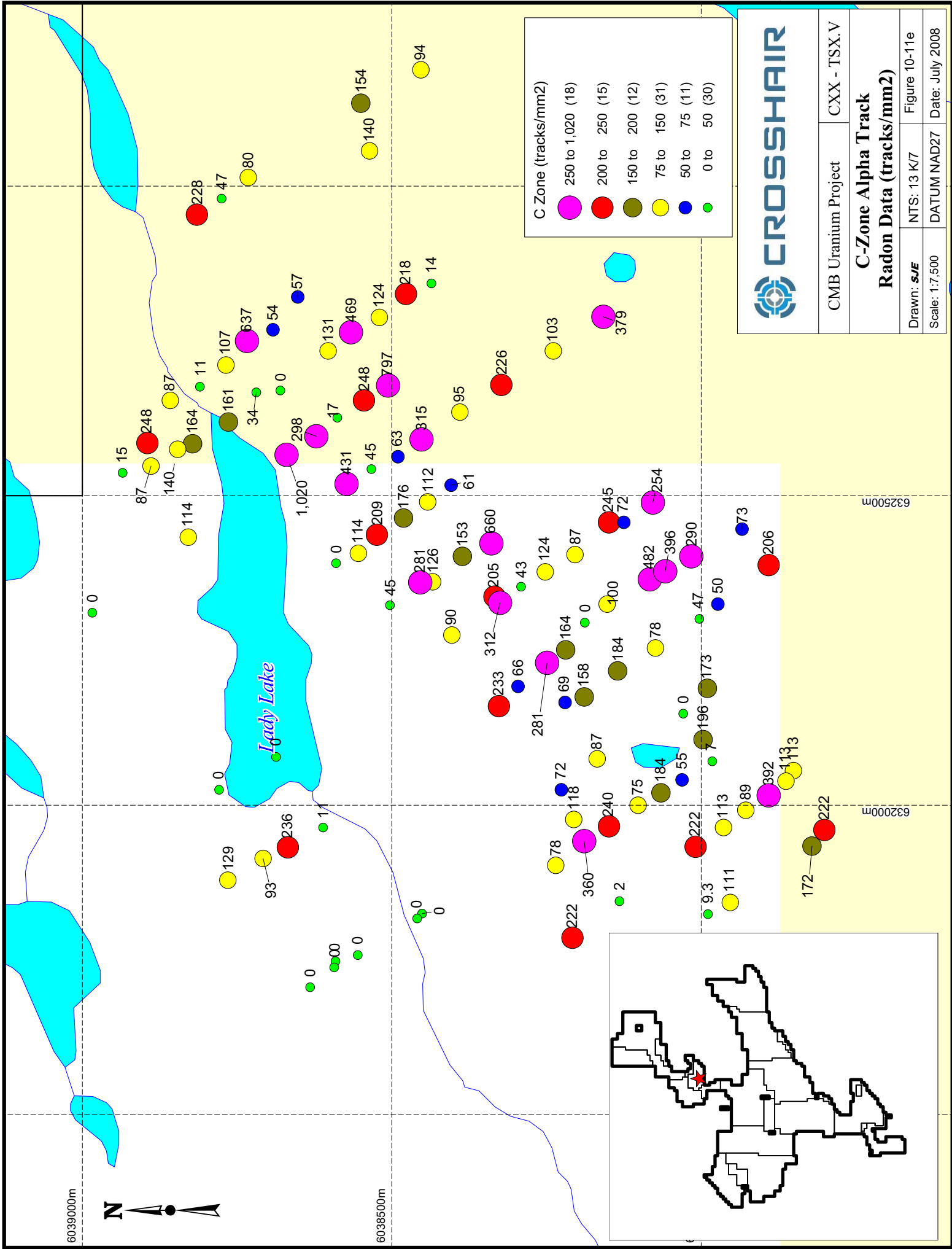
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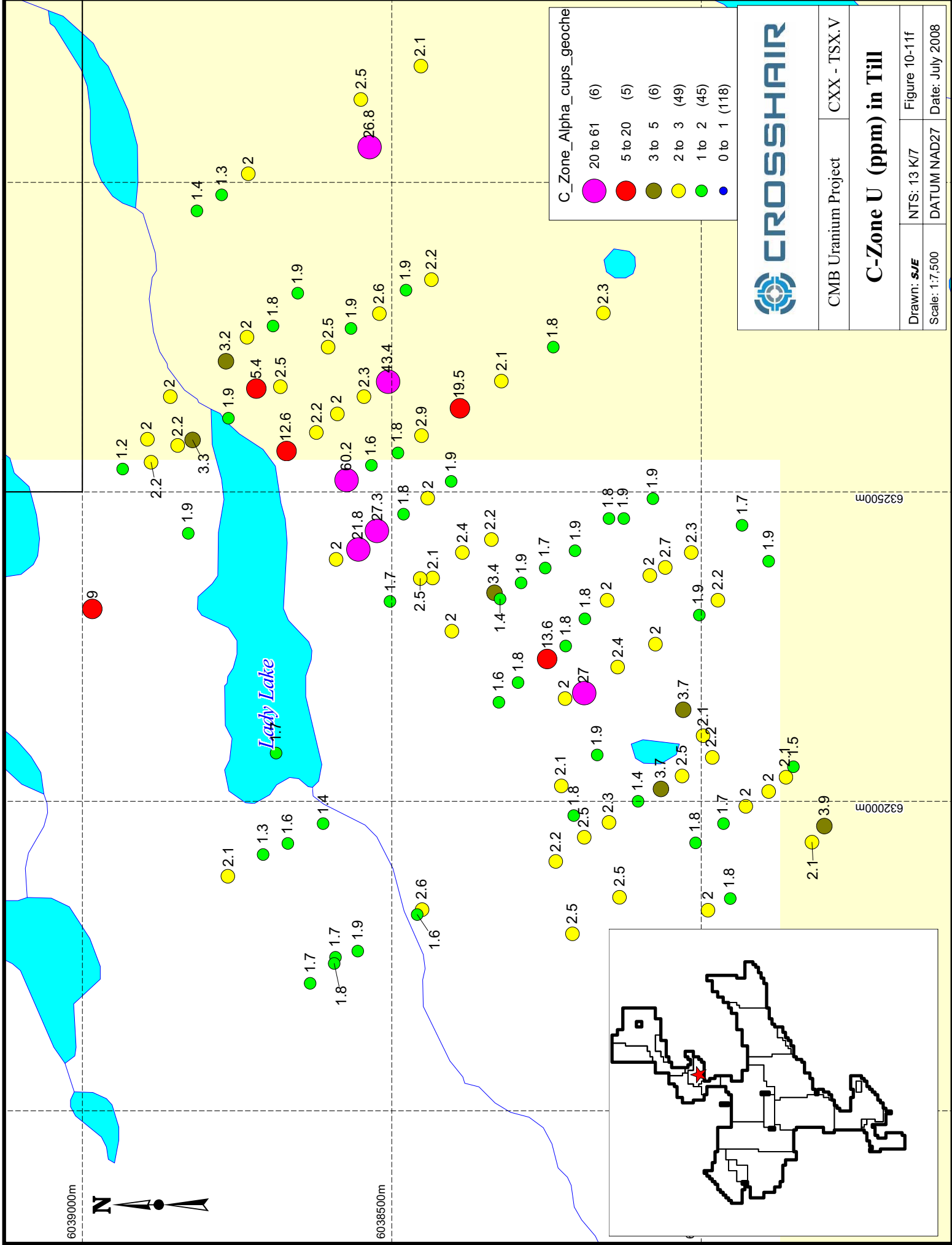
DATUM NAD27

Date: July 2008



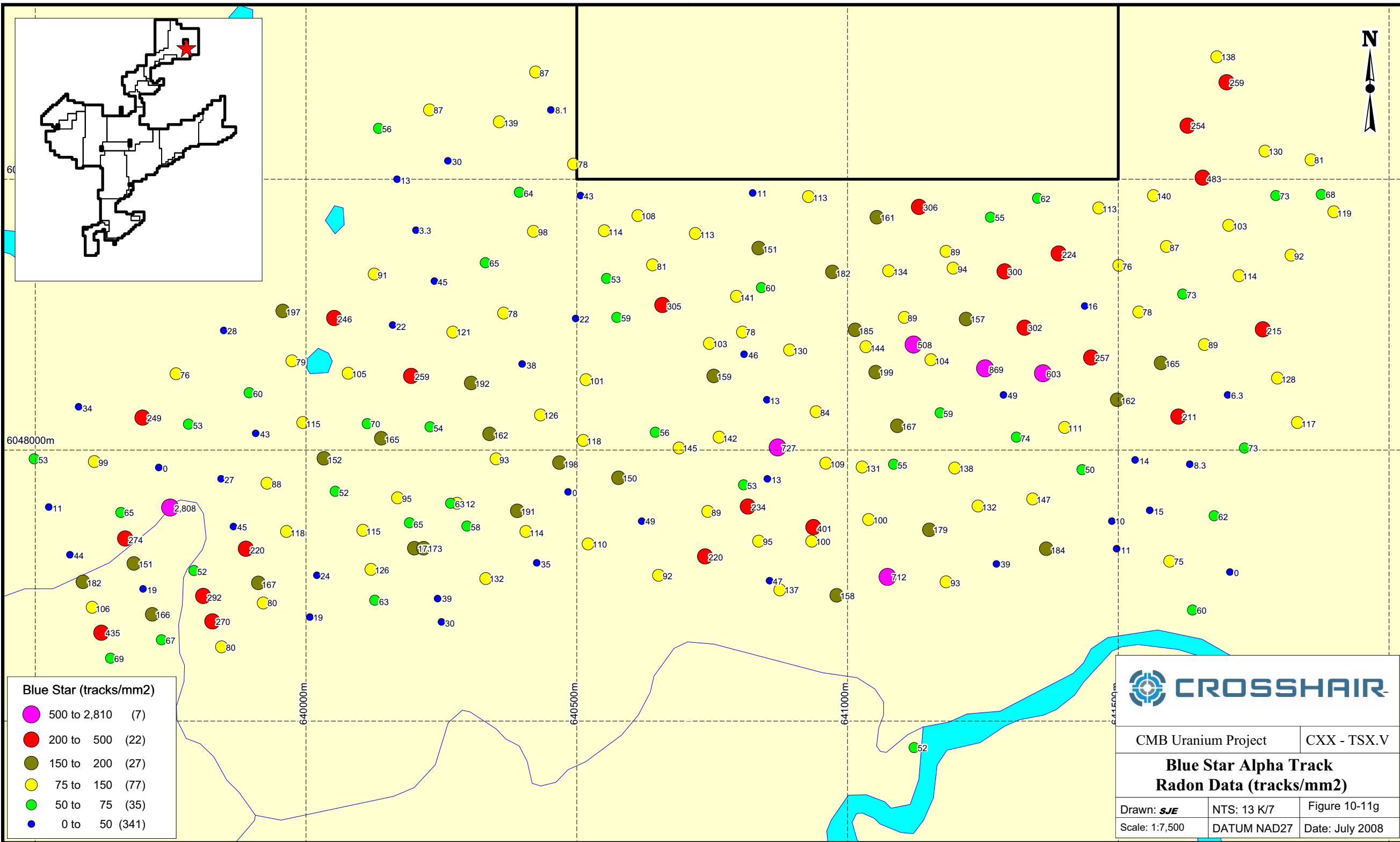


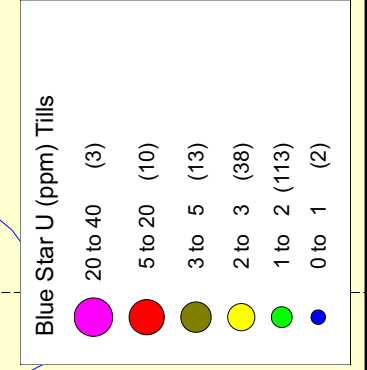


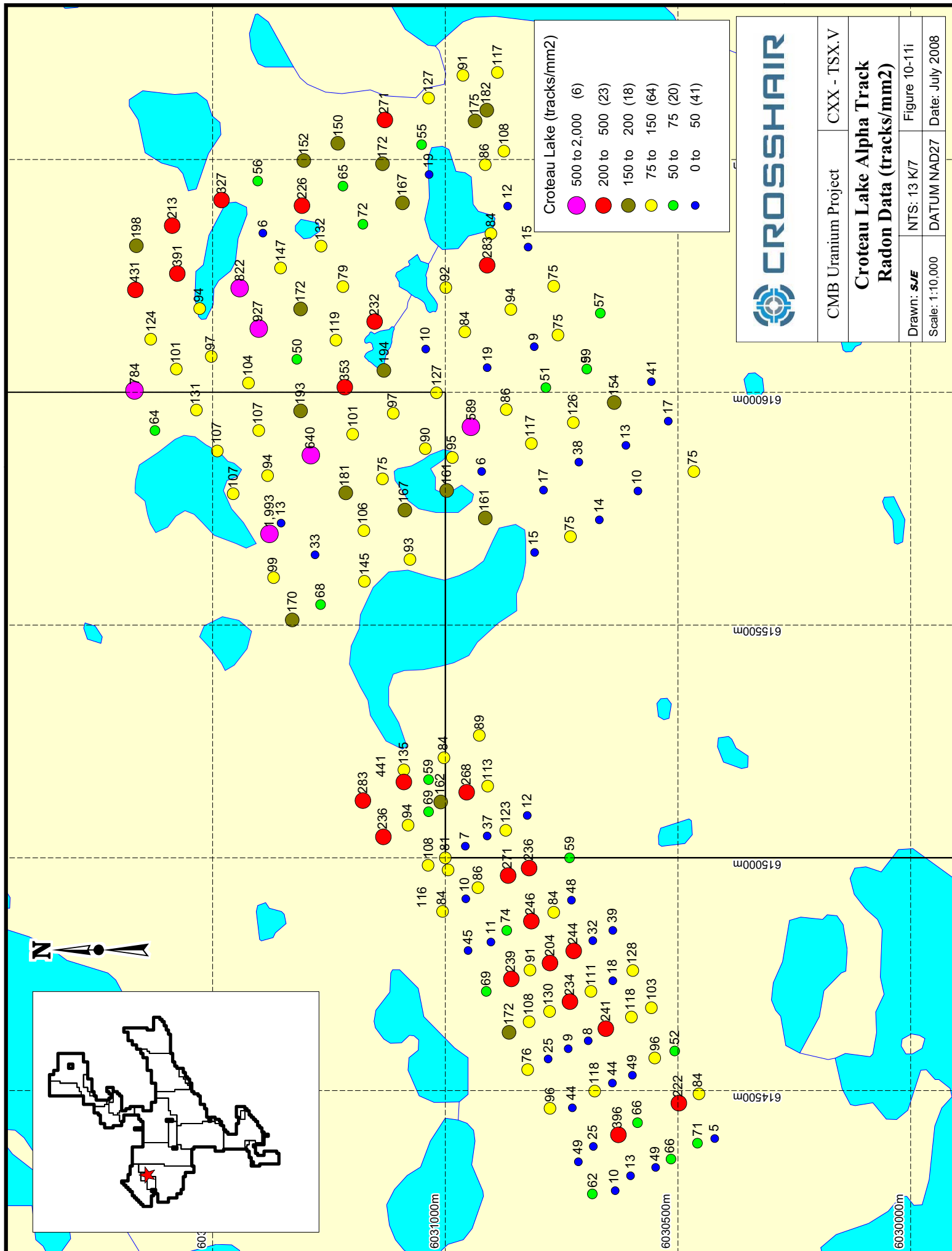


	CMB Uranium Project	CXX - TSX.V
	<h2 style="text-align: center;">C-Zone U (ppm) in Till</h2>	
Drawn: <b>SJE</b>	NTS: 13 K/7	Figure 10-11f
Scale: 1:7,500	DATUM NAD27	Date: July 2008







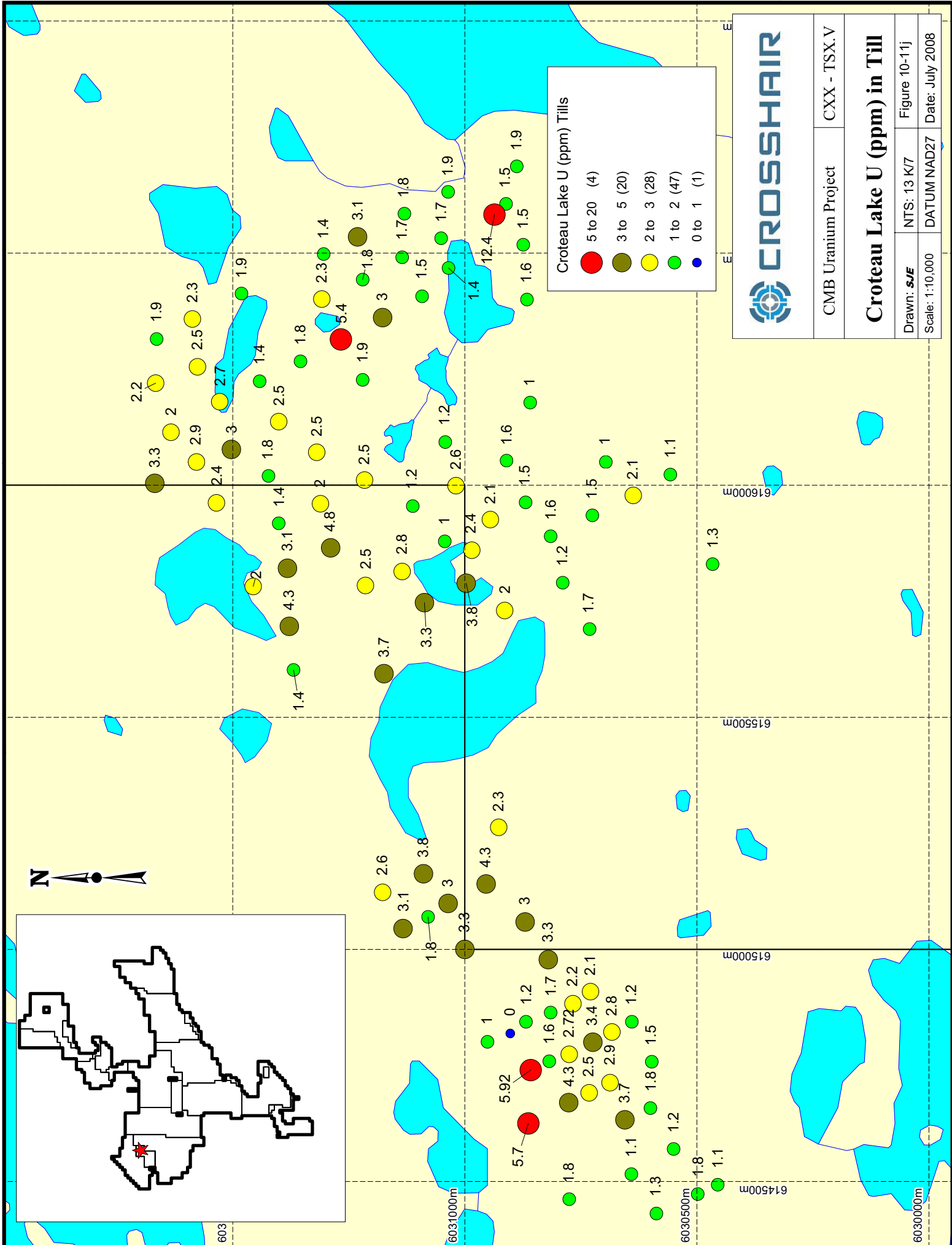


CMB Uranium Project CXX - TSX.V

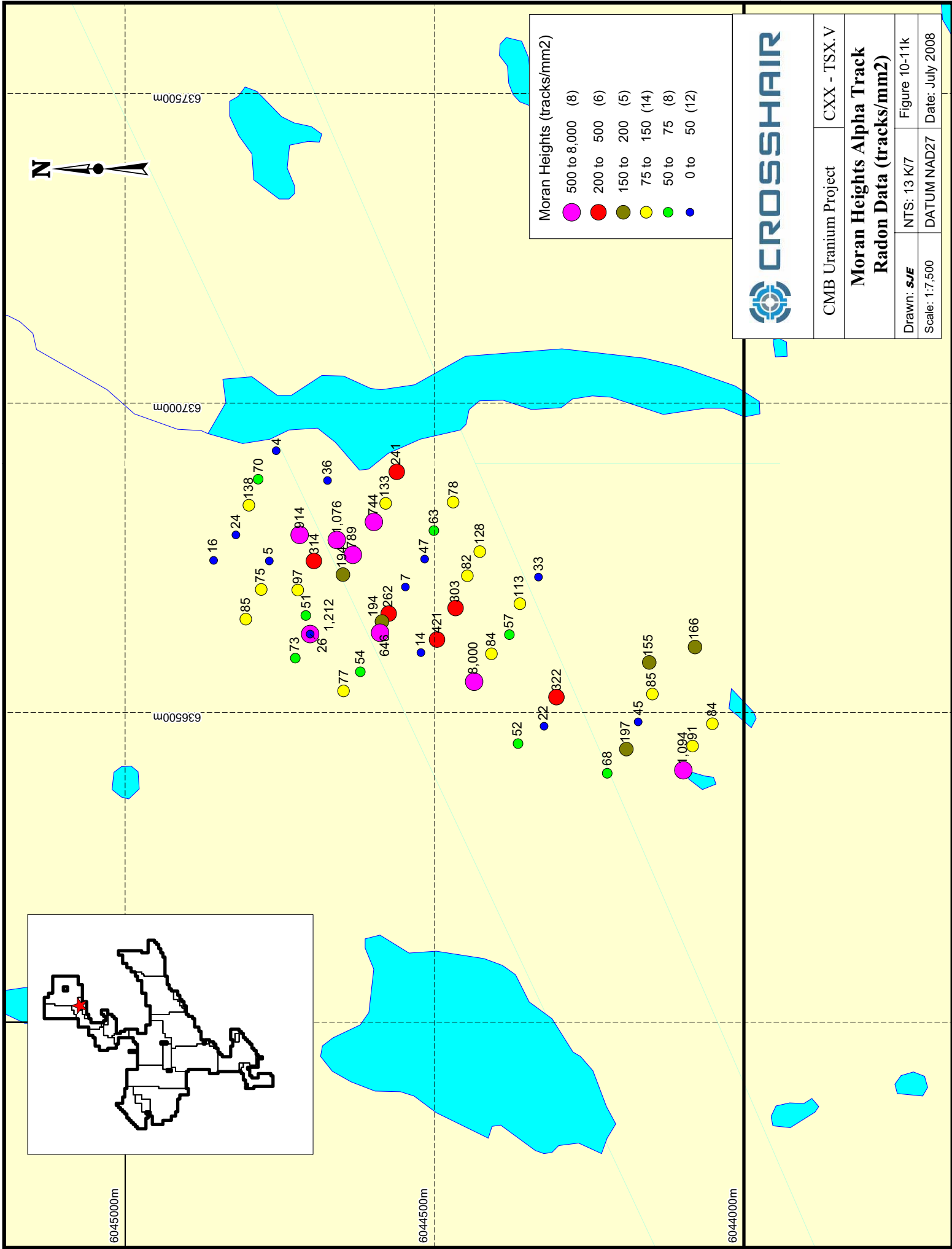
## Croteau Lake Alpha Track Radon Data (tracks/mm2)

Drawn: *S/E* NTS: 13 K/7 Figure 10-11i

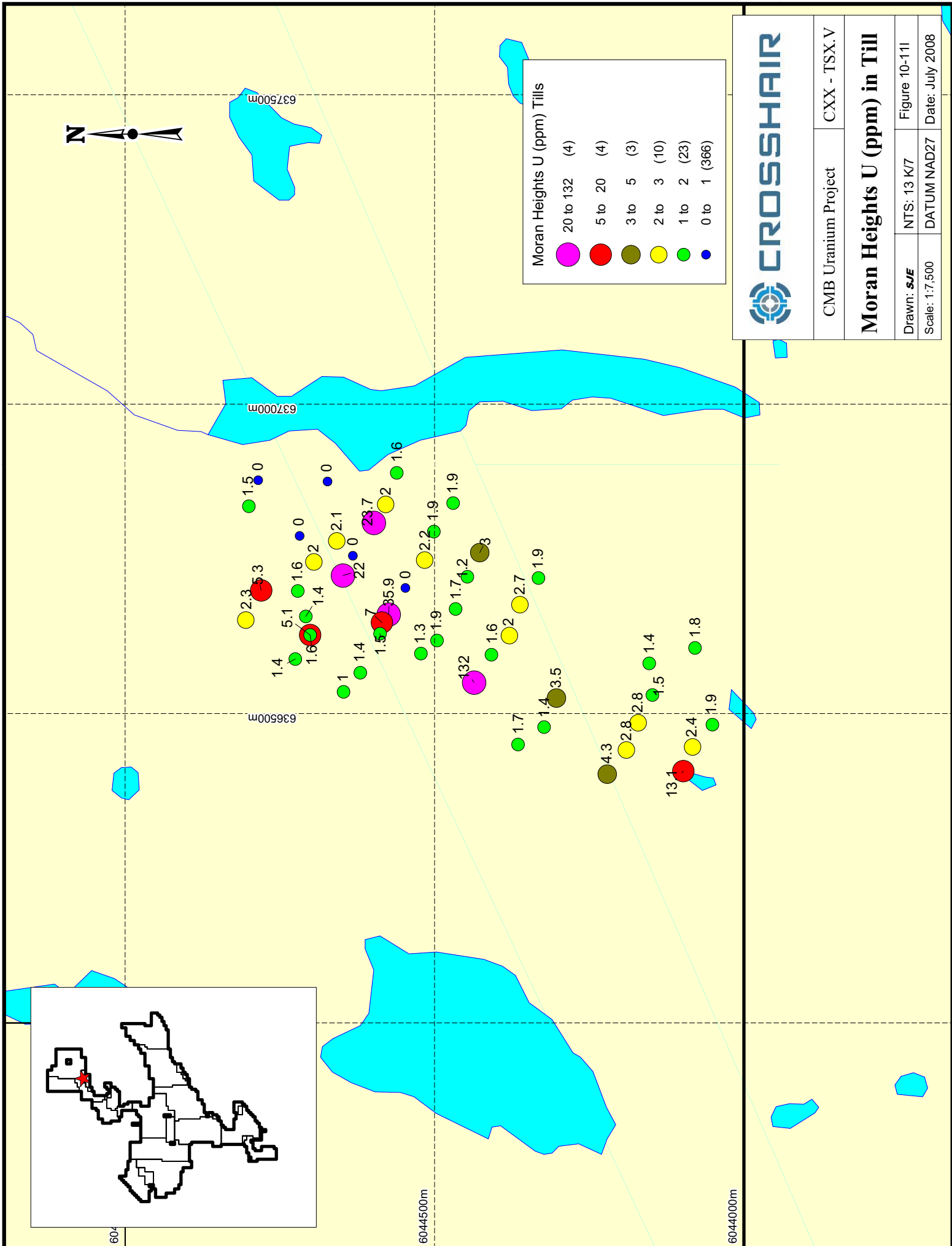
Scale: 1:10,000 DATUM NAD27 Date: July 2008



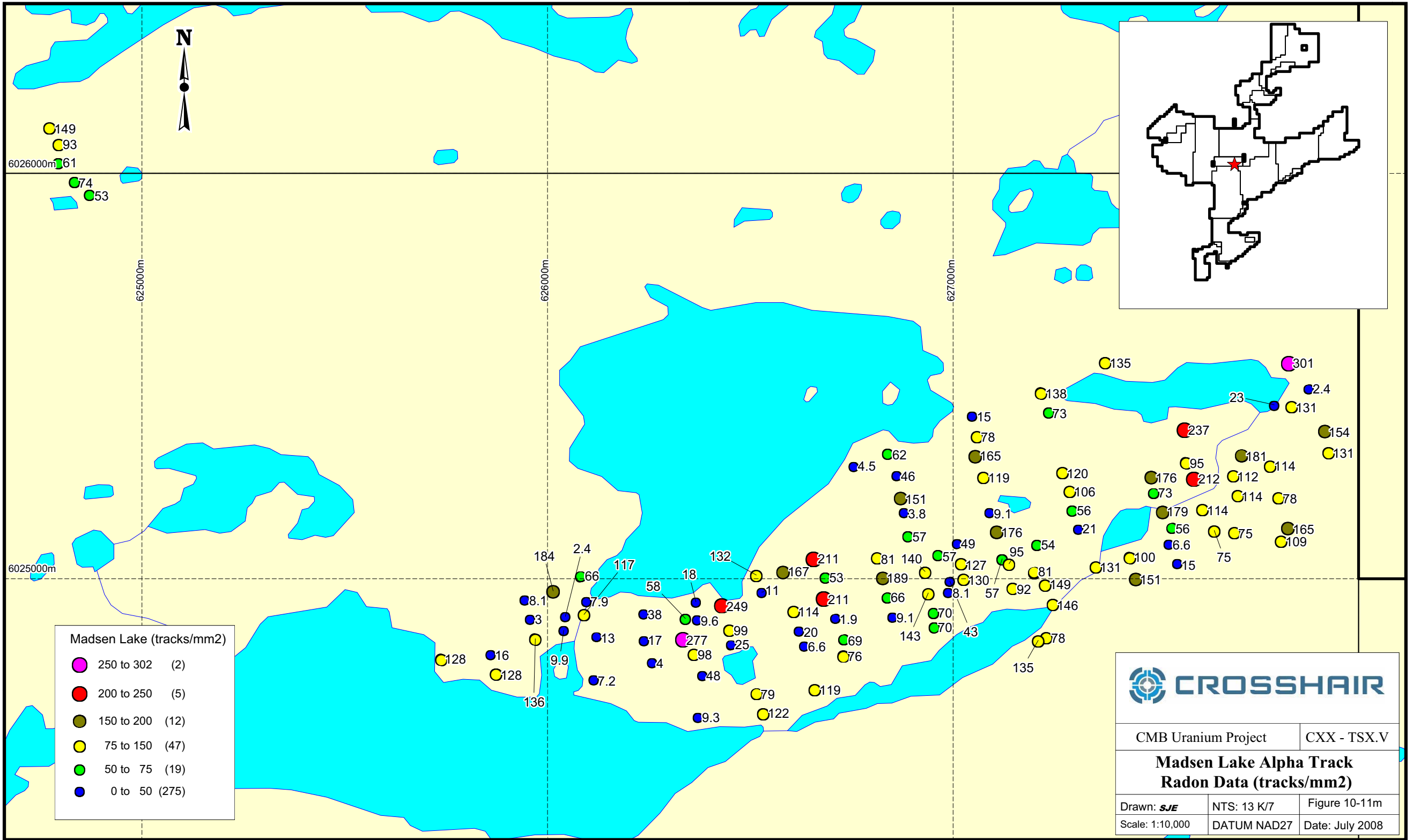
CMB Uranium Project	CXX - TSX.V
Croteau Lake U (ppm) in Till	
Drawn: SJE	NTS: 13 K/7
Scale: 1:10,000	DATUM NAD27
Figure 10-11j	
Date: July 2008	

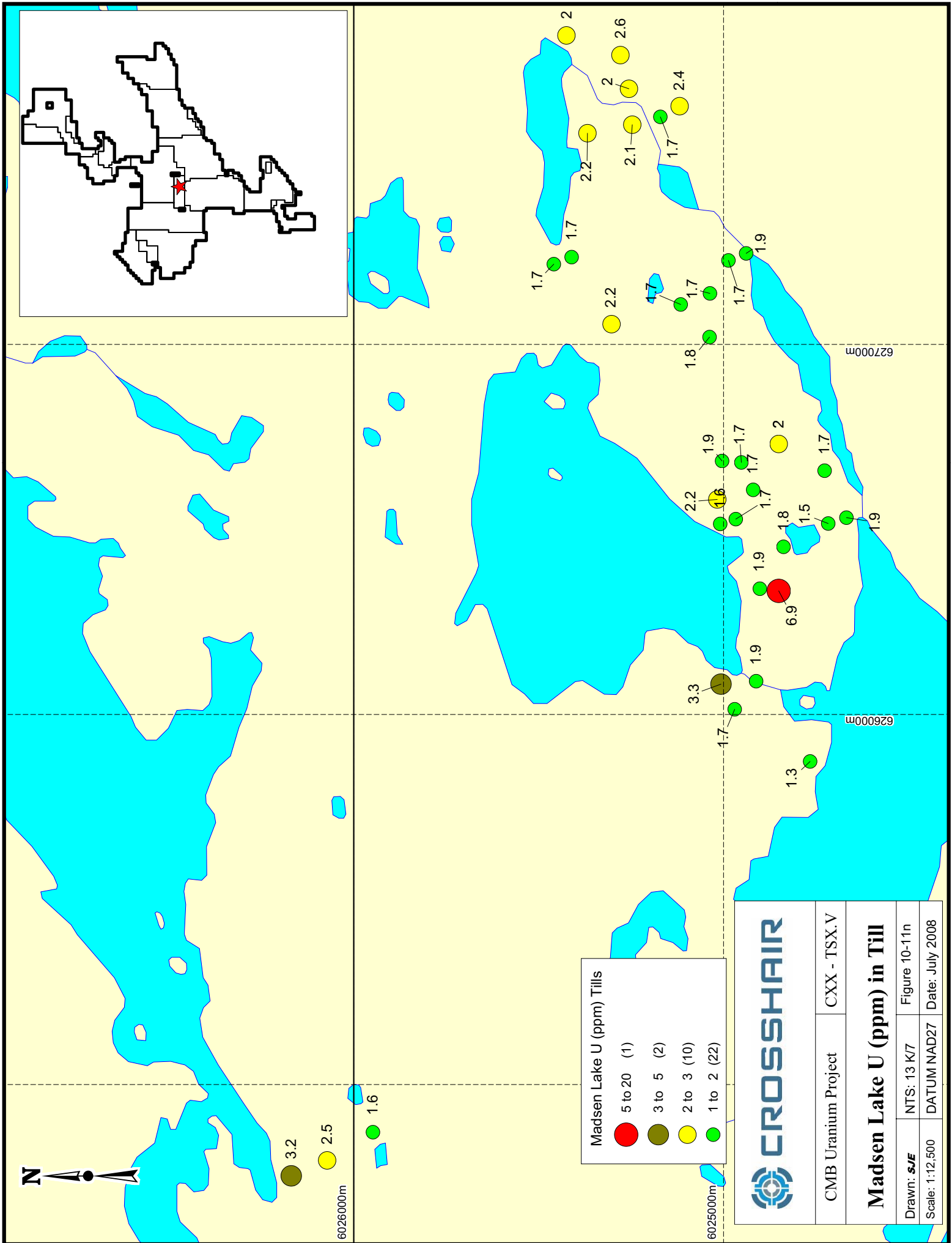


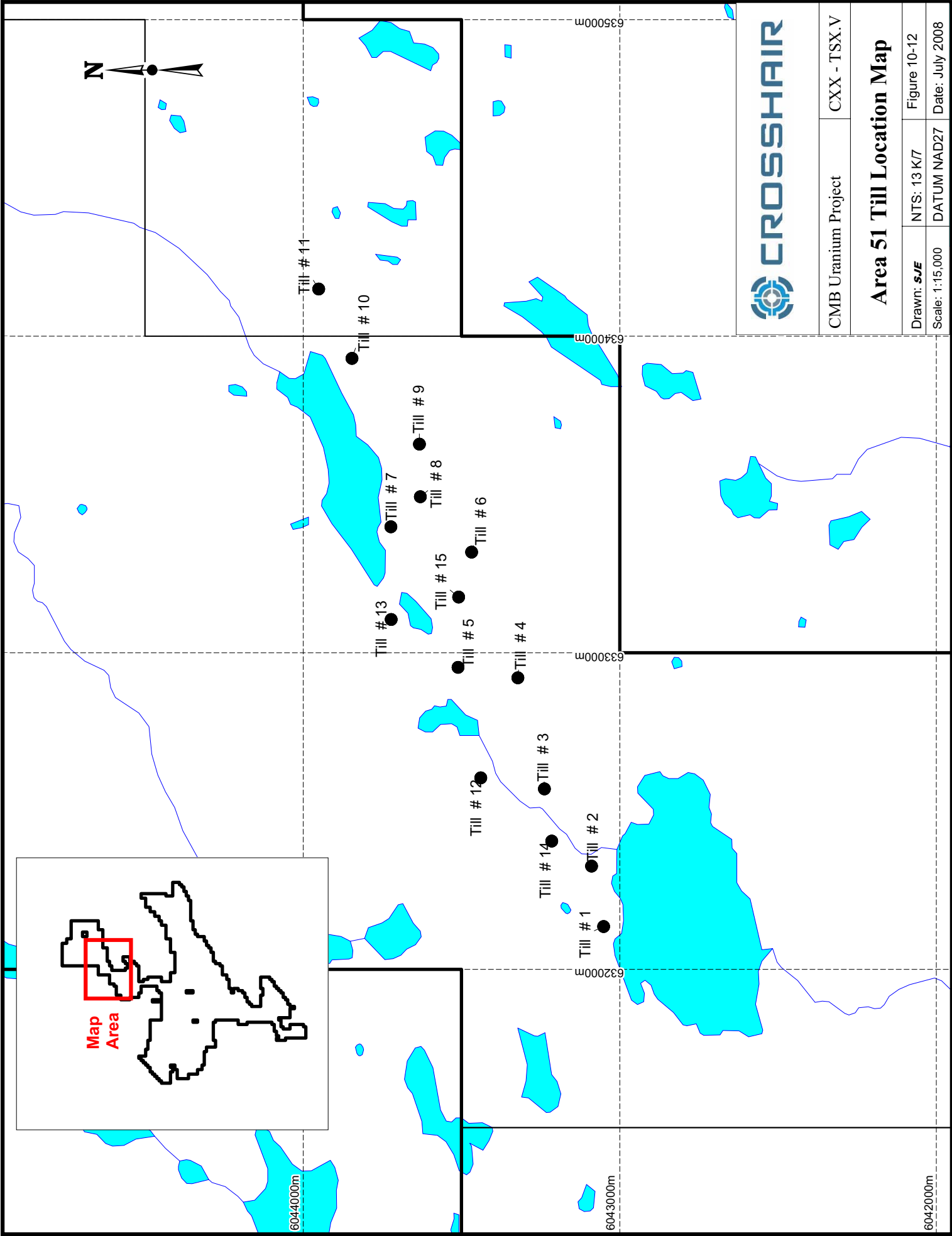
CMB Uranium Project		CXX - TSX.V
Moran Heights Alpha Track Radon Data (tracks/mm2)		
Drawn: <i>SJE</i>	NTS: 13 K/7	Figure 10-11k
Scale: 1:7,500	DATUM NAD27	Date: July 2008











CMB Uranium Project CXX - TSX.V

### Area 51 Till Location Map

Drawn: **SJE** NTS: 13 K/7 Figure 10-12  
Scale: 1:15,000 DATUM NAD27 Date: July 2008

## LAKE BOTTOM SEDIMENT SAMPLING

Early in 2006, reconnaissance lake bottom sediment geochemical sampling was carried out in the Moran Lake and Pocket Knife Lake areas of the property. A total of 16 samples were collected and submitted for analysis.

During 2007, a total of 933 lake sediment samples were collected in 2 separate surveys across the CMB Property. The initial survey was conducted in late winter by snowmobile with limited helicopter support, and 158 samples were collected. The second survey was conducted in September utilizing a Bell 206L helicopter equipped with inflatable pontoons. During this survey a total of 775 samples were collected, primarily on the southern portion of the property.

The samples were sent to Activation Laboratories' preparatory facility in Goose Bay (Eastern Analytical for the winter samples) where they were further dried and sieved to 150 mesh (106 microns). The samples were then transported to Activation Laboratories in Ancaster, Ontario for uranium and multi element analysis.

Uranium values from the lake sediment samples range from below detection limit to 314 ppm. The highest concentration is from a sample collected on the south west corner of licence 11833M. The main "corridor of mineralization" from Armstrong through to the B-Zone, including Area 1 and the C-Zone, exhibits a broad uranium-in-lake-sediment anomaly, as does the Blue Star area (Figure 10-13). Vanadium values range from below detection to 171 ppm, with the highest value returned from a sample collected in the vicinity of Camel Lake.

The central to southern portion of the property hosts many uranium-in-lake-sediment anomalies. Some are defined by 1 or 2 samples but several clusters of anomalies are also evident. As illustrated in Figure 10-13, several significant clusters occur in the area extending from southeast of Pocket Knife Lake to Camel Lake and Madsen Lake, the area north of Dulcie Lake, the area near Lasby Lake, and the area southwest of Boundary

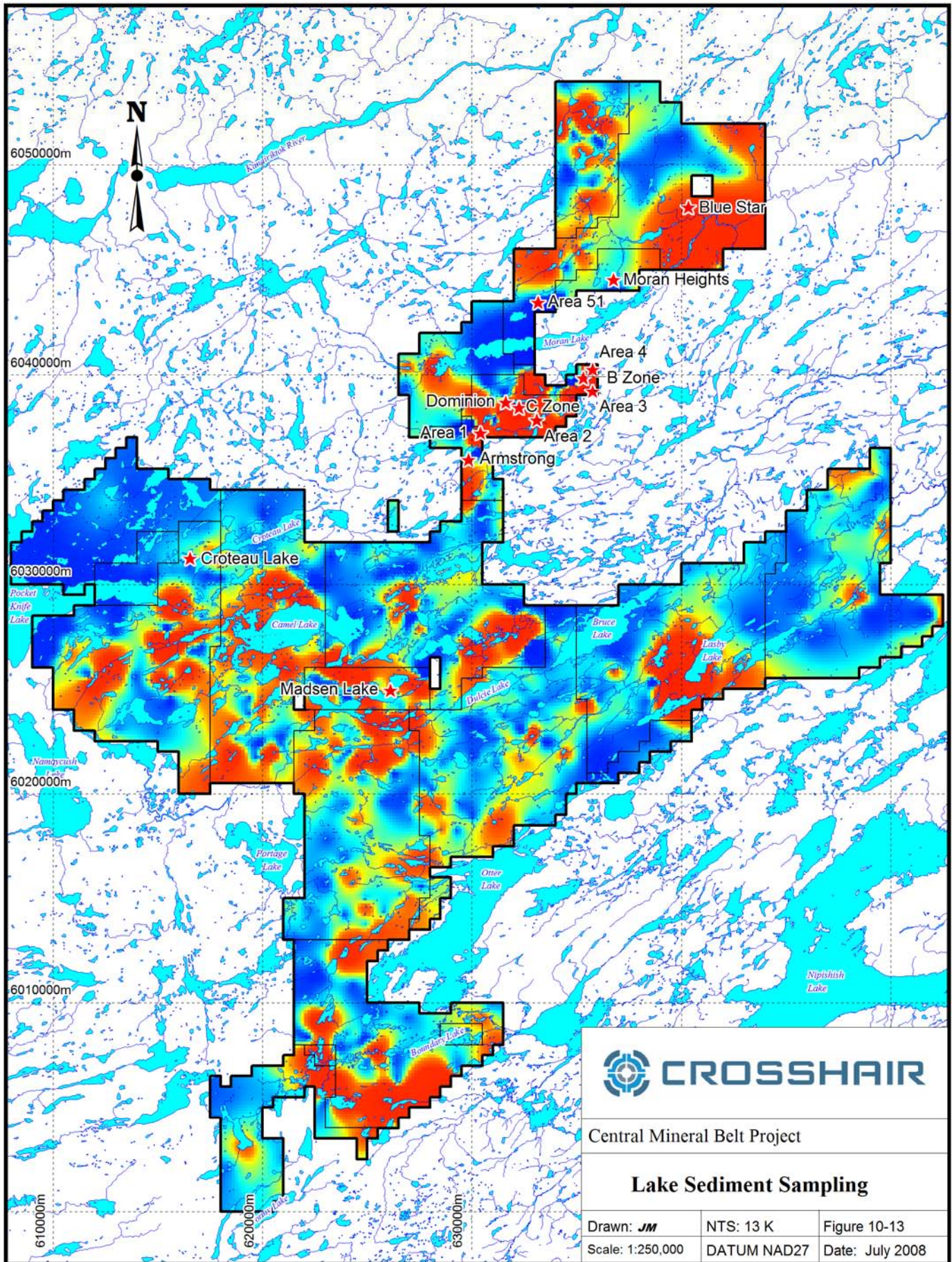
Lake. Several clusters also appear to define a southwest-northeast trending group of anomalies along the western edge of Otter Lake.

Highlights of the lake sediment sampling are presented in Table 10-3.

**TABLE 10-3 SELECTED LAKE SEDIMENT SURVEY DATA**

<b>Sample ID</b>	<b>U (ppm)</b>	<b>V (ppm)</b>	<b>Co (ppm)</b>	<b>Ni (ppm)</b>	<b>Cu (ppm)</b>	<b>Zn (ppm)</b>	<b>Ag (ppm)</b>	<b>Au (ppm)</b>
11	23	37	10.9	51.9	208	149	0.19	-
19	314	10	1.51	9.8	44.7	78.3	121	1.6
64	126	56	6.12	18.8	59.2	141	264	3.1
85	173	9	0.56	2.7	21.8	61.1	60.8	0.7
112	31.3	99	3.31	16	35.8	77.8	96.2	0.4
274	128	9	0.1	1.5	8.5	21.8	22.4	0.41
643	89.6	97	5.42	3.3	11.1	71.3	32.5	0.2
730	12.7	31	2.7	8.4	188	54.2	0.043	-
85A	120	10	0.33	2.3	21.7	47.5	52.1	0.8







# 11 DRILLING

Between January 2006 and April 2008, Crosshair drilled approximately 62,363 m in 347 holes on the CMB Project. The focus of the drilling to date has been the C Zone, where Crosshair has completed approximately 38,568 m of drilling in 182 holes. Crosshair has also drilled 5,664 m in 49 holes at Area 1, and 6,424 m in 32 holes at Armstrong. The remainder of the drilling has been completed in several targets areas on the property, as detailed in the following sections.

In 2006 drilling was carried out by Cartwright Drilling Inc. of Goose Bay, Labrador. From 2007 onward, all drilling has been performed by Lantech Drilling Services Inc. of Dieppe, New Brunswick. All of Crosshair's drilling to date has been with rigs coring BTW size (42mm diameter) core. Drill core from select holes has been transported to the government's core storage facility in Happy Valley – Goose Bay for storage, while all other core is currently stored on site at the Armstrong base camp.

All of Crosshair's drilling programs to date have been helicopter supported and were carried out from the Armstrong base camp with fixed wing service out of Goose Bay. Drilling during winter months is typically carried out between late January and mid April, while summer drilling is typically carried out between mid June and mid November. Casings have been left in the holes drilled at the C Zone, but removed from the other target areas drilled by Crosshair.

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

## 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. Total drilling in 2006 amounted to 21,486 m in 137 holes, and focused on defining mineralization at the C Zone (13,072 metres in 58 holes). Drilling programs were also carried out at Moran Heights, Madsen Lake, B Zone, Area 1, Area 2, and Area 51, as detailed in the following sections.

### C ZONE

The 2006 drill program at the C Zone consisted of 58 holes all of which tested the UC and ten of which also tested the LC (Table 11-1 and Figure 11-1). The program included some of the thickest and highest grade intersections to date from the UC. Examples of some of the better intersections include 30.30 m averaging 0.134%  $U_3O_8$  and 0.158%  $V_2O_5$  from ML-20; and 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.

Drill hole ML-47 intersected the strongest mineralization from the LC during the 2006 drilling program assaying 0.101%  $U_3O_8$  over 4.5m from 312.0 to 316.5m.

Other significant uranium assays are provided in Table 11-2 and 11-3.



**TABLE 11-1 SUMMARY OF 2006 C ZONE DRILLING**

Drill Hole	UTM Easting	UTM Northing	Elevation	Azimuth	Dip	EOH (m)
<b>2006 Drilling: C-Zone</b>						
ML-01	632540	6038477	339.9	320.8	61	104.85
ML-02	632541	6038477	340.0	320.4	45	111.25
ML-03	632595	6038419	331.6	323.4	45	159.41
ML-04	632596	6038418	331.4	321.9	66	168.86
ML-05	632596	6038418	331.4	320.0	78	192.49
ML-06	632596	6038418	331.3	320.0	88	184.10
ML-07	632570	6038366	334.7	316.1	45	195.07
ML-08	632570	6038366	334.7	317.3	56	155.45
ML-09	632534	6038331	340.8	318.8	45	174.96
ML-10	632534	6038331	341.0	314.2	58	160.02
ML-11	632535	6038330	341.2	290.1	79	137.16
ML-12	632457	6038267	343.0	314.3	45	140.21
ML-13	632457	6038267	342.9	309.8	65	153.62
ML-14	632389	6038192	352.5	320.3	47	140.21
ML-15	632390	6038192	352.5	320.9	62	121.92
ML-16	632343	6038119	349.8	321.4	45	149.35
ML-17	632256	6038053	348.3	319.0	46	207.42
ML-18	632036	6038033	351.5	317.3	46	73.15
ML-19	632037	6038033	351.5	317.4	69	67.05
ML-20	632601	6038445	333.3	317.8	52	128.02
ML-21	632601	6038445	333.3	313.7	68	152.40
ML-22	632634	6038407	327.4	317.1	66	207.26
ML-23	632634	6038407	327.0	314.9	75	167.64
ML-24	632633	6038375	329.4	304.3	74	195.07
ML-25	632633	6038375	329.3	284.1	84	204.22
ML-26	632666	6038337	326.4	322.8	75	222.50
ML-27	632577	6038401	334.0	321.2	46	152.40
ML-28	632577	6038401	334.0	317.2	64	164.59
ML-29	632586	6038276	332.8	315.3	59	210.32
ML-30	632586	6038276	332.7	310.5	72	204.92
ML-31	632639	6038222	331.7	317.9	72	268.22
ML-32	632515	6038315	342.6	319.9	45	152.40
ML-33	632515	6038315	342.5	321.6	64	175.26
ML-34	632554	6038270	337.8	315.5	60	502.92
ML-35	632590	6038304	334.6	319.9	65	179.83
ML-36	632590	6038304	334.6	311.6	78	198.12
ML-37	632496	6038298	341.8	318.3	45	182.88
ML-38	632496	6038298	341.7	319.3	67	384.05
ML-39	632608	6038321	333.4	317.8	50	195.07
ML-40	632608	6038321	333.3	318.4	65	353.57
ML-41	632608	6038321	333.2	315.7	78	207.26
ML-42	632552	6038348	337.0	319.8	46	315.44
ML-43	632552	6038348	337.0	321.4	65	185.93
ML-44	632536	6038253	339.5	317.3	65	399.29

ML-45	632643	6038285	330.1	315.0	76	426.72
ML-46	632497	6038258	342.2	318.2	40	155.45
ML-47	632497	6038258	342.2	315.9	64	326.14
ML-48	632649	6038428	326.9	316.1	65	298.70
ML-49	632588	6038234	333.4	320.4	60	411.48
ML-50	632281	6038064	348.5	317.5	69	326.14
ML-51	632563	6038223	338.0	321.7	64	429.77
ML-52	632484	6038238	342.7	311.3	64	347.37
ML-53	632662	6038309	327.4	317.8	61	375.00
ML-54	632631	6038260	330.9	318.8	71	423.67
ML-55	632447	6038212	346.1	316.3	45	344.42
ML-56	632573	6038322	340.1	318.2	60	344.42
ML-57	632295	6038119	353.4	317.1	46	188.98
ML-58	632159	6038008	349.4	315.5	46	167.64
Sub-Total:						13,072.03

**TABLE 11-2 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 11-3 LOWER C ZONE 2006 SIGNIFICANT INTERCEPTS**  
**Crosshair Exploration and Mining Corp. – CMB Project**

Drill Hole	From (m)	To (m)	Length (m)	U <sub>3</sub> O <sub>8</sub> %
<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

During 2006, Crosshair completed a Phase 1 diamond drilling program at Moran Heights consisting of 25 drill holes totalling 2,757 m (Table 11-4 and 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). Uranium mineralization intersected by the Crosshair drilling at Moran Heights e.g. the strong mineralization intersected in ML-MH-13 (0.106% U<sub>3</sub>O<sub>8</sub> over 5.45m from 36.08m to 41.53m) represents the first time uranium mineralization has been intersected by drilling at Moran Heights. A total of 715 drill core samples were analyzed. Table 11-5 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 11-4 SUMMARY OF 2006 MORAN HEIGHTS DRILLING**

Drill Hole	UTM Easting	UTM Northing	Elevation	Azimuth	Dip	EOH (m)
ML-MH-01	636660	6044589	181.0	330.3	46	73.15
ML-MH-02	636660	6044589	181.0	328.3	60	51.82
ML-MH-03	636665	6044581	177.7	324.9	44	91.50
ML-MH-04	636665	6044581	177.7	322.4	60	79.25
ML-MH-05	636665	6044581	177.7	315.7	76	109.73
ML-MH-06	636665	6044581	177.7	301.2	84	121.34
ML-MH-07	636696	6044595	169.4	331.1	43	91.44
ML-MH-08	636696	6044595	169.4	332.3	62	117.35
ML-MH-09	636696	6044595	169.4	323.7	74	155.45
ML-MH-10	636697	6044533	170.8	322.0	61	137.16
ML-MH-11	636657	6044564	180.9	327.8	44	76.20
ML-MH-12	636657	6044564	180.9	324.2	58	100.58

ML-MH-13	636657	6044564	180.9	317.5	74	94.49
ML-MH-14	636657	6044564	180.9	269.4	88	106.68
ML-MH-15	636608	6044511	192.7	344.0	45	82.30
ML-MH-16	636624	6044486	184.7	330.1	44	118.87
ML-MH-17	636626	6044399	178.4	333.6	44	103.63
ML-MH-18	636528	6044299	193.6	331.4	43	91.44
ML-MH-19	636499	6044191	192.3	333.9	45	118.87
ML-MH-20	636504	6044120	181.5	335.9	44	143.26
ML-MH-21	636420	6044035	182.5	345.7	44	73.15
ML-MH-22	636627	6044122	180.3	333.9	42	280.42
ML-MH-23	636660	6044513	179.3	328.9	45	109.73
ML-MH-24	636660	6044513	179.3	328.3	60	91.44
ML-MH-25	636727	6044582	172.2	331.9	45	131.06
					Total:	2,750.31

**TABLE 11-5 MORAN HEIGHTS 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-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

## MADSEN LAKE

In August 2006, Crosshair completed Phase 1 of a diamond drilling program at Madsen Lake – Zone 4 east, totalling 956 m in nine holes (Table 11-6, 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 locally within weakly sheared and altered felsic volcanics. A total of 245 drill core samples were taken. Table 11-7 summarizes significant results above a cut-off grade of 0.03 %  $U_3O_8$ .

**TABLE 11-6 SUMMARY OF 2006 MADSEN LAKE DRILLING**

Drill Hole	UTM Easting	UTM Northing	Elevation	Azimuth	Dip	Length (metres)
ML-MA-01	627337	6025111	347.5	340.0	45	64.02
ML-MA-02	627541	6025261	345.6	156.7	45	146.34
ML-MA-03	627504	6025237	347.1	334.1	45	109.76
ML-MA-04	627594	6025252	342.4	338.8	44	67.06
ML-MA-05	627569	6025196	343.2	344.5	45	109.73
ML-MA-06	627333	6025165	354.5	165.1	48	103.66
ML-MA-07	627504	6025237	347.1	159.1	45	128.05
ML-MA-08	627528	6025294	346.6	161.5	45	173.74
ML-MA-09	627528	6025294	346.6	160.0	45	53.35
Total:						955.70

**TABLE 11-7 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). At the B Zone, 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. A total of 315 drill core samples were taken for assay. The best intersection at the B Zone during the 2006 program is 0.269%  $U_3O_8$  over 7.56m from 34.07m to 41.63m. Other significant assays from the B Zone, at a cut-off grade of 0.03 %  $U_3O_8$ , are summarized in Table 11-4.

In addition, between August 30 and September 2, 2006, three holes totalling 315 m were drilled at Area 3, which is located approximately 600 m southeast of the B Zone. A total of 35 drill core samples were taken for assay, but no significant uranium mineralization was intersected.

**TABLE 11-8 SUMMARY OF 2006 B ZONE DRILLING**

Drill Hole	UTM Easting	UTM Northing	Elevation	Azimuth	Dip	Length (metres)
ML-BZ-01	635475	6039953	285.1	269.1	45	131.06
ML-BZ-02	635530	6039955	285.4	266.8	45	99.85
ML-BZ-03	635421	6039932	279.0	94.6	44	67.32
ML-BZ-04	635476	6039974	284.2	270.7	45	98.19
ML-BZ-05	635492	6040004	285.8	271.1	42	97.54
ML-BZ-06	635425	6039863	281.6	214.5	49	86.31
ML-BZ-07	635425	6039863	281.6	212.6	72	64.85
ML-BZ-08	635472	6039848	279.7	272.4	43	101.53
ML-BZ-09	635426	6039740	258.3	275.2	44	100.58
ML-BZ-10	635487	6039926	286.9	271.6	43	101.63
ML-BZ-11	635594	6039969	280.1	278.9	45	197.83
ML-BZ-12	635476	6039809	278.3	276.6	43	100.34
ML-A3-01	635788	6039342	285.0	262.6	42	78.64
ML-A3-02	635754	6039338	285.0	127.6	45	106.61
ML-A3-03	635822	6039280	295.0	141.8	46	134.71
Total:						1,566.99

**TABLE 11-9 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). Assay highlights 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. The 2006 drilling outlined near-surface mineralization over a strike length of 200 m at Area 1.

**TABLE 11-10 SUMMARY OF 2006 AREA 1 DRILLING**

<b>Drill Hole</b>	<b>UTM Easting</b>	<b>UTM Northing</b>	<b>Elevation</b>	<b>Azimuth</b>	<b>Dip</b>	<b>Length (metres)</b>
ML-A1-01	630726	6037277	345.3	335.6	45	88.39
ML-A1-02	630771	6037237	352.8	335.9	43	109.73
ML-A1-03	630764	6037145	357.1	336.6	45	97.99
ML-A1-04	630301	6037117	340.8	350.1	45	103.66
ML-A1-05	630313	6037069	342.9	347.3	45	103.63
ML-A1-06	630778	6037113	360.7	344.1	46	67.06
ML-A1-07	631657	6037096	338.9	357.5	43	88.39
ML-A1-08	631717	6037375	359.4	0.2	45	140.29
ML-A1-09	630334	6037130	345.1	345.9	45	76.20
ML-A1-10	630743	6037134	356.3	338.6	45	100.61
ML-A1-11	631537	6037123	341.9	22.1	44	103.63
ML-A1-12	631503	6037461	367.8	26.0	46	106.71
ML-A1-13	631616	6037534	372.2	20.4	45	100.58
ML-A1-14	632388	6037591	321.5	342.8	46	134.11
ML-A1-15	631716	6037543	368.9	323.0	45	121.93
					Total:	1,542.91

**TABLE 11-11 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 drilled at Area 2 during 2006 to test the surface showing intersected narrow zones of weak mineralization (Figure 11-5). The best interval returned 0.053%  $U_3O_8$  over 0.2 m.

**TABLE 11-12 SUMMARY OF 2006 AREA 2 DRILLING**

Drill Hole	UTM Easting	UTM Northing	Elevation	Azimuth	Dip	Length (metres)
ML-A2-01	633107	6037827	283.2	355.3	44	111.15
ML-A2-02	632963	6037833	317.4	3.7	45	100.58
					Total:	211.73

## 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. The mineralization is still open along strike and to depth. Results include up to 24.66 m averaging 0.012%  $U_3O_8$  from hole ML-A51-3, with several other holes returning similar grades over thicknesses varying from 2.47 m to 14.43 m. Other metals of interest intersected include 2.08% Zn over 2.15 m in ML-A51-01. All thicknesses are near true width based on relationships observed in the core including lithological contacts. Highlights of composite assays are shown in Table 11-14.

**TABLE 11-13 SUMMARY OF 2006 AREA 51 DRILLING**

<b>Drill Hole</b>	<b>UTM Easting</b>	<b>UTM Northing</b>	<b>Elevation</b>	<b>Azimuth</b>	<b>Dip</b>	<b>Length (metres)</b>
ML-A51-01	632844	6043413	270.0	340.8	45	71.93
ML-A51-02	632946	6043429	270.0	350.0	45	106.68
ML-A51-03	632946	6043429	270.0	351.4	63	109.73
ML-A51-04	633042	6043459	270.0	334.9	44	115.82
ML-A51-05	633126	6043497	270.0	342.6	43	91.44
ML-A51-06	633185	6043492	270.0	339.0	46	118.87
ML-A51-07	633185	6043492	270.0	337.5	65	100.58
ML-A51-08	633285	6043491	270.0	344.2	45	93.77
ML-A51-09	633368	6043551	270.0	0.5	45	115.82
ML-A51-10	632676	6043271	270.0	338.0	45	82.30
ML-A51-11	632956	6043361	270.0	343.8	55	205.79
ML-A51-12	633211	6043417	270.0	337.8	55	128.02
ML-A51-13	632421	6043112	270.0	341.3	45	97.54
<b>Total:</b>						<b>1,438.29</b>

**TABLE 11-14 AREA 51 DRILLING SIGNIFICANT ASSAYS****Crosshair Exploration and Mining Corp. – CMB Project**

<b>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>V<sub>2</sub>O<sub>5</sub> (%)</b>	<b>Ag (g/t)</b>	<b>Cu (%)</b>
<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> including	31.20	44.18	12.98	0.012	0.021	0.2	0.001
	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

## 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. Total drilling in the winter 2007 program amounted to 9,410 m in 34 holes. Drilling again focused on expanding and better defining the uranium mineralization at the C Zone, but also included limited programs at Area 1, the Armstrong Showing, and the Dominion Showing. Details are provided in the following sections.

### C ZONE

The 2007 winter drill program on the C Zone consisted of 8,211m in 26 holes (Figure 11-1, Table 11-15). Fifteen of the holes tested both the UC 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 both 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 11-16 and 11-17. 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 11-15 SUMMARY OF 2007 WINTER C ZONE DRILLING**

<b>Drill Hole</b>	<b>UTM Easting</b>	<b>UTM Northing</b>	<b>Elevation</b>	<b>Azimuth</b>	<b>Dip</b>	<b>EOH (m)</b>
<b>2007 Winter Drilling: C-Zone</b>						
ML-59	632362	6038164	351.8	319.4	45	395.00
ML-60	632463	6038204	346.5	316.8	49	418.50
ML-62	632413	6038109	353.8	317.5	46	242.00
ML-61	632464	6038204	346.3	309.0	79	450.10
ML-63	632413	6038108	353.9	319.0	70	463.00
ML-64	631955	6038490	291.9	317.2	64	195.00
ML-66	632516	6038239	340.8	315.6	64	245.00
ML-65	631826	6038500	288.4	311.5	64	264.00
ML-68	632529	6038189	343.3	322.9	50	218.00
ML-67	632403	6038628	289.1	323.0	65	168.00
ML-70	632529	6038189	343.3	316.5	80	464.00
ML-69	632091	6038324	364.7	318.9	65	285.00
ML-71	632395	6038367	347.7	325.5	63	276.00
ML-72	632252	6038432	358.4	324.5	64	252.00
ML-73	632472	6038122	351.0	315.1	76	464.02
ML-74	632345	6038027	350.2	323.2	70	484.34
ML-75	632650	6038428	327.1	317.6	45	308.00
ML-76	632685	6038393	324.4	316.0	69	341.00
ML-77	632357	6038136	352.6	316.6	59	377.00
ML-78	632265	6038227	356.2	315.0	44	353.00
ML-79	632286	6038092	348.9	317.0	62	395.00
ML-80	632179	6038204	347.4	317.0	67	341.00
ML-81	632184	6038126	348.8	317.0	45	80.05
ML-82	632669	6038253	332.0	310.4	74	464.50
ML-83	632451	6038365	348.4	313.2	45	125.00
ML-84	632071	6037997	354.0	316.9	54	137.00
<b>Total:</b>						<b>8,205.51</b>

**TABLE 11-16 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 11-17 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 at what is referred to as the Trout Pond Zone, where holes ML-A1-04, -05 and -09 intersected strong uranium mineralization during the 2006 summer program. 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 also 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 11-18.

**TABLE 11-18 AREA 1 2007 SIGNIFICANT INERCEPTS****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-A1-16	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.

## **2007 SUMMER PROGRAM**

Drilling during the 2007 summer program was conducted by Lantech Drilling Services Inc. of Dieppe, New Brunswick using two LDS-300 drill rigs and an LDS-1000 drill rig that was mobilized to site in mid July. All three rigs cored BTW size (42 mm diameter) core. Casings were left in drill holes at the C Zone but were removed from all other holes. Total drilling amounted to 19,384 m in 121 holes, including 15,776 metres in 89 holes at the C Zone, 2,822 metres in 26 holes at Area 1, and 785 metres in 6 holes at Croteau Lake. Details are provided in the following sections.

### **C ZONE**

The 2007 summer drill program on the C Zone consisted of 15,776m in 89 holes (Figure 11-1, Table 11-19). Drilling conducted during the 2007 summer program returned the best intercepts to date from the UC Zone and successfully expanded the mineralization by 300 metres along strike to the southwest, and 100 metres along strike to the northeast, as well as to depth. Upon the completion of the 2007 drill campaign, the C Zone had been intersected along a strike length of over 1300 metres, remaining open along strike in both directions and down dip. Highlights from the 2007 drilling program are provided in Tables 11-20 and 11-21.



**TABLE 11-19 SUMMARY OF 2007 SUMMER C ZONE DRILLING**

Drill Hole	UTM Easting	UTM Northing	Elevation	Azimuth	Dip	EOH (m)
<b>2007 Summer Drilling: C-Zone</b>						
ML-85	632670	6038444	326.2	319.1	46	182.69
ML-86	632424	6038154	354.1	318.8	56	385.00
ML-87	632704	6038406	321.8	318.9	46	200.00
ML-88	632704	6038406	321.7	316.4	63	323.00
ML-89	632566	6038480	342.2	315.6	43	113.00
ML-90A	632567	6038479	342.2	318.8	70	58.00
ML-90	632567	6038479	342.2	319.2	70	119.00
ML-91	632621	6038347	333.0	316.8	49	203.00
ML-92	632621	6038347	332.9	314.5	68	192.00
ML-93	632743	6038412	318.0	315.2	44	239.00
ML-94	632744	6038412	318.0	314.2	57	255.00
ML-95	632427	6038264	346.1	317.0	45	138.00
ML-96	632428	6038263	346.2	317.0	80	140.00
ML-97	632776	6038403	316.9	318.8	45	359.00
ML-98	632776	6038403	316.6	318.8	55	329.49
ML-99	632392	6038234	351.1	311.4	45	137.05
ML-100	632392	6038234	351.1	318.8	70	131.00
ML-101	632361	6038193	352.6	320.0	45	146.00
ML-102	632704	6038407	321.7	325.4	50	180.50
ML-103	632634	6038406	328.1	337.3	50	170.00
ML-104	632651	6038427	327.8	333.5	62	153.23
ML-105	632036	6037998	358.3	317.6	45	134.00
ML-106	632036	6037998	358.2	316.1	65	116.00
ML-107	632737	6038385	319.7	317.2	68	353.00
ML-108	632036	6037998	358.2	312.9	78	158.45
ML-109	632061	6038073	348.9	322.9	45	95.00
ML-110	632062	6038072	348.9	321.4	75	53.00
ML-111	632187	6038105	349.6	320.7	45	89.00
ML-112	632188	6038104	349.6	322.3	69	71.00
ML-113	632739	6038441	320.2	321.3	46	319.00
ML-114	632447	6038069	351.6	323.0	70	455.00
ML-115	632703	6038218	333.1	318.2	69	180.68
ML-116	632703	6038218	333.1	318.2	78	533.00
ML-117	632494	6038317	341.2	322.9	44	173.00
ML-118	632494	6038316	341.5	321.5	64	170.00
ML-119	632495	6038316	341.3	313.0	85	167.00
ML-120	632740	6038249	328.0	313.5	55	282.50
ML-121	632740	6038249	343.0	311.5	69	251.00
ML-122	632532	6038313	345.1	320.5	45	176.00
ML-123	632533	6038312	345.2	318.2	66	167.00
ML-124	632533	6038312	345.1	311.6	84	185.00
ML-125	632562	6038318	343.1	316.6	49	180.00
ML-126	632562	6038317	343.0	314.2	61	179.00
ML-127	632562	6038317	342.9	315.2	77	180.00

ML-128	632017	6037977	362.3	320.1	44	110.00
ML-129	632018	6037977	362.2	317.2	65	137.00
ML-130	632692	6038461	325.5	319.1	44	311.00
ML-131	632693	6038460	325.4	319.1	60	160.00
ML-132	632412	6038373	348.4	317.0	43	80.00
ML-133	632412	6038373	348.3	311.8	66	80.00
ML-134	632412	6038373	348.3	321.8	80	89.00
ML-135	631991	6037972	364.7	318.0	44	107.00
ML-136	631991	6037972	364.7	315.2	66	110.00
ML-137	631991	6037972	364.6	315.7	78	149.00
ML-138	632381	6038368	347.3	314.1	44	82.00
ML-139	632382	6038367	347.6	310.5	67	82.00
ML-140	632382	6038366	347.7	294.2	85	80.00
ML-141	632737	6038486	321.0	309.8	60	192.00
ML-142	632737	6038486	320.9	311.9	78	219.00
ML-143	632041	6037954	365.5	319.9	65	128.00
ML-144	632666	6038527	330.2	313.4	46	257.00
ML-145	632667	6038526	330.1	312.1	68	151.10
ML-146	631971	6037954	367.6	321.7	46	98.00
ML-147	631971	6037953	367.6	320.7	64	131.00
ML-148	631971	6037953	367.6	321.9	77	137.00
ML-149	632737	6038486	321.1	312.7	48	329.00
ML-150	632681	6038544	329.7	322.1	43	140.00
ML-151	631992	6037928	372.7	318.2	67	152.00
ML-152	631992	6037928	372.7	319.4	81	185.00
ML-153	632772	6038523	321.5	318.6	44	317.00
ML-154	632772	6038523	321.5	312.4	78	335.00
ML-155	631933	6037917	374.1	319.8	42	93.00
ML-156	631934	6037916	374.3	316.5	65	141.00
ML-157	631934	6037916	374.3	316.7	77	140.00
ML-158	631956	6037932	371.5	320.7	42	134.00
ML-159	631957	6037932	371.5	322.8	78	146.00
ML-160	631915	6037902	368.2	319.4	45	81.50
ML-161	631915	6037902	368.2	320.5	78	125.00
ML-162	631971	6037887	373.0	317.8	66	175.00
ML-163	631897	6037885	369.9	321.1	46	101.00
ML-164	631897	6037885	369.9	321.5	77	131.00
ML-165	632772	6038523	321.5	317.4	60	303.00
ML-166	632863	6038573	317.0	318.9	44	335.00
ML-167	632863	6038573	317.0	318.0	67	59.00
ML-168	631862	6037850	378.8	316.3	45	65.00
ML-169	631862	6037850	378.8	317.0	78	173.00
ML-170	631834	6037806	375.0	313.6	46	68.00
ML-171	631834	6037806	375.0	317.2	74	119.00
ML-172	631804	6037769	366.9	319.5	43	83.00
ML-173	631804	6037769	366.9	314.1	74	134.00
Total:						15,776.19

**TABLE 11-20 UPPER C ZONE 2007 SUMMER  
SIGNIFICANT INTERCEPTS**  
Crosshair Exploration and Mining Corp. – CMB Project

Drill Hole	From (m)	To (m)	Length (m)	U <sub>3</sub> O <sub>8</sub> %
<b>ML-87</b>	79.68	151.02	71.34	0.074
	122.30	127.60	5.30	0.780
<b>ML-88</b>	94.53	118.60	24.07	0.033
	95.98	102.26	6.28	0.105
<b>ML-89</b>	83.87	95.79	11.92	0.055
<b>ML-90</b>	39.00	112.00	73.00	0.057
	50.75	59.07	8.32	0.468
<b>ML-92</b>	123.22	145.55	22.33	0.033
<b>ML-93</b>	144.10	152.40	8.30	0.057
<b>ML-94</b>	126.00	135.30	9.30	0.030
<b>ML-96</b>	33.52	49.30	15.78	0.102
<b>ML-99</b>	23.82	65.92	42.10	0.030
	58.00	61.92	3.92	0.184
<b>ML-100</b>	13.80	90.20	76.40	0.030
	28.17	34.53	6.36	0.101
	43.15	51.68	8.53	0.101
<b>ML-102</b>	69.00	146.95	77.95	0.031
	135.20	140.45	5.25	0.362
<b>ML-103</b>	104.35	110.85	6.50	0.102
<b>ML-104</b>	98.00	100.37	2.37	0.175
<b>ML-106</b>	58.80	109.20	50.40	0.021
<b>ML-109</b>	8.20	18.65	10.45	0.140
<b>ML-110</b>	25.10	30.80	5.70	0.052
<b>ML-112</b>	53.05	60.40	7.35	0.051
<b>ML-115</b>	158.00	167.00	9.00	0.052
<b>ML-117</b>	53.50	65.97	12.47	0.030
<b>ML-118</b>	57.95	76.13	18.18	0.030
<b>ML-119</b>	66.50	95.10	28.60	0.030
<b>ML-120</b>	179.50	190.65	11.15	0.030

<b>ML-122</b>	46.00	147.50	101.50	0.047
	70.85	93.25	22.40	0.202
	90.85	93.25	2.40	1.764
<b>ML-123</b>	74.50	86.00	11.50	0.050
<b>ML-124</b>	80.00	94.00	14.00	0.057
<b>ML-125</b>	82.00	98.50	16.50	0.030
<b>ML-126</b>	61.50	113.50	52.00	0.047
<b>ML-127</b>	92.50	109.00	16.50	0.052
<b>ML-132</b>	23.50	31.00	7.50	0.030
	50.00	54.50	4.50	0.104
<b>ML-134</b>	54.40	62.40	8.00	0.051
<b>ML-135</b>	30.00	35.00	5.00	0.104
<b>ML-136</b>	49.50	56.00	6.50	0.033
<b>ML-138</b>	4.00	29.00	25.00	0.031
	4.00	8.00	4.00	0.106
<b>ML-139</b>	4.00	39.90	35.90	0.050
	5.50	10.07	4.57	0.208
<b>ML-140</b>	5.30	26.00	20.70	0.100
	5.80	10.00	4.20	0.310
<b>ML-141</b>	106.73	145.00	38.27	0.050
	118.00	123.09	5.09	0.347
<b>ML-145</b>	16.60	24.10	7.50	0.045
<b>ML-147</b>	11.10	19.25	8.15	0.030
<b>ML-156</b>	63.00	71.50	8.50	0.060
<b>ML-157</b>	98.21	112.00	13.79	0.188
	98.21	104.00	5.79	0.424
<b>ML-160</b>	40.40	51.65	11.25	0.050
	45.80	50.10	4.30	0.101
<b>ML-161</b>	96.05	105.90	9.85	0.040
<b>ML-163</b>	38.70	50.55	11.85	0.033
<b>ML-164</b>	89.50	103.20	13.70	0.029
<b>ML-170</b>	49.55	53.55	4.00	0.104

**TABLE 11-21 LOWER C ZONE 2007 SUMMER  
SIGNIFICANT INTERCEPTS**  
Crosshair Exploration and Mining Corp. – CMB Project

Drill Hole	From (m)	To (m)	Length (m)	U <sub>3</sub> O <sub>8</sub> %
<b>ML-97</b>	326.00	331.50	5.50	0.051
<b>ML-98</b>	306.75	312.70	5.95	0.103
<b>ML-107</b>	331.80	333.80	2.00	0.080
<b>ML-113</b>	290.50	296.50	6.00	0.061
<b>ML-149</b>	271.50	298.00	26.50	0.032
	276.50	281.00	4.50	0.108
<b>ML-153</b>	289.00	300.20	11.20	0.030

## AREA 1

Crosshair completed 2,822 m of diamond drilling in 26 holes at Area 1 between mid August and late September 2007 (Table, 11-22, Figure 11-5). The program successfully followed up on the strong uranium mineralization intersected in 2006 and extended the strike length of the Trout Pond mineralized zone to 250 m. Assay highlights from the 2007 drilling are provided in Table 11-23.

**TABLE 11-22 SUMMARY OF 2007 SUMMER AREA 1 DRILLING**

Drill Hole	UTM Easting	UTM Northing	Elevation	Azimuth	Dip	EOH (m)
<b>2007 Summer Drilling: Area 1</b>						
ML-A1-20	630261	6037072	343.4	334.2	44	101.00
ML-A1-21	630261	6037072	343.4	336.3	65	113.00
ML-A1-22	630261	6037072	343.4	343.3	80	109.00
ML-A1-23	630290	6037073	344.0	343.2	46	104.00
ML-A1-24	630290	6037073	344.0	345.0	65	79.25
ML-A1-25	630217	6037046	346.2	348.6	45	110.00
ML-A1-26	630217	6037046	346.2	351.7	65	125.00
ML-A1-27	630306	6037040	344.5	350.4	48	127.00
ML-A1-28	630306	6037040	344.5	351.3	63	115.00
ML-A1-29	630285	6037031	349.1	335.9	57	95.00
ML-A1-30	630387	6037156	348.4	343.7	45	116.00
ML-A1-31	630387	6037156	348.4	344.6	64	80.00

ML-A1-32	630387	6037156	348.4	344.6	84	95.00
ML-A1-33	630421	6037125	347.0	337.7	65	116.00
ML-A1-34	630421	6037125	347.0	349.6	84	159.00
ML-A1-35	630424	6037184	349.5	333.2	45	89.00
ML-A1-36	630424	6037184	349.5	333.6	65	77.00
ML-A1-37	630424	6037184	349.5	337.2	85	77.00
ML-A1-38	630462	6037157	351.8	334.4	44	92.00
ML-A1-39	630462	6037157	351.8	336.3	65	102.00
ML-A1-40	630351	6037072	344.3	343.4	55	113.00
ML-A1-41	630351	6037072	344.3	340.6	69	107.00
ML-A1-42	630351	6037072	344.3	347.8	77	118.00
ML-A1-43	630329	6037083	344.8	345.7	49	101.00
ML-A1-44	630329	6037083	344.8	344.1	69	144.00
ML-A1-45	630329	6037083	344.8	343.7	82	158.00
					Total:	2,822.25

**TABLE 11-23 AREA 1 2007 SUMMER  
SIGNIFICANT INTERCEPTS**  
**Crosshair Exploration and Mining Corp. – CMB Project**

Drill Hole	From (m)	To (m)	Length (m)	U <sub>3</sub> O <sub>8</sub> %
ML-A1-21	15.00	43.00	28.00	0.050
	31.50	44.00	12.50	0.103
ML-A1-22	30.00	37.50	7.50	0.059
ML-A1-24	44.50	50.00	5.50	0.031
ML-A1-27	83.00	98.60	15.60	0.050
ML-A1-31	59.00	67.00	8.00	0.050
ML-A1-36	43.50	45.50	2.00	0.229
ML-A1-38	70.00	79.00	9.00	0.051
ML-A1-41	78.50	84.00	5.50	0.032
ML-A1-44	70.60	88.00	17.40	0.040

## CROTEAU LAKE

From late July to mid August 2007, Crosshair completed a Phase 1 diamond drilling program at Croteau Lake totalling 785 metres in six holes (Figure 11-8, Table 11-24). The drilling tested several radiometric anomalies, some of which are coincident with local float samples grading up to 2.087%  $U_3O_8$ . The radiometric anomalies occur along the Aphebian-Helikian unconformity between fine grained sedimentary rocks of the Warren Creek Formation (Moran Lake Group) to the north and unconformably overlying sandstones and conglomerates of the Bruce River Group to the south. The 2007 drilling program at Croteau Lake, however, did not intersect favourable host rocks or significant uranium mineralization, and further work to better define drill targets is required.

**TABLE 11-24 SUMMARY OF 2007 SUMMER CROTEAU LAKE DRILLING**

Drill Hole	UTM Easting	UTM Northing	Elevation	Azimuth	Dip	EOH (m)
<b>2007 Summer Drilling: Croteau Lake</b>						
CL-01	616176	6031134	273.5	302.4	46	108.00
CL-02	616228	6031135	264.1	300.0	45	130.40
CL-03	616032	6030930	271.8	300.0	45	96.00
CL-04	616032	6030930	271.8	306.7	64	185.00
CL-05	616032	6031125	276.0	284.6	44	147.00
CL-06	616138	6031037	275.0	288.3	44	119.00
Total:						785.40

## 2008 WINTER PROGRAM

Drilling during the 2008 winter program was conducted by Lantech Drilling Services Inc. of Dieppe, New Brunswick using two LDS-300 drill rigs and an LDS-1000 rig, all coring BTW size (42 mm diameter) core. Casings were left in drill holes at the C Zone but were removed from all other holes. Total drilling in the winter 2008 program amounted to 12,043 m in 55 holes, the focus being on defining the newly discovered zone of mineralization at Armstrong (6,210 metres in 30 holes). Additional drilling was also carried out at the C Zone (1,509 metres in 9 holes), Area 1 (760 metres in 4 holes), and the B Zone (1,004 metres in 9 holes). Three holes totalling 2,560 metres also tested deeper targets along the Armstrong – C Zone – B Zone corridor that were identified from the gravity, IP and EM survey data. Details are provided in the following sections.

## C ZONE

The 2008 winter drill program on the C Zone consisted of 1,509 m in nine holes (Figure 11-1). Five of the holes (ML-174 to ML-178) tested the main portion of the UC Zone while the remaining four holes tested the southwest extension of the C Zone mineralization. Significant uranium intercepts from the 2008 winter drilling are highlighted in Table 11-26. In addition to the uranium intercepts, ML-181 also returned elevated vanadium averaging 0.206%  $V_2O_5$  over 42.50 metres between 57.50 – 100.00m.

**TABLE 11-25 SUMMARY OF 2008 WINTER C ZONE DRILLING**

Drill Hole	UTM Easting	UTM Northing	Elevation	Azimuth	Dip	EOH (m)
<b>2008 Winter Drilling: C Zone</b>						
ML-174	632446	6038397	343.6	317.3	46	89.00
ML-175	632446	6038397	341.9	317.8	67	89.00
ML-176	632446	6038397	341.9	308.5	86	110.00
ML-177	632110	6038080	341.9	318.2	43	75.00
ML-178	632110	6038080	341.9	313.9	76	88.00
ML-179	632018	6037830	369.0	317.0	62	260.00
ML-180	631982	6037795	370.0	318.3	59	260.00
ML-181	631945	6037762	370.0	317.8	60	260.00
ML-182	631945	6037762		317.0	68	278.00
Total:						1,509.00

**TABLE 11-26 C ZONE 2008 WINTER  
SIGNIFICANT INTERCEPTS**  
Crosshair Exploration and Mining Corp. – CMB Project

Drill Hole	From (m)	To (m)	Length (m)	U <sub>3</sub> O <sub>8</sub> %
<b>ML-174</b>	21.75	27.61	5.86	0.051
<b>ML-176</b>	79.18	83.40	4.22	0.060
<b>ML-181</b>	214.65	217.75	3.10	0.198
<b>including</b>	216.00	216.75	0.75	0.717



## ARMSTRONG

Drilling on the CMB Project during the winter of 2008 focused on testing a newly discovered zone of mineralization at Armstrong, which is located approximately 4.5 km southwest of the C Zone. Crosshair completed 6,210 metres in 30 holes at Armstrong, intercepting the mineralized zone along a 300m strike length (Table 11-27, Figure 11-7). The newly discovered zone at Armstrong is associated with a 1 km long, northeast trending strong EM conductor identified from the 2007 MaxMin survey.

**TABLE 11-27 SUMMARY OF 2008 WINTER ARMSTRONG DRILLING**

Drill Hole	UTM Easting	UTM Northing	Elevation	Azimuth	Dip	EOH (m)
<b>2008 Winter Drilling: Armstrong</b>						
ML-AR-03	629792	6035925	362	005	46	90
ML-AR-04	629819	6035966	349	304	46	324
ML-AR-05	629793	6035992	340	184	43	78
ML-AR-06	629651	6035642	354	342	44	87
ML-AR-07	629664	6035651	353	333	43	82
ML-AR-08	629712	6036042	344	308	44	156
ML-AR-09	629712	6036042	344	308	62	174
ML-AR-10	629737	6036078	344	314	45	138
ML-AR-11	629737	6036078	344	315	66	150
ML-AR-12	629737	6036078	344	322	82	218
ML-AR-13	629680	6036003	347	307	45	163
ML-AR-14	629680	6036003	347	313	65	201
ML-AR-15	629680	6036003	347	316	79	234
ML-AR-16	629650	6035996	347	299	44	183
ML-AR-17	629650	6035996	347	295	61	243
ML-AR-18	629650	6035996	347	290	71	291
ML-AR-19	629650	6035996	347	295	82	336
ML-AR-20	629782	6036113	353	322	44	140
ML-AR-21	629782	6036113	353	320	70	227
ML-AR-22	629782	6036113	353	317	79	200
ML-AR-23	629782	6036113	353	003	45	124
ML-AR-24	629782	6036113	353	026	74	217
ML-AR-25	629821	6035958	349	304	59	330
ML-AR-26	629793	6035992	353	345	60	281
ML-AR-27	629793	6035992	353	346	69	363
ML-AR-28	629793	6035992	353	345	44	272
ML-AR-29	629871	6036083	353	324	69	257
ML-AR-30	629871	6036083	353	327	78	320
ML-AR-31	629871	6036141	355	329	43	110
ML-AR-32	629857	6036045	355	313	54	220
					Total:	6,210

The strongest uranium mineralization intersected from the 2008 winter drilling at Armstrong predominantly occurs within deformed and altered graphitic argillite units near the contact with underlying mafic volcanic rocks (ML-AR-04, 09). The more strongly mineralized intervals are associated with zones of moderate to strong hematite and/or carbonate alteration. In some the holes, most notably ML-26, the most intense uranium mineralization is associated with intervals of hematized and brecciated jasperoidal chert, similar to some of the better mineralized intervals at the C Zone.

In addition to the uranium mineralization at Armstrong (highlights of significant intercepts are summarized in Table 11-28), elevated vanadium, copper and silver values were also returned locally from the drill core assays. For example, drill hole ML-AR-16 returned 12.50 m (99.50 m to 112.00 m) of 0.26% Cu and 9.3 g/t Ag, while ML-AR-27 returned 3.55 m (193.60 m to 197.15 m) of 0.45% Cu and 15.2 g/t Ag.

**TABLE 11-28 ARMSTRONG 2008 WINTER  
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-AR-04</b>	270.00	277.15	7.15	0.061
<b>ML-AR-09</b>	156.00	161.40	5.40	0.066
<b>ML-AR-14</b>	96.45	99.80	3.35	0.126
	176.30	178.50	2.20	0.104
<b>ML-AR-21</b>	108.00	108.48	0.48	0.265
<b>ML-AR-26</b>	180.40	189.85	9.45	0.196
	182.45	186.10	3.65	0.500
	183.97	185.60	1.63	1.096
<b>ML-AR-27</b>	193.60	197.15	3.55	0.136
	193.60	195.50	1.90	0.252
<b>ML-AR-29</b>	32.35	36.43	4.08	0.104
<b>ML-AR-30</b>	37.09	38.70	1.61	0.101

## AREA 1

Crosshair carried out 761 metres of drilling in four holes at Area 1 during the 2008 winter program (Figure 11-5, Table 11-29). Three of the holes (ML-A1-46 to 48) were drilled to follow-up on mineralization intersected east-northeast of the main “Trout Pond” zone at Area 1, while drill hole ML-A1-49 tested the strike extension of mineralization grading 0.078%  $U_3O_8$  over 11.02m from drill hole ML-A1-03.

In addition to the uranium intercepts highlighted in Table 11-30, drill hole ML-A1-48 also returned several zones of elevated vanadium and/or copper, including 0.26%  $V_2O_5$  and 0.99% Cu over 0.50m (27.50m to 28.00m), 0.23%  $V_2O_5$  and 0.15% Cu over 5.00m (47.00m to 52.00m), 0.22%  $V_2O_5$  and 0.22% Cu over 4.50m (75.00m to 79.50m), and 0.31%  $V_2O_5$  and 0.29% Cu over 1.50m (150.50m to 152.00m).

**TABLE 11-29 SUMMARY OF 2008 WINTER AREA 1 DRILLING**

Drill Hole	UTM Easting	UTM Northing	Elevation	Azimuth	Dip	EOH (m)
<b>2008 Winter Drilling: Area 1</b>						
ML-A1-46	631535	6037508	379	333	44	151
ML-A1-47	631577	6037521	373	336	43	158
ML-A1-48	631686	6037526	371	337	76	305
ML-A1-49	630790	6037145	361	338	45	147
Total:						761

**TABLE 11-30 AREA 1 2008 WINTER  
SIGNIFICANT INTERCEPTS**  
Crosshair Exploration and Mining Corp. – CMB Project

Drill Hole	From (m)	To (m)	Length (m)	$U_3O_8$ %
<b>ML-A1-46</b>	10.00	12.20	2.20	0.055
	28.00	41.50	13.50	0.013
<b>ML-A1-48</b>	47.00	52.00	5.00	0.033
	48.50	50.00	1.50	0.101
<b>ML-A1-49</b>	82.91	84.79	1.88	0.032

## B ZONE

From late January to February 2008, Crosshair completed 1004 metres of diamond drilling in nine holes at the B Zone (Figure 11-4, Table 11-31). The Phase 2 program was designed to mainly follow up on results of Crosshair's Phase 1 program that was carried out in 2006, as well as historic drilling carried out by Shell Canada Resources in 1977.

As shown in Table 11-32, the best intercepts were returned from holes ML-BZ-13 to ML-BZ-16, which tested the better mineralization intersected by previous drilling in the main portion of the zone. Drill hole ML-BZ-15 also returned elevated copper and silver values grading up to 0.239% Cu and 14.6 g/t Ag over 3.41m (86.00m to 89.41m).

**TABLE 11-31 SUMMARY OF 2008 WINTER B ZONE DRILLING**

Drill Hole	UTM Easting	UTM Northing	Elevation	Azimuth	Dip	EOH (m)
<b>2008 Winter Drilling: B Zone</b>						
ML-BZ-13	635530	6039955	285	273	57	107
ML-BZ-14	635551	6039955	277	269	54	117
ML-BZ-15	635530	6039975	281	275	46	110
ML-BZ-16	635530	6039975	281	267	65	128
ML-BZ-17	635494	6040006	280	271	65	98
ML-BZ-18	635488	6040021	278	275	44	102
ML-BZ-19	635454	6040047	270	270	45	137
ML-BZ-20	635444	6040079	260	272	45	122
ML-BZ-21	635466	6040114	260	273	44	83
Total:						1004

**TABLE 11-32 B ZONE 2008 WINTER  
SIGNIFICANT INTERCEPTS**  
Crosshair Exploration and Mining Corp. – CMB Project

Drill Hole	From (m)	To (m)	Length (m)	U <sub>3</sub> O <sub>8</sub> %
<b>ML-BZ-13</b>	74.50	78.00	3.50	0.235
<b>ML-BZ-14</b>	90.00	110.00	20.00	0.031
	95.00	96.54	1.54	0.111
<b>ML-BZ-15</b>	82.50	91.00	8.50	0.033
<b>ML-BZ-16</b>	86.00	88.50	2.50	0.097

## **GEOPHYSICAL TARGETS**

Three holes totalling 2,560 metres were drilled during the 2008 winter program to test geophysical targets identified from the gravity, IP and EM survey data along the Armstrong – C Zone – B Zone corridor. Although none of the holes intersected IOCG style mineralization, the geological information acquired will aid in refining Crosshair's current geophysical models to further evaluate the IOCG potential of the property.

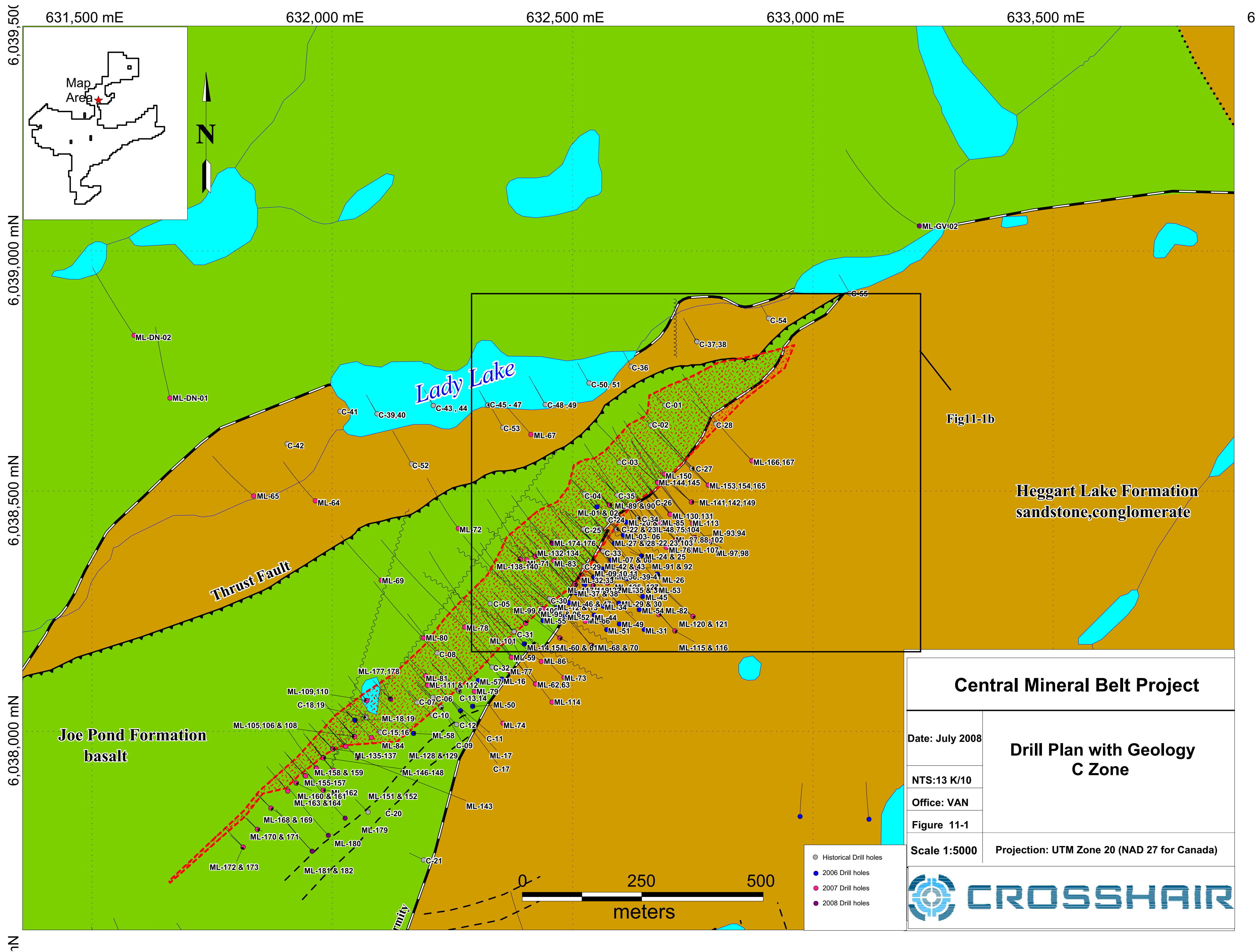
Hole ML-GV-01, which tested a coincident IP and gravity anomaly near the southern portion of the B Zone, intersected approximately 390m of poorly sorted, polymictic conglomerate cut by several mafic dykes, followed by relatively massive, equigranular gabbro and lesser anorthosite containing several intervals of pale grey metaquartzite over the final 100 metres of the hole. Background radiation over the entire length of the hole is in the range of 50-60 cps, reaching a maximum of about 350cps within minor, localized fractures in the conglomerate.

Drill hole ML-GV-02, which tested a coincident gravity and strong IP anomaly north of the C Zone, intersected a series of relatively massive to pillowed mafic volcanic rocks, with background radiation levels of generally less than 50 cps. A 7.30m wide interval of massive pyrite + minor pyrrhotite was intersected at the bottom of the hole, but no significant uranium mineralization was encountered.

Drill hole ML-GV-03 tested a coincident gravity and EM conductor in the vicinity of the Armstrong Showing. The hole predominantly intersected variably altered mafic volcanic rocks, with minor graphitic argillite intervals locally. A thicker interval of pyrite rich, graphitic argillite was intersected from 202.25m to 218.00m. No significant uranium mineralization was encountered.

**TABLE 11-33 SUMMARY OF 2008 WINTER GEOPHYSICAL TARGETS DRILLING**

<b>Drill Hole</b>	<b>UTM Easting</b>	<b>UTM Northing</b>	<b>Elevation</b>	<b>Azimuth</b>	<b>Dip</b>	<b>EOH (m)</b>
<b>2008 Winter Drilling: Geophysical Targets</b>						
ML-GV-01	635592	6039561	273	262	57	835
ML-GV-02	633209	6039067	270	302	70	870
ML-GV-03	630064	6036283	362	329	72	855
Total:						2560



## Central Mineral Belt Project

Date: July 2008

### Drill Plan with Geology C Zone

NTS:13 K/10

Office: VAN

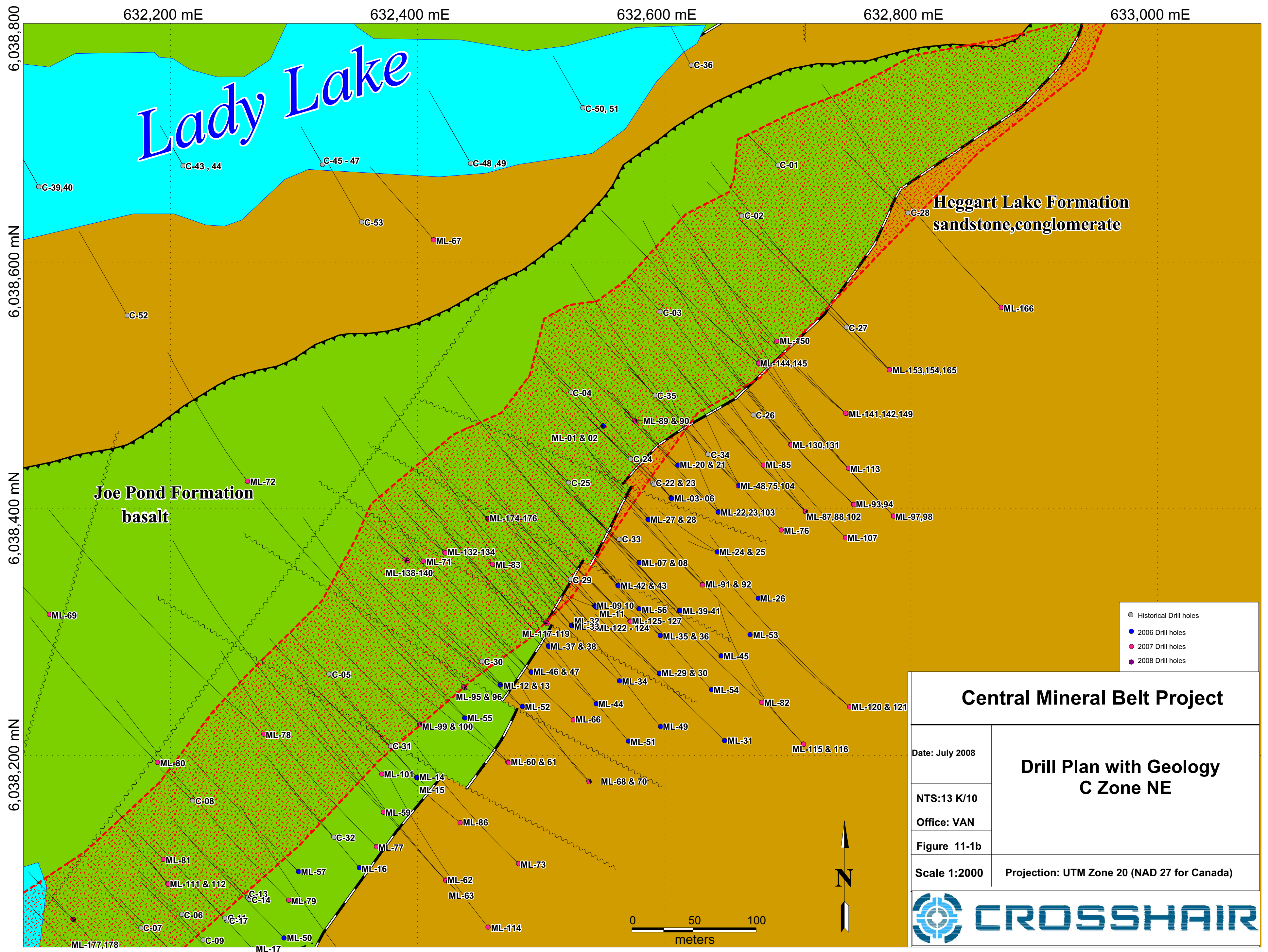
Figure 11-1

Scale 1:5000

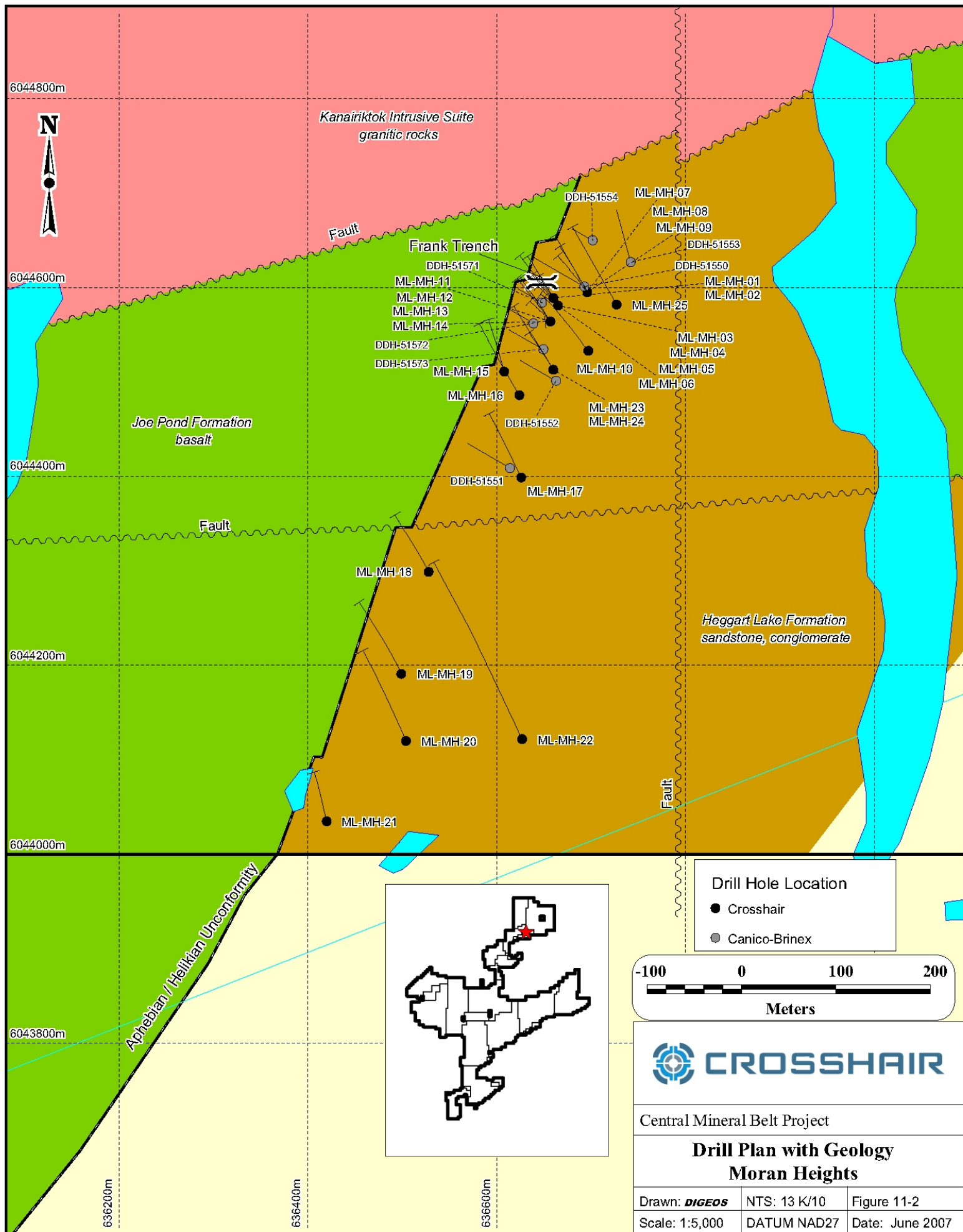
Projection: UTM Zone 20 (NAD 27 for Canada)

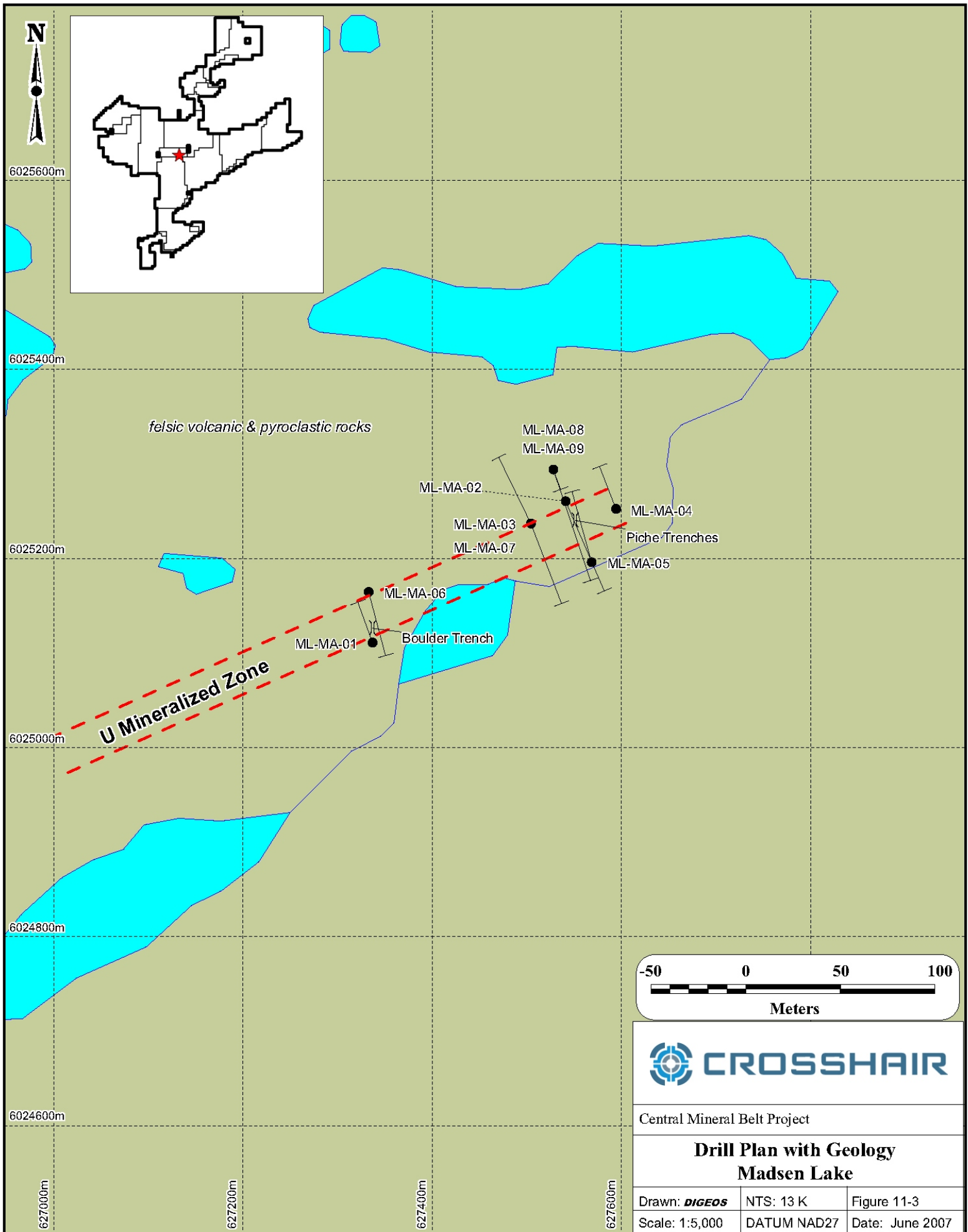


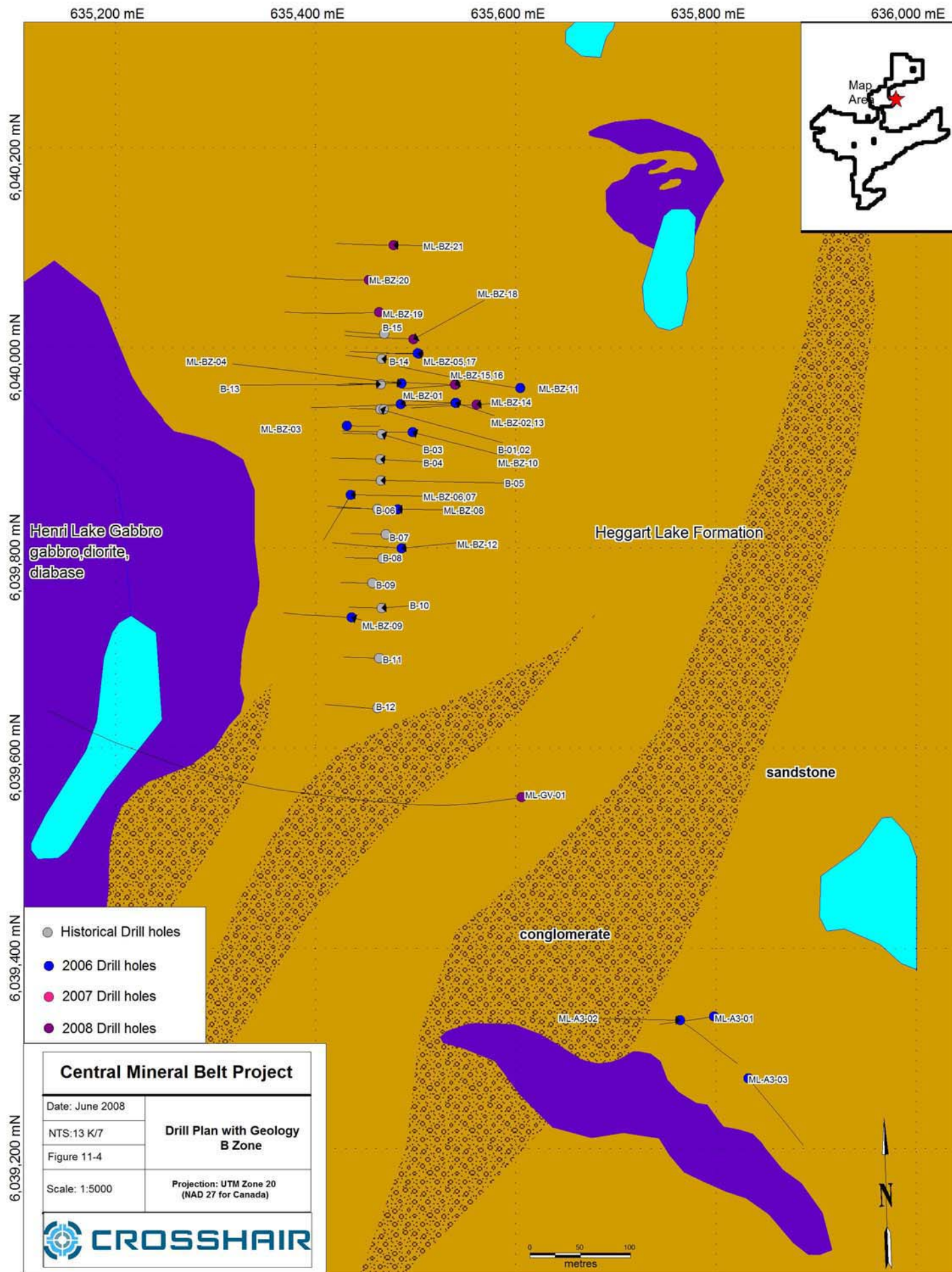




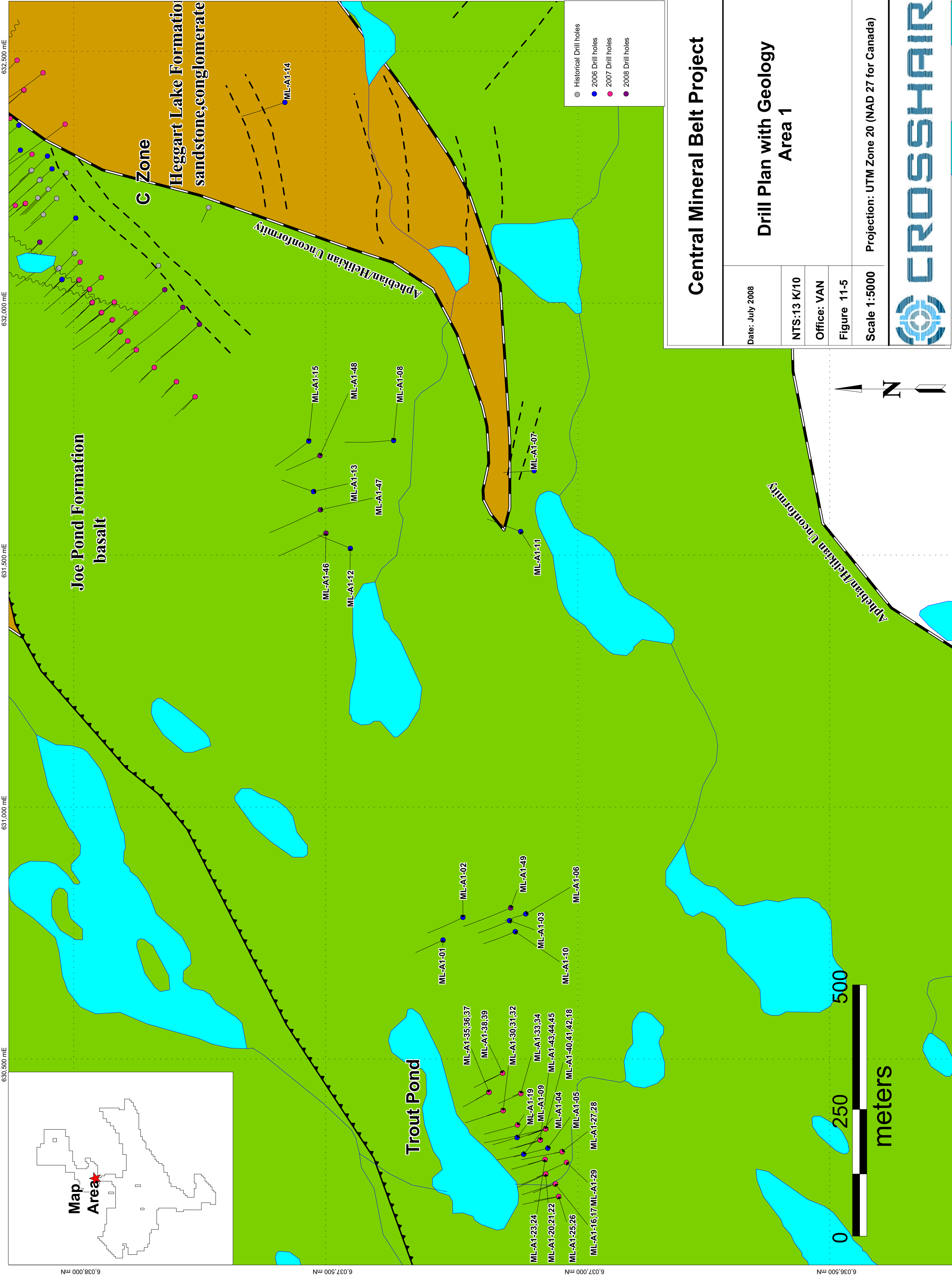


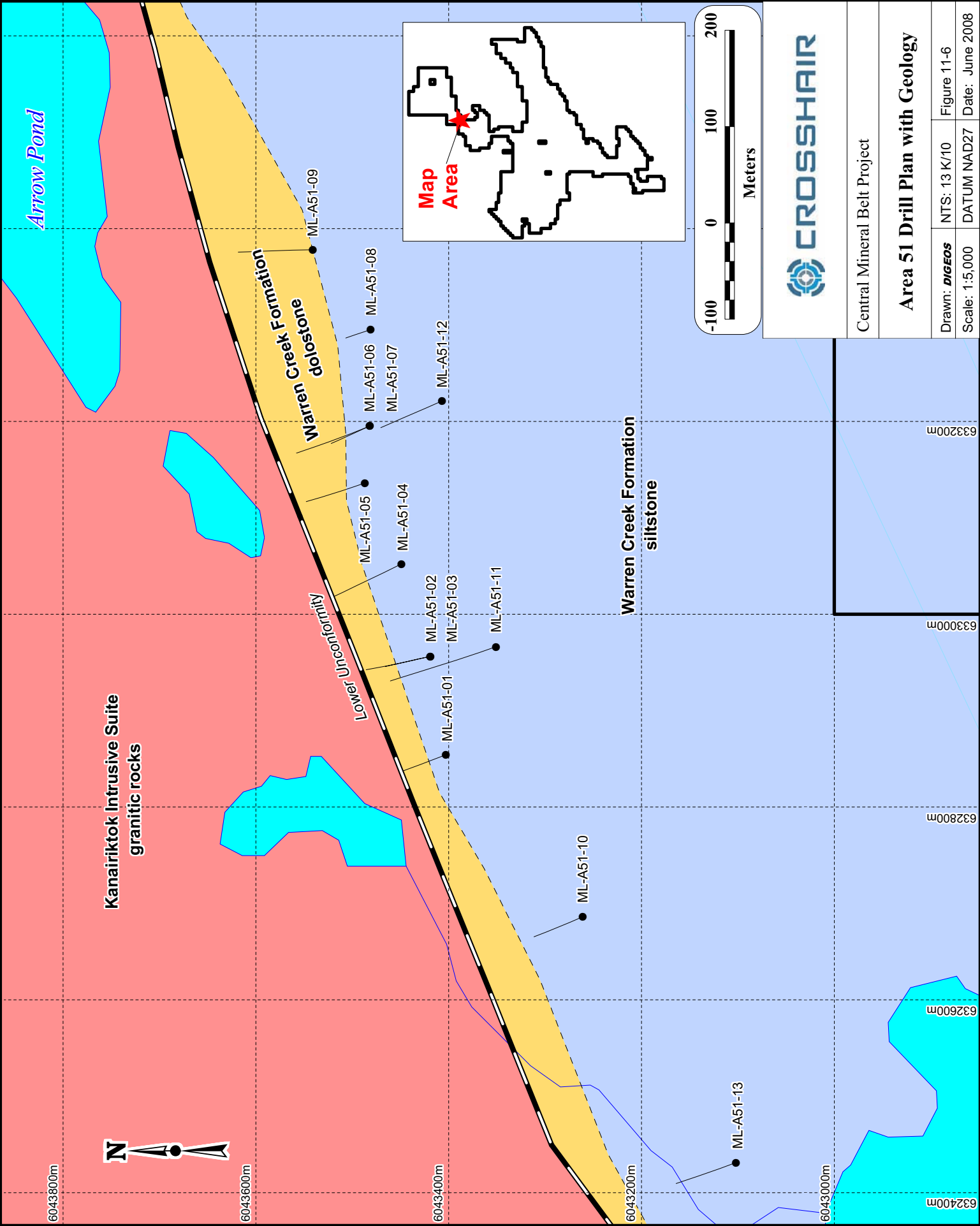


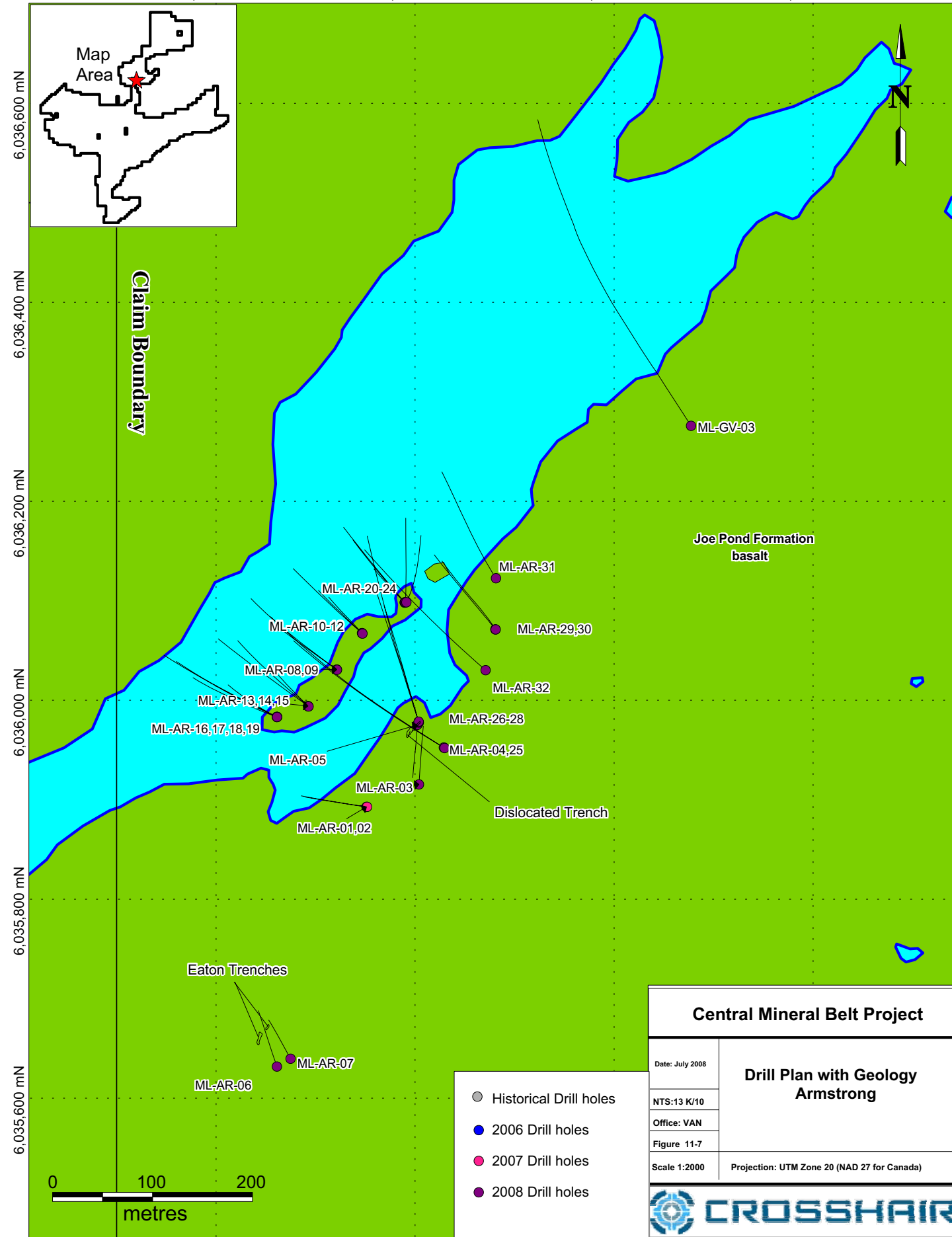












## Central Mineral Belt Project

Date: July 2008

NTS:13 K/10

Office: VAN

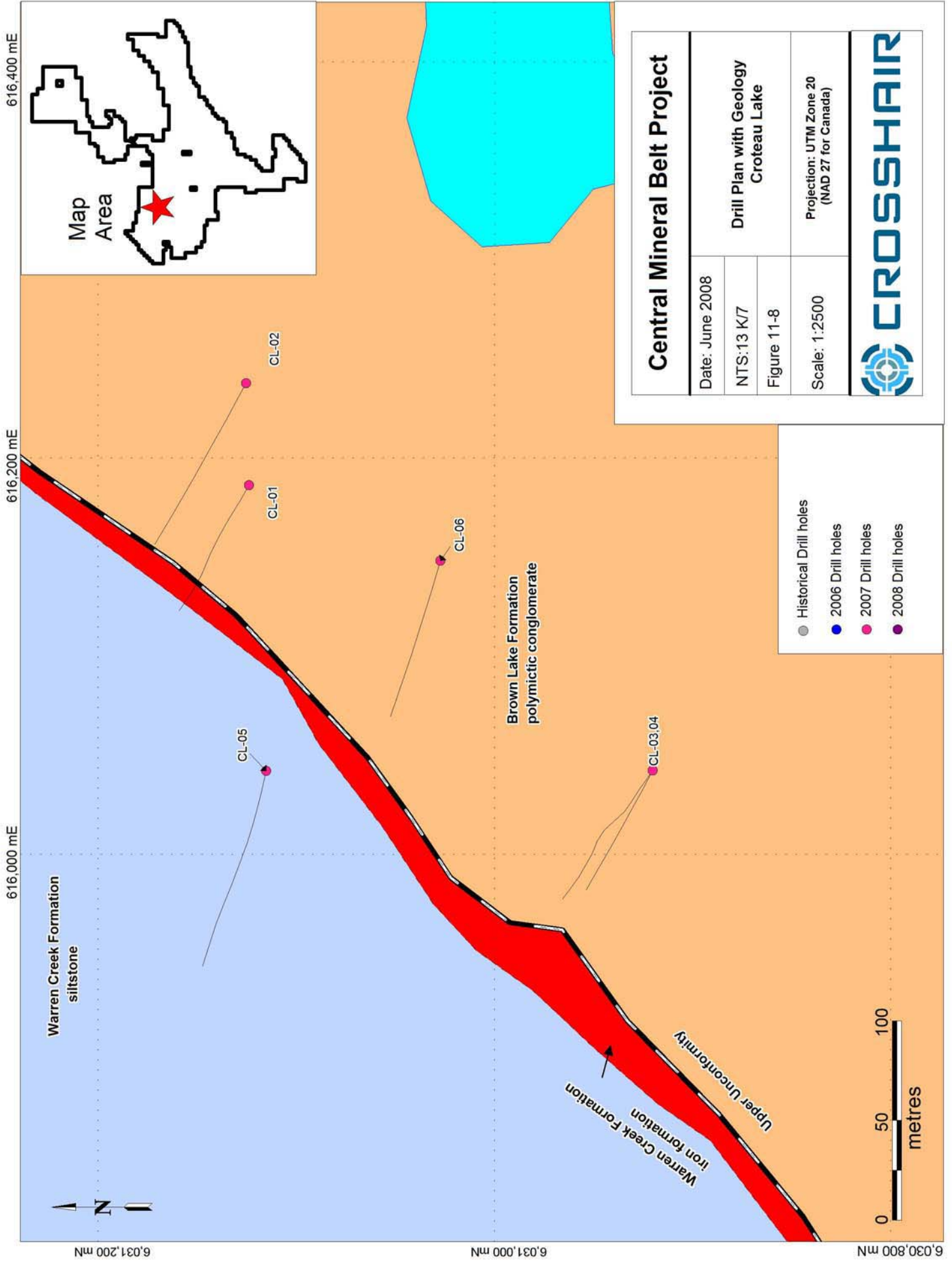
Figure 11-7

Scale 1:2000

## Drill Plan with Geology Armstrong

Projection: UTM Zone 20 (NAD 27 for Canada)





## 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 contain 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.

During the 2006 and winter 2007 drilling programs core samples were sawn in half using a rock saw with a diamond-encrusted blade; one half of the sample was selected for analysis and one half returned to the core box for reference. Most of the core selected for analysis during the summer 2007 and subsequent programs was split using a manual core splitter. Sections selected for duplicate analysis were sawn in half and then quartered. The 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. 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 either sent to Eastern Analytical Ltd. in Springdale, NL or to the Activation Laboratories (Actlabs) facility in Goose Bay 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. As well, 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 Crosshair's office in St. John's.

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.

During the 2007 summer program, samples were either shipped to the Activation Laboratories' preparation facility in Happy Valley-Goose Bay or else they were shipped to Eastern Analytical Ltd., which generally provided quicker turnaround, for preparation. Approximately 55% of the drill core samples from the 2007 summer program were prepped by Eastern Analytical, while the remaining drill core samples were prepped at the Activation Laboratories' preparation facility in Happy Valley-Goose Bay.

Pulps sent to Actlabs after preparation 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 a 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. The technique is suitable 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.

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

Eastern also prepared a total of 56 pulp samples from rejects prepared from the 2007 summer drill program. Splits were sent to the Saskatchewan Research Council (SRC) for analysis by DNC and INAA methods, and also to Activation for analysis by DNC.

## **2008 PROGRAM**

During the 2008 winter program all drill core samples were shipped to the Activation Laboratories' facility in Happy Valley-Goose Bay for preparation. The pulps were then shipped to Actlabs Ancaster lab for uranium analysis by the Delayed Neutron Counting (DNC) method. Activation also analyzed the pulps for multi-element analysis using Inductively Coupled Plasma Mass Spectrometry (ICP/MS Ultratrace 4), as described in the preceding section.

Crosshair's QA/QC program and security measures in shipping were conducted in accordance with those outlined in the 2006 and 2007 program.

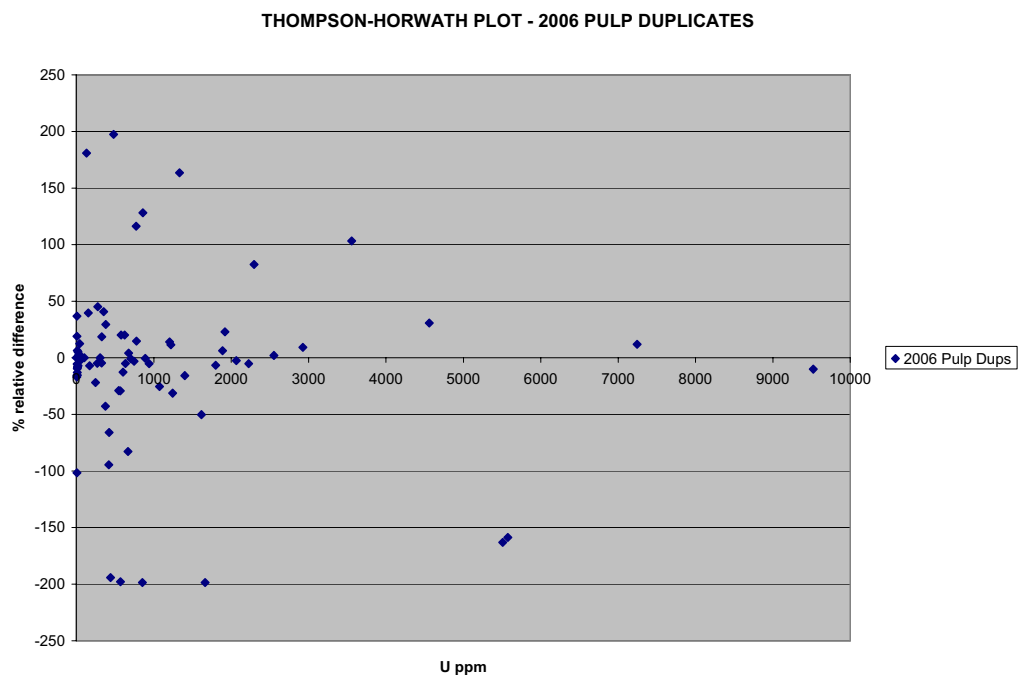
## 14 DATA VERIFICATION

Crosshair has a QA/QC program in place using standards, blanks, pulp duplicates and core duplicates to monitor and assess the accuracy of analytical results and consistency of the reporting laboratory. Standards are purchased from the Canadian Certified Reference Materials Project, Natural Resources Canada. Results of Crosshair's QA/QC program are detailed in the following sections.

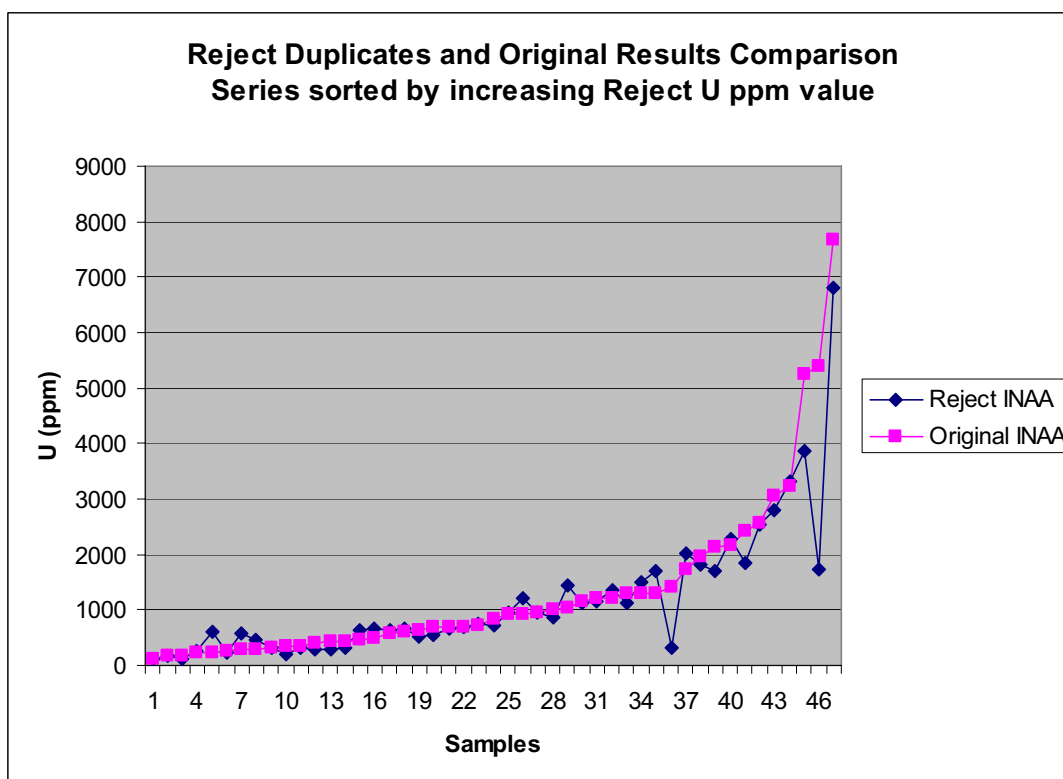
### 2006 PROGRAM

In 2006 a total of 50 rejects were re-split and new pulps prepared by Eastern Analytical Ltd. The pulps were analyzed at Actlabs using the same procedures as described above. The results are presented in Figures 14-2, 14-3 and, as previously, show that the lower values have less reproducibility. Using a Student's t tests for paired duplicate samples, the differences in the means for original and duplicate analytical results are neither material ( $<1\%$ ) nor statistically significant at a 95% confidence interval for the paired original and duplicate assays.

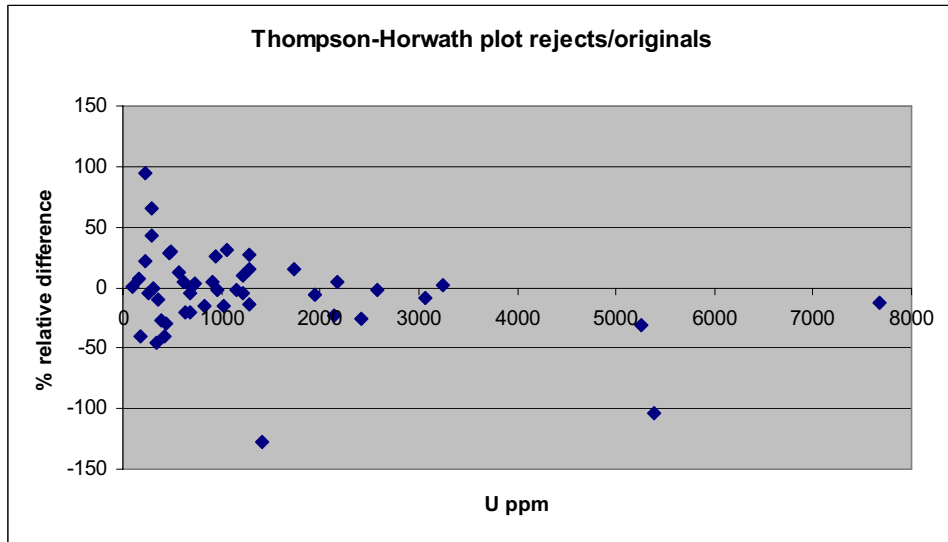
Excluding four samples, the relative difference for those samples greater than 1000 ppm are within 25%, considered acceptable for reject duplicates analysed by INAA. Three of the samples were high grade and the reject assays returned lower values than the originals as shown on Figure 14-1, suggesting 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%.



**FIGURE 14-1 PULP DUPLICATES – 2006 (PPM U)**



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



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

Results for standards analyzed by Actlabs for the 2006 drilling program are illustrated in Figures 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

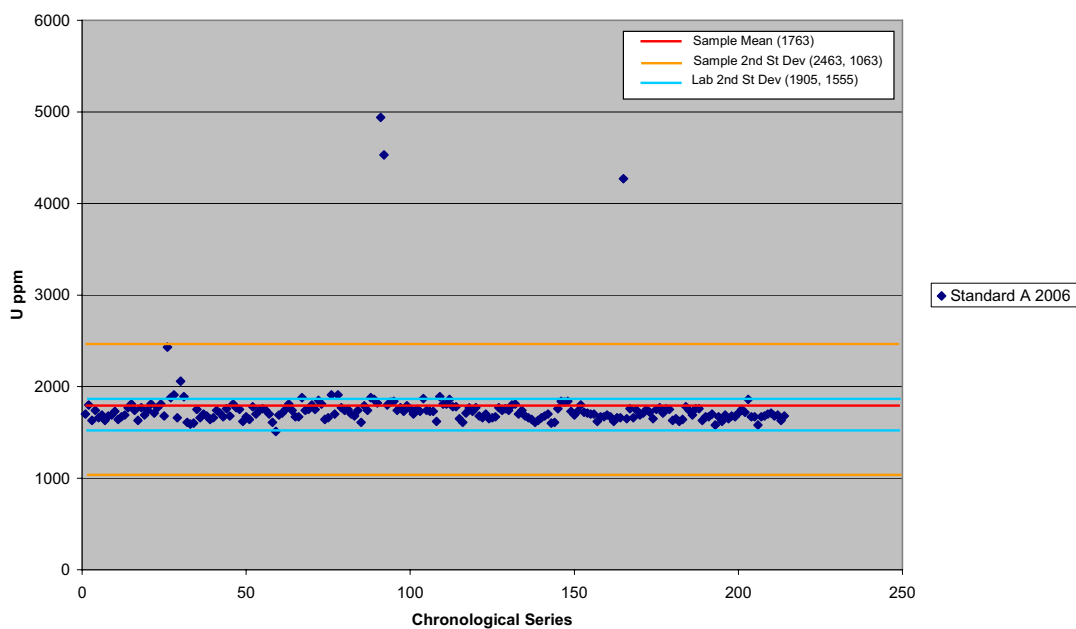


FIGURE 14-4 FIELD STANDARD A – 2006

STANDARD B 2006 PLOT

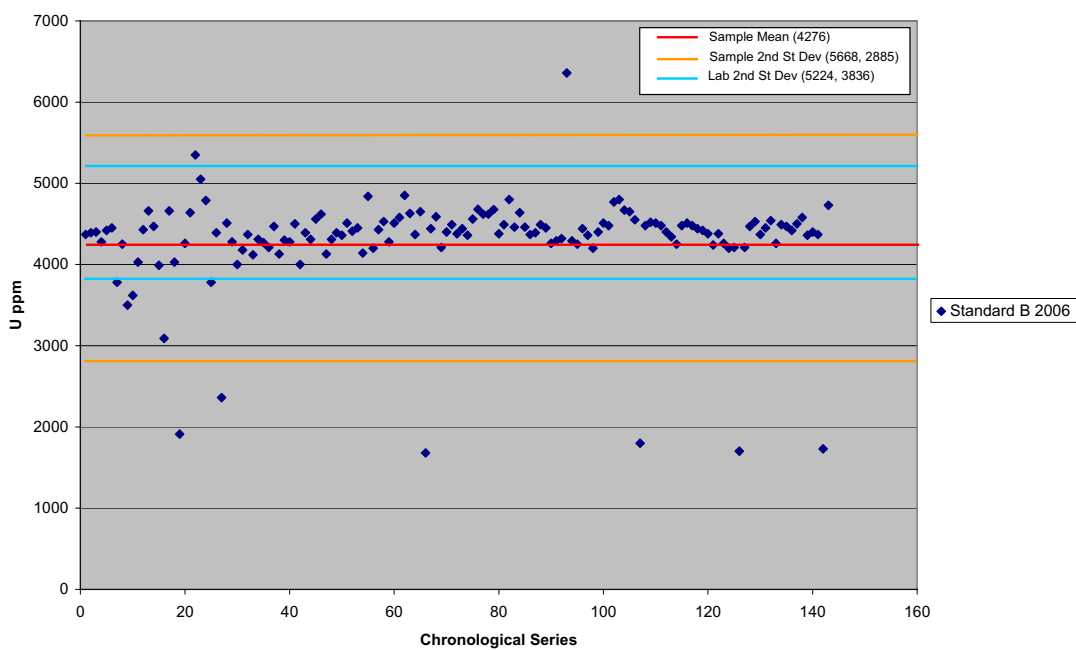
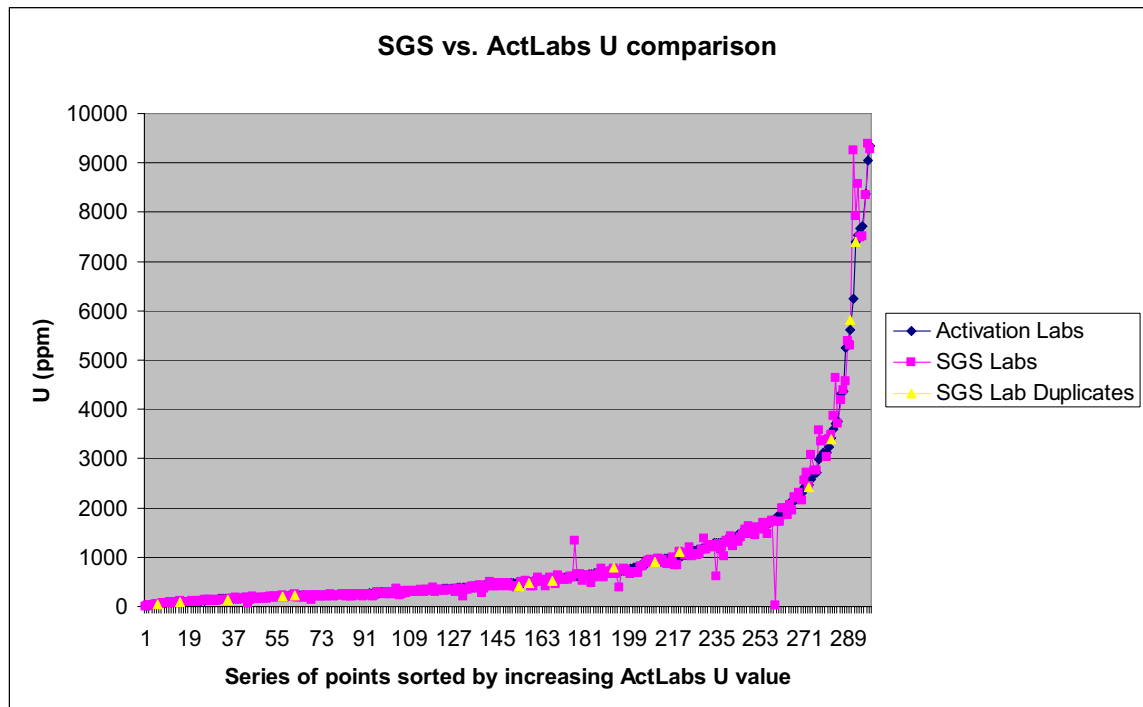


FIGURE 14-5 FIELD STANDARD B - 2006

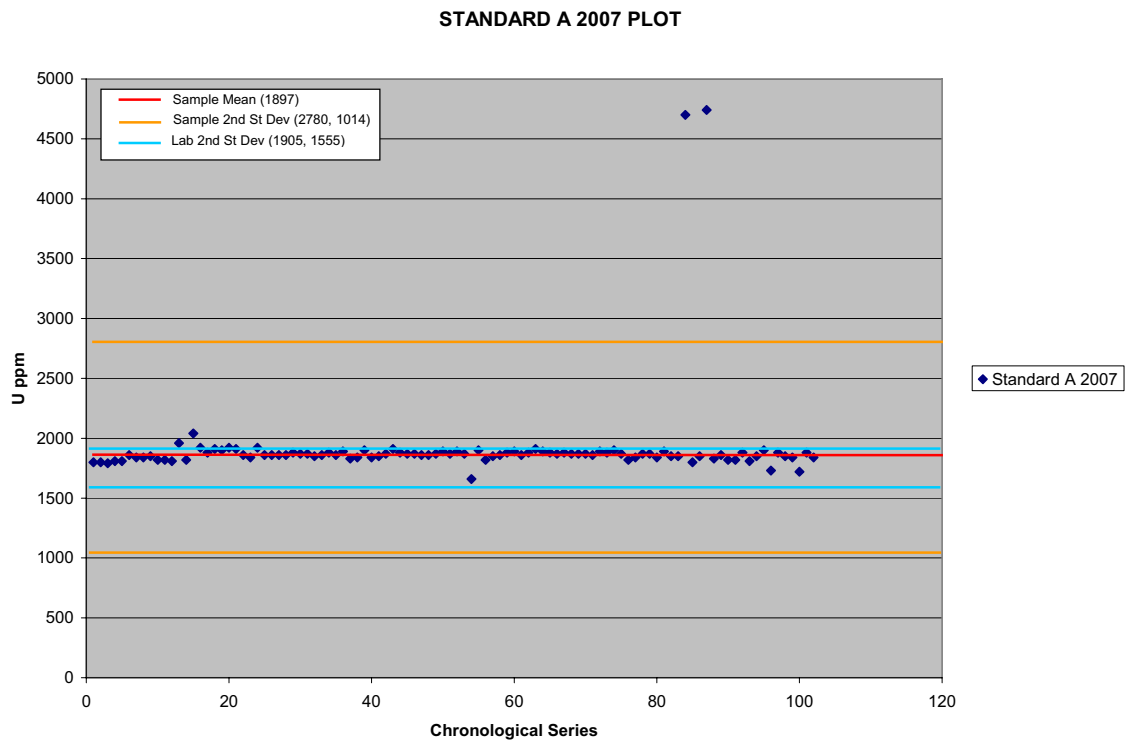
In addition, 300 pulps that had been analysed by Actlabs were submitted to SGS for re-analysis. The results are shown in Figure 14-6 and illustrate a possible precision issue between the labs or lack of homogeneity in the pulp duplicates for a few samples at higher uranium concentrations. The difference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



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

## 2007 WINTER PROGRAM

Analytical results for the 2007 winter program standards inserted by Crosshair are shown in Figures 14-7 and 14-8. Although there is less scatter than 2006, a positive bias in results is indicated for each standard (+10% for A, +5% for B). Overall, the 2007 winter results are 11%-12% higher than those for 2006. The 2007 winter samples were run using the DNC method while the INAA method was used in 2006.



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

## STANDARD B 2007 PLOT

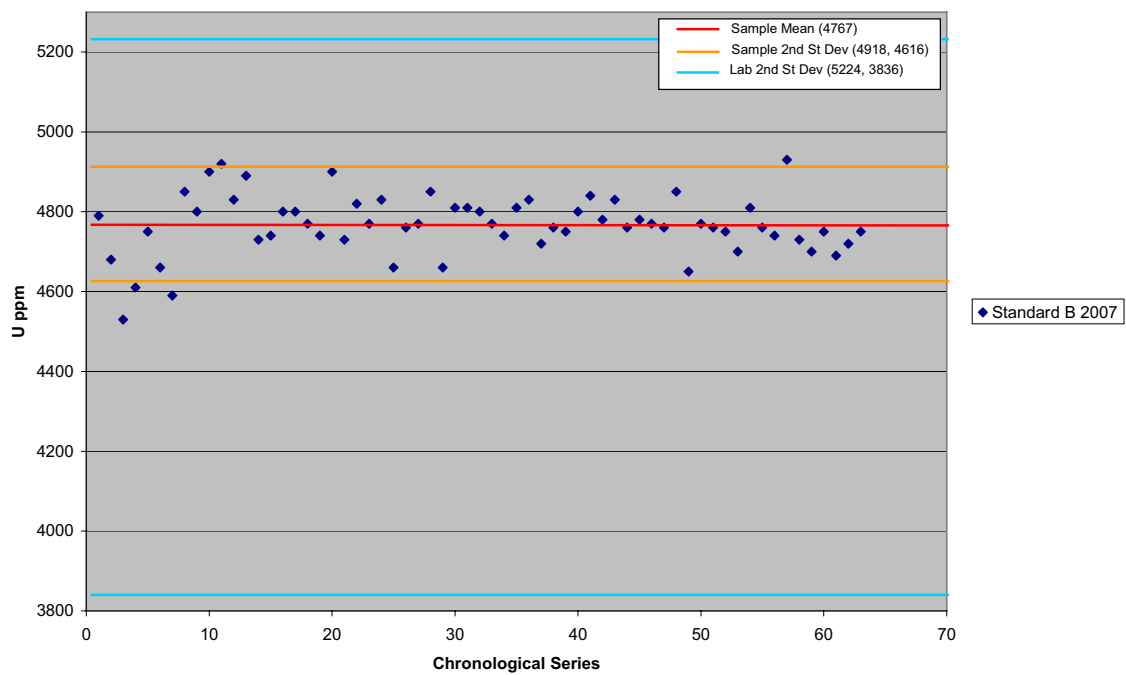
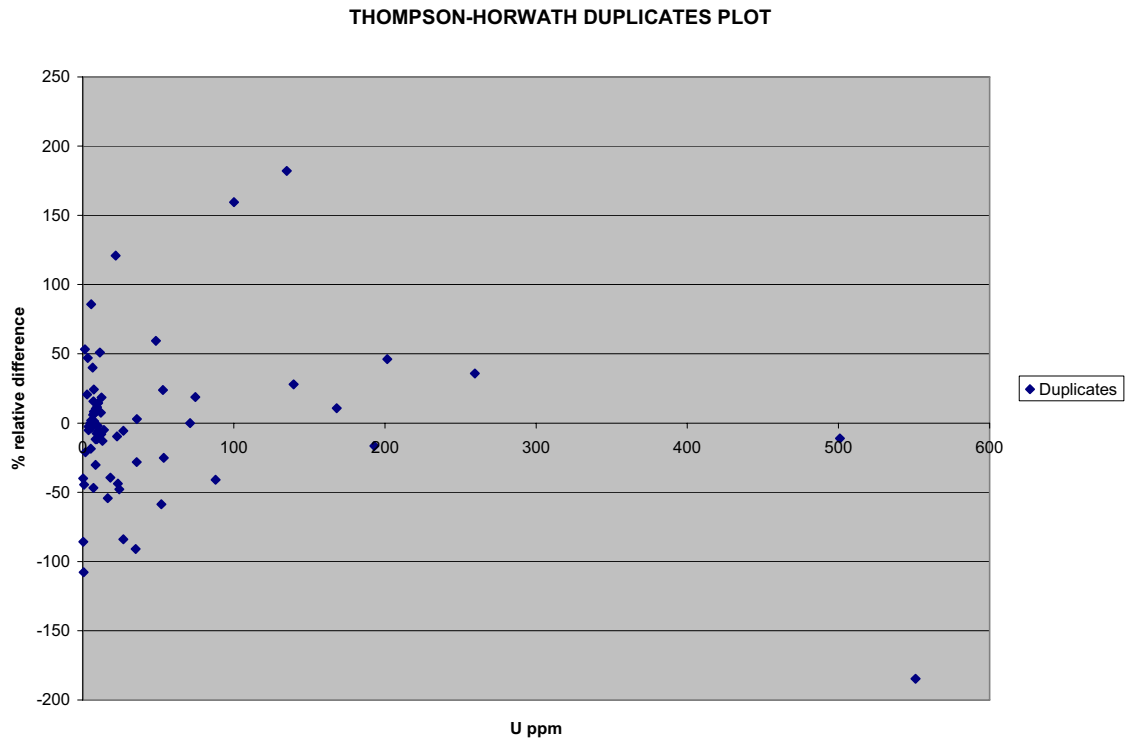


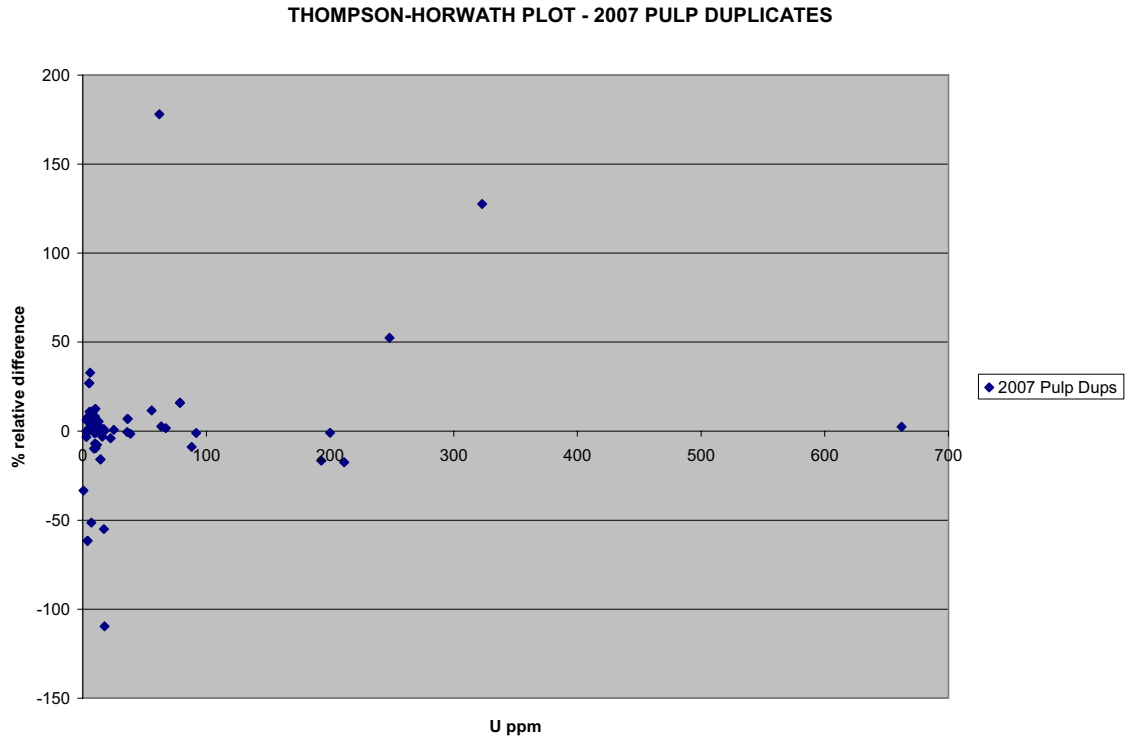
FIGURE 14-8 FIELD STANDARD B - 2007

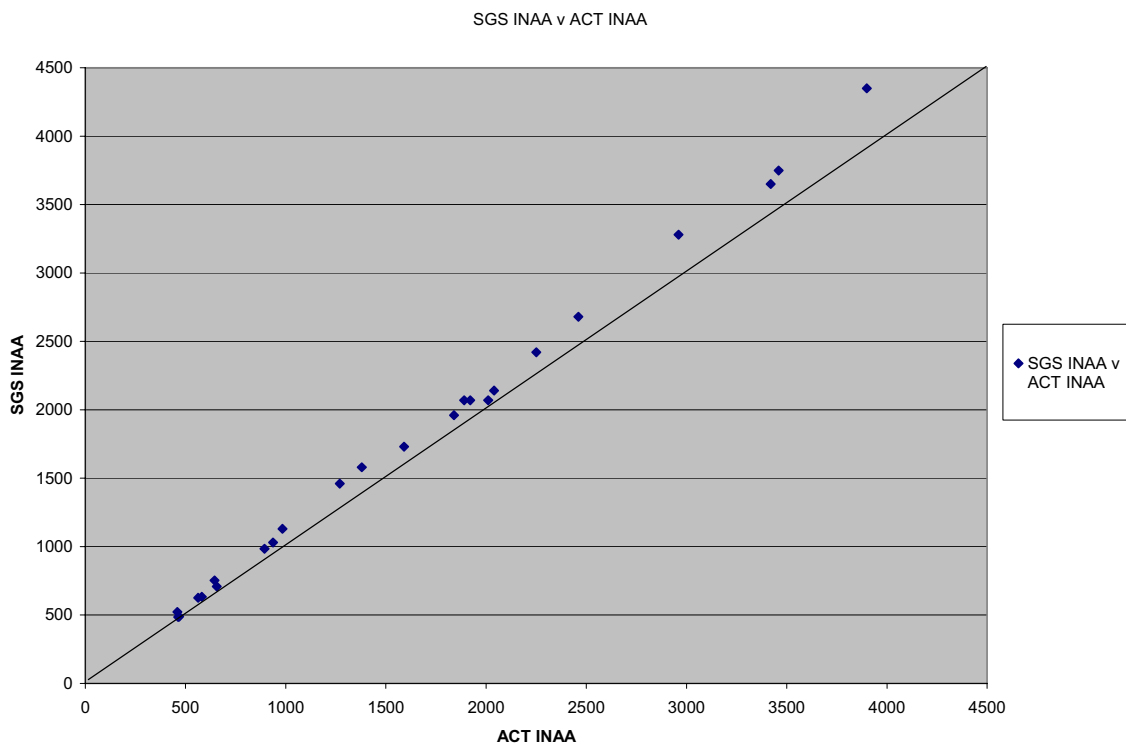
There were 66 core duplicates from the 2007 winter drill program (Figure 14-9). As the majority of the values are less than 200 ppm U and below the applied resource cut-off, the data provides little directly applicable information with respect to samples used for the resource estimates.



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

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





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

## 2007 SUMMER AND 2008 WINTER PROGRAMS

Following the 2007 summer program, 50 samples were selected from which Eastern Analytical Ltd. prepared 50 pulps for DNC analysis by SRC Analytical Laboratories as well as ActLabs. Crosshair's QA/QC results from the 2007 summer and 2008 winter programs are detailed as follows.

**TABLE 14-1 SAMPLING INFORMATION DURING SUMMER2007/WINTER2008**

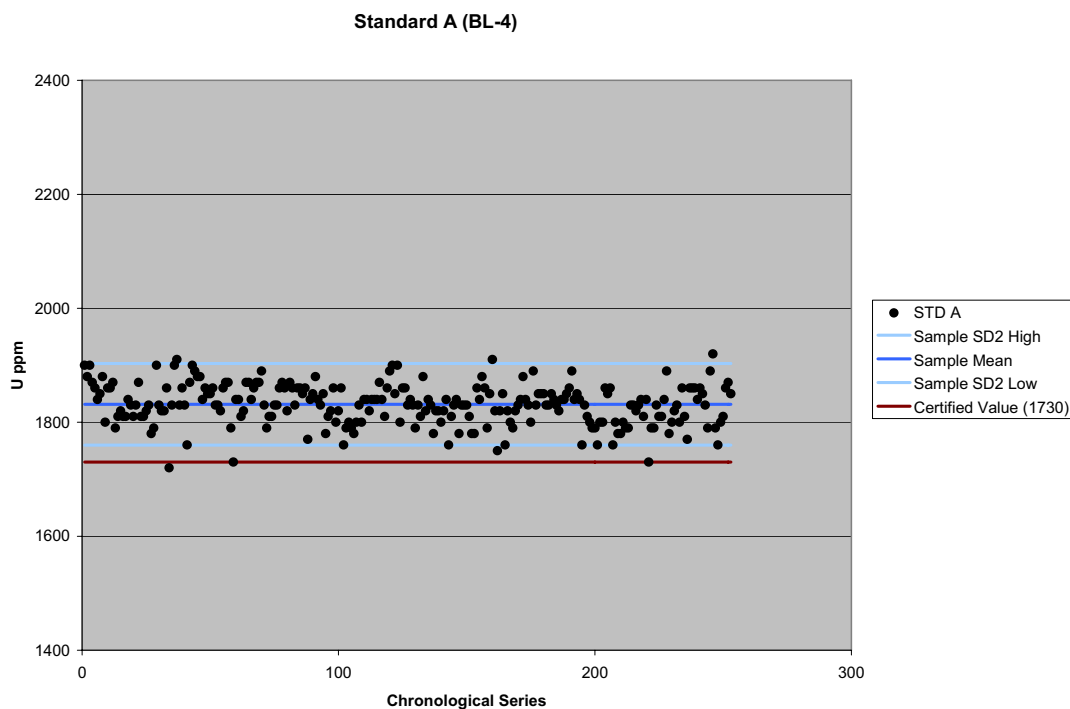
Number of Holes	Total Samples	Blank	Core	Core Duplicate	STD A	STD B	STD C	STD D
176	12174	211	11022	305	277	229	52	50

## **STANDARDS**

### **Standard A (CANMET BL-4)**

Twenty results fell outside the limits of two standard deviations for Standard A. Comparing these failed sample values with expected values for other standards indicates that 4 Standard B and 13 Standard D samples were submitted as Standard A. Subsequent investigation revealed that samples plotting with values similar to Standard D were caused by mislabelling of the container in the camp and in the case of the 4 samples plotting with values similar to Standard B, incorrect data entry. Figure 14-12 shows Standard A samples plotted after removing obviously mislabelled standards. All samples fall within two standard deviations with the exception of four samples which were all borderline fails. The calculated sample mean of 1831 ppm is 5.85% higher than the 1730 ppm certified reference value for standard A (BL-04). To investigate this positive bias, three samples of Standard A were sent to SRC Analytical Laboratories as part of an interlab check. All three samples returned a value of 1700 ppm which is 1.7% lower than the reference value. The cause of the positive bias is in the process of being investigated with ActLabs.

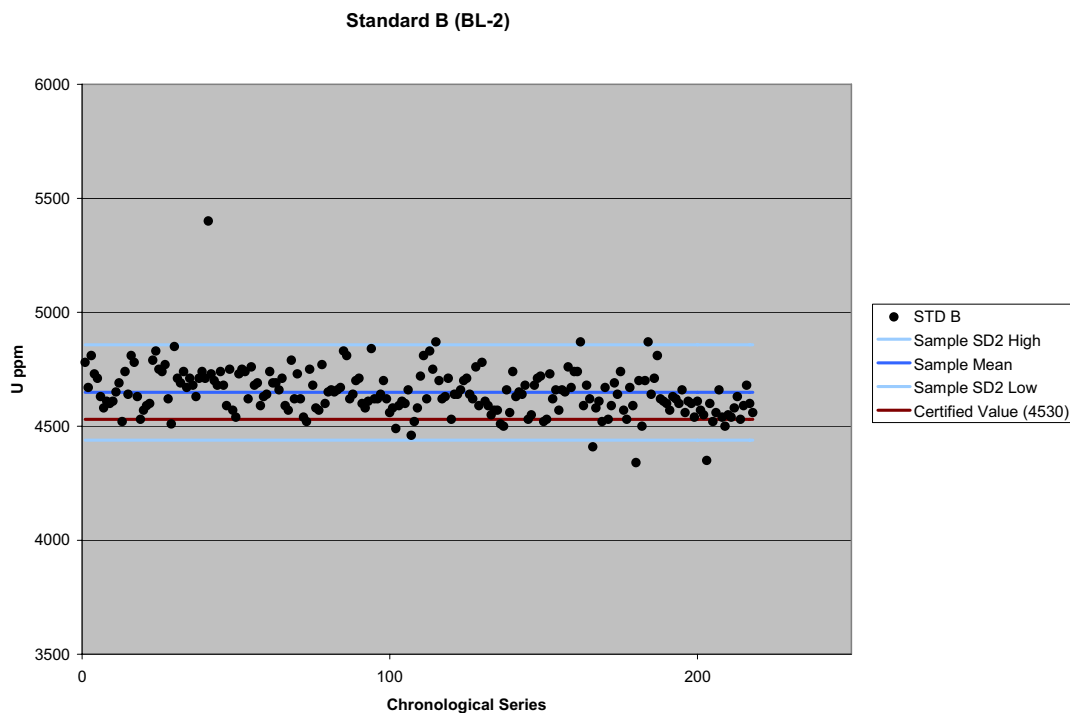




**FIGURE 14-12 FIELD STANDARD A PLOT**

### **Standard B (CANMET BL-2)**

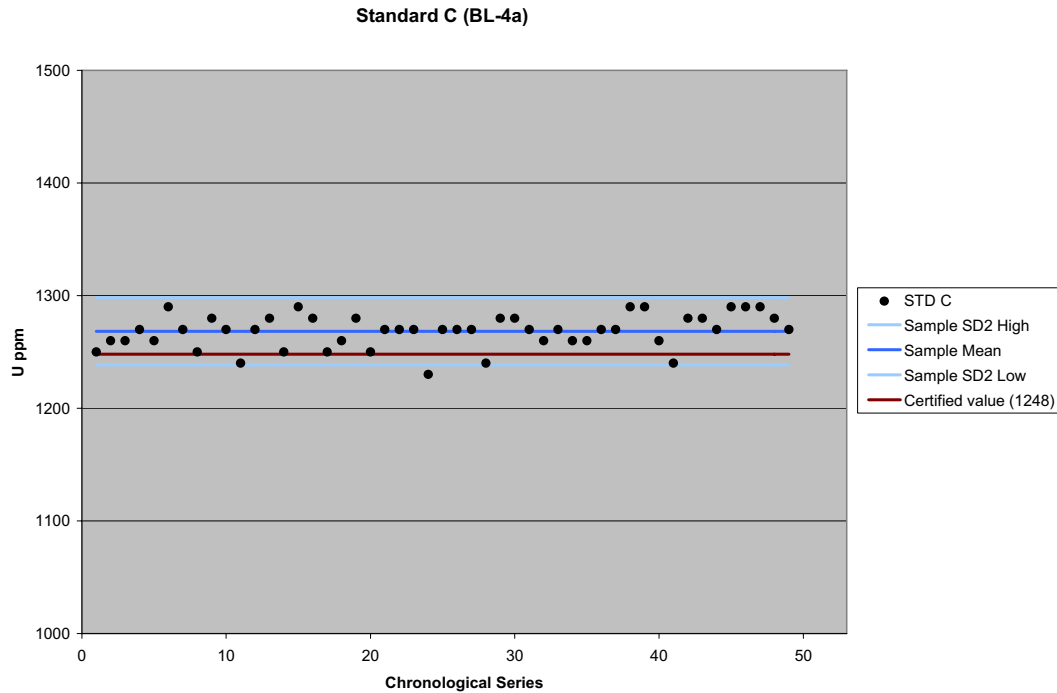
Eleven results fell outside of the limits of two standard deviations for Standard B. 2 of these samples had results similar to standard A and 2 samples had values similar to Standard C indicating that these fails were likely caused by data entry errors. Standard B samples are plotted without the incorrectly entered samples in Figure 14-13. Most samples plot within the two standard deviation limits with the exception of 4 samples. The sample batches containing the failed standards were checked to determine if more than one standard failed in each batch. No other standards failed. The calculated sample mean of 4649 ppm is 2.61% higher than the certified reference value of 4530 ppm.



**FIGURE 14-13 FIELD STANDARD B PLOT**

### **Standard C (CANMET BL-4a)**

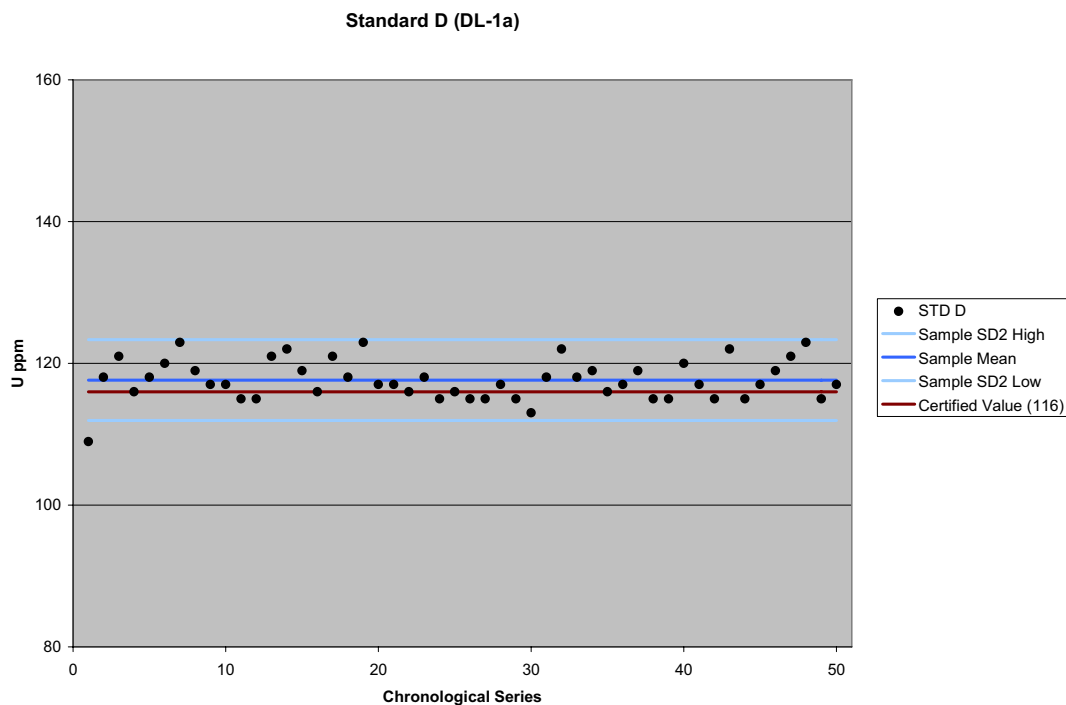
Four results fell outside of the two standard deviations for Standard C. Three of these outlying samples were due to data entry error and it was determined that 2 of the samples should have been entered as Standard D and one should have been entered as a Blank sample. After removing the mislabelled samples, the remaining Standard C samples have been plotted in Figure 14-14. Only one sample is outside of the acceptable range as a borderline fail. The calculated sample mean is 1.63% higher than the certified reference value of 1248 ppm.



**FIGURE 14-14 FIELD STANDARD C PLOT**

### **Standard D (CANMET DL-1a)**

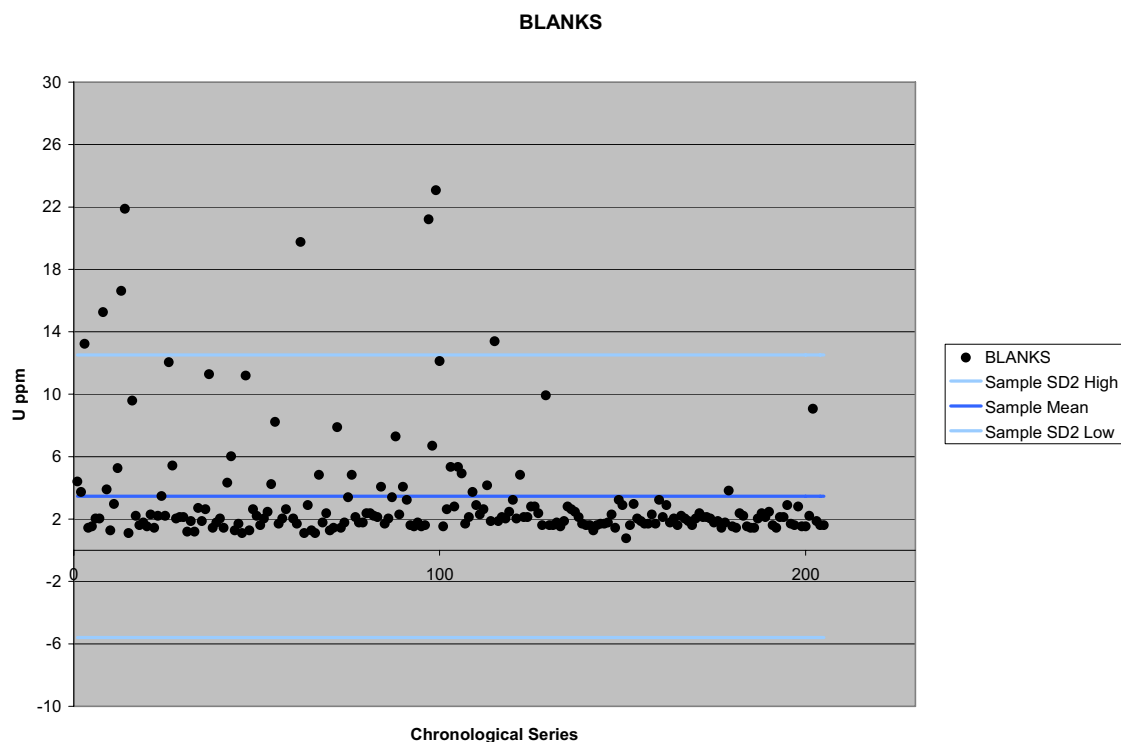
Only 1 sample fell outside of two standard deviations for this standard (Figure 14-15) and was a borderline fail. The calculated sample mean is 1.14% higher than the certified reference value of 116 ppm.



**FIGURE 14-15 FIELD STANDARD D PLOT**

## Blanks

There were 207 blank samples submitted during the last two drilling programs. Blanks are inserted into the sample stream to check the cleanliness of the laboratory and ensure that the equipment is properly cleaned between each sample preparation. Eight blank samples were above the two standard deviation limit (Figure 14-16) but all values were less than 25 ppm. The results reflect low to negligible contamination during sample preparation procedures.



**FIGURE 14-16 BLANK SAMPLES PLOT**

### Paired Data Analysis

Core duplicates, pulp duplicates and interlab comparisons are considered as paired data which may be analyzed using different statistical methods. There are a few ways to test relationships between a paired data. One is to consider their MPRD (Mean Paired Relative Difference) which is equal to:

A1: Assay1

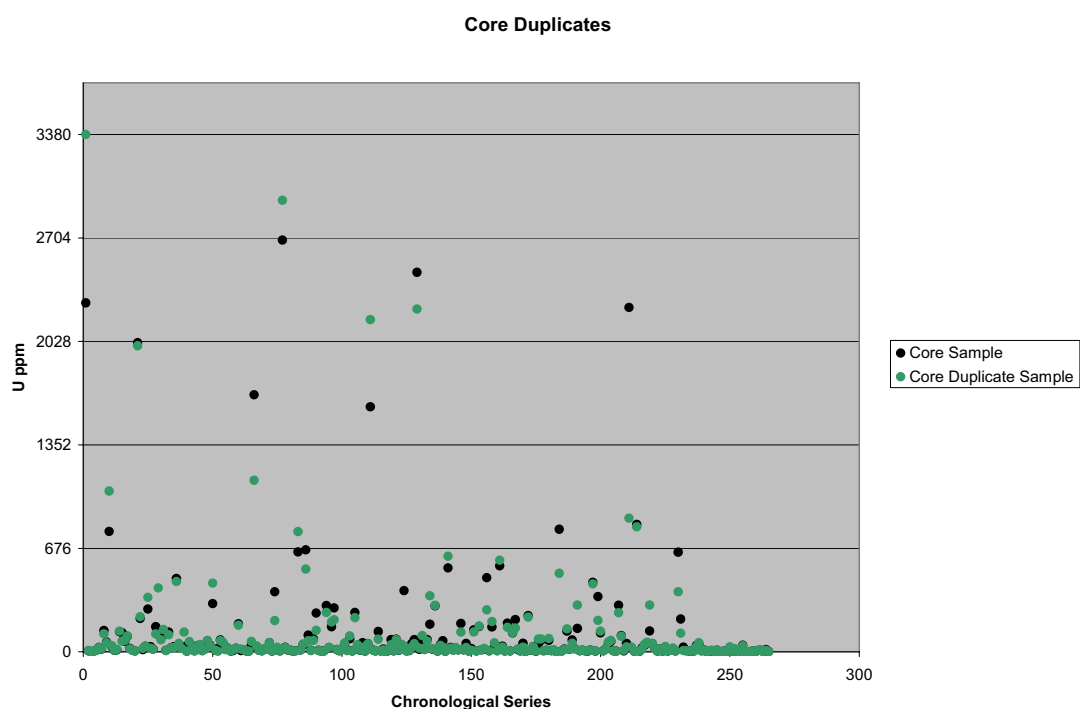
A2: Assay2

$$\text{MPRD}\% = (A1 - A2) / \text{Mean}(A1, A2) * 100$$

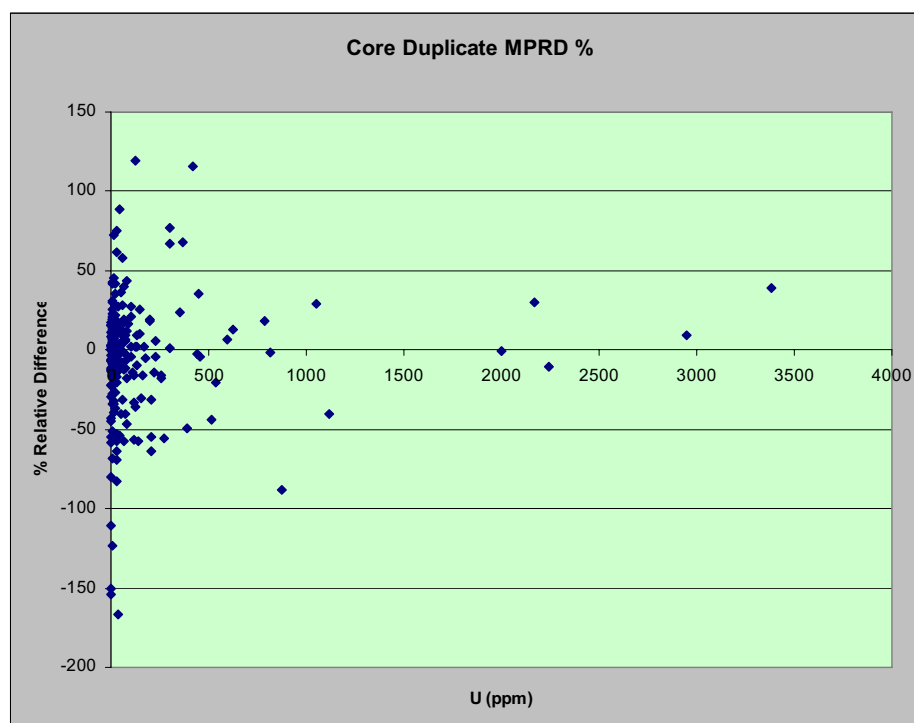
An MPRD value between 0-25 percent is considered an acceptable result for paired data. Another way to evaluate the paired data is to run a t test which measures Pearson coefficient. Pearson's Correlation Coefficient reflects a linear relationship between two data sets, is usually signified by r (rho), and can take on the values from -1.0 to 1.0. Where -1.0 is a perfect negative (inverse) correlation, 0.0 is no correlation, and 1.0 is a perfect positive correlation.

### **Core Duplicates**

Duplicate samples were taken by quarter-splitting the remaining half of the core. The core duplicate samples are plotted with the original sample results in Figure 14-17. The relative difference for 188 of 265 pair of samples was more than 25 %. Most of the high differences are believed to be due to nugget effect related to fracture hosted mineralization.



**FIGURE 14-17 CORE DUPLICATE SCATTER GRAPH**

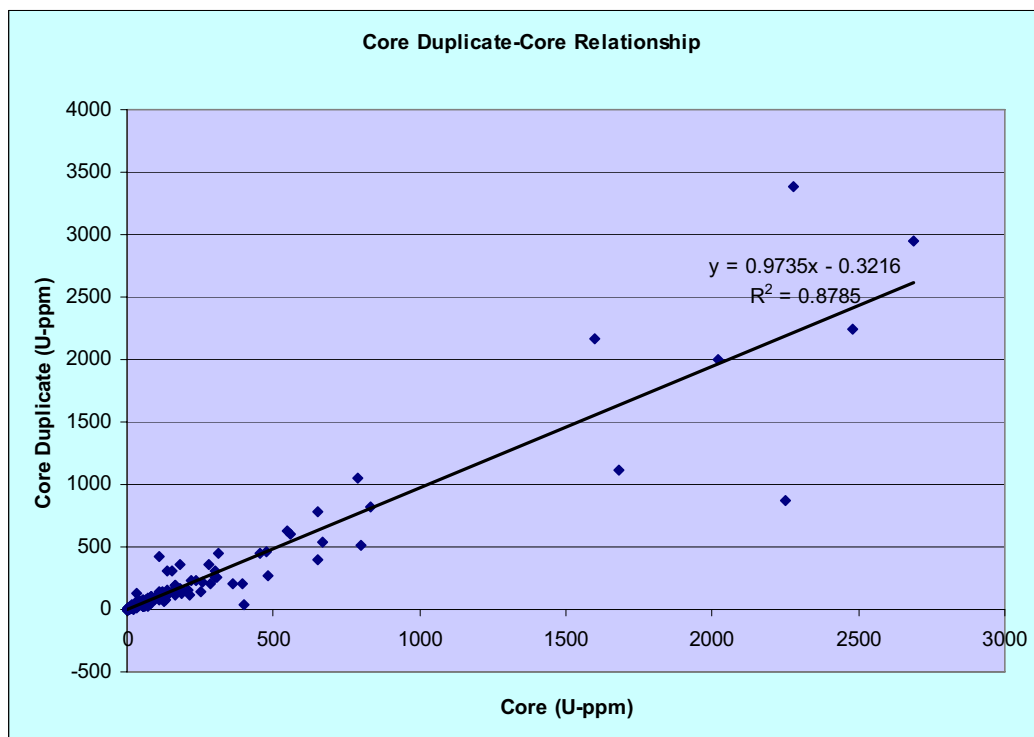


**FIGURE 14-18 RELATIVE DIFFERENCE GRAPH FOR CORE DUPLICATE SAMPLES**

Results of the T test and scatter graph are illustrated in Table 14-2 and Figure 14-19. Results of the T test shows a Pearson Correlation value of 0.937 which is within acceptable limits. Again, the scatter of the data demonstrates the nugget effect of fracture controlled mineralization.

**TABLE 14-2 T-TEST RESULTS FOR CORE DUPLICATE-CORE**

<b>t-Test: Paired Two Sample for Means</b>		
	<i>Core (U_ppm)</i>	<i>Core Duplicate (U_ppm)</i>
Mean	128.336553	124.6133455
Variance	133558.337	144071.6599
Observations	265	265
Pearson Correlation*	0.937302854	
Hypothesized Mean Difference	0	
df	264	
t Stat	0.45694831	
P(T<=t) one-tail	0.32404198	
t Critical one-tail	1.650645911	
P(T<=t) two-tail	0.64808396	
t Critical two-tail	1.968990438	

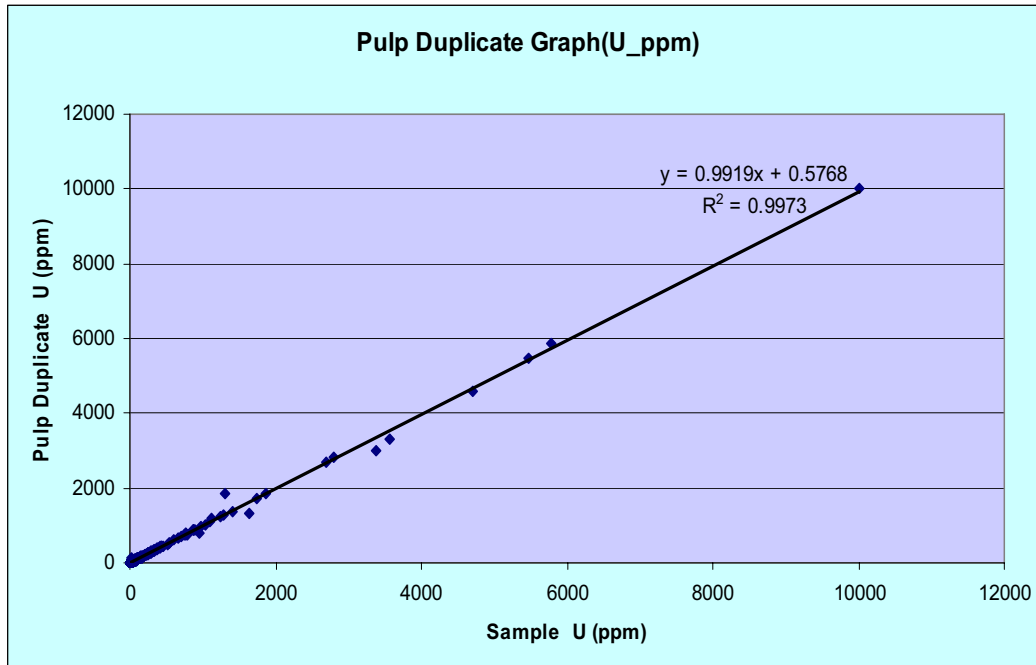
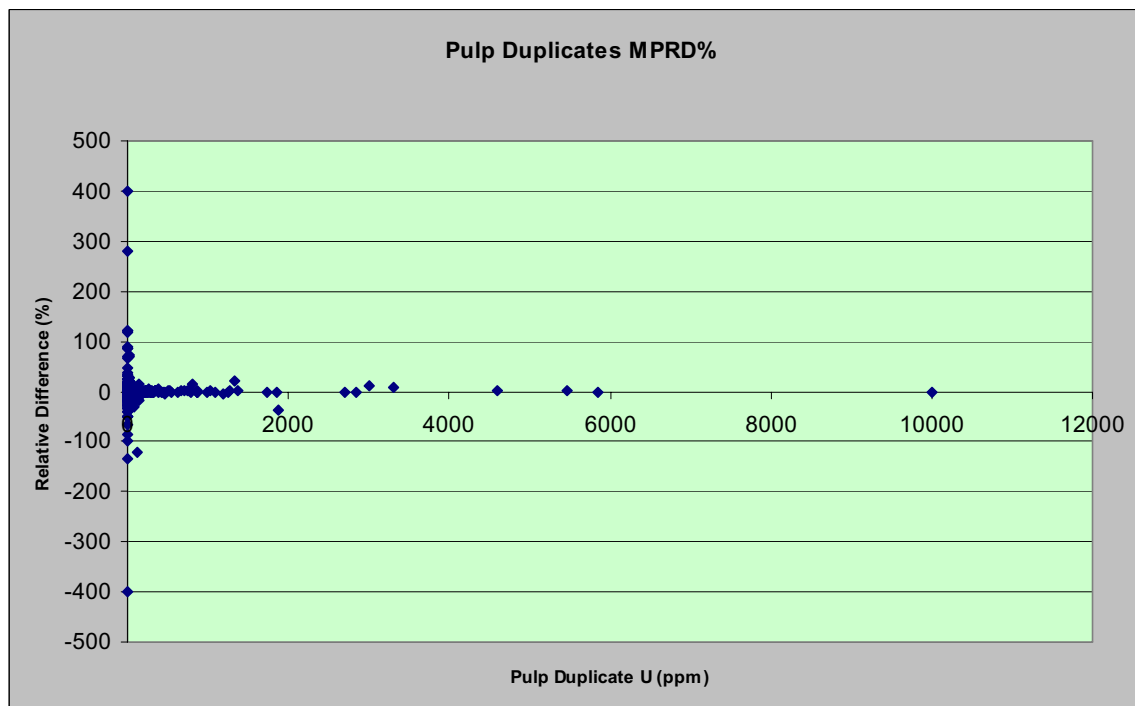


**FIGURE 14-19 SCATTER GRAPH, CORE- CORE DUPLICATE RELATIONSHIP**

### **Pulp Duplicates**

The following graphs, Figure 14-20 and Figure 14-21, are based on paired results for 597 pulp duplicates prepared during sample preparation from spits of homogenized sample pulps. Both graphs show a high degree of relationship between results which is also shown by the t-test table (Table 14-3). Only 39 samples, mostly low grade, had 25% or higher relative difference with the mean.



**FIGURE 14-20 PULP DUPLICATE VS ORIGINAL SAMPLE****FIGURE 14-21 PULP DUPLICATES MPRD%**

**TABLE 14-3 T-TEST SHOW RESULTS FOR PULP DUPLICATES**

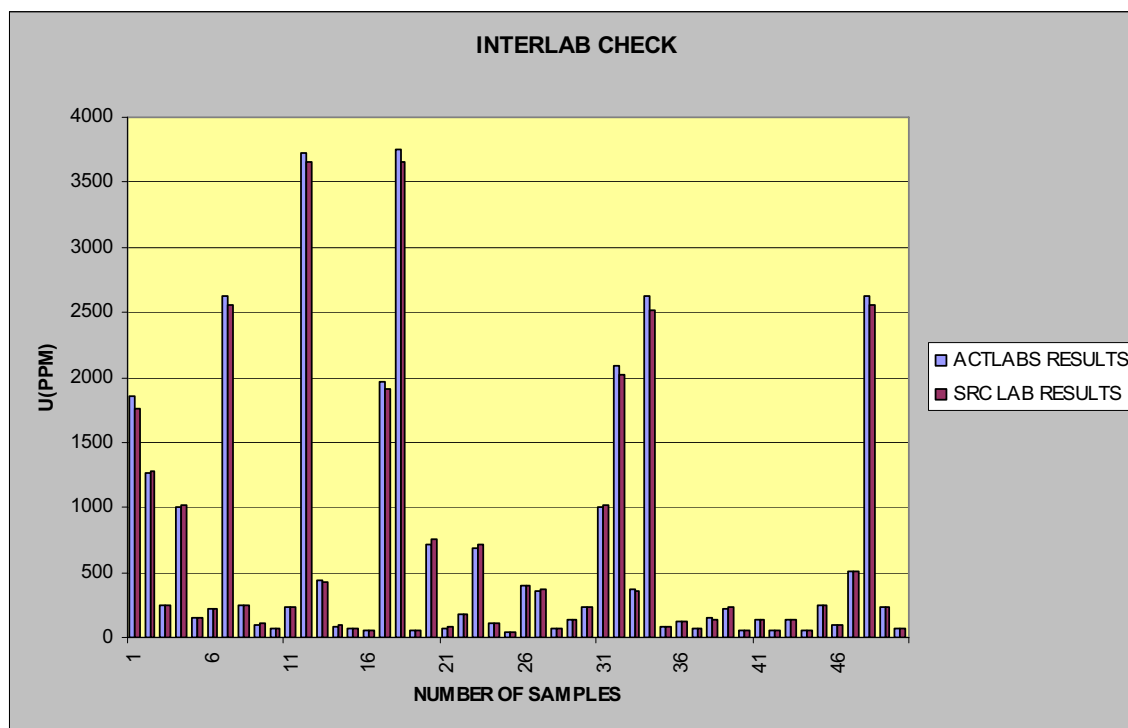
<b>t-Test: Paired Two Sample for Means</b>		
	<i>Sample (U ppm)</i>	<i>Pulp Duplicate (U ppm)</i>
Mean	152.101407	151.4462312
Variance	410198.3285	404679.5061
Observations	597	597
Pearson Correlation	0.9986411	
Hypothesized Mean Difference	0	
df	596	
t Stat	0.477062981	
P(T<=t) one-tail	0.316746076	
t Critical one-tail	1.64741429	
P(T<=t) two-tail	0.633492151	
t Critical two-tail	1.963952174	

### **Interlab Check**

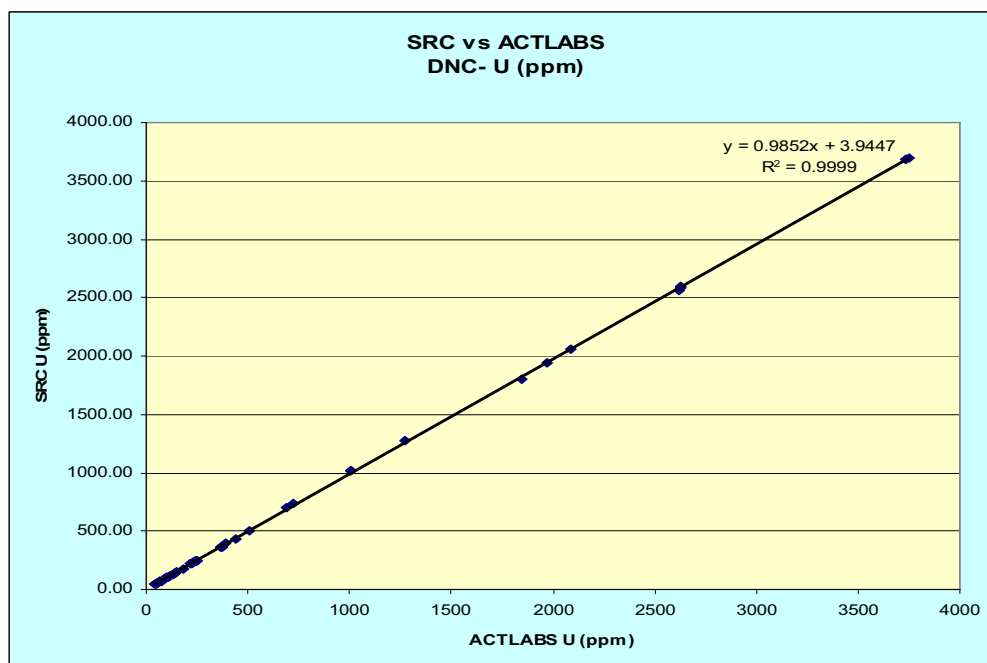
50 samples were chosen from Summer 2007 coarse rejects to create new pulps for an interlab comparison. For each sample, two splits of homogenized pulps were created with one sent to ActLabs and one to SRC to be analyzed for uranium by the DNC method. The mean of the ActLabs results were slightly higher (1.76% higher) than SRC results but a very strong correlation was found between two Labs as is shown in below tables and figures (Tables 14-4 and 14-5, Figures 14-22 and 14-23).

**TABLE 14-4 DESCRIPTIVE ANALYSIS OF LAB RESULTS**

<i>SRC lab</i>			
Mean	643.07	Mean	631.9
Standard Error	136.84	Standard Error	132.81
Median	223	Median	223
Mode	1010	Mode	1020
Standard Deviation	967.63	Standard Deviation	939.08
Sample Variance	936309	Sample Variance	881875
Kurtosis	3.194	Kurtosis	3.2214
Skewness	2.009	Skewness	2.004
Range	3705.2	Range	3606
Minimum	44.8	Minimum	44
Maximum	3750	Maximum	3650
Sum	32154	Sum	31595
Count	50	Count	50
Confidence Level(95.0%)	275	Confidence Level(95.0%)	266.88



**FIGURE 14-22 BAR GRAPH COMPARING SRC LABORATORIES AND ACTIVATION LABORATORIES RESULTS**



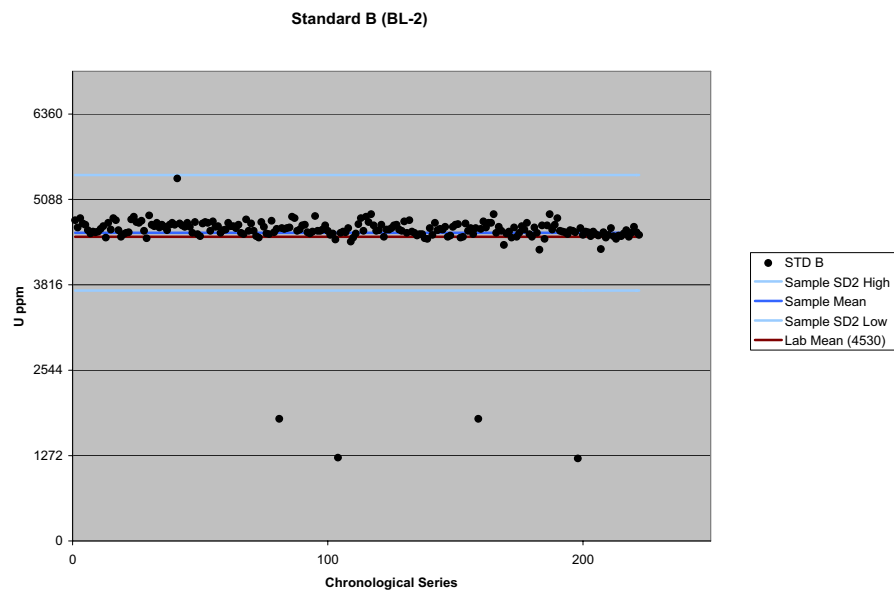
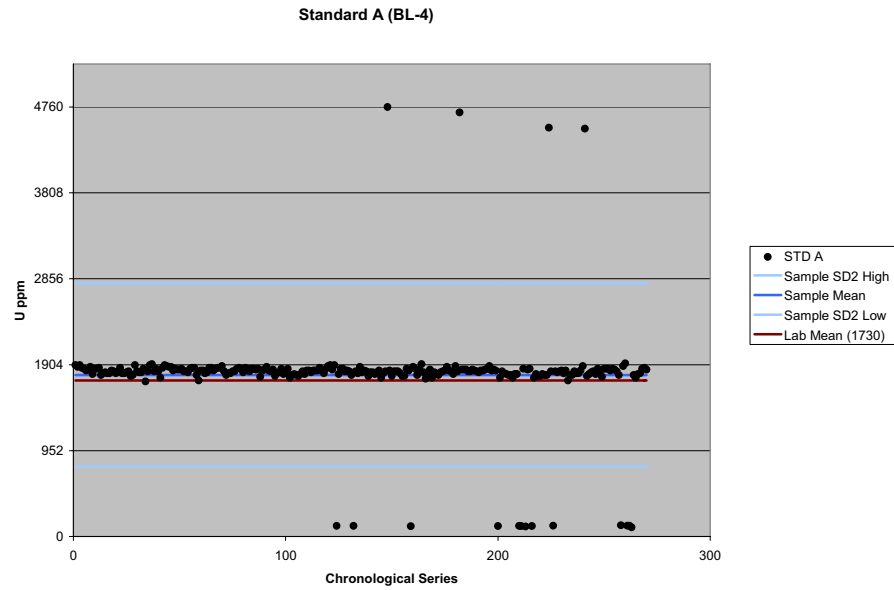
**FIGURE 14-23 COMPARISON OF DNC RESULTS BETWEEN LABS**

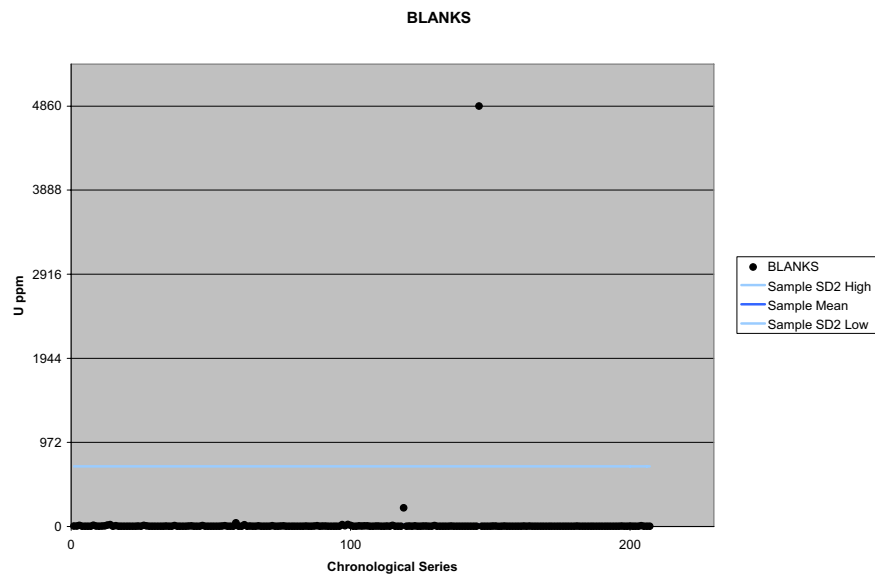
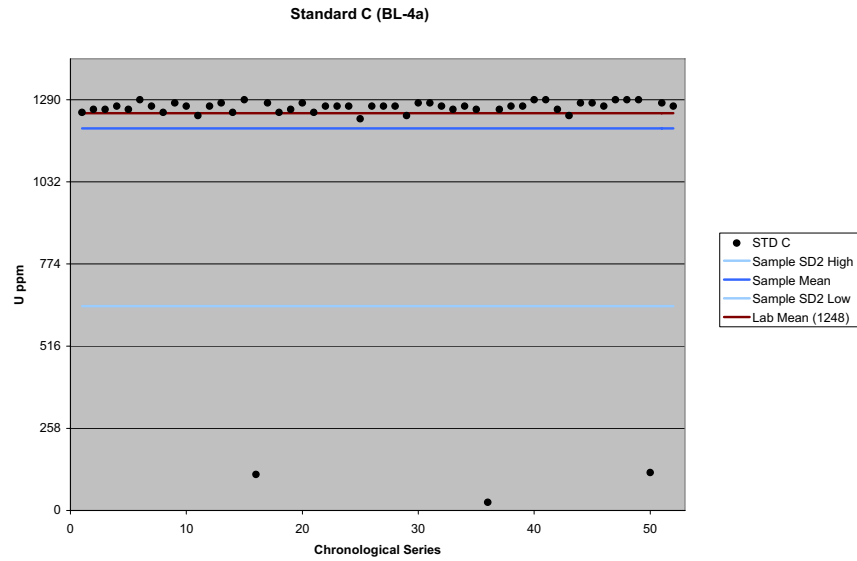
**TABLE 14-5 T-TEST RESULTS BETWEEN LABS**

<b>t-Test: Paired Two Sample for Means</b>		
	<i>ACT</i>	<i>SRC</i>
Mean	643.072	631.9
Variance	936308.8514	881875.1
Observations	50	50
Pearson Correlation	0.999858033	
Hypothesized Mean Difference	0	
df	49	
t Stat	2.411634688	
P(T<=t) one-tail	0.009836699	
t Critical one-tail	1.676550893	
P(T<=t) two-tail	0.019673399	
t Critical two-tail	2.009575199	

## Appendix 14-1

### Original Graphs / List of Mislabeled Samples





**- Mislabelled as Standard A Samples -**

Sample	U_ppm	Possible type	File
54000	118.04181	STD D	A07-6192final
53000	118.04181	STD D	A07-5948final
38380	4760.00223	STD B	A07-4603final
52820	114.98901	STD D	A07-5998final
51680	4699.96372	STD B	A07-5292finalrevised
53900	117.02421	STD D	A07-5796final
52860	118.97462	STD D	A07-5997final
52900	116.00661	STD D	A07-5997final
52960	112.021	STD D	A07-5997final
52920	116.00661	STD D	A07-5997final
59460	4530.02421	STD B	A07-5823final
53960	119.99222	STD D	A07-5945final
53340	4520.01779	STD B	A07-5123final
62920	124.99543	STD D	A07-6190final
52800	121.00982	STD D	A07-6040finalrev
52760	119.99222	STD D	A07-6040finalrev
52000	103.03219	STD D	A07-6040finalrev

**- Mislabelled as Standard B Samples -**

Sample	U_ppm	Possible Type	File
50560	1819.9809	STD A	A07-4988final
61780	1240.03265	STD C	A08-0601final2
58080	1819.9809	STD A	A07-5489final
D00580	1230.02623	STD C	A08-1156final

**- Mislabelled as Standard C Samples -**

Sample	U_ppm	Possible type	File
56760	113.0386	STD D	A08-0448final3
D04421	25.27045	BLANK	A08-1877final
D04500	118.97462	STD D	A08-1886final

**- Mislabelled as Blank Sample -**

Sample	U_ppm	Possible type	File
D00680	4859.98161	STD B	A08-1681final

## Appendix 14-2

### Core Duplicates- Descriptive Analysis

<i>Core (U_ppm)</i>		<i>Core Duplicate (U_ppm)</i>	
Mean	128.336553	Mean	124.6133455
Standard Error	22.44980455	Standard Error	23.31666016
Median	18.06243	Median	18.48643
Mode	6.02081	Mode	0.5936
Standard Deviation	365.4563407	Standard Deviation	379.5677277
Sample Variance	133558.337	Sample Variance	144071.6599
Kurtosis	27.30562613	Kurtosis	39.64704036
Skewness	5.041675834	Skewness	5.918035908
Range	2689.94568	Range	3379.87973
Minimum	0.0848	Minimum	0.0848
Maximum	2690.03048	Maximum	3379.96453
Sum	34009.18654	Sum	33022.53657
Count	265	Count	265
Confidence Level(95.0%)	44.20345051	Confidence Level(95.0%)	45.91028092

## Appendix 14-3

### Pulp duplicate- Descriptive analysis

<i>Sample (U_ppm)</i>		<i>Pulp Duplicate(U_ppm)</i>	
Mean	152.101407	Mean	151.4462312
Standard Error	26.21258052	Standard Error	26.03565092
Median	16.1	Median	15.5
Mode	2.9	Mode	0.5
Standard Deviation	640.4672735	Standard Deviation	636.1442494
Sample Variance	410198.3285	Sample Variance	404679.5061
Kurtosis	117.8799861	Kurtosis	120.5696983
Skewness	9.675243746	Skewness	9.769879646
Range	10000.1	Range	10000.1
Minimum	-0.1	Minimum	-0.1
Maximum	10000	Maximum	10000
Sum	90804.54	Sum	90413.4
Count	597	Count	597
Confidence Level(95.0%)	51.4802545	Confidence Level(95.0%)	51.13277323



## 15 ADJACENT PROPERTIES

The CMB Uranium Property of Aurora Energy Resources Inc., (Aurora) is located approximately 60 km ENE of Crosshair's CMB Project, and contains the historic Michelin Deposit, which was discovered by British Newfoundland Exploration Limited (Brinex) in 1968. Aurora's CMB Property also hosts several other smaller deposits, including the Jacques Lake, Rainbow, Nash, Inda, and Gear deposits.

The host stratigraphy for the Michelin deposit is the Aillik Group (formerly referred to as 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, which 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 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 that are barren

and metamorphosed to amphibolite. The mineralization thus predated at least the final phase of the deformation.

Aurora recently announced (February 25, 2008) a measured + indicated resource of 67.4 million pounds of  $U_3O_8$  and an additional inferred resource of 35.4 million pounds of  $U_3O_8$  in the Michelin Deposit. This includes open pit resources of 12,941,000 tonnes grading 0.07%  $U_3O_8$  containing 19.5 million pounds of  $U_3O_8$  (measured + indicated) and 1,564,000 tonnes grading 0.05%  $U_3O_8$  containing 1.8 million pounds  $U_3O_8$  (inferred), utilizing an open pit cut-off of 0.03%  $U_3O_8$ , as well as underground resources of 17,459,000 tonnes grading 0.12%  $U_3O_8$  containing 47.9 million pounds of  $U_3O_8$  (measured + indicated) and 12,577,000 tonnes grading 0.12%  $U_3O_8$  containing 33.6 million pounds  $U_3O_8$  (inferred), utilizing an underground cut-off of 0.05%  $U_3O_8$  (Cunningham-Dunlop and Lee, 2008).

The Jacques Lake Deposit, which is located approximately 30 km east-northeast of the Michelin Deposit, contains a measured + indicated resource of 10.4 million pounds of  $U_3O_8$  and an additional inferred resource of 6.9 million pounds of  $U_3O_8$ . The other four zones for which Aurora have released 43-101 compliant resource estimates for, the Rainbow, Nash, Inda, and Gear, collectively contain approximately 6.1 million pounds of  $U_3O_8$  in the indicated category and an additional 7.4 million pounds of  $U_3O_8$  in the inferred category (Cunningham-Dunlop and Lee, 2008). The authors have not verified this information, and the information is not necessarily indicative of the mineralization on the property that is the subject of this technical report.

On April 29, 2008, Silver Spruce Resources Inc. (“Silver Spruce”) and Universal Uranium Ltd. (“Universal”) announced an initial 43-101 compliant resource estimate at the Two Time Zone on their CMB NW property, which is contiguous with the northern portion of Crosshair’s CMB Project. The resource estimate included Indicated Mineral Resources totalling 1.82 million tonnes at a grade of 0.058%  $U_3O_8$  (containing 2.33 million pounds of  $U_3O_8$ ) and Inferred Mineral Resources of 3.16 million tonnes grading

0.053%  $\text{U}_3\text{O}_8$  (containing 3.73 million pounds of  $\text{U}_3\text{O}_8$ ). The resource estimate was prepared by Scott Wilson RPA using a cut-off grade of 0.03%  $\text{U}_3\text{O}_8$ .

The Two Time Zone is hosted by brecciated and fractured granodioritic rocks of the Kanariktok Intrusive Suite. The mineralized zone is characterized by extensive chlorite, carbonate and hematite alteration (Ross, 2008). Rocks of similar age and composition also outcrop on portions of licences 12616M, 12617M and 12618M on the northwestern part of Crosshair's CMB Project. Intercepts from the drilling completed by Silver Spruce include 147 m of 0.041%  $\text{U}_3\text{O}_8$  from drill hole CMB-07-12 and 107 m of 0.052%  $\text{U}_3\text{O}_8$  from drill hole CMB-07-6. The authors have not verified this information, and the information is not necessarily indicative of the mineralization on the property that is the subject of this technical report.

The claims on which the Two Time Zone is located form part of an agreement signed between Universal and Silver Spruce on January 23, 2006. Under the terms of the agreement, Universal had earned a 60% interest in the claims subject to the agreement. In July 2008, Crosshair acquired Universal's 60% interest in the properties by paying to Universal \$500,000 and issuing 10,000,000 common shares plus 7,500,000 warrants entitling Universal to purchase an additional common share of Crosshair at \$1.00 per share for a period of three years. The properties at the time of acquisition consisted of 4,741 claims covering 118,525.

Large portions of the Central Mineral Belt immediately to the east and northeast of Crosshair's CMB Project are held by Bayswater Uranium Corp. and Mega Uranium Ltd., both of which have properties contiguous with Crosshair's CMB Project. Other significant claim holders in the vicinity of Crosshair's CMB Project include Santoy Resources Ltd., Takara Resources Inc., Capella Resources Ltd., and White Bear Resources.

## 16 MINERAL PROCESSING AND METALLURGICAL TESTING

Preliminary metallurgical test work was performed by the Saskatchewan Research Council in 2007 on select samples from Crosshair's CMB Project. Test work concentrated on the Main Composite, which contained 0.108%  $\text{U}_3\text{O}_8$  and 0.173%  $\text{V}_2\text{O}_5$ . Limited test work was also done on the ML-32 Composite, which contained 0.470%  $\text{U}_3\text{O}_8$  and 0.096%  $\text{V}_2\text{O}_5$ , and the ML-40 Composite, which contained 0.065%  $\text{U}_3\text{O}_8$  and 0.200%  $\text{V}_2\text{O}_5$ .

Of the several different types of tests that were performed, the best recoveries were from Agitated Sulphuric Acid Leach tests. At ambient temperatures and samples ground to -200 mesh, recoveries from the Main Composite after 6.5 hours are 95.2% uranium and 35.1% vanadium, and from the ML-32 Composite after 5.5 hours are 98.5% uranium and 35.6% vanadium. The base conditions for the tests in each case were to maintain 10g/L free acid ( $\text{H}_2\text{SO}_4$ ), ORP of >450mV,  $\text{Fe}^{3+}$  at 2g/L, and pulp density of 40%.

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

In 1979, Shell Canada Resources Limited (Shell) calculated a resource estimate for the UC and LC that was based on their work from 1976 to 1979. Shell's historical estimate included 1.1 million pounds of  $U_3O_8$  at an average grade of approximately 0.1%  $U_3O_8$  in the UC, and 4.92 million pounds at an average grade of 0.027%  $U_3O_8$  for the LC. However, it is emphasized that these historical resources were not prepared in compliance with NI 43-101 standards, and should not be relied upon.

In 2005, using the available Shell data and augmented by additional Crosshair assays, Scott Wilson RPA prepared an initial NI 43-101 compliant inferred resource of 124,000 t at an average grade of 0.25%  $U_3O_8$  (688,000 lbs of  $U_3O_8$ ) in the UC (Roscoe & Cook, 2005).

In 2007 Lacroix and Associates prepared an updated resource calculation that included both the UC and LC Zones. The updated estimate for the UC Zone, utilizing a block cut-off of 0.015%  $U_3O_8$ , included an indicated mineral resource totalling 3.75 million t at a grade of 0.039%  $U_3O_8$  (or 3.19 million pounds of  $U_3O_8$ ), as well as an additional inferred resource of 4.29 million t at a grade of 0.027%  $U_3O_8$  (or 2.52 million pounds of  $U_3O_8$ ). The resource calculation for the LC Zone, utilizing a block cut-off of 0.035%  $U_3O_8$ , included an inferred mineral resource totalling 2.03 million t at a grade of 0.046 %  $U_3O_8$  (or 2.07 million pounds of  $U_3O_8$ ).

For the current resource estimate prepared by Gary Giroux, P.Eng., the C Zone deposit was modeled as four separate zones, including three in the UC rock package and a fourth for the LC zone. Resource estimates have also been prepared for two new deposits (the Trout Pond and Armstrong deposits), which are located along strike to the southwest of the C Zone.

The current total indicated resource for the UC is 6.92 million t at a grade of 0.034%  $U_3O_8$  or 5.19 million pounds of  $U_3O_8$ . The UC also contains additional resources in the inferred category which, when combined with inferred resources in the LC, Trout Pond and Armstrong zones total 8.17 million t at a grade of 0.032%  $U_3O_8$  or 5.82 million pounds of  $U_3O_8$ . With the exception of the LC, these estimates are reported at a block cut-off of 0.015%  $U_3O_8$ . In the case of the LC, a cut-off grade of 0.035%  $U_3O_8$  is used, reflecting higher costs associated with underground mining. Details are as follows.

## DATA ANALYSIS

The following section describes an update to the resource present on the Central Mineral Belt Uranium Project for Crosshair Exploration & Mining Corporation. The data supplied by Crosshair consisted of 233 drill holes in the C-Zone area (43,017 m), 31 in the Trout Pond area (3,375 m) and 32 drill holes in the Armstrong area (6,572 m). The drill holes used in the estimate are listed in Appendix 2. Within the three mineralized areas a total of 21,642 samples were assayed for  $U_3O_8$  while 21,000 were assayed for  $V_2O_5$  (samples assayed for  $U_3O_8$  and not assayed for  $V_2O_5$  were left blank and ignored in the vanadium compositing procedure). A total of 2,235 assays for  $U_3O_8$  reported at < 0.001 were assigned a nominal 0.001 % grade. Sample intervals not assayed for  $U_3O_8$  were also assigned a nominal value of 0.001 %.

Geologists from Crosshair using Leapfrog software developed four mineralized solids within the C Zone, two within the Armstrong area and one within the Trout Pond area. The mineralized zones modelled were as follows:

Upper C Main:	UC-MAIN
Upper C Mylonite:	UC-MYL
Upper C South West:	UC-SW
Lower C:	LC
Armstrong Z1:	Z1
Armstrong Z3:	Z3
Trout Pond:	TP

The three upper c zones are separated from the lower c zone by a prominent thrust fault.

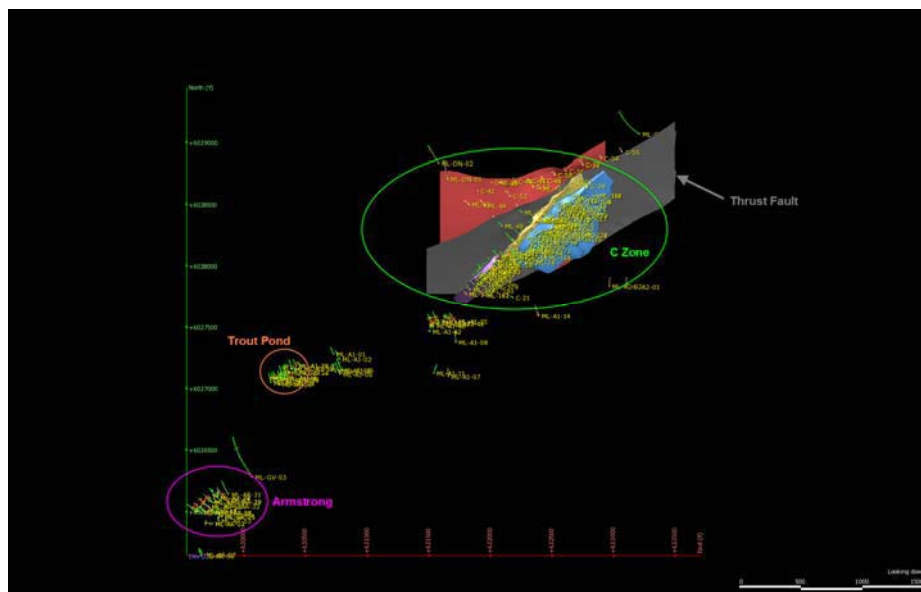


FIGURE 17-1 LOCATION OF GEOLOGIC DOMAINS

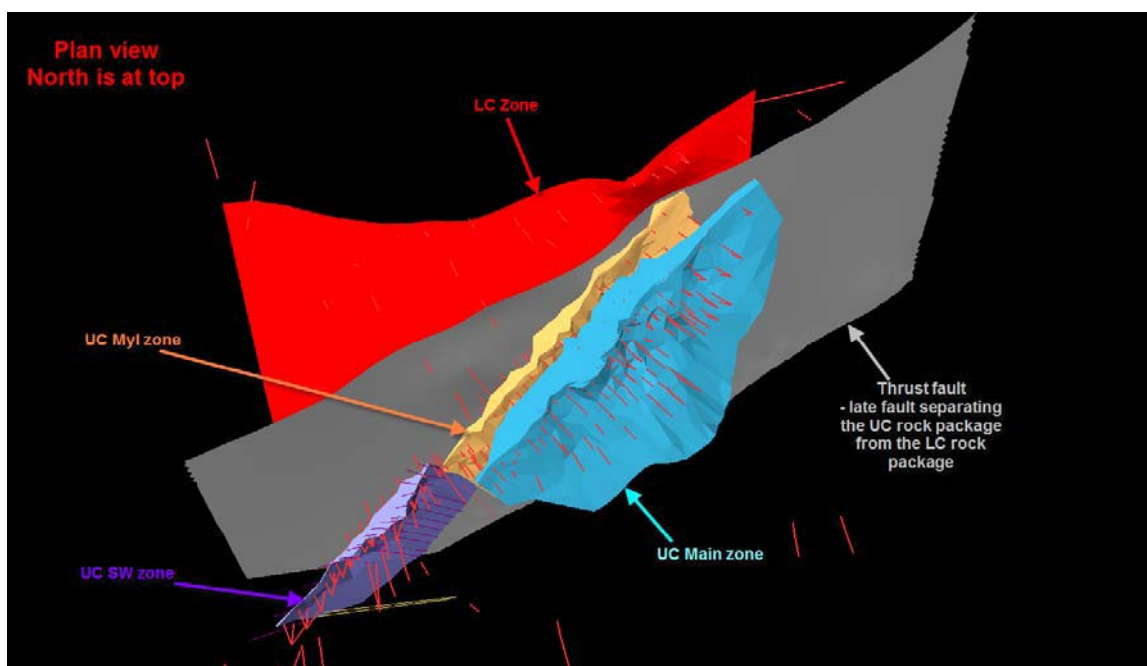
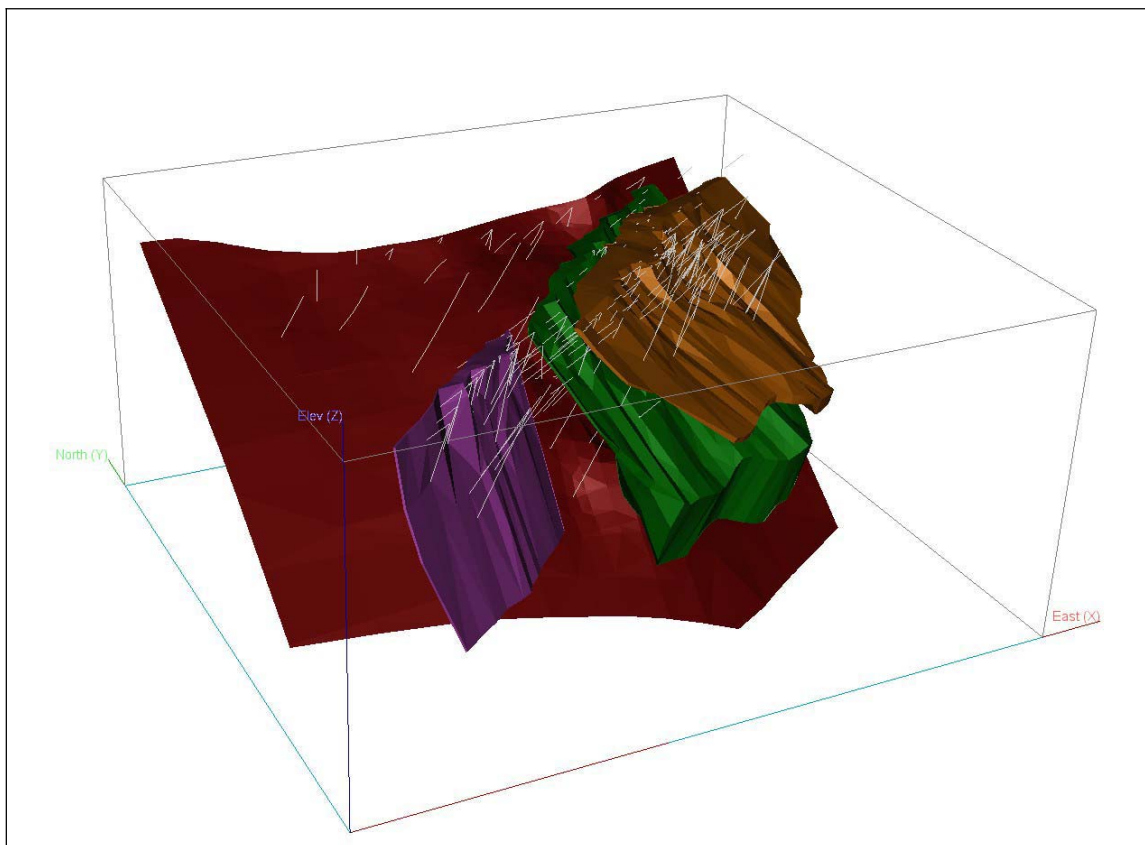
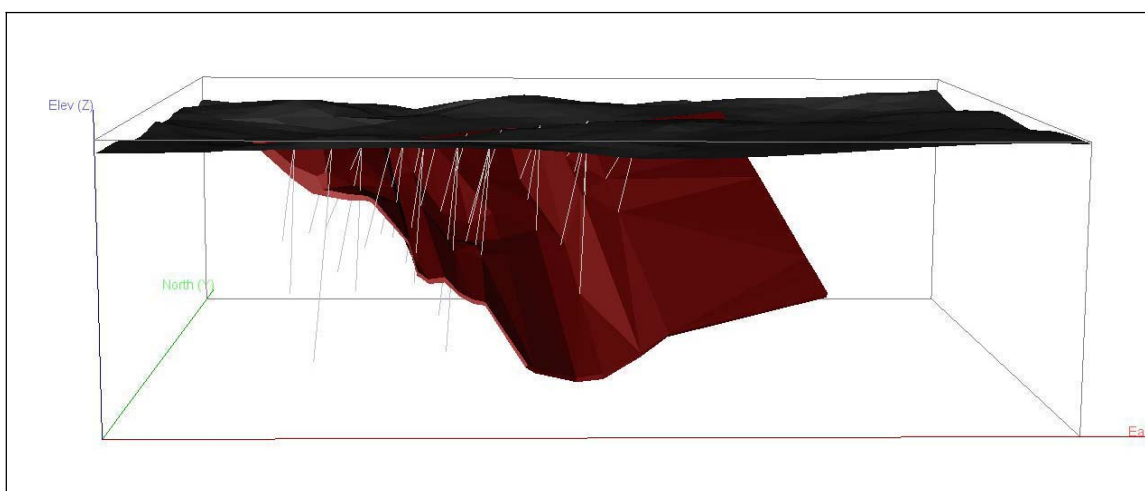


FIGURE 17-2 LOCATION OF GEOLOGIC DOMAINS WITHIN THE C ZONE



**FIGURE 17-3 LOCATION OF GEOLOGIC DOMAINS WITHIN THE C ZONE**  
 Upper Main (orange), Upper Mylonite (green), Upper SW (purple) and Lower C (red)



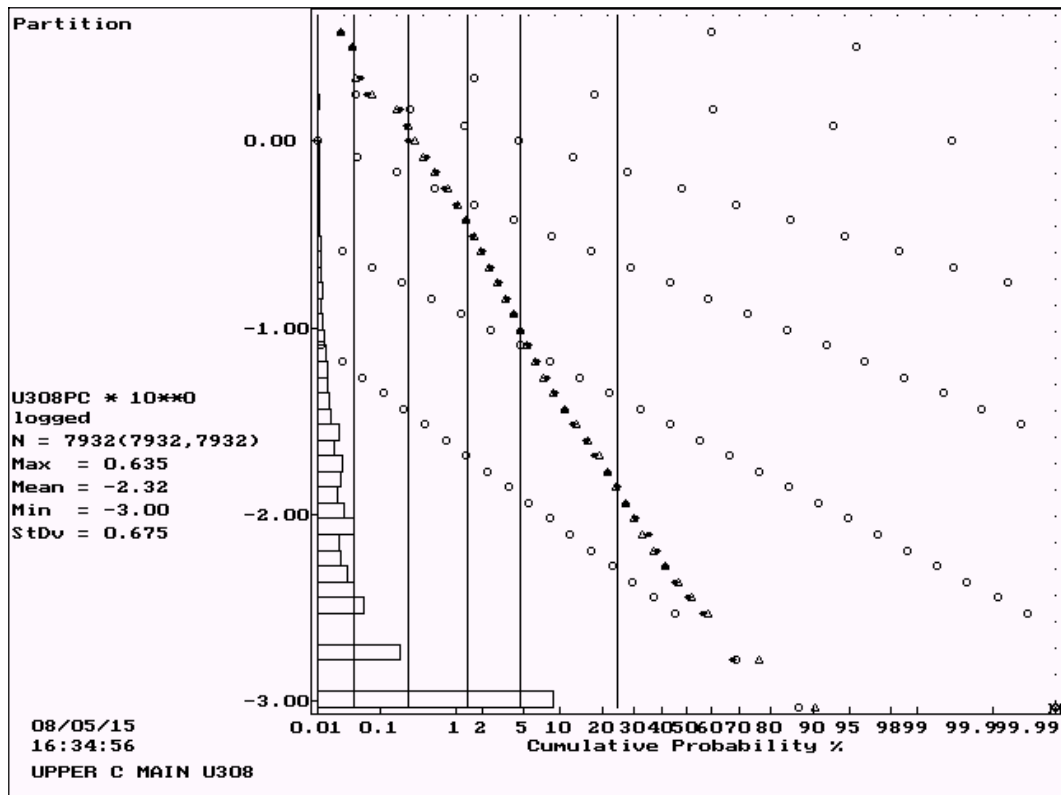
**FIGURE 17-4 LOCATION OF MINERALIZED DOMAIN IN THE TROUT POND ZONE**  
 Mineralized solid in red, Surface Topography in green, and Drill Hole Traces



The statistics for each zone are presented below in Table 17-1.

	UC-MAIN		UC-MYL		UC-SW		LC		TP		Armstrong	
	U <sub>3</sub> O <sub>8</sub> (%)	V <sub>2</sub> O <sub>5</sub> (%)	U <sub>3</sub> O <sub>8</sub> (%)	V <sub>2</sub> O <sub>5</sub> (%)	U <sub>3</sub> O <sub>8</sub> (%)	V <sub>2</sub> O <sub>5</sub> (%)	U <sub>3</sub> O <sub>8</sub> (%)	V <sub>2</sub> O <sub>5</sub> (%)	U <sub>3</sub> O <sub>8</sub> (%)	V <sub>2</sub> O <sub>5</sub> (%)	U <sub>3</sub> O <sub>8</sub> (%)	V <sub>2</sub> O <sub>5</sub> (%)
Number of Samples	7,932	7,844	2,755	2,639	1,608	1,586	390	321	202	202	169	162
Mean Grade	0.027	0.096	0.024	0.081	0.025	0.060	0.043	0.064	0.066	0.125	0.097	0.064
Standard Deviation	0.129	0.077	0.067	0.063	0.079	0.074	0.099	0.045	0.110	0.081	0.705	0.049
Minimum Value	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.009	0.001	0.004
Maximum Value	4.32	0.94	1.22	0.57	1.95	0.97	1.15	0.51	0.873	0.405	9.12	0.324
Coefficient of Variation	4.86	0.80	2.85	0.78	3.16	1.24	2.31	0.72	1.68	0.65	7.30	0.77

The grade distribution for both variables within each zone was examined using lognormal cumulative frequency plots to determine if capping was required and if so at what level. In each case positively skewed grade distributions lead to a lognormal transform and lognormal cumulative frequency plots were produced. Each plot was partitioned and showed multiple overlapping lognormal populations. For example  $U_3O_8$  assays in the UC-MAIN Zone (see Figure 17-6) showed 6 overlapping lognormal populations.



**FIGURE 17-6 LOGNORMAL CUMULATIVE FREQUENCY PLOT FOR  $U_3O_8$  IN UPPER C MAIN ZONE**

**TABLE 17-2  
SUMMARY OF  $U_3O_8$  POPULATIONS IN UPPER C MAIN ZONE**

Population	Mean $U_3O_8$ (%)	Proportion of Data	Number of Samples
1	4.027	0.04 %	3
2	1.607	0.19 %	15
3	0.571	1.08 %	86
4	0.170	3.37 %	267
5	0.027	19.60 %	1,555
6	0.003	75.72 %	6,006

Populations 1 and 2 are erratic high grade and represent a combined 0.23% of the data for the Upper C Main Zone. A cap level of 2 standard deviations above the mean of population 3, a value of 1.11 %  $U_3O_8$  was used to cap a total of 19 assays at 1.11 %  $U_3O_8$ .

A similar procedure was used for  $U_3O_8$  on the other zones and all zones for  $V_2O_5$ . The capping strategy is summarized below in Table 17-3. Table 17-4 shows the effects of capping on both the mean grade and the coefficient of variation.

**TABLE 17-3**  
**SUMMARY OF CAPPING STRATEGY FOR  $U_3O_8$  AND  $V_2O_5$  IN MINERALIZED ZONES**

Zone	Variable	Cap Level (%)	Number Capped
Upper C Main Zone	$U_3O_8$	1.11 %	19
	$V_2O_5$	0.67 %	4
Upper C Mylonite Zone	$U_3O_8$	0.67 %	8
	$V_2O_5$	0.40 %	4
Upper C SW Zone	$U_3O_8$	0.59 %	5
	$V_2O_5$	0.54 %	1
Lower C	$U_3O_8$	0.28 %	7
	$V_2O_5$	0.19 %	3
Trout Pond	$U_3O_8$	0.51 %	1
	$V_2O_5$	0.35 %	4
Armstrong	$U_3O_8$	0.81 %	2
	$V_2O_5$	0.19 %	3

The effects of capping are shown below.

**TABLE 17-4**  
**STATISTICS FOR CAPPED  $U_3O_8$  AND  $V_2O_5$  IN MINERALIZED ZONES**

	UC-MAIN		UC-MYL		UC-SW		LC		TP		Armstrong	
	$U_3O_8$ (%)	$V_2O_5$ (%)	$U_3O_8$ (%)	$V_2O_5$ (%)	$U_3O_8$ (%)	$V_2O_5$ (%)	$U_3O_8$ (%)	$V_2O_5$ (%)	$U_3O_8$ (%)	$V_2O_5$ (%)	$U_3O_8$ (%)	$V_2O_5$ (%)
Number of Samples	7,932	7,844	2,755	2,639	1,608	1,586	390	321	202	202	169	162
Mean Grade	0.025	0.096	0.023	0.080	0.023	0.060	0.036	0.062	0.064	0.124	0.047	0.062
Standard Deviation	0.090	0.076	0.059	0.062	0.057	0.072	0.056	0.036	0.099	0.078	0.106	0.044
Minimum Value	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.009	0.001	0.004
Maximum Value	1.11	0.67	0.67	0.40	0.59	0.54	0.28	0.19	0.51	0.35	0.81	0.19
Coefficient of Variation	3.67	0.80	2.57	0.77	2.43	1.20	1.55	0.57	1.55	0.63	2.27	0.71

## Composites

Within each of the six mineralized domains uniform down hole 2 m composites were produced that honoured the solid boundaries. Intervals less than 1 m at solid boundaries were combined with adjoining samples to produce a uniform support of  $2 \pm 1$  m. The statistics for 2 m composites within each of the mineralized domains are shown below.

**TABLE 17-5**  
**STATISTICS FOR 2 M COMPOSITED  $U_3O_8$  AND  $V_2O_5$  IN MINERALIZED ZONES**

	<b>UC-MAIN</b>		<b>UC-MYL</b>		<b>UC-SW</b>		<b>LC</b>		<b>TP</b>		<b>Armstrong</b>	
	<b><math>U_3O_8</math> (%)</b>	<b><math>V_2O_5</math> (%)</b>	<b><math>U_3O_8</math> (%)</b>	<b><math>V_2O_5</math> (%)</b>	<b><math>U_3O_8</math> (%)</b>	<b><math>V_2O_5</math> (%)</b>	<b><math>U_3O_8</math> (%)</b>	<b><math>V_2O_5</math> (%)</b>	<b><math>U_3O_8</math> (%)</b>	<b><math>V_2O_5</math> (%)</b>	<b><math>U_3O_8</math> (%)</b>	<b><math>V_2O_5</math> (%)</b>
Number of Samples	4,078	4,064	1,189	1,167	714	712	104	99	57	53	79	77
Mean Grade	0.013	0.051	0.013	0.051	0.014	0.037	0.033	0.051	0.058	0.112	0.024	0.036
Standard Deviation	0.046	0.063	0.030	0.056	0.033	0.056	0.036	0.036	0.061	0.070	0.039	0.040
Minimum Value	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Maximum Value	0.933	0.492	0.419	0.345	0.453	0.445	0.162	0.143	0.327	0.313	0.176	0.165
Coefficient of Variation	3.61	1.24	2.22	1.11	2.47	1.51	1.10	0.71	1.05	0.62	1.63	1.11

## Variography

Each domain was modelled independently for both  $U_3O_8$  and  $V_2O_5$ . Pairwise relative semivariograms were produced in each domain in the three principal directions: along strike, down dip and across dip. In most cases nested spherical models were fit to the data. For the Armstrong domain there was insufficient data to model the Z1 and Z3 zones independently. A general model was fit to the combined data set and then the three directions were adjusted to fit the strike and dip of each zone, which were slightly different. For areas outside the various mineralized solids considered waste, isotropic nested models were fit to both variables. The semivariogram parameters are tabulated below.

**TABLE 17-6**  
**SUMMARY OF SEMIVARIOGRAM PARAMETERS**

Domain	Variable	Azimuth	Dip	C <sub>0</sub>	C <sub>1</sub>	C <sub>2</sub>	Short Range (m)	Long Range (m)
UC–Main	U <sub>3</sub> O <sub>8</sub>	43°	0°	0.20	0.30	0.18	20	100
		313°	-50°	0.20	0.30	0.18	12	40
		133°	-40°	0.20	0.30	0.18	35	50
	V <sub>2</sub> O <sub>5</sub>	43°	0°	0.40	0.40	0.30	20	140
		313°	-50°	0.40	0.40	0.30	20	80
		133°	-40°	0.40	0.40	0.30	20	120
UC-Mylonite	U <sub>3</sub> O <sub>8</sub>	41°	0°	0.50	0.20	0.18	15	100
		311°	-47°	0.50	0.20	0.18	30	40
		131°	-43°	0.50	0.20	0.18	15	90
	V <sub>2</sub> O <sub>5</sub>	41°	0°	0.30	0.50	0.15	26	120
		311°	-47°	0.30	0.50	0.15	24	40
		131°	-43°	0.30	0.50	0.15	24	100
UC-SW	U <sub>3</sub> O <sub>8</sub>	47°	0°	0.30	0.20	0.40	30	80
		317°	-9°	0.30	0.20	0.40	10	40
		137°	-81°	0.30	0.20	0.40	15	60
	V <sub>2</sub> O <sub>5</sub>	47°	0°	0.30	0.52	0.17	30	80
		317°	-9°	0.30	0.52	0.17	10	30
		137°	-81°	0.30	0.52	0.17	10	40
Lower C	U <sub>3</sub> O <sub>8</sub>	58°	0°	0.20	0.50	0.20	40	50
		328°	-50°	0.20	0.50	0.20	10	20
		148°	-40°	0.20	0.50	0.20	25	80
	V <sub>2</sub> O <sub>5</sub>	58°	0°	0.20	0.10	0.30	40	80
		328°	-50°	0.20	0.10	0.30	10	20
		148°	-40°	0.20	0.10	0.30	10	40
Trout Pond	U <sub>3</sub> O <sub>8</sub>	51°	0°	0.40	0.30		50	
		321°	-43°	0.40	0.30		20	
		141°	-47°	0.40	0.30		30	
	V <sub>2</sub> O <sub>5</sub>	51°	0°	0.20	0.25		50	
		321°	-43°	0.20	0.25		20	
		141°	-47°	0.20	0.25		40	
Armstrong Z1	U <sub>3</sub> O <sub>8</sub>	65°	0°	0.20	0.70	0.30	60	120
		335°	-15°	0.20	0.70	0.30	10	20
		155°	-75°	0.20	0.70	0.30	50	80
	V <sub>2</sub> O <sub>5</sub>	65°	0°	0.20	0.60	0.40	60	120
		335°	-15°	0.20	0.60	0.40	10	20
		155°	-75°	0.20	0.60	0.40	30	60
Armstrong Z3	U <sub>3</sub> O <sub>8</sub>	50°	0°	0.20	0.70	0.30	60	120
		320°	-27°	0.20	0.70	0.30	10	20
		140°	-63°	0.20	0.70	0.30	50	80
	V <sub>2</sub> O <sub>5</sub>	50°	0°	0.20	0.60	0.40	60	120
		320°	-27°	0.20	0.60	0.40	10	20
		140°	-63°	0.20	0.60	0.40	30	60
Waste	U <sub>3</sub> O <sub>8</sub>	Omni Directional		0.04	0.03	0.03	15	50
	V <sub>2</sub> O <sub>5</sub>	Omni Directional		0.10	0.15	0.22	20	46

## Block Models

Three separate block models were superimposed over the C-Zone, Trout Pond Zone and Armstrong zone respectively. In each case blocks were dimensioned 10 m E-W, 10 m N-S and 4 m high. The block model origins were as follows:

### C Zone

Lower Left Corner		
631500 E	Size of Column – 10 m	170 Columns
6037500 N	Size of Row – 10 m	165 Rows
Top of Model		
415 Elevation	Size of Level – 4 m	192 Levels
No Rotation.		

### Trout Pond

Lower Left Corner		
630000 E	Size of Column – 10 m	80 Columns
6037000 N	Size of Row – 10 m	40 Rows
Top of Model		
370 Elevation	Size of Level – 4 m	52 Levels
No Rotation.		

### Armstrong

Lower Left Corner		
629410 E	Size of Column – 10 m	59 Columns
6035800 N	Size of Row – 10 m	50 Rows
Top of Model		
380 Elevation	Size of Level – 4 m	103 Levels
No Rotation.		

## Bulk Density

Specific gravity determinations were made for each of the three main zones by Jacques Whitford Laboratories and by Crosshair staff, at site. A total of 602 measurements were made from a variety of lithologies on the 4 C Zones. These ranged from a low of 1.45 to a high of 3.97 in a section of massive pyrite and 4.12 in a section of massive sulphide. Removing the lowest value and the two highest values the remaining 599 measurements ranged from low of 2.55 to a high of 3.13 with an arithmetic average of 2.80. Of the samples with reported lithologies the following table summarizes specific gravity as a function of rock type.

**TABLE 17-7**  
**SPECIFIC GRAVITIES FOR C ZONES SORTED BY LITHOLOGY**

<b>Lithology</b>	<b>Number</b>	<b>Minimum Sg</b>	<b>Maximum Sg</b>	<b>Average Sg</b>
Arenite-Argillites	7	2.64	2.87	2.76
Basalt	124	2.72	3.08	2.86
Conglomerate	48	2.65	2.85	2.69
Chert	5	2.64	2.79	2.69
Gabbro	4	2.82	2.93	2.87
Mafic Dykes	10	2.75	3.02	2.82
Mafic Volcanics	234	2.66	3.13	2.84
Sandstones	127	2.55	3.03	2.73

While there are clearly differences in specific gravity between the various rock types, they are not significant and since the lithologies of the deposit have not been modelled they are, at present, unusable. Future estimates should include a generalized lithology model to allow for better delineation of bulk density.

The intervals with measured specific gravity (usually about 10 cm of core) were compared to the mineralized solids and each specific gravity measurement was tagged as to Domain. The following tabulation shows the results sorted by domain.

**TABLE 17-8**  
**SPECIFIC GRAVITIES FOR C ZONES SORTED BY DOMAIN**

<b>Domain</b>	<b>Number</b>	<b>Minimum Sg</b>	<b>Maximum Sg</b>	<b>Average Sg</b>
Upper C Main	100	2.66	2.96	2.83
Upper C Mylonite	39	2.74	3.06	2.84
Upper C SW	34	2.63	2.93	2.76
Lower C	2	2.72	2.81	2.77
Waste	423	2.55	3.13	2.80

These specific gravities were used to convert volumes to tonnages for the C Zone. For blocks containing more than one domain a weighted average was used. For blocks near surface containing some proportion of over burden an SG of 1.20 was assigned to the over burden portion of the block.

A similar set of specific gravity data was collected for the Trout Pond Zone with a total of 146 measurements taken. These ranged from a low of 2.67 to a high of 3.06 with the arithmetic average of 2.82. The results for samples with reported lithology are tabulated below.

**TABLE 17-9**  
**SPECIFIC GRAVITIES FOR TROUT POND ZONE SORTED BY LITHOLOGY**

<b>Lithology</b>	<b>Number</b>	<b>Minimum Sg</b>	<b>Maximum Sg</b>	<b>Average Sg</b>
Argillites	3	2.69	2.82	2.75
Basalt	26	2.67	3.06	2.82
Gabbro	8	2.75	3.06	2.86
Mafic Volcanics	93	2.70	3.00	2.82
Shales and Siltstones	5	2.67	2.81	2.76

As with the C Zones there are slight differences between lithologies. The pieces of core with measured specific gravity were compared to the interpreted mineralized solid for Trout Pond and samples within the solid were tagged.

**TABLE 17-10**  
**SPECIFIC GRAVITIES FOR TROUT POND ZONE SORTED BY DOMAIN**

<b>Domain</b>	<b>Number</b>	<b>Minimum Sg</b>	<b>Maximum Sg</b>	<b>Average Sg</b>
Mineralized Zone	5	2.74	2.83	2.80
Waste	141	2.67	3.06	2.82

Blocks within the mineralized solid were given a specific gravity of 2.80 while those in waste were given 2.82. For blocks near surface containing some proportion of overburden an SG of 1.20 was assigned to the overburden portion of the block. Blocks containing multiple zones were given a weighted average.

Within the Armstrong drill holes a total of 303 measurements were taken. These ranged from a low of 2.31 to a high of 3.06 with the arithmetic average of 2.83. The results for samples with reported lithology are tabulated below.



**TABLE 17-11**  
**SPECIFIC GRAVITIES FOR ARMSTRONG ZONE SORTED BY LITHOLOGY**

<b>Lithology</b>	<b>Number</b>	<b>Minimum Sg</b>	<b>Maximum Sg</b>	<b>Average Sg</b>
Argillites	68	2.13	2.94	2.79
Basalt	12	2.79	3.01	2.86
Chert	7	2.66	3.06	2.80
Gabbro	2	2.94	3.00	2.97
Mafic dykes	4	2.78	2.88	2.82
Mafic Volcanics	168	2.36	3.05	2.85
Shales and Siltstones	42	2.19	3.01	2.81

As with the C Zones there are slight differences between lithologies. The pieces of core with measured specific gravity were compared to the interpreted mineralized solid for Armstrong and samples within the Z1 and Z3 solids were tagged. Unfortunately most measurements were made in areas outside the mineralized zones.

**TABLE 17-12**  
**SPECIFIC GRAVITIES FOR ARMSTRONG ZONE SORTED BY DOMAIN**

<b>Domain</b>	<b>Number</b>	<b>Minimum Sg</b>	<b>Maximum Sg</b>	<b>Average Sg</b>
Z1 Zone	1			2.83
Z3 Zone	3	2.19	2.86	2.60
Waste	299	2.13	3.06	2.83

Blocks within the mineralized solid and waste were both were given a specific gravity of 2.83.

### **Block Model Interpolation**

Grades for  $U_3O_8$  and  $V_2O_5$  were interpolated into blocks by ordinary kriging. Within the C Zone blocks with some percentage of the Upper C Main Zone, Upper C Mylonite Zone, Upper C SW Zone and LC Zone were estimated using only composites from the appropriate zone. Blocks within the Trout Pond Zone were estimated using composites from the Trout Pond mineralized solid. Blocks within the Z1 and Z3 Armstrong Zones were estimated using only composites from either Z1 or Z3 zone.

In all cases blocks were kriged in a series of passes using search ellipses with the dimensions tied to the range of the appropriate semivariogram. For Pass 1 the search ellipse dimensions were equal to  $\frac{1}{4}$  of the semivariogram range in each of the three principal directions. If a minimum of 4 composites were not found in Pass 1 the blocks were not estimated. Pass 2 expanded the search ellipse dimensions to  $\frac{1}{2}$  the semivariogram range and again a minimum of 4 composites was required to estimate a block. A third pass using the full range and a fourth pass using twice the range completed the kriging exercise. In all cases, if more than 12 composites were found, the closest 12 were used. Within the Lower C Zone a fifth pass using the same search dimensions as Pass 4 was used but the minimum number of composites was dropped to 2. This allowed for filling in of gaps caused by wider spaced drill holes. In some cases the fourth pass for  $V_2O_5$  was expanded to equal the fourth pass for  $U_3O_8$  to insure that both variables were estimated in all blocks. Blocks not estimated after pass 4 were left blank.

When the mineralized portions of the blocks were estimated a second kriging exercise was completed estimating the grade for the waste portions of the blocks using only composites from outside the mineralized solids. This allowed for two resource estimates: the first for only the mineralized portions of each block representing the resource available if one could mine to the mineralized solid outlines and a second estimate for entire (10 x 10 x 4) m blocks including waste dilution representing the resource available if one mined to the limits of whole blocks. The minable resource would lie somewhere between these two extremes as some edge dilutions is inevitable.

The search ellipse dimensions and orientations for each pass within each zone for each variable are tabulated below.

**TABLE 17-13**  
**SUMMARY OF KRIGING SEARCH PARAMETERS**

Domain	Variable	Pass	Az/Dip	Dist. (m)	Az/Dip	Dist. (m)	Az/Dip	Dist. (m)
C Main	U <sub>3</sub> O <sub>8</sub>	1	43/0	25	313/-50	10	133/-40	12.5
		2	43/0	50	313/-50	20	133/-40	25
		3	43/0	100	313/-50	40	133/-40	50
		4	43/0	200	313/-50	80	133/-40	100
	V <sub>2</sub> O <sub>5</sub>	1	43/0	35	313/-50	20	133/-40	30
		2	43/0	70	313/-50	40	133/-40	60
		3	43/0	140	313/-50	80	133/-40	120
		4	43/0	280	313/-50	160	133/-40	240
C Mylonite	U <sub>3</sub> O <sub>8</sub>	1	41/0	25	311/-47	10	131/-43	22.5
		2	41/0	50	311/-47	20	131/-43	45
		3	41/0	100	311/-47	40	131/-43	90
		4	41/0	200	311/-47	80	131/-43	180
	V <sub>2</sub> O <sub>5</sub>	1	41/0	30	311/-47	10	131/-43	25
		2	41/0	60	311/-47	20	131/-43	50
		3	41/0	120	311/-47	40	131/-43	100
		4	41/0	240	311/-47	80	131/-43	200
C SW	U <sub>3</sub> O <sub>8</sub>	1	47/0	20	317/-9	10	137/-81	15
		2	47/0	40	317/-9	20	137/-81	30
		3	47/0	80	317/-9	40	137/-81	60
		4	47/0	160	317/-9	80	137/-81	120
	V <sub>2</sub> O <sub>5</sub>	1	47/0	20	317/-9	7.5	137/-81	12.5
		2	47/0	40	317/-9	15	137/-81	25
		3	47/0	80	317/-9	30	137/-81	50
		4	47/0	160	317/-9	80	137/-81	120
Lower C	U <sub>3</sub> O <sub>8</sub>	1	58/0	12.5	328/-50	5	148/-40	20
		2	58/0	25	328/-50	10	148/-40	40
		3	58/0	50	328/-50	20	148/-40	80
		4	58/0	100	328/-50	40	148/-40	160
	V <sub>2</sub> O <sub>5</sub>	1	58/0	20	328/-50	5	148/-40	10
		2	58/0	40	328/-50	10	148/-40	20
		3	58/0	80	328/-50	20	148/-40	40
		4	58/0	160	328/-50	40	148/-40	80
Trout Pond	U <sub>3</sub> O <sub>8</sub>	1	51/0	12.5	321/-43	5	141/-47	7.5
		2	51/0	25	321/-43	10	141/-47	15
		3	51/0	50	321/-43	20	141/-47	30
		4	51/0	100	321/-43	40	141/-47	60
	V <sub>2</sub> O <sub>5</sub>	1	51/0	12.5	321/-43	5	141/-47	10
		2	51/0	25	321/-43	10	141/-47	20
		3	51/0	50	321/-43	20	141/-47	40
		4	51/0	100	321/-43	40	141/-47	80
Armstrong Z1	U <sub>3</sub> O <sub>8</sub>	1	65/0	30	335/-15	5	155/-75	20
		2	65/0	60	335/-15	10	155/-75	40
		3	65/0	120	335/-15	20	155/-75	80
		4	65/0	240	335/-15	40	155/-75	160
	V <sub>2</sub> O <sub>5</sub>	1	65/0	30	335/-15	5	155/-75	15
		2	65/0	60	335/-15	10	155/-75	30
		3	65/0	120	335/-15	20	155/-75	60
		4	65/0	240	335/-15	40	155/-75	120

Armstrong Z1	$U_3O_8$	1	50/0	30	320/-27	5	140/-63	20
		2	50/0	60	320/-27	10	140/-63	40
		3	50/0	120	320/-27	20	140/-63	80
		4	50/0	240	320/-27	40	140/-63	160
	$V_2O_5$	1	50/0	30	320/-27	5	140/-63	15
		2	50/0	60	320/-27	10	140/-63	30
		3	50/0	120	320/-27	20	140/-63	60
		4	50/0	240	320/-27	40	140/-63	120
Waste	$U_3O_8$	1	Omni Directional			12.5		
		2	Omni Directional			25		
		3	Omni Directional			50		
		4	Omni Directional			100		
	$V_2O_5$	1	Omni Directional			11.5		
		2	Omni Directional			23		
		3	Omni Directional			46		
		4	Omni Directional			100		

## Classification

Based on the study herein reported, delineated mineralization of the estimated deposits within Crosshair's Central Mineral Belt are classified as a resource according to the following definitions from National Instrument 43-101 and from CIM (2005):

*"In this Instrument, the terms "mineral resource", "inferred mineral resource", "indicated mineral resource" and "measured mineral resource" have the meanings ascribed to those terms by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council, as those definitions may be amended."*

The terms Measured, Indicated and Inferred are defined by CIM (2005) as follows:

*"A Mineral Resource is a concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal and industrial minerals in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge."*

*"The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of technical, economic, legal, environmental, socio-economic and governmental factors."*

*The phrase ‘reasonable prospects for economic extraction’ implies a judgement by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. A Mineral Resource is an inventory of mineralization that under realistically assumed and justifiable technical and economic conditions might become economically extractable. These assumptions must be presented explicitly in both public and technical reports.”*

### ***Inferred Mineral Resource***

*“An ‘Inferred Mineral Resource’ is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, workings and drill holes.”*

*“Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies.”*

### ***Indicated Mineral Resource***

*“An ‘Indicated Mineral Resource’ is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.”*

*“Mineralization may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralization. The Qualified Person must recognize the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Preliminary*

*Feasibility Study which can serve as the basis for major development decisions.”*

### ***Measured Mineral Resource***

*“A ‘Measured Mineral Resource’ is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.”*

*“Mineralization or other natural material of economic interest may be classified as a Measured Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such that the tonnage and grade of the mineralization can be estimated to within close limits and that variation from the estimate would not significantly affect potential economic viability. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit.”*

For the various mineralized zones within the Central Mineral Belt the geological continuity has been established through surface mapping and diamond drill hole interpretation. Grade continuity can be quantified by semivariogram analysis. By tying the classification to the semivariogram ranges through the use of various search ellipses the resource is classified as follows:

### **C Zones**

- ❖ Upper C Main Zone, Mylonite Zone and SW zone
  - Blocks estimated in Pass 1 or 2 are classed as Indicated
  - Blocks estimated in Pass 3 or 4 are classed as Inferred
- ❖ Lower C Zone
  - The density of drill holes penetrating the Lower C zone dictates that all blocks are classed inferred at this time

### **Trout Pond Zone**

- All blocks are classed Inferred at present

### **Armstrong Zones**

- All blocks are classed Inferred at present

The results are presented in a series of grade-tonnage tables, as follows.

## C Zones

The combined Indicated and Inferred resource within the 4 C zone deposits is listed below. This resource is the material contained within the mineralized solids and would be available if one could mine to these solid boundaries. A 0.015 % U<sub>3</sub>O<sub>8</sub> cut-off is highlighted to show grade and tonnes that might be amenable to open pit extraction.

**TABLE 17-14**  
**INDICATED RESOURCE - ALL C ZONES - MINERALIZED PORTION OF BLOCK**

U3O8 Cut-off (%)	Tonnes > Cut-off (tonnes)	Grade > Cut-off		Contained Million lbs	
		U3O8 (%)	V2O5 (%)	U3O8	V2O5
0.010	10,420,000	0.027	0.073	6.20	16.77
<b>0.015</b>	<b>6,920,000</b>	<b>0.034</b>	<b>0.077</b>	<b>5.19</b>	<b>11.75</b>
0.020	4,730,000	0.041	0.080	4.28	8.34
0.025	3,530,000	0.047	0.083	3.66	6.46
0.030	2,380,000	0.057	0.085	2.99	4.46
0.035	1,890,000	0.064	0.086	2.67	3.58
0.040	1,390,000	0.073	0.086	2.24	2.64
0.045	1,170,000	0.079	0.086	2.04	2.22
0.050	940,000	0.087	0.085	1.80	1.76
0.055	760,000	0.095	0.084	1.59	1.41
0.060	650,000	0.101	0.084	1.45	1.20
0.065	540,000	0.109	0.084	1.30	1.00

**TABLE 17-15**  
**INFERRED RESOURCE - ALL C ZONES - MINERALIZED PORTION OF BLOCK**

U3O8 Cut-off (%)	Tonnes > Cut-off (tonnes)	Grade > Cut-off		Contained Million lbs	
		U3O8 (%)	V2O5 (%)	U3O8	V2O5
0.010	12,010,000	0.024	0.075	6.36	19.86
<b>0.015</b>	<b>8,510,000</b>	<b>0.028</b>	<b>0.081</b>	<b>5.25</b>	<b>15.20</b>
0.020	6,160,000	0.032	0.084	4.35	11.41
0.025	4,700,000	0.035	0.089	3.63	9.22
0.030	2,140,000	0.046	0.066	2.17	3.11
0.035	1,740,000	0.049	0.067	1.88	2.57
0.040	1,150,000	0.055	0.071	1.39	1.80
0.045	920,000	0.058	0.074	1.18	1.50
0.050	640,000	0.063	0.075	0.89	1.06
0.055	400,000	0.070	0.076	0.62	0.67
0.060	310,000	0.073	0.078	0.50	0.53
0.065	240,000	0.076	0.080	0.40	0.42

The same tables can also be shown based on whole block extraction. These totals would be available if one had to mine to blocks of 10 x 10 x 4 m. Edge dilution around the mineralized solids is included in these totals with the material outside the solids estimated from the composites falling outside the solids.

**TABLE 17-16**  
**INDICATED RESOURCE - ALL C ZONES - TOTAL BLOCK**

U3O8 Cut-off (%)	Tonnes > Cut-off (tonnes)	Grade > Cut-off		Contained Million lbs	
		U3O8 (%)	V2O5 (%)	U3O8	V2O5
0.010	10,430,000	0.025	0.070	5.75	16.10
<b>0.015</b>	<b>6,510,000</b>	<b>0.032</b>	<b>0.074</b>	<b>4.59</b>	<b>10.62</b>
0.020	4,230,000	0.040	0.077	3.73	7.18
0.025	3,140,000	0.046	0.080	3.18	5.54
0.030	2,080,000	0.056	0.083	2.57	3.81
0.035	1,610,000	0.063	0.085	2.24	3.02
0.040	1,160,000	0.072	0.084	1.84	2.15
0.045	970,000	0.078	0.085	1.67	1.82
0.050	780,000	0.086	0.084	1.48	1.44
0.055	630,000	0.094	0.083	1.31	1.15
0.060	540,000	0.100	0.084	1.19	1.00
0.065	460,000	0.107	0.083	1.09	0.84

**TABLE 17-17**  
**INFERRED RESOURCE - ALL C ZONES - TOTAL BLOCK**

U3O8 Cut-off (%)	Tonnes > Cut-off (tonnes)	Grade > Cut-off		Contained Million lbs	
		U3O8 (%)	V2O5 (%)	U3O8	V2O5
0.010	13,290,000	0.020	0.063	5.86	18.46
<b>0.015</b>	<b>7,850,000</b>	<b>0.024</b>	<b>0.075</b>	<b>4.15</b>	<b>12.98</b>
0.020	4,830,000	0.028	0.084	2.98	8.95
0.025	3,350,000	0.031	0.093	2.29	6.87
0.030	990,000	0.042	0.067	0.92	1.46
0.035	680,000	0.047	0.072	0.70	1.08
0.040	410,000	0.053	0.077	0.48	0.70
0.045	320,000	0.055	0.082	0.39	0.58
0.050	220,000	0.060	0.082	0.29	0.40
0.055	120,000	0.065	0.075	0.17	0.20
0.060	80,000	0.068	0.078	0.12	0.14
0.065	50,000	0.072	0.082	0.08	0.09



The actual minable material is between these two extremes as grade control within a pit would allow miners to be more selective than taking the entire edge blocks but on the other hand, mining equipment and blast dilution would not allow them to mine to the limits of the solids either.

The various deposits making up the Upper and Lower C zones are subdivided and tabulated below.

**TABLE 17-18  
INDICATED RESOURCE - UPPER C MAIN ZONE**

U3O8 Cut-off (%)	Tonnes > Cut-off (tonnes)	Grade > Cut-off		Contained Million lbs	
		U3O8 (%)	V2O5 (%)	U3O8	V2O5
0.010	5,780,000	0.030	0.078	3.82	9.94
<b>0.015</b>	<b>3,790,000</b>	<b>0.038</b>	<b>0.081</b>	<b>3.18</b>	<b>6.77</b>
0.020	2,610,000	0.048	0.083	2.76	4.78
0.025	2,100,000	0.054	0.084	2.50	3.89
0.030	1,550,000	0.063	0.087	2.15	2.97
0.035	1,310,000	0.069	0.088	1.99	2.54
0.040	1,020,000	0.078	0.088	1.75	1.98
0.045	870,000	0.084	0.088	1.61	1.69
0.050	740,000	0.090	0.087	1.47	1.42
0.055	620,000	0.097	0.087	1.33	1.19
0.060	540,000	0.104	0.088	1.24	1.05
0.065	450,000	0.111	0.087	1.10	0.86

**TABLE 17-19  
INFERRED RESOURCE - UPPER C MAIN ZONE**

U3O8 Cut-off (%)	Tonnes > Cut-off (tonnes)	Grade > Cut-off		Contained Million lbs	
		U3O8 (%)	V2O5 (%)	U3O8	V2O5
0.010	2,400,000	0.016	0.066	0.85	3.49
<b>0.015</b>	<b>1,010,000</b>	<b>0.020</b>	<b>0.082</b>	<b>0.45</b>	<b>1.83</b>
0.020	290,000	0.027	0.077	0.17	0.49
0.025	130,000	0.032	0.087	0.09	0.25
0.030	50,000	0.041	0.100	0.05	0.11
0.035	30,000	0.046	0.107	0.03	0.07
0.040	20,000	0.050	0.119	0.02	0.05
0.045	13,000	0.053	0.135	0.02	0.04
0.050	9,200	0.056	0.128	0.01	0.03
0.055	4,300	0.060	0.140	0.01	0.01
0.060	1,300	0.062	0.143	0.00	0.00
0.065	100	0.067	0.052	0.00	0.00

**TABLE 17-20**  
**INDICATED RESOURCE - UPPER C MYLONITE ZONE**

U3O8 Cut-off (%)	Tonnes > Cut-off (tonnes)	Grade > Cut-off		Contained Million lbs	
		U3O8 (%)	V2O5 (%)	U3O8	V2O5
0.010	3,610,000	0.022	0.070	1.75	5.57
<b>0.015</b>	<b>2,400,000</b>	<b>0.027</b>	<b>0.073</b>	<b>1.43</b>	<b>3.86</b>
0.020	1,600,000	0.032	0.076	1.13	2.68
0.025	1,060,000	0.036	0.081	0.84	1.89
0.030	580,000	0.044	0.079	0.56	1.01
0.035	410,000	0.049	0.078	0.44	0.71
0.040	260,000	0.056	0.076	0.32	0.44
0.045	210,000	0.059	0.080	0.27	0.37
0.050	140,000	0.065	0.079	0.20	0.24
0.055	90,000	0.073	0.069	0.14	0.14
0.060	60,000	0.078	0.072	0.10	0.10
0.065	40,000	0.084	0.077	0.07	0.07

**TABLE 17-21**  
**INFERRED RESOURCE - UPPER C MYLONITE ZONE**

U3O8 Cut-off (%)	Tonnes > Cut-off (tonnes)	Grade > Cut-off		Contained Million lbs	
		U3O8 (%)	V2O5 (%)	U3O8	V2O5
0.010	5,350,000	0.021	0.097	2.48	11.44
<b>0.015</b>	<b>3,770,000</b>	<b>0.025</b>	<b>0.108</b>	<b>2.08</b>	<b>8.98</b>
0.020	2,900,000	0.027	0.113	1.73	7.23
0.025	2,200,000	0.028	0.120	1.36	5.82
0.030	250,000	0.044	0.111	0.24	0.61
0.035	180,000	0.048	0.112	0.19	0.44
0.040	120,000	0.054	0.116	0.14	0.31
0.045	100,000	0.055	0.122	0.12	0.27
0.050	50,000	0.064	0.123	0.07	0.14
0.055	13,100	0.094	0.108	0.03	0.03
0.060	11,900	0.098	0.105	0.03	0.03
0.065	11,900	0.098	0.105	0.03	0.03

**TABLE 17-22  
INDICATED RESOURCE - UPPER C SW ZONE**

U3O8 Cut-off (%)	Tonnes > Cut-off (tonnes)	Grade > Cut-off		Contained Million lbs	
		U3O8 (%)	V2O5 (%)	U3O8	V2O5
0.010	1,030,000	0.026	0.057	0.59	1.29
<b>0.015</b>	<b>730,000</b>	<b>0.032</b>	<b>0.067</b>	<b>0.52</b>	<b>1.08</b>
0.020	520,000	0.037	0.075	0.42	0.86
0.025	370,000	0.043	0.081	0.35	0.66
0.030	240,000	0.051	0.087	0.27	0.46
0.035	170,000	0.059	0.089	0.22	0.33
0.040	110,000	0.071	0.085	0.17	0.21
0.045	90,000	0.079	0.082	0.16	0.16
0.050	60,000	0.091	0.071	0.12	0.09
0.055	50,000	0.098	0.062	0.11	0.07
0.060	50,000	0.101	0.058	0.11	0.06
0.065	50,000	0.105	0.056	0.12	0.06

**TABLE 17-23  
INFERRED RESOURCE - UPPER C SW ZONE**

U3O8 Cut-off (%)	Tonnes > Cut-off (tonnes)	Grade > Cut-off		Contained Million lbs	
		U3O8 (%)	V2O5 (%)	U3O8	V2O5
0.010	640,000	0.024	0.069	0.34	0.97
<b>0.015</b>	<b>540,000</b>	<b>0.026</b>	<b>0.075</b>	<b>0.31</b>	<b>0.89</b>
0.020	380,000	0.029	0.086	0.24	0.72
0.025	260,000	0.032	0.096	0.18	0.55
0.030	110,000	0.039	0.114	0.09	0.28
0.035	70,000	0.042	0.126	0.06	0.19
0.040	30,000	0.049	0.148	0.03	0.10
0.045	20,000	0.053	0.159	0.02	0.07
0.050	12,200	0.058	0.156	0.02	0.04
0.055	5,100	0.066	0.119	0.01	0.01
0.060	3,200	0.070	0.090	0.00	0.01
0.065	2,400	0.073	0.080	0.00	0.00

For the Lower C a higher cut-off should be applied due to the depth of the mineralization that would preclude open pit extraction. For this zone a higher 0.035% cut-off is highlighted.

**TABLE 17-24**  
**INFERRED RESOURCE - LOWER C ZONE**

U3O8 Cut-off (%)	Tonnes > Cut-off (tonnes)	Grade > Cut-off		Contained Million lbs	
		U3O8 (%)	V2O5 (%)	U3O8	V2O5
0.010	3,620,000	0.033	0.049	2.63	3.91
0.015	3,180,000	0.035	0.051	2.45	3.58
0.020	2,600,000	0.039	0.052	2.24	2.98
0.025	2,110,000	0.043	0.055	2.00	2.56
0.030	1,730,000	0.047	0.056	1.79	2.14
<b>0.035</b>	<b>1,450,000</b>	<b>0.050</b>	<b>0.058</b>	<b>1.60</b>	<b>1.85</b>
0.040	990,000	0.055	0.062	1.20	1.35
0.045	780,000	0.059	0.064	1.01	1.10
0.050	560,000	0.063	0.068	0.78	0.84
0.055	370,000	0.069	0.074	0.56	0.60
0.060	290,000	0.072	0.077	0.46	0.49
0.065	230,000	0.075	0.078	0.38	0.40

### Trout Pond Zone

The inferred resource estimated within the Trout Pond zone is tabulated below. This grade-tonnage table reflects the material if one could mine to the mineralized solid boundaries.

**TABLE 17-25**  
**INFERRED RESOURCE - TROUT POND - MINERALIZED PORTION OF BLOCK**

U3O8 Cut-off (%)	Tonnes > Cut-off (tonnes)	Grade > Cut-off		Contained Million lbs	
		U3O8 (%)	V2O5 (%)	U3O8	V2O5
0.010	415,322	0.053	0.112	0.49	1.03
<b>0.015</b>	<b>399,014</b>	<b>0.055</b>	<b>0.114</b>	<b>0.48</b>	<b>1.00</b>
0.020	380,056	0.057	0.115	0.48	0.96
0.025	359,390	0.059	0.117	0.47	0.93
0.030	321,690	0.063	0.119	0.45	0.84
0.035	309,327	0.064	0.120	0.44	0.82
0.040	248,119	0.071	0.119	0.39	0.65
0.045	234,191	0.072	0.120	0.37	0.62
0.050	202,636	0.076	0.123	0.34	0.55
0.055	189,061	0.078	0.124	0.33	0.52
0.060	151,654	0.083	0.129	0.28	0.43
0.065	130,667	0.086	0.132	0.25	0.38

The Table below outlines the whole block resource present in Trout Pond. This reflects the tonnes and grade of material if the entire 10 x 10 x 4 m block was mined.

**TABLE 17-26**  
**INFERRED RESOURCE - TROUT POND - TOTAL BLOCK**

U3O8 Cut-off (%)	Tonnes > Cut-off (tonnes)	Grade > Cut-off		Contained Million lbs	
		U3O8 (%)	V2O5 (%)	U3O8	V2O5
0.010	880,000	0.027	0.076	0.52	1.47
<b>0.015</b>	<b>670,000</b>	<b>0.032</b>	<b>0.083</b>	<b>0.47</b>	<b>1.23</b>
0.020	510,000	0.037	0.088	0.42	0.99
0.025	400,000	0.040	0.091	0.35	0.80
0.030	280,000	0.046	0.097	0.28	0.60
0.035	210,000	0.050	0.100	0.23	0.46
0.040	150,000	0.055	0.105	0.18	0.35
0.045	110,000	0.060	0.110	0.15	0.27
0.050	70,000	0.066	0.120	0.10	0.19
0.055	50,000	0.074	0.129	0.08	0.14
0.060	40,000	0.078	0.135	0.07	0.12
0.065	20,000	0.086	0.146	0.04	0.06

### Armstrong Zones

The inferred resource estimated within the Armstrong zone is tabulated below. This grade-tonnage table reflects the material if one could mine to the mineralized solid boundaries.

**TABLE 17-27**  
**INFERRED RESOURCE - ARMSTRONG MINERALIZED PORTION OF BLOCK**

U3O8 Cut-off (%)	Tonnes > Cut-off (tonnes)	Grade > Cut-off		Contained Million lbs	
		U3O8 (%)	V2O5 (%)	U3O8	V2O5
0.010	1,200,000	0.036	0.051	0.95	1.35
<b>0.015</b>	<b>1,000,000</b>	<b>0.041</b>	<b>0.057</b>	<b>0.90</b>	<b>1.26</b>
0.020	880,000	0.044	0.061	0.85	1.18
0.025	790,000	0.046	0.063	0.80	1.10
0.030	650,000	0.050	0.066	0.72	0.95
0.035	560,000	0.053	0.069	0.65	0.85
0.040	410,000	0.059	0.073	0.53	0.66
0.045	320,000	0.063	0.076	0.44	0.54
0.050	250,000	0.068	0.080	0.37	0.44
0.055	190,000	0.073	0.082	0.31	0.34
0.060	140,000	0.078	0.084	0.24	0.26
0.065	100,000	0.084	0.087	0.19	0.19

The Table below outlines the whole block resource present in Armstrong. This reflects the tonnes and grade of material if the entire 10 x 10 x 4 m block was mined.

**TABLE 17-28**  
**INFERRED RESOURCE - ARMSTRONG - TOTAL BLOCKS**

U3O8 Cut-off	Tonnes > Cut-off	Grade > Cut-off		Contained Million lbs	
(%)	(tonnes)	U3O8 (%)	V2O5 (%)	U3O8	V2O5
0.010	1,470,000	0.018	0.031	0.58	1.00
<b>0.015</b>	<b>660,000</b>	<b>0.024</b>	<b>0.038</b>	<b>0.35</b>	<b>0.55</b>
0.020	350,000	0.030	0.045	0.23	0.35
0.025	240,000	0.033	0.049	0.17	0.26
0.030	120,000	0.039	0.055	0.10	0.15
0.035	70,000	0.044	0.061	0.07	0.09
0.040	40,000	0.051	0.072	0.04	0.06
0.045	30,000	0.053	0.074	0.04	0.05
0.050	20,000	0.058	0.076	0.03	0.03
0.055	9,000	0.063	0.085	0.013	0.017
0.060	5,000	0.067	0.092	0.007	0.010
0.065	2,000	0.072	0.094	0.003	0.004

### Summary of Central Mineral Belt Resource

ZONE	Classification	Cut-off	Tonnes	U3O8 %	V2O5 %	Million lbs	
		U3O8%				U3O8	V2O5
UC -Main	Indicated	0.015	3,790,000	0.038	0.081	3.18	6.77
UC_Mylonite	Indicated	0.015	2,400,000	0.027	0.073	1.43	3.86
UC-SW	Indicated	0.015	730,000	0.032	0.067	0.52	1.08
<b>Totals</b>	<b>Indicated</b>	<b>0.015</b>	<b>6,920,000</b>	<b>0.034</b>	<b>0.077</b>	<b>5.13</b>	<b>11.71</b>
UC -Main	Inferred	0.015	1,010,000	0.020	0.082	0.45	1.83
UC_Mylonite	Inferred	0.015	3,770,000	0.025	0.108	2.08	8.98
UC-SW	Inferred	0.015	540,000	0.026	0.075	0.31	0.89
LC	Inferred	0.035	1,450,000	0.050	0.058	1.60	1.85
Trout Pond	Inferred	0.015	399,014	0.055	0.114	0.48	1.00
Armstrong	Inferred	0.015	1,000,000	0.041	0.057	0.90	1.26
<b>Totals</b>	<b>Inferred</b>		<b>8,169,014</b>	<b>0.032</b>	<b>0.088</b>	<b>5.82</b>	<b>15.81</b>

**Note:** Due to rounding on tonnes and grade the contained pounds of U<sub>3</sub>O<sub>8</sub> and V<sub>2</sub>O<sub>5</sub> in this table may be different from the figures in earlier Tables.

# **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.

In April 2007, the Nunatsiavut Government voted to place a three year moratorium on any production, mining and development of uranium on Labrador Inuit Lands. The moratorium was emplaced in order to allow the Nunatsiavut Government to develop its Land Use Plan and to fully evaluate the impacts of large scale development on Labrador Inuit Lands. The moratorium only applies to mining and development activities on Labrador Inuit Lands, and does not affect exploration activity.

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

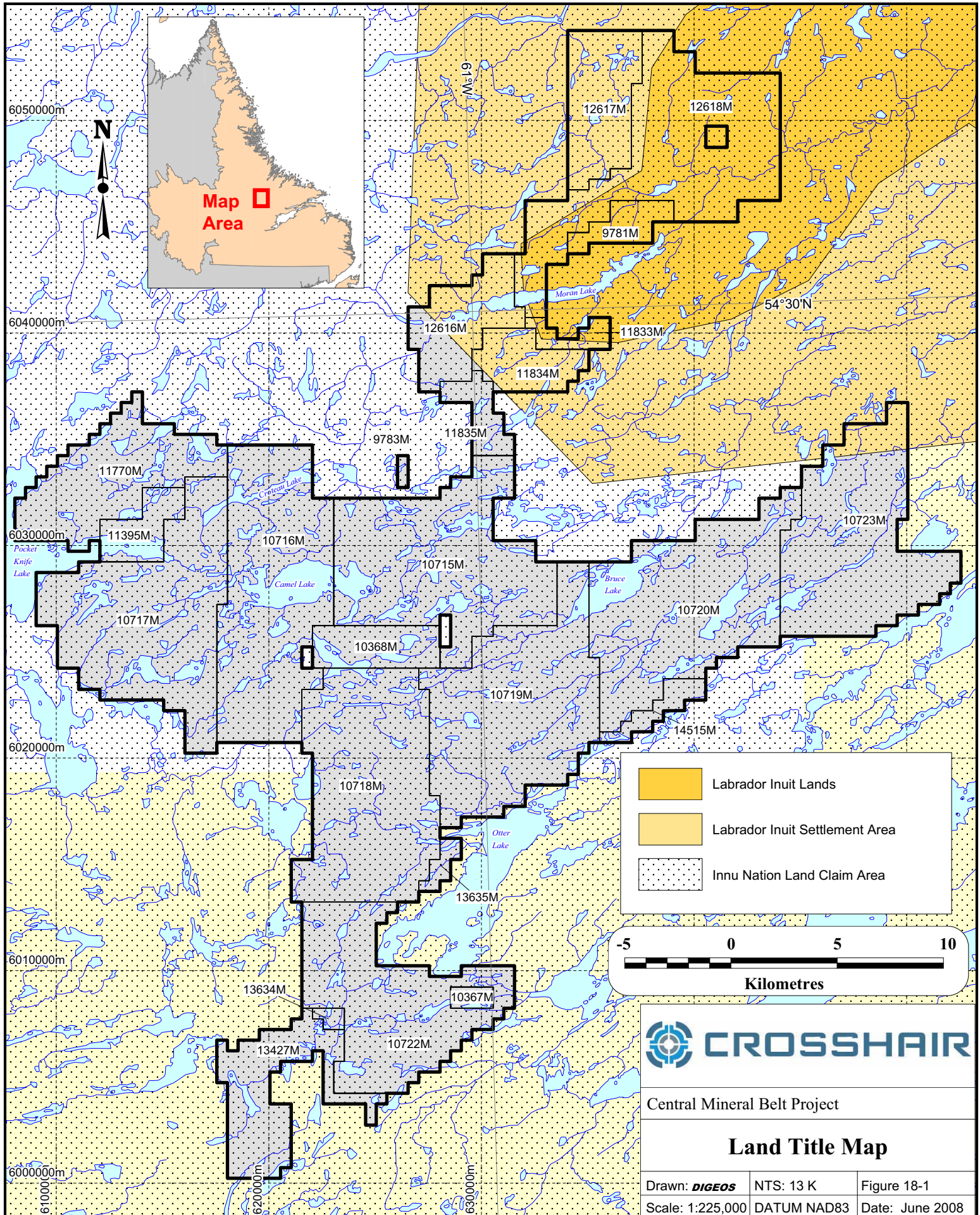


Nation Land Claims Area that lies outside of the area covered by the Labrador Inuit Settlement Agreement will be subject to current Provincial regulations. Exploration applications in this case are submitted to the Province and referred to the Innu Nation as part of a consultation process before approval 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's 2007 summer and 2008 winter programs were successful in advancing the overall CMB Uranium Project by increasing the defined NI 43-101 compliant indicated and inferred resources of the C Zone, which represents the most advanced exploration target on the property, as well as allowing initial resource estimates for two new exploration targets along the main C Zone corridor, namely the Trout Pond and Armstrong targets. The current NI 43-101 compliant resource estimates were prepared by Gary H. Giroux, P. Eng.

For the purpose of the current resource estimate, the C Zone deposit was modeled as four separate zones. Three structurally controlled zones known as the UC Main, UC Mylonite ("MYL") and UC Southwest ("SW") zones occur in the Upper C ("UC") rock package above the C Zone thrust fault. The fourth zone, termed the Lower C ("LC") zone, occurs below the C Zone thrust fault and is modeled as a sheet-like body in close proximity to an unconformity. The Trout Pond deposit is modeled as a single mineralized solid and the Armstrong deposit consists of two mineralized solids both defining structurally controlled mineralization. The geologic models are based on wireframes or solid models of mineralized envelopes utilizing an external cut-off of about 0.01%  $U_3O_8$ .

At present, only the three UC zone envelopes have sufficient drill density to contain resources classified as indicated. **The current total indicated resource for the UC is 6.92 million t at a grade of 0.034%  $U_3O_8$  or 5.19 million pounds of  $U_3O_8$ . The UC also contains additional resources in the inferred category which, when combined with inferred resources in the LC, Trout Pond and Armstrong zones total 8.17 million t at a grade of 0.032%  $U_3O_8$  or 5.82 million pounds of  $U_3O_8$ .** With the exception of the LC, these estimates are reported at a block cut-off of 0.015%  $U_3O_8$ . The cut-off grades are considered appropriate for the location and cost profile that can be expected for open pit mining. For the LC, a cut-off grade of 0.035%  $U_3O_8$  is used for reporting purposes, reflecting higher costs associated with underground mining.

As part of the current resource calculation, a vanadium resource has also been defined for each of the zones. The UC contains a total indicated vanadium resource 6.92 million t at a grade of 0.077%  $V_2O_5$  or 11.75 million pounds of  $V_2O_5$ . The combined inferred vanadium resource contained in the UC, LC, Trout Pond and Armstrong zones totals 8.17 million t at a grade of 0.088%  $V_2O_5$  or 15.81 million pounds of  $V_2O_5$ . The vanadium resources only represent the vanadium mineralization that occurs within the limits of the outlined uranium resources, and does not include zones of vanadium mineralization external to the uranium resource.

### Summary of Central Mineral Belt Resource

ZONE	Classification	Cut-off	Tonnes	U3O8 %	V2O5 %	Million lbs	
						U3O8	V2O5
UC -Main	Indicated	0.015	3,790,000	0.038	0.081	3.18	6.77
UC_Mylonite	Indicated	0.015	2,400,000	0.027	0.073	1.43	3.86
UC-SW	Indicated	0.015	730,000	0.032	0.067	0.52	1.08
<b>Totals</b>	<b>Indicated</b>	<b>0.015</b>	<b>6,920,000</b>	<b>0.034</b>	<b>0.077</b>	<b>5.19</b>	<b>11.75</b>
UC -Main	Inferred	0.015	1,010,000	0.020	0.082	0.45	1.83
UC_Mylonite	Inferred	0.015	3,770,000	0.025	0.108	2.08	8.98
UC-SW	Inferred	0.015	540,000	0.026	0.075	0.31	0.89
LC	Inferred	0.035	1,450,000	0.050	0.058	1.60	1.85
Trout Pond	Inferred	0.015	399,014	0.055	0.114	0.48	1.00
Armstrong	Inferred	0.015	1,000,000	0.041	0.057	0.90	1.26
<b>Totals</b>	<b>Inferred</b>		<b>8,169,014</b>	<b>0.032</b>	<b>0.088</b>	<b>5.82</b>	<b>15.81</b>

The C Zone has been intersected in drill holes along a strike length of over 1300 m and remains open along strike to the southwest and down-dip, including down-dip of drill hole ML-76, which intersected 10.45 m grading 0.076%  $U_3O_8$  including 2.50 m grading 0.234%  $U_3O_8$ . The LC is open at depth and along strike to the southwest.

Uranium mineralization at Trout Pond, located approximately 2 km southwest of the C Zone deposit, has been intersected in drill holes along a strike length of at least 250 m, and remains open along strike as well as to depth. The Trout Pond Zone is located within Area 1, where the geological setting and style of uranium mineralization is very similar to

that of the C Zone; it is thought that mineralization at Area 1 may represent the southwest extension of the C Zone mineralization. At Area 1, uranium mineralization grading up to 0.078%  $U_3O_8$  over 11.02m has also been intersected in drill hole MLA1-03, located approximately 300m east of the Trout Pond Zone.

During the most recent drilling campaign in the winter of 2008, Crosshair discovered a new zone of uranium mineralization that appears to be associated with a 1 km long, northeast trending EM conductor identified from the 2007 MaxMin survey at Armstrong. Based on 32 holes drilled, Crosshair has defined an initial NI 43-101 compliant uranium resource for Armstrong, which remains open along strike and to depth. Armstrong is situated at the southwest end of a 4.5 km long mineralized corridor that also hosts the uranium resources at the C Zone and Trout Pond.

Drilling to date at the B Zone has intersected copper, silver, uranium mineralization within hematized brecciated sandstones and may be of IOCG affinity because of the presence of mineralized brecciated rocks; an underlying intrusive body, multi-element REE enrichment in the rocks and the location of the B Zone along the eastern flanks of a large gravity anomaly.

At Blue Star and Moran Heights, uranium, copper and silver mineralization is associated with the upper unconformity, as at the C Zone. Drilling at Moran Heights intersected uranium mineralization beneath high grade uranium-bearing boulders. Further drilling is required at Moran Heights to extend the known mineralization, and Phase 1 drilling is required in the Blue Star area to test several targets identified from the airborne radiometric survey and follow-up geochemical and rock sampling surveys.

At Croteau Lake, Phase 1 drilling carried out during the summer of 2007 did not identify the bedrock source of high grade uranium mineralization in float samples, and follow-up work is required to refine drill targets. The mineralization appears to be associated with iron formation along the unconformable contact between the Warren Creek Formation and the Brown Lake Formation.

Three holes totalling 2,560 metres that were drilled during the 2008 winter program to test geophysical targets along the Armstrong – C Zone – B Zone corridor did not intersect any significant uranium mineralization.

Drilling carried out at Dominion during 2007 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.

Phase 1 drilling carried out at Area 51 has identified a potentially large, low-grade zone of uranium mineralization associated with fractured, silicified dolostone immediately above the unconformity between the Archean basement and the overlying Moran Lake Group. The drilling intersected wide zones of low grade uranium mineralization along a 1.2 km strike length, which remains open along strike and to depth.

The southern part of the property, including Madsen Lake, is underlain by felsic volcanic rocks of the Sylvia Formation that are characterized by high background radioactivity. Uranium mineralization at Madsen Lake, where grab samples have returned values up to 4.570%  $U_3O_8$ , is thought to be structurally controlled. Phase 1 drilling at Madsen Lake did not intersect any extensive mineralized zones at depth, and additional prospecting and mapping is required to refine drill targets there.

Extensive lake sediment sampling, as well as local Alpha Track and till sampling surveys in conjunction with airborne geophysical data, have identified numerous areas for follow-up in the southern portion of Crosshair's CMB Project, which is considered prospective for shear-zone associated uranium mineralization. Further ground work, including prospecting and geological mapping, is required to identify drill targets.

## 20 RECOMMENDATIONS

Crosshair has proposed a budget totalling approximately \$6,000,000 to continue exploration and development of the property from June through the remainder of 2008. Exploration will have a two-pronged approach, with one division (the Northstar Division) focussing on the northern portion of the property, including the more advanced C Zone, Area 1, and Armstrong target areas, and another division (the Lonestar Division) focussing on identifying and advancing additional targets in the less explored southern portion of the property.

The Northstar Division will carry out a surface exploration program including geological mapping, prospecting, additional geochemical surveying and mechanical and hand trenching to investigate the numerous targets identified from the work to date. Diamond drilling will focus on the main C Zone corridor, which includes the Armstrong and Area 1 / Trout Pond targets, as well as additional targets identified from the surface program. Contingent upon the results of the surface program, approximately 5000 m of drilling has been proposed for the Northstar Division during the summer/fall of 2008. Approximately \$3.5 million has been budgeted for the Northstar 2008 summer program.

The Lonestar Division will carry out a comprehensive surface exploration program targeting unconformity-type uranium deposits in the western portion of the project area (Croteau Lake) as well as shear-zone hosted uranium mineralization elsewhere in the project area. The program will focus on several priority target areas identified from existing geological, geochemical, and geophysical data, but will also include regional mapping and prospecting throughout the Lonestar Division area. The high priority target areas identified will be explored by a combination of detailed geological mapping, geochemical sampling, and prospecting. Up to 2000 m of diamond drilling has been budgeted to test priority targets identified from the 2008 summer surface program. Approximately \$2.5 million has been budgeted for the Lonestar 2008 summer program.

**TABLE 20-1 2008 EXPLORATION COST ESTIMATE**  
**Crosshair Exploration and Mining Corp. – CMB Project**

<b>Activities</b>	<b>Details</b>	<b>Total</b>
Surface Program	Geological Mapping, Prospecting, Trenching, etc	1,650,000
Drilling	6,000 m x \$190/m	1,140,000
Assaying	20,000 @ \$30	600,000
Aircraft support	Fixed wing and Helicopter	1,500,000
Fuel and Camp Costs	All Inclusive (fuel, food, etc)	520,000
Equipment / Supplies	Field Equipment and Supplies	290,000
	<b>Sub-Total:</b>	<b>\$5,700,000</b>
	<b>Contingency:</b>	<b>\$300,000</b>
	<b>TOTAL:</b>	<b>\$6,000,000</b>

For the majority of Crosshair's drilling to date, specific gravity determinations were made at regular intervals (every 20m to every 40m) from the core recovered from drill holes used in the current resource calculations at the C Zone, Armstrong and Trout Pond. Consequently, some of the mineralized zones and host lithologies, due to their relatively narrow widths in comparison to the broad intervals at which specific gravity measurements were made, have been under-represented for the purposes of the resource estimates. Therefore, it is recommended for future drilling programs that efforts be made to collect more specific gravity data from the mineralized zones and host lithologies for which resource estimates are to be calculated, particularly the LC and Armstrong.

It is also recommended that areas thought to contain vanadium mineralization, even if outside of the uranium mineralized zones, be assayed for vanadium in order to determine the limits of the vanadium mineralization and allow for calculation of a global vanadium resource that is not restricted to the bounds of the uranium resource, if possible.



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## 22 SIGNATURE PAGE

This report titled Technical Report on the Central Mineral Belt Project, Central Mineral Belt Labrador, and dated July 31, 2008 was prepared by and signed by the following authors:

*“Jeffrey Morgan*

Dated at St. John’s, NL  
July 31, 2008

Jeffery A. Morgan, P.Geo.  
Crosshair Exploration & Mining

*“G.H. Giroux”*

Dated at Vancouver, BC  
July 31, 2008

Gary H. Giroux, P. Eng  
Independent Consultant

## 23 CERTIFICATES OF QUALIFICATIONS

### JEFFERY A. MORGAN

I, Jeffery A. Morgan, currently residing at 7 Ashford Drive, Mt. Pearl, NL, do hereby certify that:

- 1) I graduated with a Bachelor of Science (Honours) degree in Geology from Memorial University of Newfoundland in 1996.
- 2) I am a registered member of the Professional Engineers and Geoscientists of Newfoundland and Labrador (PEG-NL), membership number 04934, and a member of the Prospectors and Developers Association of Canada.
- 3) I have practised my profession continuously since 1996 with several junior exploration and mining companies in Newfoundland and Labrador, Ontario, Manitoba and the Northwest Territories.
- 4) I am currently employed in the position of Senior Geologist/Lands Manager with Crosshair Exploration & Mining Corporation, Suite 202, Kenmount Business Centre, 66 Kenmount Road, St. John's, NL, A1B 3V7.
- 5) I have read the definition of "qualified person" as set out by National Instrument 43-101 ("NI43-101") and certify that by reason of my education, affiliation with a professional association (as defined by NI43-101) and relevant work experience, I fulfil the requirements to be a "qualified person" for the purposes of NI43-101.
- 6) This report titled "**Form 43-101 Technical Report on the Central Mineral Belt (CMB) Uranium Project, Labrador, Canada**", dated July 31, 2008, is based on a study of the information and data available on the CMB Project. I am responsible for all sections except Section 17, Mineral Resource Estimates.
- 7) I most recently visited the CMB Property on August 28<sup>th</sup> to 31<sup>st</sup> 2007.
- 8) As of July 31, 2008, and to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
- 9) I am not independent of the issuer and acknowledge that I hold securities of Crosshair Exploration & Mining Corp. in the form of stock options.
- 10) I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

Dated on this 31<sup>st</sup> day of July, 2008.

*“Jeffrey Morgan”*

---

**Jeffery A. Morgan B.Sc. (Hons), P.Geo**  
**Crosshair Exploration & Mining Corp.**

**GARY H. GIROUX**

I, G.H. Giroux, of 982 Broadview Drive, North Vancouver, British Columbia, do hereby certify that:

- 1) I am a consulting geological engineer with an office at #1215 - 675 West Hastings Street, Vancouver, British Columbia.
- 2) I am a graduate of the University of British Columbia in 1970 with a B.A. Sc. and in 1984 with a M.A. Sc., both in Geological Engineering.
- 3) I am a member in good standing of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
- 4) I have practiced my profession continuously since 1970. I have had over 30 years experience calculating mineral resources. I have previously completed resource estimations on the Michelin and Jacques Lake Uranium deposits in Labrador's Central Mineral Belt, for Aurora Energy Resources Inc.
- 5) I have read the definition of "qualified person" set out in National Instrument 43-101 and certify that by reason of education, experience, independence and affiliation with a professional association, I meet the requirements of an Independent Qualified Person as defined in National Instrument 43-101.
- 6) This report titled "**Form 43-101 Technical Report on the Central Mineral Belt (CMB) Uranium Project, Labrador Canada**", dated July 31, 2008, is based on a study of the data and literature available on the CMB Property. I am responsible for the Section 17, the resource estimation. I have visited the property on Oct. 23 to 25, 2007.
- 7) I have not previously worked on this property.
- 8) As of the date of this certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
- 9) I am independent of the issuer applying all of the tests in section 1.4 of National Instrument 43-101.
- 10) I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

Dated this 31<sup>st</sup> day of July, 2008

*"G.H. Giroux"*

G. H. Giroux, P.Eng., MASc.

## 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	2017	\$25,200
09783M <sup>(1)</sup>	3	13K/06	December 1, 2003	Crosshair	2016	\$315
10367M <sup>(2)</sup>	8	13K/03	November 15, 2004	Crosshair	2013	\$3,838
10368M <sup>(2)</sup>	48	13K/06	November 15, 2004	Crosshair	2017	\$43,200
10715M <sup>(3)</sup>	256	13K/06, 07	April 1, 2005	Crosshair	2012	\$53,398
10716M <sup>(3)</sup>	256	13K/06	April 1, 2005	Crosshair	2012	\$57,960
10717M <sup>(3)</sup>	256	13K/06	April 1, 2005	Crosshair	2013	\$11,058
10718M <sup>(3)</sup>	256	13K/06	April 1, 2005	Crosshair	2012	\$119,403
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	2012	\$140,301
10722M <sup>(3)</sup>	201	13K/02, 03, 06	April 1, 2005	Crosshair	2011	\$4,087
10723M <sup>(3)</sup>	229	13K/07	April 1, 2005	Crosshair	2012	\$70,196
11395M <sup>(3)</sup>	36	13K/06	November 16, 2005	Crosshair	2014	\$19,464
11770M <sup>(3)</sup>	140	13K/06	February 28, 2006	Crosshair	2013	\$23,968
11833M <sup>(1)</sup>	16	13K/07	July 22, 2002	Crosshair	2018	\$19,200
11834M <sup>(1)</sup>	48	13K/06, 07	July 22, 2002	Crosshair	2018	\$57,600
11835M <sup>(1)</sup>	27	13K/06, 07	July 22, 2002	Crosshair	2018	\$32,400
12616M <sup>(3)</sup>	79	13K/06,07, 10,11	April 1, 2005	Crosshair	2014	\$40,406
12617M <sup>*</sup>	89	13K/10	February 21, 2005	Crosshair	2013	\$47,157
12618M <sup>+</sup>	252	13K/07, 10	January 31, 2005	Crosshair	2015	\$36,060
13427M	105	13K/03	May 3, 2007	Crosshair	2012	\$39,230
13634M	5	13K/03	July 5, 2007	Crosshair	2011	\$331
13635M	10	13K/06	July 5, 2007	Crosshair	2011	\$2,042
14515M	20	13K/07	January 24, 2008	Crosshair	2009	\$4,000
<b>TOTAL</b>	<b>2880</b>					

<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



## 25 APPENDIX 2

### DRILL HOLES USED IN 2008 RESOURCE ESTIMATE

HOLE	EASTING	NORTHING	ELEVATION	HOLE LENGTH	ZONE
C-01	632682.06	6038688.40	317.15	48.73	CZONE
C-02	632652.50	6038647.29	314.45	57.93	CZONE
C-03	632586.69	6038569.64	329.02	59.42	CZONE
C-04	632514.30	6038504.37	343.23	61.20	CZONE
C-05	632318.13	6038275.78	354.80	65.56	CZONE
C-06	632198.90	6038080.99	348.35	77.84	CZONE
C-07	632165.77	6038069.87	347.98	72.62	CZONE
C-08	632207.63	6038173.06	350.91	53.73	CZONE
C-09	632216.18	6038060.17	348.49	103.94	CZONE
C-10	632197.67	6038043.61	348.33	103.63	CZONE
C-11	632233.87	6038077.90	348.64	112.78	CZONE
C-12	632248.41	6038023.95	347.69	165.80	CZONE
C-13	632252.35	6038094.61	349.09	105.48	CZONE
C-14	632253.72	6038093.13	349.11	110.03	CZONE
C-15	632088.08	6038009.01	349.48	64.92	CZONE
C-16	632090.14	6038007.14	349.66	63.15	CZONE
C-17	632235.45	6038075.88	348.68	136.86	CZONE
C-18	632057.94	6038040.57	348.82	66.14	CZONE
C-19	632060.06	6038038.44	348.83	89.61	CZONE
C-20	632064.38	6037841.61	366.87	53.34	CZONE
C-21	632179.79	6037742.15	346.10	45.72	CZONE
C-22	632580.56	6038430.64	334.64	145.09	CZONE
C-23	632581.46	6038429.56	334.55	143.92	CZONE
C-24	632562.66	6038450.17	337.46	68.89	CZONE
C-25	632512.33	6038431.03	343.60	71.32	CZONE
C-26	632661.98	6038485.86	328.67	150.27	CZONE
C-27	632737.59	6038557.05	324.95	161.54	CZONE
C-28	632787.37	6038649.81	310.43	95.40	CZONE
C-29	632513.92	6038352.60	337.59	134.72	CZONE
C-30	632442.00	6038286.00	347.00	106.07	CZONE
C-31	632368.15	6038217.32	352.53	103.33	CZONE
C-32	632322.16	6038143.57	353.48	113.69	CZONE
C-33	632553.27	6038385.09	334.79	152.67	CZONE
C-34	632625.32	6038453.95	331.85	151.48	CZONE
C-35	632582.48	6038501.75	341.51	110.47	CZONE
C-37	632747.91	6038821.84	289.37	72.54	CZONE
C-38	632748.34	6038821.08	289.37	83.28	CZONE
C-39	632083.00	6038671.00	281.50	66.44	CZONE
C-40	632083.00	6038671.00	281.50	72.54	CZONE
C-41	632005.99	6038675.92	288.04	60.96	CZONE
C-42	631895.82	6038608.43	289.52	81.99	CZONE

C-43	632200.00	6038688.00	281.50	56.38	CZONE
C-44	632200.00	6038688.00	281.50	53.94	CZONE
C-45	632313.00	6038689.00	281.50	50.90	CZONE
C-46	632313.00	6038689.00	281.50	54.25	CZONE
C-49	632433.00	6038690.00	281.50	94.28	CZONE
C-50	632524.00	6038735.00	281.50	71.93	CZONE
C-51	632524.00	6038735.00	281.50	45.72	CZONE
C-52	632154.70	6038566.55	287.24	128.01	CZONE
C-54	632897.76	6038869.46	274.83	47.24	CZONE
C-55	633066.78	6038921.34	266.45	63.09	CZONE
ML-01	632540.33	6038477.03	339.91	104.85	CZONE
ML-02	632540.60	6038476.78	339.95	111.25	CZONE
ML-03	632595.42	6038418.67	331.59	159.41	CZONE
ML-04	632595.67	6038418.34	331.43	168.86	CZONE
ML-05	632595.81	6038418.23	331.42	192.49	CZONE
ML-06	632595.79	6038418.11	331.29	184.10	CZONE
ML-07	632569.51	6038366.31	334.69	195.07	CZONE
ML-08	632569.77	6038366.11	334.66	155.45	CZONE
ML-09	632533.61	6038331.11	340.77	174.96	CZONE
ML-10	632534.27	6038330.52	341.00	160.02	CZONE
ML-100	632392.39	6038233.50	351.10	131.00	CZONE
ML-101	632360.87	6038193.47	352.63	146.00	CZONE
ML-102	632704.31	6038406.50	321.72	180.50	CZONE
ML-103	632633.64	6038406.12	328.11	170.00	CZONE
ML-104	632650.71	6038427.40	327.82	153.23	CZONE
ML-105	632035.51	6037998.24	358.27	134.00	CZONE
ML-106	632036.03	6037997.75	358.22	116.00	CZONE
ML-107	632736.71	6038385.08	319.71	353.00	CZONE
ML-108	632036.29	6037997.56	358.21	158.45	CZONE
ML-109	632061.21	6038072.79	348.94	95.00	CZONE
ML-11	632534.91	6038330.00	341.20	137.16	CZONE
ML-110	632061.73	6038072.21	348.89	53.00	CZONE
ML-111	632187.35	6038104.69	349.63	89.00	CZONE
ML-112	632187.85	6038104.16	349.65	71.00	CZONE
ML-113	632739.07	6038441.42	320.19	319.00	CZONE
ML-114	632447.01	6038069.38	351.61	455.00	CZONE
ML-115	632702.54	6038217.82	333.12	180.68	CZONE
ML-116	632702.76	6038217.61	333.12	533.00	CZONE
ML-117	632493.82	6038316.79	341.15	173.00	CZONE
ML-118	632494.44	6038316.03	341.54	170.00	CZONE
ML-119	632494.84	6038315.55	341.34	167.00	CZONE
ML-12	632456.86	6038267.30	343.00	140.21	CZONE
ML-120	632740.17	6038249.14	328.01	282.50	CZONE
ML-121	632740.17	6038249.14	343.00	251.00	CZONE
ML-122	632532.48	6038312.53	345.06	176.00	CZONE
ML-123	632533.02	6038311.85	345.24	167.00	CZONE
ML-124	632533.31	6038311.56	345.15	185.00	CZONE
ML-125	632561.96	6038317.65	343.11	180.00	CZONE
ML-126	632562.23	6038317.35	343.04	179.00	CZONE
ML-127	632562.46	6038317.16	342.91	180.00	CZONE

ML-128	632017.18	6037977.38	362.27	110.00	CZONE
ML-129	632017.63	6037976.92	362.23	137.00	CZONE
ML-13	632457.18	6038266.83	342.91	153.62	CZONE
ML-130	632692.27	6038460.68	325.55	311.00	CZONE
ML-131	632692.77	6038460.27	325.44	160.00	CZONE
ML-132	632411.67	6038373.44	348.39	80.00	CZONE
ML-133	632412.23	6038372.81	348.29	80.00	CZONE
ML-134	632412.44	6038372.67	348.30	89.00	CZONE
ML-135	631990.58	6037972.30	364.69	107.00	CZONE
ML-136	631991.06	6037971.79	364.69	110.00	CZONE
ML-137	631991.20	6037971.59	364.58	149.00	CZONE
ML-138	632380.61	6038367.70	347.30	82.00	CZONE
ML-139	632381.61	6038366.68	347.60	82.00	CZONE
ML-14	632389.30	6038191.97	352.50	140.21	CZONE
ML-140	632381.83	6038366.46	347.66	80.00	CZONE
ML-141	632737.08	6038486.08	320.98	192.00	CZONE
ML-142	632737.43	6038485.74	320.91	219.00	CZONE
ML-143	632040.61	6037953.80	365.54	128.00	CZONE
ML-144	632666.04	6038526.84	330.22	257.00	CZONE
ML-145	632666.52	6038526.40	330.15	151.10	CZONE
ML-146	631970.72	6037953.82	367.62	98.00	CZONE
ML-147	631971.24	6037953.36	367.60	131.00	CZONE
ML-148	631971.38	6037953.08	367.57	137.00	CZONE
ML-149	632736.81	6038486.20	321.05	329.00	CZONE
ML-15	632389.54	6038191.80	352.48	121.92	CZONE
ML-150	632681.04	6038544.49	329.73	140.00	CZONE
ML-151	631991.70	6037928.09	372.71	152.00	CZONE
ML-152	631991.87	6037927.84	372.74	185.00	CZONE
ML-153	632772.34	6038522.52	321.50	317.00	CZONE
ML-154	632772.34	6038522.52	321.50	335.00	CZONE
ML-155	631932.90	6037916.69	374.10	93.00	CZONE
ML-156	631933.81	6037915.82	374.25	141.00	CZONE
ML-157	631934.05	6037915.61	374.32	140.00	CZONE
ML-158	631956.20	6037932.46	371.49	134.00	CZONE
ML-159	631956.98	6037931.53	371.50	146.00	CZONE
ML-16	632342.90	6038118.71	349.78	149.35	CZONE
ML-160	631914.81	6037902.39	368.17	81.50	CZONE
ML-161	631914.81	6037902.39	368.17	125.00	CZONE
ML-162	631971.00	6037887.00	373.00	175.00	CZONE
ML-163	631897.14	6037885.40	369.85	101.00	CZONE
ML-164	631897.14	6037885.40	369.85	131.00	CZONE
ML-165	632772.34	6038522.52	321.50	303.00	CZONE
ML-166	632863.00	6038573.00	317.00	335.00	CZONE
ML-167	632863.00	6038573.00	317.00	59.00	CZONE
ML-168	631862.26	6037849.87	378.80	65.00	CZONE
ML-169	631862.26	6037849.87	378.80	173.00	CZONE
ML-17	632256.44	6038052.77	348.30	207.42	CZONE
ML-170	631834.00	6037806.00	375.00	68.00	CZONE
ML-171	631834.00	6037806.00	375.00	119.00	CZONE
ML-172	631804.35	6037768.81	366.89	83.00	CZONE

ML-173	631804.35	6037768.81	366.89	134.00	CZONE
ML-174	632446.00	6038397.00	343.57	89.00	CZONE
ML-175	632446.00	6038397.00	341.86	89.00	CZONE
ML-176	632446.00	6038397.00	341.86	110.00	CZONE
ML-177	632110.00	6038080.00	341.86	75.00	CZONE
ML-178	632110.00	6038080.00	341.86	88.00	CZONE
ML-179	632018.00	6037830.00	369.00	260.00	CZONE
ML-18	632036.45	6038033.27	351.52	73.15	CZONE
ML-180	631982.00	6037795.00	370.00	266.00	CZONE
ML-181	631945.00	6037762.00	370.00	236.00	CZONE
ML-182	631945.00	6037762.00	370.00	278.00	CZONE
ML-19	632037.11	6038032.71	351.49	67.05	CZONE
ML-20	632601.02	6038445.29	333.29	128.02	CZONE
ML-21	632601.16	6038445.08	333.26	152.40	CZONE
ML-22	632633.64	6038407.30	327.37	207.26	CZONE
ML-23	632633.72	6038407.11	327.03	167.64	CZONE
ML-24	632633.04	6038374.85	329.43	195.07	CZONE
ML-25	632633.02	6038374.84	329.34	204.22	CZONE
ML-26	632666.13	6038337.29	326.41	222.50	CZONE
ML-27	632576.78	6038401.24	334.00	152.40	CZONE
ML-28	632577.05	6038400.89	333.96	164.59	CZONE
ML-29	632585.94	6038276.45	332.81	210.32	CZONE
ML-30	632586.04	6038276.32	332.75	204.92	CZONE
ML-31	632638.85	6038221.79	331.73	268.22	CZONE
ML-32	632514.53	6038315.38	342.56	152.40	CZONE
ML-33	632515.05	6038314.99	342.45	175.26	CZONE
ML-34	632553.63	6038270.25	337.76	502.92	CZONE
ML-35	632586.65	6038307.08	334.61	179.83	CZONE
ML-36	632586.73	6038307.00	334.57	198.12	CZONE
ML-37	632496.06	6038298.61	341.84	182.88	CZONE
ML-38	632496.37	6038298.23	341.72	384.05	CZONE
ML-39	632602.35	6038327.56	333.44	195.07	CZONE
ML-40	632602.58	6038327.32	333.35	353.57	CZONE
ML-41	632602.63	6038327.22	333.25	207.26	CZONE
ML-42	632552.36	6038347.69	336.99	315.44	CZONE
ML-43	632552.71	6038347.29	336.99	185.93	CZONE
ML-44	632534.82	6038251.68	339.49	399.29	CZONE
ML-45	632636.00	6038290.60	330.13	426.72	CZONE
ML-46	632481.92	6038277.59	342.16	155.45	CZONE
ML-47	632482.21	6038277.24	342.17	326.14	CZONE
ML-48	632650.52	6038428.68	326.92	298.70	CZONE
ML-49	632587.05	6038233.21	333.35	411.48	CZONE
ML-50	632281.75	6038061.83	348.50	326.14	CZONE
ML-51	632560.93	6038221.43	338.01	429.77	CZONE
ML-52	632474.98	6038249.51	342.67	347.37	CZONE
ML-53	632659.47	6038307.75	327.37	374.90	CZONE
ML-54	632628.34	6038263.10	330.87	423.67	CZONE
ML-55	632428.14	6038240.21	346.09	344.42	CZONE
ML-56	632569.42	6038328.77	340.08	344.42	CZONE
ML-57	632293.58	6038115.55	353.38	188.98	CZONE

ML-58	632158.67	6038005.49	349.40	167.64	CZONE
ML-59	632362.36	6038163.76	351.81	395.00	CZONE
ML-60	632463.18	6038204.44	346.48	418.50	CZONE
ML-61	632463.79	6038203.88	346.27	450.10	CZONE
ML-62	632412.65	6038108.75	353.84	242.00	CZONE
ML-63	632413.10	6038108.32	353.86	463.00	CZONE
ML-64	631954.58	6038489.64	291.91	195.00	CZONE
ML-65	631826.12	6038499.84	288.36	264.00	CZONE
ML-66	632516.18	6038238.64	340.78	245.00	CZONE
ML-67	632402.94	6038627.85	289.11	168.00	CZONE
ML-68	632528.75	6038188.96	343.35	218.00	CZONE
ML-69	632091.48	6038324.15	364.73	285.00	CZONE
ML-70	632529.08	6038188.51	343.30	464.00	CZONE
ML-71	632394.52	6038367.34	347.71	276.00	CZONE
ML-72	632252.13	6038432.10	358.36	252.00	CZONE
ML-73	632471.99	6038122.13	350.98	464.02	CZONE
ML-74	632344.98	6038026.71	350.21	484.34	CZONE
ML-75	632649.95	6038428.36	327.06	308.00	CZONE
ML-76	632684.70	6038392.59	324.39	341.00	CZONE
ML-77	632356.69	6038135.80	352.62	377.00	CZONE
ML-78	632265.30	6038227.15	356.15	353.00	CZONE
ML-79	632285.53	6038092.45	348.95	395.00	CZONE
ML-80	632179.02	6038204.21	347.43	341.00	CZONE
ML-81	632183.78	6038125.53	348.79	80.05	CZONE
ML-82	632669.05	6038252.76	332.04	464.50	CZONE
ML-83	632450.71	6038364.75	348.39	125.00	CZONE
ML-84	632071.33	6037996.79	354.02	137.00	CZONE
ML-85	632670.18	6038444.03	326.19	182.69	CZONE
ML-86	632424.42	6038154.10	354.09	385.00	CZONE
ML-87	632704.07	6038406.49	321.79	200.00	CZONE
ML-88	632704.23	6038406.21	321.70	323.00	CZONE
ML-89	632566.04	6038479.93	342.19	113.00	CZONE
ML-90	632566.88	6038479.15	342.20	119.00	CZONE
ML-91	632620.69	6038347.01	332.97	203.00	CZONE
ML-92	632620.84	6038346.85	332.85	192.00	CZONE
ML-93	632743.27	6038412.23	318.01	239.00	CZONE
ML-94	632743.55	6038411.99	318.00	255.00	CZONE
ML-95	632427.41	6038264.19	346.09	138.00	CZONE
ML-96	632428.19	6038263.43	346.22	140.00	CZONE
ML-97	632775.53	6038402.75	316.89	359.00	CZONE
ML-98	632775.75	6038402.67	316.62	329.49	CZONE
ML-99	632391.65	6038234.07	351.06	137.05	CZONE

**TOTAL FOR 233 HOLES IN CZONE DOMAINS**

**43017.41**

ML-A1-04	630300.87	6037117.05	340.77	103.63	TP
ML-A1-05	630312.86	6037069.11	342.93	103.63	TP
ML-A1-09	630333.90	6037129.93	345.14	76.20	TP
ML-A1-16	630241.90	6037054.40	343.08	101.00	TP
ML-A1-17	630242.06	6037053.91	343.07	167.00	TP
ML-A1-18	630351.03	6037071.80	344.22	176.00	TP

ML-A1-19	630358.68	6037127.95	348.06	99.00	TP
ML-A1-20	630261.47	6037072.07	343.35	101.00	TP
ML-A1-21	630261.47	6037072.07	343.35	113.00	TP
ML-A1-22	630261.47	6037072.07	343.35	109.00	TP
ML-A1-23	630290.40	6037073.30	343.97	104.00	TP
ML-A1-24	630290.40	6037073.30	343.97	79.25	TP
ML-A1-25	630216.96	6037046.36	346.24	110.00	TP
ML-A1-26	630216.96	6037046.36	346.24	125.00	TP
ML-A1-27	630305.71	6037039.54	344.55	127.00	TP
ML-A1-29	630284.51	6037030.82	349.13	95.00	TP
ML-A1-30	630387.26	6037156.48	348.44	116.00	TP
ML-A1-31	630387.26	6037156.48	348.44	80.00	TP
ML-A1-32	630387.26	6037156.48	348.44	95.00	TP
ML-A1-33	630420.83	6037125.46	347.00	116.00	TP
ML-A1-35	630423.64	6037184.30	349.53	89.00	TP
ML-A1-36	630423.64	6037184.30	349.53	77.00	TP
ML-A1-37	630423.64	6037184.30	349.53	77.00	TP
ML-A1-38	630461.85	6037157.45	351.79	92.00	TP
ML-A1-39	630461.85	6037157.45	351.79	102.00	TP
ML-A1-40	630350.99	6037072.40	344.29	113.00	TP
ML-A1-41	630350.99	6037072.40	344.29	107.00	TP
ML-A1-42	630350.99	6037072.40	344.29	118.00	TP
ML-A1-43	630328.77	6037082.94	344.83	101.00	TP
ML-A1-44	630328.77	6037082.94	344.83	144.00	TP
ML-A1-45	630328.77	6037082.94	344.83	158.00	TP

**TOTAL FOR 31 HOLES IN TROUT POND DOMAIN****3374.71**

ML-AR-01	629741.02	6035902.67	357.89	86.00	ARM
ML-AR-02	629741.52	6035902.63	357.89	128.00	ARM
ML-AR-03	629791.64	6035925.10	366.85	90.00	ARM
ML-AR-04	629819.36	6035965.64	359.23	324.00	ARM
ML-AR-05	629793.14	6035992.05	351.30	78.00	ARM
ML-AR-06	629651.40	6035642.30	360.84	87.00	ARM
ML-AR-07	629664.00	6035650.70	358.50	81.00	ARM
ML-AR-08	629712.22	6036042.08	352.83	156.00	ARM
ML-AR-09	629712.22	6036042.08	352.82	174.00	ARM
ML-AR-10	629737.29	6036077.65	354.35	138.00	ARM
ML-AR-11	629737.29	6036077.65	354.12	150.00	ARM
ML-AR-12	629737.29	6036077.65	354.17	217.82	ARM
ML-AR-13	629679.80	6036003.08	352.84	163.05	ARM
ML-AR-14	629679.80	6036003.08	352.95	201.00	ARM
ML-AR-15	629679.80	6036003.08	352.93	234.00	ARM
ML-AR-16	629649.70	6035995.60	352.50	183.00	ARM
ML-AR-17	629649.70	6035995.60	352.48	243.00	ARM
ML-AR-18	629649.70	6035995.60	352.47	291.00	ARM
ML-AR-19	629649.70	6035995.60	352.47	336.00	ARM
ML-AR-20	629782.00	6036113.00	352.92	140.00	ARM
ML-AR-21	629782.00	6036113.00	352.91	227.00	ARM
ML-AR-22	629782.00	6036113.00	352.94	200.00	ARM
ML-AR-23	629782.00	6036113.00	352.89	124.38	ARM

ML-AR-24	629782.00	6036113.00	352.86	217.35	ARM
ML-AR-25	629821.00	6035958.00	359.58	355.00	ARM
ML-AR-26	629793.14	6035992.05	351.56	281.00	ARM
ML-AR-27	629793.14	6035992.05	351.54	363.00	ARM
ML-AR-28	629793.14	6035992.05	351.61	272.00	ARM
ML-AR-29	629871.00	6036083.00	356.41	257.00	ARM
ML-AR-30	629871.00	6036083.00	356.39	317.00	ARM
ML-AR-31	629871.00	6036141.00	355.22	167.00	ARM
ML-AR-32	629857.00	6036045.00	352.00	290.00	ARM
<b>TOTAL FOR 32 HOLES IN ARMSTRONG DOMAIN</b>				<b>6571.60</b>	

## 26 APPENDIX 3

### 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.

- 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>: %
- Typical sample size:** 0.20 g
- Type of sample applicable (media):** Crushed and Pulverized rocks, soils and sediments
- 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>.
- 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.
- 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.
- 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

- 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.