Assessment Report on the 2013 Exploration Programme: Lac Jeannine Lake Property

PROVINCE OF QUEBEC
NTS MAP-SHEETS 22N/16

for

CARTIER**IRON**
CORPORATION

by
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1. EXECUTIVE SUMMARY

This Report was prepared for Cartier Iron Corporation ("Cartier Iron", or "the Company"), a Canadian based, publicly-held company trading on the Canadian National Stock Exchange (CNSX) under the symbol "CFE". The purpose of this report is to provide a summary of the 2013 surface exploration programme completed on the Lac Jeannine Lake group of claims (the "Lac Jeannine Lake Project", or the "Prospect", or the "Property") and to provide recommendations for further exploration.

On September 28, 2012, Cartier Iron Corp. (known as Northfield Metals Inc. at the time) announced the execution of a Binding Provisional Agreement (the "Agreement") with Champion Iron Mines Limited (the "Vendor"), granting Cartier the option to acquire a 65% interest in seven (7) iron-rich mineral concessions (the "Gagnon Holdings") comprising 378 claims, totalling 200.24 square kilometres (km^2) in the Gagnon Terrane of the southern Labrador Trough, north-eastern Québec. At the time, the Gagnon Holdings comprised the Aubrey-Ernie, Aubertin-Tougard, Lac Jeannine Lake, Blake Dan, Lac Jeannine Lake, Penguin Lake, and Silicate-Brutus concessions.

In February 2013, three (3) of these mineral concessions; Penguin Lake, Black Dan and Aubrey-Ernie, along with new claims staked by Cartier Iron, were amalgamated into the Round Lake Property (*see Cartier Iron press release of February 20, 2013*). The Gagnon Holdings now comprise 5 distinct claim blocks covering 344 km^2.

The Lac Jeannine Lake group of claims are within National Topographic System (NTS) Map Sheet 22N/16, approximately 130 km southwest of the town of Fermont (Québec), in Conan and Godefroy townships, in the District (County) of Saguenay. The area is also delineated as part of the Regional Municipality of Caniapiscau.

The Prospect comprises 13 mineral claims in good standing, and covers a surface area of 691.69 hectares or 6.92 km^2. The centre of claim group is approximately at Latitude 51°51'00" North and Longitude 68°04'30" West, having Universal Transverse Mercator (UTM) coordinates 563850 East, 5744750 North in Zone 19 of the North American Datum (NAD) 83 coordinate system.

Cartier Iron's Gagnon Holdings lie within the southern domain (the Gagnon Terrane) of the Paleo-Proterozoic fold and thrust belt known as the Labrador Trough, which hosts extensive Lake Superior-type iron formations in the Knob Lake Group.

The bedrock in the Gagnon Terrane is characterized by open to tight, upright and overturned, shallowly plunging folds that refold early recumbent folds; at least 3 stages of deformation are readily evident from fold interference patterns. Tectonic repetition and thickening of the formations comprising the Knob Lake Group is common. The style and intensity of deformation are important factors economically, as it is the thickened, near-surface, synformal hinges of Knob Lake Group rocks that are most favourable for open pit mining. Metamorphism of the Gagnon Terrane during the Grenville Orogeny recrystallized the primary iron formations, producing coarse-grained sugary quartz, magnetite, and specular hematite schists; the target of Cartier Iron's exploration programmes.

The Lac Jeannine Lake claims encompass the area of the former Lac Jeannine open pit mine, from which 265,897,000 tons of ore, at 33% Fe (iron) was extracted from 1961 to 1976. The Prospect also covers the "tailings pile", the area where the tailings from the on-site ore concentrator were deposited. In 1984 the Lac Jeannine Lake mining and processing facilities were shut down and the site reclaimed.

The 2013 exploration programme at Lac Jeannine Lake comprised an aerial- and ground-reconnaissance, and tailings-sampling programme, on the Lac Jeannine Lake tailings-pile, the details and analytical results of which are described in this report. A total of 31 samples were collected, from which 10 samples were sent for assay. The work was carried out during August and October of 2013. In addition, several office days were spent preparing for, and following, the field work on the Lac Jeannine Lake Property.

Careful perusal of available historic documents suggests that the surface tailings that are present on the Prospect contain a potential iron resource, the true grade and amount of which have yet to be determined.

The Author concludes that the Lac Jeannine Lake Lakes claim block has merit with regard to potential iron resources and should be the subject of continued exploration; however, before proceeding with any comprehensive exploration work, a thorough investigation of the environmental liabilities to the Company, with respect to the tailings on the Property, should be effected.

2. INTRODUCTION

This Report was prepared for Cartier Iron Corp., a Canadian based, publicly-held company trading on the Canadian National Stock Exchange (CNSX) under the symbol of CFE. The purpose of this report is to provide a summary of the 2013 surface exploration programme completed on the Lac Jeannine Lake Prospect, and to provide recommendations for further exploration.

The Lac Jeannine Lake claims are part of Cartier's portfolio of mineral concessions - known as the Gagnon Holdings - that are located in the Gagnon Terrane of northeastern Quebec, within the Regional Municipality of Caniapiscau, Quebec, Canada (***Table 1***, ***Figure 1*** and ***Figure 2***).

Table 1: Summary of Cartier Iron's Gagnon Holdings

Property	# of claims	Area (ha)	Area (km^2)
Aubertin-Tougard	52	2,758.59	27.59
Big Three Lake	9	476.86	4.77
Lac Jeannine Lake	13	691.69	6.92
Round Lake*	519	27,465.86	274.66
Silicate-Brutus	56	2,974.70	29.75
Totals (August, 2013)	**649**	**34,367.70**	**343.69**

**Includes mineral concessions formerly known as Penguin Lake, Black Dan and Aubrey-Ernie.*

This Report provides details of the 2013 surface exploration campaign on the Property, which included the collection of two sets of tailings samples. The objective of the programme was to help make a preliminary evaluation of the potential of the Lac Jeannine Lake Mine tailings as an iron resource.

This Report was prepared by John Langton, M.Sc., P. Geo., (the "Author"), of MRB & Associates (Val-d'Or, Quebec), in accordance with Ministère des Ressources naturelles et de la Faune du Quebec (MRNFQ) standards of disclosure for mineral projects.

The bulk of the historical geological information was distilled from documents obtained from the SIGEOM/EXAMINE database of the MRNFQ, and incorporates all known assessment work data filed by exploration companies, as well as geological work performed or commissioned by the Quebec government, and Champion Iron Mines Inc. In addition the Author made use of publicly available Assessment Reports, on-line resources, publications of the Geological Survey of Canada, scientific papers from various earth science Journals and internal company documents from various companies that have carried out previous work in the area. Results and details pertaining to the 2013 exploration programme are provided by Cartier Iron Corp. A list of the principal material reviewed and used in the preparation of this document is included in the References section of this document.

Mr. Langton is a Qualified Person according to National Instrument (NI) 43-101, and is of the opinion that the recommended exploration programme is appropriate, consistent with those of other junior mineral exploration companies currently operating in the area, and required in order to help determine the mineral potential of the Property.

Figure 1: Regional Location Map of the Gagnon Holdings in northeastern Quebec

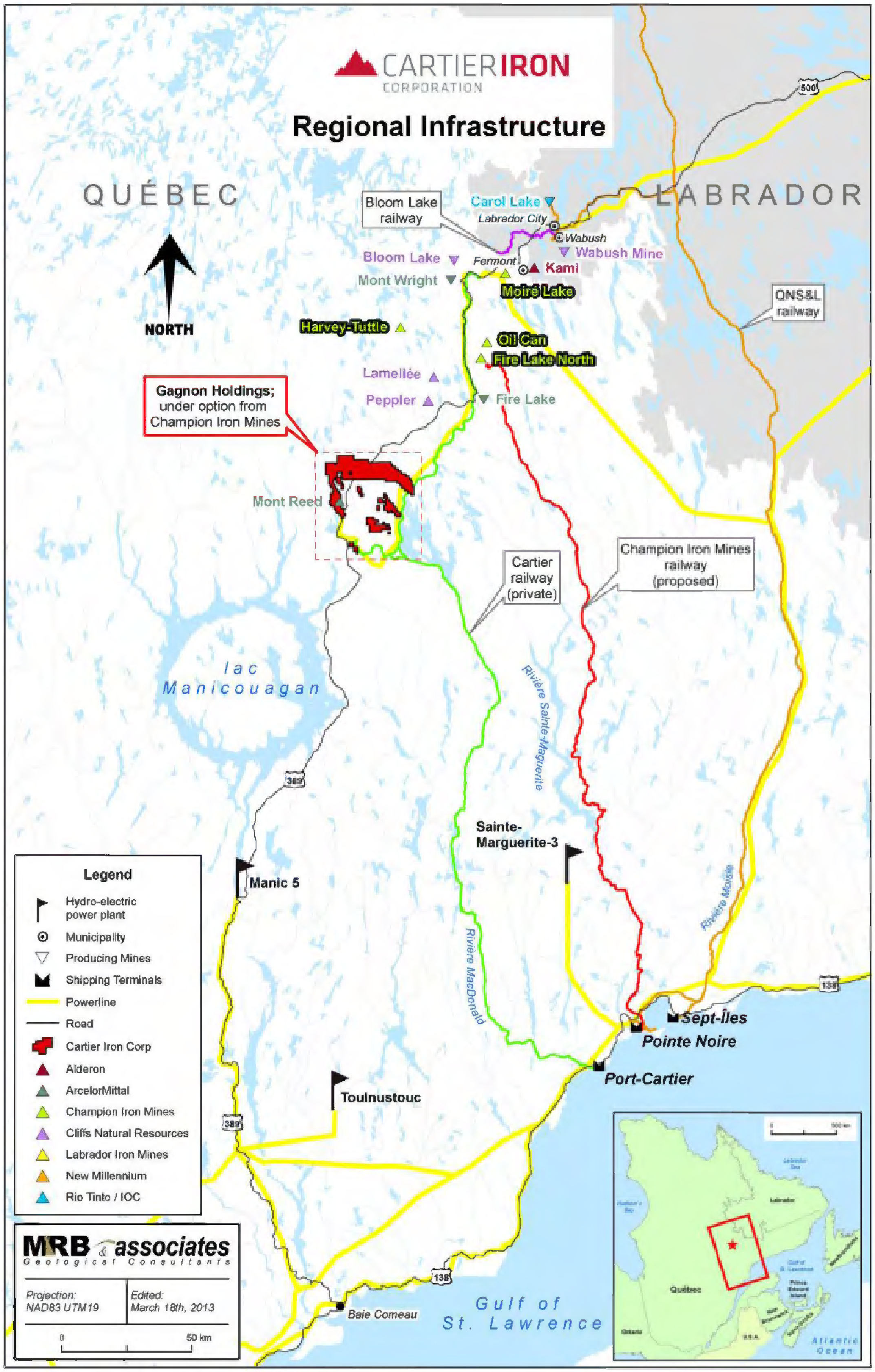

Figure 2: Location Map of Champion's Gagnon Holdings

3. PROPERTY LOCATION AND DESCRIPTION

Cartier Iron's Gagnon Holdings currently comprise 5 non-contiguous blocks of mineral claims (***Figure 3*** and ***Table 1***) including the Lac Jeannine Lake property, which overlies the formerly active Lac Jeannine Mine and its tailings.

3.1. Lac Jeannine Lake Property

The Property is situated within National Topographic System (NTS) Map Sheets 22N/16, approximately 130 km southwest of the town of Fermont (Quebec) within Conan and Godefroy townships, in the District (County) of Saguenay (***Figure 4*** and ***Map 1***). The area is also delineated as part of the Regional Municipality of Caniapiscau (see ***Figure 1***). The Property comprises 13 mineral claims in good standing, and covers a surface area of 691.69 hectares or 6.92 km^2 (***Figure 4***).

The centre of the Property has Universal Transverse Mercator (UTM) coordinates 563850 East, 5744750 North in Zone 19 of the North American Datum (NAD) 83 geoide, and Latitude/Longitude coordinates of approximately 51°51'00" North and 68°04'30" West, respectively.

The Lac Jeannine Lake claims have not been legally surveyed. The boundary of each claim block was defined using the MRNFQ website at www.mrnfp.gouv.qc.ca/mines/index.jsp, and the GESTIM claim management system.

All claims comprising the Lac Jeannine Lake Property are in good standing. The renewal dates, as at the effective date of this Report (June, 13th, 2014), rental fees, required minimum work and excess credits are detailed in ***Table 2***. Details on claims renewals, work credits, claim access rights, allowable exploration, development, mining works, and site rehabilitation are summarized in the Mining Act of Quebec available at www2.publicationsduquebec.gouv.qc.ca.

3.2. Lac Jeannine Mine (closed)

The Lac Jeannine Lake deposit was identified in 1952 by an aeromagnetic survey, flown for Québec Cartier Mining (QCM). Other surveys and drilling campaigns followed with the exploration phase ending in 1956. A pilot plant was assembled at Lac Jeannine, and the company concentrated on detailed work to accurately outline the ore body in preparation for mining. In 1958 the decision to begin mining at Lac Jeannine was made. Construction of a railroad, harbour, power plant and the town sites at Port-Cartier and Gagnon began immediately. Surface stripping of the Lac Jeannine deposit began in May 1959, and the first concentrates were shipped in July 1961. QCM's development of the Lac Jeannine deposit brought the first producing mine to the Wabush Lake - Mount Reed District. At the start of mining the deposit contained over 300 million tons of coarse-grained, quartz-specularite iron formation with an average of 31% Fe. The Lac Jeannine mine had a life expectancy of 15 years. Production from the Lac Jeannine mine started in 1961 and completed in 1976. A total of 265,897,000 tons of ore, at 33% Fe, was removed during operation. In 1984 the Lac Jeannine concentrator and the town of Gagnon were shut down and the sites reclaimed.

Table 2: Summary of Lac Jeannine Lake Claims

Claim	Renewal Deadline	Expiration Date	Area (ha)	Work Required	Credits	Owing	Annual Rent	Owner
2363574	July 13, 2014	September 13, 2014	53.23	$1,200.00	$0.00	$1,200.00	$54.75	Champion Iron Mines (90971)
2370697	September 18, 2014	November 19, 2014	53.22	$1,200.00	$0.00	$1,200.00	$54.75	Champion Iron Mines (90971)
2370698	September 18, 2014	November 19, 2014	53.22	$1,200.00	$0.00	$1,200.00	$54.75	Champion Iron Mines (90971)
2370699	September 18, 2014	November 19, 2014	53.22	$1,200.00	$0.00	$1,200.00	$54.75	Champion Iron Mines (90971)
2370700	September 18, 2014	November 19, 2014	53.21	$1,200.00	$0.00	$1,200.00	$54.75	Champion Iron Mines (90971)
2370701	September 18, 2014	November 19, 2014	53.21	$1,200.00	$0.00	$1,200.00	$54.75	Champion Iron Mines (90971)
2370702	September 18, 2014	November 19, 2014	53.21	$1,200.00	$0.00	$1,200.00	$54.75	Champion Iron Mines (90971)
2174893	September 26, 2014	November 27, 2014	53.2	$1,200.00	$0.00	$1,200.00	$54.75	Champion Iron Mines (90971)
2174894	September 26, 2014	November 27, 2014	53.2	$1,200.00	$0.00	$1,200.00	$54.75	Champion Iron Mines (90971)
2174895	September 26, 2014	November 27, 2014	53.2	$1,200.00	$0.00	$1,200.00	$54.75	Champion Iron Mines (90971)
2174896	September 26, 2014	November 27, 2014	53.19	$1,200.00	$0.00	$1,200.00	$54.75	Champion Iron Mines (90971)
2174897	September 26, 2014	November 27, 2014	53.19	$1,200.00	$0.00	$1,200.00	$54.75	Champion Iron Mines (90971)
2174898	September 26, 2014	November 27, 2014	53.19	$1,200.00	$0.00	$1,200.00	$54.75	Champion Iron Mines (90971)
		Totals:	**691.69**			**$15,600.00**	**$711.75**	

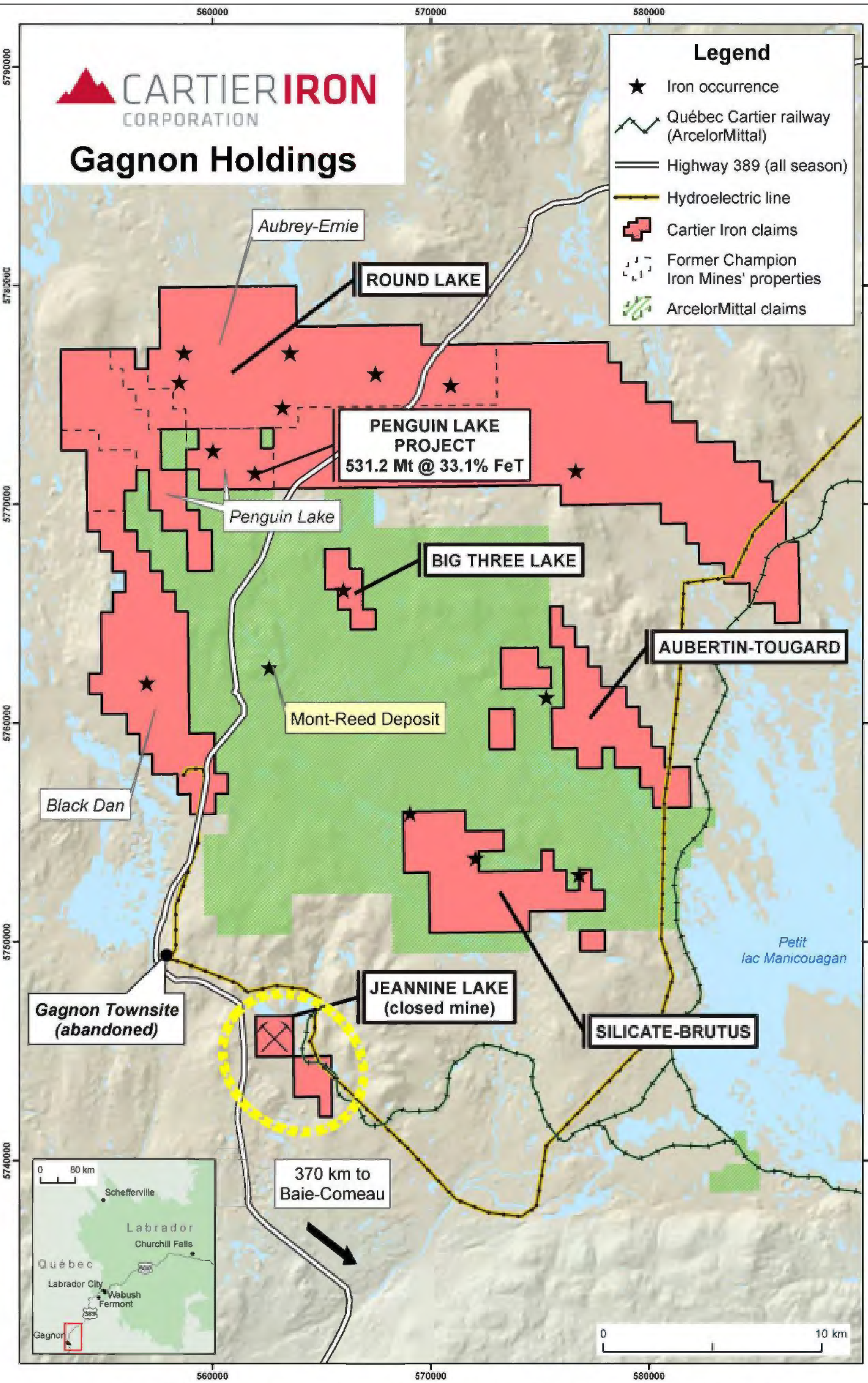

Figure 3: Location Map of the Lac Jeannine Lake Project

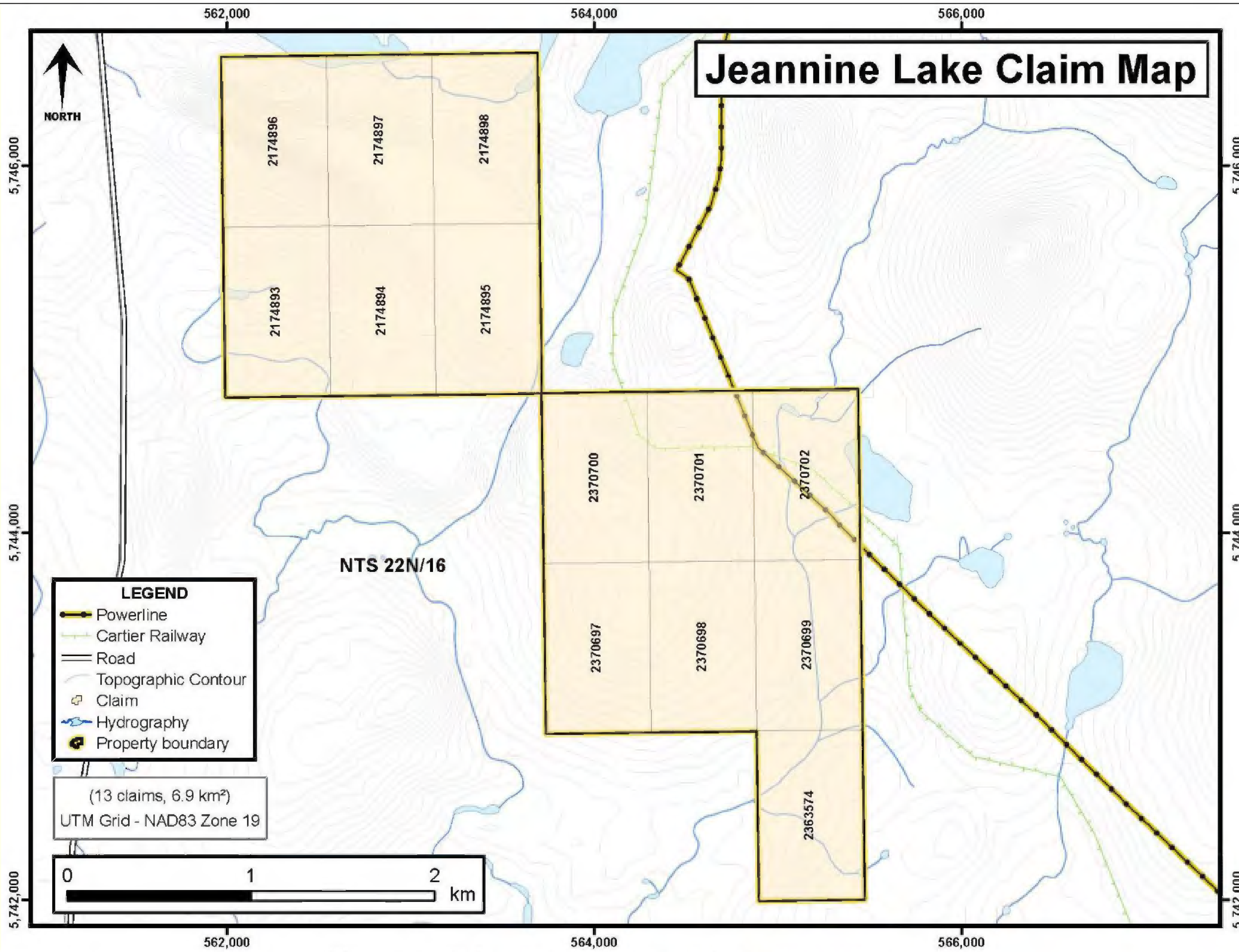

Figure 4: Claim Map of Lac Jeannine Lake prospect.

4. ACCESSIBILITY, CLIMATE AND PHYSIOGRAPHY

4.1. Accessibility

The Trans-Quebec-Labrador Road, which is designated as Highway #389 in Quebec and Highway #500 in Labrador, runs from Baie-Comeau (Quebec) to Fermont (Quebec), through Wabush-Labrador City (Newfoundland and Labrador), terminates in Goose Bay (Newfoundland and Labrador) and provides year round access to the area of the Gagnon Holdings.

Wabush Airport (ICAO: CYWK), some 2 km northeast of Wabush, is the main airport servicing the western Labrador/north-eastern Québec region. The airport is classified in the Regional/Local category according to the National Airports Policy. Local air service is also available from the Wabush Water Aerodrome (TC LID: CCX5) located near Wabush on Little Wabush Lake. Flights are offered from June until October. Car rentals are available at the airport.

Labrador City, the "sister city" of Wabush, is accessible by train via the Tshiuetin Rail Transportation Inc. railway. The railway tracks link Sept-Iles to Emeril Junction and Schefferville. The passenger train does not travel directly to Labrador City, so passengers travelling to and from Labrador City must take Highway #500 to Emeril Junction, a 45-minute drive from Labrador City.

There is direct road access to the Property, which lies within a kilometre of Highway 389, some 4 kilometres southeast of the abandoned town site of Gagnon (***Figure 3*** and ***Figure 5***).

4.2. Climate

The Fermont area and vicinity has a sub-arctic, continental taiga climate with very severe winters, typical of north-central Quebec. Winter conditions last 6 to 7 months, with heavy snow from December through April. The prevailing winds blow from the west and average 14 km per hour, based on records at the Wabush Airport. Daily average temperatures exceed 0°C for only five months per year. Daily mean temperatures for Fermont average -24.1° and -22.6°C in January and February, respectively. Snowfall in November, December, and January generally exceeds 50 cm per month and the wettest summer month is July with an average rainfall of 106.8 mm. Mean daily average temperatures in July and August are respectively, 12.4° and 11.2°C. Because of its relatively high latitude, extended day-light enhances the summer work-day period. Although winter conditions are considered harsh, drilling operations can be carried out year-round.

4.3. Physiography

The physiography around the Lac Jeannine Lake Property is largely attributed to the lithologies and structures of the underlying rocks, which in turn were sculpted by glaciation. Topography is typical of sub-arctic terrain with overall elevations between 670 and 730 metres. Retreating glaciation left a veneer of moraine boulder till and eskers that cover much of the local bedrock and control the drainage. The local water system empties southward into the Manicouagan Reservoir, which drains, through the Manicouagan River system, into to the Gulf of St. Lawrence.

Lakes, swamps and grassy meadows fill bedrock and drift depressions. Most of the terrain is thinly forested with a typical mixture of fir and tamarack, with local stands of aspen and yellow birch. Ground cover is generally in the form of grasses, caribou moss, and shrubs; the latter typically comprising willow, arctic birch, alders and Labrador tea.

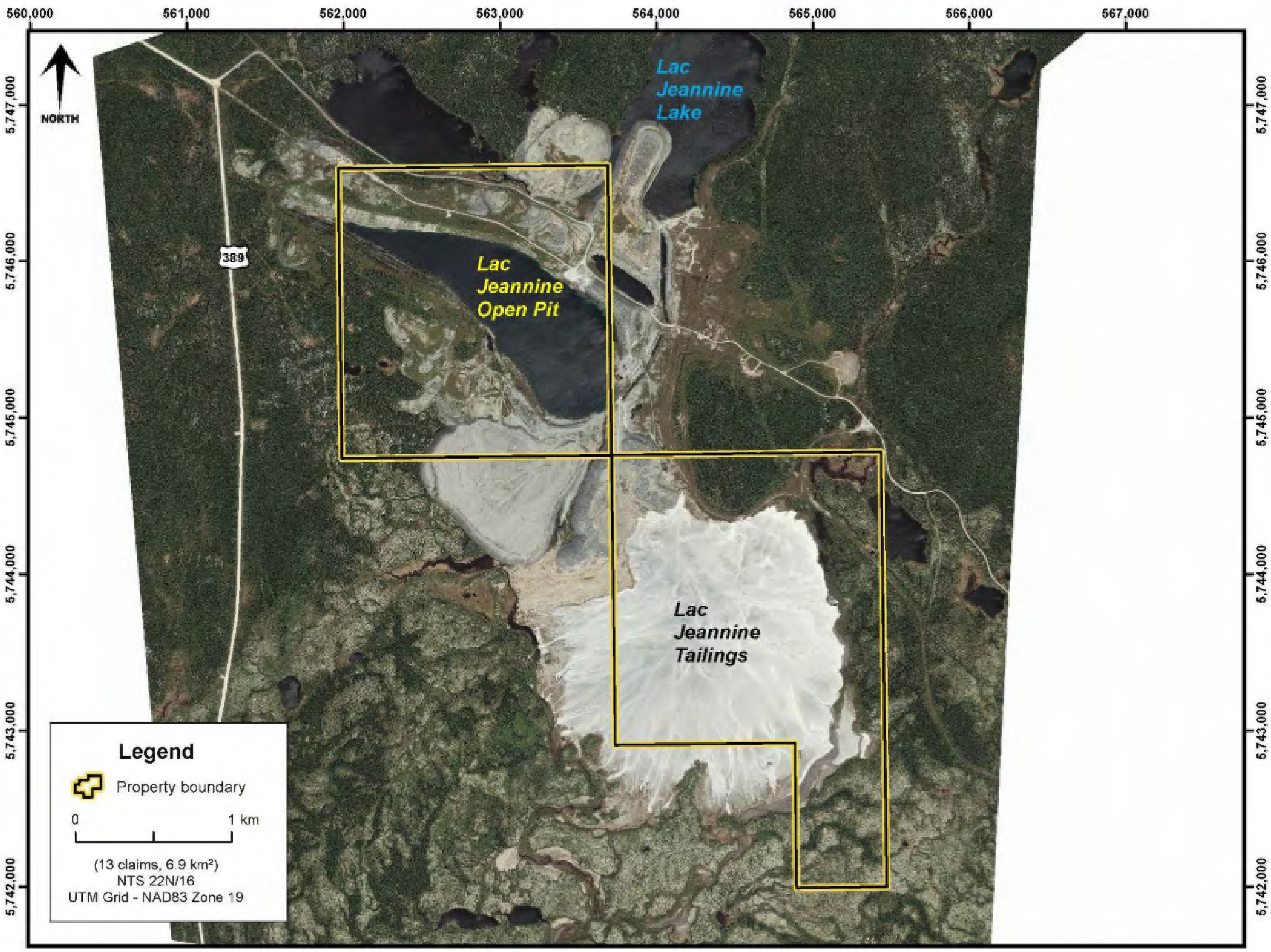

Figure 5: Satellite image of the area around the Lac Jeannine Lake claims.

5. EXPLORATION HISTORY

*Note: The GESTIM and E-Sigeom sites allow on-line searching of the Province of Quebec's database of Provincial Assessment Reports or "Gestimes Minieres" (GM's). The data are accessible online at https://gestim.mines.gouv.qc.ca/ and http://sigeom.mrnf.gouv.qc.ca/.

Since the 1950's the area has seen limited exploration programs completed by various companies. A compilation of all available historical geological, geophysical and drill-hole information was completed for Champion in order to help evaluate the economic potential of the claim block. Relevant information was digitized and entered into an ArcGIS project-database. The historical work pertaining to the Property is summarized below.

5.1. Historic exploration and development work: Lac Jeannine Lake Project

FG022NCL - Ministère de l'Energie et des Ressources (Mines) Québec (1991)
Mineral occurrences in the Manicouagan Reservoir area. Jeannine Lake listed as a medium-sized iron deposit.
Large scale map, no specific relevant information.

GM 03319C - Cartier Mining Company, Oliver Iron Division (1954)
Geology map with ddh locations (ddh1-4); only ddh-1, -2, and -3 are on the Property. Dip needle survey to the west of the Property. Drill hole logs but no report. All holes collared and ended in specularite-rich iron formation. Banded to massive specularite with minor magnetite. No assay results, but estimated at 30% Fe.
Good geology map with outcrops and structure.

GM 03829A - Cartier Mining Company Limited (1956)
Preliminary report on the geology of the Jeannine Lake area. Dip needle survey map with ddh locations and geology map. The report refers to cross sections but none have been located in the file directory. The iron formation consists predominantly of specularite and quartz with minor magnetite. The main ore body at Jeannine Lake appears to lie in an overturned closed anticline plunging about 8 degrees in a southeast direction.
Good geology map with outcrops and structure.

GM 03829B - Cartier Mining Company Limited (1956)
Drill hole logs for holes 5-20. No report or assays.
No report or map.

GM 03829C - Cartier Mining Company Limited (1956)
Geology and magnetic map with diamond-drill hole (ddh) locations and traces. No report.
Good map.

GM 06155A - Cartier Mining Company Limited (1959)
Geology map and survey plan with ddh collar locations. No report.
Good map.

GM 06155C - Cartier Mining Company Limited (1959)
Geology map and survey plan with ddh collar locations. No report.
Good map.

GM 07963A - Quebec Cartier Mining Company (1959)
Dip needle map of west zone ore body. No report
Located 1 km west of the Lac Jeannine Lake property boundary.

GM 07963B - Quebec Cartier Mining Company (1959)
Short report on west zone Jeannine Lake ore body. During the 1958 field season, detailed geological mapping and dip needle survey was carried out on scale of 1" to 100'. Seven holes were drilled totalling 1925 feet. Report quotes: "In general, the Jeannine Lake West Zone has only a limited quantity of mineable ore; however, its proximity to the main ore body may render it economically significant."
No logs or assay results reported.
Located 1 km west of the Lac Jeannine Lake property boundary.

GM 08961 – Canada Department of Mines and Technical Surveys (1959)
Grinding investigations on iron concentrates from the Quebec Cartier Mining Company.
Mines Branch Investigation Report (IR 59 67). No mention of where the concentrates came from (Jeannine Lake probably).

Work index for grinds to 90%, -200 mesh, were 26.14 kwh/long ton. Power required for grinding from F=660 microns to 80%, -270 mesh, were 25.7 kwh/long ton: 90%, -270 mesh, were 28.4 kwh/long ton. The wear of steel forged balls when grinding from F=660 microns to 80%, -270 mesh, were 4.29 lb/long ton: 90%, -270 mesh, were 4.73 lb/long ton.
May be relevant to Jeannine Lake property.

GM 12687 – Stanley A. Tyler PhD. for Quebec Cartier Mining Company (1956)
Report On Nature and Extent of Mineralization in the "16D" Iron Deposit, Lake Jeannine, Saguenay County, Quebec. The 16 D deposit consists of a tabular body, 2000 m long by 200 m wide, of medium- to coarse-grained, specularite-quartz iron formation. Mineralization has been tested to a maximum depth of 300 m by 43 drill holes totalling approximately 6700 metres. A resource of 300 million tons at about 30% Fe has been calculated. Concentration tests show that the crude iron ore can be readily concentrated to a good grade after grinding to a minus 14 mesh.
No maps or assays with report.

GM 13897 - Gouvernement du Québec (1962)
Report on companies working in Quebec with Fe properties. Jeannine Lake deposit reported at known 360 million tons (including west zone?) probable 450 million tons.
This is an overview of Quebec Fe deposits.

GM 19424 - Quebec Cartier Mining Company (1967)
Drill hole logs and location map for ddh J-142, J-143, J-149, J-150, J-153 and J-155. These holes are located to the south and west of the main zone.
Drill hole logs and location map.

GM 25455 – Ministere des Richesses Naturelles, Memorandum (1969)
One page report on the iron mineralogy of the Jeannine Lake, Mont Reed, Mont Wright and Big Three Lake area. No new information, see GM13897.
One page memorandum.

RG178 – P.J. Clarke, Ministere des Richesses Naturelles, Geological exploration Service (1977)
Geological Report -178: Gagnon Area. The opening of the Lac Jeannine mine in 1961 marked an important step in the development of the interior of Quebec. Lac Jeannine lies at the southwestern end of the Mount Wright-Mount Reed belt of metasedimentary iron deposits. Geological mapping of this region has been carried out by the Quebec Government since 1957 and this report is based on field work done in the summers of 1964 and 1965.

GM 63919 – GPR Geophysics Report & Survey Data: 2008 Airborne Survey, Fermont Properties for Champion Minerals Inc. (2008)
Between July 15-23 and August 15-28, 2008, GPR Geophysics International Inc. (GPR) of Longueil, Quebec, completed a 3,855 line-km, helicopter-borne, magnetic, gamma-ray spectrometry and EM-VLF geophysical survey for Champion Iron Mines Inc. over the Fermont properties (NTS sheets 023/O13, 023/C01, 023/B04, 023/B05, 023/B06, 023/B11, 023/B12 and 023/B14).

The total magnetic field, horizontal magnetic gradient, VLF total field, VLF quadrature and gamma-ray spectrum were measured by the helicopter-borne system. DGPS positioning, magnetic diurnal changes and radar altitude data were also collected.

The iron mineralization is well defined by the magnetic geophysical surveys. Magnetic highs outline magnetite-rich iron formations, whereas magnetic lows tend to be hematite-rich iron formations and zones of secondary iron enrichment that have resulted from near-surface oxidation of the iron formation.

GM 64596 – Champion Minerals Inc., Fancamp Exploration Ltd., Sheridan Platinum Group Ltd (2009)
This assessment report summarizes a 5-day helicopter reconnaissance field investigation of the Fermont Suite of mineral concessions. Exploration work included field reconnaissance mapping and sampling, geochemical analysis and GIS compilation of previous work. The objective of the reconnaissance was to investigate the presence and extent of iron formations on the Fermont properties. The report includes a location map of the Fermont properties, a geological map and vertical gradient magnetic survey map.

GM 65881 – Champion Minerals Inc., Fancamp Exploration Ltd. (2011)
This assessment report presents the preliminary results of the airborne gravimetric, magnetic and LIDAR (Light Detection And Ranging) terrain mapping survey completed by Fugro (**GM 65900**) over the Lac Jeannine Lake Property.

GM 65900 – Fugro Airborne Survey – for Champion Minerals Inc. (2011)
FALCONTM Airborne Gravity Gradiometer Survey, Fermont, Quebec. This technical report provides details of the airborne gravity survey flown by Fugro Airborne Surveys ("Fugro") over Champion's Fermont Holdings from May 31 to July 14, 2011, and submitted September 2011 as a separate Assessment Report.

RG 178 – Ministère des Ressources naturelles du Quebec, Midway Ore Company Ltd, Quebec Cartier Mining Company, Quebec South Shore Steel Corp. (1977)
Geological report on the Gagnon region, covering an area of about 1800 km^2, which includes the iron deposits of the Lac Jeanine Lake mine, Mount Reed, at Round and Pingouin lakes, at Silicates Lake, in the Black-Dan – Blough Lake belt, and at Aubertin and Boidie lakes; a total potential exceeding one billion tons of mineable ore containing 30% iron. The report describes general geology, economic geology, structural geology and geochemistry of the studied area. It also includes geological maps of the Lac Barbel and Rivière Thémines areas.

6. GEOLOGICAL SETTING

6.1. Regional Geology

The Gagnon Terrane comprises the southern domain of the Paleo-Proterozoic fold and thrust belt known as the Labrador Trough, which hosts an extensive iron formation. The Labrador Trough, also known as the New Quebec Orogen and the Labrador-Quebec Fold Belt, extends for more than 1,100 km along the eastern margin of the Superior craton from Ungava Bay to the Manicouagan impact crater, Quebec. The fold and thrust belt is about 100 km wide in its central part and narrows considerably to the north and south (***Figure 6***). It marks the collision between the Archean Superior Province and the Rae Province during the Hudsonian Orogeny (circa 1.82 Ga to 1.79 Ga). Rocks of the Rae Province were transported westward over the Archean Superior Province basement creating a foreland fold and thrust belt marked by a series of imbricate thrusts (***Figure 7***).

The Labrador Trough is divided into three geological domains. The Southern Domain (Gagnon Terrane) is defined by the northern limit of the Grenville Orogenic Belt at approximately 53º24'00" North latitude, represented by the biotite metamorphic isograd (***Figure 6***). The Southern Domain encompasses Labrador Trough rocks that were metamorphosed during the Grenville Orogeny, (circa 1.16 Ga to 1.13 Ga according to *Saucier et al., 2012)*, which involved northward thrusting, northeast-southwest folding, abundant gabbro, anorthosite and pegmatite intrusions, and high-grade metamorphism. The metamorphism was responsible for the recrystallization of primary iron formations, producing coarse-grained sugary quartz, magnetite, and specular hematite schists that are amenable to concentration and beneficiation (*Klein, 1978*). The Gagnon Terrane is underlain chiefly by Archean basement complex rocks that host infolded, metamorphosed sedimentary rocks that formed the western, miogeosyncline part of the proto-Labrador Trough (*Clarke, 1977*).

The Central Domain hosts regionally metamorphosed (greenschist metamorphic facies) iron-formation deposits comprising Achaean, mainly sedimentary, rocks including iron formations, volcanic rocks and mafic intrusions (the Kaniapiskau Supergroup). The Kaniapiskau Supergroup is sub-divided into the Knob Lake and Doublet groups. Rocks in the Southern Domain are recognized as the metamorphosed equivalents of the Central Domain's Knob Lake Group.

The Northern Domain, north of the Leaf Bay area (58º30'00" North latitude), comprises regionally metamorphosed rocks (lower amphibolite facies), much like those of the Southern Domain.

It is believed that only one iron-formation assemblage is present throughout the region. This formation varies in thickness and appears to have underlain the greater part of the original Labrador geosyncline. The economically important succession of quartzite-slate-iron formation, and their metamorphosed equivalents, persists throughout the three Domains.

6.2. Regional Structural Geology

Three stages of deformation are recognized in the Southern Domain. The first stage, associated with the New Québec Orogeny, produced linear belts that trend northwest in the Central Domain. The second stage, developed during the Grenville Orogeny, reoriented the northwest trending linear belts to the east and northeast. Thrust faults associated with these two transpressional events are common, but sometimes very difficult to identify. Bedding planes are generally recognizable in the quartzite, dolomite and iron formation.

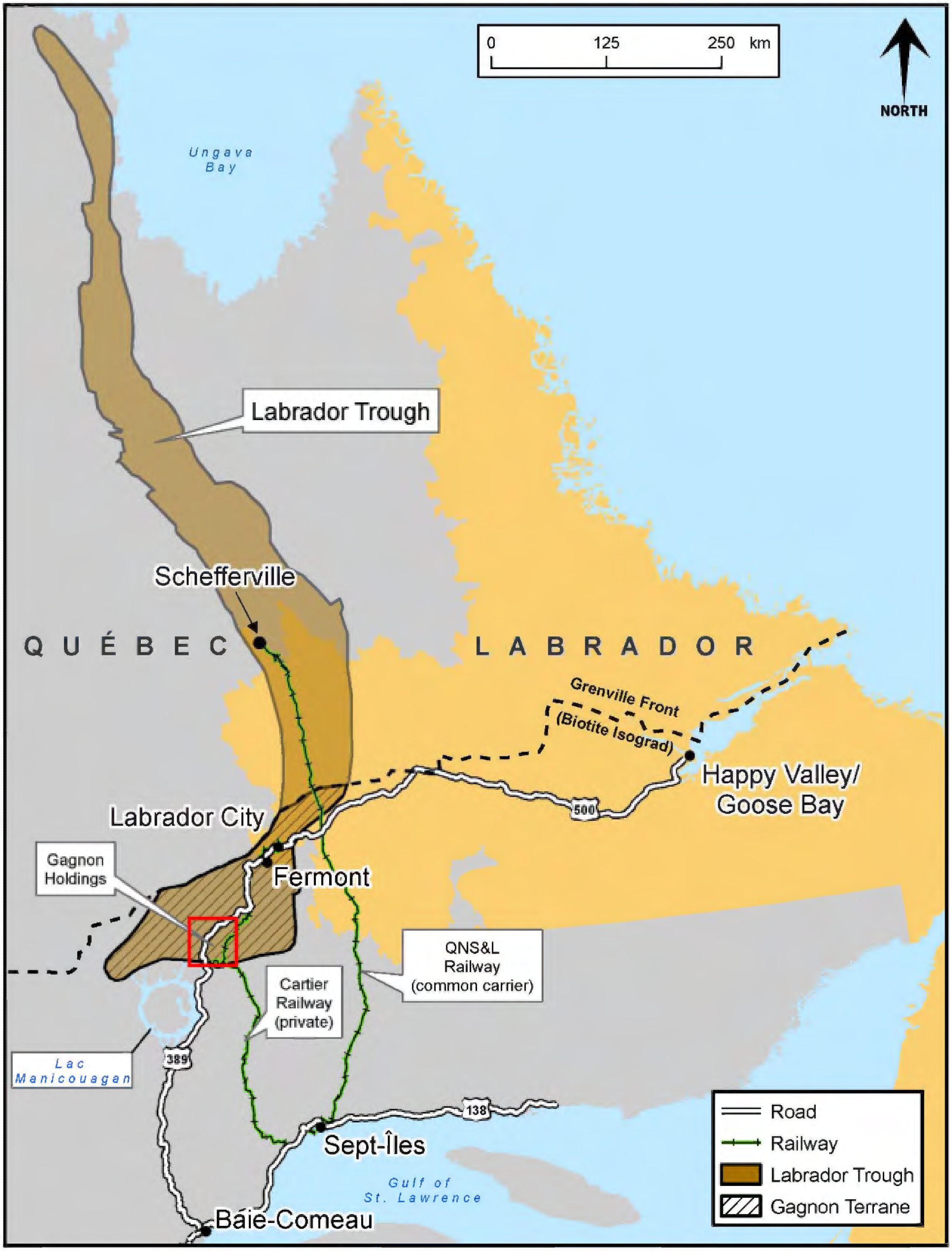

Figure 6: Map showing the Location of the Labrador Trough.

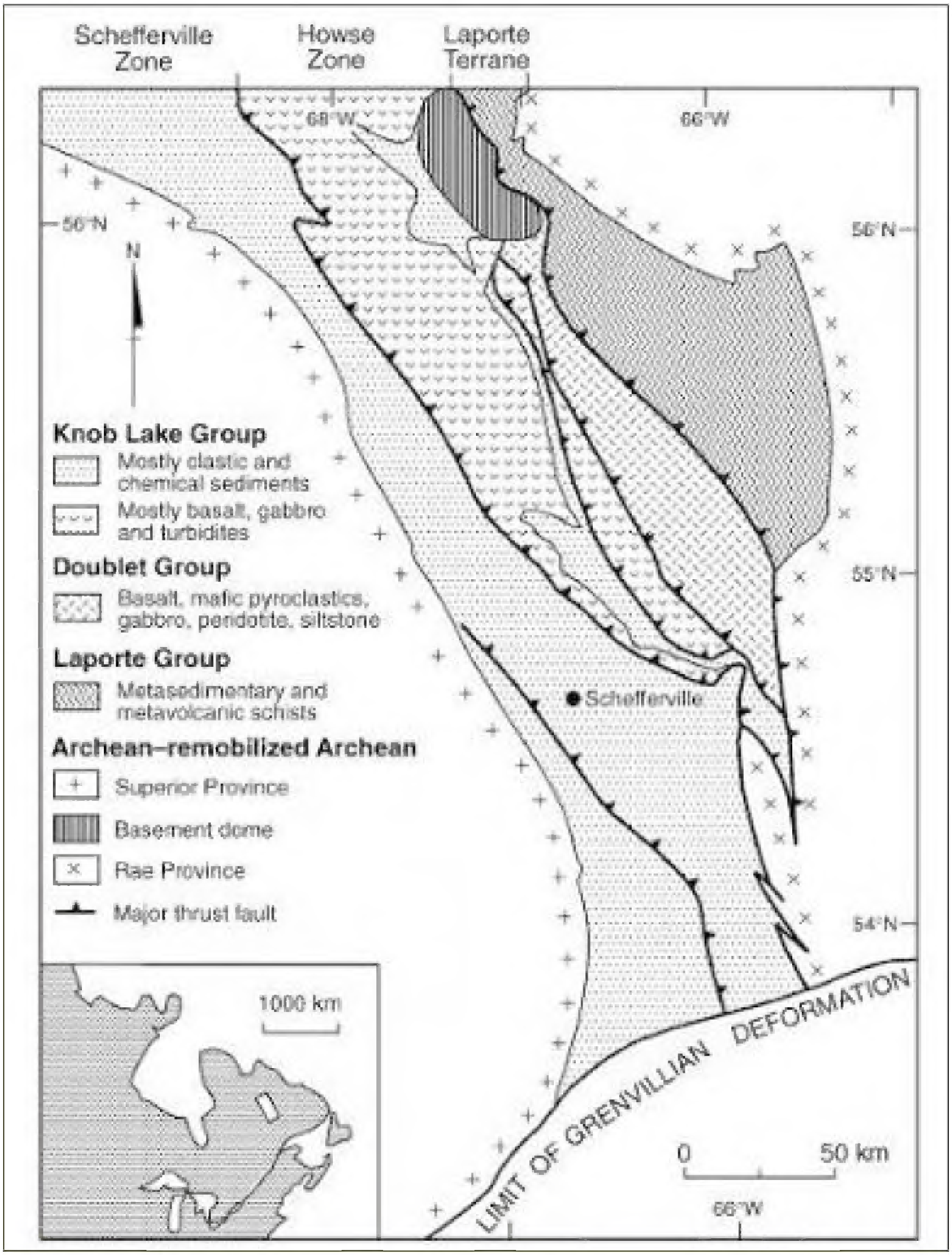

Figure 7: Lithotectonic Subdivisions of the Central Labrador Trough (from Williams and Schmidt, 2004).

Asymmetrical, overturned and recumbent folds are common throughout the Gagnon Terrane. The complex interference patterns evident on geological maps of the area indicate that a third phase of deformation has affected this domain.

Stratigraphic-reversals, -truncations, and -repeats that thicken the iron formation are common due to folding and structural transposition. Late, brittle faults have redistributed the sequences only slightly compared with the influence of the ductile deformation.

6.3. Local Geology

Cartier's Gagnon Holdings are underlain by the litho-tectonic Gagnon Terrane (*Brown et al., 1992*) within the Grenville Province of Western Labrador. Archean granitic and granodioritic gneisses and migmatites of the Ashuanipi Basement/Metamorphic Complex form the basement to most of the terrane and comprise white to grey, coarse-grained hornblende-epidote-biotite granitic and tonalitic gneisses. Garnetiferous amphibolites are inter-layered with the gneisses in the basement sequence.

Unconformably overlying and infolded with the basement gneisses are the metamorphosed equivalents of the Lower Proterozoic Knob Lake Group, including crystalline limestone (siliceous dolomite), glassy quartzite, silicate-carbonate quartzite, magnetite-quartz iron formation, specularite-quartz iron formation, silicate-magnetite iron formation, garnet-biotite gneiss and garnet-mica schist. Quartzo-feldspathic and graphite-biotite gneisses overlie the metamorphosed iron formation sequence.

The Knob Lake Group is a continental-margin metasedimentary sequence, consisting of pelitic schist, iron formations, quartzite, dolomitic marble, semi-pelitic gneiss and subordinate, local mafic volcanic rocks. The Knob Lake Group was deformed and subjected to metamorphism ranging from greenschist to upper amphibolite facies within a northwest-verging ductile fold and thrust belt, during the Grenville Orogeny (*Brown et al., 1992; van Gool et al., 2008*). The sequence is best exposed in the region west of Wabush Lake, extending southeast into the province of Quebec, and northeast beyond the north end of Shabogamo Lake. The equivalent rock successions of the Southern and Central domains are shown in the comparative list of Formations in ***Table 3***. Intrusive rocks include pegmatites and aplite dykes, granodiorite plutons, amphibolites, gabbros and peridotite bodies.

6.4. Stratigraphy

In the Gagnon Terrane, the Knob Lake Group is represented by six formations (in ascending order); the Attikamagen, Denault, Wishart, Sokoman, Menihek and Shabogamo. The stratigraphic and lithologic classifications used by Cartier Iron for geological and drill-log descriptions are compiled in ***Table 4***.

6.4.1. Attikamagen Formation

The Attikamagen Formation is the oldest stratigraphic sequence within the Knob Lake Group. The Formation, which can reach 300 m in thickness, unconformably overlies the Archean Ashuanipi Basement Complex, and predominantly consists of brownish to creamy, banded, medium- to coarse-grained, quartz-feldspar-biotite-muscovite schist and lesser gneiss. Accessory minerals include chlorite, garnet, kyanite and calcite. The Attikamagen Formation is best preserved east of Wabush and Shabogamo Lakes. In the extreme northwest, the Formation tapers and disappears, leaving upper units of the Knob Lake stratigraphy in contact with the Archean basement (*Gross, 1968*).

Table 3: Equivalent Rock Successions in the Central and Southern Domains of the Labrador Trough (modified from Gross, 1968).

PROTEROZOIC
Helikian
Shabogamo Group
Gabbro, Diabase

--------------------Intrusive Contact--------------------

	PROTEROZOIC Aphebian **Kaniapiskau**	
Churchill Province		**Grenville Province**
(Low-Grade Metamorphism) Knob Lake Group		(High-Grade Metamorphism)
Menihek Formation Black shale, siltstone		Nault Formation Graphitic, chloritic and micaceous schist
Sokoman Formation Cherty iron formation		Wabush Formation Quartz magnetite-specularite-carbonate iron formation
Wishart Formation Quartzite, siltstone		Carol Formation Quartzite, quartz-muscovite-garnet schist
Denault Formation Dolomite, calcareous siltstone		Duley Formation Meta-Dolomite and calcite marble
Attikamagen Formation Gray shale, siltstone		Katsao Formation Quartz-biotite-feldspar schist and gneiss

--------------------Unconformity--------------------

ARCHEAN
Ashuanipi Complex
Granitic and granodioritic gneiss, mafic intrusives

Note: The Duley, Carol and Wabush Formations are included in the Gagnon Group.

6.4.2. Denault Formation

Conformably overlying the Attikamagen Formation is the Denault Formation. This Formation consists of coarse-grained, banded, dolomitic and calcitic marble up to 75 m thick with minor tremolite, quartz, diopside and phlogopite as accessory minerals. In the Wabush Lake area the Denault Formation has only been identified east and south of the Lake, and represents a transition between the shallow and deeper parts of the continental shelf. Stromatolites have been described to the south of Wabush Mine. Locally, the Formation can be sub-divided into three sub-units consisting of the lower siliceous horizon, the middle low silica (<5% SiO_2) horizon and the upper siliceous horizon. Low-silica dolomite is mined and added to the iron pellets, and acts as a flux in the smelting process.

Table 4: Stratigraphic and Lithologic Classifications used by Cartier Iron Corp.

FORMATION	MEMBER		CODE	ROCK DESCRIPTION
Shabogamo	Felsic Intrusions		FEL	Felsic Dyke
			PEG	Pegmatite
			QMZ	Quartz Monzonite
Menihek	Gabbro + Mafic		MAF	Mafic Dyke
			GAB	Gabbro
	Hornblende Schist		AMP	Amphibolite
			HBG	Hornblende-Quartz Gneiss
	Quartz-Mica-Schist		QMS1	Quartz-Feldspar-Mica-Garnet-Gneiss
			QMS2	Schist
Sokoman	Iron Formation	Not stratigraphically equivalent to UIF, MIF and LIF members (*Table 4*)	IF1	Quartz-Specularite Iron Formation
			IF2	Quartz-Magnetite Iron Formation
			IF3	Quartz-Specularite-Magnetite Iron Formation
			IF4	Quartz-Magnetite-Specularite Iron Formation
			IF5	Quartz-Magnetite-Silicate Iron Formation
			IF6	Quartz-Magnetite-Carbonate Iron Formation
			IF7	Quartz-Magnetite-Silicate-Carbonate Iron Formation
	Lean Iron Formation		IF8	Quartz-Carbonate Iron Formation
			IF9	Quartz-Silicate Iron Formation
			IF10	Silicate-Carbonate Iron Formation
			IF11	Lean-Quartz Iron Formation
Wishart	Quartzite		QTZ1	Quartzite
			QTZ2	Quartz Muscovite Schist
Denault	Marble		DUL1	Calcite Marble
			DUL2	Dolomite Marble
Attikamagen	Basement Gneiss		KAT1	Quartz-Feldspar-Biotite Gneiss
			KAT2	Quartz-Biotite +/- Muscovite Schist
Ashuanipi Complex	Basement		ASH1	Granodiorite Gneiss
			ASH2	Granite

6.4.3. Mackay Formation

Overlying the Denault Formation is the Mackay River Formation. It consists of aqueous meta-tuffaceous sediments and conglomerate units. This sequence is not present in the Fermont area and occurs mainly northeast of Shabogamo Lake, northeast of Labrador City.

6.4.4. Wishart Formation

The Wishart Formation conformably overlies the Denault Formation and locally unconformably overlies the Attikamagen Formation. It consists of a 60 m to 90 m thick sequence of white, massive to foliated quartzite, which is typically resistant to weathering and erosion, forming prominent hills in the Wabush Lake region. This Formation appears to pinch out to the north and has not been mapped north of Shabogamo Lake. The Wishart Formation can be subdivided into the Lower, Middle and the Upper members based on variation in composition and texture.

The Lower Member consists of white to reddish brown, quartz-muscovite schist with varying percentages of garnet and kyanite. The Middle Member is a coarsely crystalline orthoquartzite that is generally massive to banded. Accessory minerals include carbonates, amphiboles (varying from tremolite and/or anthophyllite to grunerite and/or cummingtonite), garnets, micas (muscovite, sericite and biotite) and chlorite. Bands of iron-rich carbonates or their weathered products, limonite and goethite, may also occur. The Upper Member exhibits a gradational contact with the overlying Sokoman Formation, and generally consists of bands of carbonate alternating with bands of quartzite. The presence of thin layers of muscovite and biotite schist (pelitic layers) is common. Accessory minerals include grunerite, garnets, kyanite and staurolite.

Parts of the Middle Member containing very low concentrations of impurities are locally mined for silica. Shabogamo Mining is currently actively mining silica on their property immediately south of Iron Ore Company of Canada's Luce Deposit located 10 km north of Labrador City.

6.4.5. Sokoman Formation

The Sokoman Formation (***Table 5***), also known as the Wabush Iron Formation, is the ore-bearing unit in the Gagnon Terrane and is subdivided into Lower, Middle and Upper members. The Sokoman Formation conformably overlies the Wishart Formation, but also locally shares its basal contact with the Denault, Mackay, and Attikamagen formations, and the Ashuanipi Metamorphic Complex.

The Lower Member (LIF) consists of a 0 m to 50 m thick sequence of fine- to coarse-grained, banded quartz carbonate, and/or quartz carbonate magnetite, and/or quartz carbonate (i.e., siderite, ankerite and ferro-dolomite), silicate (i.e., grunerite, cummingtonite, actinolite, garnets), and/or quartz carbonate silicate magnetite, and/or quartz magnetite specularite sequences. This member generally contains an oxide band up to 10 m thick near the upper part.

The Middle Member (MIF), which forms the principal iron ore sequence, consists of a 45 m to 110 m thick sequence of quartz magnetite, and/or quartz specularite magnetite, and/or quartz specularite magnetite carbonate, and/or quartz specularite magnetite anthophyllite gneiss and schist sequence. Actinolite and grunerite rich bands may be present in this member, although they are generally attributed to in-folding of the upper member. A vertical zonation is typically present with finer-grained quartz magnetite dominated iron formation forming the basal section. Manganese content (rhodochrosite and pyrolucite) ranging from 0.4% to 1.0% Mn is associated with this sequence. Martite may also occur in weathered zones via supergene alteration of magnetite (Wabush Mines, Canning prospect and D'Aigle Bay area). The upper part of the MIF horizon is predominantly comprised of coarser-grained quartz specular hematite iron formation.

Table 5: Stratigraphy of the Sokoman Formation

FORMATION	MEMBER	ROCK DESCRIPTION
Sokoman	Upper IF (UIF)	Quartz-(Actinolite-Grunerite) Gneiss
		Quartz-Grunerite Gneiss
		Quartz-(Carbonate-Grunerite) Gneiss
		Quartz-Carbonate Gneiss
		Quartz-Carbonate-Magnetite Gneiss
		Quartz-Grunerite-Magnetite Gneiss
		Quartz-Magnetite-Grunerite Gneiss
		Quartz-Magnetite-Carbonate Gneiss
		Quartz-Carbonate Gneiss
		Quartz-(Carbonate-Grunerite) Gneiss
	Middle IF (MIF)	Quartz-Magnetite-Specularite Gneiss
		Lean Quartz-Specularite Gneiss
		Quartz-Specularite Gneiss
		Quartz-Specularite-Anthophyllite (Talc) Gneiss
		Quartz-Magnetite-Specularite Gneiss
		Quartz-Magnetite Gneiss
		Quartz-Magnetite-Carbonate Gneiss
	Lower IF (LIF)	Quartz-Carbonate Gneiss
		Quartz-(Carbonate-Grunerite) Gneiss
		Quartz-Magnetite-Specularite Gneiss
		Quartz-Magnetite-Carbonate Gneiss
		Quartz-Carbonate-Magnetite Gneiss
		Quartz-Carbonate Gneiss
		Quartz-(Carbonate-Grunerite) Gneiss

The Upper Member (UIF) consists of a 45 m to 75 m thick sequence, similar in composition to the LIF, and can generally be differentiated through contact relationships with the overlying and underlying formations and the presence of increased grunerite or actinolite content. A magnetite-rich zone may be present in the lower part of this Member.

Hydrous iron oxides (limonite and goethite) have been observed in all members of the Sokoman Formation. Limonite and/or goethite are present in weathered and fractured zones and are derived primarily from alteration of carbonates (*Muwais, 1974*). Pyrolusite (a manganese oxide) may occur in a distinct zone at the base of the MIF but has also been observed in all members of the Sokoman Formation typically associated with surficial or supergene enrichment, extending to depth along and adjacent to structural discontinuities, such as fault and fracture zones.

6.4.6. Menihek Formation

The Menihek Formation consists of a 15 m to 75 m thick sequence of pelitic sediments. The Formation is commonly fine-grained, foliated and variably comprised of a quartz-feldspar-mica (biotite-muscovite)-graphite schist. Garnets, epidote, chlorite and carbonates are accessory minerals. This unit is well preserved, adjacent to the craton in the southern region and within broad synclinal regions in the north.

6.4.7. Shabogamo Intrusive Suite

The Shabogamo Intrusive Suite comprises the youngest Precambrian rocks in the Wabush Lake area. It consists of massive, medium- to coarse-grained mafic intrusions (gabbro, olivine gabbro and amphibolites), non-magnetic, sill-like bodies with ophitic to sub-ophitic textures. These sills may be locally discordant and have a tendency to be schistose near the contact with other rock formations. Most of the gabbro sills are composed of plagioclase, pyroxene, olivine and minor amounts of magnetite and ilmenite. The amphibolite equivalents commonly consist of hornblende, biotite, garnets and chlorite. Pyrite, muscovite, and feldspar are accessory minerals.

6.5. Property Geology

The Gagnon Holdings are primarily underlain by gneiss of the Ashuanipi Basement Complex. Highly metamorphosed sedimentary rocks and iron formation of the Denault and Sokoman formations underlie the area reflecting complex fold interference patterns (***Figure 7*** and ***Figure 8***). They underwent minor alteration following primary deposition and subsequent high-grade regional metamorphism during the Grenville Orogeny.

The area around Lac Jeannine Lake as a whole is characterized by open to tight, upright and overturned folds that refold early recumbent folds. Dips of bedding and schistosity are rarely a guide to stratigraphic sequence, and many of the units disappear by attenuation rather than faulting. The magnetic signature of the formations that is typically well outlined on geophysical surveys (***Figure 9***) can also be misleading as the anomalies disappear where the host rocks are non-magnetic (i.e., hematite-rich). Tectonic thickening of rock units is common and this is the most important structural factor economically as it is the thickened, near-surface, synclinal hinges that are most favourable for open pit mining.

The iron formation is characteristically made up of a series of alternating magnetite and hematite rich horizons, capped by quartz-silicate-carbonate rock and graphitic gneiss, and underlain by silicates, quartz, marble and gneiss formations. A search of the MRNF on-line database returned results for the Lac Jeannine Lake mine (*http://sigeom.mrnf.gouv.qc.ca* COGITE #22N/16-0003), in the vicinity of the Property: the "Mine du Lac Jeannine" closed mine, which produced 265,897,000 tons of ore, at 33% Fe from 1961-1976.

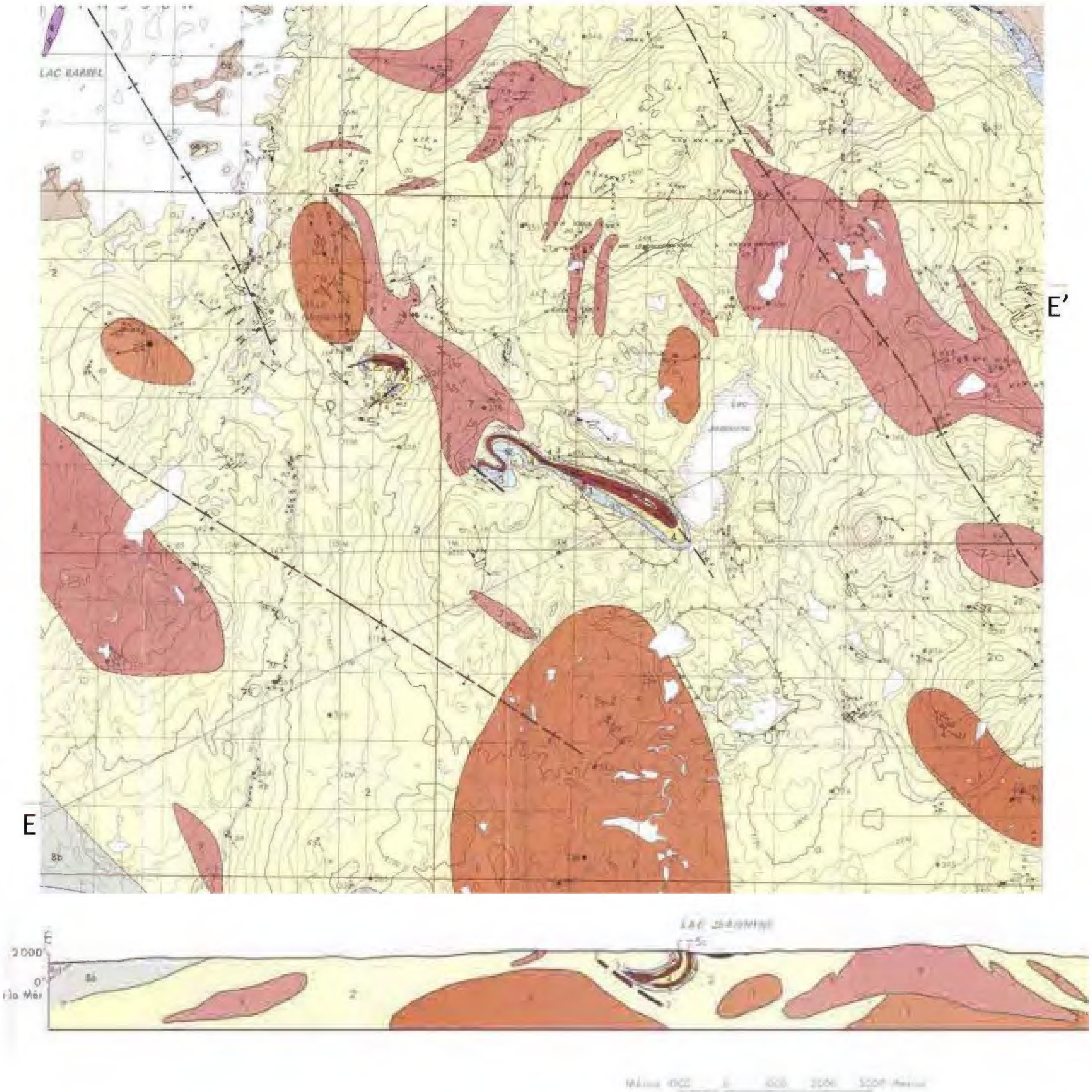

Figure 8: Regional geological map showing complex geometry of Knob Lake Group in the area of the closed Lac Jeannine Lake mine.

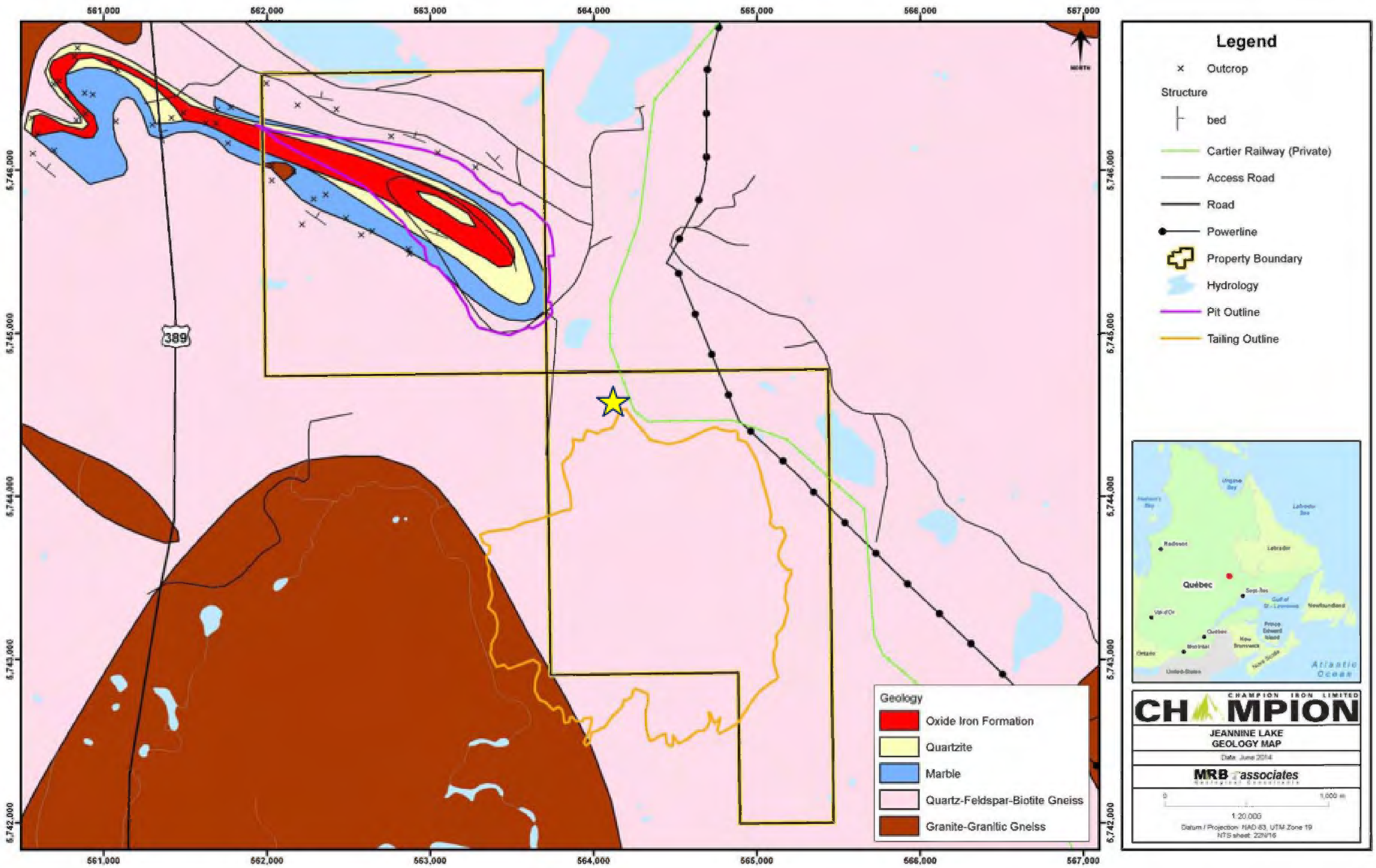

Figure 9: Simplified geology map of the Lac Jeannine Lake Project area.

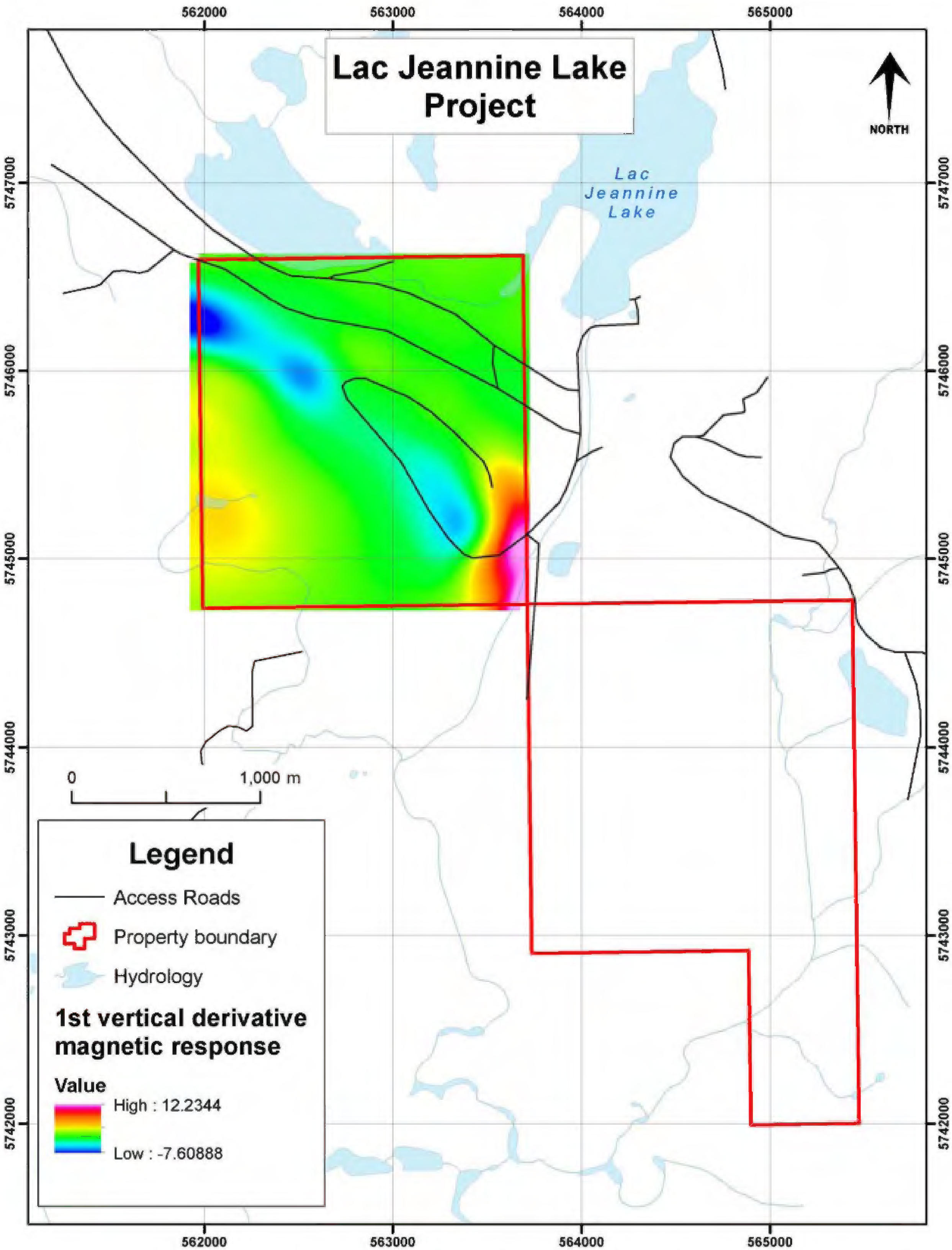

Figure 10: First Derivative Magnetic-Response map of the Lac Jeannine Lake prospect.

6.5.1. Structure

The surface distribution pattern of rocks at Lac Jeannine Lake is a reflection of the complex interference pattern created by multiple phases of deformation that have affected the local and regional geology. The first phase(s) of deformation were likely related to the transpressional, New Quebec Orogeny, which produced generally northwest-trending, linear fold and thrust belts in areas of the Labrador Trough that were unaffected by the Grenville Orogeny.

Rocks in the southern Domain were affected by the Grenville Orogeny, which refolded and reoriented the linear fold belts. The intense metamorphism associated with the Grenville Orogeny has obliterated and masked most of the earlier structural discontinuities, such as thrusts and faults making structural interpretation of the current geometry somewhat speculative.

The iron formation at Lac Jeannine Lake Lakes occupied a narrow, three (3) kilometre-long synform, cored by Sokoman (iron) Formation, that reflects the folding characteristics of the regional structural pattern. The northwest-trending, elongated geometry of Sokoman Formation underlying the Lac Jeannine Lake Property and surrounding area was produced by the surface intersection of a tight, overturned fold sequence subsequently deformed by gentle, northeast-trending folds affecting a doubly-plunging effect on the northwest fold axes (see ***Figure 8***).

The Lac Jeannine structure is a tight, northwest-trending fold, overturned to the southwest. The sequence from the outside to the axis is: lower foliated and speckled gneisses (basement), marble, quartzite, iron-formation, i.e. the normal stratigraphic sequence for the area, and on this basis the fold is interpreted as a syncline. The stratigraphic sequence is a reliable indicator of tops that remains constant through the Mount Wright – Mount Reed region. The stratigraphic sequence was determined in areas where the structure is simple, and correlates well with the sequence in unmetamorphosed parts of the Labrador Trough.

7. MINERALIZATION

The iron formations underlying the Gagnon Holdings are hosted by the Wabush Formation and are classified as Lake Superior-type, but are more specifically a metamorphosed equivalent of the Sokoman (iron) Formation, which consists of a banded sedimentary unit composed principally of bands of iron oxides, magnetite and hematite within quartz (chert)-rich rock with variable amounts of silicate, carbonate and sulphide lithofacies. Metamorphic grade ranges from greenschist facies near the Grenville Front to amphibolite-granulite facies farther south. As a result of the tectono-metamorphism, the iron formation has preferentially migrated to, and is structurally thickened in fold hinges, the mineralization is coarsely recrystallized, and the mineral assemblage of the principal iron ores is martite-magnetite-quartz and specular hematite-quartz.

Such iron formations are the principal sources of iron throughout the world (*Gross, 1996*). In order for the sedimentary rock sequences to be classified as iron formation they must have over 15% Fe content, whereas in order to be classified as ore, the iron content must generally be at least 25% Fe.

The Lake Superior iron formations are subdivided into taconite and meta-taconite. Taconite is a bedded, iron-bearing sedimentary rock composed of fine magnetite and hematite alternating with silica-rich beds (chert, jasper). Metamorphism and surface alteration are very little developed. In the Labrador Trough, the deposits range from tabular to structurally complex, show great lateral continuity, and have primary total iron content typically between 25%-35%.

Lake Superior iron formations that have been highly metamorphosed are called meta-taconites. They are mainly composed of magnetite and specularite. Metamorphism and folding has resulted in mineralogical changes, a concentration of the ferriferous bands, and coarser texture, as in the folded, medium to coarse-grained specularite-quartz deposits of the Gagnon Terrane.

For iron formation to be mined economically, a minimum iron content is required (generally 30% Fe +/- 2%), but also the iron oxides must be amenable to concentration (beneficiation), and the concentrates produced must be low in manganese and deleterious elements such as silica, aluminium, phosphorus, sulphur and alkalis.

Beneficiation involves segregating the iron-rich oxides from the silicate and carbonate lithofacies - and other rock types - that are typically interbedded and intermingled within the iron formation. Beneficiation of meta-taconite ores has resulted in the successful production of many contemporary iron deposits in the Gagnon Terrane.

The principle iron-oxide deposits found in the Gagnon Terrane are grouped into two types: quartz/specular hematite and quartz/specular hematite-magnetite. The Lac Jeannine Lake deposit was host to a mainly medium- to course-grained quartz/specular hematite.

8. SUMMARY OF WORK

This report presents the results of the surface exploration programme carried out in August 2013 and October 2013. In addition, several office days were spent preparing for, and following, the field work on the Lac Jeannine Lake Property.

8.1 August 2013 Sampling

Lithogeochemical sample locations and descriptions are compiled in ***Table 6*** and are shown on ***Figure 10***. Assay results from the samples are included in ***Appendix I***.

In late August of 2013, an aerial- and ground-reconnaissance and tailings-sampling programme on the Lac Jeannine Lake tailings were carried out by four-person field crew (***Plates 1-4***).

Plate 1: Aerial view looking southeast: white area in upper right comprises the tailings.

Table 6: Summary of tailings samples collected during August 2013.

Sample Number	UTM: NAD 83 Zone 19		Detailed Description
	Easting (X)	Northing (Y)	
959080	563999.00	5743998.00	NW part of tailings. Laminated, dark grey, reddish-brown and light grey, fine-grained sand. Layers are up to 10 cm thick. Pit approximately 1.5 m deep.
959081	564000.00	5743996.00	Adjacent to sample 959080
959082	564751.00	5744002.00	NE part of tailings. Laminated, light grey and reddish sand. Layers are up to 10 cm thick. Pit approximately 1.5 m deep. Surface area is leached out, lighter colour than NW site.
959083	564749.00	5744003.00	Adjacent to sample 959082
959084	564749.00	5743000.00	SE part of tailings. Laminated, dark grey, reddish-brown, brown and light grey, fine-grained sand. Layers are up to 10 cm thick. At bottom of hole (1.5 m depth), thick layer of reddish-brown clay (very fine-grained). Hole approximately 1.5 m deep.
959085	564747.00	5742999.00	Adjacent to sample 959084
959086	564004.00	5743000.00	SW part of tailings. Laminated, dark grey, reddish-brown and light grey, fine-grained sand. Layers are up to 20 cm thick. Hole approximately 1.5 m deep.
959087	564003.00	5742998.00	Adjacent to sample 959086
959088	564498.00	5743501.00	Central part of tailings. Laminated, dark grey and light grey, fine-grained sand. Layers are up to 10 cm thick over first metre. Reddish-brown sand layer from >50 cm to bottom of hole. Hole approximately 1.5 m deep.
959089	564501.00	5743499.00	Adjacent to sample 959088

Plate 2: Surface reconnaissance of Lac Jeannine Lake tailings.

Plate 3: August 2013 sample collection of Lac Jeannine Lake tailings.

Plate 4: August 2013 sample pit profile - Lac Jeannine Lake tailings. Grey material on surface consists of hematite grains (1-2 mm).

A total of 10 samples were collected from five parts of the tailings pile (***Figure 10***).

The collected samples were individually bagged, tagged, sealed and packed in large nylon rice bags, which were securely closed with zip-ties before transport to ALS Laboratories ("ALS") in Val-d'Or, Quebec for analysis (ME-XRF06 package). ALS is an internationally recognized minerals testing laboratory operating in 16 countries and has an ISO 9001:2000 certification.

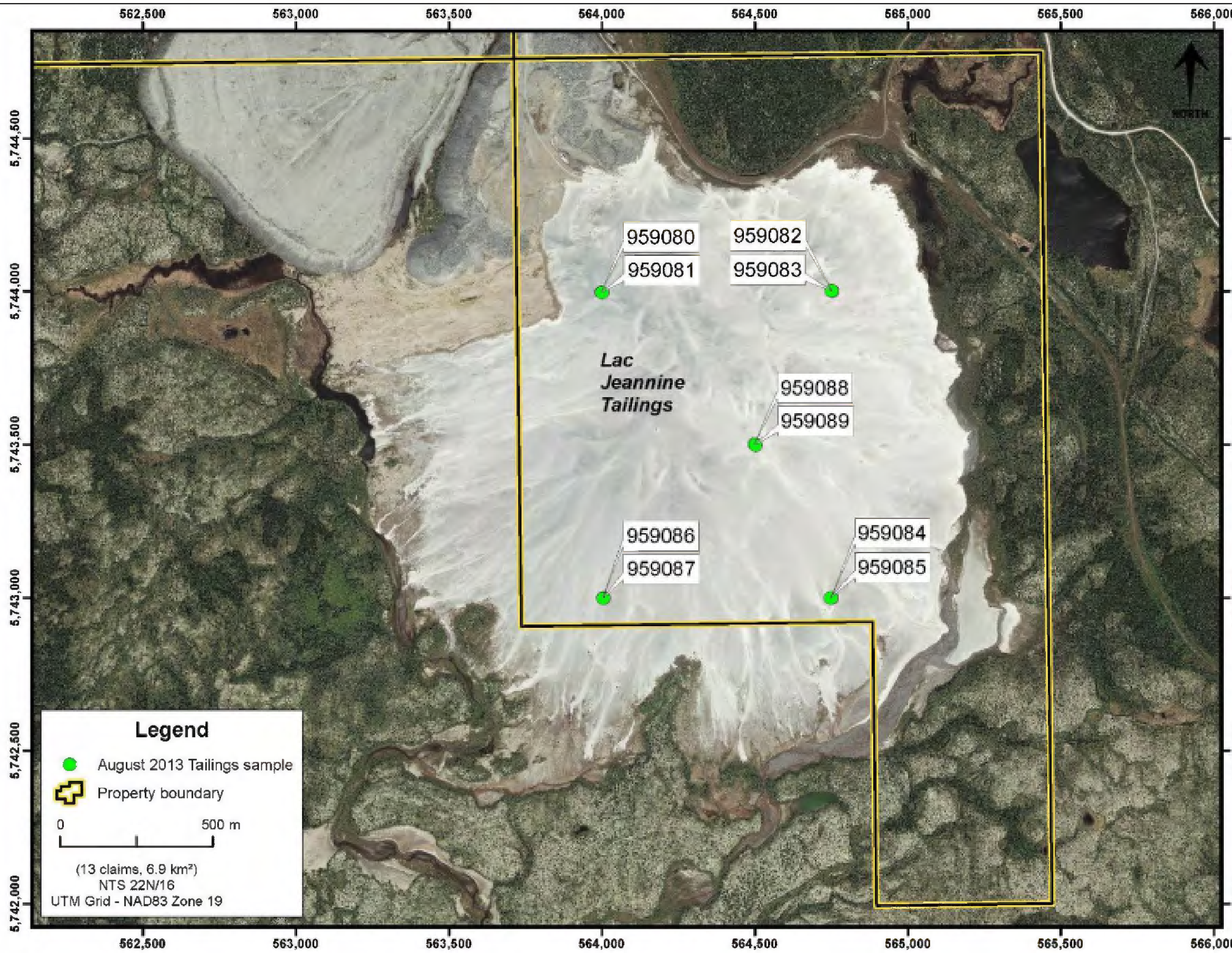

Figure 11: August 2013 sample sites - Lac Jeannine Lake tailings.

The August 2013 tailings samples were analysed for Fe (iron) and multi-element content including CaO (calcium oxide), MgO (magnesium oxide), MnO (manganese oxide), P2O5 (phosphorus oxide) and other oxides such as Al2O3 (aluminum oxide). Iron content as well as other elements' content (%) was determined by X-ray fluorescence (XRF).

8.2 October 2013 Sampling

On October 25th, 2013, six (6) 45-gallon drums of tailings material were collected from various locations across the Lac Jeannine Lake mine tailings pile. A small (John Deere 85 model) excavator, hired from Lesage Transport of Fermont (QC), was used to dig 10-foot (3 metre) deep pits in the tailings (***Plates 5-6***). Material from successive depths within the pit was used to create the site-samples.

The six sample sites were initially planned with the intent to locate them adjacent and 'downstream' from the supposed, single tailings pipe discharge area, which was presumed to have been positioned at the northern edge of the tailings pile — the premise being that the iron/hematite 'heavies' would have preferentially have been deposited in close proximity to the effluent discharge. However, during a reconnaissance of the tailings pile on October 25, it was noted that there were several remnant north-south trending pipeline trestle support structures located across the tailings pile (***Plate 7***), and it was therefore inferred that the mine's tailings discharge pipeline had been situated at several different locations, over the course of the mine life, in order to disperse the tailings sand more evenly over the tails pile surface. It was also noted that the tailings locally formed 3-5 metre topographic 'highs', manifested as round hills and north-south trending ridges, that generally paralleled the north-south trending pipeline support trestles. These topographic 'highs' were interpreted to be the local discharge points of the tailings pipeline and, as such, were selected as the locales for the six 45-gallon sample sites.

At each of the six sample sites, a 10-12 foot deep pit was excavated. During the excavation, the tailings sand from successive 2-foot deep sections was placed into separate piles beside the excavation pit. For sites JL13-D and JL13-F, the tailings were placed into one pile.

The bulk sample (45-gallon drum) for JL13-A and JL13-B was collected by hand-shovel from the five piles of sand. A roughly equal quantity of material was collected from each of the five representative piles of tailings and placed into the 45-gallon drum. At sites JL13-C to JL13-F, the bulk sample was collected by the empty excavator bucket travelling vertically up the side wall of the pit wall. An approximately equal amount of sand was collect along the 10 foot long wall, which was then placed into the 45-gallon drum. Sample locations and descriptions are compiled in ***Table 7*** and are shown on ***Figure 11***.

At three of the six collection sites (JL13-A, JL13-B and JL13-E), in addition to the 45-gallon drum "bulk sample", five "point-samples" were collected. These fifteen (15) point-samples consisted of roughly four (4) litres of tailings, which were collected for each successive 2 foot section, to the pit bottom. A summary of the 15 point-samples is presented in ***Table 8***.

The six 45-gallon drums were lined with clean plastic to eliminate any potential contamination from the drums themselves. After the tailings sample was placed in the drum, an assay tag was inserted into in a small plastic bag and placed on top of the sample. The edges of the plastic sheet were gathered together, twisted shut, and fastened with Tuck tape (***Plate 8***).

The bulk samples are earmarked for analytical as well as metallurgical tests (e.g., grinding, liberation, Davis Tube, QEMSCAN, separation, recovery, etc.).

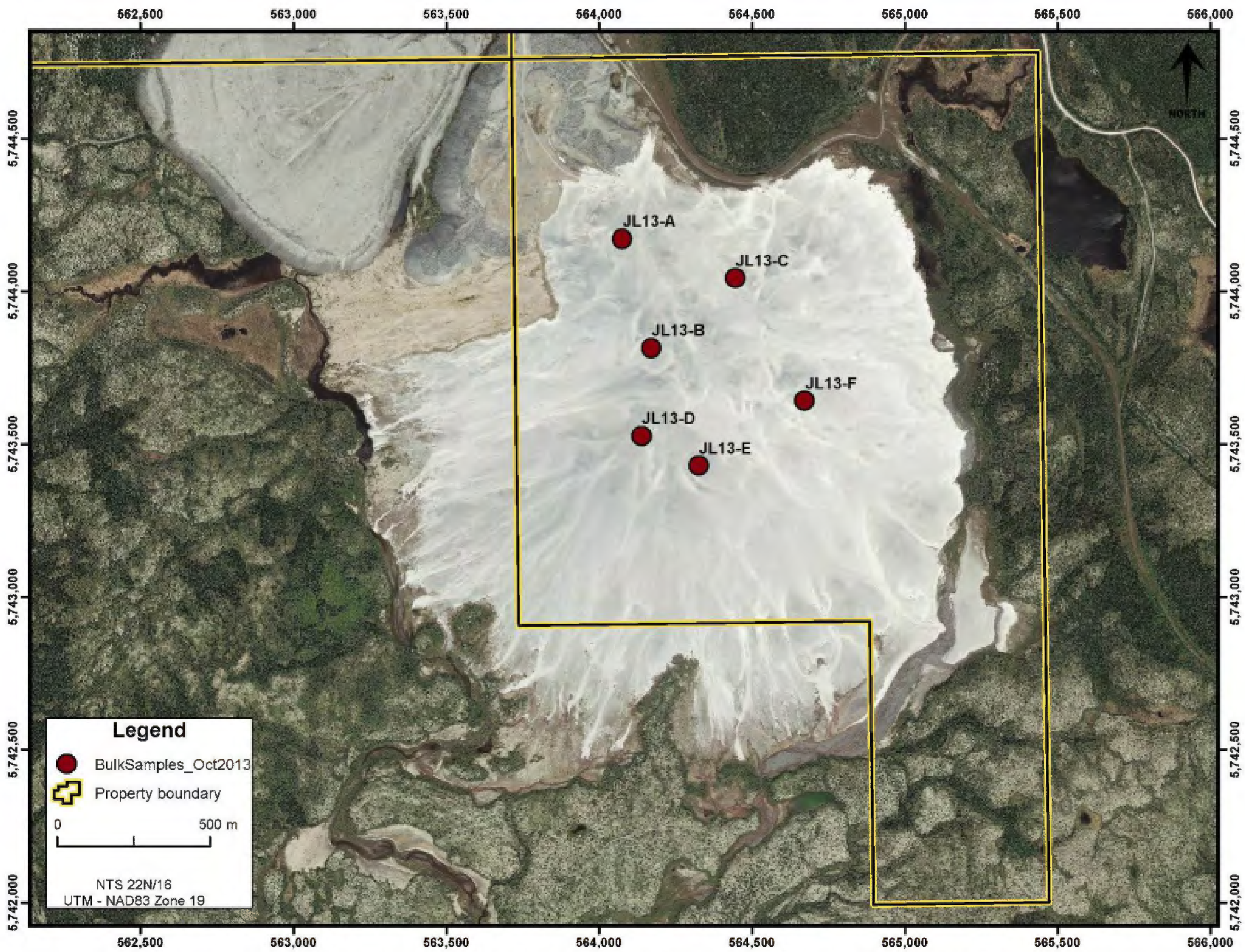

Figure 12: October 2013 bulk-sample sites - Lac Jeannine Lake tailings.

Plate 5: Small excavator in action - Lac Jeannine Lake tailings

Plate 6: Bulk-sample pit - Lac Jeannine Lake tailings

Plate 7: Remnant pipeline trestle support structures across Lac Jeannine Lake tailings pile

Plate 8: Collected bulk-samples from Lac Jeannine Lake tailings

Table 7: Summary of October 2013 Lac Jeannine Lake Bulk Tailings Samples.

Sample site	Sample No	UTM NAD83, Zone 19		Elevation (m)	Composite Bulk Sample Method
		Easting (X)	Northing (Y)		
JL13-A	956256	564076	5744171	606.2	An equal amount of tailing material, from each of 5 separate tailing piles, were hand-shovelled into the 45-gallon drum; each pile represents a successive 2-foot interval in the 10-foot deep excavation. The empty drum was lined with a plastic sheet, and tied shut after the tailings were placed inside, to prevent contamination.
JL13-B	956257	564171	5743814	597.3	An equal amount of tailing material, from each of 5 separate tailing piles, were hand-shovelled into the 45-gallon drum; each pile represents a successive 2-foot interval in the 10-foot deep excavation. The empty drum was lined with a plastic sheet, and tied shut after the tailings were placed inside, to prevent contamination.
JL13-C	956273	564445	5744042	591.8	The excavator scraped the wall of the 10-foot deep excavation; starting from the pit bottom and running to surface, collecting representative material along the entire 10-foot interval. Tailings material was then hand-shovelled into the 45-gallon drum. The empty drum was lined with a plastic sheet, and tied shut after the tailings were placed inside, to prevent contamination.
JL13-D	956258	564139	5743526	597.1	The excavator scraped the wall of the 10-foot deep excavation; starting from the pit bottom and running to surface, collecting representative material along the entire 10-foot interval. Tailings material was then hand-shovelled into the 45-gallon drum. The empty drum was lined with a plastic sheet, and tied shut after the tailings were placed inside, to prevent contamination.
JL13-E	956266	564326	5743429	597.6	The excavator scraped the wall of the 10-foot deep excavation; starting from the pit bottom and running to surface, collecting representative material along the entire 10-foot interval. Tailings material was then hand-shovelled into the 45-gallon drum. The empty drum was lined with a plastic sheet, and tied shut after the tailings were placed inside, to prevent contamination.
JL13-F	956259	564672	5743641	580.5	The excavator scraped the wall of the 10-foot deep excavation; starting from the pit bottom and running to surface, collecting representative material along the entire 10-foot interval. Tailings material was then hand-shovelled into the 45-gallon drum. The empty drum was lined with a plastic sheet, and tied shut after the tailings were placed inside, to prevent contamination.

Table 8: Point Samples from Bulk Sample Pits - Lac Jeannine Lake

		UTM NAD 83, Zone 19			
Sample site	Sample No	Easting (m)	Northing (m)	Elevation (m)	Sampled interval (metres depth)
JL13-A		564076	5744171	606.2	
JL13-A 001	956251				0.00 - 0.62
JL13-A 002	956252				0.62 - 1.24
JL13-A 003	956253				1.24 - 1.86
JL13-A 004	956254				1.86 - 2.49
JL13-A 005	956255				2.49 - 3.11
JL13-C		564445	5744042	591.8	
JL13-C 001	956267				0.00 - 0.62
JL13-C 002	956268				0.62 - 1.24
JL13-C 003	956269				1.24 - 1.86
JL13-C 004	956270				1.86 - 2.49
JL13-C 005	956272				2.49 - 3.11
JL13-E		564326	5743429	597.6	
JL13-E 001	956260				0.00 - 0.62
JL13-E 002	956262				0.62 - 1.24
JL13-E 003	956263				1.24 - 1.86
JL13-E 004	956264				1.86 - 2.49
JL13-E 005	956265				2.49 - 3.11
QA/QC sample	956261	DUL marble Blank			
QA/QC sample	956271	CRM #SCH-1			

9. DISCUSSION

The summer 2013 surface exploration programme carried out at Lac Jeannine Lake involved two separate ground reconnaissance and sampling programmes.

The objective of the programme was to test the nature and grade of the tailings pile from the Lac Jeannine Lake mine.

The field work was carried out during late August 2013, and on October 25th, 2013. A total of 31 samples were collected for analytical and metallurgical tests. Assays were obtained from the first set of ten (10) surface samples (***Appendix I***).

Total iron (FeT) concentration from the ten assayed tailings samples averaged **7.57% FeT**, indicating that the tailings comprise a potential quartz-hematite +/- magnetite iron source, the true grade and amount of which are unknown.

10. CONCLUSIONS AND RECOMMENDATIONS

The 2013 ground exploration programme achieved its objective, having examined the surface and shallow sub-surface condition of the tailings pile, located a number of effluent discharge pipeline pathways, and collected and analysed a suite of surface tailings samples.

The Author concludes that the Lac Jeannine Lake prospect has merit with regard to a potential iron resources, and should be the subject of continued exploration; however, before proceeding, a thorough investigation of the environmental liabilities to the Company, with respect to the tailings on the Property, should be effected.

The recommended exploration program going forward should focus firstly on determining the environmental liability. Any further analytical sampling and metallurgical testing should aim to help determine particle-size distribution, size-distribution grades, and homogeneity of the tailings.

11. REFERENCES

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CERTIFICATE OF QUALIFICATION

JOHN LANGTON

I, **John Langton, M.Sc., P. Geo.**, currently residing in Val-d'Or, Québec do hereby certify that:

1. I graduated from the University of New Brunswick in 1985 with a B.Sc. in Geology and from Queen's University, Kingston in 1993 with a M.Sc. in Geology, and I have practised my profession continuously since that time;
2. I am currently working and living in Quebec and I am a Professional Geologist currently licensed by the *Ordre des géologues du Québec* (License No. 1231); the Association of Professional Engineers and Geoscientists of New Brunswick (Licence No. M5467), and; the Association of Professional Geoscientists of Ontario (Licence No. 1716);
3. I have worked as a geologist for 27 years. I have knowledge and experience with regard to a number of mineral deposit types and with the procedures involved in the preparation of technical studies;
4. I have prepared and authored this report.
5. To the best of my knowledge, I am not aware of any material fact or material change with respect to the subject matter of the Report that is not reflected in the Report, the omission of which would make the Report misleading;

DATED this 13th Day of June, 2014

MRB & Associates

(Signed) John P. Langton, M.Sc., P. Geo.,

1427200

APPENDIX I

Signed Copies of Assay Certificates

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: CARTIER IRON CORPORATION
20, ADELAIDE ST EASTSUITE 301
TORONTO ON M5C 2T6

Finalized Date: 19-SEP-2013
Account: CARTIER

CERTIFICATE SD13163128

Project:
P.O. No.:
This report is for 10 Sediment samples submitted to our lab in Sudbury, ON, Canada on 10-SEP-2013.

The following have access to data associated with this certificate:

RÉJEAN GAGNON BRUCE MILTON	CHRYSTAL KENNEDY	JOHN LANGTON

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-21	Crush entire sample >70% -6 mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um
PUL-QC	Pulverizing QC Test

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-XRF10	Fusion XRF - Ore Grade	XRF
OA-GRA06	LOI for ME-XRF06	WST-SIM
ME-XRF06	Whole Rock Package - XRF	XRF

To: CARTIER IRON CORPORATION
ATTN: JOHN LANGTON
1748, CHEMIN SULLIVAN
SUITE 2100
VAL- D OR QC J9P 3X6

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.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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CERTIFICATE OF ANALYSIS SD13163128

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	ME-XRF10 Fe % 0.007	ME-XRF06 SiO2 % 0.01	ME-XRF06 Al2O3 % 0.01	ME-XRF06 Fe2O3 % 0.01	ME-XRF06 CaO % 0.01	ME-XRF06 MgO % 0.01	ME-XRF06 Na2O % 0.01	ME-XRF06 K2O % 0.01	ME-XRF06 Cr2O3 % 0.01	ME-XRF06 TiO2 % 0.01	ME-XRF06 MnO % 0.01	ME-XRF06 P2O5 % 0.001	ME-XRF06 SrO % 0.01	ME-XRF06 BaO % 0.01
L959080		11.95	7.99	86.23	0.96	11.43	0.39	0.32	0.05	0.26	<0.01	0.02	0.02	0.061	<0.01	<0.01
L959081		13.93	9.69	83.80	0.95	13.84	0.42	0.33	0.06	0.24	<0.01	0.02	0.02	0.071	<0.01	<0.01
L959082		9.95	6.72	86.90	1.44	9.60	0.30	0.36	0.03	0.46	<0.01	0.01	0.01	0.075	<0.01	<0.01
L959083		10.11	6.16	87.64	1.49	8.84	0.33	0.37	0.05	0.48	<0.01	0.02	0.01	0.070	<0.01	<0.01
L959084		10.69	7.56	85.43	1.35	10.80	0.28	0.39	0.03	0.39	<0.01	0.02	0.02	0.072	<0.01	<0.01
L959085		11.57	6.89	87.24	1.20	9.84	0.29	0.37	0.02	0.36	<0.01	0.02	0.02	0.068	<0.01	<0.01
L959086		11.12	9.00	81.40	1.34	12.81	1.02	0.74	0.01	0.43	<0.01	0.03	0.07	0.098	<0.01	<0.01
L959087		11.80	7.43	84.25	1.21	10.55	0.89	0.65	<0.01	0.39	<0.01	0.02	0.05	0.083	<0.01	<0.01
L959088		12.84	7.24	86.36	1.62	10.37	0.31	0.37	0.02	0.54	<0.01	0.02	0.01	0.070	<0.01	<0.01
L959089		11.61	7.03	87.25	1.24	10.06	0.35	0.35	0.03	0.39	<0.01	0.01	0.01	0.072	<0.01	<0.01

***** See Appendix Page for comments regarding this certificate *****

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Sample Description	Method Analyte Units LOR	ME-XRF06 LOI % 0.01	ME-XRF06 Total % 0.01
L959080		0.30	100.05
L959081		0.29	100.05
L959082		0.28	99.46
L959083		0.34	99.64
L959084		0.24	99.01
L959085		0.30	99.72
L959086		0.83	98.78
L959087		0.77	98.88
L959088		0.32	100.00
L959089		0.25	100.00

***** See Appendix Page for comments regarding this certificate *****

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Finalized Date: 19-SEP-2013
Account: CARTIER

CERTIFICATE OF ANALYSIS SD13163128

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Sudbury located at 1351-B Kelly Lake Road, Unit #1, Sudbury, ON, Canada.

Applies to Method:	CRU-21	LOG-22	PUL-31	PUL-QC
	SPL-21	WEI-21		

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:	ME-XRF06	ME-XRF10	OA-GRA06