

# **KNOB LAKE PROPERTY**

Labrador, Canada

## **NI 43-101 TECHNICAL REPORT**

# Prepared for:

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#### 1 SUMMARY

This Technical Report reviews past mineral exploration efforts, discloses historical mineral resource estimates, and makes recommendations for advancing the Knob Lake Property, host to an iron and manganese deposit. Anteros Metals Incorporated acquired the Knob Lake Property near Schefferville, Québec from Wesley Keats in February of 2022.

This report was prepared and authored by Jesse R. Halle, P.Geo. (the "Author"), an independent and a qualified person ("QP") as defined by Canadian Securities Administrators *National Instrument 43-101 – Standards of Disclosure for Mineral Projects* ("NI 43-101").

#### PROPERTY LOCATION

The Knob Lake Property is located in western Labrador near the town of Schefferville, Québec roughly 1,200 kilometres northeast of Montréal. The Property covers parts of National Topographic System ("NTS") map sheets 23J/15 and is centred at approximately 54°46.73'N latitude and 66°47.7'W longitude. Access to the property from Schefferville is provided by unpaved roads.

#### PROPERTY OWNERSHIP AND LAND TENURE

The Knob Lake Property consists of three contiguous mineral claim units, covering an area of 75 hectares, issued by the Department of Industry, Energy and Technology, Province of Newfoundland and Labrador ("IETNL"). The claims are held by Anteros Metals Incorporated and are in good standing until October 28, 2025. As per IETNL, mineral rights to the Property terminate at the border with Québec, an area of the Property estimated to be 22 hectares.

#### HISTORY

In 1929, iron-rich rocks were discovered and documented in an area immediately west of present day Schefferville, Québec. By the mid 1930s, mining companies had staked large areas of promising ground in the area, and a high demand for iron in the early 1940s intensified exploration and prospectivity. In 1949, numerous companies partnered to form the Iron Ore Company of Canada ("IOC") which began producing iron concentrate in 1954, shipped along a newly built rail line leading to seaports in Sept-Îles, Québec. IOC operations produced in excess of 150 million tons (152.5 million tonnes) of lump and sinter fine products between 1954 and 1982, when mines ceased production due to poor market conditions. IOC explored the Knob Lake Property with a combination of reverse circulation ("RC") drilling, diamond drilling, and trenching to generate data for a non-NI 43-101-compliant mineral inventory (IOC, 1983).



Since that time, Labrador Iron Mines ("LIM") has emerged as one of the dominant mineral rights holders in the Schefferville area and has continued work on the numerous iron deposits of the district. From 2011 to 2013, LIM resumed iron mining when approximately 1,500,000 tonnes of iron concentrate were shipped to China via the port of Sept-Îles.

A significant portion of the original IOC data was reportedly recovered and compiled by LIM, prompting systematic drilling for the remainder of data incorporated into the inaugural and now historic mineral resource estimate of the Knob Lake Property by Dupéré and Taylor (2012). The historical mineral resource estimate used 5 x 5 x 5 metre (L x W x H) grade blocks for the block models. The grade estimate for iron was generated using ordinary kriging ("OK"). The most recent historical estimate for the Knob Lake Property (Dupéré, 2014) was an update to Dupéré and Taylor (2012) and used re-interpreted rock types provided by LIM.

There have been two metallurgical studies of the iron-rich zones on the Knob Lake Property. In 2008 a 1,000 tonne bulk sample of lower Sokoman iron formation was crushed, screened, and sent for particle size analysis, bulk density, moisture, angle of repose, and direct head assay by LIM. In 2009, a 100 kilogram sample of Knob Lake Property lump iron was tested at Studiengesellschaft für Eisenerzaufbereitung GmbH & Co. ("SGA") for select physical, chemical, and metallurgical properties, resulting in acceptable metal recoveries using conventional processing methods.

#### CONCLUSIONS AND RECOMMENDATIONS

Based on the evaluation of the data available from the Knob Lake Property (the "Property"), the Author of this Technical Report concludes the following:

- At the effective date of this Technical Report (October 19, 2022), Anteros Metals
   Incorporated has 100% ownership in the Knob Lake Property, located near the town of
   Schefferville, Québec
- The Property is centred over a Superior-type iron formation and iron deposit
- The mineral concessions of the Property granted by the province of Newfoundland and Labrador terminate at an unsurveyed border with the Province of Québec
- The highest known grades of the iron deposit are within the province of Newfoundland and Labrador
- The Knob Lake Property deposit remains open to expansion along iron-rich stratigraphy, including along strike



 The most recent mineral resource estimate ("MRE") for the Knob Lake Property (Dupéré, 2014) is now considered historical as Anteros Metals Incorporated has not independently verified the resource since acquiring the property in February of 2022

The acquisition of the Knob Lake Property by Anteros Metals Incorporated relegates the 2014 mineral resource estimate for the Knob Lake Property to a "historical estimate", as defined by NI 43-101. It is therefore recommended that a current Mineral Resource Estimate be prepared. This effort would benefit greatly from the acquisition and validation of any and all historic IOC, LIM, Eagle Mapping, SGS, and SGA reports and data, including assay certificates and site photographs, to rebuild the Property database on which the iron deposit could be re-modelled and mineral resources estimated.

Preparing a current MRE for Knob Lake Property also provides Anteros Metals Incorporated with an opportunity to address recommendations made in the historic MRE, clarify the treatment of some of the data used in modelling, and establish additional parameters of the resultant model. The Author recommends the new mineral resource estimate include:

- Compilation and consideration of LIM-era assay laboratory (in-house) blanks, standards, and duplicates that will increase confidence in historic sample QA/QC
- Identification of each drill hole and/or trench that contributes to the resource, as well as each drill hole that was eliminated due to poor or absent data
- Details of resource category locations, such that future resource definition and expansion programs can be designed
- Open-pit optimization based on grade cut-off values to clearly demonstrate reasonable prospects for economic extraction

The Author additionally recommends:

- The use commercially-prepared blanks and standard samples in the QA/QC program, a measure to eliminate inconclusive results
- Continued use of the 2014 coding scheme for classification of geological units, a simplified and more objective scheme than used in 2012
- Considering the use of diamond or sonic drilling methods for a select number of drill holes enabling more precise measurements of bulk density and magnetic susceptibility, along with more direct observation of structural and geological contacts

The cost to bring the Knob Lake Property resource estimate into current status carries a minimum estimate of \$80,000. It is also recommended to perform additional bulk sampling for metallurgical testing to propose a process flow sheet for treatment of the Project's iron



resource (see Section 26).



#### **2 INTRODUCTION**

This Technical Report on the Knob Lake Property (the "Property") was prepared for Anteros Metals Incorporated, a privately-held company incorporated in Newfoundland and Labrador, Canada with an office in Conception Bay South, NL. The Property is located in Labrador approximately 2.5 kilometres from the town of Schefferville, Québec. This report has been prepared in compliance with *National Instrument 43-101 – Standards of Disclosure for Mineral Projects, Form 43-101F1 Technical Report,* and *Companion Policy 43-101CP* to partially satisfy the requirements for an initial public offering on a Canadian equity securities exchange.

Anteros Metals Incorporated commissioned Jesse R. Halle (P.Geo.) of Halle Geological Services Limited in Halifax, Nova Scotia, to prepare this Technical Report for the Knob Lake Property. The Knob Lake Property hosts an iron and manganese deposit within the province of Newfoundland and Labrador and was acquired by Anteros Metals Incorporated in February of 2022. This Technical Report reviews the various historic mineral projects of the mineral Property, discloses historical mineral resource estimates, and makes recommendations for advancing the property.

Jesse R. Halle is an independent and qualified person within the meaning of *National Instrument 43-101 – Standards of Disclosure for Mineral Projects* ("NI 43-101"). The Author is independent as described in section 1.4 of NI 43-101, and independent of the issuer, Anteros Metals Incorporated, who holds 100% ownership of the mineral claims on which the iron deposits are located.

The inaugural estimate of the mineral resource for the Knob Lake Property iron deposit was described in detail in a 2012 Technical Report titled *Revised Technical Report: Schefferville Area Direct Shipping Iron Ore Projects Resource Update in Western Labrador and North Eastern Québec, Canada* (Dupéré and Taylor, 2012) dated October 24, 2012 with an effective date of March 31, 2012. Dupéré and Taylor relied on publicly available assessment reports, unpublished reports from IOC, and Property data provided by LIM, supplemented by publicly-available government maps and publications. An updated mineral resource estimate based on the 2012 mineral resource estimate for the Knob Lake Property was issued by Dupéré in 2014, titled *Schefferville Area Phase I DSO Iron Projects Resource Update, Western Labrador – NE Québec, Canada*, using a revised geological interpretation from LIM and no additional material information. In accordance with NI 43-101, both mineral resource estimates are now relegated to historic estimates and are described in Section 6 of this report (History).

The Author visited the Knob Lake Property from April 5th to 7th, 2022 to fulfill site visit requirements for this Technical Report. Mineralized outcrops of the middle iron formation and



stockpiles of lower iron formation on the Property site were seen, and positioning of access roads, historical trenches, lake shores, geological features, and the railway right-of-way in relation to claim boundaries were verified.

#### 2.1 TERMS OF REFERENCE

The co-ordinate system used in this report is Universal Transverse Mercator ("UTM") Zone 19N, and the datum used is North American Datum 1927 ("NAD27"). Unless otherwise stated, all units used in this report use metric units. Iron, manganese, silicon dioxide, aluminum oxide and phosphorus concentrations are reported in percent (%). Abbreviations and acronyms used in this report are shown in Table 2.1.

**Table 2.1: Abbreviations and Acronyms** 

Description	Abbreviation or Acronym
percent	%
three dimensional	3D
degrees	0
aluminum	Al
aluminum oxide	$AI_2O_3$
circa	C.
Canadian dollar	CAD
centimetre	cm
copper	Cu
diamond drill hole	DDH
digital elevation model	DEM
east	E
exploratory data analysis	EDA
iron	Fe
gram	g
billion years	Ga
Global Positioning System	GPS
hectare	ha
Iron Ore Company of Canada	IOC
kilogram	kg
kilometre	km
litre	L
loss on ignition	LOI
length x width x height	LxWxH
Light detection and ranging	LIDAR
Labrador Iron Mines Ltd.	LIM
pound	lb
metre	m
million years	Ma
manganese	Mn
molybdenum	Mo



Description	Abbreviation or Acronym
millimetre	mm
mineral resource estimate	MRE
north	N
North American Datum	NAD
National Instrument 43-101	NI 43-101
National Topographic System	NTS
ordinary kriging	OK
phosphorus	Р
Professional Geoscientist	P.Geo.
quality assurance/quality control	QA/QC
qualified person	QP
reverse circulation	RC
south	S
specific gravity	SG
SGS Canada Inc.	SGS
silicon	Si
silica	SiO <sub>2</sub>
square kilometre	sq. km
tonne	t
Universal Transverse Mercator	UTM
x-ray fluorescence	XRF

Note that the Technical Reports by Dupéré (2014) and Dupéré and Taylor (2012) use the terms "iron ore" and "ore" in a descriptive sense and should not be construed as representing current economic viability. Sections of this report refer to this historical terminology by placing single quotations bracketing the word 'ore'.



#### 3 RELIANCE ON OTHER EXPERTS

This report has been prepared for Anteros Metals Incorporated by Jesse R Halle (P.Geo.) an independent qualified person as defined by NI 43-101. The findings, conclusions and recommendations contained herein are based on information presented in Dupéré (2014), Dupéré and Taylor (2012), IOC documents, LIM assessment reports on exploration activities during the period 2006 to 2011, and other third-party reports. A limited number of reports, sections, and plans prepared by IOC between 1954 to 1982 were available to the Author.

The metallurgical testing laboratories of SGS, Corem, and SGA have performed work on the Property at the request of LIM, reports from which were often unavailable to the Author. The Author relies upon results and interpretations from Dupéré (2014) and Dupéré and Taylor (2012).

The Author has verified the ownership of the mineral claims by referencing the websites of the Newfoundland and Labrador Department of Industry, Energy and Technology as of the date of this report, but does not offer an opinion to the legal status, surface, or access rights to such claims other than those noted in Section 4 of this report.

The Author also relies on topographic maps published by the Government of Canada and geological maps produced by the Geological Survey of Canada and the Geological Survey of Newfoundland and Labrador, in addition to imagery obtained from Google Earth.



#### 4 PROPERTY DESCRIPTION AND LOCATION

#### 4.1 LOCATION

The Knob Lake Property is located in western Labrador near the town of Schefferville, Québec (Figure 4.1) roughly 1,200 kilometres northeast of Montréal. The Property covers parts of National Topographic System map sheets 23J/15 and is centred at approximately 54°46.73'N latitude and 66°47.7'W longitude.

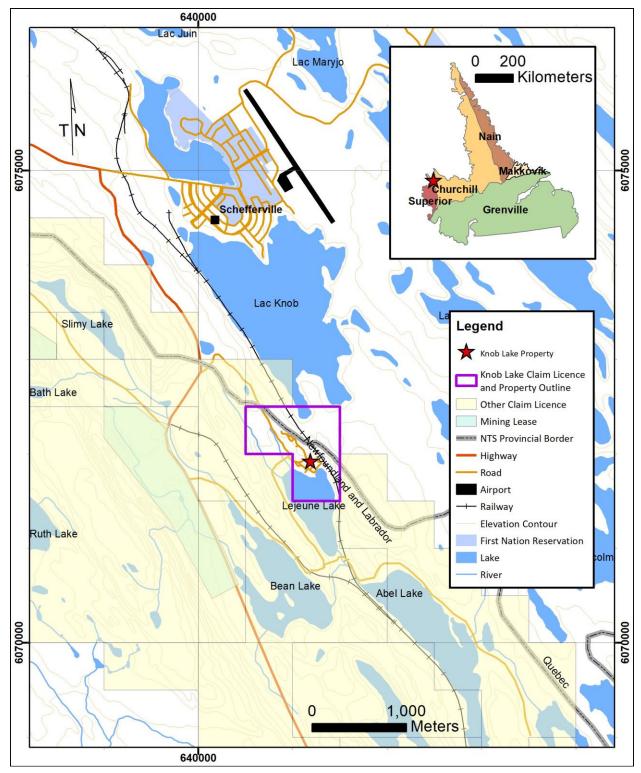
There are no roads connecting the Schefferville area to southern areas of Canada. Access to the area is by rail from Sept-Îles or by air from Montréal, Québec City, or Sept-Îles, Québec.

The Knob Lake Property iron and manganese deposit is located 1.5 kilometres east of the James Iron Deposit and 2.3 kilometres southeast of the former Silver Yards beneficiation plant at Ruth Lake.

As of the date of this Technical Report, Anteros Metals Incorporated holds title to a Mineral Rights License in good standing, issued by the Newfoundland and Labrador Department of Industry, Energy and Technology, comprising three mineral claim units covering 75 hectares.



Figure 4.1: Knob Lake Property location map (1:40,000 scale)



Note: Figure 4.1 does not show valid mineral concessions of Québec



#### 4.2 LAND TENURE

The Knob Lake Property consists of three contiguous mineral claim units comprising Licence 031325M and covers an area of 75 hectares as issued by the Newfoundland and Labrador Department of Industry, Energy and Technology. The claims were staked by and issued to Wesley Keats in the fall of 2020, and transferred to Anteros Metals Incorporated February 23, 2022. The claims are currently held by Anteros Metals Incorporated are in good standing until October 28, 2025. Specifics of these claims are presented in Table 4.1.

Table 4.1: List of Licences of the Knob Lake Property

License No.	Map Sheet	Property	Location	Nº of Claims	Area (Ha)	Staked	Issued	Expiry
031325M	NTS 23J/15	Knob Lake	Lejeune Lake	3	75	28-Sep-20	28-Oct-20	28-Oct-25

The Property boundaries are described in detail on the Newfoundland and Labrador Mining Recorders website:

Beginning at the northeast corner of the herein described parcel of land and said corner having U.T.M. coordinates of 6,072,500 N; 641,500 E; of zone 19, thence South 1000 meters, thence West 500 meters, thence North 500 meters, thence West 500 meters, thence North 500 meters to the point of beginning. All bearings are referred to the U.T.M. grid, Zone 19. NAD 27. Reserving nevertheless out of the above described area all of the land being part of: Province of Ouébec

The area of Property claims residing in the Province of Québec relates to a watershed boundary (or 'height of land') between Lejeune Lake and Lac Knob (Figure 4.2). The exact location of this line denoting the provincial boundary traversing the Knob Lake claim area is not physically marked on land, nor has it been officially surveyed. Approximately 22 hectares (or 29%) of the total claim area may cover land in Québec. Prior to resource development at the Knob Lake Property, legal surveying should be undertaken to determine a more precise location of the provincial boundary.

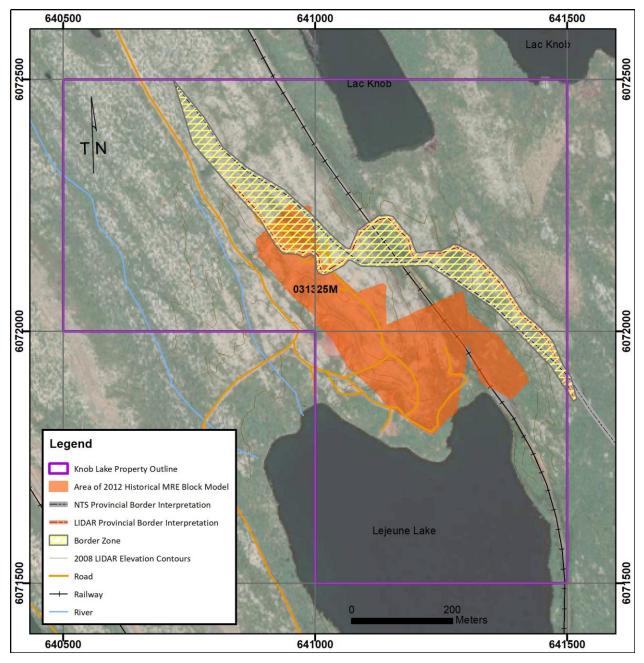
Two surface traces of the height of land are depicted in Figure 4.2. A trace of the provincial border as depicted on Government of Canada issued NTS map 23J/15 (1:50,000 scale) as well as the height of land drawn from the 2009 LIDAR topographic map used in LIM drilling reports from 2008, 2009, and 2011. The two border interpretations confirm the area of the historical estimate by Dupéré and Taylor (2012) is primarily within the Province of Newfoundland and Labrador with a small amount of falling between the two border interpretations.

The TSH railway right-of-way also transects the area of the historical estimate of Dupéré and



Taylor (2012).

Figure 4.2: Provincial Border at the Knob Lake Property (1:7,500 scale)



Annual fees and work commitments due on all claims comprising the Property are in compliance, and all of the claims are owned by Anteros Metals Incorporated and are in good standing. None of the Property claims have been surveyed.

Mining leases are not present adjoining the area of the Knob Lake Property claims; the closest are registered at the James Iron Mine, some 1,200 metres west of the Property.



#### FIRST NATION COMMUNITIES

The Innu Matimekush and Lac John, and Naskapi Kawawachikamach First Nation Reservations are in the Schefferville area. The Innu have special rights and benefits concerning resource royalty sharing on provincial land of the Schefferville area. The impact and benefit agreement does not apply to exploration efforts but consultation and agreement with the Innu prior to major resource development is mandated.

In November of 2011, the Province of Newfoundland and Labrador signed an historic agreement with the Innu Nation of Labrador. The Tshash Petapen ("New Dawn") Agreement provides for, among other matters, the transfer of legal title to almost 13,000 sq. km, or about 4.4% of Labrador, to the Innu Nation. The Innu will have jurisdiction to make laws in relation to specified matters and share in resource royalties on these lands. The Innu will also have special rights and benefits concerning resource royalty sharing on an additional 23,000 sq. km of provincial land. The document establishes permit-free hunting rights as well as outlining a major development impact and benefits agreement for a large area of western Labrador including the Schefferville area. The impact and benefit agreement does not apply to exploration efforts, but consultation and agreement with the Innu prior to major resource development is mandated.

Though not located near the Knob Lake Property, a land claims agreement was reached between the Governments of Newfoundland and Labrador and Canada and the Labrador Inuit Association in 2005. The Labrador Inuit Land Claims Agreement Act created a limited, self-governing region called Nunatsiavut. Of most significance to the mineral industry, the agreement provided the Inuit with surface rights to 15,800 sq. km, or about 5.4% of Labrador, an area known as Labrador Inuit Lands, located along the rugged northwestern coast of Labrador. Regulations governing development standards and economic benefits for projects in Labrador Inuit Lands are specified in the Labrador Inuit Land Claims Agreement.

#### 4.3 CLAIMS

The Knob Lake Property consists of three contiguous mining claims covering an area of 75 hectares registered in the Province of Newfoundland and Labrador through the Department of Industry, Energy and Technology. As stated, mineral rights are not granted to the approximately 22 hectares (or 29%) of the total claim area of the licence that exists over land belonging to the Province of Québec (see section 4.2).

The annual fees and work commitments due on all claims comprising the Property are in



compliance, and all of the claims are in good standing.

#### 4.4 Environmental Regulations and Permitting

A mineral licence gives the licensee the exclusive right to explore for minerals in, on or under the area of land described in the licence. A mineral exploration licence in Labrador is issued for a five-year term and may be renewed and held for a maximum of twenty years, provided the required annual assessment work is completed, reported and accepted by the Department of Industry, Energy and Technology, and the renewal fees are paid.

Annual assessment work must be completed on or before the anniversary date of licence issuance.

Any person who intends to conduct an exploration program must submit prior notice with a detailed description of the activity to the Department of Industry, Energy and Technology. An exploration program that may result in ground disturbance or disruption to wildlife habitat must have an exploration approval from the Department before the activity can commence.

The online permitting system called the Mineral Exploration Approval Management System provides most permits required for mineral exploration in the Province.

The Knob Lake Property at the time of writing was unpermitted for exploration.

At the time of writing, there are no other significant factors or risks that may affect access, title, or right or ability to perform work.



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

#### 5.1 ACCESSIBILITY

The Knob Lake Property is located about 1,200 kilometres northeast of Montréal and approximately 2.5 kilometres southeast of the town of Schefferville, Québec. From Schefferville, a tertiary road diverging east from approximately 2.5 kilometres south along the James Mine Road from Route du Lac Knob west of Schefferville accesses the Property, including the iron and manganese deposit. There are no roads connecting the Property to southern Labrador or to southern Québec. Access to the area is by rail from Sept-Îles to Schefferville or by air from Montréal, Quebec City, or Sept-Îles, Québec.

The majority of the Knob Lake Property is located in Labrador and accessible by gravel roads maintained year-round as access to the Menihek Hydroelectric Dam. In addition, a rail line crosses the eastern edge of the claim licence.

The Silver Yards beneficiation plant was located at the past-producing James mine. Most roads and crossings in the immediate area of the Knob Lake Property were upgraded in 2011 for heavy trucks and equipment.

#### 5.2 CLIMATE

The Knob Lake Property area hosts a sub-arctic, continental taiga climate where daily average temperatures exceed 0°C for five months in a year. Daily mean temperatures for Schefferville average -24.1°C January and 12.4°C in July. Snowfall in November, December and January generally exceeds 50 centimetres per month and the wettest summer month is July with an average monthly rainfall of 10.7 centimetres.

Vegetation consists of alpine grass and moss, willow, and black spruce. Valleys in the area are vegetated with spruce, tamarack, birch, and cottonwood. Alder and willow form dense cover over disturbed areas.

### **5.3** LOCAL RESOURCES AND INFRASTRUCTURE

Since the closure of large-scale mining operations by the Iron Ore Company of Canada in 1982, the economy of Schefferville is now based on hunting and fishing tourism, and public service administration.

Schefferville, an incorporated municipality in the Province of Québec, is the nearest supply



centre to the property, and includes restaurants, hotels, and a nursing station. The present permanent population is around 1,250 citizens, including the Innu Matimekush and Lac John, and Naskapi Kawawachikamach First Nation Reservations. Kawawachikamach is a modern community approximately 11 kilometres northeast of Schefferville and has schools, a medical clinic and a recreational complex.

The town of Schefferville has a fire station and firefighting equipment. The provincial Sûreté Du Québec policing detachment services the town of Schefferville and the Matimekosh First Nation Reservations. A municipal garage, hardware store, mechanic shop, and a large department store, radio station, recreation centre, parish hall, gymnasium, playground, childcare centre, and drop-in centre are present in Schefferville.

The Schefferville airport, immediately east of the town, has a 2,000 metre runway and navigational aids for jet aircraft. Daily air service is provided from Sept-Îles and three times per week from Québec City.

The 18.7-megawatt Menihek Hydroelectric generation station is located 35 kilometres southeast of Schefferville and was built to support iron mining and services in Schefferville. Diesel-fueled electric generators are on reserve. Iron shipments by LIM as late as 2013 saw upgraded powerlines and substations installed at the James Mine / Silver Yards location.

The Québec North Shore and Labrador Railway ("QNS&L") was established by the Iron Ore Company of Canada in 1954 to haul iron from Schefferville area mines to Sept-Îles, a distance of approximately 570 kilometres. After shipping some 150 million tons (152.5 million tonnes) of iron from the area the mining operation was closed in 1982, and QNS&L maintained a passenger and freight service between Sept-Îles and Schefferville until 2005 when IOC sold the 208 kilometre section of the railway between Emeril Yard at Emeril Junction and Schefferville (the Menihek Division) to Tshiuetin Rail Transportation Incorporated ("TSH"), a company owned by three Québec First Nation Groups. TSH operates a passenger and light freight traffic between Sept-Îles and Schefferville three times a week.

Tata Steel Minerals Canada Limited currently uses the rail line for shipment of iron concentrate from its Timmins camp, approximately 20 kilometres northwest of Schefferville.

Five railway companies operate in the area:

- TSH ferries passengers and freight from Schefferville to Emeril Junction
- QNS&L transports iron concentrates and pellets from Labrador City/Wabush area via Ross Bay Junction to Sept-Îles



- Bloom Lake Railway moves iron concentrate from the Bloom Lake Mine to Wabush
- Arnaud Railways transported iron concentrate for Wabush Mines ("Wabush") and the Bloom Lake Mine between Arnaud Junction and Pointe Noire
- Cartier Railway Company ("CRC") takes iron concentrates from Fermont area to Port-Cartier for Arcelor Mittal but is not connected to TSH, QNS&L, Bloom Lake or Arnaud

Sept-Îles has a population of more than 28,000 people and acts as the primary supply centre for exploration in the Schefferville area.

#### 5.4 PHYSIOGRAPHY

The topography of the Schefferville mining district is bedrock-controlled with the average elevation varying between 480 and 600 metres above sea level. In the main mining district, the topography consists of a series of northwest-trending, gently rolling ridges. Topographic highs in the area are normally formed by more resistant quartzites, cherts, and quartz-rich horizons of the iron formations. Topographic lows are commonly underlain by soft siltstones and shales.

The mining district is within a zone of erosion where the last glaciation removed most preexisting soil and overburden cover. Glaciation ended in the area as little as 10,000 years ago and since has seen little 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 till in the area is composed of both glacial and glaciofluvial 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 found 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 is documented as an early major southeastward flow subparallel to major geological features. A far less pronounced northeastward flow of ice occurred much later and is far more prevalent in regions well south of Schefferville.



#### 6 HISTORY

#### 6.1 HISTORICAL EXPLORATION OF THE KNOB LAKE MINING AREA

In 1929, geologists J.E. Gill and W.F. James explored the area around present day Schefferville, Québec and found an abundance of iron-rich rocks in the hills they called the Ferrimango Hills. These iron deposits would later be renamed the Ruth Lake deposits, that would eventually be mined for their iron content.

In 1936, J.S. Wishart, a member of the 1929 mapping expedition, mapped the area around Ruth Lake and Wishart Lake further south in greater detail, with the objective of outlining new iron occurrences. Hollinger Exploration Company and Labrador Mining and Exploration Company Limited ("LM&E") obtained large mineral concessions at this time.

In 1942, Jules Timmins, a Canadian mining entrepreneur and president of Hollinger Consolidated Gold Mines Limited acquired LM&E, and interested the American businessman George Humphrey of the MA Hanna Company in the deposits of Labrador. Hollinger North Shore Company Limited, a 100% Canadian subsidiary of Hollinger Consolidated Gold Mines Limited, was incorporated in Québec to track, explore and establish rights to the New Québec region. In 1942, the company acquired prospecting and mineral exploration rights to approximately 3,900 square miles (10,101 sq. km) of land in the Attikamagen-Wokuach lakes area north and west of the border of Labrador. An intensive exploration program was undertaken in the Schefferville area between 1945 and 1949.

In 1945, a report by LM&E 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 iron deposits. Griffis recognized that the iron-rich unit (the Sokoman Formation) was structurally repeated by folding and faulting remarking "the potential tonnage of high-grade iron deposits is considered to be great".

In 1949, LM&E (later to become Labrador Iron Ore Royalty Corporation) entered into partnerships with seven other steel mills and miners to form the Iron Ore Company of Canada ("IOC"), with a view to exploit the high-grade iron discovered on the site. IOC was then a subsidiary of the American-Canadian company Hollinger-Hanna (subsidiary of Labrador Iron Ore Royalty Corporation) which sublet to it the mining leases inherited from the statutory agreement of 1938 (the Labrador Mining and Exploration Company Limited Act) over 22,000 square miles. For the Québec part, a 20-year mining lease had been granted to the Hollinger North Shore Exploration Co. in New Québec by the Government of Québec. The government of



Québec passed a law to Hollinger granting a license to operate over a territory of 300 square miles (777 sq. km) in New Québec. The law also provided for a special exploration permit over 3,900 square miles. A mining lease was issued to Hollinger North Shore Exploration Co. in 1953 under the Act of the National Assembly of Québec promulgated in 1946.

In 1954, the Iron Ore Company of Canada began open pit mining near Schefferville exporting an iron product of 56 to 58% Fe to steel companies in the United States and Western Europe. In the early 1960s however, iron deposits in Australia and South America began to supply products of up to 62% Fe. IOC responded by developing the Carol Lake deposit near Labrador City in 1963 which could produce concentrates and pellets to 64% Fe. The IOC remained competitive as an iron producer until 1982 when increasing oil prices caused an energy crisis. The demand for iron plummeted and IOC ceased iron production from mines in Schefferville area in 1982. Following the closure of IOC mining operations, the mineral rights held by IOC in Labrador reverted to the Crown. The Iron Ore Company of Canada operations produced in excess of 150 million tons (152.5 million tonnes) of lump and sinter fine products between 1954 and 1982.

#### 6.2 HISTORICAL EXPLORATION OF THE KNOB LAKE PROPERTY

At the Knob Lake Property, a considerable amount of line-cutting, trenching, mapping, and drilling was performed by IOC prior to the closure of their Schefferville operations in 1982. This data was unavailable to the Author at the time of writing, with the exception of a single historical report provided to the public at the Newfoundland and Labrador Department of Industry, Energy and Technology website (https://gis.geosurv.gov.nl.ca/). In it, the locations of some 60 boreholes and over 21 trenches are shown in a detailed Knob Lake Property geology map from Orth (1972). Two IOC sections through the Knob Lake Property are reproduced in the appendix of Dufort and Kroon (2007), but in poor quality such that details are difficult to ascertain.

In the early 1980s, Hollinger was acquired by La Fosse Platinum Group Incorporated who conducted feasibility studies on marketing, bulk sampling, metallurgical test work and carried out some stripping of overburden at the James iron deposit. La Fosse undertook limited trench sampling at Knob Lake Property in 1989 (McNeil, 1989) reporting nineteen 5 to 10 foot (1.52 to 3.05 metre) chip samples having assays from 4.0 to 27.6% Mn and from 28.5 and 54.4% Fe from historical trenches.

In 2003, Energold Minerals Incorporated began staking claims over the numerous iron deposits in Labrador near Schefferville. In 2005, a reconnaissance rock sampling program over properties



held by Energold and those held by Fenton Scott and Graeme Scott (including the Knob Lake Property) aimed to confirm IOC historical iron grades (Chavez and McKillen, 2006). Iron grades attained to 66.77% Fe at Knob Lake Property supporting high historical grades.

Energold was purchased by Labrador Iron Mines Holding Limited and gave control of its Labrador projects to its subsidiary, Labrador Iron Mines ("LIM"). All of the properties comprising the LIM Schefferville claims were part of the original IOC holdings and comprised a majority portion 65% (or 20 iron deposits) of IOC historic holdings.

In 2007, two widely-spaced lines of ground magnetometer data were collected over central and northwestern portions of the Property (Simpson, 2007) highlighting increased magnetic response in the Wishart Formation which underlies the iron-rich targets of the Sokoman Formation.

In 2008, a bulk sampling program was carried out at the Knob Lake Property. A reported 1,100 tonnes of 'red ore' (lower iron formation, "LIF") from the Knob Lake Property deposit was extracted using heavy equipment and loaded into 25 ton (25.4 tonne) dump trucks for crushing and screening at the Silver Yards beneficiation plant. Two saleable products were produced: 'lump ore' (between 6 and 50 millimetres) and 'sinter fines' (less than 6 millimetres). Representative samples of 200 kilograms of each product were collected and sent to SGS Lakefield laboratories for metallurgical test work and assays. Five train cars were used for the transport of the samples to Sept-Îles, the rest of the sample material remained at the Silver Yards beneficiation plant. Section 6.4.13 of this report elaborates on the results of this program.

In 2009, LIM contracted Eagle Mapping Ltd. of Port Coquitlam, BC to perform aerial photography and LIDAR surveying over their properties, including the Knob Lake Property at a scale of 1:1000. On a large portion of their properties, Eagle Mapping Limited also surveyed 2008 LIM RC drill holes, trenches, and a total of ninety IOC RC drill holes that could be located with the differential GPS system.

In 2011, a test pit program was performed along the western margin of the Knob Lake Property. A small backhoe was used to excavate 23 shallow pits (to 3 metres depth) and a 3 to 4 kilogram sample was collected from the excavated material. The location of each pit was recorded using a Trimble DGPS. Nothing of economic interest was stated.

That same year (2011), Fugro Airborne Surveys Pty Limited completed 1,346 kilometres of an aero-magnetometer and Falcon<sup>tm</sup> airborne gravity gradiometer survey which covered the entirety of the Knob Lake Property at a flight spacing of 200 metres. An independent digital



elevation model was also collected with gravity and magnetic data to aid in interpretation of results. Conclusions were not given in the report, but interest in the potential of the "Wishart taconite" was expressed.

LIM commissioned the James mine, 1,500 metres west of Knob Lake, in 2011 after constructing a new processing plant at Silver Yards. In the two years that followed, Labrador Iron Mines delivered approximately 3.6 Mt of iron concentrate to China via the port of Sept-Îles. Concurrently, LIM commissioned an inaugural mineral resource estimate for the Knob Lake Property in 2012 (Section 6.4). Iron concentrate shipments ceased in 2013, and since that time LIM performed full reclamation of the beneficiation plant (completed in 2019) while maintaining the majority of their iron properties and permits in good standing.

#### 6.3 HISTORICAL DRILLING

Hisorically, IOC used a combination of reverse circulation ("RC") drilling and trenching to generate data for reserve and resource calculations on their properties. With respect to the Knob Lake Property, scant reports are available in the public domain, but historical geologic mapping and compilation by Orth (1972) shows that IOC predominantly drill-tested the southeastern end of the current Knob Lake Property showing a cluster of drill holes in the northeast bay of Lejeune Lake (Figure 7.3).

Compilation of original IOC plan maps and drill section assay data was reportedly performed by LIM employees and used in the historic mineral resource estimate by Dupéré and Taylor (2012).

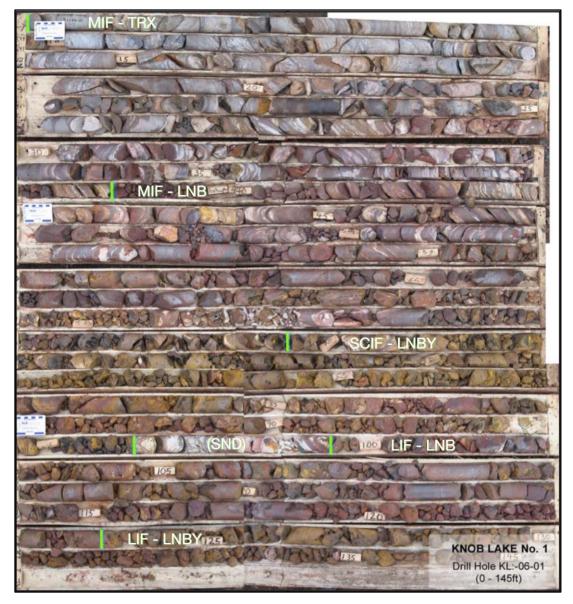
All drilling since 2006 was commissioned by LIM (or LIM in association with Energold) at the Knob Lake Property. LIM carried out drilling programs in 2006, 2008, 2009, and 2011 at the Knob Lake Property.

In 2006, LIM positioned a single diamond drill hole on the Knob Lake Property totaling 44.2 metres (Chavez and McKillen, 2007). The BTW-sized drill core prior to splitting is shown in Figure 6.3.1. The Author has annotated the photo for clarity, displaying logging codes for interpreted geological sub-units and mineralization types.

In 2008, LIM used a reverse circulation drill which eliminated loss of drill cuttings to water, ultimately providing more accurate assays and geotechnical information. Nine RC holes were performed at the Knob Lake Property totaling 612 metres.



Figure 6.3.1: 2006 drill core from the Knob Lake Property



Note: 'SND' describes a sand-rich layer. Adapted from Chavez and McKillen (2007)

In 2009, LIM commissioned five RC holes at the Knob Lake Property totaling 270.5 metres and surveyed all drill holes using differential GPS device.

In 2011, LIM drilled five RC holes at the Knob Lake property totaling 321 metres.

The history of LIM-era drilling conducted at the Knob Lake Property is summarized in Table 6.3.1. All drill holes, test pits, and the majority of historical trenches are shown in Figure 6.3.2. No additional field work has been performed at the time of writing after the 2011 drilling program.



Table 6.3.1: History of Drilling at the Knob Lake Property

Year	Operator	Target Zone	# Holes	Туре	Total Metres
c.1970	IOC	Knob Lake	approximately 60	RC	approximately 1500
2006	LIM/Energold	Knob Lake	1	DDH	44.2
2008	LIM	Knob Lake	9	RC	610.0
2009	LIM	Knob Lake	5	RC	270.5
2011	LIM	Knob Lake	5	RC	321.0

All LIM-era drill holes are drilled vertically and are spaced between 30 and 40 metres in the centre of the known deposit, increasing to 100 metre spacing at the northwest end of the deposit. The average drill hole length is just over 60 metres. There are a total of 103 drill holes in the vicinity of the Knob Lake Property iron and manganese deposit.

GPS coordinates were recorded for all LIM-era drill holes. Records of down-hole orientation surveys, if taken, could not be located.

The current location of the 2006 drill core and 2008 through 2011 drill hole chips is said to be in a LIM storage yard in Schefferville, but could not be located during the 2022 site visit.

#### 6.4 2012 AND 2014 HISTORIC MINERAL RESOURCE ESTIMATES

An inaugural mineral resource estimate ("MRE") for the Knob Lake Property was prepared by Dupéré and Taylor in 2012, followed by an update to the resource by Dupéré in 2014. The now historic mineral resource estimates were calculated using IOC RC drill hole and trench data, and recent DDH and RC data compiled from the 2006 to 2011 LIM exploration programs totaling a reported 1,008 drilling assays and 196 trenching assays. X-ray fluorescence ("XRF") was used to estimate elemental oxides in LIM drill core samples. Non-commercial blanks and standards were employed in LIM sampling programs for the purposes of QA/QC.

From this data, Dupéré and Taylor (2012) outlined a 'direct shipping ore ("DSO") mineralized envelope' inside of which the block grade model was bounded. For the 2014 Technical Report update, Dupéré re-modelled the geology using a revised system to classify iron 'ore' types developed by LIM. Dupéré and Taylor (2012) used 5 x 5 x 5 meter blocks for their block model, built on composited Fe, SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, Mn and P grades, and used kriging variance ("standard kriging error") to help delineate each resource category.

The historical mineral resource estimate for the Knob Lake Property iron deposit reported in



Dupéré and Taylor (2012) is summarized in Table 6.4.1 below. The historical block model was truncated according to topography and to a maximum depth of 80 metres below surface.

Table 6.4.1: 2012 Knob Lake Property historical mineral resource estimate summary

'Ore' Type	Classification	Tonnes <sup>1, 2</sup>	SG	Fe (%)	P (%)	Mn (%)	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)
Fe 'Ore'	Measured (M)	2,838,000	3.38	55.02	0.07	1.00	10.22	0.48
	Indicated (I)	2,264,000	3.36	54.33	0.06	1.08	11.19	0.46
	Inferred	724,000	3.32	52.32	0.09	1.25	13.40	0.45
	Measured (M)	383,000	3.28	50.52	0.09	5.57	8.53	0.68
Mn 'Ore'	Indicated (I)	230,000	3.27	49.37	0.08	4.78	10.21	0.72
	Inferred	146,000	3.28	50.63	0.08	4.79	10.27	0.40
	Measured (M)	3,221,000	3.37	54.48	0.07	1.54	10.02	0.50
Total	Indicated (I)	2,494,000	3.35	53.87	0.06	1.42	11.10	0.49
	Inferred	870,000	3.31	52.04	0.08	1.84	12.87	0.44

<sup>&</sup>lt;sup>1</sup>Historical mineral resources are rounded to the nearest 10,000 tonnes

*Note:* The mineral resource for the Knob Lake Deposit (Dupéré and Taylor, 2012) is considered historical in accordance with NI 43-101 (see paragraph below for important disclosures regarding historical resources)

The historical mineral resource estimate in Table 6.4.1 is from a Technical Report entitled *Technical Report: Schefferville Area Direct Shipping Iron Ore Projects in Western Labrador and North Eastern Québec, Canada* by Maxime Dupéré and Justin Taylor, dated March 31, 2012 and filed on SEDAR (www.sedar.com). The Technical Report was prepared in accordance with NI 43-101, NI 43-101F1, and with CIM standards and Mineral Resource best practices. The stated historical resource used an iron cut-off grade of 50%, and grades were not capped. An independent Qualified Person will be required to compile and validate historic Property data, model the data, and estimate the mineral resource to obtain a current mineral resource. It is envisaged that this will involve open pit optimization. A qualified person has not done sufficient work to classify the historical estimate as a current mineral resource. Anteros Metals Incorporated is not treating the historical estimate as a current mineral resource.

In 2014, Dupéré updated the 2012 calculation for the Knob Lake iron deposit using a reinterpreted system of geologic coding developed by LIM without any other additional data. The cut-off date for the 2014 historical resource is February 6, 2012.

Table 6.4.2 summarizes the updated Knob Lake Property historical MRE (Dupéré, 2014).

<sup>&</sup>lt;sup>2</sup>Historical mineral resources that are not mineral reserves do not have demonstrated economic viability



Table 6.4.2: 2014 Knob Lake Property historical mineral resource estimate summary

Fe							
Classification	Tonnes <sup>1, 2</sup>	Fe (%)	P (%)	Mn (%)	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	
Measured (M)	2,824,000	55.01	0.070	1.00	10.21	0.48	
Indicated(I)	2,259,100	54.33	0.061	1.07	11.19	0.46	
Total (M+I)	5,083,500	54.71	0.066	1.03	10.65	0.47	
Inferred	643,800	51.78	0.085	1.21	13.53	0.45	
		Mn					
Classification	Tonnes	Fe (%)	P (%)	Mn (%)	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	
Measured (M)	375,000	50.55	0.086	5.59	8.45	0.68	
Indicated(I)	214,000	49.56	0.076	4.87	9.60	0.80	
Total (M+I)	588,000	50.19	0.082	5.33	8.86	0.72	
Inferred	127,000	49.18	0.046	4.80	9.66	0.40	

<sup>&</sup>lt;sup>1</sup>Historical mineral resources are rounded to the nearest 10,000 tonnes

Note: The mineral resource for the Knob Lake Deposit (Dupéré, 2014) is considered historical in accordance with NI 43-101 (see paragraph below for important disclosures regarding historical resources)

The historical mineral resource estimate in Table 6.4.2 is from a Technical Report entitled *Technical Report: Schefferville Area Phase I DSO Iron Projects Resource Update, Western Labrador – NE Québec, Canada* by Maxime Dupéré dated June 27, 2014 and filed on SEDAR (www.sedar.com). The Technical Report was prepared in accordance with NI 43-101, NI 43-101F1, and with CIM standards and Mineral Resource best practices. The stated resource used an iron cut-off grade of 50%, and grades were not capped. An independent Qualified Person will be required to compile and validate historic Property data, model the data, and estimate the mineral resource to obtain a current mineral resource. It is envisaged that this will involve open pit optimization. A qualified person has not done sufficient work to classify the historical estimate as a current mineral resource. Anteros Metals Incorporated is not treating the historical estimate as a current mineral resource.

#### 6.5 HISTORICAL METALLURGICAL TESTING

There have been two metallurgical studies of the iron-rich zones on the Knob Lake Property. In 2008, 1,100 tonnes of the lower iron formation was crushed, screened, and sent to SGS Laboratories for metallurgical and other testing including particle size analysis, bulk density, moisture, angle of repose, and direct head assay. The homogenized bulk sample assayed at 58.5% Fe. Assays from the various particle sizes are shown in Table 6.5.1.

<sup>&</sup>lt;sup>2</sup>Historical mineral resources that are not mineral reserves do not have demonstrated economic viability



Table 6.5.1: 2008 Bulk Sample Test Results

Particle Size	Size Fraction	Fe (%) <sup>1</sup>	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	P (%) <sup>1</sup>	LOI (%)	Mass (%)
Lump Iron	50 mm to 6.7 mm	58.8	5.02	0.69	0.114	9.95	60.4
Sinter Feed	6.7 mm to 150 μm	58.3	6.49	1.13	0.111	8.70	26.0
Pellet Feed	150 μm to 38 μm	54.5	11.2	1.58	0.110	7.89	1.87
Slimes	Less than 38 μm	53.2	11.0	2.40	0.108	6.90	11.7
Calc. Head		57.9	6.22	1.02	0.112	9.23	100.0

 $<sup>^{1}</sup>$  Calculated from element oxides where [Fe] = 0.6994 x [Fe<sub>2</sub>O<sub>3</sub>], and [P] = 0.4365 x [P<sub>2</sub>O<sub>5</sub>] *Note*: Reproduced from Dupéré and Taylor (2012).

In 2009, a 100 kilogram sample of the Knob Lake Property 'lump ore' from 2008 was tested at Studiengesellschaft für Eisenerzaufbereitung GmbH & Co ("SGA") in Germany for further analysis of physical, chemical, and metallurgical properties. The SGA report concluded a favorable size distribution with a low amount of fines, good results from tumbler testing with high strength and low abrasion, very high reducibility when compared to other iron grades, and excellent results from disintegration testing.



#### 7 GEOLOGICAL SETTING AND MINERALIZATION

#### 7.1 REGIONAL GEOLOGY

The following summarizes the regional geological setting using descriptions from published reports by Gross (1963, 1965), Zajac (1974), Wardle (1979, 1982), Neal (2000), and Conliffe (2017).

The Labrador Trough (or "New Québec Orogen") is an over 1,600 kilometre-long, north-northwest-trending, Proterozoic geosynclinal orogenic belt extending from the eastern margin of Ungava Bay southwards to Labrador City and forms the western margin of the Churchill Province. The thick, primarily volcano-sedimentary sequence is of Proterozoic age and unconformably overlies the Archean-aged Superior Province to the west. The belt is about 100 kilometres wide in its central portion and narrows considerably to the north and south.

The Labrador Trough has often been divided into Eastern, Central and Western Sections due to the predominance of described geologic sections, though Clark and Wares (2005) further subdivides these sections based on lithotectonic continuity. The principal iron formation unit, the Sokoman Formation, part of the Knob Lake Group, forms a continuous stratigraphic unit of variable thickness along the length of the belt. The iron mines in the Schefferville area exploited enriched iron deposits of the Sokoman Formation informally called taconite, a chert-rich rock with over 15% Fe content.

A stratigraphic column summarizing the geology of the Labrador Trough is presented in Table 7.1 below and a generalized map of the trough subdivisions is shown in Figure 7.1.

The southern part of the trough is cut by the Grenville Province, formed by an orogeny that metamorphosed the pre-existing rocks of the Labrador Trough, recrystallizing iron formations to produce magnetite and specular hematite schists. Iron deposits in this region include the Lac Jeannine, Fire Lake, and Mount-Wright in Québec and the Luce, Humphrey and Scully deposits near Wabush, NL.

The main structural features in the trough are northwest-trending, east-northeast dipping, thrust faults and folds which has foreshortened the geosynclinal assemblage and repeats the various assemblages. The trough in the Schefferville area has been metamorphosed to lower-grade, greenschist facies.



Table 7.1: Geologic Stratigraphy of the Labrador Trough

SHABOGA	AMO GROUP - Middle Proterozoic – Unit :	21 and 22
<u></u>	Olivine gabbro, Mary Jo diabase	
WESTERN TROUGH	CENTRAL TROUGH	EASTERN TROUGH
	NIAPISKAU SUPERGROUP - Early Proteroz	
<u>KA</u>		<u>.oic</u>
(not procent)	Moltagnais Intrusive Series	Botty Boridatita (20) Makayah Cahbua
(not present)	Wakauch Gabbro (17, 18, 19)	Retty Peridotite (20), Wakauch Gabbro (17, 18, 19), diabase sills
	<u>Doublet Group</u>	<u>,                                      </u>
(not present)	(not present)	Willbob Formation (16) Pillow basalt, pillow breccia
(not present)	(not present)	<b>Thompson Lake Formation</b> (15) Chloritic siltstone, black slate
(not present)	(not present)	Murdoch Formation (14) Chloritic phyllite, siltstone, black slate
	Knob Lake Group	
	Tamarak River Formation (13)	
Red and green arkose, silt and mudstone, conglomerate	(not present)	(not present)
	Ferriman Subgroup	
	Menihek Formation (12)	
Grey and black	shale, siltstone	Gray shale, siltstone, minor schist and phyllite, minor tuff
Sokoman Fo	rmation (11)	Nimish Formation (10)
Cherty iron	formation	Mafic lava, conglomerate, pyroclastics
	Wishart Formation (9)	
Orthoquartzite, gray	y quartzite, siltstone	Gray, black chert; minor iron formation
	Attikamagen Subgroup	
	Flemming Formation (8)	
Chert, Breccia, minor shale, quartzite	(not present)	(not present)
	Dolly Formation (7)	
Gray shale, siltstone	Gray shale, siltstone	(not present)
	Denault Formation (6)	
Dolomite, calcareous siltstone	Dolomite, minor conglomerate	Stromatolitic dolomite, dolomite,
		calcareous phyllite, minor mafic tuff
	La Fer Formation (5)	
Grey-green shales and siltstones, minor	Grey shales and siltstones, minor	Stromatolitic dolomite, dolomite,
dolomitic shale	greywacke and tuff	calcareous phyllite, minor mafic tuff
	Seward Subgroup (4)	
-	Sawyer Lake Formation	
Red-purple shale, siltstone	Purple sandstone, orthoquartzite	Red-gray sandstone, dolomite
	Snelgrove Lake Formation	
(not present)	Red and grey arkose sandstone, conglomerate	(not present)
	Discovery Lake Formation	<u> </u>
(not present)	Grey feldspathic sandstone, conglomerate	(not present)
<u> </u>	DRPHIC COMPLEX (1)	EASTERN BASEMENT METAMORPHIC COMPLEX (2, 3)
Archean Gro	anitic Gneiss	Tonalite-granodiorite gneisses, minor amphibolite, biotite gneiss, schist

Note: Adapted from Wardle (1982)



Clark and Wares (2005) have sought to simplify the stratigraphy of the entire Labrador Trough subdividing the trough by cycles of basin formation. The Author has presented the stratigraphic column above as it largely agrees with recent interpretations by Conliffe (2017) and for consistency of understanding in the Property area.

600,000 650,000 700,000 750,000 800,000 400 Kilometers 6100000 Eastern Trough Churchill Grenville 6050000 Legend Central Trough Knob Lake Property Major Structure ▲ Thrust Fault Labrador Trough Geologic Formations Fleming Le Fer Menihek Western Trough Murdoch Nimish Shabogamo Tamarack Thompson Wakauch 30 700000 600000 650000 750000 800000

Figure 7.1: Geologic Map of the Labrador Trough (1:1,500,000 scale)

Note: Adapted from Wardle et al. (1997)



#### 7.2 LOCAL AND PROPERTY GEOLOGY

The stratigraphy of the Knob Lake area includes the La Fer (5), Denault (6), Dolly (7), Flemming (8), Wishart (9), Sokoman (11), and Menihek (12) Formations. The thick package of sediments formed on a passive continental margin between two Archean cratons during the Trans-Hudson Orogeny (1.8 to 2.0 Ga) with volcanic rocks being later introduced upon basin closure. Clark and Wares (2005) give excellent chronology of the basin formation, sedimentation and volcanism, and subsequent closure.

The major orogenic event closed the sedimentary basin and folded and faulted the stratigraphic layers causing various synclines and anticlines and steep-angled reverse faults. In the area of the Knob Lake Property, stratigraphy dips gently to steeply eastward, and is sharply faulted with repeating imbricated thrusts. Areas of folding also exist and anticlines and synclines, sometimes overturned, exist. Compression of the stratigraphy has metamorphosed the rocks of the Property area to lower greenschist facies.

A brief description of the Ferriman and Attikamagan Subgroups comprising the bulk of the Knob Lake Range follows:

- La Fer Formation (5) consists of argillaceous material that is thinly bedded (2 to 3 millimetres), fine grained (0.02 to 0.05 millimetres), grayish green, dark grey to black, or reddish grey. Calcareous or arenaceous lenses as much as 30 centimetres in thickness occur locally interbedded with the argillite and slate, and lenses of chert are common. It varies in thickness from 30 metres near the western margin of the belt to more than 365 metres near Knob Lake.
- **Denault Formation** (6) –primarily buff grey to brown-weathering massive dolomite varying in thickness from a few centimetres to about one metre having a maximum thickness of 180 metres Near Knob Lake but typically around 30 metres in thickness.
- **Dolly Formation** (7) green siltstones and shales containing thin (less than 30 centimetres) interbedded sandstone layers
- **Fleming Formation** (8) dominantly dolomite grading upwards into chert. The formation has a maximum thickness of about 100 metres.
- **Wishart Formation** (9) thick beds of medium grey to pink massive quartzite and arkose. A prominent unit due to its erosional resistance.
- **Sokoman Formation** (11) cherty, hematite and/or magnetite facies iron formation marked at its base by a thinly-bedded, ferruginous slate between 3 and 36 metres



thick. Thickness of any given member is inconsistent. When compared with average elemental contents of rocks within the Sokoman Formation, the Middle Iron Formation in the study area has higher contents of calcium, aluminum, titanium, phosphorus, and commonly potassium (Conliffe, 2017).

**Menihek Formation** (12) – thinly-banded, fissile, grey to black argillaceous slate weathering light grey. In the Knob Lake area, thickness is indeterminate.

Mary Jo Diabase (22) – fine- to medium-grained, dark greenish grey dike-like intrusive rock, composed mainly of labradorite, augite and minor olivine. Extensive in length, locally important.

In the western part of the Labrador Trough, iron formations form an imbricate fault structure with bands of iron formation repeating several times (Figure 7.2). Near Schefferville, Wardle (1982) interprets the absence of the Fleming Formation (unit 8). The major thrust fault in the Schefferville area is Stakit Lake Fault (Clark and Wares, 2005). Most of the iron deposits mined in the Schefferville area occur in multiply-folded synclines though some are tabular or flat-lying.

SCHEFFERVILLE
FAULT

12
11
50
50
50
50
50
50
50
50

Figure 7.2: Geologic section interpretation in the Schefferville area, looking northwest

Note: From Wardle (1982)

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



#### 7.3 KNOB LAKE DEPOSIT GEOLOGY

The Knob Lake Property iron deposit was discovered in 1946 by IOC lying between Knob Lake and Lejeune Lake roughly 2.5 kilometres south-southeast of Schefferville, Québec. Prior to 1982 during ownership of the deposit by IOC, extensive programs of mapping, trenching and drilling were carried out at the Knob Lake Property as evidenced in detailed geologic maps authored by Orth (1972) for IOC (Figure 7.3). Much of the IOC exploration data is privately-held and was not available to the Author.

The following description of the geology of the Knob Lake Property (formerly known as Knob Lake No. 1) has been extracted from Chavez and McKillen (2006):

The Knob Lake No.1 deposit is a northeast dipping ellipsoidal iron deposit with a direction of 330° in its main axis, and it appears to be structurally and stratigraphically controlled. Despite the proximity of Knob Lake deposit to James deposit, the mineralization in Knob Lake is different. The ore body at Knob Lake is capped by a medium grade very hard siliceous hematite mineralization dipping 35° to 45° to the northeast. The high grade iron ore is concentrated at the end of a hill restricted between Knob and Lejeune Lakes, which consists of thin banded hematite intercalated with layers of cherty silica less than 10 cm thick. The overall texture of the underlying mineralization is softer and moderately unconsolidated, similar to that in Houston deposit. A single composite sample of this mineralization returned 60% Fe and 2% SiO<sub>2</sub>.

The ore body was mapped over 549 metre strike length with a width that varied between 31 metres and 90 metres. The mineralization is noted to occur in the lower portion of the iron formation.



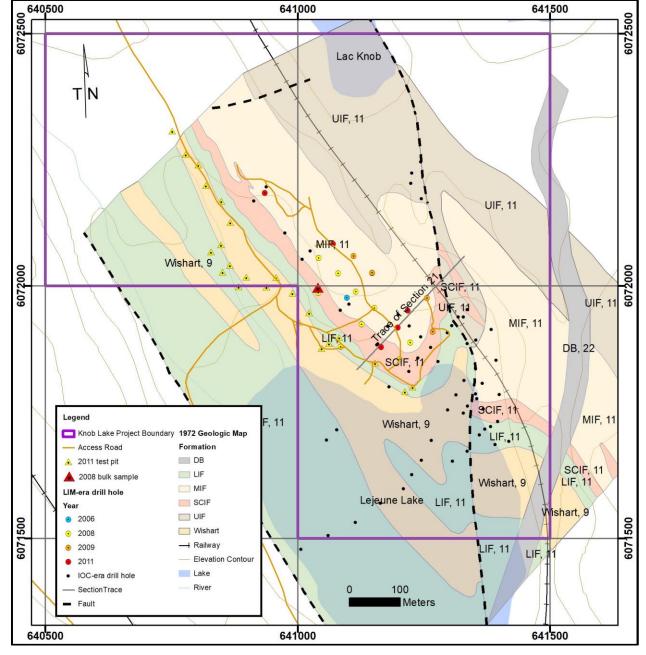


Figure 7.3: Geology and drilling at the Knob Lake Property (1:7,500 scale)

Note: LIF, MIF, SCIF, UIF are geologic sub-units of the Sokoman Formation (Unit 11). DB is diabase of the Shabogamo Formation. Adapted from Orth (1972)

## 7.4 MINERALIZATION AND ALTERATION

## **IRON**

Iron mining in the Schefferville has relied upon the numerous high-grade iron facies found in the Sokoman Formation. The exact model for formation of Superior type iron formations in the



Sokoman Formation is still contested (Clark and Wares, 2005). Most authors agree however that deposition of the Sokoman Formation resulted from oxidation of upwelling waters rich in reduced iron in conjunction with continual transport of the iron towards a shallow-water, oxidizing environment of the sedimentary platform. The Sokoman Formation is approximately 1.88 Ga in age having a period of deposition well under 10 Ma (Clarke and Wares, 2005).

Often already greater than 50% Fe by weight, documented meteoric processes have further enriched the various iron formations with the removal of gangue minerals (e.g., carbonates and micas) and the concentration of iron hydroxides in the form of goethite and limonite, and manganese oxides in the form of pyrolusite and manganite. However, historically minable iron in the deposits are typically directly related to their original mineral facies.

Decades of observations and testing of iron mine production material has resulted in detailed description and characterization of sub-units within the Sokoman Formation. Table 7.4 typifies these sub-units and presents the coding found in geologic logs by IOC and adopted by LIM. The sub-units can be related to subsequent scientific reporting by Conliffe (2017).

Though much variability is seen throughout the Schefferville iron mining district, the Middle Iron Formation ("MIF") sub-unit dominated iron mining by volume. These 'blue ores', which are composed mainly of the minerals hematite and martite, are generally granular, coarse-grained, and friable.

The term 'yellow ores' was another name given to the silicate-carbonate iron formation ("SCIF") owing to limonite and goethite giving and the yellow-brown colours these minerals impart to the rock.

The basal member of the Sokoman Formation (LIF) was often termed 'red ore' due to the red earthy hematite form of iron found in the argillic rock. By volume, both yellow and red 'ores' comprised only 30% of the iron-bearing rock mined by IOC.



35

Table 7.4: Sokoman Formation sub-units developed by IOC

Sub Unit	Logging Code	Description
Upper Iron Fm. (may be equivalent to HGIF of Conliffe, 2017)	UIF	dull green to grey or black massive chert that contains considerable siderite, generally lower in iron content than other parts of the formation
Lean Chert Sub-member (Silicate facies)		Greenish, green to grey-green and pink-grey magnetite- chert iron formation with local zones of laminated to shaley bedded (siderite-magnetite) chert formations
Jasper Upper Iron Formation (Magnetite-Carbonate Facies)		Layered to laminated magnetite-chert iron formation. Red- grey-pink in colour, red chert, oolites
Green Chert (Magnetite-Carbonate Facies)		Silicate-rich, green chert unit, laterally continuous and an excellent marker horizon
Middle Iron Fm. (equivalent to MBIF of Conliffe, 2017)	MIF	Predominantly arenitic oxide facies. Oolitic and granular texture with cross bedding, abundant iron oxides throughout with more jasper near the top (URC) and bottom (LRC) of unit
Upper Red Cherty ( <b>URC</b> ) Hematite- Carbonate Facies		Massive to layered, jasper-magnetite-chert iron formation. Red-grey to reddish purple
Pink-Grey Cherty ( <b>PGC</b> ) (Magnetite-Carbonate Facies)		Disseminated magnetite-chert iron formation. Grey to pink-grey to green-grey
Lower Red Cherty ( <b>LRC</b> ) (Hematite-Carbonate Facies)		Layered magnetite-chert iron formation. Red-grey to reddish purple. Lower contact transitional
Silica Chert Iron Fm.	SCIF	"cherty metallic" iron formation, more than 50% hematite and magnetite
Lower Red Green Cherty (LRGC) (Magnetite-Carbonate Facies)		Layered silicate-magnetite-carbonate, magnetite-carbonate, magnetite-chert iron formation. Pink to reddish-grey to green-grey. More silicate in lower part, more oxide in upper part. Lower contact transitional with LW
Lower Iron Fm. (equivalent to MM of Conliffe, 2017)	LIF	Deep red (rarely greenish yellow to grey) thin, jasperoidal bands interbanded with hard, blue layers of fine-grained hematite
Lower Iron Formation ( <b>LIF</b> ) (Silicate Facies)		Massive to laminated green to grey-green silicate- siderite/carbonate-magnetite-chert iron formation. Sulphide facies present locally.

Note: Adapted from Conliffe (2017)

#### **MANGANESE**

Manganese deposits are also common in the Schefferville area but to date has never been recovered as a saleable product. Though all related to supergene enrichment, the manganese occurrences have been grouped into three types primarily identified by host rock:

Manganiferous iron 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

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discontinuities such as faults and penetrative cleavage associated with fold hinges, and near surface penetration. These typically contain from 5 to 10% Mn.

Ferruginous manganese, contain between 10 and 35% Mn. These types of deposits are also associated with structural discontinuities (e.g., faults, well developed cleavage) and may be hosted by the Sokoman Formation, or by the stratigraphically lower silica-rich Fleming and Wishart formations. These are the result of residual and supergene enrichment processes.



#### 8 DEPOSIT TYPES

In the Newfoundland and Labrador Department of Industry, Energy and Technology database, there are at least 152 mineral occurrences within a 60 kilometre radius of Schefferville, Québec. The vast majority (148) of these relate to Fe (+/- Mn) occurrences, while four relate to Pb (Marina and Pogo Lake West), Mo (Katelyn), and Cu (Cache-Cache Islands and Breslauer L.). Clark and Wares (2005) give a comprehensive account to the deposits of the western trough and the reader is referred to this report for updated deposit information.

Iron

Figure 8.1 shows all mineral occurrences in the western and central Labrador trough within Labrador and a 60 kilometre radius of Schefferville. A very strong correlation between the presence of the Sokoman Formation stratigraphy and iron deposits is evident in the western Trough. While iron showings in the Central Trough seem predominantly associated with the Le Fer and the Nimish Formations at the scale of the map in the Figure, more detailed mapping by Wardle (1982) reveals a similar intimate association with outcroppings of the Sokoman Formation.

Indeed, all iron deposits held by LIM and described in Dupéré and Taylor in 2012 are directly related to the Sokoman Formation (including the Knob Lake Property). Moreover, the western trough holds all six past or currently producing iron mines: the Timmins Camp, the Ruth L. Camp, the James Mine, the Redmond Camp, the Fleming Mine, and the Wishart Camp.



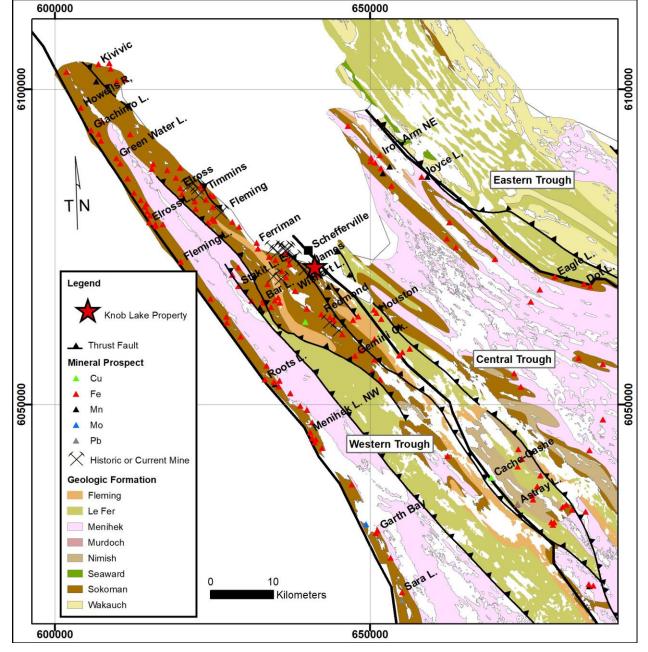


Figure 8.1: Mineral Occurrences in the Western and Central Labrador Trough (1:600,000 scale)

Note: PP denotes a Past-Producing Iron Mine. Adapted from Wardle et al. (1997). Québec mineral occurrences and geology are not shown.

The past-producing James and Wishart Mines are 1.5 kilometres and 6 kilometres from the Knob Lake Property (respectively) and have well-documented geology and structure that bears repeating as an excerpt from Dupéré and Taylor (2012) here:

James Deposit

The James deposit is accessible by existing gravel roads and is located in Labrador



approximately 3 km southwest of the town of Schefferville. The James deposit is a northeast dipping elongated iron enrichment deposit striking 330° along its main axis which appears to be structurally and stratigraphically controlled. The stratigraphic units recorded in the James mine area go from the Denault Formation to the Menihek Formation. The main volume of the ore is developed in the Middle Iron Formation (MIF), and lower portion of the Upper Iron Formation (UIF) both part of the Sokoman Formation.

The iron mineralization consists of thin layers (less than 10 cm thick) of fine to medium grained steel blue hematite intercalated with minor cherty silica bands less than 5 cm thick dipping 30° to 45° to the northeast. The James mineralization has been affected by strong alteration, which removed most of the cementing silica making the mineralization with a sandy friable texture.

The James property comprises three areas of mineral enrichment: the main deposit, a manganese occurrence and a minor and isolated Fe occurrence located approximately 150 m south of the main deposit. Most of the resources come from the main deposit, which are of direct shipping quality. The main deposit has a total length of approximately 880 m by 80 m wide and 100 m deep of direct shipping grade. It shows low grade in its central part defining two separated high-grade zones: the northern and southern zones.

Magnetic susceptibility of the iron in the James deposit measuring by using the KT-9 magnetic susceptibility meter in outcropping mineralization returned an average value of  $1.2 \times 10^{-3}$  SI units. The relatively low magnetic nature of mineralization found in the James deposit can be identified as magnetic lows due to the stronger magnetic nature of the surrounding rock.

## Wishart 1 and 2

The Wishart 1 and Wishart 2 areas are accessible by existing gravel roads and lie 4 km to the southwest of the James Mine and [former] Silver Yards beneficiation plant. The Wishart 1 and 2 deposits were mined by IOC early in their Schefferville mining program. In the process, large tonnages of lean ore and treat rock were stockpiled for future consideration.

Wishart 1 was located in a broad symmetrical syncline that plunges gently to the southeast. The deposit was known to have an overall length of nearly 762 m, was hook-shaped in plan, and had a maximum width in the central part of 244 m. Ore



extended 244 m farther southeast in the east limb of the syncline than in the west limb and this extension was about 76 m wide. More than 90% of the ore is of the blue variety with a high metallic luster and a fairly granular texture.

The Schefferville area iron formations are predominantly of the Superior type, consisting of banded sedimentary rocks composed of alternating layers of magnetite or hematite, and silica (chert)-rich rock. Variable amounts of carbonate and sulphide lithofacies may also be present. Superior type iron formations have been the principal sources of iron throughout the world (Gross, 1965). Other iron formation types documented in the Western Trough include six 'bog iron' deposits formed from precipitation near surface of iron-rich groundwater, and relatively few iron deposits of the Algoma type, originally formed in deeper waters than Lake Superior type (Clark and Wares, 2005).

The iron-rich horizons of the Sokoman Formation were formed as a chemical sediment under varied conditions of oxidation-reduction potential (Eh) and hydrogen ion concentrations (pH) in variable depths of seawater. The resulting irregularly bedded, jasper-bearing, granular, oolitic 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 common in the Sokoman iron formations are carbonate, silicate and oxide. A change in facies, meaning changes from shallow to deep-water sedimentation environments, will change the mineral composition of the rocks. In general, the oxide facies having formed in shallow-water conditions are irregularly bedded and locally conglomeratic. Most carbonate facies show deeper-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 deeper-water formation.

Each facies contain typical primary minerals, such as siderite in the carbonate facies, minnesotaite in the silicate facies, and magnetite-hematite in the oxide facies. The most common mineral in the Sokoman Formation is chert, which is associated with all facies, though in minor abundance within the silicate facies. Carbonate and silicate facies may interleave within the oxide facies 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 to the west.



## Manganese

The manganese deposits in the Schefferville area were formed by residual and second stage (supergene) enrichment affecting the Sokoman Formation, some sub-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 sedimentary 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 that act as pathways for migrating hydrothermal fluids that cause manganiferous deposits. To date, manganese has never been recovered as a saleable produce from the Schefferville iron district.



## 9 EXPLORATION

Item 9 of Form 43-101F1 *Technical Reports* requires this section to describe exploration work conducted by the issuer. Anteros Metals Incorporated has not conducted exploration work at the Knob Lake Property as of the effective date of this report.

Historical exploration is summarized in Section 6.2 of this report.



## 10 DRILLING

Item 10 of Form 43-101F1 *Technical Reports* requires this section to describe drilling conducted by the issuer. Anteros Metals Incorporated has not conducted drilling at the Knob Lake Property as of the effective date of this report.

Historical drilling is summarized in Section 6.3 of this report.



# 11 SAMPLE PREPARATION, ANALYSES AND SECURTY

Anteros Metals Incorporated has not completed exploration work at the Knob Lake Property as of the effective date of this report.



#### 12 DATA VERIFICATION

Data verification, as defined in NI 43-101, is the process of confirming that data have been generated with appropriate procedures, have been accurately transcribed from the original sources, and are suitable to be used.

The Author has completed data verification to the extent possible based on the age and source of the data.

The bulk of historic IOC data from the Knob Lake Property was not available to the Author at the time of writing, but a significant amount of LIM-era data is available in the public domain. A large amount of this data has been compiled by the Author in 2D and 3D software for this report.

#### 12.1 DRILL DATA

The bulk of historic IOC original data from the Knob Lake Property was not available to the Author at the time of writing with two exceptions: a single plan map showing geologic mapping and interpretation along with the location of historic trenches and RC drill holes in relation to existing roads and surface grids of the Property (Orth, 1972) and two IOC sections reproduced in Dufort and Kroon (2007). Assay values of trenches and drill holes printed on these sections could not be read, but maps and sections were captured by the Author with an error of the digitized data estimated to be 5 metres. LIM-era assessment reports on drilling available in the public domain have adequate drill logs, assays, drill collar locations, and elevations. Figure 12.1.1 presents a plan map that summarizes the trench, test pit, and drill hole locations in relation to the historic geology mapping interpretation and Property claim boundary.

The relevant data has been captured and modelled by the Author in ArcGIS 2D and Seequent Geosoft Target 3D software. As stated in LIM assessment reports, drill collar coordinates were obtained using a Trimble GPS. Drill hole elevation data was found to be acceptable matching well with the latest and most detailed elevation from the 2008 LIDAR survey. Assays recorded on drill logs matched original assay certificates from assessment reports. Oxide-to-element conversion factors were verified.



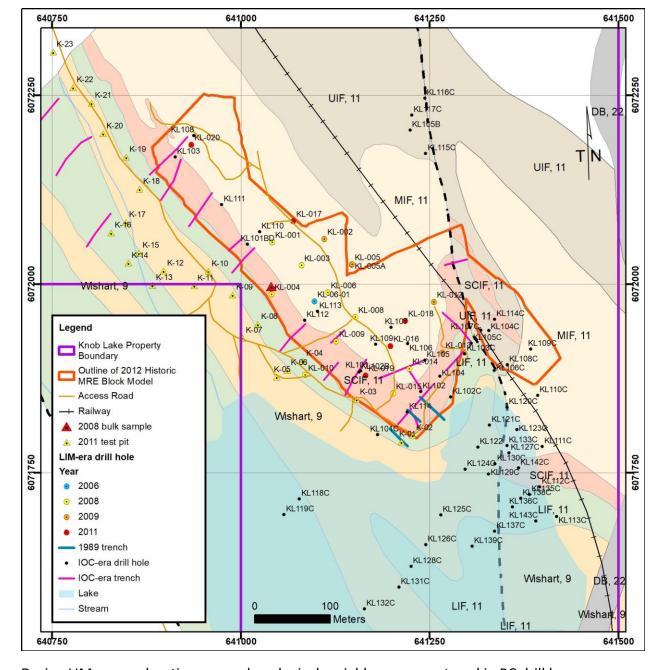


Figure 12.1.1: Drill holes at the Knob Lake Property (1:5,000 scale)

During LIM-era exploration, several geological variables were captured in RC drill logs.

Geological data was captured from drill logs by the Author and has independently constructed a 3D geologic model from LIM drill hole data found in drill logs. The independent interpretation supports the historical geologic interpretations of IOC and LIM (Dupéré and Taylor (2012), and conforms to Orth's (1970) surface mapping and interpretation. The gross structure of the iron formation can be traced between LIM-era drill holes along Section 21 (Figure 12.1.2), which reproduces sections along the same line in Figure 6.4.9 by Dupéré and Taylor (2012) as well as



the IOC-era section reproduced in an appendix of Dufort and Kroon (2007).

641200 E 6071920 N 520 RL HOLES PLOTTED 520 RL 9149 TOTAL 4 6411 641 6071 480 RL 480 RL 460 RL 2009Topo27 Elevation.grd SiO2\_PCT 440 RL AI2O3\_PCT NUMBER BANDS L/R 77 m KL-016 420 RL 420 RL ROCK CODES 400 RL 400 RL ROCKPLOT OVB 380 RL 380 RL 641220 E - 6071940 N 6071920 N 6071880 N 6071900 N 641200 E 641180 E

Figure 12.1.2: Geological Interpretation with Fe, Si, and Al grades (Section 21 of Figure 7.3)

## 12.2 DATABASE VALIDATION

The Author visited the Knob Lake Property mineral claims and area between April 5th and 7th, 2022. In-situ mineralized outcrops and stockpiles of red-coloured LIF at the Property were seen, and positioning of access roads, historical trenches and claim boundaries were verified. A 2012-era LIM drill core storage site was also visited, but deep snowpack precluded locating any Knob Lake drill core or RC drill chips. No samples were taken for check assay.



## 13 MINERAL PROCESSING AND METALLURGICAL TESTING

Anteros Metals Incorporated has not completed mineral processing or metallurgical work at the Knob Lake Property as of the effective date of this report.

A summary of historical metallurgical testing is summarized in Section 6.5 of this report.



## 14 MINERAL RESOURCE ESTIMATE

There are no current Mineral Resource Estimates for the Knob Lake Property.

The most recent Mineral Resource Estimate for the Knob Lake Property (Dupéré, 2014) is now considered a historical estimate, as required by section 2.4 of NI 43-101 Standards of Disclosure for Mineral Projects. A summary of the historical mineral resource estimate is provided in section 6.4 of this report, and is described in the report titled Technical Report: Schefferville Area Phase I DSO Iron Projects Resource Update, Western Labrador – NE Québec, Canada, prepared by Dupéré (2014). Anteros Metals Incorporated is not treating this historical estimate as current mineral resources. At this time, a qualified person has not done sufficient work on behalf of Anteros Metals Incorporated to classify this historical estimate as current mineral resource.



# **15 MINERAL RESERVE ESTIMATES**

Currently, there are no mineral reserve estimates for the Knob Lake Property.



# **16 MINING METHODS**



# **17 RECOVERY METHODS**



# **18 PROJECT INFRASTRUCTURE**



# **19 MARKET STUDIES AND CONTRACTS**



# 20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

In 2005, Labrador Iron Mines Inc. began water balance and water quality monitoring at the Knob Lake Property. Though no significant streams exist at the Property (Earth Tech, 2009), several naturally-occurring groundwater springs have been found on the Property.

At this time, there are no environmental or socio-economic issues associated with the Knob Lake Property that are expected to prevent or delay project development.



# 21 CAPITAL AND OPERATING COSTS



# **22 ECONOMIC ANALYSIS**



## 23 ADJACENT PROPERTIES

Properties in the vicinity of the Knob Lake Property include large mining concessions held by Labrador Iron Mines Limited and Tata Steel Canada Minerals Ltd., along with smaller concessions held by 85431 Newfoundland and Labrador Incorporated and Jenille Stockley.

Labrador Iron Mines Limited ("LIM") holds nine mining leases covering 644 hectares within Labrador near the Schefferville area corresponding to the James, Ruth Lake, Wishart, Redmond, and the Houston past-producing mines. To the northeast of Schefferville, Tata Steel Minerals Canada Ltd. holds an additional eight mining leases within Labrador over an area of 873 hectares around their Kivivic, Timmins, and Howse iron mines.

As of March 31, 2012, LIM reported a total of approximately 44.6 million tonnes at an average grade of 56.5% Fe of measured and indicated mineral resources on its Schefferville Projects. Of this total, approximately 27.0 million tonnes are measured mineral resources and approximately 17.6 million tonnes are indicated mineral resources (Dupéré, 2014).

In 2014, the adjacent James iron deposit was estimated to contain an inferred mineral resource 0.232 million tonnes at 55.77% Fe (Dupéré, 2014). The Wishart iron deposit has a stockpiled indicated mineral resource of 1.15 million tonnes at 48.57% Fe and an additional stockpiled inferred mineral resource of 1.28 million tonnes at 48.24% Fe (Dupéré, 2014).

The Denault iron deposit some five kilometres north of the James mine has a measured and indicated mineral resource of 4.67 million tonnes at 54.73% Fe (Dupéré, 2014).

The mineral resources presented in this section are historical in nature, and the QP has not reviewed these estimates and is unable to verify this information. This information should not be relied upon.



# **24 OTHER RELEVANT DATA AND INFORMATION**

There are no other relevant data or information.



#### 25 INTERPRETATION AND CONCLUSIONS

Based on the evaluation of the data available from the Knob Lake Property (the "Property"), the Author of this Technical Report concludes the following:

- At the effective date of this Technical Report (October 19, 2022), Anteros Metals
   Incorporated has 100% ownership in the Knob Lake Property, located near the town of
   Schefferville, Québec
- The Property is centred over a Superior-type iron formation and iron deposit
- The mineral concessions of the Property granted by the province of Newfoundland and Labrador terminate at an unsurveyed border with the Province of Québec
- The highest known grades of the iron deposit are within the province of Newfoundland and Labrador
- The Knob Lake Property deposit remains open to expansion along iron-rich stratigraphy, including along strike
- The most recent Mineral Resource Estimate for the Knob Lake Property (Dupéré, 2014) is now considered historical as Anteros Metals Incorporated has not independently verified the resource since acquisition of the property in February of 2022



#### **26 RECOMMENDATIONS**

The acquisition of the Knob Lake Property by Anteros Metals Incorporated relegates the iron and manganese mineral resource estimate by Dupéré (2014) to a "historical estimate", as defined in NI 43-101. It is therefore recommended that a current mineral resource estimate be prepared.

This effort would benefit greatly from the acquisition and validation of any and all historic IOC, LIM, Eagle Mapping, SGS, and SGA reports and data, including assay certificates and site photographs, to rebuild the Property database on which the iron deposit could be re-modelled and mineral resources estimated.

Preparing a current MRE for Knob Lake Property also provides Anteros Metals Incorporated with an opportunity to address recommendations made in the historic MRE, clarify the treatment of some of the data used in modelling, and establish additional parameters of the resultant model. The Author recommends the new mineral resource estimate include:

- Compilation and consideration of LIM-era assay laboratory (in-house) blanks, standards, and duplicates that will increase confidence in historic sample QA/QC
- Identification of each drill hole and/or trench that contributes to the resource, as well as each drill hole that were eliminated due to poor or absent data
- Details of resource category locations, such that future resource definition or expansion programs can be designed
- Open-pit optimization based on grade cut-off values to clearly demonstrate reasonable prospects for economic extraction

The cost to bring the Knob Lake Property resource estimate into current status carries a minimum estimated cost of \$80,000, as described in Table 26.0.

The Author additionally recommends:

- The use of commercially-prepared blanks and standard samples in the QA/QC program, a measure to eliminate inconclusive results
- Continued use of the 2014 coding scheme for classification of geological units, a simplified and more objective scheme than used in 2012
- Considering the use of diamond or sonic drilling methods for a select number of drill holes enabling more precise measurements of bulk density and magnetic susceptibility, along with more direct observation of structural and geological contacts

The 2008 SGS bulk sample and 2009 SGA metallurgical report on the Knob Lake Project



documents comminution testing (e.g., grindability, tumbler indexing) and metallurgical testing (e.g., reducibility, disintegration) of lump iron sizes from the the lower iron formation. Similar beneficiation and metallurgical work is required for the upper (UIF) and middle iron formations (SCIF) as well as additional locations of all rock types of the lower iron formation. Additional test work may be required, such as screening test work and or density separation testing, in view of finalizing a processing flow sheet to optimize iron recovery from all lithologies from the Knob Lake Project.

Therefore, in addition to mineral resource estimate, the Author recommends that Anteros Metals Incorporated develop and commission a bulk sampling program at the Knob Lake Project whereby multiple trenches through each rock type can be tested for comminution and metallurgical characteristics.

The proposed Knob Lake Property budget for a new mineral resource estimate and bulk sample program with project optimization where warranted is estimated to cost \$400,000, as described in table 26.1. Cost contingencies have been included in each item.

Table 26.1: Budget estimate for the Knob Lake Property

Expenditure	Description	Estimated Cost
Prepare a Mineral Resource Estimate	Planning, consultation, site visit, database compilation and validation	\$ 20,000
	Geologic model construction, interpolation of grade block model, resource estimation, reporting	\$ 50,000
	Editing, filing +/- additional sampling work	\$ 10,000
Bulk Sample	Planning, consultation, site visit, reporting	\$ 20,000
	Mobilization and demobilization, heavy equipment and operator hours, supervision, sampling supplies, truck, fuel, shipping	\$100,000
	Processing, beneficiation and testing, assaying, reporting	\$150,000
Optimization	Additional metallurgy, engineering, and/or drilling where warranted	\$ 50,000
TOTAL		\$400,000



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## 28 DATE AND SIGNATURE PAGE

I, Jesse R. Halle (P.Geo.) of Halifax, Nova Scotia do hereby certify that:

- 1. I am a Senior Geoscientist with Halle Geological Services Ltd. having an address at Unit 3 1345 Dresden Row, Halifax, NS, CANADA B3J 2J9.
- 2. I am a graduate of the University of Toronto with an Honors B.Sc. (Env. Sci.) in 1996, and of Lakehead University with an Honors B.Sc. (Geology) in 2002.
- I am a member, in good standing, of the Professional Engineers and Geoscientists of Newfoundland (10743), Engineers and Geoscientists of British Columbia (157202), and Geoscientists Nova Scotia (301).
- 4. I have worked in my chosen field in Nova Scotia, Newfoundland and Labrador, Québec, Ontario, Manitoba, British Columbia, Northwest Territories, Yukon, and Alaska as a geologist from 1996 to the present, having been actively involved in mineral exploration, resource definition, and technical reporting, including on iron formations in Ontario and Manitoba.
- 5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with professional associations (as defined in NI 43-101), and relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 6. I am responsible for the preparation of all sections of the technical report titled Knob Lake Property, Labrador Canada, NI 43-101 Technical Report (the "Technical Report") effective October 19th, 2022 and revised July 24th, 2023. I visited the Knob Lake Property and related areas from April 5<sup>th</sup> to 7<sup>th</sup>, 2022.
- 7. I have had no prior involvement with the Property that is the subject of the Technical Report.
- 8. I am not aware of any material fact or material change, the omission of which would make the Technical Report misleading.
- 9. I am independent of the issuer (Anteros Metals Incorporated) applying all tests in Section 1.5 of NI 43-101.
- 10. I have read NI 43-101, Form 43-101F1 and confirm this Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

Dated at Halifax, Nova Scotia,	this 24 <sup>th</sup> Day of July, 2 <sup>th</sup>	023.	
Jesse R. Halle, P.Geo.			

Effective Date: October 19, 2022