 

Schefferville Mines Inc.

Labrador Iron Mines Holdings Limited

Technical Report

of an Iron Project in Northern Quebec

Province of Quebec

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1.0 Summary (Item 3.0)

On January 12th, 2010 A.S. Kroon was requested to assist Schefferville Mines Inc. ("SMI"), a wholly owned subsidiary of Labrador Iron Mines Holdings Limited ("LIMHL"), in the preparation of a Technical Assessment Report covering the iron and manganese project owned by SMI in Northern Quebec. The Iron Ore Company of Canada (IOCC) previously owned most of the properties and mined a number of them between 1954 and 1982.

Property Description and Location

SMI holds title or interest in 218 Mining Titles covering 9,014 hectares in the province of Quebec and the rights to obtain an exclusive operating interest to 23 Mining Leases covering 2,816 hectares in the province of Quebec. The SMI properties are located in the western central part of the Labrador Trough iron range and are located about 1,000 km northeast of Montreal and adjacent to or within 70 km from the town of Schefferville (Quebec).

There are no roads connecting the area to southern Labrador or to the rest of Quebec. Access to the area is by rail from Sept-Îles to Schefferville or by air from Montreal and Sept-Îles. The properties are located inside a 40 km radius from Schefferville with the exception of the Murdoch Lake and Eclipse properties that are some 100 km from Schefferville. The properties close to Schefferville are mostly accessible by gravel roads while the properties far away from the town are only accessible by helicopter.

History

The Quebec-Labrador iron range has a tradition of mining since the early 1950's and is one of the largest iron producing regions in the world. The former Direct Shipping iron ore ("DSO") operations at Schefferville (Quebec and Labrador) operated by IOCC produced in excess of 150 million tons of lump and sinter fine ores over the period 1954-1982. The first serious exploration in the Labrador Trough occurred in the late 1930s and early 1940's when Hollinger North Shore Exploration Company Limited (Hollinger) and Labrador Mining and Exploration Company Limited ("LME") acquired large mineral concessions in the Quebec and Labrador portions of the Trough. Mining and shipping from the Hollinger lands began in 1954 under the management of the IOCC, a company specifically formed to exploit the Schefferville area iron deposits.

As the technology of the steel industry changed over the ensuing years more emphasis was placed on the concentrating ores of the Wabush area and interest and markets for the direct shipping Schefferville ores declined. Finally, in 1982, the IOCC closed their operations in the Schefferville area.

Following the closure of the IOCC mining operations, ownership of the leases reverted to Hollinger. Most of the properties comprising SMI's Schefferville area project were part of the original IOCC Schefferville holdings and formed part of the 250 million tons of reserves and resources identified by IOCC in the area. In addition a number of properties' contain historic manganese resources.

Geology

At least 45 hematite-goethite ore deposits have been discovered in an area 20 km wide that extends 100 km northwest of Astray Lake, referred to as the Knob Lake Iron Range, which consists of a tightly folded and faulted iron-formation exposed along the height of land that forms the boundary between Quebec and Labrador. The Knob Lake properties are located on the western margin of the Labrador Trough adjacent to Archean basement gneisses. The Central or Knob Lake Range section extends for 550 km south from the Koksoak River to the Grenville Front located 30 km north of Wabush Lake. The principal iron formation unit, the Sokoman Formation, part of the Knob Lake Group, forms a continuous stratigraphic unit that thickens and thins from sub-basin to sub-basin throughout the fold belt.

The sedimentary rocks in the Knob Lake Range strike northwest, and their corrugated surface appearance is due to parallel ridges of quartzite and iron formation which alternate with low valleys of shales and slates. The Hudsonian Orogeny compressed the sediments into a series of synclines and anticlines, which are cut by steep angle reverse faults that dip primarily to the east. The synclines are overturned to the southwest with the east limits commonly truncated by strike faults. Most of the secondary earthy textured iron deposits occur in canoe-shaped synclines, some are tabular bodies extending to a depth of at least 200m, and one or two deposits are relatively flat lying and cut by several faults. Subsequent supergene processes converted some of the iron formations into high-grade ores, preferentially in synclinal depressions and/or down-faulted blocks.

The Labrador Trough contains four main types of iron deposits:

- Soft iron ores formed by supergene leaching and enrichment of the weakly metamorphosed cherty iron formation; they are composed mainly of friable fine-grained secondary iron oxides (hematite, goethite, limonite);
- Taconites, the fine-grained, weakly metamorphosed iron formations with above average magnetite content and which are also commonly called magnetite iron formation;
- More intensely metamorphosed, coarser-grained iron formations, termed metataconites which contain specular hematite and subordinate amounts of magnetite as the dominant iron minerals;
- Occurrences of hard high-grade hematite ore occur southeast of Schefferville.

Second stage of enrichment included the addition of secondary iron and manganese which appear to have moved in solution and filled pore spaces with limonite-goethite. Secondary manganese minerals, i.e., pyrolusite and manganite, form veinlets and vuggy pockets. The types of iron ores developed in the deposits are directly related to the original mineral facies. The predominant blue granular ore was formed from the oxide facies of the middle iron formation. The yellowish-brown ore, composed of limonite-goethite, formed from the carbonate-silicate facies, and the red painty hematite ore originated from mixed facies in the argillaceous slaty members. Only the direct shipping ore is considered beneficiable to produce lumps and sinter feed and will be part of the resources for the SMI project.

Exploration

Most historic exploration on the properties was carried out by IOCC until the closure of their operation in the 1980s. A considerable amount of data used in the evaluation of the current status of the resource and reserve evaluation is provided in the documents, sections and maps produced by IOCC or by consultants working for them. No recent exploration was carried out on the Quebec properties. New exploration data that will be provided through trench sampling and RC drilling can be used for the NI 43-101 compliant resource estimates by comparing the new data with the old IOCC information. Bulk sampling for metallurgical testing of the manganese deposits will be necessary to prepare the final process flow sheet for treatment of the manganese material.

Drilling and Sampling

Diamond drilling of the Schefferville iron deposits has been a problem historically in that the alternating hard and soft ore zones tend to preclude good core recovery. Traditionally IOCC used a combination of reverse circulation drilling, diamond drilling and trenching to generate data for reserve and resource calculation. A large number of original IOCC data has been recovered and some have been reviewed by SMI. During the time that IOCC owned the properties sampling of the exploration targets were by trenches and test pits as well as drilling. In the test pits and trenches geological mapping determined the lithologies and the samples were taken over 10 feet (= 3.0 metres). The results were plotted on vertical cross sections. The geological sections originally prepared by IOCC will have to be up dated with new RC drilling and sampling results.

Sample Preparation, Security and Data Verification

All drilling and sampling of the iron and manganese deposits used for this study has been done by IOCC during the time that they owned and produced direct shipping iron ore from adjacent and nearby properties (from 1954 to 1982). The sample preparation, analysis and security in place during the operations of IOCC is not specifically known but it can be assumed that it was done following acceptable industry practice and the standards for an experienced mining company at that time.

Mineral Resources and Mineral Reserves

All resource estimates quoted in this report are based on prior data and reports prepared by IOCC, the previous operator. These historical estimates are not current and do not meet NI 43-101 Definition Standards and are reported here for historical purposes only. A qualified person has not done sufficient work to classify the historical estimate as current mineral reserves. The historical estimates should not be relied upon. These historical results provide an indication of the potential of the properties and are relevant to ongoing exploration.

The IOCC estimated mineral resources and reserves were published in their Direct-Shipping Ore (DSO) Reserve Book published in 1983. The estimate was based on geological interpretations on cross sections and the calculations were done manually. The Table 1-1 shows the summary of the estimate of the (non compliant with NI 43-101) historical mineral resources of the deposits owned by SMI. IOCC categorized their estimates as “reserves”. The author has adopted the same principle of the 2007 SNC-Lavalin Technical Report prepared for LIMHL that these should be categorized as “resources” as defined by NI 43-101.

Table 1-1
Summary of Historical IOCC Mineral Resources Estimates
(The estimates are not compliant with NI 43-101 and are based on historical standards used by IOCC)
The old IOCC classification reported all resources (measured, indicated and inferred): the total mineral resource.

Non-compliant with NI 43-101	Tons	Fe%	SiO_2%	Mn%
Iron Resources	63,186,000	55.1	6.2	
Manganese Resources	5,987,000	47.3	5.5	5.6

Other Relevant Data and Information

The Knob Lake Iron Range is well known for the hematite-goethite iron deposits and this region has been exploited for some 30 years by IOCC. The SMI Schefferville Project will determine if the iron and manganese properties have the potential economics for renewed exploitation. The following are some observations that illustrate that after a relatively short exploration program these properties could enter into a production phase.

It is believed that the DSO produced by IOCC needed no or only very little processing and that only crushing and screening was performed before the ore was loaded on trains to be transported to Sept-Îles. It is expected that the proposed washing and screening process will remove low grade and silica material and should increase the grades of the final product by about 10-15% of the mined grade.

The ores from the manganese deposits will be subject to some form of beneficiation to achieve greater manganese content and to remove undesirable impurities. Beneficiation technology as applied to manganese ores is similar to that for iron ores.

Conclusions

The review of the data that was made available to the author, the knowledge of LIMHL project obtained during the 2007 SNC-Lavalin study (of which he was the major author) and the 2010 study of the same project related to a renewed development of the iron deposits in Labrador near Schefferville, Quebec has shown that there is more than sufficient merit to continue exploration to further confirm the resources estimated by IOCC on the Quebec properties. Exploration on the properties in Quebec should bring the historic estimates of resources to comply with the requirements of NI 43-101 and support the undertaking of a pre-feasibility study.

The IOCC explored deposits remained ready for exploitation when favorable market conditions would return and the economics of new mines could be demonstrated. Some of these deposits are now owned, wholly or partially, by SMI and a pre-feasibility study should be considered to demonstrate economic viability of the restart of the iron and/or manganese ore production. The resource estimates for the properties comprising SMI's project were established by IOCC, an experienced iron ore operator, during the 20+ year period that IOCC successfully operated mines in the Schefferville area which were developed on the basis of similar resource estimates. There is no reason to conclude that IOCC utilized other than best industry practices. It is reasonable, therefore, to conclude that such historic resources can be brought to compliance with NI 43-101 requirements with a continued program of verification as recommended herein.

Most infrastructure around Schefferville is already in place and relative low capital expenditures will be required to restore and revamp the old structures and rail yards. The production of DSO requires only a simple process of screening, crushing and, in some cases, washing and the capital cost of building such a processing plant near Schefferville would be relatively low. Subject to the historical resources on of the newly obtained properties close to Schefferville (Malcolm, Denault, Barney, Fleming 9, Star Creek and Lance Ridge) being brought into NI 43-101 compliance, the economic viability of additional infrastructure investment (railway spur extension) and the construction of a beneficiation plant could be demonstrated.

The other deposits (Squaw Woolett, Partington, Eclipse and Trough 1) are further from Schefferville and require additional infrastructure development and therefore higher capital expenditures. The knowledge of these deposits is also less detailed and more exploration will be required to bring these historic inferred resources to a NI 43-101 compliant indicated classification. When these resources are demonstrated to exist the feasibility of producing from these deposits can be evaluated.

Recommendations

Following the review of all supplied data and the interpretation and conclusions of this review, it is recommended that the exploration on the iron and manganese properties continue. The results of the exploration on other properties have been very positive and have already shown that the IOCC data is very reliable and can be confirmed with the new exploration. It was also recommended in the study prepared by MRB & Associates (MRB) that an exploration program should be considered on the newly acquired manganese properties.

Initial exploration on the new properties (Malcolm 1, Denault, Star Creek and Lance Ridge) is recommended to confirm the IOCC historical resources and evaluate them according to NI 43-101 standards.

The estimated total budget for the Confirmation Exploration program is $ 2,146,000. The drilling and sampling program would likely be followed with a pre-feasibility study for which the budget estimate is $ 680,000.

2.0 Introduction (Item 4.0)

On January 12th, 2010 A.S. Kroon was requested to assist Schefferville Mines Inc. ("SMI"), a wholly-owned subsidiary of Labrador Iron Mines Holdings Limited ("LIMHL") in the preparation of a Technical Assessment Report covering the iron and manganese project owned by SMI in Northern Quebec. IOCC previously owned most of the properties and mined a number of them between 1954 and 1982. Some stockpiles of (at that time) uneconomic material are left and could become a mineral resource after the investigations and sampling.

The author has reviewed the geological and historical data supplied by SMI to determine if the project has sufficient potential to carry out exploration to verify if the resource and reserve estimates made by the IOCC could be made to comply with the standards prescribed by NI 43-101. The study has been prepared following the requirements of NI 43-101 and contains a budget estimate of the exploration program that would allow the resources to be classified according to the standards prescribed by NI 43-101. The properties contain the potential for iron as well as manganese deposits.

The author made no site visit because the site is completely snow covered obscuring geological features and impeding access. The author reviewed data which was developed by previous owners of the properties, including Hollinger and IOCC and relied on his knowledge of nearby properties in Labrador on which he was the primary author of a Technical Report dated September 2007.

A site visit will be coordinated as soon as it will be practicable. The co-author of the Technical Report dated September 2007 made a site visit to the nearby Labrador projects of LIMHL during May.

3.0 Reliance on Other Experts (Item 5.0)

This report has been prepared for Schefferville Mines Inc (SMI). The findings, conclusions and recommendations are solely based on the information provided by SMI that consisted of: reports, sections and plans prepared by IOCC during 1954 to 1982, and reports prepared for other subsequent owners of the properties.

The evaluation of the manganese deposits described in this report has been carried out by MRB and their Technical Report has been used as reference for those deposits.

The author did not conduct any fieldwork or sampling or independently verify the legal titles to the properties. The site was not visited because of snow cover.

4.0 Property Description and Location (Item 6.0)

The properties are located in the western central part of the Labrador Trough iron range and are located about 1,000 km northeast of Montreal and adjacent to or within 100 km from the town of Schefferville, Quebec (Figure 4-1).

There are no roads connecting the area to southern Labrador or to Quebec. Access to the area is by rail from Sept-Îles to Schefferville or by air from Montreal and Sept-Îles. The properties are located inside a 100 km radius from Schefferville (Figures 4-2 and 4-3).

SMI holds title, subject to Agreements described below, to or an interest in 218 Mining Titles covering 9,014 hectares in the province of Quebec and exclusive operating interest to 23 Mining Leases covering 2,816 hectares in the province of Quebec (Tables 4-1 to 4-4).

On October 22, 2009, LIMHL announced in a Press Release that it has entered into an agreement with New Millennium Capital Corp ("NML") to exchange certain of their respective mineral licences in Labrador. The exchange eliminates the fragmentation of the ownership of certain mining rights in the Schefferville area and will enable both parties to separately mine and optimise their respective DSO deposits in as efficient a manner as possible.

Under an Agreement dated October 22, 2009 with NML, SMI acquired 217 hectares in six claim blocks in Quebec.

On December 17, 2009, in a number of separate transactions SMI acquired interests in other DSO properties in the province of Quebec and additional prospective areas for exploration for manganese deposits in Quebec.

In the first transaction SMI acquired from Hollinger, subject to the approval of the Government of Quebec, the right to acquire a 100% exclusive operating interest in the remaining properties comprised of 22 Mining Leases on Crown land covering a total area of 2,036 hectares (Table 4-1); which are part of the original mining lease issued to Hollinger in 1953 under a Special Act of the Quebec Parliament enacted in 1946.

Under the Operating Licence SMI as the Operator will be entitled to exclusively occupy the lands for the purposes of carrying out, on behalf of itself and Hollinger, all exploration, development or mining works as SMI considers necessary or desirable for the property working and development of the properties and the deposits thereon, together with the use of all surface buildings and improvements therein as SMI may require. SMI shall be solely responsible for all capital and operating costs necessary to carry out the work on the properties and shall be entitled to receive all revenue from the sale of any and all mineral products mined and sold from the properties, subject to the payment of the royalty described below.

In a second transaction, SMI acquired from Fonteneau Resources Inc. ("Fonteneau") 17 mining claims covering 779 hectares in the Province of Quebec, some of which adjoin the Hollinger land package, and are prospective for DSO. The properties are subject to a royalty of $2.00 per tonne of iron ore shipped from the Port of Sept Îles and SMI has made advance royalty payments totalling $2 million which will be credited against any future royalty payments on certain of the properties. These claims are included in Table 4-3.

In one of two separate transactions SMI acquired from MRB and Fonteneau 83 mineral claims 2,780 hectares in Quebec giving SMI a very large land package on which a number of manganese deposits have been identified. In addition, these manganese properties also contain some historical DSO resources. These claims are subject to a royalty of 3% of the FOB value of manganese ore and $2.00 per ton of iron ore shipped from the Port of Sept Îles. These claims are included in Table 4-3.

In the final transaction, SMI has entered into an Exploration and Development Agreement on certain other 99 mining claims in Quebec totalling over 4,617 hectares, 43 of which have transfers to SMI still in process shown in Table 4-4 and the remainder included in Table 4-3, which are considered prospective for exploration for iron ore. These claims are located approximately 100 kilometres north of Schefferville, within the Labrador Trough, and are considered to have high regional exploration potential for iron ore. Limited historical information is available on these properties. Under the Exploration and Development Agreement SMI has agreed to make a payment of $250,000 on signing to Fonteneau Resouces Inc., with further payments of $250,000 payable on June 30, 2010 and $500,000 payable on each of December 31, 2010, June 30, 2011 and December 31, 2011. SMI is obligated to maintain the properties in good standing through December 31, 2011 and to carry out minimum programs of reconnaissance and exploration on the properties. These claims will also be subject to a $2.00 per tonne royalty payment.

Table 4-3 lists the mining claims with transfers to SMI completed as of the date of this report.

Table 4-1
Mining Leases in Quebec Held by Hollinger North Shore Inc.

Title	Map Sheet	Issued	Expiry	Area (Has)
1	23J15	03-Feb-90	02-Feb-13	65
2	23J10	03-Feb-90	02-Feb-13	12
4	23O03	03-Feb-90	02-Feb-13	780
5	23O02	03-Feb-90	02-Feb-13	96
6	23J15	03-Feb-90	02-Feb-13	56
7	23O06	03-Feb-90	02-Feb-13	129
39	23O05	03-Feb-90	02-Feb-13	118
3A	23J15	03-Feb-91	02-Feb-13	35
3B	23J15	03-Feb-91	02-Feb-13	338
3C	23J15	03-Feb-91	02-Feb-13	119
3D	23J15	03-Feb-91	02-Feb-13	32
3E	23J15	03-Feb-91	02-Feb-13	12
3F	23J15	03-Feb-91	02-Feb-13	45
3G	23J15	03-Feb-91	02-Feb-13	37
3H	23J15	03-Feb-91	02-Feb-13	22
3J	23J15	03-Feb-91	02-Feb-13	47
3K	23J14	03-Feb-91	02-Feb-13	18
3L	23J14	03-Feb-91	02-Feb-13	5
3M	23J14	03-Feb-91	02-Feb-13	15
3N	23J14	03-Feb-91	02-Feb-13	11
3P	23J14	03-Feb-91	02-Feb-13	29
3Q	23J14	03-Feb-91	02-Feb-13	15
		TOTAL	22	2,036

Table 4-2
Mining Titles in Quebec Held Prior to December, 2009 Acquisitions
(Transfer to SMI in process)*

Title	Map Sheet	Issued	Expiry	Area (Has)
58039	23J10	24-Feb-05	23-Feb-11	20
58040	23J10	24-Feb-05	23-Feb-11	4
58045	23J15	24-Feb-05	23-Feb-11	49
58048	23J10	24-Feb-05	23-Feb-11	47
2172703	23J15	09-Oct-08	08-Oct-10	48
2183131	23J15	07-May-09	06-May-11	49
2183132	23J15	07-May-09	06-May-11	49
2183133	23J15	07-May-09	06-May-11	49
2183173	23J15	08-May-09	07-May-11	49
2183174	23J15	08-May-09	07-May-11	49
2183175	23J15	08-May-09	07-May-11	49
2183176	23J15	08-May-09	07-May-11	39
2188826	23J10	17-Sep-09	16-Sep-11	49
2189055	23J15	17-Sep-09	16-Sep-11	45
2189056	23J15	17-Sep-09	16-Sep-11	47
2189057	23J15	17-Sep-09	16-Sep-11	49
2189058	23J15	17-Sep-09	16-Sep-11	49
2189059	23J15	17-Sep-09	16-Sep-11	49
2189060	23J15	17-Sep-09	16-Sep-11	49
		TOTAL	19	838

Held by Energold Minerals Inc. in trust for SMI. Transfers of these titles have been executed and registration is pending.

Table 4-3
Mining Titles in Quebec Acquired by Schefferville Mines Inc. in December 2009

Title	Map Sheet	Issued	Expiry	Area (Has)
2016779	23J15	20-Jun-06	19-Jun-10	49
2016780	23J15	20-Jun-06	19-Jun-10	49
2016781	23J15	20-Jun-06	19-Jun-10	49
2016787	23J15	20-Jun-06	19-Jun-10	49
2016789	23J15	20-Jun-06	19-Jun-10	46
2016790	23J15	20-Jun-06	19-Jun-10	44
2016791	23J15	20-Jun-06	19-Jun-10	24
2016797	23O03	20-Jun-06	19-Jun-10	49
2016800	23O03	20-Jun-06	19-Jun-10	49
2016803	23O03	20-Jun-06	19-Jun-10	49
2016805	23O03	20-Jun-06	19-Jun-10	48
2016806	23O03	20-Jun-06	19-Jun-10	47
2016807	23O03	20-Jun-06	19-Jun-10	45
2016808	23O03	20-Jun-06	19-Jun-10	35
2016925	23O03	20-Jun-06	19-Jun-10	49
2016926	23O03	20-Jun-06	19-Jun-10	49
2016927	23O03	20-Jun-06	19-Jun-10	49
2168457	23J14	30-Jul-08	29-Jul-10	3
2168458	23J14	30-Jul-08	29-Jul-10	23
2168460	23J14	30-Jul-08	29-Jul-10	26
2168461	23J14	30-Jul-08	29-Jul-10	46
2168462	23J14	30-Jul-08	29-Jul-10	1
2168463	23J14	30-Jul-08	29-Jul-10	48
2168464	23J14	30-Jul-08	29-Jul-10	49
2168465	23J14	30-Jul-08	29-Jul-10	49
2168466	23J15	30-Jul-08	29-Jul-10	9
2168467	23J15	30-Jul-08	29-Jul-10	14
2168468	23J15	30-Jul-08	29-Jul-10	3
2168470	23J15	30-Jul-08	29-Jul-10	19
2168471	23J15	30-Jul-08	29-Jul-10	8
2168472	23J15	30-Jul-08	29-Jul-10	14
2168473	23J15	30-Jul-08	29-Jul-10	5
2168474	23J15	30-Jul-08	29-Jul-10	24
2168475	23J15	30-Jul-08	29-Jul-10	34
2168476	23J15	30-Jul-08	29-Jul-10	20
2168477	23J15	30-Jul-08	29-Jul-10	22
2168478	23J15	30-Jul-08	29-Jul-10	3
2168479	23J15	30-Jul-08	29-Jul-10	25
2168480	23J15	30-Jul-08	29-Jul-10	49
2168481	23J15	30-Jul-08	29-Jul-10	49
2168482	23J15	30-Jul-08	29-Jul-10	49

Title	Map Sheet	Issued	Expiry	Area (Has)
2168483	23J15	30-Jul-08	29-Jul-10	1
2168484	23J15	30-Jul-08	29-Jul-10	26
2168485	23J15	30-Jul-08	29-Jul-10	34
2168486	23J15	30-Jul-08	29-Jul-10	1
2168488	23J15	30-Jul-08	29-Jul-10	2
2168489	23J15	30-Jul-08	29-Jul-10	1
2168490	23J15	30-Jul-08	29-Jul-10	46
2168491	23J15	30-Jul-08	29-Jul-10	43
2168492	23J15	30-Jul-08	29-Jul-10	49
2168493	23J15	30-Jul-08	29-Jul-10	46
2168494	23J15	30-Jul-08	29-Jul-10	5
2168495	23J15	30-Jul-08	29-Jul-10	14
2168496	23J15	30-Jul-08	29-Jul-10	38
2168497	23J15	30-Jul-08	29-Jul-10	49
2168498	23J15	30-Jul-08	29-Jul-10	49
2168499	23J15	30-Jul-08	29-Jul-10	46
2168500	23J15	30-Jul-08	29-Jul-10	14
2168501	23J15	30-Jul-08	29-Jul-10	6
2168502	23J15	30-Jul-08	29-Jul-10	49
2168503	23J15	30-Jul-08	29-Jul-10	49
2168504	23J15	30-Jul-08	29-Jul-10	49
2168505	23J15	30-Jul-08	29-Jul-10	49
2168506	23J15	30-Jul-08	29-Jul-10	49
2168507	23J15	30-Jul-08	29-Jul-10	49
2168508	23J15	30-Jul-08	29-Jul-10	49
2168509	23J15	30-Jul-08	29-Jul-10	49
2168510	23J15	30-Jul-08	29-Jul-10	49
2168511	23J15	30-Jul-08	29-Jul-10	49
2168512	23J15	30-Jul-08	29-Jul-10	49
2168513	23J15	30-Jul-08	29-Jul-10	49
2168514	23J15	30-Jul-08	29-Jul-10	49
2168515	23J15	30-Jul-08	29-Jul-10	49
2168516	23J15	30-Jul-08	29-Jul-10	49
2168517	23J15	30-Jul-08	29-Jul-10	49
2168518	23J15	30-Jul-08	29-Jul-10	49
2168519	23J15	30-Jul-08	29-Jul-10	49
2168520	23J15	30-Jul-08	29-Jul-10	49
2168521	23J15	30-Jul-08	29-Jul-10	49
2168522	23J15	30-Jul-08	29-Jul-10	49
2168523	23J15	30-Jul-08	29-Jul-10	49
2168524	23J15	30-Jul-08	29-Jul-10	49
2168525	23J15	30-Jul-08	29-Jul-10	49
2168526	23J15	30-Jul-08	29-Jul-10	49
2168527	23J15	30-Jul-08	29-Jul-10	49

Title	Map Sheet	Issued	Expiry	Area (Has)
2168528	23J15	30-Jul-08	29-Jul-10	49
2168529	23J15	30-Jul-08	29-Jul-10	49
2168530	23J15	30-Jul-08	29-Jul-10	49
2168531	23O03	30-Jul-08	29-Jul-10	20
2168532	23O03	30-Jul-08	29-Jul-10	17
2168533	23O03	30-Jul-08	29-Jul-10	27
2168534	23J14	30-Jul-08	29-Jul-10	3
2168536	23J15	30-Jul-08	29-Jul-10	13
2168537	23J15	30-Jul-08	29-Jul-10	34
2168538	23J15	30-Jul-08	29-Jul-10	29
2168539	23J15	30-Jul-08	29-Jul-10	21
2168540	23J15	30-Jul-08	29-Jul-10	36
2168541	23J15	30-Jul-08	29-Jul-10	48
2168542	23J15	30-Jul-08	29-Jul-10	46
2168612	23J15	31-Jul-08	30-Jul-10	3
2188494	23O07	16-Sep-09	15-Sep-11	39
2188495	23O07	16-Sep-09	15-Sep-11	49
2188496	23O07	16-Sep-09	15-Sep-11	49
2188497	23O07	16-Sep-09	15-Sep-11	49
2188498	23O07	16-Sep-09	15-Sep-11	15
2188499	23O07	16-Sep-09	15-Sep-11	48
2188500	23O07	16-Sep-09	15-Sep-11	49
2188501	23O07	16-Sep-09	15-Sep-11	49
2188502	23O07	16-Sep-09	15-Sep-11	49
2188503	23O07	16-Sep-09	15-Sep-11	49
2188504	23O07	16-Sep-09	15-Sep-11	38
2188505	23O07	16-Sep-09	15-Sep-11	49
2188506	23O07	16-Sep-09	15-Sep-11	49
2188507	23O07	16-Sep-09	15-Sep-11	49
2188508	23O07	16-Sep-09	15-Sep-11	33
2188509	23O07	16-Sep-09	15-Sep-11	49
2188510	23O07	16-Sep-09	15-Sep-11	49
2188511	23O07	16-Sep-09	15-Sep-11	20
2188512	23O07	16-Sep-09	15-Sep-11	22
2188513	23O07	16-Sep-09	15-Sep-11	25
2188514	23O07	16-Sep-09	15-Sep-11	46
2188515	23O07	16-Sep-09	15-Sep-11	49
2188516	23O07	16-Sep-09	15-Sep-11	49
2188517	23O07	16-Sep-09	15-Sep-11	11
2188518	23O07	16-Sep-09	15-Sep-11	44
2188519	23O07	16-Sep-09	15-Sep-11	49
2188520	23O07	16-Sep-09	15-Sep-11	49
2188521	23O07	16-Sep-09	15-Sep-11	49
2188522	23O07	16-Sep-09	15-Sep-11	48

Title	Map Sheet	Issued	Expiry	Area (Has)
2188523	23O07	16-Sep-09	15-Sep-11	49
2188524	23O07	16-Sep-09	15-Sep-11	49
2188525	23O07	16-Sep-09	15-Sep-11	49
2188526	23O07	16-Sep-09	15-Sep-11	49
2188527	23O10	16-Sep-09	15-Sep-11	48
2188528	23O10	16-Sep-09	15-Sep-11	48
2188529	23O10	16-Sep-09	15-Sep-11	48
2188530	23O10	16-Sep-09	15-Sep-11	48
2188531	23O10	16-Sep-09	15-Sep-11	48
2188532	23O10	16-Sep-09	15-Sep-11	48
2188533	23O10	16-Sep-09	15-Sep-11	48
2188534	23O10	16-Sep-09	15-Sep-11	48
2188535	23O10	16-Sep-09	15-Sep-11	48
2188536	23O10	16-Sep-09	15-Sep-11	48
2188537	23O10	16-Sep-09	15-Sep-11	48
2188538	23O10	16-Sep-09	15-Sep-11	48
2188539	23O10	16-Sep-09	15-Sep-11	48
2188540	23O10	16-Sep-09	15-Sep-11	48
2188541	23O10	16-Sep-09	15-Sep-11	48
2188542	23O10	16-Sep-09	15-Sep-11	48
2188543	23O10	16-Sep-09	15-Sep-11	48
2188544	23O10	16-Sep-09	15-Sep-11	48
2188545	23O10	16-Sep-09	15-Sep-11	48
2188546	23O10	16-Sep-09	15-Sep-11	48
2188547	23O10	16-Sep-09	15-Sep-11	48
2188548	23O10	16-Sep-09	15-Sep-11	48
2188549	23O10	16-Sep-09	15-Sep-11	48
		TOTAL	156	6081

Table 4-4

Mining Titles in Quebec Acquired in December 2009

(Transfer to SMI in process)*

Title	Map Sheet	Issued	Expiry	Area (Has)
2198039	23O10	18-Dec-09	17-Dec-11	48
2198040	23O10	18-Dec-09	17-Dec-11	48
2198041	23O10	18-Dec-09	17-Dec-11	48
2198042	23O10	18-Dec-09	17-Dec-11	48
2198043	23O10	18-Dec-09	17-Dec-11	48
2198044	23O10	18-Dec-09	17-Dec-11	48
2198045	23O10	18-Dec-09	17-Dec-11	48
2198046	23O10	18-Dec-09	17-Dec-11	48
2198047	23O10	18-Dec-09	17-Dec-11	48
2198048	23O10	18-Dec-09	17-Dec-11	48
2198049	23O10	18-Dec-09	17-Dec-11	48
2198050	23O10	18-Dec-09	17-Dec-11	48
2198889	23O03	13-Jan-10	12-Jan-12	49
2198890	23O03	13-Jan-10	12-Jan-12	49
2198891	23O03	13-Jan-10	12-Jan-12	49
2198892	23O03	13-Jan-10	12-Jan-12	49
2198893	23O03	13-Jan-10	12-Jan-12	49
2198894	23O03	13-Jan-10	12-Jan-12	49
2198895	23O03	13-Jan-10	12-Jan-12	49
2198896	23O03	13-Jan-10	12-Jan-12	49
2198897	23O03	13-Jan-10	12-Jan-12	49
2198898	23O03	13-Jan-10	12-Jan-12	49
2198899	23O03	13-Jan-10	12-Jan-12	49
2198900	23O03	13-Jan-10	12-Jan-12	49
2198901	23O03	13-Jan-10	12-Jan-12	49
2198902	23O03	13-Jan-10	12-Jan-12	49
2198903	23O03	13-Jan-10	12-Jan-12	49
2198904	23O03	13-Jan-10	12-Jan-12	49
2198905	23O03	13-Jan-10	12-Jan-12	49
2198906	23O03	13-Jan-10	12-Jan-12	49
2198907	23O03	13-Jan-10	12-Jan-12	49
2198908	23O03	13-Jan-10	12-Jan-12	49
2198909	23O03	13-Jan-10	12-Jan-12	49
2198910	23O03	13-Jan-10	12-Jan-12	49
2198911	23O03	13-Jan-10	12-Jan-12	49
2198912	23O03	13-Jan-10	12-Jan-12	49
2198913	23O03	13-Jan-10	12-Jan-12	49
2198914	23O03	13-Jan-10	12-Jan-12	49
2198915	23O03	13-Jan-10	12-Jan-12	49

Title	Map Sheet	Issued	Expiry	Area (Has)
2198916	23O03	13-Jan-10	12-Jan-12	49
2198917	23O03	13-Jan-10	12-Jan-12	49
2198918	23O03	13-Jan-10	12-Jan-12	49
2198919	23O03	13-Jan-10	12-Jan-12	49
		TOTAL	43	2,095

* Held by Peter Ferderber on behalf of Fonteneau Resources Limited. Transfer of these titles have been executed and registration is pending.

Figure 4-1
Project Location Map

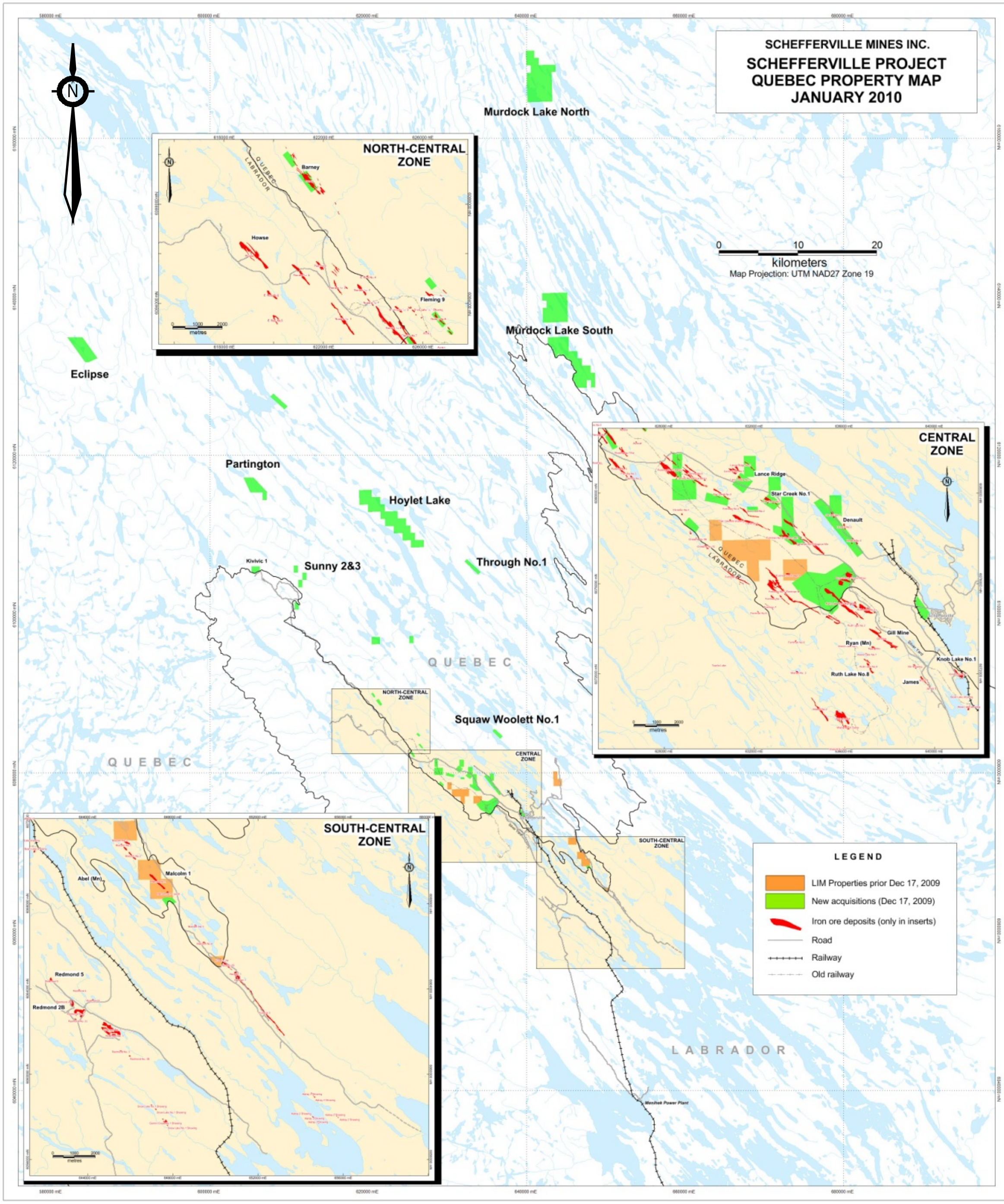


Figure 4-2
Location Map of the SMI Properties

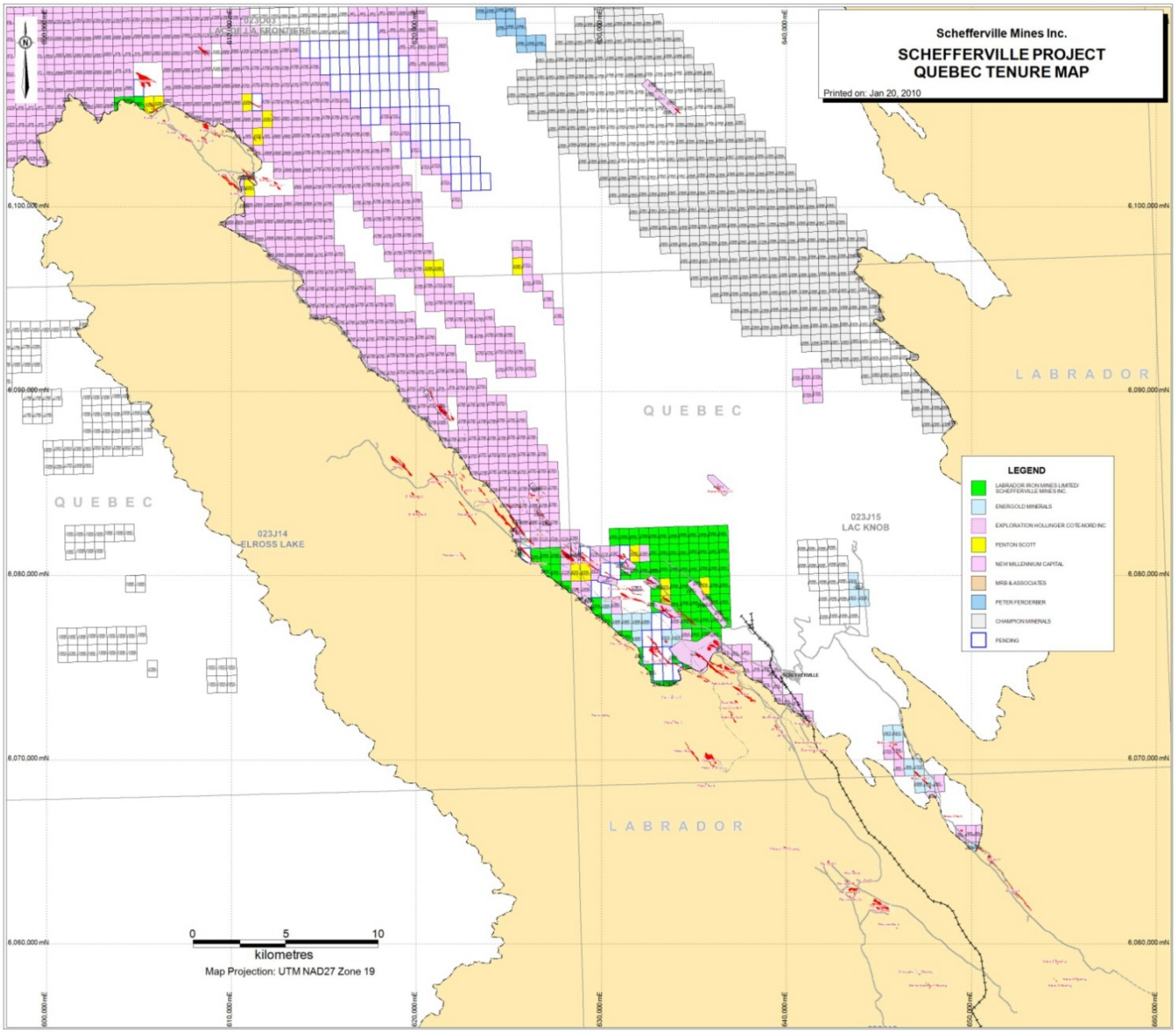


Figure 4-3
Map of the SMI Mining Titles and Mining Leases in Quebec

5.0 Accessibility, Climate, Local Resources, Infrastructure, Physiography (Item 7.0)

5.1 Accessibility

The SMI properties are part of the western central part of the Labrador Trough iron range. The mineral properties are located about 1,000 km northeast of Montreal and adjacent to or within 100 km of the town of Schefferville (Quebec). There are no roads connecting the area to southern Quebec. Access to the area is by rail from Sept-Îles to Schefferville or by air from Montreal and Sept-Îles.

Denault, Star Creek No.1, and Lance Ridge, are accessible by existing gravel roads and are located in Quebec approximately 5 to 8 km north-northwest of the town of Schefferville. Other properties include Christine, Fleming 7, Ferriman 3 and 5 and Timmins 5, which are accessible by existing gravel road, and are located 11 km northwest from the town of Schefferville. The Christine deposit is partly in Labrador and partly in Quebec.

Malcolm 1 is located in Quebec approximately 10 km southeast of Schefferville can be reached by existing gravel roads.

The northerly properties include Fleming 9 and Barney, and these deposits are located approximately 15 to 25 km northwest of the town of Schefferville and can be reached by existing gravel roads developed during the former IOCC operations.

The Squaw Woollett 1 property is located approximately 11 km north-northwest of the town of Schefferville and is accessible by existing gravel roads. The Trough 1 property is approximately 21 km north-northwest of Schefferville and is currently not accessible by road but can be reached by helicopter.

The Sunny 2 & 3 deposits are located approximately 43 km to the northwest of the town of Schefferville and can be reached by existing gravel roads developed during the former IOCC operations. Partington and Hoylet Lake, located approximately 55 km and 40 km, respectively, northwest of Schefferville, can also be reached by existing gravel roads developed during the former IOCC operations.

The Eclipse, Schmoo Lake, Murdoch Lake North and Murdoch Lake South properties, located respectively approximately 85 km northwest, 81 km northwest, 95 km north, and 60 km north of the town of Schefferville, do not have road access but are accessible by helicopter.

5.2 Climate

The Schefferville area and vicinity have a sub-arctic continental taiga climate with very severe winters. Daily average temperatures exceed 0°C for only five months a year. Daily mean temperatures for Schefferville average -24.1°C and -22.6°C in January and February respectively. Mean daily average temperatures in July and August are 12.4°C and 11.2°C, 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. The normal exploration field season is expected to be May through November.

5.3 Local Resources

The economy of Schefferville is, since the closure of the mining operations of IOCC, based on hunting and fishing, tourism and public service administration. Several fishing and hunting camp operators are based in Schefferville.

Schefferville, an incorporated municipality in Quebec, is largely intact after the closing of the iron mines of IOCC in 1982. Many of the houses and original public buildings, including a recreation centre, hospital, and churches were demolished after IOCC left. In the last few years, a number of new buildings and houses have been built including medical clinics and churches. The present population is about 1,250 permanent residents including the Matimekosh (Innu) and Kawawachikamak (Naskapi) reserves. Kawawachikamak, 20 km north of Schefferville, is a modern community with its own school, medical clinic and recreational complex.

5.4 Infrastructure

Most of the properties are located inside a 55 km radius from Schefferville. Most of the SMI properties where additional geological investigations and RC drilling and trenching is initially proposed are within close distance of Schefferville.

The town of Schefferville has a Fire Department with mainly volunteer firemen, a fire station and firefighting equipment. The Sûreté Du Québec Police Force is present in the town of Schefferville and the Matimekosh reserve. A clinic is present in Schefferville with limited medical care. A municipal garage, small motor repair shops, a local hardware store, a mechanical shop, and a local convenient store, 2 hotels, numerous outfitters accommodations are also present in Schefferville.

The waste disposal including landfill site and garbage collection is provided by the Matimekosh band council, at the municipal dump in Schefferville. A modern airport includes a 2,000 metre runway and navigational aids for large jet aircraft. Daily air service is provided to and from Sept-Isles, Quebec with less frequent service to Montreal.

A community radio station, recreation centre, parish hall, gymnasium, playground, childcare centre, drop-in centre are also present in Schefferville.

Schefferville possesses the necessary services for water treatment and sewage disposal as well as electricity from the Menihek power plant located 35 km southeast of Schefferville. The hydro power plant was built to support iron ore mining and services in Schefferville. Back-up diesel generators are also present.

The Railroad

Schefferville is accessible by train from Sept-Iles by Tshiuetin Rail Transportation Inc. (TSH). The mandate of TSH is to maintain the passenger and light freight traffic between Sept-Iles and Schefferville. Train departures from Sept-Iles and Schefferville occur twice a week.

The Quebec North Shore and Labrador Railway (QNS&L) was established by IOCC to haul iron ore from Schefferville area mines to Sept-Îles a distance of some 568 km starting in 1954. After shipping some 150 million tons of iron ore from the area the operation was closed in 1982, although, as a common carrier, QNS&L maintained a passenger and freight service between Sept-Îles, Labrador City and Schefferville up to 2005. In 2005 the IOCC sold the section of the railway (208 km) between Ross Bay Junction and Schefferville to TSH.

Three other railway companies operate in the area, QNS&L, Arnault Railways between Arnault Junction and Pointe Noire to haul iron ore for Wabush Mines (Wabush), and Northern Lands Railway (NLR) which is jointly owned by IOCC and Wabush for hauling iron concentrates from Labrador City area to Ross Bay.

5.5 Physiography

The topography of the Schefferville mining district is bedrock controlled with the average elevation of the properties varying between 500 m and 700m above sea level. The terrain is generally gently rolling to flat, sloping north-westerly, with a total relief of approximately 50 to 100 m. In the main mining district, the topography consists of a series of NW-SE trending ridges while the Astray Lake and Sawyer Lake areas are within the Labrador Lake Plateau. Topographic highs in the area are normally formed by more resistant quartzites, cherts and silicified horizons of the iron formation itself. Lows are commonly underlain by softer siltstones and shales.

Generally, the area slopes gently west to northeast away from the land representing the Quebec – Labrador border and towards the Howells River valley parallel to the dip of the deposits. Streams to the east and west of the height of land in Quebec, flow into the Kaniapiskau watershed, which flows north into Ungava Bay.

The mining district is within a “zone of erosion” in that the last period of glaciation has eroded away any pre-existing soil/overburden cover, with the zone of deposition of these sediments being well away from the area of interest. Glaciation ended in the area as little as 10,000 years ago and there is very little subsequent soil development. Vegetation commonly grows directly on glacial sediments and the landscape consists of bedrock, a thin veneer of till as well as lakes and bogs.

The thin veneer of till in the area is composed of both glacial and glacial fluvial sediments. Tills deposited during the early phases of glaciations were strongly affected by later sub glacial melt waters during glacial retreat. Commonly, the composition of till is sandy gravel with lesser silty clay, mostly preserved in topographic lows. Glacial melt water channels are preserved in the sides of ridges both north and south of Schefferville.

Glacial ice flow in the area has been recorded as an early major NW to SE flow and a later less pronounced SW to NE flow. The early phase was along strike with the major geological features and the final episode was against the topography. The later NE flow becomes more pronounced towards the southern end of the district near Astray Lake or Dyke Lake.

6.0 History (Item 8.0)

The Quebec-Labrador iron range has a tradition of mining since the early 1950's and is one of the largest iron producing regions in the world. The former direct shipping iron ore operations at Schefferville (Quebec and Labrador) operated by IOCC produced in excess of 150 million tons of lump and sinter fine ores over the period 1954-1982. The properties comprising SMI's Schefferville area project were part of the original IOCC Schefferville operations and formed part of the 250 million tons of reserves and resources identified by IOCC but were not part of IOCC's producing properties[1].

There are currently three major iron ore producers in the Labrador City-Wabush region to the south, i.e. IOCC, Arcelor Mittal and Wabush Mines. Two or three major new iron ore projects in the Quebec-Labrador Peninsula are currently at the feasibility or construction stage.

The Labrador Trough which forms the central part of the Quebec-Labrador Peninsula, is a remote region which remained largely unexplored until the late 1930's and early 1940's when the first serious mineral exploration was initiated by Hollinger and LME. These companies were granted large mineral concessions in the Quebec and Labrador portions of the Trough. Initially, the emphasis was on exploring for base and precious metals but, as the magnitude of the iron deposits in the area became apparent, development of these resources became the exclusive priority for a number of years.

Mining and shipping from the Hollinger lands began in 1954 under the management of the IOCC, a company specifically formed to exploit the Schefferville area iron deposits. As the technology of the steel industry changed over the ensuing years more emphasis was placed on the concentrating ores of the Wabush area and interest and markets for the direct shipping Schefferville ores declined. Finally, in 1982, the IOCC closed their operations in the Schefferville area. From 1954 to 1982, a total of some 150 million tons of ore was produced from the area.

In 1954, IOCC started to operate open pit mines in Schefferville containing 56-58% Fe, and exported the direct-shipping product to steel companies in the United States and Western Europe. The Quebec properties and iron deposits that currently form SMI Schefferville Project were part of the original IOCC Schefferville area operations and the reserves and resources identified at the

[1] This is an historic estimate made in compliance with the standards used by IOCC described in Section 17 of this report.

Quebec deposits were developed under the operations of IOCC during the time they operated their direct-shipping Schefferville iron operations.

During the 1960's, higher-grade iron deposits were developed in Australia and South America and customers' preferences shifted to products containing +62% Fe or higher. In 1963, IOCC developed the Carol Lake deposit near Labrador City and started to produce concentrates and pellets with +64% Fe, so as to satisfy the customers' requirements for higher-grade products. High growth in the demand for steel, which began after the end of World War II, came to an abrupt end in the early 1980's due to the impact of increasing oil prices. The energy crisis affected steel production in the U.S. and Western Europe as consumers switched to energy-efficient products. As a result, the demand for iron ore plummeted, creating a severe overcapacity in the industry. Consequently, IOCC decided to close the Schefferville area mines in 1982.

Hollinger, a subsidiary of Norcen Energy Ltd., was the underlying owner of the iron ore mining leases in Schefferville area of Quebec covering the IOCC operations. Following the closure of the IOCC mining operations, ownership of the leases in Quebec reverted to Hollinger and the mining rights held by IOCC in Labrador reverted to the Crown. In the early 1990's, Hollinger was acquired by La Fosse Group Inc. (La Fosse).

7.0 Geological Setting (Item 9.0)

7.1 Regional Geology

The following summarizes the general geological settings of the various properties making up the SMI's Schefferville project. The regional geological descriptions herein are based on published reports by Gross (1965), Zajac (1974), Wardel (1979) and Neale (2000).

At least 45 hematite-goethite ore deposits have been discovered in an area 20 km wide that extends 100 km northwest of Astray Lake, referred to as the Knob Lake Iron Range, which consists of tightly folded and faulted iron-formation exposed along the height of land that forms the boundary between Quebec and Labrador. The iron deposits occur in deformed segments of iron-formation, and the ore content of single deposits varies from one million to more than 50 million tonnes.

The Knob Lake properties are located on the western margin of the Labrador Trough adjacent to Archean basement gneisses. The Labrador Trough otherwise known as the Labrador-Quebec Fold Belt extends for more than 1,000 km along the eastern margin of the Superior craton from Ungava Bay to Lake Pletipi, Quebec. The belt is about 100 km wide in its central part and narrows considerably to the north and south.

The western half of the Labrador Trough, consisting of a thick sedimentary sequence, can be divided into three sections based on changes in lithology and metamorphism (North, Central and South). The Trough is comprised of a sequence of Proterozoic sedimentary rocks including iron formation, volcanic rocks and mafic intrusions known as the Kaniapiskau Supergroup (Gross, 1968). The Kaniapiskau Supergroup consists of the Knob Lake Group in the western part of the Trough and the Doublet Group, which is primarily volcanic, in the eastern part.

The Central or Knob Lake Range section extends for 550 km south from the Koksoak River to the Grenville Front located 30 km north of Wabush Lake. The principal iron formation unit, the Sokoman Formation, part of the Knob Lake Group, forms a continuous stratigraphic unit that thickens and thins from sub-basin to sub-basin throughout the fold belt.

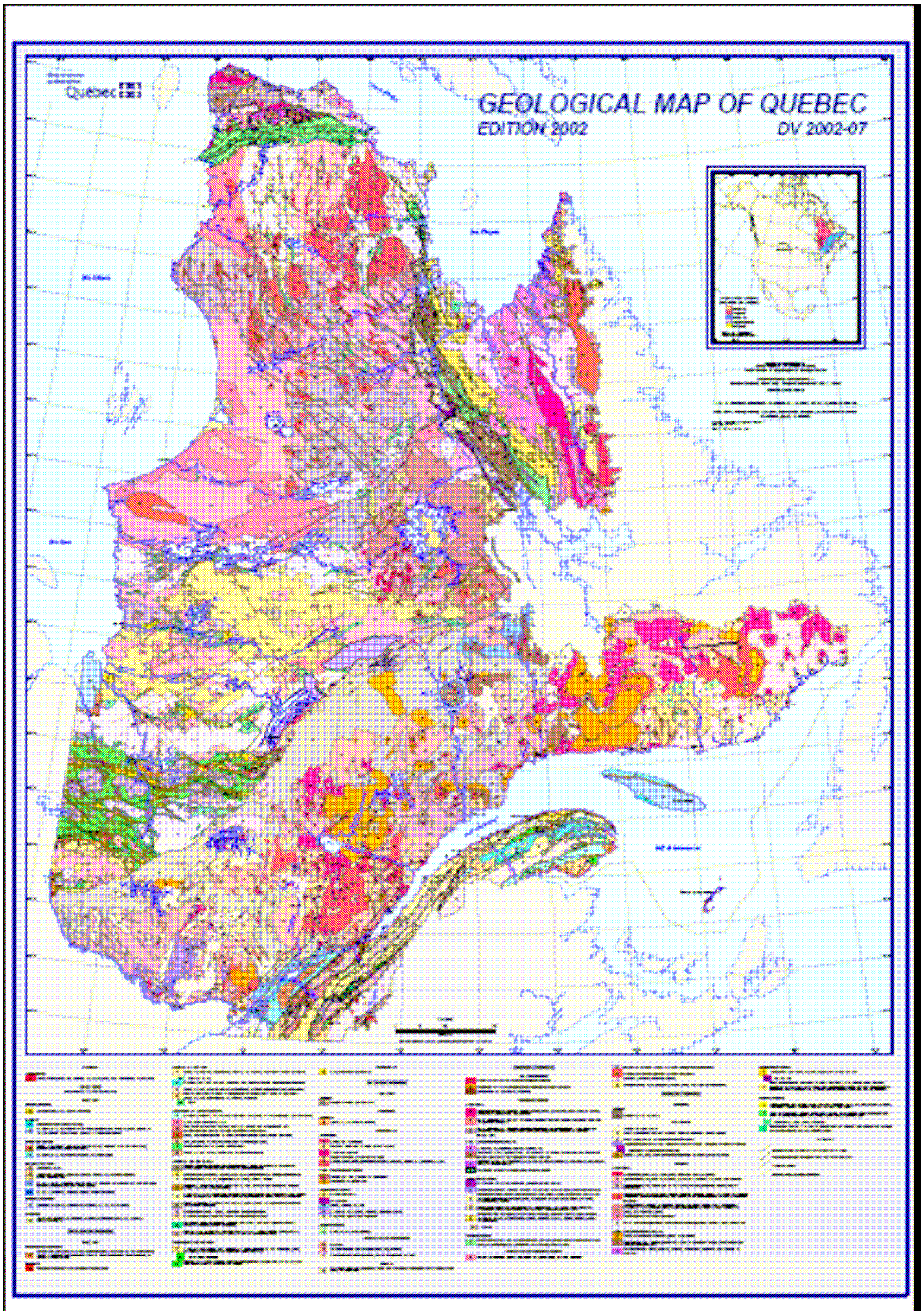
The southern part of the Trough is crossed by the Grenville Front. Trough rocks in the Grenville Province to the south are highly metamorphosed and complexly folded. Iron deposits in the Grenville part of the Labrador Trough include Lac Jeannine, Fire Lake, Mounts Wright and Reed and the Luce, Humphrey and Scully deposits in the Wabush area. The high-grade metamorphism of the Grenville Province is responsible for recrystallization of both iron oxides and silica in primary iron formation producing coarse-grained sugary quartz, magnetite, specular hematite schists (meta-taconites) that are of improved quality for concentrating and processing.

The main part of the Trough north of the Grenville Front is in the Churchill Province and has been subjected to low-grade (greenschist facies) metamorphism. In areas west of Ungava Bay, metamorphism increases to lower amphibolite grade. The mines developed in the Schefferville area by IOCC exploited residually enriched earthy iron deposits derived from taconite-type protores.

Geological conditions throughout the central division of the Labrador Trough are generally similar to those in the Knob Lake Range.

A general geological map of Quebec is shown in Figure 7-1.

Figure 7-1
Geological Map of Quebec



7.2 Local Geology

The general stratigraphy of the Knob Lake area is representative of most of the range, except that the Denault dolomite and Fleming Formation are not uniformly distributed. The Knob Lake Range occupies an area 100 km long by 8 km wide. The sedimentary rocks including the cherty iron formation of this area are weakly metamorphosed to greenschist facies. In the structurally complex areas, leaching and secondary enrichment have produced earthy textured iron deposits. Unaltered banded magnetite iron formation, often referred to as taconite, occurs as gently dipping beds west of Schefferville in the Howells River deposits.

The sedimentary rocks in the Knob Lake Range strike northwest, and their corrugated surface appearance is due to parallel ridges of quartzite and iron formation which alternate with low valleys of shales and slates. The Hudsonian Orogeny compressed the sediments into a series of synclines and anticlines, which are cut by steep angle reverse faults that dip primarily to the east. The synclines are overturned to the southwest with the east limits commonly truncated by strike faults.

Most of the secondary earthy textured iron deposits occur in canoe-shaped synclines; some are tabular bodies extending to a depth of at least 200 m, and one or two deposits are relatively flat lying and cut by several faults. In the western part of the Knob Range, the iron formation dips gently eastward over the Archean basement rocks for about 10 km to the east, then forms an imbricate fault structure with bands of iron formation, repeated up to seven times.

Subsequent supergene processes converted some of the iron formations into high-grade ores, preferentially in synclinal depressions and/or down-faulted blocks. Original sedimentary textures are commonly preserved by selected leaching and replacement of the original deposits. Jumbled breccias of enriched ore and altered iron formations, locally called rubble ores, are also present. Fossil trees and leaves of Cretaceous age have been found in rubble ores in some of the deposits (Neal, 2000).

7.3 Geology of Schefferville Area

The stratigraphy of the Schefferville area is as follows:

Attikamagen Formation – is exposed in folded and faulted segments of the stratigraphic succession where it varies in thickness from 30 metres near the western margin of the belt to more than 365 metres near Knob Lake. The lower part of the formation has not been observed. It consists of argillaceous material that is thinly bedded (2-3mm), fine grained (0.02 to 0.05mm), grayish green, dark grey to black, or reddish grey. Calcareous or arenaceous lenses as much as 30 cm in thickness occur locally interbedded with the argillite and slate, and lenses of chert are common. The formation grades upwards into Denault dolomite, or into Wishart quartzite in area where dolomite is absent. Beds are intricately drag-folded, and cleavage is well developed parallel with axial planes, perpendicular to axial lines of folds and parallel with bedding planes.

Denault Formation – is interbedded with the slates of the Attikamagen Formation at its base and grades upwards into the chert breccia or quartzite of the Fleming Formation. The Denault Formation consists primarily of dolomite, which weathers buff-grey to brown. Most of it occurs in fairly massive beds which vary in thickness from a few centimetres to about one metre, some of which are composed of aggregates of dolomite fragments.

Near Knob Lake the formation probably has a maximum thickness of 180 metres but in many other places it forms discontinuous lenses that are, at most, 30 metres thick. Leached and altered beds near the iron deposits are rubbly, brown or cream colored and contain an abundance of chert or quartz fragments in a soft white siliceous matrix.

Fleming Formation – occurs a few kilometres southwest of Knob Lake and only above dolomite beds of the Denault Formation. It has a maximum thickness of about 100 metres and consists of rectangular fragments of chert and quartz within a matrix of fine chert. In the lower part of the formation the matrix is dominantly dolomite grading upwards into chert and siliceous material.

Wishart Formation – Quartzite and arkose of the Wishart Formation form one of the most persistent units in the Kaniapiskau Supergroup. Thick beds of massive quartzite are composed of well-rounded fragments of glassy quartz and 10-30% rounded fragments of pink and grey feldspar, well cemented by quartz and minor amounts of hematite and other iron oxides. Fresh surfaces of the rock are medium grey to pink or red. The thickness of the beds varies from a few centimetres to about one metre but exposures of massive quartzite with no apparent bedding occur most frequently.

Ruth Formation – Overlying the Wishart Formation is a black, grey-green or maroon ferruginous slate, 3 to 36 metres thick. This thinly banded, fissile material contains lenses of black chert and various amounts of iron oxides. It is composed of angular fragments of quartz with K-feldspar sparsely distributed through a very fine mass of chlorite, white mica, iron oxides and abundant finely disseminated carbon and opaque material. Much of the slate contains more than 20% iron.

Sokoman Formation – More than 80% of the ore in the Knob Lake Range occurs within this formation. Lithologically the iron formation varies in detail in different parts of the range and the thickness of individual members is not consistent.

A thinly bedded, slaty facies at the base of the formation consists largely of fine chert with an abundance of iron silicates and disseminated magnetite and siderite. Fresh surfaces are grey to olive green and weathered surfaces brownish yellow to bright orange where minnesotaite is abundant.

Thin-banded oxide facies of iron formation occurs above the silicate-carbonate facies in nearly all parts of the area. The jasper bands, which are 1.25 cm or less wide and deep red, or in a few places greenish yellow to grey, are interbanded with hard, blue layers of fine-grained hematite and a little magnetite.

The thin jasper beds grade upwards into thick massive beds of grey to pinkish chert and beds that are very rich in blue and black iron oxides. These massive beds are commonly referred to as "cherty metallic" iron formation and make up most of the Sokoman Formation. The iron oxides are usually concentrated in layers a few centimetres thick interbedded with leaner cherty beds. In many places iron-rich layers and lenses contain more than 50% hematite and magnetite.

The upper part of the Sokoman Formation comprises beds of dull green to grey or black massive chert that contains considerable siderite or other ferruginous carbonate. Bedding is discontinuous and the rock as a whole contains much less iron than the lower part of the formation.

Menihek Formation – A thin-banded, fissile, grey to black argillaceous slate conformably overlies the Sokoman Formation in the Knob Lake area. Total thickness is not known, as the slate is only found in faulted blocks in the main ore zone. East or south of Knob Lake, the Menihek Formation is more than 300 metres thick but tight folding and lack of exposure prevent determination of its true thickness.

The Menihek slate is mostly dark grey or jet black. It has a dull sooty appearance but weathers light grey or becomes buff colored where leached. Bedding is less distinct than in the slates of other slate formations but thin laminae or beds are visible in thin sections.

8.0 Deposit Types and Deposits (Item 10)

8.1 Iron Ore

The Labrador Trough contains four main types of iron deposits:

- Soft iron ores formed by supergene leaching and enrichment of the weakly metamorphosed cherty iron formation; they are composed mainly of friable fine-grained secondary iron oxides (hematite, goethite, limonite).
- Taconites, the fine-grained, weakly metamorphosed iron formations with above average magnetite content and which are also commonly called magnetite iron formation.
- More intensely metamorphosed, coarser-grained iron formations, termed metataconites which contain specular hematite and subordinate amounts of magnetite as the dominant iron minerals.
- Occurrences of hard high-grade hematite ore occur southeast of Schefferville at Sawyer Lake, Astray Lake and in some of the Houston deposits.

The SMI deposits are composed of iron formations of the Lake Superior-type. The Lake Superior-type iron formation consists of banded sedimentary rocks composed principally of bands of iron oxides, magnetite and hematite within quartz (chert)-rich rock, with variable amounts of silicate, carbonate and sulphide lithofacies. Such iron formations have been the principal sources of iron throughout the world.

The Sokoman iron formation was formed as a chemical sediment under varied conditions of oxidation-reduction potential (Eh) and hydrogen ion concentrations (pH) in varied depth of seawater. The resulting irregularly bedded, jasper-bearing, granular, oolite and locally conglomeratic sediments are typical of the predominant oxide facies of the Superior-type iron formations, and the Labrador Trough is the largest example of this type.

The facies changes consist commonly of carbonate, silicate and oxide facies. Typical sulphide facies are poorly developed. The mineralogy of the rocks is related to the change in facies during deposition, which reflects changes from shallow to deep-water environments of sedimentation. In general, the oxide facies are irregularly bedded, and locally conglomeratic, having formed in oxidizing shallow-water conditions. Most carbonate facies show deep-water features, except for the presence of minor amounts of granules. The silicate facies are present in between the oxide and carbonate facies, with some textural features indicating deep-water formation.

Each facies contains typical primary minerals, ranging from siderite, minnesotaite, and magnetite-hematite in the carbonate, silicate and oxide facies, respectively. The most common mineral in the Sokoman Formation is chert, which is closely associated with all facies, although it occurs in minor quantities with the silicate facies. Carbonate and silicate lithofacies are present in varying amounts in the oxide members.

The sediments of the Labrador Trough were initially deposited in a stable basin which was subsequently modified by penecontemporaneous tectonic and volcanic activity. Deposition of the iron formation indicates intraformational erosion, redistribution of sediments, and local contamination by volcanic and related clastic material derived from the volcanic centers in the Dyke-Astray area.

The Iron Ore deposits that form part of the SMI project are further subdivided into:

- The deposits in the Central Zone;
- The deposits in the South Central Zone;
- The deposits in the North Central Zone, and
- Other Iron Ore deposits.

8.1.1 Central Zone

8.1.1.1 Denault

The Denault property is accessible by existing gravel roads and is located in Quebec approximately 5 to 8 km north-northwest of the town of Schefferville. The property consists of three separate areas of Fe enrichment which are from north to south Denault 1,2 and 3. The structure that crosses a low hillside is a rolling homocline. The ore type is predominantly yellow and is located primarily in the Ruth and silicate SCIF (carbonate iron formation) members of the LIF (lower iron formation). Overburden in the area is less than 5 m thick.

8.1.1.2 Star Creek 1

The Star Creek deposit is accessible by existing gravel roads and is located in Quebec approximately 5 to 8 km north-northwest of the town of Schefferville. The deposit is located 2 km to the west of the Denault showing. The mineralization occurs in fault blocks within the LIF and Ruth Formation and is a mix of the red-yellow and blue types. The Star Creek 1 Deposit was partially mined out by IOCC however there is still a iron and manganese resource in place. Recent work by a previous claim holder suggests that stockpiles immediately to the east of the open pit may contain further manganese resources.

8.1.1.3 Lance Ridge

The Lance Ridge deposit is accessible by existing gravel roads and is located in Quebec approximately 5 to 8 km north-northwest of the town of Schefferville. This property lies 1.5 km northwest from SMI's Star Creek Property. It is a combined iron/manganese resource. Lance Ridge 1 is an enriched iron deposit that contains several zones of manganese mineralization. IOCC trenched, sampled and drilled the deposit in 1970. The area of enrichment is generally covered by 3 m to 7 m of glacial till and does not outcrop. IOCC outlined an area of high manganese by trench sampling. Their analyses ranged from 30% to 31% Mn.

8.1.2 South Central Zone

8.1.2.1 Malcolm 1

The Malcolm 1 is located approximately 10 km southeast of Schefferville and can be reached by existing gravel roads. The center of the deposit localizes the refuge of Lake Malcolm. IOCC discovered the deposit in 1950. The deposit contains iron in the form of hematite and the mineralization is located within the Sokoman Iron Formation along with slaty iron formation of the Ruth Formation. The deposit is oriented southwest and has an inclination of 60 degrees.

8.1.3 North Central Zone

8.1.3.1 Barney 1

The Barney 1 property is located approximately 25 km northwest of the town of Schefferville and can be reached by existing gravel roads developed during the former IOCC operations. The Barney 1 deposit is located 3.5 km to the NE from Howse on the Quebec side of the provincial boundary. Geologically described as a complex syncline it is exposed in a low hillside. Overburden thickness varies between 2 m and 5 m. The ore type in the Barney area is greater than 75% blue ore.

8.1.3.2 Fleming 9

The Fleming 9 deposit is located approximately 15 northwest of the town of Schefferville and can be reached by existing gravel roads. The centre part of the deposit is 2 km to the north of Iron Lake. The deposit was discovered in 1949 by IOCC. The deposit is composed of iron bearing hematite ore, which represents the Sokoman Iron Formation. The mineralization is conformable with the stratigraphy.

8.1.4 Other Iron Deposits

8.1.4.1 Squaw Woollett 1

The Squaw Woollett 1 property, located within the province of Quebec and approximately 11 km north-northwest of the town of Schefferville is accessible by existing gravel roads. This resource was delineated by IOCC. The mineralization lies along the south east shore of Lake Vacher on gently sloping ground, overburden in the area is generally 2 m to 5 m thick. The structure is a northeast dipping homocline. The mineralization is a mix of the red, yellow and blue ore types.

8.1.4.2 Trough 1

The Trough 1 property, also located within Quebec, is approximately 21 km north-northwest of Schefferville and is currently not accessible by road but can only be reached by helicopter. This property is located on a gently sloping hillside with very little overburden. Mineralization is within a syncline and is reported to be predominantly yellow ore within the SCIF.

8.1.4.3 Partington

The Partington deposit is located approximately 55 km northwest of Schefferville and can be reached by existing gravel roads developed during the former IOCC operations. This property occupies gently sloping ground to the southeast of Partington Lake. Overburden ranges from 2 m to 5 m thick. The structure is described as a distorted syncline. The mineralization is reported to be predominantly blue type occurring in the MIF.

8.1.4.4 Eclipse

The Eclipse deposit is located approximately 85 km northwest of Schefferville and has no road access but is only accessible by helicopter. Eclipse is the second largest occurrence of iron ore in the Schefferville mining district. It is exceeded in size by only the Goodwood occurrence. The mineralization occurs in a northeast dipping faulted homocline and is composed of a mix of the red, yellow and blue types. Lying under a steep hillside on the east side of Sunspot Lake the overburden varies from 2 m to 5 m thick.

8.1.4.5 Fleming

The **Fleming 3** property was mined by IOCC and SMI is interested in the manganese resources contained in stockpiles adjacent to the old open pits.

The **Fleming 7** deposit is accessible by existing gravel road and is located approximately 10 km to 15 km from northwest of the town of Schefferville. Fleming 7 is located at the height of land that marks the Labrador-Quebec provincial border. This claim covers the southern extension of the Fleming 7 property from Labrador into Quebec

8.1.4.6 Snow Lake

The Snow Lake deposit is located 11 km northwest of the town of Schefferville, 2 km to the east of the Timmins area. This property is shown on IOCC maps as an iron resource. At the moment SMI does not possess any description of the occurrence or historic resource volumes.

8.1.4.7 Kivivic 1

This claim covers the extension of the Kivivic 1 property from Labrador into Quebec. Kivivic 1 is located some 43 km northwest of Schefferville and can be reached by gravel roads. It is located in a wide valley having an average elevation of 802 m (2630 ft.). The structure of Kivivic 1 is a faulted syncline. The average depth of the deposit was said to be 43 m (140 ft.) and the maximum depth greater than 61 m (200 ft.). The deposit consists of more than 75% blue ore that occurs predominantly in the MIF of the Sokoman Iron Formation (Stubbins et al., 1961).

8.2 Manganese Deposits

The manganese deposits in the Schefferville area were formed by residual and second stage (supergene) enrichment that affected the Sokoman (iron) Formation, some members of which contain up to 1% Mn in their unaltered state. The residual enrichment process involved the migration of meteoric fluids circulated through the proto-ore sequence oxidizing the iron formation, recrystallizing iron minerals to hematite, and leaching silica and carbonate. The result is a residually enriched iron formation that may contain up to 10% Mn. The second phase of this process, where it has occurred, is a true enrichment process (rather than a residual enrichment), whereby iron oxides (goethite, limonite), hematite and manganese are redistributed laterally or stratigraphically downward into the secondary porosity created by the removal of material during the primary enrichment phase.

Deposition along faults, fractures and cleavage surfaces, and in veins and veinlets is also seen, and corroborates the accepted belief that the structural breaks act as channel-ways for migrating hydrothermal fluids causing metasomatic alteration and formation of manganiferous deposits. All the manganese occurrences in the Labrador Trough are considered to have been deposited by the processes described above.

The Manganese Ore deposits have been subdivided in the same format that form part of the SMI project are further subdivided into the same zones as the iron deposits.

8.2.1 Central Zone

8.2.1.1 Lance Ridge

As described in Section 8.1.2.1 the Lance Ridge deposit is located in Quebec and is a combined iron/manganese resource. Lance Ridge 1 is an enriched iron deposit that contains several zones of manganese mineralization. IOCC trenched, sampled and drilled the deposit in 1970. The area of enrichment is generally covered by 3 m to 7 m of glacial till and does not outcrop. IOCC outlined an area of high manganese by trench sampling. Their analyses ranged from 30% to 31% Mn.

8.2.2 Other Manganese Deposits

This group covers a number of properties acquired in 2009. All the properties are in Quebec, located to the north of Schefferville, and focus primarily on manganese resources. While some have been explored or developed in the past, SMI is only starting to carry out work here. .

8.2.2.1 Sunny 2 and Sunny 3

These two deposits are located 43 km from the town of Schefferville. Located in the Kivivic area these claims target potential manganese resources around known iron deposits as delineated by IOCC. No work has been carried out by SMI in these areas as of the time of writing this report.

8.2.2.2 Hoylet Lake

These claims are located 40 km northwest of Schefferville and 18 km east of Kivivic. These claims have recently been acquired by SMI as manganese targets and no work has been carried out to this date.

8.2.2.3 Murdock Lake North and Murdock Lake South

These claims are located 90 and 60 km northeast of Schefferville respectively, and have also recently been acquired by SMI as manganese exploration targets. No work has been carried out to date.

8.2.2.4 Ferriman 3 and Ferriman 5

These claims are located approximately 10-15 km northwest of Schefferville. These claims cover the area of the mined out Gagnon A and Gagnon B open pits. Exploration on these claims will focus on manganese resources in stockpiles around the open pits.

8.2.2.5 French Mine

The French Mine is located 11 km northwest of the town of Schefferville, 5 km north of the James Mine area. This manganese showing is adjacent to the former producing French Mine. Manganese mineralization is exposed in an area 6 m by 16 m. The mineralization is hosted by the Ruth Shale, and saddles a northwest trending fault zone. The fault appears to occupy the contact between the Ruth Shale and the Wishart quartzite.

8.2.2.6 Christine

The Christine manganese occurrence occupies this area that is the Quebec side of the Christine 1B and 1C properties in Labrador. It occurs in a small, southeast striking valley at the base of a steep northeast slope. Iron formation outcrops at the head (NW end) of the valley over an area of 30 m x 100 m. Veins and pods of manganese occur in a 1 m to 5 m wide band across the center of the outcrop area. .

8.2.2.7 Schmoo Lake

This prospect is located approximately 81 km northwest of Schefferville. The prospect is a high grade +50% manganese occurrence. IOCC carried out sampling and pitting on the prospect in the mid 1950's. The mineralization occurs within a silicate carbonate iron formation. Cherty iron formation occurs adjacent to the surface mineralization. The mineralization outcrops for a strike length of 45 m and is 10 m thick at its widest part.

9.0 Mineralization (Item 11.0)

9.1 Iron Ore

The earthy bedded iron deposits are a residually enriched type within the Sokoman iron formation that formed after two periods of intense folding and faulting, followed by the circulation of meteoric waters in the fractured rocks. The enrichment process was caused largely by leaching and the loss of silica, resulting in a strong increase in porosity. This produced a friable, granular and earthy-textured iron ore. The siderite and silica minerals were altered to hydrated oxides of goethite and limonite. The second stage of enrichment included the addition of secondary iron and manganese which appear to have moved in solution and filled pore spaces with limonite-goethite. Secondary manganese minerals, i.e., pyrolusite and manganite, form veinlets and vuggy pockets. The types of iron ores developed in the deposits are directly related to the original mineral facies. The predominant blue granular ore was formed from the oxide facies of the middle iron formation. The yellowish-brown ore, composed of limonite-goethite, formed from the carbonate-silicate facies, and the red painty hematite ore originated from mixed facies in the argillaceous slaty members. The overall ratio of blue to yellow to red ore is approximately 70:15:15. The proportion of each varies widely within the deposits.

Only the direct shipping ore is considered beneficiable to produce lump and sinter feed and will be part of the resources for the SMI project. The direct shipping ore was classified by IOCC in six categories based on their chemical, mineralogical and textural compositions. This classification is shown in Table 9-1.

Table 9-1
Classification of Iron Ore Types

Schefferville Ore Types (From IOCC):					
TYPE	ORE COLOURS	T_Fe%	T_Mn%	T_Si%	T_Al2O3%
NB (Non-bessemer)	Blue, Red, Yellow	>=55.0	<3.5	<10.0	<5.0
LNB (Lean non-bessemer)	Blue, Red, Yellow	>=50.0	<3.5	<18.0	<5.0
HMN (High Manganiferous)	Blue, Red, Yellow	(Fe+Mn) >=50.0	>6.0	<18.0	<5.0
LMN (Low Manganiferous)	Blue, Red, Yellow	(Fe+Mn) >=50.0	3.5-6.0	<18.0	<5.0
HiSiO2 (High Silica)	Blue	>=50.0		18.0-30.0	<5.0
TRX (Treat Rock)	Blue	40.0-50.0		18.0-30.0	<5.0
HiAl (High Aluminium)	Blue, Red, Yellow	>=50.0		<18.0	>5.0
Waste	All material that does not fall into any of these categories.				

The blue ores, which are composed mainly of the minerals hematite and martite, are generally coarse grained and friable. They are usually found in the middle section of the iron formation.

The yellow ores, which are made up of the minerals limonite and goethite, are located in the lower section of the iron formation in a unit referred to as the "silicate carbonate iron formation" or SCIF.

The red ore is predominantly a red earthy hematite. It forms the basal layer that underlies the lower section of the iron formation. Red ore is characterized by its clay and slate-like texture.

Direct shipping ores and lean ores mined in the Schefferville area during the period 1954-1982 amounted to some 150 million tons. Based on the original ore definition of IOCC (+50% Fe <18% SiO_2 dry basis), approximately 50 million tonnes of iron resources remain in the Schefferville area in Quebec, exclusive of magnetite taconite, of which SMI has acquired the vast majority.

9.2 Manganese Ore

For manganese to be mined economically, there will be a minimum primary manganese content required at a given market price (generally greater than 5% Mn), but also the manganese oxides must be amenable to concentration (beneficiation) and the produced concentrates must be low in deleterious elements such as silica, aluminium, phosphorus, sulphur and alkalis. Beneficiation involves segregating the silicate and carbonate lithofacies and other rock types interbedded within the manganese-rich oxides.

The principle manganese deposits found in the Schefferville area can be grouped into three types:

- manganiferous iron deposits that occur within the lower Sokoman Formation. These are associated with in-situ residual enrichment processes related to downward and lateral percolation of meteoric water and ground water along structural discontinuities such as faults and fractures, penetrative cleavage associated with fold hinges, and near surface penetration. These typically contain from 5-10 % Mn.
- ferruginous manganese deposits, which generally contain 10-35% Mn. These types of deposits are also associated with structural discontinuities (e.g., fault-, well developed cleavage-, fracture-zones) and may be hosted by the Sokoman (iron) Formation (e.g., the Ryan, Dannick and Avison deposits), or by the stratigraphically lower silica-rich Fleming and Wishart formations (e.g. the Ruth A, B and C deposits). These are the result of residual and supergene enrichment processes;
- so called manganese-occurrences or manganese-ore deposits contain at least 35% Mn. These deposits are the result of secondary (supergene) enrichment and are typically hosted in the Wishart and Fleming formations, stratigraphically below the iron formation.

10.0 Exploration (Item 12.0)

10.1 Past Exploration

In 1929, a party led by J.E. Gill and W.F. James explored the geology around present day Schefferville, Quebec and named the area Ferrimango Hills. In the course of their field work, they discovered enriched iron-ore, or “direct-shipping ore” deposits west of Schefferville, which they named Ferrimango Hills 1, 2 and 3. These were later renamed the Ruth Lake 1, 2 and 3 deposits by J.A. Retty.

In 1936, J.S. Wishart, a member of the 1929 mapping expedition, mapped the area around Ruth Lake and Wishart Lake in greater detail, with the objective of outlining new iron ore occurrences.

In 1937, W.C. Howells traversed the area of the Ruth Lake Property as part of a watercourse survey between the Kivivic and Astray lakes – now known as Howells River.

In 1945, a report by LME describes the work of A.T. Griffis in the “Wishart – Ruth – Fleming” area. The report includes geological maps and detailed descriptions of the physiography, stratigraphy and geology of the area, and of the Ruth Lake 1, 2 and 3 ore bodies. Griffis recognized that the iron ore unit (Sokoman Formation) was structurally repeated by folding and faulting and remarked that “The potential tonnage of high-grade iron deposits is considered to be great.”

Most exploration on the properties was carried out by the IOCC from 1954 until the closure of their Schefferville operation in 1982. Most data used in the evaluation of the current status is provided in the numerous documents, sections and maps produced by IOCC or by consultants working for them.

In 1989 and 1990, La Fosse and Hollinger undertook an extensive exploration program for manganese on 46 known occurrences in the Schefferville area In both Quebec and Labrador.

Work performed during the summer and fall of 1989 consisted of geological mapping, prospecting and sampling, airtrac drilling and a VLF ground geophysical survey. Also in 1989, the La Fosse carried out exploration on several manganese showings in Labrador.

During the summer and autumn of 2008, an exploration program of prospecting, trenching and diamond drilling was completed by Gravhaven on their mineral concessions in the Schefferville Iron District (SID) of Labrador and Quebec. The program and results have been reported in the Work Assessment Report by MRB (October 30th, 2009).

A total of 42 trenches totalling 1,672 metres were excavated, and 1,042 grab and 35 core samples from 8 drill holes were obtained and assayed from 10 of Gravhaven’s mineral concessions in the SID. Trenches were excavated on a large number of their properties. A local contractor was hired to excavate the trenches, which ranged from 0.5 to 2.5m in depth, and all trenches were mapped. The intent of this sampling program was to quantify the manganese content of different mineralized areas underlying Gravhaven's property holdings throughout the Schefferville area. GPS northings and eastings were taken at each sample location. The goals of Gravhaven's exploration campaign were two-fold:

- to re-evaluate the previous trenching and mapping campaign completed by La Fosse during the late 1980's and early 1990's and to authenticate their results, and
- to locate new manganese-rich mineralized zones underlying their mineral claims in the SID.

SMI acquired the properties only recently and has not yet carried out any exploration.

11.0 Drilling (Item 13.0)

Diamond drilling of the Schefferville iron deposits has been a problem historically in that the alternating hard and soft ore zones tend to preclude good core recovery. Traditionally IOCC used a combination of reverse circulation (RC) drilling, diamond drilling and trenching to generate data for reserve and resource calculation. A large number of original IOCC data have been recovered, and SMI will conduct a review of such data and will be used in the data base that is used for the estimation of the resources.

SMI did not carry out any drilling but a RC drill program is planned for 2010.

12.0 Sampling Method and Approach (Item 14.0)

During the time that IOCC operated in the area, sampling of the exploration targets were by trenches and test pits as well as by drilling. In the test pits and trenches geological mapping determined the lithologies and the samples were taken over 10 feet (= 3.0 metres). The results were plotted on vertical cross sections. No further information was provided regarding the sampling procedures followed by IOCC.

13.0 Sample Preparation, Analysis and Security (Item 15.0)

All drilling and sampling of the iron and manganese deposits used for this study has been done by IOCC during the time that they owned and produced direct shipping iron ore from adjacent and nearby properties (from 1954 to 1982). The sample preparation, analysis and security in place during the operations of IOCC is not specifically known but it can be assumed that it was done following acceptable industry practice and the standards for an experienced mining company at that time.

It is proposed that during the confirmation exploration program RC drilling and trench bulk sampling will be carried out using current industry best practise that will be witnessed and described in the feasibility study.

14.0 Data Verification (Item 16.0)

The majority of data used in the current review is derived from historic data of IOCC (documents recovered from IOCC files and from plans and sections on which the geology and assay results have been plotted). The reserve and resource estimates contained therein are non-compliant with NI 43-101. The geological and assay data will be used to guide the proposed confirmation exploration by RC drilling and bulk sampling from trenches, to verify the assay data on the sections from the IOCC files.

Detailed verification of data for all deposits will be carried out after the confirmation exploration program of RC drilling and trench bulk sampling has been completed.

The program of exploration and data verification recommended in this report will enable verification of the historic data.

15.0 Adjacent Properties (Item 17.0)

Adjacent to the properties owned by SMI in Quebec are other former operations of IOCC in Labrador and Quebec that were either mined out or abandoned by IOCC in 1982. IOCC produced an approximate total of some 150,000,000 tons of direct shipping iron ore from all their properties in Quebec and Labrador during the operating years of 1954 to 1982.

IOCC is currently operating the Carol Lake iron property some 200 km south of Schefferville near Labrador City in Labrador.

A subsidiary of Labrador Iron Mines Holdings Limited is planning to build an iron beneficiation plant in Labrador to wash and screen iron ore from planned mining operations at the James and Redmond deposits. The plant would produce “direct shipping” ore (Lump and Sinter Fines).

NML owns some properties in Labrador and Quebec. A feasibility study has been carried out for NML on an iron deposit in the Howells River area of Labrador known as the LabMag Property located some 30 km northwest of Schefferville. The property is owned by the partnership of New Millennium Capital Corp. and the Naskapi LabMag Trust. NML published a pre-feasibility study to develop a DSO Project on some of their claims in Labrador and are currently conducting a feasibility study thereon.

The Mont-Wright mining complex (owned by Arcelor Mittal) as well as the Wabush mines are located in the same area near Wabush and Fermont in Quebec.

A 8 to 16 Mtpa magnetite iron operation at the Bloom Lake deposit, located in Quebec east of the of Mont-Wright operation, near Labrador City, is currently under construction by Consolidated Thompson Iron Mines.

16.0 Mineral Processing and Metallurgical Testing (Item 18.0)

All metallurgical testing of iron samples was carried out on samples provided from LIMHL properties located in Labrador. It is reasonable to assume that all these test results are also applicable to the mineral samples to be collected on the Quebec properties. At this time, no historical or recent metallurgical test work or reports for the Quebec iron properties are available.

To date, the only laboratory testing that has been carried out on manganese ore has been on Ruth Lake Ore. In November 1988, Lakefield Research conducted test work to investigate the recovery of coarse manganese. Work included heavy liquid tests at different gravities. Heavy liquid test showed that 80% manganese recovery could be achieved at a specific gravity 3.16 and 31% weight would be rejected. Samples were not identified in the Lakefield report so it is not possible to conclude how well they represent the Ruth Lake deposit.

In December 1989, four samples (approximately 60 lbs) were submitted to Lakefield Research for mineralogical analysis. Several types of tests were carried out in order to identify physical separation processes that may be successful in rejecting iron (goethite) and upgrading the manganese product. Selective crushing/screening, gravity concentration, and high tension/electromagnetic separation indicated upgrading on the –6 mesh material tested. Magnetic separation and wet scrubbing processes showed no significant upgrading.

During the proposed exploration program trench samples will be collected of both iron and manganese mineralization to be used for additional metallurgical and mineralogical test work.

17.0 Mineral Resource and Mineral Reserves Estimates (Item 19.0)

17.1 Summary

All reported mineral resources shown in this report are considered historic resource estimates and are non NI 43-101 compliant. They are predominantly based on estimates made by IOCC in 1982 and contained in their Direct-Shipping Ore (DSO) Reserve Book published in 1983. IOCC categorized their estimates as "reserves". The author has adopted the principle (as was done in the SNC-Lavalin 2007 Technical Report for LIMHL) that these should be categorized at "resources" as defined by NI 43-101. All estimates were based on geological interpretations on cross sections and the calculations were done manually.

All resource estimates quoted in this section of the report are based on prior data and reports prepared by IOCC, the previous operator. These historical estimates are not current and do not meet NI 43-101 definition standards and are reported here for historical purposes only. A qualified person has not done sufficient work to classify the historical estimate as current mineral resources. The historical estimates should not be relied upon. These historical results provide an indication of the potential of the properties and are relevant to ongoing exploration.

The historic IOCC ore reserves classifications used in the reports are not compliant with reserves classifications compliant with NI 43-101. The historic reserves were for DSO that was ore that was sold directly to the customer in its raw state. The only processing done was the crushing to 4-inch size in the mine screening plant and, in case of wet ore, reduction of moisture content in the drying plant in Sept-Îles. It should be noted that the following estimates are based on economics of 1983 and that although the geological, mineralogical and processing data will be the same today, economics and market conditions will have changed. The classification used in the IOCC reports is as follows:

- **Measured**: The ore is measured accurately in three dimensions. All development and engineering evaluations (economics, ore testing) are complete. The deposit is physically accessible and has a complete pit design. The reserve is economic and is marketable under current conditions.

- **Indicated**: Development and engineering evaluations (economics, ore testing) are complete. Deposits in this category do not meet all the criteria of measured ore.
- **Inferred**: Only preliminary development and evaluation are completed. Deposits may not be mineable because of location, engineering considerations, economics and quality.

The above shown terms, definitions and classification are not compliant with NI 43-101 but were used by IOCC for their production reports. Current compliant mineral resources are categorized on the basis of the degree of confidence in the estimate of quantity and grade or quality of the deposit, as follows:

- Inferred mineral resources,
- Indicated mineral resources and
- Measured mineral resources.

Compliant mineral reserves are that part of a measured mineral resource or indicated mineral resource which can be extracted legally and at a profit under economic conditions that are specified and generally accepted as reasonable by the mining industry and which is demonstrated by a preliminary feasibility study or feasibility study as follows:

- Probable mineral reserve and
- Proven mineral reserve

There is no reason to conclude that IOCC utilized other than best industry practices. A summary of the total historical estimated iron and manganese resources are based on the January 1980 statements from IOCC and are shown in Table 17-1. Details of the historic resources estimated for the various deposits are shown in Table 17-2.

The historical resources contained in the manganese deposits were also reported in the MRB report dated October 30th, 2009 and were based on the IOCC estimates of 1979.

From the work carried out on the properties in Labrador, It is reasonable, to conclude that the historic resources can be easily brought to compliance with NI 43-101 requirements with a program of verification as recommended in this report.

Table 17-1
Historical Resources (IOCC Reports) (Not compliant with NI 43-101)
The old IOCC classification reported all resources (measured, indicated and inferred): the total mineral resource.

Historical - Non Compliant	Tons	Fe%	SiO_2%	Mn%
Iron Resources	63,186,000	55.1	6.2	
Manganese Resources	5,987,000	47.3	5.5	5.6

17.2 Historical Resources from the Iron and Manganese Properties

The following historical estimated resources are reported in the January 1983 IOCC statement for the various deposits and they are shown in Table 17-2. The resources are all in tonnes and reflect the percentage of the old IOCC claims now owned by SMI. It should be noted that in the IOCC statements all reserves were included.

Table 17- 2
Historical Mineral Resources of SMI Properties in Quebec (x1,000 tons)

Property	Fe Resources	Fe%	SiO_2	Mn Resources	Fe%	SiO_2	Mn%
Barney 1	6,281	53.9	7.7	62	49.1	3.5	5.0
Denault 1	2,731	49.1	7.7	929	45.2	6.2	5.4
Eclipse	37,159	56.3	5.2	2,068	49.9	4.5	4.1
Fleming 6	802	48.3	8.8	23	42.1	7.0	7.3
Fleming 7S	1,946	56.0	7.6	-	-	-	-
Fleming 9	417	54.1	8.9	-	-	-	-
Lance Ridge	1,370	53.9	8.5	281	41.5	5.7	10.3
Malcom 1	2,879	56.2	6.1	422	51.4	4.9	5.8
Partington 2	3,377	55.2	9.2	-	-	-	-
Squaw-Wollett 1	2,303	54.9	5.8	-	-	-	-
Star Creek 1	1,492	51.0	7.3	1,972	45.9	6.2	6.5
Sunny 3	460	57.8	6.7	-	-	-	-
Trough 1	1,969	48.8	8.5	230	43.8	6.5	5.8
Total:	**63,186**	**55.1**	**6.2**	**5,987**	**47.3**	**5.5**	**5.6**

18.0 Other Relevant Data and Information (Item 20.0)

The Knob Lake Iron Range is well known for the hematite-goethite iron deposits and this region has been exploited for some 30 years by IOCC. This has been extensively shown in this report. Following the verification of the historical resources of IOCC, the SMI Project will determine if the Quebec iron and manganese properties have the potential economics for renewed exploitation. With the iron and manganese prices having increased, the potential of these deposits owned by SMI appear to be encouraging. The following are some observations that illustrate that after a relatively short exploration program these properties could enter into a production phase.

18.1 Processing

It is believed that the DSO produced by IOCC needed none or only very little processing and that only crushing and screening was performed before the ore was loaded on trains to be transported to Sept-Îles. Wet screening to wash out the fines, containing some of the SiO_2, was not performed. It is expected that the proposed washing and screening process will remove low grade and silica material and should increase the grades of the final product by about 10-15% of the mined grade.

18.1.1 Complementary Process

Complementary process equipment may be required depending on the ore test results and product recoveries. The use of jigs, magnetic separators, and roller press will be tested to improve some product specifications and improve product recoveries.

18.1.2 Manganese Recovery

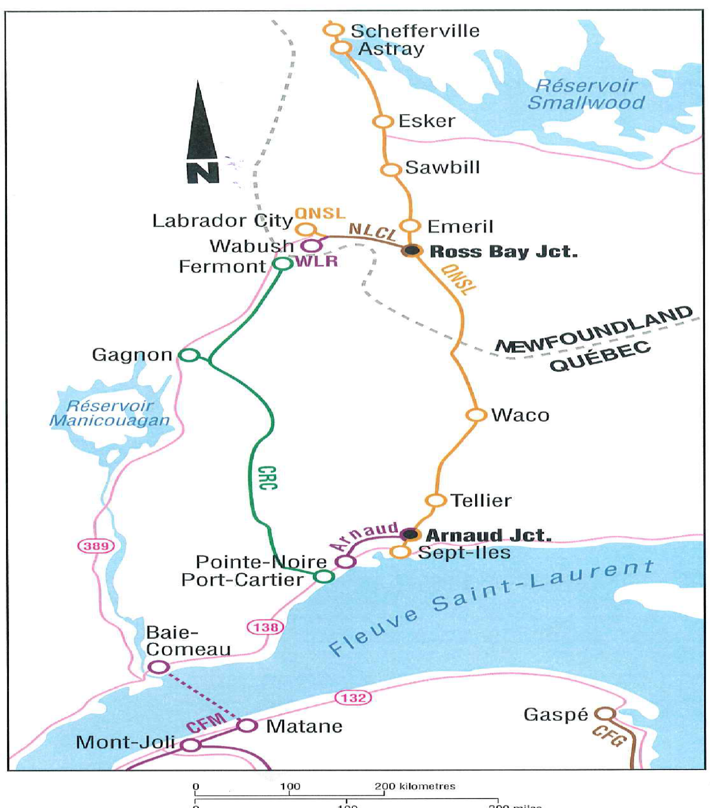
The ores from the manganese deposits will be subject to some form of beneficiation to achieve greater manganese content and to remove undesirable impurities. Beneficiation technology as applied to manganese ores is similar to that for iron ores. Most ores are crushed and screened, with the lump product (+6 mm) generally being smelted and the fine product (-6 mm) used as feed for chemical and/or electrolytic processing. Sink-float (heavy liquid media), jigging, tabling, flotation, and high-intensity magnetic separation are among the methods used to upgrade fine manganese ore.

18.2 Transport and Shipping

The only means to transport iron ore from Schefferville to sea-ports is by rail. The railway originally constructed by IOCC is still available and in operation. It is operated by TSH. TSH owns the railway track from Schefferville to Ross Bay JCT. (217 km), but operates from Schefferville to Sept-Îles for passenger and light freight traffic. No iron ore is currently hauled on the TSH section of the track. An independent preliminary study of the TSH railway was carried out for LIMHL in August 2006 by Hatch Mott MacDonald (Hatch) which concluded that the Menihek Subdivision was in very good condition despite more than 20 years of under capitalization. However, some refurbishing of the tracks, rails and culverts will have to be carried out through a recommended multi-year repair and replacement program. SMI will have to negotiate an agreement with TSH and also the QNS&L to reach Sept-Îles.

Figure 18-1 shows the different railway systems.

Figure 18-1
Map of Existing Railway Systems



18.3 Infrastructure

The Quebec projects are in proximity to the town of Schefferville at an approximate distance of 2 km from Labrador on the north shore of Knob Lake. The town was established by the IOCC in 1954 to support their mining operations in the area. The township has the infrastructure to fulfill the needs of SMI in regards to: roads, power and water supply, buildings and sewage facilities. The project will make use of the following existing infrastructure:

- The Menihek power plant located 35 km southeast from Schefferville is the only provider of electric power to the area. The power plant contains a total of 18 MW, sufficient to supply the power that SMI would require for the early development sites close to Schefferville. In the case of the establishment of the other excavation sites, portable generators could be used.
- Most of the existing roads that provide access to the different properties designated for early development exist and would only need some clean-up.

For the Quebec properties, the number of processing sites will be analyzed for optimization. All processing sites will likely have a workshop, a warehouse, and a fuelling station nearby. General services and infrastructures will be shared with the contractor. SMI will establish an administrative office at or near the processing site to house the technical staff to assist, support, and control contracted activities.

Fuel will be supplied to the area via the railway and stored in tanks near the Denault area for delivery to the excavation and processing sites.

The fire protection for excavation and processing sites will be supplied by local communities. The workshop and warehouse will be equipped with fire fighting devices as determined by local standards, regulations and building codes.

All sewage, solid waste, used oil, etc, will be collected from the sites and hauled to the Schefferville treatment plant for disposal following the different regulations.

18.4 Environment

Schefferville is exempt from the James Bay and northern Quebec Agreement and falls under the jurisdiction of the Quebec Environment Quality Act. Once approval from the ministry is obtained applications for permits need to be submitted and approval obtained before construction and installation can proceed.

Seasonal baseline data has been collected since mid-2006. SMI will enter into preliminary discussions with Federal and Provincial regulators with respect to permit applications and specific requirements for project designation.

Each mine site will be closed after depletion of mineable reserves and restored according to regulations. The aim is to carry out the final closures without continued monitoring requirements. The rehabilitation measures as established in the rehabilitation and closure plans are expected to start as early as practical during operating mine life leaving the final closure activities to a minimum.

Community support is essential in creating a successful regulatory review as it can have dramatic impact on the project schedule and costs.

18.5 Community and Social Issues

An active community relations program has been established since mid-2005 and an ongoing effort is made to work very closely with the nearest First Nations to focus on developing and maintaining productive working relations, ensuring a good understanding of the proposed project and assisting TSH to identify and undertake the work necessary to allow for a timely expansion/upgrade of the TSH operations to include the shipment of iron ore.

Memoranda of Understanding have been signed with the Innu Nation of Matimekush-Lac John and with the Naskapi Nation of Kawawachikamach and extensive community consultation has been conducted with the nearby communities.

Most of the stores, churches, hospital and recreational facilities originally constructed in Schefferville during the time of the IOCC operations no longer exist. Educational and medical services are distributed through the two First Nations communities.

18.6 Benefits of the project

The successful start up of SMI's DSO project will likely be the first positive economic stimulus to the northeast Quebec economy in 30 years. It should lead to 20+ years of economic stability.

The project will develop deposits of iron ore and manganese not previously worked by IOCC but which were evaluated by IOCC and were part of IOCC's reserves and resources at the time of closure of its operations in the area in 1982. The other deposits are located within reach of existing infrastructure, including road access, adjacent to electrical power lines and close to the railway terminal and proposed loading yard.

Cost effective and reliable rail transportation is going to be a key component of any direct shipping iron ore operations. The TSH railway company is already owned by a consortium of First Nations and provides an ideal basis upon which to develop other transportation solutions for the project.

For the future the economic impact of employment and contracting business on the surrounding communities could be very positive and lead to the development of other support and service sector jobs and the consistent and planned development and growth of the town of Schefferville and surrounding communities.

18.7 Markets

The market for iron ores and related products has seen some substantial changes in recent years. These have been driven in the most part by the booming resurgence of the Chinese economy and that country's rapidly increasing demand for raw materials particularly steel and its feed product, iron ore. This demand in the first instance has been met by increases in Australian and, to a lesser extent, Indian and Brazilian supply.

It is expected that the European market is the most likely destination for products from the project given the potential freight advantage over other producers, but there remains a strong demand from the Far East and in particular from China for iron ore.

Iron ore prices, other than for pellets and some minor DRI feeds, are based on sinter fine prices, with a premium for lump.

19.0 Interpretation and Conclusions (Item 21)

The review of the data that was made available to the author and the knowledge of the LIMHL project obtained during the 2007 SNC-Lavalin study (of which he was the major author) and the 2010 study of the project related to a renewed development of the iron deposits in Labrador near Schefferville, Quebec has shown that there is more than sufficient merit to continue the exploration to further confirm the resources in Quebec, estimated by IOCC. The exploration on the properties in Quebec should bring the historic estimates of resources to comply with the requirements of NI 43-101 and support the undertaking of a feasibility study.

IOCC has worked in the same area of Quebec between 1954 and 1982 and produced some 150 million tons of “lump and direct shipping” iron ore and carried out exploration to extend the life of these operation to well after 1982. When the economic conditions changed and the market for that ore was no longer attractive, the mines closed. However, the explored deposits remained ready for exploitation when favorable market conditions would return and the economics of new mines could be demonstrated. Some of these deposits are now owned, wholly or partially, by SMI and a feasibility study should be produced to demonstrate economic viability of the restart of the iron and manganese ore production.

The resource estimates for the properties comprising SMI’s project were established by IOCC, an experienced iron ore operator, during the 20+ year period that IOCC successfully operated mines in the Schefferville area which were developed on the basis of similar resource estimates. There is no reason to conclude that IOCC utilized other than best industry practices. It is reasonable, therefore, to conclude that such historic resources can be easily brought to compliance with NI 43-101 requirements with a program of verification as recommended herein. The first step for this study is the confirmation of the resources for the properties and to make the resource estimates NI 43-101 compliant.

Most infrastructure around Schefferville is already in place and relative low capital expenditures will be required to restore and revamp the old structures and rail yards. The production of the “direct shipping” ore requires only a simple process of screening, crushing and, in some cases, washing and the capital cost of building such a processing plant near Schefferville would be relatively low. When this plant is built it would be able to be used for the possible production of DSO from the Quebec properties. It has been recommended that resources should be confirmed in order to be able to produce a pre-feasibility study to determine the economic viability of the project, where any addition to the railway has to be built and where the plant should be established to include washing and product beneficiation. With the addition of the newly obtained properties close to Schefferville (Malcolm, Denault, Star Creek, Lance Ridge, Fleming and Barney 1) and the recommended exploration on these properties confirms the additional NI 43-101 compliant resource estimates, the economic viability of the project could be demonstrated.

The other deposits (Eclipse, Partington, Squaw Woolett 1 and Trough 1) are further from Schefferville and require much more infrastructure development and therefore higher capital expenditures. The knowledge of these deposits is also less detailed and more exploration will be required to bring these historic inferred resources to a NI 43-101 compliance indicated classification. When these resources are demonstrated to exist the economics of producing from these deposits can be evaluated. The proposed exploration phase is shown in the next section.

20.0 Recommendations (Item 22.0)

20.1 Introduction

Following the review of all supplied data and the interpretation and conclusions of this review, it is recommended that the exploration on the iron and manganese properties continue. The results of the exploration on adjacent properties in Labrador have been very positive and have already shown that the IOCC data is reliable. It was also recommended in the study prepared by MRB that an exploration program should start on the newly acquired manganese properties.

Initial exploration on some of the new properties (Malcolm 1, Denault and Star Creek) is recommended to confirm the IOCC historical resources and evaluate them according to NI 43-101 standards.

20.2 Exploration Program

A program of RC drilling should be initiated to confirm the interpretation of the IOCC grades and geological formations on the various properties. Geological mapping, surveys of old IOCC drill holes and new RC drilling as well as trench sampling should be carried out.

The Phase I program and budget required bringing the resource and reserves estimates of the various deposits to be NI 43-101 compliant are as follows:

20.2.1 Malcolm 1 Deposit

To test the property for iron and manganese mineralization, 7 exploration RC drill holes for a total of 560 m are proposed. In addition 13 trenches should be excavated for a total of 1,300 m. This drilling and trenching program would confirm and improve earlier IOCC geological interpretation of the targeted areas.

Estimated budget for the Malcolm 1 Deposit:

Drilling	560 m @ $ 315/m	$ 176,400
Trenching	1,300 m @ $ 90/m	$ 117,000
Total Malcolm 1 Deposit		$ 293,400

20.2.2 Denault 1, 2 and 3 Deposits

To test these newly acquired properties for iron and manganese mineralization, 31 exploration RC drill holes for a total of 2,480 m are proposed. In addition 20 trenches should be excavated for a total of 1,510 m. This drilling and trenching program would confirm and improve earlier IOCC geological interpretation of the targeted areas.

Estimated budget for the Denault Deposit:

Drilling	2,480 m @ $ 315/m	$ 781,200
Trenching	1,510 m @ $ 90/m	$ 135,900
Total Denault Deposit		$ 917,100

20.2.3 Star Creek 1 Deposit

To test this property mainly for the manganese mineralization it is proposed to drill 5 exploration holes for a total of 500 m. This drilling program would confirm and improve earlier IOCC geological interpretation of the targeted area.

Estimated budget for the Star Creek 1 Deposit:

Drilling	500 m @ $ 315/m	$ 157,500
Total Star Creek 1 Deposit		$ 157,500

20.2.4 Exploration for Manganese Deposits

According to the Work Assessment Report prepared by John Langton of MRB in October 2009, the review of all available data on the area suggests that the property contains a potential manganese resource. The grade and amount of manganese deposits in the areas most suitable for mining have yet to be determined, but there exists the possibility of deposits of economic grade and tonnage. Therefore, the properties, warrant further evaluation and an exploration program to delineate the location of manganese deposits to determine the extent of these deposits, and calculate the inferred resources.

The manganese exploration program should be focused on properties that show the best potential to date namely Denault, French Creek, Lance Ridge, Shmoo Lake and Christine.

The recommended exploration program should include systematic stratigraphic interpretation, trenching and sampling. A RC drilling program should be initiated to confirm the sub-surface continuity of the manganese mineralization, and allow the preparation of an NI 43-101 compliant Mineral Resource estimate.

Estimated budget for the Manganese Exploration:

Drilling	500 m @ $ 315/m	$ 157,500
Trenching	1,000 m @ $ 90/m	$ 90,000
Total manganese Sampling and drilling Budget		$ 247,500

The interpretation and results of the above drilling and sampling programs should be sufficient to convert some of the historical IOCC resources estimates for these deposits into an estimate compliant with NI 43-101.

The budget estimate for the total program including cost for support, surveys, professional and technical staff, equipment rentals etc. is shown in Table 20-1.

Table 20-1
Budget Estimate for Phase I Confirmation Exploration

Description	Cost
Mobilization/Demobilization Contractors	$ 40,000
RC Drilling, Sampling, Transport and Assaying	$ 1,272,600
Trenches, Sampling, Transport and Assaying	$ 342,900
Geologists, Technicians and Labour	$ 220,500
Bulk sampling	$ 80,000
Field Accommodation etc.	$ 100,000
Equipment/Aircraft Rentals	$ 30,000
Office drafting, etc.	$ 30,000
Consultants	$ 30,000
Total Estimated Cost Phase I Confirmation Exploration	$ 2,146,000

20.3 Pre-Feasibility Study

Subsequent to the confirmation exploration program, outlined in the foregoing section, a pre feasibility study could be prepared to determine the potential viability of the project for the renewed iron production. The pre feasibility study will have to determine the volume and value of the resources as well as the production costs. The environmental requirements of the region, the transport of the iron ore to the harbour for shipment to markets, as well as the demands of local communities and the social issues, have already been studied and should be an integral part of the pre feasibility study.

The environmental base line studies have been started and will continue. Discussions with Federal and Provincial authorities are to continue to obtain the various permits that might still be required.

A preliminary budget for the pre-feasibility study is shown in Table 20-2.

Table 20-2
Budget Estimate for Pre-Feasibility Study

Description	Cost
Metallurgical Testing	$ 150,000
Capital and Operating Cost Estimates	$ 30,000
Environmental Studies	$ 50,000
Community and Social Studies	$ 50,000
Pre-Feasibility Study	$ 300,000
Total	**$ 680,000**

21.0 References (Item 23.0)

The following documents were in the author's files or were made available by SMI:

- Geology of Iron Deposits in Canada. Volume I. General Geology and Evaluation on Iron Deposits. G.A. Gross. Department of Mines and Technical Surveys Canada. 1965;
- Iron Ore Company of Canada, 1983 01-01. Reserve and Stripping Estimate.
- Overview Report on Hollinger Knob Lake Iron Deposits. Fenton Scott. November 2000;
- SOQUEM Inc. Assessment of an Investment Proposal for the Hollinger Iron Ore Development Project. Final Report. February 2002;
- Technical Report of an Iron Project in Northwest Labrador, Province of Newfoundland and Labrador, By D. Dufort, P.Eng and A.S. Kroon, P.Eng SNC-Lavalin, Original Date September 10th, 2007, Amended October 10th, 2007;
- Report on Summer-Fall 2008 Exploration Program. Prepared by Labrador Iron Mines Limited. February 2009;
- Report on 2009 Exploration Program. Prepared by Labrador Iron Mines Limited. December 2009;
- Work Assessment Report, The Ruth Lake Property, Western Labrador Province of Newfoundland & Labrador, MRB & Associates, John Langton M.Sc, P.Geo., October 30th, 2009;

22.0 Date and Signature Page (Item 24.0)

This Technical Report is dated March 10th, 2010.

DATED
March 10th, 2010

A.S. Kroon, P. Eng.

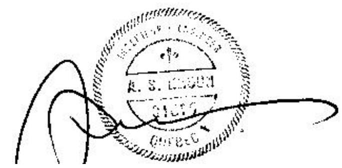
QUALIFICATIONS CERTIFICATE

I, A.S. Kroon, Professional Engineer, do hereby certify that:

1. I am the author of the report entitled "Schefferville Mines Inc. - Labrador Iron Mines Holdings Limited – Technical Report on an Iron Ore Project in Northern Quebec, Province of Quebec" dated March 10th, 2010.
2. I am an Engineer working for my own account. My office is located at Naples Avenue, Brossard, Quebec, Postal Code J4Y 1V8 (Tel: 450-676-4032).
3. I graduated from the University of Amsterdam in 1966 and hold an (equivalent of) Masters Degree in Geology.
4. I am a member of the Order of Professional Engineers of Québec and am designated as a specialist in Geological Engineering, classes of Exploration and Development.
5. I have worked as a geologist and mining engineer in the minerals industry for over 43 years since my graduation from university.
6. I have read the definition of ''qualified person'' set out in National Instrument 43-101 (NI 43-101) by reason of my education, association with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101. I worked as an exploration geologist, mining geologist and mining engineer in Zambia from 1966 to 1971. From 1971 to 1973, I was the mine planning engineer for Texas-Gulf in Timmins Ontario. From 1973 to 1976, I worked in New York City and was in charge of an exploration and mining project in Greece. From 1976 to 1996, I worked for Kilborn (Québec) and was in charge of feasibility studies and other technical studies for mining projects. When Kilborn was purchased by SNC-Lavalin, I became a consultant for SNC-Lavalin for various feasibility studies carried out by the company. I am also working for my own account.
7. I am responsible for all sections of this Technical Report. I have not visited the Schefferville Mines Inc. (SMI) properties for this study because the snow covered all area.
8. I have had no prior involvement with the properties which are the subject matter of this Technical Report but prepared an earlier Technical Report on the nearby Labrador iron properties as a consultant for SNC-Lavalin in 2007 (Technical Report of an Iron Project in Northwest Labrador)..
9. As of the date hereof, to the best of my knowledge, information and belief this Technical Report contains all scientific and technical information that is required to be disclosed to make this Technical Report not misleading.
10. I am independent of SMI or Labrador Iron Mines Holdings Limited, the parent corporation of SMI applying, all of the tests set out in section 1.4 of NI 43-101.
11. I have no interest, direct or indirect, in the property for which this Technical Report has been written, nor do I expect any.
12. I have read NI 43-101 and Form 43-101 F1, and the Technical Report has been prepared in accordance with NI 43-101 and meets the form requirements of that instrument and Form 43-101 F1.

13. I consent to the filing of the Technical Report with any stock exchange and 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.

DATED
March 10th, 2010



A.S. Kroon, P. Eng.