GM 63503

TECHNICAL REPORT AND RECOMMENDATIONS, THE LAKE FAFARD PROJECT

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Technical Report and Recommendations
The Lake Fafard Project, Quebec, Canada
GALAXY RESOURCES INC.

February 2008

Prepared by:

Michel Boily, PhD, P. Geo.
GÉON

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ITEM 3 SUMMARY

In 2006, Galaxy resources Inc. acquired the lake Fafard uranium property located in the Saguenay region of Quebec to carry out an exploration program on granitic pegmatite dykes mineralized in uraninite and thorite. The property is situated within the Composite Arc Belt of the Grenville Province and the U-bearing granitic pegmatites are associated with the Tadoussac Complex; sharply intruding the metavolcanic and metasedimentary rocks of the St-Siméon Group. Previous geological and geophysical exploration, including DDH, conducted mainly in the 1960's revealed a series of anastamosing U-bearing granitic pegmatite dykes intruding amphibolite gneiss. We recognized four major steeply dipping dykes ranging from 300 to 650m in length and 10 to 130m in width. We identified two sub-types of granitic pegmatites. The first type consists of an unmineralized pink to reddish coarse to very coarse-grained graphic pegmatite containing 20 to 60 % K-feldspar. The other type, medium-grained and reddish-gray in color with equal proportions of pink K-feldspar and quartz, shows radiometric values high above background and is considered the carrier of the U and Th-ore. SEM analyses confirmed that uranium is concentrated in the oxide mineral uraninite (UO_2) in close spatial association with magnetite, thus rendering the beneficiation of U ore by a combination of gravity separation, flotation and magnetic separator most efficient. Sampling of dyke #1 indicates average $U3O_8$ concentrations of 0.011±0.020 wt. corresponding to U_3O_8 (lbs/ton) of 0.216±0.391. Ground-based magnetic and radiometric surveys conducted on a grid established over the main pegmatite showings (i.e. dykes # 1 to 3) has confirmed that the anomalies overlie areas of the main showings of dyke #1 where several trenches exposed magnetite and uraninite bearing pegmatites. Other les defined anomalies are confined to areas of presumed extension of dykes #2 and 3.

In 2007, an airborne radiometric and magnetic survey conducted over the entire property lead to the discovery of four principal anomalous areas named LFA-1 to LFA-4. Anomaly LFA2 is the most interesting. Situated approximately 1.8 km ESE from the main lake Fafard grid, it reveals a large, strongly radiometric, 100 x100m granitic pegmatite body. Two samples collected from a reddish-grey, hematized, medium to coarse- grained granitic pegmatite rich in magnetite (> 5%) produced U_3O_8 values of 1.49 and 1.52 lbs/ton accompanied by concentrations of Nb_2O_5 (0.149-0.165 wt%) and ZrO_2 (0.73-0.184) that are sufficiently interesting to warrant a thorough investigation of the site.

ITEM 4 INTRODUCTION AND TERMS OF REFERENCE

This report provides technical geological data relevant to Galaxy Resources Inc. lake Fafard property located in the Saguenay River region of Quebec and has been prepared in accordance with the Form 43101F1 Technical Report format outlined under NI-43-101. The purpose of this report is to present the status of current geological information generated from Galaxy Resources ongoing exploration program on the lake Fafard property and to provide recommendations for future work.

ITEM 5 DISCLAIMER

The author has relied upon information provided by Galaxy Resources Inc. that described the purchase option agreement into which Galaxy resources entered into the project and on data that describe the exploration rights, obligations and claim titles. The author has seen documents indicating that the appropriate annual claim payments have been made and that the claims are valid until Dec. 2007 to May 2011. To the best knowledge of the authors, there are no current or pending litigations that may be material to the lake Fafard Property assets. This report is based on information from reports available in the public record with the Ministère des Resources naturelles et de la Faune du Québec, private reports and general geological reports and maps. All these reports were prepared before the implementation of NI 43-101. Although many authors of such reports appear to be qualified and the information was prepared to standards acceptable to the exploration community at the time, the data does not fully meet present requirements. The author does not take responsibility for the information provided from such sources. The author description of the geology and other topics covered in this report are based on information and reports provided to them by Galaxy Resources inc. The author believes the information provided is verifiable in the field, and that it is a reasonable representation of the deposit.

ITEM 6 PROPERTY DESCRIPTION AND LOCATION

The lake Fafard property is located in southern Quebec in the regional municipality of East-Charlevoix, Saguenay Township, NTS map sheet 22C04. It lies on the northern shore of the St-Lawrence River near the junction of the Saguenay River (Figures 1 and 2). The lake Fafard property consists of 22 mineral

LOCATION OF THE LAKE FAFARD PROPERTY

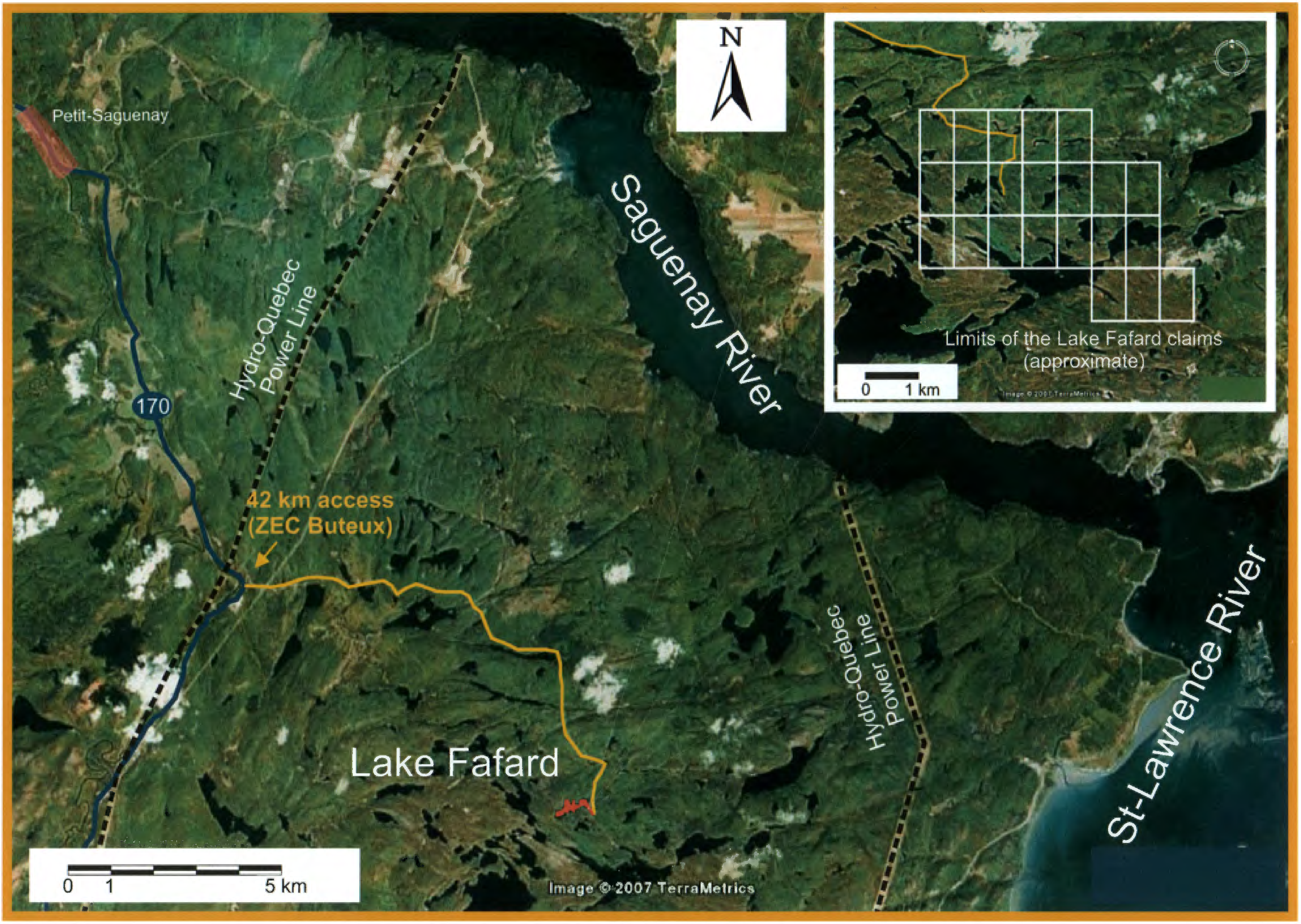


Figure 1. Location of the Lake Fafard Property, Québec

claims (polygons) (Figure 1). The property was staked between February 28 and April 24, 2006 for a total area of 10.35 km^2, 1,035.13 hectares or 2,557.86 acres. The claim block is centered at UTM coordinates 433708 E and 5324345 N, with the details of the titles given below. The vendor (Fay Yacoub, P. Geo) has agreed to sell to the purchaser (Galaxy Resources Inc.) and the purchaser has agreed to purchase all of the vendor right title and interest in and to the Lake Fafard property for a total of 1,200,000 shares of the purchaser's common stock, the property rights is subject to a two (2%) net smelter returns royalty.

TITLE #	SURFACE AREA (Hec)	Expiry date
CDC-2020489(A)	57,52	11/07/08
CDC-2020488(A)	57,52	11/07/08
CDC-2020490(A)	57,52	11/07/08
CDC-2012844(A)	57,51	24/05/08
CDC-2011049(A)	57,51	22/05/08
CDC-2020492(A)	57,51	11/07/08
CDC-2020493(A)	57,51	11/07/08
CDC-2020494(A)	57,51	11/07/08
CDC-2020495(A)	57,51	11/07/08
CDC-2020491(A)	57,51	11/07/08
CDC-2011789(A)	57,50	22/05/08
CDC-2009777(A)	57,50	16/05/08
CDC-2020496(A)	57,50	11/07/08
CDC-2020497(A)	57,50	11/07/08
CDC-2020498(A)	57,50	11/07/08
CDC-2020499(A)	57,50	11/07/08
CDC-2020500(A)	57,50	11/07/08
CDC-2012845(A)	57,50	24/05/08
CDC-2010794(A)	57,50	18/05/08
CDC-2005787(A)	57,50	24/04/08
CDC-2005788(A)	57,50	24/04/08
CDC-2020155(A)	57,49	05/07/08

The Grenville Province

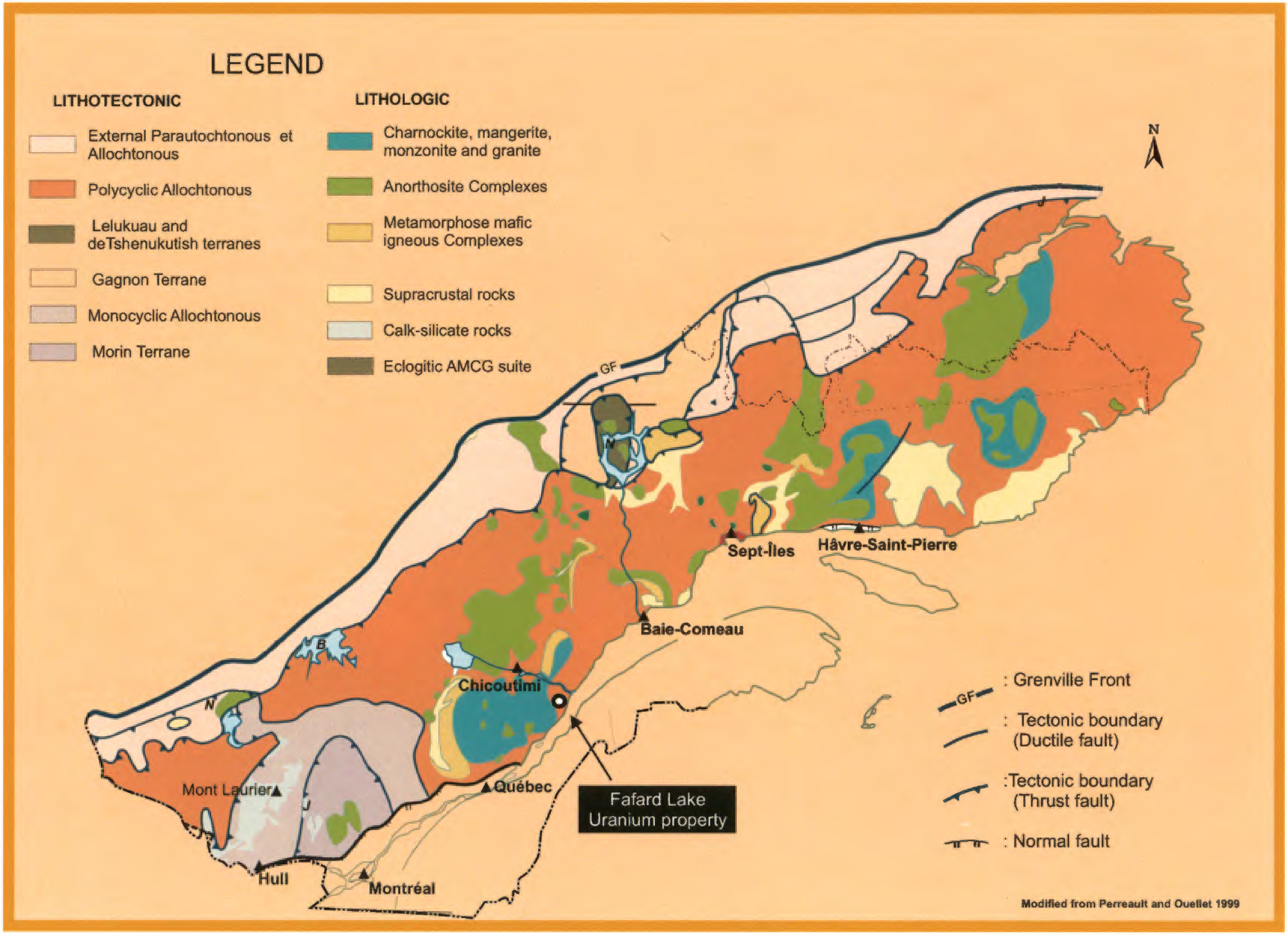


Figure 2. Geology of the Grenville Province

According to Quebec government records, no part of the land covered by the property is a park or mineral reserve. However, the propriety is contained within the boundaries of the ZEC (Zone d'Exploitation Contrôlée) Buteux. To our knowledge, the property is devoid of royalties, back in rights, payments or other encumbrances. The lake Fafard property is not subject to environmental liabilities except for those specified in the "Loi sur les Mines" (L.R.Q. chapter M-13.1).
Since the early 1960's, the region of the lake Buteux (Figure 1) has been acknowledged as a potential fertile ground for uranium mineralization in granitic pegmatites (Shaw, 1968; Miller, 1973; Morin, 1977; Hébert, 1995; Perreault, 2005 and GM23775). Mineralized granitic pegmatites have been recognized and evaluated for U mineralization about 2 km SE of the property just north of lake Fleury (Morin, 1977) (Figure 3). During the early 2000, Virginia Gold Mines undertook a prospecting program to assess the PGE mineralization found in altered pyroxenites exposed lest than 2 km W of lake Fafard in the vicinity of lake David (Lavoie, 2004). Prospecting and rock sampling extended over the east part of the property (now the recently staked Lac Fafard property).

ITEM 7 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES INFRASTRUCTURE AND PHYSIOGRAPHY

Access to the lake Fafard site is via Highway # 40 going northeast from Quebec City, and then proceeding on highway # 138 until we reach the village of St-Siméon where we turn north on road # 170. The entry to the property is made via the western gate of the ZEC Buteux at the km 42. The property is then reached by traveling 17 km in direction E-ESE in a 4X4 vehicle on a dirt summer track, which leads directly to the main grid (Figure 1).

The topography is typical of the Canadian Shield i.e. rolling hills reaching between 60 to 350 m in height with an abrupt network of rivers and numerous lakes of irregular shapes. The vegetation, adapted to the harsh climate and altitude, typifies the boreal forest. Deciduous trees such as the white birch and poplar are interspersed with conifers dominated by black and white spruce, gray pine and aspen. The Saguenay area is characterized by a humid continental climate. Summers (mid-May to early-September) are short but temperate with average maxima and minima of 24.5°C and 13.5°C (July). Winter is harsh and starts in October and last until April,

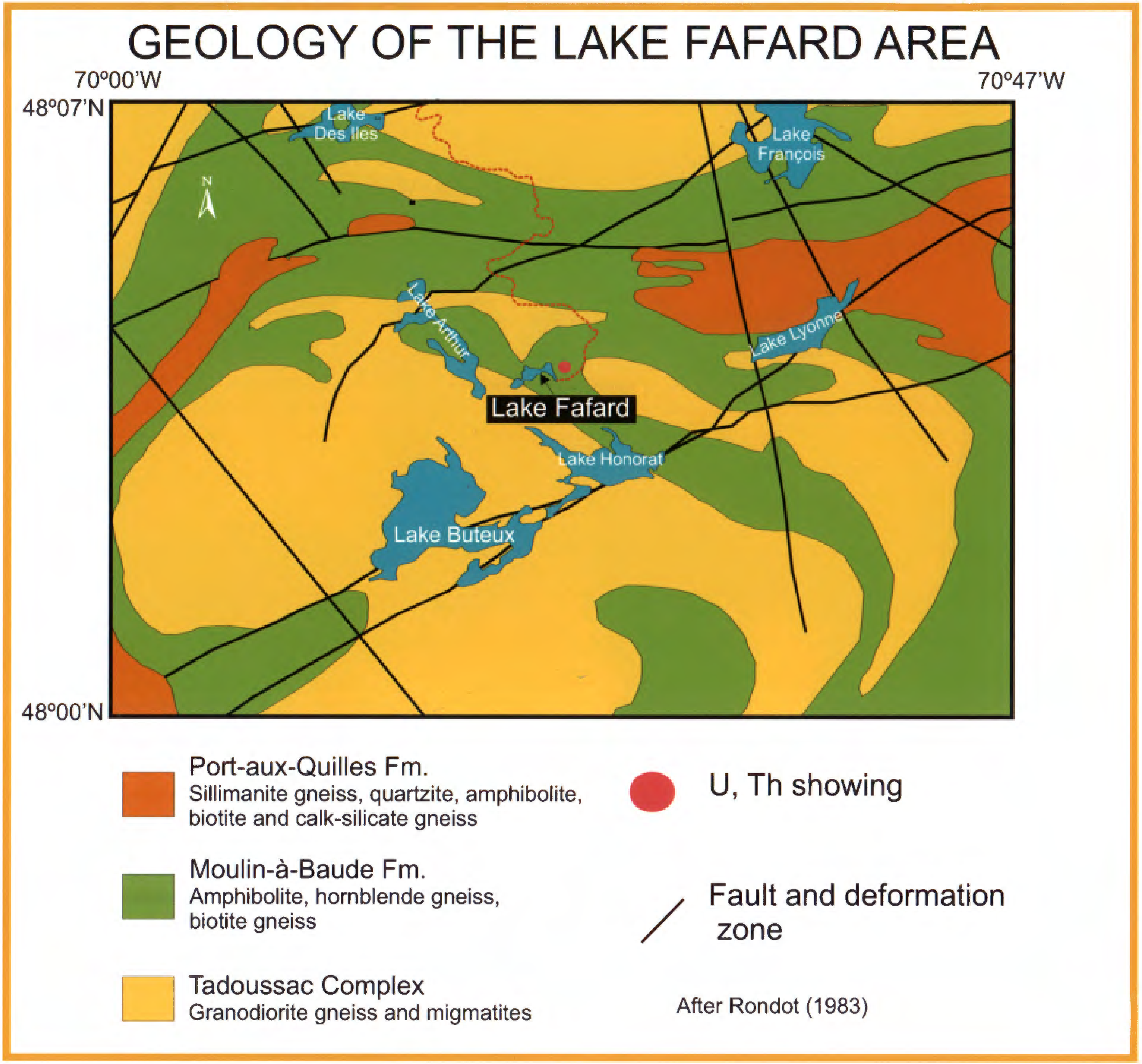


Figure 3. Geology of the Lake Fafard area

with an extensive cover of snow (325 cm) from November to April. Average temperatures reach – 19.5°C (min) and –9.7°C (max) in January.

The nearest major town from the property is Saguenay (pop. 146,332), which can be reach by traveling 100 km on provincial road 170. The town harbors a university and posses all the services and manpower necessary to develop a mining property. The nearest village from the property is Petit-Saguenay (pop. 825), which lies about 30 km north. St-Siméon (pop. 1407) is located 60 km from the property site and can be attained by traveling south on road 170. A NS-oriented 750 Kv power line from Hydro-Quebec crosses the area and is located less than 7 km from the property. Water is easily obtainable from the numerous shallow lakes especially from lake Fafard, which sits at the western end of the major grid.

ITEM 8 HISTORY

8.1 Introduction

The earliest published geological investigation of the area was that of Ross (1950) who mapped a 466 km^2 territory east of the Saguenay River and north of St-Siméon. Ross produced a 1:12,000 scale map detailing the principal rock types i.e. biotite gneiss, biotite-muscovite granite, granitic pegmatite, amphibolite gneiss and silexite. This study was followed by that of Miller (1952) who essentially mapped an area corresponding to the NTS sheet 22C04. The geological studies of Rondot (1979, 1983) established a new stratigraphy of the metavolcanic, metasedimentary and orthoplutonic rocks from the same NTS sheet.

Apart from the drilling program, the prior history of exploration on the Fafard lake property is summarized in Table 1. There was no production from this property.

8.2. Drilling

United Obalski Ltd (GM 23375) conducted a drilling program in 1968. A summary of the DD logs of eight holes in is illustrated in Figures 4 and 5. Their UTM (NADR) coordinates are presented below. Seven holes have roughly an EW azimuth and a 40°dip. The results indicate a series of anastamosing masses, pods and dykes of late-magmatic granitic pegmatites intruding

Table 1- HISTORY OF EXPLORATION ON THE FAFARD LAKE PROPERTY

Company	Year	GM #	Geological Mapping	Trenching	Airborne Survey	Ground Survey	DDH
Opemisca Explorers Ltd, Quebec Chibougamau Goldfields, United Obalski Mining Co	1967	(21779) Malouf and Megan (1967)	Yes	31 rock trenches for a total length of 1280 feet	Radiometric aiborne survey identified seven main radioactive areas, of which an anomalous zone of the first magnitude (2000 m inlenght) carries widespread values in uranium in a zone measuring 200m feet in widht	None	None
Opemisca Explorers Ltd, Quebec Chibougamau Goldfields, United Obalski Mining Co	1967	21780 Hagan (1967)	Yes	No	No	Detailed scintillometer and magnetic survey	None
Naganta Mining and Dev. Co. Ltd, United Obalski Mining Co.	1967	(21781) Jacquemin (1967)	None	None	Radiometric aerial survey by Geoterrex	None	None
Opemisca Explorers Ltd, Quebec Chibougamau Goldfields, United Obalski Mining Co	1967	(21782) Osborne (1967)	None	None	None	None	None
Opemisca Explorers Ltd, Quebec Chibougamau Goldfields, United Obalski Mining Co	1967	(21783) Hagan (1967)	Yes	Trenching and sampling of the 3 main granitic pegmatite dykes	None	None	None
United Obalski Mining Co	1968	(21784) Salman (1968)	None	None	None	None	None
Opemisca Explorers Ltd, Quebec Chibougamau Goldfields, United Obalski Mining Co	1968	-23775	None	None	None	None	Total of 2,964 feet of drilling in 12 holes
Opemisca Explorers Ltd, Quebec Chibougamau Goldfields, United Obalski Mining Co	1969	(24636) Shaw (1968)	None	None	None	Scintillometer and magnetometer surveys.15 radioactive anomalies were outlined	None
Claims Beauchemin	1977	(32800) Morin (1977)	None	None	None	None	None

Table 1- HISTORY OF EXPLORATION ON THE FAFARD LAKE PROPERTY

Company	Year	GM #	Assaying	Maps	U_3O_8 concentrations	Other Elements assayed	Tonnage estimate	Remarks
Opemisca Explorers Ltd, Quebec Chibougamau Goldfields, United Obalski Mining Co	1967	(21779) Malouf and Megan (1967)	Sampling of 138 fresh rocks were analyzed radiometrically and spot checked for chemical analyses	None	A 400x15m area containing a minimum of 31,000 tons per vertical foot.1.30 lbs/ton of U_3O_8 (higher grade) to 0.45 lbs/ton (lower grade); avg. 1.12 lbs/ton U_3O_8.	No	1.13 lbs/ton of U_3O_8 for 31,000 tons/vertical foot in an area of 1,200X550 feet	Unreliable estimate of tonnage due to large uncertainities in assaying method and incorect assumption of the mineable zone
Opemisca Explorers Ltd, Quebec Chibougamau Goldfields, United Obalski Mining Co	1967	21780 Hagan (1967)	(see GM 21779)	Geological map and sample plan: 1"=20' Geological plan: 1"= 50' Scintillometer survey 1"= 50' Magnetic survey 1"= 50' Radiometric aerial survey 1" = ¼ mile	(see GM 21779)	No	(see GM 21779)	Unreliable estimate of tonnage due to large uncertainities in assaying method and incorect assumption of the mineable zone
Naganta Mining and Dev. Co. Ltd, United Obalski Mining Co.	1967	(21781) Jacquemin (1967)	None	None	None	None	None	
Opemisca Explorers Ltd, Quebec Chibougamau Goldfields, United Obalski Mining Co	1967	(21782) Osborne (1967)	None	None	None	None	None	Petrographic work on selected granitic pegmatite samples done by prof F. F. Osborne , Université Laval, Québec, Canada
Opemisca Explorers Ltd, Quebec Chibougamau Goldfields, United Obalski Mining Co	1967	(21783) Hagan (1967)	Calculation of U_3O_8 content by radiometric analysis (beta and gamma counts) on 133 samples. Some XRF analyses. Some spectroscopic semi-quantitative analyses	None	avg. 1.13 lbs/ton U_3O_8	Zr, Y, Th by XRF	2652 tons/vertical foot at 1.13 lbs/ton U_3O_8 for block ABCD (?)	Unreliable estimate of tonnage due to large uncertainities in assaying method and incorect assumption of the mineable zone
United Obalski Mining Co	1968	(21784) Salman (1968)	1 sample	None	3.3 lbs/ton U_3O_8	Th, Y	None	Test of concentration of U ore minerals with superpanner . Since magnetite is in close association with U3O8-bearing minerals, test of separation by magnetic means
Opemisca Explorers Ltd, Quebec Chibougamau Goldfields, United Obalski Mining Co	1968	-23775	Some chemical analyses for hole # 1 core: U_3O_8 =0.05-.015 wt. %; for the rest, calculation of U_3O_8 content by radiometric analysis	1 geological map with DDH location 1"=50'.	The DDH tested the dyke #1 structures to a depth of approximately 400 feet and found values of U_3O_8 to be below ore grade	Th, Y	None	Unreliable estimate of U_3O_8 concentrations by calculation from radiometric counts (mr/h)
Opemisca Explorers Ltd, Quebec Chibougamau Goldfields, United Obalski Mining Co	1969	(24636) Shaw (1968)	None	Scintillometer countour plan 1" = 200' Magnetometer contour plan 1" = 200' Composite plan 1"= 400'	None	None	None	
Claims Beauchemin	1977	(32800) Morin (1977)	None	None	None	None	None	Assessment report of the property

amphibolite and granitic gneisses. This is confirmed by detailed surface geological mapping in the area of dyke #1 (Figure 6) that shows several meter-thick branches of reddish-gray granitic pegmatites and graphic granitic pegmatites intruding amphibolite gneiss.

Hole #	**Easting**	**Northing**	**Zone**	**NTS Sheet**	**Azimuth**	**Plunge**	**Depth (m)**
1	433529	5324655	19	22C04	265	-40	70.1
2	433572	5324664	19	22C04	265	-40	76.8
3	433618	5324679	19	22C04	265	-40	76.2
4	433652	5324676	19	22C04	265	-40	141.7
5	433647	5324736	19	22C04	265	-40	97.2
6	433622	5324609	19	22C04	247	-40	110.6
7	433581	5324501	19	22C04	48	-40	201.2
8	433493	5324516	19	22C04	205	-45	99.1

The DDH logs also revealed that most intersections of granitic pegmatites are less than 15 m in apparent thickness, with the largest intersections produced by hole #1 (30.8 m) and #7 (92.6 m) (Figures 4 and 5). Most medium-grained and reddish-gray granitic pegmatites were found to be radioactive and are weakly to strongly mineralized in U and Th. Radiometric readings performed on the reddish-gray granitic pegmatite cores at 1 foot intervals produced a mean value of 0.003 mr/h over background for the hole #1 (30.8 m intersection) and of 0.010±0.011 for hole #7 (92.6 m intersection). Figure 7 presents variations in radiometric counts above background (mr/hr) vs. depth for the thickest reddish-gray pegmatite intersection in hole #7 (i.e. 92.6 m). The graphic indicates an apparent break in the radiometric counts whereas the first 40 m of intersection display values < 0.01 mr/hr and the last 52 m presenting radiometric counts > 0.01 mr/hr with several higher than 0.02 mr/hr. This break may represent a zonation within the pegmatite body, which is not uncommon in thick differentiated bodies (Cerny, 1991). Figure 7 also exhibits anomalous radiometric readings for the entire section composed of reddish-gray pegmatites that are however difficult to translate into actual concentrations of U and Th. However, the anomalous readings may signify a relatively continuous mineralization throughout the pegmatite section.

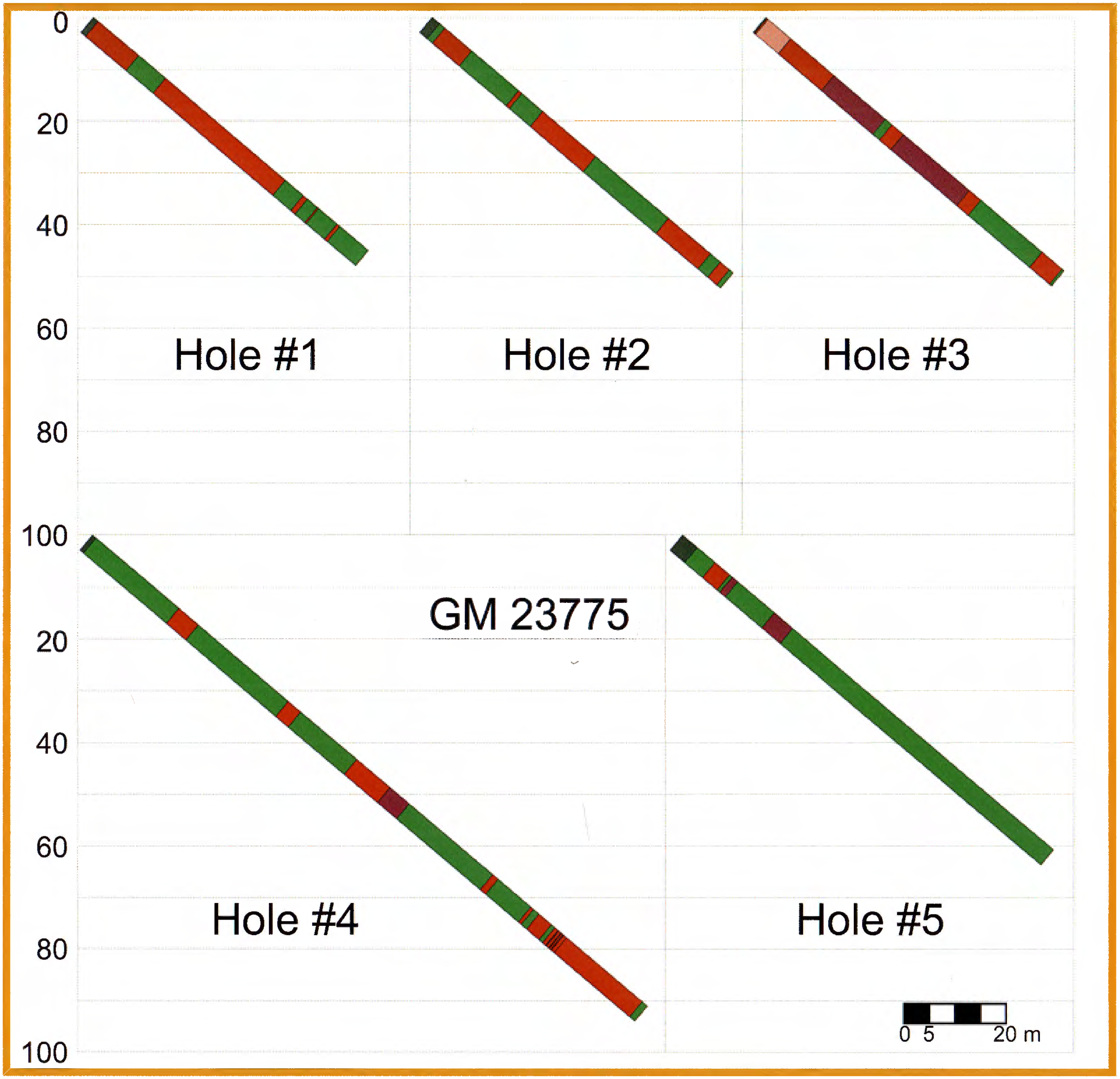


Figure 4. DDH logs for Hole 1 to 5 (GM 23775)

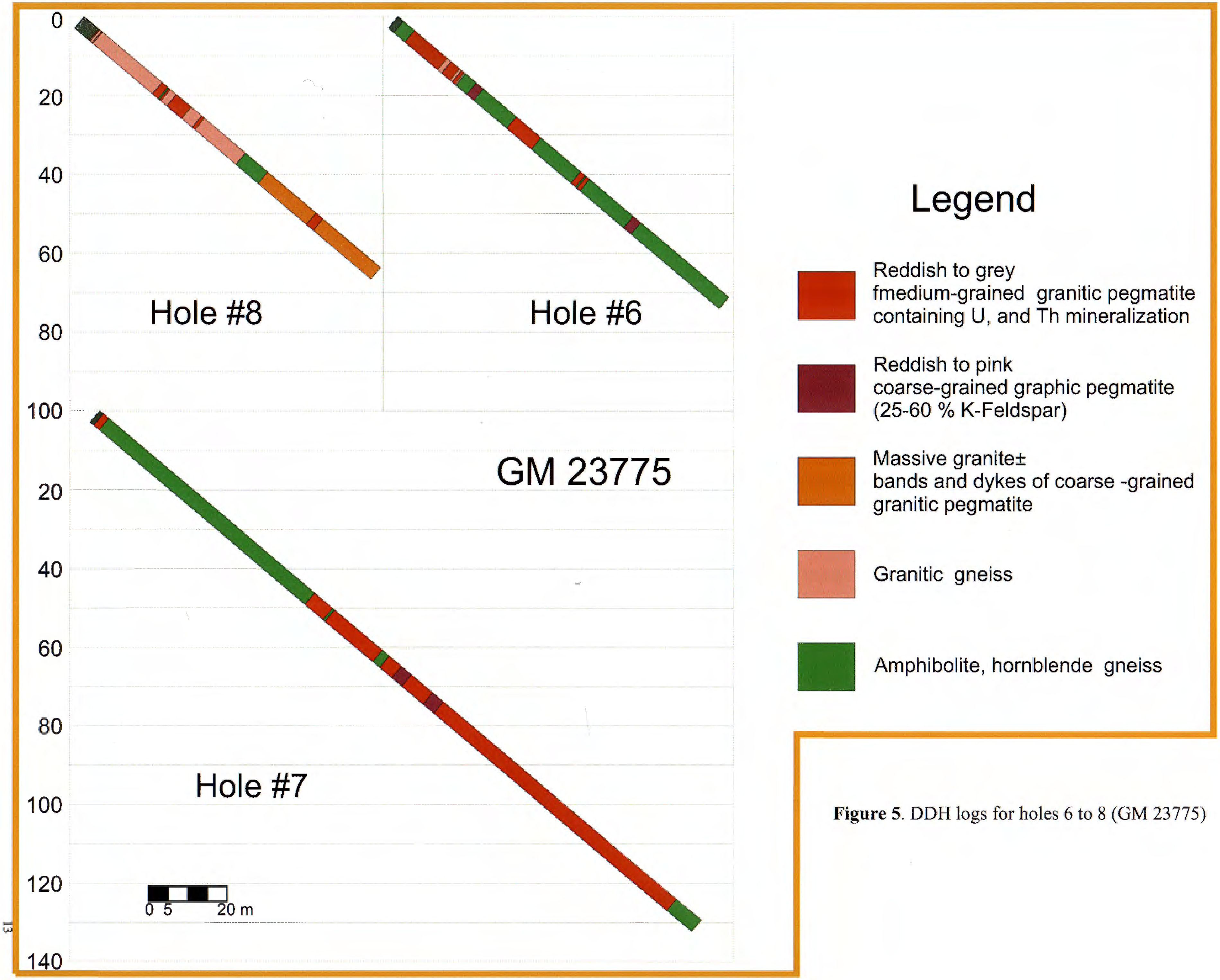


Figure 5. DDH logs for holes 6 to 8 (GM 23775)

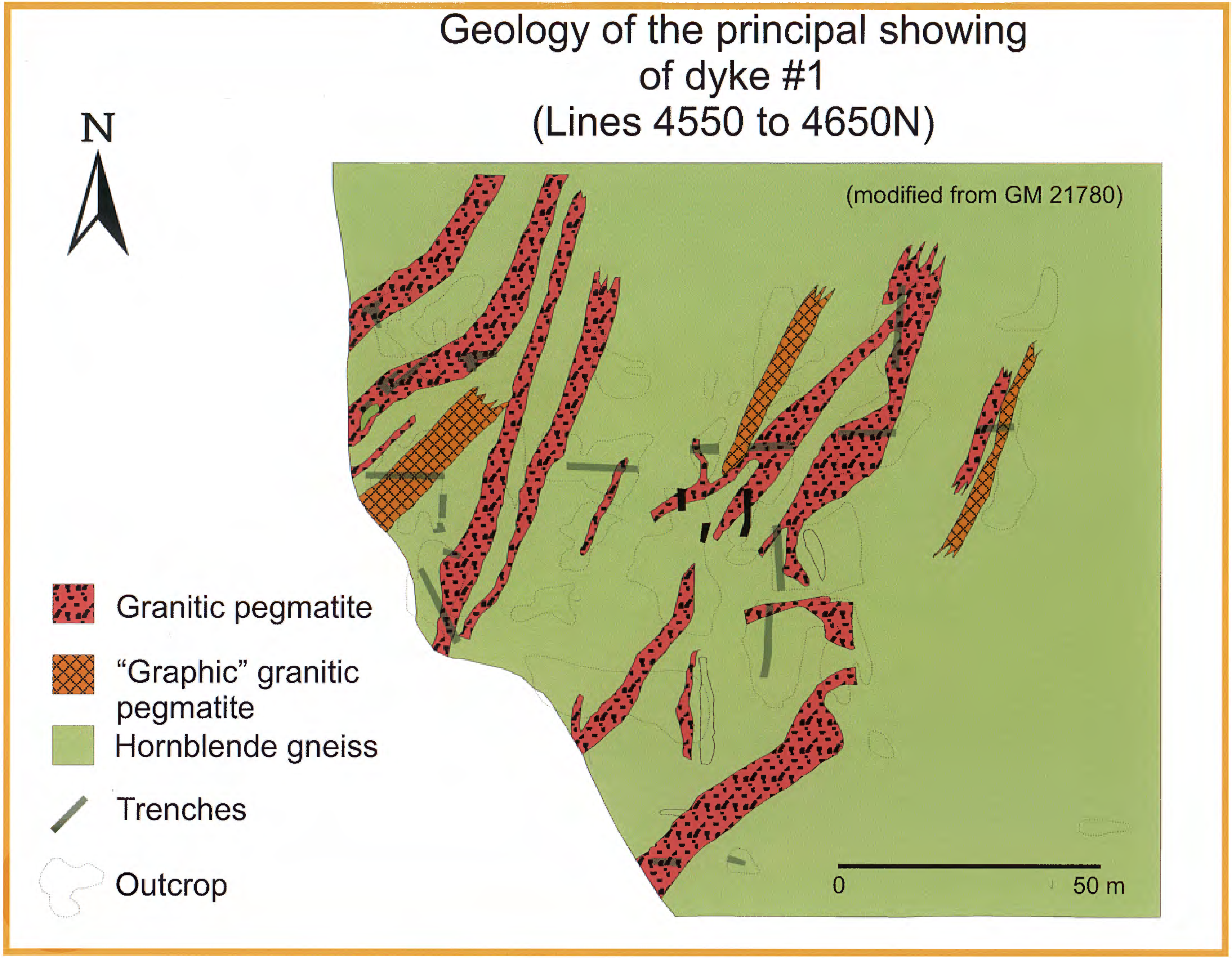


Figure 6. Geology of the principal showing of Dyke #1

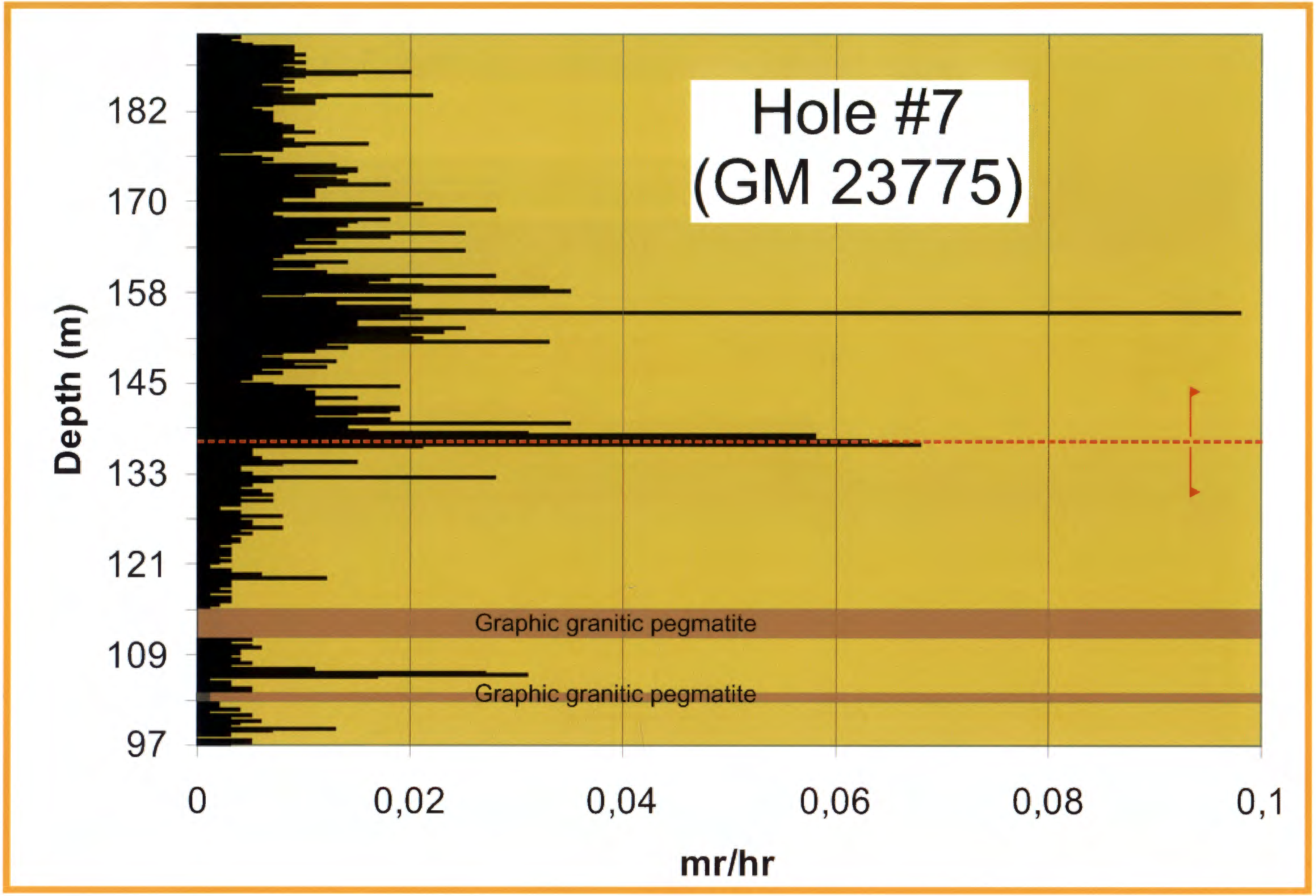


Figure 7. Mr/hr vs. Depth (m) for a granitic pegmatite section of hole #7 (GM 23775)

ITEM 9 GEOLOGICAL SETTING

9.1- Regional and Local Geological Setting

The Precambrian rocks underlying the lake Fafard are part of the Canadian Grenville Province (Figure 2). The main crustal build up of the Grenville Province occurred through prolonged, 1.8 to 1.24 Ga, Andean-type continental arc and intracontinental back-arc magmatism with some lateral accretion of magmatic arcs (Rivers, 1997; Hanmer et al., 2000; Gower and Krogh, 2002). The Grenville Province is subdivided into two main semi-continuous parallel stacked belts known as the parautochthonous belt and the structurally overlying allochthonous polycyclic belt, as well as into a series of supracrustal-dominated belts termed as the allochthonous monocyclic belt. The latter comprises the Wakeham terrane, the Frontenac-Adirondack-Morin Belt and the Composite Arc Belt (Tollo et al. 2004). The property is situated within the Composite Arc Belt which comprises the ~ 100 000 km^2 Quebecia 'terrane' affected by the Pinwarian tectonomagmatic activity (1.52-1.46 Ga)

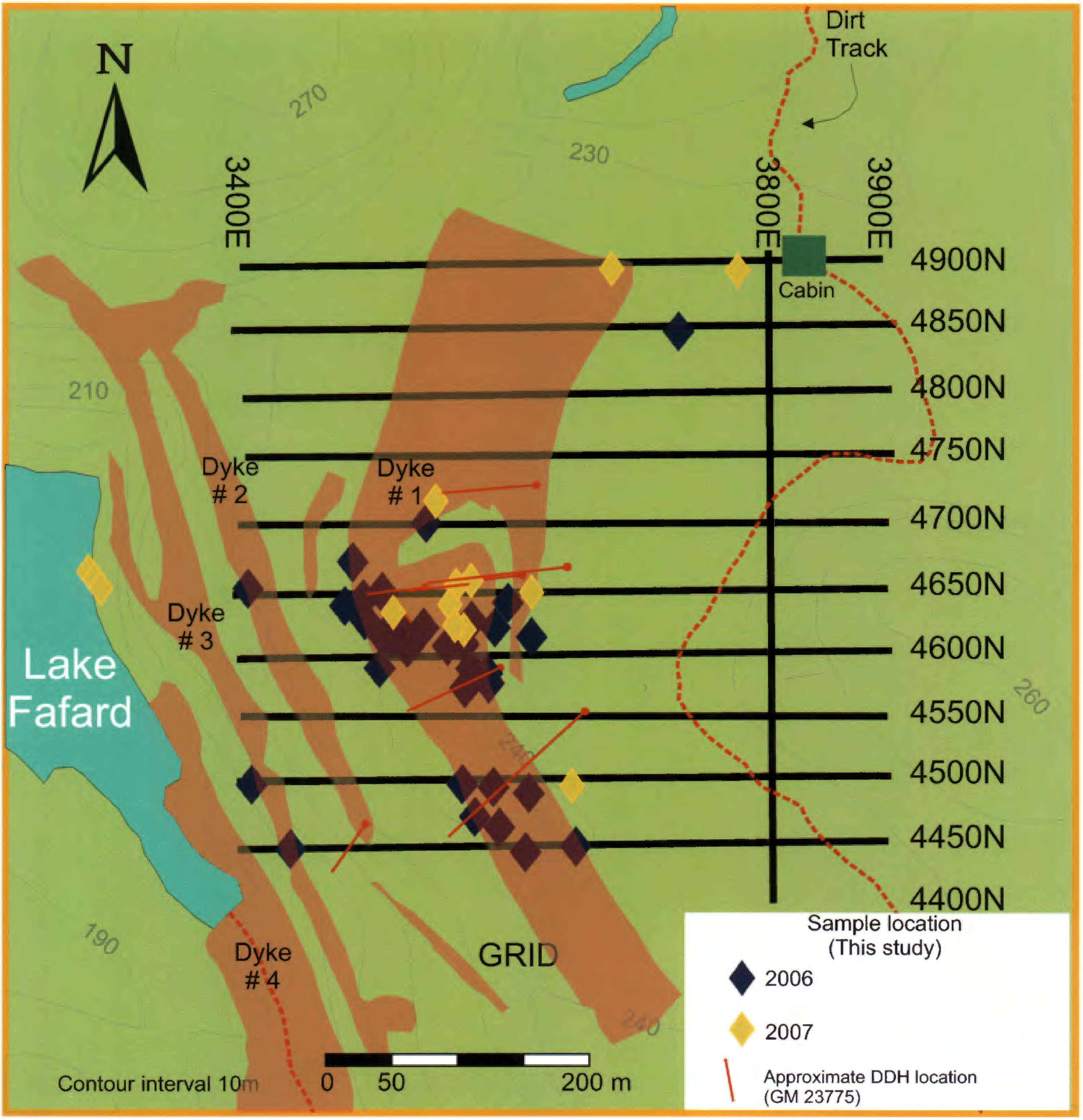
Locally, the geology is dominated by the migmatites and biotite±hornblende granites regrouped under the Tadoussac Complex (Rondot, 1979, 1983). Charnockitic migmatites and plutons of the Parc des Laurentides Complex (mangerite, charnockite and opdalite) occupy the northern area and locally intrude the rocks of the Tadoussac Complex. The U-bearing granitic pegmatites of the lake Fafard property are associated with the Tadoussac Complex and intrude sharply the metavolcanic and metasedimentary rocks of the St-Siméon Group (Rondot, 1979). This Group is divided into the Moulin- à - Baude Formation and the Port-aux-Quilles formations (Figure 3). The pegmatites crosscut the Moulin-à- Baude Formation which consists of amphibolite, hornblende gneiss and gneissic to migmatitic granite representing the deformed and metamorphosed equivalent of a volcanic sequence (Rondot, 1979). The Port-aux-Quilles Formation exposes a succession of quartzite, quartzite gneiss, and quartzite conglomerates with minor amphibolite and is thought to represent a continental sedimentary sequence.
The regional structure is defined by a canoe-shaped synclinal which has been refolded around a N-S axis and dragged to the south on both the eastern and western terminations by major deformation zones oriented NE (Lavoie, 2004). The general structure is dipping 80-85° to the

north within the west deformation zone and turns progressively to the east with a decreasing dip of 60-65°. The metavolcanic and metasedimentary rocks are metamorphosed to the upper amphibolite facies with some retro-metamorphism to the greenschist facies in some places.

Miller (1973) has classified the pegmatites of the area into two main types. One is typically pink in color contains biotite but no muscovite, and commonly also has magnetite and hornblende. The white to gray pegmatite consists of quartz, microcline, albite or sodic oligoclase, muscovite±biotite and are medium to coarse grained. Garnet is a common mineral. Both types are abundant in border zones of biotite granite plutons (Tadoussac Complex) and in the areas of amphibolite gneisses. Magnetite is present in many pegmatites and associated quartz veins with biotite. The magnetite occurs in long streaks or as irregular masses up to 5 cm in diameter.

9.2 Property Geological Setting

The granitic pegmatites occur as discontinuous sills and irregular bodies almost everywhere concordant with the gneissic fabric of the enclosing rocks. In general, pegmatites in hornblende gneisses have more biotite than in those in granite gneiss. Pegmatites near the center of granite plutons, where the mafic content is low and gneissossity inconspicuous, have little biotite. Extensive geological mapping over the 1960's allowed the recognition of four principal granitic pegmatite dykes (Hagan, 1967) (Figure 8). Dyke # 1 reveals a large red-coloured pegmatite dyke form 75 to 130 m in width with a minimum length of 300 m striking 320°N and dipping 60 to 70° NE. Dyke # 2 is poorly exposed and has a length of 400 m and a width varying form 10 to 40 m. The granitic pegmatite is white coloured and strikes at 335°. The # 3 dyke occurs mostly on a hillside near the lake Fafard shore and present a apparent length of 650 m and widths of 10 to 40 m averaging 25 m. Geological mapping of the property and logging of diamond drill cores conducted by United Obalski Ltd (1968; GM 23775) uncovered two sub-types of granitic pegmatites on the lake Fafard property (Figure 6). The first type consists of a pink to reddish coarse to very coarse-grained graphic pegmatite containing 20 to 60 % K-feldspar with very few specs and crystals of hematite, magnetite or uraninite. The other type is medium-grained and reddish-grey in colour with equal proportions of pink K-feldspar and quartz. Numerous specs and crystals of hematite and magnetite as well as uraninite are erratically dispersed. This pegmatite type shows radiometric values high above background on the scintillometer and is considered the



Lake Fafard Grid
August 2006

Figure 8. Lake Fafard grid established in 2006

carrier of the [16] U and Th-ore. A massive granite with a similar mineralogy to the pegmatites and crisscrossed by numerous pegmatite dykes was intersected in one hole (DDH #8; GM 23775 and see Figure 5) and could be genetically related to one or both types of pegmatite.

ITEM 10 DEPOSIT TYPES

According to Černy (1990,1991) there are four major class of granitic pegmatites: 1) Abyssal; 2) Muscovite;) Rare-element and 4) Miarolitic. The lake Fafard U-rich pegmatites are considered to be of the abyssal pegmatite type. The latter is characterized by migmatitic products of partial melting that are mineralized in U, REE (Rare Earth Elements), Be and Nb. They occurred in rocks metamorphosed in the upper amphibolite to granulite facies of Barrovian- to Abukuma-type metamorphic series (~ 4 to 9 kb).

In a study of uranium mineralization associated with granitic pegmatites of the Grenville Province of Quebec, Harvey (1983) recognized the I- and S-type of pegmatites as two genetically unrelated magmatic suites. The S-type or "white" granitic pegmatites occur principally in the Mont-Laurier region and contain biotite, pyrrhotite, pyrite, molybdenite, chalcopyrite, beryl, titanite, tourmaline and graphite as accessory minerals. The primary U-bearing minerals are: uranothorite, Th-rich uraninite with secondary uranophane. These pegmatites are typically found intruding metasediments near the contact with basement rocks. The I-type or « pink » granitic pegmatites owe their color to the hematite content of the alkali feldspars. Located on the north shore of the St-Lawrence River, they contain magnetite, apatite and zircon as accessory minerals. Uraninite, uranothorite, samarskite and allanite are the primary U ore, whilst uranophane, and uranopilite are secondary. These pegmatites are commonly exposed in migmatitic terranes. A comparative petrological study of both pegmatite types lead to the conclusion that the S-type granitic pegmatite are derived from local melting of metasediments at moderate depth, while the I-type pegmatites are generated at greater depth from melting of ancient basement rocks.
The geological setting and metamorphic grade of the host rock as well as the mineralogy of the lake Fafard granitic pegmatites is consistent with an I-type origin and their classification as abyssal pegmatites.

ITEM 12 EXPLORATION

Ten EW-oriented lines, each 500 m in length and separated by 50 m, were cut during the months of July and August 2006 between the eastern shore of lake Fafard and the dirt path leading to it (Figure 8).

Geological mapping and rock sampling were conducted along the grid laid out on the main pegmatite showing of the property. The lines were walked in August 2006 by Michel Proulx who mapped the terrane and performed an inventory of the numerous trenches that were blasted in the 1960's by prospectors and geologist who encountered high count values on scintillometer readings. Most trenches expose coarse to medium grained granitic pegmatites. Ground-based radiometric and magnetometer surveys were also carried out by in August 2006 by Jerii Cassidy along the grid. A geological sketch of the ground covered by the grid is provided in Figure 9. A helicopter-borne geophysical survey was later accomplished over the entire property by GPR Géophysique the during the summer of 2007. The survey incorporated radiometric, magnetic and components.

In the fall 2007, a regional geological survey of the entire property was carried out by Michel Boily assisted by two prospectors. The objective of this survey was to investigate the ground expression of the different radiometric and magnetic anomalies unveiled by the airborne geophysical survey conducted in the previous month.

12.1- Mineralogy of the U, Th and REE-bearing Accessory Phases

12.1.1 Introduction

SEM semi-quantitative analyses of U, Th and REE-bearing minerals were conducted in order to constrain the nature and composition of the accessory phases and their structural and textural relations to the major constituent minerals in the granitic pegmatites (i.e. K-feldspar, albite, biotite and quartz). It was especially important to establish the relation of the rare metals-bearing minerals to magnetite since the occurrence of the latter was used as an indicator of uranium mineralization within the pegmatites.

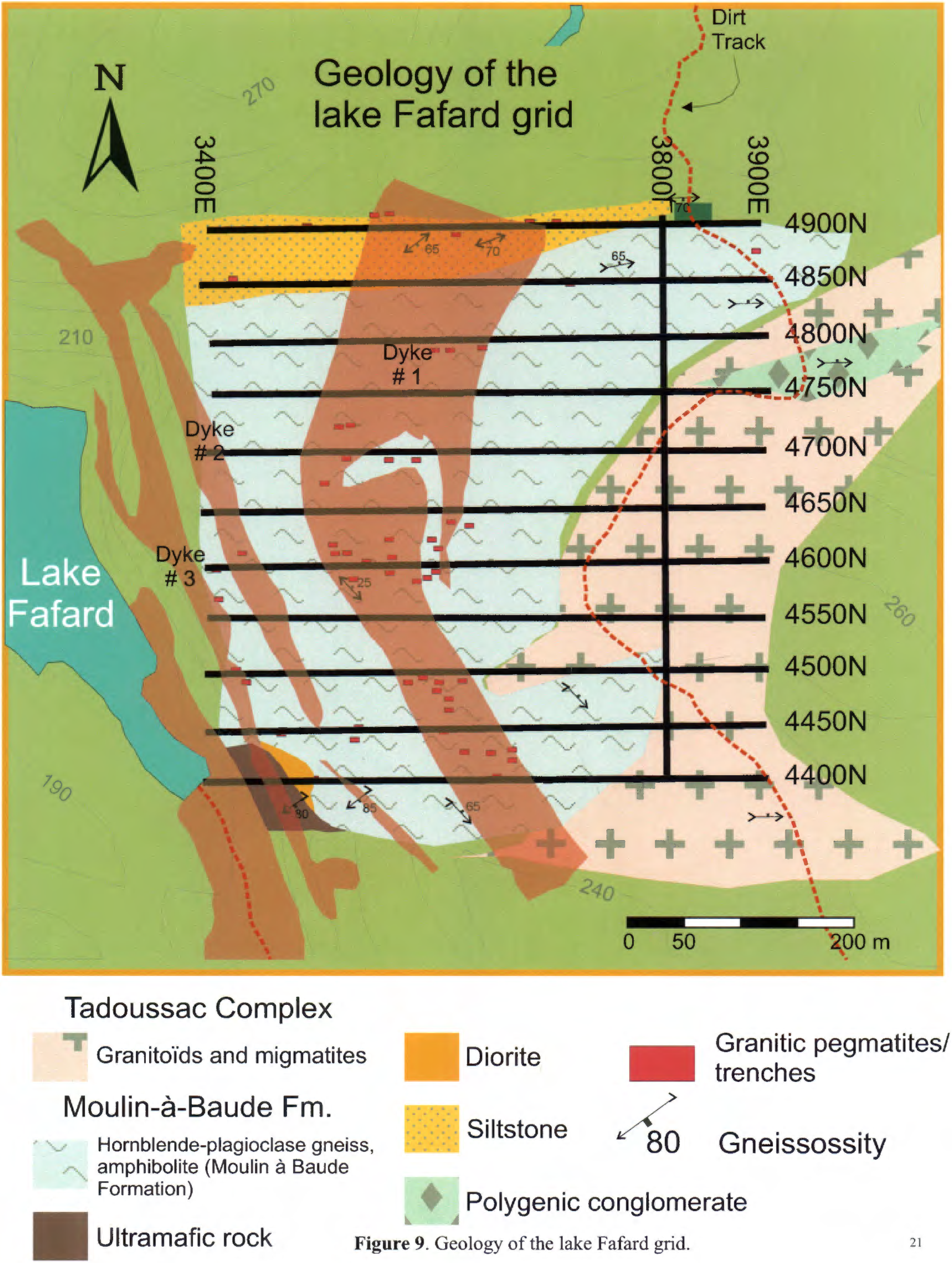


Figure 9. Geology of the lake Fafard grid.

12.1.2 - Analytical Procedures

Five standard 1"-diameter thin sections selected form 3 granitic pegmatite samples collected by Michel Boily from trench exposures of dyke #1 on the lake Fafard grid (LF-MB-06-1 to 3) were prepared at the Thin Section Facility in the Department of Geology, lakehead University. Samples were analyzed for the identification of U-Th-REE-bearing minerals by semi-quantitative Energy-Dispersive X-ray Spectrometry (Semi-QEDS) using a JEOL JSM-5900 scanning electron microscope equipped with a Link ISIS 300 analytical system. Raw EDS spectra were acquired for 50 s (live time) with an accelerating voltage of 20 kV, and beam current of 0.475 nA. The spectra were processed with the LINK ISIS SEM-QUANT software package, with full ZAF corrections applied. The nature of semi-quantitative analysis precludes the need to standardize using analytical standards. In order to limit the effects of peak overlap, U and Th were standardized using U-metal and Th-metal. The average detection limited for EDX is about 0.5 elemental%. Since analyses are only semi-quantitative, it is not possible to determine mineral formulae for the identified phases. Any mineral formulae given correspond to idealized end-member compositions and do not necessarily reflect the compositions of the identified phases.

12.1.3 - Summary of Results

Concomitant with the identification of the U, Th-bearing phases, the SEM analyses allowed the identification of the following minerals: Quartz (Qtz), K-Feldspar (Kf), Albite (Ab), Hematite (Hem)(Figure 10), Graphite, Magnetite (Mt), Biotite (Bio), Apatite (Apt), Chlorite (Cl), Rutile (Rt) and Zircon (Zrc).

REE-bearing minerals

The Yb-bearing phosphate xenotime [$Yb_xY1\text{-}xPO_4$ to YPO_4 (end-member)] was the only REE-carrying mineral (Figure 11). However, REE are likely to occur below the 0.5% detection limit for EDX in the following phases: zircon, perrierite-chevkinite (see below); with other REE bearing phase contained within xenotime (Xn).

U-bearing minerals

Figure 10a. Back Scattered Emission (BSE) image of interstitial hematite (Hem)

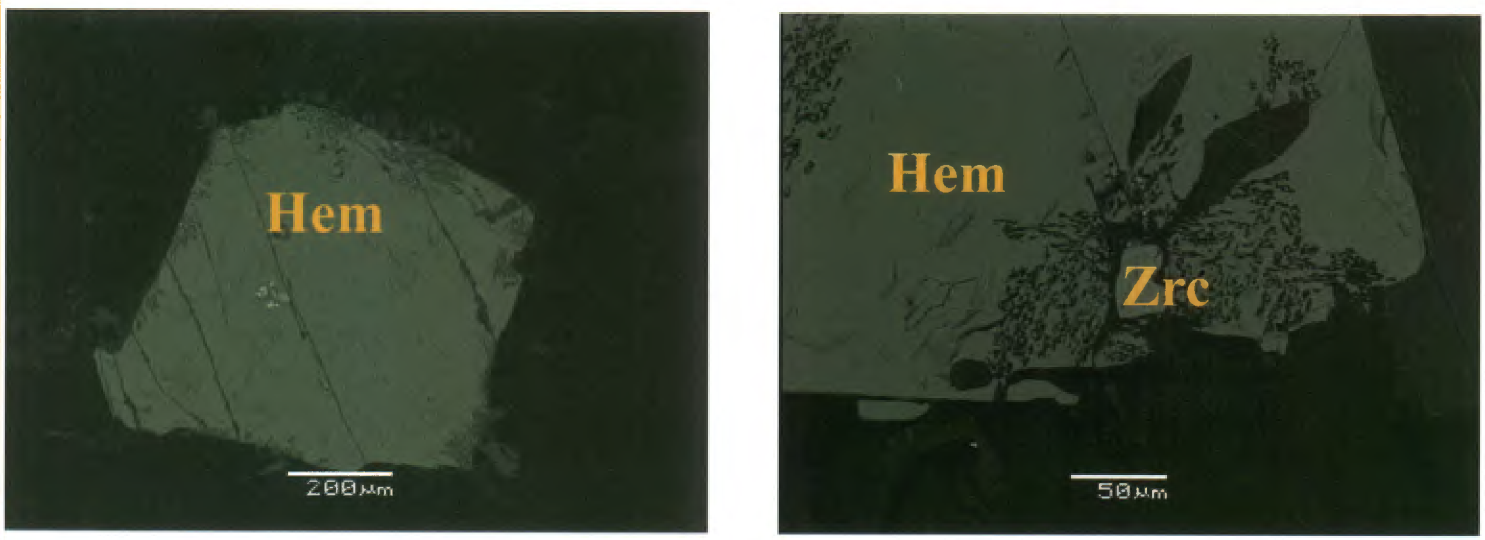


Figure 10b. Back Scattered Emission (BSE) image of interstitial hematite (Hem) with zircon (Zrc) inclusions

Figure 10

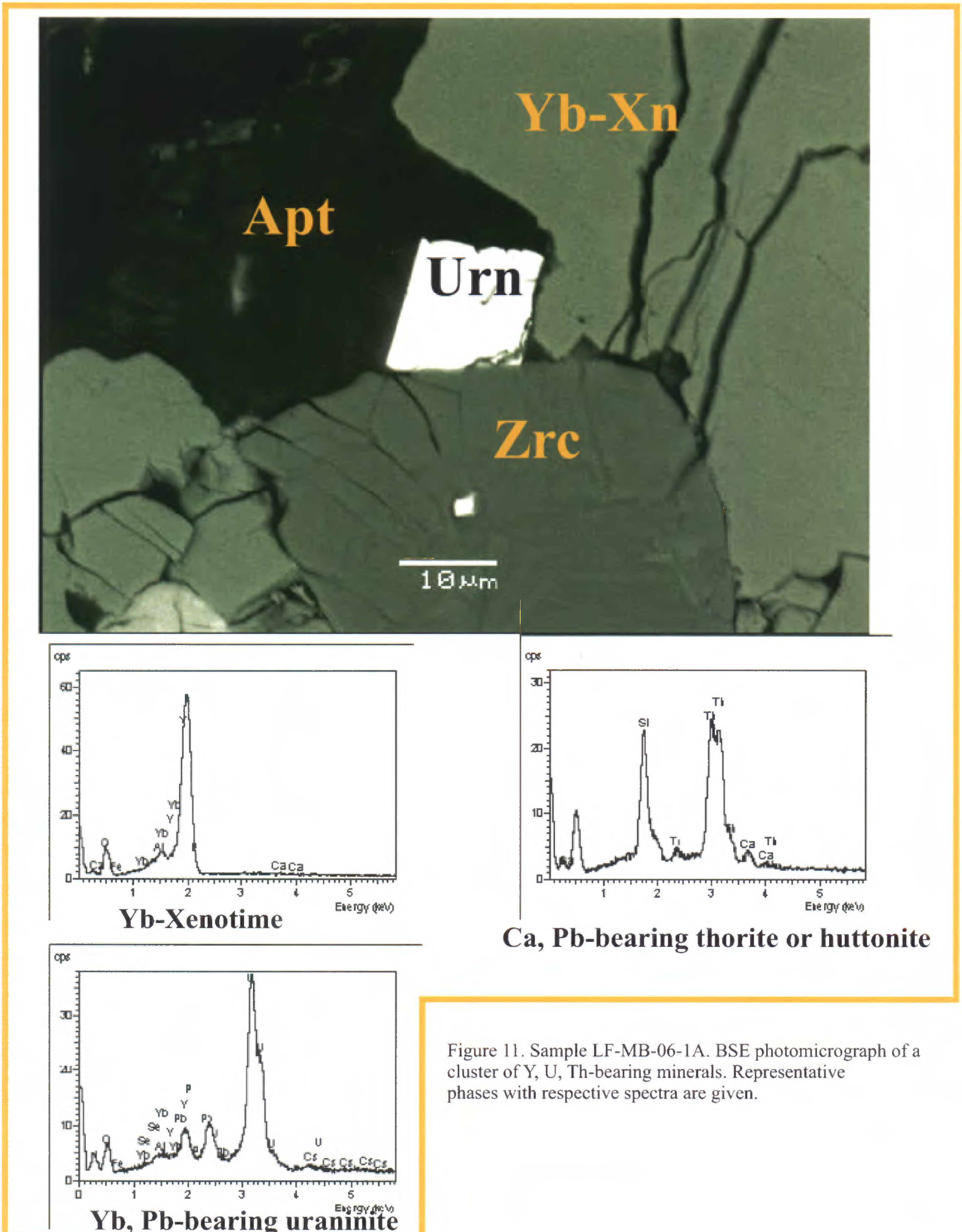


Figure 11. Sample LF-MB-06-1A. BSE photomicrograph of a cluster of Y, U, Th-bearing minerals. Representative phases with respective spectra are given.

The following minerals contain uranium: U-bearing zircon, U-Ca-Fe-bearing zircon Y-Pb-Th-bearing uraninite (Urn) and U-Pb-thorite (Figures 11 and 12).

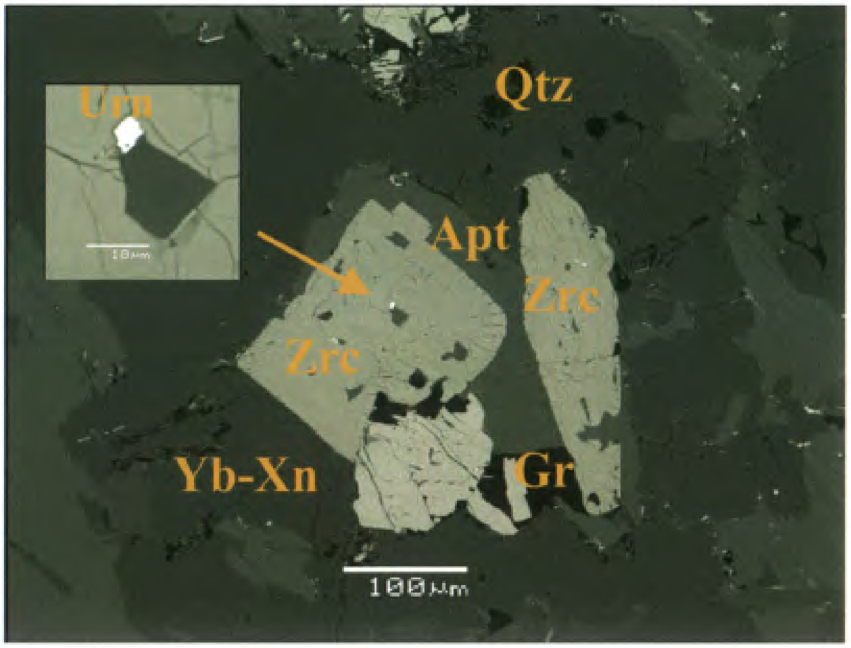
Th-bearing minerals

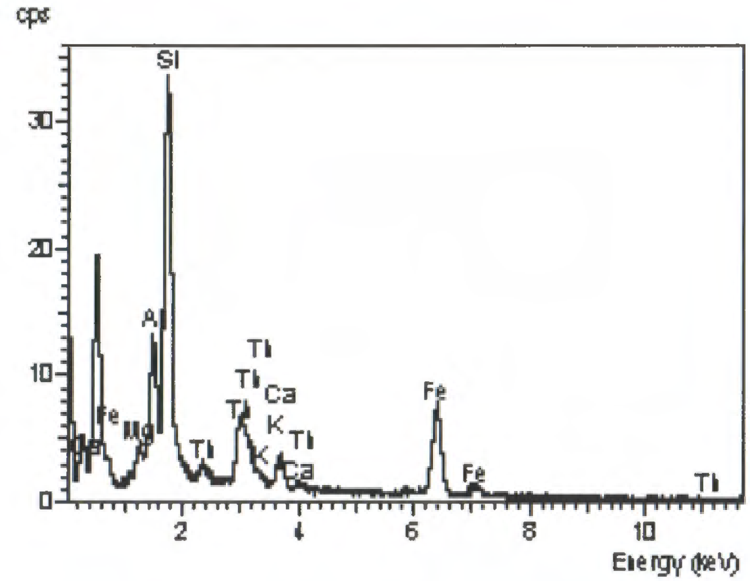
The following minerals contain thorium: Ca-bearing thorite/huttonite [both $ThSiO_4$], U-Pb-bearing thorite perrierite to chevkinite [$(Ce, Y,Ca,Th)_2(Ti,Fe,Mg)_2(Si,Al)_2O_{11}$ to $(Ce,Y,Ca,U, Th)_2(Ti,Fe,Mg)_2(Si,Al)2O_{11}$] (Figure 9).

12.1.4 - Discussion

Most common U-Th-bearing phases are identified as Ca-bearing silicates, hydroxyl/hydrated and phosphate complexes (as listed above). All identified mineral phases were observed in the three samples. Hydroxyl phases are inferred from semi-quantitative SEM-EDX analysis that yielded elemental totals well below 100%, indicating the possibility that some phases contain OH and/or molecular H_2O. The elemental composition of included grains is highly variable reflecting grain size effects and impurities from the host phase. However, the Pb content of LF-MB-06-3 is higher than the other two samples, which is not only reflect by higher Pb contents of thorite and uraninite but also the occurrence of a unidentified Pb-bearing carbonate / oxide/ hydroxide phase contained within a chlorite vein.

U- and Th-bearing phases occur both as sub-100 micron interstitial/inclusions grains to/in apatite, xenotime and zircon (Figures 11 and 12). Zircon and xenotime commonly exist in intergranular spaces and microfractures in magnetite, biotite (often altered into chlorite), quartz and K-feldspar (commonly sericitized) grains (Figure 13). Modal analysis of U-Th bearing phases indicates 1-5% in association with samples containing magnetite-biotite-quartz and less than 1% in samples containing mainly K-feldspar and quartz (e.g. sample LF-MB-06-3). Textural observations indicate fine-grained euhedral–subhedral occurrence of U -Th bearing minerals in xenotime grains interstitial to magnetite (commonly rimmed by hematite), biotite and quartz (matrix grains and veinlets) (Figure 13). Furthermore, very fine-grained anhedral crystals associated with xenotime and zircon grains are present in intergranular spaces and microfractures in quartz or K-feldspar grains.





Th-Ca-Al-Fe-Mg silicate

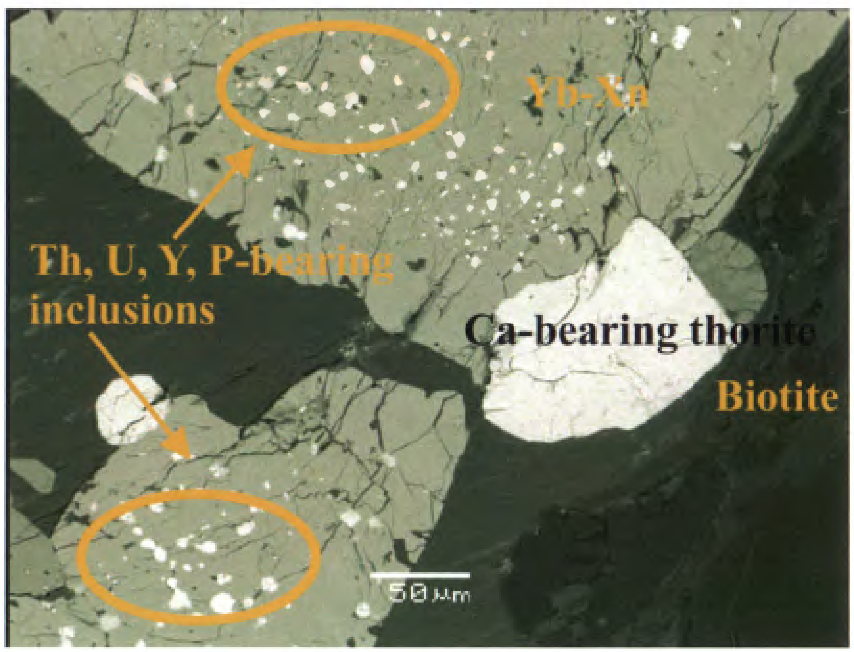
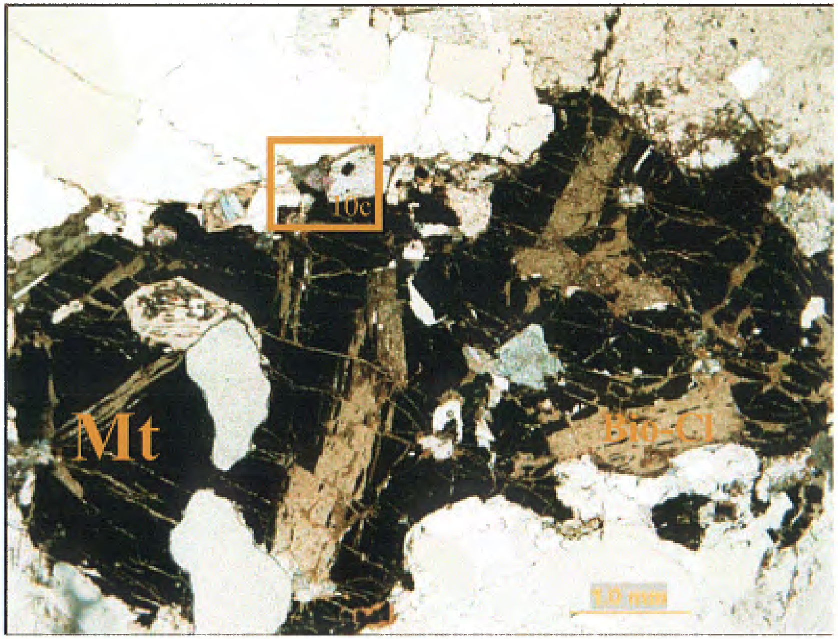
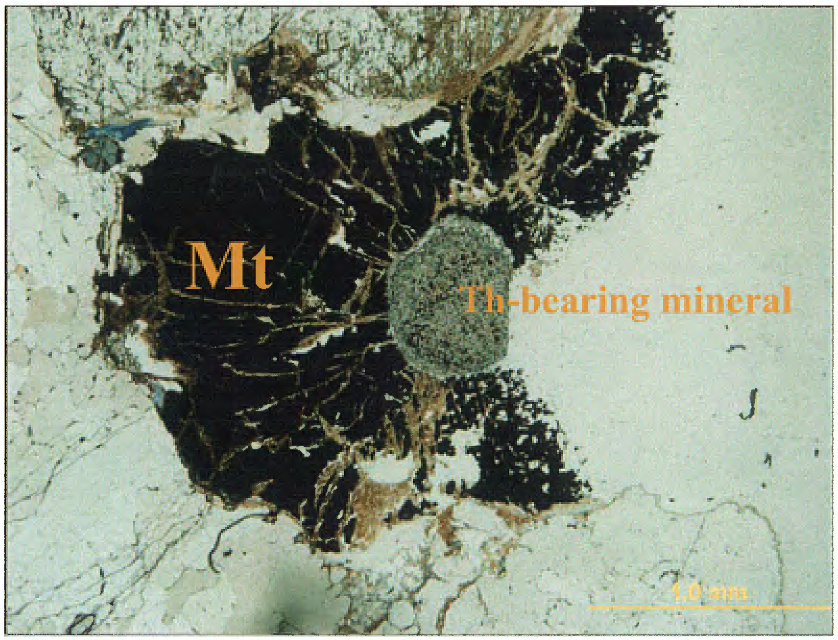


Figure 12. Sample LF-MB-06-1A. BSE photomicrographs of Y, U, Th-bearing minerals. Ca-bearing thorite phases are present both as inclusions in xenotime and interstitial to xenotime and mica grains. the analytical spectrum of a Th-Ca-Al-fe-Mg silicate is shown above.



13b



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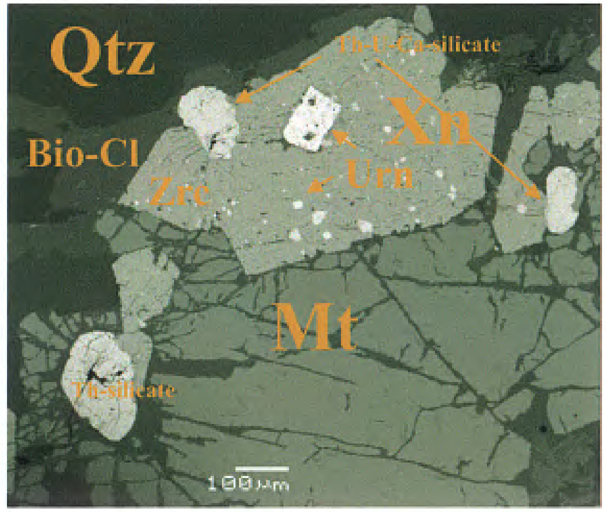

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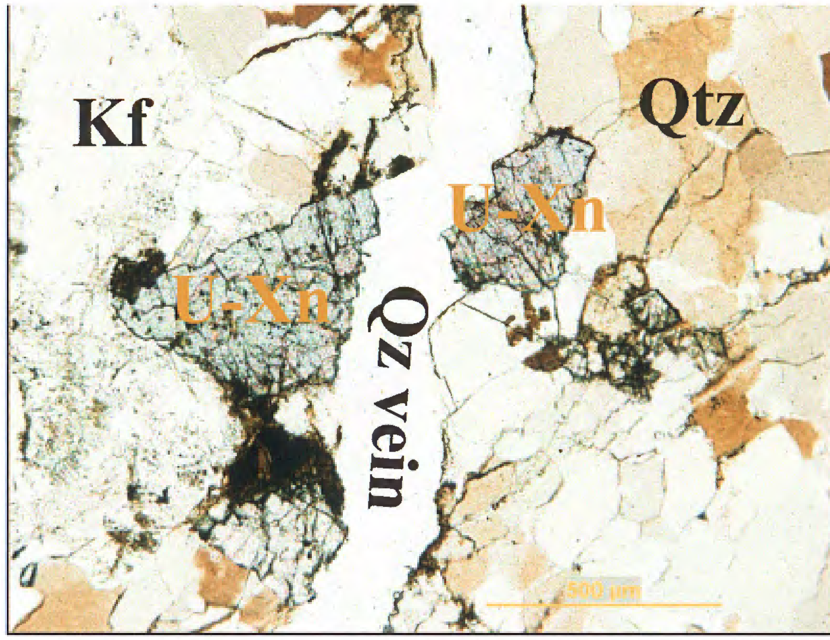


10d

Figure 13. (a) XPL photomicrograph of Th-U-bearing-minerals associated with magnetite. (b) XPL photomicrograph of Th-U-bearing minerals associated with magnetite and biotite-chlorite.(c) Back Scattered Electron images (BSE) of U-Th-bearing minerals (U-Th-Ca-silicate complexes, xenotime,uraninite and zircon) in high modal proportions. (d) XPL photomicrograph of Th-U-bearing minerals associated with quartz (grains and vein) and matrix sericitized K-Feldspar. Xenotime grains are riddled with U-Th-minerals (observed as black inclusions)

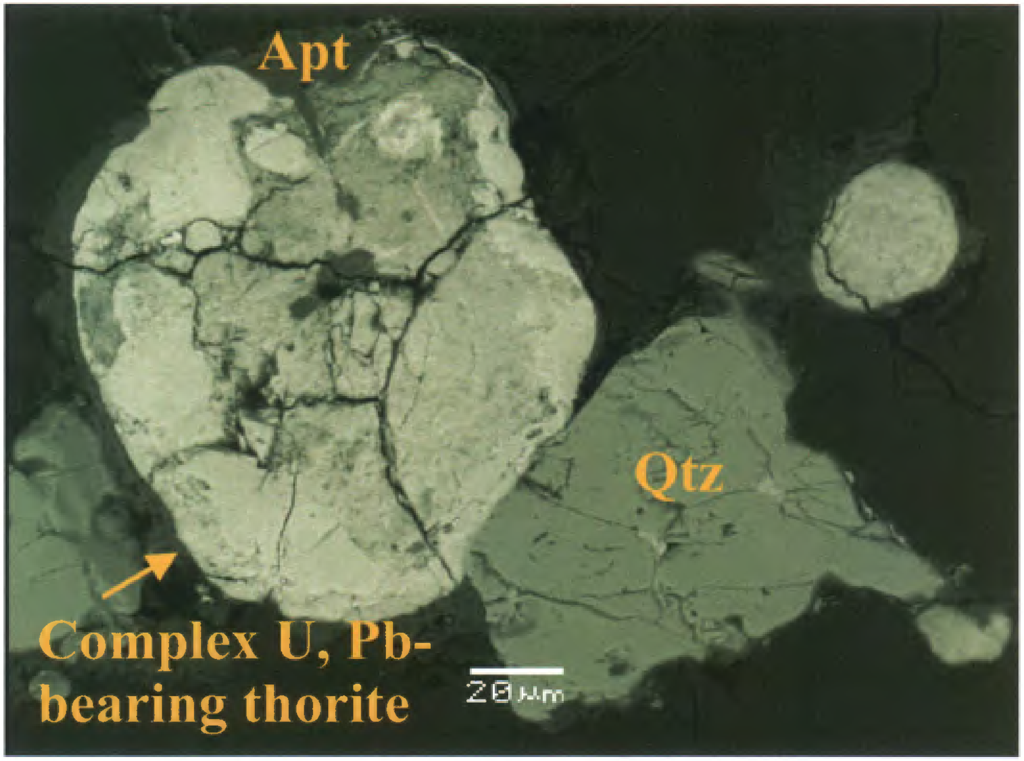
Crystal habit of interstitial grains is markedly different between LF-MB-06-3 and the other two samples. For both samples LF-MB-06-1A and 2, the interstitial grains are typically euhedral; whereas thorite and uraninite in LF-MB-06-3 are anhedral with embayed crystal boundaries (Figure 14). In addition, some thorite grains display a highly variable internal texture that ranges from homogeneous pristine areas to highly mottled regions that are also characterized by lower U and Th contents and higher Ca and P contents. The crystal textures and apparent elemental zonations are suggestive of hydrothermal activity that is either responsible for the initial emplacement of U and Th or secondary remobilization and replacement of precursor igneous phases. The variation in Ca and P for the one mottled thorite grain in LF-MB-06-3 is consistent with thorite replacement of apatite or Ca-bearing xenotime (Figure 14a). The euhedral nature of U and Th phases in LFMB-06-1 and 2 and the nature of included grains are more consistent with mineralization occurring during crystallization, in particular when xenotime was crystallizing. However, the common observed textural relationship of U-Th minerals with magnetite, biotite, quartz, crystal zonations as observed in elemental distribution and crystal zonation (e.g., zircon, Th-bearing phases), alteration of biotite to chlorite or muscovite, and presence of secondary quartz (vein) are suggestive of fluid-rock interactions. This interaction may be brought about through: a) reduction in pH via biotite, K-feldspar alteration to muscovite; b) increased oxygen fugacity as observed by magnetite grains and hematite rimming and/or replacing magnetite or, c) decrease in fluid temperature.

12.2- Ground-based Geophysical Surveys

12.2.1- Introduction

The Lac Fafard property had been the focus of airborne and ground-based scintillometer and magnetomer surveys. However, most of the work had been done during the 1960's and thus the previous grids have been completely grown over. As a result, the purpose of the current radiometric and magnetic surveying was to locate the previous uranium showings and radiometric anomalies as well as to possibly locate previously unknown ones.

The ground-based radiometric and magnetic surveys were carried out by Jerii Cassidy, under the direction of Michel Proulx, from August 9 to 25, 2006. The amount of radiometric and magnetic



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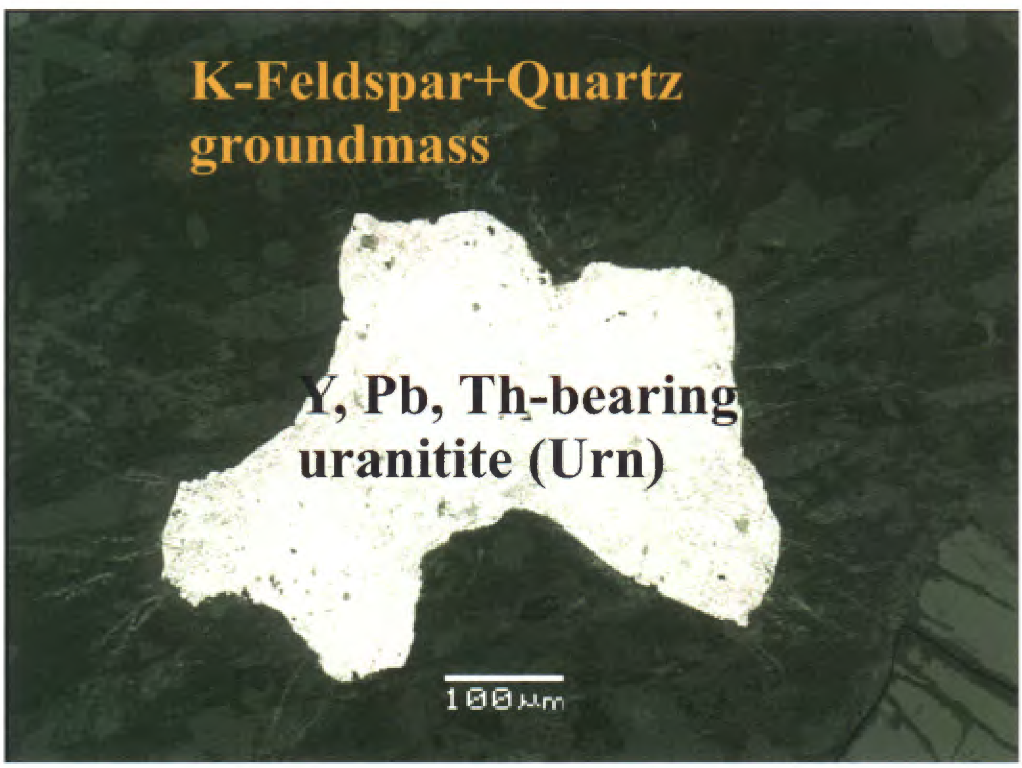


14b

Figure 14. (a) Complex assemblage of U, Pb bearing thorite with brighter more homogenous regions corresponding to higher Pb-U content. Mottled areas have slightly lower Th, U, Pb and Si, but have slightly higher Ca and P and no significant variation in Y is observed. In addition, this grain represent likely hetrogenous replacement of apatite. (b)Anhedral Y, Pb, Th-bearing uraninite in ground mass of fine grained K-feldspars and quartz.

surveying totalled 5,500 meters.

12.2.2- Radiometric Survey

12.2.2.1- Instrumentation

The radiometric survey was carried out taking total count readings with a broadband gamma-ray differential spectrometer, Model GRS 500, manufactured by EDA of Toronto, Ontario. The detector within the spectrometer consists of a thallium-activated sodium iodide crystal and high stability photomultiplier tube assembly. The volume of the sodium iodide crystal is 7.5 cubic inches or 124 cubic centimeters. The sample rate is 1.0 or 10.0 seconds, auto recycle, for all energy levels. The temperature range is -10° to +60°C.

The energy levels for the various elements are as follows:

TC1 (Total count 1) – all energy above 0.08 MeV

TC2 (Total count 2) – all energy above 0.40 MeV

K – all gamma energies between 1.35 and 1.59 MeV

U – all gamma energies between 1.65 and 1.87 MeV

Th – all gamma energies between 2.45 and 2.79 MeV

12.2.2.2- Theory

Radiometric surveys measure gamma rays emitting from three radioactive isotopes, namely ^{238}U, ^{232}Th and ^{40}K. These elements occur within a number of minerals. However, radiometric surveying cannot measure to depth in the way magnetic or electromagnetic surveys can, since only 30 cm of overburden or bedrock completely absorbs the gamma rays. Therefore, it is essentially a surface measuring method. However, this can at least be partially overcome by radioactive minerals being derived from the underlying bedrock and infiltrating the overburden above the causative source. As a result, radiometric surveying may 'see' deeper than 30 cm.

12.2.2.3- Survey Procedures

The grid was put in to the immediate east of Lac Fafard, which is located at the western end of line 4400N, and covers an area of 500 meters by 500 meters. The survey lines were cut out prior to the geophysical surveying in an east-west direction and at an interval of 50 meters. Using a hip-chain, stations were marked every 25 meters along the lines with a 1-meter high picket. Aluminum tags with the grid coordinates marked thereon were stapled to the pickets. The lines were also marked with blaze orange flagging. Blue flagging was placed at every 25-meter station as well as at the 12.5-meter halfway stations. The radiometric readings were taken along the 50-meter east-west lines every 12.5 meters and at a constant height of one meter above the ground. They were taken with the energy level switch at TC1 (energy level above 0.08 MeV) for a sample rate of one second. In addition, all readings above a total count value of 500 were also read in the spectrometer mode taking readings for potassium, uranium and thorium.

12.2.2.4- Compilation of Data

The spectrometer total count data (counts per second) were input into a computer and subsequently plotted and contoured onto a base map at a scale of 1:2,500. The contour interval used was logarithmic to the base 10.

12.2.2.5- Spectrometer Data

The following are the results of the spectrometer readings at the 20 locations as mentioned above:

	Line	Station	Total Count	K	U	Th	U/Th
1	4400	3680	915	12	7	3	2.3
2	4400	3675	1102	15	9	3	3.0
3	4400	3671.5	1394	22	12	3	4.0
4	4450	3600	2700	21	13	4	3.3
5	4450	3612.5	1075	13	4	2	2.0
6	4450	3650	547	9	5	2	2.5
7	4450	3660	1013	14	8	2	4.0
8	4450	3662.5	964	14	8	2	4.0
9	4550	3470	563	7	4	1	4.0
10	4600	3633	1317	17	12	3	4.0
11	4600	3600	670	12	6	1	6.0
12	4600	3587.5	705	11	8	2	4.0
13	4600	3562.5	672	9	7	2	3.5
14	4600	3550	718	11	5	4	1.3
15	4600	3530	1020	12	9	3	3.0
16	4600	3525	670	9	6	3	2.0
17	4650	3525	881	12	8	1	8.0
18	4650	3537.5	617	9	5	1	5.0
19	4650	3650	817	9	6	2	3.0
20	4900	3892	523	57	22	0.5	44.0

12.2.3- Magnetic Survey

12.2.3.1- Instrumentation

The magnetic survey was carried out with a GSM-19 unit manufactured by GEM Systems Inc. of Richmond Hill, Ontario, which consists of a proton precession Overhauser magnetometer. It has a memory system capable of storing up to 8,000 readings. The field unit was used with a GSM-19 base station magnetometer for the purpose of monitoring the diurnal variation of the magnetic field. The magnetometer reads directly in nanoTeslas (nT) the Earth's total magnetic field to an accuracy of ±0.2 nT (with an instrument sensitivity of 0.05 nT and an absolute accuracy of 0.2 nT), over a range of 20,000 - 120,000 nT. Operating temperature range is -40° to +60° C.

12.2.3.2- Theory

Only two commonly occurring minerals are strongly magnetic, magnetite and pyrrhotite and therefore magnetic surveys are used to detect the presence of these minerals in varying concentrations, as follows:

a) Magnetite and pyrrhotite may occur with economic mineralization on a specific property and therefore a magnetic survey may be used to locate this mineralization.

b) Different rock types have different background amounts of magnetite (and pyrrhotite in some rare cases) and thus a magnetic survey can be used to map lithology. Generally, the more basic a rock-type, the more magnetite it may contain, though this is not always the case. In mapping lithology, not only is the amount of magnetite important, but also the way it may occur. For example, young basic rocks are often characterized by thumbprint-type magnetic highs and lows.

c) Magnetic surveys can also be used in mapping geologic structure. For example, the action of faults and shear zones will often chemically alter magnetite and thus these will show up as lineal-shaped lows. Or, sometimes lineal-shaped highs or a lineation of highs will be reflecting a fault since a magnetite-containing magmatic fluid has intruded along a zone of weakness, being the fault.

12.2.3.3- Survey Procedure

Readings of the earth's total magnetic field were taken at the same 12.5 m stations as the radiometric readings were taken.

The total amount of magnetic surveying therefore was 5,500 meters.

The diurnal variation of the magnetic field was monitored in the field by a base station. The survey data from the field unit was dumped in the evening with the surveying unit interconnected with the base station unit thus enabling the magnetic data to be automatically corrected for diurnal variation.

12.2.3.4- Data Reduction

The data was first input into a computer. Then using Geosoft software, it was plotted with 55,500 nT subtracted from each posted value onto a base map, with a scale of 1:2,500. It was then contoured at an interval of 200 nT. The data were also profiled onto a base map with a horizontal scale of 1:2,500 and a vertical scale of 1 cm = 600 nT.

12.2.4- Results

12.2.4.1- Radiometric Survey

The mean background value is estimated to be about 50 cps over the surveyed area. A reading of 125 cps and above is therefore considered anomalous (which is the colour red and pink on the accompanying map, Figure 15).

As mentioned above, overburden deeper than 0.3 m will completely absorb gamma rays. Therefore, in areas of deeper overburden, the mean background value and the anomalous threshold value may be much lower. For example, on the eastern part of lines 4750N and 4800N, where the overburden appears to be deeper, the mean background value is about 35 cps. The radiometric survey has revealed three anomalies (A to C in Figure 15) that are considered to be of interest.

Anomaly A, occurs within the western part of the survey area and corresponds too much of the trench exposures and nearby rock debris centered in the main showing of pegmatite #1 (Figures 15 and 16). It has a width of up to 100 m and extends north-northwesterly from line 4400N to 4700N having a minimum strike length of 320 meters. It is open to the south-southeast. Many of the anomalous readings are above 1,000 cps with the highest being 2,700 cps.

Ground-based Radiometric Survey over the Lake Fafard Grid

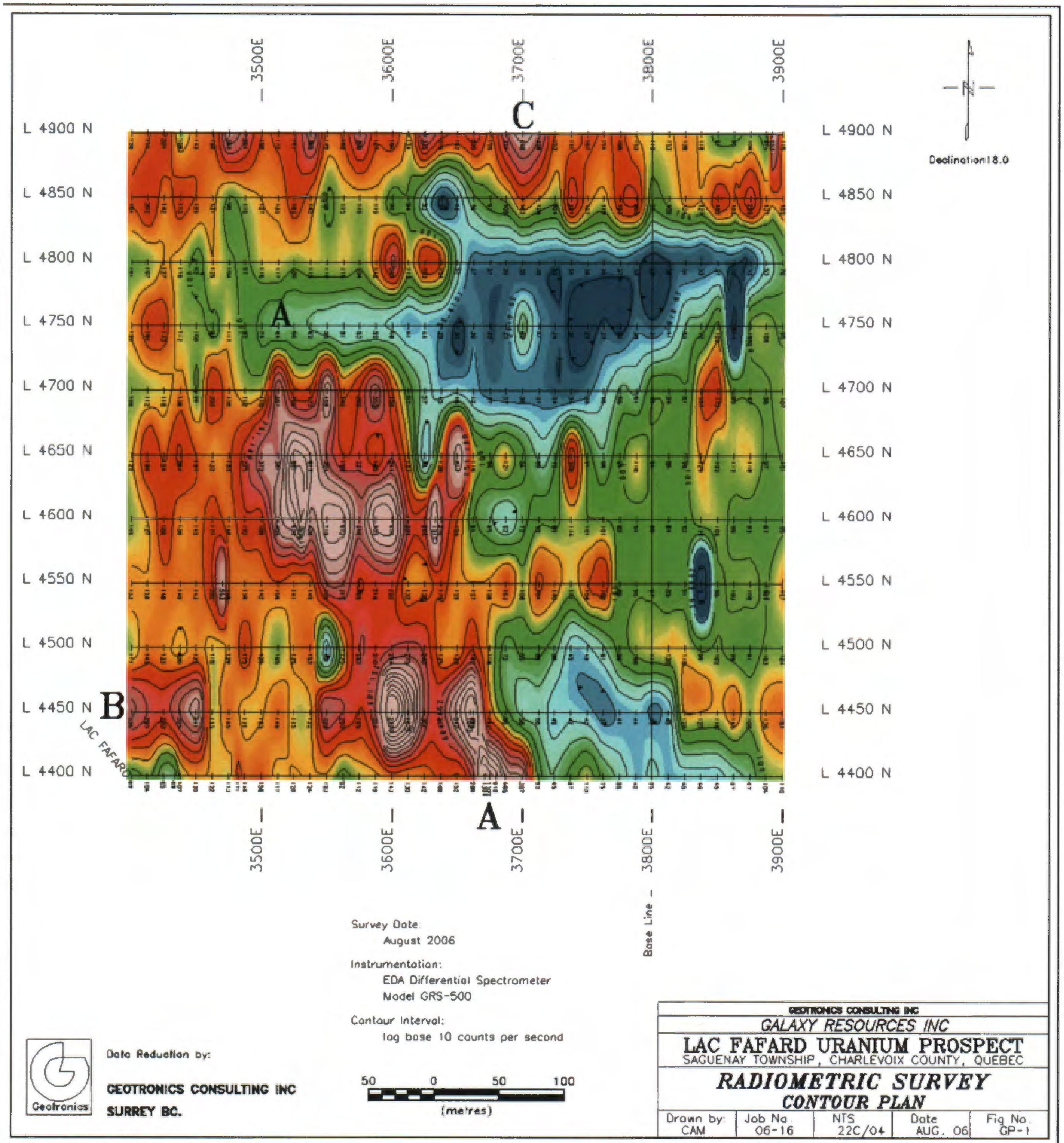


Figure 15. Ground-based radiometric survey over the lake Fafard grid.

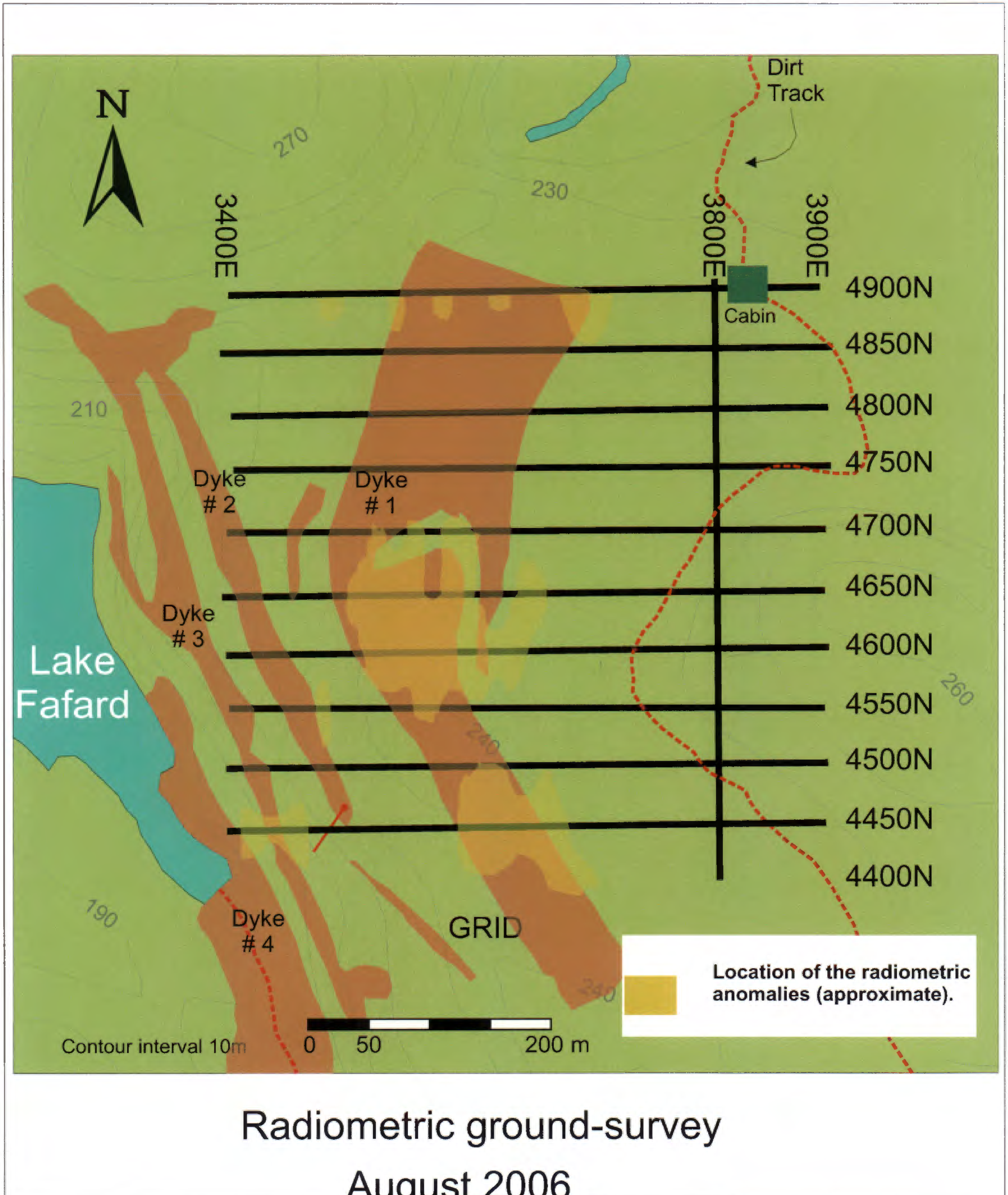


Figure 16. Radiometric anomalies, lake Fafard gridid.

Anomaly B occurs at the southwest corner of the survey grid and only on line 4450N. It reaches a high of 441 cps (Figure 15). The eastern part of this anomaly appears to correlate with granitic pegmatite dyke #3 and the western part, with a fourth granitic pegmatite dyke and thus may reflect uranium mineralization. (Figure 15). Both of these dykes strike north-northwesterly, like the larger dyke #1, and thus this anomaly could extend north-northwesterly or south-southeasterly.

Anomaly C occurs at 3700E at the northern edge of the survey area on line 4900N thus being open to the north. It has a high of 448 cps. This anomaly occurs within dyke #1 as well but at its eastern edge and thus may also reflect uranium mineralization. Here the dyke strikes north-northeasterly. The correlation with the same dyke suggests the possibility that uranium mineralization may actually extend from anomaly A to C. The lack of a radiometric anomalous response on the intervening lines 4750N to 4850N would be due to overburden and/or bedrock cover. The possible strike length of anomaly A then becomes 540 meters, if it joins C.

12.2.4.2- Magnetic Survey

The magnetic survey shows the magnetic highs striking in northerly to north-northwesterly directions with the predominant direction being north-northwesterly (Figure 17). Most of the magnetic highs do not completely overlap with the radiometric and principally occur on the edge of granitic pegmatite dykes (Figure 18). The one exception is the eastern part of radiometric anomaly A on lines 4600N and 4650N, which correlates directly with a magnetic high (Figure 18). However, on must be aware of the numerous blasted rock debris lying near the trenches and scattered on the ground. Most of these rock fragments consist of mineralized granitic pegmatite providing anomalous high readings beyond the strict confines of the pegmatite dykes. Furthermore, the outline of dykes #1 to 4 as presented in Figure 8 are only approximate and represent an area which consists of series of anastamosing dykes intruding their amphibolite host. The magnetic high within the southwestern corner of the survey grid on line 4400N correlates in part with an ultramafic rock-type. A lineal-shaped magnetic low strikes north-northeasterly through the northwestern corner of the survey area (Figure 17). It is quite possible this low is

Ground-based Magnetic Survey over the Lake Fafard Grid

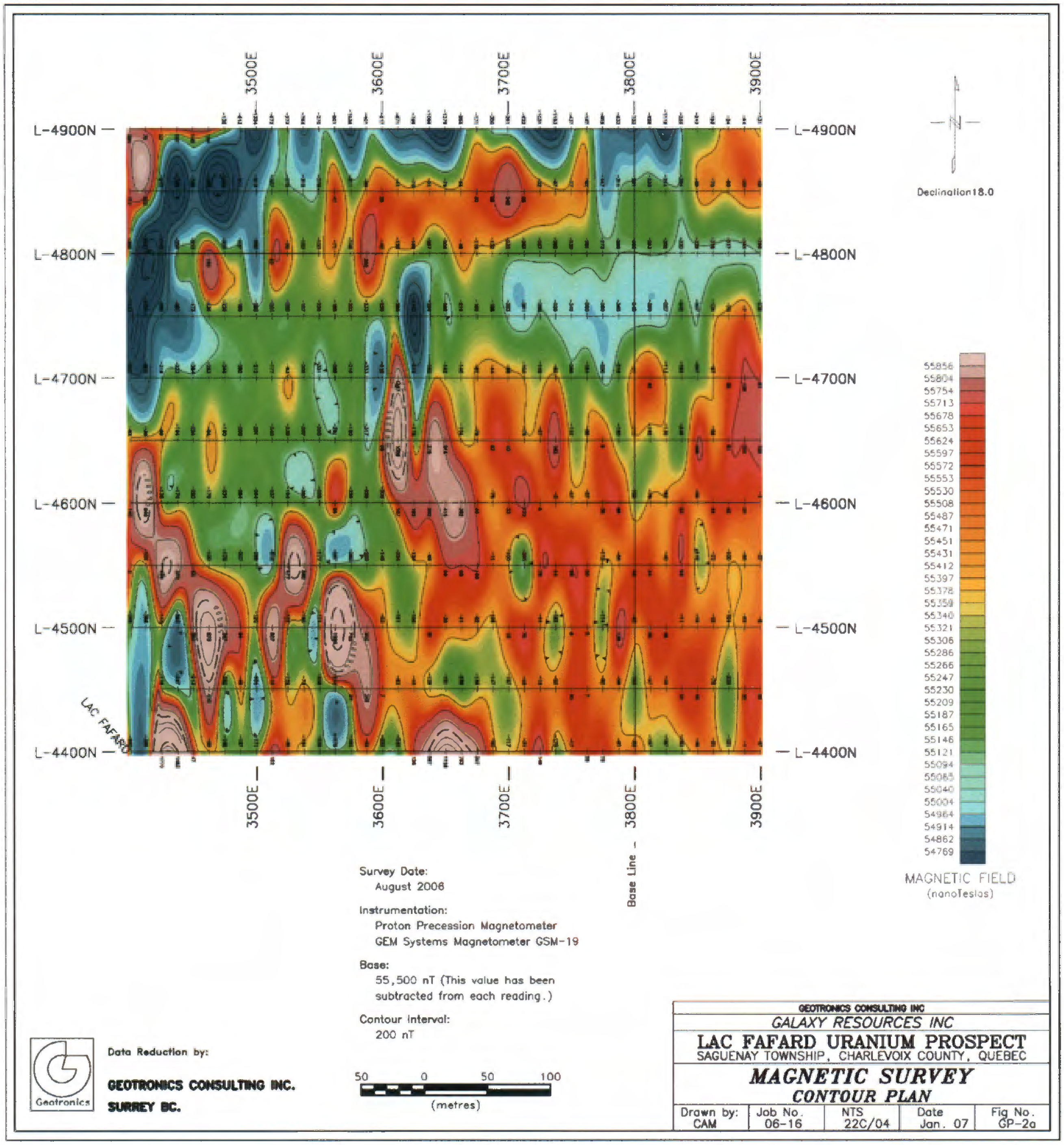


Figure 17. Ground-based magnetic survey over the lake Fafard grid.

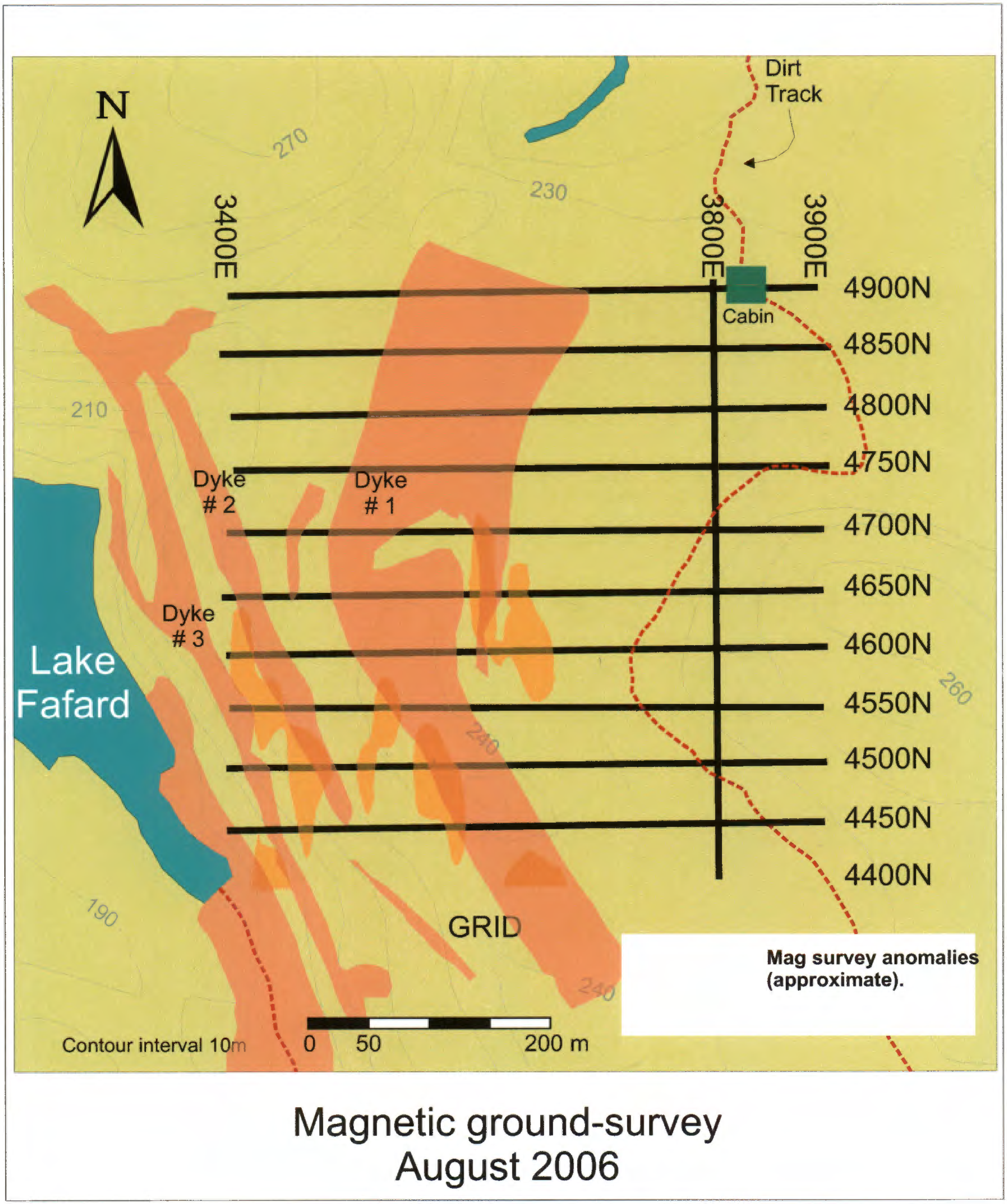


Figure 18. Magnetic anomalies, lake Fafard grid.

reflecting geologic structure such as a fault or a shear zone.

12.3- Helicopter-borne Geophysical Survey

12.3.1- Introduction

A helicopter-borne magnetic, gamma ray spectrometry and VLF geophysical survey was flown over the period of July 18 to 19, 2007. The survey conducted by GPR Géophysique Inc. based in Longueil, Quebec, covered the entire lake Fafard property for a total linear distance of 144 line-km.

The survey helicopter was a Bell 206-L Long Ranger operated by Canadian Helicopters Inc., stationed in Sept-îles, Quebec. The helicopter and geophysical crew were based in Baie Ste-Catherine. Mobilization was completed for the project on July 16. A test flight was flown after mobilization in order to validate the orientation of the sensors and check the data acquisition system operation. There was no production lost days due to bad weather conditions, nor due to the VLF transmitting station (station closed on Mondays) and finally one production day was lost due to equipment failure. The crew demobilized on the night of July 19.

The helicopter was equipped with a Helimager™ system, which is a towed bird system configured with three caesium vapour magnetometers, two at the end of the lateral arms and one above the central body of the bird. DGPS positioning and radar altimeter data were measured at the bird and at the helicopter, allowing a digital elevation model to be produced. The system also includes a Totem-2A VLF receiver mounted on the bird and a Pico GRS-10 gamma ray spectrometer located in the helicopter's storage compartment

12.3.2- Data Acquisition and Quality Control

The table below shows the planned survey parameters for the project.

Parameter	Specification
Mag. Sampling Interval	2.5m (0.1s)
Flight-line Spacing	100m
Flight-line Direction	0° - 180° (N-S)
Control-line Spacing	1000 m
Control-line Direction	90-270° (E-W)
Aircraft MTC	60m ± 6m
Mag. Sensor MTC	30m ± 6m
Ground speed	80 km/h ± 20 km/h

During data acquisition, quality control was carried out on the data on a daily basis by GPR's data processor to ensure that quality remained within specifications. At the end of the planned survey, data were reviewed by GPR's team leader and reflight lines were identified. Profiles were checked after each production day to ensure correct flight path recovery and, instrument noise was evaluated and average spectral peaks were verified using Geosoft Oasis Montaj Software.

12.3.3- Helicopter-borne Detectors and Recording Equipment

12.3.3.1 – Magnetometers

Three Geometrics G-823A (optically pumped caesium vapour) total magnetic field sensors with a sampling interval of 0.1 second were mounted on the gradiometer, 30 meters below the helicopter. The sensors were installed at each end of the horizontal boom (6 m) and one at the upper pod (1.5 m), in order to measure the lateral and vertical gradients. The magnetometers send the measured magnetic field intensity as nanoTesla (nT) to the data acquisition system via a RS-232 port.

A Geometrics G-856 Ax (proton precession) total field magnetic sensor, with a sampling interval of 1 second was used to record the diurnal variation of the magnetic field at the base-station's location. The base station was set up at a location away from power lines and the main road to avoid interference from traffic. The location of the base-station was: 48° 06' 05.6''N Lat and -69° 43' 35.1''W Long.

A FreeFlight TRA3000 radar altimeter, combined with a TRI30 Indicator unit mounted on the helicopter provides the pilot with highly accurate altitude-aboveground-level (AGL) information (mounted on the helicopter). A second radar altimeter comprising the same elements was mounted on the bird, along with the GPS and magnetic sensors.

A DGPS Novatel ProPak L-Band signal receiver system which provides various types of correction data for increased accuracy was used for in-flight navigation, with a sampling interval of 1 second. The antenna was mounted directly on the bird, and allowed an accurate positioning of the bird. The DGPS system provides an accurate positioning as well as the height above the WGS-84 ellipsoid. A LED-type track bar (from AG-NAV Inc.) was used by the pilot for efficient line tracking in any lighting conditions.

12.3.3.2- Gamma Ray Spectrometer

The PICO GRS-10 system is an intelligent, self calibrating gamma ray spectrometer using NaI (Tl) large volume detector arrays. All dedicated electronics modules are housed within the detector's container. Individual, independent, detector processing provides real time gain and linearity correction. The system stabilization algorithms make these spectrometer systems fully automated and self stabilizing on natural radioactive elements.The technique used for radon removal is the spectral ratio.

The system specifications are as follows:

Resolution: 256 channels
Four NaI crystal detectors, each with individual electronics, for a total of
16.8 litres (1025in^3) of crystals ''downward looking''
Individual detector tracking and linearity correction

Energy spectra from 36 keV to 3 MeV with adjustable threshold
Data sampling rate: 1 Hz
Signal sampling: 25 MHz by internal 12 bit ADC for each detector
Pulse rate per detector : > 60000 pulses per second with negligible dead time
Channel capacity : 65500 counts/sampling period
Operating temperature range: -10° to +55° Celsius

12.3.3.3- Helicopter Data Acquisition and Recording System

The Helicopter data acquisition and recording system is composed of proprietary hardware developed by Geophysics GPR International Inc. and an industry standard navigation / recording software package (Hypack Max 4.3). Data were recorded on hard disk and backed up after each flight. A dedicated laptop computer was used on-site for the purpose of displaying geophysical data for quality control, calculating and displaying the navigation, producing preliminary magnetic, spectrometry maps and backing up digital data.

12.3.4 - Data Processing

12.3.4.1- Magnetic Data

Data recorded on the helicopter were transferred after each flight to the processing computer for verification and quality control. The raw GPS data (longitude, latitude and height) were recorded in the WGS-84 geodetic system. These coordinates were transformed into the NAD83 datum, UTM projection, Zone 19N by the navigation software and compared in real-time to the theoretical coordinates of the flight paths to provide a correction to the pilot. The DGPS data (1.0 s interval) were interpolated at the same rate as the magnetic data (0.1 s interval) and exported for flight path recovery and quality control. The raw line data was transformed into Oasis Montaj .XYZ format by a proprietary software program.

The magnetic data recorded at the base-station were synchronized, using the GPS time and merged with the helicopter-borne data. Subsequently, the diurnal corrections obtained by subtracting the mean value of the base-station readings were applied to the data after low pass filtering. The first vertical derivative was obtained with the help of the 2D-FFT first vertical derivative calculated from the total magnetic field.

12.3.4.2- Gamma Ray Spectrometry

The preliminary data processing and quality control of airborne gamma ray spectrometry was performed using the Geosoft Oasis Montaj RPS suite. The following checks were performed in the field: 1) Careful verification of each profile (and spectra) to spot spikes, jumps or interruptions in the readings. 2) Statistical calculation of the mean spectra for each line to ensure peak stability. 3) Gridding windowed elements (K, U, Th) and total count to evaluate data coherence and consistence. 4) A background over water flight was flown in the morning and at the end of the flying to check daily variation in the radon content.

The final processing of the gamma ray spectrometry data was performed with the Praga3 software. This program is specially designed to process Pico Envirotec spectrometer acquired data and interfaces directly with Geosoft Oasis Montaj. The Praga3 program uses the spectral ratio method to calculate the radon component, which eliminates the necessity to use an upward looking detector in a survey.

12.3.4.3- Presentation

The Total Magnetic Field, First Vertical Derivative, Digital Terrain Model, equivalent Potassium, Uranium and Thorium concentration and air absorbed dose rate were gridded using the Minimum Curvature algorithm of Oasis Montaj using a 20 meters size cell.

12.3.5- Results and Interpretation

12.3.5.1- Gammay Ray Spectrometry

From the total and linear output for the equivalent concentrations of K, Th and U (Figures 19, 20, 21) we have determined four principal anomaly sites which were investigated in the field.

The first anomalous site LFA1, corresponds to the principal lake Fafard showing recognized since the 1960's. The site was toroughly investigated and submitted to a ground-base geophysical survey (see section above). Anomaly LFA1 is characterized by high equivalent K, Th and U concentrations.

The second anomalous site LFA2 is located about 1 km ESE of the main lake Fafard showing. It reveals similar high equivalent K, Th, U concentrations to that of the LFA1 anomaly. The magnitude of the anomaly makes it the most important new discovery of the airborne geophysical survey.

The third anomaly is less circumscribed. The total equivalent Th, U and K concentrations map reveals a SE-NW oriented band of high values, although not high enough to be distinguished from the surrounding background values in the linear concentration maps, to the exception of the potassium map (Figure 19). We have tentatively assigned anomaly LFA3 to the southeast corner of the anomalous band.

Anomaly LFA4 is well defined in the Th and K equivalent concentration maps although less evident in the U concentration map. This initially suggests a relatively low U/Th ratio for the source of the anomaly which is situated roughly 900 m ENE from the main lake Fafard grid.

12.3.5.2- Magnetic data

Figure 22a and b presents the First Vertical Derivative (FVD) and Total Magnetic Intensity (TMI) maps along with the location of the four radiometric anomalies. Both maps reveal three broad magnetic domains oriented WNW-ESE. The north and northeast corner of the property are characterized by very low magnetic signatures whilst the middle section is defined by magnetic highs. The lower southwest and south corners display intermediate magnetic signatures.

Anomalies LFA1 and LFA2 are associated with broad areas of high Total Magnetic Intensity.

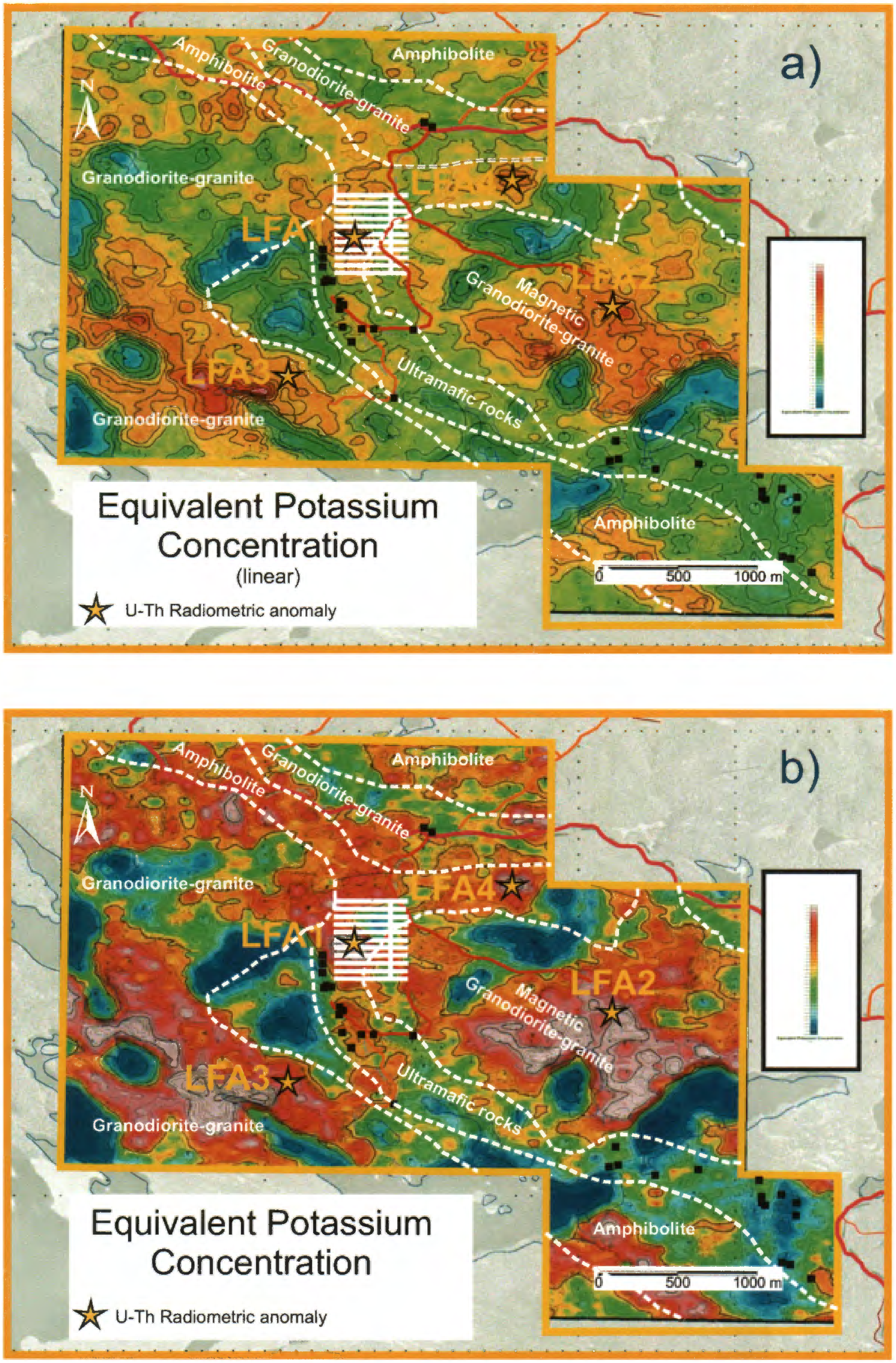
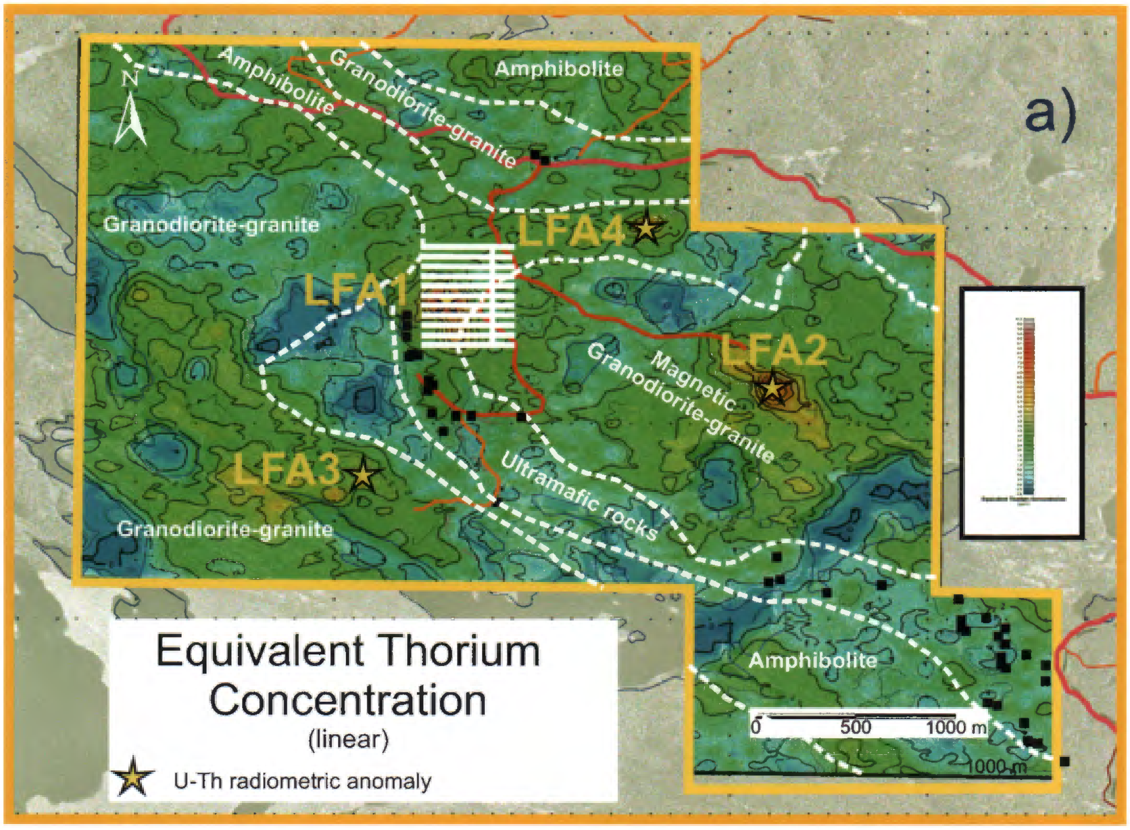


Figure 19. a) Equivalent Potassium Concentration (linear) and b), Equivalent Potassium Concentration (log) maps for the lake Fafard property. The four U-Th radiometric anomalies determined from the airborne radiometric survey are reported. The outlines of the geological contacts are interpreted from the geological maps of Miller (1952) and Ross (1950).

Although anomaly LFA2 is correlated with a zone of high intensity in the First Vertical Derivative map, its precise location is actually related to a magnetic low. Anomaly LFA4 actually corresponds to a strong magnetic low in both maps. Finally, the location of anomaly LFA2 translates into a strong magnetic high in the FVD map (Figure 22b) while being associated with a moderate intensity in the TMI plot.

12.3.5.3- Geological Interpretation

We can combine the resulting maps provided by the helicopter-borne aeromagnetic and radiometric survey with the geology compiled from the maps published Ross (1950), Miller (1952) and Rondot, (1979) to produce a better portrait of the structure and geology of the property. All the geophysical maps display the geological boundaries of the exposed metavolcanic and granitoid assemblages. Commonly, the low magnetic signatures correspond to the mafic metavolcanic rocks (amphibolites) and hornblende gneiss of the Moulin-à-Baude Formation (Rondot, 1979). These rocks are also characterized by low equivalent concentrations of Th and U (Figures 19 and 20), with the potassium values giving a more complex features of highs and lows. This may be attributed in part to the numerous "granitic" injections observed in the amphibolite and hornblende gneiss that are concordant to the principal foliation . The granitic layers would increase the K content of the metavolcanic assemblages. Areas of high equivalent concentrations of Th, U and K and elevated magnetic signatures are generally related to exposures of granitoid rocks, granodiorite gneiss and migmatites forming the Tadoussac Complex (Rondot, 1979). On the property, the Tadoussac Complex contains a variety of pink biotite granite, gneissic biotite granite and pink leucocratic granite (Miller, 1952 and Ross, 1950). The northeastern portion of the property exposes granitoid rocks associated with high magnetic values contrasting with bands of amphibolites having very low magnetic signatures. However, the southeastern portion shows assemblages presenting a more diffuse contrast. The former area corresponds to higher elevation on the Digital Terrain Model (DTM) whilst the latter shows much lower elevation due to the presence of numerous lakes. The magnetic contrast corresponds generally to the NW-SE boundary defining the lower and higher altitude terranes (Figure 23). Therefore, the boundary may just be related to the masking effect of non-conductive lake water and bottom lake sediments during the magnetic survey flight in the southern and southwestern



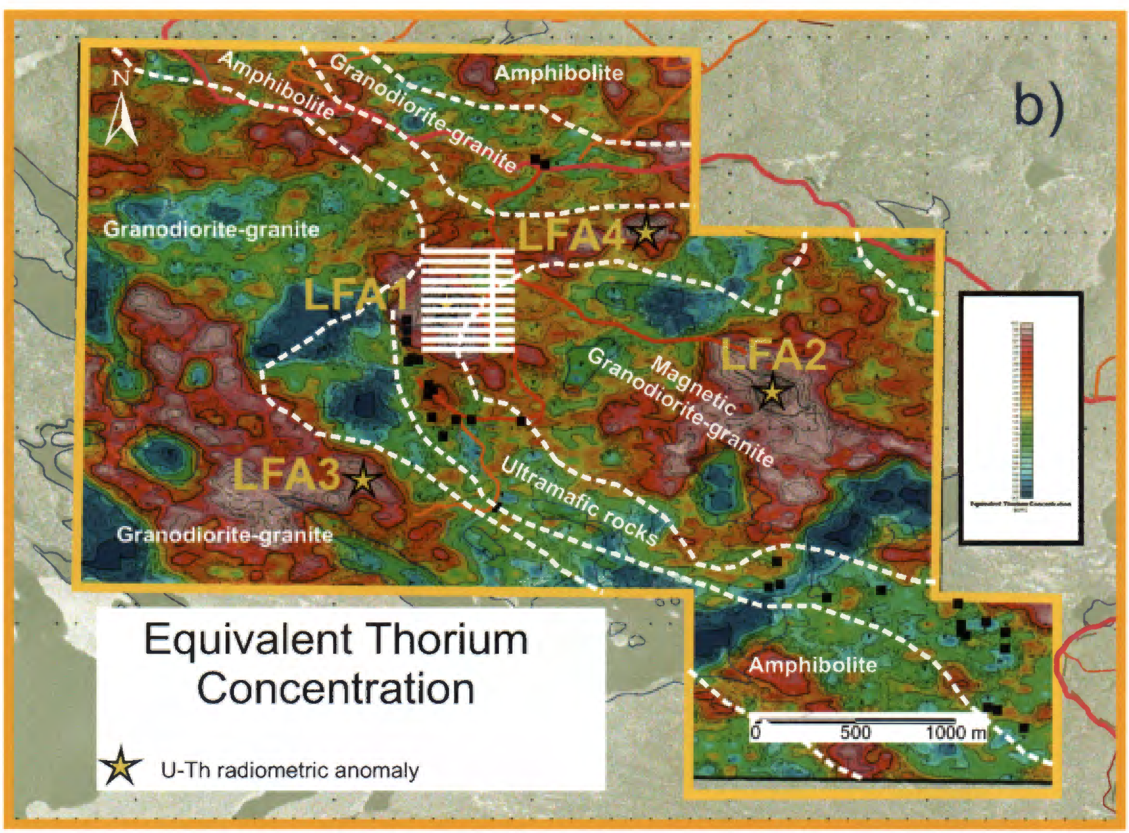


Figure 20. a) Equivalent Thorium Concentration (linear) and b), Equivalent Thorium Concentration (log) maps for the lake Fafard property. The four U-Th radiometric anomalies determined from the airborne radiometric survey are reported. The outlines of the geological contacts are interpreted from the geological maps of Miller (1952) and Ross (1950).

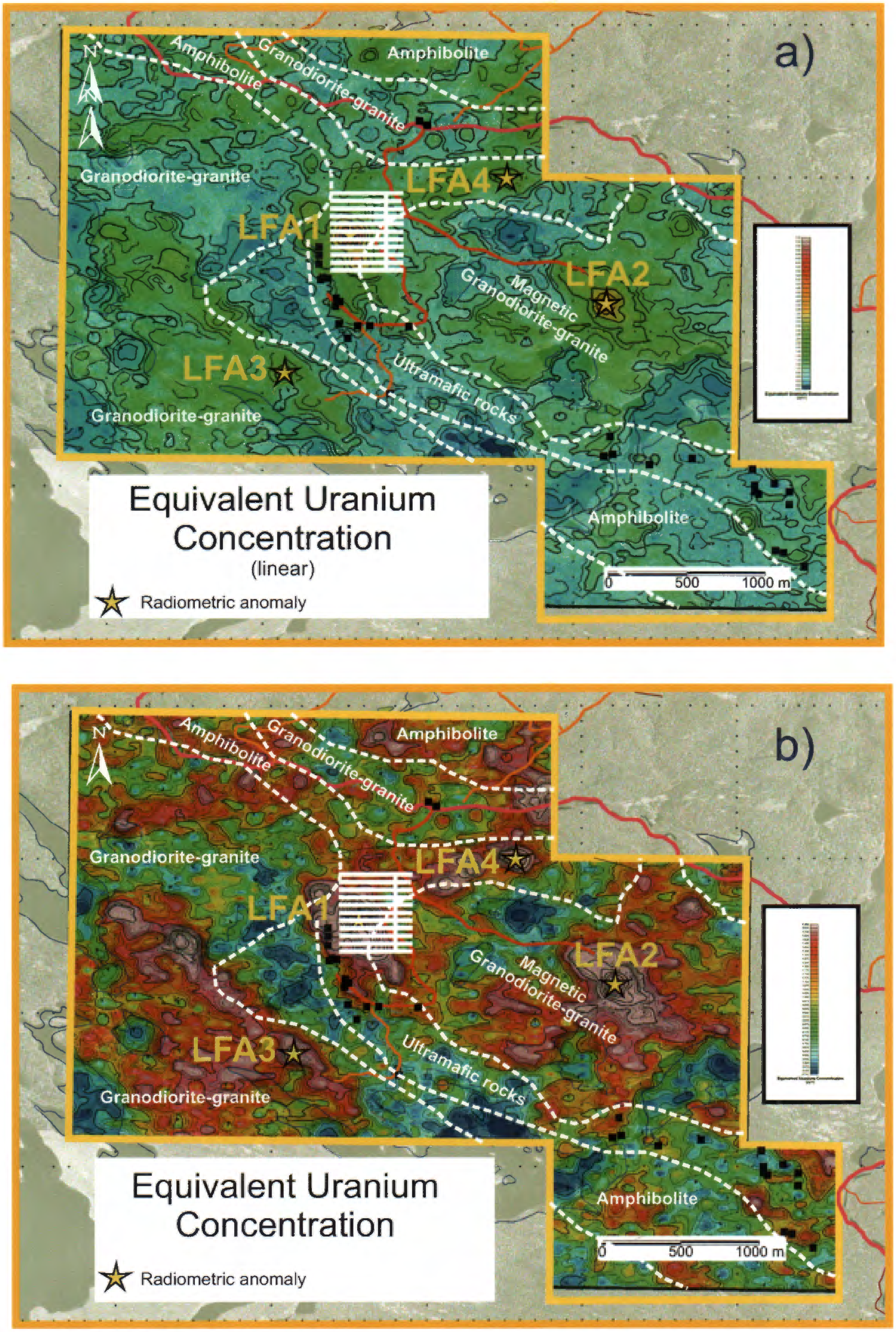
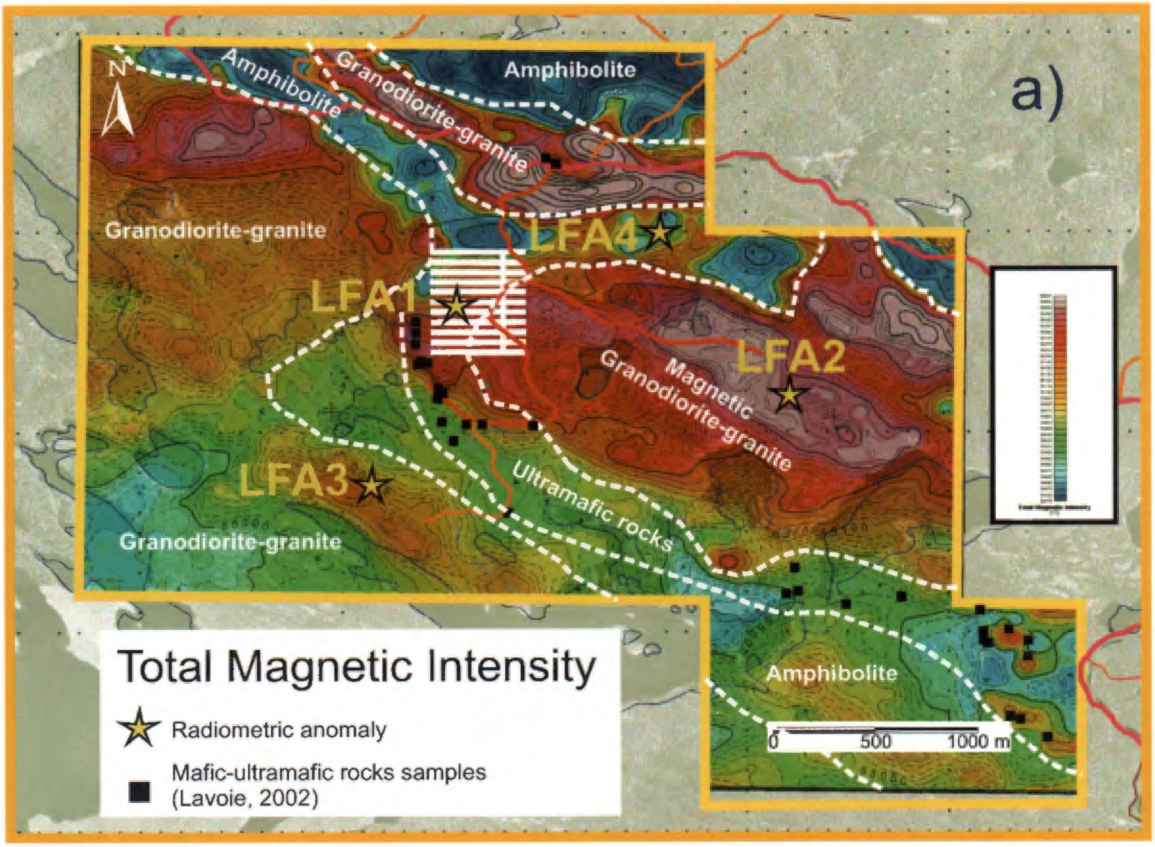


Figure 21. a) Equivalent Uranium Concentration (linear) and b), Equivalent Uranium Concentration (log) maps for the lake Fafard property. The four U-Th radiometric anomalies determined from the airborne radiometric survey are reported. The outlines of the geological contacts are interpreted from the geological maps of Miller (1952) and Ross (1950).



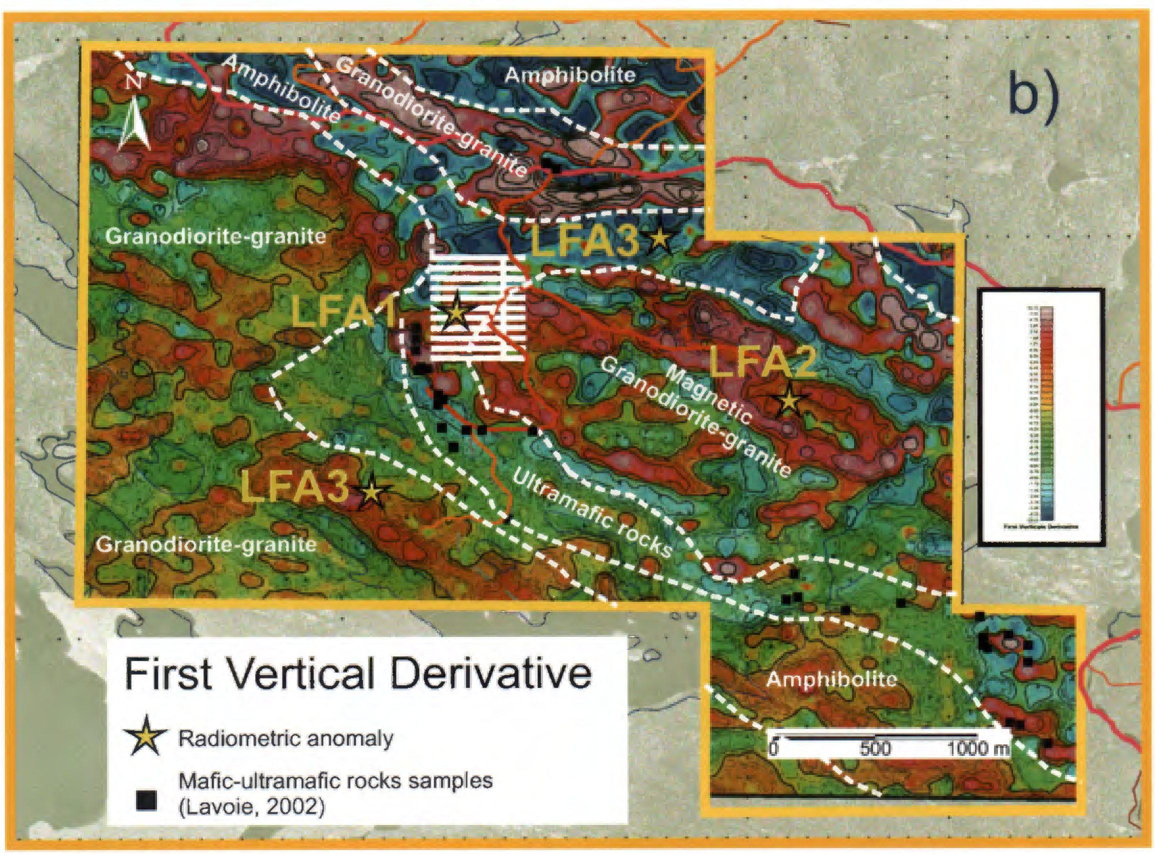


Figure 22. a) Total Magnetic Intensity and b), First Vertical Derivative maps for the lake Fafard property. The four U-Th radiometric anomalies determined from the airborne radiometric survey are reported. The outlines of the geological contacts are interpreted from the geological maps of Miller (1952) and Ross (1950).

portion of the property.

The lake Fafard property also reveals a band of ultramafic rocks enclosed in amphibolite – hornblende feldspar gneiss. This band was earlier recognized and sampled by Lavoie (2004) during an exploration program aiming at discovering EGP mineralization. The localisation of the samples are given in Figure 24 and are used to define the layer of ultramafic rocks oriented SW-NW until it veers toward the north near the lake Fafard. Several of these samples also contained sulfides (see Lavoie, 2004). This may explain why some are associated with magnetic highs in the FVD and TMI maps (Figures 22 and 23).

12.4- Geological Investigations

12.4.1- 2006

12.4.1.1- Rock Sampling of Surface and Trench Material

Thirty-eight grab samples were collected, principally from pegmatitic outcrops along lines 4450N, 4500N, 4600N and 4650N (Figure 8). The number, rock type and UTM coordinates of the sample determined by GPS are given in Table 2 with the sample locations given in Figure 8. Owing to the coarse grained and heterogeneous nature of the pegmatites special care was taken to collect representative samples. Average weight of each sample was 2.2 kg respectively. At this stage of exploration, the location of samples collected was dictated by the exposures of ancient trenches and the results from scintillometer readings.

12.4.2- 2007

The 2007 field season was principally devoted to identify the ground expression of the most important radiometric anomalies detected earlier by the helicopter-borne geophysical survey. The three principal U-Th radiometric anomalies (named LFA2 to 4 in Figures 19 to 23) were investigated.

Table 2. U and Th Analyses on Collected Samples of the Lake Fafard Property

	-----UTM coordinates-----									
SAMPLE no.	**Easting**	**Northing**	**Rock Type**	**Th (ppm)**	**ThO_2 (wt. %)**	**ThO_2 (lbs/ton)**	**U (ppm)**	**U_3O_8 (wt. %)**	**U_3O_8 (lbs/ton)**	**U/Th**
LF06-19	433600	5324618	GR-PEG QZ-KF-(MT-BIO)	314,0	0,036	0,71	776,0	0,092	1,83	2,5
LF06-22	433581	5324624	GR-PEG,MT	590,0	0,067	1,34	776,0	0,092	1,83	1,3
LF06-54	433525	5324621	GR-PEG, white,MT+	460,0	0,052	1,05	357,0	0,042	0,84	0,8
LF06-56B	433523	5324614	GR-PEG, pink	175,5	0,020	0,40	259,0	0,031	0,61	1,5
LF06-27	433513	5324645	GR-PEG, pink KF±MT	145,5	0,017	0,33	224,0	0,026	0,53	1,5
LF06-34	433491	5324668	GR-PEG, KF-QZ ±BIO, MT	105,0	0,012	0,24	127,5	0,015	0,30	1,2
LF06-58	433511	5324586	GR-PEG, white-pink, BIO-MT	86,4	0,010	0,20	111,0	0,013	0,26	1,3
LF06-56A	433521	5324609	GR-PEG, pink, MT	118,5	0,013	0,27	100,5	0,012	0,24	0,8
LF06-91B	433604	5324463		60,5	0,007	0,14	78,0	0,009	0,18	1,3
LF06-90	433626	5324490	GR-PEG, white,cg	21,2	0,002	0,05	70,8	0,008	0,17	3,3
LF06-55	433532	5324602	GR-PEG, white, BIO-MT	103,0	0,012	0,23	62,4	0,007	0,15	0,6
LF06-50	433564	5324604	GR-PEG, pink, BIO-MT	166,0	0,019	0,38	59,4	0,007	0,14	0,4
LF06-108	433662	5324449	GR-PEG, white, BIO	56,6	0,006	0,13	57,8	0,007	0,14	1,0
LF06-77	433382	5324561	GR-PEG, white, BIO	19,5	0,002	0,04	53,8	0,006	0,13	2,8
LF06-44	433595	5324576	GR-PEG, white ±GN-HB	189,5	0,022	0,43	51,6	0,006	0,12	0,3
LF06-45	433594	5324583	GR-PEG, pink, BIO	85,2	0,010	0,19	43,8	0,005	0,10	0,5
LF06-121	433445	5324445		14,5	0,002	0,03	40,9	0,005	0,10	2,8
LF06-42	433628	5324612	GR-PEG, pink	42,3	0,005	0,10	40,2	0,005	0,09	1,0
LF06-46	433581	5324587	GR-PEG white-pink BIO	57,9	0,007	0,13	39,8	0,005	0,09	0,7
LF06-18	433610	5324639	GR-PEG, BO, white	32,8	0,004	0,07	35,0	0,004	0,08	1,1
LF06-28	433511	5324644	GR-PEG, white, BIO-MU	38,3	0,004	0,09	30,5	0,004	0,07	0,8
LF06-20	433485	5324635	GR-PEG, pink, BIO	30,9	0,004	0,07	28,0	0,003	0,07	0,9
LF06-48	433576	5324606	GR-PEG, white, BIO HM+	19,4	0,002	0,04	22,8	0,003	0,05	1,2
LF06-47	433578	5324572	GR-PEG, white	35,8	0,004	0,08	21,5	0,003	0,05	0,6
LF06-110	433625	5324446	GR-PEG, cg, BIO	75,7	0,009	0,17	20,9	0,002	0,05	0,3
LF06-32	433497	5324636	GR-PEG	40,2	0,005	0,09	19,3	0,002	0,05	0,5
LF06-31	433499	5324641	GR-PEG, white-pink, KF± HM+	18,3	0,002	0,04	18,0	0,002	0,04	1,0
LF06-127	433673	5324000	GR-PEG, white, HM+	79,0	0,009	0,18	17,2	0,002	0,04	0,2
LF06-90B	433600	5324496	GR-PEG, white, cg, BIO	30,1	0,003	0,07	16,6	0,002	0,04	0,5
LF06-53	433545	5324619	GR-PEG, pink, BIO±Mu	36,6	0,004	0,08	15,6	0,002	0,04	0,4
LF06-133	433546	5324700	GR-PEG, KF-QZ,HM+	27,4	0,003	0,06	14,4	0,002	0,03	0,5
LF06-96	433576	5324497	GR-PEG KF HM+	32,1	0,004	0,07	12,1	0,001	0,03	0,4
LF06-91A	433586	5324472	GR-PEG, KF-BIO	7,0	0,001	0,02	11,6	0,001	0,03	1,7
LF06-35	433411	5324647	GR/GR-PEG, BIO-MT	21,6	0,002	0,05	9,2	0,001	0,02	0,4
LF06-144	433738	5324850	GR-PEG, white HM+	15,0	0,002	0,03	8,4	0,001	0,02	0,6
LF06-59	433514	5324611	GR-PEG, fg pink KF-QZ HM+	3,5	0,000	0,01	2,6	0,000	0,01	0,7
LF06-102	433415	5324496	GR-PEG white BIO	4,4	0,001	0,01	1,9	0,000	0,00	0,4
LF06-33	433501	5324625	GR-PEG, KF-QZ, ±BIO HM+	1,2	0,000	0,00	0,9	0,000	0,00	0,8
LFMB2007-04	433662	5324450	GR-PEG	58,4	0,007	0,13	57,7	0,007	0,14	1,0
LFMB2007-05	433776	5324898	GR-PEG	10,9	0,001	0,02	4,5	0,001	0,01	0,4
LFMB2007-06	433566	5324697	GR-PEG	4,7	0,001	0,01	6,9	0,001	0,02	1,5
LFMB2007-07	433689	5324898	GR-PEG	22,6	0,003	0,05	7,2	0,001	0,02	0,3
LFMB2007-09	433633	5324618	GR-PEG	71,0	0,008	0,16	85,5	0,010	0,20	1,2
LFMB2007-13	433590	5324630	GR-PEG	30,2	0,003	0,07	29,0	0,003	0,07	1,0
LFMB2007-14	433581	5324623	GR-PEG	282,7	0,032	0,64	303,8	0,036	0,72	1,1
LFMB2007-15	433534	5324601	GR-PEG	234,5	0,027	0,53	149,9	0,018	0,35	0,6
LFMB2007-16			GR-PEG	192,1	0,022	0,44	18,4	0,002	0,04	0,1
Average				**90,798**	**0,010**	**0,207**	**91,462**	**0,011**	**0,216**	**1,0**

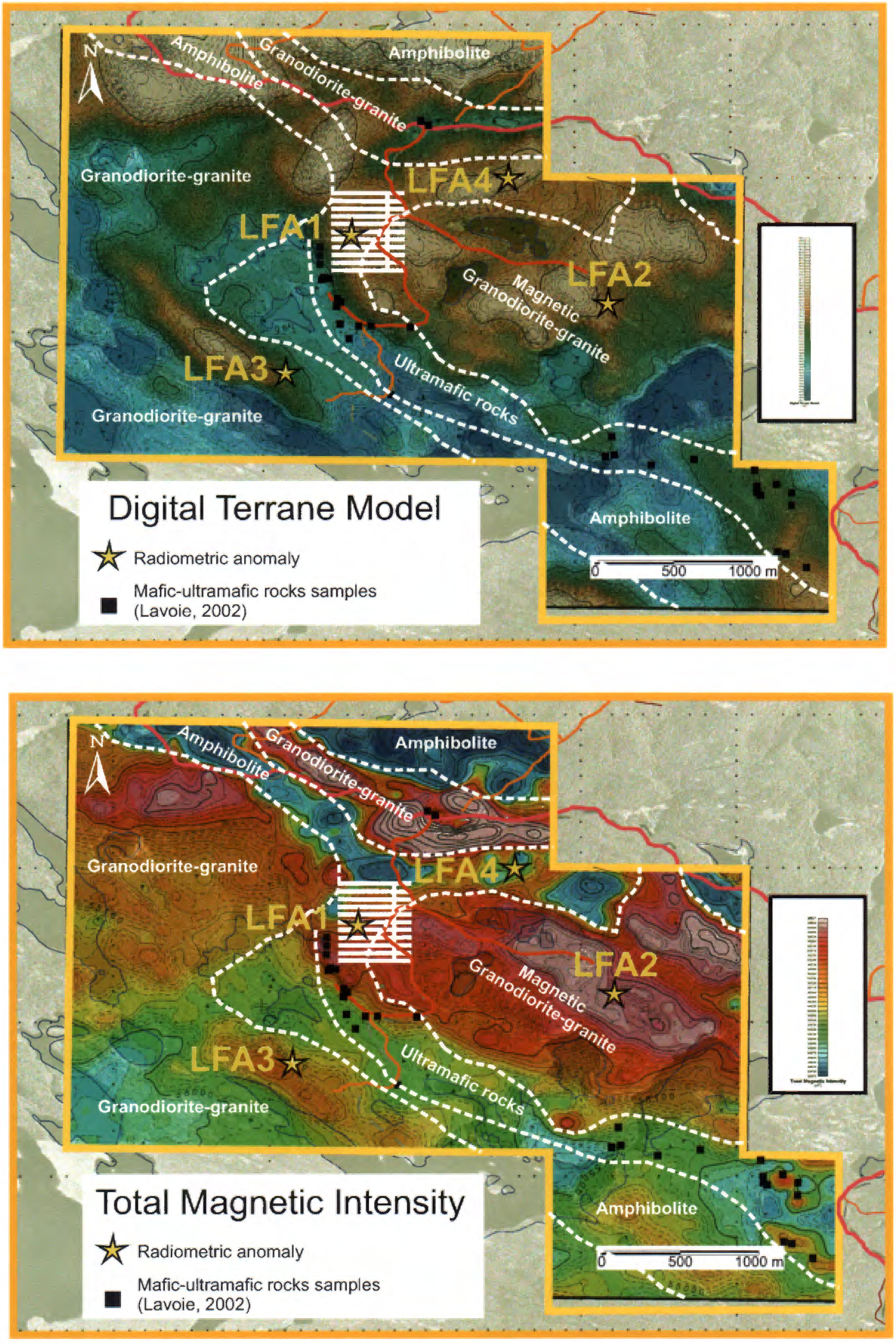


Figure 23. a) Digital Model Terrane and b), Tgotal Magnetic Intensity maps for the lake Fafard property. The four U-Th radiometric anomalies determined from the airborne radiometric survey are reported. The outlines of the geological contacts are interpreted from the geological maps of Miller (1952) and Ross (1950).

12.4.2.1- Anomaly LFA-2

The area covered by the LFA2 anomaly is situated approximately 1.8 km ESE from the main lake Fafard grid. It can be reached in part by ATV travelling 675 m east on a dirt track starting at the junction of the lake Fafard and lake Osmonde paths end ending up at small ford. From there, a 900 m walk through thick bush is necessary to find the anomaly site which consists of a small rounded hill. The site reveals a large, strongly radiometric, 100 x100m granitic pegmatite body. The radiometric background of the entire body varies between 900 and 1500 cps on a hand-held scintillometer, with several readings in the 12,000 to 15,000 cps range. Three samples were collected and generated radiometric readings between 1200 to 10000 cps. They consist of reddish-grey, hematized, medium to coarse- grained granitic pegmatite rich in magnetite (> 5%). The anomaly site exposes numerous pegmatitic outcrops. However, their rounded shape renders difficult the collection of sample.

12.4.2.2- Anomaly LFA-3

The site of the second anomaly (LFA3) is situated south of the lake Fafard grid. To reach the site, one has to travel 878 m by ATV on a dirt track branching from the dirt road leading to the shore of lake Fafard. After a 250 m walk in the bush, we climb a small hill near the shore of lake Honorat. A stroll on the top of the hill along the northwest reveals spotty outcrops of granitic-granodioritic rocks and granitic pegmatites. The dimension of the latter are difficult to assess owing to their patchy exposures. We collected two samples of altered (hematized) medium to coarse grained granitic pegmatite that displays radiometric values of 500 to 1000 cps on the scintillometer. The occurrence of the pegmatitic bodies may explain the airborne radiometric anomaly.

12.4.2.3- Anomaly LFA-4

Anomaly LFA4 occurs on top of a small hill south of the main dirt road crossing the ZEC Buteux. The site is reached by driving 1.3 km east along this road from the fork leading to lake Fafard. From the road a walk of 280 m south is necessary to reach an outcrop of amphibolite-

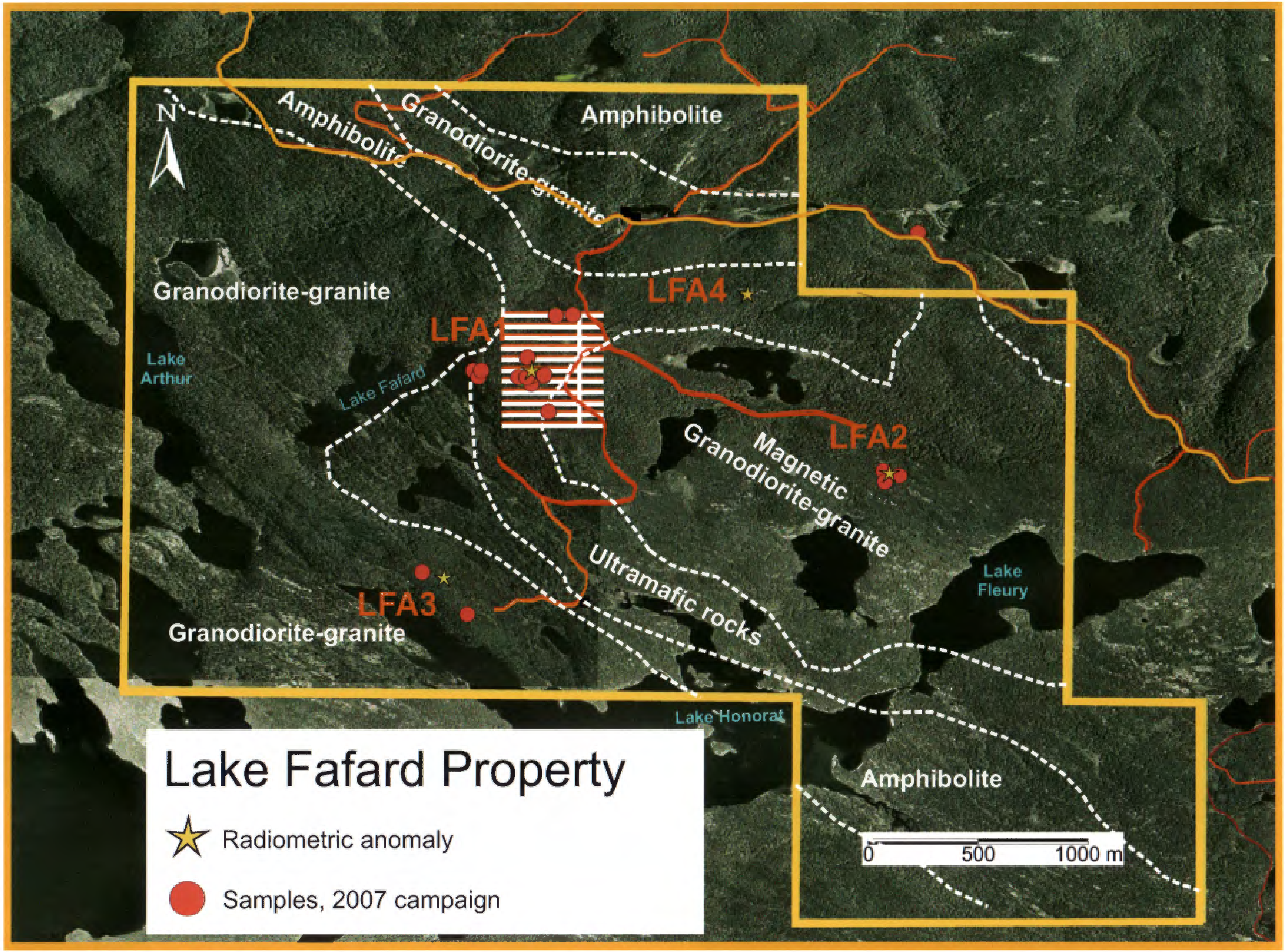


Figure 24. Localisation of the grab samples collected during the 2007 field campaign. The four U-Th radiometric anomalies determined from the airborne radiometric survey are reported. The outlines of the geological contacts are interpreted from the geological maps of Miller (1952) and Ross (1950).

hornblende-feldspar gneiss crosscut by a radiometric granitic pegmatite. No sample was collected and we plan to come back next year with a portable saw to extract samples of sufficient size.

12.4.2.4- Lake Fafard Grid

We also took the opportunity to collect rock samples from the various trenches and outcrops exposed along the lake Fafard grid in order to complete the sampling program accomplished in 2006. The analytical results of the 2007 samples are added in Table 2 with the 2006 data. and their location illustrated in Figures 8 and 24 along with the other samples gathered in 2007. We have also discovered an old dynamited trench site outside the grid area and perched on a cliff 30 m east of the lake shore. The trench exposes a coarse to medium-grained white biotite±muscovite granitic pegmatite, although the site is weakly radiometric and the pegmatite contains very little magnetite. Nevertheless, three samples were collected from this trench.

12.5- Chemical Analyses: Results and Discussion

12.5.1- The Lake Fafard Grid Granitic Pegmatite Dykes

U and Th assay results presented in Table 2 show a mean U_3O_8 content of 0.011±0.020 wt. % corresponding to an average of 0.216±0.391 lbs/ton. ThO_2 concentrations present an average of 0.010±0.014 wt.%, which translates into 0.207±0.272 lbs/ton. However, half of the samples display U_3O_8 values of 0.005 to 0.092 wt.% producing an average of 0.020±0.025 wt.% (0.403±0.496 lbs/ton). As illustrated, in Figure 8 these « enriched » samples were grabbed in close proximity to those having less uranium. Indeed, most of these samples appear to be rich in magnetite and belong to the ore-bearing reddish-gray medium-grained pegmatite (Table 2). The large standard deviation attached to the average U_3O_8 content also illustrates the heterogeneity of the granitic pegmatites in term of the distribution of U bearing minerals. This observation also stems from core description and radiometric assaying conducted by Opemisca Explorers et al. (GM 23775) and by analytical results reported from grab and trench samples form dyke #1 and #2 (Hagan, 1967 and Figure 25). Results shown in Figure 19 also reveal a large dispersion of U_3O_8 concentrations given in Hagan (1967). However, the reported averages wt.% of U_3O_8 are significantly higher (0.014, 0.025 and 0.40 wt.% respectively) than those obtained by this study.

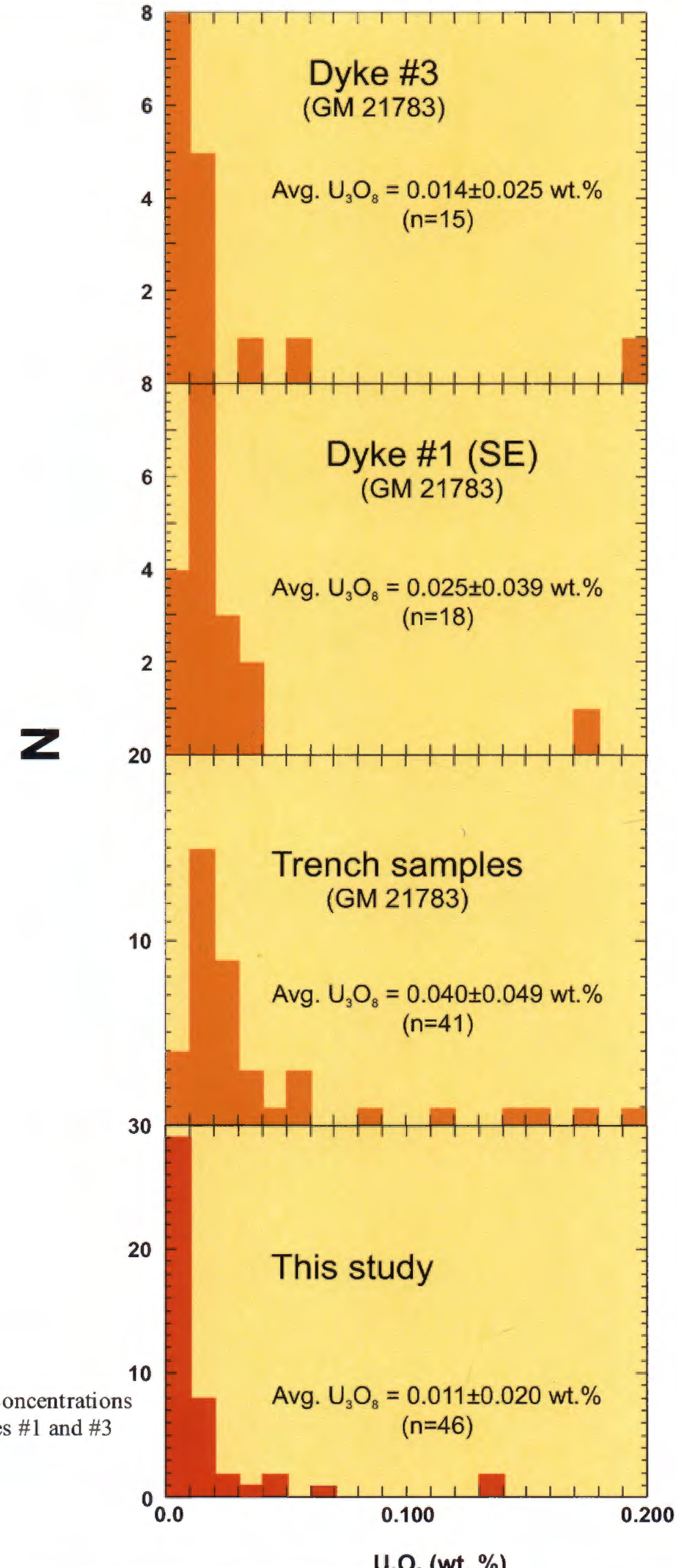


Figure 25. U_3O_8 concentrations in wt.% for Dykes #1 and #3

Notice that the U_3O_8 concentrations reported in Hagan (1967) were not produced by chemical assaying but by extrapolating the U concentrations from scintillometer readings. This casts considerable doubt about the reliability of the method since very few samples were submitted to verification by chemical assays. Indeed, these extrapolated concentrations must be considered historic and are non 43-101 compliant. The author doesn't endorse, nor approve this method of analyses. Nonetheless, the data presented in Figure 25 indicate a similar dispersion of U_3O_8 values.

Th and U concentrations are positively correlated and display a positive linear correlation with the Fe (wt.%) content of the granitic pegmatites (Figure 26). Theses observations confirm in part the mineralogical results obtained by SEM indicating the late coeval crystallization of Th and U-bearing phases (uraninite, thorite/huttonite and zircon; section 12.1.3). High iron content characterized pegmatites with elevated concentrations of U and Th. This can be interpreted by the greater content of magnetite accompanying the strongly mineralized rocks. Indeed, the occurrence of magnetite in the pegmatites was used by many exploration geologists (i.e. Hagan, 1967) as an indicator of U-mineralization in visual examination of rock samples. The SEM determinations have shown that U and Th-bearing minerals crystallize as residual phases along the boundaries of magnetite grains. Caution must be exercise however since iron is also incorporated in the structure of biotite (commonly associated with magnetite) and hematite and because the aqua-regia leaching process used in the analytical procedure does not totally destroyed the iron-bearing silicate minerals.

12.5.2- Anomaly LFA-2

Analytical results of the grab samples from LFA-2 reveal very interesting values for U, Th and possibly Nb and Zr for two of the three collected samples (Table 3 and Figure 27). The observed concentrations of 1.49 and 1.52 U_3O_8 lbs/ton are sufficiently interesting to warrant a systematic evaluation of the LFA-1 anomaly site. The chondrite normalized Rare Earth Element (REE) profiles of these samples are very similar to that revealed by the granitic pegmatites exposed in the lake Fafard grid area (Figure 28). Both expressed high REE_{CN} values especially in the Heavy Rare Earth Elements (HREE; i.e. Yb, Lu) which also correlates with high concentrations of Yttrium (Figure 27).

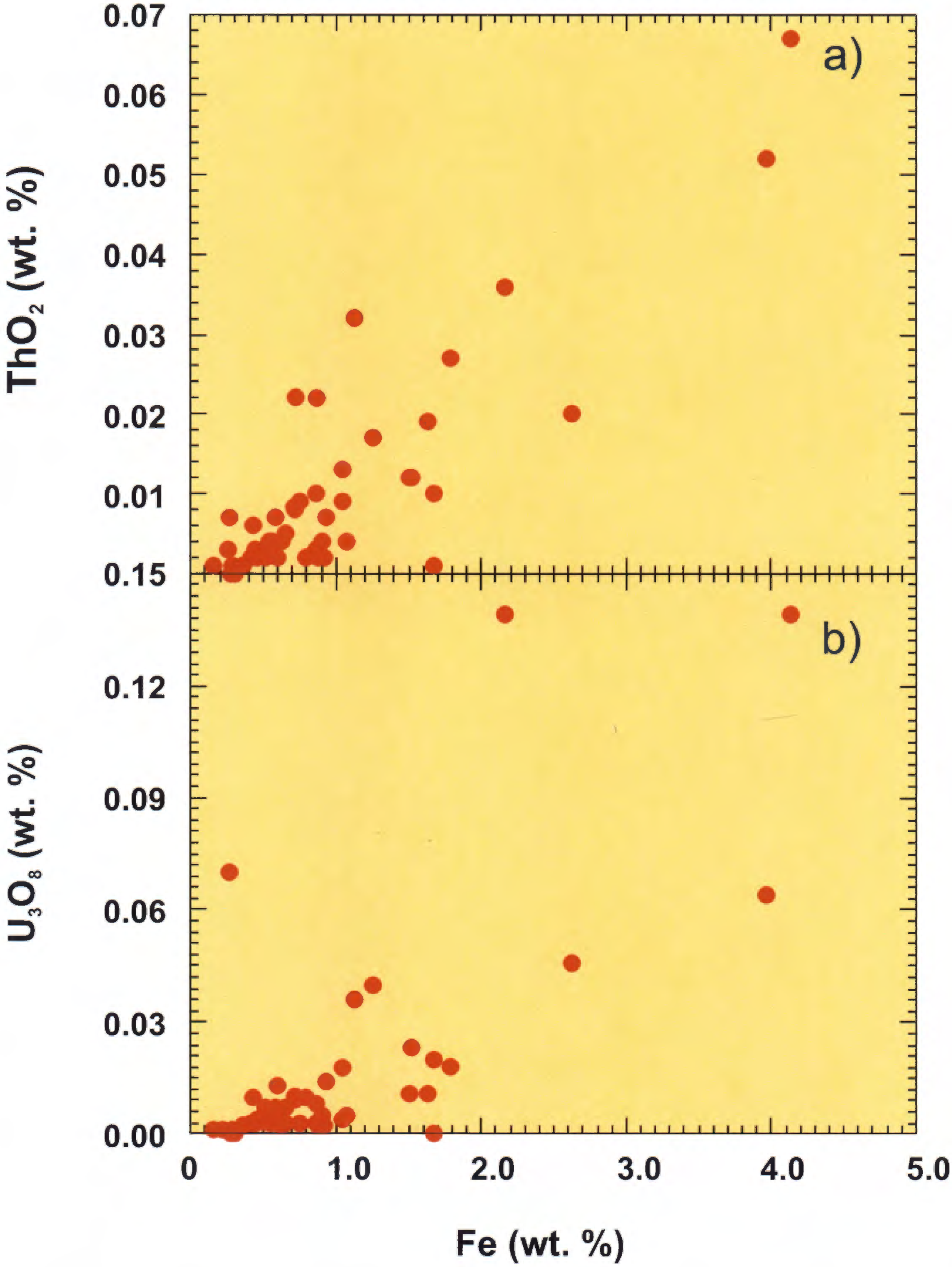


Figure 26. Correlations between ThO_2 (wt. %) (a); U_3O_8 (b) and Fe (wt.%) in samples collected for this study.

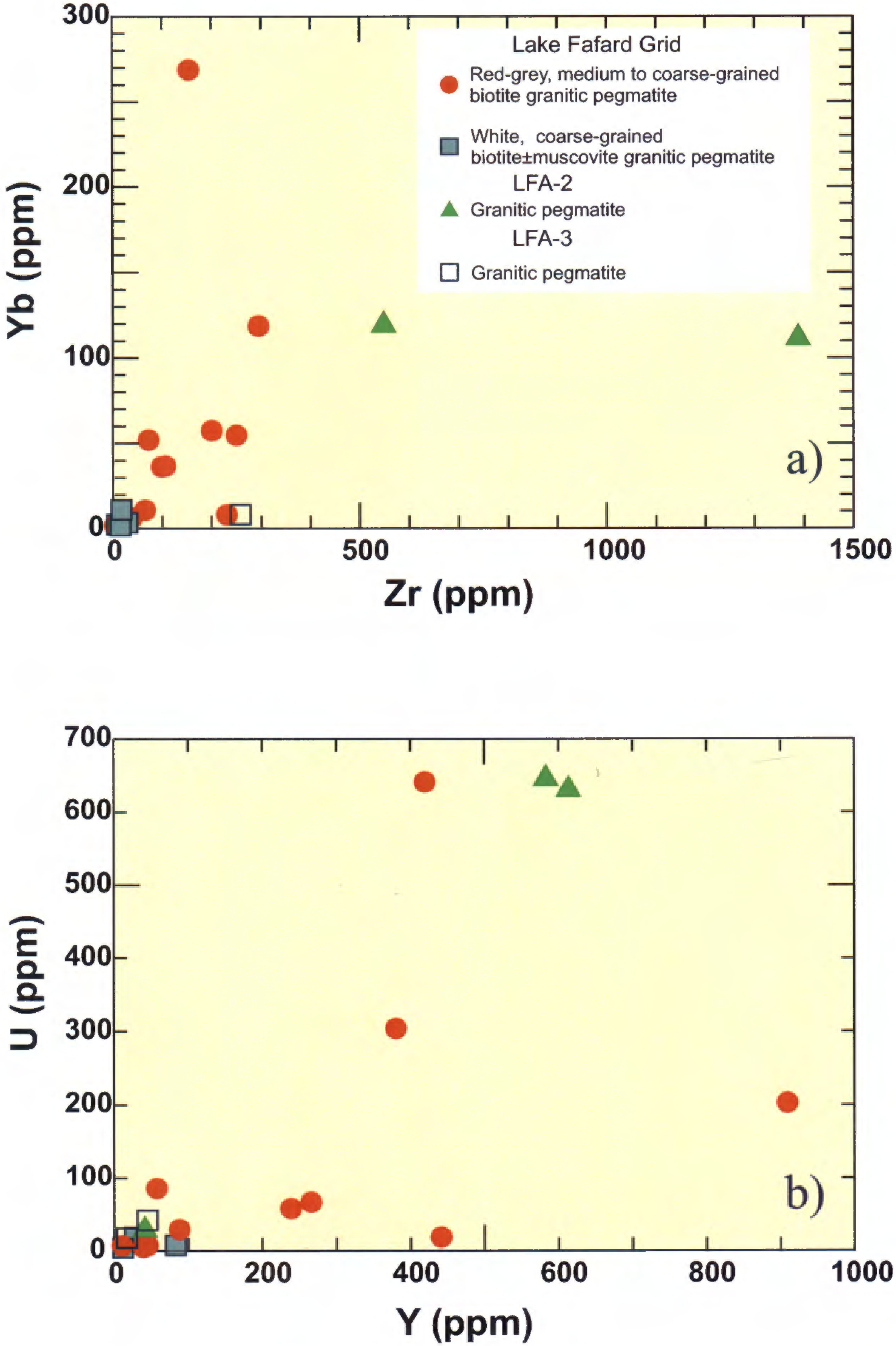


Figure 27. a) Zr (ppm) vs. Yb (ppm) and Y (ppm) vs U (ppm) illustrating the enrichment of the red-grey medium-grained pegmatites in Y, U, Zr and HREE relative to the white-pink coarse-grained granitic pegmatites. This enrichment is related to the abundance of uraninite, zircon and xenotime in the red-grey pegmatites

	-----UTM coordinates-----										
SAMPLE no.	**Easting**	**Northing**	**Rock Type**	**Th (ppm)**	**ThO_2 (wt. %)**	**ThO_2 (lbs/ton)**	**U (ppm)**	**U_3O_8 (wt. %)**	**U_3O_8 (lbs/ton)**	**Nb_2O_5 (wt%)**	**ZrO_2 (wt%)**
LFLC2007 01	435205	5324131	GR-PEG	222.2	0.025	0.51	629.7	0.074	1.49	0.165	0.073
LFLC2007 02	435267	5324158	GR-PEG	1197.3	0.136	2.73	644.7	0.076	1.52	0.149	0.184
LFLC2007 03	435195	5324178	GR-PEG	18.9	0.002	0.04	27.9	0.003	0.07	0.007	0.002

Table 3. Analytical results for the collected samples from the LFA-2 anomaly site.

12.5.4- Anomaly LFA-3

The results of the chemical assays for two samples collected from the LFA-3 site show rather low and disappointing U and Th concentrations (Table 4). Since only two samples were gathered from the pegmatitic granitic outcrops this site needs to be further investigated but is not a priority.

	-----UTM coordinates-----								
SAMPLE no.	**Easting**	**Northing**	**Rock Type**	**Th (ppm)**	**ThO_2 (wt. %)**	**ThO_2 (lbs/ton)**	**U (ppm)**	**U_3O_8 (wt. %)**	**U_3O_8 (lbs/ton)**
LFLC2007 04	433287	5323528	GR-PEG	16.4	0.002	0.04	17.1	0.002	0.04
LFLC2007 05	433079	5323721	GR-PEG	6.0	0.001	0.01	41.6	0.005	0.10

Table 4. Analytical results for the collected samples from the LFA-3 anomaly site.

12.5.3- White vs. Red granitic pegmatites

The occurrence of white-grey and pink/red-grey varieties of granitic pegmatite bodies east of the Saguenay River, has long been recognized by field geologists working in the area(see Rondot, 1979; Miller, 1973 and Shaw, 1950). As described earlier in section 8.2, the reddish (or pinkish) grey medium to coarse-grained pegmatites commonly contains the U and Th mineralization whilst the white coarser grained biotite±muscovite granitic pegmatites are usually barren.

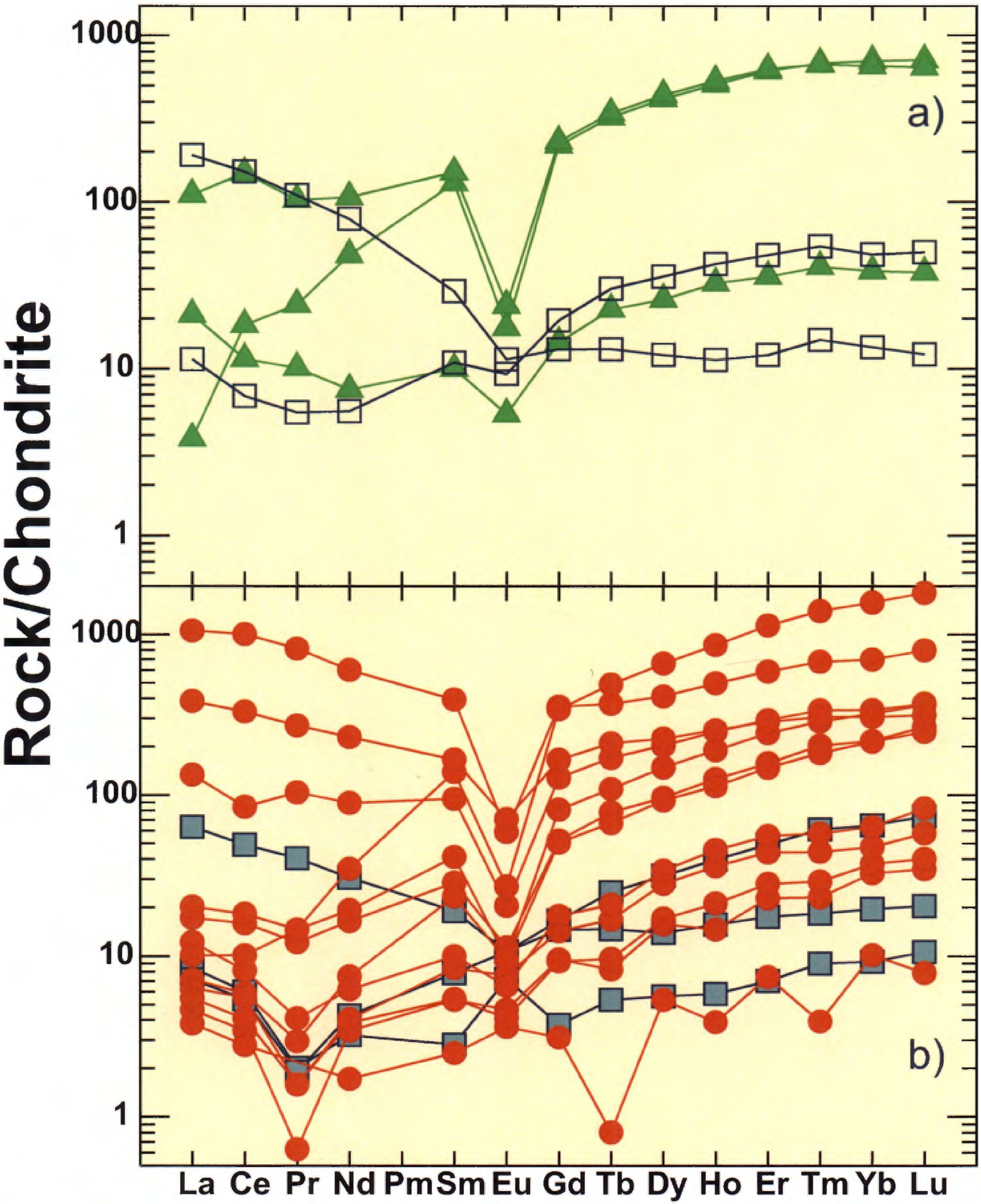


Figure 28. Chondrite-normalized profile of granitic pegmatites samples collected a) from the lake Fafard grid and b), from the LFA-2 and LFA-3 anomaly sites. Symbols as in Figure 27

A confirmation of this classification is given by the chemical analyses of the two types of granitic pegmatite exposed on the lake Fafard Property. Samples of the reddish-grey variety were obtained from exposures on the main grid while we collected samples of a white biotite±muscovite pegmatite dyke just west of the main grid near the cliffs overhanging the lake Fafard.

The trace element analyses of the granitic pegmatite samples (Figures 27 and 28b) and Table 5 clearly illustrate the enrichment in REE, particularly the HREE, Y, U, Th and Zr of the reddish-grey magnetite-bearing granitic pegmatite variety. These higher values are attributable to the abundance of REE-Y-U-Th-carrier minerals such as uraninite-thorite, zircon, and xenotime (see section 12.1.3). There is no clear distinction from the major element data between the two varieties although we only collected 6 samples overall. However, the reddish-grey granitic pegmatites appear more differentiated or evolved as testified by their higher Rb/Sr values (0.40-1.23 vs. 0.06-0.49) (Table 5)

ITEM 14 SAMPLING METHOD AND APPROACH

The sampling method has been fully described in section 12.3. The samples collected in 2006 were sent to the ALS Laboratory Group (Mineral Division ALS Chemex) located in Val d'Or, Québec (1322 Harricana, J9P 3X8) and the analyses performed at the ALS Chemex Vancouver laboratory. Those samples gathered in 2007 were sent to the ACME Analytical Laboratories Ltd. of Vancouver for sample preparation and analyses. Splits of 250g to 1kg samples were pulverized to better than 85% passing through a 75 microns sieve. A subset of sample was digested for one hour in hot (95°C) aqua regia (a mixture HNO3-HCl acids) to be analyzed by ICP-MS and ICP-AES methods for the following elements: Ag, Al, As, Au, B, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, Hg, In, K, La, Li, g, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn and Zr. A subset of 6 samples gathered in 2007 were analysed for the major and trace elements following the $LiBO_2/LiBO_7$ fusion method to be later analyzed by ICP-ES. The following element are provided; major elements: SiO_2, Fe_2O_3, MgO, CaO, Na_2O, K_2O, TiO_2, P_2O_5, MnO, Cr_2O_3, LOI; trace elements: Ni, Sc, Ba, Be, Co, Cs, Ga, Hf, Nb, Rb, Sn, Sr, Ta, Th, U, V, W, Zr, Y, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Ho,

Table 5. Major and trace element analyses of the two types of granitic pegmatite dykes exposed in the Lake Fafard area.

	White, coarse-grained biotite±muscovite granitic pegmatite				Red-grey, medium to coarse-grained biotite granitic pegmatite		
SAMPLE	**LFMB2007-01**	**LFMB2007-02**	**LFMB2007-03**		**LFMB2007-10**	**LFMB2007-11**	**LFMB2007-12**
SiO_2 (wt.%)	75,98	74,26	72,68		70,56	72,41	78,87
Al_2O_3	13,67	14,08	16,48		15,65	14,20	11,68
TiO_2	0,12	<0.01	0,03		0,04	0,08	0,08
Fe_2O_{3T}	1,32	0,42	0,59		0,92	1,58	1,18
MnO	0,02	<0.01	0,01		0,02	0,02	0,03
MgO	0,55	0,14	0,19		0,23	0,34	0,34
CaO	2,61	0,48	2,95		0,99	0,55	1,55
Na_2O	4,25	2,49	5,43		3,33	2,62	3,76
K_2O	1,07	7,37	1,20		6,84	7,23	1,76
P_2O_5	0,02	0,02	0,04		0,10	0,05	0,03
LOI	0,30	0,40	0,30		0,60	0,60	0,40
Total	99,91	99,67	99,91		99,28	99,67	99,69
Sc (ppm)	2	<1	<1		4	2	2
Co	1,8	0,8	0,8		1,3	1,7	1,4
Ba	272	2614	267		2168	1964	473
Cs	2,3	2,8	1,3		4,2	5,4	3,6
Rb	32,8	126,5	20,1		207	229,3	70,5
Sr	328,9	255,3	320,8		264,8	186,4	174,3
Rb/Sr	0,10	0,50	0,06		0,78	1,23	0,40
Ta	0,3	<0.1	<0.1		0,5	0,3	0,5
Th	**26,7**	**10,4**	**15,9**		**498,7**	**78,7**	**305,8**
U	**18,4**	**3,7**	**7,6**		**202,8**	**66,3**	**640,7**
Hf	1,2	0,7	0,7		10,8	4,5	8,7
Nb	4,5	0,7	2,4		9,1	3,7	9,4
Zr	**29,1**	**14,9**	**17,4**		**295,5**	**106,5**	**200,9**
Y	**27,7**	**11,7**	**83**		**909,4**	**265,8**	**419,9**
La	**15,00**	**2,00**	**1,70**		**250,30**	**4,10**	**31,70**
Ce	30,00	3,70	3,30		615,10	9,80	51,70
Pr	3,84	0,19	0,18		77,52	1,16	9,85
Nd	14,30	1,50	2,00		280,30	7,70	41,70
Sm	2,92	0,43	1,20		60,11	4,36	14,49
Eu	0,62	0,42	0,62		3,42	0,66	1,19
Gd	3,00	0,77	3,42		72,96	10,71	26,34
Tb	0,55	0,20	0,93		13,81	2,92	6,36
Dy	3,55	1,43	7,98		104,51	24,46	51,48
Ho	0,89	0,33	2,24		28,13	7,14	14,04
Er	2,91	1,16	8,14		97,36	26,05	48,40
Tm	0,47	0,23	1,56		17,23	5,17	8,60
Yb	**3,33**	**1,57**	**11,01**		**118,59**	**36,80**	**57,41**
Lu	**0,52**	**0,27**	**1,87**		**20,21**	**6,74**	**9,43**

Er, Yb, Lu. The full results presented in Annex 1, with the certificates (VO06083709 and VAN07002353.1) provided in Annex 2.

ITEM 15 SAMPLE PREPARATION, ANALYSES AND SECURITY

The samples collected in 2006 and 2007 were labelled and immediately bagged in resistant plastic containers. No splitting or further manipulation was performed in the field. Michel Proulx (2006) and Michel Boily (2007) were involved in all of the preparation of the samples prior to their delivery to the assaying laboratory.

The lake Fafard samples were securely handled at each stage from the field to the laboratory and their integrity is unquestioned. Laboratory personnel who were wholly unrelated to the client company and who were unaware of the source and content of the samples prepared the samples for analysis.

ITEM 16 DATA VERIFICATION, DATA CONTROL AND QUALITY ASSURANCE POLICIES AND PROCEDURES

The ALS Chemex Vancouver laboratory is accredited to ISO 17025 by Standards Council of Canada for a number of specific test procedures including fire assay Au by AA, ICP and gravimetric finish, multielement ICP and AA Assays for Ag, Cu, Pb, and Zn. The ALS Chemex laboratories participate in a number of international proficiency tests, such as those managed by CANMET (Proficiency Testing Program-Mineral Analysis Laboratories) and Geostats. The ACME Analytical Laboratories Ltd. is accredited to ISO 9001: 2000. ACME Analytical Laboratories Ltd. and ALS Chemex standard operating procedures require the analysis of quality control samples (reference materials, duplicates and blanks) with all sample batches. The standard operating procedures require the analysis of quality control samples (reference materials, duplicates and blanks) with all sample batches. As part of the assessment of every data set, results from the control samples are evaluated to ensure they meet set standards determined by the precision and accuracy requirements of the method. Both analytical laboratories use barren wash material between sample preparation batches. This cleaning material is tested before use to ensure no contaminants are present and results are retained for reference. The data from the quality control checks did not indicate any significant bias or quality control issues. The authors have not visited the ACME or ALS Chemex laboratories to see the operation firsthand, nor are they familiar with the general historical performance of the facility.

ITEM 19 MINERAL RESOURCE MINERAL RESERVE ESTIMATE

Earlier estimate of the ore reserve were performed by Malouf and Hagan (1967 and Malouf (1967) from surface and trench samples (Table 1). The former calculated that an area of 400x150 m (probably from the evaluation of dyke #1) contained a minimum of 31,000 tons per vertical foot corresponding to grades of 1.30 lbs/ton of U_3O_8 (higher grade) to 0.45 lbs/ton (lower grade) averaging 1.12 lbs/ton U_3O_8. Malouf (1967) refined this estimate and gave a total of 2652 tons per vertical foot of ore grading 1.13 lbs/ton of U_3O_8 again probably from the region of dyke #1. ***However, these estimates are fraught with uncertainties and based on a poor sampling method and on a limited numbers of chemical assays. In most instances, scintillometer readings (mr/hr) were converted into concentrations of U_3O_8. Therefore the calculated ore reserve must be considered suspect.***

ITEM 21 CONCLUSIONS

Although much assessment work needs to be done, the lake Fafard property has the potential to develop as a low-grade high tonnage U deposit. The property exposes four major mineralized granitic pegmatite dykes in close proximity and is easily accessible by well-travelled highways connecting Québec City and Saguenay, Québec. The lake Fafard property reveals a series of anastamosing U-bearing granitic pegmatite dykes intruding amphibolite gneiss. At least four major steeply dipping dykes are recognized, ranging from 300 to 650m in length and 10 to 130 m in width. A re-examination of the DDH logs combined with the results of our own mapping program uncovered two sub-types of granitic pegmatites. The first type consists of a pink to reddish coarse to very coarse-grained graphic pegmatite containing 20 to 60 % K-feldspar with very few specs and crystals of hematite, magnetite or uraninite. The other is of type medium-grained and reddish-gray in colour with equal proportions of pink K-feldspar and quartz. Numerous specs and crystals of hematite and magnetite as well as uraninite are erratically dispersed. This pegmatite type shows radiometric values high above background and is considered the carrier of U and Th-ore. SEM analyses confirmed that uranium is concentrated principally in the oxide mineral uraninite (UO_2) in close spatial association with magnetite, thus rendering the beneficiation of U ore by a combination of gravity separation, flotation and magnetic separator most efficient.

Sampling of dyke #1 indicates average U_3O_8 concentrations of 0.011±0.020 wt. corresponding to U_3O_8 (lbs/ton) of 0.216±0.391. However, if we select only the samples of the magnetite-bearing reddish gray medium grained pegmatite type, we obtain higher values reaching 0.020±0.025 wt. % U_3O_8 corresponding to U_3O_8 (lbs/ton) of 0.403±0.496 (n=23). Ground-based radiometric and magnetic surveys conducted on a grid established over the main pegmatite showings (i.e. dykes # 1 to 3) has confirmed that the most important anomaly corresponds to areas where numerous trenches exposed magnetite and uraninite bearing pegmatites from dyke #1.

An airborne radiometric and magnetic surey flown over the entire property detected four important anomalous areas which were investigated during the 2007 field season. The most significant anomaly is LFA-2 situated approximately 1.8 km ESE from the main lake Fafard grid. The site reveals a large, strongly radiometric, 100 x100m granitic pegmatite body. The radiometric background of the entire body varies between 900 and 1500 cps on a hand-held scintillometer, with several readings in the 12,000 to 15,000 cps range. Two grab samples gave concentrations of 1.49 and 1.52 U_3O_8 lbs/ton and significant values in Zr and Nb.

ITEM 22 RECOMMENDATIONS

Phase I of the exploration program will include detailed mapping of dykes #1 to #4 with particular attention devoted the identification of the granitic pegmatite facies (i.e. reddish-gray medium-grained and coarse grained-graphic pegmatites). Previous sampling of granitic pegmatites was confined to the grid and particularly on partially filled trenches blasted form dyke #1. It is thus imperative to widen the area of outcrop to map the lithologies and acquire new samples from dykes #2, 3 and 4. Therefore, we recommend stripping an area of 250X250 m centered at coordinates 4650N and 3600E on the main grid. After washing the outcrops, a careful geological mapping at a scale of 1:100 must be carried out. The program, will include trench sampling, channel cutting and grab sampling.

The second objective of the geological program will be the mapping and sampling of new granitic pegmatite bodies as revealed by radiometric anomalies LFA2 to LFA4. The bulk of the exploration work will be devoted to the LFA2 area site where promising U, Th, Zr and Nb concentrations were obtained. We need to prolong for 240 metres the bush road joining lake Fafard to the ford connecting lake Osmonde and lake du Paturin. This will facilitate transport since we will be able to conduct the exploration with the help of an ATV. Ground stripping and outcrop washing may also be necessary on a 100 X 100 m area so we can mapped the pegmatitic bodies and collect grab and channel samples. Anomaly LFA4, sitting on top of a hill, constitute a secondary target and we will map and collect grab and possibly channel samples from this site. A previous DDH program undertaken in 1968 focused principally on dyke #1 covered by the main lake Fafard grid (Figure 8). It allowed the recognition of numerous decametre-sized intersections of U and Th-mineralized granitic pegmatites, but these results were obtained by radiometric analyses and were not submitted to chemical assaying. A new drilling program campaign accompanied by a thorough assaying should be initiated after the completion and interpretation of the geological mapping and sampling on the main grid and at the site of anomaly LFA2. Priority should be given to dykes #1 to 4 which will be uncovered by outcrop stripping and washing.

An assessment of tonnage, ore grade and concentration was attempted by Malouf and Megan (1967)(see Table 1) from the exposed pegmatites covered by the main lake Fafard grid. However, their procedure was fraught with erroneous assumptions and extrapolations, poor sampling, absence of chemical assays and must thus be considered impractical (see also Assad, 1968). Therefore, a re-evaluation of the ore tonnage will be performed.

22.1- Budget Breakdown

PAGE(S) CONTENANT DE L'INFORMATION NON PERTINENTE A ÉTÉ RETIRÉE(S)

ITEM 23 REFERENCES

Assad, J. R., 1968. Commentaires sur les rapports de travaux sur un gisement d'uranium dans le canton de Saguenay. GM 21847, 2 pp.

Černŷ, P., 1991. Fertiles granites of Precambrian rare-elements pegmatite fields : is geochemistry controlled by tectonic setting or source lithologies ? Precambrian Research, vol. 51; p. 429-468.

Černŷ, P., 1991. Rare-element Granitic Pegmatites. Part I : Anatomy and Internal Evolution of Pegmatite Deposits. Geoscience Canada, vol. 18; p. 49-67.

Corriveau, L., Perreault, S. 1999. Prospectivity of the Grenville Province : A perspective. Geological Survey of Canada (GSC) and the Mineral Deposits Division (MDD) of the Geological Association of Canada, 38 pp.

GM 23775. 1968. 12 DDH logs with assay results. Saguenay Uranium Project. 57 pp.

Gower, C.F., Krogh, T.E., 2002., A U-Pb geochronological review of the Proterozoic history of the eastern Grenville Province. Canadian Journal of Earth Sciences, vol. 39 ; p. 795-829.

Hagan, J.D., 1967. Summary Report, Saguenay Uranium Properties. GM 21780 ; 9 pp.

Hagan, J.D., 1967. Statutory Report-Section C ; Preliminary Property Report on the Saguenay Uranium Project Held by United Obalski Mining Company Limited, Quebec Chibougamau Goldfields Limited and Opemisca Explorers Limited. GM 21783 ; 31 pp.

Hanmer, S., Corrigan, D., Pehrsson, S. Nadeau, L., 2000. SW Grenville Province Canada: The case against post 1.4 Ga accretionary tectonics. Tectonophysics, vol. 319 ; pp. 33-51.

Harvey, Y., 1983. Métallogénie de l'uranium pegmatitique dans le Grenville de Québec. PhD. thesis, Université Laval ; 203 pp.

Hébert, Y., 1995. Les gîtes de terres rares et éléments associés dans les districts miniers de Montréal-Laurentides, Estrie-Laurentides et Côte-Nord – Nouveau-Québec. Ministère des richesses Naturelles et de la Faune, MB-94-17 ; 134 pp.

Jacquemin, M. 1967. Radiometric Survey, Saguenay Area. GM 21781 ; 8 pp.
Lavoie, N., 2004. Nouveau contexte de Platine-Palladium-Or dans la Province de Grenville, Propriété minière Lac-à-David, région du Saguenay, GM 60854; 7pp.

Malouf, P.M., Hagan, J.D. 1967. Summary Report, Saguenay Uranium. GM 21779 ; 7 pp.

Miller, L.M., 1973. Région de Saint-Siméon Tadoussac. Ministère des richesses Naturelles et de la Faune, RG-159 ; 86 pp.

Miller, M.L., 1952. Rapport préliminaire sur la région de Tadoussac, comtés de Charlevoix, Chicoutimi et Saguenay. Ministère des richesses Naturelles et de la Faune, RP-266 ; 14 pp.

Morin, M. 1977., Saguenay Township Property, Charlevoix County, Quebec. GM 32800; 6 pp.

Osborne, F.F. 1967. Statutory Report-Section B. GM 21782 ; 5 pp.

Rivers, T., 1997. Lithotectonic elements of the Grenville Province in western Labrador – anatomy of an ancient orogenic front. Precambrian Research, vol. 86 ; pp. 117-154.

Rondot, J., 1979. Reconnaissances Géologiques dans Charlevoic-Saguenay. Ministère des richesses Naturelles et de la Faune, DPV-682 ; 44 pp. Rondot, J., 1983. Carte géologique – Bas Saguenay (synthèse). Ministère des richesses Naturelles et de la Faune, DP-83-16.

Ross, S.H., 1950. Rapport préliminaire sur la région de Sagard-Callières, comtés de Charlevoix, Chicoutimi et Saguenay. Ministère des richesses Naturelles et de la Faune, RP 244, 10 pp.

Salman, T. 1968. Progress Report on United Obalski Mines Ltd. Ore Samples. GM 21784; 9 pp.

Shaw, C. 1968. Saguenay Uranium Project, Saguenay Township, Quebec. Summary of work done January to April 1968. GM 24636 ; 6 pp.

Tollo, R.P., Corriveau, L., McLelland, J., Bartholomew, M.J., 2004. Proterozoic tectonic evolution of the Grenville orogen in North America : An introduction. In Tollo, R.P., Corriveau, L., McLelland, J., Bartholomew, M.J. eds. Proterozoic tectonic evolution of the Grenville orogen in North America. Geological Society of America Memoir 197 ; pp. 1-18.

ITEM 24 DATE AND SIGNATURE

CERTIFICATE OF QUALIFICATIONS

I, Michel Boily, Ph.D., P. Geo. HEREBY CERTIFY THAT:

I am a Canadian citizen residing at 2121 de Romagne, Laval, Québec, Canada.

I obtained a PhD. in geology from the Université de Montréal in 1988.

I am a registered Professional Geologist in good standing with l'Ordre des Géologues du Québec (OGQ; permit # 1910).

I had the following work experience:

From 1986 to 1987: Research Associate in Cosmochemistry at the **University of Chicago**, Chicago, Illinois, USA.

From 1988 to 1992: Researcher at **IREM-MERI/McGill University,** Montréal, Québec as a coordinator and scientific investigator in the high technology metals project undertaken in the Abitibi greenstone belt and Labrador.

From 1992 to present: Geology consultant with **Geon Ltée,** Montréal, Québec. Consultant for several mining companies. I participated, as a geochemist, in two of the most important geological and metallogenic studies accomplished by the Ministère des Richesses naturelles du Québec (MRNQ) in the James Bay area and the Far North of Québec (1998-2005). I am a specialist of granitoid-hosted precious and rare metal deposits and of the stratigraphy and geochemistry of Archean greenstone belts.

I have gathered field experience in the following regions : James Bay, Quebec; Strange Lake, Labrador/Quebec;, Val d'Or, Quebec; Grenville (Saguenay and Gatineau area); Cadillac, Quebec; Otish Mountains, Quebec.

I am the author of the technical report 43-101F entitled : "Technical Report and Recommendations The Lake Fafard Project, Quebec, Canada" written in March 2007 for GALAXY RESOURCES INC. I consent to the filing of this technical Report with any stock exchange and any other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

I have read the National Instrument 43-101 Standards of Disclosure for Mineral Projects (the "Instrument") and this report complies fully with the Instrument.

I am an independent qualified person, QP, according to NI 43-101. I have no relation to Galaxy resources Inc. according to section 1.4 of NI 43-101.

I am not aware of any relevant fact which would interfere with my judgment regarding the preparation of this technical report.

I have not had prior involvement with the Lake Fafard Property that is the subject of this report.

Michel Boily, PhD, P. Geo.
Dated at Montréal, Qc
February 10, 2008

ANNEX 1

Chemical Analyses of the Lake Fafard Rock Samples

SAMPLE no.	Ag (ppm)	Al (wt. %)	As	Au (ppm)	B (ppm)	Ba (ppm)	Be (ppm)	Bi (ppm)	Ca (wt. %)	Cd (ppm)
LF06-18	0.03	0.34	0.7	<0.2	<10	30	0.23	0.01	0.16	0.02
LF06-19	0.02	0.3	1.2	<0.2	<10	70	0.35	0.04	0.08	0.02
LF06-20	0.02	0.46	0.7	<0.2	<10	40	0.25	0.02	0.12	0.01
LF06-22	0.02	0.3	1.6	<0.2	<10	30	0.36	0.06	0.09	0.02
LF06-27	0.02	0.32	2.2	<0.2	<10	60	0.23	0.07	0.04	0.03
LF06-28	0.01	0.46	4.9	<0.2	<10	50	0.17	0.05	0.04	0.01
LF06-31	0.01	0.26	1.2	<0.2	<10	50	0.11	0.03	0.01	0.02
LF06-32	0.04	0.37	1.5	<0.2	<10	40	0.26	0.06	0.04	0.03
LF06-33	<0.01	0.18	1.2	<0.2	<10	110	<0.05	0.02	0.01	<0.01
LF06-34	0.02	0.28	1.7	<0.2	<10	20	0.25	0.05	0.09	0.01
LF06-35	0.03	0.3	1.7	<0.2	<10	30	0.19	0.04	0.04	0.02
LF06-42	0.03	0.32	2.2	<0.2	<10	30	0.44	0.07	0.08	0.23
LF06-44	0.1	0.44	2.9	<0.2	<10	40	0.93	0.23	0.04	0.13
LF06-45	0.67	0.31	1.4	<0.2	<10	50	0.45	0.08	0.04	0.17
LF06-46	0.02	0.31	1.2	<0.2	<10	70	0.25	<0.01	0.06	0.01
LF06-47	0.03	0.39	2.5	<0.2	<10	30	0.23	<0.01	0.17	0.02
LF06-48	0.02	0.29	3.4	<0.2	<10	60	0.21	0.03	0.04	0.02
LF06-50	0.03	0.28	1,0	<0.2	<10	50	0.22	<0.01	0.06	0.03
LF06-53	0.02	0.25	0.7	<0.2	<10	20	0.18	0.01	0.05	0.01
LF06-54	0.08	0.32	1.3	<0.2	<10	10	0.26	0.02	0.1	0.02
LF06-55	0.02	0.57	0.8	<0.2	<10	40	0.32	0.03	0.08	0.01
LF06-56A	0.04	0.29	1.2	<0.2	<10	10	0.22	0.01	0.06	0.06
LF06-56B	0.02	0.3	1.2	<0.2	<10	10	0.19	0.03	0.11	0.01
LF06-58	0.03	0.37	1.2	<0.2	<10	60	0.23	0.01	0.07	0.01
LF06-59	0.01	0.2	0.1	<0.2	<10	110	<0.05	0.01	0.01	0.01
LF06-77	0.27	0.5	0.8	<0.2	<10	90	0.15	0.04	0.08	0.02
LF06-90	0.62	0.38	1.2	<0.2	<10	130	0.08	0.02	0.02	0.02
LF06-90B	0.03	0.46	0.9	<0.2	<10	90	0.2	<0.01	0.04	0.01
LF06-91A	0.02	0.21	0.6	<0.2	<10	100	<0.05	0.02	0.01	<0.01
LF06-91B	0.02	0.34	1.2	<0.2	<10	50	0.28	0.02	0.09	0.01
LF06-96	0.02	0.31	1.2	<0.2	<10	60	0.2	<0.01	0.05	0.01
LF06-102	0.01	1.05	0.5	<0.2	<10	140	0.21	<0.01	0.06	0.01
LF06-108	0.1	0.32	0.9	<0.2	<10	120	0.21	<0.01	0.07	0.07
LF06-110	0.06	0.63	1.3	<0.2	<10	60	0.4	0.25	0.1	0.14
LF06-121	0.05	0.51	1.3	<0.2	<10	30	0.29	0.02	0.12	0.01
LF06-127	0.13	0.47	0.7	<0.2	<10	40	0.35	0.04	0.05	0.07
LF06-133	0.05	0.26	0.8	<0.2	<10	60	0.13	0.08	0.02	0.01
LF06-144	0.08	0.23	0.6	<0.2	<10	50	0.08	0.02	0.02	0.01

Chemical Analyses of the Lake Fafard Rock Samples

SAMPLE no.	Ce (ppm)	Co (ppm)	Cr (ppm)	Cs (ppm)	Cu (ppm)	Fe (wt. %)	Ga (ppm)	Ge (ppm)	Hf (ppm)	Hg (ppm)
LF06-18	9.07	0.7	9	0.85	1.7	0.54	1.54	<0.05	0.19	<0.01
LF06-19	55.3	1.2	9	0.26	7.6	2.16	4.05	0.1	2.18	<0.01
LF06-20	6.9	1.5	7	2.26	3.3	0.9	2.25	<0.05	0.17	<0.01
LF06-22	21.9	2.2	11	0.54	4.8	4.14	7.22	0.09	8.93	<0.01
LF06-27	22,00	0.8	7	0.28	6.4	1.25	2.7	0.06	2.2	<0.01
LF06-28	1.42	1.3	8	1.66	4.7	1.08	2.47	<0.05	0.96	<0.01
LF06-31	2.01	0.4	7	0.22	7.4	0.41	1.22	<0.05	0.31	<0.01
LF06-32	2.59	0.7	7	0.65	12.9	0.66	1.83	<0.05	0.39	<0.01
LF06-33	0.49	0.2	8	0.16	3,0	0.27	0.41	<0.05	0.02	<0.01
LF06-34	3.27	0.9	7	0.37	4.7	1.52	2.45	<0.05	0.82	<0.01
LF06-35	22.4	0.8	10	0.51	2.6	0.92	1.86	<0.05	0.51	<0.01
LF06-42	3.65	0.6	7	0.51	8.5	0.65	1.92	<0.05	0.93	0.01
LF06-44	14.75	2.6	11	0.65	29.2	0.73	3.03	0.06	6.26	<0.01
LF06-45	9.32	1.1	5	0.48	13.5	0.87	2.36	<0.05	1.48	0.01
LF06-46	70.5	0.6	5	0.93	2.9	0.59	2.06	0.09	0.16	<0.01
LF06-47	10.05	0.8	13	1.94	1.6	0.63	1.67	<0.05	0.15	<0.01
LF06-48	5.17	0.6	7	0.93	1.8	0.46	1.32	<0.05	0.13	<0.01
LF06-50	7.7	1,0	7	0.44	3.3	1.63	3.19	0.05	0.79	<0.01
LF06-53	1.77	0.5	9	0.43	5.6	0.55	1.14	<0.05	0.73	<0.01
LF06-54	6.53	2.3	10	0.31	12.7	3.97	6.36	0.09	2.52	<0.01
LF06-55	5.24	2.1	8	2.93	3.7	1.51	3.49	0.05	0.92	<0.01
LF06-56A	3.14	0.7	9	0.3	4.9	1.05	1.77	<0.05	1.91	<0.01
LF06-56B	3.39	1.3	13	0.41	5.4	2.62	3.79	0.07	3.79	<0.01
LF06-58	31.4	1.2	9	1.24	4.5	1.67	2.78	0.07	0.73	<0.01
LF06-59	1.27	0.3	8	0.43	2,0	0.31	0.56	<0.05	0.06	<0.01
LF06-77	17.2	1.7	11	1,00	244,0	0.79	1.97	<0.05	0.06	<0.01
LF06-90	1.91	0.8	5	1.33	2.8	0.6	1.71	<0.05	0.26	<0.01
LF06-90B	3.25	1.1	5	1.15	3.9	0.87	2.47	<0.05	0.46	<0.01
LF06-91A	1.26	0.3	5	0.19	14.4	0.36	0.65	<0.05	0.06	<0.01
LF06-91B	2.3	0.6	6	0.7	2.5	0.94	1.97	<0.05	0.57	<0.01
LF06-96	2.12	0.5	6	0.64	1.6	0.63	1.46	<0.05	0.24	<0.01
LF06-102	15.95	5,0	9	3.08	5.9	1.68	4.28	0.06	0.13	<0.01
LF06-108	2.76	1.1	7	0.68	40.4	0.43	1.16	<0.05	0.61	<0.01
LF06-110	9.98	2.2	7	1.72	15.7	1.04	3.45	<0.05	0.26	<0.01
LF06-121	7.62	1.1	7	1.37	1.5	0.51	1.71	<0.05	0.17	<0.01
LF06-127	2.63	1.1	7	1.38	13.1	0.75	2.38	<0.05	0.49	<0.01
LF06-133	1.71	0.5	5	0.43	13.5	0.44	1.23	<0.05	1.2	<0.01
LF06-144	3.76	0.9	8	0.2	4.3	0.88	1.97	<0.05	0.07	<0.01

Chemical Analyses of the Lake Fafard Rock Samples

SAMPLE no.	In (ppm)	K (wt. %)	La (ppm)	Li (ppm)	Mg (wt. %)	Mn (ppm)	Mo (ppm)	Na (wt. %)	Nb (ppm)	Ni (ppm)
LF06-18	0.007	0.12	4.7	6.2	0.1	117	0.22	0.07	0.64	1.2
LF06-19	0.016	0.15	23.9	2.7	0.09	139	0.26	0.03	1.05	1.5
LF06-20	0.013	0.22	3.3	13.1	0.21	206	0.19	0.06	0.68	1.1
LF06-22	0.03	0.08	8.6	3.4	0.12	181	0.35	0.03	0.36	1.6
LF06-27	0.007	0.17	9.9	2.8	0.1	108	0.22	0.03	1.62	1.1
LF06-28	0.01	0.23	0.8	12.5	0.19	177	0.16	0.04	0.65	1.4
LF06-31	<0.005	0.2	1,0	1.6	0.04	49	0.22	0.03	0.18	0.9
LF06-32	<0.005	0.14	0.9	4,0	0.07	86	0.22	0.07	0.31	1.2
LF06-33	<0.005	0.18	0.3	0.3	0.01	23	0.22	0.03	0.2	0.9
LF06-34	<0.005	0.07	1.3	2.5	0.05	109	0.15	0.08	0.12	0.9
LF06-35	<0.005	0.1	10,0	2.7	0.06	70	0.23	0.07	0.11	1.4
LF06-42	0.006	0.13	1.2	3,0	0.07	66	0.24	0.06	8.09	1.2
LF06-44	0.026	0.14	3.7	6.9	0.17	117	0.27	0.05	4.05	2.2
LF06-45	0.008	0.13	3.5	2.3	0.06	93	0.18	0.06	0.88	0.9
LF06-46	0.013	0.2	32.5	5.3	0.09	105	0.21	0.04	0.99	0.8
LF06-47	0.013	0.14	5,0	9.3	0.12	146	0.22	0.1	1.3	1.2
LF06-48	0.007	0.17	2.9	5.9	0.07	90	0.25	0.04	1.64	1,0
LF06-50	0.012	0.13	3.4	3.2	0.08	145	0.18	0.05	0.94	0.9
LF06-53	<0.005	0.07	0.8	3.5	0.07	71	0.28	0.06	0.15	1.1
LF06-54	0.018	0.05	2.3	4.1	0.11	199	0.33	0.04	0.27	2.5
LF06-55	0.023	0.27	2.1	11.8	0.27	254	0.29	0.07	0.95	2.7
LF06-56A	0.007	0.06	0.9	2.5	0.05	78	0.19	0.08	0.23	1,0
LF06-56B	0.011	0.05	0.8	4,0	0.1	130	0.24	0.07	0.24	1.9
LF06-58	0.013	0.18	17,0	6.5	0.12	178	0.22	0.06	0.58	1.5
LF06-59	<0.005	0.2	0.7	0.9	0.02	31	0.21	0.03	0.29	0.9
LF06-77	0.015	0.21	7.7	4.3	0.21	95	0.19	0.09	0.47	1.4
LF06-90	0.008	0.27	1.2	7.3	0.11	129	0.23	0.03	1.57	0.8
LF06-90B	0.008	0.19	1.7	14.7	0.17	191	0.19	0.05	0.61	0.8
LF06-91A	<0.005	0.19	0.6	0.4	0.02	74	0.24	0.02	0.07	0.9
LF06-91B	0.006	0.12	1.2	4.7	0.1	104	0.15	0.07	0.27	0.6
LF06-96	<0.005	0.16	1.5	3.4	0.07	82	0.24	0.06	0.31	1,0
LF06-102	0.01	0.48	8.9	16.2	0.7	258	0.2	0.05	0.36	2.3
LF06-108	0.005	0.18	1.2	3,0	0.07	88	41,00	0.05	0.24	1.1
LF06-110	0.017	0.26	3.5	14.1	0.29	191	0.37	0.06	0.8	1.6
LF06-121	<0.005	0.15	2.6	6.1	0.15	87	0.35	0.08	0.29	1.2
LF06-127	0.008	0.15	0.9	8.4	0.18	98	0.25	0.07	0.54	2.4
LF06-133	<0.005	0.15	0.7	1.3	0.03	43	0.23	0.05	0.46	1.3
LF06-144	0.01	0.14	1.9	1.2	0.09	89	0.17	0.04	0.34	5,0

Chemical Analyses of the Lake Fafard Rock Samples

SAMPLE no.	P (ppm)	Pb (ppm)	Rb (ppm)	Re (ppm)	S (wt. %)	Sb (ppm)	Sc (ppm)	Se (ppm)	Sn (ppm)	Sr (ppm)
LF06-18	30	10.3	11.3	<0.001	<0.01	0.12	0.8	<0.2	0.5	8.3
LF06-19	40	148.5	7.3	0.001	<0.01	0.2	0.7	0.4	0.8	7.9
LF06-20	20	10.6	28.6	<0.001	<0.01	0.14	1.5	<0.2	1,0	6.1
LF06-22	60	140.5	4.5	0.002	<0.01	0.44	0.8	0.2	1.2	5.4
LF06-27	40	68.8	7.1	0.001	<0.01	0.1	0.6	0.3	0.5	7.1
LF06-28	20	10,0	18.1	<0.001	<0.01	0.09	1.2	<0.2	0.8	6.6
LF06-31	10	7.1	8.2	<0.001	<0.01	0.07	0.3	<0.2	<0.2	6.6
LF06-32	20	7.2	9.6	<0.001	<0.01	0.12	0.5	<0.2	0.3	6.3
LF06-33	10	1.7	8.1	<0.001	<0.01	<0.05	0.3	<0.2	<0.2	6.3
LF06-34	20	29.9	3.3	<0.001	<0.01	0.11	0.4	<0.2	0.3	6.3
LF06-35	30	4.7	4.6	<0.001	<0.01	0.11	0.4	<0.2	0.2	5.8
LF06-42	10	14.5	8.2	<0.001	<0.01	0.21	0.5	0.6	0.4	6.3
LF06-44	50	33.3	11.2	<0.001	<0.01	0.22	1.1	1.3	0.8	7.7
LF06-45	30	17.2	8,0	<0.001	<0.01	0.17	0.4	0.8	0.3	7.7
LF06-46	10	17,0	15.9	<0.001	<0.01	0.15	0.9	0.6	0.5	10.8
LF06-47	40	8.2	19.1	<0.001	<0.01	0.2	1.1	0.7	0.9	9.3
LF06-48	20	7.4	12.7	<0.001	<0.01	0.15	0.7	0.3	0.5	7.1
LF06-50	30	30.2	8,0	<0.001	<0.01	0.17	0.5	0.8	0.5	7.8
LF06-53	10	6.3	5,0	<0.001	<0.01	0.07	0.3	0.3	0.2	5.6
LF06-54	60	69.7	2.8	0.001	<0.01	0.17	0.8	2.1	0.7	5.2
LF06-55	40	21.2	31.2	<0.001	<0.01	0.12	2.3	1,0	1.4	7.7
LF06-56A	30	30.8	3.3	<0.001	<0.01	0.16	0.4	0.8	0.2	6.8
LF06-56B	40	53.9	3,0	<0.001	<0.01	0.16	0.6	1.3	0.5	7,0
LF06-58	30	26.6	17.2	<0.001	<0.01	0.13	0.8	0.7	0.6	8.9
LF06-59	<10	2.8	10.8	<0.001	<0.01	<0.05	0.5	<0.2	0.2	6.7
LF06-77	80	18.7	15.9	<0.001	0.02	0.09	1,0	0.3	0.4	14.1
LF06-90	60	9.7	19.2	<0.001	<0.01	0.23	1.2	<0.2	0.7	8.9
LF06-90B	70	14.3	17.8	<0.001	<0.01	0.19	0.9	0.3	0.6	8.1
LF06-91A	20	10.5	8.6	<0.001	<0.01	0.09	0.2	<0.2	<0.2	7.7
LF06-91B	70	13.3	7.8	<0.001	<0.01	0.18	0.5	0.4	0.3	10.6
LF06-96	40	5.6	10.8	<0.001	<0.01	0.16	0.5	0.2	0.3	9.2
LF06-102	30	1.8	38.2	<0.001	<0.01	0.06	2.4	<0.2	0.5	10,0
LF06-108	20	27.3	11.5	0.003	<0.01	0.11	0.4	0.6	0.2	10.1
LF06-110	110	30.3	26.2	<0.001	<0.01	0.14	1.5	0.5	0.8	7.4
LF06-121	100	7.1	12.2	<0.001	<0.01	0.15	0.6	0.3	0.2	18.1
LF06-127	60	11.3	14.3	<0.001	<0.01	0.07	0.7	0.5	0.3	6.9
LF06-133	20	11,0	8.8	<0.001	<0.01	0.14	0.3	0.3	0.2	6.7
LF06-144	10	3,0	8.5	<0.001	<0.01	0.07	0.6	0.2	0.7	4.9

Chemical Analyses of the Lake Fafard Rock Samples

SAMPLE no.	Ta (ppm)	Te (ppm)	Ti (ppm)	Tl (ppm)	V (ppm)	W (ppm)	Y (ppm)	Zn (ppm)	Zr (ppm)
LF06-18	0.01	<0.01	0.017	0.06	2	0.24	44.8	13	4.4
LF06-19	0.06	0.01	0.008	0.04	18	0.58	181.5	35	45.4
LF06-20	0.01	0.01	0.038	0.16	3	0.18	22.6	25	4.5
LF06-22	0.05	<0.01	0.018	0.03	34	0.62	221,00	70	181.5
LF06-27	0.04	<0.01	0.005	0.04	9	0.56	94.3	20	55.3
LF06-28	0.01	<0.01	0.029	0.1	5	0.14	29.4	20	22.9
LF06-31	<0.01	<0.01	<0.005	0.04	2	0.1	18.35	16	7.2
LF06-32	0.01	<0.01	0.007	0.05	3	0.13	22.5	24	9.7
LF06-33	<0.01	0.01	<0.005	0.04	<1	0.06	0.85	2	1.1
LF06-34	0.01	<0.01	<0.005	<0.02	8	0.14	48.1	12	19.8
LF06-35	<0.01	<0.01	<0.005	0.02	5	0.13	15.65	14	13.1
LF06-42	0.02	<0.01	0.005	0.02	2	0.85	28.7	60	19.3
LF06-44	0.05	<0.01	0.015	0.03	9	0.59	69.5	184	88.3
LF06-45	0.01	<0.01	0.006	<0.02	8	0.14	51.5	80	26.8
LF06-46	0.01	0.01	0.012	0.05	3	0.08	30.8	19	3,0
LF06-47	0.01	<0.01	0.025	0.07	2	0.26	44.2	23	3,0
LF06-48	0.01	<0.01	0.012	0.03	1	0.12	27,00	17	2.8
LF06-50	0.01	<0.01	0.007	0.02	11	0.12	63,00	29	15.5
LF06-53	<0.01	<0.01	<0.005	<0.02	1	<0.05	21.3	7	14.5
LF06-54	0.03	0.01	0.012	<0.02	26	0.24	174.5	34	41.7
LF06-55	0.02	<0.01	0.053	0.14	8	0.13	70,00	34	18.7
LF06-56A	0.01	<0.01	<0.005	<0.02	4	<0.05	56.2	24	33.1
LF06-56B	0.02	0.01	0.006	<0.02	15	0.06	88.5	23	61.7
LF06-58	0.01	<0.01	0.017	0.05	10	<0.05	44.7	38	18.8
LF06-59	<0.01	<0.01	<0.005	0.02	<1	<0.05	2.93	5	1.6
LF06-77	<0.01	0.05	0.041	0.05	5	<0.05	6.3	14	2,0
LF06-90	<0.01	<0.01	0.029	0.06	2	0.1	5.64	53	6.1
LF06-90B	<0.01	<0.01	0.023	0.05	4	0.06	19.6	26	9.8
LF06-91A	<0.01	<0.01	<0.005	<0.02	<1	<0.05	4.67	9	1.8
LF06-91B	<0.01	<0.01	0.007	<0.02	5	0.05	21.2	12	11.7
LF06-96	<0.01	<0.01	0.009	0.02	3	<0.05	15.55	9	4.7
LF06-102	<0.01	<0.01	0.118	0.17	13	<0.05	3.83	27	3.8
LF06-108	0.01	0.01	0.009	0.04	1	0.11	34.9	70	11.4
LF06-110	0.01	<0.01	0.05	0.12	10	0.08	23.8	243	5.8
LF06-121	<0.01	<0.01	0.019	0.02	2	0.11	12.3	11	3.8
LF06-127	0.01	<0.01	0.023	0.04	3	0.05	26.7	42	11.7
LF06-133	<0.01	<0.01	<0.005	<0.02	4	0.1	20.3	13	20.7
LF06-144	<0.01	<0.01	0.006	<0.02	7	<0.05	10.95	22	2.3

Major and trace element analyses of selected Lake Fafard granitic pegmatites (2007)

Sample	SiO_2 (wt.%)*	Al_2O_3 (wt.%)	Fe_2O_3 (wt.%)	MgO (wt.%)	CaO (wt.%)	Na_2O (wt.%)	K_2O (wt.%)	TiO_2 (wt.%)	P_2O_5 (wt.%)	MnO (wt.%)
LFMB2007-01	75.98	13.67	1.32	0.55	2.61	4.25	1.07	0.12	0.024	0.02
LFMB2007-02	74.26	14.08	0.42	0.14	0.48	2.49	7.37	<0.01	0.018	<0.01
LFMB2007-03	72.68	16.48	0.59	0.19	2.95	5.43	1.20	0.03	0.035	0.01
LFMB2007-08	47.90	12.68	16.56	10.43	2.54	0.18	0.20	2.28	0.280	0.30
LFMB2007-10	70.56	15.65	0.92	0.23	0.99	3.33	6.84	0.04	0.099	0.02
LFMB2007-11	72.41	14.20	1.58	0.34	0.55	2.62	7.23	0.08	0.050	0.02
LFMB2007-12	78.87	11.68	1.18	0.34	1.55	3.76	1.76	0.08	0.031	0.03

Sample	Cr_2O_3 (wt.%)	Ni (ppm)	Sc (ppm)	LOI (wt.%)	Sum (wt.%)	Ba (ppm)	Be (ppm)	Co (ppm)	Cs (ppm)	Ga (ppm)
LFMB2007-01	0.003	<20	2	0.3	99.91	272	2	1.8	2.3	13.1
LFMB2007-02	<0.002	<20	<1	0.4	99.67	2614	<1	0.8	2.8	11.3
LFMB2007-03	0.002	<20	<1	0.3	99.91	267	2	0.8	1.3	14.9
LFMB2007-08	0.023	82	50	6.4	99.76	38	<1	62.4	0.1	14.9
LFMB2007-10	<0.002	<20	4	0.6	99.28	2168	2	1.3	4.2	13.5
LFMB2007-11	<0.002	20	2	0.6	99.67	1964	1	1.7	5.4	14.8
LFMB2007-12	0.003	<20	2	0.4	99.69	473	2	1.4	3.6	12.3

Sample	Hf (ppm)	Nb (ppm)	Rb (ppm)	Sn (ppm)	Sr (ppm)	Rb/Sr	Ta (ppm)	Th (ppm)	U (ppm)	V (ppm)
LFMB2007-01	1.2	4.5	32.8	<1	328.9	0.10	0.3	26.7	18.4	<8
LFMB2007-02	0.7	0.7	126.5	<1	255.3	0.50	<0.1	10.4	3.7	<8
LFMB2007-03	0.7	2.4	20.1	<1	320.8	0.06	<0.1	15.9	7.6	<8
LFMB2007-08	3.6	4.8	2.8	1	101.4	0.03	0.2	0.8	5.6	240
LFMB2007-10	10.8	9.1	207.0	1	264.8	0.78	0.5	498.7	202.8	<8
LFMB2007-11	4.5	3.7	229.3	1	186.4	1.23	0.3	78.7	66.3	9
LFMB2007-12	8.7	9.4	70.5	2	174.3	0.40	0.5	305.8	640.7	<8

Sample	W (ppm)	Zr (ppm)	Y (ppm)	La (ppm)	Ce (ppm)	Pr (ppm)	Nd (ppm)	Sm (ppm)	Eu (ppm)	Gd (ppm)
LFMB2007-01	<0.5	29.1	27.7	15.0	30.0	3.84	14.3	2.92	0.62	3.00
LFMB2007-02	<0.5	14.9	11.7	2.0	3.7	0.19	1.5	0.43	0.42	0.77
LFMB2007-03	0.9	17.4	83.0	1.7	3.3	0.18	2.0	1.20	0.62	3.42
LFMB2007-08	1.4	122.9	34.5	8.0	18.7	2.80	15.4	4.38	1.35	5.52
LFMB2007-10	0.7	295.5	909.4	250.3	615.1	77.52	280.3	60.11	3.42	72.96
LFMB2007-11	<0.5	106.5	265.8	4.1	9.8	1.16	7.7	4.36	0.66	10.71
LFMB2007-12	<0.5	200.9	419.9	31.7	51.7	9.85	41.7	14.49	1.19	26.34

* Lithium metborate/tetraborate fusion and nitric acid digestion of 0.1 g sample followed by ICP-MS analyses

Major and trace element analyses of selected Lake Fafard granitic pegmatites (2007)

Sample	Tb (ppm)	Dy (ppm)	Ho (ppm)	Er (ppm)	Tm (ppm)	Yb (ppm)	Lu (ppm)	TOTAL C (wt.%)[@]	TOTAL S (wt.%)	Mo (ppm)#
LFMB2007-01	0.55	3.55	0.89	2.91	0.47	3.33	0.52	0.05	0.02	0.4
LFMB2007-02	0.20	1.43	0.33	1.16	0.23	1.57	0.27	0.05	<0.02	0.4
LFMB2007-03	0.93	7.98	2.24	8.14	1.56	11.01	1.87	0.03	0.02	0.3
LFMB2007-08	1.00	5.86	1.28	3.66	0.60	3.70	0.53	0.04	0.02	0.1
LFMB2007-10	13.81	104.51	28.13	97.36	17.23	118.59	20.21	0.09	0.02	0.4
LFMB2007-11	2.92	24.46	7.14	26.05	5.17	36.80	6.74	0.03	<0.02	0.3
LFMB2007-12	6.36	51.48	14.04	48.40	8.60	57.41	9.43	0.04	<0.02	0.5

Sample	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ni (ppm)	As (ppm)	Cd (ppm)	Sb (ppm)	Bi (ppm)	Ag (ppm)	Au (ppm)
LFMB2007-01	4.4	3.4	32	5.1	0.7	<0.1	<0.1	<0.1	<0.1	<0.5
LFMB2007-02	11.9	2.2	10	2.0	0.8	<0.1	<0.1	<0.1	<0.1	<0.5
LFMB2007-03	72.6	7.0	20	1.3	0.7	<0.1	<0.1	<0.1	<0.1	0.9
LFMB2007-08	25.0	0.7	180	73.2	0.7	<0.1	<0.1	<0.1	<0.1	1.0
LFMB2007-10	16.5	6.7	17	1.8	2.5	<0.1	0.4	<0.1	36.7	<0.5
LFMB2007-11	7.7	3.3	36	2.2	0.7	<0.1	0.1	<0.1	<0.1	<0.5
LFMB2007-12	3.5	144.5	41	2.1	2.0	<0.1	0.3	<0.1	<0.1	<0.5

Sample	Hg (ppm)	Tl (ppm)	Sc (ppm)
LFMB2007-01	<0.01	0.1	<0.5
LFMB2007-02	<0.01	<0.1	<0.5
LFMB2007-03	<0.01	<0.1	<0.5
LFMB2007-08	<0.01	<0.1	<0.5
LFMB2007-10	0.09	<0.1	2.3
LFMB2007-11	<0.01	<0.1	<0.5
LFMB2007-12	<0.01	0.2	1.4

0.5 g of powder sample leached in hot (95°C) aqua regia and analyzed by ICP-ES

[&] Leco analyses

Trace element analyses of selected lake Fafard granitic pegmatites (2007)

Sample	Ba (ppm)*	Be (ppm)	Co (ppm)	Cs (ppm)	Ga (ppm)	Hf (ppm)	Nb (ppm)	Rb (ppm)	Sn (ppm)	Sr (ppm)
LFMB2007-04	2773	1	1.2	2.7	10.8	4.8	1.3	118.1	<1	247.3
LFMB2007-05	1213	<1	0.5	8.3	13.7	1.3	5.8	316.6	<1	116.5
LFMB2007-06	874	2	0.4	3.6	15.2	0.2	7.0	141.1	<1	128.7
LFMB2007-07	342	2	0.4	2.2	15.5	1.7	2.5	90.9	<1	106.0
LFMB2007-09	615	1	0.5	2.8	15.1	10.3	25.8	146.4	1	91.2
LFMB2007-13	1534	1	0.7	5.7	18.7	2.9	4.6	240.9	<1	188.2
LFMB2007-14	1004	<1	1.2	5.3	12.6	12.5	2.6	137.0	2	117.7
LFMB2007-15	507	2	2.7	3.8	17.1	6.7	7.9	84.4	2	191.2
LFMB2007-16	465	<1	4.0	2.6	14.7	3.1	1.5	67.5	1	224.3
LFLC2007-01	12	<1	1.1	0.1	4.3	23.8	1154.2	2.2	6	7.8
LFLC2007-02	255	1	1.3	1.1	10.1	60.7	1043.1	60.2	5	30.5
LFLC2007-03	143	1	1.2	0.6	13.1	0.6	50.3	25.3	2	76.5
LFLC2007-04	496	<1	0.4	1.9	18.3	0.4	4.0	209.5	1	30.9
LFLC2007-05	68	2	2.5	0.2	21.5	10.3	119.2	12.7	7	40.6

Sample	Ta (ppm)	Th (ppm)	U (ppm)	V (ppm)	W (ppm)	Zr (ppm)	Y (ppm)	La (ppm)	Ce (ppm)	Pr (ppm)
LFMB2007-04	<0.1	58.4	57.7	<8	<0.5	99.0	238.7	1.7	3.6	0.28
LFMB2007-05	0.7	10.9	4.5	<8	0.5	30.0	39.5	1.1	2.1	0.06
LFMB2007-06	1.3	4.7	6.9	<8	<0.5	3.4	10.7	0.9	1.7	<0.02
LFMB2007-07	0.3	22.6	7.2	<8	<0.5	38.4	45.2	1.5	3.4	0.15
LFMB2007-09	0.5	71.0	85.5	<8	1.0	230.9	57.6	1.3	2.5	0.15
LFMB2007-13	0.3	30.2	29.0	<8	<0.5	65.4	88.1	2.9	5.0	0.39
LFMB2007-14	<0.1	282.7	303.8	9	<0.5	250.7	380.6	4.8	11.2	1.39
LFMB2007-15	0.1	234.5	149.9	10	<0.5	154.8	1757.1	2.4	6.2	1.39
LFMB2007-16	0.3	192.1	18.4	117	0.8	72.7	441.2	91.2	202.2	25.67
LFLC2007-01	63.6	222.2	629.7	<8	21.0	548.7	613.9	0.9	11.2	2.30
LFLC2007-02	32.5	1197.3	644.7	<8	22.0	1388.5	583.2	26.1	90.9	9.74
LFLC2007-03	2.7	18.9	27.9	22	1.2	13.9	41.2	5.0	7.0	0.96
LFLC2007-04	<0.1	16.4	17.1	14	1.3	7.8	17.0	45.2	92.8	10.39
LFLC2007-05	1.6	6.0	41.6	19	3.1	258.7	45.0	2.7	4.2	0.52

* Lithium metborate/tetraborate fusion and nitric acid digestion of 0.1 g sample followed by ICP-MS analyses

Trace element analyses of selected lake Fafard granitic pegmatites (2007)

Sample	Nd (ppm)	Sm (ppm)	Eu (ppm)	Gd (ppm)	Tb (ppm)	Dy (ppm)	Ho (ppm)	Er (ppm)	Tm (ppm)	Yb (ppm)
LFMB2007-04	3.5	3.58	0.55	10.39	2.50	23.50	6.43	24.50	4.65	36.39
LFMB2007-05	1.6	0.82	0.27	1.96	0.31	4.01	0.83	3.78	0.59	5.55
LFMB2007-06	0.8	0.38	0.21	0.64	0.03	1.36	0.22	1.23	0.10	1.73
LFMB2007-07	1.8	0.83	0.24	1.91	0.36	4.34	1.20	4.64	0.74	6.33
LFMB2007-09	1.9	1.29	0.44	2.94	0.63	7.12	2.04	7.27	1.13	8.07
LFMB2007-13	2.9	1.53	0.38	3.65	0.78	8.60	2.58	9.21	1.47	10.79
LFMB2007-14	9.0	6.30	0.56	16.66	4.08	37.71	10.74	40.09	7.30	54.75
LFMB2007-15	16.2	21.31	1.57	70.23	18.25	167.36	48.60	188.43	35.74	268.60
LFMB2007-16	107.0	25.37	4.11	34.00	7.83	56.91	14.33	47.25	7.80	52.00
LFLC2007-01	22.4	19.75	1.02	44.82	12.06	105.50	28.75	101.05	17.29	118.94
LFLC2007-02	49.7	22.97	1.39	47.27	12.74	111.37	30.12	103.73	17.02	111.20
LFLC2007-03	3.5	1.53	0.31	2.95	0.85	6.61	1.84	5.90	1.04	6.54
LFLC2007-04	36.8	4.46	0.66	2.69	0.49	3.07	0.64	2.00	0.38	2.29
LFLC2007-05	2.6	1.67	0.54	4.01	1.13	9.07	2.41	7.95	1.38	8.22

Sample	Lu (ppm)	Mo (ppm)#	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Ni (ppm)	Co (ppm)	Mn (wt.%)	Fe (wt.%)
LFMB2007-04	6.28	26.9	23.1	7.1	59	0.2	1.2	0.8	74	0.27
LFMB2007-05	0.88	0.2	3.3	3.6	7	<0.1	0.9	0.3	28	0.16
LFMB2007-06	0.20	1.0	6.7	3.0	13	<0.1	2.9	0.3	42	0.29
LFMB2007-07	1.02	0.3	18.7	3.2	8	0.1	1.2	0.2	45	0.26
LFMB2007-09	1.47	0.4	2.7	8.2	8	<0.1	1.0	0.4	67	0.72
LFMB2007-13	2.10	0.3	1.9	8.1	22	<0.1	1.3	0.5	86	0.51
LFMB2007-14	9.23	0.3	3.1	23.7	34	<0.1	1.3	1.0	133	1.13
LFMB2007-15	46.13	0.4	3.8	14.0	49	<0.1	3.1	2.7	291	1.79
LFMB2007-16	7.98	0.2	19.8	5.1	8	<0.1	3.3	3.4	114	0.87
LFLC2007-01	18.02	0.4	1.2	8.0	45	<0.1	1.5	0.9	121	1.73
LFLC2007-02	16.29	0.6	7.7	111.5	29	0.2	2.7	1.1	94	1.24
LFLC2007-03	0.96	0.4	1.8	3.7	17	<0.1	2.3	0.8	88	0.77
LFLC2007-04	0.31	0.4	4.3	1.3	7	<0.1	1.1	0.2	74	0.86
LFLC2007-05	1.27	1.9	1.1	0.8	55	<0.1	1.8	1.9	156	5.45

0.5 g of powder sample leached in hot (95°C) aqua regia and analyzed by ICP-ES

Trace element analyses of selected lake Fafard granitic pegmatites (2007)

Sample	As (ppm)	U (ppm)	Au (ppm	Th (ppm)	Sr (ppm)	Cd (ppm)	Sb (ppm)	Bi (ppm)	V (ppm)	Ca (wt.%)
LFMB2007-04	1.2	54.9	2.1	51.4	6	0.1	0.1	<0.1	<2	0.06
LFMB2007-05	<0.5	3.2	0.9	6.2	3	<0.1	<0.1	<0.1	<2	<0.01
LFMB2007-06	<0.5	6.9	3.2	3.2	6	<0.1	0.1	<0.1	<2	0.05
LFMB2007-07	0.6	5.7	0.6	17.1	2	<0.1	<0.1	0.3	<2	0.02
LFMB2007-09	0.5	78.4	1.8	63.7	5	<0.1	0.1	<0.1	<2	0.11
LFMB2007-13	<0.5	27.4	<0.5	26.4	6	<0.1	0.1	<0.1	<2	0.05
LFMB2007-14	0.9	268.8	<0.5	234.5	4	<0.1	0.2	<0.1	10	0.11
LFMB2007-15	<0.5	114.1	<0.5	178.9	6	<0.1	0.1	<0.1	10	0.06
LFMB2007-16	2.7	13.8	2.8	168.5	37	<0.1	0.3	0.3	71	0.39
LFLC2007-01	0.6	440.2	218.7	157.9	4	<0.1	<0.1	<0.1	6	0.02
LFLC2007-02	1.7	484.2	60.8	948.1	4	<0.1	0.3	0.1	6	0.02
LFLC2007-03	<0.5	23.8	0.9	17.1	3	<0.1	<0.1	<0.1	4	0.04
LFLC2007-04	<0.5	14.4	<0.5	14.5	3	<0.1	<0.1	<0.1	<2	0.01
LFLC2007-05	<0.5	32.3	2.9	4.9	1	<0.1	<0.1	<0.1	5	0.02

Sample	P (wt.%)	La (ppm)	Cr (ppm)	Mg (ppm)	Ba (ppm)	Ti (wt.%)	B (ppm)	Al (wt.%)	Na (wt.%)	K (wt.%)
LFMB2007-04	0.002	<1	5	0.07	64	0.009	<20	0.20	0.033	0.12
LFMB2007-05	0.001	<1	5	0.01	17	0.003	<20	0.10	0.018	0.11
LFMB2007-06	0.006	<1	5	0.02	38	0.003	<20	0.24	0.087	0.15
LFMB2007-07	0.002	<1	6	0.02	7	0.002	<20	0.14	0.042	0.05
LFMB2007-09	<0.001	<1	6	0.06	20	0.003	<20	0.20	0.033	0.08
LFMB2007-13	0.001	2	6	0.08	29	0.002	<20	0.22	0.028	0.10
LFMB2007-14	0.003	5	7	0.10	24	0.008	<20	0.22	0.024	0.09
LFMB2007-15	0.005	1	6	0.33	47	0.060	<20	0.62	0.049	0.34
LFMB2007-16	0.027	59	3	0.27	15	0.011	<20	0.68	0.040	0.08
LFLC2007-01	<0.001	<1	12	<0.01	7	0.080	<20	0.03	0.005	<0.01
LFLC2007-02	0.001	21	6	0.08	12	0.044	<20	0.21	0.012	0.04
LFLC2007-03	0.001	1	7	0.04	6	0.007	<20	0.14	0.046	0.04
LFLC2007-04	0.003	26	6	0.03	12	0.002	<20	0.18	0.022	0.07
LFLC2007-05	0.001	<1	8	0.04	3	0.024	<20	0.16	0.043	0.03

Trace element analyses of selected lake Fafard granitic pegmatites (2007)

Sample	W (ppm)	Hg (ppm)	Sc (ppm)	Tl (ppm)	S (wt.%)	Ga (ppm)	Se (ppm)
LFMB2007-04	0.1	<0.01	0.2	<0.1	<0.05	<1	<0.5
LFMB2007-05	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5
LFMB2007-06	0.2	<0.01	0.1	<0.1	<0.05	1	<0.5
LFMB2007-07	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5
LFMB2007-09	0.6	<0.01	<0.1	<0.1	<0.05	2	<0.5
LFMB2007-13	<0.1	<0.01	0.1	<0.1	<0.05	2	<0.5
LFMB2007-14	0.2	<0.01	0.2	<0.1	<0.05	3	0.7
LFMB2007-15	0.1	<0.01	1.6	0.2	<0.05	4	0.8
LFMB2007-16	0.2	<0.01	0.5	<0.1	<0.05	3	1.1
LFLC2007-01	5.6	<0.01	0.3	<0.1	<0.05	2	4.7
LFLC2007-02	6.1	0.01	0.5	<0.1	<0.05	4	4.7
LFLC2007-03	0.5	<0.01	0.1	<0.1	<0.05	1	<0.5
LFLC2007-04	0.4	<0.01	<0.1	<0.1	<0.05	3	<0.5
LFLC2007-05	0.8	<0.01	0.2	<0.1	<0.05	9	<0.5

ANNEX 2

ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: **GEOTRONICS**
6204-125 STREET
SURREY BC V3X 2E1

Finalized Date: 10-NOV-2006
This copy reported on 21-NOV-2006
Account: GEOTRON

CERTIFICATE VO06083709

Project: LAC FAFARD
P.O. No.:
This report is for 40 Rock samples submitted to our lab in Val d'Or, QC, Canada on 25-AUG-2006.

The following have access to data associated with this certificate:

DAVID MARK	MICHEL PROULX	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
PUL-QC	Pulverizing QC Test
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP61	27 element four acid ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
PGM-ICP23	Pt, Pd, Au 30g FA ICP	ICP-AES
ME-MS41	51 anal. aqua regia ICPMS	

To: **GEOTRONICS**
ATTN: DAVID MARK
6204-125 STREET
SURREY BC V3X 2E1

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

AcmeLabs ACME ANALYTICAL LABORATORIES LTD.

852 E. Hastings St. Vancouver BC V6A 1R6 Canada
Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: **GEON**
10785 rue St-Urbain
Montreal QC H3L 2V4 Canada

Submitted By:	Michel Boily
Receiving Lab:	Acme Analytical Laboratories (Vancouver) Ltd.
Received:	September 21, 2007
Report Date:	January 21, 2008
Page:	1 of 2

CERTIFICATE OF ANALYSIS VAN07002353.1

CLIENT JOB INFORMATION

Project:	Lake Fafard
Shipment ID:	11995990-6
P.O. Number	
Number of Samples:	14

SAMPLE DISPOSAL

RTRN-RJT Return

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

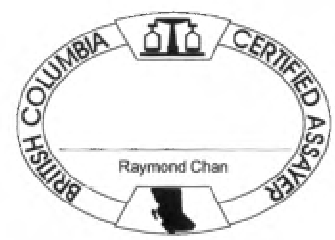
SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status
R150	14	Crush, split and pulverize rock to 150 mesh		
4B	14	LiBO2/LIB4O7 fusion ICP-MS analysis	0.2	Completed

ADDITIONAL COMMENTS

Invoice To: On Track Exploration
6498 - 128 B St.
Surrey BC V3W 9P4
Canada

CC: Fayz Yacoub



AcmeLabs ACME ANALYTICAL LABORATORIES LTD.
852 E. Hastings St. Vancouver BC V6A 1R6 Canada
Phone (604) 253-3158 Fax (604) 253-1716
www.acmelab.com

Client:	**GEON** 10785 rue St-Urbain Montreal QC H3L 2V4 Canada
Submitted By:	Michel Boily
Receiving Lab:	Acme Analytical Laboratories (Vancouver) Ltd.
Received:	September 21, 2007
Report Date:	December 20, 2007
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CERTIFICATE OF ANALYSIS VAN07002354.1

CLIENT JOB INFORMATION

Project:	Lake Fafard
Shipment ID:	11995990-6
P.O. Number	
Number of Samples:	7

SAMPLE DISPOSAL

RTRN-RJT Return

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status
R150	7	Crush, split and pulverize rock to 150 mesh		
4A&4B	7	Whole Rock Analysis Majors and Trace Elements.	0.2	Completed

ADDITIONAL COMMENTS

Invoice To: On Track Exploration
6498 - 128 B St.
Surrey BC V3W 9P4
Canada

CC: Fayz Yacoub